



CSM FOR MAGENTO

This app supports both Magento 1.x and 2.x platforms

An App by Suite Engine

Microsoft Dynamics 365 Business Central

Listing Management Setup

Version: 3.0

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LISTING MANAGEMENT SETUP

CSM for Magento 3.0 (D365 Business Central Target Version Platform 19.0.32956.34593 + Application 19.2.32968.34821)

This document presents Listing Management setup information regarding the CSM for Magento Listing Management functionality for Dynamics 365 Business Central. Listing Management functionality is additional functionality to the CSM for Magento Order Management module.

This product supports both Magento 1.x and 2.x platforms.

Please ensure that the CSM for Magento app and its dependent apps are correctly installed in your Dynamics 365 Business Central instance before continuing.

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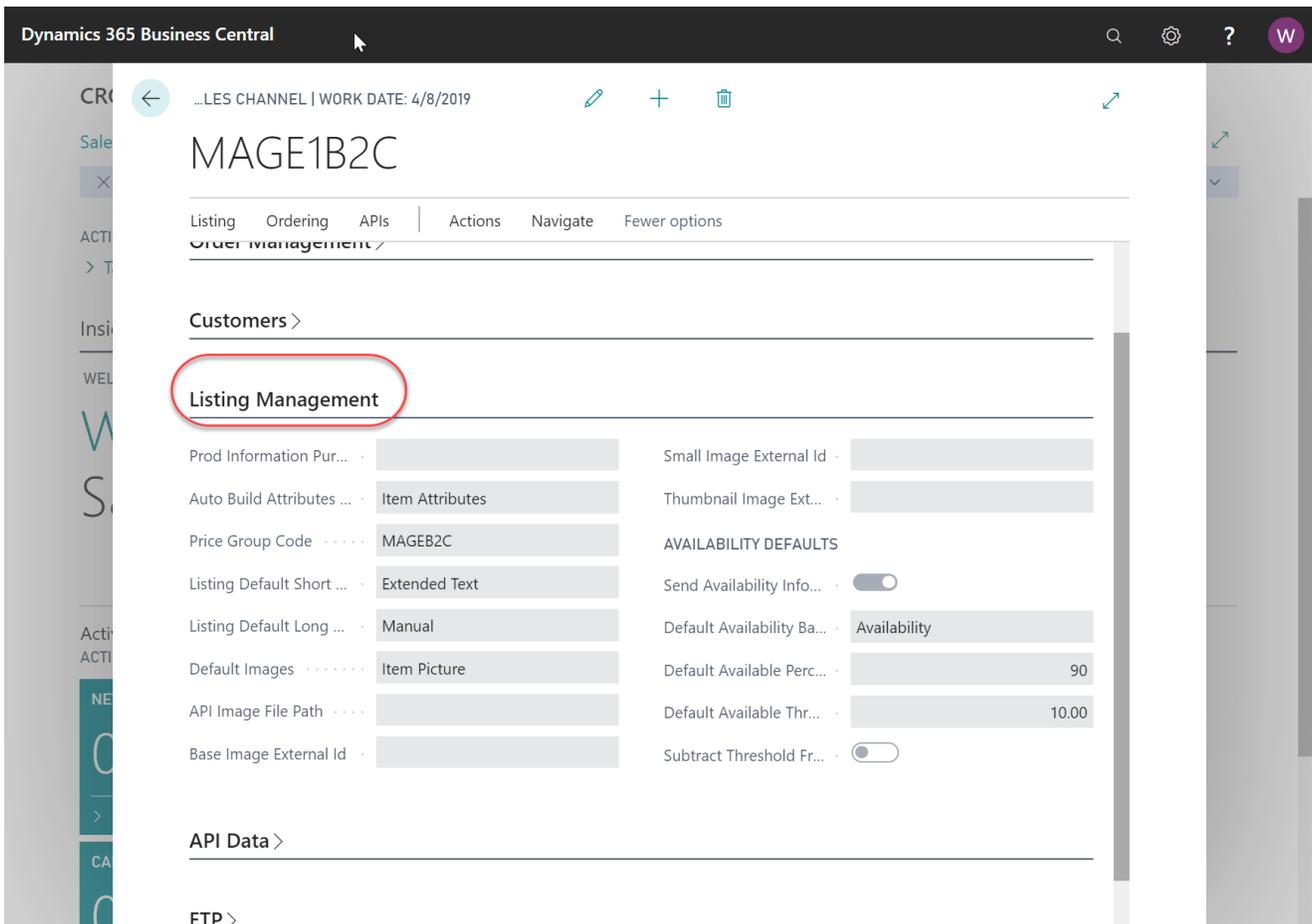
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CSM Setup

CSM for Magento Listing Management requires that you have already setup the CSM for Magento Order Management functionality. Please follow the setup instructions for CSM for Magento Order Management.

CSM Sales Channel

There is a Listing Management Fast tab on the Sales Channel Card. These fields are mostly defaults that CSM uses to build a Channel Listing from Business Central Item Data using the Create Listing Wizard.



Listing Management Fast Tab		
Field	Description	Example Value
Prod Information Purpose	This field is for future use, it will allow you to specify a purpose for product information you populate in CSM	
Auto Build Attributes from	When creating or syncing a listing, CSM can gather information from Business Central or other installed extensions if they are supported. <ul style="list-style-type: none"> Item Attributes: Channel Listing Attributes are populated from Business Central Item Attributes for the linked Business Central Item Manual: CSM will not build any attributes by default External: CSM should defer to other extensions that will build the Attributes. Here it is possible to have CSM bring in attributes defined by another extension such as LS Retail Attributes. 	Item Attributes
Enable New Attribute Design	Enabling this field will instruct CSM to store listing attribute information in separate tables. You should enable this field if you have not yet deployed CSM for Magento's listing management functionality and are doing so for the first time. If you have been working with CSM for Magento's listing management functionality in the past, please contact your Suite Engine partner before enabling this field, as there may be data migration activities to consider.	Yes/True
Use Shared Item Attributes	Enabling this field will instruct CSM to create common item attribute records that can be shared between CSM listings. This is to accommodate varying attribute structures across different eCommerce platforms. In the instance of Magento, attributes are shared. Accordingly, this field must be set to True when you are configuring a Magento sales channel.	Yes/True
Listing Default Short Description	CSM can populate the Short Description field on the listing that is sent to Magento based on existing Business Central data: <ul style="list-style-type: none"> Manual: CSM will not default the Short Description to any value, however the user can enter it directly on the CSM Listing Card. Extended Texts: CSM will default the Short Description to an Extended Text entry, with description Short Description, for the item being listed. Note that if the Extended Text exceeds 250 characters, CSM will truncate the value to the first 250 characters. Description 2: CSM will use Description 2 as the Short Description. LS Item HTML: If the LS Central extension from LS Retail is installed, CSM can link the LS Central Item HTML value for the item to the listing. 	Extended Texts
Listing Default Long Description	CSM can populate the Long Description sent to Magento based on a Long Description CSM Product Information record attached to the CSM Listing. This Product Information record can be something you create, or linked to Business Central data: <ul style="list-style-type: none"> Manual: CSM will not link the Long Description to any value, however the user can create a long description product information record (with HTML tags supported) as a CSM Product Information entry for the listing. Extended Texts: CSM will link the Long Description Product Information record to the Extended Text entry for the item being listed. Description 2: CSM will link the Long Description Product Information record to Description 2 of the Item being listed. LS Item HTML: If the LS Central extension from LS Retail is installed, CSM can link the LS Central Item HTML value to the Long Description product information record for the listing. 	Manual
Default Images	CSM can send product images to Magento. The Product Images sent to Magento are Image Type product information records on the listing. The following settings	Item Picture

	<p>are used when CSM listings are created to pre-populate the image product information records based on Business Central Data.</p> <ul style="list-style-type: none"> Manual: CSM will not create any image product information for the listing, however the user can upload images to product information records manually from the CSM Listing Card. Item Picture: CSM will create a single image product information record that is linked to the Business Central Item Picture. It is possible to manually create additional images for the listing that will be sent to Magento. Media Set: This option will create image product information records for each image found in the Image Media Set stored on the Business Central Item Record. External: CSM should defer to other extensions that may link Listing Product information records to Images they store. Here it is possible to have CSM link to images defined by another extension such as LS Retail Images. 	
<p>API Image File Path Base Image External ID Small Image External ID Thumbnail Image External ID</p>	<p>This field is not used by CSM for Magento, other channels that CSM can communicate with may use this information.</p>	

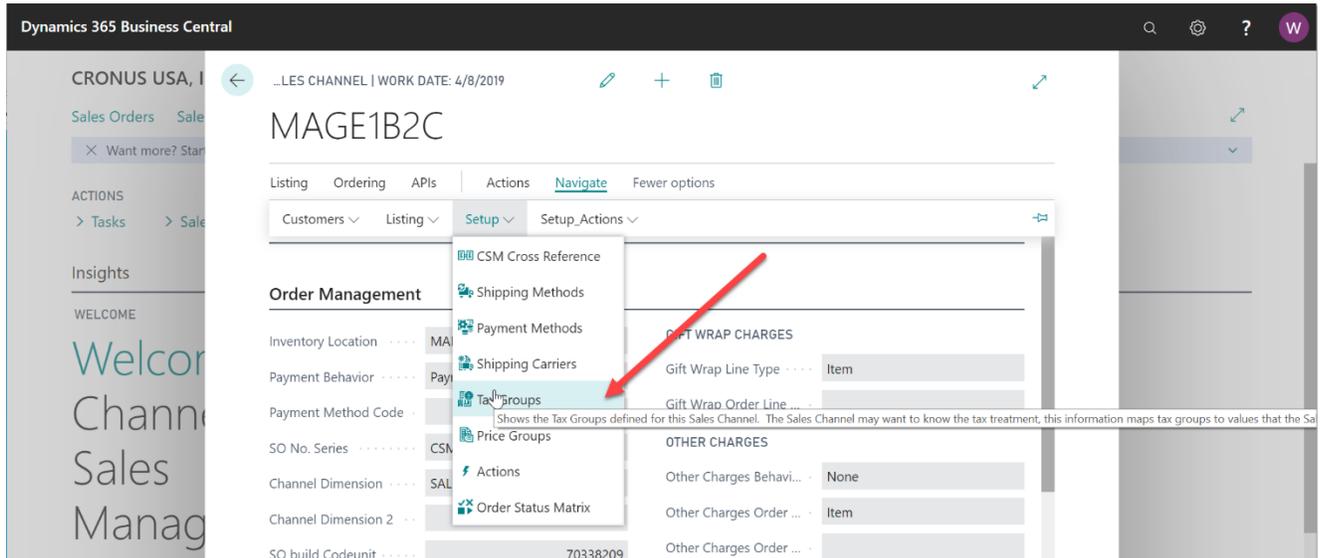
Listing Management Fast Tab (Availability Defaults)

Field	Description	Example Value
Send Availability Information	<p>Enable this field if you want to send item availability information from this platform’s associated listing records to Magento. The setting into this field acts as a default for newly-created listing records.</p>	Switched On (True)
Default Availability Basis	<p>The Business Central Inventory method to use when calculating availability. This is a default that every CSM Listing for this Sales Channel will be created with. You can however override this value for each individual Listing. All of the below methods use the location specified on the Sales Channel for the calculation.</p> <ul style="list-style-type: none"> Availability – (Item Availability) On hand, less what is due to ship on a sales order, + what can be received on a Purchase Order where the expected release date is today or less. Available Inventory – On hand minus what is on reserve for other demand Inventory – On hand inventory for the Location specified by this Sales Channel. 	Availability
Default Availability Percent	<p>Allows you to specify a percentage to reduce the above calculated availability basis by before sending the value to Magento. For Example, if the Availability Basis calculation was 100, and the Availability percent was 80%, then a value of 80 would be sent to Magento. This value will be used when creating the listing and can be changed for each listing.</p>	100
Default Availability Threshold	<p>A minimum inventory threshold that must exist before CSM will send a calculated value. If the actual inventory basis calculation was 9 and the threshold was set to 10, the CSM would send 0 to Magento for the availability of this listing. If the calculation was 11, then CSM would send 11 to Magento (except if the Subtract Threshold From Avail switch is On). A threshold value of 0 indicates that threshold adjustments should not be considered.</p>	0
Subtract Threshold from Avail	<p>A switch that indicates whether the threshold value should be subtracted from the calculated inventory availability before sending to Magento. For Example, if the Availability Basis yielded 100, and the Availability Percent was 80, and the Threshold value was 10, CSM would send a value of 70 to Magento for the Listing.</p>	Switched Off (false)

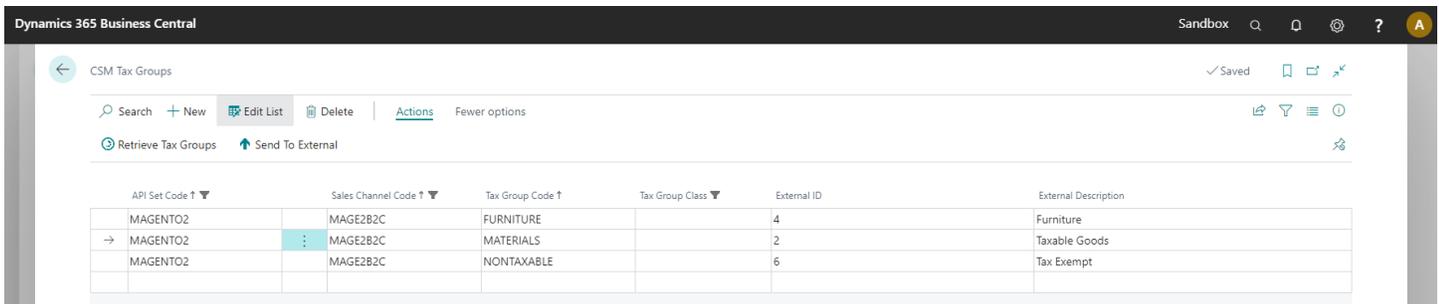
CSM Tax Groups

CSM needs to map Magento Product Tax Classes to BC Tax Groups for each Sales channel you have defined. This is used when setting up new products on Magento from Business Central Item information.

This Tax Group cross reference information can be located on the Navigation ribbon of the CSM Sales Channel Card.



Each Business Central Tax Group (that can be assigned to an Item that will be listed on Magento), should be added and linked to Magento. In the following example, we are linking 3 Business Central (BC) Tax Codes to their Magento counterparts, which are the Magento Ids of the Magento Tax Class.



API Set Code	Sales Channel Code	Tax Group Code	Tax Group Class	External ID	External Description
MAGENTO2	MAGE2B2C	FURNITURE		4	Furniture
MAGENTO2	MAGE2B2C	MATERIALS		2	Taxable Goods
MAGENTO2	MAGE2B2C	NONTAXABLE		6	Tax Exempt

Manually Entering the External ID

The Magento Tax Classification Id's can be found on Magento Admin Panel: Sales->Tax->Product Tax Classes page. You can find the ID of a Magento Product Tax Class by looking in the URL when viewing the Product Tax Class Information. In the following Magento screen displaying the Taxable Goods Product Tax Class, you can see that its ID is in the URL.

Note: although it is preferred to have each Business Central tax group cross reference to a unique Magento product tax class, it is possible for more than one Business Central tax group to point to the same Magento product tax class.

Retrieving Tax Groups from Magento

Instead of manually setting up tax group records, you can instruct CSM to retrieve tax class records from Magento and automatically create corresponding CSM tax group records. As part of this process, the external ID value for each CSM tax group is automatically populated, making this a quick and easy way to set up CSM tax groups.

1. Choose the  icon, enter **CSM Sales Channels**, and then choose the related link.
2. Open the CSM sales channel record for which you want to retrieve tax groups.
3. Choose the **Related** ribbon, then select the **Setup** menu and choose the **Tax Groups** action.
4. In the **CSM Tax Groups** window, choose the **Actions** ribbon, then choose the **Retrieve Tax Groups** action.

CSM retrieves tax class records from the sales channel's connected Magento store and creates new CSM tax group records for each one. The **Tax Group Code** field is the field that shows the Business Central tax group that is linked to the CSM tax group. The format of the text in will be red, bold, italic if the value could not be found as an existing Business Central tax group. The format will be normal if the tax group code matches a Business Central tax group code.

Sending Tax Groups to Magento

It is also possible to instruct CSM to send/update tax group records from Business Central to Magento:

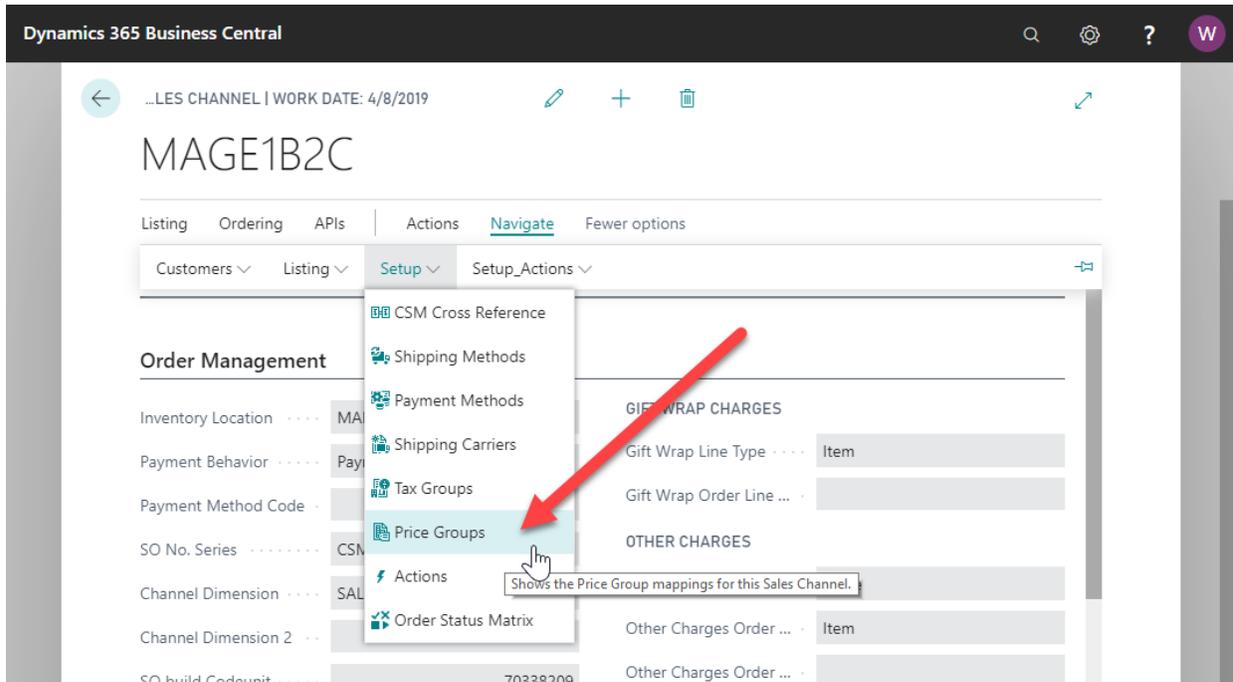
1. Choose the  icon, enter **CSM Sales Channels**, and then choose the related link.
2. Open the CSM sales channel record for which you want to send tax groups.
3. Choose the **Related** ribbon, then select the **Setup** menu and choose the **Tax Groups** action.
4. In the **CSM Tax Groups** window, choose the CSM tax group line that you want to send to Magento. This record must have an assigned Business Central tax group.
5. If necessary, enter the value that Magento will use to identify the tax group in the **External Description** field.
6. Choose the **Actions** ribbon, then choose the **Send to External** action.

CSM sends the selected tax group's information to the sales channel's connected Magento store. If the tax group did not previously exist as a record in Magento, it will be created and that Magento tax class's ID will be retrieved and assigned in the **External ID** field on the CSM tax group line. If the record already exists within Magento and an external ID is present, the Magento record will be updated with new data from the CSM tax group record (a new external description, for example).

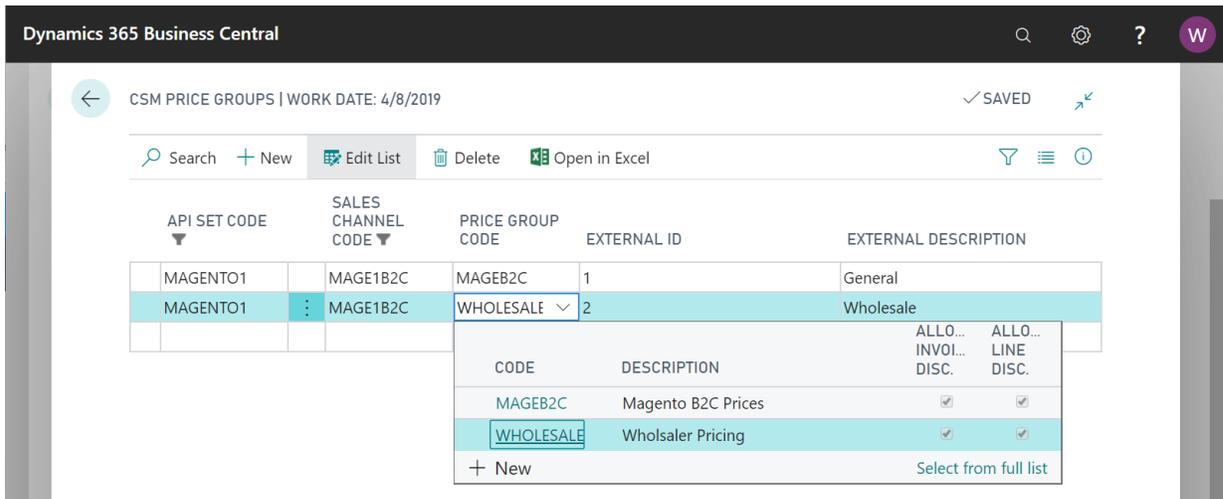
CSM Price Groups

CSM needs to map Magento Customer Groups to BC Price Groups for each Sales channel you have defined. This is used when sending customer based pricing to Magento.

This Price Group cross reference information can be located on the Navigation ribbon of the CSM Sales Channel Card.



Each Business Central Price Group, that represents a customer group on Magento, should be added and linked to Magento. In the following example, we are linking two Business Central Price Groups to their Magento counterparts, which are the Magento ID of the Customer Group.



The Magento Customer Group Id's can be found on Magento Admin Panel: Customers->Customer Groups page. You can find the ID of a Magento Customer Group in the first column of the list.

Customer Groups

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Add New Customer Group

Filters Default View Columns

4 records found

20 per page 1 of 1

ID	Group	Tax Class	Action
0	NOT LOGGED IN	Retail Customer	Edit
1	General	Retail Customer	Edit
2	Wholesale	Retail Customer	Select ▾
3	Retailer	Retail Customer	Select ▾

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Magento ver. 2.4.3-p1

Note: although it is preferred to have each Business Central price group cross-referenced to a unique Magento customer group, it is possible for more than one Business Central price group to point to the same Magento customer group.

Retrieving Price Groups from Magento

Instead of manually setting up price group records, you can instruct CSM to retrieve customer group records from Magento and automatically create corresponding CSM price group records. As part of this process, the external ID value for each CSM price group is automatically populated, making this a quick and easy way to set up CSM price groups.

1. Choose the  icon, enter **CSM Sales Channels**, and then choose the related link.
2. Open the CSM sales channel record for which you want to retrieve price groups.
3. Choose the **Related** ribbon, then select the **Setup** menu and choose the **Price Groups** action.
4. In the **CSM Price Groups** window, choose the **Actions** ribbon, then choose the **Retrieve Price Groups** action.

CSM retrieves customer group records from the sales channel's connected Magento store and creates new CSM price group records for each one.

Sending Price Groups to Magento

It is also possible to instruct CSM to send/update price group records from Business Central to Magento:

1. Choose the  icon, enter **CSM Sales Channels**, and then choose the related link.
2. Open the CSM sales channel record for which you want to send price groups.
3. Choose the **Related** ribbon, then select the **Setup** menu and choose the **Price Groups** action.
4. In the **CSM Price Groups** window, choose the CSM price group line that you want to send to Magento. This record must have an assigned Business Central customer price group. It also must have an assigned tax class ID (refer to CSM tax group records or your Magento tax classes to obtain valid IDs)

5. If necessary, enter the value that Magento will use to identify the price group in the **External Description** field.
6. Choose the **Actions** ribbon, then choose the **Send to External** action.

CSM sends the selected price group's information to the sales channel's connected Magento store. If the price group did not previously exist as a record in Magento, it will be created and that Magento customer group's ID will be retrieved and assigned in the **External ID** field on the CSM price group line. If the record already exists within Magento and an external ID is present, the Magento record will be updated with new data from the CSM price group record (a new external description, for example).

CSM Channel Categories

CSM allows you to define and map Business Central Item Categories to Magento Categories. CSM has the ability to analyze your Business Central Category structure, build the CSM data necessary, and then create your category structure on Magento. Conversely, if your Magento category structure already exists, you can manually link those Magento Categories to the CSM category data. In this section, we will walk through an example.

- A CSM Channel Category can relate to a Business Central Item Category. While not required, this relationship is beneficial since it will be used for default information when building a Channel Listing.
- The Sales Channel Category ties to the Magento Category via the External ID field.
- Parent Categories can also be defined. You can define the entire hierarchy of the Magento Categories in CSM. The Magento Store Root (default) category should be the only CSM Sales Channel Category that does not have a parent.
- CSM functions will create the Category on Magento, or update it if CSM is already linked to the Magento Category.
- If the Magento Category already exists, you can link it to CSM by entering its ID manually on the CSM Sales Channel Category.
- Once categories are mapped, when you list a Business Central Item on Magento, CSM can automatically place it in the primary category it should be part of on the Magento side.

In order to associate Magento categories to CSM channel categories, you will need the Magento ID for each category. You can obtain this information by opening the category record in Magento. The category's ID will be presented immediately after the category name. For example, in the screenshot below, the ID for the "Default Category" is 2:

Default Category (ID: 2)

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Scope: All Store Views ▾ ?

Save

Add Root Category

Add Subcategory

[Collapse All](#) | [Expand All](#)

- 📁 Default Category (ID: 2) (1181)
- └─ 📁 What's New (ID: 46) (0)
- └─ 📁 Women (ID: 28) (0)
- └─ 📁 Furniture (ID: 4) (4)
- └─ 📁 CLOTHING (ID: 5) (9)
- └─ 📁 Men (ID: 19) (0)
- └─ 📁 Grocery & Gourmet Foods (ID: 6) (3)
- └─ 📁 Gear (ID: 11) (46)
- └─ 📁 Training (ID: 17) (0)
- └─ 📁 Virtual (ID: 7) (4)
- └─ 📁 Sale (ID: 45) (0)
- └─ 📁 Collections (ID: 15) (13)
- └─ 📁 Promotions (ID: 37) (0)

Enable Category Yes
[store view]

Include in Menu Yes
[store view]

Category Name *
[store view]

Content



Display Settings



The presence of a top-level root category in Magento may impact the way in which your item categories are designing in Business Central. In the screenshot below, the “ALL” item category corresponds to the Magento root category and will be linked to this category accordingly.

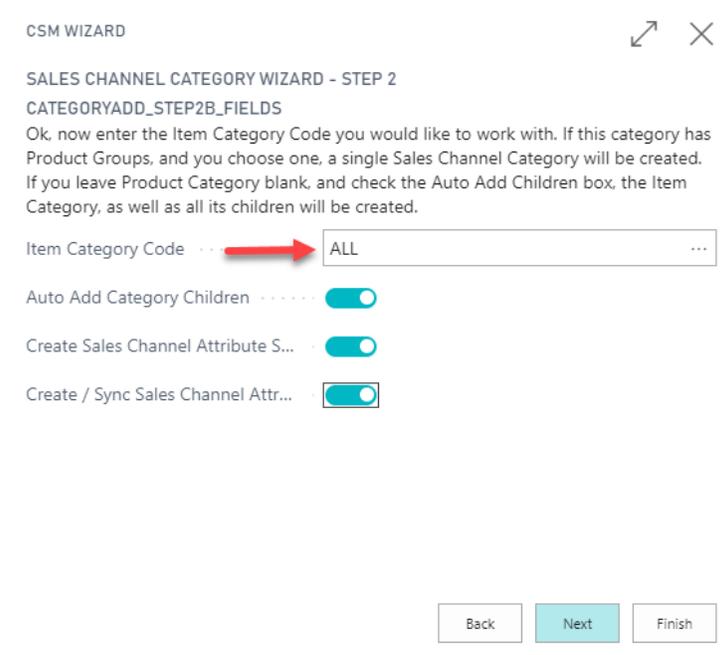
Item Categories		
🔍 Search ➕ New 📄 Edit List 🗑️ Delete ✎ Edit 👁️ View 🔄 Recalculate		
↕	Code	Description
→	⌵ ALL	Root Category
	⌵ KITCHDINE	Kitchen and Dining
	⌵ GOURMET	Gourmet Food
	ENERGYBAR	Energy Bars
	⌵ SERVICE	Table Service
	⌵ CUPMUGGLS	Cups, Mugs, and Glasses
	COFFEEMUG	Coffee Mugs
	PLACESET	Place Settings
	SERVING	Serving Items
	⌵ OTHERITEMS	Other Items
	⌵ PROMOTION	Promotional Items
	PERSONCARE	Personal Care Promotional Items
	⌵ FURNITURE	Office Furniture
	CHAIR	Office Chair
	DESK	Office Desk
	TABLE	Assorted Tables
	⌵ MISC	Miscellaneous
	SUPPLIERS	Office Supplies

While you can manually set up channel categories, CSM provides a wizard that streamlines this process. To create channel categories with the wizard, open the CSM sales channel record, then choose the **Create Category Wizard** action from the **Listing** ribbon.

The Wizard will then lead you through the process. For the Method on the First Wizard screen, change the value to Item Category. This will tell CSM that you want to build CSM Channel Categories from Business Central Item Categories. Press Next to go to the next step.

The 2nd page of the wizard gives you some choices as to how and what will be built. To have CSM build a structure, we need to tell it where to start, and that we want it to include the Children of that Category rather than just building a single. In our example, we want it to start with the ALL Item Category, and we also checked the box for it to automatically add any children of the ALL category. You may note that we already had some of the structure of the ALL category built. That is ok, and CSM will just bring in any new structure it finds.

Check the last two boxes for now, more explanation on those will be covered in the Attribute and Attribute Set sections.



CSM WIZARD

SALES CHANNEL CATEGORY WIZARD - STEP 2
CATEGORYADD_STEP2B_FIELDS

Ok, now enter the Item Category Code you would like to work with. If this category has Product Groups, and you choose one, a single Sales Channel Category will be created. If you leave Product Category blank, and check the Auto Add Children box, the Item Category, as well as all its children will be created.

Item Category Code

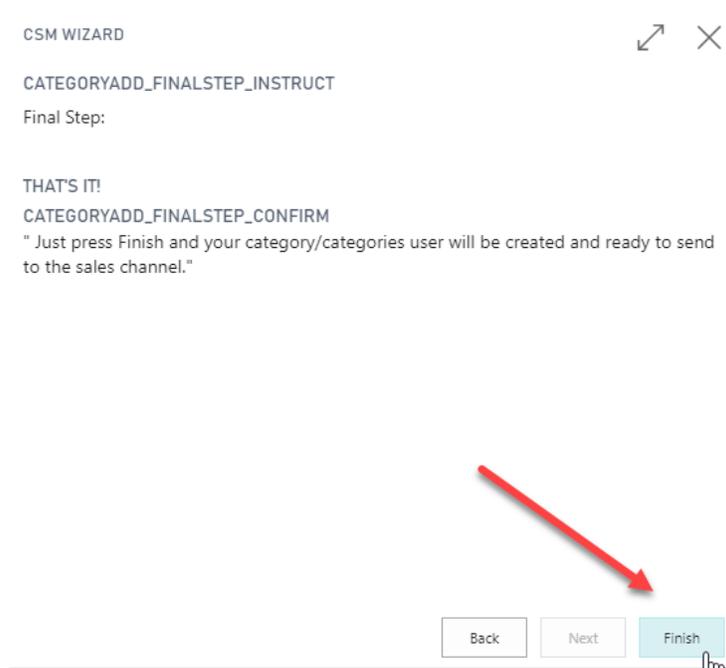
Auto Add Category Children

Create Sales Channel Attribute S...

Create / Sync Sales Channel Attr...

Back Next Finish

The 3rd and last page of the wizard, just tells us that we are ready to go. Press the finish button to have CSM bring in the new structure.



CSM WIZARD

CATEGORYADD_FINALSTEP_INSTRUCT

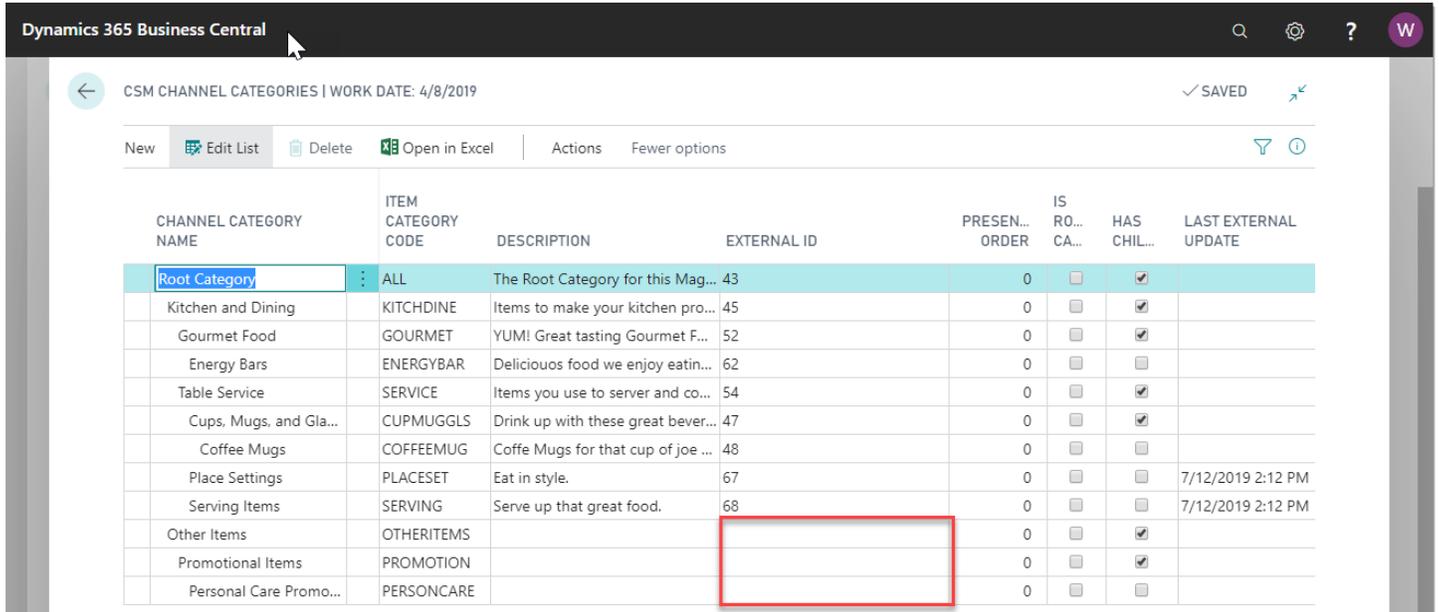
Final Step:

THAT'S IT!
CATEGORYADD_FINALSTEP_CONFIRM

" Just press Finish and your category/categories user will be created and ready to send to the sales channel."

Back Next Finish

Once it is complete, you should now see new categories in our list properly tied back to the BC Item Category. Notice that any newly-created channel categories do not have external ID's assigned. If these categories corresponding to existing Magento categories, you can manually enter them here. If these categories have not yet been set up in Magento, you can send them to the Magento platform.



CHANNEL CATEGORY NAME	ITEM CATEGORY CODE	DESCRIPTION	EXTERNAL ID	PRESENT ORDER	IS ROOT CATEGORY	HAS CHILDREN	LAST EXTERNAL UPDATE
Root Category	ALL	The Root Category for this Mag...	43	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Kitchen and Dining	KITCHDINE	Items to make your kitchen pro...	45	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Gourmet Food	GOURMET	YUM! Great tasting Gourmet F...	52	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Energy Bars	ENERGYBAR	Delicious food we enjoy eatin...	62	0	<input type="checkbox"/>	<input type="checkbox"/>	
Table Service	SERVICE	Items you use to server and co...	54	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Cups, Mugs, and Gla...	CUPMUGGLS	Drink up with these great bever...	47	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Coffee Mugs	COFFEEMUG	Coffe Mugs for that cup of joe ...	48	0	<input type="checkbox"/>	<input type="checkbox"/>	
Place Settings	PLACESET	Eat in style.	67	0	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 2:12 PM
Serving Items	SERVING	Serve up that great food.	68	0	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 2:12 PM
Other Items	OTHERITEMS			0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Promotional Items	PROMOTION			0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Personal Care Promo...	PERSONCARE			0	<input type="checkbox"/>	<input type="checkbox"/>	

We now have the opportunity now to make some adjustments before communicating our new categories to Magento. For one, CSM named the Category based on how we named the NAV Item Category. We can change that if we wish, so in this example: *Other Items* is changed to **Other**; *Promotional Items* is changed to **Promotional**; *Personal Care* *Promotional Items* is changed to **Personal Care**.

We also want to give the category a Customer facing description of the Category and be able to control the presentation order that Magento will use.

Dynamics 365 Business Central

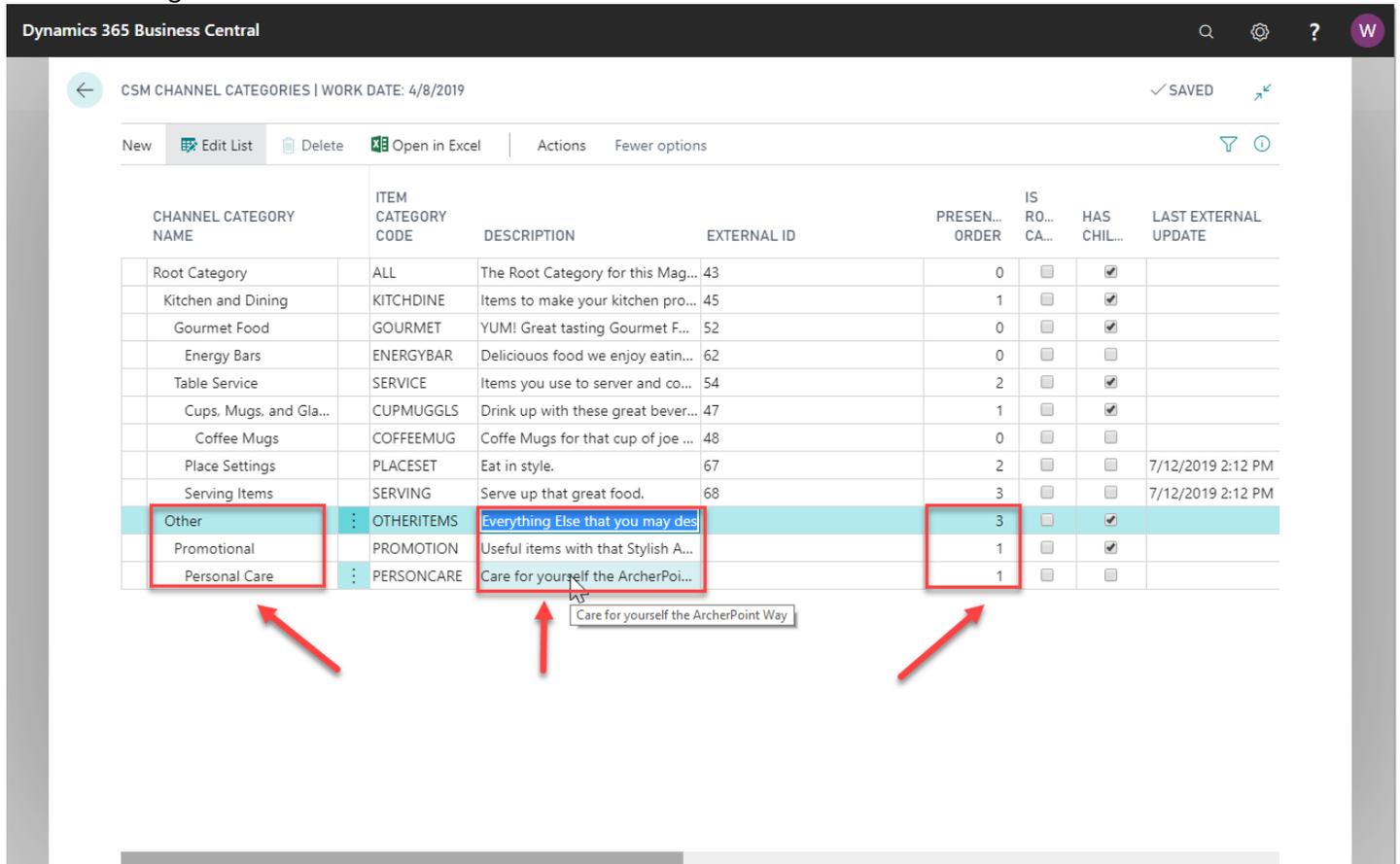
CSM CHANNEL CATEGORIES | WORK DATE: 4/8/2019

✓ SAVED

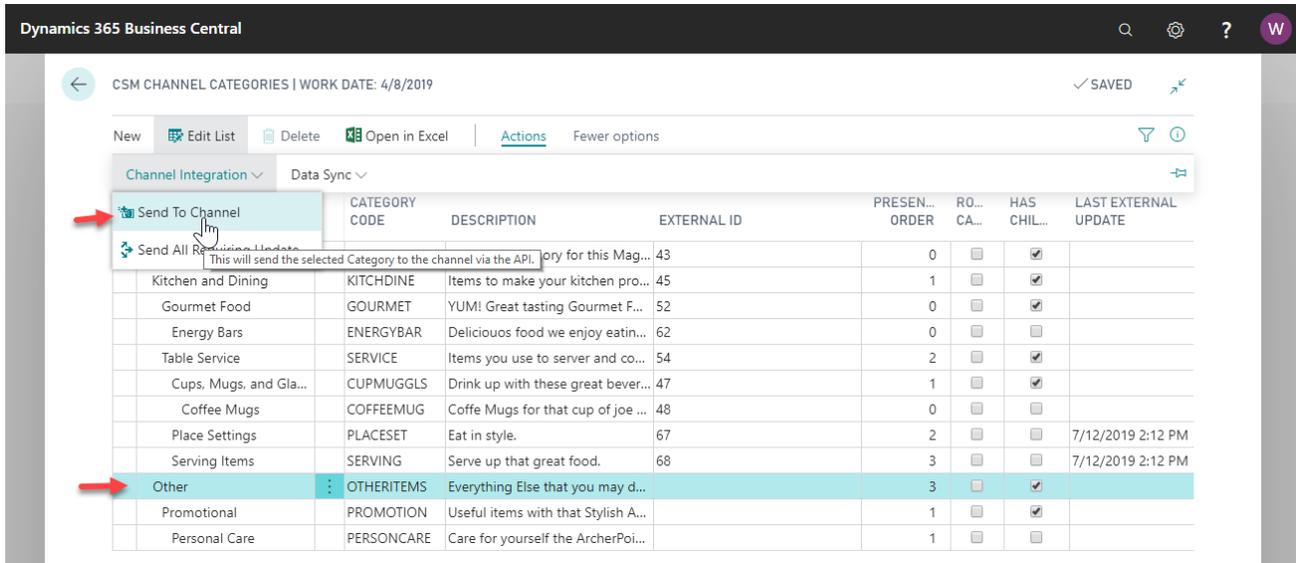
New Edit List Delete Open in Excel Actions Fewer options

CHANNEL CATEGORY NAME	ITEM CATEGORY CODE	DESCRIPTION	EXTERNAL ID	PRESEN... ORDER	IS RO... CA...	HAS CHIL...	LAST EXTERNAL UPDATE
Root Category	ALL	The Root Category for this Mag...	43	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Kitchen and Dining	KITCHDINE	Items to make your kitchen pro...	45	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Gourmet Food	GOURMET	YUM! Great tasting Gourmet F...	52	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Energy Bars	ENERGYBAR	Delicious food we enjoy eatin...	62	0	<input type="checkbox"/>	<input type="checkbox"/>	
Table Service	SERVICE	Items you use to server and co...	54	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Cups, Mugs, and Gla...	CUPMUGGLS	Drink up with these great bever...	47	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Coffee Mugs	COFFEEMUG	Coffe Mugs for that cup of joe ...	48	0	<input type="checkbox"/>	<input type="checkbox"/>	
Place Settings	PLACESET	Eat in style.	67	2	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 2:12 PM
Serving Items	SERVING	Serve up that great food.	68	3	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 2:12 PM
Other	OTHERITEMS	Everything Else that you may des		3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Promotional	PROMOTION	Useful items with that Stylish A...		1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Personal Care	PERSONCARE	Care for yourself the ArcherPoi...		1	<input type="checkbox"/>	<input type="checkbox"/>	

Care for yourself the ArcherPoint Way



Now we are ready to send the Categories to Magento. To do this, we select each line, and then press the Send to Channel button in the Action ribbon.



A new category record is created in Magento. These records are assigned a unique ID, which is retrieved by CSM and entered in the channel category's **External ID** field.

If it is necessary to update a channel category, you can make the change can be made on the channel category line, and then press the Send All to Channel button. If a CSM channel category already has an external ID, CSM sends an update to Magento rather than trying to create a new category on Magento.

You can also send information to the Channel for multiple Channel Categories by checking the External Requires Update checkbox for each Category you would like to send. This will send the information regardless of whether it is new to Magento, or it is being updated. There is also an Automation Rule that you can set which will send all Categories “Requiring Update” as a scheduled task.

Dynamics 365 Business Central

CSM CHANNEL CATEGORIES | WORK DATE: 4/8/2019

✓ SAVED

New Edit List Delete Open in Excel Actions Fewer options

CHANNEL CATEGORY NAME	EXTERNAL ID	PRESEN... ORDER	IS RO... CA...	HAS CHIL...	LAST EXTERNAL UPDATE	EXT... RE... UP...	LAST EXTERNAL UPDATE STATIS	LAST EXTERNAL UPDATE RESULT
Root Category	43	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Kitchen and Dining	45	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Gourmet Food	52	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Energy Bars	62	0	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Table Service	54	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Cups, Mugs, and Gla...	47	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Coffee Mugs	48	0	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Place Settings	67	2	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 2:12 PM	<input type="checkbox"/>	Success	Successful Update to Chan
Serving Items	68	3	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 2:12 PM	<input type="checkbox"/>	Success	Successful Update to Chan
Other	69	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7/12/2019 5:24 PM	<input checked="" type="checkbox"/>	Success	Successful Update to Chan
Promotional	70	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7/12/2019 5:24 PM	<input checked="" type="checkbox"/>	Success	Successful Update to Chan
Personal Care	71	1	<input type="checkbox"/>	<input type="checkbox"/>	7/12/2019 5:24 PM	<input checked="" type="checkbox"/>	Success	Successful Update to Chan

There is also an Automation Rule that you can set which will send all Categories “Requiring Update” as a scheduled task.

Dynamics 365 Business Central

CSM AUTOMATION LIST | WORK DATE: 4/8/2019

✓ SAVED

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SALES CHANNEL CODE	AUTOMA... TYPE	SEQUEN... ↑	CODE	CODEUNIT ID CODE	ORDER STATUS	CHANNEL STATUS VALUE	NAV ORDER STATUS	DESCRIPTION
MAGE1B2C	Fulfillment	110	SHIPMENT...	ORDERMGT...	Not Applica...		Not Applica...	Sends Shipment Information to...
MAGE1B2C	Fulfillment	115	SENDINVOI...	ORDERMGT...	Not Applica...		Not Applica...	Sends Invoice Information to M...
	API	210	MAGESALE...	ORDERMGT...	Not Applica...		Not Applica...	Retrieves Orders from Magento...
MAGE1B2C	Order	1100	GETORDERL...	ORDERMGT...	In Complete	processing	No Order	Get Order Lines when this statu...
MAGE1B2C	Order	1105	GETORDERL...	ORDERMGT...	In Complete	pending	No Order	Get Order Lines when this statu...
MAGE1B2C	Listing	3100	AVAILABILITY	LISTINGMG...	Not Applica...		Not Applica...	Sends Item Availability to Mage...
MAGE1B2C	Listing	3105	CATEGORY	LISTINGMG...	Not Applicabl		Not Applicabl	Sends Channel Category to Ma...
MAGE1B2C	Listing	3110	ATTRIBUTES...	LISTINGMG...	Not Applica...		Not Applica...	Sends Attribute Set (including ...
MAGE1B2C	Listing	3115	ATTRIBUTE	LISTINGMG...	Not Applica...		Not Applica...	Sends Attribute information (in...
MAGE1B2C	Listing	3120	ATTRSETSY...	LISTINGMG...	Not Applica...		Not Applica...	Performs the Attribute Set Sych...
MAGE1B2C	Listing	3125	PRODUCTLI...	LISTINGMG...	Not Applica...		Not Applica...	Sends Product Listing Informati...
	Housekeepi...	999999	HOUSEKEE...	ORDERMGT...	Not Applica...		Not Applica...	CSM Housekeeping and Maint...

CSM Attribute Sets

On Magento, Attribute Sets are required for each product listing and define additional information (attributes) that are relevant to that particular product. These attributes for that product are then available for data entry and appear to a customer.

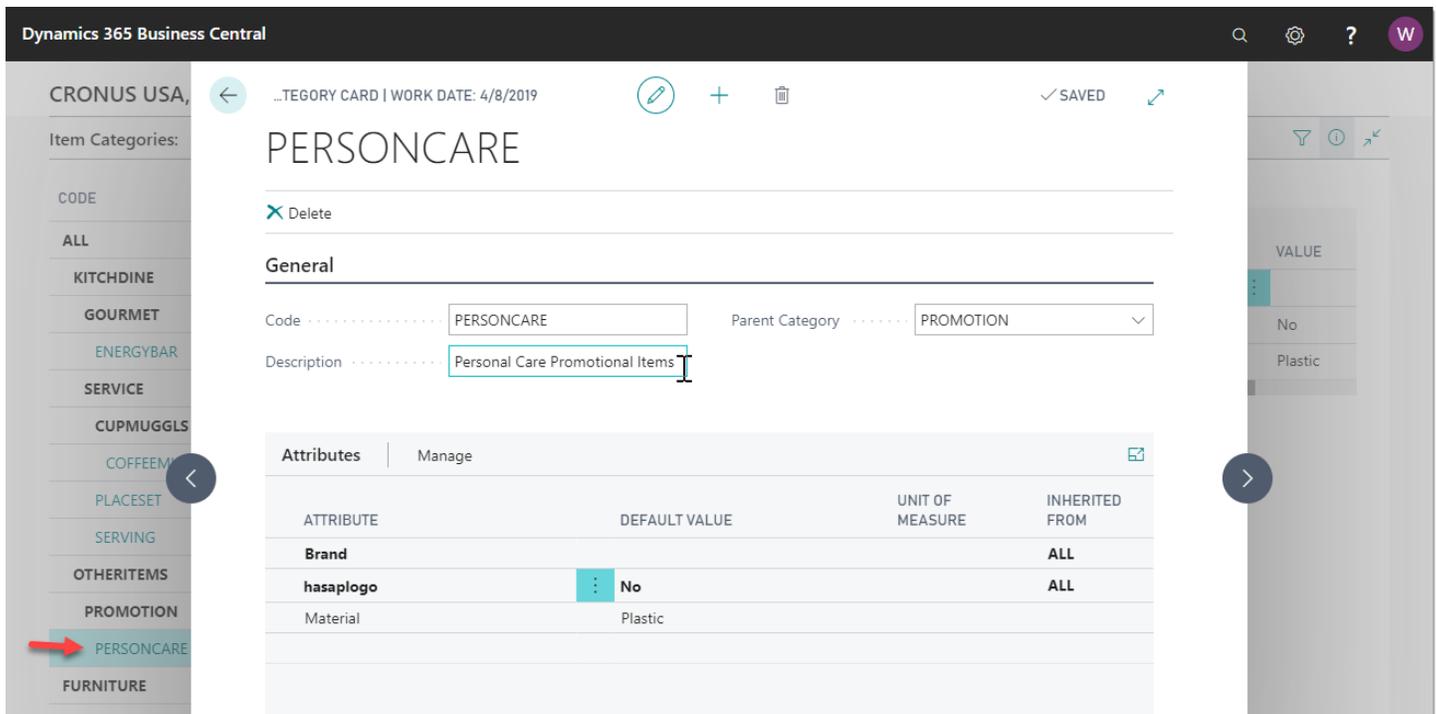
For example, we may want product listings for one group of products to contain information such as:

- Brand – The brand of the product
- Material – the primary material the product is constructed of.
- Has Logo – Whether the product bears our logo.

However, for another group of products that we want to list, we wish to include the following attributes:

- Brand – The brand of the product
- Material – the primary material the product is constructed of.
- Has Logo – Whether the product bears our logo.
- Service Type – The Type of Service the Coffee Mug represents (Service Piece, Place Setting component)
- Capacity – The fluid capacity of the Coffee Mug
- Diameter – The Diameter in inches of the Coffee Mug

In Business Central we can define Item Attributes with Item Categories. Item Attributes are assigned to a Category, and a product assigned to that category will have attributes from that category, plus inherited attributes from parent categories.



PERSONCARE

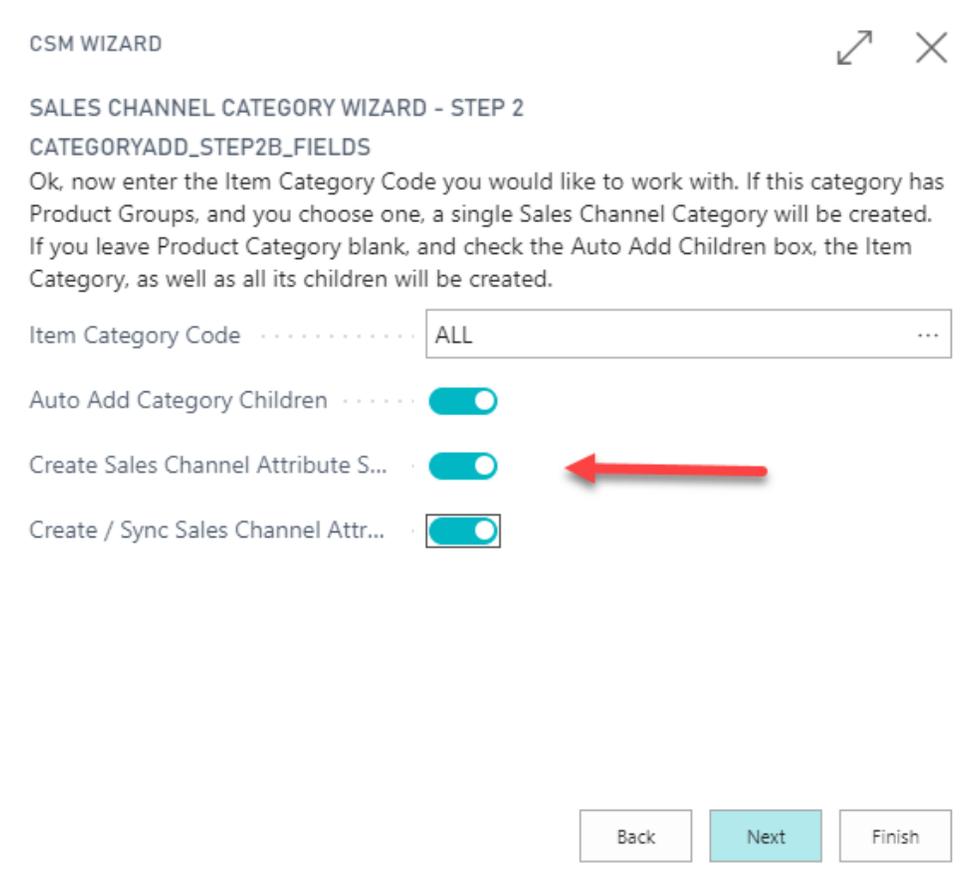
Code: PERSONCARE Parent Category: PROMOTION

Description: Personal Care Promotional Items

ATTRIBUTE	DEFAULT VALUE	UNIT OF MEASURE	INHERITED FROM
Brand			ALL
hasaplogo	No		ALL
Material	Plastic		

Although in CSM you can always manually create an Attribute Set, CSM can create Attribute Sets to send to Magento based on a Business Central Item Category. There are several ways to create an Attribute Set in CSM.

If you followed the previous section regarding Categories, you may remember a check box on the Category Create Wizard.



CSM WIZARD

SALES CHANNEL CATEGORY WIZARD - STEP 2

CATEGORYADD_STEP2B_FIELDS

Ok, now enter the Item Category Code you would like to work with. If this category has Product Groups, and you choose one, a single Sales Channel Category will be created. If you leave Product Category blank, and check the Auto Add Children box, the Item Category, as well as all its children will be created.

Item Category Code ALL

Auto Add Category Children

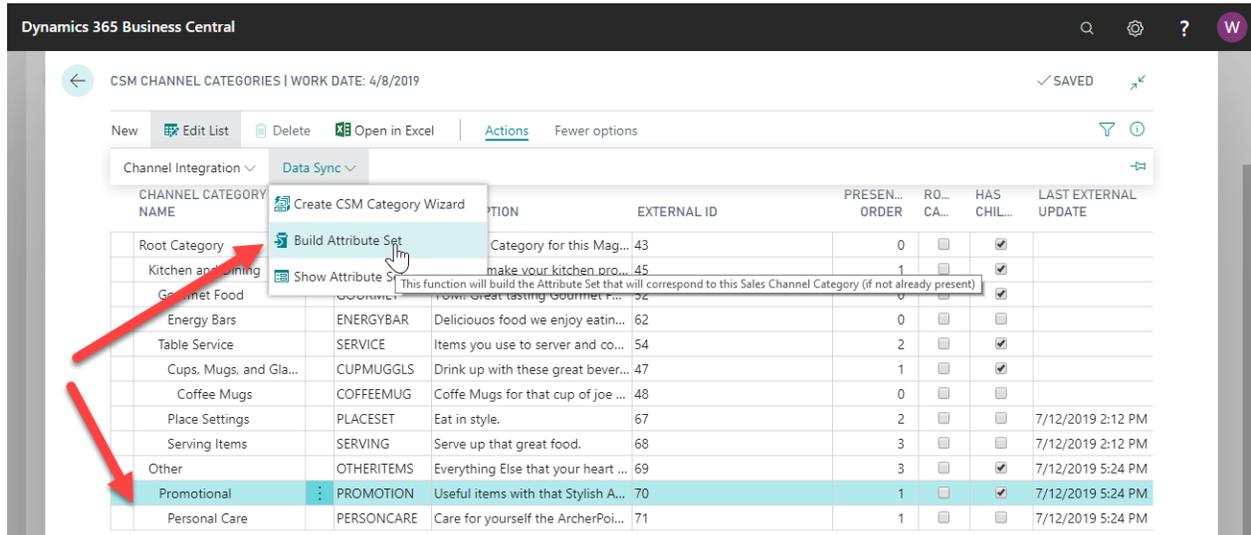
Create Sales Channel Attribute S... ←

Create / Sync Sales Channel Attr...

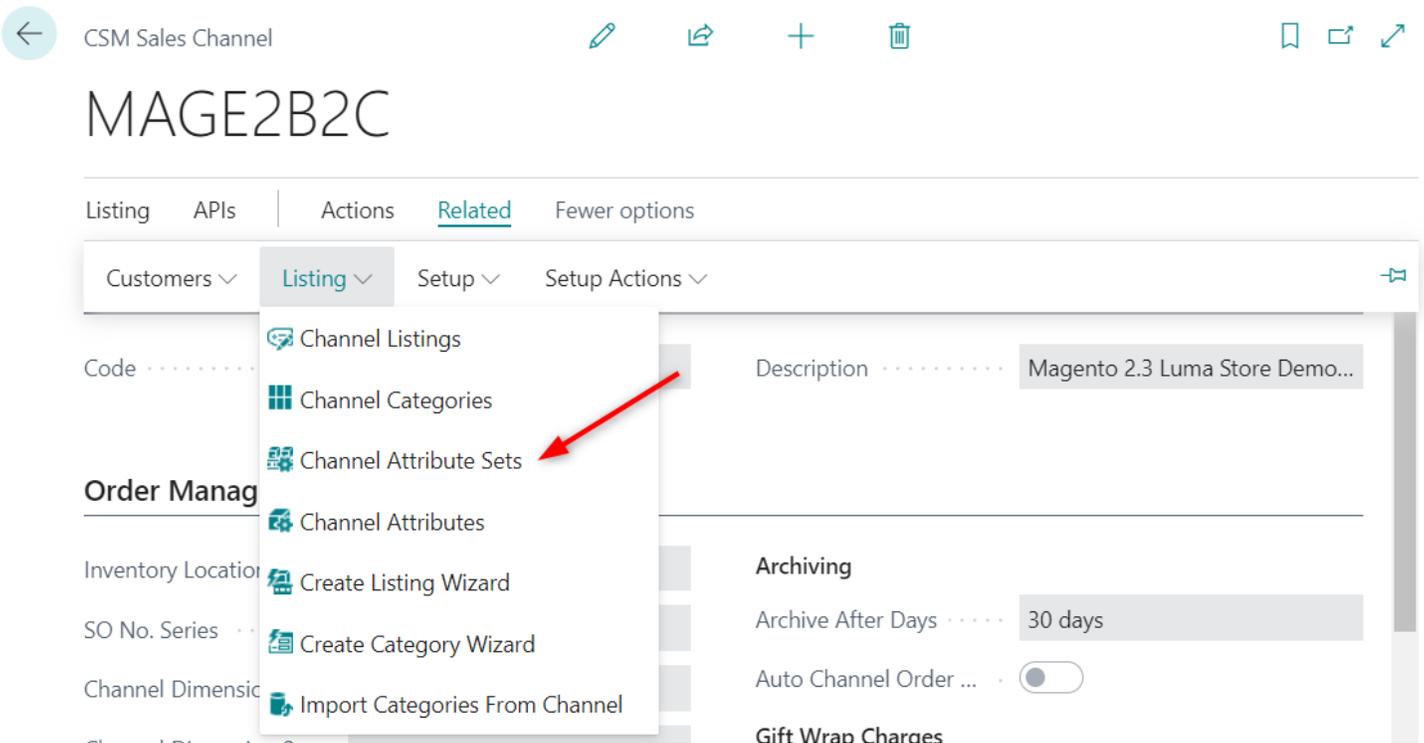
Back Next Finish

This check box told the Wizard to automatically build a CSM Attribute Set for each Item Category processed.

We could have also created the Attribute Set from a single Channel Category.



Or we could have manually entered the Attribute Set directly on the Sales Channel Attribute Sets page.



Dynamics 365 Business Central

CSM ATTRIBUTE | WORK DATE: 4/8/2019

CSM Attribute Sets

Search New Edit List Delete Open in Excel

The related ID of an external system.
Press Ctrl+F1 to learn more

SALES CHANNEL CODE	ATTRIBU... DATA TYPE	NAME	EXTERNAL ID	SET LINK TYPE	LINK CODE 1	LINK CODE 2
MAGE1B2C	Set	Coffee_Mugs	25	Item Categ...	COFFEEMUG	
MAGE1B2C	Set	Cups_Mugs_and_Glasses		Item Categ...	CUPMUGGLS	
MAGE1B2C	Set	Energy_Bars	35	Item Categ...	ENERGYBAR	
MAGE1B2C	Set	Gourmet_Food	29	Item Categ...	GOURMET	
MAGE1B2C	Set	Kitchen_and_Dining		Item Categ...	KITCHDINE	
MAGE1B2C	Set	Other_Items		Item Categ...	OTHERITEMS	
MAGE1B2C	Set	Personal_Care_Promotiona...	38	Item Category	PERSONCARE	
MAGE1B2C	Set	Place_Settings		Item Categ...	PLACASET	
MAGE1B2C	Set	Promotional_Items		Item Categ...	PROMOTION	
MAGE1B2C	Set	Root_Category		Item Categ...	ALL	
MAGE1B2C	Set	Serving_Items		Item Categ...	SERVING	
MAGE1B2C	Set	Table_Service	39	Item Categ...	SERVICE	

Notice that each attribute set is tied to a BC Item Category. Also that most of the attribute sets we generated, do not yet have an External ID. This means that although we defined the attribute sets in CSM, we have not communicated them yet to Magento or they may be a parent category which will never have a product directly assigned to it.

There are a number of ways to send this attribute set information to Magento depending on your preference. The easiest way is to use a function that will just take care of the attribute set, as well as the underlying attributes that logically tie to the set.

Dynamics 365 Business Central

CSM ATTRIBUTE | WORK DATE: 4/8/2019

CSM Attribute Sets

Search New Edit List Delete Open in Excel Actions Fewer options

Channel Integration Data Sync

- Attribute Set Sync and Send
- Send To Channel
- Send All To Channel
- Send Requires Update To Channel
- Send Options For Attr To Channel
- Assign Attributes to Set on Channel

This button will completely process the Attribute Set by sending the Set to the Channel, Synchronize and Send related attributes information, assign those attributes to the set on the channel, refresh and send applicable attribute option values to the Channel.

NAME	EXTERNAL ID	SET LINK TYPE	LINK CODE 1	LINK CODE 2
Cups_Mugs_and_Glasses		Item Categ...	CUPMUGGLS	
Energy_Bars	35	Item Categ...	ENERGYBAR	
Gourmet_Food	29	Item Categ...	GOURMET	
Kitchen_and_Dining		Item Categ...	KITCHDINE	
Other_Items		Item Categ...	OTHERITEMS	
Personal_Care_Promotiona...	38	Item Categ...	PERSONCARE	
Place_Settings		Item Categ...	PLACASET	
Promotional_Items		Item Categ...	PROMOTION	
Root_Category		Item Categ...	ALL	
Serving_Items		Item Categ...	SERVING	
Table_Service	39	Item Categ...	SERVICE	

The Attribute Set Sync and Send button will do the following for the selected Attribute Set.

1. Send the Attribute Set to Magento if it has not already been sent. (If it has an External ID, then CSM assumes that it exists on the Magento Site itself. Attribute Sets on Magento cannot be changed.
2. Analyze the Attributes that are assigned to the BC Item Category the Attribute Set is linked to (this also includes any attributes assigned to Item Category Parents of the Item Category). For each Attribute, CSM will ensure that a corresponding Attribute is present for this Magento Sales Channel.
3. Send each attribute to Magento. Attributes that are not currently on Magento will be created on Magento, Attributes that already exist on Magento will be updated. See the next section for information that can be changed for a Magento Attribute.
4. If an attribute is of the Option data type (it has certain values that can be specified, like red, green, or yellow, or Yes or No), CSM will also set those up, and send the values to Magento.
5. Assign the applicable attributes on Magento to the Attribute Set on Magento.

If you just want to send the Attribute Set to Magento, without all the other related data, you can press the Send to Channel button.

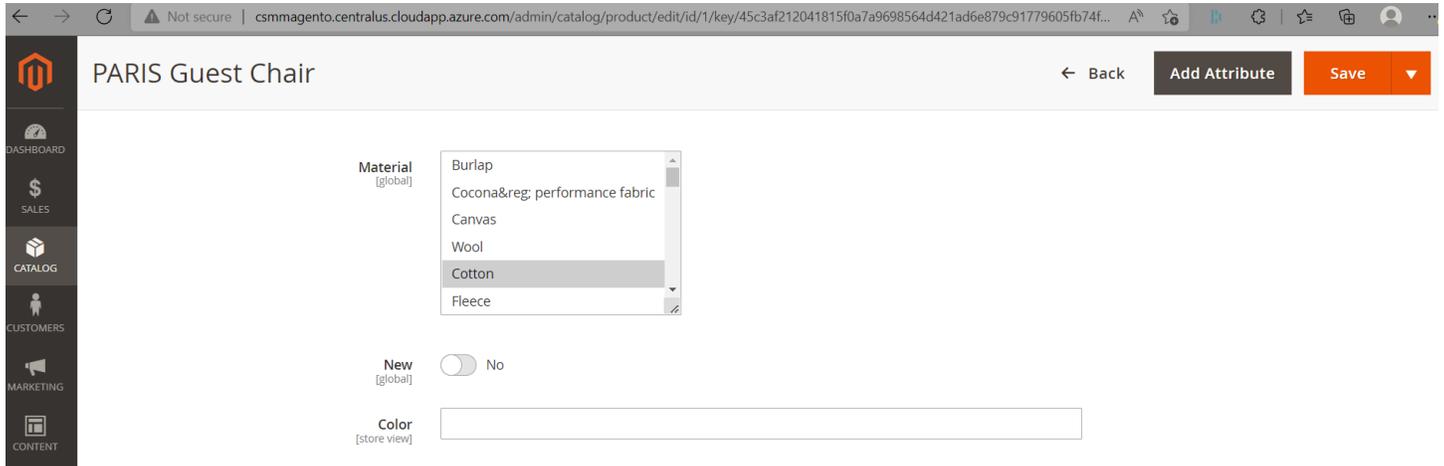
If you want to send all the attribute sets for your CSM sales channel to Magento (but not the related data) you can press the Send All to Channel button.

If you want to send all the attribute sets whose External Requires Update checkbox is checked, to Magento (but not the related data) you can press the Send Requires Update to Channel button.

Press the Sync Attributes for Set button to have CSM just Analyze the Attributes that are assigned to the Business Central Item Category the Attribute Set is linked to (this also includes any attributes assigned to Item Category Parents of the Item Category). For each Attribute, CSM will insure that a corresponding Attribute is present for this Magento Sales Channel.

Note, this action will not send those attributes to Magento. There is a function to send attributes to Magento on the CSM Attributes page.

Press the Add Attributes to Set on Channel button to have CSM assign the linked attributes to the attribute set on Magento. Note that only Attributes that Magento already knows about will be assigned.



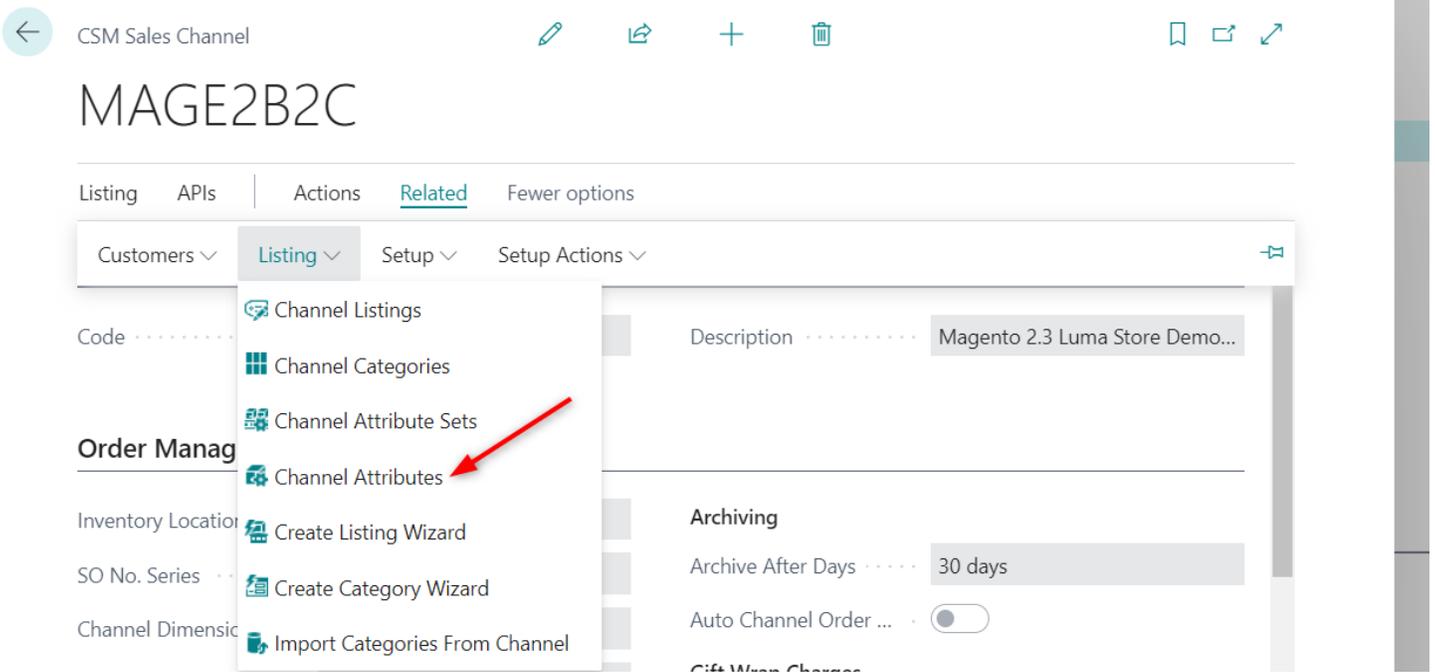
CSM Attributes

On Magento, Attributes are essentially extra information that can be assigned to products. As mentioned in the previous section regarding Attribute Sets, an Attribute Set is a collection of Attributes that are assigned to a product. CSM needs to know about the Magento Attributes as well and how they relate to BC Item Attributes. It is not necessary to link a CSM Attribute to a BC Item Attribute, but they are very powerful if they are.

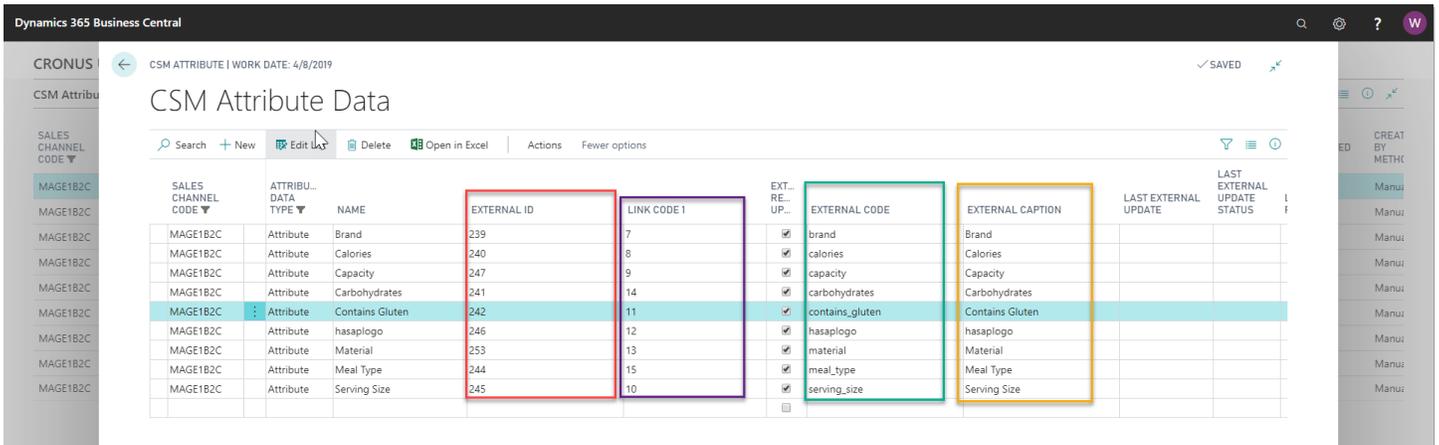
As with many other CSM components, Attributes can be created many ways, and they also have an External ID field which links it to its corresponding Magento Attribute. CSM Create attributes on Magento from CSM Attributes, or you can manually link a CSM Attribute to a Magento Attribute simply by typing in its' Magento ID.

- You can Manually Create the Attribute on the CSM Attribute list page from the Sales Channel.
- You can use the Sync Attributes for Set button for An Attribute Set to automatically create (if they are not already present) any attributes related to the Item Category that the Attribute Set Links to.
- You can use the Attribute Set Sync and Send button in a similar fashion, but it will not only create the attributes on the CSM side, it will also send all related information to Magento.

You can manage these attributes by selecting the Navigate -> Listing -> Channel Attributes function on the CSM Sales Channel Card.



You will then be presented with a list of defined Channel Attributes for the Sales Channel.



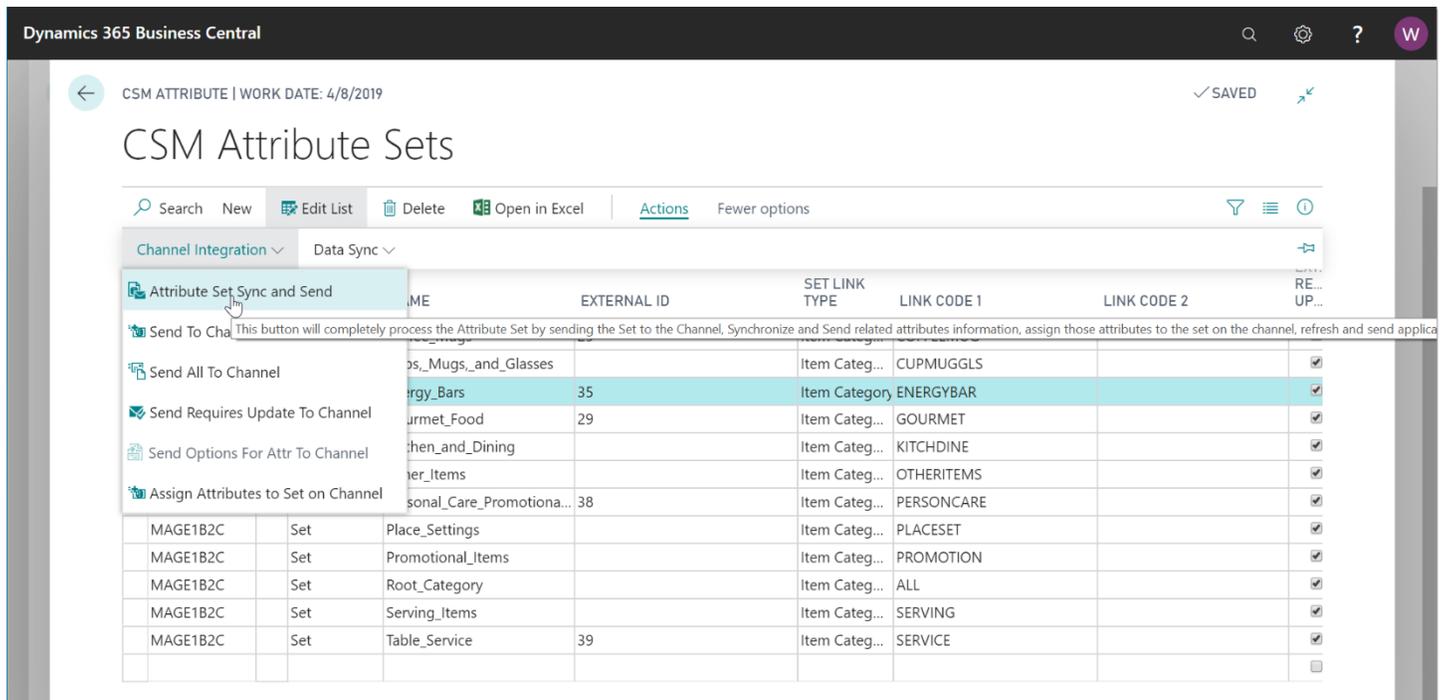
SALES CHANNEL CODE	ATTRIBUTE DATA TYPE	NAME	EXTERNAL ID	LINK CODE 1	EXT. RE-UP...	EXTERNAL CODE	EXTERNAL CAPTION	LAST EXTERNAL UPDATE	LAST EXTERNAL UPDATE STATUS
MAGE1B2C	Attribute	Brand	239	7	<input checked="" type="checkbox"/>	brand	Brand		
MAGE1B2C	Attribute	Calories	240	8	<input checked="" type="checkbox"/>	calories	Calories		
MAGE1B2C	Attribute	Capacity	247	9	<input checked="" type="checkbox"/>	capacity	Capacity		
MAGE1B2C	Attribute	Carbohydrates	241	14	<input checked="" type="checkbox"/>	carbohydrates	Carbohydrates		
MAGE1B2C	Attribute	Contains Gluten	242	11	<input checked="" type="checkbox"/>	contains_gluten	Contains Gluten		
MAGE1B2C	Attribute	hasaplogo	246	12	<input checked="" type="checkbox"/>	hasaplogo	hasaplogo		
MAGE1B2C	Attribute	Material	253	13	<input checked="" type="checkbox"/>	material	Material		
MAGE1B2C	Attribute	Meal Type	244	15	<input checked="" type="checkbox"/>	meal_type	Meal Type		
MAGE1B2C	Attribute	Serving Size	245	10	<input checked="" type="checkbox"/>	serving_size	Serving Size		

If you used the wizard to create your Channel Category structure, CSM would have already created any D365 BC Item Attributes that were assigned to the D365 BC Item Categories. You should not either link them to existing Magento Attributes or send them to Magento as a new Magento Attribute for use on Magento Products.

To link to an Existing Magento Attribute, you will need to find the Magento data for External ID, External Code, and External Caption.

As you can see, it requires some work to link D365 BC option values to Magento Option Values. It is much simpler to just have CSM create the proper Attribute Data (including option values) on Magento.

The easiest way to do this is to just have CSM send all the Attribute Data for an Attribute Set all at once.



NAME	EXTERNAL ID	SET LINK TYPE	LINK CODE 1	LINK CODE 2	RE...	UP...
bs_Mugs_and_Glasses		Item Categ...	CUPMUGGLS		<input type="checkbox"/>	
ergy_Bars	35	Item Category	ENERGYBAR		<input checked="" type="checkbox"/>	
ourmet_Food	29	Item Categ...	GOURMET		<input checked="" type="checkbox"/>	
hen_and_Dining		Item Categ...	KITCHDINE		<input checked="" type="checkbox"/>	
er_Items		Item Categ...	OTHERITEMS		<input checked="" type="checkbox"/>	
sonal_Care_Promotiona...	38	Item Categ...	PERSONCARE		<input checked="" type="checkbox"/>	
MAGE1B2C	Set	Place_Settings		PLACESET	<input checked="" type="checkbox"/>	
MAGE1B2C	Set	Promotional_Items		PROMOTION	<input checked="" type="checkbox"/>	
MAGE1B2C	Set	Root_Category		ALL	<input checked="" type="checkbox"/>	
MAGE1B2C	Set	Serving_Items		SERVING	<input checked="" type="checkbox"/>	
MAGE1B2C	Set	Table_Service	39	SERVICE	<input checked="" type="checkbox"/>	

Product Listings

Now that we have Categories, Attribute Sets, and Attributes created on Magento by CSM or linked to existing Magento data, we can concentrate on creating CSM Listings which can then be sent to Magento for inclusion in its product Catalog.

Relevant Dynamics 365 Business Central Item Information

Let's start by looking at a D365 BC Item and related information and showing the relevant data that CSM can send to Magento.

CSM will look at and attempt to send the following information/values related to a Business Central item record:

- Item No.
- Description
- Units of Measure, including weight per unit.
- Item Picture
- Item Category and related Attributes
- Available Inventory (note that if you use multiple inventory locations, you can define these in Magento, associate them to your Business Central locations, and then maintain location-specific inventory on your Magento platform)

- Extended Text
- Sales pricing, including price group-specific pricing.
- Item Identifiers

Note that all the information is not required for CSM to transmit product information to Magento, CSM will send what it finds, and it can always be updated later.

CSM Listings

Now that we have reviewed the necessary item information in Business Central, we are ready to define CSM listings for the Magento sales channel.

There are two ways in which you can create CSM listing records:

- **Listing Wizard:** a step-by-step process that walks you through the creation of a CSM listing record for a single Business Central record.
- **From BC Items Import:** allows you to create multiple CSM listing records for a group of Business Central records.

Creating Listings with the Listing Wizard

1. Open the CSM sales channel record for which you want to create listings.
2. Choose the **Listing** ribbon, then choose the **Wizard** action.
3. On the first page of the wizard, enter or use the lookup in the **Item No.** field to assign the Business Central item that will have a listing.
4. If the item exists in multiple variants or units of measure and you want to create separate listing records for each one, enter these values in the relevant fields.
5. Choose the **Next** button.
6. In the **Sales Channel SKU** field, enter a value that will identify the CSM listing as a unique record for the CSM sales channel. By default, CSM will assign a SKU in this field based on the values that were entered on the first page of the wizard, but you can modify this, if desired.
7. Choose the **Next** button.
8. Choose the **Finish** button.

A new listing record is created for the sales channel based on the values that were entered in the wizard.

Creating Listings with BC Items Import

1. Open the CSM sales channel record for which you want to create listings.
2. Choose the **Related** ribbon, then select the **Listing** menu and choose the **Channel Listings** action.
3. On the **CSM Listings** page, choose the **Actions** ribbon, select the **Create Listing** menu, and then choose the **From BC Items** action.
4. On the **Create CSM Listing from BC Items** page, fill in the following fields:
 - **Listing Unit of Measure:** select the item unit of measure that will be assigned to newly-created CSM listing records. You can instruct CSM to assign an item's base unit of measure or sales unit of measure as the CSM listing's unit of measure.
 - **SKU Number:** select the method by which sales channel SKU values will be assigned to new CSM listing records. A sales channel SKU identifies the CSM listing as a unique record for the CSM sales channel. Sales channel SKUs can be assigned from a combination of an item's number, variant, and unit of measure; item identifier; or barcode values.

5. If you only wish to create CSM listing records for a selected group of items, set the necessary filters on the **Filter: Item** FastTab.
6. Choose the **OK** button.

New listing records are created for the sales channel according to the criteria that you specified in the **Create CSM Listing from BC Items** page.

CSM Listing Card

Once CSM listing records have been created, it is necessary to associate them to external platform records and perform other configuration activities:

1. Open the CSM sales channel record for which you want to configure listings.
2. Choose the **Related** ribbon, then select the **Listing** menu and choose the **Channel Listings** action.
3. On the **CSM Listings** page, open the record you want to configure.

Now, let's review the sections of the listing that CSM assembled from Business Central item data.

The first two FastTabs on the listing are the **General** FastTab and the **Listing** FastTab..

General FastTab		
Field	Description	Example Value
Sales Channel Code	The Sales Channel Code this listing is for.	MAGE1B2C
Channel Item SKU	The SKU which Magento uses to identify the product.	70001
Type	<p>The Business Central Sales Line Type that this listing links:</p> <ul style="list-style-type: none"> • Item: The listing links to a D365 BC Item. • G/L Account: The Listing links to a D365 BC General Ledger Account. • Resource: The Listing links to a D365 BC Resource. • Charge(Item): The Listing links to a D365 BC Item Charge. <p>Note that the Wizard will only build Listings for Items, however, you could create a listing manually with a different item type. Example use case: You would like your customers to be able to donate to a charity on your site, you could then record these donations to a "Due to Charity" G/L account on the Sales Order.</p>	Item
No.	The No. representing the Type. If the type was Item, this would be the Item No.	AP-1004
Variant Code	This is valid for Type Item only. If you are using D365 BC Variants for the item, you can specify which Variant is to be listed in this field.	
Unit of Measure	This is only valid for Type Item. This represents the Unit of Measure for the Item being listed. The wizard will default this to the Item base unit of measure, but you can select which item unit of measure is to be listed.	PCS
Blocked	If you wish to block the item, you can turn this switch on. For Magento this controls the Product Status (Enabled / Disabled).	Switched Off.
Channel Product Type	This controls the Magento Product Type (Simple, Configurable, Grouped, Virtual, Bundle, Downloadable). Note that this documentation will only cover Simple Items. Configurable items are possible but requires a more advanced setup of attributes.	Simple
Listing FastTab		
Field	Description	Example Value

Channel Product Name	This will map to the Magento Product Name. The wizard will default this to the D365 BC Item Description. It can be changed on the listing card if desired.
Channel Short Description	This will map to the Magento Product Short Description. The wizard will default this based on the default settings you specified on the Sales Channel. In this example, CSM defaulted this value to the D365 BC Items "Short Description" Extended Text. It can be changed on the listing card if desired.
Channel Primary Category	This is the Channel Category that is considered to be its primary category to be listed under on Magento. When the product information is sent to Magento, CSM will automatically link this product to the Magento Category that is linked to the CSM Channel Category. By default, CSM looks at the D365 BC Item Category the item is assigned to, then looks for a Channel Category that it is linked to.
Channel Attribute Set	This will assign the appropriate Magento Attribute Set to the Magento Product when it is created. This should be a Attribute Set that has been entered into CSM and is linked to a Magento Attribute Set. Magento (out of the box) only allows an attribute set to be specified when the product is created and does not allow this value to be changed.

The next fast tab is the Listing Product Information fast tab. This is a powerful piece of CSM functionality allowing you to add additional product information (descriptions, images, etc.) to the listing that can be sent to Magento.

Note that the CSM Listing Wizard brought in one product information record for the listing based on the Sales Channel settings; the D365 BC Item Picture.

To view additional details and make changes to the image's setting, choose the **Manage** ribbon in the **Listing Product Management** FastTab and then choose the **View/Edit** action.

The **CSM Product Information Card** window contains information about the selected product information line. In addition to presenting a preview of the image, this window allow you to review and modify a number of image settings:

- The link type and key values identify the record to which the product information record is associated.
- The Information Type is Image.
- The Image can be used as all three Magento Image settings, Base, Small, and Thumbnail.
- The Source of the Image is retrieved from the Item Picture of the Item linked to the listing.
- The Mime Type will be sent to Magento.
- The Caption will be sent to Magento as the Image Label
- The Position will be sent to Magento as the Image Position.

Adding a Long HTML Description to the Listing

We can add a Long Description, including HTML tags to the listing by adding a Product Information Record to the listing. On CSM Listing Function Ribbon, select Add Description to Product.

A line will be added to this list with a default Information Type of Description. Enter **Long Description** in the Tags field of this new record. Note that CSM uses this Tag value to know that this description should be sent to Magento as the Products Long Description.

Then Select Manage -> View / Edit and the detail Product Information Card will appear.

We set the Source Type to Blob, which allows for very long descriptive text to be enter. We then enter our text in the Description HTML area. We have now completed the Additional Product Information for our Long Description. If you

wish to make changes, just edit the Product Information record again from the CSM Listing and make changes to the Description HTML text.

Adding Listing Images

When a CSM listing record is created from a Business Central item with an attached item picture, this picture will automatically be assigned to the listing as an image. It is possible to add more images to a listing record, if desired. CSM supports the upload of all standard image file formats, including .bmp, .jpg, and .png.

There are two ways in which you can add images to CSM listing records:

- **Add Image to Product Information:** you can add images to a specific CSM listing, one at a time. This is useful when you are adding a single image, or perhaps a few images to a single CSM listing.
- **Import Listing Images:** you can import multiple images for multiple CSM listings as part of a single action. This is useful when you are working with a large volume of images.

Adding Images to Product Information

1. Open the CSM listing record for which you want to add an image.
2. Choose the **Add Image to Product Information** action in the ribbon.

A new product information card opens. The settings on this record are automatically configured to support image data.

3. Use the **Image** FactBox to import an image. The FactBox supports drag and drop functionality. Alternatively, you can choose the FactBox's **Image** menu, then choose the **Import** action. You will be prompted to choose the image file location.
4. Close the product information card.
5. Repeat steps 2-4 if you want to import additional images for the CSM listing.

Importing Listing Images

If you are working with a large volume of images, you can import them all at once. If you wish to use this functionality, there are certain naming conventions you must apply to your image files:

- The image file name must share the same value as the intended CSM listing record's channel item SKU value.
- Following the channel item SKU value, each image file must include an extension numbering sequence that increases by 1 for each subsequent image that you want to upload to the intended CSM listing record.
- The image extension (.bmp, .jpg, .png, etc.) must be removed from the image file.

For example, if we wanted to upload three images to a CSM listing record with a channel item SKU value of *SE100*, these image files would need to be named *SE100.01*, *SE100.02*, and *SE100.03*.

Once your image file names have been formatted correctly, they must be added to a .zip file. Once this is completed, you can import the .zip file's contents into Business Central:

1. Open the CSM sales channel record for which you want to import listing images.
2. Choose the **Related** ribbon, then select the **Listing** menu and choose the **Channel Listings** action.
3. On the **CSM Listings** page, choose the **Actions** ribbon, then choose the **Import Listing Images** action.
4. Navigate to the location in which you are storing the .zip file and select it.

CSM will import all of the images in the .zip file and assign them to the proper listing records. A notification screen will inform you of the import results.

CSM Listing Attributes

CSM also, by default, brought in the D365 BC Item Attribute values for the linked item. You can manually maintain them here if you would like, but there is also an update button in the Actions Functions that will sync the attribute values from D365 BC. If you add an attribute and value to the item that is linked to the Channel Category, CSM brings those new or changed values in when you Synchronize Attributes.

CSM Magento Visibility

You can also set the Magento Visibility property on the CSM Listing – Visibility Fast Tab.

Take note of the External ID shown above and notice that it is currently empty. This indicates that this CSM Listing has not yet been sent to Magento.

As a side note, if the Magento Product already existed in Magento, and you wanted to link it to this listing, you could enter its ID here.

Sending the Listing Data to Magento

To have CSM Create this product on Magento, you could select Send All Listing Data to Channel from the Actions Function Ribbon or send up individual components of the CSM Listing. Note, that if you send up individual components, you should Send Listing Base Info to Channel First, this is the only component function that will create a product on Magento, all others will update an existing Magento product linked by the Listings External ID.

The Send All Listing Data may take a few seconds as it sends information to Magento, but you should end up with the External ID field being populated with a number. If there are any issues, a message in the Last External Update Result should give a completion status, or any errors that may have been received from Magento.

If successful, all listing information, including the Product Name, Short Description, Long Description, Images, and Sales Prices, are sent to the related Magento product record.

You can also perform these actions against multiple listing records at once from the **CSM Listings** page:

1. Select the relevant CSM listing records.
2. Choose the **Actions** ribbon, then choose the desired action in the **Channel Integration** group. Both the **Send All Listing Data to Channel** and **Send Listing Base Info to Channel** actions can be executed for multiple CSM listing records.

Loading CSM Listings from Magento Data

It is possible to import product information from your connected Magento platform into Business Central, then create CSM listings from this data. You can then link these CSM listings to Business Central items. This is useful if you have already created products on your Magento platform, and would prefer to use this external platform, rather than Business Central, as the basis for your CSM listings.

Note: the process of importing listing information from Magento and into Business Central is meant to assist in the initial setup of your CSM listing management module. For the ongoing maintenance of products between platforms, we recommend using Business Central as the primary source and then exporting data to Magento.

To load listings from Magento:

1. Open the CSM sales channel that represents your Magento platform.
2. Choose the **Related** ribbon, then select the **Setup Actions** menu and choose the **Load Products From Channel** action.
3. On the **Get Listings from Channel** page, confirm the correct sales channel has been selected, then choose the **OK** button.

CSM will import product data from Magento and create a separate CSM listing record for each product. The external ID for each listing will be populated with the unique identification number assigned by Magento.

4. Open each CSM listing, and on the **General** FastTab, enter the corresponding Business Central item number in the **No.** field to link the CSM listing to an item.

***Note:** you can automate this linkage prior to loading items from Magento by assigning the product's channel item SKU as one of the Business Central item's item identifiers. When CSM creates a new listing with data from Magento, it will determine if any Business Central items have an item identifier that shares that listing's channel item SKU; if it can find a match, it will assign the item to the new listing.*

The load products from channel action does not retrieve attribute sets or attributes from Magento. If you wish to maintain this information on the listings that you have created from Magento data, you must manually assign these values:

1. Open the CSM listing to which you want to assign attributes.
2. On the **Listing** FastTab, enter or use the AssistButton in the **Channel Item Attribute Set** field to assign an attribute set to the listing.
3. Choose the **Actions** ribbon, then select the **Data** menu and choose the **Synchronize Item Attributes** action.

CSM will assign attributes and attribute values to the listing based on the assigned attribute set and Business Central item. These attributes are presented in the **CSM Listing Attribute** List FastTab.

Product Listing Availability

It is possible to instruct CSM to calculate availability for a CSM listing's Business Central item and then send this information to Magento:

1. Open the CSM listing record for which you want to calculate and send inventory availability.
2. On the **Availability** FastTab, enable the **Send Availability** field. This field will be automatically enabled/disabled based on the sale channel's default setting, but it can be changed on a listing-by-listing basis.
3. Fill in the following fields:
 - **Availability Basis:** select the Business Central value that will be used as the basis for the item's availability calculation.
 - **Compare availability To:** select the manner by which an item's currently calculated availability within Business Central will be compared to the external platform's availability. Options are:
 - *Last Value Sent:* Business Central availability will be compared to the last availability quantity that was sent from Business Central to Magento.

- *External Inventory on Hand*: CSM will retrieve the related product's availability from Magento, then compare Business Central availability to this value.
 - **Available Channel Percent**: enter the percentage of Business Central availability that will be sent to Magento. This percentage will be applied to the item's quantity when calculating availability for the listing. This is useful if you want to retain a portion of your on-hand quantity as safety stock.
 - **Available Min Qty Threshold**: enter the minimum available product quantity that will be sent to Magento. CSM will not send an available quantity that is less than the defined minimum threshold to Magento; in such a scenario, an available quantity of zero will be sent to Magento.
 - **Subtract Threshold From Availability**: select this field to instruct CSM to subtract the defined minimum quantity threshold value as part of the listing's availability calculation.
4. To manually calculate the product's availability, choose the **Actions** ribbon, then select the **Data** menu and choose the **Calculate Channel Availability** action.

CSM will calculate availability for the item based on the settings on the **Availability** FastTab and enter the result of this calculation in the **Available Last Qty Calc** field.

For example, suppose we have a CSM listing record with the following settings:

- Available Channel Percent: 90%
- Available Minimum Quantity Threshold: 15
- Subtract Threshold from Availability: Yes

If we instruct CSM to calculate availability for the item and it has an on-hand quantity of 600, the CSM listing's calculated availability would be $(600 \times 90\%) - 15 = 525$.

Following the listing availability calculation, CSM uses the setting in the **Compare availability To** field:

- *Last Value Sent*: CSM compares the listing's calculated availability to the value in the **Available Last Qty Sent** field. This field presents the quantity that was most recently sent to Magento for the listing.
- *External Inventory on Hand*: CSM compare the listing's calculated availability to the value in the **External Inventory On Hand** field on the **Inventory Information** FastTab. This field presents the most recently retrieved on-hand product quantity from Magento.

If the listing's calculated availability value differs from the comparison value, you can instruct CSM to send updated availability information to Magento by choosing the **Actions** ribbon, then selecting the **Channel Integration** menu and choosing the **Send Availability to Channel** action.

In addition to the manual processes of calculating listing availability and sending this availability to Magento described above, these actions can also be scheduled as part of Magento's automation routines.

Retrieving External Inventory

You can retrieve a product's inventory as it is entered in Magento. In this way, you can determine whether any discrepancies exist between an item's Business Central and Magento quantities. A CSM listing record must have an assigned external ID in order to properly communicate with the Magento platform to retrieve this information.

1. Open the relevant CSM listing record.

2. Choose the **Actions** ribbon, then choose the **Get External Inventory Supply** action in the **External Inventory** menu.

CSM will retrieve the on-hand product quantity from Magento and present it in the **External Inventory On Hand** field on the **Inventory Information** FastTab.

You can also perform this action against multiple listing records at once from the **CSM Listings** page:

1. Select the relevant CSM listing records.
2. Choose the **Actions** ribbon, then choose the **Get External Inventory Supply** action in the **External Inventory** menu.

CSM will retrieve on-hand product quantities from Magento for the selected CSM listings. Any selected CSM listings that do not have an assigned external ID will not be included as part of this retrieval process.

Alternatively, you can instruct CSM to automatically retrieve external inventory information for a CSM listing record by enabling the **Auto Retrieve Channel Inventory** field on the **CSM Listing** page's **Inventory Information** FastTab. When the CSM automation routines are executed, external information for any listings that have this setting enabled will be retrieved from Magento.

Configurable Items

Depending on your business, you may include configurable items as part of your product portfolio. A configurable item is an item that you offer in different variants based on variable attributes or characteristics.

For example, assume we are a company that sells apparel. We sell a t-shirt item in three colors (red, blue, and yellow) and three sizes (small, medium, and large), resulting in nine possible configurations. While we need to account for these nine variants in some manner, from a listing perspective we want to list just the top-level t-shirt item, then allow buyers to select their preferred color and size from the listing page.

You can use CSM's [item variations module](#) to define an item's variable characteristics (using our example above, these would be color and size), then create additional items or item variants that represent the different configurations of these characteristics. You can also use this variation framework to create CSM listings; if you use the CSM listing wizard to create a new listing for the top-level or "parent" item, CSM will automatically create CSM listings for any "children" items or item variants that have been selected for inclusion in the CSM listing creation process.

Setup

The configurable item features in CSM utilize an updated item attribute structure that stores different attribute data types in separate tables. If you wish to create CSM listings for configurable items, you must enable this structure for the relevant sales channel:

1. Choose the  icon, enter **CSM Sales Channels**, and then choose the related link.
2. Open the sales channel for which you want to create configurable items.
3. On the **Listing Management** FastTab, enable the **Enable New Attribute Design** field and the **Use Shared Item Attribute** field.

Configurable item listings also use the item variations module as the basis for listing creation. Accordingly, you must configure an item variation's SKUs:

1. Choose the  icon, enter **Item Variations**, and then choose the related link.
2. Open the item variation for which you want to create configurable items.
3. On the **SKUs** FastTab, fill in the following values for each variation SKU that will have a CSM listing:
 - **SKU:** enter a value that identifies the variation SKU as a unique record. This value will be assigned as the channel item SKU on newly-created CSM listings.
 - **SKU Status:** SKUs are initially created with a status of *Pending*, but if you intend to create CSM listings based on a configurable item's variations, you must update the status on the relevant variation SKU lines to either *Active* or *No Replenish*.

Configurable Item Listings

The process of creating CSM listings for configurable items is no different than the process of creating CSM listings for non-configurable or simple items:

1. Open the CSM sales channel record for which you want to create listings.
2. Choose the **Related** ribbon, then select the **Listing** menu and choose the **Wizard** action in the **Create Listing** group.
3. On the first page of the wizard, enter or use the lookup in the **Item No.** field to assign the parent, or top-level Business Central item.

Note: if you are creating CSM listings for a configurable item whose variations exist as item variants, do not populate the **Variant Code** field in the listing wizard. If you assign a specific variant code, the listing wizard will create a single CSM listing for that item variant. If you leave the **Variant Code** field blank, the listing wizard will create CSM listings for all variants.

4. Choose the **Next** button.
5. In the **Sales Channel SKU** field, enter a value that will identify the CSM listing as a unique record for the CSM sales channel. By default, CSM will assign a SKU in this field based on the values that were entered on the first page of the wizard, but you can modify this, if desired.
6. Choose the **Next** button.
7. Choose the **Finish** button.

New CSM listings are created for the top-level parent item and the item/variant "children" that represent different configurable variations. The assigned product type for these CSM listings differs between parents and children:

- Parent listings have an assigned channel product type of *Configurable*.
- Child listings have an assigned channel product type of *Simple*.

As part of this record creation, the parent/child relationship is maintained between these listings. You can view this relationship by opening the CSM listing that represents the parent item and reviewing the **CSM Listing Children List** FastTab. This FastTab presents all of the CSM listing records that exist as children to the parent. This FastTab will be empty on the child listings.

Configurable Item Attributes

The CSM listing wizard will automatically assign an attribute set to newly-created CSM listings based on the item category that is assigned to the related item. The listing wizard will also assign item attributes to the listing from multiple sources:

- CSM item attributes that are defined as part of the assigned attribute set.
- Item variation options that are defined as part of the item or variant's item variation. If the item variation option does not have a corresponding CSM item attribute, CSM will automatically create a new one as part of this process.

Static or non-configurable attribute values are displayed consistently across all CSM listing types. However, the manner in which listing attributes for configurable attributes are presented differs between parent and children listings. On the **CSM Listing Attribute List** FastTab for the parent listing, a separate line will be presented for each configurable attribute that is used to define item variations. The attribute value on these lines, however, will remain blank. The **CSM Listing Attribute List** FastTab on child listings will include a line for each attribute, as well as the attribute values that are assigned to that particular child.

If we revisit our earlier example where we have a top-level t-shirt item and children that vary by color and size, the **CSM Listing Attribute List** FastTab on the parent listing would present separate lines indicating that color and size are that listing's configurable attributes. The **CSM Listing Attribute List** FastTab for the child listings would also include lines for color and size, but the value would be assigned as red, blue, small, medium, etc.

Sending Configurable Item Listings to Magento

The same setup activities and requirements that can be performed for any listing are relevant for configurable items. For example, descriptions and images can be assigned to CSM listings for configurable items. Setup activities and additional information only need to be entered for the configurable, parent item.

The process of sending a configurable item to Magento does not vary from the process of sending a standard, simple item. From the CSM listing for the configurable, parent item, choose the **Actions** ribbon, then choose the **Channel Integration** menu and execute the **Send All Listing Data to Channel** function. This will send the listing for the configurable item as well as all children items to Magento. Each listing will be created as a new product in Magento based on the listing's information. Magento will assign a unique identification number to each record; these values will be retrieved by CSM and presented in the **External ID** field on the listing's **Listing Status** FastTab.

If any assigned CSM attributes do not have corresponding records in Magento, executing the **Send All Listing Data to Channel** function will also send these attributes and their values to Magento, where it is assigned to the related attribute set. Magento will assign a unique identification number to each option and option value; CSM retrieves this information and updates the relevant lines on the CSM listing's **CSM Listing Attribute List** FastTab as well as the related CSM item attributes accordingly. If you want to only update attributes and attribute sets in Magento without sending over all listing information, you can do so from the CSM listing for the configurable item by choosing the **Actions** ribbon, then choosing the **Channel Integration** menu and executing the **Send Configurable Options to Channel** function.

Product Listing Availability

The process of updating Magento with a product listing's availability is no different for configurable items as other listings. You can calculate channel availability for CSM listings for child items, then send this information to Magento. The stock quantities for the relevant product variants are updated accordingly.

Updating Configurable Option Values

It may be that you wish to add configurable option values over time. For example, suppose we have a configurable option called "Color" set up in Business Central, with option values of Red, Blue, and Yellow. At some point, we want to add Green to this list of option values. In this scenario, it is necessary to update a number of records:

Create and Explode New Item Variation SKUs

If you are using the item variations framework to manage your configurable items, you must add the new item variation option value, then use this information to create a new item or item variant in Business Central:

1. Open the item variation that you want to update.
2. Add the new item variation option value to the desired option. The way you enter this information depends on whether the item variation option is linked to a Business Central item attribute. For more information, see [here](#).
3. On the **Item Variation Card** page, choose the **Actions** ribbon, then choose the **Create Item Variation SKUs** action. The system will enter new lines for the new configurable option value in the **SKUs** FastTab.
4. Choose the **Actions** ribbon, then choose the **Explode SKUs** action.
5. Choose the **OK** button.

Business Central records are created for the new variation SKUs.

6. Enter other variation SKU values on the line:
 - **SKU:** enter a value that identifies the variation SKU as a unique record. If you intend to create CSM listings based on a configurable item's variations, you must assign a SKU on the relevant variation SKU lines.
 - **SKU Status:** select a status to indicate the SKU's place in your product workflow. SKUs are initially created with a status of *Pending*, but if you intend to create CSM listings based on a configurable item's variations, you must update the status on the relevant variation SKU lines to either *Active* or *No Replenish*.

Update the CSM Item Attribute Values

Once you have added a new item variation option value, you must update the corresponding CSM item attribute accordingly:

1. Open the CSM sales channel record for which you want to update item attribute values.
2. Choose the **Related** ribbon, then select the **Listing** menu and choose the **Channel Item Attributes** action.
3. Select the CSM item attribute you want to update, then choose the **Edit** action in the ribbon.
4. Choose the **Actions** ribbon, then select the **Data Synch** menu and choose the **Synch Option Values** action.

Newly-added attribute values will be added to the **Item Attribute Options** FastTab.

Create New CSM Listings and Send Information to Magento

A CSM listing must be created for each new item variant that has been added to the list of the configurable item's children:

1. Open the CSM sales channel record for which you want to update item attribute values.
2. Choose the **Related** ribbon, then select the **Listing** menu and choose the **Channel Listings** action.
3. Open the top-level parent configurable item listing you want to update.
4. Choose the **Actions** ribbon, then select the **Data** menu and choose the **Synchronize Item Variations** action.

New CSM listings will be created for the newly-added attribute value. These listings will be added to the lines on the configurable item's **CSM Listing Children List** FastTab.

Now that you have updated the CSM item attributes and CSM listings, you can send this information to Magento:

1. From the CSM listing for the configurable, parent item, choose the **Actions** ribbon, then choose the **Channel Integration** menu and execute the following functions in order:

- **Send Configurable Options To Channel:** this will send the new configurable option value to Magento, where it is assigned to the appropriate attribute record. This information is assigned to the Magento product and can be viewed in the **Variations** section of the Magento product record. Magento will assign a unique identification number to the option value; CSM retrieves this information and updates the relevant lines on the CSM listing's **CSM Listing Attribute List** FastTab as well as the related CSM item attributes accordingly.
- **Send Config Children To Channel:** this will send the new listings to Magento, where they can be created as new products. Magento will assign a unique identification inventory and SKU number to each record; these values will be retrieved by CSM and presented in the **External ID** field on the listing's **Listing Status** FastTab.

Retrieving Configurable Items from Magento

Executing the [load products from channel action](#) for a sales channel retrieves all products from the connected eCommerce platform and creates corresponding CSM listings in Business Central. This includes any configurable items that you have set up in Magento. For each retrieved configurable item, CSM listings are created for the top-level parent configurable item as well as each child variation.

As with any CSM listing that is retrieved from Magento, it is necessary for you to associate configurable item listings to Business Central items or variants by using the **Type** and **No.** fields on the **General** FastTab to select the relevant record.

The load products from channel action does not retrieve attribute sets or attributes from Magento. If you wish to maintain this information on the listings that you have created from Magento data, you must manually assign these values:

1. Open the CSM listing to which you want to assign attributes.
2. On the **Listing** FastTab, enter or use the AssistButton in the **Channel Item Attribute Set** field to assign an attribute set to the listing.
3. Choose the **Actions** ribbon, then select the **Data** menu and choose the **Synchronize Item Attributes** action.

CSM will assign attributes and attribute values to the listing based on the assigned attribute set and Business Central item. These attributes are presented in the **CSM Listing Attribute** List FastTab.

Appendix A: Item Variations

Depending on your business, you may include configurable items as part of your product portfolio. A configurable item is an item that you offer in different variants based on variable attributes or characteristics.

For example, assume we are a company that sells apparel. We sell a t-shirt item in three colors (red, blue, and yellow) and three sizes (small, medium, and large), resulting in nine possible configurations. While we need to account for these nine variants in some manner, from a listing perspective we want to list just the top-level t-shirt item, then allow buyers to select their preferred color and size from the product page.

There are different ways in which these configurable products can be set up in Business Central:

- **Items:** a separate item record is set up for each product configuration.
- **Variants:** a single item record is set up for the top-level item, which then has separate variant records.

Regardless of which method your company employees, the process of creating separate records for configurable product variations can be time-consuming: if we make our t-shirt item available in eight different colors and 10 different sizes, there would be 80 different variations to define.

To assist in the process of setting up configurable item structures that can subsequently be exported to your external eCommerce platform, CSM contains an item variations module. This functionality allows you to set up the criteria you want to use for defining an item's many configurations, then generate Business Central items or variants based on these criteria.

***Note:** while the item variations module is included in CSM to assist with the creation of configurable CSM listings, it is not strictly tied to CSM listing functionality. You can use this feature to create item variations for any of your Business Central items, regardless of whether they are involved in your eCommerce activities.*

Setup

Item Attribute Setup

If you intend to create [CSM listings](#) based on a configurable item's variations, it is recommended that you set up Business Central item attributes that correspond to the configurable attributes you want to assign to items. When creating an item variation, it is possible to link that variation's attributes to existing item attributes in Business Central. Although not required, it is highly recommended you link your item variation attributes to Business Central item attributes, due to Magento's rigid attribute structure.

Beyond this general recommendation that you set up Business Central item attributes for each configurable attribute, you must set up two default item attributes that represent non-variable item variation characteristics before you can create item variations:

- **Brand:** an item attribute that represents an item's brand.
- **Common Item:** an item attribute with an item-specific value that can be used to establish a clear link between a top-level "parent" item and the separate "children" items that represent that item's different product configurations. For example, if an item with a common item attribute value of 1234 has a number of children items representing different product configurations, each of these child items' unique identification number would begin with 1234.

These item attributes represent static characteristics of an item's variations, meaning that an assigned value is shared across an item's product configurations. For example, if an item has a brand of Suite Engine, that Suite Engine brand remains the same for all of that item's variations.

These item attributes are [set up in the same manner as any item attribute in Business Central](#). It is recommended that they be set up as text type attributes.

Once you have set up these item attributes, you must indicate that they will be assigned to new item variations:

1. Choose the  icon, enter **Variations Setup**, and then choose the related link.
2. On the **Variations Setup** page, assign the item attributes you want to use for default brand and common item information for item variations.
3. Enable the **Confirm After Create Item Variation** field, if desired. Enabling this option will instruct the system to present a notification message to users whenever an item variation is created for an item.

The **Variation Option Limit** field presents the maximum number of variation options that can be assigned to an item variation. The item variations module supports a maximum of three variation options per item variation, and by default this field is set to three. To prevent inadvertent changes to this functionality, this field cannot be edited. If you wish to adjust your variation option limit, please contact your Suite Engine partner for assistance.

Item Variation Templates

You can streamline the process of item variation creation by defining item variation templates. When you create a new item variation for an item, you can choose to copy it from an existing template. You can then make any item-specific adjustments as needed.

To create a new item variation template:

1. Choose the  icon, enter **Item Variation Templates**, and then choose the related link.
2. On the **Item Variation Templates** page, choose the **New** action in the ribbon.

A new item variation template card opens.

3. Fill in the **Template Code** field to identify the item variation template as a unique record in the system.
4. The remaining values have corresponding fields on the **Item Variation Card** page. Please review the [documentation on item variations](#) to understand the purpose behind these fields and receive guidance on how to set them up.

Note: the one unique field on the item variation template that does not have a corresponding value on the **Item Variation Card** page is **Common Item Attribute Value Max Length**. An item variation's common item attribute is an item attribute with an item-specific value that can be used to establish a clear link between a top-level "parent" item and the separate "children" items that represent that item's different product configurations. For example, if an item with a common item attribute value of 1234 has a number of children items representing different product configurations, each of these child items' unique identification number would begin with 1234. Because an item variation template is not associated to a specific item record, it is not possible to enter an item-specific value for this common item attribute. It is still necessary to specify the maximum number of allowable characters, however, to ensure that the generated identification numbers for child items does not exceed maximum field lengths.

You can also copy an existing item variation template and use it as the basis for a new one:

1. Choose the  icon, enter **Item Variation Templates**, and then choose the related link.
2. Open the item variation template you want to copy.
3. Choose the **Actions** ribbon, then choose the **Copy Template** action.
4. In the **New Template Code** field, enter a unique code for the new item variation template you want to create.
5. Choose the **OK** button.

The system will create a new item variation template based on the one from which you executed the copy function. You can now make any adjustments to this new template as needed.

Creating an Item Variation

The item variations functionality allows you to manage the records that represent configurable variations of an item in Business Central. This is useful in scenarios where multiple versions or variants of an item are available based on variable characteristics.

For example, assume we are a company that sells apparel. We sell a t-shirt item in three colors (red, blue, and yellow) and three sizes (small, medium, and large), resulting in nine possible configurations. From a setup perspective, we want to create a single t-shirt item as a “parent,” and nine “children” representing each color/size combination. The records we set up in Business Central depend on our business processes:

- **Items:** we may wish to define each variable configuration as a separate item record. Although these configurations exist as unique items, it is still beneficial to establish a relationship between these items and the top-level parent items.
- **Variants:** we may wish to define each variable configuration as a variant of the top-level parent item.

The item variations functionality allows you to establish an item’s configurable characteristics, review a proposed list of that item’s variable SKUs, and then generate corresponding items or variants in Business Central.

Assigning Item Attributes

Each item variation supports two non-variable characteristics:

- **Brand:** an item attribute that represents an item’s brand.
- **Common Item:** an item attribute with an item-specific value that can be used to establish a clear link between a top-level “parent” item and the separate “children” items that represent that item’s different product configurations. For example, if an item with a common item attribute value of 1234 has a number of children items representing different product configurations, each of these child items’ unique identification number would begin with 1234.

These item attributes represent static characteristics of an item’s variations, meaning that an assigned value is shared across an item’s product configurations. For example, if an item has a brand of Suite Engine, that Suite Engine brand remains the same for all of that item’s variations.

It is possible to [define global brand and common item attributes](#). These item attributes will be automatically assigned to newly-created item variations, but you can manually change them, if desired.

When you are creating an item variation for an item, it is necessary for you to assign the item attributes that will be used as the item variation's brand and common item attributes:

1. Open the item for which you want to create an item variation.
2. Choose the **Item** ribbon, then choose the **Attributes** action.
3. On a new line, in the **Attribute** field, enter or use the AssistButton to select the item attribute you want to assign as the item's brand attribute.
4. In the **Value** field, enter the value you want to assign as the item's brand attribute value.
5. Repeat steps 3-4 for the item attribute you want to assign as the item's common item attribute.

Creating Item Variations

An item variation contains the setup and configuration options that instruct the system on how an item's variation SKUs will be built. An item variation is also where you define the item's configurable item variation options and item variation option values:

- **Item variation options:** the variable characteristics or attributes that comprise different product configurations.
- **Item variation option values:** the different values that a given characteristic can take.

For example, if we offered a product in multiple colors and were setting up an item variation to reflect this variable characteristic, we would create an item variation option called *Color*. This variation option would then have option values such as *Red*, *Blue*, and *Yellow*.

Each item in Business Central can have a single corresponding item variation:

1. Open the item for which you want to create an item variation.
2. Choose the **Actions** ribbon, then choose the **Create Variation** action in the **Functions** menu.
3. If you wish to create the item variation from an existing item variation template, enable the **Create From Template** field, then enter or use the AssistButton in the **Item Variation Template Code** field to enter the desired template.
4. Choose the **OK** button.

A new item variation is created for the item; depending on how you have set up the item variations module, the system may notify you then the item variation has been created. You can view this item variation by choosing the **Related** ribbon, then choosing the **Variation Info** action in the **Item** menu.

It is not possible to create more than one item variation for an item. Accordingly, if an item has a related item variation, the **Create Variation** action is removed from the ribbon. If you wish to re-run this action for an item, you must first delete the item variation. This will restore the **Create Variation** action to the ribbon.

Configuring an Item Variation

Once an item variation has been created for an item, you must configure it to instruct the system how to generate variation SKUs. If the item variation was created from a template, by default that template's settings will be assigned, but you can modify them, if desired.

1. Open the item for which you want to create an item variation.
2. Choose the **Related** ribbon, then choose the **Variation Info** action in the **Item** menu.

The item variation card opens. The **Item Number** and **Item Description** fields will default to present information about the related item.

3. In the **Brand Item Attribute Name** and **Common Item Attribute Name** fields, enter or use the AssistButton to assign the item attributes that you want to use as the item variation's brand and common item attributes. The system will automatically assign the brand and common item attributes that have been defined as [global defaults](#), but you can modify them, if desired. The corresponding value fields will present the attribute value that has been assigned to the item.
4. Assign SKU explosion values that will instruct the system how to create new Business Central records for the item variation SKUs:
 - **SKU Explode Method:** select the type of Business Central record that will be created from an item's variation SKUs. Item variation SKUs can be used as the basis for either item or variant records.
 - **SKU Key Mask:** select the manner in which the identification number that identifies each variation SKU's corresponding Business Central record is generated. Options are:
 - *Segments:* identification numbers will be generated from a series of segment values that reflect each one of an item variation SKU's variable values.
 - *Numerical:* if the item variation's SKUs will be used to generate variants, it is possible to assign identification numbers from a defined number series. It is not possible to use a number series if the item variation's explosion method instructs the application to create items.
 - **Variant Nos.:** if you select the *Numerical* option in the **SKU Key Mask** field, enter or use the AssistButton to assign the number series that will be used to assign unique identification numbers to variants that are created for item variation SKUs.

If the item variation was created from an item variation template, that template's code will be presented in the **Item Variation Template Code** field. The **Synchronize with Template** field can be ignored, as the ability to synchronize an item variation with an assigned template is not supported at this time.

Item Variation Options

Item variation options represent the variable characteristics or attributes that comprise different product configurations. These characteristics are defined as option values.

For example, if we offered a product in multiple colors and were setting up an item variation to reflect this variable characteristic, we would create an item variation option line with a code of *Color*. This variation option would then have option values such as *Red*, *Blue*, and *Yellow*.

As part of setting up an item variation, you must configure options and option values. If the item variation was created from a template, by default that template's options and options values will be assigned, but you can modify them, if desired.

Note: *the item variations module provides you with the ability to associate item variation options to corresponding Business Central item attributes. Although this is not enforced, it is highly recommended that you link your item variation options to Business Central item attributes. This is due to CSM's existing attribute integration with Magento, which is generally built from Business Central item attributes and item categories.*

Item variations support up to three options. Each item variation option is entered as a separate line in the **Options** FastTab.

Fill in the fields as follows:

Field	Description
Option Code	Enter a code that identifies the item variation option as a unique record in the system.
Option Sequence	This field will be automatically populated by the system when the line is validated.
Link Type	<p>Select the Business Central record to which you want to associate to the item variation option, if desired. Options are:</p> <ul style="list-style-type: none"> • <i>None</i>: the option is not associated to any Business Central records. • <i>Item Attribute</i>: the option is associated to an item attribute record. <p>As mentioned above, it is strongly recommended that you link your item variation options to Business Central item attributes.</p> <p>Although the two options listed above are available in the out-of-the-box product, this feature is fully extendable and contains the necessary functionality to integrate to other entities. If you were using another extension to manage product attributes or characteristics, for example, it could be added as an item variations link type.</p>
Link Key 1	If you select an option other than <i>None</i> in the Link Type field, enter or use the AssistButton to select the record you want to associate to the item variation option.
Description	Enter a description to more fully identify the item variation option.
Key Segment Max. Length	<p>Enter the maximum number of characters that can be assigned as part of the key segment which represents this item variation option. Key segments are used to create unique identification numbers for variation SKUs; the identification number is comprised of a series of “segments,” with each segment representing a separate option value. When you are defining these key segment values for each option value, it is not possible to enter a greater number of characters than the established maximum length.</p> <p>To ensure that generated identification numbers do not exceed standard Business Central character requirements, there are limitations to the values that can be assigned as an item variation option’s maximum key segment length. These limitations depend on the item variation’s assigned SKU explosion method:</p> <ul style="list-style-type: none"> • Items: the sum of the characters for the value in the Common Item Attribute Value field and the values in the Key Segment Max. Length and Key Segment Delimiter fields across all item variation option lines cannot exceed 20. • Variants: the sum of the characters for the values in the Key Segment Max. Length and Key Segment Delimiter fields across all item variation option lines cannot exceed 10.
Key Segment Min. Length	Enter the minimum number of characters that can be assigned as part of the key segment which represents this item variation option. Key segments are used to create unique identification numbers for variation SKUs; the identification number is comprised of a series of “segments,” with each segment representing a separate option value. When you are defining these key segment values for each option value, it is not possible to enter a lesser number of characters than the established minimum length.
Key Segment Position	Enter the position in which the key segment that represents this item variation option should be placed in relation to other key segments. Key segments are used to create unique identification numbers for variation SKUs; the identification number is comprised of a series of “segments,” with each segment representing a separate option value.
Key Segment Delimiter	<p>Enter a character that is used to separate the key segment which represents this item variation option from other key segments. Key segments are used to create unique identification numbers for variation SKUs; the identification number is comprised of a series of “segments,” with each segment representing a separate option value.</p> <p>The key segment delimiter precedes the key segment value. As a result, it is not necessary to assign a delimiter to the item variation option with the first key segment position if the assigned SKU explosion method is by variant.</p> <p>Note: because the unique identification numbers for variation SKUs are used to generate Business Central records, it is not recommended that you assign characters that are used in standard Business Central filter expressions.</p>
Preferred UI Orientation	<p>Select the manner in which the item variation option values are displayed in matrix-style views.</p> <p>Note: the column display is the only supported orientation at this time.</p>

Field	Description
Column Caption	Enter a caption that will be used to identify the item variation option when it is displayed in a column orientation. This includes the columns on the SKUs FastTab; the captions for the option value fields on this FastTab will be replaced by these column captions.
Row Caption	The ability to display item variation options in a row orientation is not supported at this time; this field may be left blank.
Common Caption	Enter a caption that will be used to identify the item variation option in scenarios where a display orientation is not specified. Because a single orientation type is supported at this time, this field may be left blank.
Option Type	Select an option type to further classify the item variation option. An item variation option can be identified as a color, a size, or "other." The assignment of an option type is purely informational, and has no functional impact.

Once you have set up an item variation option, you must define its option values. You can view the option values that have been defined for a selected item variation option in the **Option Values** FactBox.

The manner in which you perform this setup depends on the selected link type:

- *None*: you must manually define option values on the **Item Variation Option Card** page by choosing the **Line** ribbon on the **Options** FastTab, then choosing the **Option Card** action.
- *Item Attribute*: you can automatically retrieve the Business Central item attribute's values by choosing the **Line** ribbon on the **Options** FastTab, then choosing the **Synchronize with Link** action.

The **Item Variation Option Card** page is where you either define a variation option's values or, if you have copied this information from Business Central item attributes, edit existing ones. You can open this card by choosing the **Line** ribbon on the **Options** FastTab, then choosing the **Option Card** action.

The values on the **General** and **Matrix Settings** FastTabs present the corresponding fields on the item variation option line. You can make any changes to these values, if desired.

You can define as many option values as you wish. Each value is entered as a separate line in the **Option Values** FastTab.

Fill in the fields as follows:

Field	Description
Value Code	Enter a code that identifies the option value as a unique record. If the option values were synchronized from a Business Central item attribute, the item attribute's values will be automatically copied as the value codes, but they can be modified, if desired.
Value Description	Enter a description to more fully identify the option value. If you send option values to a connected eCommerce platform, the description will be used to identify these values in the online storefront. If the option values were synchronized from a Business Central item attribute, the item attribute's values will be automatically copied as the value descriptions, but they can be modified, if desired.
Active	Enter a check mark in this field to indicate that the option value is active and should be included when the system is instructed to create variation SKUs based on variable option values. Because Magento utilizes the concept of shared attributes, it is important to mark as active only those option values that are relevant to the product. For example, we might set up an option for color. Because this option is assigned to any item for which we want to differentiate by color, it has 20 different color option values. When we assign that

Field	Description
	option to an item variation and retrieve its values, option value lines would be created for all 20 colors. If we are setting up an item variation for a product that we only make available in Black and White, it is necessary for us to mark those two option values as active, and leave the others disabled.
Option Value Sequence	Enter the position in which the option value should be placed in relation to other option values. If you send option values to a connected eCommerce platform, the option value sequence will determine the order in which these values are displayed in the online storefront.
Key Segment Value	<p>Enter the value that will be used to represent the option value when it is included as part of a key segment. Key segments are used to create unique identification numbers for variation SKUs; the identification number is comprised of a series of “segments,” with each segment representing a separate option value. The number of characters in the key segment value must fall within the ranges defined by the item variation option’s key segment maximum and minimum lengths.</p> <p>If the option values were synchronized from a Business Central item attribute, the item attribute’s values will be automatically copied as the key segment values. If the item attribute value has more characters than the variation option’s maximum key segment length, it will be truncated accordingly. For example, if an item attribute value of <i>Orange</i> was copied to an item variation with a maximum key segment value of four, the corresponding option value would have a key segment value of <i>ORAN</i>.</p>
Common Value	Enter any alternative verbiage or terminology that is used to identify the option value, if desired.
Industry Value	Enter any alternative industry-specific verbiage or terminology that is used to identify the option value, if desired. If the option represents a color, it is not required to enter the related hexadecimal value for that color; if you are attempting to send the option value to Magento.
Brand Value	Enter any alternative brand-specific verbiage or terminology that is used to identify the option value, if desired.
Swatch FactBox	If the option value represents a color, pattern, logo, or other image, you can upload an image file via the Swatch FactBox . This is not required in WooCommerce. It is optional.

Creating Item Variation SKUs

Once you have defined the configuration settings, options, and option values for an item variation, you can instruct the system to suggest variation SKUs based on these variable characteristics by choosing the **Actions** ribbon, then choosing the **Create Item Variation SKUs** action. The system will enter a separate line for each combination of configurable option values that are marked as active in the **SKUs FastTab**.

For example, assume we are a company that sells apparel. We sell a t-shirt item in multiple colors and sizes. On the t-shirt’s item variation card, we define two options. For each option, we define three option values:

Option	Option Value 1	Option Value 2	Option Value 3
Color	Red	Blue	Yellow
Size	Small	Medium	Large

When we instruct the system to create new variation SKUs, a separate SKU line will be entered for each color/size configuration (Red-Small, Blue-Small, Yellow-Small, Red-Medium, etc.).

If you wish to add a value to an option, you can do so and then re-run the item variations SKU creation action. Additional lines will be created based on your changes.

The item variations SKU creation action will create new SKU lines, but it will not update existing ones. If you wish to modify existing variation SKU lines due to changes to option values, you must first delete the lines, make the necessary changes, and then re-run the item variations SKU creation action.

Exploding Item Variation SKUs

An item variation's SKUs do not represent separate Business Central items or item variants. They are, however, used as the basis for new Business Central records. Once you have reviewed an item variation's SKUs and confirmed they are correct, you can create new records from them:

1. Choose the **Actions** ribbon, then choose the **Explode SKUs** action.
2. If you only wish to create records for a selected group of SKUs, set the necessary filters on the **Filter: Item Variation SKU** FastTab. Please note that the filters for option values do not use the related option's column caption, but rather generic **Option Value 1**, **Option Value 2**, and **Option Value 3** captions.
3. Choose the **OK** button.

New Business Central records are created according to the criteria that you specified in the **Explode Item Variation** page. The **SKU Item No.** and (if relevant) **SKU Variant Code** fields are automatically updated with information about these new records.

4. Enter other variation SKU values on the line, if desired:
 - **SKU:** enter a value that identifies the variation SKU as a unique record. This field can be used if there are other identification values for a given SKU beyond what is automatically generated via the item variations feature. For example, if a variation SKU has an external UPC value, it could be entered in this field. If you intend to create CSM listings based on a configurable item's variations, you must assign a SKU on the relevant variation SKU lines.
 - **SKU Unit of Measure:** enter or use the AssistButton to assign a unit of measure to the variation SKU. The assignment of a SKU unit of measure is purely informational and has no functional impact.
 - **SKU Status:** select a status to indicate the SKU's place in your product workflow. SKUs are initially created with a status of *Pending*, but if you intend to create CSM listings based on a configurable item's variations, you must update the status on the relevant variation SKU lines to either *Active* or *No Replenish*.

The SKU explosion action will create a number of new Business Central records based on the item variation's SKUs. The type of record that is created is determined by the value in the item variation's **SKU Explode Method** field:

- *Items*: an item is created for each SKU. These items exist as separate item records from the item variation's parent item.
- *Variants*: an item variant is created for each SKU. These variants are assigned to the item variation's parent item.

The manner in which these records' identification numbers are assigned is determined by the value in the item variation's **SKU Key Mask** field:

- *Segments*: the item or variant's identification number is comprised of a series of "segments," with each segment representing a separate option value. When an option value is being created, a key segment value must be defined. When a new item or item variant involving the option value is created, the relevant key segment is entered as part of that record's identification number. The way segments are used to create identification numbers depends on the item variation's SKU explosion method:

- *Items*: for each variation SKU, the item's identification number is determined by the item variation's common item attribute value, followed by the key segments for each value. These key segments are segregated by key segment delimiters.

For example, assume we have an item variation with a common item attribute value of *SE200*. This item variation has a SKU with two values: a color value of *RED* and a size value of *S*. Both values have a preceding delimiter character of *-*. If we instruct the system to generate an item for the SKU, it will be assigned an identification number of *SE200-RED-S*.

- *Variants*: for each variation SKU, an item variant's identification number is determined by the key segments for each value. These key segments are segregated by key segment delimiters. Because the key segment delimiter precedes the key segment value, it is not necessary to assign a delimiter to the item variation option with the first key segment position.

For example, assume we have an item variation with a SKU that has two values: a color value of *RED* and a size value of *S*. The size value also has a preceding delimiter character of *-*. If we instruct the system to generate an item variant for the SKU, it will be assigned an identification number of *RED-S*.

- *Numerical*: when exploding variation SKUs into item variants, it is possible to assign variant codes from the number series that has been defined in the item variation's **Variation Nos.** field. The system will assign the next available number from the defined series to each new item variant. If you are exploding variation SKUs into items, it is not possible to use a number series.

A variation record's unique identification number will be presented in the **SKU Item No.** or **SKU Variant Code** field (depending on the relevant record type) on the item variation's SKU line.

Regardless of whether a variation's SKU is exploded into an item or variant, the record's description is determined by the parent item's description, followed by the descriptions for the variation's values. For example, assume we have an item variation for an item with a description of *T-Shirt*. This item variation has a SKU with two values: a color value with a description of *Red* and a size value with a description of *Small*. If we instruct the system to generate an item or variant for the SKU, it will be assigned a description of *T-Shirt, Red, Small*.

In addition, items that are created from variation SKUs inherit all field values (excluding calculated values) from the parent item, including unit of measure, price and cost information, and posting group setup. Any item attribute values that have been defined for the parent item are also copied to the children items. There are no inheritance considerations for item variants, which are not comprised of much more than a code and a description.

Following the explosion of a variation SKU into an item or item variant, the system will update fields on the variation SKU's line with information about the related Business Central record:

- **SKU Item No.**: if the variation SKU is used as the basis for a Business Central item, that item's number is presented in this field. If the variation SKU is used as the basis for a Business Central item variant, the item number for the variant's parent item is presented in this field.
- **SKU Variant Code**: if the variation SKU is used as the basis for a Business Central item variant, that variant's code is presented in this field. This field remains blank if the variation SKU is used as the basis for a Business Central item.

The **Item Variation Details** FactBox presents the number of item variation SKUs that have been created for the item variation, as well as the number of item or variant records that have been created from these SKUs. These values are presented as cues, meaning that you can choose one of them to open a separate list of the records that comprise the total. In this way, you can compare the number of Business Central records that have been created against the number of SKUs that exist for the item variation.