



Documentation:
Advanced Item & Price Import

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1 Introduction

Welcome to the official Dynavision Advanced Item & Price Import manual.

The Dynavision Advanced Item & Price Import app makes it possible to import almost any Excel or csv file, containing item or (purchase) price information, immediately into Business Central, without manipulating the source file.

This way it is possible to import item catalogs, vendor price lists, etc. in the original format that has been received from suppliers.

The provided data doesn't need to be in a custom format (e.g. to use RapidStart), and there is no need for file conversions, data mappings, transformations using external tools or to setup complex Data Exchange Definitions in order to process the file.

A wide variety of Excel files is supported, including support for (a mix of) the following scenarios:

- Single header,
- Multiple worksheets,
- Multiple headers,
- Multiple groups,
- Multiple details,
- etc.

2 Installation

2.1 Extension

The Dynavision Advanced Item & Price Import 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 Item & Price Import** and install this app.

2.2 Setup data

When the app is installed, several default settings will be automatically imported. In order to get started with using the app, the **Import Template Setup** needs to be review/completed. After the completion of this setup, everything is set up in order to create an **Import Template**.

3 Configuration

3.1 Import Template Types

Remark: This table is automatically populated when the app is installed and should not be changed. This is meant for the support of future features.

*Normally this list is filled with one Import Template Type by default, ITEM. If this is not the case, choose the action **Get Default Data**, to add the Import Template Type with corresponding CSV and Excel Templates.*

***Remark**, when the application was already installed, the line ITEM Needs to be deleted, with underlying templates deleted first, in order for the **Get Default functionality** to work.*

Choose the search icon, enter **Import Template Types**, and then choose the related link. The page can also be accessed starting from the **Import Table Setup** page and choosing for action **Import Template Types** in the Action bar.

On the page that opens the different types can be viewed and edited.

1. Code

The Code used to identify the Template Type.

2. Description

The description of the Import Template Type.

3. Type

The Type of the Import Template Type. *Must be set to **Import Items & Prices**.*

4. Use action **Fields** to open the page that contains the **Import Template Fields**. These are the fields that are supported for the current Import Template Type. These fields can be used to create Field Mappings on Import Templates.

a. Field Name

The user-friendly field name, used to create field mappings on Import templates.

b. Table No.

Specifies the table number that contains the field.

c. Table Caption

The Caption of the table that contains the field.

d. Table Mapping Type

Use **-Blank-** for fields that are from the parent table. In case the specified field is a custom created field in the table, or a field from a related table, use **Custom**. The other options are: **Item Reference Barcode**, **Item Reference Vendor**, **Purchase Price Worksheet Line**, and **Item Comment**.

e. When the Default Setup needs to be loaded in the Import Template Fields for the current Import Template Type, use the action **Get Default Setup**.

f. In order to add multiple fields for the current Table No. use the action **Add Fields**.

g. It is also possible to define keywords for the selected Fieldname. Select the Field name to which the keyword(s) need(s) to be added and choose action **Keywords**.

5. Use action **Keywords** to open the page that contains the **Import Template Keywords**. These are the keywords that are set up for the current Import Template. These keywords will be used for header row detection and recognition. Whenever a Keyword is found in the imported data, the Field Name will be used to propose the Field Mapping and identify the imported row as a header row.
 - a. **Keyword**
The Keyword that should be identified.
 - b. **Field Name**
The Field Name that should be proposed.
6. Use action **Filename Patterns** to open the page that contains the **Import Template Filename Patterns**. This is the pattern that is used to identify the correct import template.
 - a. **Type**
How should the filename be checked. There are two options:
 - i. **Contains**: use this type to check the filename on any occurrence of the specified Value.
 - ii. **Regular Expression – Match**: use this type to use more complex expressions
 - b. **Value**
The value or regular expression that needs to be found in the filename.
 - c. **Import Template Code**
The Import Template Code that will be used to import this identified file.
Example given: Type: Contains; Value: Secu; Import Template Code: SECUPRODUCTS. This rule will identify an Import Template when the filename contains Secu, and will then use the SECUPRODUCTS Import Template Code.

3.2 Import Template Setup

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

1. **Default Decimal Formatting**
Specifies the transformation rule that will be used to format decimals based on the Data Formatting Culture.
2. **Automatically add new Keywords**
Indicates if new keywords are automatically added to the library whenever new field mappings are created.
3. **Delete applied rows**
If active, when imported data has been successfully applied to the database records, the imported data will be deleted from the **Import Template** page.
4. **Job Queue Category Code**
Specifies the code for the category of the job queue that has to be associated with the background processing of imported documents.
5. **Notify On Success**
Indicates if a notification has to be send when the background processing is successfully completed.

6. Purchase Starting Date Formula

The date formula that is used to calculate the starting date of the purchase prices.

7. Purchase Ending Date Formula

The date formula that is used to calculate the ending date of the purchase prices.

3.3 Table Mappings

Table mappings are used to define the relationship between tables. If a navigation from a parent table (e.g. *Item*) to a related table (e.g. *Item Attribute*) is needed, a table mapping should be created.

This is also useful when configuring new fields for custom tables.

By default, table mappings will be defined after installing the application, and everything for the table mappings is automated, but in case more advanced mappings are needed, this can be modified and Table Mappings can be added.

Example given:

An item comment is information that is related to an item. In the Item Import, it is necessary to indicate how the imported comments in the file are related to the Items that are imported. This can be done by mapping the comments in the file, to the related table Comment Line.

In this table, some information needs to be specified, in order for Business Central to know to which item the comment is related. This is done by specifying the item No for the comment line and the table name.

To map the item comments, following information needs to be inputted in Table Mappings:

Code	From Table No.	From Table Caption	To Table No.	To Table Caption
Item Remark	27	Item	97	Comment Line

We want to map following information:

1. in the field **No.** in the Comment Line table, we want to add the No. of the item.
2. In the field **Table Name** in the Comment Line table, we want to add value "Item".
3. In the field **Code** in the Comment Line table, we want to add value "IMPORT", in order to make it clear that this comment originated from an imported file.

Steps:

Step No.	From Table No.	From Table Caption	From Field No.	From Field Caption	To Table No.	To Table Caption	Type	To Field No.	To Field Caption	Value
1	27	Item	1	No.	97	Comment Line	Field	2	No.	
1					97	Comment Line	Constant	1	Table Name	Item
1					97	Comment Line	Constant	5	Code	IMPORT

Choose the search icon, enter **Table Mappings**, and then choose the related link. The page can also be accessed starting from the **Import Template Setup** page and choosing for action **Table Mapping** in the Action bar.

On the page that opens, fill in the information to map the different tables.

1. Code

The code used to identify the table mapping.

2. From Table No.

The table that contains the field that needs to be mapped.

3. From Table Caption

The Caption of the From Table.

4. To Table No.

Specifies the table that has the information that needs to be mapped in the field in the From Table.

5. To Table Caption

The Caption of the To Table.

6. In the Steps section, the priority of how the mapping should be performed is inserted.

a. Step No.

The number of the step that needs to be performed.

b. From Table No.

Shows the table from which the information will be taken.

c. From Table Caption

The Caption of the From Table.

d. From Field No.

Shows the field from which the information needs to be taken.

e. From Field Caption

The Caption of the Field from the From Table.

f. To Table No.

The table number of the table that receives the information.

g. To Table Caption

The Caption of the To Table.

h. Type

Specifies the type of field that will be mapped. This can be Field or Constant.

i. To Field No.

Shows the destination field.

j. To Field Caption

The destination field name.

k. Value

In case type Constant is used, a value can be set that needs to be inserted in the To field.

3.4 Import Templates

When a new file is imported for the first time, a new Import Template needs to be created. This Import Template will then be used for all subsequent file imports for this vendor.

3.4.1.1 Configure a new Import Template

An Import Template is generally configured ad hoc, while importing the file, using actual data from the imported file.

*Some settings need to be configured on the **Import Template Card** before this configuration can be done.*

1. Choose the search icon, enter **Import Templates**, and then choose the related link.
2. Choose the **New** action.
3. Fill in the necessary fields.

General

- a. **Code**
The code to identify the Import Template.
- b. **Description**
The description of the Import Template.
- c. **Type Code**
The template type. The Template inherits the Template Fields that can be used when creating Field Mappings from the selected Import Template Type.
- d. **File Type**
The file type that needs to be imported. The two options are **Excel** and **CSV**.
- e. **Vendor No.**
The number of the vendor to which the template is linked.
- f. **Vendor Name**
The name of the selected vendor.
- g. **Item Template**
The Item Template or Configuration Template to pre-fill common details when creating new items.
- h. **Import with Job Queue**
Specifies if you use job queues to import and validate documents in the backgrounds.
- i. **Enabled**
When disabled, the import template cannot be used.

Item & Prices

- j. **Purchase Starting Date Formula**
The date formula used to calculate the starting date for the purchase prices.
- k. **Purchase Ending Date Formula**
The date formula used to calculate the ending date for the purchase prices.

Formatting

I. Decimal Formatting

Specifies the transformation rule that will be used to format decimals on the Date Formatting Culture.

m. Date Formatting

Specifies a transformation rule that will be used to format dates based on the Data Format.

Advanced

n. Worksheet Action

Specifies how to manage Excel files with multiple worksheets.

o. Multiple Header Rows

Specifies if the Excel worksheets contain a single header row or multiple rows with header information.

p. Multi Level Detail Row

Specifies if data describing a record is spread across multiple detail rows, e.g. *one row with basic information and another row with supplementary data.*

4. Once the (required) fields are filled in, a template can be imported in order to start the mapping. Choose the action **Import File...**, found in the Action bar under **Home**.
Remark: When importing Excel files with multiple worksheets, one document per worksheet will be created. This enables the user to process data by worksheet.
5. Select the file that has been received from the vendor.
6. After the successful import of the chosen file, a page opens where the mapping can be configured.
 - a. **Worksheet Name**
Specifies the Worksheet Name of the current document.
 - b. **Type Filter**
Filter rows based on their type. These types are assigned automatically when importing the template or can be assigned by using the corresponding **Mark Action**.
The options are
 - i. All (*Default*),
 - ii. Header/Group,
 - iii. Detail,
 - iv. Unassigned, and
 - v. Skip.
 - c. **Action filter**
Filter rows based on their action. This action will be shown when choosing the **Preview Apply** option after configuring the rows of the template.
The options are:
 - i. All (*Default*),
 - ii. Create,
 - iii. Update, and
 - iv. Skip.
 - d. **Error Rows**
Show the number of rows with errors in the current document. When clicking on the value in this field, the list will open and show the errors. This way they can be corrected.

- e. **Unassigned Rows**
Show the number of unassigned rows in the current document. When clicking on the value in this field, the list will open, filtered on the unassigned rows.
 - f. **Skipped Rows**
Show the number of skipped rows in the current document. When clicking on the value in this field, the list will open, filtered on the skipped rows.
 - g. **Show all columns**
Show all columns or only the columns with field mappings.
7. To Configure the template, it is necessary to mark the rows of the imported templates and to map the values in order to process the information in the template. There are a few actions that need to be executed in order to configure this template. Choose action **Analyze** to perform a type recognition on unassigned rows based on keywords and suggest field mappings. After executing this action, complete the mappings and marking.
- a. First the rows need to be marked. This can be done through the **Mark** actions.
 - i. **Start**
Marks the current (selected) row number as **Start from Row No.** All previous rows will be skipped in future imports.
 - ii. **Header**
Marks the current (selected) row as a header row. This row will also be used to configure the mappings of the fields.
 - iii. **Detail**
Marks the current (selected) row(s) as detail. These rows contain the values that need to be read and processed.
 - iv. **Skip**
Marks the current (selected) row(s) as skip. These rows will be skipped when processing in Business Central.
 - v. **Undo Mark**
Resets the type of the selected row(s).
 - b. After marking the rows, the mapping of the fields and, if needed, the values, can be performed. This mapping can be configured through the **Mappings** actions.
 - c. Choose the action **Fields** to map the fields from the template to fields (supported by the used Import Template Type) in Business Central.
 - i. On the page that opens, enter the desired mappings. It is possible that there are suggested lines with mappings, because the header names were recognized by the system in some way. *This can always be modified.* Choose action **New** to insert a new mapping line.
 - **Type**
Specifies the type of the field mapping. The options that can be chosen are:
 - Header:** indicates that the column contains header information.
 - Constant:** apply a constant on all rows. *This constant can be inserted in the column **Default Value**.*
 - Group:** indicates that the column contains group information.
 - Calculated value:** create a custom calculated column using formulas.

- **Value**
Specifies the column name (for 'Header' and 'Group' mappings) or a descriptive name (for 'Calculated Value' mappings).
 - **Column(s)**
Specifies the column(s) containing the Value.
 - **Sample**
A sample value for this field.
 - **Field Name**
Specifies the field name that has to be used when applying the imported data in Business Central. A field from the Import Template Fields can be chosen.
 - **Default Value**
Insert a default value that will be applied when the imported value is blank for this field.
 - **Formula (Text)**
Specifies the formula for mappings of type **Calculated Value**.
 - **Level**
Indicates the level/ hierarchy for rows of type **Group** or **header**.
 - **Detail Row Marker**
Used to distinguish detail rows from group rows. If data is found in all of the columns identified with **Detail Row Marker**, the row will be marked as a detail row.
 - **Key Field**
Specifies if the field is a key field to find the corresponding main record to update.
Remark: it is not possible to mark a mapping line of type Constant, as a Key field.
 - **Rules**
The number of Import Template Field Rules that will be applied when mapping the field on the line current.
 - **Value Mappings**
Specifies the number of Value Mappings that will be applied when mapping the field on the current line.
 - **Disabled**
When disabled, the field mapping will not be used when validating or applying data.
This can be used to exclude certain mappings while testing and to improve performance.
- ii. It is also possible to let the system suggest field names, based on similar field mappings from other worksheets. To get these suggestions, choose action **Suggest**.
 - iii. If a new item attribute needs to be created for a line, this can be done using the action **Create Item Attribute(s)**.
 - iv. In case a selection of lines need to be disabled, select the lines and choose action **Disable**.
- d. It can be necessary to map a certain value from the import template to another value that is recognized in Business Central. Choose action **Values** to

map these unrecognized values. This can also be done when mapping the fields. *Example given: Value in template is PCS, this is not defined in Business Central, so this will have to be mapped to STUKS, which is defined in the system.*

8. When the configuration of the template is completed, it is best practice to either reimport the file, using the action **Import** (remark, if the file is a large file, this can take a while) or to choose actions **Analyze**, and then **Validate** in order to check if the mappings are correct and complete.
9. After using the **Analyze** and/or **Validate** action it will be visibly shown in the lines of the imported worksheet how the configuration of a certain line is set up. This is made visible by using a color code or icon that will be displayed in front of the line. This can function as a final check to see that the configuration has been set up correctly. By clicking on the icon, a legend can be found to see what each icon and color means.
10. If the configuration has been validated and there are no errors that need to be fixed, the data can be imported and processed.
11. Choose action **Preview Apply** to preview how applying the import data to the database will look like. This will fill in the column action in the opened import worksheet. This way it is possible to check if the desired action will be performed.
12. Choose action **Apply** to apply the import data to the database.

On the **Import Template Card** it is possible to export the current template definition in XML format, allowing to import the template definition in another environment. This can be done using the action **Export Template** that can be found in the Action bar under **Import/export**.

3.4.1.2 Preview Apply

When executing the **Preview Apply** functionality, it is possible that the shown result differs from the actual application of the data.

The action Preview Apply will not check results of preceding or following lines that need to be processed. The action acts on a line by line basis, and checks if the **current** line would result in a new item or the update of an existing item.

3.4.1.3 Apply the data

When choosing the **Apply** action, different options are available to apply the data.

1. **Items**
 - a. **Create Items**
Specifies if a new item may be created if no matching item was found.
 - b. **Item Template (New Items)**
The item Template that has to be used to create the new items.
2. **Purchase prices.** When there is a field mapping in the Import Template that is set to a field name that has Table Mapping Type **Purchase Price Worksheet Line** This tab will be available.
 - a. **Purchase Price List Action**
Specifies how to process the purchase prices. The options are:

- i. **Create new Price List:** a new list will be created, using the Number series that has been set up for the price lists for the vendor that has been set in the Import Template Card.
 - ii. **Update Price List:** an existing price list needs to be selected in the field **Purchase Price List Code** that will be enabled after choosing this option. This price list will be updated. *Remark: in order to update the price list correctly, in the selected price list the option **Allow Updating Defaults** needs to be active.*
- b. **Starting Date**
Specifies the starting date for the purchase price in the purchase price list.
- c. **Ending Date**
Specifies the ending date for the purchase price in the purchase price list.
- d. **Currency Code**
The currency code that us used in the purchase price list line can be selected.
- e. **Delete existing worksheet lines**
Deletes all existing purchase price worksheet lines for the current vendor in the **Price Worksheet** before adding the new lines.
- f. **End existing Price Lines**
Specifies if the **Ending Date** of the existing price lines need to be adjusted to one day prior to the new starting date. *If no starting date is specified by the user, the workdate will be proposed as the new Starting Date.*
Enable this option if the imported prices fully replace all existing prices starting from the specified new Starting Date.
Disable if the imported prices are only valid for a limited period (*e.g. promotions*).
- g. **Open Price Worksheet**
When **enabled**, the Price Worksheet will be opened after the data is applied.

3.4.1.4 Process the applied data using the Price Worksheet

Once the data is applied, and there was a field mapping in the Import Template that is set to a field name that has Table Mapping Type **Purchase Price Worksheet Line**, the data has to be processed using the **Price Worksheet** page.

This page will automatically be opened when the option **Open Price Worksheet** was **enabled** when applying the data. *Remark: The page will only open when there were prices imported.*

The page can also be opened by choosing the search icon, entering **Import Templates**, and then choosing the related link.

1. Set the **Price Type** to **Purchase**, in case this page was opened using the search functionality and the type contains another value than purchase.
2. Review the lines and correct if needed. Once all lines contain the correct information, choose action **Implement Price Change** to update the existing price lines with the ones in the worksheet or add the new lines to the price list.

3.4.1.4.1 Processing of duplicate price worksheet lines

If a price worksheet line is found that is an exact match with the price list line that is attempted to be imported (*within the same price list code*), these price worksheet lines will

not be imported and created in the price worksheet (*and thus also not be imported and created in the price list code supplied for import*).

When there are price lines skipped, a message will be shown with the number of skipped lines.

3.4.1.5 Import Template Card

There are a few other actions that can be performed on the Import Template Card.

1. Template

a. Field Mappings

Shows the field mappings for the Import Template.

b. Value Mappings

Shows the value mappings for the Import Template.

c. Worksheets

Shows the Import Template Worksheets that have been configured for import/to exclude.

d. Filename Patterns

Shows the filename patterns that are used to identify the correct template.

e. Documents

Shows the imported documents with their corresponding Status and timestamp when the import has been done.

f. Export Template

Export the current template definition in XML format, allowing to import the template definition in another environment.

Using the tiles in the Factbox Pane, the same information can be found as the actions mentioned above.

3.4.1.5.1 Filename Patterns

When navigating to the **Filename Patterns** for a selected Import Template by either choosing the action **Filename Patterns** or choosing the tile shown in the Factbox in the Factbox Pane, a list of patterns is shown (if there are patterns set up) that are used to automatically identify and assign the correct import template based on the Filename of the imported document.

Following information can be specified and is visible.

1. Type

The type of check needs to be indicated on the Filename of the imported file to determine the Import template that needs to be assigned.

The options are:

a. Contains

Used to check the filename on any occurrence of the specified 'Value'.

b. Regular Expression – Match

Used for more complex expressions.

2. Value

Specifies the value or regular expression that is used to check the Filename.

3. Vendor No.

Specifies the number of the vendor that will be applied to the template.

Remark: if this field is filled in, it overwrites the Vendor No. set in the Import Template Card.

4. Vendor Name

Specifies the Name of the Vendor.

Remark: if this field is filled in, it overwrites the Vendor No. set in the Import Template Card.

5. Configuration Template

Specifies the Item or Configuration Template to pre-fill common details when creating new records.

Remark: when a file is imported and the Vendor is not specified on both the Import Template Card and the Filename Patterns, a prompt will appear to select a vendor from the vendor list that will be applied.

When the import is started from the Vendor list/card, the import will change the Vendor to the currently selected vendor on the Card.

4 Advanced features

4.1 Value Mappings

Import Template Value Mappings are designed to convert imported values for fields to New Values that are used and known in Business Central.

Remark: during the validation process, values that are unknown or invalid in Business Central will result in errors. Example given: "Unknown Unit of Measure: piece. Please update the value mappings for Base Unit of Measure."

The application will try to propose a mapping for commonly used tables in Business Central (e.g. Unit of Measure, Item Category, ...). These propositions are based on the Code, description or translations of the value of the field that needs to be mapped. When a potential match is found, a new value mapping will automatically be created in the **Import Template Value Mappings** page. This new value mapping needs to be reviewed and approved by the user.

1. Choose the search icon, enter **Import templates**, and then choose the related link.
2. Select the Import template for which the Value mappings need to be set up and choose the action **Value Mappings** which can be found via the **Template** action in the actions bar.
3. The page **Import Template Value Mappings** opens with following fields.
 - a. **Field Name**
Specifies the field name for which the value needs to be mapped.
 - b. **Value**
Specifies the imported value for that field.
 - c. **New Value**
Specifies the new value that needs to be used instead of the imported value to fill in the Business Central field.
 - d. **Approved**
Specifies if the Value Mapping will be used when validating data. Only approved value mappings will be used. Non-approved mappings will be ignored.

4.1.1.1 Examples

Below are some examples for field names that often need to be mapped.

Field Name	Value	New Value
Base Unit of Measure	PIECE	PCS
Base Unit of Measure	1000	BOTTLE 1L
Item Category	OTHER	MISC
Color (Attribute)	Noir	Black
Country/Region of Origin Code	China	CN
Country/Region of Origin Code	United States	US
Unit Price	CALL	0
Unit Price	FREE	0
Unit Price	**	0
Unit Price	ON REQUEST	0
Blocked	EXPIRED	True

4.2 Group Mappings

The application supports the import of excel files that contain group rows and other rows with item and price information. The structure of the header of the rows can differ.

Group Mappings can only be used when there are field mapping lines defined of **Type Group**. Once the file is imported with the defined field mappings **Group**, the lines will be indicated as Group lines, and they can be marked as a Group and they can be assigned to the correct group level.

See the Examples Advanced Item and Price import, section **Multiple Groups** how this needs to be set up.

4.3 Calculated Values

It is possible to set up a field mapping with **Type Calculated Value**. Using the **Formula** column, it is possible to specify how the field should be filled in, using what information.

Remark: it is possible to define up to 10 calculated value columns, copying data from other field mappings.

4.3.1 Formula column

1. Choose the search icon, enter **Import templates**, and then choose the related link.
2. Select the Import template for which the Value mappings need to be set up and choose the action **Field Mappings** which can be found via the **Template** action in the actions bar.
3. The page **Field Mappings** opens.
4. Add a field mapping line with type **Calculated Value**.
5. Select the value in the **Formula (Text)** column.
6. The **Field Mapping Formula** opens with following fields:
 - a. **Formula**
Specifies the formula containing up to 9 placeholders (marked with %X). Following operands are supported for mathematical calculations: +-/.*^.
 - b. **Formula (Text)**
Displays the chosen placeholders in the Formula field by name
 - c. **Sample**
Displays a sample of the outcome for the field using the Formula.
 - d. **Placeholders**
 - i. **Placeholder**
Specifies the placeholder number that can be used in the formula to fill in the field.
 - ii. **Placeholder Line No.**
Specifies the Line number of the referenced Field Mapping. It is possible to select a Field Mapping in this column and the system will automatically map this selected field to the Line number.
 - iii. **Value**
Displays the Value of the selected Field Mapping.
 - iv. **Sample**
Displays a sample value for the selected Field Mapping.
 - v. **Prefix**
Specifies an optional prefix that will be added before the Value of the Field Mapping in the Calculated Value.
 - vi. **Suffix**
Specifies an optional suffix that will be added before the Value of the Field Mapping in the Calculated Value.

4.3.2 Examples of calculated values

4.3.2.1 Create a new concatenated value

In case multiple imported values from different columns need to be mapped to one Business Central field an additional field mapping (column) needs to be added with type **Calculated Value**.

This field makes it possible to concatenate the data from other field mappings, and make it available to map to another field name.

In this scenario, there are 3 groups with different values in column 1 which have been mapped to various item attributes (Field Name).

To create a concatenated value, create a new field mapping of type **Calculated Value**.

Type ↑	Value	Column	Sample	Field Name	Default Value	Formula (Text)	Level ↑
Header	ARGENTINA	1				-	1
Header	#	2				-	1
Header	BTW in	3		Direct Unit Cost (Price Worksh...		-	1
Header	BTW ex	4				-	1
Header	CHILI	1	Viu Manent			-	1
Group	Country	1	CHILI	Country (Attribute)		-	1
Group	Winery	1	Montgras	Winery (Attribute)		-	2
Group	Range	1	Varietal Range	Range (Attribute)		-	3
→	Calculated ...		CHILI Montgras Varieta...	Description		Country - Winery - Range	1

Using the **Formula (Text)** field, the content of other field mappings can be copied as data for the new field mapping.

Placeholder 1	Placeholder Line No.	Value	Sample	Prefix	Suffix
→	1	Country	CHILI		
	2	Winery	Montgras	-	
	3	Range	Varietal Range	-	

4.3.2.2 Map one column to two field names

In this scenario, we have a value in column 3 which has been mapped to the item's **Description** (Field Name).

To map the same value to another field, e.g. the item's translations **Description NLB (Translations)**, create a new field mapping of type **Calculated Value**.

Type	Value	Column...	Sample	Field Name	Default Value	Formula (Text)	Level
Header	Omschrijving Accessoires	3	Sok Hydro-Dry® THERM...	Description		-	1
Calculated Value			Sok Hydro-Dry® THERM...	Description NLB (Translation)		Omschrijving Accessoires	1

Using the **Formula (Text)** field, it is possible to copy the content of column 3 as data for the new field mapping.

Placeholder 1	Placeholder Line No.	Value	Sample	Prefix	Suffix
1	3	Omschrijving Accessoires	Sok Hydro-Dry® THERMO maat 35-38		

4.3.2.3 Mathematical calculations

In case multiple (decimal) values needs used to perform a calculation, it is possible to use the $+ - / * ^$ operands in the Formula field. (incl. support for parentheses)

Placeholder 1	Placeholder Line No.	Value	Sample	Prefix
1	8	Eenheid/Ktn-Unit/box-Unité-Ctn	6	
2	9	Ktn/Pal-Box/Pal-Ctn-Pal	256	

Instead of returning the text $6 * 256$, the expression will be evaluated and return 1536 as result.

4.4 Validation Rules

It is possible to configure validation rules, to make sure that imported values for certain fields are conform certain requirements, *e.g. the field value may not be empty, the field value should be 12 digits, etc.*

4.4.1 Setup the possible Validation Rules

1. Choose the search icon, enter **Validation Rules**, and then choose the related link.
2. Add lines for the possible Validation Rules that can be used when importing data.
3. Specify the information on the lines.

a. Code

Specifies the code of the validation rule.

b. Description

Specifies the description of the validation rule.

c. Condition

Specifies the condition used to validate the value.

The options are:

- i.** Must not be empty,
- ii.** Must be empty,
- iii.** Equals,
- iv.** Does not equal,
- v.** Is greater than,
- vi.** Is greater than or equal to,
- vii.** Is less than,
- viii.** Is less than or equal to,
- ix.** Begins with,
- x.** Does not begin with,
- xi.** Ends with,
- xii.** Does not end with,
- xiii.** Contains,
- xiv.** Does not contain, and
- xv.** Regex match.

d. Value

Specifies the value to compare the imported values with. This is based on the selected condition.

4.4.2 Configure the rules for the fields

1. Choose the search icon, enter **Import templates**, and then choose the related link.
2. Select the Import template for which the Value mappings need to be set up and choose the action **Field Mappings** which can be found via the **Template** action in the actions bar.
3. The page **Field Mappings** opens.
4. Navigate to the column **Validation Rules**, for the field that needs to apply to a certain rule. Select the value in the column.

5. Choose the action **New** to add a new Validation Rule line.
6. Following fields and actions are possible on the page.
 - a. **Validation rule**
Specifies the rule to validate the imported value.
 - b. **Move Up**
Move the current selected Transformation Rule 1 row up in order to evaluate this rule earlier.
 - c. **Move Down**
Move the current selected Transformation Rule 1 row down in order to evaluate this rule later.

When the Validation rules are defined in the Field Mappings, when the data is imported or the action **Validate** is used, the Validation rules will be applied on the data. When the validation of the value in the field is not conform the set validation rule(s), the Document Errors list will contain the validation rules that were not ok.

When the data is adapted to be conform the set up Validation Rules, the Error will disappear after the validation, and the icon will show that the imported row is OK.

4.5 Transformation Rules

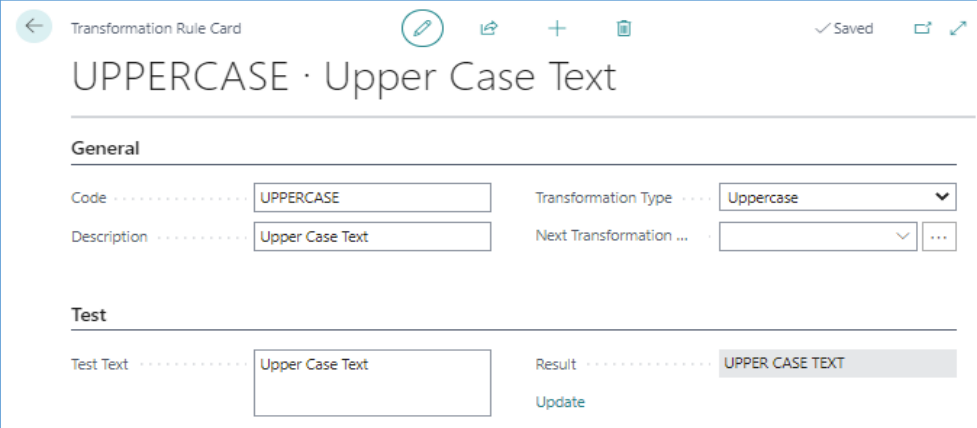
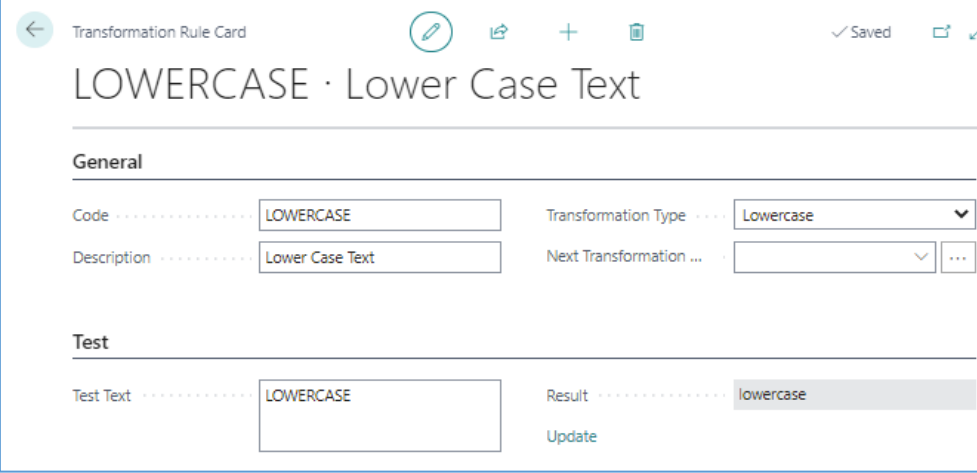
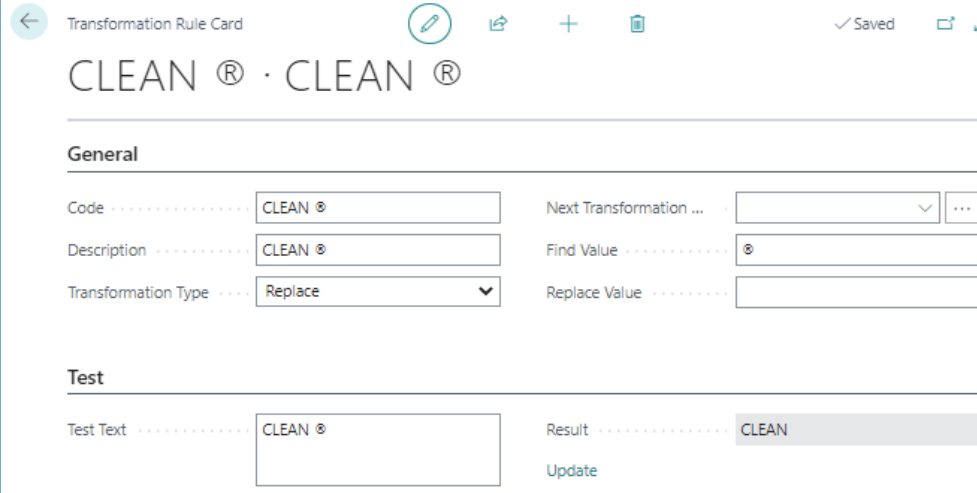
Transformation rules can be used to transform imported text to a required format. These rules are applied during the validation process, respecting the rule's **sequence**. Several predefined rules are provided, but it also impossible to create custom rules.

1. Choose the search icon, enter **Import templates**, and then choose the related link.
2. Select the Import template for which the Value mappings need to be set up and choose the action **Field Mappings** which can be found via the **Template** action in the actions bar.
3. The page **Field Mappings** opens.
4. On the Field Mapping on which the transformation rules need to be set up, navigate to the column **Rules** and select the value in the column.
5. The page **Import Template Field Rules** opens in which the rules van be set up in the sequence that they need to be executed in.
6. Following fields and actions are possible on the page.
 - a. **Transformation Rule**
Specifies the rule that is used to transform the imported value to a value and format that is supported in Business Central in order to map the field.
 - b. **Move Up**
Move the current selected Transformation Rule 1 row up in order to evaluate this rule earlier.
 - c. **Move Down**
Move the current selected Transformation Rule 1 row down in order to evaluate this rule later.

Remark: *transformation rules on a calculated column will only be applied if the calculated column is mapped to a field. It is always run after the calculated value is created. This means that the value will be transformed only when Imported in the field (using action **Import**).*

4.5.1 Examples

The following table describes some types of transformations that can be performed.

Type	Definition	Example
Uppercase	Capitalize all letters.	
Lowercase	Make all letters lowercase.	
Replace	Find a value and replace it with another. This is useful for replacing simple values, such as a particular word or character.	

Type **Definition**

Regular Expression - Replace Use a regular expression as part of a find and replace operation. This is useful for replacing multiple, or perhaps more complex, values.

Example

Transformation Rule Card

DOUBLE SPACES

General

Code DOUBLE SPACES Next Transformation ... [] []

Description [] Find Value \s+

Transformation Type Regular Expression - Replace Replace Value []

Test

Test Text My description Result My description

Update

This is useful to format values using regular expressions. ([0-9]{2})([0-9]{2})([0-9]{2})([0-9]{2})\$1 \$2 \$3 \$4

Transformation Rule Card

REGEX 99 99 99 99 · Regex 99 99 99 99

General

Code REGEX 99 99 99 99 Next Transformation ... [] []

Description Regex 99 99 99 99 Find Value ([0-9]{2})([0-9]{2})([0-9]{2})([0-9]{2})

Transformation Type Regular Expression - Replace Replace Value \$1 \$2 \$3 \$4

Test

Test Text 99999999 Result 99 99 99 99

Update

Multiply Multiplies the value by a 'Factor'. This is useful to add a percentage.

Transformation Rule Card

ADD 5% · Add 5 Percent

General

Code ADD 5% Transformation Type Custom

Description Add 5 Percent Next Transformation ... [] []

Custom

Custom Type Multiply Factor 1,05

Test

Test Text 150,33 Result 157,8465

Update

Type	Definition	Example
------	------------	---------

Divide

Divides the value by a 'Factor'. This is useful to convert measures.

← Transformation Rule Card
✎ ⌂ + 🗑
✓ Saved

KG_TO_GR · Kilograms to grams

General

Code KG_TO_GR Transformation Type Custom

Description Kilograms to grams Next Transformation ...

Custom

Custom Type Multiply Factor 1.000

Test

Test Text 5,5 Result 5.500

Update

← Transformation Rule Card
✎ ⌂ + 🗑
✓ Saved

GR_TO_KG · Grams to kilograms

General

Code GR_TO_KG Transformation Type Custom

Description Grams to kilograms Next Transformation ...

Custom

Custom Type Divide Factor 1.000

Test

Test Text 1500 Result 1,5

Update

Type	Definition
Round	Rounds a value by the 'Rounding Method'. This is useful to adopt the BC rounding settings.

Example

Transformation Rule Card

ROUND · Rounding 2dec up

General

Code ROUND

Description Rounding 2dec up

Transformation Type Custom

Next Transformation ...

Custom

Custom Type Round

Rounding Method Co... .. 2DEC

Test

Test Text 150,13359

Result 150,14

Update

4.6 Item Attributes

Some small enhancements are implemented to make working with **Item Attributes** and mappings easier.

- When the Dynavision Advanced Item and Price Import app is installed, **Import Template Fields** will be automatically created for all (non-blocked) Item Attributes. This avoids the need of technical setup of Table Mappings and filters.
- On the **Item Attributes** list page, an action **Create Template Fields** is available, to create import template fields for newly created item attributes.
- **On the Field mapping page, select the line and choose action..**

4.7 Tips and tricks

4.7.1 Import Images

If an Excel file contains a column with a hyperlink (as text) to an image file, the image can be downloaded (*) and saved as the item's picture.

Artikelnummer	Artikelgroep	Omschrijving	Eenheid	EAN Eenheid	PICTURETYPE	Intrastat
31890058000	LI SCHEER	Adidas After Shave 50 ml x3 Victory League	TRIO	05012209911563	http://shop.../product/image/medium/31890058000_1.jpg	33071000
31983860000	LI DEO	Adidas Deo 150 ml x6 Cool Care	6-PACK	03607343508988	http://shop.../product/image/medium/31983860000_1.jpg	33072000
31712178000	LI DEO	Adidas Deo 150 ml x6 Get Ready!	6-PACK	03607349805845	http://shop.../product/image/medium/31712178000_1.jpg	33072000
31408370000	LI DOUCHE	Adidas Douche 300 ml x6 Adipower 3in1	6-PACK	03614225290534	http://shop.../product/image/medium/31408370000_1.jpg	34013000
31788265000	LI PARF	Adidas Eau de Toilette 100 ml x3 Get Ready for Him	TRIO	3607342733824	http://shop.../product/image/medium/31788265000_1.jpg	33030090
31700519000	LI PARF	Adidas Eau de Toilette 50 ml x3 Floral Dream Woman	TRIO	5012209658628	http://shop.../product/image/medium/31700519000_1.jpg	33030090

Simply add a field mapping for the Value in the Picture column and map this link to the Picture Field Name.

Import Template Code	Type ↑	Value	Colum...	Sample	Field Name ▼
→ DEHAEN	Header	PICTURETYPE	16	http://shop	Picture

This will result in the picture being added to the newly created items in Business Central.

Remark: the download process might slow down the Apply step.

The import of images depends on URLs supporting public direct download only. Some platforms require specific parameters in the request URL to construct a direct download link.

Supported image formats:

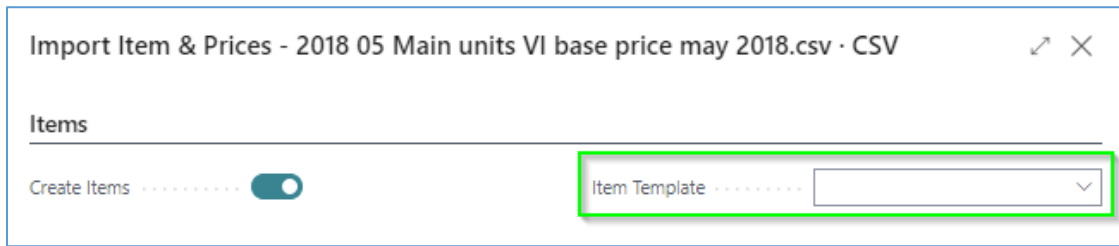
Jpeg, jpg, gif, bmp, **png(?)**.

- **OneDrive / SharePoint:** Just remove everything after the ? and put &download=1 to the end of link.
- **Dropbox:** Put ?dl=1 to the end of link.
- **Google Drive:** Put &export=download to the end of link.
- **Google Images:** Make sure the URL contains the direct image link, ending on the image extension (e.g. .jpg)

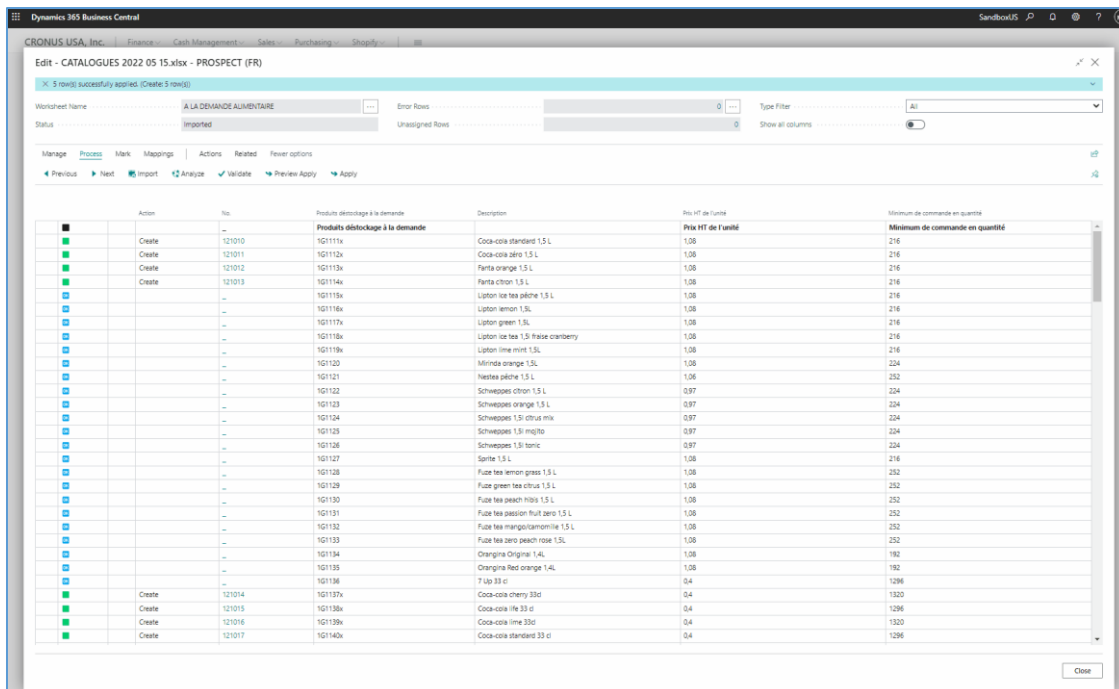
Remark: this functionality only adds an image if BC has access to the image link.

4.7.2 Multiple Item Templates

The default **Item Template** from the Import Template can be overruled when applying rows.



This is useful if when applying a selection of rows to create items using one Item Template and applying the remaining rows using another Item Template.



5 Excel files containing multiple prices

It is possible to process excel files containing different levels of prices and discounts, defined as separate columns. These different levels of prices and discounts will be imported as separate Price Worksheet Lines.

Example given for different levels of Purchase Prices:

Purchase Price 1 Minimum Quantity	Purchase Price 1 Direct Unit Cost	Purchase Price 1 Tariff Price	Purchase Price 2 Unit of Measure Code	Purchase Price 2 Minimum Quantity	Purchase Price 2 Direct Unit Cost
12	9,74 Ja		STUK	144	8,77
12	5,06 Ja		STUK	72	4,55
1	38,22 Ja		STUK	6	34,4

In the **Import Setup, Template Type**, using the action **Get Default Data**, new fields are available.

In the **Import Template Fields** page, a Table Mapping Group is visible, indicating how the fields need to be bundled. Lines with the same **Table Mapping Group** will be noted on the same Price Worksheet Line.

Field Name	Table No. ↑	Table Caption	Table Mapping Type ↑	Table Mapping Code	Table Mapping Group ↑	Field Name
Vendor Reference No. (Item Reference)	5777	Item Reference	Item Reference Vendor			
Barcode (Item Reference)	5777	Item Reference	Item Reference Barcode			
Direct Unit Cost (Purchase Price 1)	7022	Price Worksheet Line	Purchase Price		1	
Minimum Quantity (Purchase Price 1)	7022	Price Worksheet Line	Purchase Price		1	
Unit of Measure Code (Purchase Price 1)	7022	Price Worksheet Line	Purchase Price		1	
Direct Unit Cost (Purchase Price 2)	7022	Price Worksheet Line	Purchase Price		2	
Minimum Quantity (Purchase Price 2)	7022	Price Worksheet Line	Purchase Price		2	
Unit of Measure Code (Purchase Price 2)	7022	Price Worksheet Line	Purchase Price		2	
Line Discount % (Purchase Discount 1)	7022	Price Worksheet Line	Purchase Discount		1	
Minimum Quantity (Purchase Discount 1)	7022	Price Worksheet Line	Purchase Discount		1	
Unit of Measure Code (Purchase Discount 1)	7022	Price Worksheet Line	Purchase Discount		1	
Line Discount % (Purchase Discount 2)	7022	Price Worksheet Line	Purchase Discount		2	
Minimum Quantity (Purchase Discount 2)	7022	Price Worksheet Line	Purchase Discount		2	
Unit of Measure Code (Purchase Discount 2)	7022	Price Worksheet Line	Purchase Discount		2	

If a new Table Mapping Group number is detected while importing, a new line will be created with the info with the new Table Mapping Group number.

It is also possible to use the **Copy Group** functionality to copy a set of lines (fields) to set up extra columns in case the excel file contains an extra column set for price 3, discount 3 etc. The data will be imported as different Price Worksheet Lines, one for each price and one for discount.

After configuring the **Item Template Fields**, the fields need to be mapped with the Excel columns on the import template. The **Auto Suggest** will propose the template field names, based on the keywords and naming of the field and columns.

Header	Table Code	Unit of Measure Code	Value	Unit of Measure Code	Unit of Measure Code (Purchase ...)
Header	Purchase Price 1	Unit of Measure Code	34	M2	Unit of Measure Code (Purchase ...)
Header	Purchase Price 1	Minimum Quantity	35	0	Minimum Quantity (Purchase ...)
Header	Purchase Price 1	Direct Unit Cost	36	8.95	Direct Unit Cost (Purchase Pri...)
Header	Purchase Price 1	Tariff Price	37	Ja	
Header	Purchase Price 2	Unit of Measure Code	38		Unit of Measure Code (Purchase...)
Header	Purchase Price 2	Minimum Quantity	39	0	Minimum Quantity (Purchase ...)
Header	Purchase Price 2	Direct Unit Cost	40	0	Direct Unit Cost (Purchase Pri...)
Header	Purchase Price 2	Tariff Price	41	Nee	
Header	Purchase Line Discount 1	Unit of Measure Code	42	M2	Unit of Measure Code (Purchase...)
Header	Purchase Line Discount 1	Minimum Quantity	43	0	Minimum Quantity (Purchase ...)
Header	Purchase Line Discount 1	Line Discount % 1	44	34	Line Discount % (Purchase Dis...)

When using the **Apply** function, the settings page will contain an extra field in which a separate price list code for discounts needs to be chosen (apart from the selected Price list code for Price list).

If the Item Unit of Measure is not yet created for the imported sales Unit of Measure or Purchase Unit of Measure, it will be automatically created.

Remark: in case Value Mappings (conversions) are detected (e.g. import STUK > has to be STUKS in BC), the conversion needs to be performed once per column containing a Unit of Measure value.

6 Importing Multiple Units of Measures

It is possible to import multiple unit of measures, using the **Table Mapping Group** identifier, (similar to the import of multiple purchase prices).

In order to make mapping of the different Units of Measures more efficient, field mappings can be set up per table and per field. This makes it possible to set up the different conversions once for the field for the table, and in that manner solve a lot of mapping errors in one go.

All template fields have a **related table no.** (except for **Dimension Value** and **Item Attribute Value**) in order to maintain mappings per table instead of per field. The biggest benefit of this **Related Table No.** is that the mappings can be maintained once per table, instead of once per field, making mappings more efficient.

In case multiple fields reference the same target table, this will reduce the number of value mappings that need to be completed.

In column **Table Mapping Type**, the value **Item Unit of Measure** can be selected, in order to indicate that the information of these fields need to be added to this table.

More information about the setting up of the mappings can be found in the previous section [Excel files containing staffels of prices.](#)

*Remark: the **Invoicing Unit of Measure (Sales and Purchase)** is not yet supported form import. Disable this line in the field mappings in order to continue with the mapping of all other fields (in case the field is added in the excel that needs to be imported).*

7 Limitations

Although the Dynavision Advanced Item & Price Import app supports a wide variety of Excel formats, some structures are currently not supported:

- The scope is limited to the import of **Items** (and related tables) and **Purchase Prices**. Other entities such as **Catalog / Non-stock items** and **Sales Prices** are not supported.
- Group rows are limited to only **one group element per row / level**. (One row cannot contain multiple group data)
- Any Carriage Return Line Feed (**CRLF**) sequence is stripped from the imported cell values.
- Excel files with information for multiple parent records on a same row, spread across **multiple columns** (E.g. column 1-3 > Item A, column 4-6 > Item B)
- The staffel prices are only supported for price/discount, min. quantity and Unit of Measure Code. Other fields are not yet supported.
- Invoicing Unit of Measure in bulk import is not yet supported.
- When importing multiple Unit of Measures, when the same code is reused for e.g. PALLET with different qty per Unit of Measure and parameters, the last found information in the excel file will be inserted in the table.

*E.g. **UoM 1** PALLET; QTY UoM: 10;*

***UoM 2** PALLET; QTY per UoM: 4; APPLY*

the PALLET UoM with QTY per UoM 4 will be inserted.