

Building Viewer models

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About this document

This document gives brief details of how to perform the tasks covered in the *Building Viewer models* course.

Creating a folder

1. If you are not in the Viewer's Model Directory, click the *Dir* button on the side button bar to go there.
2. Right-click on the background of the right-hand pane.
3. From the menu that is displayed, choose *New folder*.
4. Enter the name of the folder.
5. Click *OK*.

Creating a model

1. In the left-hand pane of the Model Directory, click on the folder's name to open it.
2. Right-click on the background of the right-hand pane.
3. From the menu that is displayed, choose *New model*.
4. Enter the name of the model.
5. Click *OK*.

Adding a positioned tab

1. Click "+" in the tab bar and choose *New positioned tab* from the menu that is displayed.
2. In the dialog, enter a name to display in the tab's label.
3. Click *OK*.

Importing charts from the Analysis Client into the Viewer

1. Use the *sfnLauncher* to open the Analysis Client.
2. When prompted, log in to the Analysis Client using the same login details as you use to log in to the Viewer.
3. In the Analysis Client, display as many *sCharts* as you want to include in your Viewer model.
4. From the Analysis Client's *Edit* menu, choose *Copy all chart images* from the menu that is displayed.
5. In the Viewer, right-click on the background of the flow panel and choose *Import sfn URLs* from the menu that is displayed.
6. Use *Ctrl-V* to paste the chart URLs into the box, then click *OK*.

Dragging and dropping items on a positioned panel

1. Ensure that no charts are selected by right-clicking on the background of the panel.
2. Click the drag handle on one of the charts and drag it to a new position, then drop it so that it doesn't overlap the others. Move the other charts so that none of the charts overlap.

3. Use *Ctrl-click* to select all of the charts. Right-click on one of the charts and choose *Align selection > To grid with minimum spacing* from the menu. At the dialog, enter a number which represents the pixels between the charts.

Saving a model

1. In the Viewer's menu bar, click *Save*.

Adding an image to a panel

1. Right click on the panel to contain the image and choose *Add image* from the menu that is displayed.
2. Choose whether to add an image from the Model Directory or your file system.
3. At the dialog, click the *Choose* button, then browse to the image and click *OK*.
4. Click *OK* to display the image in the panel.

Adding a background image to a positioned panel

1. Right click on the background of the positioned panel and choose *Add background image* from the menu that is displayed.
2. Choose whether to add an image from the Model Directory or your file system.
3. At the dialog, click the *Choose* button, then browse to the image and click *OK*.
4. Click *OK* to display the background image in the panel.

Fitting a positioned panel on open

1. Right click on the background of the positioned panel and choose *Panel properties* from the menu that is displayed.
2. The properties dialog is displayed. Open the *Fit* tab.
3. Select *yes* for the *Fit content on open* option.
4. Click *OK* to make the panel fit to the available space the first time it is opened.

Updating an image

1. In the Model Directory, find the image to replace and right-click on it.
2. Choose *Update* from the menu that is displayed.
3. In the dialog, browse to the updated version of the image and select it.
4. Click *OK* to update the image.

Adding a rich text box to a panel

1. Right click on the panel and choose *Add rich text* from the menu that is displayed. A text box is created.
2. Type some text in the box and format it if you want to.

Setting font type and colour in a text box

1. Click in the text box so that its menu bar is displayed.
2. To set the font type, choose it from the font family dropdown on the menu bar (the dropdown shows *Arial* by default).
3. To set the font size, choose it from the font size dropdown on the menu bar (the dropdown shows *10pt* by default).
4. To set the font colour, click on the dropdown next to **A** on the menu bar, and choose a colour from the colour picker that is displayed.

Removing the border from a text box

1. Right-click on the text box's drag handle and choose *Properties* from the menu that is displayed.
2. In the dialog, find *Show border around rich text* (around halfway down) and click the *no* option.
3. Click *OK*.

Setting the background colour of a text box

1. Right-click on the text box's drag handle and choose *Properties* from the menu that is displayed.
2. In the dialog, find *Rich text background colour* (around two-thirds of the way down). Click the check box next to *inherit value* – the box underneath is enabled.
3. Enter a background colour. The colour you use will often be determined by the client, but for a list of colours see the W3schools website:

https://www.w3schools.com/cssref/css_colors_legal.asp

https://www.w3schools.com/colors/colors_names.asp

4. Click *OK* to set the background colour.

Switching between edit mode and non-edit mode versions of a model

If you have a Viewer model open in edit and non-edit mode, you can compare the two to see what the model will look like to users.

1. Click the *Pages* button on the sidebar.
2. The model name will be listed twice: the version that you are editing has (E) next to its name.
3. By selecting one of the names in the list you change to that version.
Note: If you have edited the model, you need to reload the non-edit mode version before you can see the changes. Click *Reload* in the menu at the top of the Viewer.

Accessing the help

1. Click the *Help* button on the sidebar.

Using tooltips on a dialog

1. Click the “i” button on the top right of the dialog. Tooltips are displayed when you hover over an item on the dialog.
2. If you want to turn off tooltips, click on the “i” button again.

Adding a flow tab

1. Click “+” in the tab bar and choose *New flow tab* from the menu that is displayed.
2. In the dialog, enter a name to display in the tab’s label.
3. Click *OK*.

Adding dials to a panel

Importing dials from the Analysis Client

1. Use the *sfnLauncher* to open the Analysis Client.
2. When prompted, log in to the Analysis Client using the same login details as you use to log in to the Viewer.
3. In the Analysis Client, display as many dials as you want to include in your Viewer model.
4. From the Analysis Client’s *Edit* menu, choose *Copy all chart images* from the menu that is displayed.
5. In the Viewer, right-click on the background of the flow panel and choose *Import sfn URLs* from the menu that is displayed.
6. Use *Ctrl-V* to paste the dial URLs into the box, then click *OK*.

Converting an sChart to a dial

1. Add the sChart to the panel in the usual way.
2. Right-click on the sChart and choose *Properties* from the menu that is displayed.
3. In the dialog, click on the *Chart type* dropdown and choose *Dial*.
4. Click *OK*. The sChart is now displayed as a dial.

Converting a dial to a number dial

1. Right-click on the dial and choose *Properties* from the menu that is displayed.
2. In the dialog, find the *Dial view* option and if necessary uncheck the inherit box.
3. Select the *number* radio button.
4. Click *OK*. The dial is now a number dial.

Converting a dial to a vertical dial

1. Right-click on the dial and choose *Properties* from the menu that is displayed.
2. In the dialog, find the *Dial view* option and if necessary uncheck the inherit box.
3. Select the *vertical* radio button.
4. Go to the *Sizes* tab of the dialog.
5. If *On-screen dial width in pixels* has *inherit value* checked, uncheck the box and enter a smaller value for the width (40 is a good starting point).
6. Click *OK*. The dial is now a vertical dial.

Setting the size of an object on a panel

1. Right-click on the object and choose *Properties* from the menu that is displayed.
2. Go to the *Sizes* tab of the dialog.
3. The top option specifies the width of the object (for example, *On-screen chart width in pixels*). If necessary, uncheck the inherit value box and enter a new size for the object (as a number only, do not include px).
4. Click *OK*. The object is now displayed with its new width. Note that the Viewer automatically scales the height of the object to preserve its aspect ratio.

Positioning items over a background image

1. Drag the items into their rough positions.
2. To align the tops of two or more items, select them using *Ctrl-click* then right-click on one and choose *Align selection > Top edges*.
3. To align the edges of two or more items, select them using *Ctrl-click* then right-click on one and choose *Align selection > Left edges*.
4. Experiment with the other alignment options available from the *Align selection* menu option.

Adding a map to a panel

To add a map, you first add the sChart that it is based on, then convert the chart to a map.

1. Use the sfnLauncher to open the Analysis Client.
2. When prompted, log in to the Analysis Client using the same login details as you use to log in to the Viewer.
3. In the Analysis Client, open the sChart that you want to display as a map in the Viewer.

Note: Not all sCharts can be displayed as maps. To check that the sChart can be displayed as a map, from its *Charts* menu choose *View Raw Data*. If the sChart can be displayed as a map then this menu will list its map configurations.

4. From the chart's *Edit* menu, choose *Copy Chart image* from the menu that is displayed.
5. In the Viewer, right-click on the background of the flow panel and choose *Import sfn URLs* from the menu that is displayed.
6. Use *Ctrl-V* to paste the sChart's URL into the box, then click *OK*.
7. Right-click on the sChart and choose *Properties* from the menu that is displayed.

8. In the dialog, find the *Map or table type* option. Select one of the following radio buttons:
 - *static map*: The map will be displayed at a fixed zoom level
 - *dynamic map*: The user will be able to zoom in and out of the map, and choose other options, such as seeing satellite views, if they are available
9. The *sfn map form name* dropdown appears. From it, choose the map configuration (the options are those that were shown in the sChart's *View Raw Data* list in the Analysis Client).
10. Click *OK*. The sChart is now displayed as a map.

Adding a related panel to an object

1. Right-click on the object and choose *Add related* from the menu that is displayed.
2. From the sub-menu, select the type of related panel to create (a flow panel or positioned panel).
3. A new related panel is created. A red icon is added to the object to indicate that there is an empty related panel under it.
4. Add content to the related panel in the same way as you add content to any other panel. When you add content, the related panel icon on the object turns black.

Setting a tab as a pop-up

1. Right-click on the label of the tab you want to display as a pop-up, and choose *Tab properties* from the menu that is displayed.
2. In the dialog, click the *Show as pop-up* box.
3. Click *OK*. (P) is added to the tab's label to indicate it is a pop-up.
4. **Note:** A pop-up tab is not displayed on the menu bar in non-edit mode. To enable users to access the pop-up tab, you need to provide a link to it (for example, from a link hotspot).

Adding a link hotspot that links to a tab

Note: A link hotspot can only be added to a positioned panel.

1. First, you need to set the target of the link hotspot (that is, the tab that you want to link to). Right-click on the tab's label and choose *Set as link target* from the menu that is displayed.
2. On the positioned panel to contain the link hotspot, right click on its blue panel (or to the right of it) and choose *Add link hotspot* from the menu that is displayed.
3. In the dialog, click the *Set* button next to *Link within model*.
4. Click *OK*. The link hotspot has been created.

Note: Link hotspots can link to other items in addition to tabs. For details see the online help in the Viewer.

Setting the initial tab

1. Right-click on the label of the tab to be the initial tab, and choose Set as initial tab from the menu that is displayed.

Note: The option is greyed out if the tab is already specified as a pop-up tab.

2. (1) is added to the tab's label to indicate it is the initial tab.

Creating a shared tab

1. In the Model Directory, open the folder to contain the shared tab.
2. Right-click on the background of the right-hand pane.
3. From the menu that is displayed, choose *New tab*, and select whether to create a flow or positioned tab.
4. Enter the name of the shared tab.
5. Click *OK*.

Adding a shared tab to a model

1. Click the “+” tab and choose *Add shared tab* from the menu that is displayed.
2. From the dialog, select the shared tab to display in the model.
3. Click *OK*.

Converting a tab in a model to a shared tab

1. Right-click on the label of the tab to export, and choose *Export tab contents* from the menu that is displayed.

Note: Depending on your browser, you may need to choose a destination folder for the output file.

2. Go to the Model Directory, and open the folder to contain the exported tab.
3. Right-click on the background of the right-hand pane and choose *Import XML file as copy* from the menu that is displayed.

Note: Do not select *Import XML file*, as you will receive an error message and be unable to import the tab.

4. In the dialog, browse to the XML file containing the tab and open it.
5. The tab is created in the Model Directory as a shared tab. Its name is generated from the tab's label.

Note: If the tab's name already exists in the Model Directory, the new name has a number appended to it, such as (1) or (2). If you want to rename the tab, right-click on it in the Model Directory and choose *Rename*.

Linking from a model to a shared tab outside the model

1. In the Model Directory, right-click on the shared tab that you want to link to, and choose *Show item target URL*.
2. The tab's URL is displayed. Press *Ctrl-C* to copy it.

3. Edit the model that will call the shared tab and open the tab to contain the link to the shared tab.
4. Add (or edit) a link or link hotspot to call the tab. Ensure that *URL* is selected as the target type, and use *Ctrl-V* to paste the shared tab's URL into the *Link target URL* box.
5. Click *OK*. When the user follows the link, the shared tab will be displayed as a pop-up.

Enabling a dynamic overrides group on a panel

If you want to add filtering dropdowns to a panel, you first need to enable the panel's dynamic overrides group.

1. Right-click on the background of the panel and choose *Panel properties* from the menu that is displayed.
2. In the dialog, tick the box next to *Show dynamic overrides group*.
3. Click *OK*. A group is added, containing a placeholder for a single dropdown box and its label.
4. If you want to add space for more dropdowns, right-click on the background of the group and choose *Properties* from the menu that is displayed.
5. In the dialog, set the number of rows and columns to contain the dropdown boxes you need. You can also specify whether or not the group has an **OK** button and a **Reset** button.
6. Click *OK*. You can now add filtering dropdowns to the group.

Note: You can also add dynamic dropdown groups to a model, or to individual charts or dials.

Adding a filtering dropdown

1. In the Analysis Client, find the ID of the dimension to filter on. To do this, right-click on the dimension (or dimension node) in the Dimension explorer and choose *Properties* from the menu that is displayed. Make a note of the *Unique ID* (including anything in brackets to the left).
2. In the Viewer model, right-click on the placeholder of a dropdown box in the dynamic overrides group. Choose *Add filtering dropdown* from the menu that is displayed.
3. In the *Dropdown start dimension selection* box on the dialog, enter the ID of the dimension that you noted in the Analysis Client.
4. Click *OK*. The filtering dropdown is displayed.

Making a filtering dropdown cascade

1. In the dynamic overrides group, right click on the filtering dropdown box (or on its label) and choose *Properties* from the menu that is displayed.
2. In the dialog, you choose how the dropdown cascades:
 - Based on selections made earlier in this dynamic overrides group. Tick *Cascade from filtering dropdown in this group*. **Note:** This is only meaningful if there are other filtering dropdowns to the left of this one in the group, and that filter within the same dimension as this one
 - Based on filtering values from higher in the model (such as selections in dynamic overrides groups, or filtering values set on a panel). Tick *Cascade from filtering higher in*

the model. **Note:** This is only meaningful if there are other filtering dropdowns above this one in the model, and that filter within the same dimension as this one

3. Click *OK*.

Creating a navigator

Note: To create a navigator you must have the *Viewer Admin* role.

1. Right click in the Model Directory and choose *New navigator*.
2. Enter a name for the navigator and click *OK*.
3. The navigator is created and you are taken into it for editing. You can now add buttons to it.

Adding buttons to a navigator

1. Right click on the background of the navigator, and select *Add button* from the menu that is displayed.
2. Choose where the button's image is held (in the Model Directory or in your file system).
3. Select the image to use for the button. Use the *Choose* button at the bottom of the dialog to select the image.
4. Specify the button type. This is described in more detail in the next sections.
5. Click *OK* to add the button to the navigator.

Linking to a single model from a navigator button

1. In the Model Directory, right-click on the model you want to link to, and choose *Show item target URL*.
2. In the dialog, use *Ctrl-C* to copy the model's URL.
3. In the navigator, right-click on the button and choose *Properties* from the menu that is displayed.
4. Choose *single link target* as the button type (this is enabled by default).
5. Paste the model's URL into the *Link target URL* box, by using *Ctrl-V*.
6. Click *OK*. The button in the navigator now links to the model.
Note: To test the button, right-click on it in the navigator and choose *Go to button target* from the menu that is displayed.

Linking to a list of models from a navigator button

1. In the navigator, right-click on the button and choose *Properties* from the menu that is displayed.
2. Choose *viewer list* as the button type.
3. You have the option of whether or not to choose folders:
 - If you choose folders, then when a user clicks the button only models from those folders are listed. To choose folders, click the **Select** button next to *List folders*, then choose the relevant folders from the Model Directory
 - If you do not choose folders, the button displays a list of Viewer models that are accessible to the user

Note: The list is populated dynamically, and so the number of entries in the list depends on how many models the user is allowed to access

4. You may want to change the list title, which is displayed above the list when the user clicks the button.
5. You may need to make the list wider (by setting the *List width*) to accommodate Viewer models that have long names. However, you usually only know this until after setting the navigator as the system navigator and testing it.
6. Click *OK*. The button in the navigator now links to a list of models.

Note: To test the button, right-click on it in the navigator and choose *Go to button target* from the menu that is displayed. The list is displayed in a pop-up (rather than as a slide-out list) but it allows you to check that the correct models are being displayed.

Adding a label to a navigator button

Often, the button image that you use will contain text. If it does not, then you can add an explanatory label to appear under the button.

1. In the navigator, right-click on the button and choose *Properties* from the menu that is displayed.
2. In the *Button label* box, enter an explanatory label for the button.
3. Click *OK*. The label is shown below the button on the navigator.

Setting your navigator as the system navigator

Note: You can only do this if you have *Viewer Admin* role.

1. In the Model Directory, click *Settings* on the menu bar.
2. On the dialog, click the *Select* button under the *System navigation model* box.
3. A dialog is displayed that lists all of the navigators in the Model Directory, and all folders that contain navigators. From the list, select the navigator to use and click *OK*.
4. You are returned to the Settings dialog, with the name of the selected navigator shown in the *System navigation model* box. To set this as the system-wide navigator, click *OK*.