Aras Innovator 12

Configurable User Interface Admin Guide

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Document Conventions

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

Table 1: Document Conventions

Convention	Description
Bold	This shows the names of menu items, dialog boxes, dialog box elements, and commands. Example: Click **OK**.
`Code`	Code examples appear in `courier` font. It may represent text you type or data you read.
`Yellow highlight`	Code highlighted in yellow draws attention to the code that is being indicated in the content.
`Yellow highlight with red text`	Red text highlighted in yellow indicates the code parameter that needs to be changed or replaced.
Italics	Reference to other documents.
Note:	Notes contain additional useful information.
Warning	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 **File** --> **Save** --> **OK**.

1 Overview

1.1 Introduction

The Configurable User Interface, or CUI, is a modeling mechanism in Aras Innovator that allows administrators to define the layout and behavior of a client application.

Introduced in the early service packs of Aras Innovator 11.0, CUI was initially intended for modeling toolbars, menus, and keyboard shortcuts.

With the UX/UI enhancements of the Aras Innovator 12.0 web client, CUI has been extended to implement many areas of the standard web client. Standard features like the table of contents (TOC), sidebars, toolbars, context menus, and accordion sections within item views are now modeled with CUI controls.

1.2 Understanding the CUI Data Model

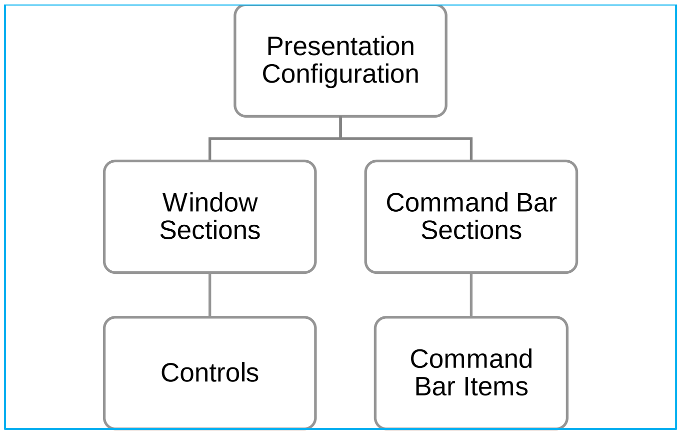


Figure 1. A simplified diagram of the CUI data model

1.2.1 Presentation Configurations

Presentation Configurations serve as containers for CUI configurations, defining the scope of the related CUI items as either *global* or *ItemType-specific*.

A *global* Presentation Configuration is associated with a specific client via the “presentation” item property on a Client Presentation item. In a standard Aras Innovator database, there is a single Client Presentation item to identify the global Presentation Configuration that defines the layout and UI elements that are inherited throughout the Aras Innovator web client.

Note: The CUI data model was architected with the intent that the user interface of any client application could be defined in the Aras Innovator database. That’s why there’s only one Client Presentation item in an out of the box Aras Innovator database – only the Aras Innovator web client is defined by default. However, an admin could create another Client Presentation to define the UI of a custom client application or connector.

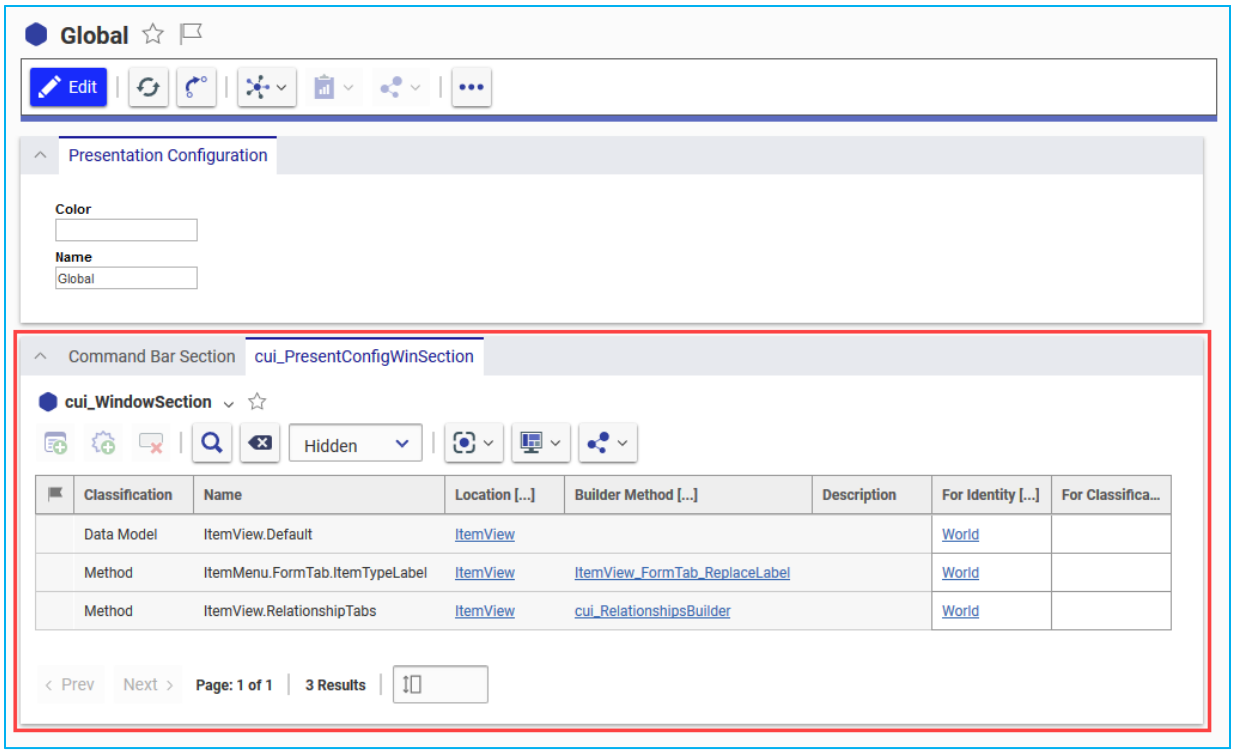
The scope of an *ItemType-specific* Presentation Configuration is determined by relating it to an ItemType via the Client Style relationship tab. These Presentation Configurations allow administrators to override or augment the global configuration for a specific ItemType without affecting the UI of every ItemType.

As of Aras Innovator version 12.0, ItemType-specific Presentation Configurations are also used in conjunction with an ItemType's TOC Access relationship(s) to determine where – and whether – the ItemType is displayed in the table of contents (TOC). Admins don't need to manually create the CUI items that display ItemTypes in the TOC, however they will need to package the CUI configuration for any custom ItemTypes.

1.2.2 Window Sections

Window Sections are used to define the layout of a client application screen. Because they're related to Presentation Configuration items, Window Sections can be inherited globally or defined for an ItemType-specific scope to create different layouts.

If we look at the Window Sections related to the global Presentation Configuration in a standard Aras Innovator database, we can see examples of the two ways to define a Window Section – *declaratively* and *dynamically*.



Color:

Name: Global

	Classification	Name	Location [...]	Builder Method [...]	Description	For Identity [...]	For Classifica...
	Data Model	ItemView.Default	ItemView			World	
	Method	ItemMenu.FormTab.ItemTypeLabel	ItemView	ItemView_FormTab_ReplaceLabel		World	
	Method	ItemView.RelationshipTabs	ItemView	cui_RelationshipsBuilder		World	

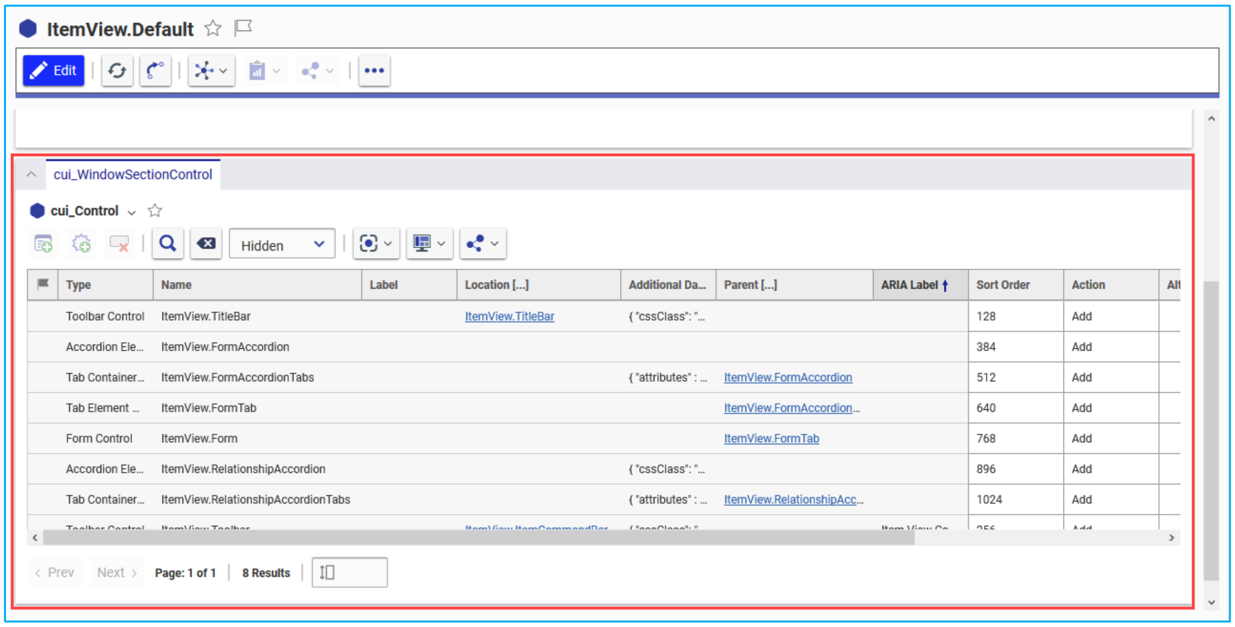
Figure 2. Globally scoped Window Sections

Declaratively-defined Window Sections are configured by an administrator at "design time" and are identified with the *Data Model* classification. At runtime, the client application retrieves the Window Section and its child Controls to determine how the UI should be displayed. This approach is useful for defining client screens (or areas of client screens) when the desired layout is known in advance.

On the other hand, *dynamically-defined* Window Sections are populated by a Builder Method at runtime – hence the *Method* classification. This approach is often used for making minor adjustments, like updating the label displayed on a declaratively-defined element, or completely populating a section based on the context item, as in the case of the default ItemView.RelationshipTabs Window Section.

1.2.3 Controls

Controls define the layout of the client UI within a parent Window Section. Using the Action property on the cui_WindowSectionControl, admins can *add*, *remove*, *replace*, or *clear all* Controls from a Window Section.



	Type	Name	Label	Location [...]	Additional Da...	Parent [...]	ARIA Label	Sort Order	Action	Alt
	Toolbar Control	ItemView.TitleBar		ItemView.TitleBar	{ "cssClass": "...			128	Add	
	Accordion Ele...	ItemView.FormAccordion						384	Add	
	Tab Container...	ItemView.FormAccordionTabs			{ "attributes" : ...	ItemView.FormAccordion		512	Add	
	Tab Element ...	ItemView.FormTab				ItemView.FormAccordion...		640	Add	
	Form Control	ItemView.Form				ItemView.FormTab		768	Add	
	Accordion Ele...	ItemView.RelationshipAccordion			{ "cssClass": "...			896	Add	
	Tab Container...	ItemView.RelationshipAccordionTabs			{ "attributes" : ...	ItemView.RelationshipAcc...		1024	Add	
	Toolbar Control	ItemView.Toolbar		ItemView.ItemCommandBar	{ "cssClass": "		Item View Co	256	Add	

Figure 3. Example Window Section and Controls

See the following list for more details about the different types of Controls. Different classifications will support different relationship properties and different options in the Additional Data property.

1.2.3.1 Toolbar Control

The *Toolbar Control* type indicates where a command bar may be rendered in the client UI.

Use the Location property on the Control item to identify the Location that the associated CommandBarSection item should also use.

The Additional Data property optionally supports *cssClass* and *attributes* properties. See the default *ItemView.TitleBar* and *ItemView.Toolbar* items for examples.

1.2.3.2 Accordion Element Control

The *Accordion Element Control* type indicates where a collapsible accordion element may be rendered. An Accordion Element Control may be identified as the parent of one or more other controls.

The Additional Data property optionally supports *cssClass* property. See the default *ItemView.RelationshipAccordion* item for examples.

1.2.3.3 Tab Container Control

The *Tab Container Control* type indicates where a group of Tab Element Controls may be rendered. The end user can click through the tabs in a single container, alternating between the content of the child Tab Element Controls.

Use the Parent property on the cui_WindowSectionControl relationship to identify the Accordion Element Control the Tab Container Control should appear in.

The Additional Data property optionally supports *cssClass* property. See the default *ItemView.RelationshipAccordionTabs* item for examples.

1.2.3.4 Tab Element Control

The *Tab Element Control* type indicates where a single tab may be rendered. A Tab Element Control may be identified as the parent of one or more other controls.

Use the Parent property on the cui_WindowSectionControl relationship to identify the Tab Container Control the Tab Element Control should appear in.

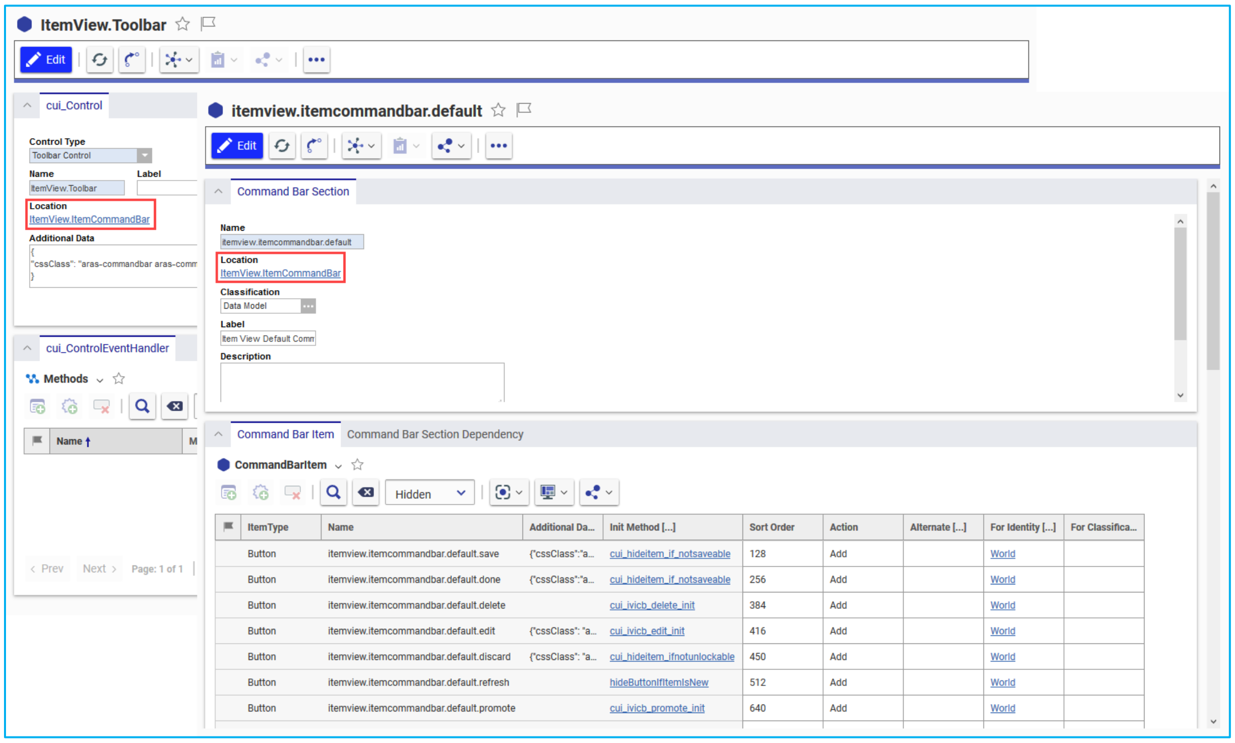
1.2.3.5 Form Control

The *Form Control* type indicates that a Form definition may be rendered in the client UI.

Use the Parent property on the cui_WindowSectionControl relationship to identify the Tab Element Control the Form content should appear in.

1.2.4 Command Bar Sections

On the surface, Window Sections and Command Bar Sections appear very similar – they're both related to Presentation Configurations, they can be defined either declaratively or dynamically, and they have many of the same properties. However, the two types serve different functions. While Window Sections and Controls define the *layout* of the client application screens, Command Bar Sections define the *content*.



Control Type: Toolbar Control
Name: ItemView.Toolbar
Label:
Location: ItemView.ItemCommandBar
Additional Data:
```
{
"cssClass": "aras-commandbar aras-comm
}
```

Name: itemview.itemcommandbar.default
Location: ItemView.ItemCommandBar
Classification: Data Model
Label: Item View Default Comm
Description:

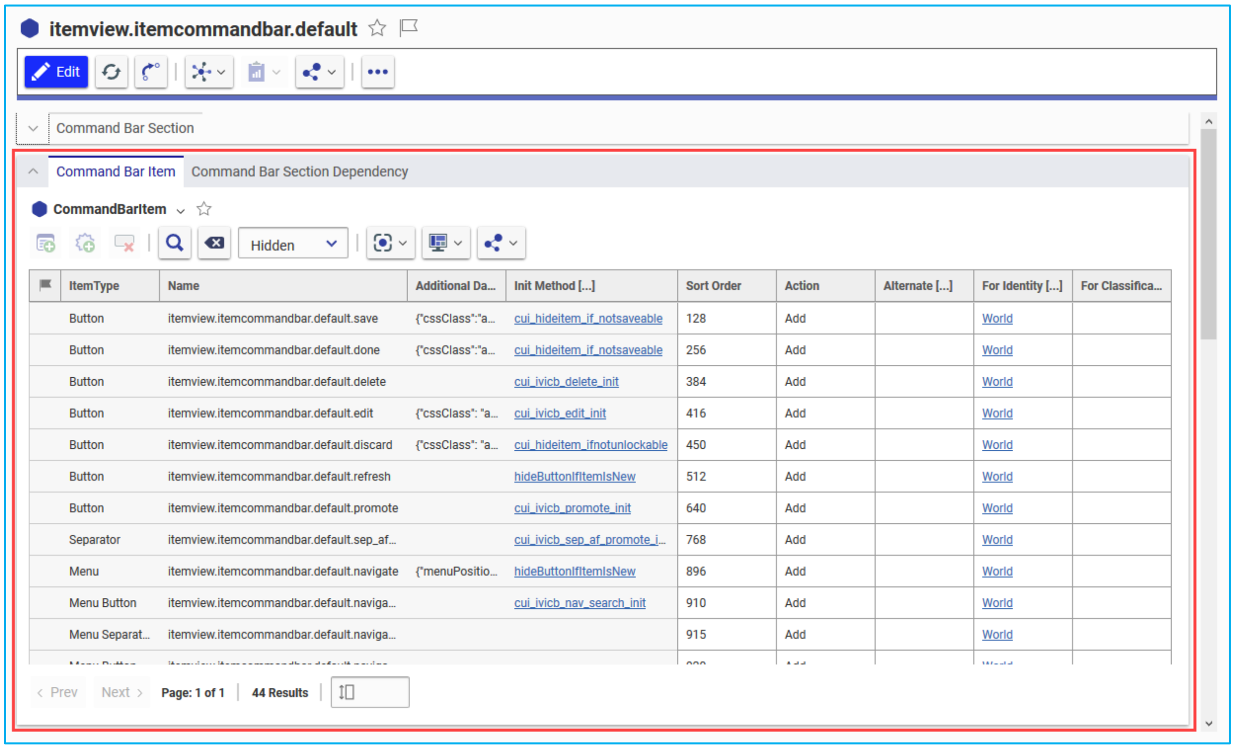
ItemType	Name	Additional Da...	Init Method [...]	Sort Order	Action	Alternate [...]	For Identity [...]	For Classifica...
Button	itemview.itemcommandbar.default.save	{"cssClass":"a...	cui_hideitem_if_notsaveable	128	Add		World	
Button	itemview.itemcommandbar.default.done	{"cssClass":"a...	cui_hideitem_if_notsaveable	256	Add		World	
Button	itemview.itemcommandbar.default.delete		cui_ivicb_delete_init	384	Add		World	
Button	itemview.itemcommandbar.default.edit	{"cssClass": "a...	cui_ivicb_edit_init	416	Add		World	
Button	itemview.itemcommandbar.default.discard	{"cssClass": "a...	cui_hideitem_ifnotunlockable	450	Add		World	
Button	itemview.itemcommandbar.default.refresh		hideButtonIfItemIsNew	512	Add		World	
Button	itemview.itemcommandbar.default.promote		cui_ivicb_promote_init	640	Add		World	

Figure 4. ItemView Toolbar Control and corresponding Command Bar Section

Consider this example based on the standard global CUI configuration. The *ItemView.Default* Window Section declares that the Aras Innovator web client has an "ItemView" screen, and one of the related Controls indicates that the ItemView has a toolbar element with the *ItemView.ItemCommandBar* Location. To determine the content of the layout defined by the Window Section and its Controls, we just need to find the Command Bar Section with the same Location and check out its related Command Bar Items.

1.2.5 Command Bar Items

So far, we've defined the *layout* of the client UI (Window Sections and Controls) and we've defined the *content* of the UI (Command Bar Sections and their relationships to Command Bar Items), but we haven't defined the *behavior* of the UI. That's where Command Bar Items differ from the rest of the data model we've reviewed so far – they provide the ability to execute logic based on user interaction, client state, and item context in addition to the add, remove, replace, and clear all actions on the relationship.


itemview.itemcommandbar.default
Edit
Command Bar Section
Command Bar Item
Command Bar Section Dependency
CommandBarItem
Hidden

ItemType	Name	Additional Da...	Init Method [...]	Sort Order	Action	Alternate [...]	For Identity [...]	For Classifica...
Button	itemview.itemcommandbar.default.save	{"cssClass":"a...	cui_hideitem_if_notsaveable	128	Add		World	
Button	itemview.itemcommandbar.default.done	{"cssClass":"a...	cui_hideitem_if_notsaveable	256	Add		World	
Button	itemview.itemcommandbar.default.delete		cui_ivicb_delete_init	384	Add		World	
Button	itemview.itemcommandbar.default.edit	{"cssClass": "a...	cui_ivicb_edit_init	416	Add		World	
Button	itemview.itemcommandbar.default.discard	{"cssClass": "a...	cui_hideitem_ifnotunlockable	450	Add		World	
Button	itemview.itemcommandbar.default.refresh		hideButtonIfItemIsNew	512	Add		World	
Button	itemview.itemcommandbar.default.promote		cui_ivicb_promote_init	640	Add		World	
Separator	itemview.itemcommandbar.default.sep_af...		cui_ivicb_sep_af_promote_i...	768	Add		World	
Menu	itemview.itemcommandbar.default.navigate	{"menuPositio...	hideButtonIfItemIsNew	896	Add		World	
Menu Button	itemview.itemcommandbar.default.naviga...		cui_ivicb_nav_search_init	910	Add		World	
Menu Separat...	itemview.itemcommandbar.default.naviga...			915	Add		World	

‹ Prev Next › Page: 1 of 1 | 44 Results

Figure 5. Default ItemView Command Bar Items

Command Bar Items are also implemented differently. While Window Sections, Controls, and Command Bar Sections all used classifications to differentiate items, the CommandBarItem ItemType is implemented as a polymorphic ItemType.

See the list in the following section for more details on the various ItemTypes that are implemented as sources of the CommandBarItem poly ItemType.

1.2.5.1 Button

A *CommandBarButton* item represents an element that triggers an action. It can be single state, where a click executes the same action every time, or it can have two states – active and inactive.

Buttons support multilingual labels, multilingual tooltips, images, and the following properties:

- *Additional Data:* supports *cssClass*
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Click Method:* a Method used to execute some logic when the element is clicked by a user
- *Include Events:* state change events that should trigger the item's initialization method

See the default *itemview.itemcommandbar.default.save* item for an example.

1.2.5.2 Checkbox

A *CommandBarCheckbox* represents a single, atomic item in any non-menu container that can be toggled on/off. Can be styled as a checkbox or radio button.

Checkboxes support multilingual labels, multilingual tooltips, and the following properties:

- *Additional Data:* supports custom parameters
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Click Method:* a Method used to execute some logic when the element is clicked by a user
- *Include Events:* state change events that should trigger the item's initialization method

1.2.5.3 Dropdown

A *CommandBarDropDown* item represents a combobox element. The element's options are populated from the Additional Data property merged with the result of the Init Method.

Dropdowns support multilingual labels, multilingual tooltips, images, and the following properties:

- *Additional Data:* supports *cui_items*, an array of objects each containing an id and name or label
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Click Method:* a Method used to execute some logic when the element is clicked by a user
- *Include Events:* state change events that should trigger the item's initialization method

Note: If the Init Method returns false or an empty array, the dropdown control will not be created.

1.2.5.4 Separator

A *CommandBarSeparator* represents a divider to visually separate items in any non-menu container.

Separators support the following properties:

- *Additional Data:* supports custom parameters
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Include Events:* state change events that should trigger the item's initialization method

See the default *itemview.itemcommandbar.default.sep_af_promote* item for an example.

1.2.5.5 Menu

A *CommandBarMenu* represents a hierarchical menu that can contain CommandBarMenuButton items or other CommandBarMenu items.

Menus support multilingual labels, multilingual tooltips, images, and the following properties:

- *Parent Menu:* the parent CommandBarMenu item, if this item is a sub-menu
- *Additional Data:* supports *menuPosition*
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Click Method:* a Method used to execute some logic when the element is clicked by a user
- *Include Events:* state change events that should trigger the item's initialization method

See the default *itemview.itemcommandbar.default.navigate* item for an example.

1.2.5.6 Menu Button

A *CommandBarMenuButton* represents a single, atomic button in a menu with some associated logic.

Menu Buttons support multilingual labels, multilingual tooltips, images, and the following properties:

- *Parent Menu:* the parent CommandBarMenu item
- *Additional Data:* supports custom parameters
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Click Method:* a Method used to execute some logic when the element is clicked by a user
- *Include Events:* state change events that should trigger the item's initialization method

See the default *itemview.itemcommandbar.default.navigate.structurebrowser* item for an example.

1.2.5.7 Menu Separator

A *CommandBarMenuSeparator* represents a divider to visually separate items in a menu.

Menu Separators support the following properties:

- *Parent Menu:* the parent CommandBarMenu item
- *Additional Data:* supports custom parameters
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Include Events:* state change events that should trigger the item's initialization method

See the default *itemview.itemcommandbar.default.navigate.aftersearch* item for an example.

1.2.5.8 Menu Checkbox

A *CommandBarMenuCheckbox* represents a single, atomic item in a menu that can be toggled on/off. Can be styled as a checkbox or radio button.

Menu Checkboxes support multilingual labels, multilingual tooltips, and the following properties:

- *Parent Menu:* the parent CommandBarMenu item
- *Additional Data:* supports custom parameters
- *Init Method:* a Method, often used to show, hide, enable, or disable an element when initialized
- *Click Method:* a Method used to execute some logic when the element is clicked by a user
- *Include Events:* state change events that should trigger the item's initialization method

1.2.5.9 Shortcut

A *CommandBarShortcut* item represents a keyboard shortcut that triggers an action. It can only be used with specific Locations intended for shortcuts.

Shortcuts support the following properties:

- *Additional Data:* supports *stopPropagation*, *useCapture*, *preventDefault*, *preventBlur*, and *context*
  - *stopPropagation:* Boolean property, prevents further propagation of the current event
  - *useCapture:* Boolean property, set to true if the "this" pointer must point to the context item
  - *preventDefault:* Boolean property, cancels the default event if it's cancelable, without stopping further propagation

   - *preventBlur:* Boolean property, prevents the blur event if set to true and a domNode has the focus
   - *context:* Object property, the "this" pointer references this object if useCapture is true
- *Click Method:* a Method used to execute some logic when the shortcut is keyed in by a user
- *Shortcut:* the key combination for triggering the shortcut

The following combinations are valid shortcuts:

Ctrl+	Shift+	Ctrl+Shift+	Button on keyboard
Supported	Supported	Supported	a-z
Supported	Supported	Supported	0-9
Supported	Supported	Supported	Num0-Num9
Supported	Supported	Supported	~
Supported	Supported	Supported	tab
Supported	Supported	Supported	enter
Supported	Supported	Supported	insert
Supported	Supported	Supported	delete
Supported	N/A	N/A	pageup, pagedown, home, end
Supported	N/A	N/A	F1-F12
Supported	N/A	N/A	arrows, Num-arrows
Supported	N/A	N/A	<, >
Supported	N/A	N/A	[,]
Supported	N/A	N/A	-, +, Num-, Num+

See the default *com.aras.innovator.cui_default.mws_delete* item for an example.

1.2.5.10 Edit

The Edit ItemType enables you to create a text box control and use it in a Command Bar to capture data relevant to a particular command. The following screenshot shows an example using the Class Structure dialog box:

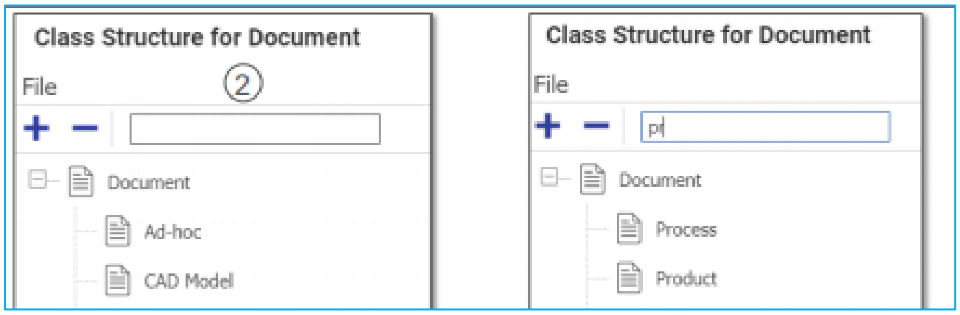
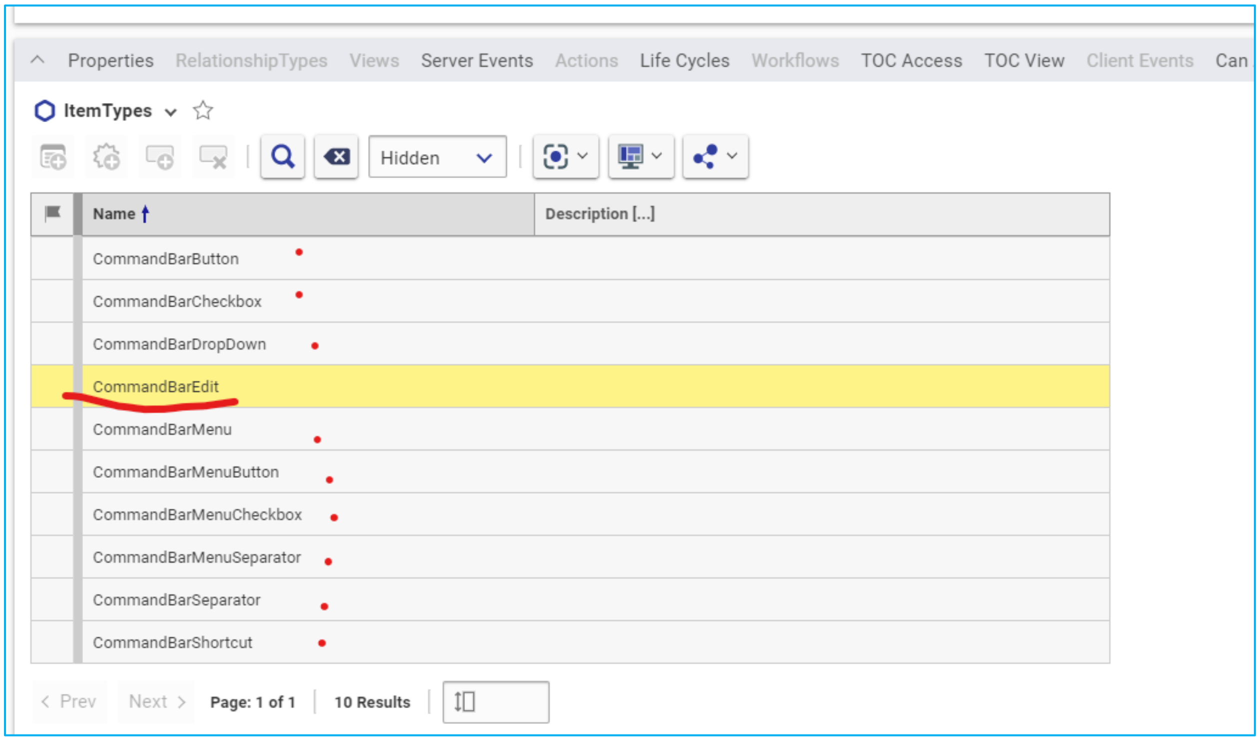


Figure 6.

In this example, entering “pr” in the search box displays only those documents that start with the letters “pr” enabling you to create a class structure for particular documents.

The Edit ItemType enables you to create a text box control which can be placed in a command bar to capture data relevant to a command. The following figure shows an example using the CommandBarEdit ItemType.



Name	Description [...]
CommandBarButton	
CommandBarCheckbox	
CommandBarDropDown	
CommandBarEdit	
CommandBarMenu	
CommandBarMenuButton	
CommandBarMenuCheckbox	
CommandBarMenuSeparator	
CommandBarSeparator	
CommandBarShortcut	

Figure 7.

1.2.6 Common CUI Properties

The following properties occur on most or all CUI ItemTypes.

1.2.6.1 Location

The *Location* property indicates the intended location or purpose of the CUI item. In Aras Innovator 11.0, this property was based on a List of predefined values. As part of the UX/UI enhancements included in Aras Innovator 12.0, the property was changed to an Item property with data source cui_Location. This update improves the ability for admins to define their own custom locations for client applications.

1.2.6.2 For Identity

The *For Identity* property indicates that the members of the identity will be affected by the CUI configuration item.

For example, if a Command Bar Section has a relationship to a Button with the *Add* action and the For Identity property is set to *World*, all users will see the button.

If a Command Bar Section has another relationship to the same Button with the *Remove* action and the For Identity property is set to *All Suppliers*, all users **except** members of the All Suppliers identity will see the button.

1.2.6.3 For Classification

The *For Classification* property indicates that the CUI configuration item will be evaluated when the context item has the specified classification.

For example, if a Command Bar Section has a relationship to a Button with the *Add* action and the For Classification property is set to *Component*, all users will see the button only when the context item has the Component classification.

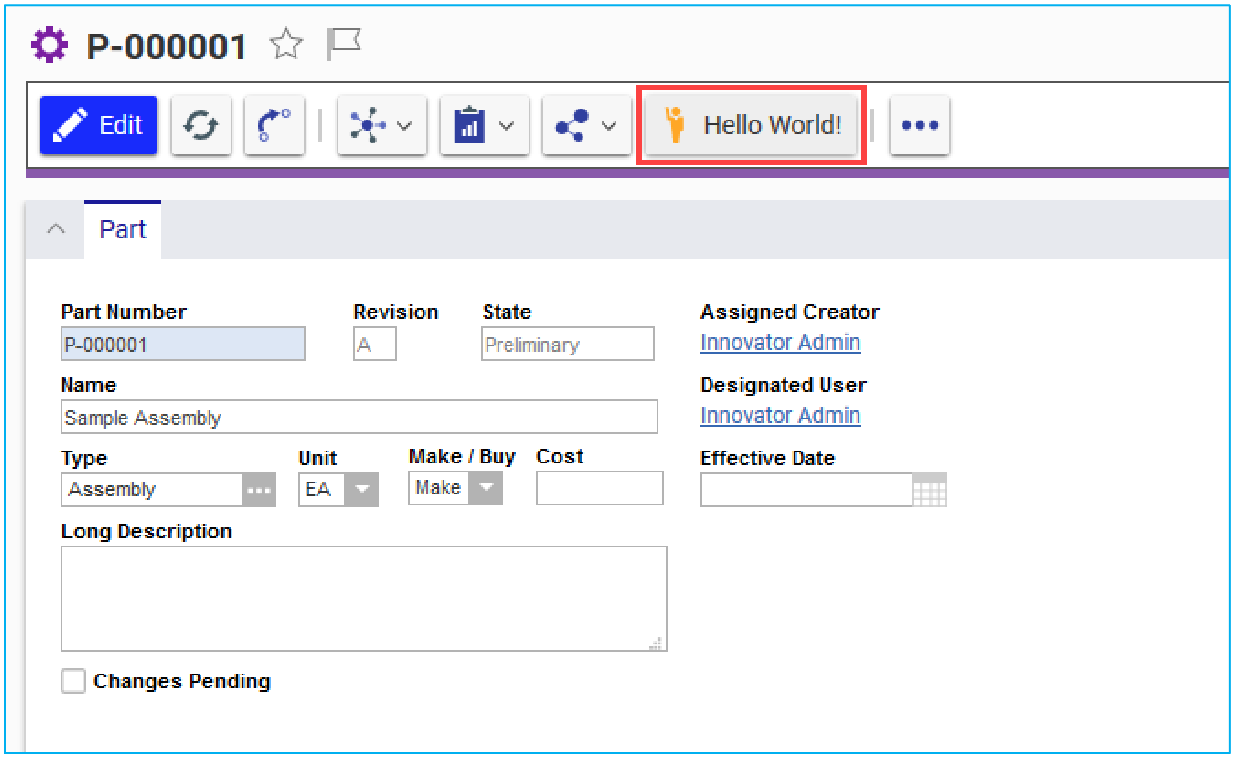
2 CUI Examples

Warning Because many of the standard UI elements in the Aras Innovator web client are defined via CUI, it's important to back up your database before changing any of the out of the box controls.

2.1 Toolbars

2.1.1 Add a button to an item toolbar

"I want to add a button to the Part item toolbar for all users."



Part Number	P-000001
Revision	A
State	Preliminary
Assigned Creator	Innovator Admin
Name	Sample Assembly
Designated User	Innovator Admin
Type	Assembly
Unit	EA
Make / Buy	Make
Cost	
Effective Date	
Long Description	
Changes Pending	☐

Figure 8. A custom button appears in the Part item toolbar

Note: This section demonstrates how to add a Command Bar Item to the Item View toolbar for a specific ItemType. See the "Add a separator to a toolbar" section for steps to add a Command Bar Item to the Item View toolbar for all ItemTypes.

1. Open the **Part** ItemType and select the **Client Style** relationship tab.
2. Right click the entry in the grid and select **Open** to open the Presentation Configuration for the Part ItemType.
3. Click the **Edit** button.
4. Click the **New** button in the Command Bar Section grid to create a new section with the following properties:

   a. Classification: **Data Model**
   b. Name: **Part_Custom_Buttons**
   c. Location: **ItemView.ItemCommandBar**
   d. Sort Order: **256**
   e. For Identity: **World**
5. Click the **Save** button, then right click the new Command Bar Section and select **Open**.
6. Click the **Edit** button.
7. Click the **New** button in the Command Bar Item grid, then select **Button > OK** in the dialog to create a new button with the following properties:
   a. Name: **My_Button**
   b. Sort Order: **2000**
   c. Action: **Add**
   d. For Identity: **World**
8. Click **Save**, then right click the new Button and select **Open**.
9. Click the **Edit** button.
10. Set the following properties on the item form:
    a. Label: **enter the label** you want to appear on the button
    b. Click Method: **choose a Method** you want to execute when the button is clicked
    c. Image: **choose an icon** to display in the button
11. Click **Save**, then navigate to **Design > Parts** in the TOC.
12. Open a Part item to see the new button in the toolbar.

2.1.2 Add a separator to all item toolbars

"I want to add a separator before the Refresh button in the toolbar for all ItemTypes and users."

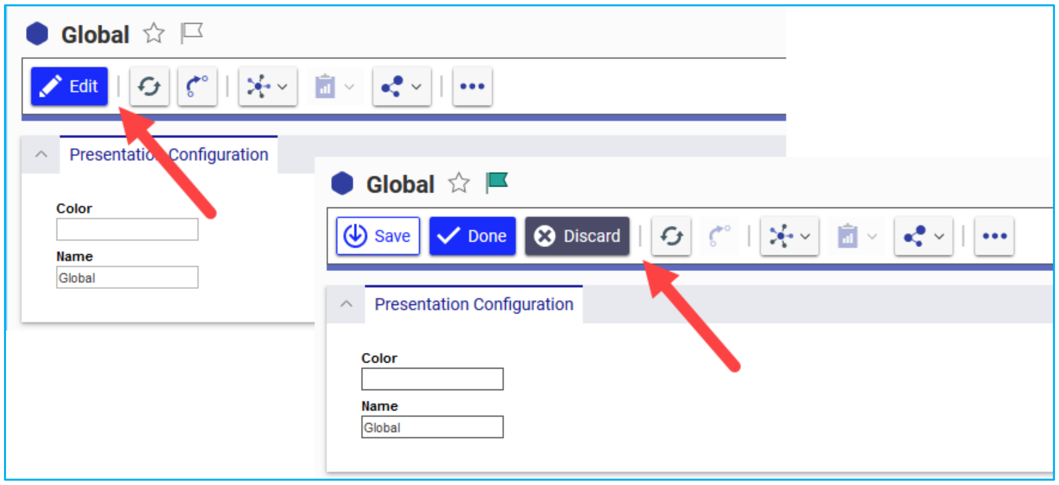


Figure 9. A custom separator appears before the refresh button in all item toolbars

Note: This section demonstrates how to add a Command Bar Item to the Item View toolbar for all ItemTypes. See the “Add a button to a toolbar” section for steps to add a Command Bar Item to the Item View toolbar for a specific ItemType.

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **itemview.itemcommandbar.default** item.
5. Click the **Edit** button.
6. Click the **New** button in the Command Bar Item grid, then select **Separator > OK** in the dialog to create a new separator with the following properties:
   a. Name: **My_Separator**
   b. Sort Order: **500**
   c. Action: **Add**
   d. For Identity: **World**
7. Click the **Save** button.
8. Open any item to see the new separator appear before the Refresh button in the toolbar.

2.1.3 Remove a button on a relationship toolbar

“I want to hide the Share button on the Part BOM relationship toolbar for members of All Suppliers.”

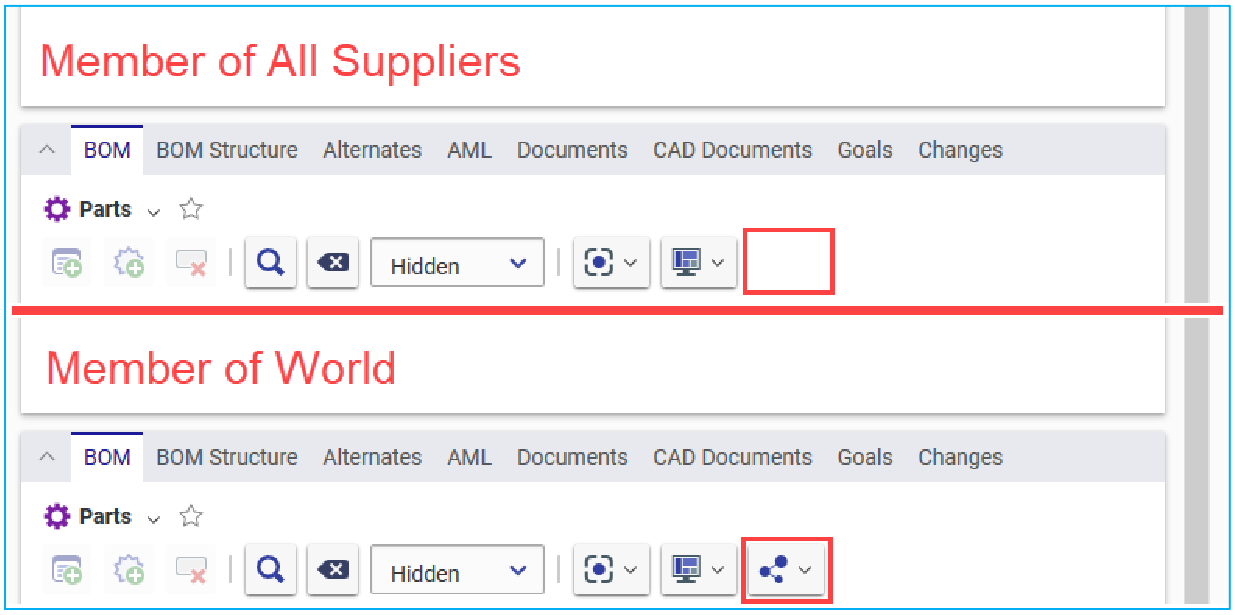


Figure 10. The default “share” button does not appear on Part BOM for All Suppliers

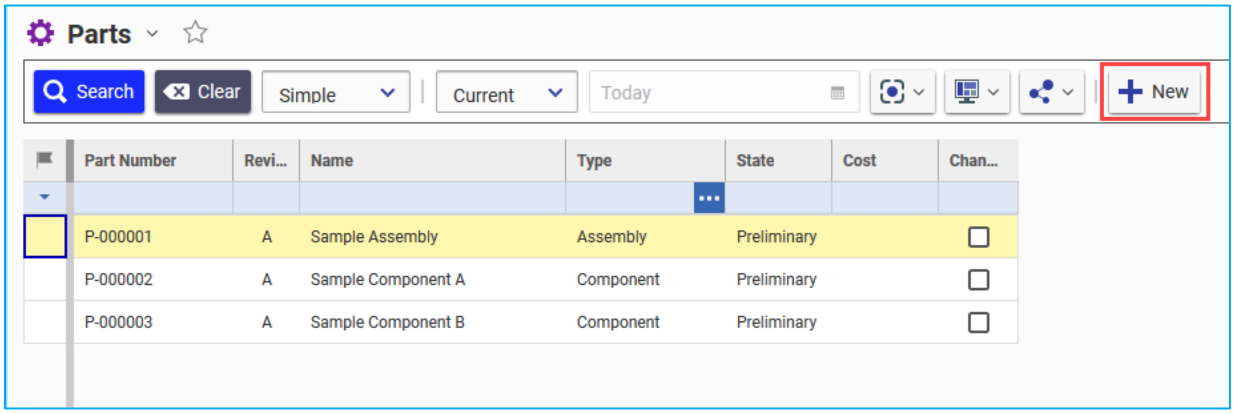
1. Open the **Part BOM** ItemType and click the **Edit** button.
2. In the **Client Style** relationship tab, click the **New** button to create a new Presentation Configuration with the following properties:

Name: **Part_BOM**

3. Click the **Save** button, then right click the new Presentation Configuration and select **Open**.
4. Click the **Edit** button.
5. Click the **New** button in the Command Bar Section grid to create a new section with the following properties:
   a. Classification: **Data Model**
   b. Name: **Part_BOM_Custom**
   c. Location: **ItemView.RelationshipsCommandBar**
   d. Sort Order: **128**
   e. For Identity: **All Suppliers**
6. Click the **Save** button, then right click the new Command Bar Section and select **Open**.
7. Click the **Edit** button.
8. Click the **Add** button in the Command Bar Item grid, then search for the **commonitems.commandbar.sharemenu** item. Click **OK** in the search dialog to add the item to the Command Bar Items grid.
9. Set the following properties for the Command Bar Item:
   a. Action: **Remove**
   b. For Identity: **All Suppliers**
10. Click **Save**, then logout of Aras Innovator.
11. Login to Aras Innovator as a member of the All Suppliers group identity.
12. Open a Part item to see that the Share button no longer appears in the Part BOM relationship toolbar.

2.1.4 Replace a button on a toolbar

"I want to replace the default "New" button with a custom button on the Part search toolbar for all users."



Part Number	Revi...	Name	Type	State	Cost	Chan...
P-000001	A	Sample Assembly	Assembly	Preliminary		☐
P-000002	A	Sample Component A	Component	Preliminary		☐
P-000003	A	Sample Component B	Component	Preliminary		☐

Figure 11.

The default "new" button is replaced with a custom button in the search toolbar.

1. Open the **Part** ItemType and select the **Client Style** relationship tab.

2. Right click the entry in the grid and select **Open** to open the Presentation Configuration for the Part ItemType.
3. Click the **Edit** button.
4. Click the **New** button in the Command Bar Section grid to create a new section with the following properties:
    a. Classification: **Data Model**
    b. Name: **Part_Search_Custom_Buttons**
    c. Location: **SearchView.CommandBar**
    d. Sort Order: **512**
    e. For Identity: **World**
5. Click the **Save** button, then right click the new Command Bar Section and select **Open**.
6. Click the **Edit** button.
7. Click the **Add** button in the Command Bar Item grid, then search for the **searchview.commandbar.default.new** item. Click **OK** in the search dialog to add the item to the Command Bar Items grid.
8. Set the following properties for the Command Bar Item:
    a. Sort Order: **2000**
    b. Action: **Replace**
    c. For Identity: **World**
9. Click **Save**, then right click the Button and select **Open**.
10. Click the "**…**" button in the toolbar and select **Create New Button** to create a new Button with the following properties:
    a. Name: **My_New_Button**
    b. Label: **New**
    c. Tooltip Template: **New {0}**
    d. Init Method: **cui_svcb_new_init**
    e. Click Method: **cui_ivicb_more_new_click**
    f. Image: **choose an icon** to display in the button
11. Click **Save**, then navigate back to the **Part_Search_Custom_Buttons** Command Bar Section tab.
12. In the Alternate property of the **searchview.commandbar.default.new** Command Bar Item relationship, enter **My_New_Button**.
13. Click **Save**, then navigate to **Design > Parts** in the TOC to see the custom "New" button in the search toolbar.

2.2 Menus

2.2.1 Add a button to a menu

"I want to add an action to the global user menu for all administrators."

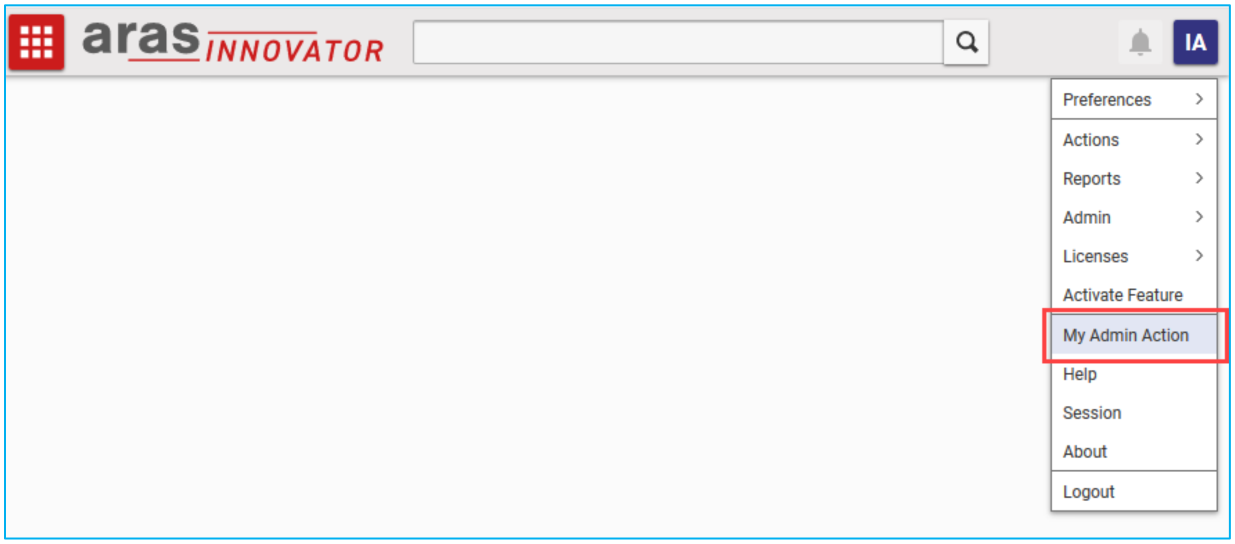


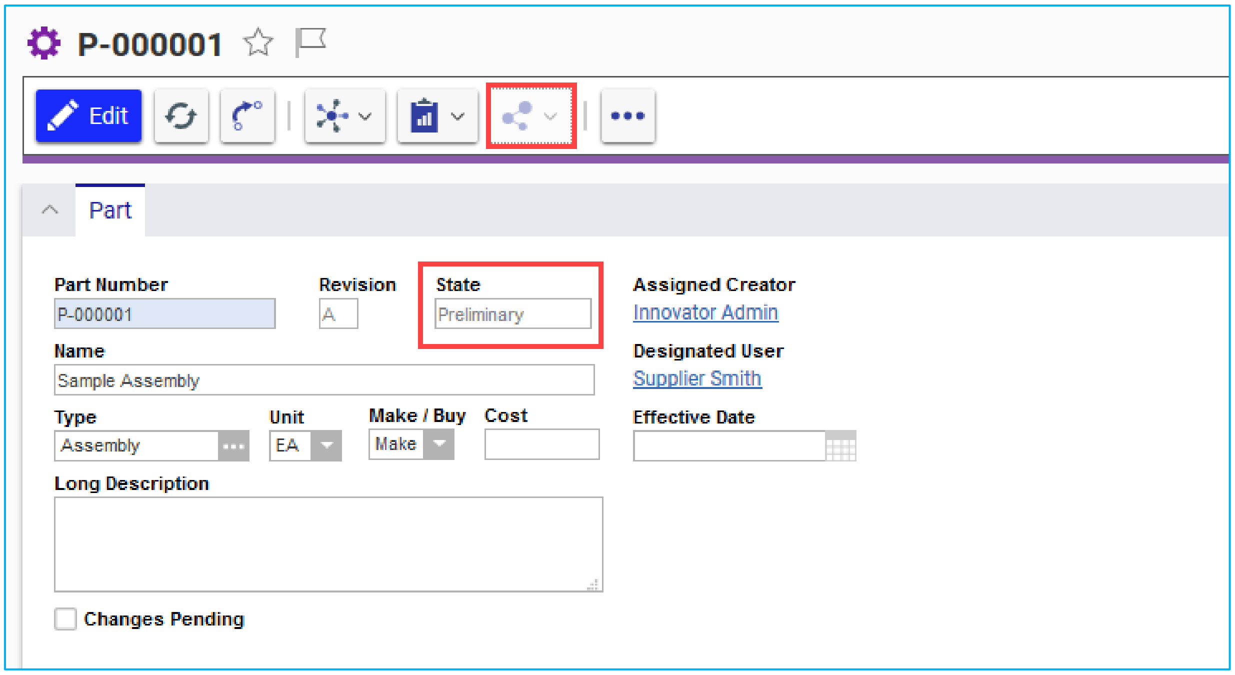
Figure 12. A new action appears in the user menu for administrators

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **com.aras.innovator.cui_default.mwh_header_user_menu** item with the MainWindowHeader location.
5. Click the **Edit** button.
6. Click the **New** button in the Command Bar Item grid, then select **Menu Button > OK** in the dialog to create a new menu button with the following properties:
   a. Name: **My_Custom_Admin_Action**
   b. Sort Order: **3100**
   c. Action: **Add**
   d. For Identity: **Administrators**
7. Right click the new button row and select **Open**.
8. Enter the following properties for the new Menu Button:
   a. Label: **My Admin Action**
   b. Parent Menu: **com.aras.innovator.cui_default.mwh_user_menu**
   c. Click Method: **select a Method** you want to run when the button is clicked
9. Click the **Save** button and close the Menu Button tab.

10. Click the **Save** button in the Command Bar Section tab.
11. Logout of Aras Innovator and log back in as a member of the Administrators identity.
12. Click the global user menu button in the top right corner of the window and select **My Admin Action** to run your custom action.

2.2.2 Disable a menu

"I want to disable the Share menu button for items that are not yet released."



Part Number: P-000001
Revision: A
State: Preliminary
Assigned Creator: Innovator Admin
Name: Sample Assembly
Designated User: Supplier Smith
Type: Assembly
Unit: EA
Make / Buy: Make
Cost:
Effective Date:
Long Description:
Changes Pending

Figure 13. The default "share" menu is disabled for non-released items

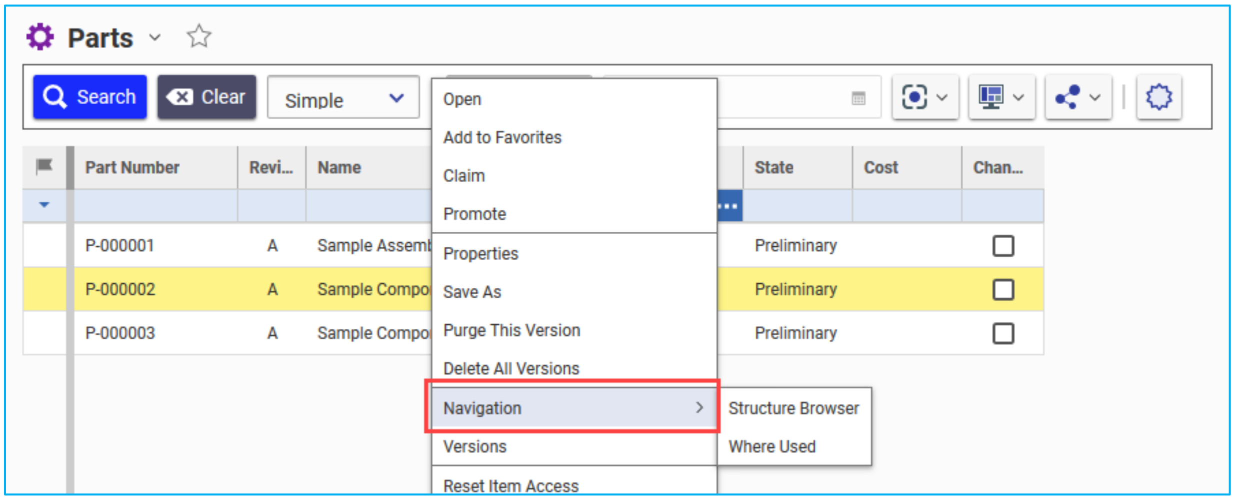
1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **itemview.itemcommandbar.default** item.
5. In the Command Bar Item grid, open the **itemview.itemcommandbar.default.share** item.
6. Click the **Edit** button.
7. Replace the Init Method with a custom Method that contains the following code:

```
if (!options.eventState) {
   options.eventState = aras.evalMethod('cui_reinit_calc_tearoff_states');
}

// get the release state of the context item
var contextItem = aras.getItemById(options.itemTypeName, options.itemId);
var isReleased = aras.getItemProperty(contextItem,'is_released','0');

// disable the menu when the item is not released
return {
    'hidden': options.eventState.isNew,
    'disabled': (isReleased === '0')
};
```

8. Click **Save** and close the Menu item.
9. Open any non-released item to confirm that the Share menu button is disabled. The button will be enabled for any released item.

2.2.3 Add a submenu to a menu

"I want to move 'Structure Browser' and 'Where Used' to a submenu of the main grid context menu."



Part Number	Revi...	Name	State	Cost	Chan...
P-000001	A	Sample Assemb	Preliminary		☐
P-000002	A	Sample Compo	Preliminary		☐
P-000003	A	Sample Compo	Preliminary		☐

Figure 14. The default structure browser and where used actions appear in a new submenu

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **com.aras.innovator.cui_default.popup_menu_for_item_grid** item.
5. Click the **Edit** button.
6. Click the **New** button in the Command Bar Item grid, then select **Menu > OK** in the dialog to create a new menu button with the following properties:
   a. Name: **My_Nav_Menu**
   b. Init Method: **initPopupItemInItemsGrid**

c. Sort Order: **1300**

d. Action: **Add**

e. For Identity: **World**

7. Right click the new button row and select **Open**.

8. Set the following properties:

   Label: **Navigation**

9. Click **Save** and close the new Menu tab.

10. Move the Structure Browser action to the new submenu:

    a. On the Command Bar Section form, open the **com.aras.innovator.cui_default.pmig_Structure Browser** Menu from the Command Bar Item grid.

    b. Click the **Edit** button.

    c. Set the Parent Menu property to **My_Nav_Menu**.

    d. **Save** and close the Structure Browser Menu item tab.

11. Move the Where Used action to the new submenu:

    a. On the Command Bar Section form, open the **com.aras.innovator.cui_default.pmig_Where Used** Menu from the Command Bar Item grid.

    b. Click the **Edit** button.

    c. Set the Parent Menu property to **My_Nav_Menu**.

    d. **Save** and close the Where Used Menu item tab.

12. Click the **Save** button for the Command Bar Section.

13. Open any search grid from the TOC and right click on a row to see the new "Navigation" submenu.

2.2.4 Display an icon on a menu button

"I want to show an icon next to the 'Delete' action in the main grid context menu."

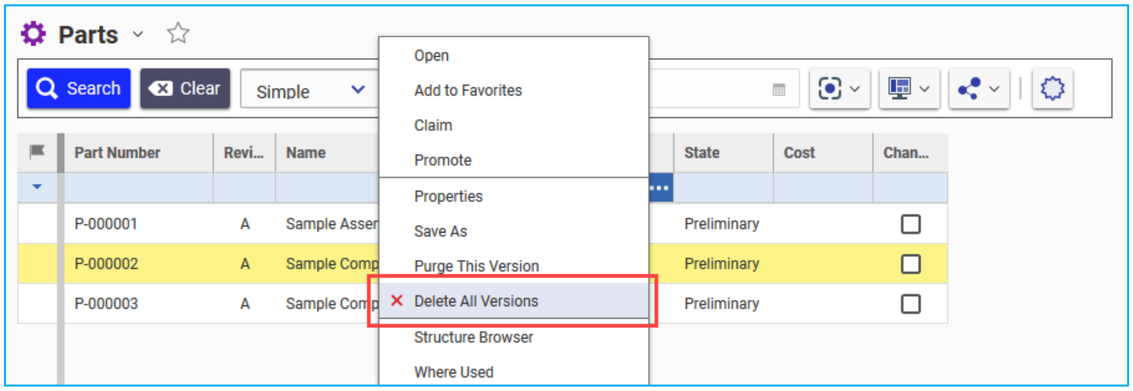


Figure 15. An icon appears next to the delete action in the main grid menu

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.

2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **com.aras.innovator.cui_default.popup_menu_for_item_grid** item.
5. Click the **Edit** button.
6. In the Command Bar Item grid, open the **com.aras.innovator.cui_default.pmig_Delete** item.
7. Click the **Edit** button.
8. Use the **Image** property to choose the icon you want to show in the menu.
9. Click **Save** and close the Menu item.
10. Click **Save** and close the Command Bar Section item.
11. Open any search grid from the TOC and right click on a row to see your selected icon appear next to the "Delete All Versions" action.

2.3 Shortcuts

2.3.1 Add an item form keyboard shortcut

"I want a shortcut to allow users to create a new item from an item form."

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **com.aras.innovator.cui_default.itemWindowShortcuts** item.
5. Click the **Edit** button.
6. Click the **New** button in the Command Bar Item grid, then select **Shortcut > OK** in the dialog to create a new keyboard shortcut with the following properties:
   a. Name: **New_Item**
   b. Sort Order: **1024**
   c. Action: **Add**
   d. For Identity: **World**
7. Right click the new button row and select **Open**.
8. Set the Shortcut property to **alt+ctrl+n**.
9. Set the Handler property to a custom Method containing the following code:

```
var itemtype = window.itemTypeName;
if (itemtype) {
    aras.uiNewItemEx(itemtype);
}
```

10. Click **Save** and close the new Shortcut tab.
11. **Save** and close the Command Bar Section tab.

12. Open an item, like a Part, and enter the keyboard shortcut **CTRL+ALT+N**. A new Part item will open in a new tab.

2.4 Table of Contents

2.4.1 Change a TOC category label

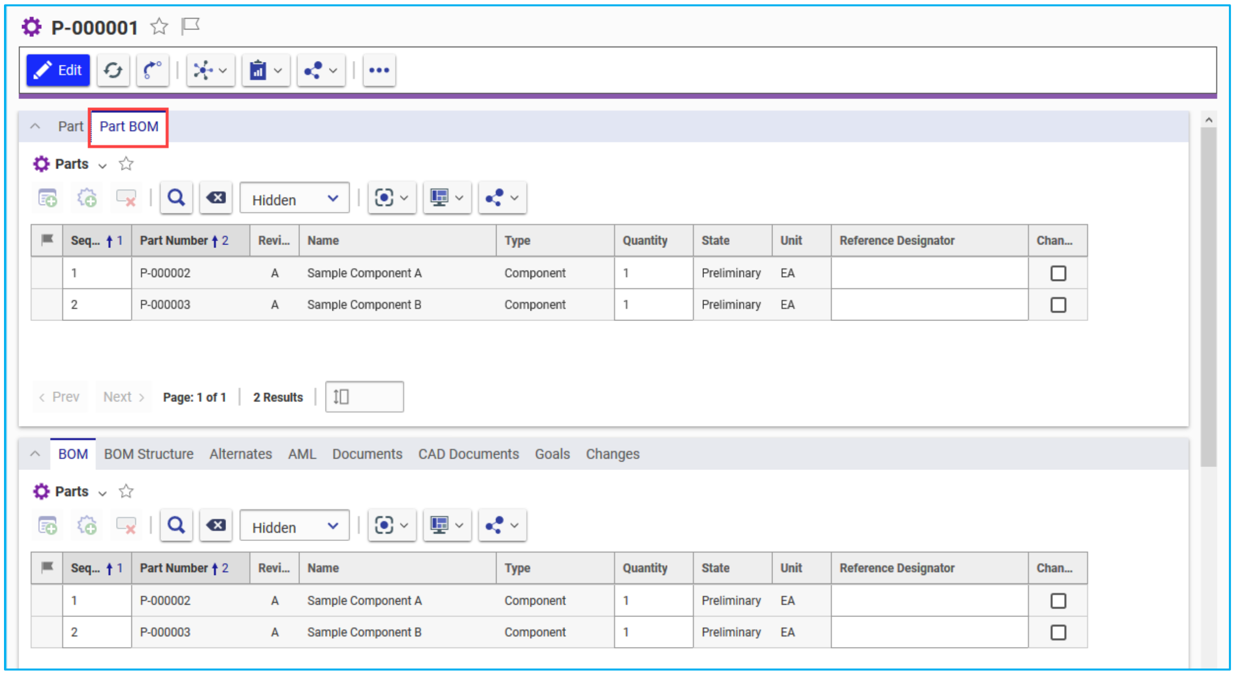
"I want to change the 'Documents' TOC category to 'Document Center'."

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Run the Client Presentation search.
3. Click the **Global** property in the single search result.
4. In the Command Bar Section grid, open the **com.aras.innovator.cui_default.toc** item with the location **TOC**.
5. In the Command Bar Item grid, open the **com.aras.innovator.cui_default.toc_Documents** item.
6. Click the **Edit** button.
7. Set the Label property to **Document Center**.
8. Click the **Done** button and log out of Aras Innovator.
9. Login to Aras Innovator again, and the TOC category label will now say **Document Center**.

2.5 Item Views

2.5.1 Add a tab to the first accordion

"I want to display the Part BOM tab in the top accordion for all users."



Seq... 1	Part Number 2	Revi...	Name	Type	Quantity	State	Unit	Reference Designator	Chan...
1	P-000002	A	Sample Component A	Component	1	Preliminary	EA		☐
2	P-000003	A	Sample Component B	Component	1	Preliminary	EA		☐

Seq... 1	Part Number 2	Revi...	Name	Type	Quantity	State	Unit	Reference Designator	Chan...
1	P-000002	A	Sample Component A	Component	1	Preliminary	EA		☐
2	P-000003	A	Sample Component B	Component	1	Preliminary	EA		☐

Figure 16. The Part BOM tab is added to the top accordion on the Part item view

1. Open the **Part** ItemType and select the **Client Style** relationship tab.
2. Right click the entry in the grid and select **Open** to open the Presentation Configuration for the Part ItemType.
3. Click the **Edit** button.
4. Select the **cui_PresentConfigWinSection** tab.
5. Click the **New** button in the grid toolbar to create a new window section with the following properties:
   a. Classification: **Data Model**
   b. Name: **Accordion1**
   c. Location: **ItemView**
   d. For Identity: **World**
6. Click the **Save** button, then right click the new window section and select **Open**.
7. Click the **Edit** button.
8. Click the **New** button in the grid toolbar to create a new control with the following properties:
   a. Type: **Tab Element Control**
   b. Name: **Acc1_BOM_Tab**

c. Label: **Part BOM**

d. Additional Data: **{"relTypeId": "159C6D88795B4A86864420863466F728"}**

e. Parent: **ItemView.FormAccordionTabs**

f. Sort Order: **1024**

g. Action: **Add**

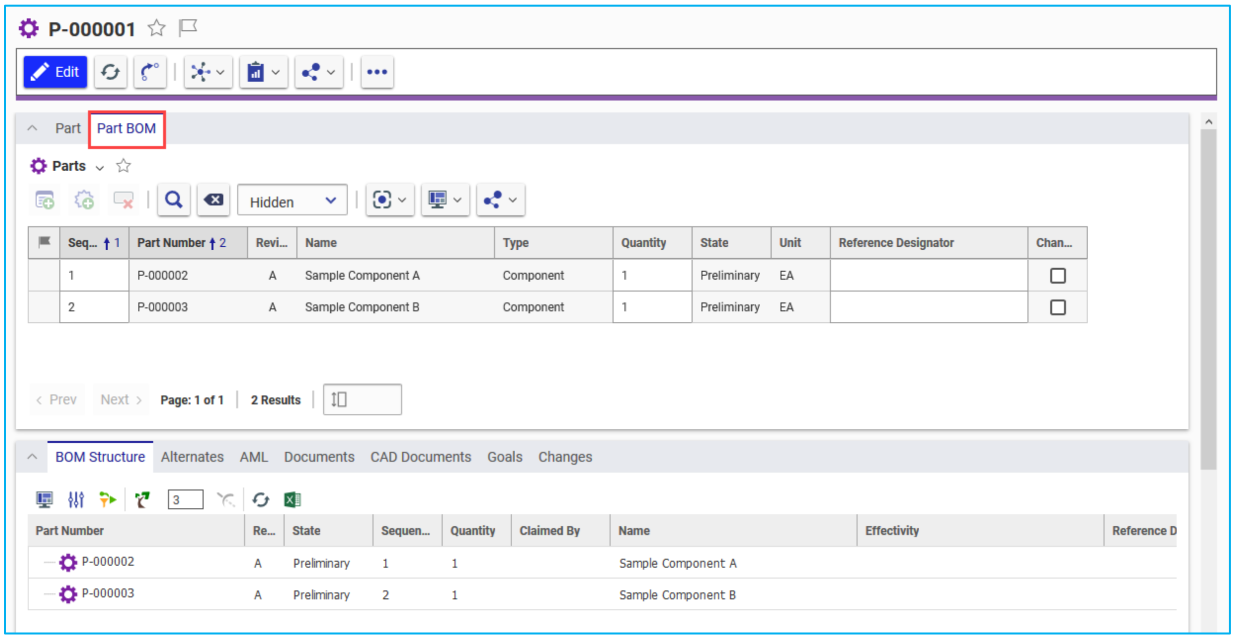
h. For Identity: **World**

9. Click **Save**, then navigate to **Design > Parts** in the TOC and open a Part item to see the new Part BOM tab in the top accordion.

Note: The default BOM tab will still appear in the relationship accordion. See the next section for steps to hide the default BOM tab from the second accordion.

2.5.2 Hide a tab from the second accordion

"I want to display the Part BOM tab in the top accordion *<u>instead of</u>* *the relationship accordion."*



	Seq... 1	Part Number 2	Revi...	Name	Type	Quantity	State	Unit	Reference Designator	Chan...
	1	P-000002	A	Sample Component A	Component	1	Preliminary	EA		☐
	2	P-000003	A	Sample Component B	Component	1	Preliminary	EA		☐

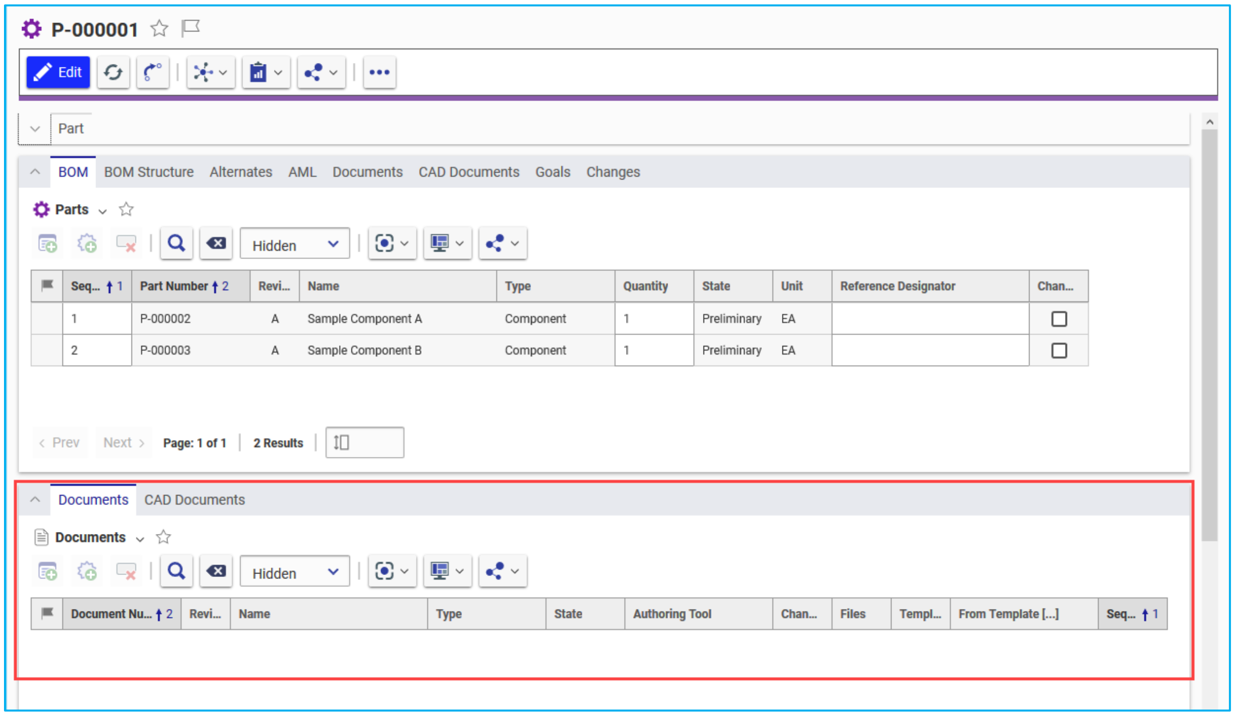
Part Number	Re...	State	Sequen...	Quantity	Claimed By	Name	Effectivity	Reference D
P-000002	A	Preliminary	1	1		Sample Component A		
P-000003	A	Preliminary	2	1		Sample Component B		

Figure 17. The Part BOM *only* appears in the top accordion on the Part item view

1. Follow the steps in the previous section to add the Part BOM tab to the top accordion. The following steps outline how to hide the default BOM tab from the relationship accordion.
2. Navigate to **Administration > RelationshipTypes** in the TOC.
3. Search for the **Part BOM** RelationshipType and open the item.
4. Click **Edit**.
5. Check off the **Hide In All** box to prevent the default tab from appearing in a relationship accordion.
6. Click **Save**, then navigate to **Design > Parts** in the TOC and open a Part item to confirm the default BOM tab doesn't appear in the relationship accordion.

2.5.3 Add a third accordion with a tab

"I want to show the Documents and CAD Documents tabs in a third accordion."



	Seq... ↑1	Part Number ↑2	Revi...	Name	Type	Quantity	State	Unit	Reference Designator	Chan...
	1	P-000002	A	Sample Component A	Component	1	Preliminary	EA		☐
	2	P-000003	A	Sample Component B	Component	1	Preliminary	EA		☐

	Document Nu... ↑2	Revi...	Name	Type	State	Authoring Tool	Chan...	Files	Templ...	From Template [...]	Seq... ↑1

Figure 18. A third accordion is added displaying the Document and CAD Document tabs

1. Open the **Part** ItemType and select the **Client Style** relationship tab.
2. Right click the entry in the grid and select **Open** to open the Presentation Configuration for the Part ItemType.
3. Click the **Edit** button.
4. Select the **cui_PresentConfigWinSection** tab.
5. Click the **New** button in the grid toolbar to create a new window section with the following properties:
   a. Classification: **Data Model**
   b. Name: **Accordion3**
   c. Location: **ItemView**
   d. For Identity: **World**
6. Click the **Save** button, then right click the new window section and select **Open**.
7. Click the **Edit** button.
8. Click the **New** button in the grid toolbar to create a new control with the following properties:
   a. Type: **Accordion Element Control**
   b. Name: **Acc3_Container**
   c. Additional Data: **{"cssClass": "aras-item-view__relationship-accordion"}**

   d. Sort Order: **2000**
   e. Action: **Add**
   f. For Identity: **World**

9. Click **Save**.
10. Click the **New** button in the grid toolbar to create a new control with the following properties:
    a. Type: **Tab Container Control**
    b. Name: **Doc_Tab_Container**
    c. Additional Data: **{"attributes" : {"slot": "header"}}**
    d. Parent: **Acc3_Container**
    e. Sort Order: **2050**
    f. Action: **Add**
    g. For Identity: **World**
11. Click **Save**.
12. Click the **New** button in the grid toolbar to create a new control with the following properties:
    a. Type: **Tab Element Control**
    b. Name: **Document_Tab**
    c. Label: **Documents**
    d. Additional Data: **{"relTypeId": "09CBB0294FAB477AA7300906DC035462"}**
    e. Parent: **Doc_Tab_Container**
    f. Sort Order: **3000**
    g. Action: **Add**
    h. For Identity: **World**
13. Click the **New** button in the grid toolbar to create a new control with the following properties:
    a. Type: **Tab Element Control**
    b. Name: **CAD_Tab**
    c. Label: **CAD Documents**
    d. Additional Data: **{"relTypeId": "C65FB7DC8C3A4EFC97A6EE8196C0B448"}**
    e. Parent: **Doc_Tab_Container**
    f. Sort Order: **3050**
    g. Action: **Add**
    h. For Identity: **World**
14. Click **Save**, then navigate to **Design > Parts** in the TOC and open a Part item to see Document and CAD Document tabs appear in a new accordion at the bottom of the page.

2.6 Item View Sidebar

2.6.1 Display the ad hoc Graph View from an Item View Sidebar button

"I want to add a button to the sidebar of all items that will show an ad hoc Graph View in the item view."

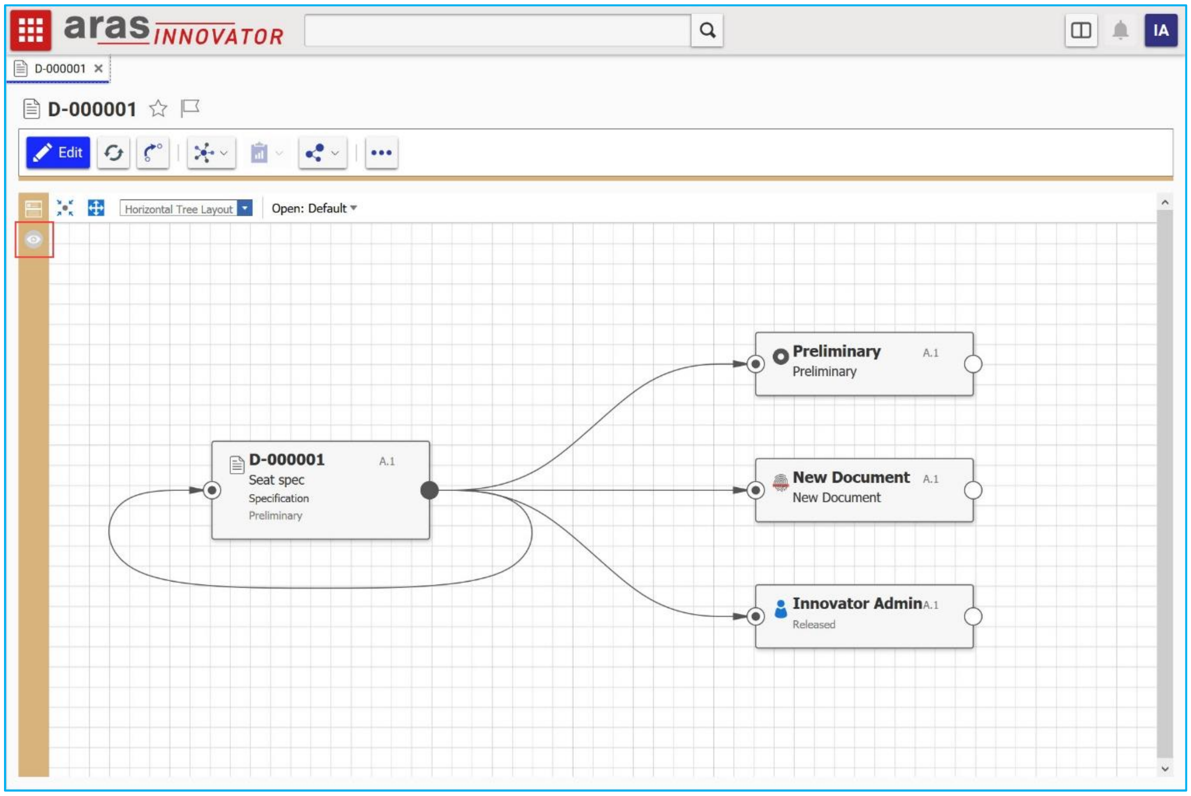


Figure 19. A sidebar button for displaying the ad hoc graph is added to the global Item View definition

1. Navigate to **Administration > Configuration > Client Presentation** in the TOC.
2. Click the **Search** button to run the Client Presentation search.
3. Click the **Global** item property in the single search result.
4. In the Command Bar Section grid, open the **Global Sidebar** item.
5. Click the **Edit** button.
6. Click the **New** button in the Command Bar Item grid, then select **Button > OK** in the dialog to create a new button with the following properties:
   a. Name: **My_Ad_Hoc_Graph_Button**
   b. Sort Order: **256**
   c. Action: **Add**
   d. For Identity: **World**
7. Right click the new button row and select **Open**.
8. Enter the following properties for the new Menu Button:

a. Click Method: **sidebar_default_gv_click**

b. Image: choose the icon you want to show when the sidebar button is inactive

c. Additional Image: choose the icon you want to show when the button is active

9. Click the **Save** button and close the Button tab.

2.6.2 Display a query-based Graph View from an Item View Sidebar button

"I want to display the Part BOM Graph View when the user clicks a sidebar button on a Part."

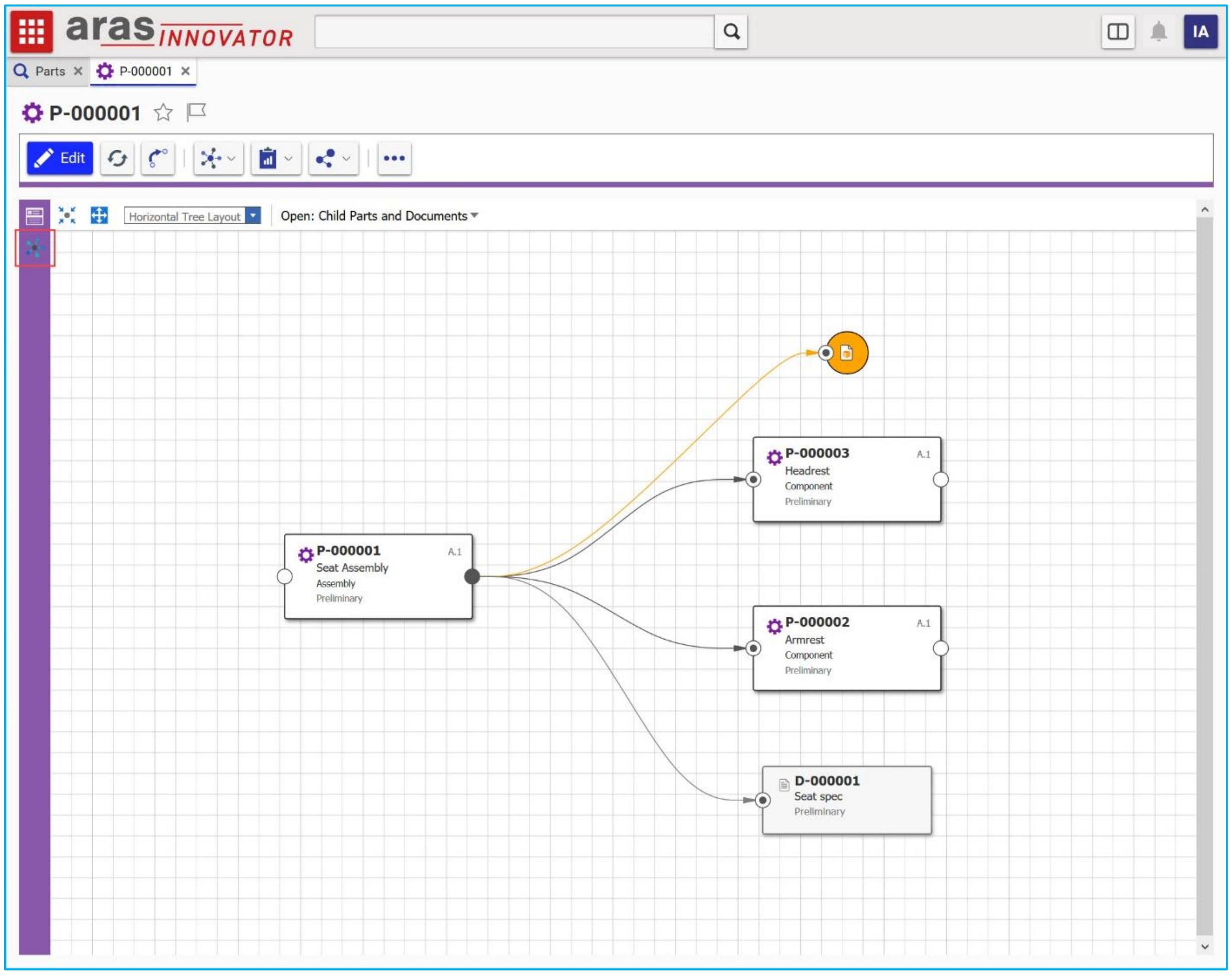


Figure 20. A sidebar button for displaying a specific graph is added to the Part form

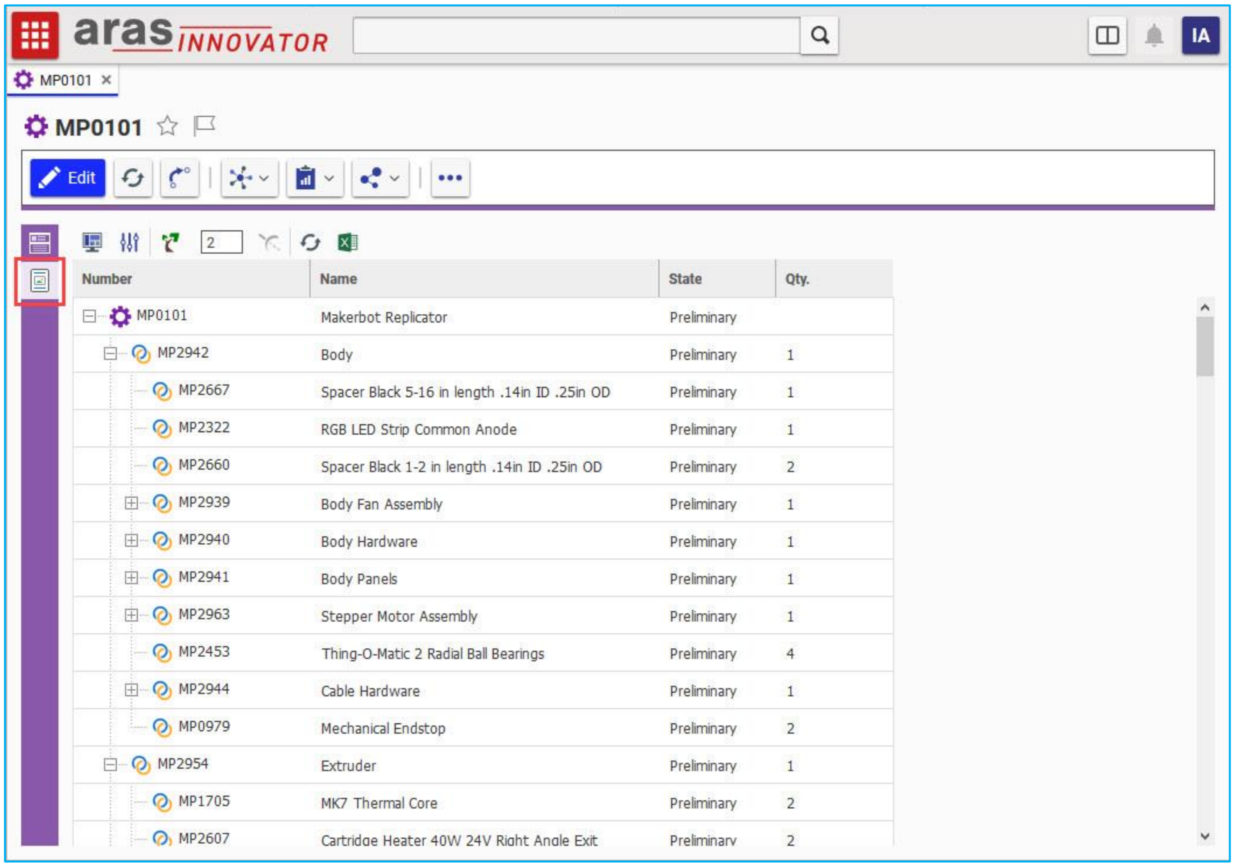
1. Open the **Part** ItemType and select the **Client Style** relationship tab.
2. Right click the entry in the grid and select **Open** to open the Presentation Configuration for the Part ItemType.
3. Click the **Edit** button.
4. Click the **New** button in the Command Bar Section grid to create a new section with the following properties:

   a. Classification: **Data Model**

   b. Name: **Part_Custom_Sidebar**
   c. Location: **ItemWindowSidebar**
   d. Sort Order: **256**
   e. For Identity: **World**
5. Click the **Save** button, then right click the new Command Bar Section and select **Open**.
6. Click the **Edit** button.
7. Click the **New** button in the Command Bar Item grid to create a new item with the following properties:
   a. Type: **Button**
   b. Name: **My_Graph_Button**
   c. Sort Order: **1100**
   d. Action: **Add**
   e. For Identity: **World**
8. Click **Save**, then right click the new Button and select **Open**.
9. Click the **Edit** button.
10. Set the following properties on the item form:
    a. Additional Data: **{ "gvdId": "<graph view id>" }**
    b. Click Method: **sidebar_default_gv_click**
    c. Image: **choose the icon you want to show when the sidebar button is inactive**
    d. Additional Image: **choose the icon you want to show when the button is active**
11. Click **Save**, then navigate to **Design > Parts** in the TOC.
12. Open a Part item to see the new button in the sidebar.
13. Click the new sidebar button to view the specified Graph View.

2.6.3 Display a Tree Grid View from an Item View Sidebar button

"I want to display the BOM as a Tree Grid View when the user clicks a sidebar button on a Part."



Number	Name	State	Qty.
MP0101	Makerbot Replicator	Preliminary	
MP2942	Body	Preliminary	1
MP2667	Spacer Black 5-16 in length .14in ID .25in OD	Preliminary	1
MP2322	RGB LED Strip Common Anode	Preliminary	1
MP2660	Spacer Black 1-2 in length .14in ID .25in OD	Preliminary	2
MP2939	Body Fan Assembly	Preliminary	1
MP2940	Body Hardware	Preliminary	1
MP2941	Body Panels	Preliminary	1
MP2963	Stepper Motor Assembly	Preliminary	1
MP2453	Thing-O-Matic 2 Radial Ball Bearings	Preliminary	4
MP2944	Cable Hardware	Preliminary	1
MP0979	Mechanical Endstop	Preliminary	2
MP2954	Extruder	Preliminary	1
MP1705	MK7 Thermal Core	Preliminary	2
MP2607	Cartridge Heater 40W 24V Right Angle Exit	Preliminary	2

Figure 21. A sidebar button for displaying a Tree Grid View is added to the Part form

1. Open the **Part** ItemType and select the **Client Style** relationship tab.
2. Right click the entry in the grid and select **Open** to open the Presentation Configuration for the Part ItemType.
3. Click the **Edit** button.
4. Click the **New** button in the Command Bar Section grid to create a new section with the following properties:
    a. Classification: **Data Model**
    b. Name: **Part_Custom_Sidebar**
    c. Location: **ItemWindowSidebar**
    d. Sort Order: **256**
    e. For Identity: **World**
5. Click the **Save** button, then right click the new Command Bar Section and select **Open**.
6. Click the **Edit** button.

7. Click the **New** button in the Command Bar Item grid to create a new item with the following properties:
    a. Type: **Button**
    b. Name: **My_TGV_Button**
    c. Sort Order: **1200**
    d. Action: **Add**
    e. For Identity: **World**
8. Click **Save**, then right click the new Button and select **Open**.
9. Click the **Edit** button.
10. Set the following properties on the item form:
    a. Additional Data: **{ "tgvdId": "<tree grid view id>", "startConditionProvider": "ItemDefault({\"id\":\"id\"})" }**
    b. Click Method: **sidebar_default_tgv_click**
    c. Image: **choose the icon you want to show when the sidebar button is inactive**
    d. Additional Image: **choose the icon you want to show when the button is active**

Note: The *startConditionProvider* property in Additional Data is optional. The view will use the context item's id as the starting condition if this property is not provided. It's only necessary to include the *startConditionProvider* property if your Tree Grid View has a start condition that is not the id of the context item.

11. Click **Save**, then navigate to **Design > Parts** in the TOC.
12. Open a Part item to see the new button in the sidebar.
13. Click the new sidebar button to view the specified Tree Grid View.