



# **Aras Innovator 2023 Release**

## **Tree Grid View Administrator Guide**

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# Document Conventions

The following table highlights the document conventions used in the document:

Convention	Description
<b>Bold</b>	This shows the names of menu items, dialog boxes, dialog box elements, and commands. Example: Click <b>OK</b> .
Code	Code examples appear in <code>courier</code> font. It may represent text you type or data you read.
<code>Yellow highlight</code>	Code highlighted in yellow draws attention to the code that is being indicated in the content.
<code>Yellow highlight with red text</code>	Red text highlighted in yellow indicates the code parameter that needs to be changed or replaced.
<i>Italics</i>	Reference to other documents.
<b>Note:</b>	Notes contain additional useful information.
<b>Warning</b>	Warnings contain important information. Pay special attention to information highlighted this way.
Successive menu choices	Successive menu choices may appear with a greater than sign (-->) between the items that you will select consecutively. Example: Navigate to <b>File --&gt; Save --&gt; OK</b> .

# 1 Overview

The Tree Grid View application provides a means to build a visual data structure for end users. The data structure can provide information on where a given item fits in the context of other items. It offers a visual layout of the data as a Relationship tab in item view. The application supports sorting on selected columns at every level in the grid that displays hierarchical data.

The Tree Grid Views are grids defined by the administrators. This application takes advantage of the Query Builder application to submit a query to get the necessary data. It then uses the data to populate the grid created by the administrator.

This guide describes the procedures to create a Relationship Tab on the Part ItemType showing a grid like the one depicted in Figure 1.

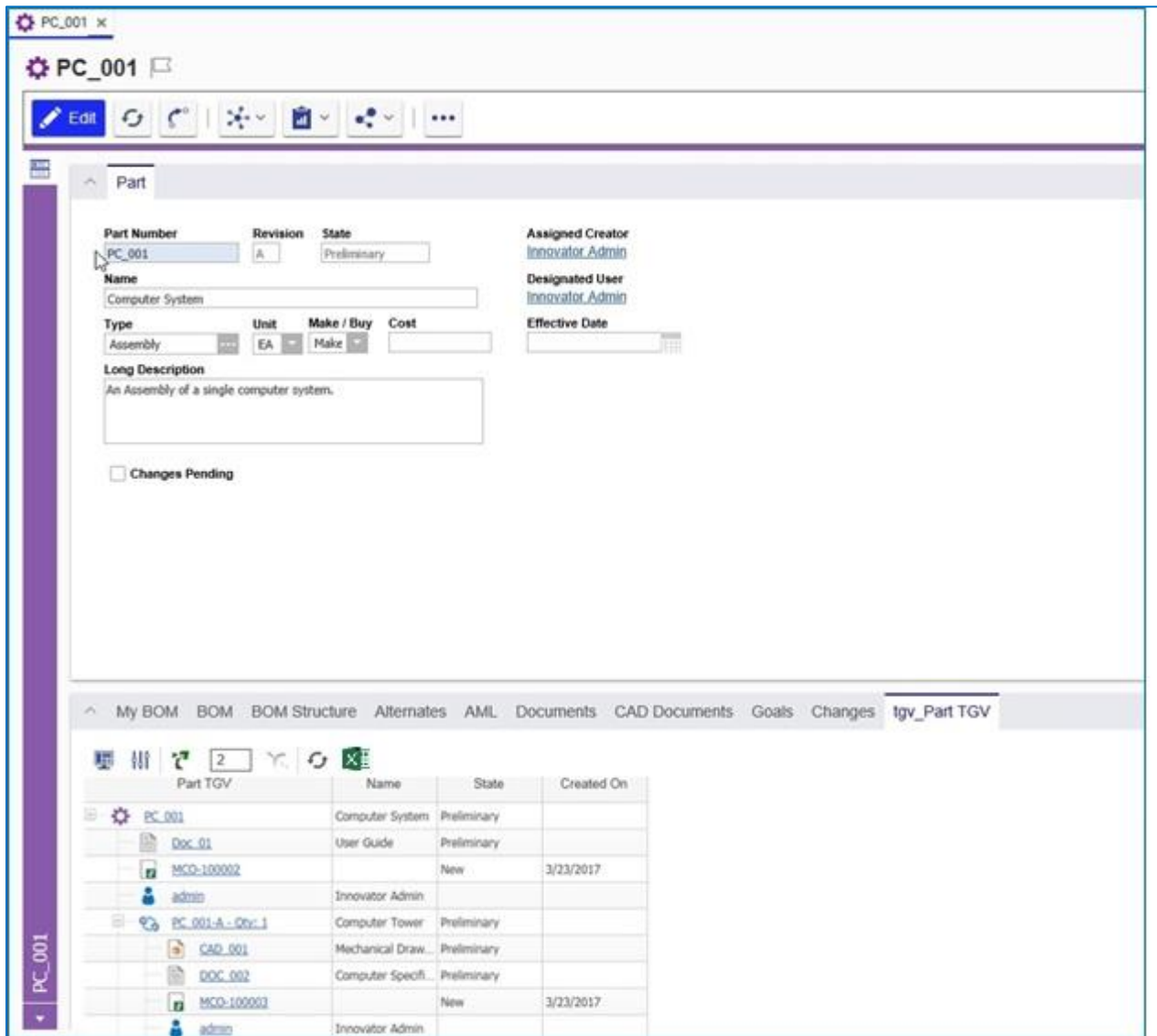


Figure 1.

## 1.1 Support for xProperties and PolyItems

Extended Properties (xProperties) enable you to add text, create rules, and define variables as Item properties. You need to assign xProperties to a specific ItemType. Once you assign them, they can be used by items associated with that ItemType. You need to define xProperties for an Item before you can use them.

## 2 Creating Tree Grid Views

The Tree Grids are defined by the Tree Grid View Items that are found as **Contents --> Administration -> Configuration --> Tree Grid Views**.

	Name	Query Definiti...	Max Query D...	Max Child Ite...	Auto Grow on...
	ES_Component	<a href="#">ES_Component</a>	2	100	
	ES_CrawlerErr...	<a href="#">ES_CrawlerErr...</a>	2	100	
	Part TGV	<a href="#">Part Query</a>	2	100	
	Part TGV2	<a href="#">Part Query</a>	2	100	
	PE_BomStruc...	<a href="#">PE_BomStruc...</a>	3	100	
	PE_CAD_Reve...	<a href="#">PE_CAD_Reve...</a>	2	100	
	PE_CAD_Reve...	<a href="#">PE_CAD_Reve...</a>	2	100	
	PE_Changes	<a href="#">PE_Changes</a>	2	100	
	PE_Manufact...	<a href="#">PE_Manufact...</a>	2	100	
	PE_ManufPar...	<a href="#">PE_ManufPar...</a>	2	100	
	TGV	<a href="#">Part Query</a>	2	100	

Figure 2.

Each Tree Grid View Item is associated with a Query Definition, which is based on a Context Item Type. Once selected, you can build a grid for data display. The following are the basic steps for creating a Tree Grid View:

1. Build a Query Definition.
2. Create a Tree Grid View for viewing the data.
3. Map the data from the Query Definition to the grid.

The following sections describe how to build a Tree Grid View for the Part ItemType.



## 2.1 Creating a Query Definition

Before creating the Tree Grid View, you must first create the Query Definition. For information on how to create a Query Definition, refer to the *Query Builder Guide*. Specifically, Section 2 walks you through creating a sample Query Definition. This *Tree Grid View Administrator Guide* takes that sample Query Definition and uses it in the following procedure to build a sample Tree Grid View.

## 2.2 Building the table

Once the Query Definition is ready, build the Tree Grid View using the following procedure:

1. Create a new Tree Grid View item and specify a unique **Name** and select an existing **Query Definition** to be used.

Figure 3.

**Note:** The **Name** of the Tree Grid View is automatically used as the name for the RelationshipType generated later.

2. Select the **Auto Grow on Refresh** checkbox to keep the Tree Grid View expanded to the maximum number of grow levels when you do a refresh.

3. After saving the item, click the **Show Editor** button on the left sidebar to go into Grid-Editing mode.

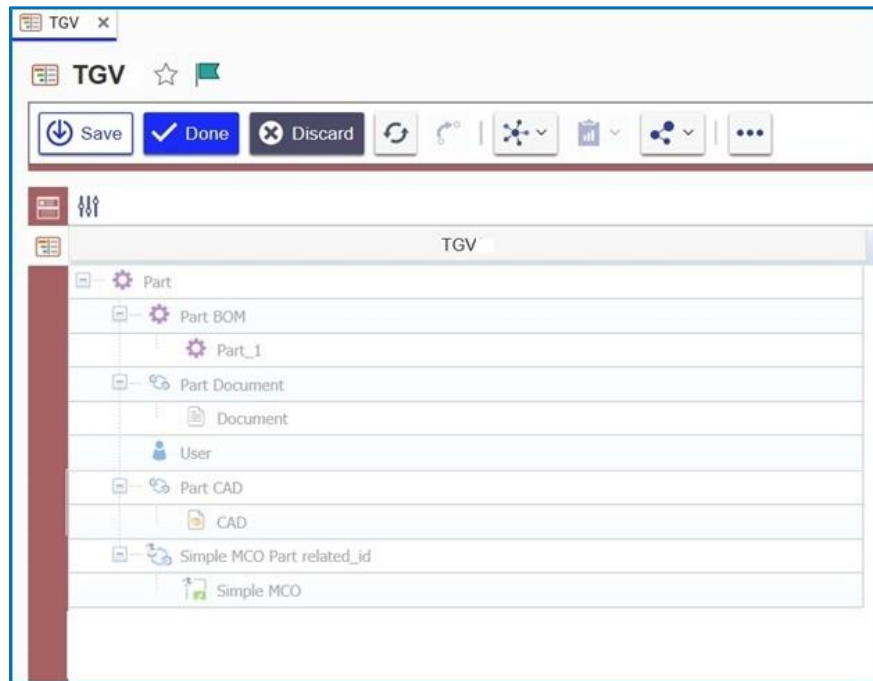


Figure 4.

4. Right-click on each element that should display data in the grid and select **Map element**.

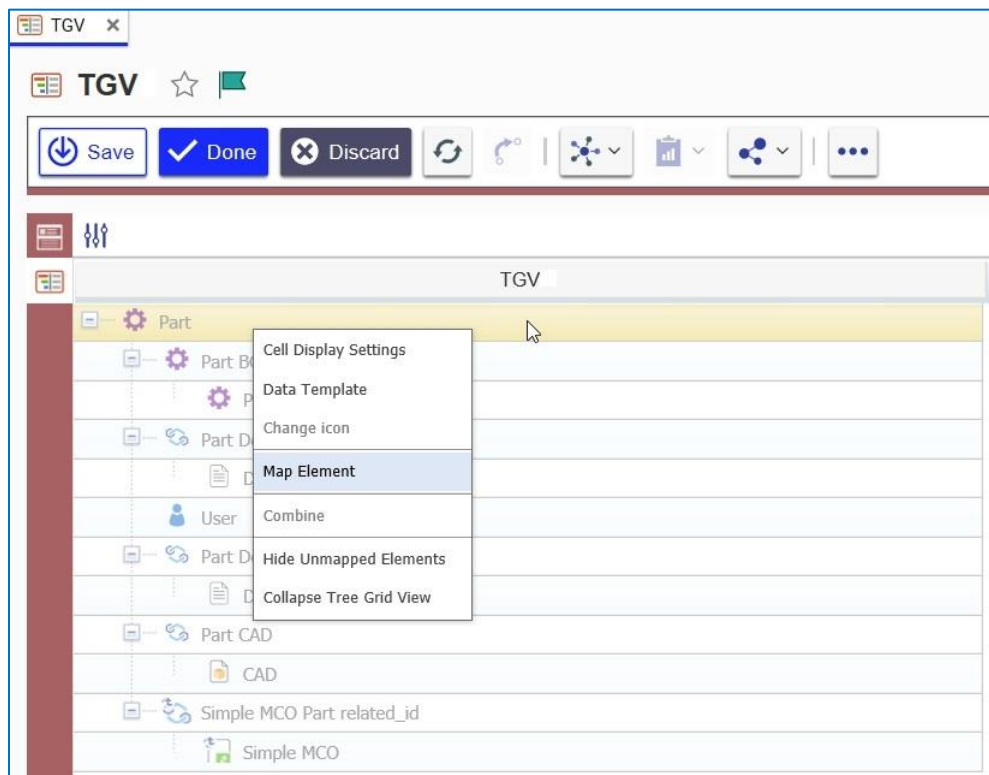


Figure 5.

5. Right-click the column header and click **Add New Column**.

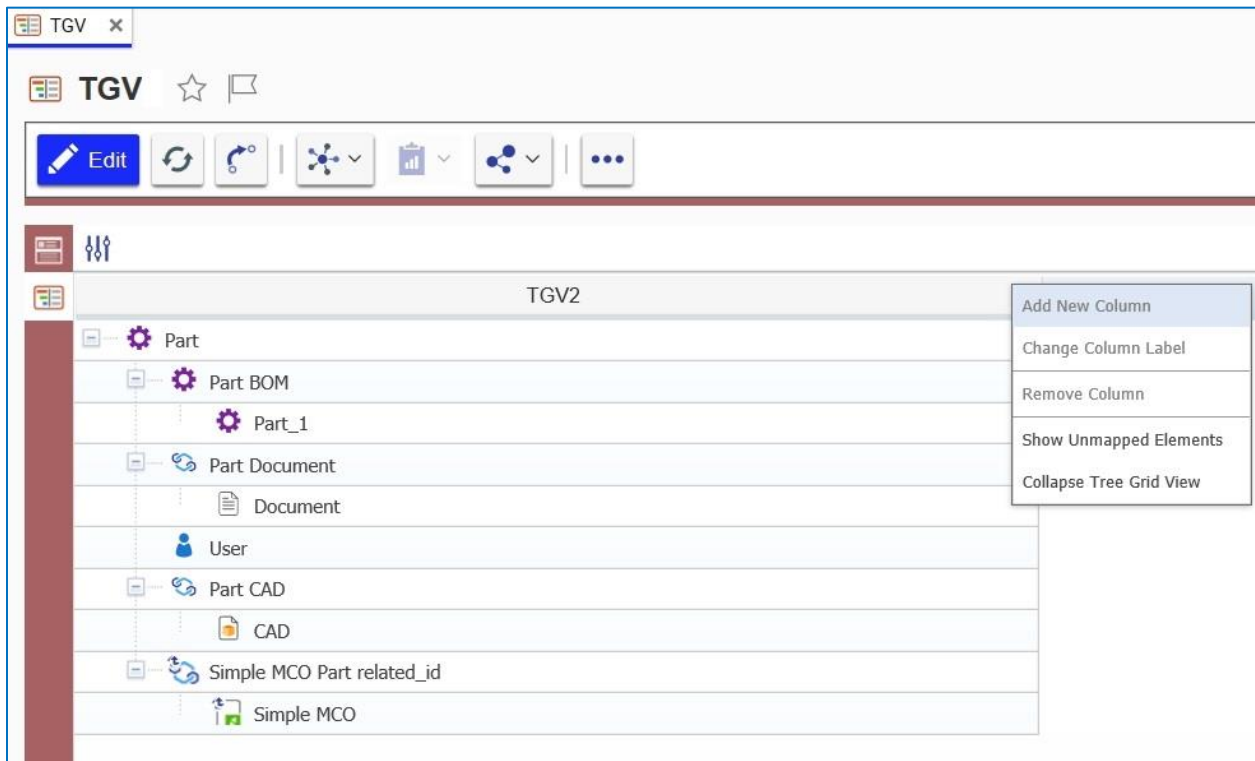


Figure 6.

6. Right-click the new column, click **Change Column Label**, and then call it **Name**.

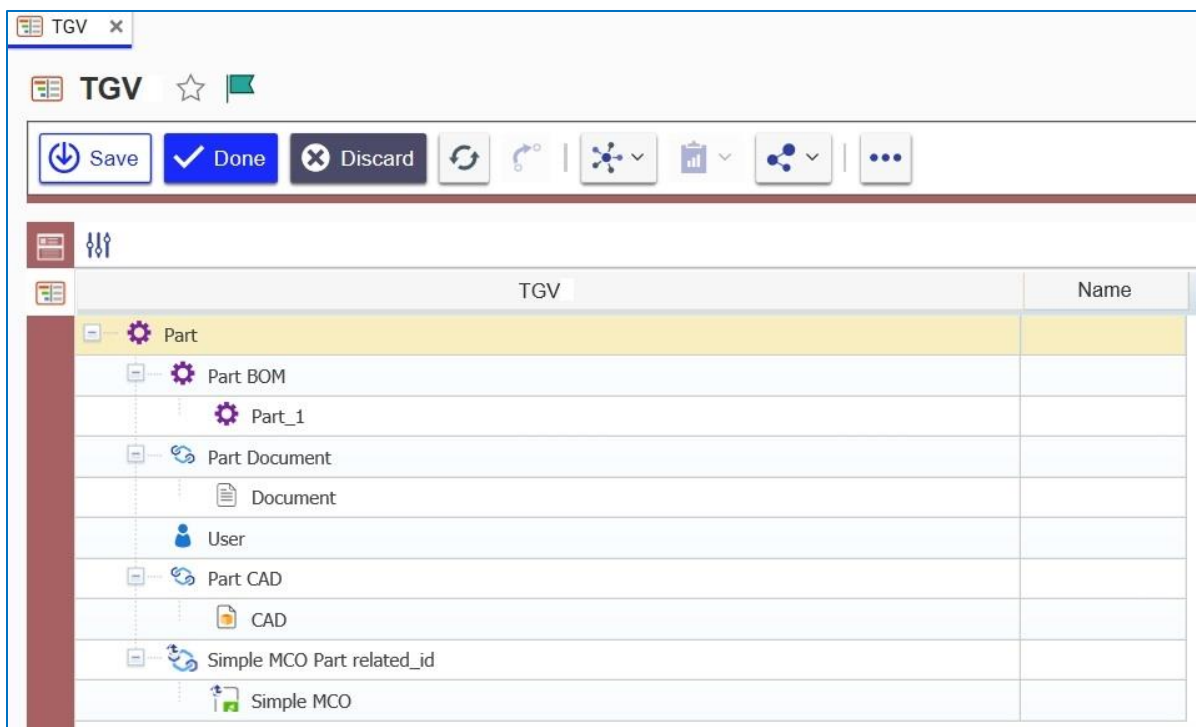


Figure 7.



**Table 1:** The UI-supported data types

Data Type	Description
<b>Text</b>	Displays value as plain text
<b>Decimal</b>	Parses the decimal number to display decimal delimiter as either “.” or “,”
<b>Date</b>	Parses the data to display as a date. Supports short/long/date/time
<b>Color</b>	Displays color
<b>Item</b>	Displays a hyperlink to the specified Item
<b>List</b>	Displays List property value
<b>Float</b>	Displays Floating Point Property value
<b>Boolean</b>	Displays Boolean property value
<b>Integer</b>	Displays an Integer Property value

**Note:** The following property types currently cannot be mapped into the Tree Grid View definition: **Float, Boolean, Image, Color List, Formatted Text, MD5.**

Use the following procedure to fill in the sample grid with data:

1. Double-click in the Part-Name cell and specify the following:
  - a. **Cell View Type: Text**
  - b. **Text Template: {Part.name}**

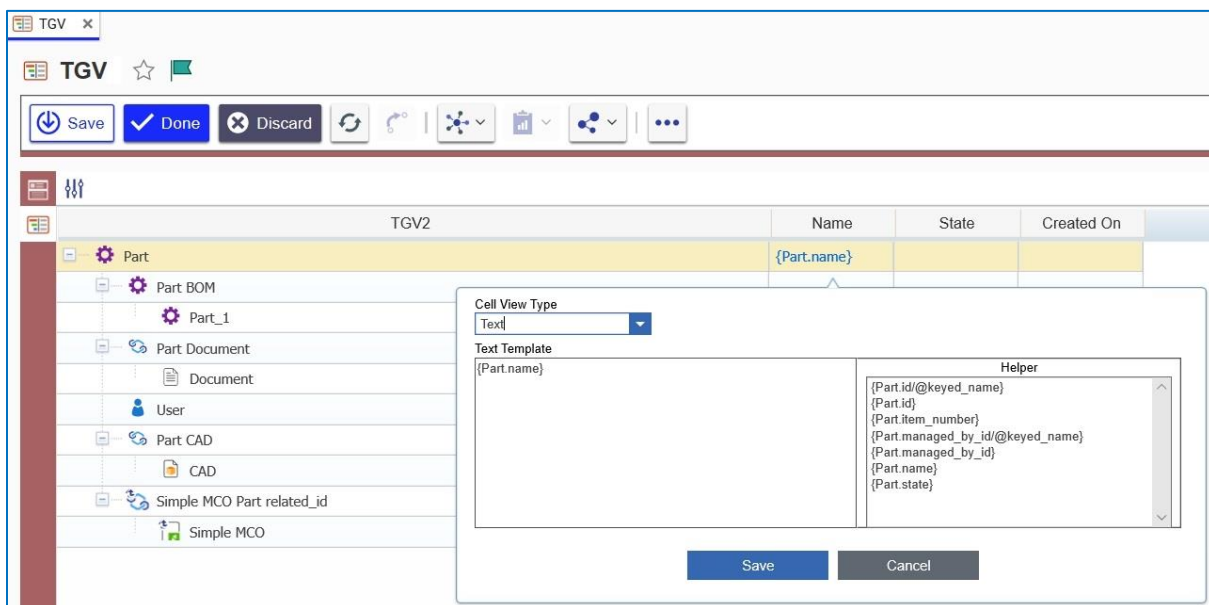


Figure 10.

**Note:** Because there is a recursive structure, the **Child Part** cell also gets the same mapping.

2. Double-click the **CAD Name** and **Document Name** cells and specify the name properties for both.

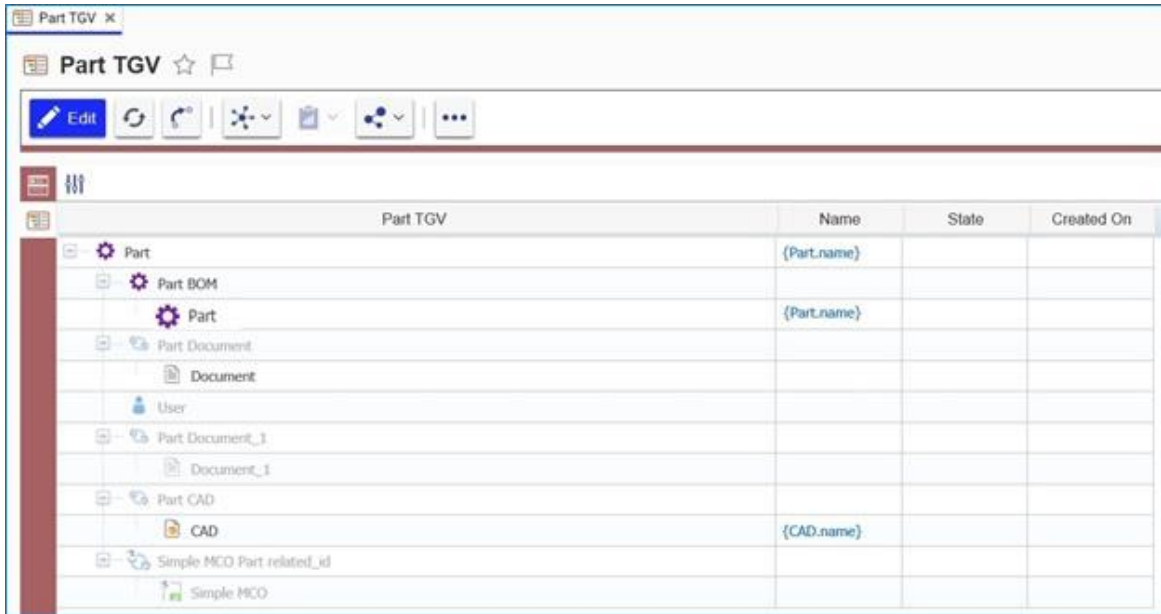


Figure 11.

3. Double-click the **Part Created By Name** cell and set the **Text Template** as **{Part Created By.first\_name}{Part Created By.last\_name}**.

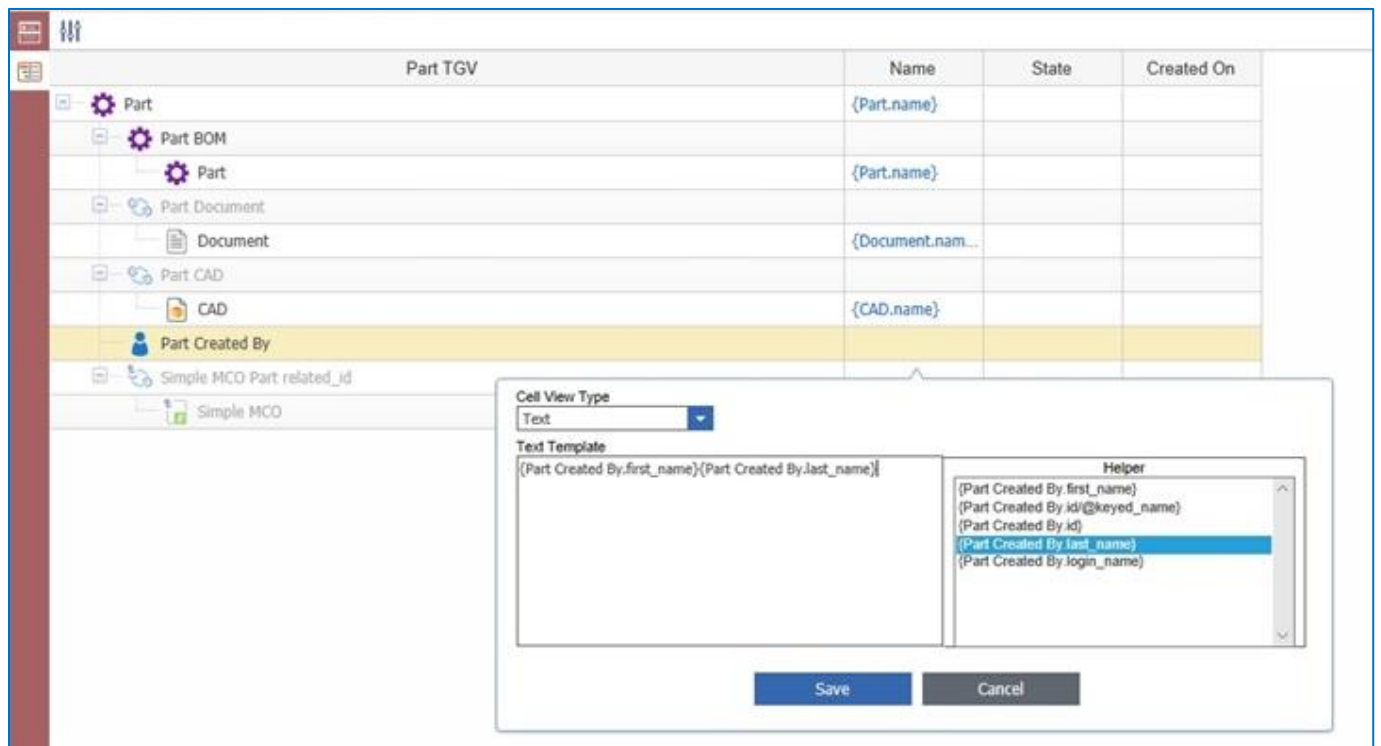


Figure 12.

4. Map the **State** properties for **Part**, **CAD**, **Document**, and **Simple MCO** to the appropriate cells.

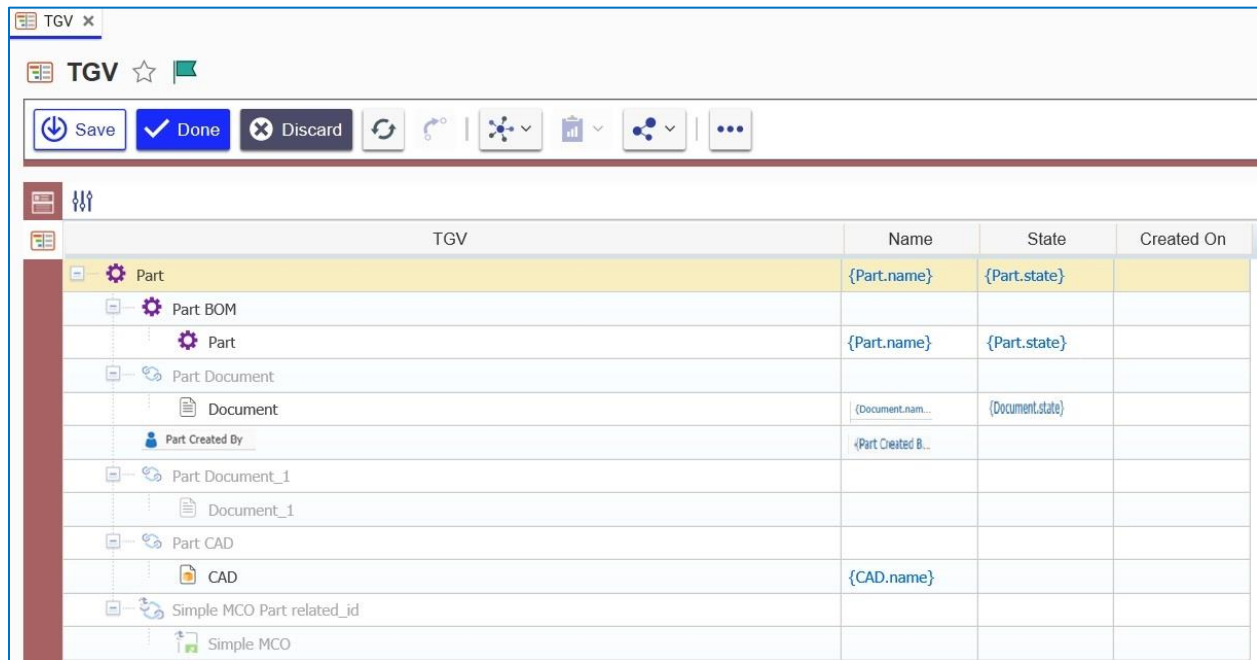


Figure 13.

5. Double-click on the **Simple MCO Created On** cell and set the following properties:

- a. Cell View Type = Date
- b. Text Template = {Simple MCO.created\_on}

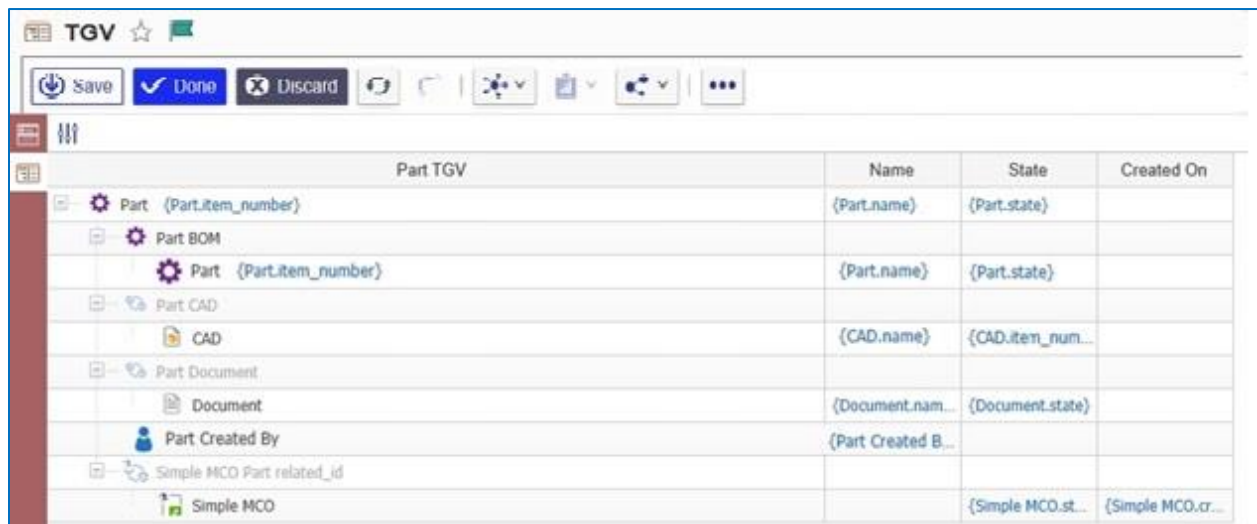


Figure 14.

6. Double-click the top **Part Part TGV** cell and set the following properties:
  - a. **Cell View Type:** Item
  - b. **Innovator ItemType Name:** Part
  - c. **Id Template:** {CAD.id}
  - d. **Text Template:** {CAD.item\_number}

	Name	State	Created On
Part {Part.item_number}	{Part.name}	{Part.state}	
Part BOM			
Part {Part.item_number}	{Part.name}	{Part.state}	
Part CAD			
CAD	{CAD.name}	{CAD.item_num...}	
Part Document			
Document	{Document.nam...}	{Document.state}	
Part Created By	{Part Created B...}		
Simple MCO Part related_id			
Simple MCO		{Simple MCO.st...}	{Simple MCO.cr...}

Figure 15.

7. Repeat these steps to create the same link for **CAD Part TGV**, **Document Part TGV**, and **Simple MCO Part TGV** cells.

	Name	State	Created On
Part {Part.item_number}	{Part.name}	{Part.state}	
Part BOM			
Part {Part.item_number}	{Part.name}	{Part.state}	
Part CAD			
CAD	{CAD.name}	{CAD.item_num...}	
Part Document			
Document	{Document.nam...}	{Document.state}	
Part Created By	{Part Created B...}		
Simple MCO Part related_id			
Simple MCO		{Simple MCO.st...}	{Simple MCO.cr...}

Figure 16.

**Note:** Each item needs the appropriate **Aras Innovator ItemType Name** and **Id Template** values.



- Repeat the previous steps to create the same link for **Part Created By Part TGV** cell, but for text display select the **login\_name** property.

Part TGV	Name	State	Created On
Part {Part.item_number}	{Part.name}	{Part.state}	
Part BOM			
Part_1			
Part CAD			
CAD			
Part Document			
Document	{Document.nam...}	{Document.state}	
Part Created By {Part Created By.login_name}	{Part Created B...}		
Simple MCO Part related_id			
Simple MCO		{Simple MCO.st...}	{Simple MCO.cr...}

Figure 17.

- Double-click into the **Part BOM-Part TGV** cell and set the following:  
**{BOM.related\_id/@keyed\_name} - Qty: {BOM.quantity}**.

Part TGV	Name	State	Created On
Part {Part.item_number}	{Part.name}	{Part.state}	
Part BOM			
Part_1			
Part CAD			
CAD			
Part Document			
Document	{Document.nam...}	{Document.state}	
Part Created By {Part Created By.login_name}	{Part Created B...}		
Simple MCO Part related_id			
Simple MCO		{Simple MCO.st...}	{Simple MCO.cr...}


Figure 18.

- Save the Tree Grid View.

Once you have saved the Tree Grid View, you can export the data to either an Excel file or a Word document by clicking on the appropriate icon in the toolbar. For more information about Cell View Types, refer to Section [4.9](#).

### 3 Attaching the Tree Grid View to an ItemType

The Tree Grid View item includes an Action that automatically creates a RelationshipType and attaches it to the specified Context Item Type. The created RelationshipType automatically inherits the same name as the one used for the Tree Grid View item. The RelationshipType also inherits a custom view as defined by the table which populates based on the query defined in the associated Query Definition item.

1. To create a RelationshipType, select the Tree Grid View.
2. Click the **More**  button and select **Set Tree Grid View Usage** in the drop-down menu.

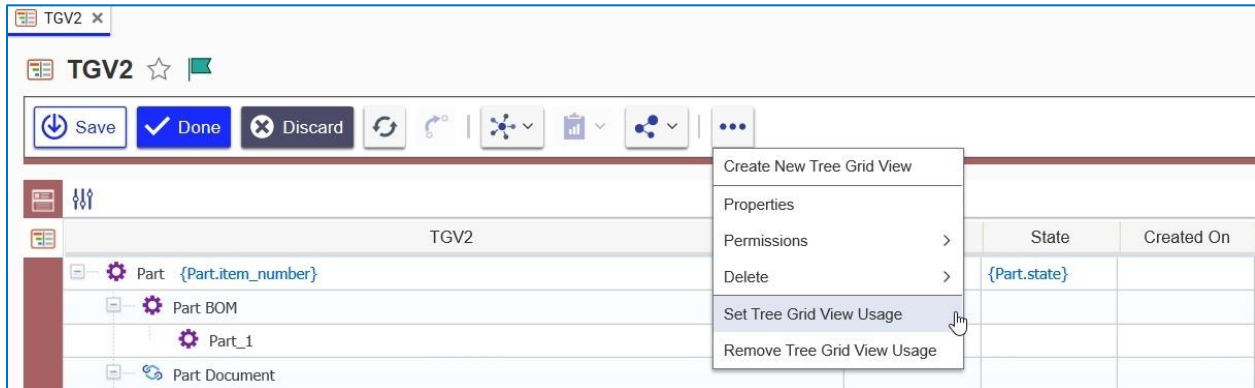


Figure 19.

Only run the action once. Running the action a second time results in an error message because the RelationshipType already exists. However, it is still possible to make changes to both the Tree Grid View and the Query Definition items.

3. Select the **Relationship** Tab as the target usage in the **Set Tree Grid Usage** dialog box.

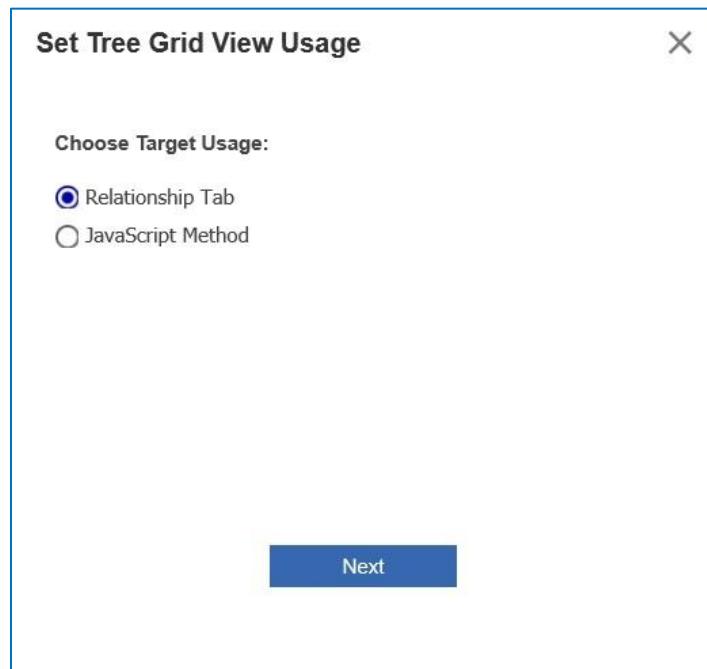


Figure 20.

4. Choose the **Relationship Name**.



**Set Tree Grid View Usage** [X]

Used On

**Relationship Name:**

New  
 Existing

Figure 21.

5. Set the grid conditions.



**Set Tree Grid View Usage** [X]

Used On

Relationship Name

Label

Access Identity

Define Starting Conditions

Figure 22.

**Note:** The Define Starting Conditions checkbox is used to set filters on the Root Node (Part). Otherwise, all results will be returned. In this case all Parts in the database.

6. **Define the Starting Conditions:** set them to filter based on the **Part ID**.

The screenshot shows a dialog box titled "Set Tree Grid View Usage" with a close button (X) in the top right corner. Below the title is the section "Define Starting Conditions". It contains two columns of dropdown menus. The first column is labeled "Query Item Property" and has two dropdowns: the first is set to "id" and the second is set to "Select Property". The second column is labeled "Part Property" and also has two dropdowns: the first is set to "id" and the second is set to "Select Property". An equals sign "=" is placed between the two columns. A red "X" icon is positioned to the right of the second dropdown in the "Part Property" column. At the bottom of the dialog are two buttons: "Back" (grey) and "Next" (blue).

Figure 23.

7. Click **Generate** to create the view.

The screenshot shows the same "Set Tree Grid View Usage" dialog box, but now with configuration details. The "Used On:" field is set to "Part". The "Relationship Name:" is "tgv\_Part TGV". The "Label:" field is empty. The "TGV Definition:" is "TGV2". The "Access Identity:" is "World". The "Starting Condition:" is "[Query Item].[id] = [Part].[id]" followed by "[Query Item].[modified\_on] = [Part].[modified on]". At the bottom are two buttons: "Back" (grey) and "Generate" (blue). A vertical scrollbar is visible on the right side of the dialog.

Figure 24.

**Note:** In order to see the new tab on the Items, you may need to log out and log back in.

Activating the **Part TGV** Tree Grid View created in Section [2 Creating Tree Grid Views](#) should result in a relationship tab that looks similar to the one shown in figure 25. Clicking on the links should open associated item windows.

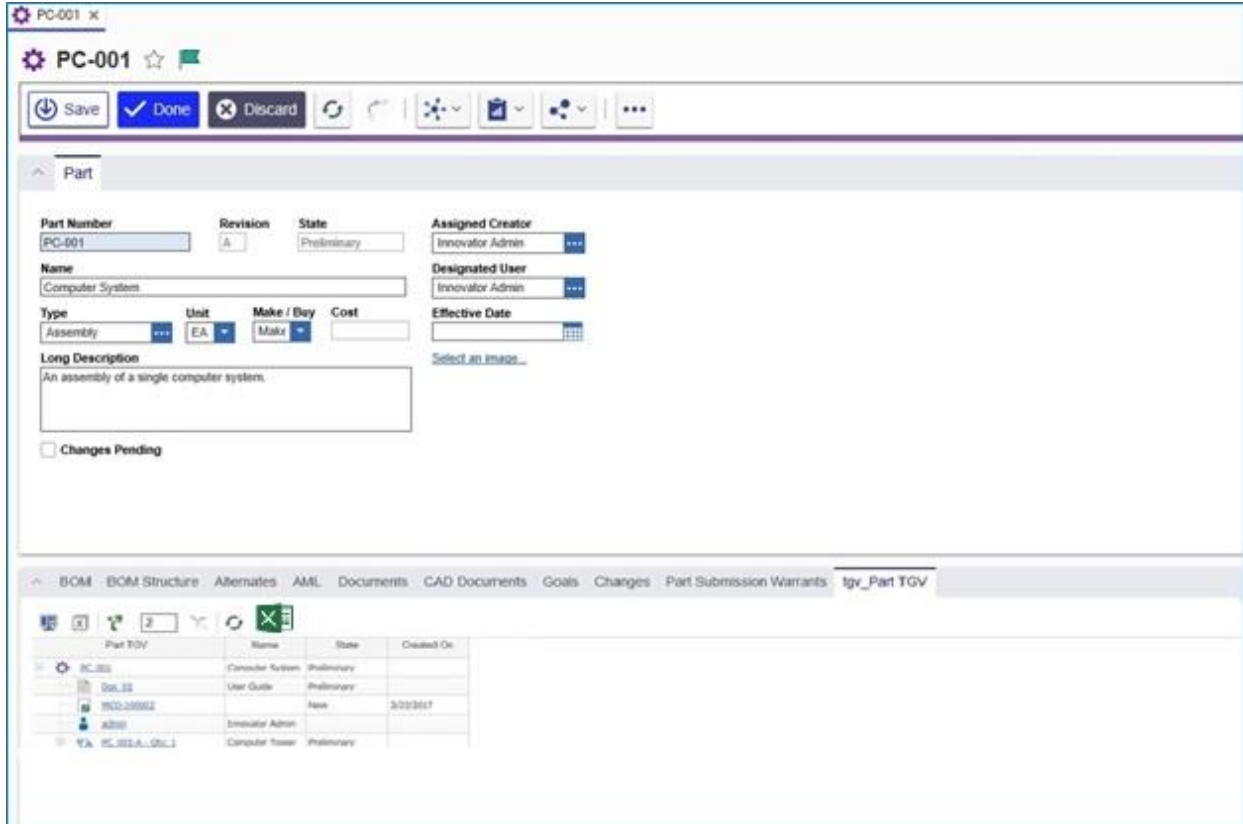


Figure 25.

8. Click the **More** button and then click **Remove Tree Grid View Usage** to remove a TGV.

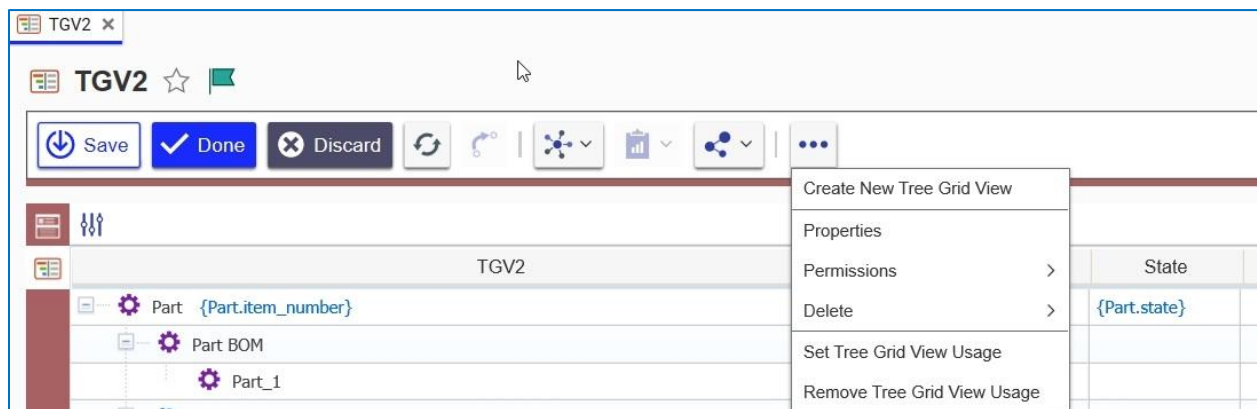


Figure 26.

9. Select the ItemTypes that should be removed from the TGV.

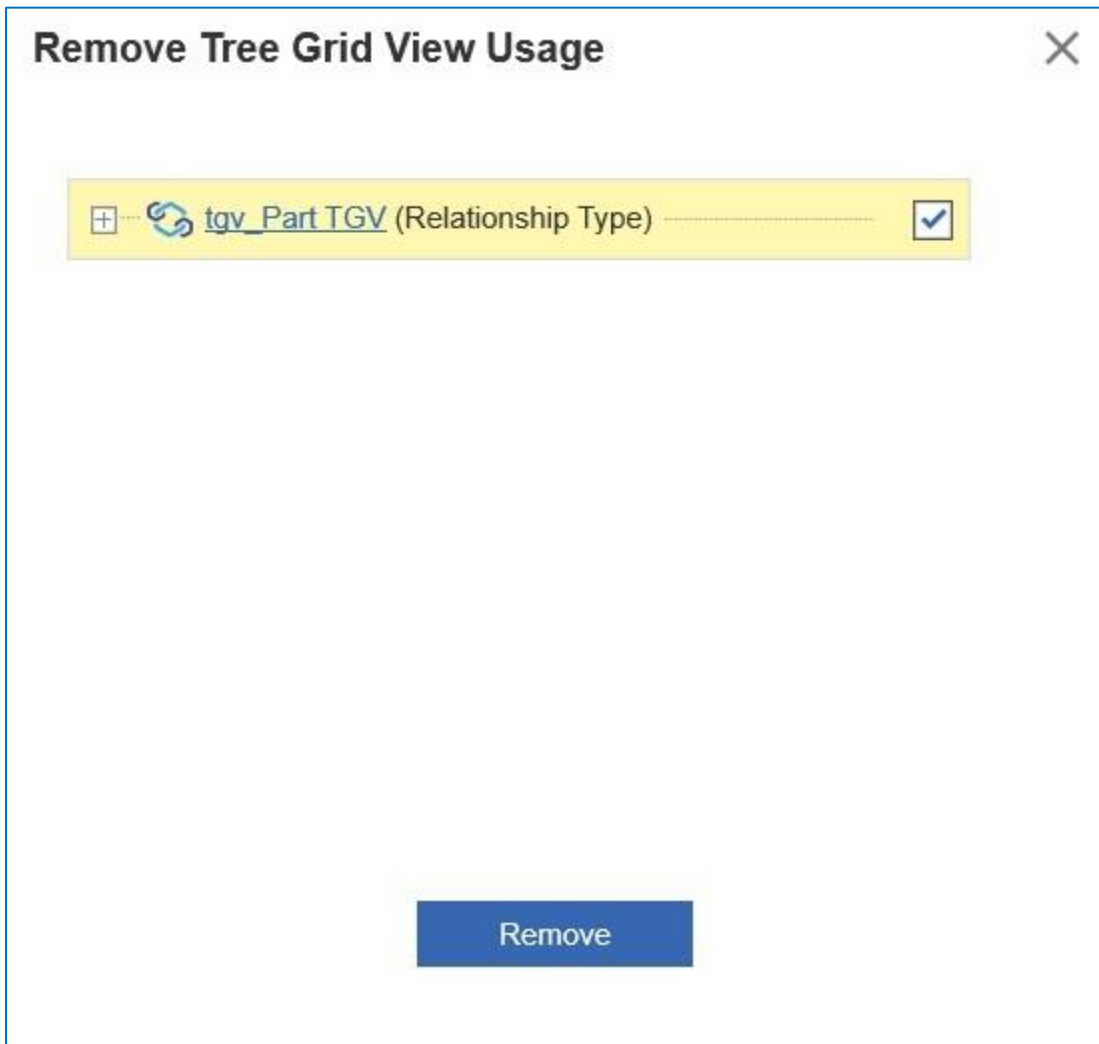


Figure 27.

## 4 Configuration Examples

This section contains examples of how to configure buttons, context menus, toolbars, and Tree Grid rows to use in Tree Grid View. The configuration items in this section are examples of advanced functionality.

**Note:** A release of sample functionality will be available for UI customization in future releases of Tree Grid View.

### 4.1 The Data Template

You can use the Data Template to select data to be used for Configurable User Interface (CUI) handlers. The following example shows the data template associated with a Part:

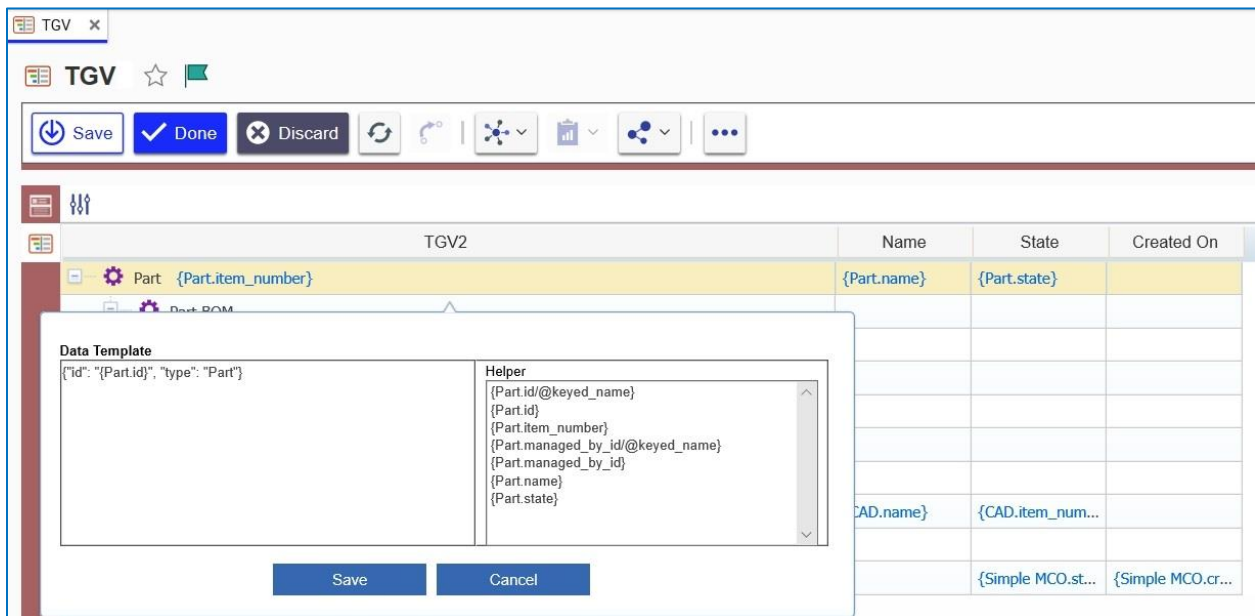


Figure 28.

### 4.2 Changing Icons

You can add or change icons in either Tree Grid View or Query Builder. In the following example, icons identify both Part BOM and User in a query:



Figure 29.

You can use the Change Icon Template to change the icons that appear. Use the following procedure:

1. Right-click the first row in the grid. The context menu appears.

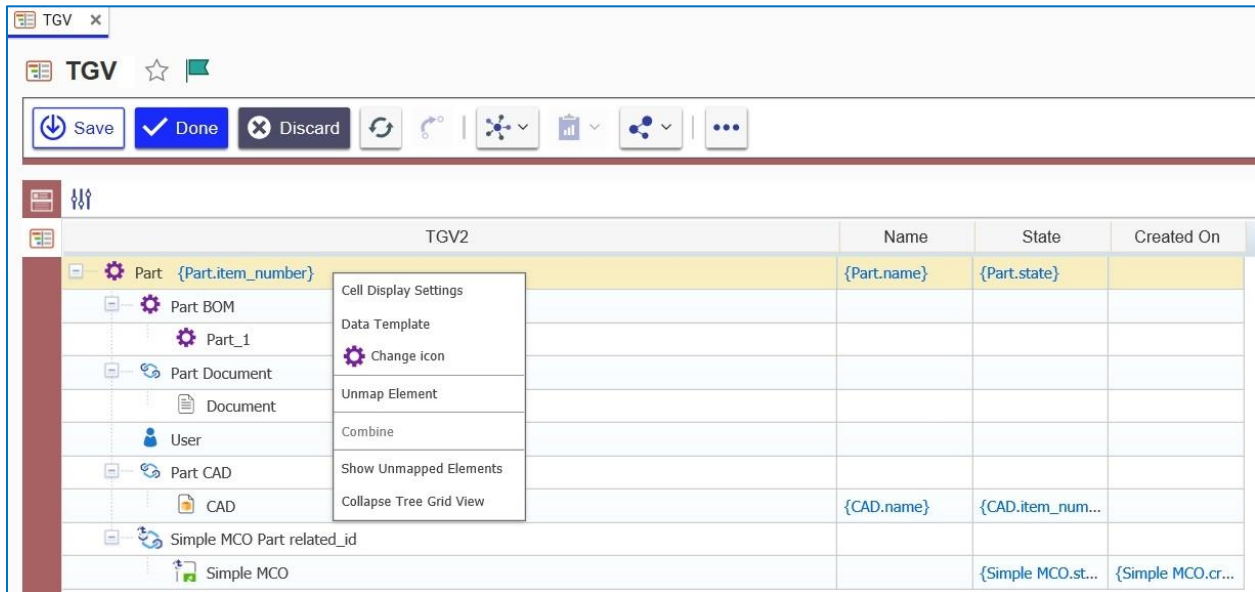


Figure 30.

2. Click **Change Icon**. The **Image Browser** dialog box appears.

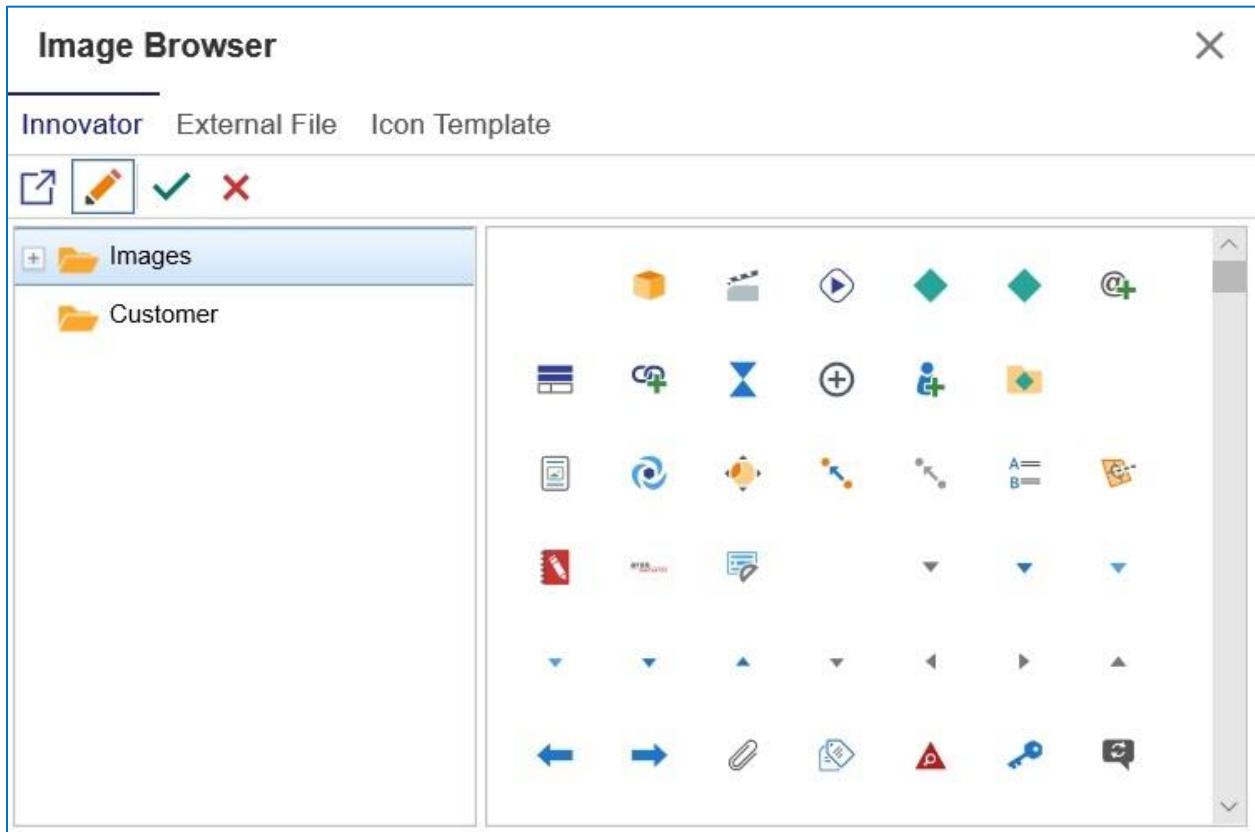


Figure 31.



- Click **Icon Template** and then click **{Part.thumbnail}** in the **Helper** area to change to the **{.}** icon.

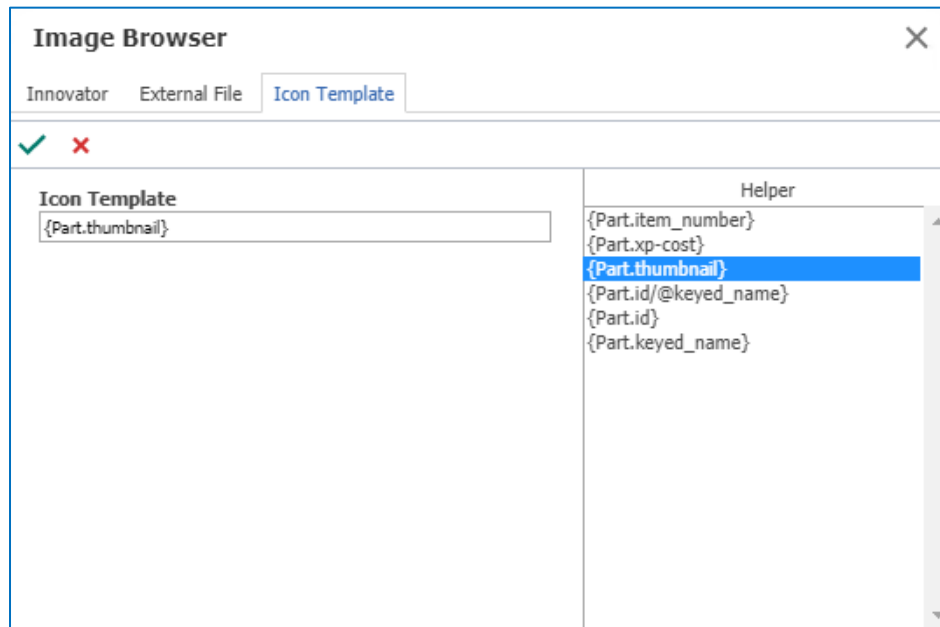


Figure 32.

- Return to the **Part Grid** and right-click the **Part BOM** row.
- Click **Change icon** in the context menu. The **Image Browser** dialog appears.
- Click **Innovator** and then click an icon.

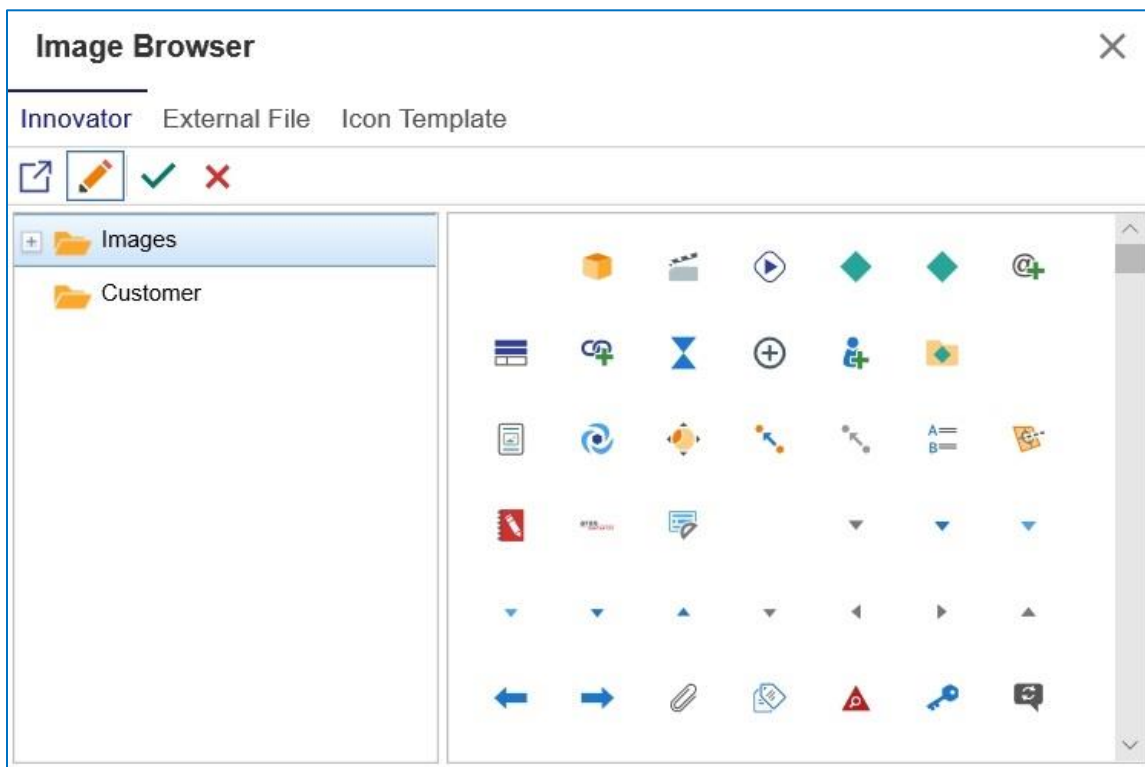


Figure 33.

## 4.3 Configuring a Toolbar Button

The following procedure is an example of how to create a configurable button:

1. Click the **PresentationConfiguration** ItemType in the grid, click the **TOC Access** tab, and add **Administrators**.

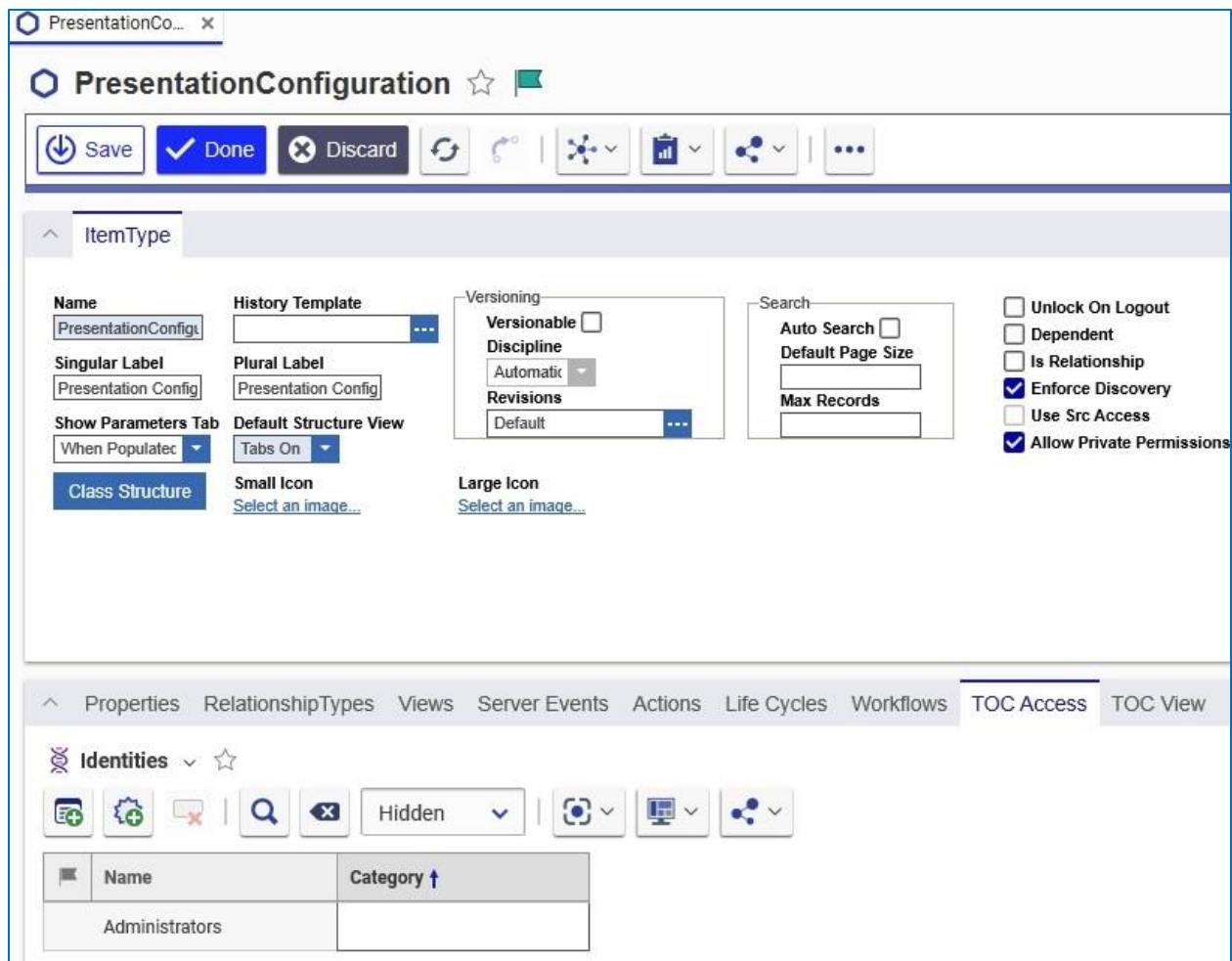


Figure 34.

2. Open the TOC and click **Presentation Configuration**.

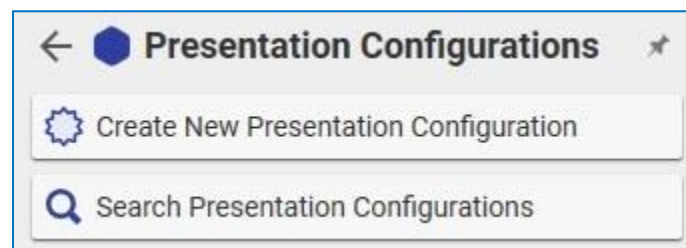


Figure 35.

3. Click **Create New Presentation Configuration**. The **Presentation Configuration** form appears.
4. Enter **tgw\_part** in the **Name** field and select a color such as orange.

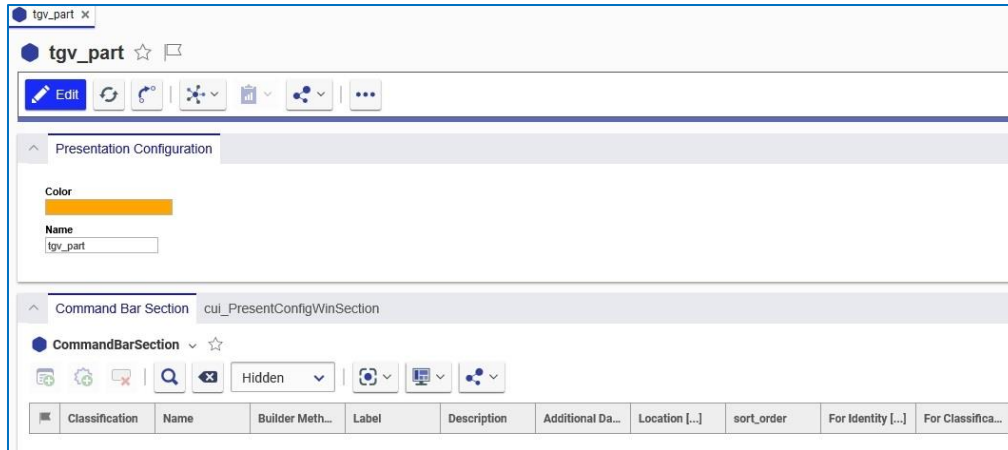



Figure 36.

5. Click the **New Command Bar**  in the **Command Bar Section** relationship tab to add a new related Item.
6. Enter **tgv\*** in the **Name** cell of the **Search** grid and add the **tgv\_part\_toolbar** and **tgv\_part\_ContextMenu** Items:

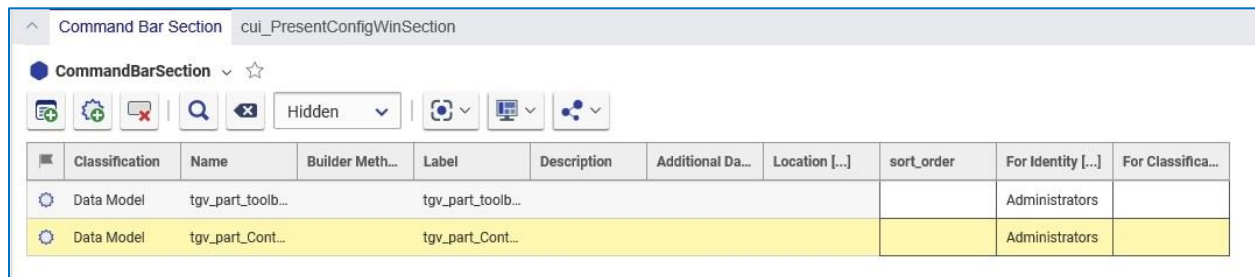


Figure 37.

7. Make sure to add the Items to the relationship grid.

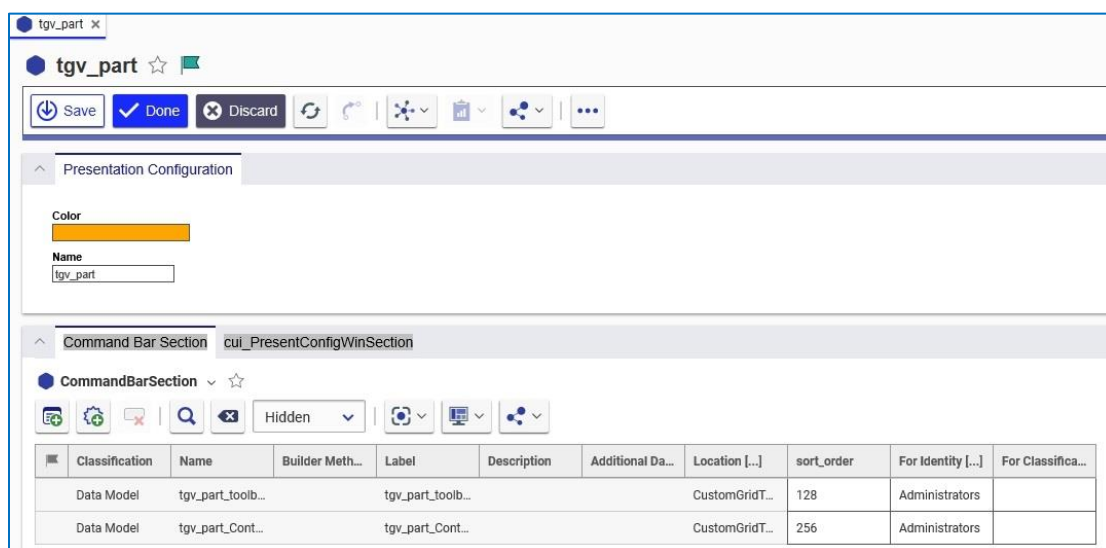


Figure 38.

8. Add an identity to the **For Identity** column. The specified Identity determines which users have access to the buttons and menus.



9. Click the **Save** button to save the **tgvs\_part** Presentation Configuration Item.

10. Right-click **tgvs\_part\_toolbar** and select **Open** from the context menu:

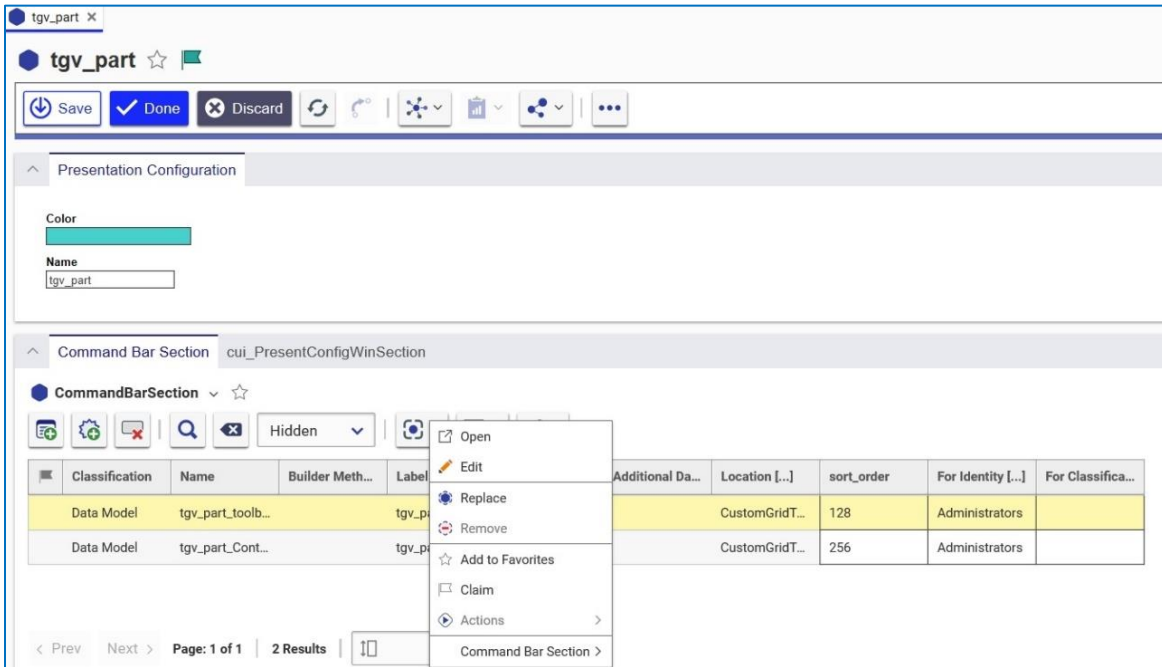


Figure 39.

The **tgvs\_part\_toolbar** presentation configuration item appears. It contains the **tgvs\_view** button.

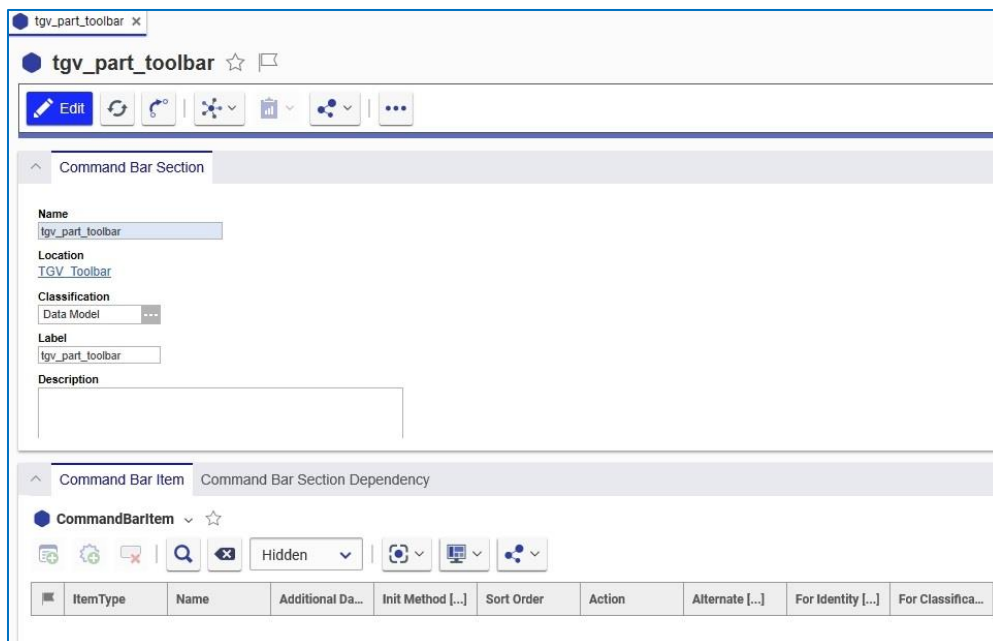



Figure 40.

11. Click the **New Command Bar Item**  button in the **Command Bar Item** tab. The **Select Item Type** dialog appears:

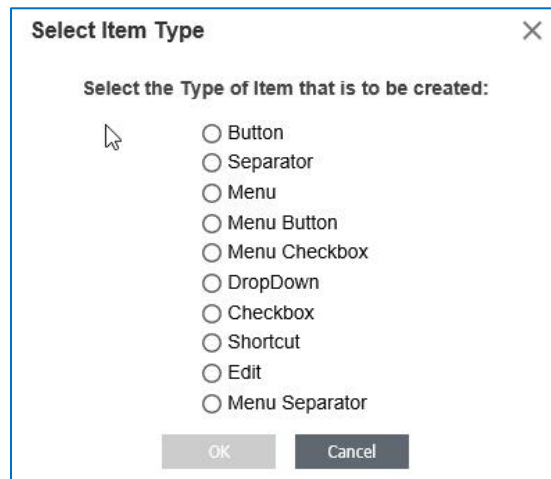


Figure 41.

12. Select **Button** and click **OK** to add it to the command bar.
13. Right-click the Item to access the context menu and click **Open**. The **tgv\_view** Presentation Item appears.

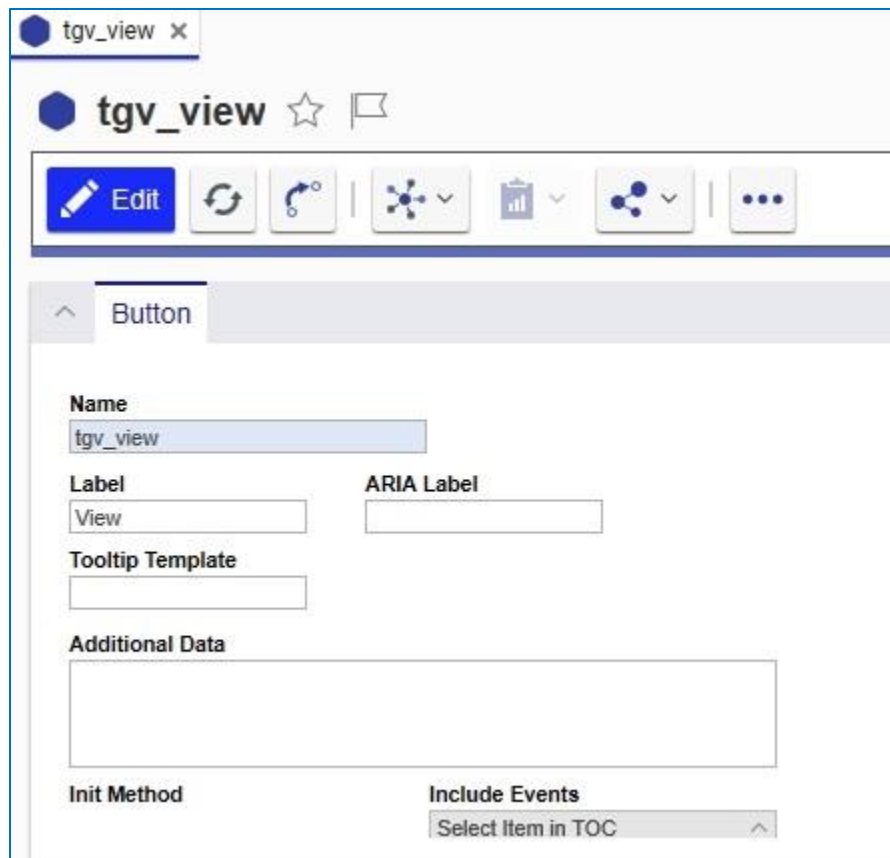


Figure 42.

Additional logic can be added to the context menu or toolbar items when they are initialized by adding an **Init Method**. Users can review the **rb\_viewItemHandler** Method code and develop similar code for their own uses.

### 4.3.1 Adding an Image to a Button

You can select an image for the toolbar button you created using the following procedure:

1. Click the **Image** button and click the **Select an image** link. The **Image Browser** dialog appears.

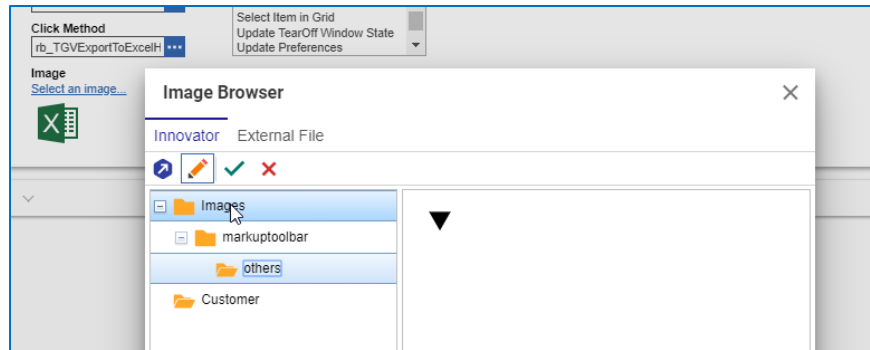




Figure 43.

2. Select the appropriate image and click the  button.
3. Click  to save the Presentation Configuration.

### 4.3.2 Linking a Presentation Configuration to a TGV Definition

Once you save the Presentation Configuration you need to link it to a Tree Grid View definition before you can use it. Use the following procedure:

1. Go to **Contents --> Administration --> Configuration --> Tree Grid Views** and click the **Search** button. A list of Tree Grid views appears in the search grid.
2. Click **Part TGV**.

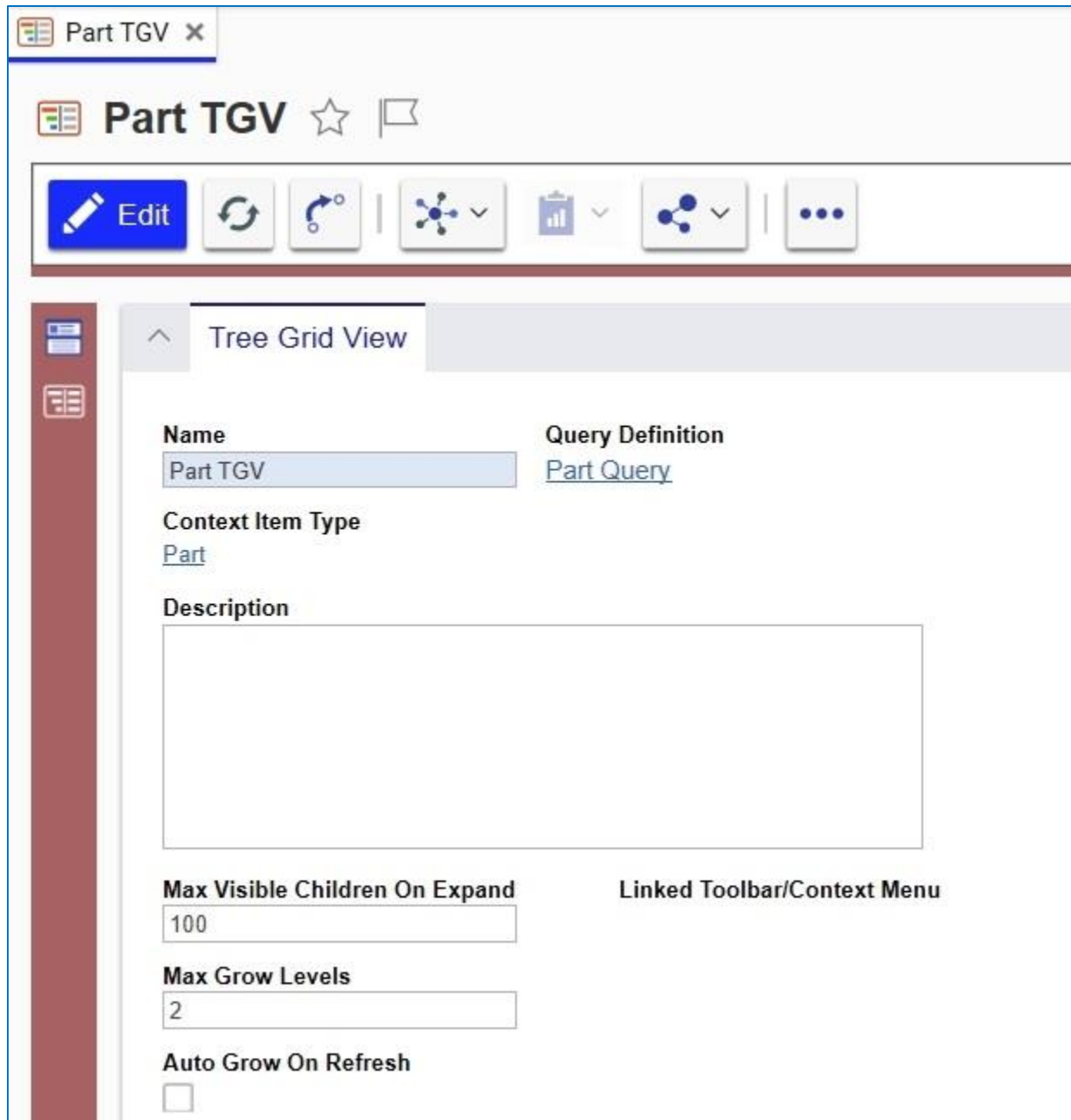


Figure 44.

**Note:** Make sure that the Item is locked before continuing.

- Click the **ellipses** in the **Linked Toolbar/Context Menu** field. The **Presentation Configuration** search dialog appears.

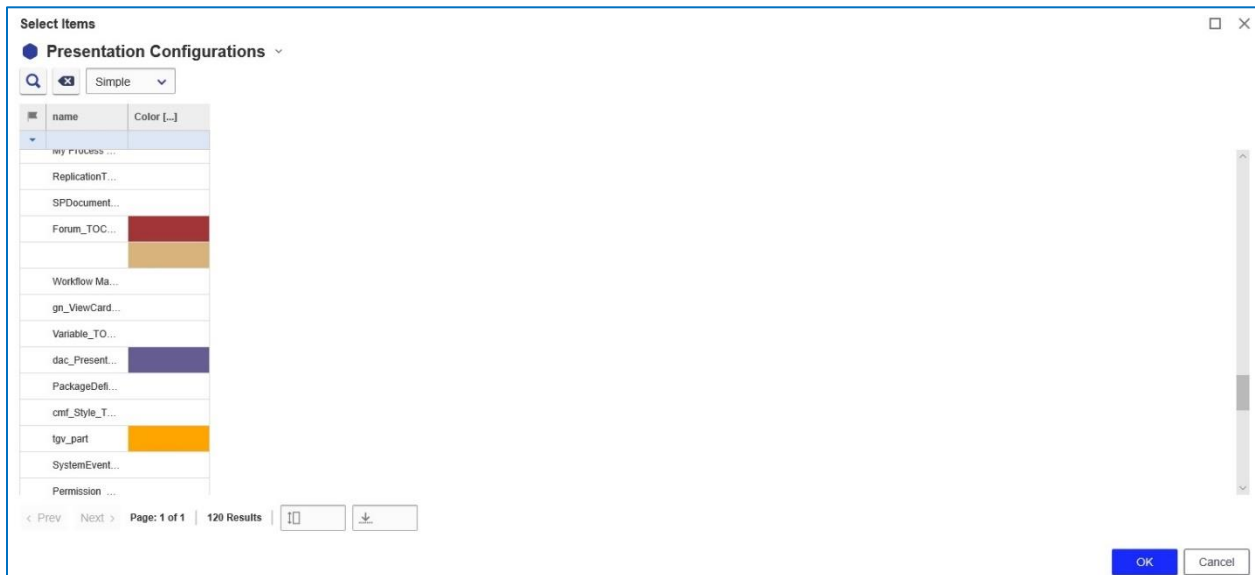



Figure 45.

- Select **tgw\_part** and click .

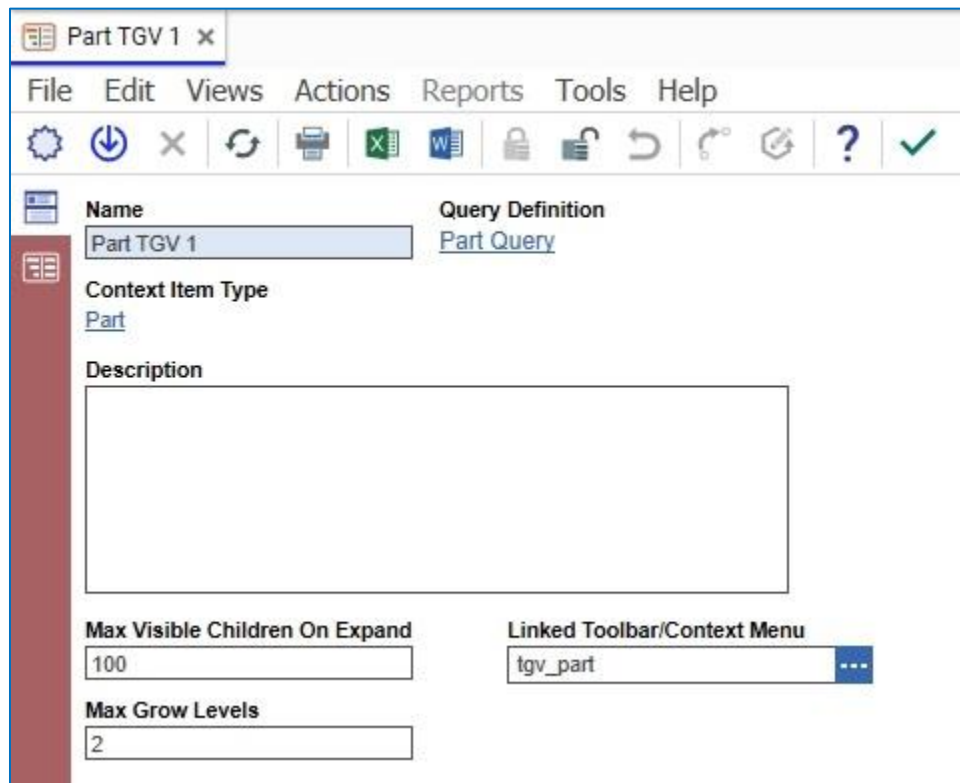


Figure 46.

- Save the Tree Grid View.



- Load an Item configured for TGV to see the new toolbar button. For example, Figure 47 shows a **Part** Item.

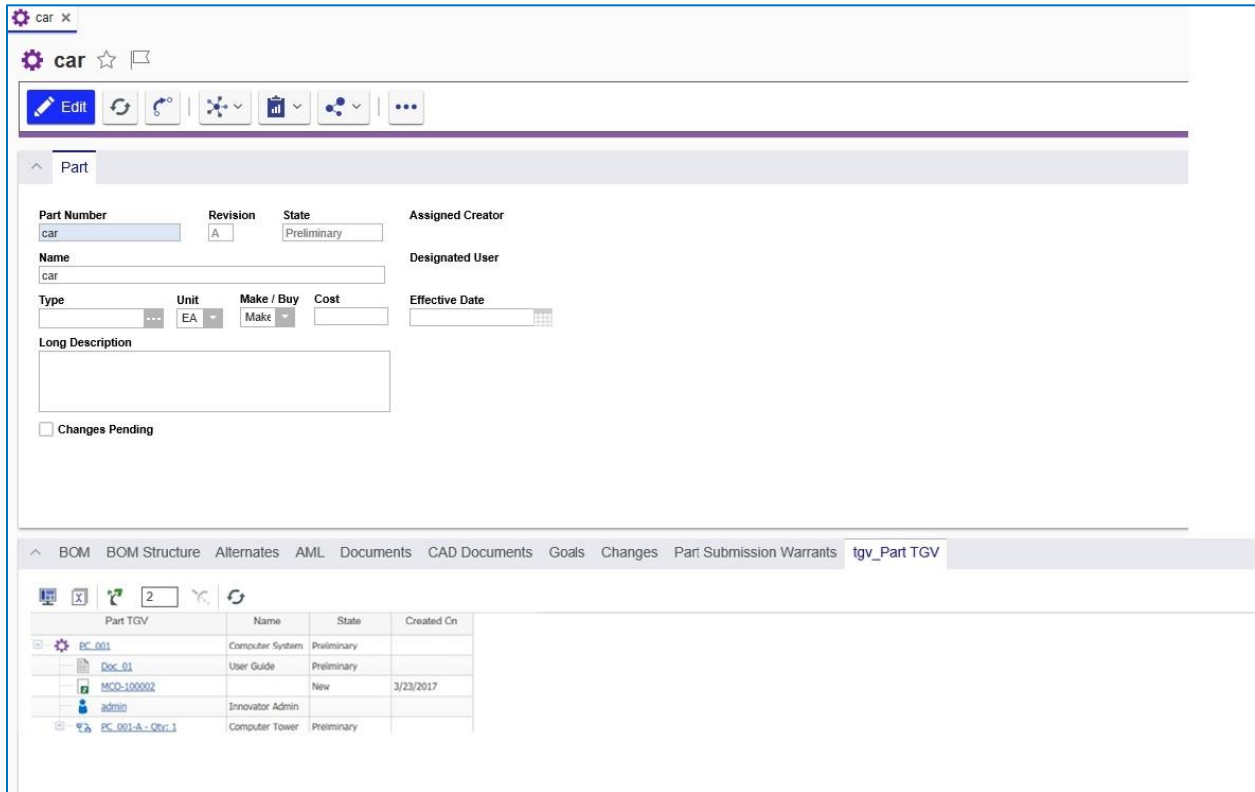


Figure 47.

## 4.4 Configuring a Context Menu

The following is an example of how to configure a context menu using custom code:

1. Select the **tgvs\_part** Presentation Configuration Item, right click **tgvs\_part\_context** in the **Command Bar Section** grid and select **Open** in the context menu.

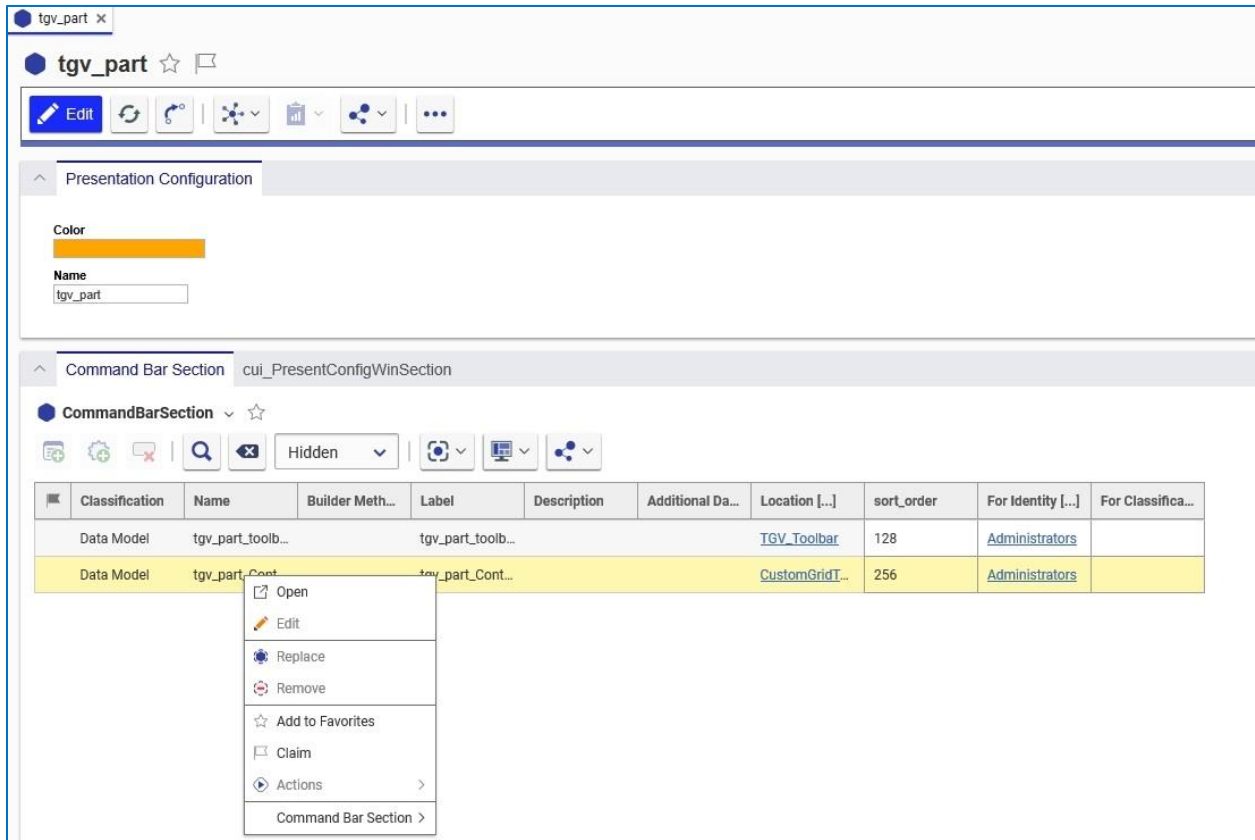


Figure 48.

The `tgvs_part_context_menu` Item appears.

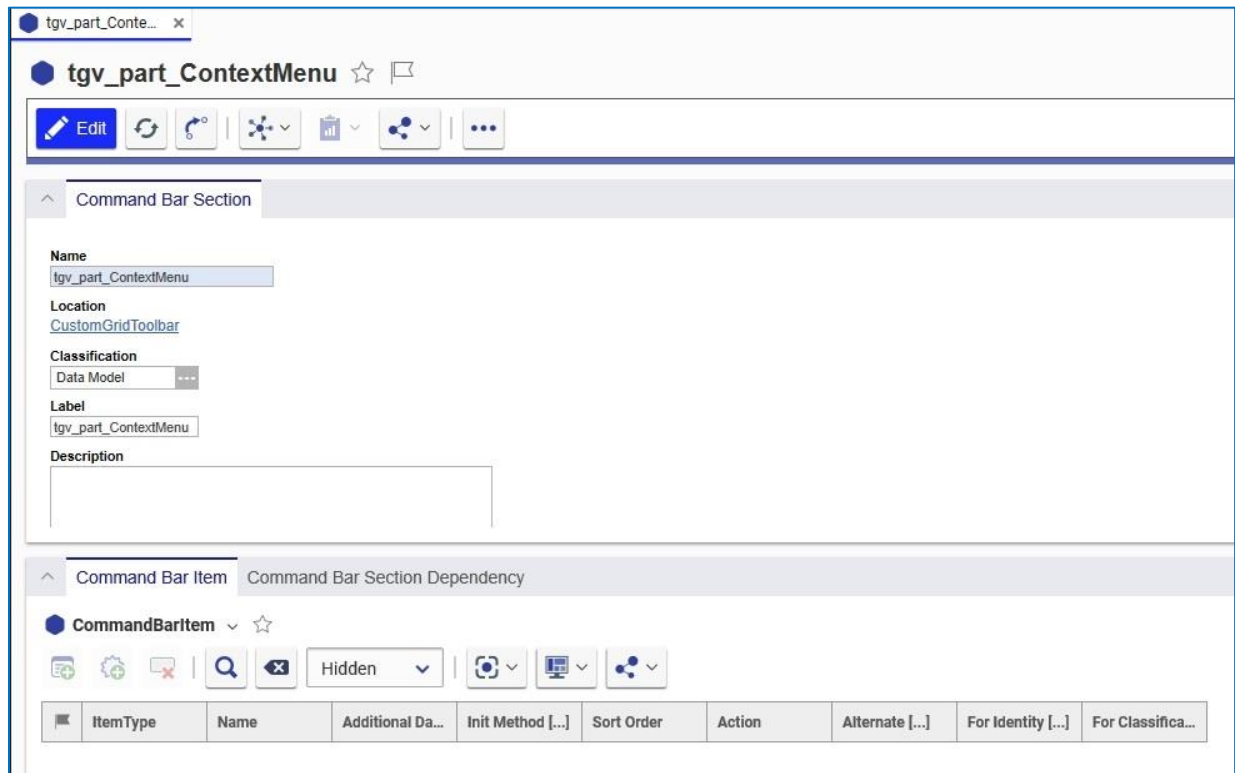



Figure 49.

- Click  to edit the `tgvs_part_context_menu` Item.
- Click **Create New Presentation Configuration**. The **Presentation Configuration** Item appears.
- Enter `tgvs_part` in the **Name** field and select the orange color.

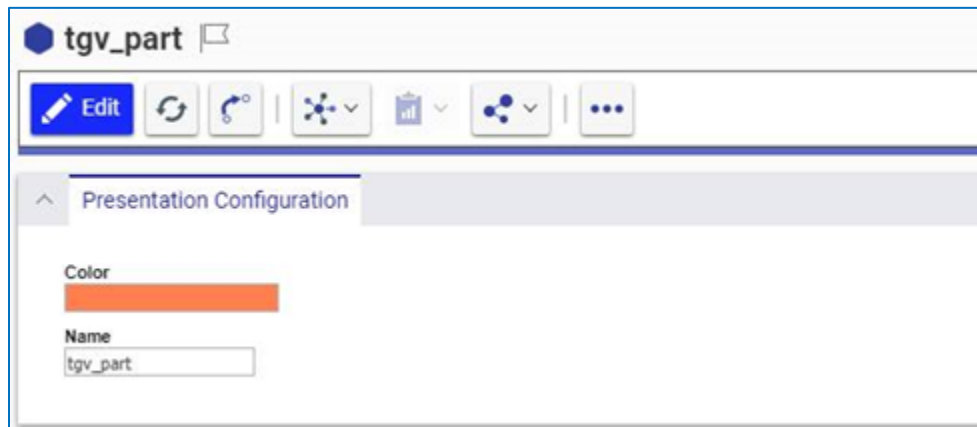



Figure 50.

- Click the **New Command Bar**  button in the **Command Bar Section** to add a new related Item.

- Enter **tg<sub>v</sub>\*** in the **Name** cell of the search grid and add both **tg<sub>v</sub>\_part\_toolbar** and **tg<sub>v</sub>\_part\_ContextMenu** Items.

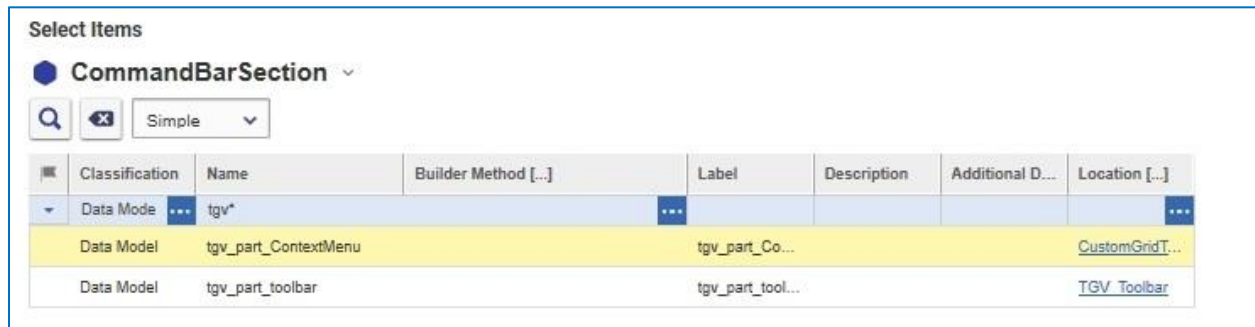


Figure 51.

- Make sure to add the Items to the Relationships grid.

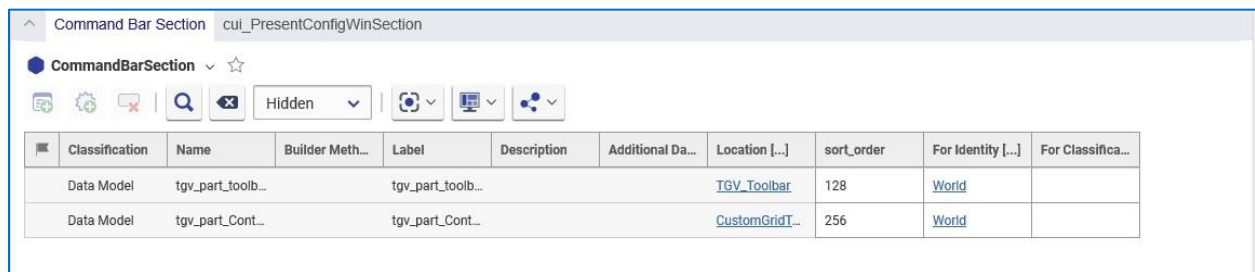


Figure 52.

- Add an identity in the **For Identity** column. This Identity determines which users will have access to the buttons/menus.



- Click  to save the **tg<sub>v</sub>\_part** Presentation Configuration Item.

10. Right-click **tgvs\_part\_toolbar** and select **Open** from the context menu.

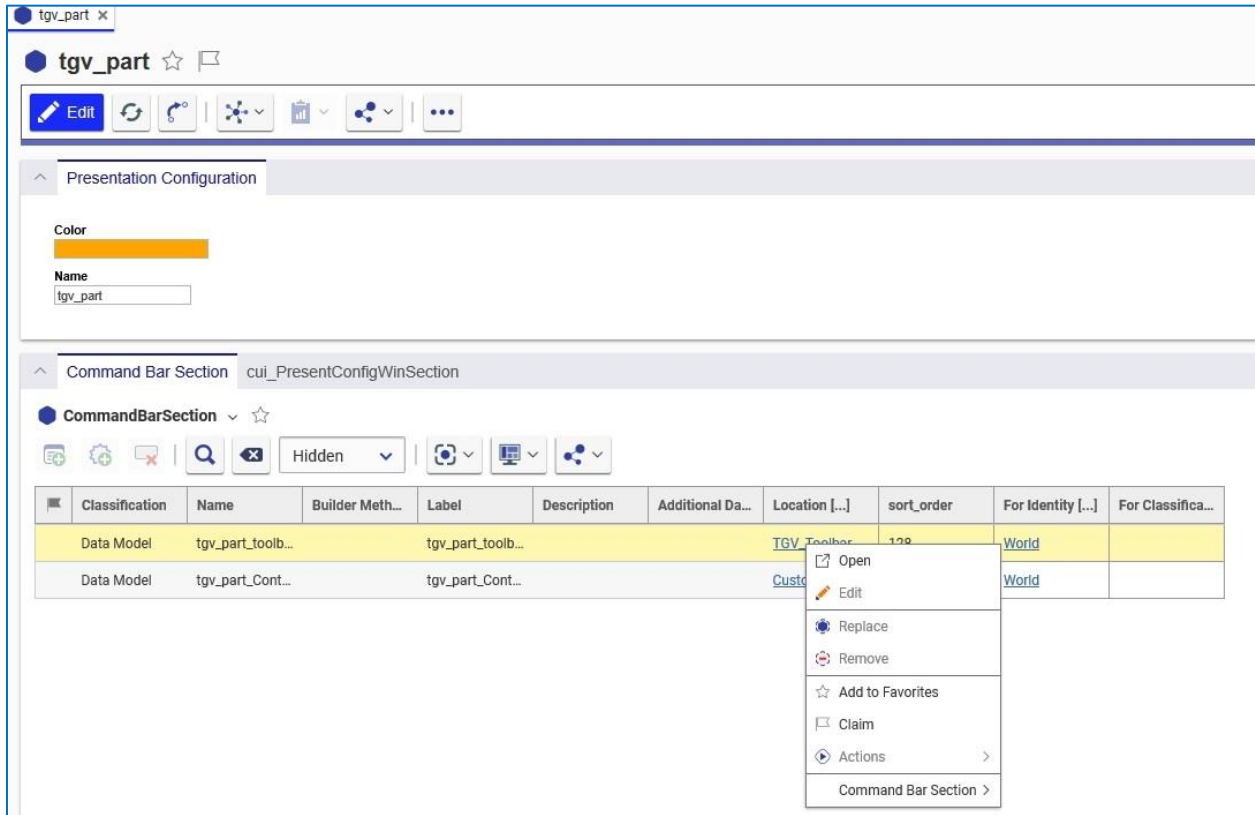


Figure 53.

The **tgvs\_part\_toolbar** Presentation Configuration Item appears. It contains the **tgvs\_view** button.

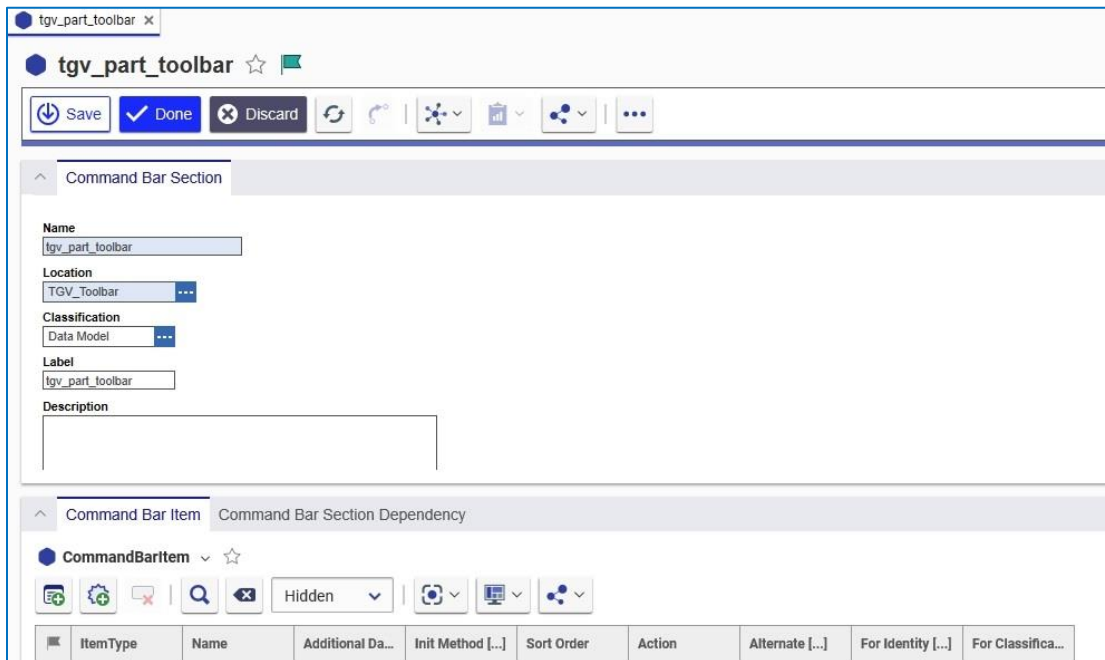



Figure 54.

- Click the **New Command Bar**  button in the **Command Bar Item** tab. The **Select Item Type** dialog appears.

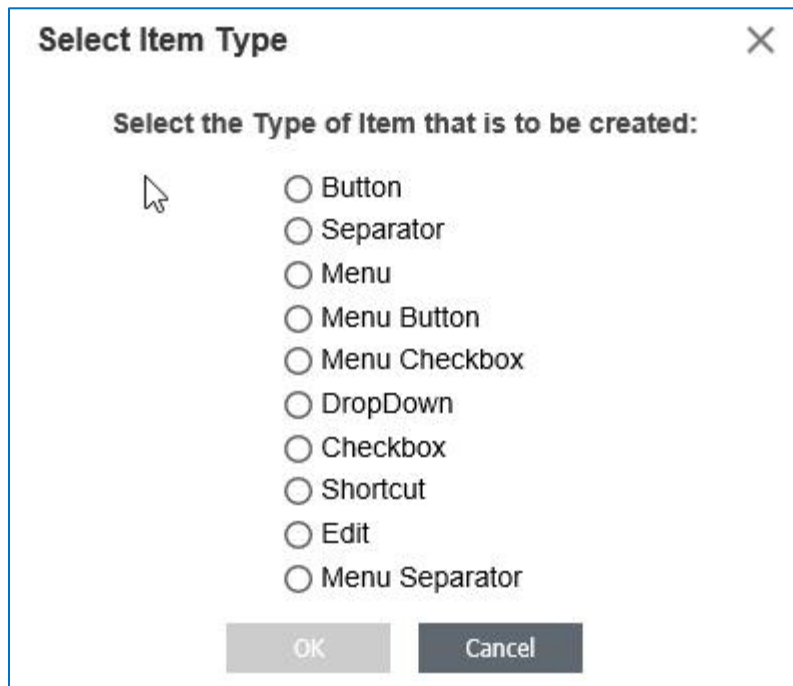


Figure 55.

- Select **Menu** and click **OK**. It appears in the **Command Bar Item** tab.
- Right-click the **Menu** ItemType and click **Open** in the context menu.
- Right-click **tgv\_part\_menu** in the **Command Bar Item** grid and select **View Command Bar Item**. The **tgv\_part\_menu** Presentation Item appears.

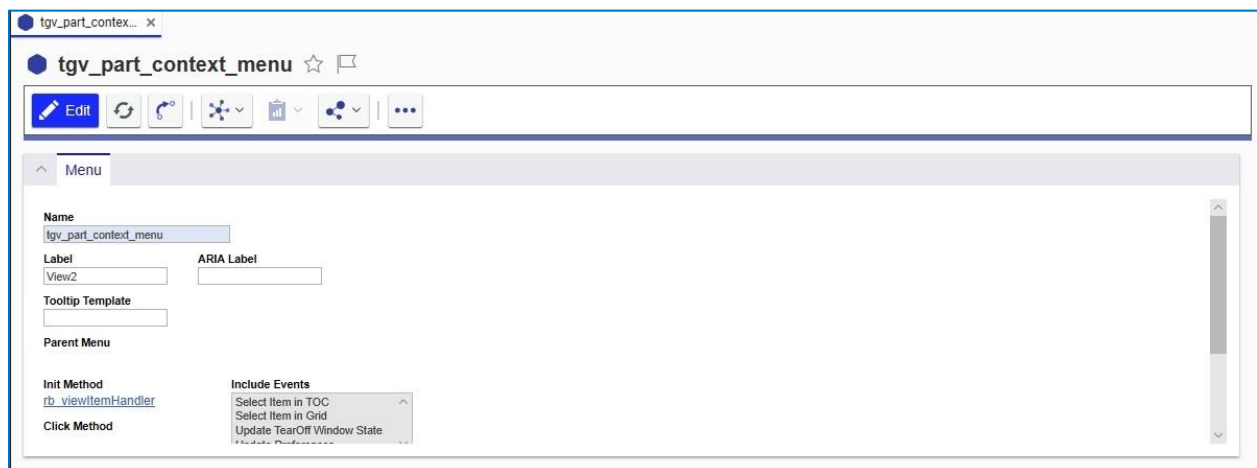



Figure 56.

The **rb\_viewItemInitHandler** Method is used to determine whether or not the data template is valid.

## 4.5 Expanding and Collapsing Tree Grid Rows


You can determine the number of rows that appear in a Tree Grid view using one of the following methods:

- Click the **Grow**  button to temporarily expand the view.
- Select the **Auto Grow On Refresh** checkbox to keep the view expanded.

These methods are described in more detail in the following sections.

### 4.5.1 Expanding Tree Grid Rows Using the Grow Icon

Use the following procedure:

1. Click the **Grow**  button to expand the view. The number of levels that appear is determined by the value you enter in the Grow depth field.

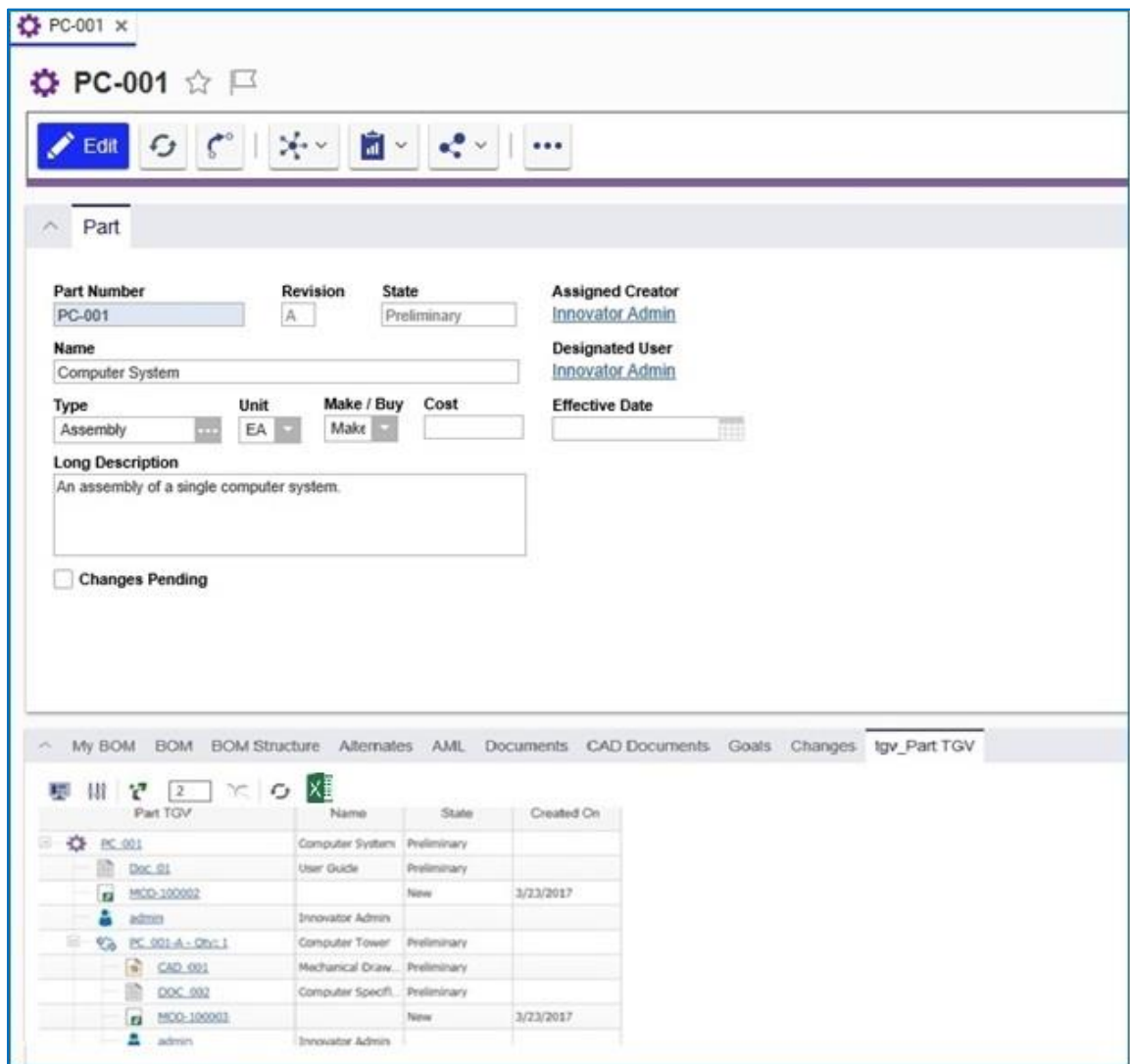


Figure 57.

**Note:** You can also click **Grow** from the context menu by right-clicking on the row that you want to expand.

2. Click the **Show More** link to further expand the number of related Items at any level.
3. You can change the number of levels that appear in the grid either by either entering a different value in the **Grow depth** field or by editing the related Tree Grid View definition.

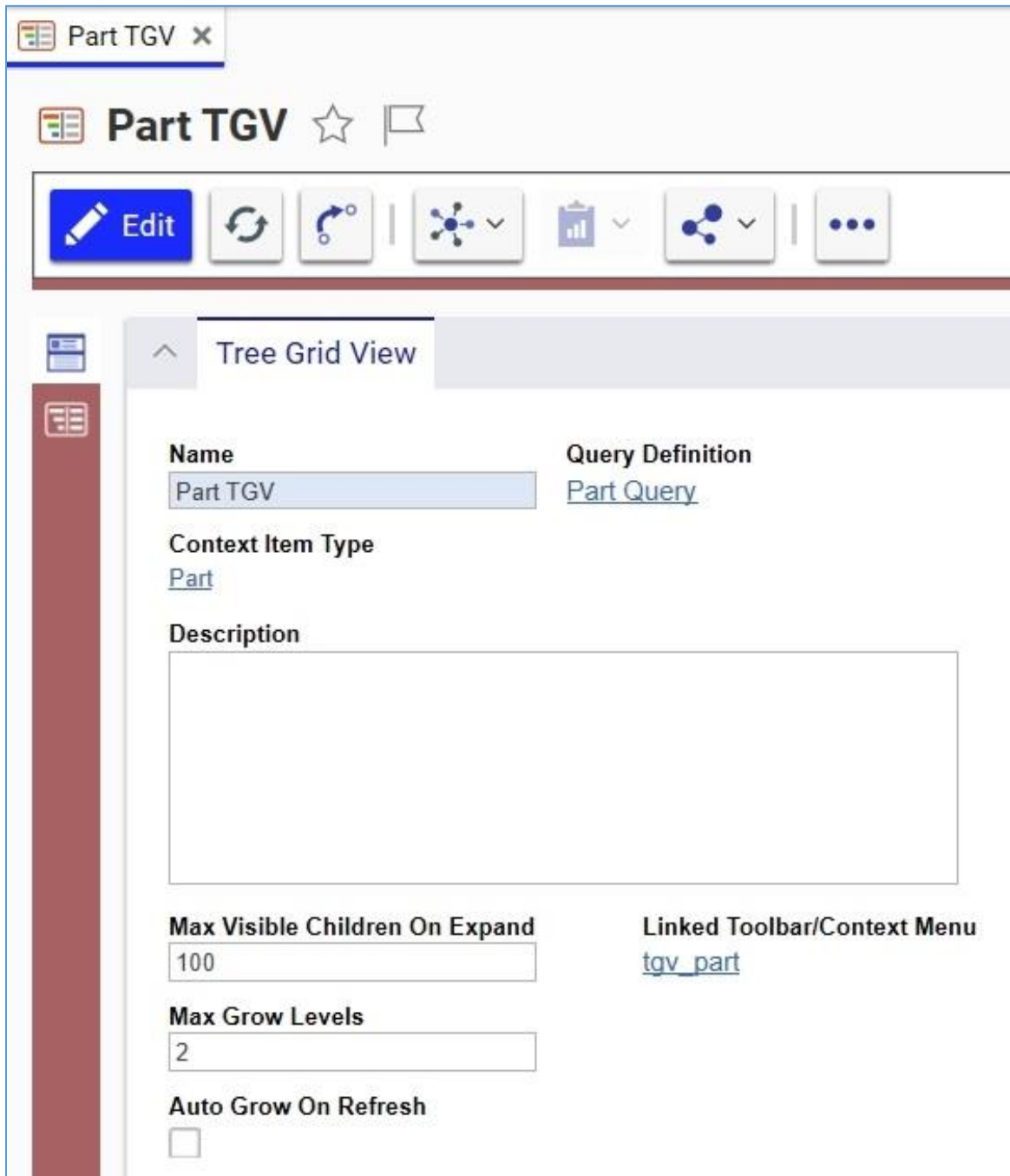


Figure 58.



Any changes you make in the **Max Visible Children on Expand** and **Max Grow Levels** fields automatically appear in the associated item screen. For example, if you change the value in the **Max Grow Levels** field to **4**, it will appear in the **Grow Depth** field for the associated Part:

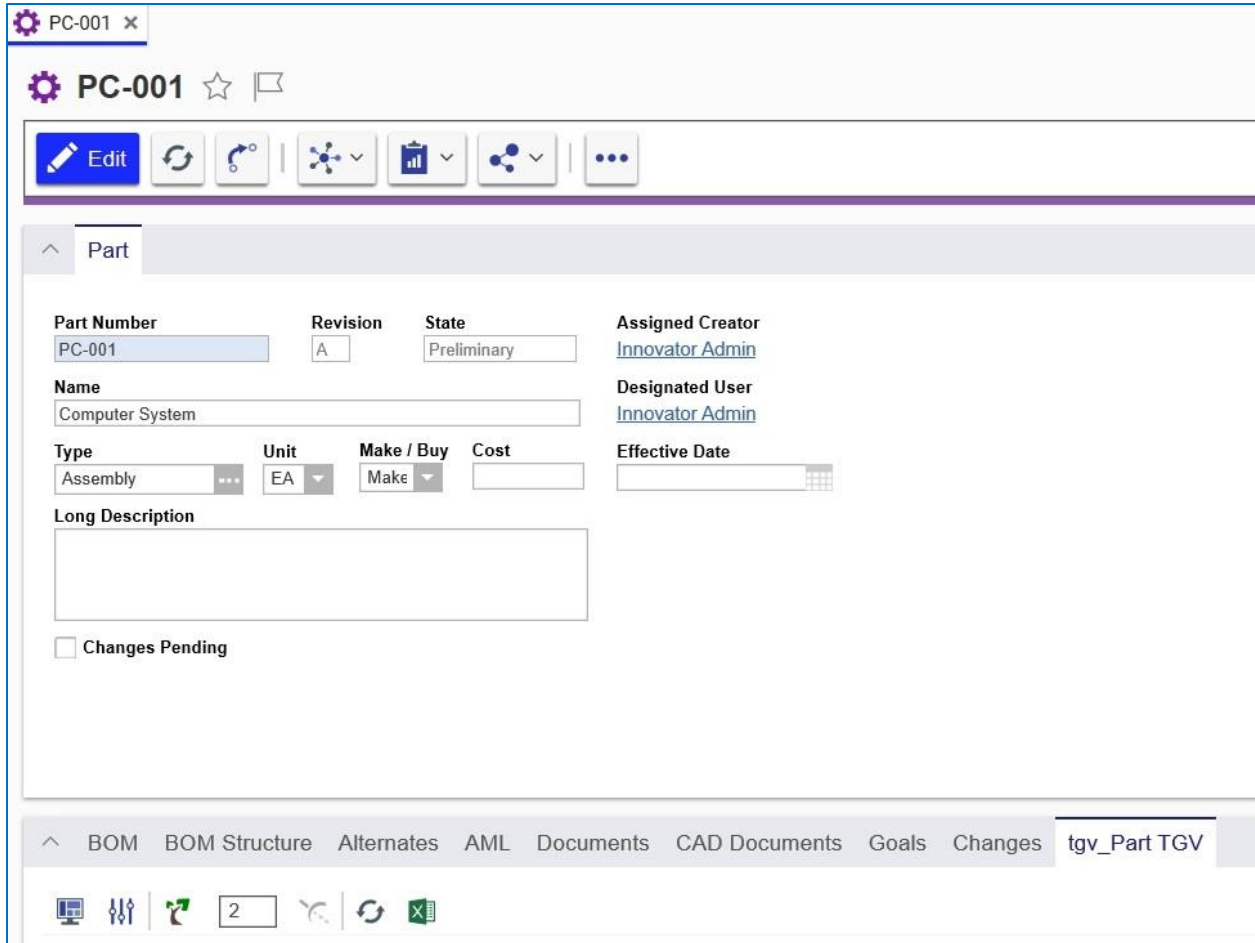


Figure 59.

## 4.5.2 Using Auto Grow on Refresh

The **Auto Grow on Refresh** check box appears on the **Tree Grid View** form.

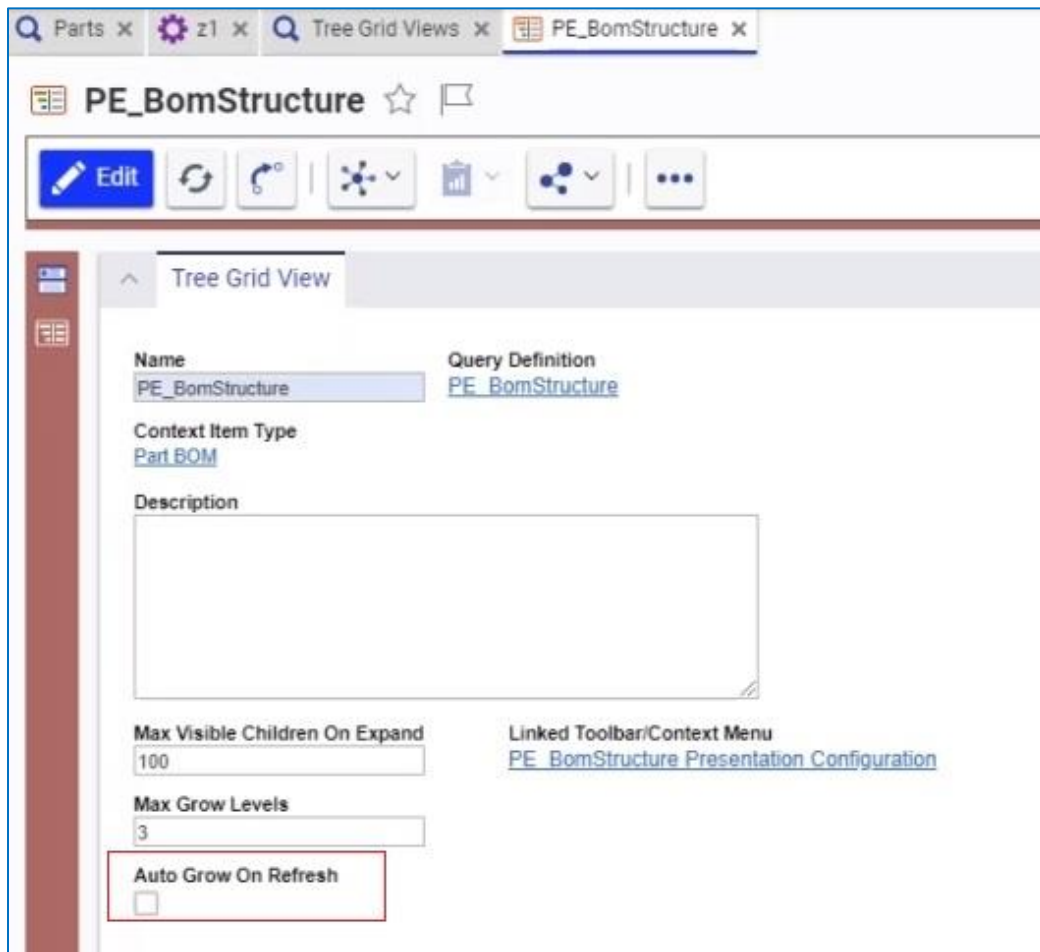


Figure 60.

Selecting this checkbox keeps the Tree Grid View expanded to the default level whenever you do a refresh.

The **Max Grow Level** property value is used when you:

- Open the tab that displays the Tree Grid View.

- Click  Save.

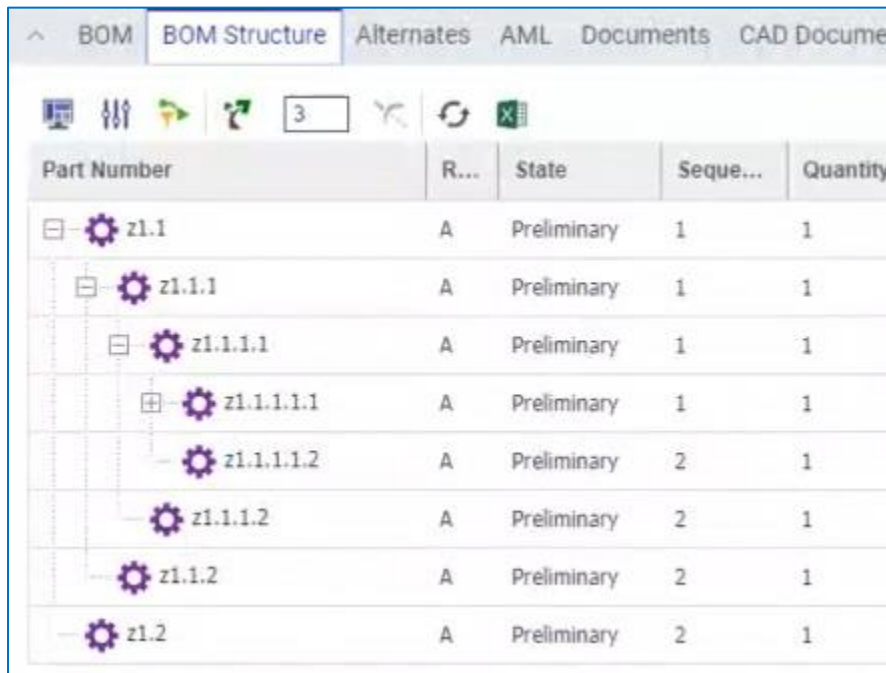
The **Grow Depth** value displayed on the tab is used when you:

- Click **Apply** on either the **Display Settings** or **Modify Parameters** dialog boxes.

- Click the following toolbar buttons: , , , .

- Click the  button and then click **Create New Revision** in the drop-down menu.

Clicking the **Display Settings**  or **Parameter Mapping**  buttons also initiates a refresh.



Part Number	R...	State	Seque...	Quantity
z1.1	A	Preliminary	1	1
z1.1.1	A	Preliminary	1	1
z1.1.1.1	A	Preliminary	1	1
z1.1.1.1.1	A	Preliminary	1	1
z1.1.1.1.1.1	A	Preliminary	1	1
z1.1.1.1.1.2	A	Preliminary	2	1
z1.1.1.2	A	Preliminary	2	1
z1.2	A	Preliminary	2	1

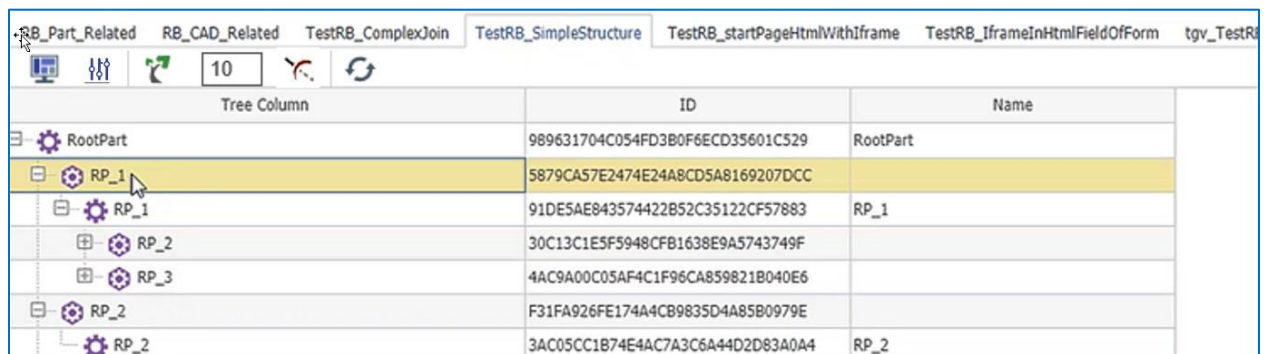
Figure 61.

If you do not select the **Auto Grow on Refresh** check box, the Tree Grid view maintains the default behavior of contracting the Tree Grid view on refresh.

### 4.5.3 Collapsing Tree Grid Rows


Use the following procedure:

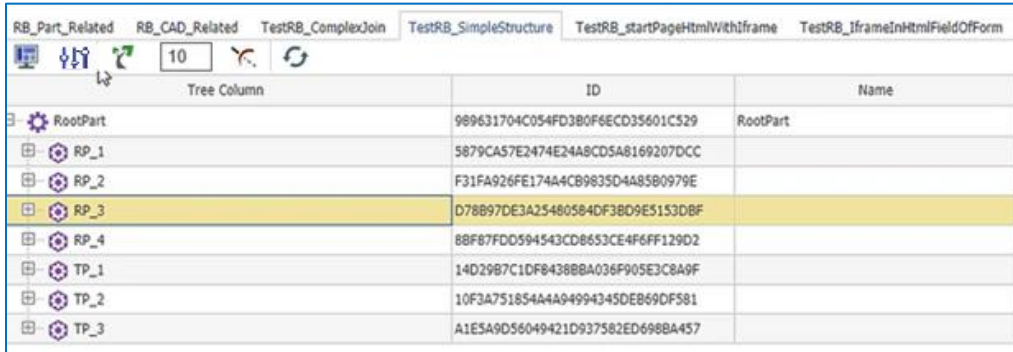
1. Select a row in the Tree grid view.



Tree Column	ID	Name
RootPart	989631704C054FD3B0F6ECD35601C529	RootPart
RP_1	5879CA57E2474E24A8CD5A8169207DCC	
RP_1	91DE5AE843574422B52C35122CF57883	RP_1
RP_2	30C13C1E5F5948CFB1638E9A5743749F	
RP_3	4AC9A00C05AF4C1F96CA859821B040E6	
RP_2	F31FA926FE174A4CB9835D4A85B0979E	
RP_2	3AC05CC1B74E4AC7A3C6A44D2D83A0A4	RP_2

Figure 62.

- Click the **Trim**  button to collapse the rows.



Tree Column	ID	Name
RootPart	989631704C054FD3B0F6ECD35601C529	RootPart
RP_1	5879CA57E2474E24A8CD5A8169207DCC	
RP_2	F31FA926FE174A4CB9835D4A85B0979E	
RP_3	D78B97DE3A25480584DF3BD9E5153DBF	
RP_4	88F87FDD594543CD8653CE4F6FF129D2	
TP_1	14D29B7C1DF8438BBA036F905E3C8A9F	
TP_2	10F3A751854A4A94994345DEB69DF581	
TP_3	A1ESA9D56049421D937582ED6988A457	

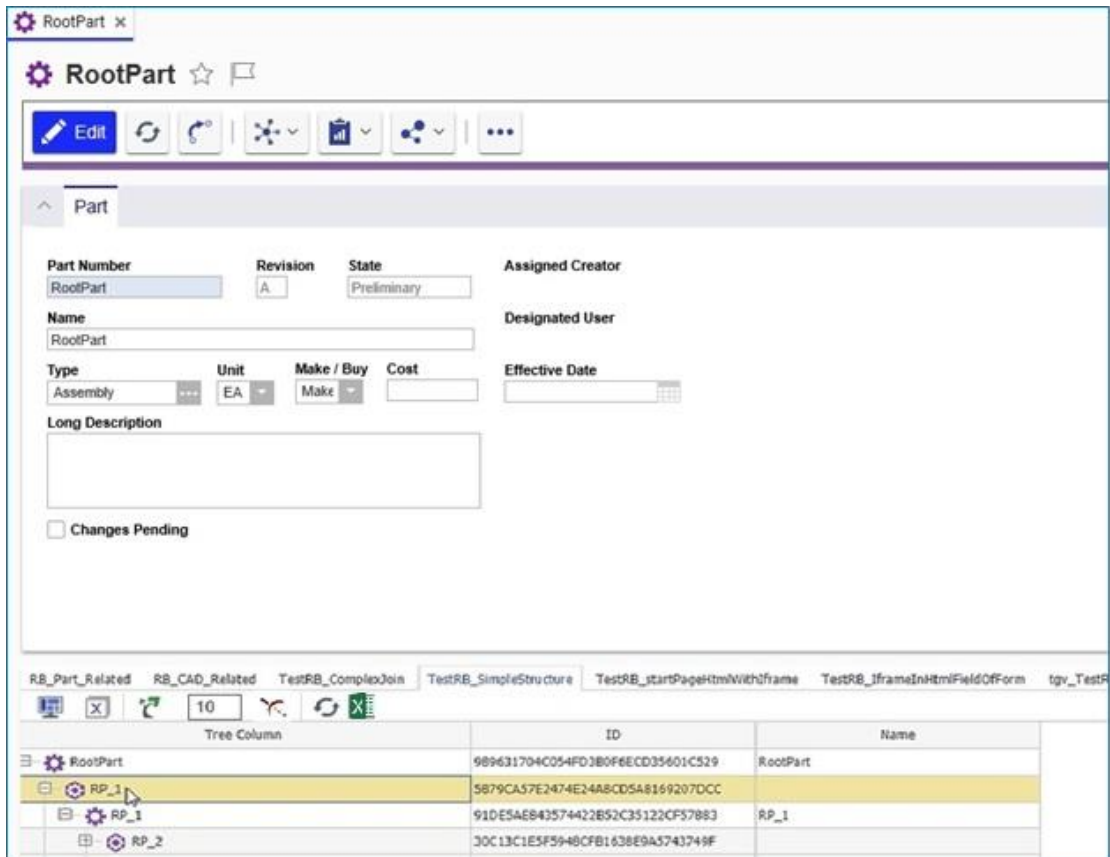
Figure 63.

**Note:** You can also click **Trim** in the context menu by right-clicking the row that you want to collapse.

## 4.6 Using Display Settings

The Display Settings dialog enables you to change the way information is displayed in the Tree Grid View. Use the following procedure:

- Go to **Contents --> Design --> Parts**. In this example, we use **RootPart**.



**RootPart** ☆

**Part**

Part Number: RootPart    Revision: A    State: Preliminary    Assigned Creator:    Designated User:    Effective Date:    Changes Pending:

Tree Column	ID	Name
RootPart	989631704C054FD3B0F6ECD35601C529	RootPart
RP_1	5879CA57E2474E24A8CD5A8169207DCC	
RP_1	91DE5AE843574422B52C35122CF57883	RP_1
RP_2	30C13C1E5F5948CFB1638E9A5743749F	

Figure 64.

2. Click the **Display Settings** button. The **Display Settings** dialog appears with the Tree Grid view configuration.

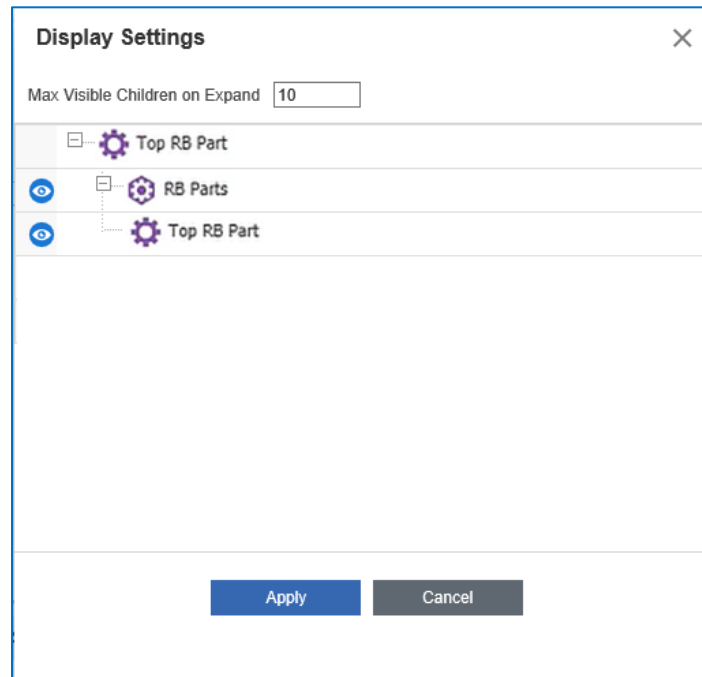


Figure 65.

3. Enter a number in the **Max Visible Children on Expand** field to change the number of child nodes that are returned when the parent Item is expanded.
4. Click the **Toggle Visibility** button for a related Item to turn it off. The selected Item is highlighted and grayed out. In the example below, the selected part has a recursive association which is also turned off.

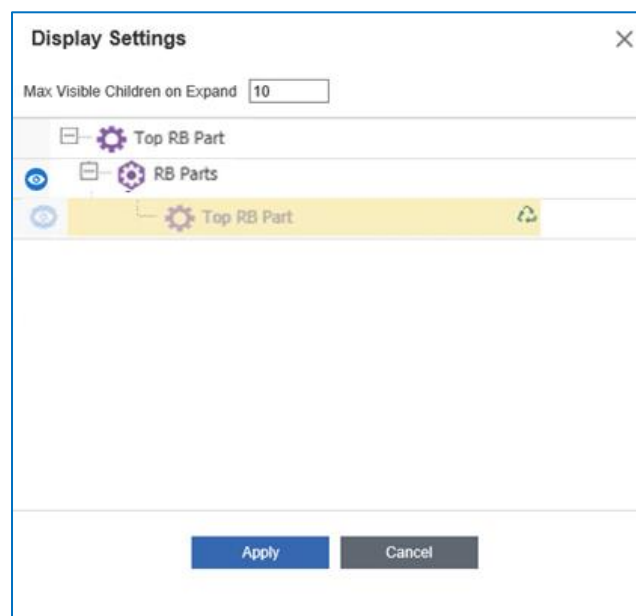


Figure 66.

5. Click **Apply**. The grid is refreshed.

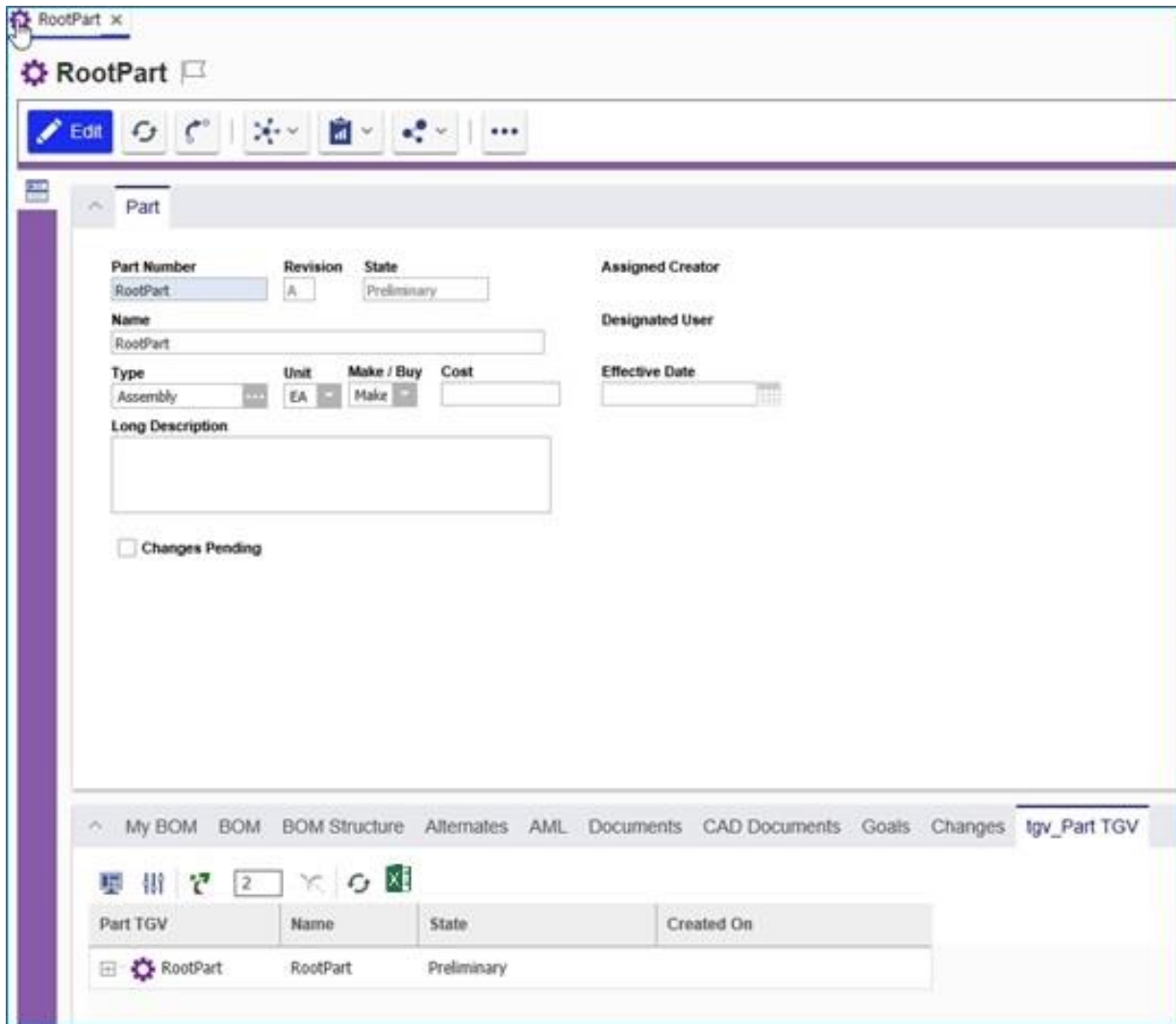


Figure 67.

6. Click **Grow**. The grid does not show the related Items; it only shows the **Part BOM Relationships**.

The screenshot shows the 'RootPart' form with the following fields:


- Part Number: RootPart
- Revision: A
- State: Preliminary
- Assigned Creator: (empty)
- Name: RootPart
- Designated User: (empty)
- Type: Assembly
- Unit: EA
- Make / Buy: Make
- Cost: (empty)
- Effective Date: (empty)
- Long Description: (empty)
- Changes Pending:

Below the form is a tree grid view with the following data:

Tree Column	ID	Name
RootPart	989631704C054FD2B0F6ECD35601C529	RootPart
RP_1	5879CA57E2474E24A8CD5A8169207DCC	RP_1
RP_1	91DE5AE842574422B52C35122CF57883	RP_1
RP_2	30C13C1E5F5948CFB1638E9A5743749F	

Figure 68.

## 4.7 Show Parameter Mapping

Once you have created the Query Definition and configured the Tree Grid View, click the **Show Parameter Mapping**  button. The **Map Parameters** dialog box appears:

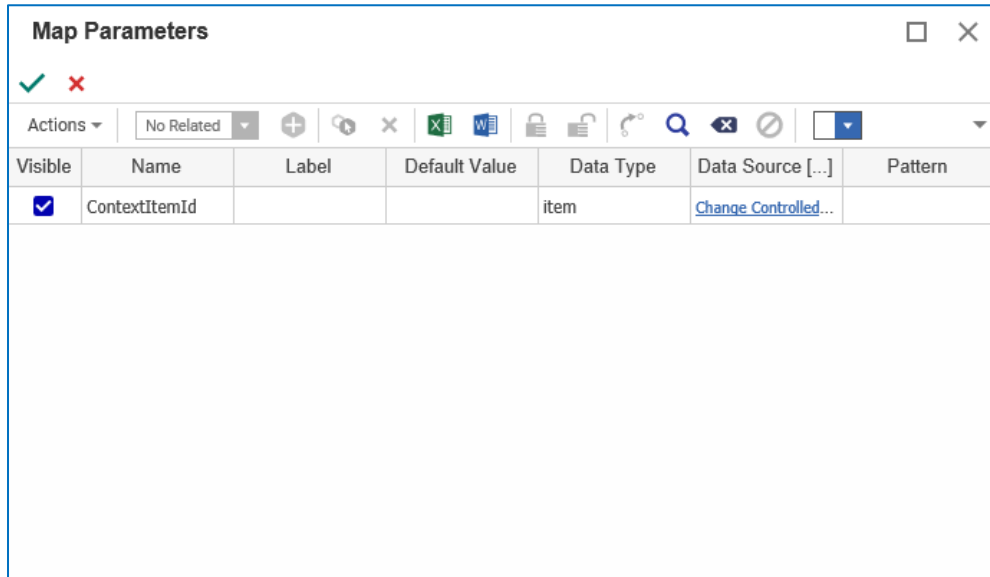


Figure 69.

Click the **green arrow** to make the **doc\_state** parameter visible to users in the Tree Grid View. Administrators can also modify the parameter mapping and choose alternative values for the Label and Default Values fields. The Data Type List field is similar to the properties assigned to ItemTypes.

## 4.8 Cancelling a Long Running Query

When a query has been running for several seconds, a splash screen similar to the following appears with the **Cancel** button that, when selected, will stop the request and terminate any server-side processes used to execute the query.

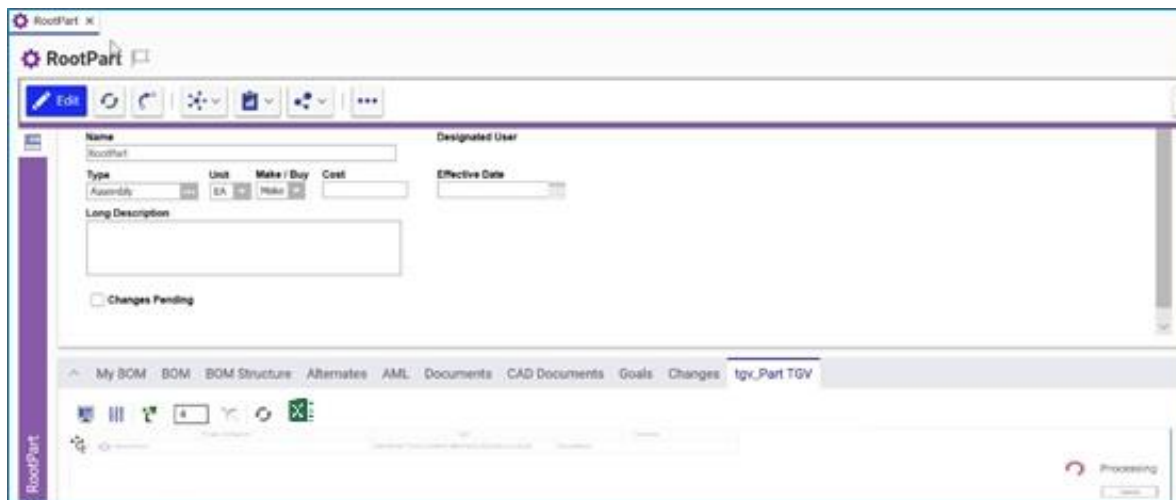


Figure 70.



## 4.9 More About Cell View Types

Support for the following cell view data types has been added in Aras Innovator 2023 Release:

- List
- Boolean
- Floating Point
- Integer
- Date enhancements for Short/Long Date/time formatting

### 4.9.1 Using the List Cell View Type

You can use the **List** Cell View Type to create list properties in a Tree Grid View as shown in the following procedure:

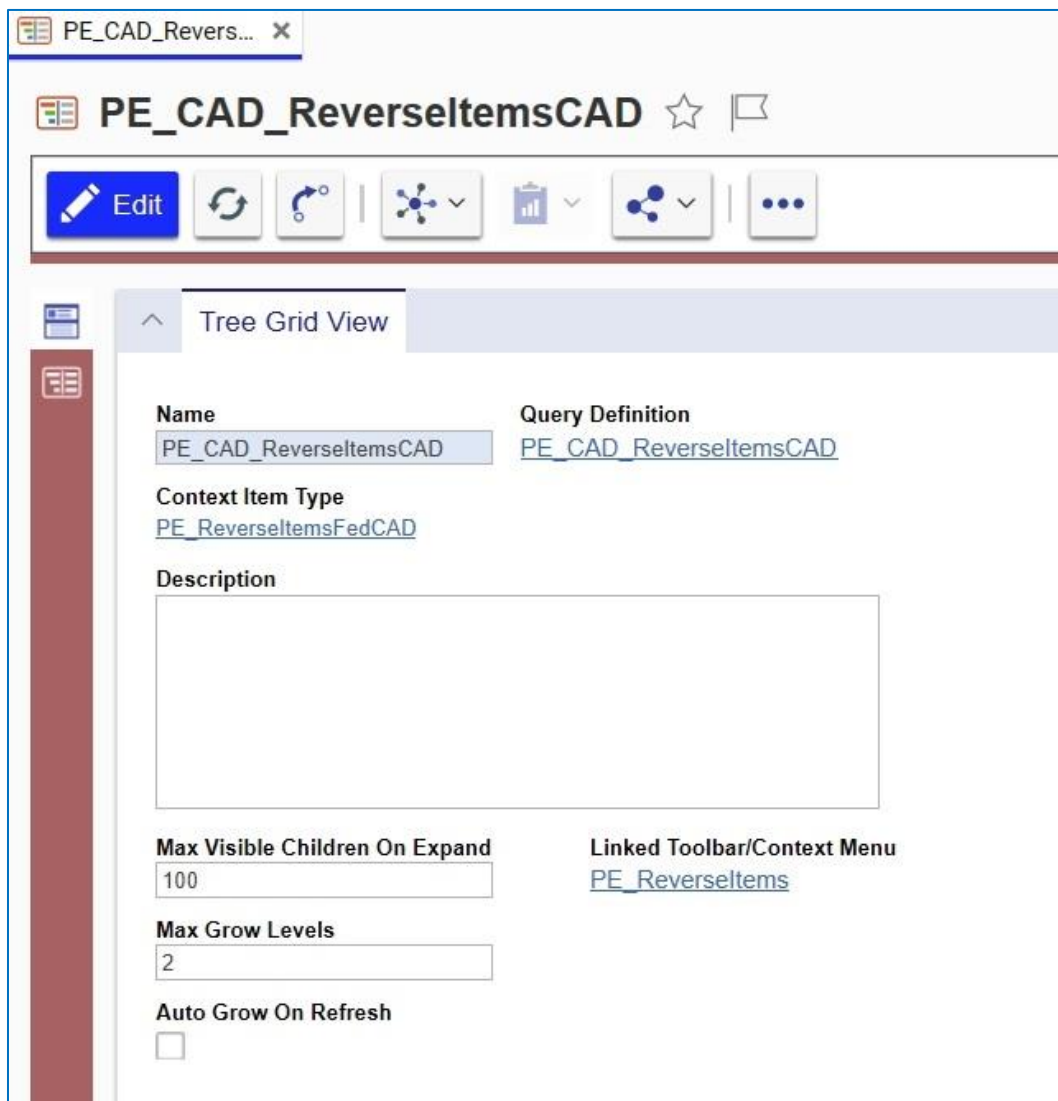


Figure 71.

1. Click the **Show Editor** button to view the parameters.

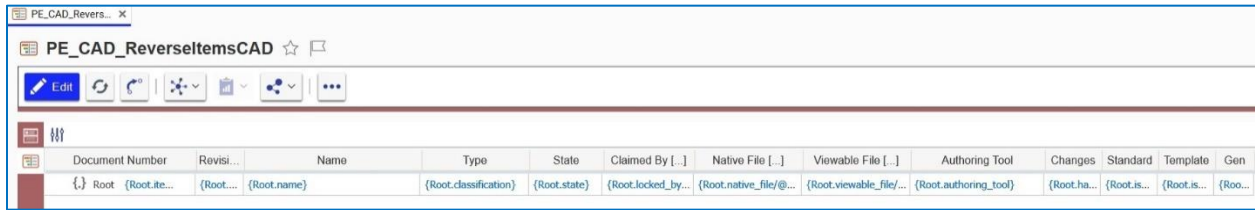


Figure 72.

2. Right-click an entry in the **Authoring Tool** column and select **Cell Display Settings**

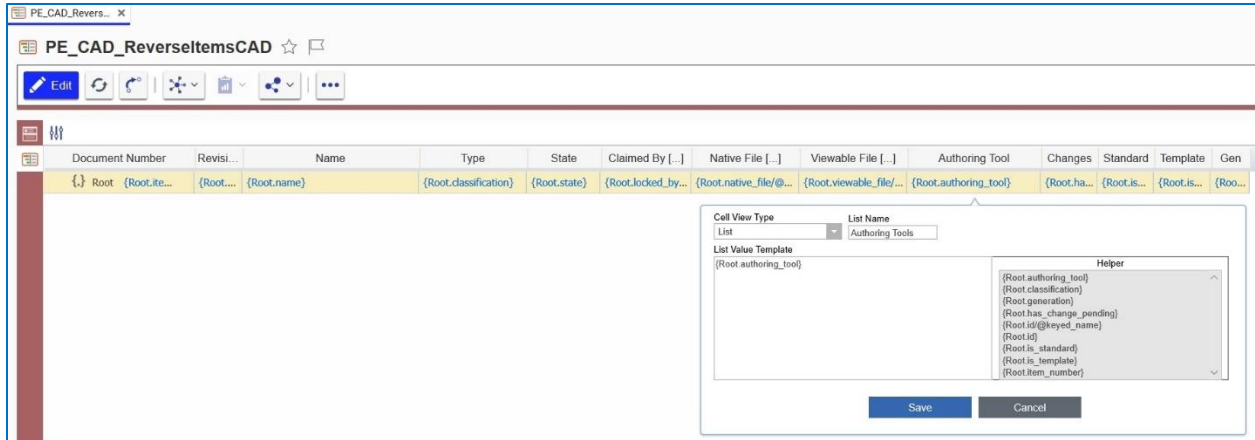


Figure 73.

3. Select **List** in the **Cell View Type** drop-down list and enter the name of the list in the **List Name** field. When applying the **List** data type, the **List** Item label will appear in the Tree Grid View.
4. Click **Save**. Figure 74 shows the result when displaying a List Property.

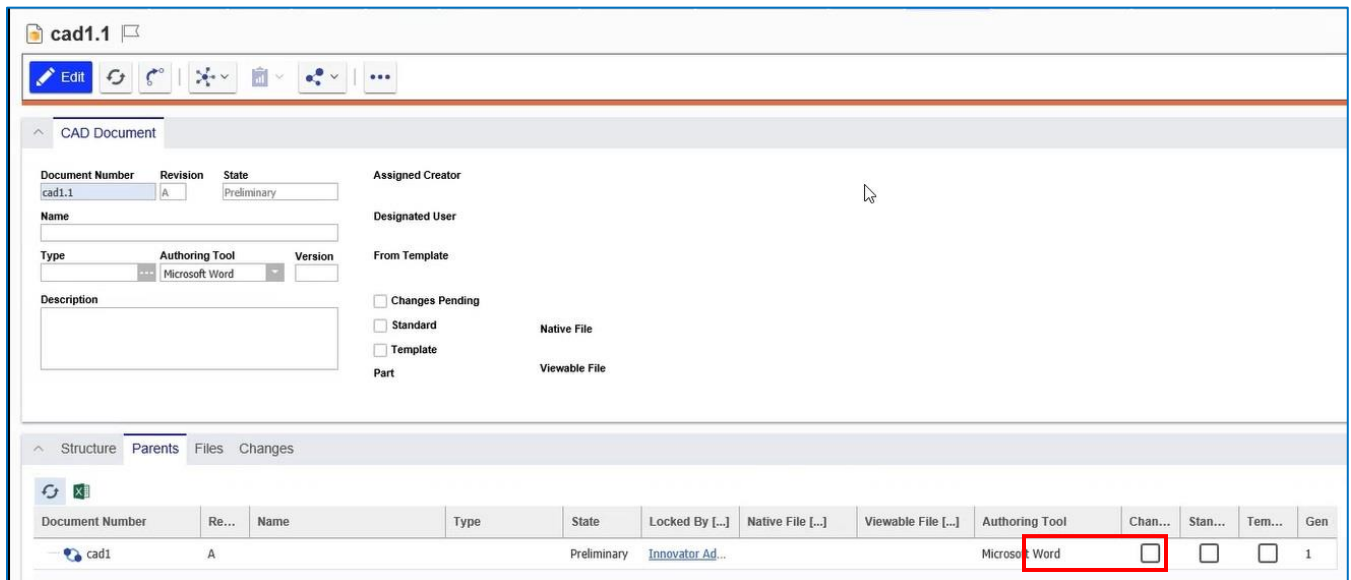


Figure 74.

## 4.9.2 Using the Boolean Cell View Type

The following example shows how to use the **Boolean** Cell View Type. The example uses the sample **PE\_CAD\_ReverseltemsPart** Tree Grid View Definition:

1. Click the **Show Editor** button to view the parameters:

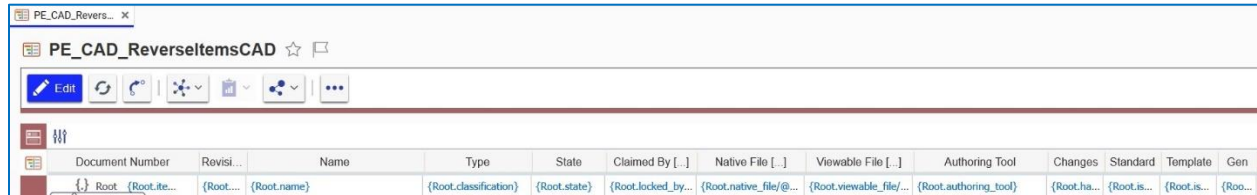


Figure 75.

2. Right-click an entry in the **Changes** column and select **Boolean** in the **Cell View Type** drop-down list:

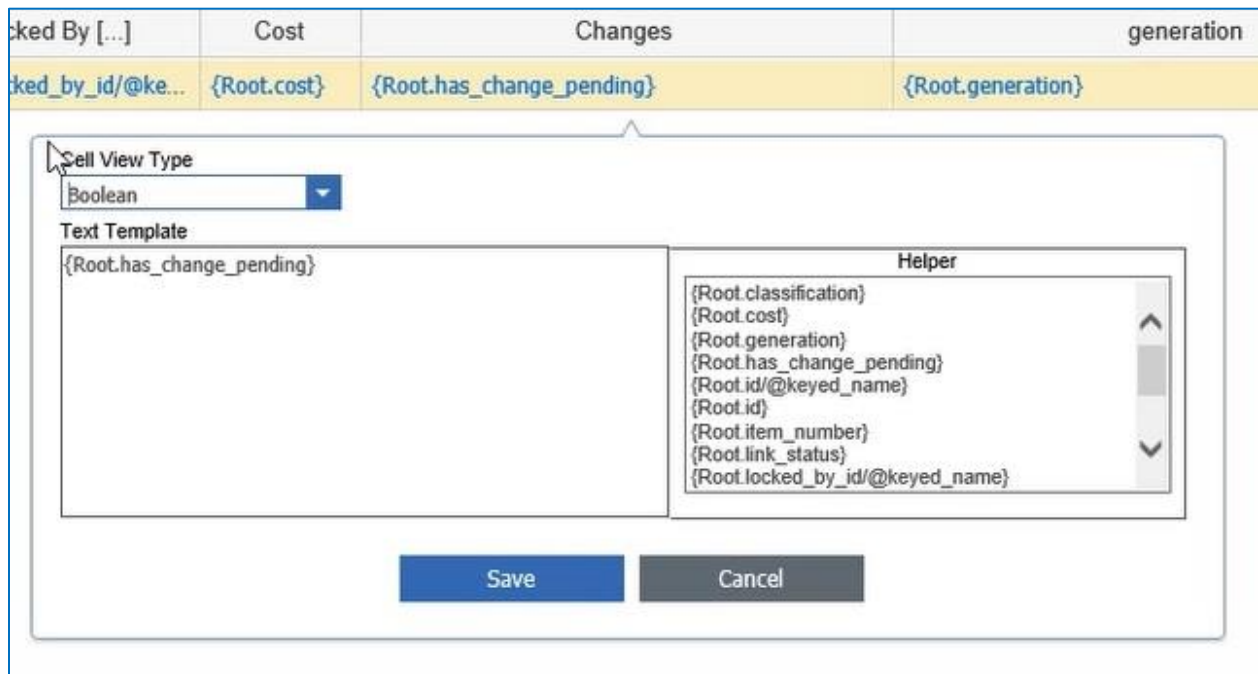


Figure 76.

3. Click **Save**.

### 4.9.3 Using the Decimal Cell View Type

The following example shows the use of the **Decimal** Cell View Type. This Cell View Type enables the user to specify a Precision and Scale for an associated **Double** or **Floating Point** property type. In this example, the **Cost** column in the TGV Definition refers to the **Cost** property in the associated QD:

1. Right-click an entry in the **Cost** column and select **Decimal** in the **Cell View Type** drop-down list.
2. Enter appropriate values in the **Precision** and **Scale** fields and click **Save**.

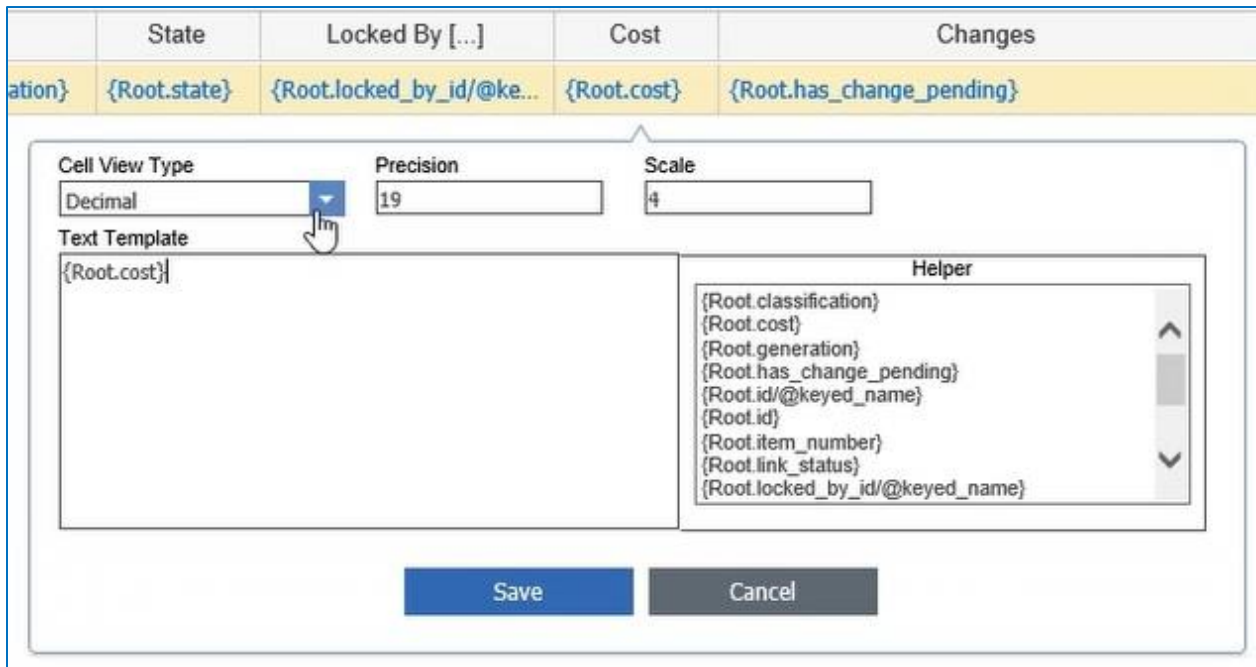


Figure 77.

### 4.9.4 Using the Float Cell View Type

The following example also uses the **PE\_CAD\_ReverseltemsPart** TGV. This example contains a QD that refers to the **Cost** floating point property.

1. Click the **Show Editor** button to view the parameters.



Figure 78.

- Right-click an entry in the **Cost** column and select **Float** in the **Cell View Type** drop-down list.



Figure 79.

#### 4.9.5 Using Date or Time Cell View Types

The **Date** cell view type now supports the **short date**, **long date**, and **date with time** formats for date properties. A secondary selection drop-down menu is automatically displayed when the **Data** Cell View Type is selected initially.

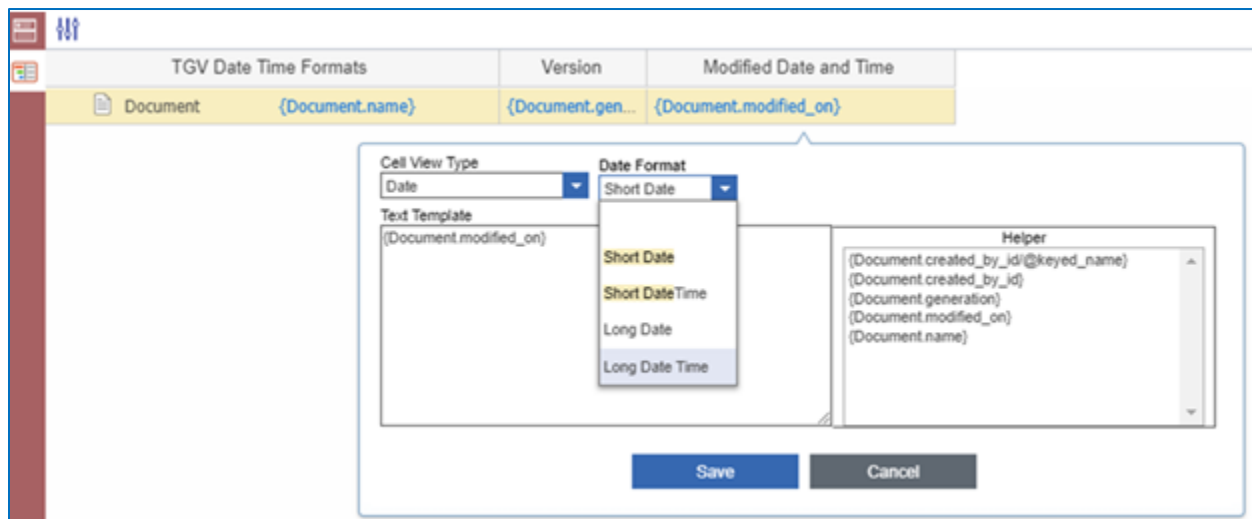


Figure 80.

In this example, the **created\_on** date type property is displayed as the **Long Date Time** Cell View Type. The results appear as shown in Figure 81.

Version	Modified Date and Time ↑
1	Friday, October 25, 2019 11:08:01 AM
2	Friday, October 25, 2019 4:46:52 PM
3	Friday, October 25, 2019 4:52:30 PM
4	Friday, October 25, 2019 4:52:33 PM
5	Friday, October 25, 2019 4:52:36 PM
6	Friday, October 25, 2019 4:52:40 PM
7	Friday, October 25, 2019 4:52:43 PM
8	Friday, October 25, 2019 4:52:47 PM

Figure 81.

Selecting **Short Date** does not provide enough information; see Figure 82.

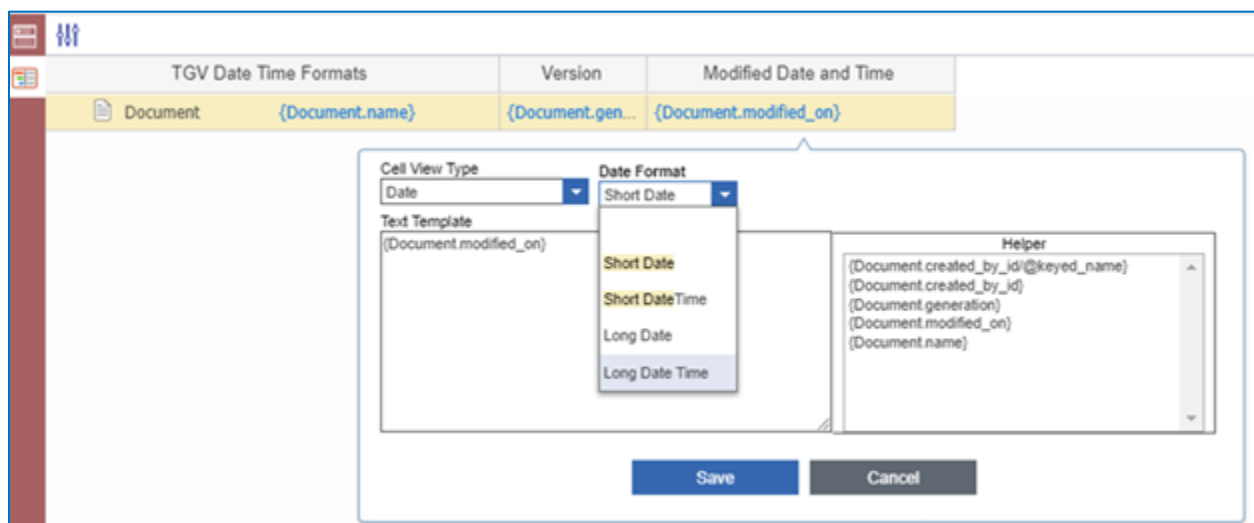


Figure 82.

In this example, the **created\_on** date type property is displayed as the **Long Date Time** Cell View Type. The results appear as shown in Figure 83.

Version	Modified Date and Time ↑
1	Friday, October 25, 2019 11:08:01 AM
2	Friday, October 25, 2019 4:46:52 PM
3	Friday, October 25, 2019 4:52:30 PM
4	Friday, October 25, 2019 4:52:33 PM
5	Friday, October 25, 2019 4:52:36 PM
6	Friday, October 25, 2019 4:52:40 PM
7	Friday, October 25, 2019 4:52:43 PM
8	Friday, October 25, 2019 4:52:47 PM

Figure 83.

#### 4.9.6 Using the Integer Cell View Type

The **Integer** Cell View Type provides an alternative to the conversion of numeric values to text for display in the Tree Grid View. Using **Integer**, a value is sorted numerically (ascending or descending) unlike **Text**, whose resulting values are sorted numerically instead.

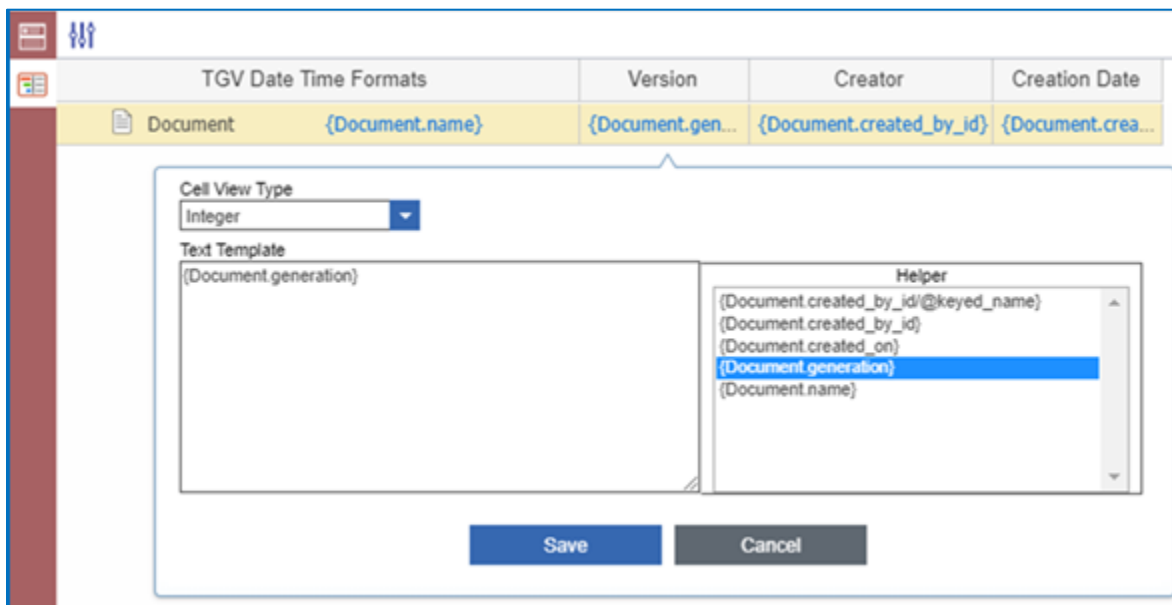
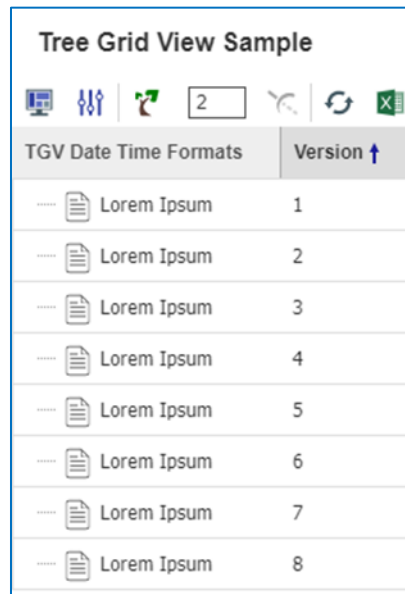


Figure 84.

A common usage for **Integer** is **Version (generation)**.











TGV Date Time Formats	Version ↑
-----  Lorem Ipsum	1
-----  Lorem Ipsum	2
-----  Lorem Ipsum	3
-----  Lorem Ipsum	4
-----  Lorem Ipsum	5
-----  Lorem Ipsum	6
-----  Lorem Ipsum	7
-----  Lorem Ipsum	8

Figure 85.