



Documentation:

NP Retail Connector

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1 Introduction

Welcome to the official NP Retail Connector manual.

Combine the power of Dynavision Apps with the point-of-sales solution NP Retail.

This connector will make the functionalities available from following Dynavision Apps (if they are also installed on the environment):

Dynavision Reusable Packaging

- Automatically insert linked Reusable Packaging on the NP Retail POS (e.g. empties for the beverage market).
- Import Reverse Vending Machine Vouchers (e.g. TOMRA) from FTP server and convert into NP Retail Vouchers.
- Convert Reusable Packaging Vouchers into NP Retail Vouchers.

Dynavision Advanced Pricing

- Use the hierarchical pricing on the NP Retail POS.

These functionalities are seamlessly integrated with the NP Retail POS setup, for easy configuration and usage.

1.1 Extension

The Dynavision Advanced Pricing & Discounts 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 Advanced Pricing & Discounts** and install this app.
4. Activate the trial as described in following [Get Started guide](#).

2 NP retail POS setup

For setup and usage of NP Retail POS we refer to the [NP Retail POS documentation](#).

3 Reusable Packaging

3.1 Insert Reusable Packaging option

On the POS Store Card and the POS Unit Card, the option **Insert Reusable Packaging** is added.

This option indicates if the Reusable packaging needs to be added to the POS ticket when an item is added with linked Reusable packaging.

The setting on the POS Store Card will be transferred to the created POS Units on which the **POS Store Code** is added.

This option can be set on the unit card itself. This setting will overrule the POS Store Card setting.

If the option **Insert Reusable Packaging** is enabled, the Reusable packaging items will be automatically added to the POS ticket when an item is added with linked reusable packaging. No extra configuration is needed.

When adding the reusable packaging to the lines of the POS, the price of the Reusable packaging items (Fixed or Free) will be searched in the system. The Sales Price Lists that have been set up for the items will be taken into account and the price set on the item card. The discounts will be set to 0.

3.2 Remarks

- In order to make sure that the discount entered on the POS is not applied on the Reusable Packaging items, make sure that the option **Custom Discount Blocked** is enabled on the items. This field can be found under the tab **Prices & Sales**.
- When the Unit of Measure is changed for the item on the POS.

4 Pricing & discounts

In order to use the Dynavision Price Calculation Method **FindDynavisionPrice**, a Dynavision Publisher is provided. This is available via the POS Pricing Profile (instead of the default "FindBestRetailPrice").

4.1 Concept

Within Dynavision Advanced Pricing, there is an additional pricing calculation method, **hierarchical**, based on the standard Business Central interface.

It can be set per Customer, therefore, a context Customer is needed to always use a correct price calculation when using the functionality FindDynavisionPrice.

4.2 Discounts

Dynavision Advanced Pricing offers the possibility to define different kinds of discounts for items on the Price lists. These discounts can be used in the NPR POS by enabling the discount option in the **Discount Prio List**.

1. Choose the Search icon, enter **Discount Prio List**, and choose the related link.
2. By default, the Dynavision Advanced Pricing option will be noted on the lines. This option will be disabled by default. **Enable** the option for table ID **71177052 ESCT Dynavision Discount**.
 - a. **Remark:** the Discount priority list will define the order in which the discounts are calculated and noted on the NPR POS Unit. The system will run through the lines 1-... and the last discount that is calculated will be noted on the lines.

4.3 Setup Pricing

1. Choose the Search icon, enter **POS Pricing Profiles**, and choose the related link.
2. Choose the action **New** to add a new POS Pricing Profile.
 - a. **Code**
Choose a unique identifier or code for the profile.
 - b. **Description**
Specifies the description of the profile.
 - c. **Customer Discount Group**
Specifies the customer groups assigned to this price profile, in order to apply customized discounts based on group membership.
 - d. **Customer Price Group**
Specifies the link from this price profile to a specific customer price group, allowing tailored pricing for different customer segments.
 - e. **Item Price Function**
Select the Item Price Function **FindDynavisionPrice**.
 - i. Note that using the three dots, it is possible to click through the list of the available functions. *This is a filtered view, remove the existing filters for fields **Publisher Object Type** and **Publisher Object ID** to find the relevant function.*
3. Close the screens, choose the Search icon, enter **POS Unit List**, and choose the related link.
4. Select the **POS Unit** that needs to be edited, and choose **Edit**.
5. Navigate to the **Profiles Tab**.
 - a. **POS Pricing Profile**
Enter the created profile in this field.
6. Navigate to the **Dynavision Tab**.
 - a. **Customer No.**
Select the Customer No. that is used to perform the Dynavision Price Calculation. This is relevant if multiple POS Units are set up for the same store.
 - b. **Customer Name**
Displays the name of the customer that is selected.

Remark: the display of the customer is conditional, only if a POS Pricing Profile of type "FindDynavisionPrice" is set on the POS Unit, then it is possible to specify the customer. If there is no "FindDynavisionPrice", then the customer cannot be configured.

4.4 Usage

If FindDynavisionPrice is set up through the POS Pricing Profile, on an NPR POS Sale, the price is not determined through the standard NPR operation, but through the FindDynavisionPrice operation.

For this purpose, whenever an adjustment is made on NPR Pos Sales, a Price Simulation is subsequently created in Business Central for the selected Customer.

Trough the lines of the simulation, the price and discount is then determined for the item according to the price logic set on the Customer (price calculation method / price group / discount group / ...).

There are two scenarios:

- No customer is selected on **NPR Pos Sales**: the customer set on the **POS Unit** is used.
- A customer selected on **NPR Pos Sales**: the customer of the **NPR POS Sales** is used.

Other parameters that are taken into account in the price calculation:

- General Business Accounting Group,
- VAT Business booking group, and
- Including/Excluding VAT

For the FindDynavisionPrice functionality, these settings from the **NPR POS Sales** are used on the simulation.

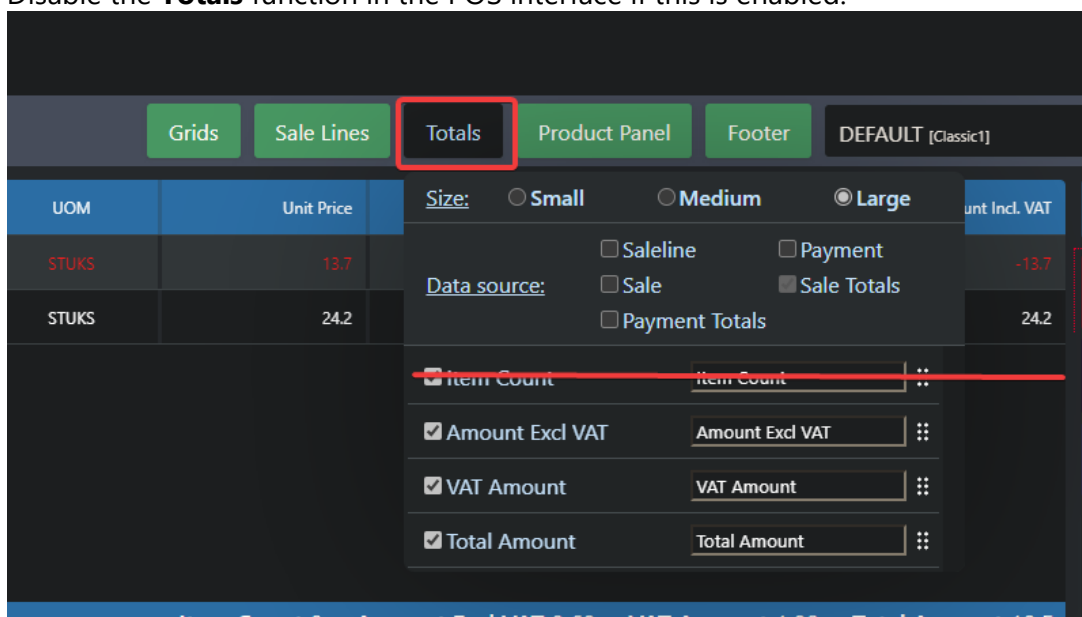
This means that the customer's settings are overruled by those of the NPR Pos Sales.

5 Number of Items on POS

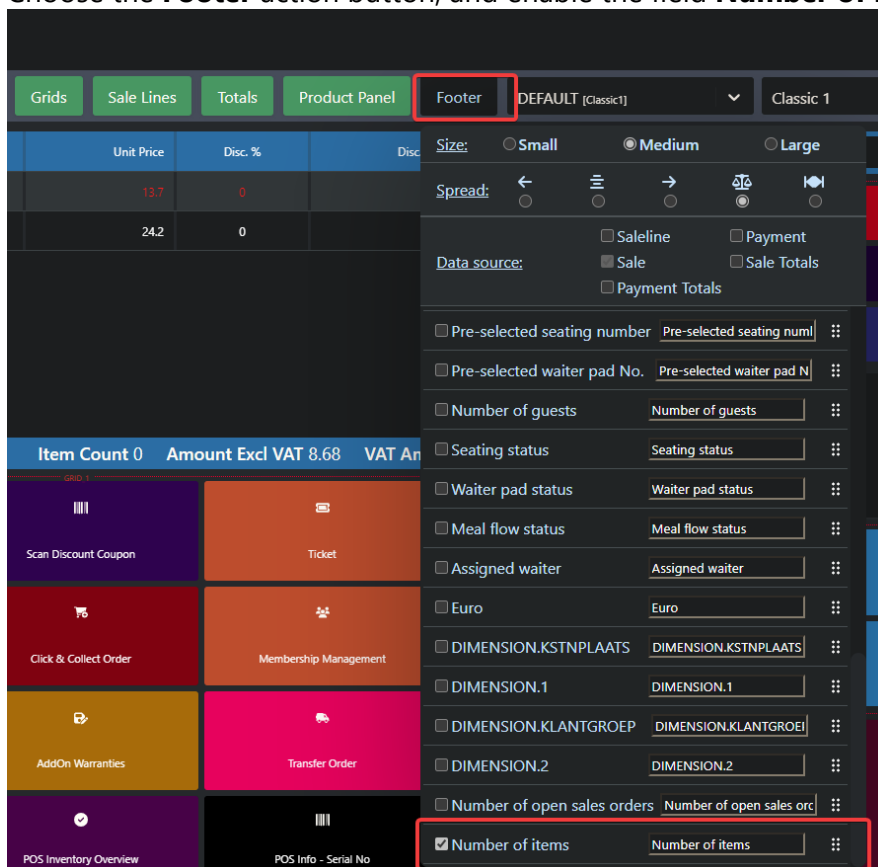
Dynavision added a field in the **Footer** of the POS, that displays the number of items in the pos ticket. The Reusable packaging is excluded in this item total.

Remark: negative items are not taken into account in the number of items.

1. On the POS interface, chose the configure symbol to edit the interface.
2. Disable the **Totals** function in the POS interface if this is enabled.



3. Choose the **Footer** action button, and enable the field **Number of items**.



6 CCV integration

In order to make the processing of payments through CCV possible, there is an integration added by Dynavision in Business Central. This makes it possible to receive payments that are processed by CCV, from the POS from Navipartner, in Business Central.

In Business Central, some setup is required to make the CCV integration work.

6.1 CCV Integration Setups

In the CCV Integration setups, there needs to be added one line per CCV connection that needs to be established, with the API key that is received from CCV.

1. Choose the Search icon, enter **CCV Integration Setups**, and choose the related link.
2. Choose the action **New**, to add a new CCV integration connection to the list.
3. Fill in the information needed to make the connection to CCV.
 - a. **Gateway Code**
Specifies the code to identify the API integration with this API key.
 - b. **Environment**
Select the environment for which the CCV Integration is added using the API Key. The options are:
 - i. **Test**,
 - ii. **Production BE**,
 - iii. **Production NL**.
 - c. **Merchant Name**
This is an optional field. This identifies the merchant from which the CCV integration originates.
 - d. **API Key**
Enter the API Key that is received from the CCV supplier.

6.2 CCV Payment Terminals

This setup page is used to link the set up CCV Integration setup gateway to the payment terminal that is set up in the shop and linked to the POS.

1. Choose the Search icon, enter **CCV Payment Terminals**, and choose the related link.
2. Choose the action **New** to add a new Payment terminal.
3. Fill in the required information to set up the payment terminal for CCV.
 - a. **Code**
Specifies the code to identify the CCV Payment Terminal.
 - b. **Gateway Code**
Select the Gateway Code with the API that needs to be assigned to the Payment Terminal.
 - c. **Register No.**
Select the POS register to which the payment terminal is coupled.
 - d. **Name**
Specifies the name of the Payment Terminal (optional)

e. Terminal ID

Enter the ID of the CCV terminal that is linked to the POS register. This information can be found on the terminal itself.

6.3 CCV Card types

It is possible to create a mapping between the CCV transaction feedback and a more specific payment method, such as credit card, eco cheques, etc.

This mapping is optional.

1. Choose the Search icon, enter **CCV Card Types**, and choose the related link.
2. Choose the action **New** to add a new Card Type.
3. Fill in the information needed to map the information from the CCV feedback file to the Card Type.
 - a. **Card Source Type**
Specifies how the payment method can be recognized in the file received from CCV. The options are:
 - i. **Card Label**
 - ii. **Card Issuer**
 - iii. **Card Type**
 - iv. **Card Sequence Number**
 - b. **Identifier**
Enter the value that needs to be found and matched with the selected Card Source Type to link the payment received with the correct payment method in Business Central.
 - c. **Description**
Optionally add a description for the Card Type.
 - d. **Payment Method**
Select the Payment Method to which the found card identifies needs to be matched.
 - e. **Credit Card**
Check this in case the payment method is a Credit Card.

6.4 Usage on POS terminal

Once the setup in Business Central is done, the payment method can be used on the POS terminal.

This payment method needs to be added as an option in the POS Terminal through the setup of the Terminal, by selecting the CCV Payment Method for the button that is created on the POS terminal.

If the payment is done using the CCV Payment Method, a popup appears on the POS Terminal that will close automatically once the payment is processed.

In the POS Entry that is created in Business Central, either the payment method CCV will be shown in case no mappings were created, or the payment method that was recognized in the mapping that is set up in the **CCV Card Types**.

7 COMBI items functionality

Remark: these actions are available when Dynavision Trade is installed for the tenant.

7.1 Overrule location for combi item

When there are multiple shop locations, each with their own Location set up for the selling of Combi items, there is a functionality added to the POS to overrule the default location that is set for the combi items.

When there are combi items sold from that POS, and the option is set, the location for the combi item, set up in the Combi Item Setup, will be overruled by the location of the shop where the POS is located.

7.1.1 Configuration

Make sure that following information is set up correctly. This information will be used to fetch the location that will overrule the default location of combi items, set on the Combi Item Setup page

7.1.1.1 POS Store

Make sure that the **Location Code** is configured correctly on the POS Store card for the different POS stores. This location will be used when overruling the default Combi item Location from the POS.

Set up the **POS units** that are available for the POS Store. Make sure the **POS Store Code** is filled in with the correct POS Store.

7.1.1.2 User Setup

Make sure that the User setup is filled in with the correct information. This means, that the **Pos Unit No.** contains the necessary POS Unit no. for the user.

The action to overrule the location will fetch the pos unit no for the user, and will then fetch the location from the linked POS Unit.

7.1.2 Usage on POS

After setting up the needed information, navigate to the **POS** for the user.

7.1.2.1 Action create new Combi item

In order to easily create a Combi item from the POS, there is an action added that can be added to the POS terminal.

1. In the **POS** go into **Configuration mode** by choosing the gear icon.
2. Click on the location (empty space or existing button to overwrite) where the extra button needs to be configured.
3. Choose **Edit** and specify the Caption(s) for the action button on the POS.
4. In the field **Action**, choose **Other**. A page opens with the **POS Actions**.
5. Choose the action Code **ESCT_COMBI_ITEM**.
6. Choose the action **Save** to add the button with the action to the POS.
7. Choose **Save** on the configuration ribbon on the page and close the configuration mode.

When the button is selected on the POS unit, the New Combi Item Card will be opened, with the location from the POS Unit. In this card, specify the combi parameters as explained in the Dynavision Trade manual.

7.1.3 Location on new POS combi item

When adding a new Combi item from the POS, the location of the new Combi item will automatically be filled in with the location set on the POS Store for the selected POS unit for the user.

7.1.4 Important remark

When the location for the combi item was overruled in the POS, and the POS is not correctly closed, meaning that the user did not log out, but just closed the page, the overrule location of the POS is still set for the session.

This means that, when a new combi item is created from the Combi Item list page, the location will still be default set to the POS location.

8 TOMRA and Reusable Packaging Tickets

In consultation with Navipartner, it was decided to use RETAIL VOUCHERS as a substitute TOMRA and reusable packaging tickets.

Both options can be used independently, or both simultaneously.

These vouchers can then be used as a payment method at the POS.

8.1 TOMRA ticket setup

Only the TOMRA process flow based on TXT files on an FTP server is currently implemented. The process using barcode or using API's are not supported.

1. Choose the Search icon, enter **Retail Voucher Types**, and choose the related link.
2. Choose action **New** to create a new type.
3. Fill in the necessary fields to set up the Retail Voucher Type.
4. Make sure to fill in the field **Account No.** with the account that is set up for the TOMRA voucher processing.

Remark: it is best practice to create different Retail Voucher Types for each TOMRA system set up for the multiple stores. These types will use different general ledger accounts.

8.2 FTP Setup

If TOMRA is used via FTP, navigate to the **FTP setup** page. Two FTP codes are required:

- A FTP request type **Move File**, direction **Export**.
- A FTP request type **Download File**, direction **Download**.

8.3 NP Retail Connector Setup

The TOMRA setup needs to be completed in the NP Retail Connector Setup.

Remark: currently only 1 setup is possible, e.g. no differentiation per shop.

1. Choose the Search icon, enter **NP Retail Connector Setup**, and choose the related link.
2. Fill in the information in the **Vouchers tab**.
 - a. **Tomra Voucher Type**
Specifies the Voucher Type used to import TOMRA vouchers.
 - b. **Reusable Packaging Voucher Type**
Specifies the Voucher Type used to import Reusable Packaging tickets.
 - c. **Voucher Usage Method**
Select how the voucher should be applied and processed when added to a POS sales ticket.
This can be either as Payment method, or as Sales line. When added as a sales line, the item set in the TOMRA setup will be added to the lines.
 - i. The TOMRA item needs to be set in the **TOMRA setup** page.
3. Choose the action **Create Tomra Voucher Job Queue Entry** to set up a job queue entry that will import TOMRA vouchers.
 - a. The Job queue entry can be cancelled by choosing the action **Cancel Tomra Vouchers Job Queue Entry**.
 - b. Depending on the setting of how the TOMRA tickets need to be applied on the POS sales ticket (as payment method or sales line), the information will be imported in either the **Retail voucher list**, or the **NP Retail Imported Vouchers** list.
4. Choose the action **Create Reusable Packaging Ticket Job Queue Entry** to create the job queue entry that will import Reusable Packaging tickets.
 - a. The Job queue entry can be cancelled by choosing the action **Cancel Reusable Packaging Ticket Job Queue Entry**.
 - b. Depending on the setting of how the TOMRA tickets need to be applied on the POS sales ticket (as payment method or sales line), the information will be imported in either the **Retail voucher list**, or the **NP Retail Imported Vouchers** list.

The conversion of the TOMRA or Reusable Packaging Tickets to the retail Vouchers or Empty voucher items is done through a codeunit that can be run periodically in task queue.

There is no report to run manually, but it is possible to manually start the task queue entry once.

Upon conversion, Retail Vouchers or empty voucher items are created:

Retail Vouchers

Search + New Manage More options									
No. ↓	Voucher Type	Description	Issue Date	Open	Initial Amount	Amount	Starting Date	Ending Date	Reference No.
TOM000037	TOMRA	9804000204366 Tomra leeggoedbon	4/25/2023	Yes	0.09	0.09	4/25/2023 12:00 ...	7/25/2023 12:00 ...	9804000204366
TOM000036	TOMRA	9804000204365 Tomra leeggoedbon	4/25/2023	Yes	0.04	0.04	4/25/2023 12:00 ...	7/25/2023 12:00 ...	9804000204365
TOM000035	TOMRA	9804000204364 Tomra leeggoedbon	4/25/2023	Yes	0.10	0.10	4/25/2023 12:00 ...	7/25/2023 12:00 ...	9804000204364
TOM000034	TOMRA	9804000204363 Tomra leeggoedbon	4/25/2023	Yes	0.14	0.14	4/25/2023 12:00 ...	7/25/2023 12:00 ...	9804000204363

The barcode is transferred to the description and reference of the voucher/item, and the value is determined based on the imported ticket.

These Retail Vouchers or empty voucher items can now be used in the POS.

8.4 Action to add Voucher to POS ticket

Depending on the selection of **Voucher Usage Method**, a different function will need to be used to add the voucher or item to the Pos ticket.

When the Voucher Usage Method is set to sales line, the function ESCT_EMPT_VOUCHER_SL needs to be used to register the item to the sales lines of the Pos ticket.

If the Voucher Usage Method is set to Payment Method, the function SCAN_VOUCHER_2 needs to be used.

Remark: when a POS Sales line is inserted, a negative line is added, causing the item count to be negative. At the moment, this cannot be fixed.

Remark: when the TOMRA is set to **offline**, and a TOMRA barcode is scanned that is not yet added to the **NP Retail Imported Vouchers** list, the TOMRA ticket will be added and the price will be extracted from the TOMRA barcode. The ticket will be added immediately to the current POS ticket.

When the TOMRA is set to **FTP**, and the ticket is not yet imported in the Business Central buffer, a request will be sent trough FTP. If the file is found for the TOMRA barcode, the voucher will be added to the **NP Retail Imported Vouchers** list, the TOMRA ticket will be added and the price will be extracted from the TOMRA file. The ticket will be added immediately to the current POS ticket.

When the TOMRA is set to **API**, and the ticket is not yet imported in the Business Central buffer, a request will be sent trough FTP. If the file is found for the TOMRA barcode, the voucher will be added to the **NP Retail Imported Vouchers** list, the TOMRA ticket will be added and the price will be extracted from the TOMRA file. The ticket will be added immediately to the current POS ticket.

8.5 Check the vouchers

If the Vouchers are processed in the POS as payment methods, the open Retail Vouchers can be checked on the page **Retail Voucher List**.

If the vouchers are processed in the POS as sales lines, the vouchers and their status can be checked on the page **NP Retail Imported Vouchers**.