

## Saia PCD<sup>®</sup> Supervisor Easy Templating



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# Document History

| Date         | Description                         |
|--------------|-------------------------------------|
| August, 2021 | First draft                         |
| January 2023 | Updated the Import library Section. |
|              |                                     |

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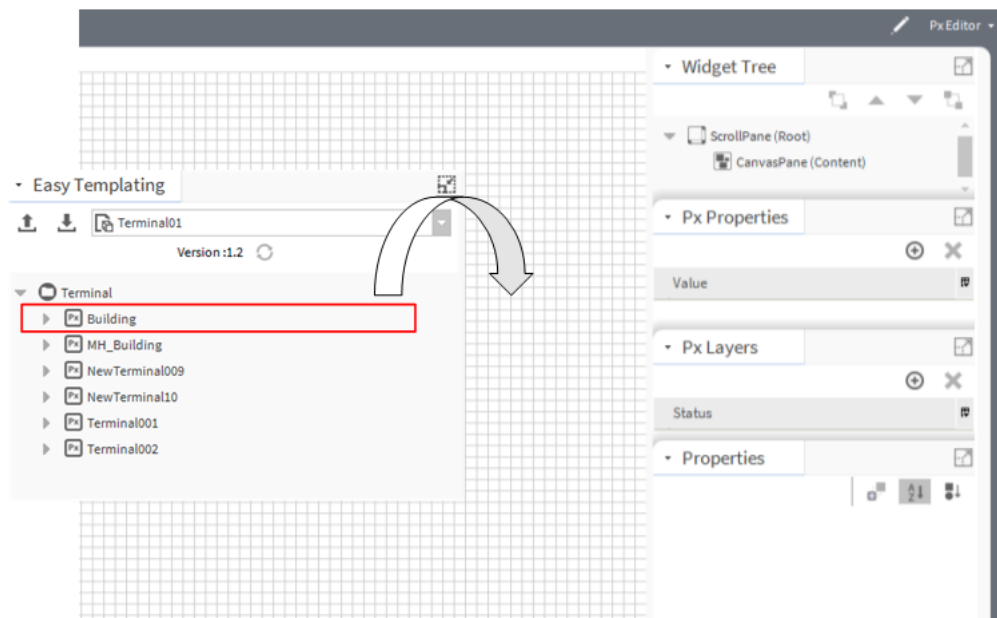
# EASY TEMPLATE

## About Easy Template

Easy Template allows you to use the Easy Template widgets to create templates on Niagara Px pages and deploy them. A template is a collection of graphical symbols that displays status, value, range, and history, these graphical symbols depend on the datapoints that are connected to the graphics.

**Note:** *Easy Templating is not supported on Niagara Programmed controller.*

A template is embedded with an intelligent search engine, when a template is deployed, it searches for datapoints to match. In order to work efficiently, it is recommended that the datapoints are structured or grouped in the station, this will help the template to find an exact match with the datapoints with limited, or no manual intervention, for more details see ["Using the Easy Templating Wizard" on page 13](#).



## Easy Templating features

- Allows a px page template to be created for specific equipment types.
- The template can be used on equipment of similar type.
- Helps to reduce the engineering required to create complex schematics page.
- Allows complex and normal templates.
- Templates can be easily shared between users.
- Templates are version-controlled.
- Allows easy maintenance of the projects to match the templates.

## Easy Templating limitation

- Multi language support is not available for ETCO.
- The template versioning is not applicable for the backup file. It is only for the internal use. For more details, refer [Template Versioning](#).

## Installation Requirements and Licensing

This section provides information about the system requirements and licensing process of the Easy Templating on a supervisor station. Make sure that you have working experience with Niagara 4 before using Easy Templating.

**Important:** *The current Easy Template feature is fully supported only on the supervisor environment running on recommended PC and Operating Systems declared in the product datasheet. This feature is not supported in an embedded controller environment.*

## System Requirements

- Niagara 4.9 or higher
- Web browser (Chrome, Firefox, Microsoft Edge)
- Windows 10, 64 bit or higher version
- [Easy Template Virtual Service](#) (To deploy virtual points on a px page)

### Related Documentation

- Niagara Platform Guide

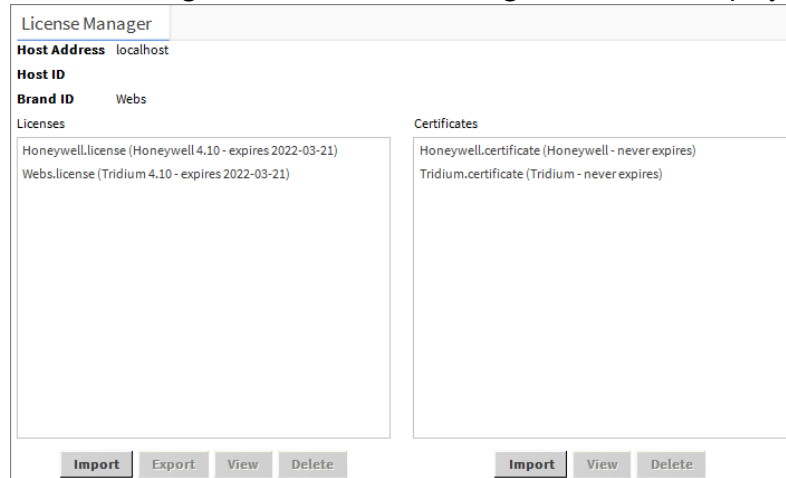
## License Easy Templating on a Supervisor Station

Before you install Easy Templating on a supervisor station you must add the Easy Templating license to the Niagara N4 license.

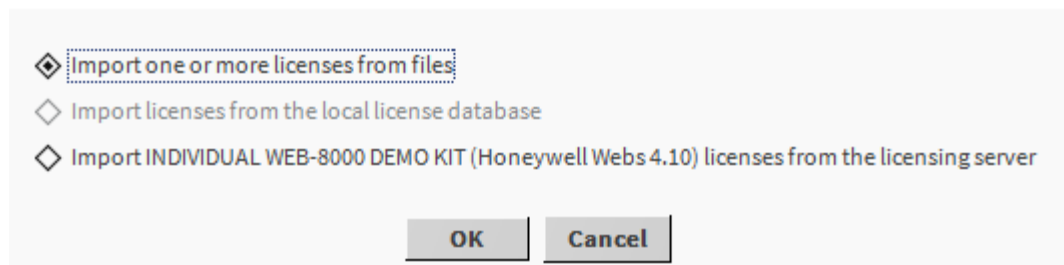
Contact your local distributor or customer support representative to obtain a license for Easy Templating.

### To install a license file on a supervisor station

Step 1. Run the supervisor **Platform**, in the **Nav tree** open the **Platform**, and select **License Manager**. The **License Manager** window is displayed.



Step 2. Select **Import** from the bottom of the **Licenses** section. The **Import License** window is displayed.

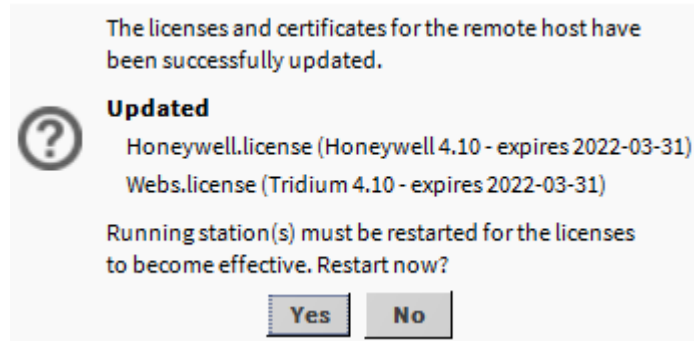


You can import the license files in three ways.

- **Import one or more licenses from files:** Import the license from the local file.
- **Import license from the local license database:** Import license from the local database. This option is only enabled when there is a local license database.
- **Import (Niagara 4.10) licenses from the licensing server:** Import the license from the licensing server if there are no licenses present in the local files and databases. When you select this option, the application displays the following window to restart the station.

**Note:** *Importing the supervisor license from the licensing server depends on the supervisor station type. For more details about Licensing workbench, refer to the Niagara documentation.*

Step 3. Select the required option and click **OK**.



Step 4. Click **Yes** to restart the station. Easy Templating feature available on supervisor workbench.

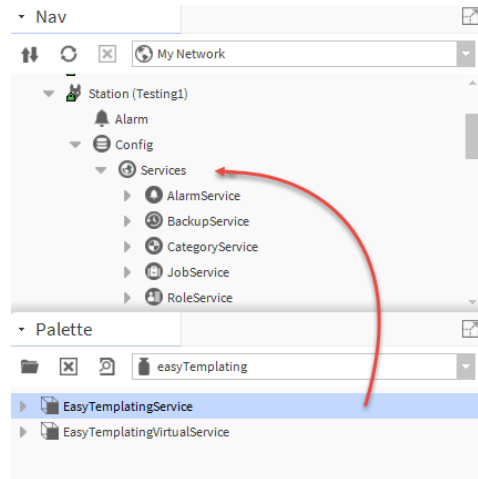


# Add the Easy Templating Service

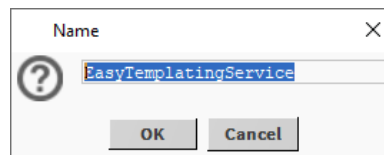
Follow the procedure below if your station's services folder does not contain the EasyTemplatingService.

**To add the EasyTemplatingService to the Station:**

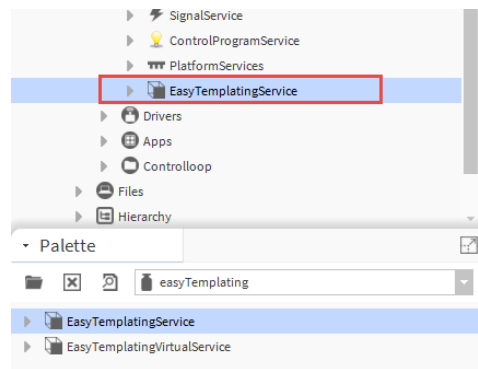
- Step 1. In the Nav Tree, expand the **Station > Config > Services** folder.
- Step 2. Open the **EasyTemplatingService** palette - see [Open the Easy Templating Palette](#).
- Step 3. Select the **EasyTemplatingService** from the palette and drag it to the Services folder.



The **Name** dialogue box is displayed.



- Step 4. Enter the required name.
- Step 5. Click **OK**. The **EasyTemplatingService** is added to the Services folder.



# Easy Template Virtual Service

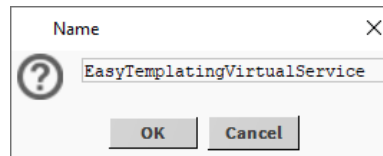
## About Easy Template Virtual Service

The Easy Template Virtual Service allows you to bind the virtual component's datapoints. It allows user to load the virtual properties of a controller / device on Easy template to be loaded and deployed on a PX page.

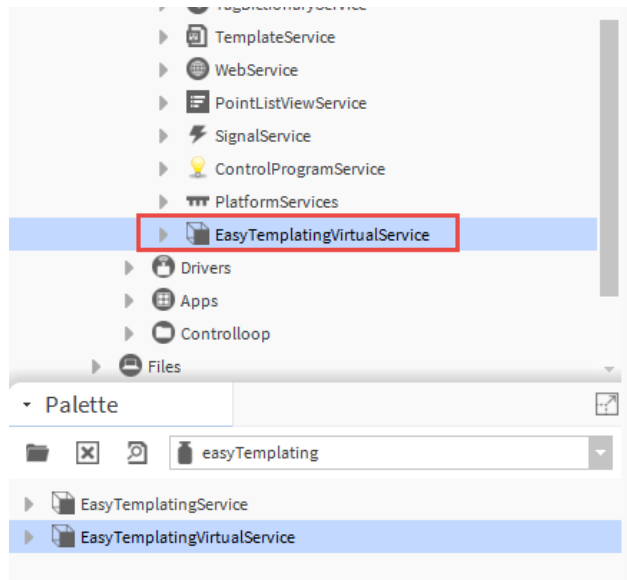
## Add the Easy template Virtual Service to the Station.

### To add the EasyTemplatingVirtualService to the Station

- Step 1. In the Nav Tree, expand the **Station > Config > Services** folder.
- Step 2. Open the **easyTemplatingService** palette - see [Open the Easy Templating Palette](#)
- Step 3. Select the **EasyTemplatingVirtualService** from the palette and drag it to the Services folder. The Name dialog box is displayed.



- Step 4. Enter the required name.
- Step 5. Click **OK**. The **EasyTemplatingVirtualService** service is added to the Services folder.

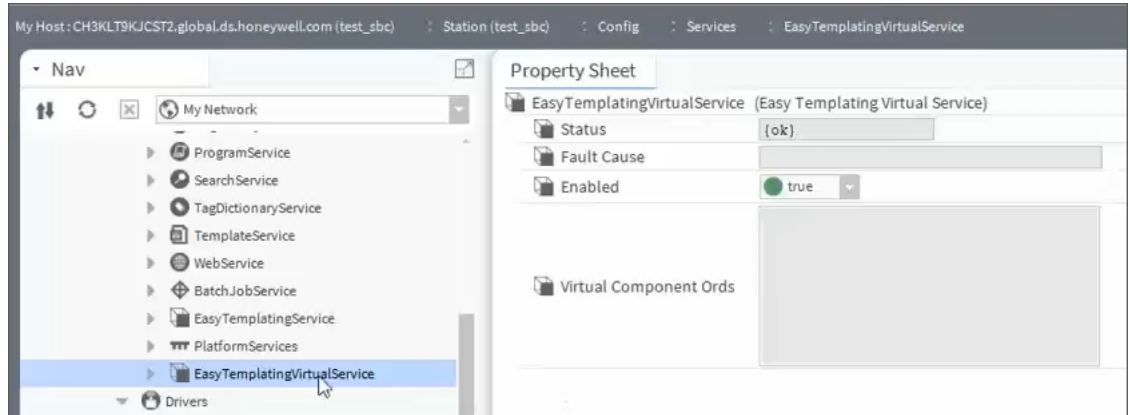


# Easy Template Virtual Service Properties

Users can view the Dashboard properties in the **EasyTemplatingVirtualService** Property sheet as shown below.

**To open the EasyTemplatingVirtualService Property sheet:**

- Step 1. In the Nav tree, open the **Station > Config > Services** folder.
- Step 2. Right-click the **EasyTemplatingVirtualService > Views** > select **AX property sheet**.



The properties are explained in the below table.

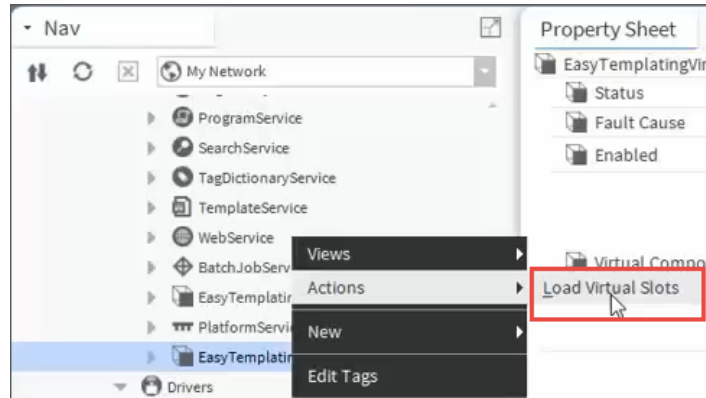
| Properties             | Description  |
|------------------------|--|
| Status                 | Read only. The status of the EasyTemplatingVirtualService.   |
| Fault Cause            | Read only. The reason why a system object (network, device, component, extension, etc.) is not working properly (in fault). This property is empty unless a fault exists |
| Enabled                | Enables/disables the EasyTemplatingVirtualService.   |
| Virtual Component Ords | To load the Virtual Component Ords from the remotely connected Controllers / Devices. For more details, refer <a href="#">Loading the Virtual Component Ords</a> .       |

# Loading the Virtual Component Ords

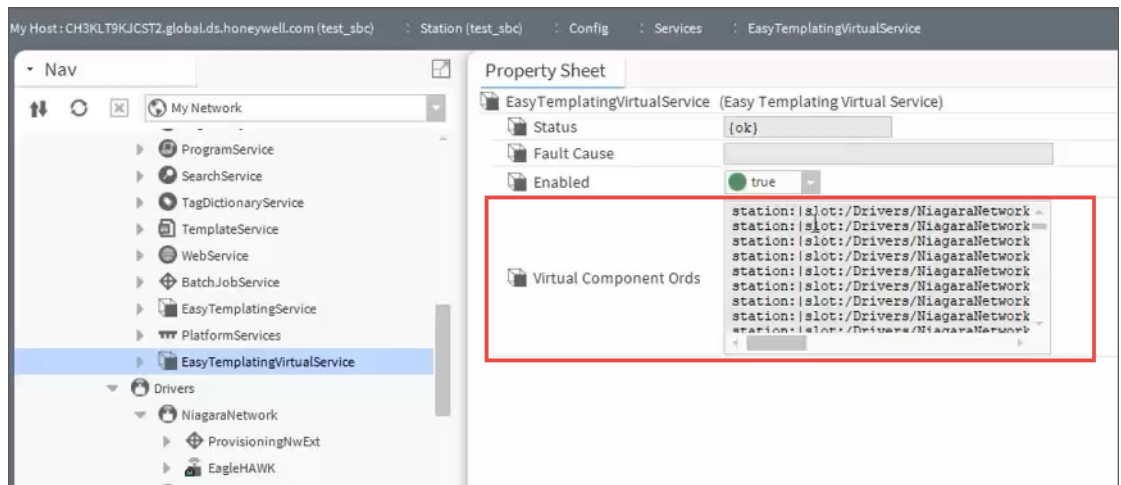
The virtual slots must be loaded manually before deploying the virtual related Easy template on a Px page.

## To load the Virtual Component Ords

- Step 1. In the Nav tree, open the **Station > Config > Services** folder.
- Step 2. Right-click **EasyTemplatingVirtualService > Actions > click Load Virtual Slots**.

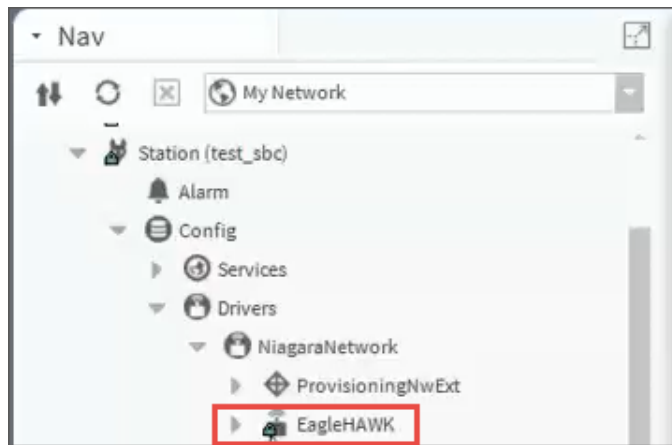


**Result:** This takes few seconds to load all the virtual component Ords from the remotely connected Controllers / Devices.



**Note:** Repeat the process above after configuration of controller / device is changed to load the latest Virtual component properties.

**Note:** To load the Virtual component properties, the Supervisor station gateway must be connected to a Controller / Device remotely.



*The Easy Templating Virtual service must be run every time a new device is added*

# Creating Templates

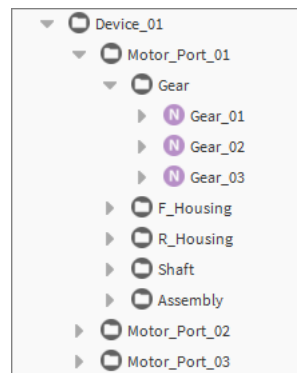
Templates are created by adding the required datapoints and graphics to a px page. When the template is deployed on a px page or an equipment, the search engine searches the station for the groups of datapoints with an exact or partial match with the datapoints in the template.

There are two types of templates.

- [Creating a Simple Template](#) – A simple template is created by adding required datapoints and graphics to a px page.
- [Complex Template](#) – A complex template is created by adding multiple simple templates (.etso template) to a px page.

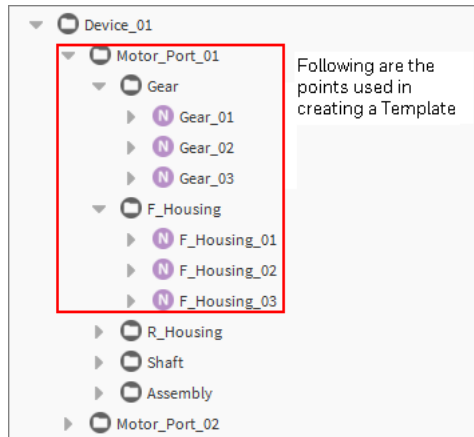
While creating the template, follow the following recommendations:

- Ensure that modules are consistently labelled in the controllers.
- Ensure that Display and Directory modules are used to organize the modules (Trend sites only).
- Ensure that the datapoints and graphics are kept in a structured/grouped manner in Niagara folders in the station. This allows the template to find an exact match with no or little manual intervention.

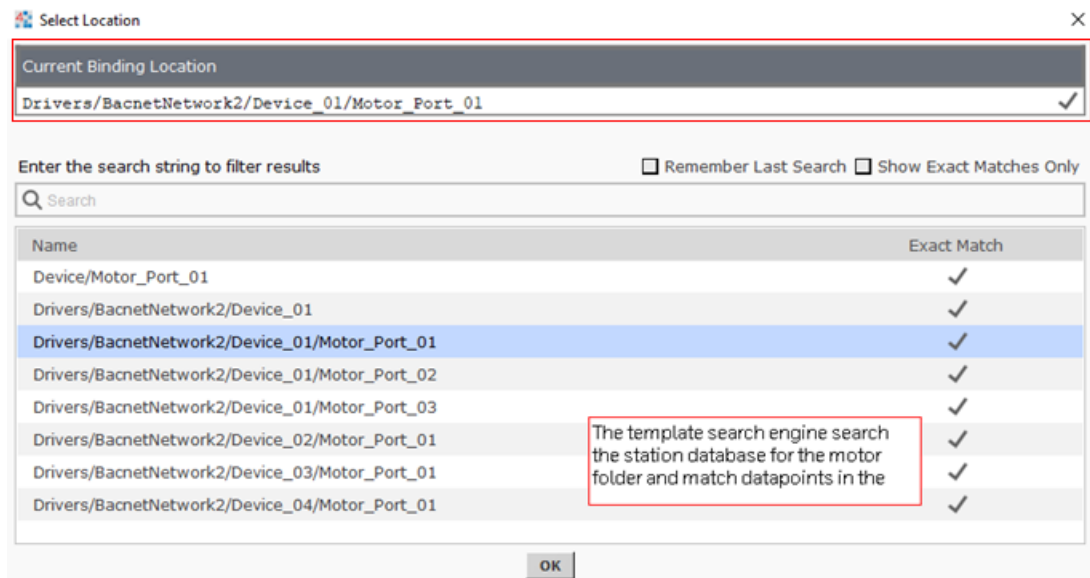


- Don't move or delete the datapoints once they have been discovered.

**Example:** When all the datapoints associated with a motor are kept in the motor folder and you create a template for the motor using datapoints in the motor folder.



When you deploy the motor template, the template search engine will search the station database for the motor folder and match datapoints in the folder with the datapoints with the template. After the search completes, it displays the list of all the matched datapoint location w in the Select Location window. This is only necessary if there is not an exact match.



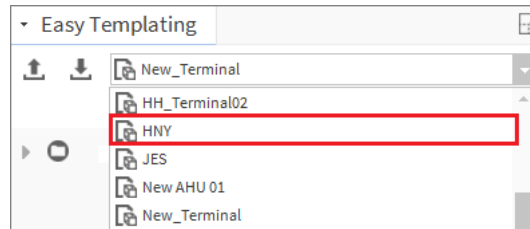
To create a template that contains graphical datapoints, It is recommended that you use the Easy Binding tool. This allows you to easily bind various datapoints with graphic symbols on a Px page. For more details about the Easy Binding feature, refer to the Easy Binding - Installation and Operation Guide - 31-00404.


## Creating a Simple Template

A simple template is created by adding the required datapoints and graphics to a px page and then using the Easy Template wizard to create the template.

### **To create a simple template**

- Step 1. Open the px page that is to be used to create the template in edit mode. For more details on creating a px page, refer to the Niagara documentation.
- Step 2. Add the required datapoints and graphics to the px page.
- Step 3. Once the required datapoints and graphics have been added to the page, click **Save**.
- Step 4. Select **Tools > New Easy Template** to display the **New Easy Template** window.
- Step 5. Follow the process described in [Creating Templates](#), and when prompted select the px page created above.
- Step 6. After creating the template, [Open the Easy Templating Palette](#) and check that the simple template has been added to the list.



| Icon  | Description  |
|---|--|
|  | Indicates simple object template. The file extension for the simple template is (.etso). |

## Complex Template

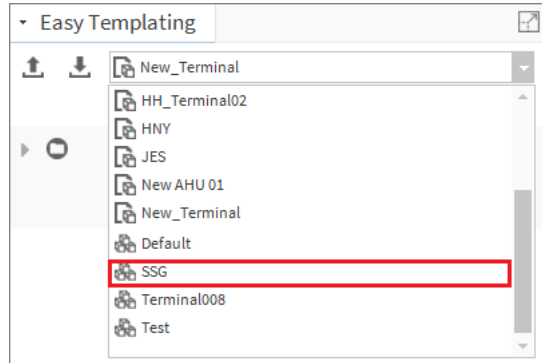
A complex template is created by adding multiple simple templates (.etso template) to a px page and then using the Easy Template wizard to create the complex template.


### **To create a complex template**

- Step 1. Create the required simple templates, see [Creating a Simple Template](#).
- Step 2. Create or Open the px page that is to be used to create the template in the edit mode, for more details on creating a px page, refer to Niagara documentation.
- Step 3. Open the **Easy Templating** palette, see ["Open the Easy Templating Palette" on page 27](#).
- Step 4. Drag all the simple templates that are to be used to create the complex template from the Easy Templating palette on to the Px page.
- Step 5. Once the required simple templates have been added to the px page, click **Save**.



- Step 6. Select **Tools > New Easy Template** to display the **New Easy Template** window.
- Step 7. Follow the process described in [Creating Templates](#), and when prompted select the px page created above.
- Step 8. After creating the template, [Open the Easy Templating Palette](#) and check that the complex template has been added to the list.



| Icon  | Description  |
|---|--|
|  | Indicates a complex object template. The file extension for a complex template is (.etco). A complex object template is the combination of multiple simple templates (.etso template). |

**Note:** Each px page is limited to have one complex template.

## Using the Easy Templating Wizard

Templates are created using the Easy Templating wizard which converts a PX page that has already been created.

It is recommended that the template contains common features required on each page e.g. a logo, outside temperature, navigation buttons, etc. It is also recommended that you create multiple folders to store all the operator views, common views, control programs, or any images used on the pages.

The px pages are stored in the Niagara file structure but linked to the element where the view has been attached. For more details about creating px pages and datapoint configuration refer to the Niagara documentation.

**Important:** It is recommended that you create a set of libraries with unique graphics or templates.

**Example:** If you are creating an AHU template, then select the required graphics and template for the AHU template. Keeping the graphics and template in the library reduces the manual engineering required when using the template.

### To use the Easy Templating Wizard

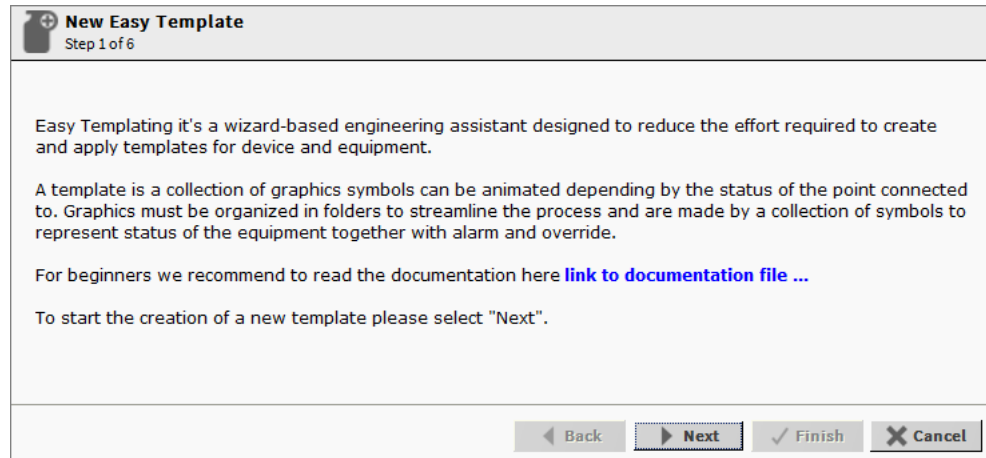
- Step 1. Create the required templates, see [Creating a Simple Template](#) or [Complex Template](#).

### **To create an Easy template for virtual points**

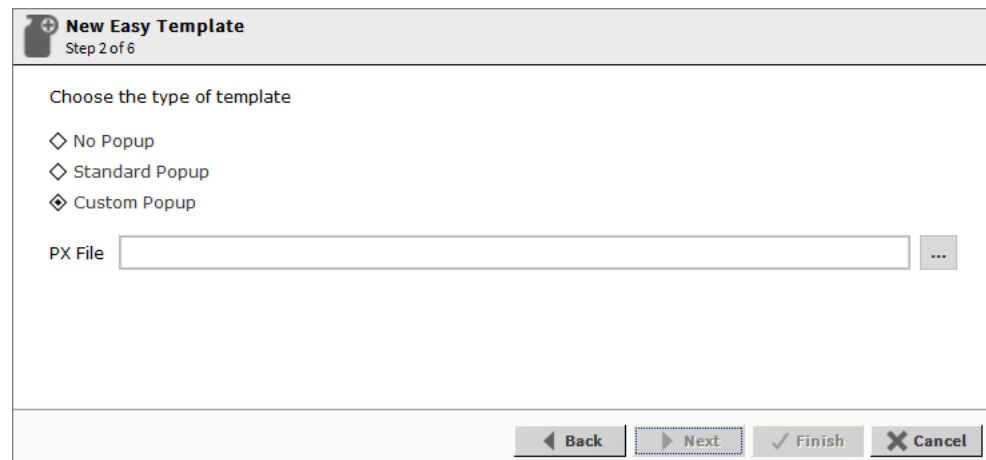
- Add the EasytemplateVirtualService to the station - see [Add the Easy template Virtual Service to the Station](#).
- Load the virtually slots - see [Loading the Virtual Component Ords](#)

Step 2. Open the Px page in edit mode.

Step 3. Select **Tools > New Easy Template**. The **New Easy Template** window is displayed.



Step 4. Click **Next**.



Step 5. Select the required template type. The template type allows you to choose the popup view on the template, which is linked to the px page while creating the template.

| Popup view on Template Type | Description  |
|-----------------------------|--|
| <b>No Popup</b>             | If the user selects the <b>No Popup</b> option, then even though the popup is linked to the px page, this option removes popup binding from the px page. |

| Popup view on Template Type | Description   |
|-----------------------------|---|
| <b>Standard Popup</b>       | If the user selects the <b>Standard Popup</b> option, then the popup which is linked to the px, set Point List View as a default view for the popup, while creating the template. |
| <b>Custom Popup</b>         | If the user selects the <b>Custom Popup</b> option, then the popup is linked to the px, set user-defined view as a default view for the popup, while creating the template.       |

- Step 6. Click ... and select the Px page on which the template is to be based.
- Step 7. Click **Save**.
- Step 8. Click **Next**, the wizard changes.

- Step 9. Enter the template's name in the **Name** field.

**Note:** If you enter a template name, which already exists in the selected library folder, a warning will be displayed in step 5 of 6 window.

- Step 10. Click **Next**, the wizard changes.

- Step 11. Specify the library folder for the template.

- To create a new library: Select the Create a new library folder option, enter the name of the library in the Name field and click Next. The wizard changes.

**Note:** If you enter an existing library name, a warning is displayed — enter the unique library folder name.

Or

To update an existing library, select the **Select an existing library folder** option, enter the name of the library in the **Name** search field, select the library from the search result and click **Next** the wizard changes.

The screenshot shows a wizard window titled "New Easy Template" at "Step 5 of 6". It has two radio button options: "Create a new destination folder" (selected) and "Select an existing destination folder". Below these is a text field labeled "Folder" containing the text "AHU Terminal". At the bottom right, there are four buttons: "Back", "Next" (highlighted with a blue border), "Finish", and "Cancel".

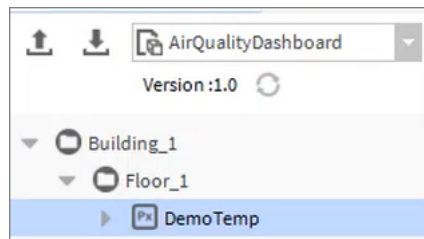
Step 12. Specify the destination folder for the template. To create a new folder: Select the Creating a new destination folder option, enter the folder name in the Folder field, and click **Next**. The wizard changes.

**Note:** If you enter an existing destination folder name, a warning note will be displayed — enter unique destination folder name. To create a subfolder inside the destination folder type / after the destination folder name, and then enter the subfolder name. Multilevel subfolders can be created by entering / after the subfolder name and then entering the next level subfolder.

For example:

The screenshot shows the same wizard window as above, but the "Folder" field now contains "Building\_1/Floor\_1/". A red rectangular box highlights the text in the field. To the right of the field, there is a red text note: "Enter sub folder name after '/' Ex.(ParentFolder/SubFolder)". The "Next" button is still highlighted.

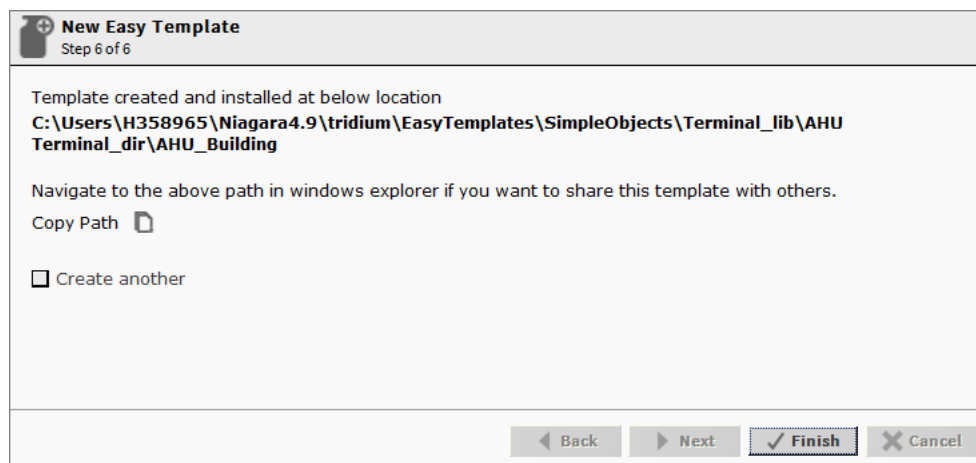
After creating the template. Go to Easy Templating Palette and open the library to verify the subfolder.




Or

To update an existing folder, select the **Select an existing destination folder** option, enter the existing destination folder name in the **Name** search field, select the destination folder from the search result and click **Next**. The wizard changes.

All the libraries are saved in the destination folder and the wizard changes.



Step 13. To copy the path, click  (copy path icon). This helps you locate the path of the template. It also allows you to share the location with other engineers.

Once copied you can paste it into windows explorer to access the library folder in windows explorer.

If you want to continue and create more templates, select **Create another**.

Step 14. Click **Finish**.

The template will be created. If the **Create another** option was selected the **New Easy Template** wizard will take you to the step "3 of 6" window, enter the new template name and repeat the process.

# Using a Template

There are two ways to deploy (use) a template.

- Standard deployment
- Targeted deployment

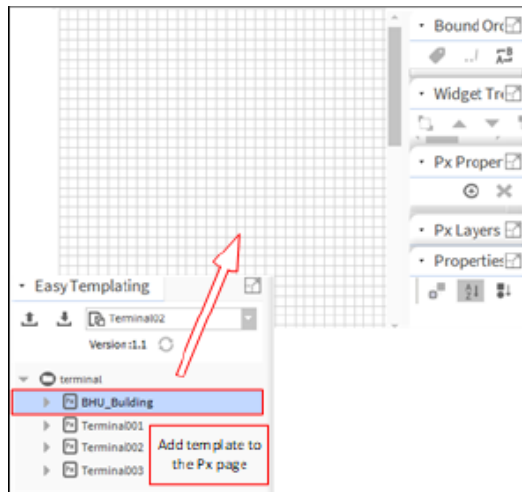
## Standard Deployment

In the standard deployment, the required template is added to the px page.

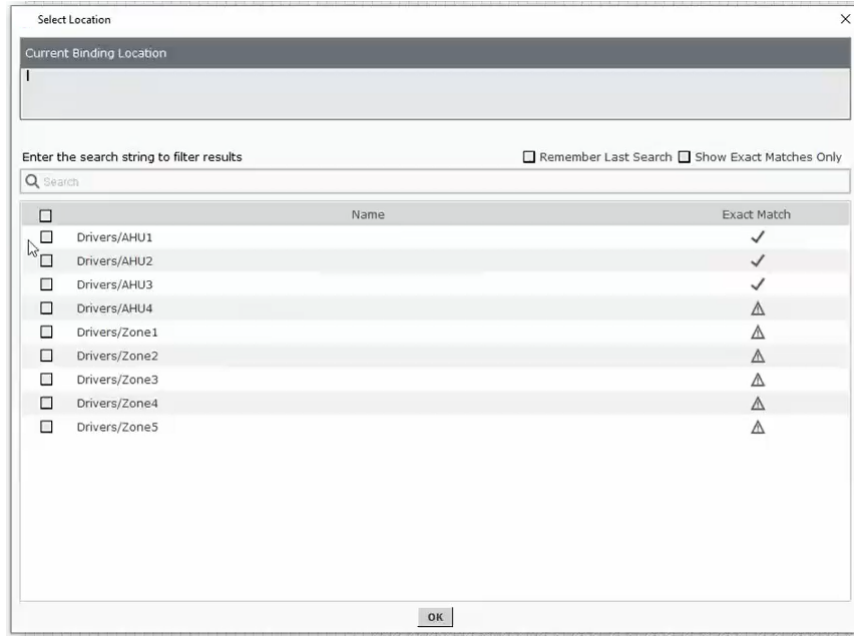
## Standard Deployment using Simple Template

**To deploy a simple template on a px page**

- Step 1. Open the px page in edit mode.
- Step 2. Open the **Easy Templating** palette and select the required simple template from the palette window, refer to [Open the Easy Templating Palette](#).
- Step 3. Drag the required simple template from the **Easy Templating** palette to the px page.



The **Current Binding Location** window displayed. This displays list of all the networks whose points are bound to template.

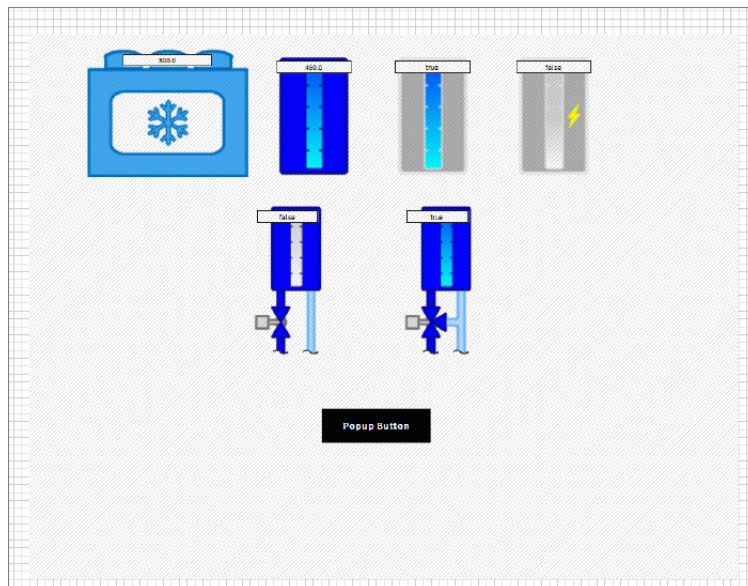


Step 4. Select required network from the list and click **OK**.

**Note:** The list of networks can be filtered by entering the network name in the search field. If you check the Show Exact Matches Only option, then it will display only those networks, whose source points extensions are match with target extension points.

*Unresolved points may occur. You must resolve the network manually, see Resolving Simple Template Binding Issues*

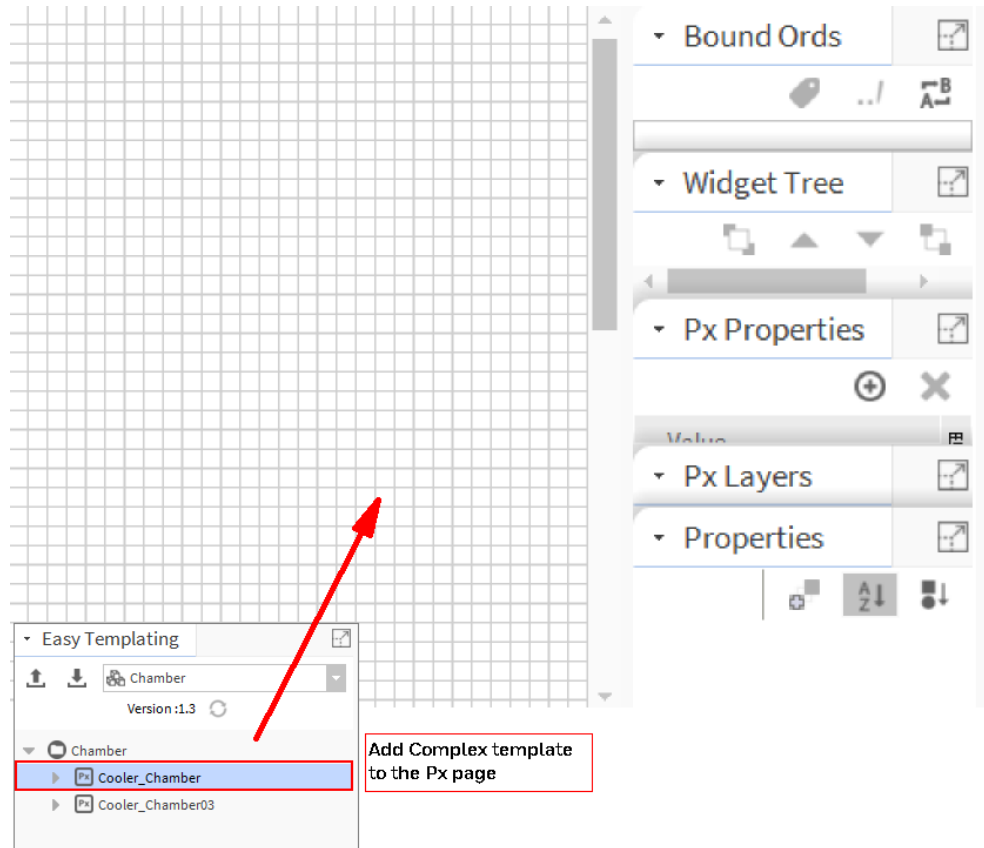
Once the template has been added to the px page, you can position or resize the items as required. After the changes are completed, save the px page.



# Standard Deployment using Complex Template

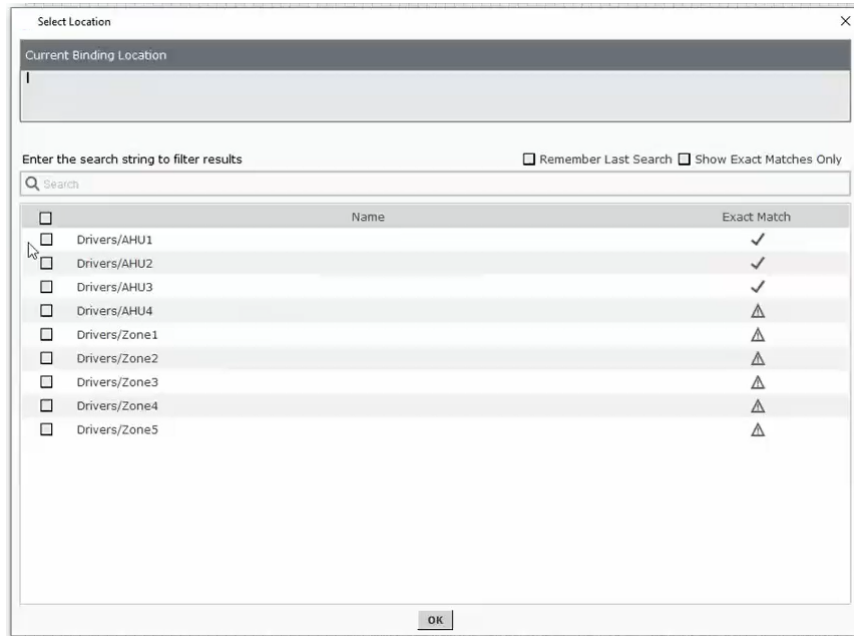
## To deploy a complex template on a px page

- Step 1. Open the px page in edit mode.
- Step 2. Open the **Easy Templating** palette and select the required complex template from the palette window, refer to [Open the Easy Templating Palette](#).
- Step 3. Drag the required complex template from the **Easy Templating** palette to the px page.

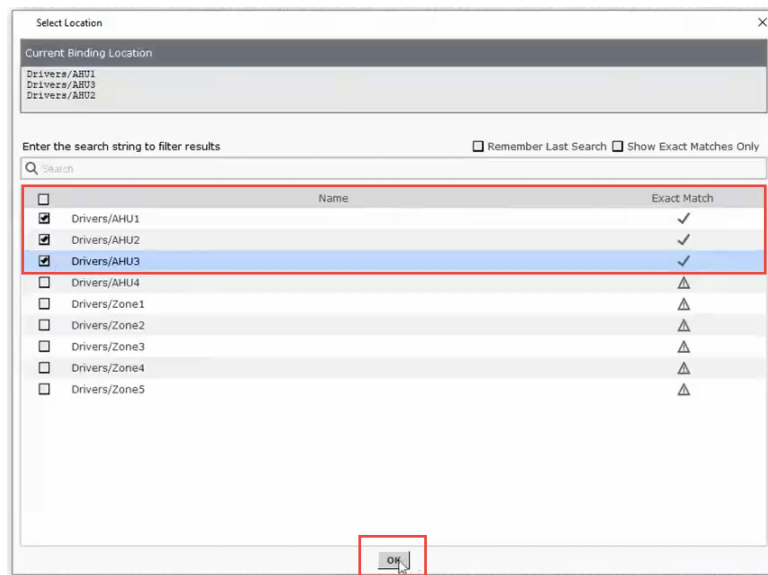




The **Current Binding Location** window is displayed. This displays the list of all the networks whose points are bound to the template.



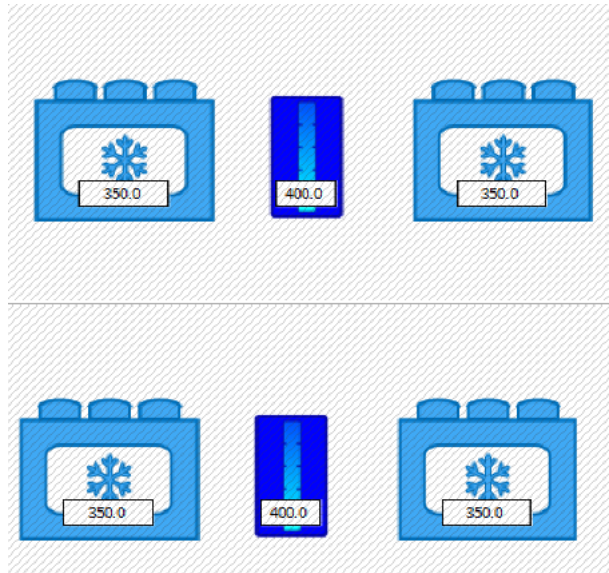
Step 4. Select the required network from the list and click **OK**.



**Note:** The list of networks can be filtered by entering the network name in the search field. If you check the **Show Exact Matches Only** option, then it will display only those networks, whose source points extensions are match with target extension points.

Unresolved points may occur. You must resolve the network manually, see ["Resolving Complex Template Binding Issues"](#) on page 44

Once the template has been added to the px page, you can position or resize the items as required. After the changes are completed, save the px page.



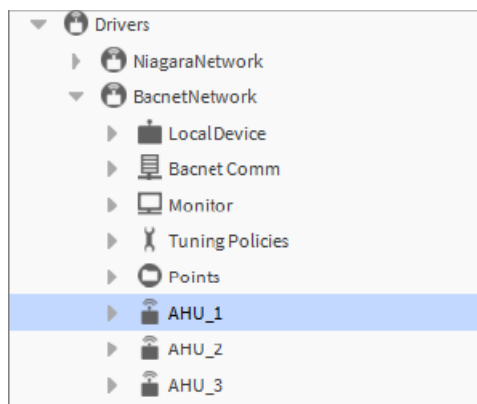
## Targeted Deployment

In the targeted deployment, you add a required template to the selected equipment.

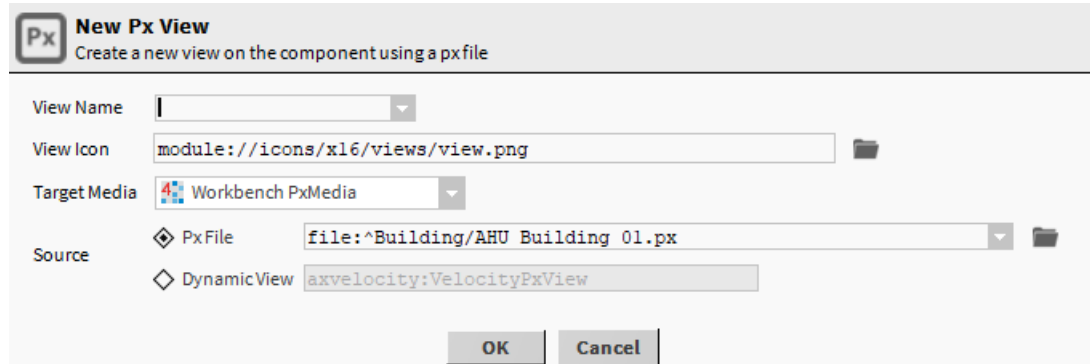
### Targeted Deployment using Simple Template

#### To deploy a Simple Template on an equipment

- Step 1. In the **Nav** tree open the **Drivers** folder then open the folder containing the equipment to which the template is to be added and locate the required piece of equipment.



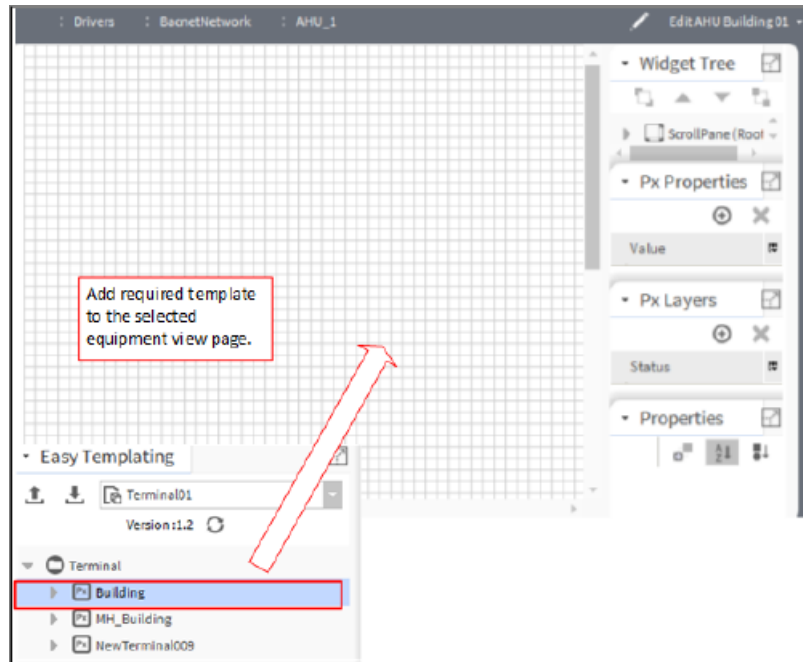
Step 2. Right-click the equipment and select **Views > New Views**. The New Px View dialogue box is displayed.



Step 3. In the **View Name** box, select the view's name and click **OK**. This opens the px view of the equipment that has just been created.

Step 4. Open the **Easy Templating** palette and select the required simple template from the palette window.

Step 5. Drag the simple template from the **Easy Templating** palette on the px view.



The **Current Binding Location** window is displayed. This window displays the list of all the networks whose datapoints are bound to the template. **Filter on Current View** option enabled as the default setting, this will display only the datapoints that are linked to selected equipment. If you uncheck the **Filter**

on **Current View** option, then it will display all datapoints from other equipment.

| Current Binding Location  |             |
|---|-------------|
| Bangalore/ITCHotel/Building_1/Floor_1 ✓   |             |
| Enter the search string to filter results <input checked="" type="checkbox"/> Filter On Current View <input type="checkbox"/> Show Exact Matches Only |             |
| Q Search  |             |
| Name  | Exact Match |
| Bangalore/ITCHotel/Building_1/Floor_1   | ✓           |
| Bangalore/ITCHotel/Building_1/Floor_2   | ✓           |
| Bangalore/ITCHotel/Building_2/Floor_1   | ✓           |
| Bangalore/ITCHotel/Building_2/Floor_2   | ⚠           |

Step 6. Select the required network from the list and click **OK**.

**Note:** The list of networks can be filtered by entering the network name in the search field. If you check the **Show Exact Matches Only** option, then it will display only those networks, whose source points extensions match with target extension points.

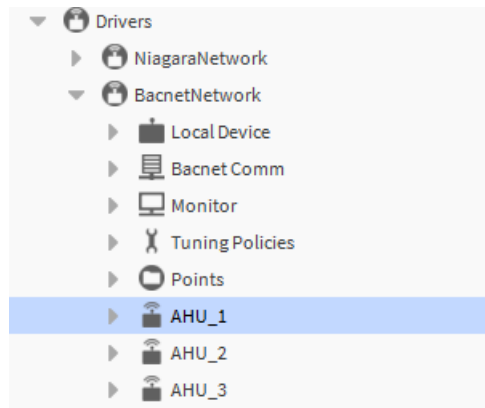
Unresolved points may occur in the list. You must resolve the network manually, see ["Modify Point Binding" on page 34](#). You can also modify the template to fix the issue, see ["Resolving Simple Template Binding Issues" on page 41](#).

Once the template is added to the px page, you can position or resize the items as required. After the changes are completed, save the px page.

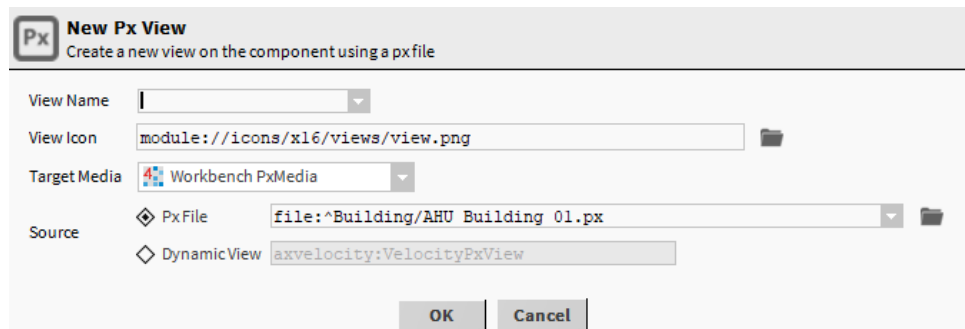
## Targeted Deployment using Complex Template

### To deploy a Complex Template on an equipment

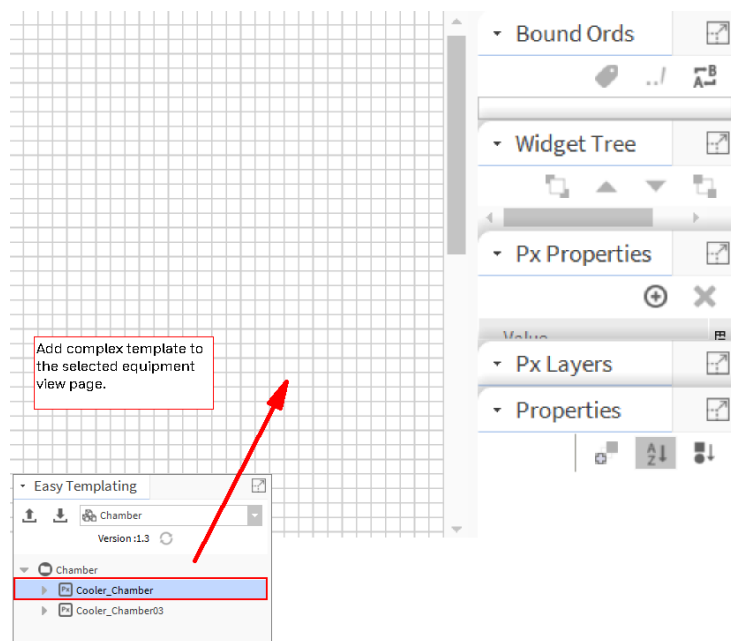
Step 1. In the **Nav** tree open the **Drivers** folder then open the folder containing the equipment to which the template is to be added and locate the required piece of equipment.



- Step 2. Right click the equipment and select **Views > New Views**. The **New Px View** dialogue box is displayed.



- Step 3. In the **View Name** box, select the view's name and click **OK**. This opens the px view of the equipment that has just been created.
- Step 4. Open the **Easy Templating** palette and select the required template from the palette window.
- Step 5. Drag the complex template from the **Easy Templating** palette on the px view.



The **Current Binding Location** window is displayed. This window displays the list of all the networks whose points are bound to the template.

| Name                   | Exact Match |
|------------------------|-------------|
| BacnetNetwork/Points   | ✓           |
| BacnetNetwork02/Points | ✓           |
| NiagaraNetwork         | ✓           |

Step 6. Select the required network from the list and click **OK**.

**Note:** The list of networks can be filtered by entering the network name in the search field. If you check the **Show Exact Matches Only** option, then it will display only those networks, whose source points extensions match with target extension points.

If you want to display the datapoints which are linked to the current view only select the **Filter on Current View** option.

Unresolved points may occur in the list. You must resolve the network manually, see "[Modify Point Binding](#)" on page 34. You can also modify the template to fix the issue, see "[Resolving Complex Template Binding Issues](#)" on page 44

Once the template is added to the equipment, you can position or resize the items as required. After the changes are completed, save the px view.

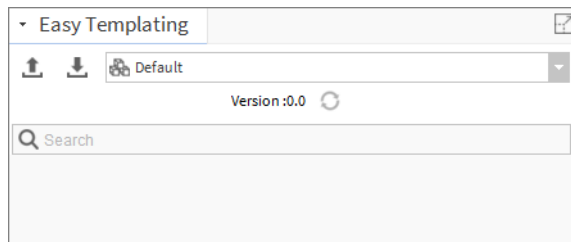
# Common Easy Templating Operations

- [Open the Easy Templating Palette](#)
- [Share a Library](#)
- [Easy Templating features](#)
- [Modify Point Binding](#)
- [Resolve binding Issues](#)

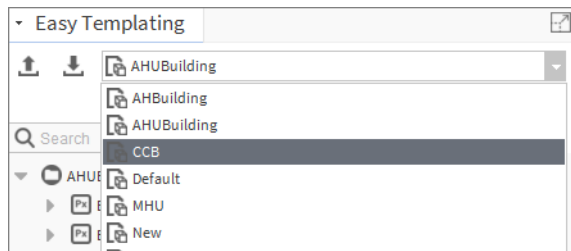
## Open the Easy Templating Palette

To open Easy Templating Palette

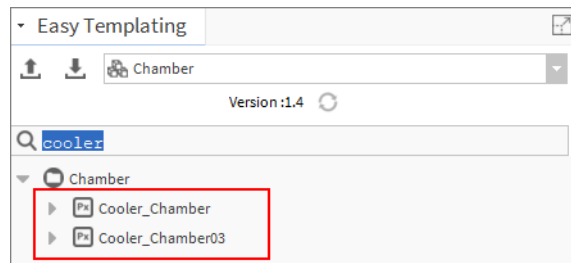
- Step 1. Select **Windows > Side Bars > Easy Templating**. The **Easy Templating** palette is displayed.



- Step 2. Select the required template library from the drop-down list.



To search for a specific template: Enter the template name in the search option, the template will be displayed in Easy Templating palette window.



# Share a Library

To share a template with others it must be exported, and they must then import it.

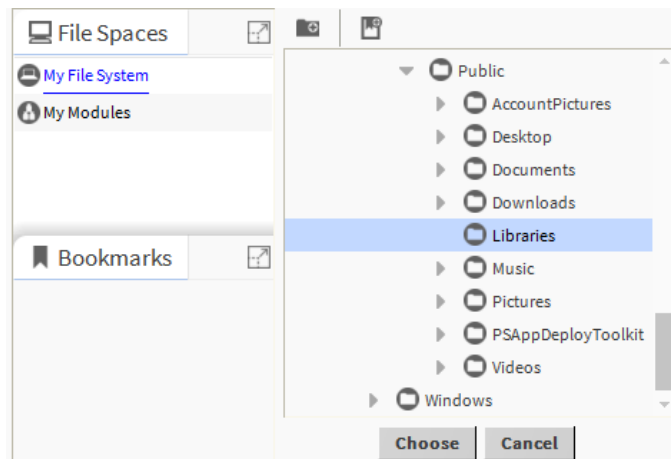
[Export a Library](#)

[Import a Library](#)

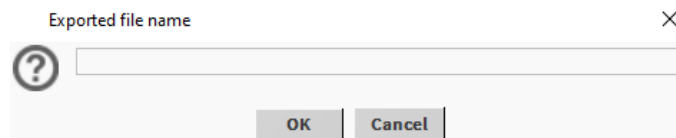
## Export a Library

### To export a Library

- Step 1. Open the required template from Easy Templating Palette and click  (export icon). The **Directory Chooser** is displayed.



- Step 2. Select the folder to which the template is to be exported and click **Choose**. The **Exported file name** dialogue box is displayed.



- Step 3. Specify the required filename and click **OK**.
- Step 4. Once the export is complete, a confirmation dialogue box is displayed, click **OK**.



# Import a Library

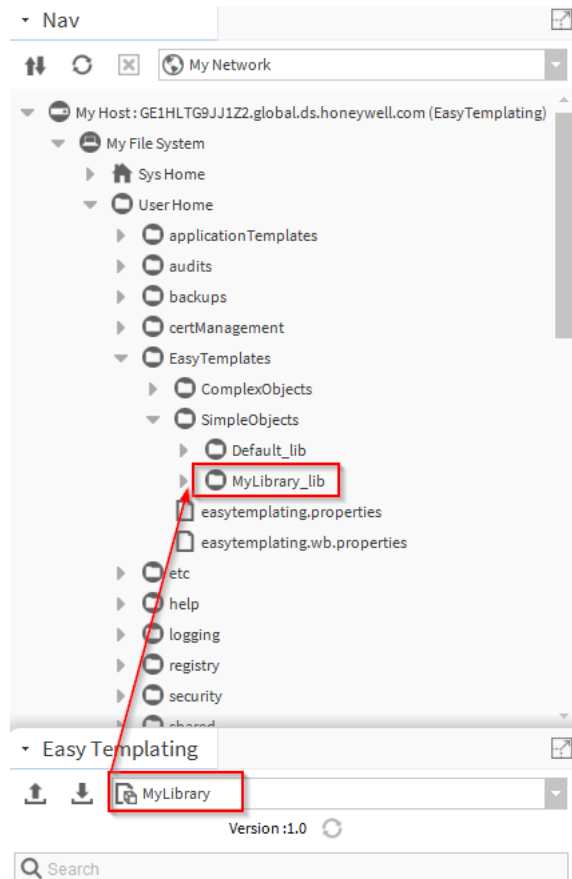
## Easy Templating file locations

There are two directories relevant during the work with templates:

- [Library Location](#)
- [Station Location](#)

## Library Location

After creating a new Easy Templating library, it can be found in the workbench home directory: **C:\Users\LoggedUser\Niagara4.xx\Brand\EasyTemplates**



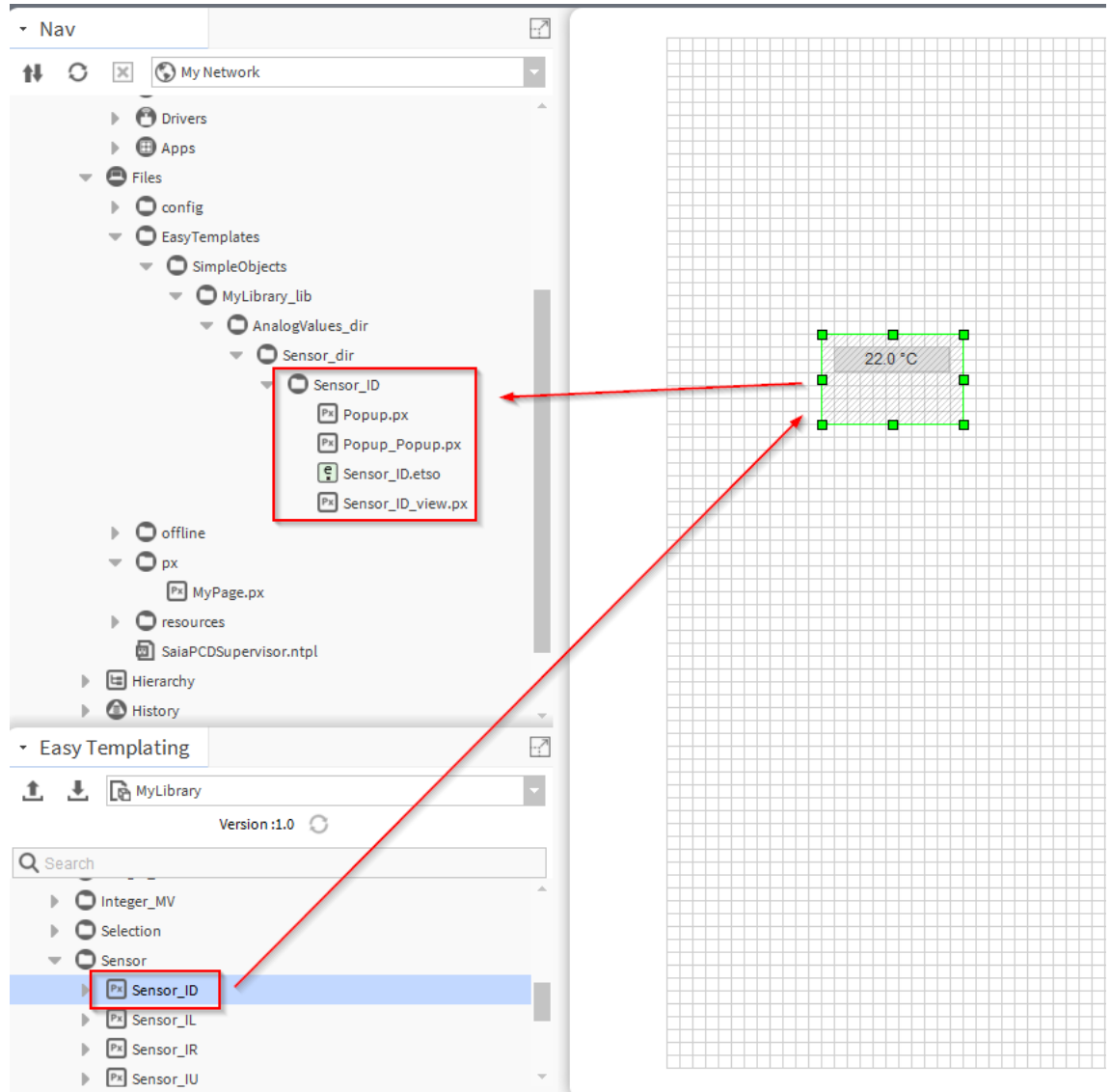
This is the location where all the imported libraries are stored. Depending on the template type – either Simple Object or Complex Object, it will be stored in the respective Easy Templating subdirectory.

## Station Location

Once an Easy Template is placed on a px page, the service generates a new folder named 'EasyTemplates.'

The station's files directory for Easy Templates is

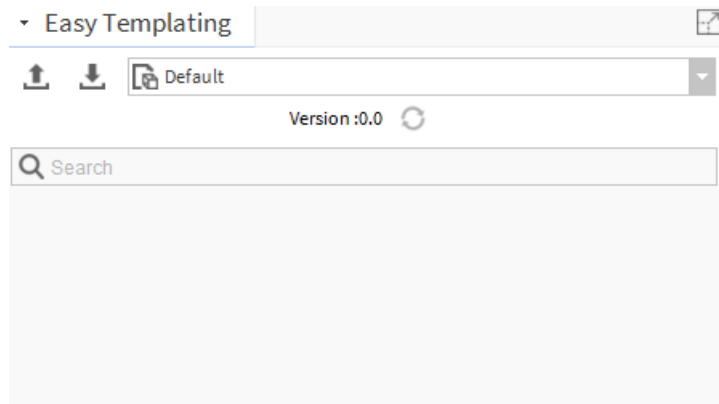
**C:\ProgramData\Niagara4.xx\Brand\stations\YourStation\shared\EasyTemplates.**



**Note:** This is the working directory of your station. Any change in the working directory will be applied directly to all px pages where the template was used.

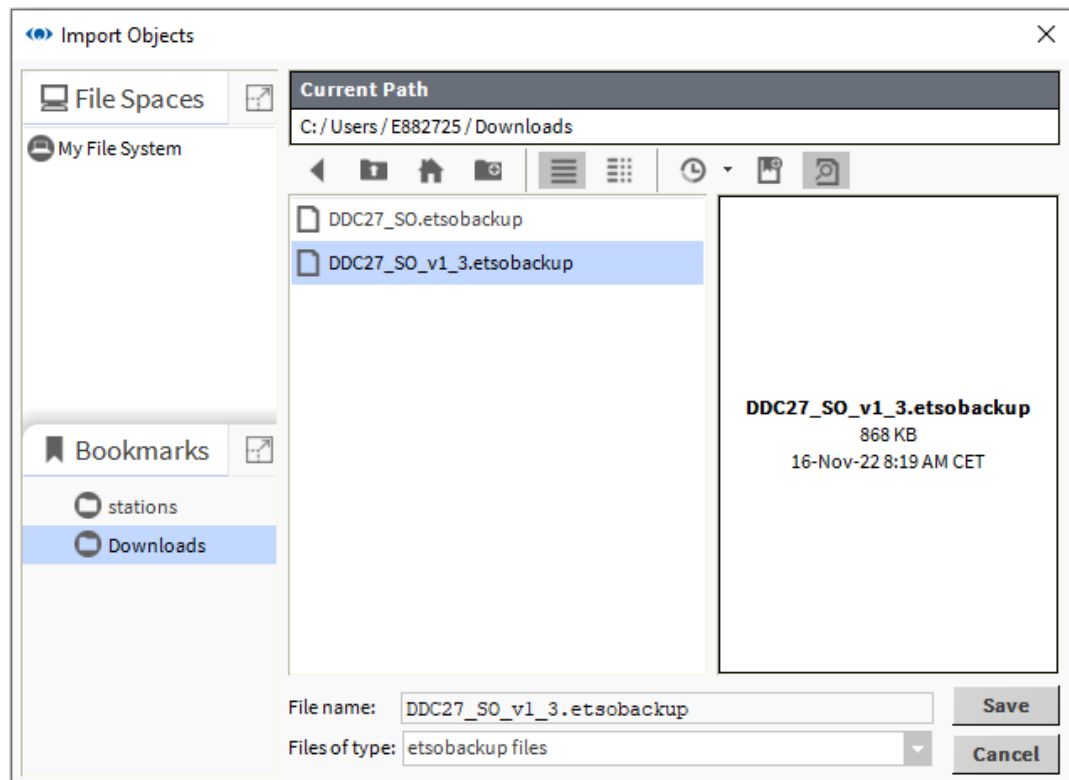
## To import a Library

Step 1. Open the *Easy Templating Palette* and click  (import icon).



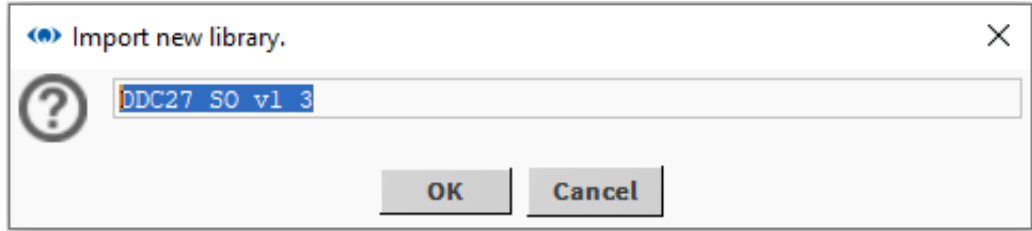
Step 2. Navigate to the folder containing the exported template.  
In the Files of Type box, select the required file type to specify the type of template that is to be imported.  
\*.etsobackup file = simple template.  
\*.etcobackup file = complex template.

Step 3. Select the template that is to be imported.



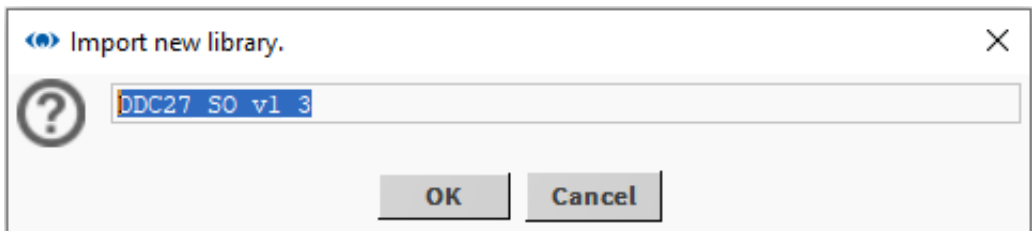
Step 4. Click **Save**.

Step 5. The **Import new library** dialog is displayed. Rename the library as per requirement.

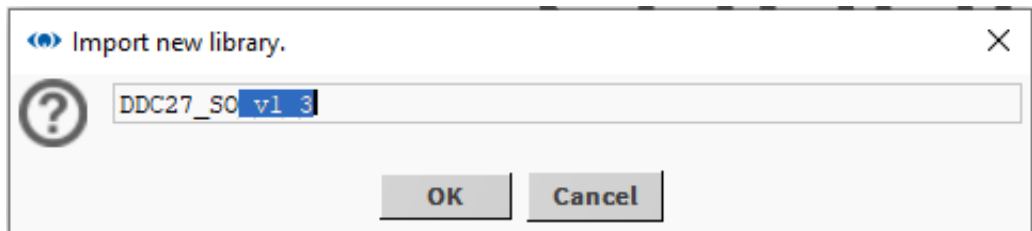


**Note:** There are two possible ways of renaming:

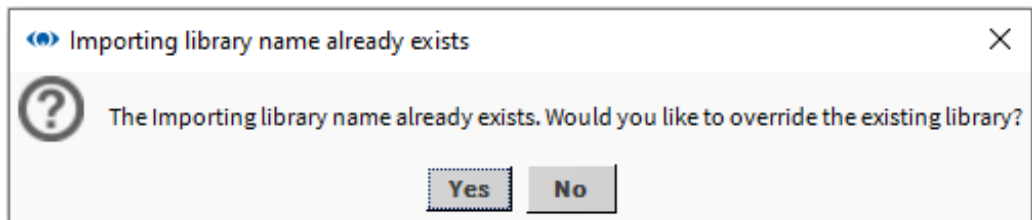
- Using the default name.
- Using an existing library name.
- **Using the default name:** Using the default name, which is not there yet in the Easy Templating palette, will import as a new library and does not override the existing template.



- **Using an existing library name:** Using an existing library name will override the existing library.

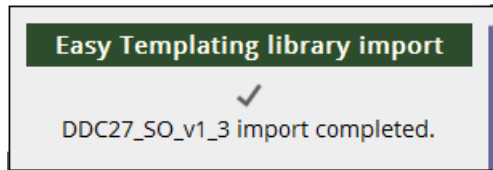


- A confirmation dialog pops up to override the existing library. Click Yes to proceed.

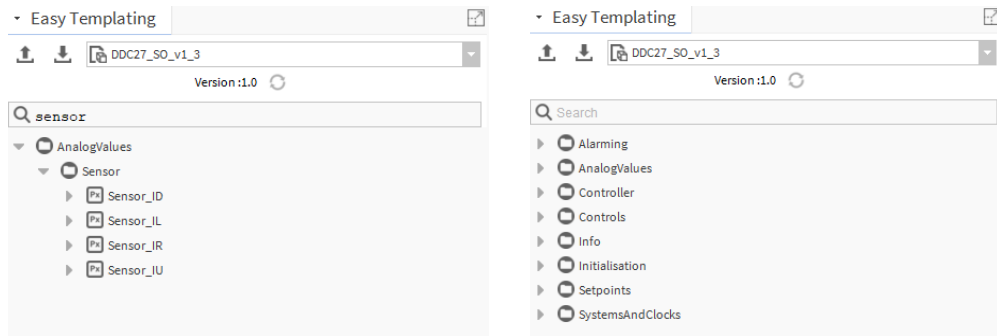


- The imported library is stored under the below location:  
**C:\Users\LoggedUser\Niagara4.xx\Brand\EasyTemplates**

- Step 6. When the import is complete, a confirmation message box displayed on right side bottom of Niagara Workbench and the imported template will be added to the Easy Templating palette list.



- Step 7. The new library created can be checked in the easy templating library. The difference can be seen when this new library is placed on the px page. For example, the image below shows the differences between before and after import (overridden to an existing template).



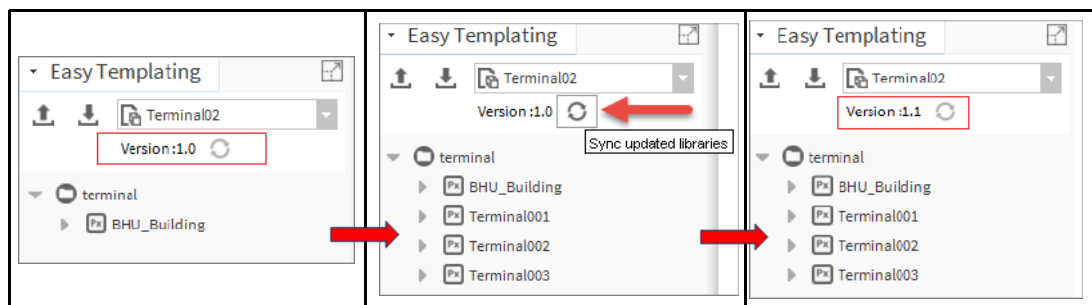
**Existing Template before Import      Template after Import (Overridden)**

## Template Versioning

Template versioning helps you to identify the number of times a template has been changed. When you modify or add new datapoints to the template, the template will automatically update the template version on your workbench.

**Example:** A template is created at version 1.0 created on your workbench. It is then modified by adding new graphics and datapoints. The next time you open the template, the version of the template will be 1.1.

Template versioning also helps you to resolve issues in the template. If a template is not working correctly, you can identify the root cause of the issue by verifying the changes that have been made to the template.



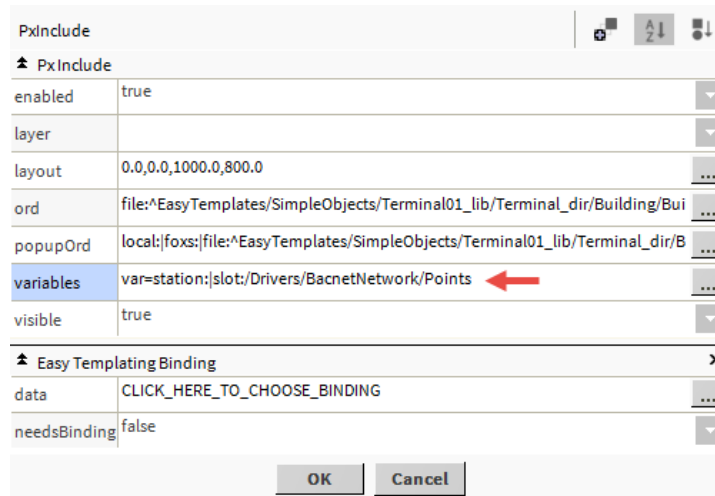
**Note:** The template versioning is not applicable for the backup file. It is only for the internal use.

# Modify Point Binding

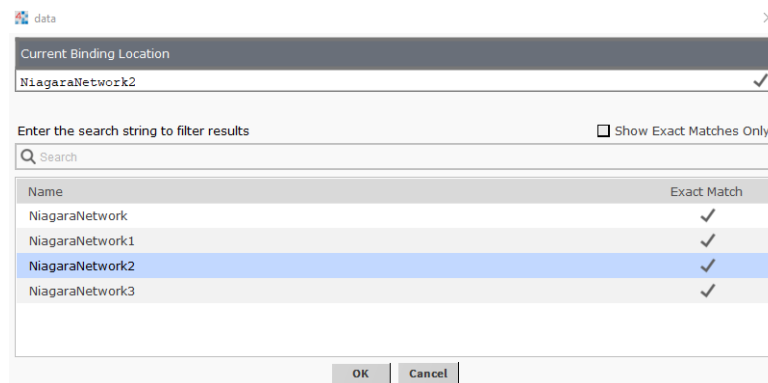
Once a template has been added to a page you can modify the datapoints bound to the px page.

## To modify point binding

- Step 1. Open px page in the edit mode.
- Step 2. Double-click on the datapoint that is to be modified. The property sheet of the datapoint is displayed. In the image below you can see the datapoint is linked to a BacnetNetwork point.



- Step 3. Click **CLICK\_HERE\_TO\_CHOOSE\_BINDING** to change the binding of the datapoint.



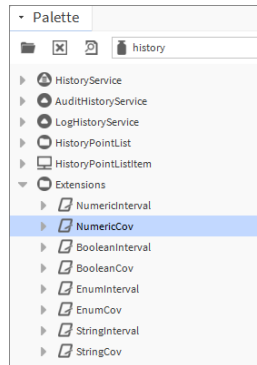
- Step 4. Select the new datapoint to be bound point on the Px page. To search for the data point enter the name of the datapoint that is to be used for the new binding in the search field.
- Step 5. Click **OK**.

# Binding the History Datapoints

Easy Template allows you to bind history datapoints extension. Extensions come in different types to match the data type of the equipment. You can add an extension to an equipment by dragging the extension onto your Property Sheet or onto the Nav tree pane from the history palette.

## To Bind history datapoints

- Step 1. Open the property sheet view or wiresheet view for the equipment.
- Step 2. Open the **History** palette and expand the **Extensions** folder, locate the extension that matches your equipment data type.

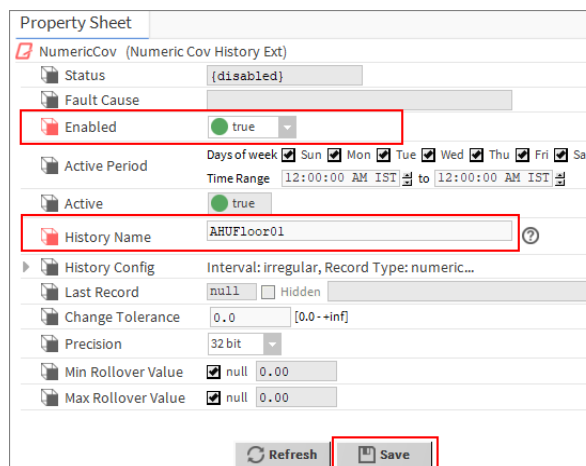


- Step 3. Drag the history extension from the palette to the property sheet or wire sheet view.

or

Right-click on the history extension to copy the extension from the palette and paste it onto the property sheet or wire sheet view. The Name dialogue box is displayed.

- Step 4. Enter the required name for the history extension.
- Step 5. Click **OK**. The history extension added to the equipment properties.
- Step 6. Double click the history extension that has just been added. The history extension's property sheet is displayed.



- Step 7. Set Enabled to true to enable the history extension.

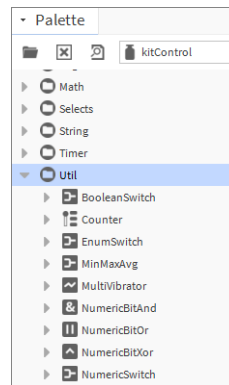
Step 8. Enter the name of the history in the History Name box.

Step 9. Click **Save**.

After enabling the equipment's history extension it is necessary to add the utility component to the equipment properties. Utility components range from a Counter object with Boolean input and a numeric output (counts active transitions) to a Boolean-controlled NumericSwitch that selects one of two numeric values. Utility components also include generator components for simulation/logic testing, such as the SineWave and Ramp (each with a numeric output) and MultiVibrator (Boolean output).

Util components also include generator components for simulation/logic testing, such as the SineWave and Ramp (each with a numeric output) and MultiVibrator (Boolean output).

Step 10. Open the **KitControl** palette and expand the Util folder.



Step 11. Drag the required utility component from the palette to the equipment's property sheet or wire sheet view.

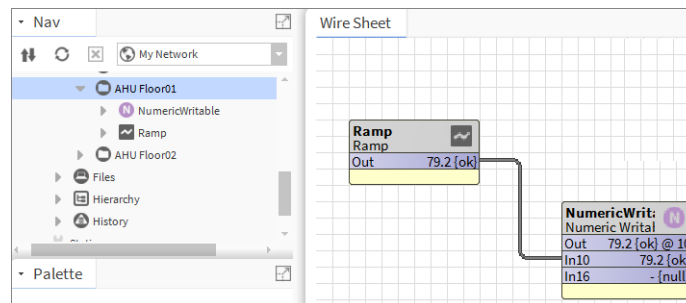
or

Right-click the required utility component and paste it onto the equipment's property sheet or wire sheet view.

Step 12. Enter the name for the history extension.

Step 13. Click **OK**. The utility component is added to the equipment properties.

Step 14. Open the equipment's wiresheet view and connect utility component's output to the history extension's input.

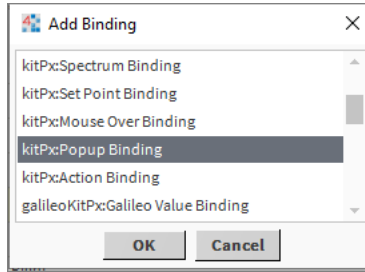


Step 15. Open the px page in edit mode to create a template.

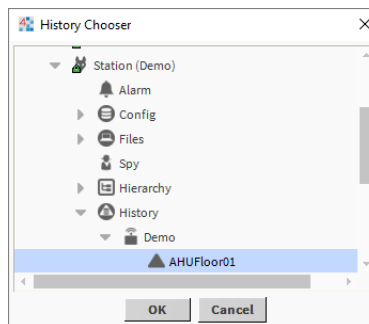
Step 16. Drag-drop the history extension datapoint to the px page and double click on the history extension datapoint. The datapoint's property sheet is opened.



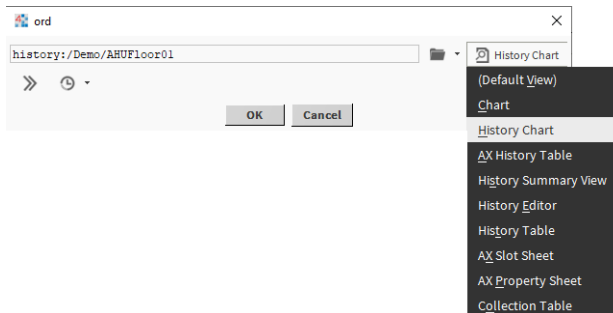
- Step 17. In the properties window, open the **Add Binding** window, select **Popup Binding** type of binding list.
- Step 18. click **Ok**. This adds **Popup Binding** to the history extension properties.



- Step 19. Select **■** (folder icon) and select History Ord Chooser from the list. The History Chooser window is displayed.



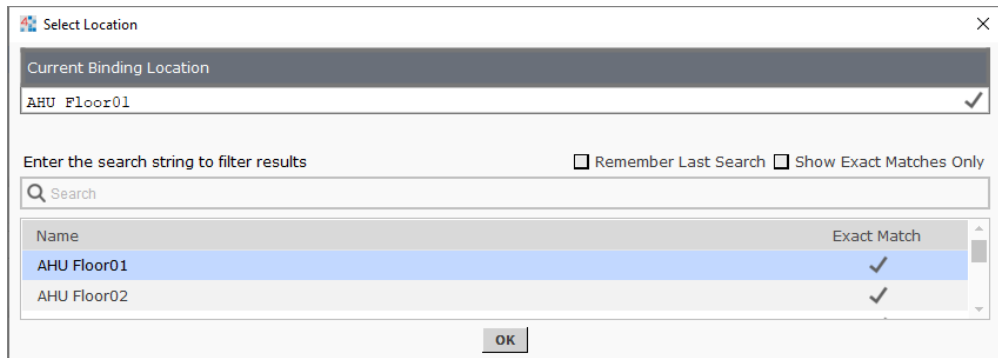
- Step 20. In the list on the right select **History Chart** to set the default view.



- Step 21. Click **OK**. This completes pop up binding with the history extension datapoint.
- Step 22. Click **Save**.

**Note:** *History Popup Binding is limited to a single datapoint on a px page.*

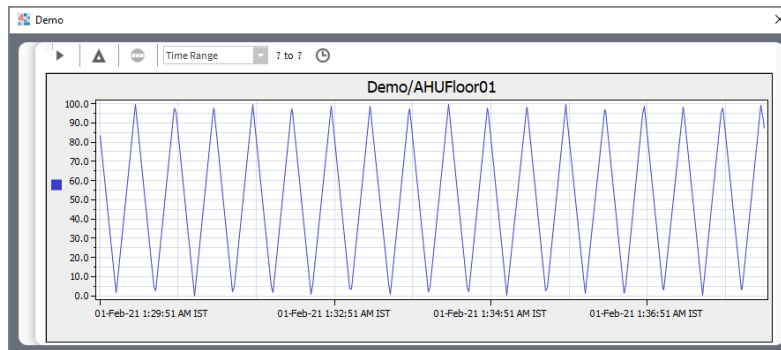
- Step 23. Create the template. See the [Creating Templates](#) section.
- Step 24. Deploy the template on the required px page, see ["Using a Template" on page 18](#).



**Note:** The search option allows you find the template that you want to deploy. If you are deploying a specific template for multiple times, it is advised to select the Remember Last Search option. Enter the search string name, select the required template, select the Remember Last Search option, and click OK. This will remember you search activity. Next time when you deploy the template, select the Remember Last Search option, and it will display the same search results as earlier.

Step 25. Once the template has been added to the px page, you can position or resize the items as required. After the changes are completed, save the px page.

To check correct operation open the px page in the **Wb PxView** and click on the datapoint. This opens a popup window and history chart for the equipment is displayed.



For more details about chart view refer Niagara documentation or refer below ord.

For WebChart details: <local:|module://docHistories/doc/workbench-WebChart.html#workbench-WebChart>

For Chart settings: <local:|module://docHistories/doc/webChart-ChartFile.html#webChart-ChartFile>

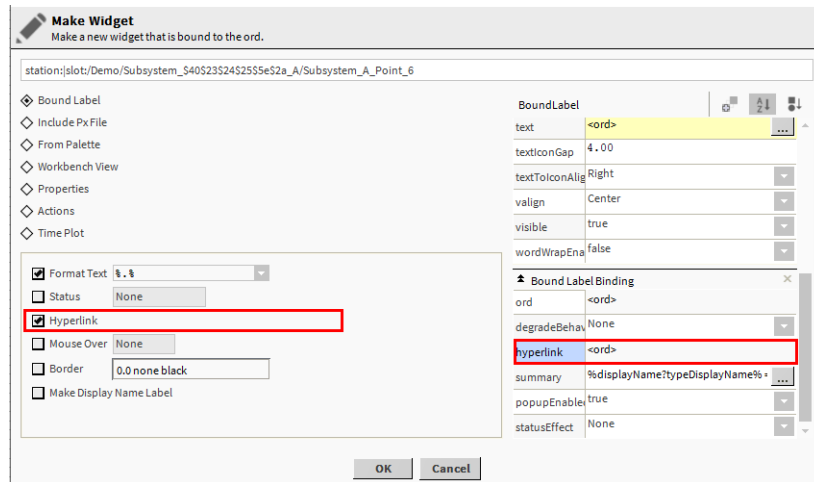
## Binding the Datapoints using Hyperlink Ord

Hyperlink Ord allows you to change the binding of datapoints from one network to another network. This process can be used for both simple and complex templates.

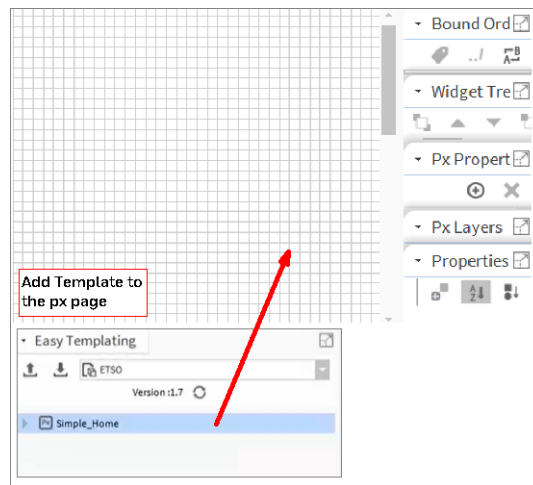
**To change binding using Hyperlink Ord**

- Step 1. Open the px page that is to be used to create the template in edit mode. For more details on creating a px page, refer to the Niagara documentation.
- Step 2. Add the required datapoints and graphics to the px page.

**Note:** While adding datapoints to the px page, make sure to select the hyperlink option in the Widget property sheet. Hyperlink option allows to modify the Hyperlink Ord.

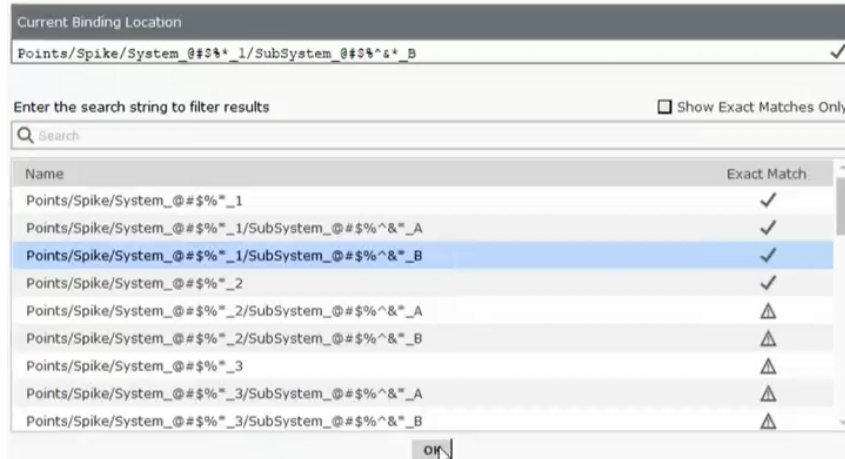


- Step 3. Once the required datapoints and graphics have been added to the px page, click Save. For more details on creating a simple template, see [Creating a Simple Template](#).
- Step 4. Create the template, see [Creating Templates](#).  
The created template added to the **Easy Templating Palette**
- Step 5. Open the created template from the **Easy Templating Palette**, see ["Open the Easy Templating Palette" on page 27](#).
- Step 6. Select the required px page and open it in the edit mode.
- Step 7. Drag the simple template from the Easy Templating palette to the px page.



The **Current Binding Location** is displayed indicating matching and unmatched network datapoints. ⚠ (warning icon) indicates unmatched data

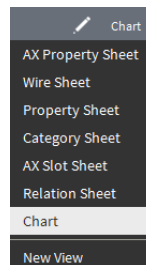
points. To resolve the unmatched datapoints, see "[Resolve Template Binding Issues](#)" on page 41.



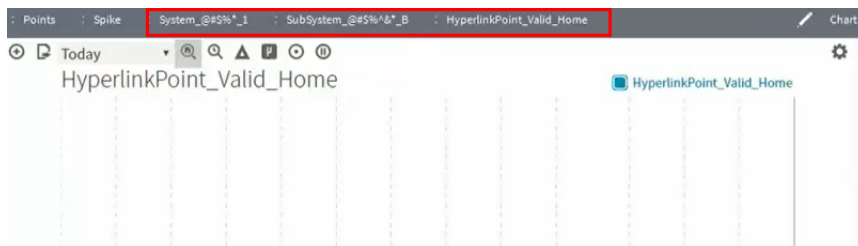
- Step 8. Select the matching network and click **Ok**.
- Step 9. Once the required templates have been added to the px page, click **Save**.
- Step 10. Click on the label to view the chart.



**Note:** To view the chart view, select the chart option from the drop-down list.

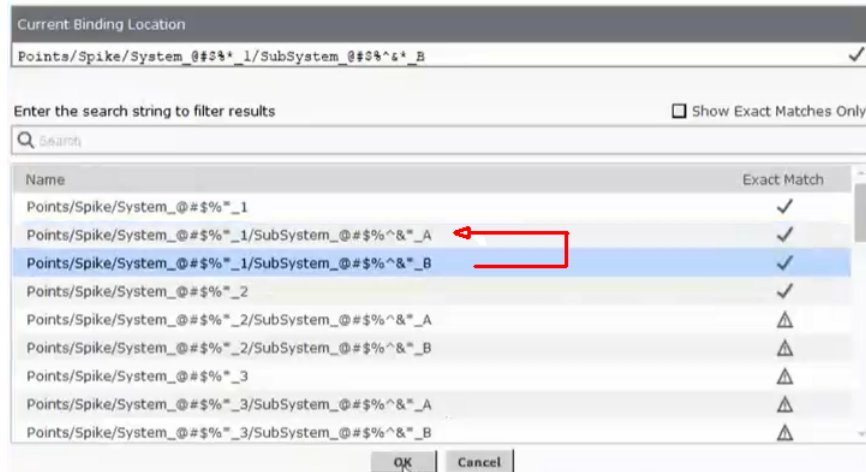


This opens the chart view, on this view the hyperlink and binding information of the datapoints displayed.



If you want to modify it, go to px page edit mode and change the binding, see "[Modify Point Binding](#)" on page 34.


- Step 11. Open the px property page, click **CLICK\_HERE\_TO\_CHOOSE\_BINDING** to change the binding of the datapoint, click **Ok**.



This will change binding datapoints to another network.

**Note:** Simple template (.etso).and complex template (.etco) supports special characters.

## Resolve Template Binding Issues

When using a template sometimes binding issues occur, when the datapoints on the template do not match datapoints on the network. In this case warning icon  is displayed. The templates must be edited so that the issues don't occur.

[Resolving Simple Template Binding Issues](#)

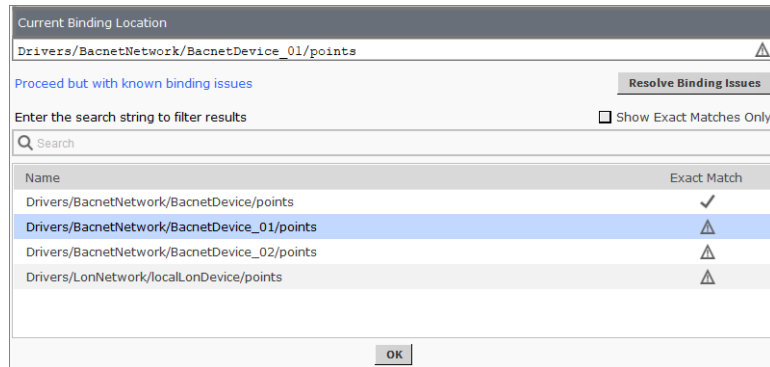
[Resolving Complex Template Binding Issues](#)

### Resolving Simple Template Binding Issues

**To resolve binding issues for Simple Template**

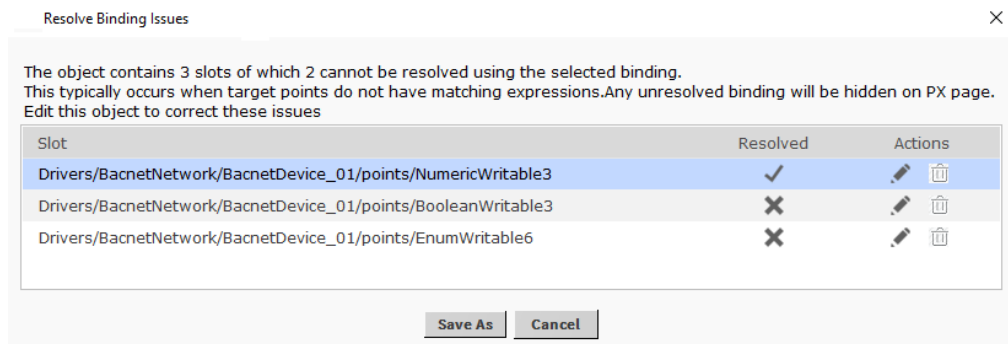
- Step 1. Open a blank px page.
- Step 2. Open the Easy Templating palette and select the required template, see "[Open the Easy Templating Palette](#)" on page 27.

- Step 3. Drag the simple template from the Easy Templating palette to the px page. The **Current Binding Location** window is displayed.



- Step 4. On the **Current Binding Location** window, select the network that contains the unmatched datapoints indicated by the (warning icon).

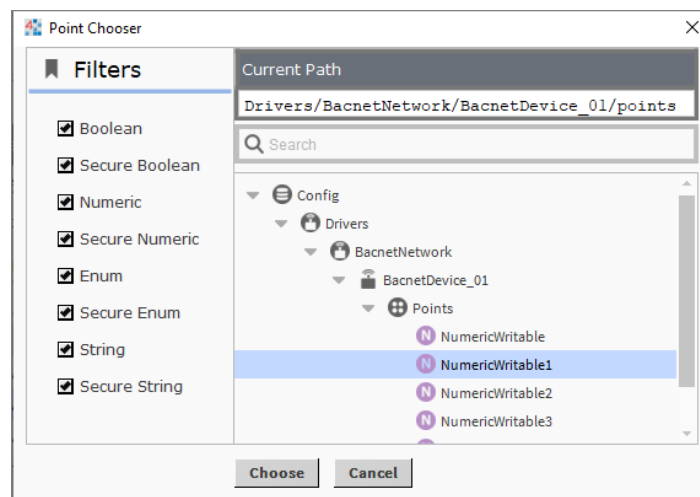
- Step 5. Click **Resolve Binding Issues**. The **Resolve Binding Issues** window displayed, this displays the number of slots that are resolved (check icon) and are unresolved (cross icon) for the network.



- Step 6. To remove the datapoint from the slot click (delete icon).

Or

To edit the binding click (edit icon). The **Point Chooser** is displayed



Select the datapoint that is to be bound to the datapoint and click **Choose**. The unresolved datapoint is bound to a new datapoint.

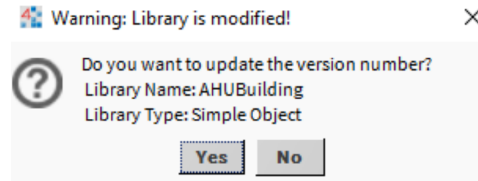
- Step 7. After resolving all the points, click **Save As**. The **Enter unique name for template** dialogue box is displayed.



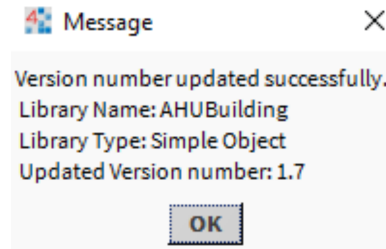
The dialog box has a title bar that says "Enter unique name for template:" with a close button (X) on the right. Below the title bar is a text input field labeled "Enter the new template name". At the bottom right of the dialog box is a button labeled "Set Name".

- Step 8. Enter the new name of the template. Click **Set Name**.

- Step 9. Click **OK**. This adds a new simple template to the simple object library.



- Step 10. Click **Yes**. The library version number updated.

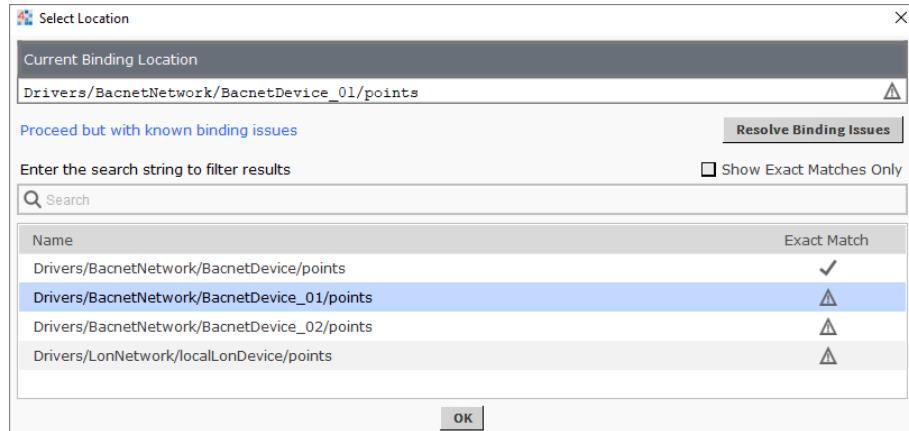


- Step 8. Click **OK**.

# Resolving Complex Template Binding Issues

## To resolve binding issues for Complex Template

- Step 1. Open a blank px page.
- Step 2. Open the **Easy Templating** palette and select the required template, see *"Open the Easy Templating Palette" on page 27*.
- Step 3. Drag the complex template from the Easy Templating palette to the px page. The **Current Binding Location** window is displayed.



- Step 4. On the **Current Binding Location** window, select the network that contains the unmatched datapoints indicated by the (warning icon).
- Step 5. Click **Resolve Binding Issues**. The **Resolve Binding Issues** window displayed, this displays the number of slots that are resolved (check icon) and are unresolved (cross icon) for the network.

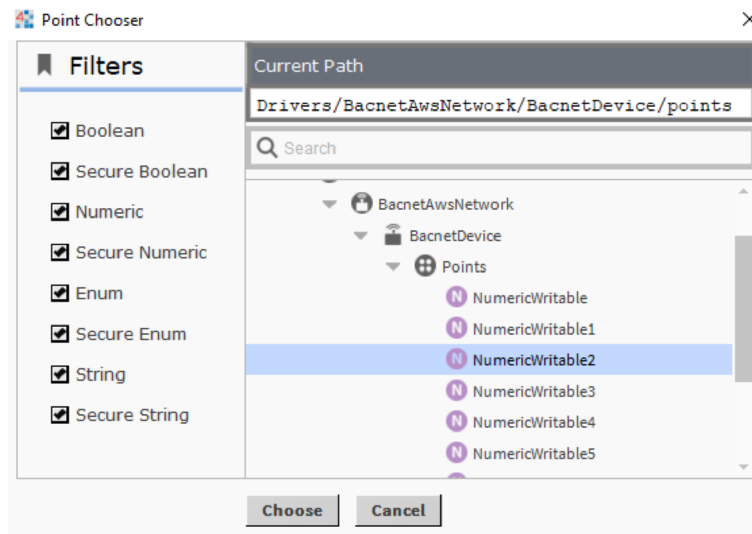
The object contains 3 slots of which 2 cannot be resolved using the selected binding. This typically occurs when target points do not have matching expressions. Any unresolved binding will be hidden on PX page. Edit this object to correct these issues

| Slot  | Resolved | Actions |
|---|----------|---------|
| Drivers/BacnetAwsNetwork/BacnetDevice/points/NumericWritable3 |          |         |
| Drivers/BacnetAwsNetwork/BacnetDevice/points/BooleanWritable3 |          |         |
| Drivers/BacnetAwsNetwork/BacnetDevice/points/EnumWritable6    |          |         |

**Save As** **Cancel**

- Step 6. To remove the datapoint from the slot click (delete icon).  
Or  
To edit the binding click (edit icon). The **Point Chooser** is displayed

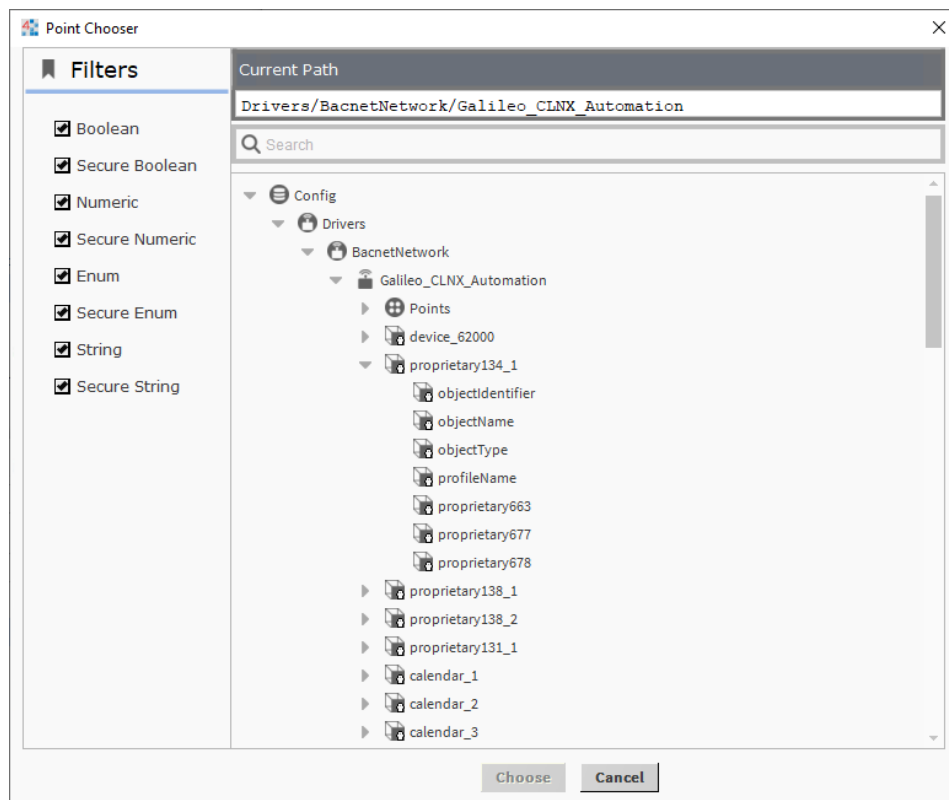




Select the datapoint that is to be bound to the datapoint and click **Choose**. The unresolved datapoint is bound to a new datapoint.

**Note:**

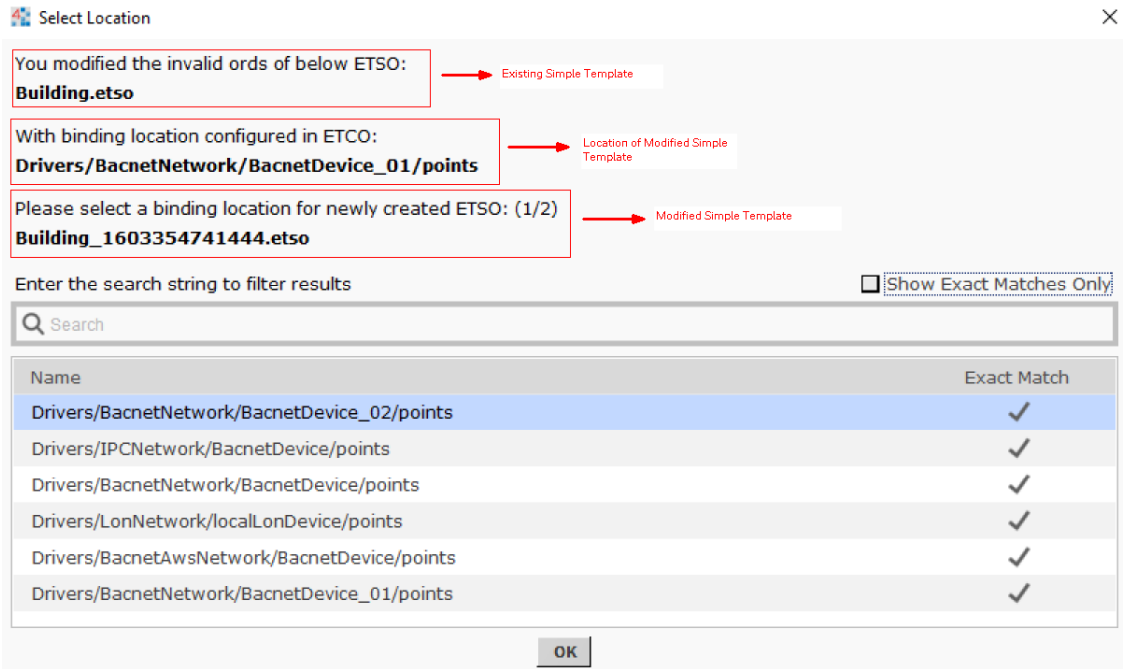
- In the "Point Chooser" Dialogue box, Virtual Components will disappear after few seconds. It is Niagara's default behavior. Niagara Framework will release all virtual components after few seconds.
- If the user wants to load the virtual component again in "Point chooser", then the user has to close "Point chooser" and reopen "Point chooser" again.



Step 7. After resolving all the points, click **Save As**. The **Enter unique name for template** dialogue box is displayed.



Step 8. Enter the new name of the template. Click **Set Name**. This will resolve the binding issues for the complex template and the updated template added in the existing complex template library.



You modified the invalid ords of below ETSO:  
**Building.etso** → Existing Simple Template

With binding location configured in ETCO:  
**Drivers/BacnetNetwork/BacnetDevice\_01/points** → Location of Modified Simple Template

Please select a binding location for newly created ETSO: (1/2)  
**Building\_1603354741444.etso** → Modified Simple Template

Enter the search string to filter results  Show Exact Matches Only

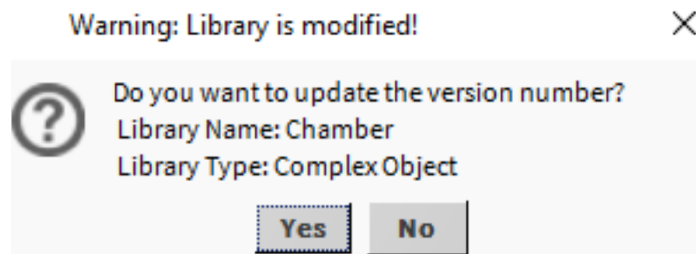
Search

| Name   | Exact Match |
|--|-------------|
| Drivers/BacnetNetwork/BacnetDevice_02/points | ✓           |
| Drivers/IPCNetwork/BacnetDevice/points       | ✓           |
| Drivers/BacnetNetwork/BacnetDevice/points    | ✓           |
| Drivers/LonNetwork/localLonDevice/points     | ✓           |
| Drivers/BacnetAwsNetwork/BacnetDevice/points | ✓           |
| Drivers/BacnetNetwork/BacnetDevice_01/points | ✓           |

OK

This updates the datapoints of the simple template with the new datapoints. The modified simple template renamed and saved to the existing simple template library. Similarly, action happens for all the modified simple template which are linked to the complex template.

Step 9. Click **OK**. This adds a new complex template to the complex object library.

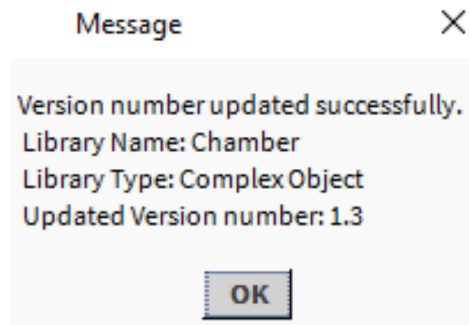


Warning: Library is modified!

Do you want to update the version number?  
Library Name: Chamber  
Library Type: Complex Object

Yes No

Step 10. Click **Yes**. The library version number updated.



Step 11. Click **OK**.



# Contact

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### IMPORTANT



Saia Burgess Controls Technical Support are only able to provide support for Saia PCD® Supervisor and the Saia Burgess Controls driver features described in this manual. They are unable to provide support for 3rd party drivers and undocumented aspects of Saia PCD® Supervisor's operation.