



Documentation:
Reusable Packaging

Document version: 23.0.11

Date: 13/05/2024

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1 Introduction

Welcome to the official manual of the Dynavision Reusable Packaging module.

This extension makes it possible to link reusable packaging to the item units of measure and makes it easier to do the administration of reusable packaging worth monetary deposits such as empties, empty containers, bottles, crates etc.

The Dynavision Reusable Packaging extension links these special items to the unit of measure in Microsoft Dynamics 365 Business Central.

This way, when the item is added with its corresponding unit of measure, the linked reusable packaging will be added.

These linked items will also follow the complete incoming and outgoing warehouse flows so the value of these items can be correctly followed in transit.

Inventory journaling allows for counting and corrections of the reusable packaging.

2 Installation

2.1 Extension

The Dynavision reusable packaging module is a separate Business Central extension.

1. Choose the search icon, enter **Extension Management**, and then choose the related link.
2. Choose **Manage** in the Action bar on the page and choose action **Extension Marketplace**.
3. In the search bar, enter **Dynavision Reusable packaging** and install this app.

2.2 Setup data packages

The reusable packaging module has dependencies to other modules. To use the reusable packaging module, the ESC Base rapid start package must be installed. : [ESC BASE - Overview \(visualstudio.com\)](https://visualstudio.com/ESC%20BASE%20Overview)

In addition to the Connect package, the reusable packaging rapid start package must also be installed. : [99 DYNA PACKAGING - Overview \(visualstudio.com\)](https://visualstudio.com/99%20DYNA%20PACKAGING%20Overview)

This package includes additional settings to post reusable containers, a list of standard reusable containers (commonly used by customers) and warehouse setup with storage location and standard storage location contents.

When importing this package, the following tables are used/created:

Table ID	Table Name	Table Caption	Parent Table ID	Processing Order
15	G/L Account	G/L Account	0	1
27	Item	Item	0	1
80	Gen. Journal Template	Gen. Journal Template	0	2
82	Item Journal Template	Item Journal Template	0	2
94	Inventory Posting Group	Inventory Posting Group	0	1
230	Source Code	Source Code	0	1
231	Reason Code	Reason Code	0	1
232	Gen. Journal Batch	Gen. Journal Batch	0	2
233	Item Journal Batch	Item Journal Batch	0	2
251	Gen. Product Posting Group	Gen. Product Posting Group	0	1
252	General Posting Setup	General Posting Setup	0	2
308	No. Series	No. Series	0	1
309	No. Series Line	No. Series Line	0	1
324	VAT Product Posting Group	VAT Product Posting Group	0	1
5404	Item Unit of Measure	Item Unit of Measure	0	2
5813	Inventory Posting Setup	Inventory Posting Setup	0	2
7302	Bin Content	Bin Content	0	3

7354	Bin	Bin	0	1
70123304	ESC Linked Item Gen. Setup	ESC Linked Item Gen Setup	0	4
70123308	TOMRA Setup	TOMRA Setup	0	4

It is also necessary that the additional units of measure package is installed. This package contains additional units commonly used in association with reusable packaging.

Table ID	Table Name	Table Caption
204	Unit of Measure	Unit of Measure

Link to the package: <https://cascade4nav.visualstudio.com/FunctioneleBible/workitems/edit/11508>

If a new company is created with the ESC Central extensions, it is recommended to open the **setup** page to create a (blank) setup record to avoid validation errors.

3 Configuration

3.1 Reusable Packaging Setup

Choose the search icon, enter **Reusable Packaging Setup**, and then choose the related link. This page contains some mandatory settings and options that needs to be set in order for the user to take advantage of all the features in this app.

1. Reusable Packaging Treatment tab

a. Jnl. Templ. Name Reusable Packaging Treatment

This Journal Template will be used for the Reusable Packagings.

b. Jnl. Templ. Batch Reusable Packaging Treatment

This Journal Template batch will be used for the Reusable Packagings.

c. Reason Code Split

This reason code will be used when splitting up Reusable Packagings that have an assembly BOM linked to them.

d. Reason Code Combine

This reason code will be used when combining Reusable Packagings that have are linked through an assembly BOM.

The split and combine function will be covered later in this manual.

2. Posting Settings tab

a. Allow Posting of negative documents

Enable this to allow the posting of a document with a negative amount, if the negative amount is caused by Reusable Packaging on the lines of the document.

This is possible when manually inserting reusable packaging that was returned to the store, by scanning the reusable packaging, or by scanning a TOMRA ticket.

3. Linked Reusable Packagings Visible on documents tab

a. Linked reusable packaging visible on documents

Specifies if lines with Reusable Packaging by default should be visible on all documents pages. This can be overruled by the user specific settings in the linked item user setup (see below).

On the documents it is still possible to choose whether or not to turn on the visibility of reusable packaging, regardless of what is set as the default in the setup.

4. Warehouse tab

a. Include Reusable packaging on Warehouse Documents

Default: Disabled. This setting will by default exclude linked reusable packaging when creating warehouse documents.

When posting those warehouse documents, the linked reusable packaging will be added during the posting process. When this is set to true, linked reusable packaging will be shown on the warehouse documents.

5. Reusable packaging POS tab

a. Sound effects

i. Sound: Invalid barcode

If you scan a Barcode that is not found in the system the following sound will be played.

ii. Sound: Missing Price

If a POS line is added without a unit price the following sound will be played.

6. Caption tab

a. Reusable Packaging Caption

Specifies the alternative caption of Reusable Packaging that you want to use for captions for this feature. For example, Empties.

Remark: this caption cannot be used in the search function, and names of fasttabs also retain the default name.

7. Expired Reusable Packaging Tickets tab

a. Journal Template Name

Specifies the general journal template name used to register expired reusable packaging tickets.

b. Journal Template Batch

Specifies the general journal template batch used to register expired reusable packaging tickets.

c. General Journal Description

Specifies the description used in the general journal to register expired reusable packaging tickets.

d. Gen. Journal Account

Specifies the account used in the general journal to register expired reusable packaging tickets.

e. Item Journal Template Name

Specifies the item journal template name used to register expired reusable packaging tickets.

f. Item Journal Template Batch

Specifies the item journal template batch used to register expired reusable packaging tickets.

3.2 Reusable Packagings User Setup

The **User Setup** for reusable packaging can be accessed in two ways.

Option 1

On the **Reusable Packaging Setup** page, choose **User** and choose the action **Reusable Packaging Setup**.

Option 2:

Choose the search icon, enter **Reusable Packaging User Setup**, and then choose the related link.

On the page that opens, specify the settings per user.

1. Reusable packaging Visible

- a. Purchases**
Specifies if purchase lines with Reusable Packaging should be visible on purchase documents pages.
 - b. Sales**
Specifies if sales lines with Reusable Packaging should be visible on sales documents pages.
 - c. Transfer**
Specifies if transfer lines with Reusable Packaging should be visible on transfer documents pages.
- 2. Allow changing auto-include linked**
Allow the specified user to make changes on inventory and warehouse documents to the field **auto-include linked reusable packaging**. This can be useful to overrule the standard behavior in specific cases.
This field can be found in the header of certain inventory and warehouse documents.
- 3. Ask Reusable packaging OK before posting**
When enabled, the user will be asked if the Reusable Packagings are correct before releasing or posting an inventory document.
- 4. Ask Reusable packaging OK before posting Item**
When enabled, the user will be asked if the Reusable Packagings are correct before posting on the Item Journal.

3.3 VAT Product Posting Groups - Reusable Packaging

Choose the search icon, enter **VAT Product Posting Groups**, and then choose the related link.

On this page a new column **Reusable packaging** is shown that can be checked.

This option is used to check if a Reusable Packaging Item is using an appropriate VAT Posting group when creating the Item.

4 Linking Reusable Packaging

On the **item Card** following option is added by Dynavision Connect, **Item Type**.

1. Item Type

Indicates the Item Type. *By default*, an item will have the item type **normal**.

Items that are reusable packaging need to have the Item Type **Reusable Packaging**.

Items with the item type **Reusable Packaging** can be linked to other items and can become companion items.

There are two ways an item can have linked items:

1. If the item has **Item Type Normal**, it is possible to link another item by its units.
2. If the item has **Item Type Combi**, it is possible to link another item by items on its assembly item list when the **reusable packaging from assembly item list** is enabled.

4.1 Setting up a Reusable packaging item

4.1.1 Numbering – Best Practice

It is best practice to use a separate number series for items with **Item Type Reusable Packaging**. This way all reusable packaging will be grouped together in list views. To make it easier to find the correct reusable packaging to link to another item or to insert on a sales document, the number sequence could include the price of the reusable packaging.

Example given: number series for reusable packaging starting with 99...

- **990010** for a Reusable Packaging with value 0.10€,
- **990450** for a Reusable Packaging with value 4.50€.

4.1.2 Reusable Packaging item – Subtype Fixed

When setting up Reusable Packaging, there are two options in the field **Reusable Packaging Subtype** on the Item Card.

The **Subtype Fixed** is available to use for Reusable packaging items, like empties, for which the price is a fixed price.

4.1.2.1 Item Card

1. In the **Item Type tab** set following fields:

a. Item Type

Select Reusable Packaging.

b. Reusable Packaging Subtype

Select Fixed to indicate that the price of this item is fixed and will not fluctuate.

c. Reusable Packaging Type

Indicates the type of Reusable Packaging if applicable. Select the Type or add a new type in the Reusable Packaging Types list that opens when filling in this field. See section [Reusable Packaging Types](#) for more information about the Type setup.

d. Reusable Packaging Type Description

Displays the Description of the chosen Reusable Packaging Type.

e. Reusable Packaging Type Description (translated)

Displays the translated Description of the chosen Reusable Packaging Type.

f. Explode Reus. Pack. BOM

If the reusable packaging consists of different components that are set up in a BOM, when this option is enabled the BOM will be shown on documents where reusable packaging is shown.

Example given:

Item Empties 345 with an Assembly BOM set up:

- i. Reusable packaging 4.50 (70 pieces),
- ii. Reusable packaging 30.00 (1 piece).

The link between item Jupiler 25cl and Empties 345 is as follows: in the Item Units of Measure PALLET the **Reusable packaging Item No.** is filled in with the number of the Empties 345 item, QTY 1.

When entering Jupiler 25cl with UOM PALLET on a purchase order, the items in the assembly BOM of Empties 345 are inserted in the lines.

This logic was provided on all documents and journals and warehouse documents.

g. Inventory Value Zero

Indicates if the inventory value is zero.

This option should be disabled for the Reusable Packaging item with subtype Fixed, in case the item is e.g. an empties item.

h. Where-used

Will show a list of items where this Reusable Packaging item is used.

2. In the **Costs & Posting tab** fill in following fields:

a. Costing Method: Standard,

b. Standard Cost: the cost for the reusable packaging item,

c. Last Direct Cost: fill in with the same amount as the standard Cost, thus the price for the reusable packaging item,

d. Gen. Prod. Posting Group: Select the General Product Posting Group that has been set up for the reusable packaging.

e. VAT Prod. Posting Group: Select the VAT Product Posting Group that has been set up for the reusable packaging.

By creating separate accounting groups, we can make a distinction in the chart

of accounts. This is also important because discounts or VAT calculation are not applicable for the reusable packaging.

3. In the **Prices & Sales** tab fill in following fields:
 - a. **Unit Price:** fill in this field with the price for the reusable packaging. This is the same as the amount that has been filled in in the **Standard Cost** field.
 - b. **Allow Invoice Disc.:** disable this option. This option should be disabled because invoice discount should not be calculated on the reusable packaging.

Remark:

- Items where the **Item Type** is set to **reusable packaging** have certain restrictions. These restrictions are in place to prevent inconsistencies in the data. The **Costing Method**, **Standard Cost** and **Unit Price** cannot be changed for subtype fixed.

4.1.3 Reusable Packaging item – Subtype Free

When setting up Reusable Packaging, there are two options in the field **Reusable Packaging Subtype** on the Item Card.

The **Subtype Free** is available to use for Reusable packaging items, like pallets that use the principle of open or closed pooling. The purchase and sales prices for these items can fluctuate.

4.1.3.1 Item Card

1. In the **Item Type tab** set following fields:
 - a. **Item Type**
Select Reusable Packaging.
 - b. **Reusable Packaging Subtype**
Select Free to indicate that the price of this item can fluctuate.
 - c. **Reusable Packaging Type**
Indicates the type of Reusable Packaging if applicable. Select the Type or add a new type in the Reusable Packaging Types list that opens when filling in this field. See section [Reusable Packaging Types](#) for more information about the Type setup.
 - d. **Reusable Packaging Type Description**
Displays the Description of the chosen Reusable Packaging Type.
 - e. **Reusable Packaging Type Description (translated)**
Displays the translated Description of the chosen Reusable Packaging Type.
 - f. **Explode Reus. Pack. BOM**
If the reusable packaging consists of different components that are set up in a BOM, when this option is enabled the BOM will be shown on documents where reusable packaging is shown.
This logic was provided on all documents and journals and warehouse documents.
 - g. **Inventory Value Zero**
Indicates if the inventory value is zero. This option is by default enabled for the Reusable Packaging item with subtype Free.

h. Where-used

Will show a list of items where this Reusable Packaging item is used.

2. In the **Costs & Posting** tab fill in following fields:
 - a. **Gen. Prod. Posting Group**: Select the General Product Posting Group that has been set up for the reusable packaging.
 - b. **VAT Prod. Posting Group**: Select the VAT Product Posting Group that has been set up for the reusable packaging.
By creating separate accounting groups, we can make a distinction in the chart of accounts. This is also important because discounts or VAT calculation are not applicable for the reusable packaging.
3. In the **Prices & Sales** tab fill in following fields:
 - a. **Allow Invoice Disc.**: disable this option. This option should be disabled because invoice discount should not be calculated on the reusable packaging.

The standard cost check will be omitted for this item with Subtype Free, meaning that the restriction of the Costing Method does not apply to the Reusable Packaging items with Subtype Free. It is possible to create Price List lines for these items to cover the fluctuating prices.

4.1.4 Reusable Packaging Types

The **Reusable Packaging Types** page contains information about the type of the reusable packaging.

1. Choose the search icon, enter **Reusable Packaging Types**, and then choose the related link.
2. Fill the necessary fields to set up the type for the Reusable Packaging.
 - a. **Code**
Specifies the Code for the Reusable Packaging Type.
 - b. **Description**
Specifies the description of the Reusable Packaging Type.
 - c. **Reusable Packaging Item Description (translated)**
Displays the translation of the Reusable Packaging Item Description. Choose the action **Translations** to set up the translations for the Reusable Packaging Type.
 - d. **Quantity in Sales Order**
Displays the quantity of this Reusable Packaging Type that is added to Sales Orders.
 - e. **Register Entries**
Specifies if Reusable Packaging entries should be created when posting this type of Reusable Packaging. More information about the Reusable Packaging entries can be found in chapter [Reusable Packaging Entries](#).

4.2 Link Reusable Packaging item to “Normal” item

4.2.1 Prerequisites

Following items need to be set up:

- An item with Item Type **Normal**.
- An item with Item Type **Reusable Packaging**.

4.2.2 Linking the items

1. Open the Item Card of the item with the **Item Type Normal**.
2. In the Action bar, navigate to **Related, Item** and select the action **Units of Measure**.
3. On the page that opens, three fields were added.
 - a. **Qty. per Unit of Measure**
Specifies how many of the base unit of measure are contained in one unit of the item. (*Example given* basic unit = bottle, 1 container 24 =24 bottles)
 - b. **Reusable packaging Item No.**
Select the Reusable Packaging item that has been created. The items that can be selected are filtered on type Reusable packaging.
 - c. **Reusable packaging Item Description (translated)**
Shows the translation of the reusable packaging Item Description in case this translation has been set up for the item. If no translation is set up, the item description will be shown.
If selecting the description shown in this column, it is possible to set up translations for this Item Description.
 - d. **Reusable packaging Item Quantity**
Displays the quantity of the reusable packaging Item contained in the item unit of measure.
(*Example given:* to 1 container of 24 bottles, 1 container of empties of 4.50 is linked. To 1 clip of 6 bottles, 6 bottles of empties of 0.10 are linked)

4.2.3 Usage

When reusable packaging items are linked to a 'Normal' item, they become an accompanying item for the 'normal' item.

On sales documents, purchase documents, transfer documents, warehouse documents, etc. the reusable packaging item will automatically be inserted and linked to the 'normal' item that has been inserted in the lines.

The quantity of the reusable packaging item will automatically be calculated and adjusted when the line with the "normal" item is changed.

Example given: a Normal item with a linked reusable packaging item is inserted on a sales line.

Entering the amount and selecting the correct UOM automatically creates the reusable packaging line(s).

A series of fields are synchronized between the Normal item and the linked reusable packaging line(s).

Once the line with the reusable packaging item is inserted, the values will be automatically updated if there are changes in the line of the Normal item.

The reusable packaging item line(s) is (are) visible when it is set this way in the general and user settings for linked items.

Using the option **Toggle reusable packaging**, that can be found in **Manage in Lines**, the visibility of linked reusable packaging can be changed to display or not display the reusable packaging item rules.

4.2.3.1 Remark if trade installed

If Dynavision Trade is installed on the environment, it is possible to create a backorder for items that are not (completely) shipped yet on a sales document, or are not (completely) received yet. When there is Reusable Packaging linked to the item that needs to be added to a backorder, this line needs to be selected as well when the option **Selected Lines** is used in the action **Create back order**.

More information about the functionality can be found in the Dynavision Trade manual.

Inventory documents

When adjustments need to be made to the inventory through inventory documents (Inventory Receipts, Inventory Shipments), the reusable packaging will not automatically appear on the document.

To make it possible to work with the Reusable packaging, following options are added to these inventory documents:

- **Insert Reusable Packagings**, and
- **Delete Reusable packagings**.

4.3 Link Reusable packaging item to “Combi” item

4.3.1 Prerequisites

This feature requires the Dynavision Trade to be installed. This app includes the functionality to create combi items.

Following items need to be set up:

- An item with Item Type **Combi**.
- One or more items with Item Type **Normal**, entered in the Assembly BOM of the combi item.
- One or more items with Item Type **Reusable Packaging**, linked to items with Item Type **Normal**.

4.3.2 Linking the items through the Item Card

1. Open the item Card of the item with the **Item Type Combi**.
2. Open the **Assembly BOM**.
3. Add one or more items with **Item Type Normal** that have linked items with **Item Type Reusable packaging**.
4. In the **Item Type tab** set following fields:
 - a. **Item Type**: select Combi Item.
 - b. **Reusable packaging from Assembly BOM**: Enable.

4.3.3 Linking the items through the page Combi Item

On the page **Combi Items** it is possible to create combi items in a quick and simplified way.

1. Choose the search icon, enter **Combi Items**, and then choose the related link.
2. Choose the **New** action.
3. Under **General** enter the information of the item.
 - a. **Reusable packaging from Assembly BOM**: Enable.
4. In **Assembly BOM** add one or more items with **Item Type Normal** that have linked items with **Item Type Reusable packaging**.

4.3.4 Usage

When reusable packaging is linked to a combi item (through the Assembly BOM), it becomes an additional item for the combi item.

On sales documents, purchase documents, transfer documents, warehouse documents, etc. the linked reusable packaging will automatically be inserted when the combi article to which it is linked is inserted in the lines.

The quantity of the reusable packaging item will automatically be calculated and adjusted when the line with the combi item is changed.

Example given: a Combi item is inserted on a sales order.

Entering the quantity at the combi item automatically inserts the reusable packaging line(s)

with the corresponding calculated quantity.

Once the line with the reusable packaging item is inserted, the values will be automatically updated if there are changes in the line of the Combi item.

The reusable packaging item line(s) is (are) visible when it is set this way in the general and user settings for linked items.

Using the option **Toggle reusable packaging**, that can be found in **Manage in Lines**, the visibility of linked reusable packaging can be changed to display or not display the reusable packaging item rules.

4.3.4.1 Remark if trade installed

If Dynavision Trade is installed on the environment, it is possible to create a backorder for items that are not (completely) shipped yet on a sales document, or are not (completely) received yet. When there is Reusable Packaging linked to the item that needs to be added to a backorder, this line needs to be selected as well when the option **Selected Lines** is used in the action **Create back order**.

More information about the functionality can be found in the Dynavision Trade manual.

4.4 Processing the return of Reusable Packaging

There are 2 methods for processing the return of Reusable Packaging on purchasing and sales documents.

1. **Manually entering** the returned items in the lines on the document.
2. Using the action **Return Reusable Packaging**.

4.4.1 Manually entering the returned items

1. Navigate to the **Sales Orders/ Purchase Order** list page.
2. Choose the **New** action or open an existing sales order/ purchase order where the returned items need to be added.
3. In the **Lines** of the order enter the lines for the returned items:
 - a. **Type**: select Item.
 - b. **No.:** select the returned Reusable Packaging item.
 - c. **Quantity**: enter the quantity that is returned of the item. This quantity needs to be Negative.
The value of the returned reusable packaging will be deducted from the invoice total.

4.4.2 Action Return Reusable Packaging

1. Navigate to the **Sales Orders/ Purchase Order** list page.
2. Choose the **New** action or open an existing sales order/ purchase order where the returned items need to be added.
3. In the action bar, navigate to **Order** and choose the action **Return Reusable Packaging**.
4. In the page that opens the returned Reusable Packaging items can be inserted.
 - a. **Item No.:** select the Reusable Packaging item. The list from which the items can be selected is already filtered and only shows items with Item Type Reusable Packaging.
 - b. **Quantity:** enter the quantity that is returned. This quantity needs to be positive.
5. After inserting all returned Reusable Packaging items in the lines there are two options to add these to the document.
 - a. **Add to the document**
Adds the Reusable Packagings to the document.
 - b. **Add and post the reusable packaging**
Adds the Reusable Packagings to the document and immediately posts the shipment or receipt of these items.
6. After choosing the action, the reusable packagings are inserted in the lines of the document. The quantity will be a negative number.
The amount of the reusable packaging will then be deducted from the total invoice amount.

5 Reusable Packaging Management

Certain Reusable Packaging items, for example a container with 24 bottles, have 1 reusable packaging item card for the amount of 4.50€ that is inserted in sales and purchase documents. But, this 4.50€ actually exists out of 2.40€ for 24 bottles of 0.10€ and 2.10€ for an empty bin.

It can sometimes be necessary to split or combine, for example, half-empty bins in order to have a full bin again.

There is a feature in the Reusable Packaging module to manipulate the reusable containers. To use this feature, there needs to be an assembly BOM in the Reusable Packaging item that needs to be able to be split or combined.

5.1 Set up Assembly BOM on Reusable Packaging item

1. Open the item Card of the item with the **Item Type Reusable Packaging**.
2. In the **Replenishment tab** under **Assembly** set the following fields:
 - a. **Assembly Policy:** select Assemble-to-Stock.
 - b. Open the **Assembly BOM** and choose the action **New** to an item in the BOM.
 - i. Repeat until all items are added.

5.2 Reusable Packaging Management: Split & Combine

1. Choose the search icon, enter **Reusable Packaging Management: Split & Combine**, and then choose the related link.
2. On the page that opens it is possible to split or combine Reusable packaging items by filling out the fields and choosing the relevant Entry Type in the lines:
 - a. **Jnl. Templ. Name**
This Journal Template will be used for the reusable packaging Items.
Cannot be modified. This is the journal template that is set in the Reusable Packaging Setup.
 - b. **Jnl. Templ. Batch**
This Journal Template batch will be used for the reusable packaging Items.
Cannot be modified. This is the journal template that is set in the Reusable Packaging Setup.
 - c. **Current Location**
The location where the Reusable Packaging items are stored that need to be split/combined.
Remark: it will not be possible to add lines until a location is selected.
 - d. **Posting Date**
The posting date for the entry.
 - e. **Entry Type**
Select the action that needs to be executed. The options are:
 - i. Split, and
 - ii. Combine.
 - f. **Document No.**
Specifies a document number for the journal line. This will be automatically inserted if a number series has been set for the **Journal Template Batch**.
 - g. **Item No.**
After choosing the **Entry Type**, select the Reusable Packaging item that needs to be split/combined. The list of possible items that can be selected are filtered on Item Type Reusable Packaging.
 - h. **Description**
The description that is used on the Item Ledger Entry when posting the journal entry.
 - i. **Quantity:** enter the quantity of units of the item that need to be split/combined.
 - j. **Reason code:** Specifies the reason code, a supplementary source code that enables you to trace the entry. *This will automatically be filled in using the setup in the Reusable Packaging Setup and cannot be modified on the line.*
 - k. **Unit of Measure Code**
Specifies how each unit of the item or resource is measured, such as in pieces or hours. By default, the value in the Base Unit of Measure field on the item or resource card is inserted.
 - l. **Unit Amount**
The price of one unit of the item on the journal line.
 - m. **Amount**
Specifies the line's net amount.

- n. **Unit Cost**
The cost of one unit of the item or resource on the line.
 - o. **Balance**
Displays the net balance of the amount of the line and the amounts of its linked items.
 - p. **Shortcut Dimension 1**
Specifies the code for Shortcut Dimension 1, which is one of two global dimension codes that you set up in the General Ledger Setup window.
3. After filling in the fields on the main line, in the **Split & combine: Linked Lines** tab will show the components of the item on the main line if there is a BOM linked to the item. If no BOM is linked to the item on the main line, this tab will not contain lines.

5.2.1 Split & Combine: Linked Lines

If the necessary fields are entered on the main line, in the **Linked Lines** the BOM Components of the selected item to split will be shown. *(If the item has a BOM)*

Following fields are shown/filled in on the lines:

- 1. Item No.**
The item no. of the component item.
- 2. Description**
The description that is used on the Item Ledger Entry when posting the journal entry.
- 3. Quantity**
Specifies the number of units of the item to be included on the journal line. In case of a combine, this quantity will be a negative value.
Remark: the quantity on the Linked Line will be updated when the quantity on the linked main line is changed.
- 4. Unit of Measure Code**
Specifies how each unit of the item or resource is measured, such as in pieces or hours. By default, the value in the Base Unit of Measure field on the item or resource card is inserted.
- 5. Unit Amount**
The price of one unit of the item on the journal line.
- 6. Amount**
Specifies the line's net amount.
- 7. Shortcut Dimension 1**
Specifies the code for Shortcut Dimension 1, which is one of two global dimension codes that you set up in the General Ledger Setup window.

Above the lines that are displayed, the total of the main line in the field **Total source amount** and the total of the split or combine amounts of the linked lines are shown in the field **Total linked amount**.

The amount in the field **Net Amount** should be zero after inserting the quantities on the linked lines or by adding and deleting lines.

There are a few **actions** that can be executed on the Linked Lines.

- 1. Delete Line**
Delete the selected Linked Lines row.
- 2. Recreate linked lines**
Deletes all linked lines and recreates them. Only the missing lines will be added with the corresponding quantities, based on the BOM of the main line to which these Linked lines are linked.
- 3. New blank line**
Creates a new blank linked line. *Remark: this line will not be updated when changing the quantity on the main line*

After inserting all necessary journal lines on the **Reusable Packaging Management: Split & Combine line** page the corrections can be processed by using the **Post** action in the action

bar above the main lines. It is also possible to preview the posting before definitively posting the corrections.

It is also possible to open the item journal and post the corrections on this page. This page opens when choosing the action **Open Journal** that can be found when choosing **Navigate** in the action bar above the main lines.

5.3 Physical Inventory journal

5.3.1 Second Unit of Measure functionality

In the **Physical Inventory Journal** 4 additional fields are added that provide extra functionality to work with empties or combi items.

These field make it possible for a user to select a second unit of Measure that can be used in calculations for the physical inventory.

1. Choose the search icon, enter **Physical Inventory Journals**, and then choose the related link.
2. Select the **Batch Name** that needs to be used.
3. Choose the action **Calculate Inventory**.
4. On the screen that opens, there is a field added, in this field make the necessary selection.

a. 2nd unit of measure option

Using this selection it is possible to set the second unit of measure for the lines that will be generated.

The options are:

- i. Blank,
- ii. Base Unit of Measure,
- iii. Sales Unit of Measure, and
- iv. Purch. Unit of Measure.

b. Remark: *it can be advised to exclude items with type Empty or Combi. This can be done by using the item filters (**Item Type**).*

5. After choosing **OK** the report will run with the selected second Unit of Measure option and lines will be generated in which the quantity, *which is default in the base Unit of Measure*, is split into a quantity in the chosen Unit of Measure and the remaining quantity in the base Unit of Measure.

Example Given: In this case the BAK24 unit has a quantity per Unit of Measure of 24.

This means that the total amount for the item in the base Unit of Measure is:

*$24 * 229 + 4 = 5.500$ BOTTLES.*

Posting Date	Description	Location Code	Qty. (Calculated)	Qty. (Phys. Inventory)	Qty. Unit of measure 2	Unit of measure 2	UOM 2 Description	Qty. Base UOM	Unit of Measure Code
11/08/2023	Jupiler 25cl	HOOFD	5.500	5.500	229	BAK 24	Bak 24 st	4	FLES

6. It is possible to edit these values according to the physical values that were counted. After adjusting the values, the line will be validated and it will calculate a resulting quantity (value can be found in the **Quantity** column) that will be used for the adjustments.

5.3.2 Extra Reusable Packaging functions

For the management of Reusable Packaging items in the **Physical Inventory Journal** some functionalities are added.

1. Choose the function **Insert Empties (Aggregated)** to insert Reusable Packaging linked to the items in the lines in the Physical Inventory Journal. These Reusable Packaging items will be grouped by Item Number and Location.
2. Choose the action **Insert Reusable Packaging (Per Line)** to insert Reusable Packaging linked to the items in the lines, per line.
3. Choose the action **Calculate the empty Reusable Packaging** after the posting of the physical Inventory Journal lines to calculate the empty Reusable Packaging items based on these generated entries.
 - a. The non-linked items will be added to the lines. The complete calculated quantity that has been counted and posted will be subtracted from this number of non-linked items.
 - b. Add the reusable packaging items that are linked to the item Units of Measure. Check if there are already transactions in the system for the linked normal, or combi item.
 - i. If there is inventory of the linked normal, or combi items, reduce the quantity of Reusable packaging with these linked Reusable packaging items to have the remaining empty Reusable packaging quantity.
 - ii. If there are no Item Ledger Entries in the system, add the complete calculated quantity of the Reusable packaging items to the lines.
4. If the Reusable Packaging items need to be deleted from the lines of the Physical Inventory Journal, choose the action **Delete Reusable Packagings**. *This will remove all linked Reusable Packaging items.*

6 Reusable Packaging Entries

When the option to register entries is checked on the reusable packaging type linked to a Reusable Packaging, when posting a sales or purchase document or warehouse document, containing Reusable packaging items, entries will be created in the **Reusable Packaging Entries**.

1. Choose the search icon, enter **Reusable Packaging Entries**, and then choose the related link.
2. On the page that opens, an overview can be seen of the Reusable Packaging entries, with their corresponding Item Ledger Entry Type and other information.
 - a. In the column **Item Ledger Entry No.** the item ledger entry number can be found from which the post originates. Clicking on this number opens more information about the post.
3. Choose the action **Create New Entry** to manually create a Reusable Packaging entry with values that can be specified by the user.
4. Choose the action **Correct Entry** to correct the selected, existing entry.
 - a. The **Quantity** will automatically be set to negative original quantity and is editable. The **Description** is also editable.

5. Choose the action **Compress Entries** to compress the entries using a report. This function allows to reduce the number of entries on the overview by grouping them, combining the quantities on the entries.
6. After choosing the function, a report page opens in which options and filters can be specified to indicate which entries to group.
 - a. **Starting Date**
Specifies the Starting date for the entries that need to be taken into account when executing the compress action. The entries with a posting date after the starting date (and before the specified ending date) will be handled during compression.
 - b. **Ending Date**
Specifies the Ending date for the entries that need to be taken into account when executing the compress action. The entries with a posting date before the ending date (and after the specified starting date) will be handled during compression.
 - c. **Compress Location**
Entries are, by default, compressed per location. Enable this option to compress the entries, regardless of the location code. The location code of the resulting entry will be set to a blank value.
 - d. **Filter on the entries**
Optionally specify filters that will be applied on the entries that will be handled during compression.

Tip: The Dynamic fields functionality, available when Dynavision Trade is installed, can be used to display information of the Reusable Packaging Ledger Entry. This can e.g. be used to show the quantity of the pallets that are currently at the Customer. This can be displayed on the Sales Order Page.

The screenshot shows the 'Dynamic Field' configuration page for 'Pallet Customer'. The settings are as follows:

Field Name	Pallet Customer
Source Table	Customer
Target Table	Reusable Packaging Ledger Entry
Calculation Method	Sum
Invert Calculation Result	<input checked="" type="checkbox"/>
Target Value Field	Quantity (Base)
Target Table Filters	Source No.: No.
Target Company Name	drinkmaster365
Show on List page	<input checked="" type="checkbox"/>
Enabled	<input checked="" type="checkbox"/>

7 Warehouse flows

7.1 Reusable Packaging bin: best practice

It is recommended to create a bin specifically for items of Item Type Reusable Packaging. This bin is a virtual location that is used to get a clear overview of the quantity of Reusable Packaging items that are currently in the inventory of the Company.

This is essential to keep track of the value of the Reusable Packaging items.

In practice, some of these Reusable Packaging items will already be on the shelves, ready to sell (e.g. a full bottle of beer) and others will be in the warehouse ready to be returned to the sellers (e.g. empty bottle of beer).

When importing the Reusable Packaging package, a virtual Reusable Packaging bin will automatically be created to which the Reusable Packaging items will be automatically linked.

It is also possible to create this bin manually.

7.1.1 Setting up a Reusable Packaging bin

1. Choose the search icon, enter **Locations**, and then choose the related link.
2. Open the **Location Card** of the location where the bin has to be added.
3. In the **Warehouse tab** set following fields:
 - a. **Bin mandatory**: needs to be checked.
 - b. **Default Bin Selection**: select Fixed Bin.
4. Navigate to **Bins** in the action bar on the Locations Card.
5. Choose action **New** to create a new bin.
6. Fill in the columns on the line.
 - a. **Code**: fill in the code to identify the bin where the Reusable Packagings will be stored.
 - b. **Description**: fill in the description for the Reusable Packagings bin.
7. Select the new added Reusable Packaging bin line and choose action **Contents** on the Action bar.
8. Choose action **New** to create a new line for each Reusable Package item that will be stored in the bin. Fill in the necessary columns:
 - a. **Location Code**: is automatically filled in with the Location from the selected Location Card.
 - b. **Bin Code**: is automatically filled in with the bin that has been created for the reusable packagings.
 - c. **Fixed**: check this checkbox.
 - d. **Default**: check this checkbox.
 - e. **Item No.**: select the Reusable Packaging item that needs to be stored in the bin. *Remark: this list is not default filtered on item type Reusable Packaging.*
 - f. **Quantity and Quantity (base)** will be filled in automatically when there are movements of the item in the bin.

- g. Unit of Measure Code:** Specifies how each unit of the item or resource is measured, such as in pieces. By default, the value in the Base Unit of Measure field on the item card is inserted.

7.2 Example 1: WMS A - Without WMS

1. Set up a Location with **Bin mandatory** checked and **Default Bin Selection** "Fixed Bin".
2. Walk through the steps described in [Setting up a Reusable Packaging bin](#) in order to set up the reusable packaging bin.
3. Optionally create another bin for the storage of Normal items.
4. Navigate to the **Sales Orders/ Purchase Order** list page.
5. Choose the **New** action to create a new order.
6. Enter the lines on the order and select WMS A on the line for the item. The virtual Reusable Packaging bin will automatically be used for the Reusable Packaging items and the bin for regular items will be automatically filled in for other items.
7. **Receive/send** the items and **Post** the order. The Reusable Packaging items will be added to/removed from the Reusable Packaging bin and the regular items will be added to/removed from the other bin.

7.3 Example 2: WMS C - Ship and receive without pick or put away

1. Set up a Location with **Bin mandatory** checked, **Default Bin Selection** "Fixed Bin", **Require Receive** checked and **Require Shipment** checked.
2. Walk through the steps described in [Setting up a Reusable Packaging bin](#) in order to set up the reusable packaging bin.
3. Optionally create another bin for the storage of Normal items.
4. Navigate to the **Sales Orders/ Purchase Order** list page.
5. Choose the **New** action to create a new order.
6. Enter the lines on the order and select WMS A on the line for the item. The virtual Reusable Packaging bin will automatically be used for the Reusable Packaging items and the bin for regular items will be automatically filled in for other items.
7. Choose the action **Create Warehouse Shipment/ Create Warehouse Receipt** in the actions bar on the order.
8. On the **Warehouse document** the normal items are shown, because of the settings in the **Reusable Packaging Setup** page.
*In the Reusable Packagings User Setup it is possible to allow certain users to disable the **Auto-include linked reusable packaging** setting. That way Reusable Packagings can be displayed on warehouse documents. This should only be used in case an intervention needs to take place.*
This field needs to be checked again afterwards to include the reusable packaging items in the posting of the document.

9. **Post** the warehouse document.

The regular items are added to/removed from their bin and the Reusable Packaging items are added to/ removed from the Reusable Packaging bin.

10. **Post** the order.

7.4 Example 3: WMS D - Ship and receive with pick or put away

1. Set up a Location with **Bin mandatory** checked, **Default Bin Selection** "Fixed Bin", **Require Receive** checked, **Require Shipment** checked, **Require Put-Away** checked and **Require Pick** checked.
2. Walk through the steps described in [Setting up a Reusable Packaging bin](#) in order to set up the reusable packaging bin.
3. Optionally create another bin for the storage of Normal items, a bin for Receiving and a bin for Shipping.
4. Navigate to the **Sales Orders/ Purchase Order** list page.
5. Choose the **New** action to create a new order.
6. Enter the lines on the order and select WMS A on the line for the item. The virtual Reusable Packaging bin will automatically be used for the Reusable Packaging items and the bin for regular items will be automatically filled in for other items.
7. Choose the action **Create Warehouse Shipment/ Create Warehouse Receipt** in the actions bar on the order.
8. On the **Warehouse Shipment** choose the action **Create Pick**; on the **Warehouse Receipt** choose action **Post** to create a put-away.
We only see the action to be performed on regular items. The Reusable Packaging items should not be moved. They remain in the Reusable Packaging bin.
9. **Post** the warehouse document.
 - a. *Registering Put-away: the Reusable Packaging will be received in the bin, even though they are not visible on the warehouse document.*
 - b. *Registering Pick: the Reusable Packaging will be shipped from the Reusable Packaging bin, even though they are not visible on the warehouse document.*
10. **Post** the order.

8 Intrastat

Reusable packaging items should not be included in the Intrastat declaration.

On the item card of a Reusable Packaging item it is possible to indicate that the item had to be excluded from the intrastate declaration.

1. Navigate to the **Items list** page and select the Reusable Packaging Item that needs to be excluded.
2. On the **Item Card** of the Reusable Packaging item navigate to the **Cost & Posting tab**.
3. Under **Foreign Trade** check the following option:
 - a. **Exclude from Intrastat Report**
Specifies if the item shall be excluded from Intrastat report.

It is also possible to exclude the Reusable Packaging items when generating the Intrastat report.

1. Choose the search icon, enter **Intrastat Journals**, and then choose the related link.
2. Choose the **batch name** that needs to be used.
3. Use the action **Suggest Lines...**
4. Enter the desired starting and end date.
5. Under **Additional** check the option **Exclude Reusable Packaging**.
Items with Item Type Reusable Packaging will be excluded from the intrastate report.

9 Annual Listing

The annual listing report is used to, for example, search for customers who bought items that resulted in a total amount of more than a certain Minimum Amount.

In this Minimum Amount, only the Normal items should be included, not the Reusable Packaging items.

The report **Annual Listing** allows the user to choose whether or not to include certain VAT groups in the report.

This way it is possible to choose not to include reusable packaging.

1. Choose the search icon, enter **Annual Listing**, and then choose the related link.
2. Fill in the necessary fields.
3. Select the value in the field **Excluded VAT Groups**.
4. In the page that opens, select one or more VAT Product Posting Groups that need to be excluded from the report.
5. Check the value in the field **VAT Groups Filtertext**. This field visualizes the chosen VAT Product Posting Groups that should be excluded from the report.

10 Reusable Packaging: VAT- VIES Declaration Tax Auth (Modified)

In order to have the correct information in the annual listing, it is made possible to exclude certain VAT groups.

1. Choose the search icon, enter **Annual Listing**, and then choose the related link.
2. Fill in the necessary fields.
3. Select the value in the field **Excluded VAT Groups**.
4. In the page that opens, select one or more VAT Product Posting Groups that need to be excluded from the report.
5. Check the value in the field **VAT Groups Filtertext**. This field visualizes the chosen VAT Product Posting Groups that should be excluded from the report.

11 Reusable packaging POS

In order for handling Reusable Packaging items, a separate POS has been created. The reason behind the separate Reusable Packaging POS is the fact that these items will usually be processed in a different place in the store than at the POS used for sales.

11.1 Setup

1. Choose the search icon, enter **Reusable Packaging POS Terminal List**, and then choose the related link.
2. On the page that opens a new terminal can be added or an existing one can be edited. Choose the action **New** to add a new terminal.
3. Fill in the needed fields
General tab
 - a. **No.**
The Reusable Packaging POS Terminal code.
 - b. **Name**
The name of the terminal in Business Central.
 - c. **Location Code**
Specifies where the registered Reusable Packaging items are stored. The returned Reusable Packaging items will be registered to this location.
 - d. **Responsibility Center**
Specifies the responsibility center.
 - e. **No. Series**
The Number Series that needs to be used for the tickets printed from this POS terminal.
 - f. **Active**
Indicates whether this POS should be listed in the POS list. If this is set to

inactive, the terminal will not be displayed among the available Reusable Packaging POS terminals.

Scanner Setup tab

a. Scanner code

Specifies the scanner that will be used to scan items for this POS terminal.

b. Scanner Type

Displays the Scanner Type that is set for the selected scanner.

Interface tab

a. Lite Mode

By enabling this, it is possible to disable all javascript functionalities on the Reusable Packaging POS terminal in case these functionalities have stopped working and they are causing an error message.

Things like the quick actions tiles and the numeric keypad will be no longer displayed.

Printer Selections

- a.** Select the **Report** that needs to be printed and the desired printer to be used in order to print this selected report.

Layout Setup

- a.** Select the **Report ID** that needs to be generated when posting.

Ticket tab

a. Sold By Label

Specifies the value of the Sold By Label field printed on the ticket layout. Use %1 to fill in the salesperson.

b. Address

The address that needs to be printed on the ticket layout.

- 4.** To see an overview of all created open Reusable Packaging tickets, choose the action **Empties Ticket**.

11.2 Usage

1. Choose the search icon, enter **Reusable Packaging POS**, and then choose the related link.
2. On the page that opens a Reusable packaging POS terminal and user can be selected. Only the active terminals will be displayed and can be chosen. Select the desired terminal.
3. Use the action **Manual scan** to manually enter the barcode of a Reusable Packaging item. The item will be added to the lines of the Reusable Packaging POS ticket. In case the item has a BOM and exists out of different Reusable Packaging items, these items will be added to the lines.
4. It is also possible to select the Reusable Packaging items on the **Lines** of the ticket. Select the **item No.** that needs to be added to the ticket and insert the **quantity**.
5. Once all items are added to the ticket, choose action **Print** or **Print and New Ticket**. This option will print the Reusable Packaging ticket as specified in the POS terminal card and, in case **Print and New Ticket** was chosen, opens a new ticket, ready for input of new items.
The status of the ticket changes to Printed.
These tickets can be scanned on the Cloud POS light of the shop.

11.3 Reusable Packaging Tickets

1. Choose the search icon, enter **Reusable Packaging Tickets**, and then choose the related link.
2. On the page that opens an overview of the Reusable packaging tickets can be found with their corresponding status and other relevant information.

11.3.1 Add new ticket

1. On the **Reusable Packaging Tickets** page choose action **New**.
2. Fill in and/or scan the Reusable Packaging items that need to be added to the ticket with their corresponding Quantities.
3. Use the action **Print** or **Print and New Ticket** to either print the ticket, or to print the ticket and create a new ticket.

The status of the ticket changes to Printed.

These tickets can be scanned on the Cloud POS light of the shop.

Remark: Reusable Packaging Tickets with status **Printed** cannot be deleted or edited. These actions can only be performed when Admin-mode is enabled.

Ask your partner or Dynavision support in case a printed ticket needs to be deleted or edited.

11.3.2 Process Expired Tickets

If tickets have been created and printed for a long time, but the ticket is not used in a certain period of time, it is possible to use a report to process these unposted, expired tickets. This report will suggest the general journal lines and item journal lines based on the expired tickets. These tickets will not be deleted, but will receive a status **Expired**.

In order to view an overview of the tickets that will be marked as expired, it is possible to add the column **Ticket Date** to the list view of the **Reusable Packaging Tickets**. This can be used in the **Analyze** view, in order to filter out the tickets that have been created before a certain date and will thus be marked as expired when running the report with the same date.

1. On the **Reusable Packaging Tickets** page, choose the action **Process Expired Tickets** to generate general journal lines and item journal lines for the selected tickets.
2. Fill in the fields on the report page that opens to process the selected tickets.
 - a. **Expired Tickets Date**
Specifies the date from which tickets are set to expired. Tickets with this date or earlier will be processed. This can be filled in manually, or the field **Expired Tickets Date Formula** can be filled in, which will recalculate the date using the date formula.
 - b. **Expired Tickets Date Formula**
Specifies the date formula to calculate the expired Tickets Date.
 - c. **Posting Date**
Specifies the posting date used in the general journal to register expired reusable packaging tickets.

- d. **Open General Journal**
Specifies if the General journal should be opened after processing the expired tickets.
 - e. **Open Item Journal**
Specifies if the Item journal should be opened after processing the expired tickets.
 - f. **Filter: Reusable Packaging Tickets**
Displays the current selection of tickets, and makes it possible to filter the tickets that need to be processed
3. After specifying all information, choose **OK** to execute the report.
 4. The message will be shown with the number of tickets that will be changed to **Expired**. Choose **Yes** to continue the processing of the expired tickets. If **No** is chosen, no action will be taken and the tickets will remain unchanged.
 5. After confirming the previous message, the tickets will be processed. If the tickets conform the selected parameters, the status of the unposted tickets will be set to **Expired**. *Remark: this status will remain on the ticket, even when the created journal lines are not posted.*

Remark: the TOMRA reusable packaging tickets will not be taken into account in the processing of the expired reusable packaging tickets. These still need to be processed manually.

11.3.2.1 Retention policy

There is a retention policy included for the Reusable Packaging Tickets with status **Expired**. This retention policy is standard set to 3 months. The Reusable packaging tickets, that have been changed to expired 3 months before the current work date will be automatically deleted. *There is no archive for these expired tickets.*

11.4 Use Reusable Packaging ticket on sales documents

1. Navigate to **Sales orders or** (unposted) **sales invoices** (sales document) and choose the action **New** to create a new sales document or choose an existing sales document where the ticket information needs to be added.
2. In the Action bar on the sales document, choose the action **Scan Reusable Packaging Ticket** in order to scan a ticket that needs to be added to the document.
3. In the Action bar on the sales order, choose the action **Choose Reusable Packaging Ticket** to choose an existing printed Reusable Packaging Ticket.
4. The items from the ticket are added to the lines of the document.
Only tickets that are not yet included in another sales document and those that are printed will be shown in the list of possibilities.
A ticket must always be added completely. If it is attempted to delete a line from the chosen or scanned ticket, the whole ticket will be deleted from the sales document. *The status of the Reusable Packaging ticket is changed to Added to document. The linked document can be seen in the **Added to document** field on the Reusable Packaging Ticket.*

Once the status of the Reusable Packaging ticket is changed to Added to document, the ticket cannot be used anymore on other documents. This is to prevent the rescanning of the ticket.

12 TOMRA

A lot of stores have a TOMRA machine for registering the returned Reusable Packaging. When the Reusable Packaging items are inserted in the machine, this machine creates a ticket with the total amount of Reusable Packaging that has been returned.

Note there are also alternative suppliers, example given: Lawson, these basically use the same (standardized) process.

12.1 Add TOMRA ticket manually to sales order

1. Navigate to **Sales orders** and choose the action **New** to create a new sales order or choose an existing sales order where the ticket information needs to be added.
2. To add the TOMRA information manually on the sales order add a line in the **Lines** of the sales document. Choose the item "TOMRA-Ticket" or the item that has been added in the environment to register these TOMRA returns.
3. Insert the amount that is mentioned on the TOMRA ticket. This amount needs to be negative.

12.2 TOMRA ticket automatic processing

It is also possible to scan the barcode that is printed on the TOMRA ticket in order to register the return on a sales document.

There are **3 methods** available for this purpose:

1. The value is derived from the scanned barcode. This is the procedure that will be used when the customer's TOMRA ATM is used offline.
The barcode that TOMRA generates is standardized and will be processed on the receipt. *Example given: 9801664000105, value = 0.10 €.*
When this method is used, it is not possible to check whether a ticket has been used before. This must be physically checked and indicated by the cashier.
2. The value is read from the TXT on the FTP server.

In this case, when a TOMRA ticket is printed, a TXT file will be placed on an FTP server.

Sample content TXT file:

```
[Receipt]
NumEntries=5
Reference=204365
Refund=500
Time=220718 091808
EuroCurrency=1
```

The value can be read from the text file (*example given: 5.00€*).

When this method is used, there is also a setting for the **prefix** of the **filename** to be able to correctly process the text file reference.

When the ticket has been used and posted, the file on the FTP server will automatically be moved to another folder (*e.g. Processed*). This prevents that a ticket would be scanned multiple times.

Note: the barcode (ticket reference) does not include the value in this case.

*This method requires setting the FTP settings from **Dynavision Connect** for a "Download" and a "Move".*

3. The value is retrieved using an API.

In order to use this method, the TOMRA has to be connected to a Cloud Database.

The barcode printed on the TOMRA ticket will be used to retrieve the value of the Reusable Packaging and when retrieving this information through the specified API, the status of the ticket will also be adjusted using the API.

When the ticket is used and posted, the TOMRA ticket status will be changed to "Consumed" using the API. This prevents that a ticket would be scanned multiple times.

Sample bar code:

9803600709463334784700010853

Note: the barcode includes the value of the ticket. This value can possibly also be derived from this barcode if the API is not reachable. The TOMRA type should then be set to offline (see settings).

There is Setup provided for these 3 modes of operation in the TOMRA settings.

1. Choose the search icon, enter **TOMRA Setup**, and then choose the related link.
2. In the **TOMRA Setup** the default TOMRA mode of operation needs to be inputted. This method will be automatically filled in when creating a POS terminal.
 - a. **TOMRA Item No.**
Select the item that has been created to be used as a TOMRA Ticket in Business Central.
3. Set up the default **TOMRA Voucher Setup**
 - a. **Type**
Choose the Type of TOMRA mode that will be default used. There are three possible types: FTP, Offline and API.
 - b. **Prefix**
Specifies what the text and/or other characters are that the scanned TOMRA barcodes will start with.
 - c. **Skip Checksum Validation**
Specifies if the checksum validation or the scanned barcode needs to be skipped. *This can be changed when choosing type **API** or **Offline**. When **FTP** is used this option is checked by default and cannot be unchecked.*
Remark: in offline and API, the barcode includes a checksum to verify that it has not been manipulated.
With FTP, the barcode includes the reference to the TXT file and has no

checksum, hence always disabled.

*In case **FTP** is selected following fields also needs to be set:*

d. FTP Code (Verify)

The FTP Code that will be used to verify FTP TOMRA tickets.

e. FTP Path (Verify)

Adds a sub path to the FTP URL for verifying the TOMRA tickets.

f. FTP Full Path (Verify)

Shows the full FTP URL for verifying the TOMRA tickets.

g. FTP Code (Consume)

The FTP Code that will be used to consume FTP TOMRA tickets.

h. FTP Path (Consume)

Adds a sub path to the FTP URL for Consuming TOMRA tickets.

i. FTP Full Path (Consume)

Shows the Full FTP URL for consuming TOMRA tickets.

j. File Extension

Specifies the file extension that is used to identify FTP TOMRA tickets.

k. File Prefix

Specifies the prefix that is used in the file to identify TOMRA tickets.

*In case **API** is selected following fields also needs to be set:*

l. API URL

Specifies the URL of the TOMRA API.

m. API Username

The username that is used to make calls to the TOMRA API.

n. API Password

The password that is used to make calls to the TOMRA API.

4. After inserting the information it is possible to test a TOMRA barcode in order to check if the inserted information is correct. Choose the action **Test TOMRA Barcode**. In the page that opens a test barcode can be inserted that will be checked using the inputted settings.
*This check will only work for method **Offline** and **API**. here one can enter a test barcode.*
5. After setting up this default TOMRA method that will be used, close the **TOMRA Setup** page. Now the Setup needs to be added to the POS of the shop.
6. Choose the search icon, enter **POS Terminal**, and then choose the related link.
7. On the page that opens, choose the **New** action.
8. On the new **POS Terminal Card** fill in the necessary information for setting up the POS terminal (As can be read in the POS manual) and navigate to the tab **TOMRA Voucher Setup** on the page.
9. As can be seen, default the setup from the **TOMRA Setup** will be filled in. If this needs to be changed, chose the correct method and fill in the necessary fields.

12.3 TOMRA Adjustments

Since the TOMRA ticket only contains the total amount of the returned Reusable Packagings, when posting the ticket only the value is added to the system.

The adjustment of the total amount to reusable packagings can be done using the page **TOMRA Adjustment Worksheet**.

This should be performed periodically in order to convert the value of the TOMRA ticket to a quantity of reusable packaging items. This is done by adding lines in the adjustment document until the final balance is zero.

In order to do this adjustment, TOMRA adjustment codes should be setup. A minimum of one adjustment code should be added. If there are multiple stores in the system, multiple codes can be configured.

12.3.1 Adjust the TOMRA value to Reusable Packaging items

1. Choose the search icon, enter **TOMRA Setup**, and then choose the related link.
2. In the action bar, choose the action **TOMRA Adjustment Codes**.
3. On the page that opens, enter the line for the code.
 - a. **Code**
Specifies the TOMRA adjustment code.
 - b. **Location Code**
Here the location should be filled in where the Reusable Packaging items will be stored when performing the TOMRA adjustment.
 - c. **Jnl. Templ. Name TOMRA Treatment**
Specifies the general journal template name that is used for the adjustment.
 - d. **Jnl. Templ. Batch TOMRA Treatment**
The general journal template batch used for the TOMRA adjustment.
 - e. **Gen. Journal Account**
The account used in the general journal for the adjustment.
 - f. **Gen. Journal Balance Account**
The balance account used in the general journal for the adjustment.
 - g. **Item Journal Template Name**
The item journal template name used for the adjustment.
 - h. **Item Journal Template Batch**
The item journal template batch used for the TOMRA adjustment.
4. When the page **TOMRA Setup** is opened, choose the action **TOMRA Adjustment Worksheet** in the Action bar to open the worksheet page.
*The worksheet can also be accessed by choosing the search icon, enter **TOMRA Adjustment Worksheet**, and then choose the related link.*

5. Fill in the fields that are needed in order to complete the adjustment.
 - a. **Adjustment Code**
Select the TOMRA Adjustment Code that has been set up and will be used to perform the adjustment.
 - b. **Location Code**
In this field, the location code that has been set in the TOMRA adjustment code settings will be displayed.
 - c. **Posting Date**
The date on which the adjustment is posted, default filled in with the work date.
 - d. **TOMRA Value**
This field contains the value of the TOMRA tickets that are currently in inventory. This is based on the balance of the underlying general ledger account.
 - e. **Lines Total Amount**
This field contains the summation of the Line Amount of the lines that have been added in the **Lines tab** on the worksheet.
 - f. **TOMRA Balance**
This field contains the final balance, calculated by reducing the value in field **TOMRA Value** with the value in field **Lines Total Amount**. This should result in zero before posting the adjustment.
 - g. **Lines**
In the lines, the reusable packaging items with their corresponding quantity should be inserted that were returned in the TOMRA machine.
6. After inserting all lines of reusable packaging items, the **TOMRA Balance** field will contain the value zero. Choose the action **Create Journals** to create the adjustment entries in the corresponding journal or **Create and Post Journals** to also post these adjustment entries after they are created.