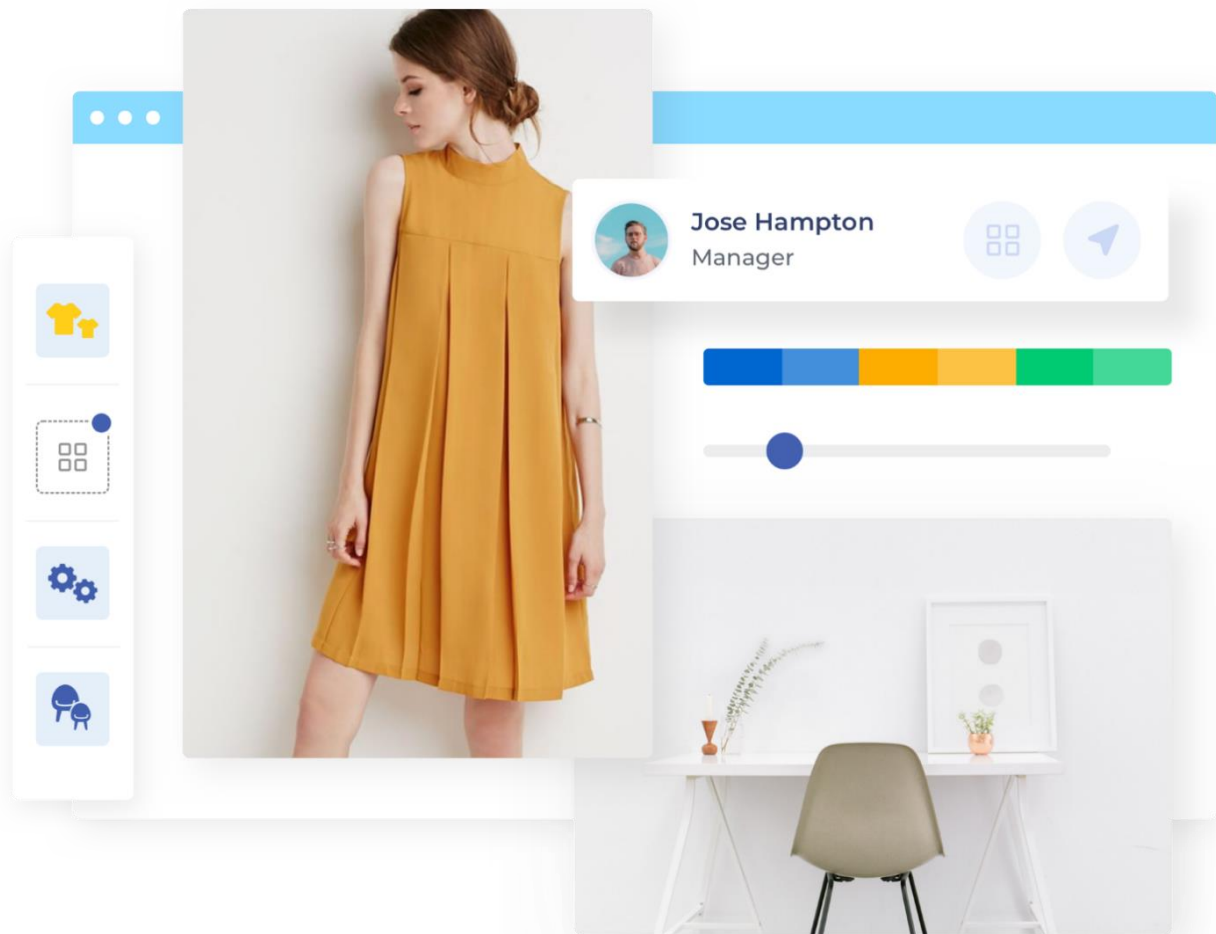


**WHITE PAPER**

# PORTALS ITEM ATTRIBUTES

This document contains information about the item attribute functionality in TRIMIT Portals for Business Central BC13 R2.

Date: 09-03-2020

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# INTRODUCTION

Masters and items in TRIMIT can have attributes and this is a standard functionality. From portals version BC13 R2 the attributes are utilized on B2C and B2B webshops and SA portal on product category pages. This gives possibility to use attributes as product filters.

The functionality described is the functionality in **TRIMIT for Business Central BC13 R2**.

The pictures in this White Paper are based on the demo database for **TRIMIT Business Central W1 BC13 R2**, which is based on Microsoft Dynamics 365 Business Central on premises 2019 release wave 2 (October release), in the demo company **CRONUS TRIMIT W1 Ltd.** (based on CRONUS International Ltd. of Microsoft Dynamics 365 Business Central).

# ITEM ATTRIBUTE SETUP

This chapter contains information about the portal item attribute setups.

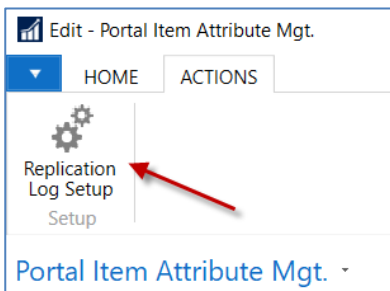
## REPLICATION LOG SETUP

Before setting up the item attributes (described in next chapters below) it is important to set up attribute logging which is described in this chapter.

*NOTE: if product attributes were set before the Replication log setup, which includes Replication Publisher and Replication Subscriber setup - then attribute value mapping data will not be synchronized to portal and product filters may be empty because of Replication Log in TRIMIT is empty. To fix this, deactivate both Replication Publisher and Replication Subscriber and run Attribute Value Mapping schedule synchronization.*

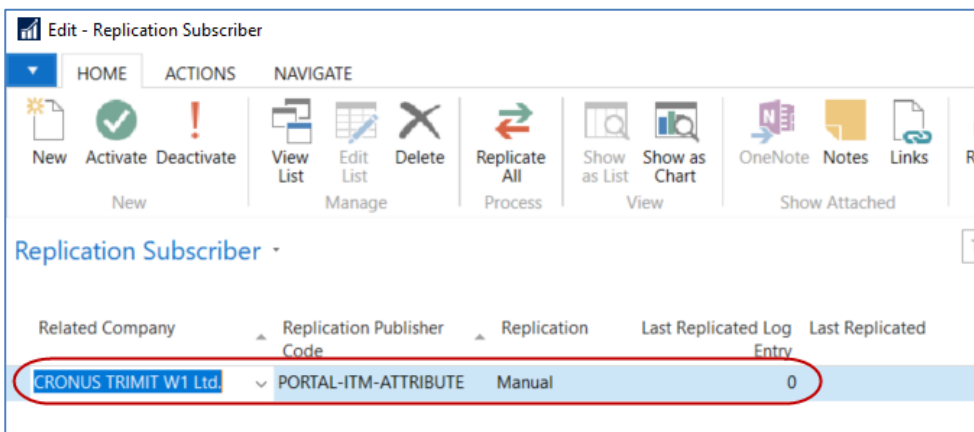
Synchronization of item attributes between TRIMIT and portals can be a resource demanding and time-consuming task – attributes can be set on potentially large number of items. Therefore, there has been implemented a mechanism of synchronizing only those attributes that have been changed.

To setup the replication subscriber (replication log) navigate to **Portal Item Attribute Mgt.** In ribbon **Actions** click **Replication Log Setup**.

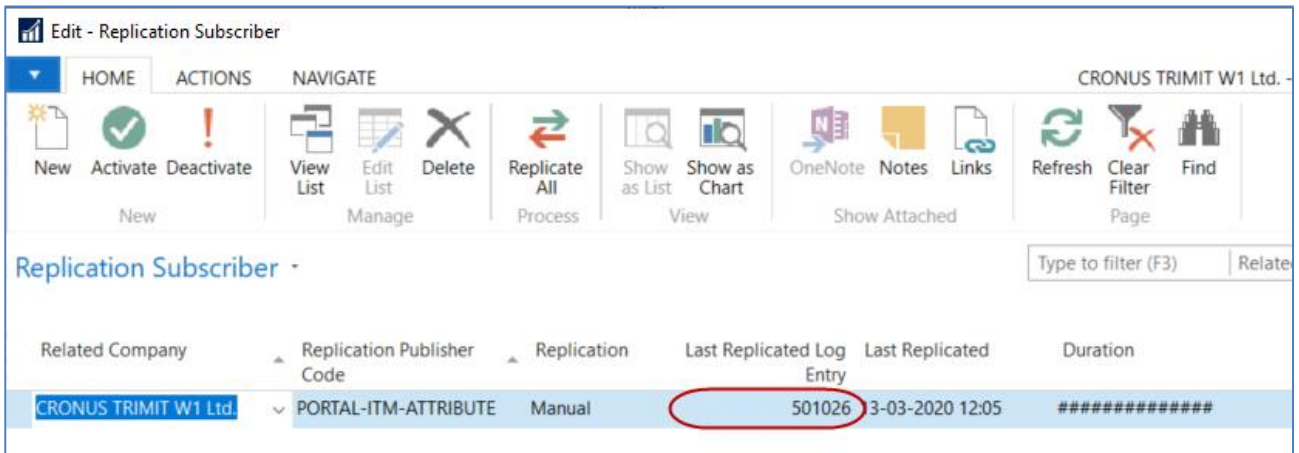


**NOTE: it is important to restart the Windows Client after setting the Replication Log.**

After this is done, a record will appear in **Replication Subscriber** page:

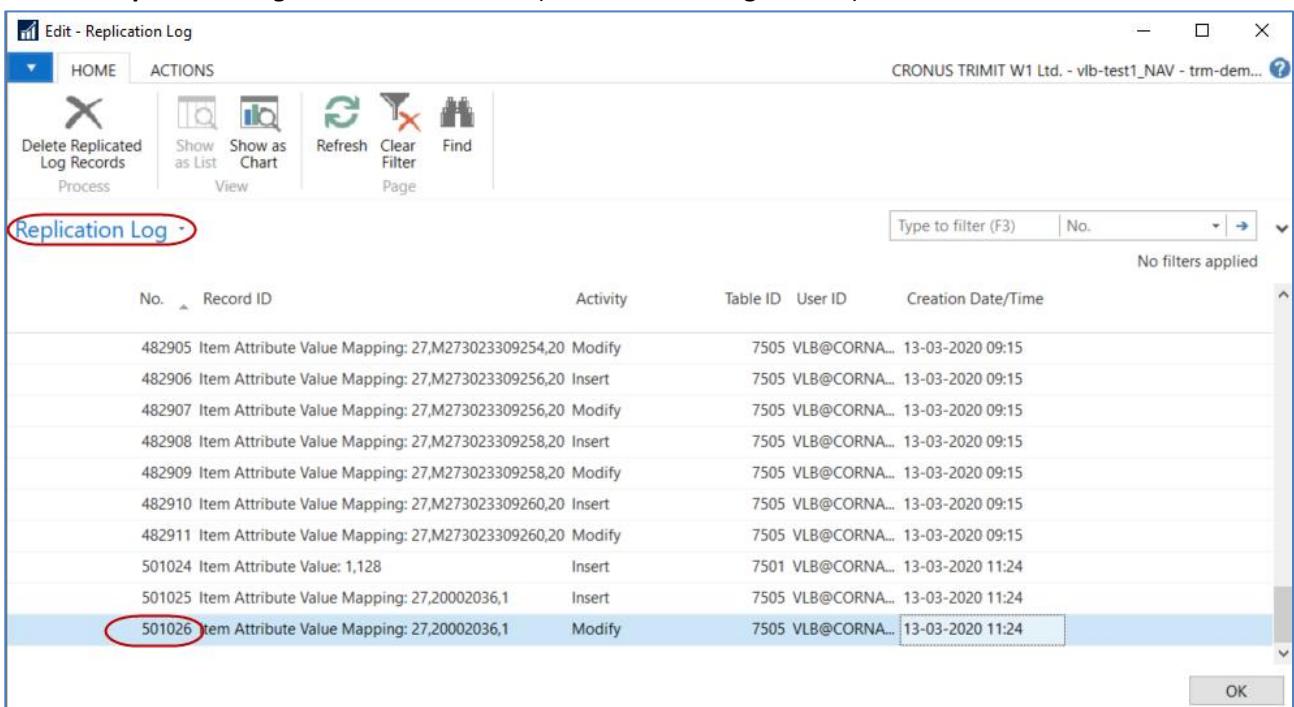


This means that there is created a log of all item and item attribute relations. Now after running schedule **Item Attributes – Value Mapping**, column **Last Replicated Log Entry** will show the number of the last record in the **Replication Log**:



| Related Company       | Replication Publisher Code | Replication | Last Replicated Log Entry | Last Replicated | Duration |
|-----------------------|----------------------------|-------------|---------------------------|-----------------|----------|
| CRONUS TRIMIT W1 Ltd. | PORTAL-ITM-ATTRIBUTE       | Manual      | 501026                    | 3-03-2020 12:05 | #####    |

And the **Replication Log** with the last record (matches the image above):



| No.    | Record ID                                         | Activity | Table ID | User ID      | Creation Date/Time |
|--------|---------------------------------------------------|----------|----------|--------------|--------------------|
| 482905 | Item Attribute Value Mapping: 27,M273023309254,20 | Modify   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 482906 | Item Attribute Value Mapping: 27,M273023309256,20 | Insert   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 482907 | Item Attribute Value Mapping: 27,M273023309256,20 | Modify   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 482908 | Item Attribute Value Mapping: 27,M273023309258,20 | Insert   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 482909 | Item Attribute Value Mapping: 27,M273023309258,20 | Modify   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 482910 | Item Attribute Value Mapping: 27,M273023309260,20 | Insert   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 482911 | Item Attribute Value Mapping: 27,M273023309260,20 | Modify   | 7505     | VLB@CORNA... | 13-03-2020 09:15   |
| 501024 | Item Attribute Value: 1,128                       | Insert   | 7501     | VLB@CORNA... | 13-03-2020 11:24   |
| 501025 | Item Attribute Value Mapping: 27,20002036,1       | Insert   | 7505     | VLB@CORNA... | 13-03-2020 11:24   |
| 501026 | Item Attribute Value Mapping: 27,20002036,1       | Modify   | 7505     | VLB@CORNA... | 13-03-2020 11:24   |

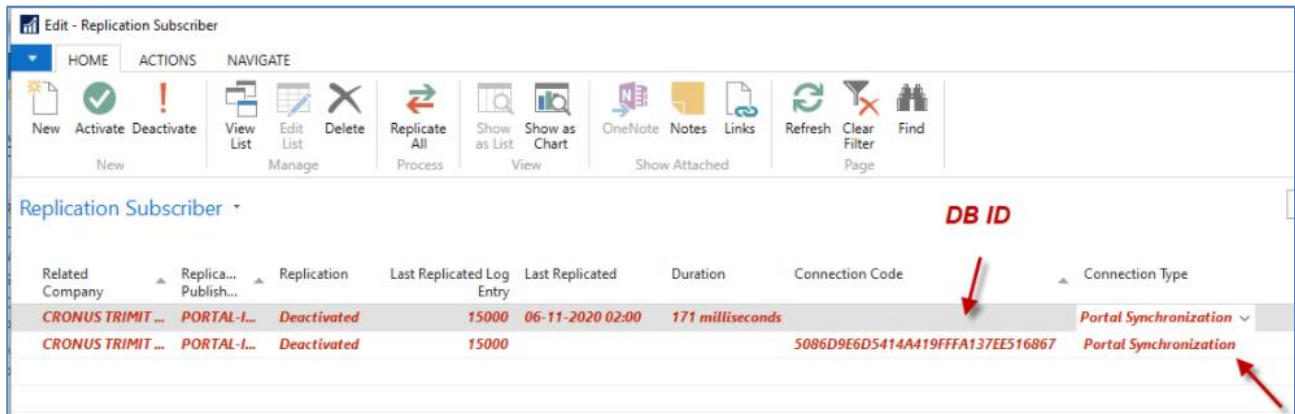
From this moment every change to attributes on item level will be reflected in this **Replication Log** as new records. And only these new log records will be synchronized to portals after running **Item Attributes – Value Mapping** schedule.

Note that running **Replication Log Setup (Portal Item Attribute Mgt. page)** one more time brings **Last Replicated Log Entry** value to zero and next run of **Item Attributes – Value Mapping** schedule will be running through all the “item – item attribute” relations and not only modified ones. This may be relevant in case of attributes do not function properly on portals.

NOTE: column **Replication** should be set to value *Automatic* in **Replication Publisher** page and to value *Manual* in **Replication Subscriber** page (set to this value by the system) to properly log attribute changed in replication log.

When having two portal instances connected to a single BC company, it is needed to set portal DB ID on replication subscriber, i.e. to have one line per each DB ID. If this is not done, then first portal instance updates the count in **Last Replicated Log Entry** field and second portal instance will have nothing to update. **Connection Type** field should be set to Portal Synchronization.

Portal DB ID can be found in Modelyn under **System/Setup/Config/License/Database Id**.

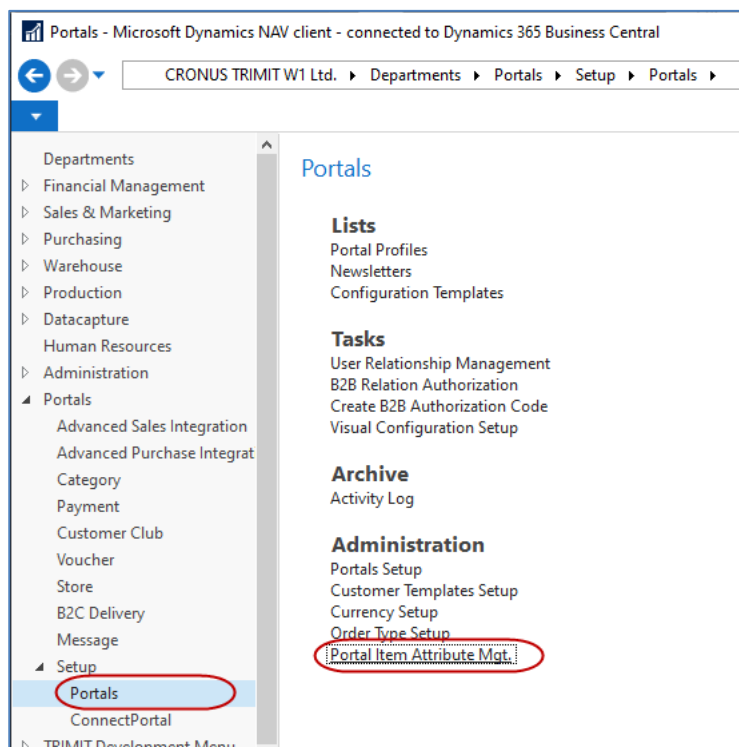


| Related Company   | Replica... Publish... | Replication | Last Replicated Log Entry | Last Replicated  | Duration         | Connection Code                  | DB ID | Connection Type        |
|-------------------|-----------------------|-------------|---------------------------|------------------|------------------|----------------------------------|-------|------------------------|
| CRONUS TRIMIT ... | PORTAL-I...           | Deactivated | 15000                     | 06-11-2020 02:00 | 171 milliseconds | 5086D9E6D5414A419FFFA137EE516867 |       | Portal Synchronization |
| CRONUS TRIMIT ... | PORTAL-I...           | Deactivated | 15000                     |                  |                  |                                  |       | Portal Synchronization |

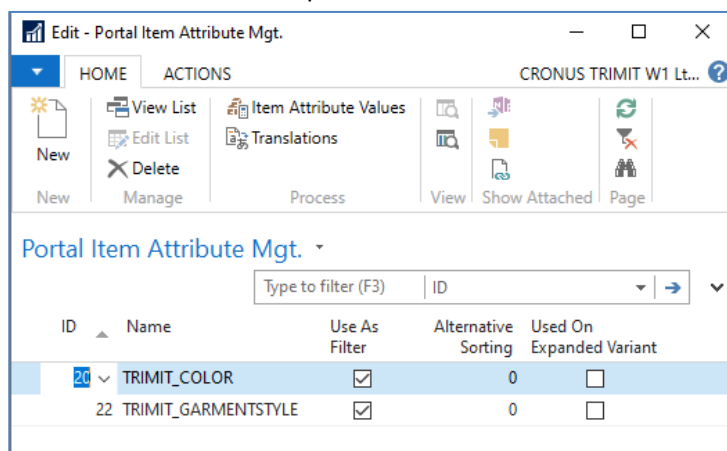
## ITEM ATTRIBUTE TRIMIT SETUP

Item attributes is a standard Business Central feature. Portal integrator reuses this feature in order to utilize it for product filtering.

The portal item attributes are set in **Portal Item Attribute Mgt.** page (navigate to **Portals/Setup/Portals/Portal Item Attribute Mgt.**)



Here in order to create a portal item attribute – select or create a needed item attribute.



## DESCRIPTION OF THE FIELDS

### ID

Portal attribute ID, should be selected from drop down with item attributes

### NAME

Portal attribute name, filled in automatically after the ID is selected

### USE AS FILTER

If set to *FALSE*, then this portal item attribute will not be shown on portal as a filter. Note that the attribute (i.e. filter) will only be shown on category page if this portal attribute is related to products from the category

## ALTERNATIVE SORTING

Setting integer values in this field will affect the order in which the corresponding to item attributes filter fields will appear on category page

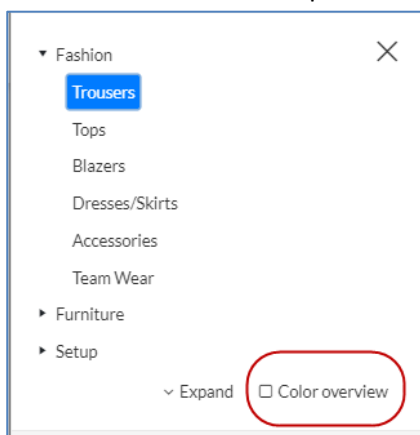
## USED ON EXPANDED VARIANT

Deprecated and not used any longer.

Products on B2C and B2B webshops and on SA portal can be represented either as masters or as items (one item per first variant which is normally a product color). Item attributes are supported in both cases.

E.g. on B2C webshop: if **Overview Mode** is set to *Show Masters* and if there is a color filter on the Trousers category – when selecting color *Black* in the filter, there will be shown all masters which have color black. In contrast, if **Overview Mode** is set to *Expand to first variant*, which is usually a color, then on Trousers category all the products will be shown as items per color. And now when selecting color *Black* in the filter - only item Black should be shown for each master where this color occurs.

The same on B2B webshop and SA portal when using **Color overview** = *TRUE* on category page.



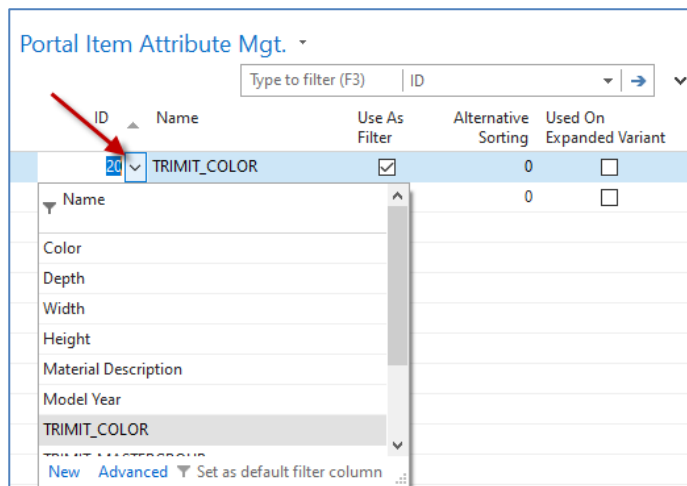
In this regard, when using *Color overview*, it is necessary to set a **Filter Group** on color VarDim type. Note, that this is only need for SA portal and B2B shop as B2C webshop uses a different approach.

| VarDim Types |            |                |                       |             |               |                       |              |                |  |
|--------------|------------|----------------|-----------------------|-------------|---------------|-----------------------|--------------|----------------|--|
| Type         | No.        | VarDim Variant | VarDim Type Name      | Dimension 2 | Limited usage | VarDim Attribute Name | In File Mask | Filter Group   |  |
| Variant      | COL_MELAM  | 111            | Melamine Color        | No          | VarDim Mas... |                       |              |                |  |
| Headline     | COLLAR     |                | Collar Specifications | No          |               |                       |              |                |  |
| Variant      | COLLAR_COL | 10             | Collar Color          | No          |               | Color_1               |              |                |  |
| Variant      | COLLARTYPE | 40             | Collar Type           | No          |               |                       |              |                |  |
| Variant      | COLOR_1    | 10             | Garment/Fabric Colors | No          | VarDim Mas... | Color_1               |              | Filter Group 1 |  |
| Variant      | COLOR_2    | 11             | Trimmings Colors      | No          | VarDim Mas... |                       |              |                |  |

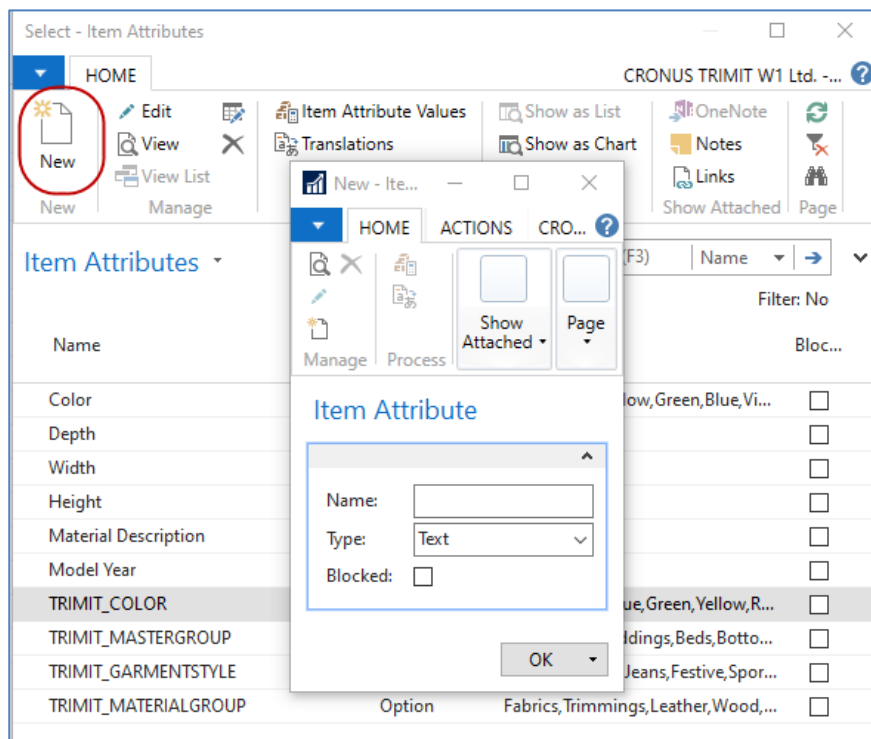
There should be used a Filter Group 1 on the VarDim type which can potentially be expanded to an item view (normally color). If filter group is not set on a color vardim type, then it will not be possible to use *Color Overview* on categories.

But note that if e.g. Filter Group 1 is set on both Color and Size VarDim type, then expanding to color overview will result into expanding on both color and size on category page (showing all colors and sizes for each master).

To select the portal attribute – look up in **ID** column and select the existing item attribute.

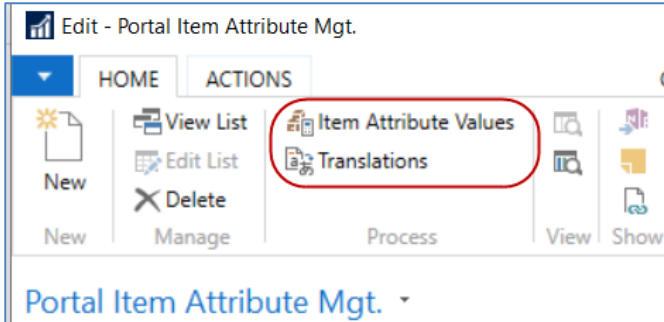


To create a needed item attribute – go to **Item Attributes** page and click **New**. Then, fill in **Name** and **Type** fields. If attribute has to be disabled - set **Blocked** to **TRUE**.



NOTE: If a new portal attribute is created, but it has not been attached to any of the items, then the related to this attribute filter will not be shown on portals, but it will be present in portals debug data.

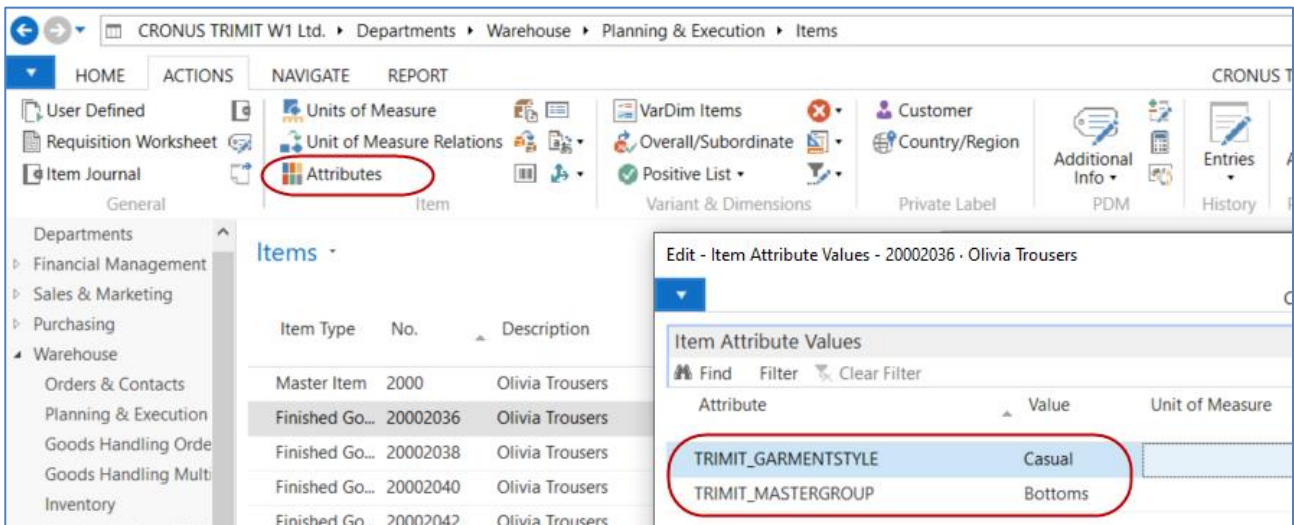
The page **Portal Item Attribute Mgt.** has two actions under ribbon *Home / Process – Item Attribute Values* and **Translations**.



Clicking **Item Attribute Values** opens values assigned to a specific attribute. Here it is also possible to add attribute values and value translations. Translations are used for displaying on Portals. If there is no translation, then system uses attribute and value names. It is also possible to block specific values in column **Blocked** – if set to **TRUE**, the value will not be shown in filter drop down on portal even if the value is assigned to a product. All the changes take effect on portal after running schedules and clearing server cache.

## BINDING ATTRIBUTE TO A PRODUCT

Attribute can be added directly on the item. But adding them to each product may not be efficient.

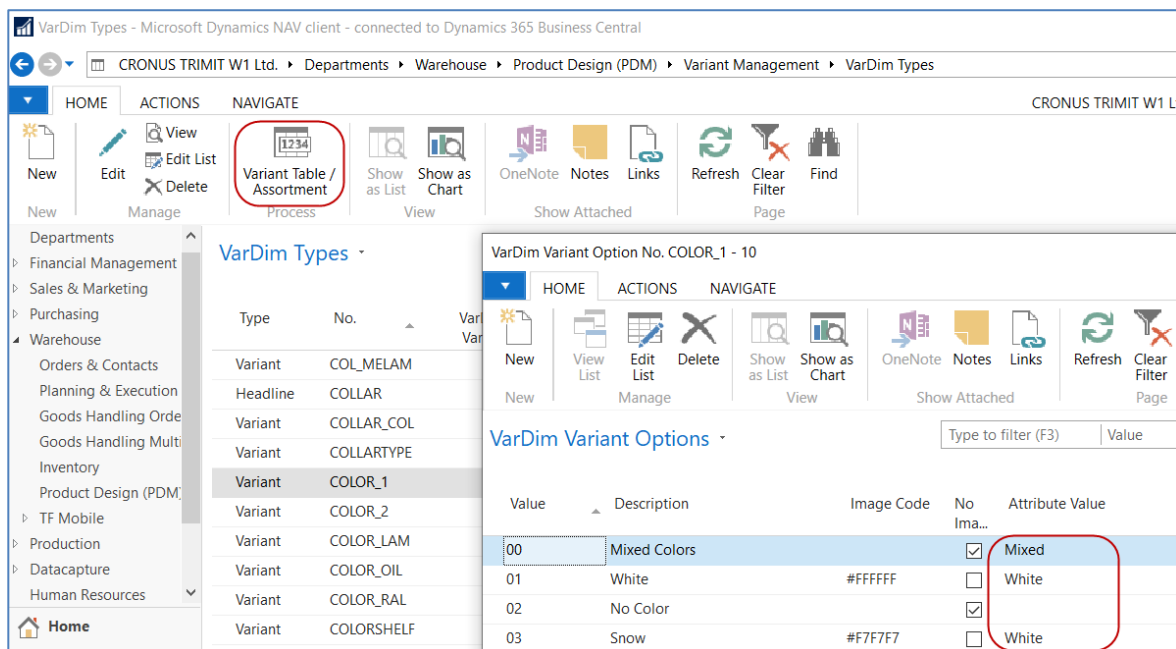


That is why it gives more sense to add attributes to a VarDim type – it can be selected in column **VarDim Attribute Name**:

| VarDim Types |            |                |                       |       |               |                       |
|--------------|------------|----------------|-----------------------|-------|---------------|-----------------------|
| Type         | No.        | VarDim Variant | VarDim Type Name      | Di... | Limited usage | VarDim Attribute Name |
| Variant      | COL_MELAM  | 111            | Melamine Color        | No    | VarDim Mas... | TRIMIT_COLOR          |
| Headline     | COLLAR     |                | Collar Specifications | No    |               |                       |
| Variant      | COLLAR_COL | 10             | Collar Color          | No    |               | TRIMIT_COLOR          |
| Variant      | COLLARTYPE | 40             | Collar Type           | No    |               |                       |
| Variant      | COLOR_1    | 10             | Garment/Fabric Colors | No    | VarDim Mas... | TRIMIT_COLOR          |
| Variant      | COLOR_2    | 11             | Trimmings Colors      | No    | VarDim Mas... |                       |

Now there can be two ways to relate attribute values to VarDim Variant Options:

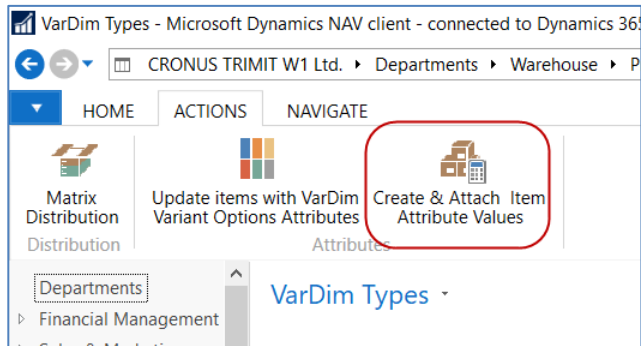
- To manually assign attribute value to an option via going to **Variant Table / Assortment** (ribbon *Home*) and selecting a value for each option in column **Attribute Value**.



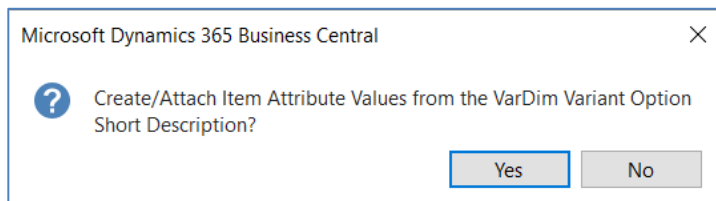
The screenshot shows the Microsoft Dynamics NAV client interface. The main window displays the 'VarDim Variant Options' table for 'VarDim Variant Option No. COLOR\_1 - 10'. The table has columns: Value, Description, Image Code, No. Image, and Attribute Value. The 'Attribute Value' column is highlighted with a red box, showing values like 'Mixed', 'White', and 'White'.

| Value | Description  | Image Code | No. Image                           | Attribute Value |
|-------|--------------|------------|-------------------------------------|-----------------|
| 00    | Mixed Colors |            | <input checked="" type="checkbox"/> | Mixed           |
| 01    | White        | #FFFFFF    | <input type="checkbox"/>            | White           |
| 02    | No Color     |            | <input checked="" type="checkbox"/> |                 |
| 03    | Snow         | #F7F7F7    | <input type="checkbox"/>            | White           |

- Another way is when attribute values can be created and assigned to VarDim variant options automatically. For this – select the needed VarDim type (on page **VarDim Types** in column **VarDim Attribute Name**) and navigate to ribbon *Actions*. Here click **Create & Attach Item Attribute Values** – this will create item attribute values based on VarDim type options and bind them together. Note, that this will not create item attribute translations:



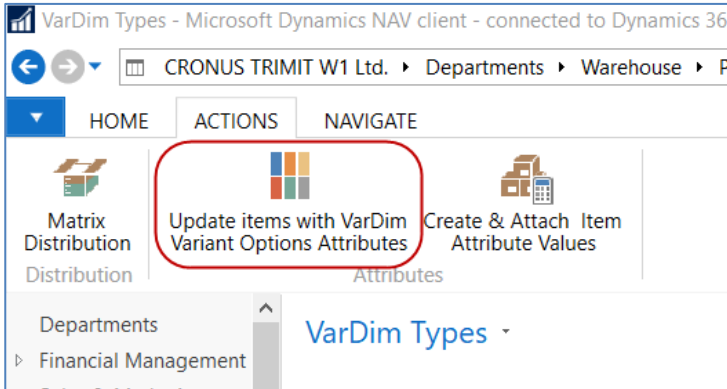
There will a confirmation window:



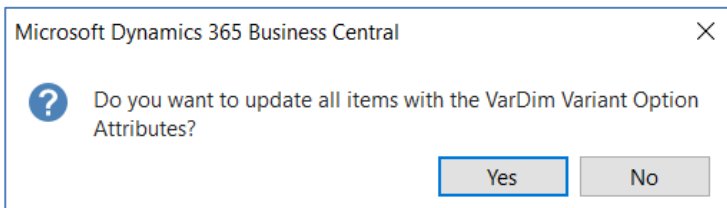
If attribute had values before, then these values will be overwritten by new values.

| VarDim Variant Option No. COLLAR_COL - 10 |              |            |                                     |                 |      |
|-------------------------------------------|--------------|------------|-------------------------------------|-----------------|------|
| CRONUS                                    |              |            |                                     |                 |      |
| VarDim Variant Options                    |              |            |                                     |                 |      |
| Type to filter (F3) Value                 |              |            |                                     |                 |      |
| Filter: 10                                |              |            |                                     |                 |      |
| Value                                     | Description  | Image Code | No. Image                           | Attribute Value | P... |
| 00                                        | Mixed Colors |            | <input checked="" type="checkbox"/> | Mixed           |      |
| 01                                        | White        | #FFFFFF    | <input type="checkbox"/>            | White           |      |
| 02                                        | No Color     |            | <input checked="" type="checkbox"/> | No Color        |      |
| 03                                        | Snow         | #F7F7F7    | <input type="checkbox"/>            | Snow            |      |
| 04                                        | No Pocket    |            | <input checked="" type="checkbox"/> | No Pocket       |      |
| 20                                        | Royal Blue   | #0000CC    | <input type="checkbox"/>            | Blue            |      |
| 21                                        | Light Blue   | #ADD8E6    | <input type="checkbox"/>            | Lt Blue         |      |
| 23                                        | Ocean Blue   | #007AE4    | <input type="checkbox"/>            | Ocean           |      |
| 25                                        | Navy         | #000080    | <input type="checkbox"/>            | Navy            |      |

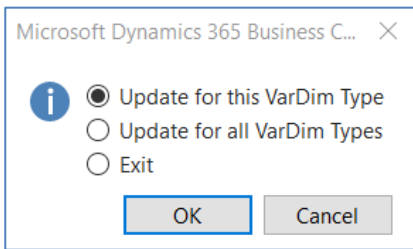
After each change in VarDim type and item attribute relation it is required to update items by clicking **Update items with VarDim Variant Options Attributes** in ribbon Actions.



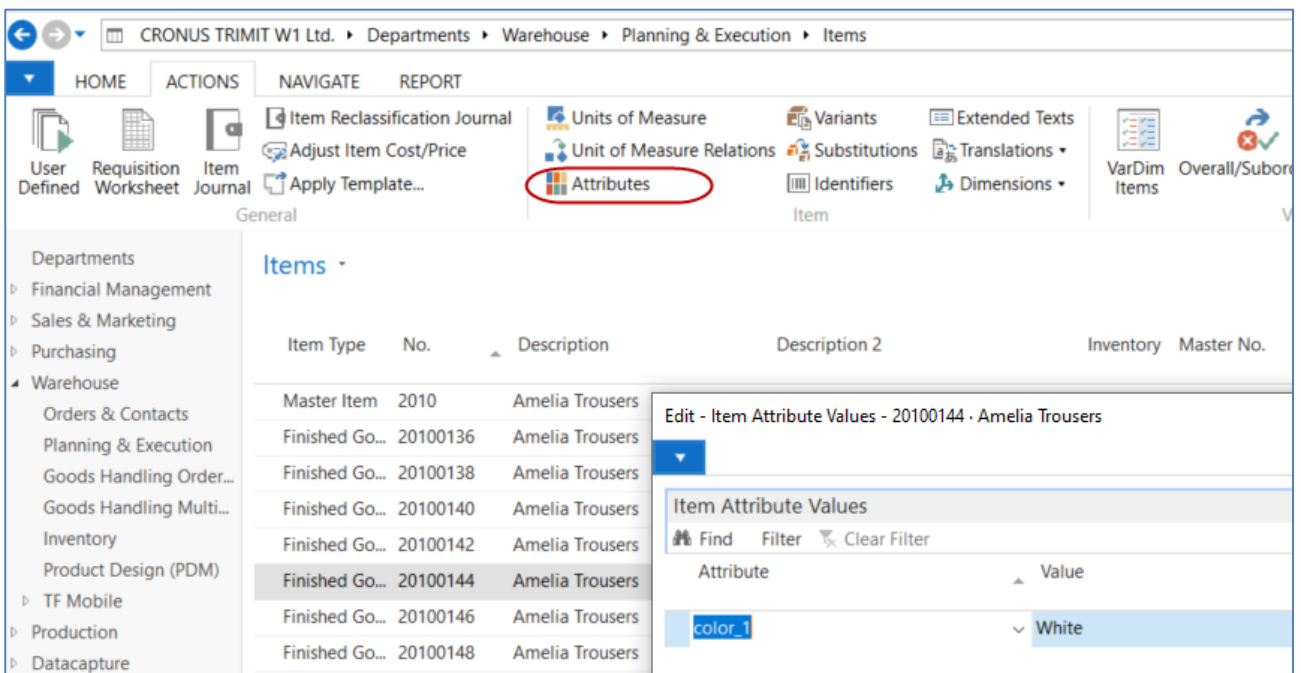
There will be a confirmation window:



Then it should be possible to select updating current or all VarDim Types.



After clicking **OK** the system initiates updating all attribute values for the related VarDim types for the related items. This will be reflected on the item level:



NOTE: item attributes can only be set on either master or item level. I.e. if attribute is set on a master level then the same attribute cannot be overwritten on item level.

All “item – item attribute” relations are stored in table 7505 **Item Attribute Value Mapping**. This table data is synchronized to a Modelyn table **Custom Data** (group *TRM-ITEM-ATTR-VALUE-MAP*) when running corresponding schedule. Deleting records in this table removes attributes from e.g. item level.

## ITEM ATTRIBUTE PORTALS SETUP

There are several schedules related to item attributes, which are as follows:

- **Item Attributes – Setup**
- **Item Attributes – Values**
- **Item Attributes – Value Mapping**
- **Item Attributes – Value Translation**
- **Item Attributes – Translation**

### Schedules

Individual schedules will open in a new page and will run immediately. Useful when in development mode or if you have your schedules turned off and wish to run a schedule manually

- Products - Pregenerate Data (B2C Items)
- Products - B2C Items
- Products - Prices
- Products - Virtual URLs
- Products - Item Availability
- Products - Item Availability Express (Targets only items which have been bought before)
- Products - Catalog
- Products - Extended texts
- Products - Additional Information (Wash & Care, Composition, Extra Info)
- Products - Search Data
- Item Attributes - Setup
- Item Attributes - Values
- Item Attributes - Value Mapping
- Item Attributes - Value Translations
- Item Attributes - Translations

### ITEM ATTRIBUTES – SETUP

Synchronizes item attributes from page **Portal Item Attributes Mgt.** The data is stored in **Custom Data** in group *TRM-ITEM-ATTRIBUTE-SETUP*

### ITEM ATTRIBUTES – VALUES

Synchronizes item attribute values into Modelyn **Custom Data** table group *TRM-ITEM-ATTRIBUTE-VALUE*

## ITEM ATTRIBUTES – VALUE MAPPING

Synchronizes the relation of each item, attribute and attribute value and stores this data in Modelyn table **Custom Data** group TRM-ITEM-ATTR-VALUE-MAP

## ITEM ATTRIBUTES – VALUE TRANSLATIONS

Synchronizes item attribute value translations and stores this data in Modelyn table **Custom Data** group TRM-ITEM-ATTR-VALUE-TRANS

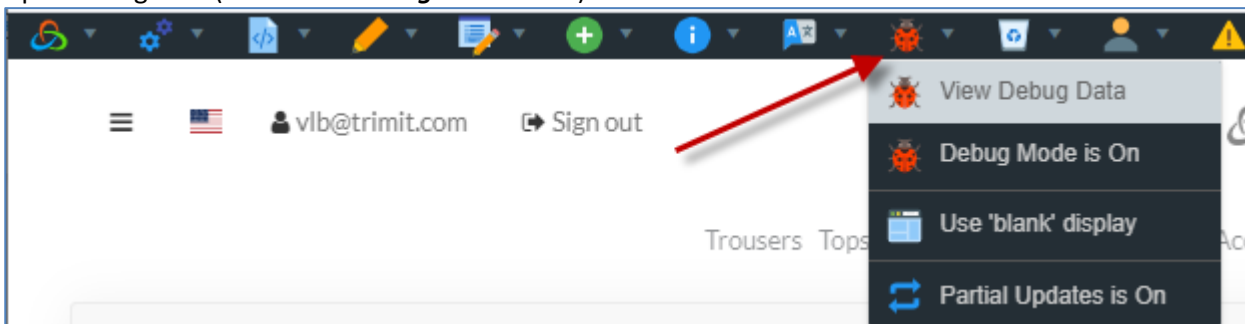
## ITEM ATTRIBUTES – TRANSLATIONS

Synchronizes item attribute translations and stores this data in Modelyn table **Custom Data** group TRM-ITEM-ATTRIBUTE-TRANSLATION.

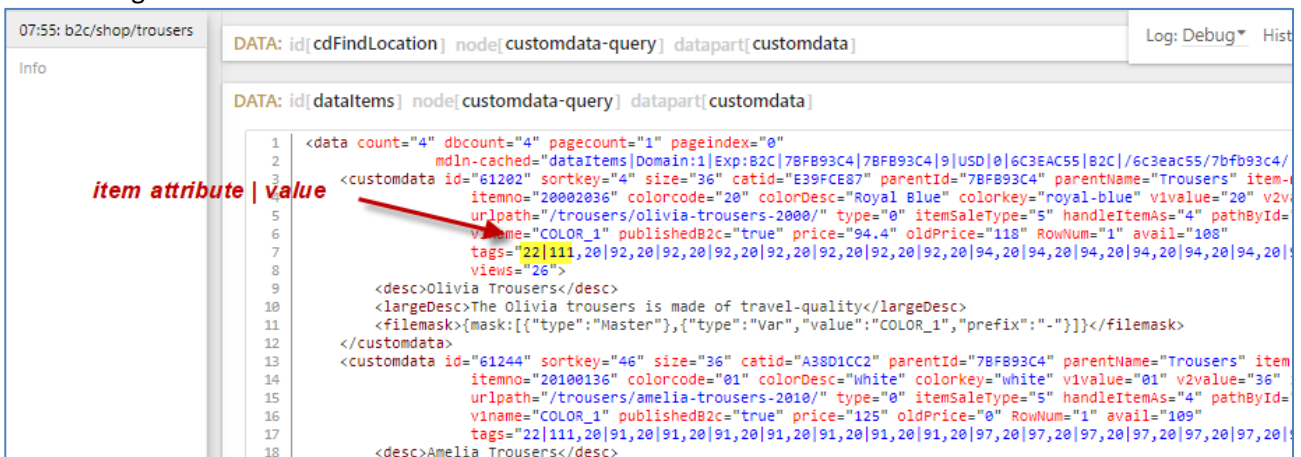
The schedules can be activated from **Update shop** page in soft admin on all portals, PIR dashboard or PIR master admin page.

As item attributes are stored in Modelyn database, then in order to see the attribute related data fetched on category page, you can go to portals debug data and expand **DATA: id(dataitems)**:

Open debug data (make sure **Debug Mode** is On)



View Debug data:

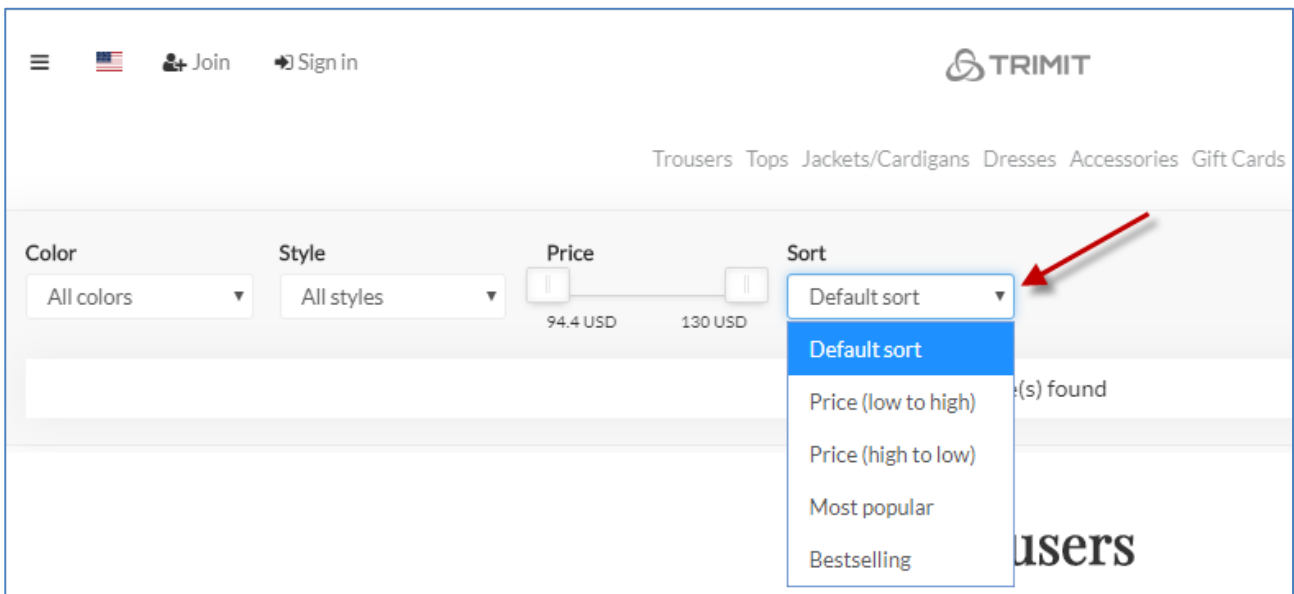


Attribute and values in debug data:

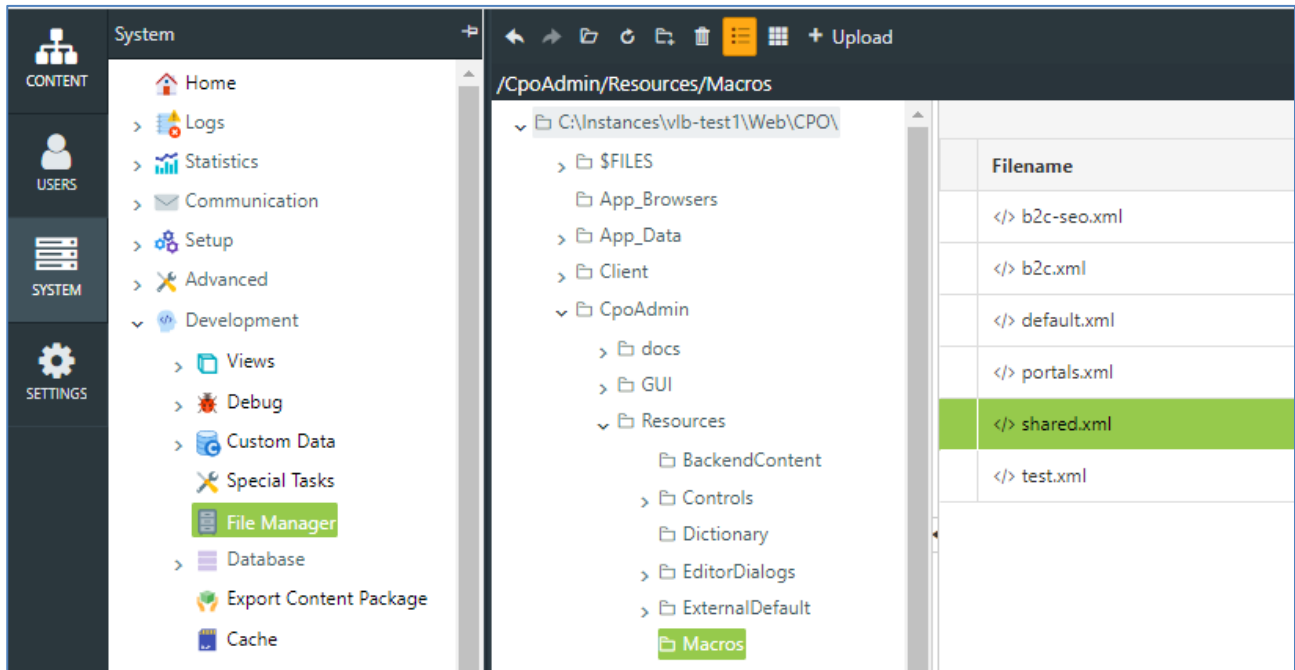
|                          |                                                                                                                                                                                                       |              |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 07:55: b2c/shop/trousers | Include: id[includeAsideContent] node[include] datapart[Include] @/portals/b2c/systempages/content/inc                                                                                                | Log: Debug ▾ |
| Info                     | SQL: id[cdItemAttributeFilters] node[customdata-query] datapart[customdata]                                                                                                                           |              |
|                          | DATA: id[cdItemAttributeFilters] node[customdata-query] datapart[customdata]                                                                                                                          |              |
|                          | <pre> 1 &lt;data count="2"&gt; 2   &lt;customdata id="63257" filter-key="20" filter-name="Color" /&gt; 3   &lt;customdata id="63258" filter-key="22" filter-name="Style" /&gt; 4 &lt;/data&gt; </pre> |              |
|                          | SQL: id[cdItemAttributeValues_INDEX_0] node[customdata-query] datapart[customdata]                                                                                                                    |              |
|                          | DATA: id[cdItemAttributeValues_INDEX_0] node[customdata-query] datapart[customdata]                                                                                                                   |              |
|                          | SQL: id[cdItemAttributeValues_INDEX_1] node[customdata-query] datapart[customdata]                                                                                                                    |              |
|                          | DATA: id[cdItemAttributeValues_INDEX_1] node[customdata-query] datapart[customdata]                                                                                                                   |              |
|                          | DATA: id[xmlSortOptions] node[raw-xml] datapart[rawXml]                                                                                                                                               |              |

## PRODUCTS SORT ORDER

The default sort options are based on available custom data and statistics. This can be further customized by adding additional sorting options.

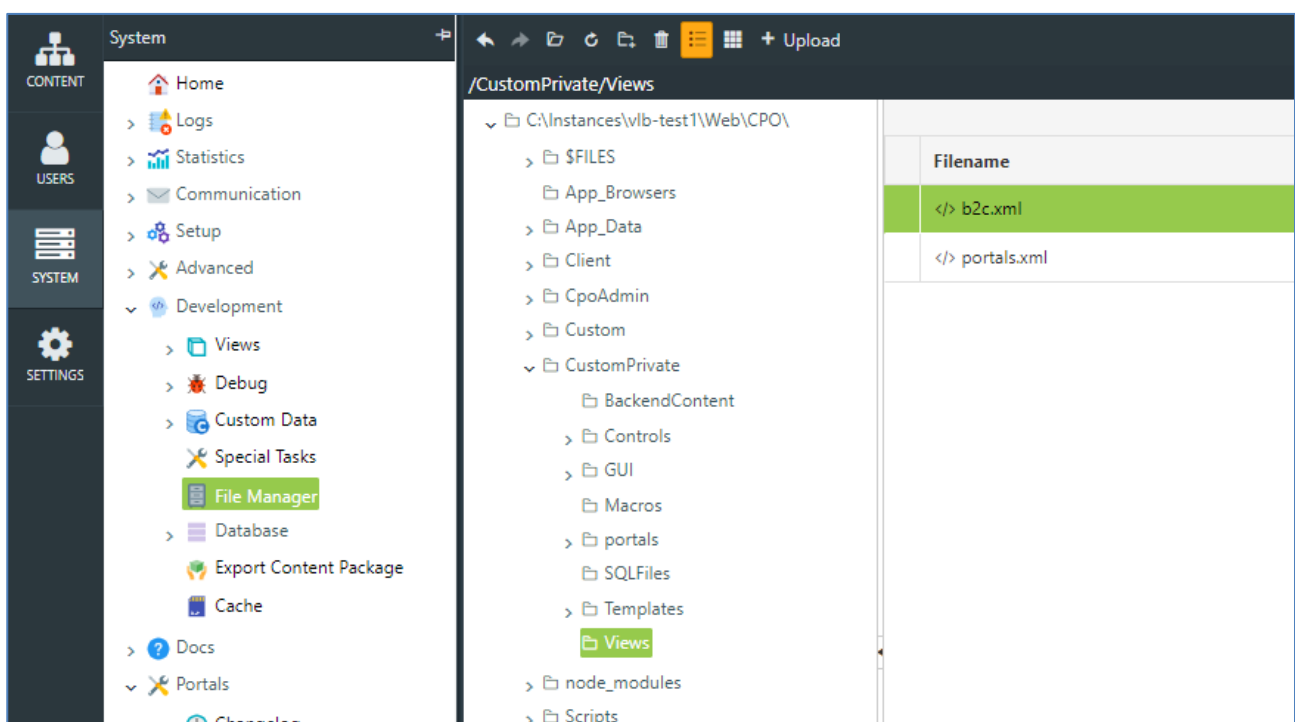


Macros for sorting field on B2C categories is in a *shared.xml* file, located at **\\cpoadmin\\resources\\macros\\** (shared as also used in SA/B2B). There should be a reference to this file in portals view file, - it is there in the standard, but if the solution has been upgraded, make sure to check it has been added



| Filename        |
|-----------------|
| </> b2c-seo.xml |
| </> b2c.xml     |
| </> default.xml |
| </> portals.xml |
| </> shared.xml  |
| </> test.xml    |

B2C view file:



| Filename        |
|-----------------|
| </> b2c.xml     |
| </> portals.xml |

Reference to macro file inside the view file:

```

1  <?xml version="1.0" encoding="utf-8" ?>
2  <zml:root xmlns="http://www.w3.org/1999/xhtml" xmlns:asp="urn:asp-control" xmlns:xsl="http://www.w3.org/1999/XSL/Transform" xmlns:msxsl="u
schemas.connectportal.net/zxt" xmlns:zml="http://schemas.connectportal.net/zml" xmlns:zc="http://schemas.connectportal.net/zc" xmlns:zcf="
xmlns:rad="http://schemas.connectportal.net/rad" xmlns:cpo="http://schemas.connectportal.net/cpo" xmlns:custom="http://schemas.connectport
3
4  <!-- Set initial variables and then include common data - this ensures it gets included before non-visual content in page pld -->
5  <zml:execute>
6      <zml:on event="page-build">
7
8          <!-- Variables used throughout -->
9          <zml:fragment id="setVarsFrag" />
10
11         <!-- Only use for non-virtual pages -->
12         <zml:if test="not(Page.IsVirtual())">
13             <zml:render>
14                 <include datapartid="Include" fromtype="page" id="includeCommonData" nodeid="commonDataIncluded" pageid="{:$dataAbs}"
cachediffer="Domain" cachedifferexpression="$portalId" ignoreerror="true"/>
15             </zml:render>
16         </zml:if>
17     </zml:on>
18
19
20
21     <!-- Fragment for custom view triggers -->
22     <zml:fragment file="~/customprivate/portals/fragments/b2c/view-triggers.xml" ignore-error="true" />
23
24 </zml:execute>
25
26
27 <zml:view>
28     <!-- New default templates for create new documents/pages -->
29     <zml:content-templates id-blank="95F2CAD7-A054-4F31-BD28-225F11841BD5" id-list="D60D484D-200A-4C12-BDC7-C4B048ECA9C3" id-item="DD2
30
31     <!-- Shared translation file -->
32     <zml:macros name="shared.xml" />
33
34     <!-- Translation file -->
35     <zml:macros name="b2c.xml" />

```

## ERROR SOLVING

If after assigning attributes to VarDim Variant Options the Replication Log is empty then:

- Check and implement the related KBs
- Check that Attribute Value ID is set on VarDim Variant Option (via About This Page):

VarDim Variant Option No. SLEEVE\_COL - 301

HOME ACTIONS NAVIGATE

NEW View List Edit List Delete Show as List

VarDim Variant Options

| Value | Description    |
|-------|----------------|
| 00    | Mixed Colors   |
| 01    | White1         |
| 02    | No Color       |
| 03    | Snow           |
| 20    | Blue "\'       |
| 25    | Navy           |
| 27    | Dark Steelblue |
| 30    | Yellow         |
| 35    | Orange         |
| 37    | Orange Dark    |
| 40    | Brown          |

About This Page: VarDim Variant Option No. SLEEVE\_COL - 301

ACTIONS

Email as Attachment Export as XML Print Page

Microsoft Word Microsoft Excel

Send To General

About This Page: VarDim Variant Option No. SLEEVE\_COL - 301

Table Fields

|                            |       |
|----------------------------|-------|
| Value (2) (PK):            | 00    |
| VarDim Variant (1) (PK):   | 301   |
| Alternative Sorting (404): | 0     |
| Assortment (405):          | Yes   |
| Attribute ID (606):        | 42    |
| Attribute Value (605):     | Mixed |
| Attribute Value ID (604):  | 1     |
| Blocked (403):             | No    |
| Boolean1 (6038431):        | No    |
| Boolean2 (6038432):        | No    |
| Boolean3 (6038433):        | No    |

If not set – implement the KB and reassign the attributes to VarDim types again.

- Restart the windows client after changing the Replication Log setup.