

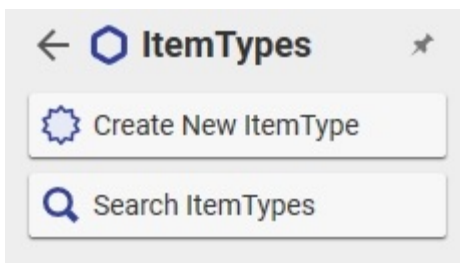
Administration Configurable Options

The following steps walk through the configuration of CMF for a custom Business Object ItemType. For additional detail on configuring properties, please refer to the property definition tables in each section.

Business Object ItemType

The Business Object ItemType is an ItemType that will be linked to the Content Modeling Framework ItemType. The Business Object ItemType for the following example is called “MyProcessPlan”. This ItemType does not require special configuration for use with CMF.

1. In the Navigation Pane select **Administration ItemTypes** in the TOC. The following menu appears:



2. Click **Create New ItemType**. The following screen appears:

3. Enter a name and labels.

1. Name: MyProcessPlan
2. Singular Label: My Process Plan
3. Plural Label: My Process Plans

4. In the Properties tab, click null to add a new Property.

- Name: name
- Label: Name
- Data Type: String
- Length: 32

5. Set access and permissions in the TOC Access tab, the Can Add tab, and the Permissions tab.

6. Click null and null to save and unclaim the MyProcessPlan ItemType. It should look like Figure 3:



Name ↑	Label	Data Type	Data Source [...]	Le...	Pr...	Sc...	Req...	Uni...	Inde...	Hid...	Hid...	Align...	Width	Sort ...	Keyed Name ...	Order ...	Default Value	Default Search
classification	Classification	String		512			☐	☐	☐	☒	☒	Left		128				
conf id		Item	MyProcessPlan				☒	☐	☐	☒	☒	Left		2500				

CMF ItemType

The CMF ItemType creates a link between the Business Object ItemType and the Content Type, allowing administrators to configure custom views.

Important

All CMF ItemType forms must have an OnFormPopulated event with the core method `cmf_ShowContentType`.

1. Navigate to **Administration ItemTypesCreate New ItemType** in the TOC.
2. Enter a name and labels.
 1. Name: MyPQD
 2. Singular Label: My PQD
 3. Plural Label: My PQDs
3. In the Properties tab, add a new Property
 1. Name: name
 2. Label: Name
 3. Data Type: String
 4. Length: 32



- Set access and permissions in the TOC Access tab, the Can Add tab, and the Permissions tab by clicking the Add icon null .
- Click **Save** and **Done**. It should look like Figure 4.

The screenshot shows the 'MyPQD' configuration interface. The 'ItemType' tab is active, displaying settings for 'MyPQD'. The 'Properties' tab is also visible, showing a table of properties for 'classification' and 'config_id'.

Name	Label	Data Type	Data Source [...]	L	Pr...	Se...	Req...	Unl...	Inde...	Hid...	Hid...	Align...	Width	Sort ...	Keye...	Order ...	Defau...	D...	Pattern	Class Path	Foreign Prop...	Tooltip	Help Text [...]	Track History	Item Behavior
classification	Classifica...	String	S...				☐	☐	☐	☒	☒	Left	128										☐	Float	
config_id		Item	MyPQD				☒	☐	☐	☒	☒	Left	2688										☐	Float	

- Select the **Views** tab and double-click the MyPQD form.
- Lock the form, go to the Form Event tab, and click Add Methods null . The Method Search dialog appears:

The screenshot shows the 'Select Items' dialog box. The 'Methods' tab is active, showing a search bar and a table of methods. The 'Name' column is highlighted, and the 'Method' column is also highlighted. The 'Simple' filter is selected.

Name	Method ...	C...	V...	execution_a...	Comments

Navigation: < Prev Next > Page: 1 *** | 25 | [Download Icon]

Buttons: OK Cancel

- Search for **cmf_ShowContentType**, select it and click **OK**.



- Double click the blank box in the Event column. Click the Down arrow to select the OnFormPopulated method.
- Click null to Save the MyPQD form. Click null to unclaim it.

MyPQD x

File Edit Views Actions Reports Tools Help

Field Type Field Label Field Physical Field Border Field CSS Field Event Form Properties Form Body Form Event

'MyPQD' Fields

item_info

Methods

Name ↑ 3	Method T...	V..	execution_all...	Comments	Event ↑ 1	S... ↑ 2
cmf_ShowContentType	JavaScript	1	World	onFormPopul...	128	

< Prev Next > Page: 1 of 1 | 1 Results

CMF RelationshipType

- Navigate to **Administration RelationshipTypes** in the TOC. The following menu appears:

← RelationshipTypes

Create New RelationshipType

Search RelationshipTypes

- Click **Create New RelationshipType**. The following window appears:

RelationshipTyp... x

RelationshipType 1

Save Done Delete

RelationshipType

Name

Label

Description

Source

Source ItemType

☐ Hide In All

Paste Defaults

☐ Copy Permissions

Related

Related ItemType

Min Occurs **Behavior**

Max Occurs **Grid View**

On New Related Option

☐ Pick Only

☐ Create Only

☒ Pick & Create

☐ Requires Related

☐ Open Related Form

General

☒ Auto Search

Default Page Size

Sort Order

Grid Events Relationship View Exclusion Hide In Hide Related In

Methods

Hidden

Name ↑ 2	Method T...	V..	execution_all...	Comments	Event	sort_order ↑ 1
----------	-------------	-----	------------------	----------	-------	----------------

3. Enter a name and label.

1. Name: MyPQDRel

2. Label: MyPQDRel

4. Set the Source ItemType to the CMF ItemType: MyPQD.

5. Click null and null to save and unclaim the item.

It should look like Figure 9:

MyPQDRel x

MyPQDRel ☆

Edit

RelationshipType

Name
MyPQDRel

Label
MyPQDRel

Description

Source
Source ItemType
MyPQD
Hide In All

Paste Defaults
Copy Permissions

Related
Related ItemType
Min Occurs
Max Occurs
Behavior
Float
Grid View

On New Related Option
Pick Only
Create Only
Pick & Create
Requires Related
Open Related Form

General
Auto Search
Default Page Size
Sort Order
128

Grid Events
Relationship View
Exclusion
Hide In
Hide Related In

Methods

Hidden

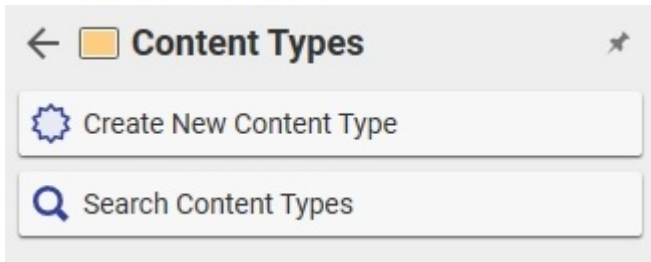
Name ↑ 2	Method T...	V..	execution_all...	Comments	Event	sort_order ↑ 1
----------	-------------	-----	------------------	----------	-------	----------------

Content Type

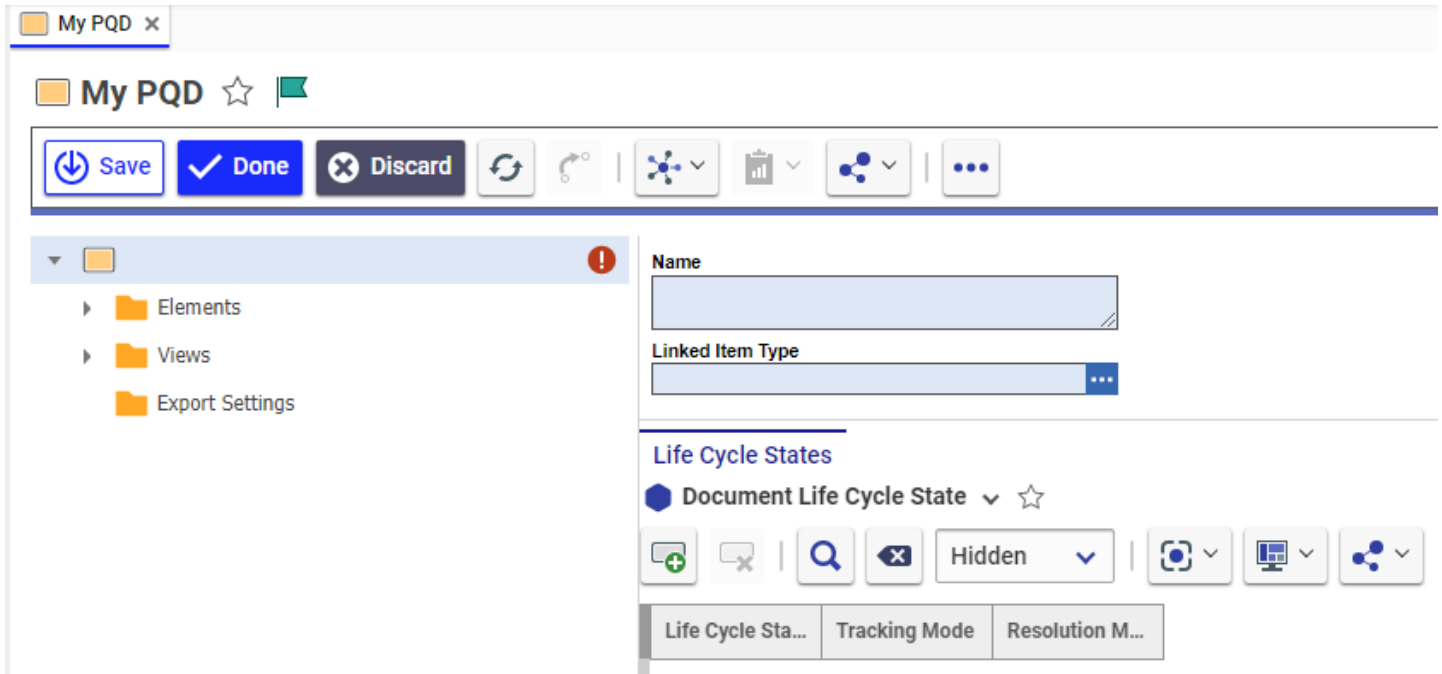
The Content Type item links the Business Object ItemType to the CMF ItemType and is used to configure the custom grid and tree on the CMF items.

1. Navigate to **Administration Content Modeling Content Types** in the TOC. The following menu appears:





2. Click **Create New Content Type**. The following screen appears:

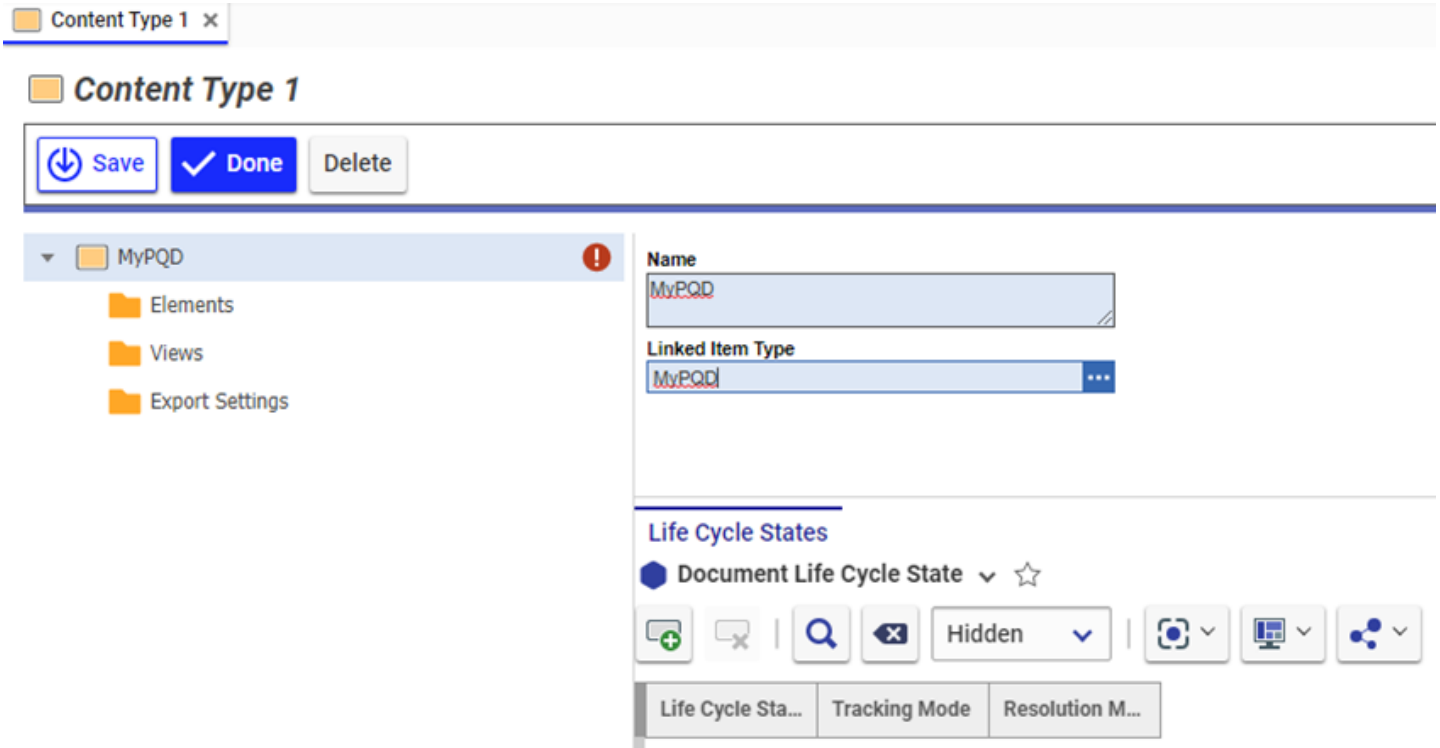


3. Enter **My PQD** in the Name field.

4. Set the Linked ItemType to the CMF ItemType. In this instance, that is MyPQD.

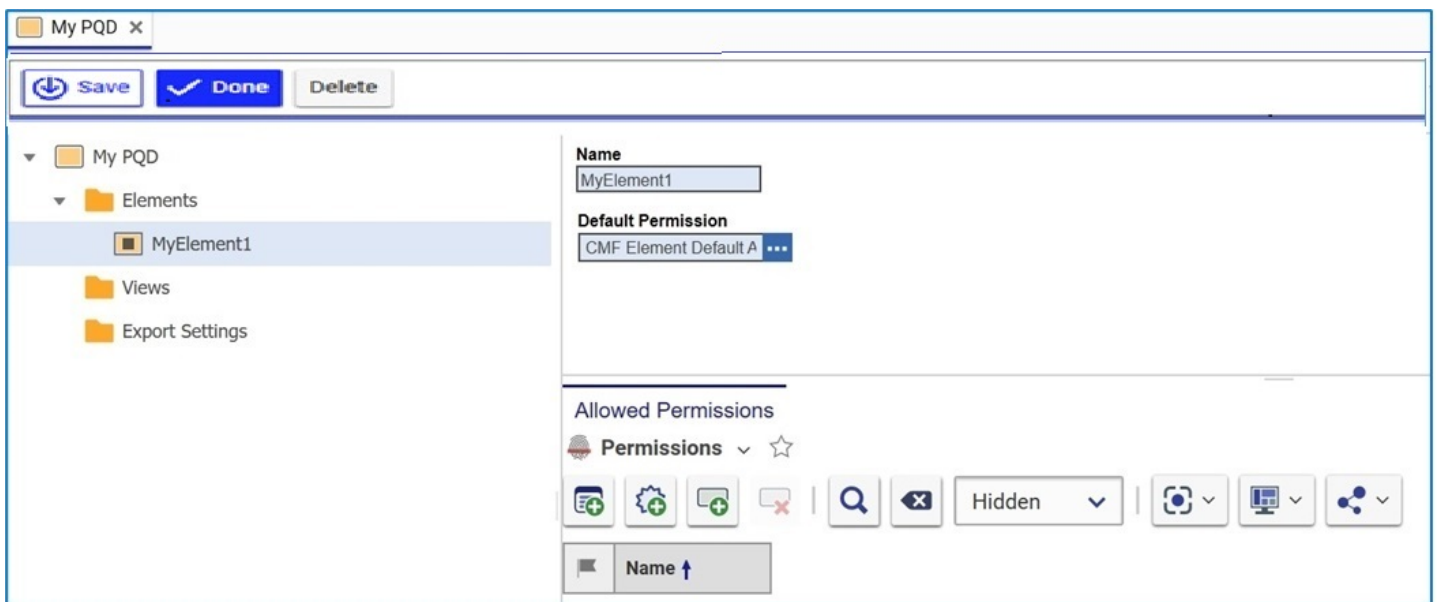
It should now look like Figure 12.





5. Right-click the **Elements** tab on the Content Type tree and select **Add Element Type**.
6. Enter **MyElement1** in the Name field for the Element Type.

It should now look like Figure 13.



Content Type Elements

1. Right-click the Element (MyElement1) in the tree and select **Add Property Type**
2. For this example, create the following Property:
 1. Data Type: Text
 2. Name: MyTextProp
3. Click null to save the property.
4. Create another Property:
 1. Data Type: String
 2. Name: MyStringProp
 3. Data Length: 32

Refer to Table 2 for a complete list of the properties of the Element Properties.

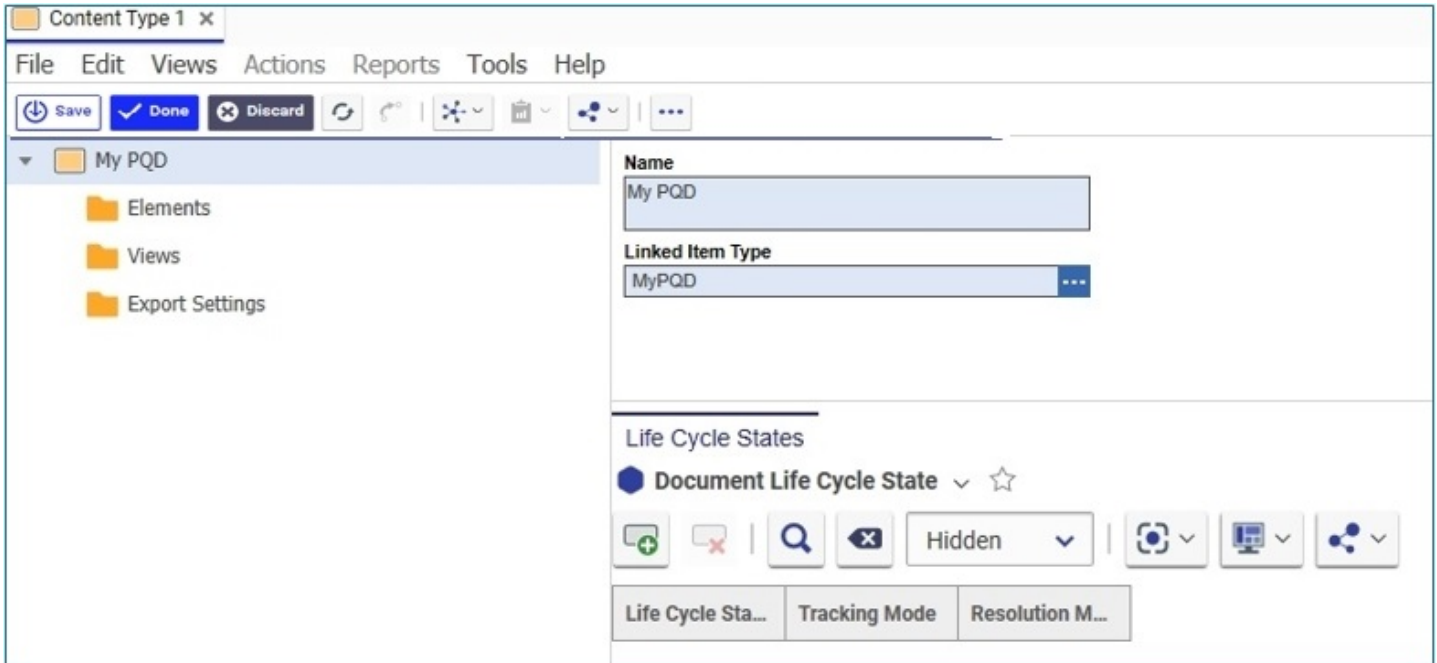
Document Conventions

Property	Description
DataType	DataType of the Element's property
Name	Element's name, a string, 30
My Data Length	The maximum character length, only used for strings
Default Permission	A default Permission Item set for new Elements of this type, optional.

5. Save Content Type.

It should look like Figure 14.





Important

If there is a need to create several elements without parent (parallel structures of elements), each of those parallel structures should be organized into different views to be displayed in CMF editor. Otherwise, the CMF editor will show nothing.

6. Right-click the MyElement1 item again and select **Add Element Binding**.

7. For this example, set the following properties:

1. Referenced Type: MyProcessPlan (Business Object ItemType)
2. Tracking Mode: Show Differences
3. Resolution Mode: Current
4. New Element Mode: Pick or Create

Refer to Table 3 for a complete list of the Element Binding items.

Document Conventions

Property	Description
Referenced Type	The Business Object ItemType that will be bound to the Element Type
Tracking Mode	Show Differences: Show differences between Elements of this type and the referenced Business Object Ignore Differences: Ignore differences between Elements of this type and the referenced Business Object Hard Show Differences:



	Overrides Content Type Life Cycle-specific tracking modeHard Ignore Differences: Overrides Content Type Life Cycle-specific tracking mode
Property	Description
Resolution Mode	Identifies which generation of bound item to access to perform value comparison.Current: use the current version of the itemAs Saved: use bound_item_id as is, do not use the current version of the itemHard Current: Overrides the LifeCycle resolution modeHard As Saved: Overrides the LifeCycle resolution mode
New Element Mode	Define how new elements may be added.Pick or CreatePick OnlyCreate Only
Reference Is Required	User cannot create an unbounded Element. All Elements of this type must have a reference to a Business Object.
Structure Mapping Method (SMM)	The SMM returns the table data, allowing users to see conflicts between structures. The SMM is executed based on the Element Type. If a structure contains two different Element Types with SMM, both methods will run. This method is called when:An Element is added (New, Pick, Create)An Element is deletedA Reference is releasedOn Pick/Replace of an Element
On Create Reference	Optional. This method is called when a user attempts to create a reference on a Business Object. If no method is set, the default implementation will execute.
On After Pick	A method called after a user picks some business object from the context menu.
On Apply Binding	Optional. The method will be called when the Element is picked. The method should link the selected Business Object to hierarchy of the main Business Object.This method also will be called when an Element exists but is not in the hierarchy of Business Object and the user wants to include the Element into the hierarchy of the Business Object.

9. Add a new item to the **Property Bindings** tab.

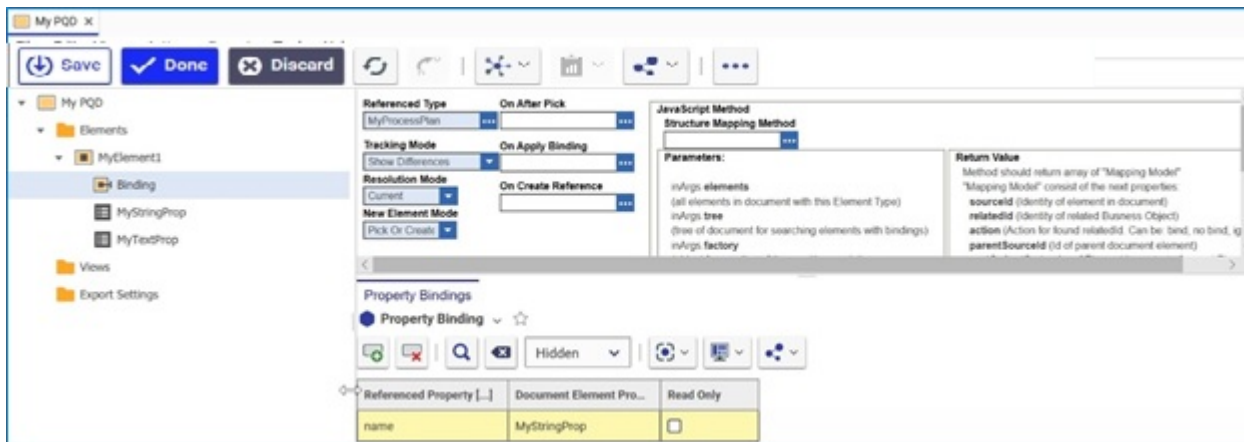
10. Configure the following properties:

1. Referenced Property: name
2. Document Element: MyStringProp

11. Save the Content Type.

It should look like Figure 15.





Currently, the Binding Types intersection is supported for the following Data Types:

- String
- Text
- Integer
- Date
- Boolean
- Image

Content Type Element Identity Inheritance

Content Type Elements inherit the `managed_by_id`, `owned_by_id`, and `team_id` properties from the parent Content Type instance item. The Element's `created_by_id` and `modified_by_id` properties are not inherited. For this sample case, this means that any `MyElement1` items will be created with the `managed_by_id`, `owned_by_id`, and `team_id` values from the parent `MyPQD` item.

Important

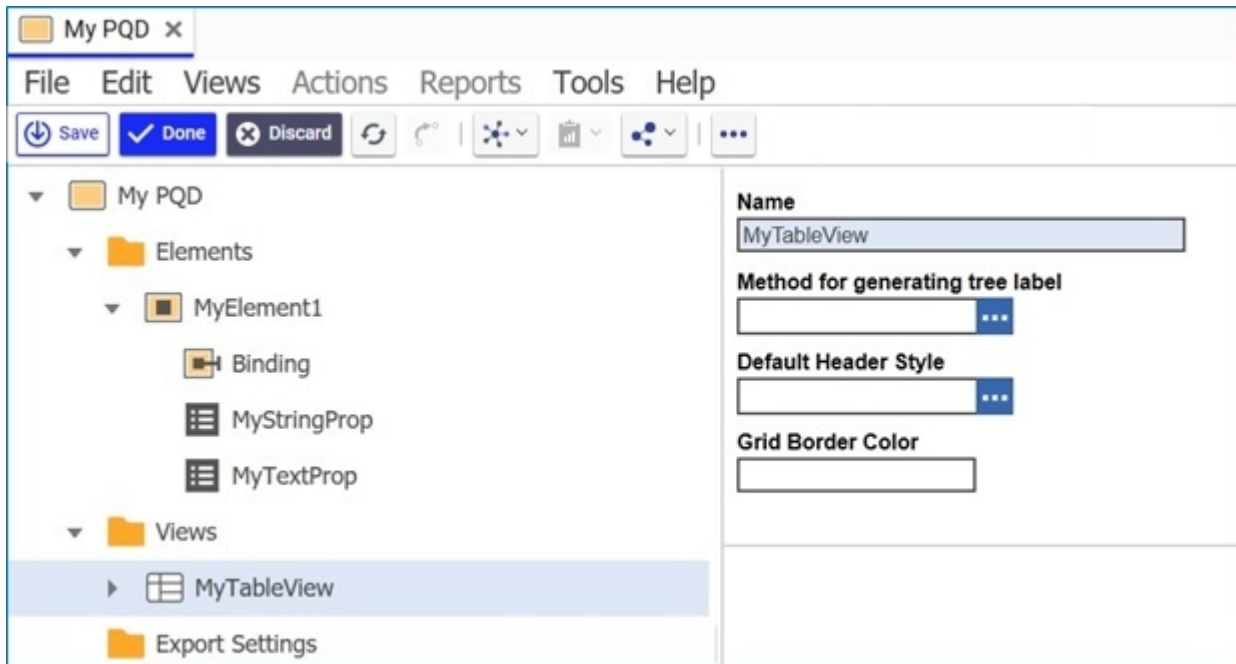
It is important to consider identity inheritance when defining custom permissions on Content Type Elements. Permissions including the Creator system identity on Content Type Elements will use the creator of each Element item, not the creator of the parent Content Type instance item, when validating user permissions.

Content Type View

1. Right-click the **Views** node in the Content Type tree and select **Add View**.
2. Click **OK** to confirm a tabular view.
3. Enter a name for the Tabular View.

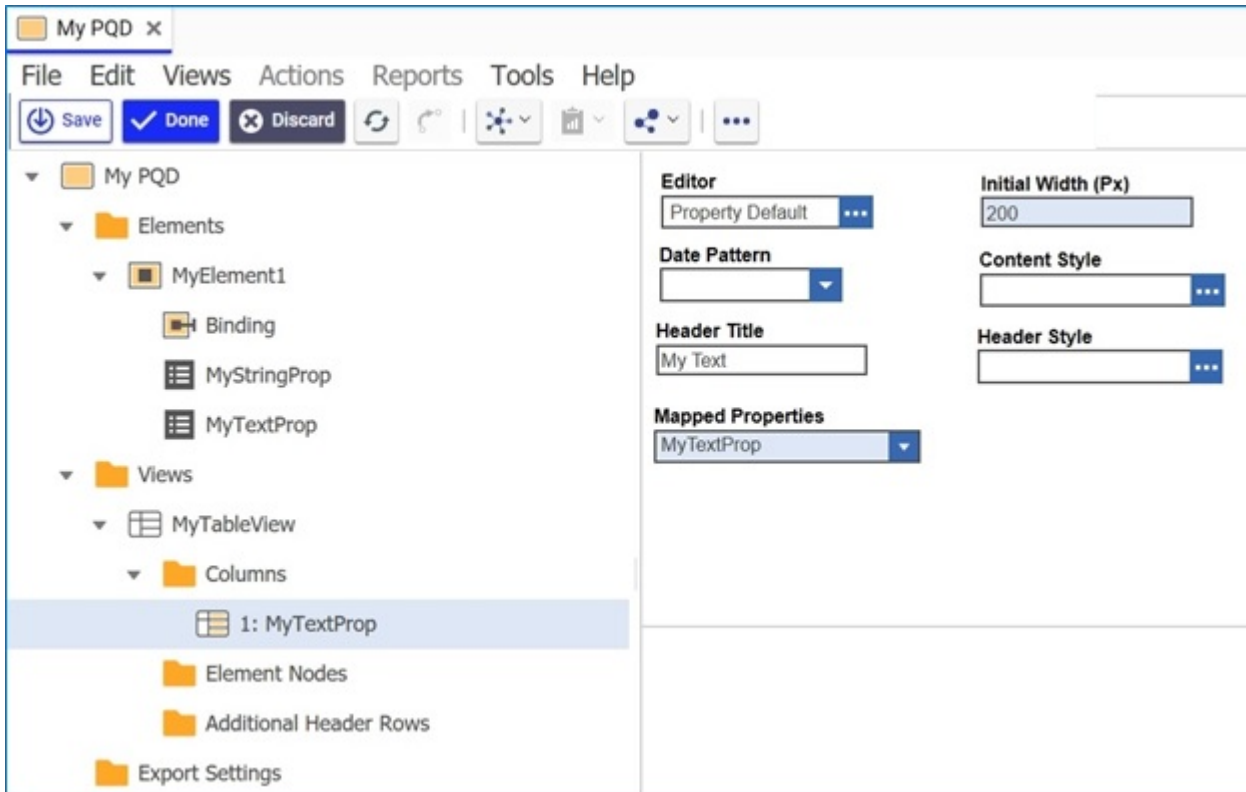


It should look like Figure 9.



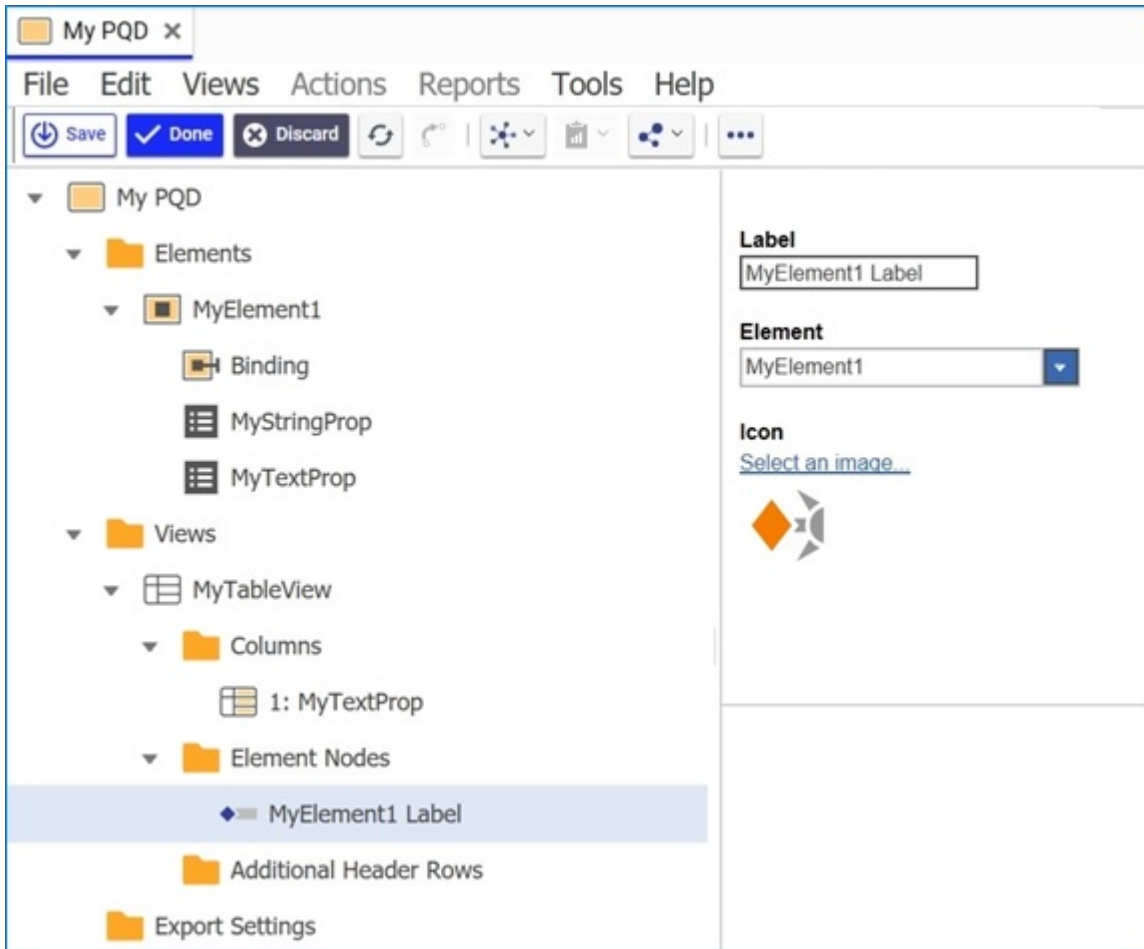
4. Expand the Tabular View sub-tree
5. Right-click the **Columns** node and select **Add Column**.
6. Enter the following values in the new Tabular View Column
 1. Mapped Property: MyStringProp
 2. Header Title: My String
 3. Initial Width: 100
7. Add another Column to the Columns node.
 1. Mapped Property: MyTextProp
 2. Header Title: My Text
 3. Initial Width: 200

It should look like Figure 17.



8. Right-click the **Element Nodes** node on the Tabular View sub-tree and select **Add Element Type Configuration**.
9. Enter the following properties for the Element Node:
 1. Label: MyElement1 Label
 2. Element Type: MyElement1
 3. Icon: Choose an image

It should look like Figure 18.

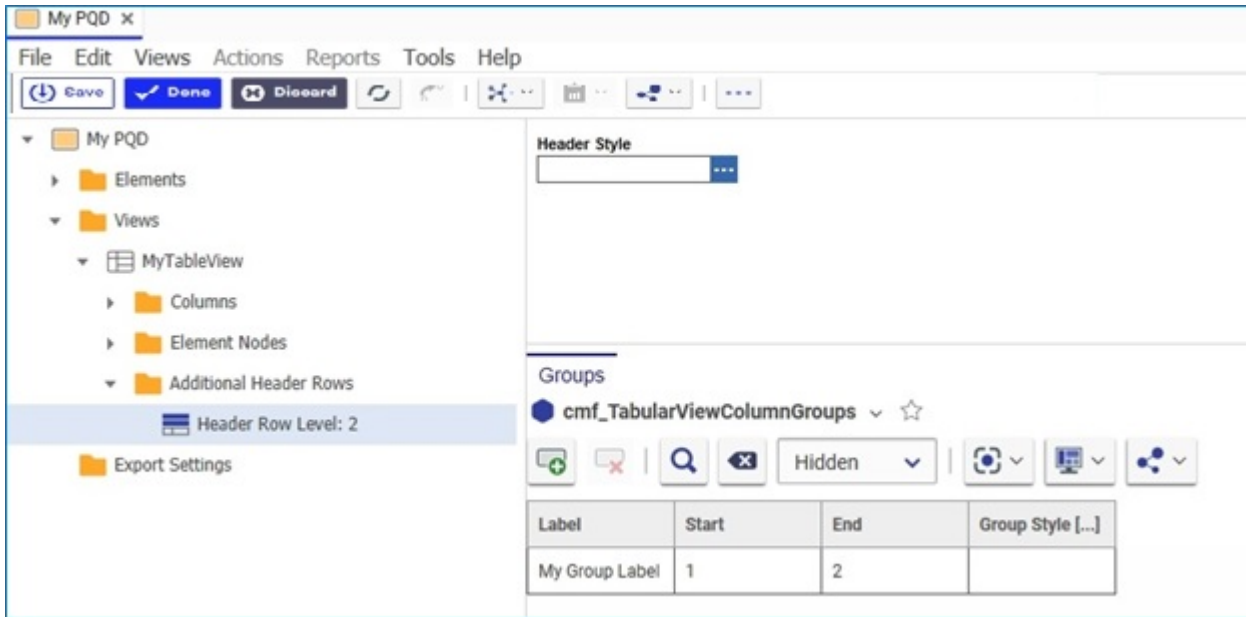


10. Right-click the Additional Header Rows node and select **Add Additional Header Row**.

11. Add a new Group relationship with the following properties:

1. Label: My Group Label
2. Start: 1
3. End: 2

It should look like Figure 19.

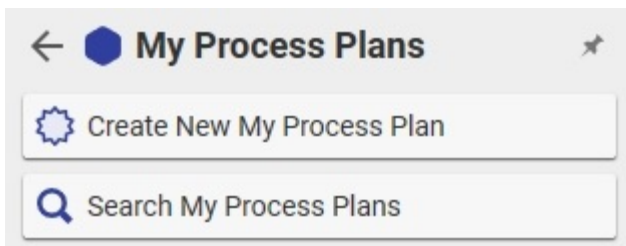


12. Save, Unclaim, & Close the Content Type.

Viewing the Linked ItemType

Use the following procedure to confirm the configuration of the Business Object ItemType and the linked Content Type.

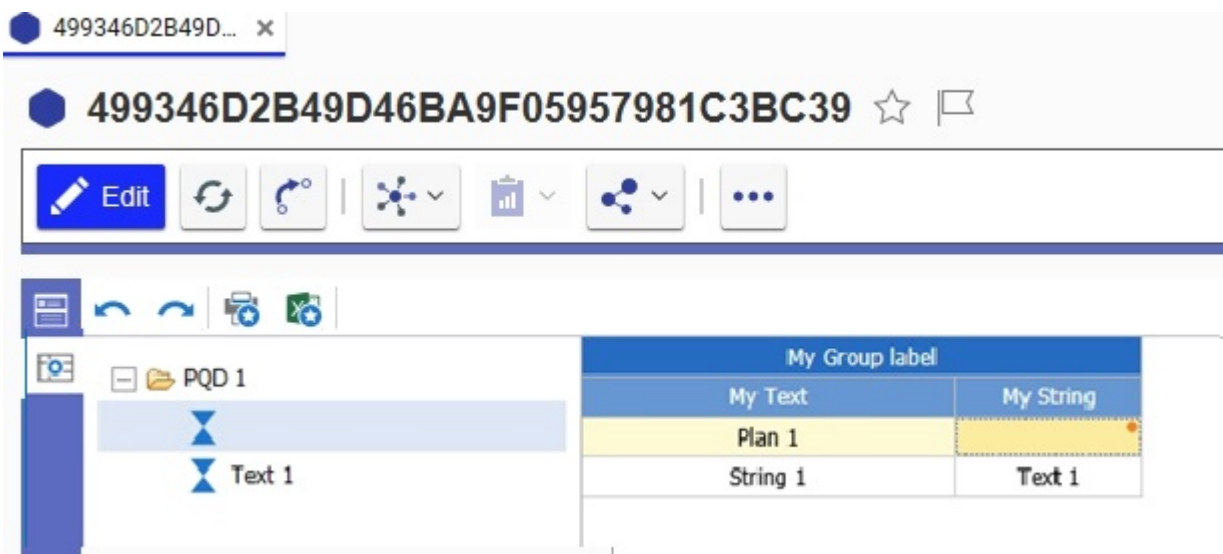
1. Create an instance of the Business Object.
 - Click **My Process Plans** in the TOC. The following menu appears:



- Click **Create New MyProcessPlan** and create a new My Process Plan item with the name "Plan 1".
 - Click **Done**.
2. Create an instance of the CMF Object.
 1. Navigate to My PQDs in the TOC.

2. Create a new My PQD item.
3. Set name as “PQD 1”.
4. Save PQD 1.
3. In the CMF Item, click the **Show Editor** icon in the sidebar.
4. Add an unbounded element to the Content ItemType:
 1. Right-click the root element tab in the tree and select **Insert MyElement1 Label New**.
 2. Enter values for **My String** and **My Text**.
5. Add a bound element from reference:
 1. Right-click the root element tab in the tree and select **Insert MyElement1 Label From Reference Select**.
 2. Run a search in the Search Dialog, select “Plan 1”, and return the selected object (click the green checkmark).

The tree and grid should appear configured as in Figure 21:



Exporting CMF Packages

Important

When creating and exporting packages that include CMF Content Types, it is important to keep in mind that there may be RelationshipTypes that are automatically created during the CMF process. These RelationshipTypes should not be added or exported. Doing so will cause import errors.

To see an example of these RelationshipTypes, create the following:

1. Create a new ItemType called “Desk.”
2. Create a new Content Type item:
 1. Name = “Desk_CMF”.
 2. Linked Item Type = “Desk”.
3. Add an Element to Desk_CMF called Desk_Element1.
4. Add a Property to the Desk_Element1 called Desk_Prop1.
5. Save and close the Desk_CMF Content Type.
6. Open the Desk ItemType and go to the RelationshipType tab.

There should be 2 items that were automatically created in the CMF process.

The screenshot shows the Aras CMF interface for the 'Desk' ItemType. The top section displays the 'ItemType' configuration with fields for Name, Singular Label, Plural Label, and various options like 'Versioning', 'Search', and 'Implementation Type'. Below this, the 'RelationshipTypes' tab is active, showing a table of relationships.

Tab O...	Relationship ... ↑ 1	Tab Label	Name ↑ 2	Description [...]
128	Desk_Element1	CMF Element Des...		
256	Desk_Prop1	CMF Property De...		

Important

These RelationshipType items **should not** be added to Package Definitions for exporting. When exporting the CMF, it is necessary to include the cmf_BaseView item for the CMF to load properly. Navigate to the cmf_BaseView ItemType and



expose it in the TOC by giving it the correct TOC Access settings. Find the `cmf_BaseView` item associated with your CMF `ItemType` and add it to the package definition.

When importing the Content Type item, these RelationshipType items will be created automatically by default.

