



# EST4 Signature Mapping User Guide

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# Chapter 1

# Introduction

## **Summary**

This chapter provides information about this manual and other related documentation.

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## About this guide

This application guide is intended for use by technicians, installers, and programmers of an EST4 fire alarm system. It's intended as a reference guide that provides information about typical Signature mapping using the 4-CU configuration utility.

## Related publications

The following tables lists documents that may provide additional information related to EST4 systems. Refer to Appendix A "Signature device models" on page 29 for a list of supported detectors and modules.

Document part number	Document name
3100584	Signature Controller Module and Data Circuit Card Installation Sheet
3102258	4-CPU Central Processor Module Installation Sheet
3102301	EST4 Technical Reference Manual
3102703	3-SSDC2 and 3-SDDC2 Signature Controller Module Installation Sheet
3101530	3-SSDC1-E and 3-SDDC1-E Signature Controller Module Installation Sheet
3101285	Signature Controller Module and Data Circuit Card Installation Sheet
3101772	3-SDC1 Signature Data Circuit Card Installation Sheet
3102326	3-SDC1-HC Signature Data Circuit Card Installation Sheet
7350798	4-CU Help

# Chapter 2

## Signature mapping

### Summary

This chapter provides information on how a Signature controller and the 4-CU map devices on the signaling line circuit.

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## Introduction

This section provides information on how a Signature controller and the 4-CU map devices on the signaling line circuit (SLC). It explains how the system functions when Mapping is On or Off, what happens when new devices are added, removed, or swapped, and how to reconcile actual and expected data.

## Diagnostics

Signature diagnostics provides the following menu options.

**Signature Diagnostics:** Used to display the mapping information for a signaling line circuit (SLC).

**Signature Diagnostics (Report):** Used to display diagnostics information for the selected Signature Controller signal line circuit (SLC).

**Re-Initialize Loop:** Used to reset the mapping data of a selected physical SLC controller.

## Signature Diagnostics

Use the Signature Diagnostics dialog box to display the mapping information for a signaling line circuit (SLC).

**Note:** The progress bars display the actual devices, and the counters to the right display the expected devices configured in the 4-CU project.

The mapping information includes:

**Active Only:** If enabled, displays only the active troubles and events of the SLC controller.

**Map fault LED:** Indicates when the SLC controller finds any issue while performing mapping.

**Communicating:** Displays the number of devices communicating on the loop.

**Serial numbers:** Displays the number of devices identified by their serial number.

**Mapped:** Displays the number of devices mapped to the loop card when mapping is On.

**EOL:** Displays the number of devices which are connected to the End of Line wiring.

**Programmed:** Displays the number of programmed devices.

**Progress status bar:** Displays the number of devices whose mapping is completed.

**Map Ready LED:** Indicates when the loop has finished mapping.

### To access Signature Diagnostics:

1. In the Navigation pane, select the Signature Series SLC controller under the node Hardware Layer.  
This enables the Mapping Options drop-down in the Home ribbon bar Communication section.
2. Select the Signature Diagnostics option from the Mapping Options drop-down.
3. In the Signature Diagnostics window, click the Diagnostics tab to display the following buttons:  
Refresh - Click the Refresh button to display the latest diagnostic information from the panel.  
Export - Click the Export button to save the diagnostics information in .XML format.  
Close- Click Close to close the Signature Diagnostics window.
4. In the Signature Diagnostics window, click the Log tab to display descriptions for the various error codes sent by the SLC controller, including the date and time of the event.

## Signature Diagnostics (Report)

Use the Signature Diagnostics (Report) page to display diagnostics information for the selected Signature Controller signaling line circuit (SLC). The information includes:

**Diagnostics tab:** Provides the Get Status/Counters, Get Detailed Report, and Close options.

**Log tab:** Provides a log of error codes sent by the SLC controller, including the date and time of the event.

### To access the Signature Diagnostics report:

1. In the Navigation pane, select the Signature Series SLC controller under the node Hardware Layer.  
This enables the Mapping Options drop-down in the Home ribbon bar Communication section.
2. Select the Signature Diagnostics (Report) option from the Mapping Options drop-down.
3. In the Signature Diagnostics window, the Diagnostics tab provides the following buttons:
  - Get Status/Counters - Click the Get Status/Counters button to display the Signature Loop Status/Counters window. This window provides the following buttons for Signature Loops 1 and 2.
  - Loop Info - Provides information about the loop status and how it is programmed.
  - Loop Locals States - Provides a table with the loop state Property and the Current Status.
  - Mapping Progress - Provides a Mapping Progress table that displays the Property with the associated Actual and Expected counts.
  - Map Counters - Provides a Map Counters table that display the Property with the associated Count.
  - Get Detailed Report - Click the Get Detailed Report to display the Signature Loop Detailed Report window. This window provides a Map Errors table for Signature Loops 1 and 2. The table includes columns for Error and associated Troubleshooting Tips.
  - Close - Click Close to close the Signature Diagnostics window.
4. In the Signature Diagnostics window, the Log tab provides descriptions for the various error codes sent by the SLC controller.

## Re-Initialize Loop

Use the Re-Initialize Loop button to reset the actual mapping data of a physical Signature (loop) controller.

If the loop controller is a dual loop controller, then “Re-Initialize Loop” will clear the map data of loop 1 and loop 2 independently.

To use this command, you must do the following.

- Select a Signature LRM card from project tree.
- Be connected to the panel using RNDIS. See the *4-CU V6.0 Release Notes* (P/N 3102312) and the 4-CU help topic RNDIS driver installation for details.
- Have a valid Access Code. See the 4-CU help topic Enter Access Code dialog box for details.

### To re-initialize a loop:

1. Using the 4-CU, select a Signature LRM card from project tree.
2. Select Mapping Options from the ribbon bar, and then click Re-Initialize Loop from the drop-down.  
 Loop 1 of a selected LRM will be re-initialized if you select the SLC1 Devices tab, and then select Re-Initialize Loop.  
 Loop 2 of a selected LRM will be re-initialized if you select the SLC2 Devices tab, and then select Re-Initialize Loop.

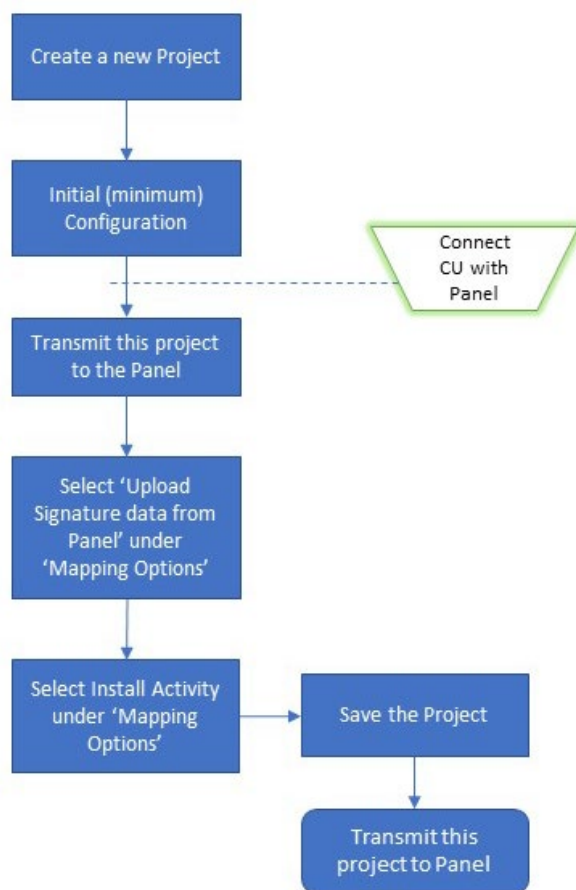
# Signature mapping

Mapping devices on the EST4 SLC can be grouped into two categories: a new installation or an existing installation.

## New installation

A new installation is defined as adding a new signaling line circuit of wiring and devices. After connecting the signaling line circuit to the panel Signature controller card and then powering up the system, the Signature controller card identifies the devices on the signaling line circuit. At this point, a map error and an unprogrammed device trouble will display on the LCD screen of the panel for the connected signaling line circuit.

Mapping should be enabled as a last stage of the installation process once all devices are connected and wiring is complete.



To remove the map error and an unprogrammed device trouble from the panel, perform the following steps.

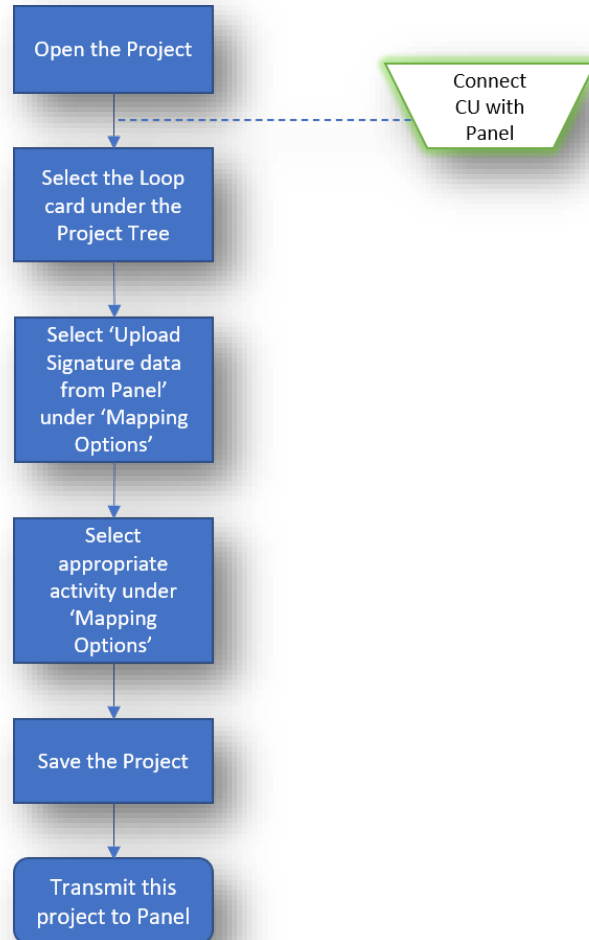
1. Perform "Initial configuration" procedures.
2. Perform "Upload Signature data from Panel" procedures.
3. Select "Install" activity.
4. Make sure all the device's mapping status is Matched on the mapping window.
5. Save the project, build it, and check for any errors.
6. When no errors or acceptable warnings display, perform "Transmitting project data to the system" procedures.



## Existing installation

When any modifications are made to an already configured signaling line circuit (SLC), such as adding additional new devices, replacing a device with a new one, or removing devices that are no longer required in the system.

Based on the modifications done to the system, you can perform either Add, Clean/Replace, or Remove Activities commands using the 4-CU.



The following steps should be performed after modifying the existing SLC.

1. Perform "Upload Signature data from Panel" procedures.
2. Select a Map Activity from the Mapping Options drop-down on the ribbon bar based on the type of changes performed on the physical setup/signaling line circuit.

"Install"

"Add"

"Clean/Replace"

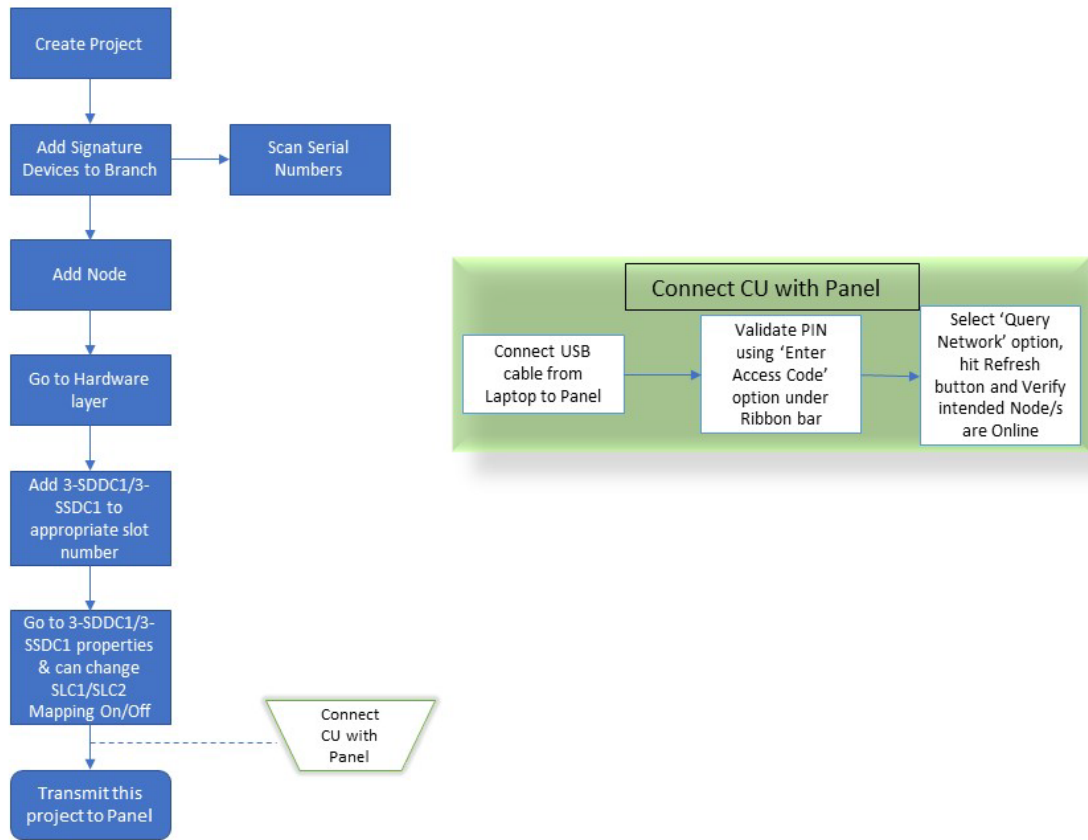
"Remove"

3. Make sure all the device's mapping status should be Matched on the mapping window.
4. Save the project, build it, and check for any errors.

- When no errors or acceptable warnings display, perform “Transmitting project data to the system” procedures.

## Initial configuration

After initial configuration of the project such as adding devices and scanning serial numbers to their respective branch and adding the Signature controller to the hardware layer of a node, you must transmit this project to the panel. Before transmitting the project to the panel, you must set SLCx Mapping On to On (checkbox checked) or to Off (checkbox cleared) for each Signature controller added. This can be set at the property grid of the Signature controller under the Hardware layer.



### Perform the following steps:

- Create a project.
- Add Signature devices to the branch and scan serial numbers.
- Add Nodes.
- Add 3-SDDC1(2)/3-SSDC1(2) cards to the control unit node's hardware layer.
- Go to 3-SDDC1(2)/3-SSDC1(2) Hardware properties and change SLC1/SLC2 Mapping On or Off (see "SLC1/SLC2 Mapping On or Off").
- Connect the 4-CU project computer to the panel (see "Connect the 4-CU project computer to the panel").
- Get an access code from the panel (see "Getting access to the panel").
- Transmit this project to the panel (see "Transmitting project data to the system").

## SLC1/SLC2 Mapping On or Off

There are two states of mapping: SLC1/SLC2 Mapping On and Mapping Off. Both map the devices in the 4-CU with the devices attached to the signaling line circuit and verifies the model and type of the devices. SLC1/SLC2 Mapping On and Mapping Off is set at the property grid of the Signature controller under the Hardware layer.

Mapping should be enabled as a last stage of the installation process once all devices are connected and wiring is complete.

**Mapping On:** The Signature controller identifies the location of each device on the SLC and creates an electrical relationship between Signature devices as the way they are physically installed. The 4-CU shows the graphical representation of the links on the mapping diagram.

**Mapping Off:** The Signature controller does not identify the location of the devices, so the mapping diagram cannot create links between the devices installed on the circuit. However, these devices are arranged in a row and column representation on the diagram.

## Connect the 4-CU project computer to the panel

**Note:** An RNDIS driver is required for the USB port on your computer to communicate with the panel. If necessary, install it before proceeding. Refer to the 4-CU release notes for installation procedures. CU versions 4.x and higher automatically install the RNDIS driver.

## Getting access to the panel

You must obtain an access code from the panel to communicate between the 4-CU and the panel.

### To obtain access to the panel:

1. Disable or disconnect any Wi-Fi or other network adapters on the project computer. Only the USB RNDIS connection should be enabled during the download process.

2. Connect a USB cable from the computer to J14 on the control unit's 4-CPU card.

3. From the control unit LCD screen:

On the Action bar, tap System Info.

On the Command bar, tap 1 Hour Access or 8 Hour Access to obtain a 4-CU required access code that will allow you to download to the control unit.

4. From the 4-CU:

On the Project Management tab, open the project.

On the Home tab, in the Communication group, click Enter Access Code.

Enter the access code, and then click Validate. The message "Access code validated successfully" displays on the information bar at the bottom of the page.

On the Home tab, in the Communication group, click Query Network, and then Refresh to confirm communication with the node(s).

## Transmitting project data to the system

Transmit To Panel is required to update the panel with latest configuration project in the 4-CU. This allows the panel and the 4-CU to stay in sync.

Perform these steps after successfully validating the panel access code (see "Getting access to the panel").

**Note:** Once transmit the project to the panel is completed successfully, you must wait for the panel to restart and load all the devices.

**To transmit the project to the panel:**

1. Click **Transmit to Panel** (Figure 1).
2. Wait for the panel to restart and load all the devices.
3. Make sure the 4-CU is connected to the panel and able to identify all the nodes in that network using Query Network. After clicking Refresh on the Query Network window, the node should be listed with a green Status as shown in Figure 2.

**Figure 1: Transmit to Panel**

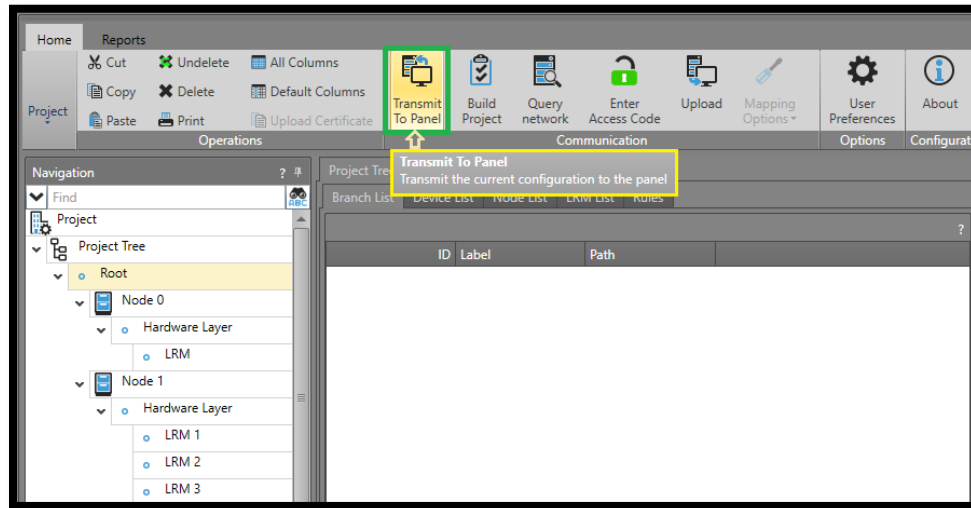
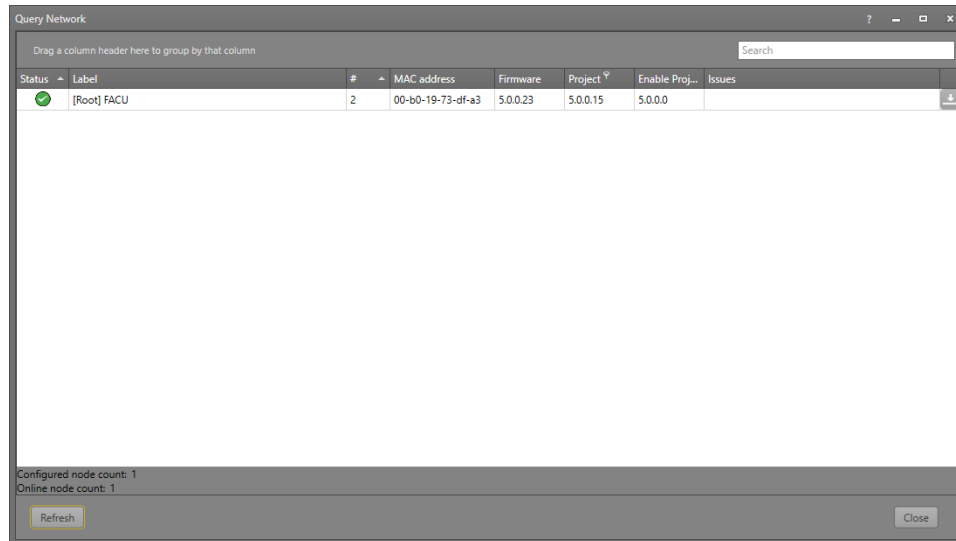


Figure 2: Query network



The screenshot shows a window titled "Query Network" with a search bar and a table of network nodes. The table has columns for Status, Label, #, MAC address, Firmware, Project, Enable Proj..., and Issues. A single row is visible with a green status icon, label "[Root] FACU", and other details. At the bottom, it shows "Configured node count: 1" and "Online node count: 1" with "Refresh" and "Close" buttons.

Status	Label	#	MAC address	Firmware	Project	Enable Proj...	Issues
✓	[Root] FACU	2	00-b0-19-73-df-a3	5.0.0.23	5.0.0.15	5.0.0.0	

Configured node count: 1  
Online node count: 1

Refresh Close

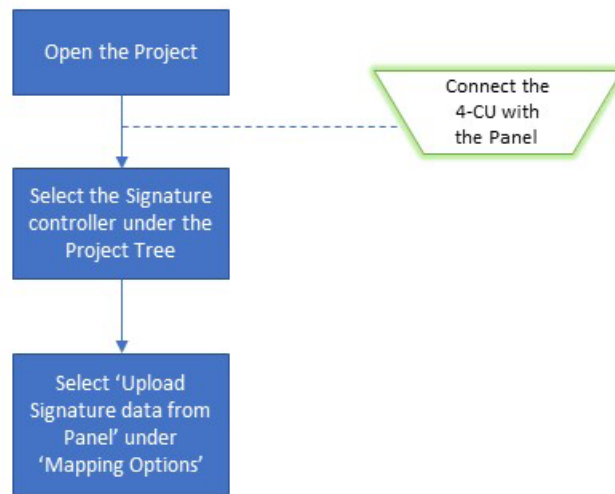
## Reconciling actual and expected data

This section explains how to reconcile actual and expected data between the 4-CU and the panel.

**Note:** Do not initiate an Upload Signature data from Panel session immediately following a panel reboot or a download failure between the 4-CPU and the Signature controller might occur. Make sure that \$ExecutingBootloader is complete.

## Upload Signature data from Panel

Upload Signature data from Panel is required to upload the actual signaling line circuit data from the panel to make sure the 4-CU gets the Signature controller card's latest physical changes made to the devices from panel. Transmit to Panel is required to update the panel with the latest configuration from the 4-CU. The upload and transmit actions allow the panel and the 4-CU to stay in sync.



Before initiating Upload Signature data from Panel, it is recommended to verify whether the panel is ready to upload the data using Signature Diagnostics. Signature Diagnostics provides details about Signature controller card, mapping status, wired devices, serial numbers, and their communication status.

**To verify if the panel is ready to upload data:**

1. Using the 4-CU, select a Signature controller from project tree.
2. Select Mapping Options from the ribbon bar, and then click Signature Diagnostics from the drop-down. See Figure 3.
3. On the Signature Diagnostics window (Figure 4), click the Refresh button to display the latest diagnostic information from the panel.

A Map Ready indicator shows if the Signature controller card is ready for upload or not. Green color indicates mapping is completed on the panel and is ready for upload as shown in Figure 4.

The bar graphs represent the actual device counts and the numbers to the right of the bar graphs are the expected device counts.

4. Check the panel LCD to ensure there is no Mapping in Progress monitor event displayed and there are no mismatch trouble events displayed.

The trouble queue reports the following:

- Common trouble for each unmatched device
- A mapping error for each SDC#
- An unprogrammed Device for each SDC#

Figure 3: Signature Diagnostics selection

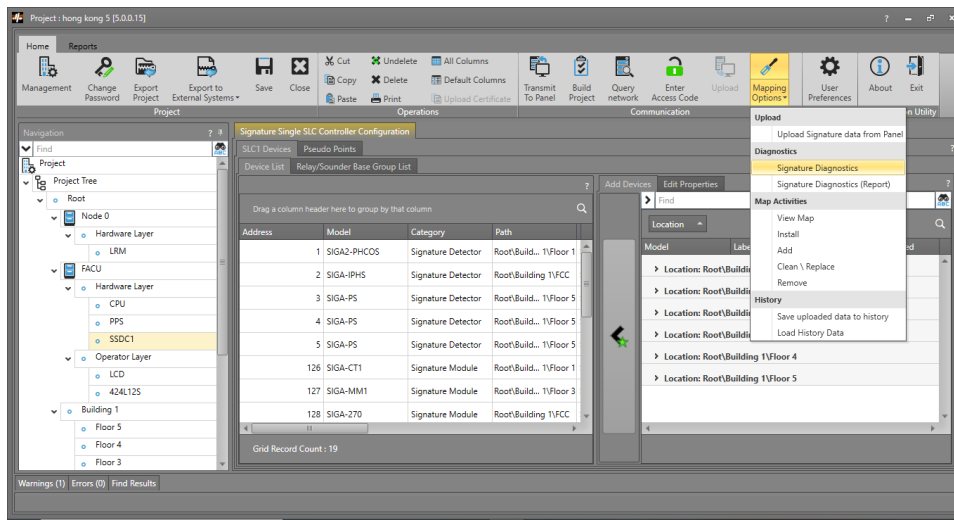
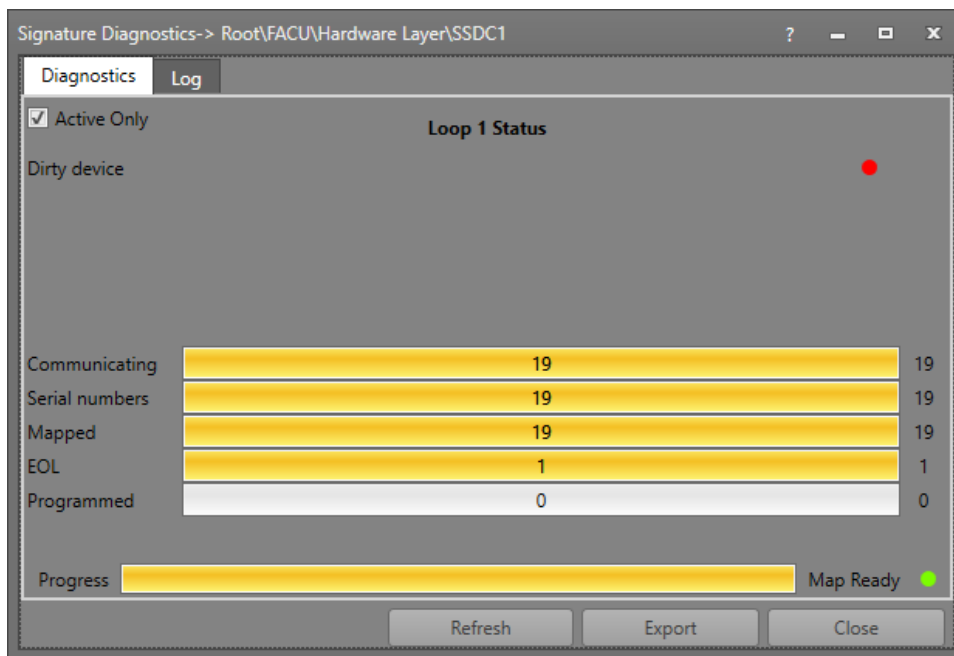


Figure 4: Signature Diagnostics window



**Note:** The panel/physical/uploaded device data is called Actual device data and devices configured in the 4-CU are called Expected device data.

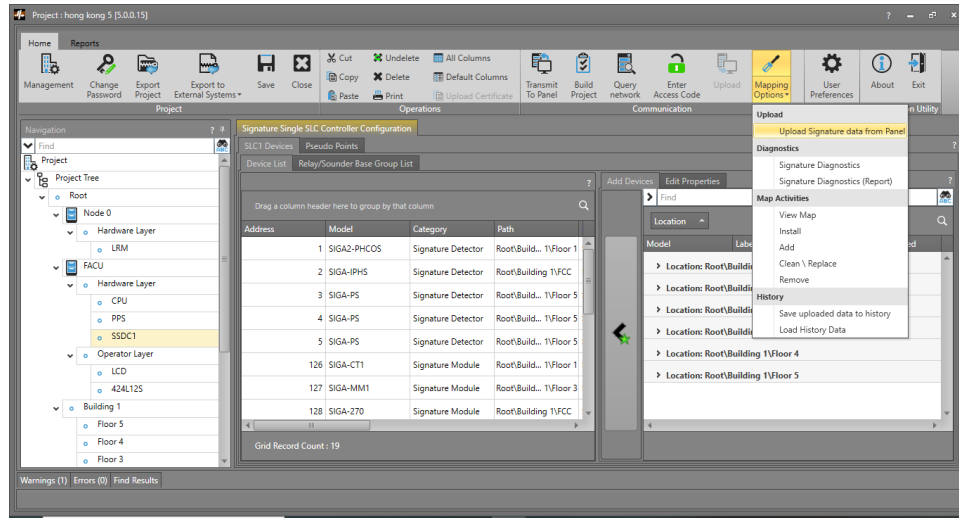
Actual Device	Expected Device
Physical device	Configured device
Panel device	
Uploaded device	

**To initiate Upload Signature data from Panel:**

1. Select a Signature controller from the project tree.
2. On the Mapping Options menu, click Upload Signature data from Panel as shown in Figure 5.

If the mapping process is not completed on the panel, “The requested information is not available at this time. Try later when mapping is complete” warning displays on the status bar.

**Figure 5: Upload Signature data from Panel selection**



## Map Activities

Once the upload process is successful, you can choose one of the following five Map Activities commands from the Mapping Options drop-down on the ribbon bar.

**Note:** Based on the activity performed, Mapping will automatically modify the configured device details/properties. If the wrong activity is chosen, close the project without saving it.

1. “Viewing maps” below
2. “Install” on page 17
3. “Add” on page 21
4. “Clean/Replace” on page 22
5. “Remove” on page 24

## Viewing maps

This feature provides the ability to view the map without having to do an Add or Install activity. This option does not modify the 4-CU data, it creates a Map in read-only mode. Also, it does not allow the user to perform operations on unconfigured or removed devices. This option is available in 4-CU versions 5.x and later.

Refer to Table 1 for a description of the mapping status.



**Table 1: Mapping status**

#	Mapping Status	Color Code	Description
1	Unconfigured	Purple	When the actual device serial number is not found in the project then this device status will become Unconfigured.
2	Duplicate	Blue	If there are more than one device that exists with the same serial number in the project, then this device falls under this status.
3	Matched	White	If there is only one device found in the project and that is matched with actual device serial number.
4	Error	Red	Even though the serial number is matched, if Model or Base type are different then this device shows its status as Error.
5	Removed	Grey	If a physical/panel device is removed, then it falls under this category.
6	Missing	Grey	If a device is present in the 4-CU Signature controller but not in the panel data, then this device falls under this category

**To view a map:**

1. Select a Signature controller from the project tree.
2. On the Mapping Options menu, click View Map as shown in Figure 6.
3. On the View Map window, under Match Devices By (Figure 7):  
 Select Serial Number to match devices by their serial number.  
 Select Device Address to match devices by their device address.

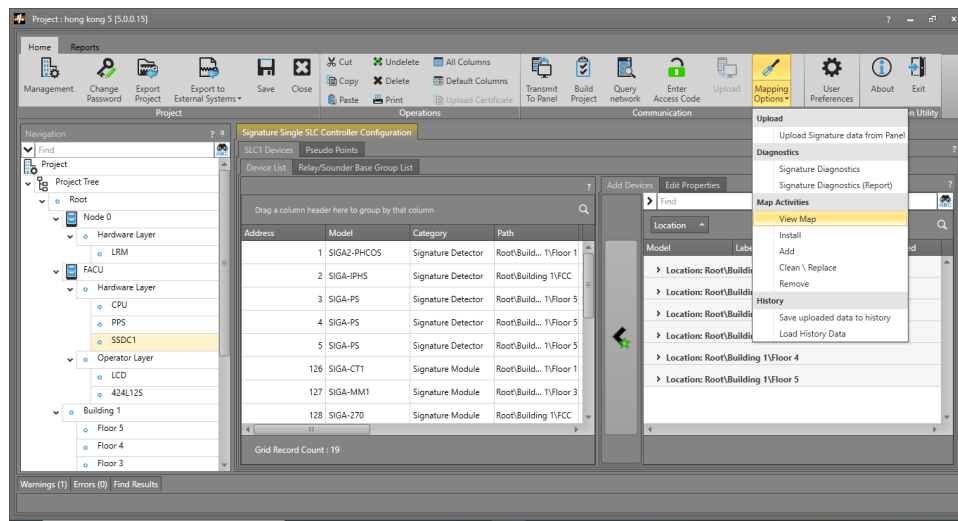
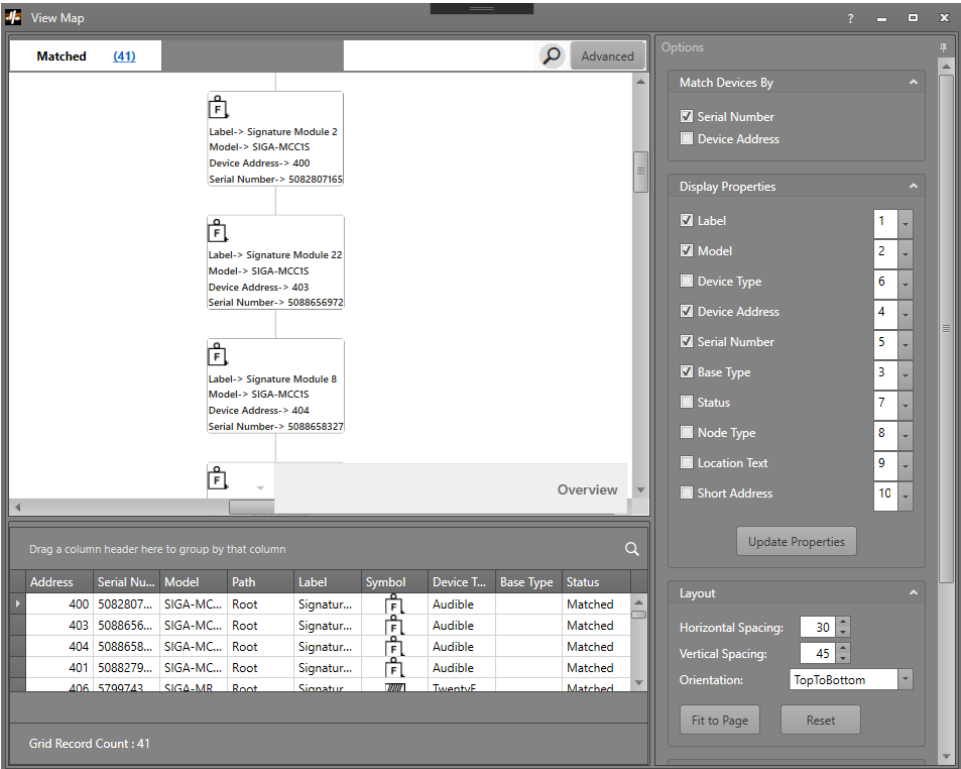
**Figure 6: View Map selection**

Figure 7: View Map window



## Install

This activity must be chosen if this Signature controller card is installed or configured for the first time. Install compares actual device's serial numbers with the expected device's serial numbers. If a match is found, it will add that device to the Signature controller card automatically and shows that device status as Matched on the mapping window as shown in Figure 11.

Even though their serial numbers are matched, the Install activity verifies whether their actual and expected devices model type and base type are matched.

If their actual and expected devices model types are different then its status will be shown as Error. The map will display the device model that is actually on the panel in red as shown in Figure 8.

If their base type is different, then its status will be shown as Error. The map will display the base type that is actually on the panel in red as shown in Figure 9.

For both errors, either follow the process to change the Model type of the 4-CU device configured in project or change the physical device to match with configured device model. This also applies to Base types.

Make sure all the device's statuses' are shown as Matched on the mapping window, and then save the project and transmit the project to the panel.

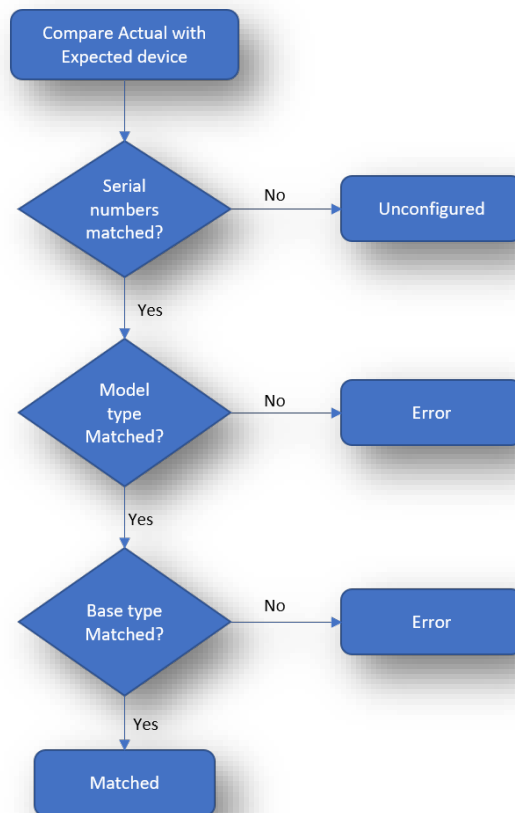


Figure 8: Device model error

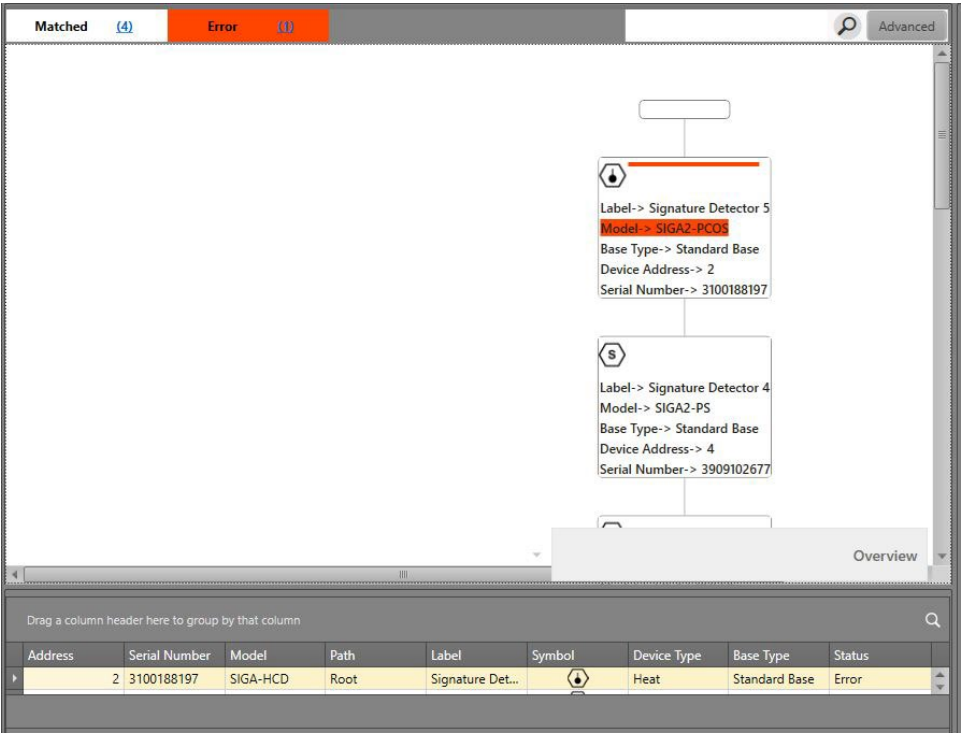
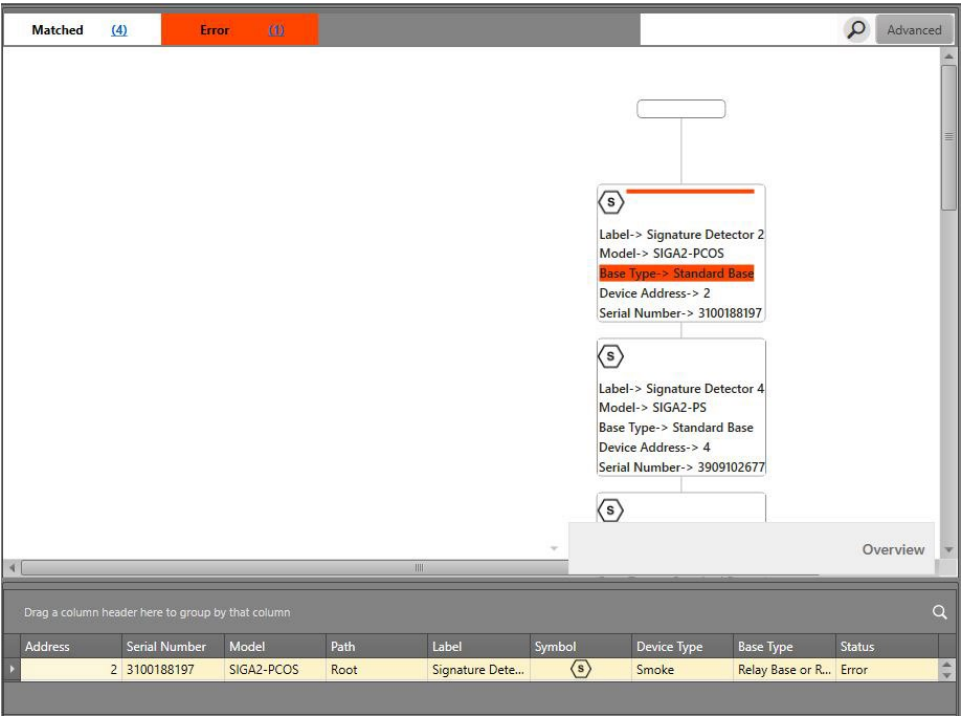
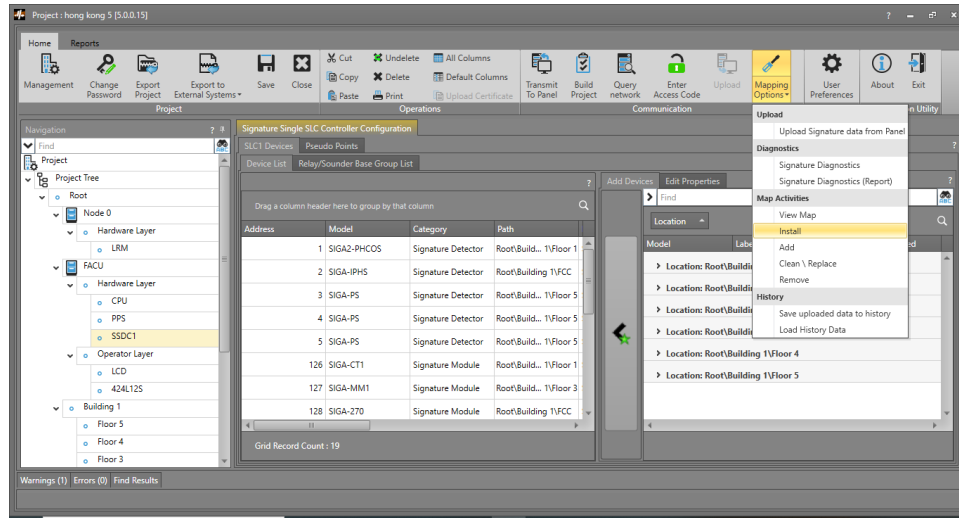
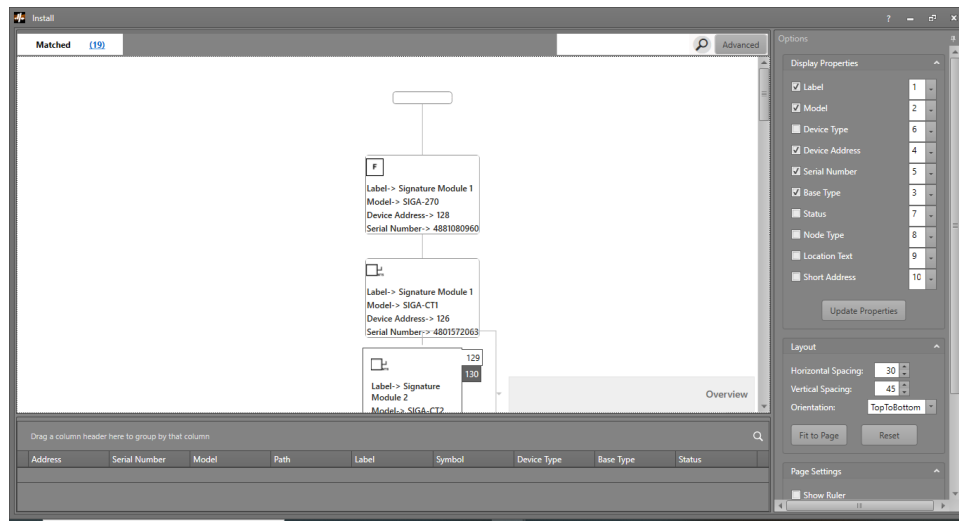


Figure 9: Base type error



**To select Install:**

1. Select a Signature controller from the project tree.
2. On the Mapping Options menu, click Install as shown in Figure 10.

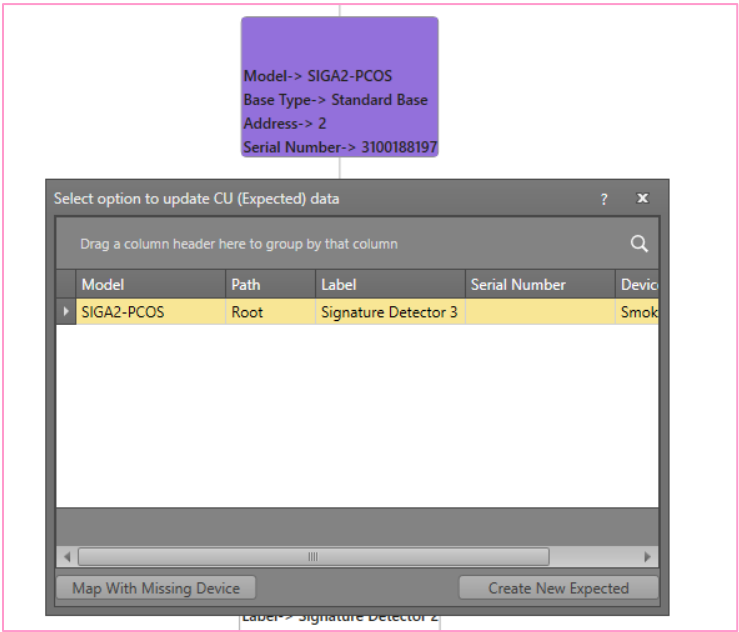
**Figure 10: Install selection****Figure 11: Install window**

## Unconfigured

This section explains how to handle unconfigured devices. If any of the panel/actual devices have no matching serial number in the project or the device address in the Signature controller card is not found, that device is shown as an unconfigured device on the mapping window.

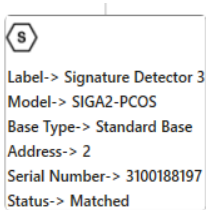
To solve this, double-click on that unconfigured device which opens a pop-up window. This pop-up remains open for remaining unconfigured devices to be created/mapped in CU if exist. But user can close this window any time using the close button on the top right corner of this pop-up window.

Figure 12: Unconfigured device pop-up window



**Map with Missing Device:** Map the unconfigured (actual) device with a 4-CU device that has the same model and did not attach to any Signature controller, but it exists in the branch. You can select that device from the list as shown in Figure 12, and then click the Map with Missing Device button. This action attaches that device to the Signature controller with serial number of this unconfigured device, and then the status of this device become Matched as shown below.

**Create New Expected:** This action creates a new device with same model, base type and serial number, and then attaches this device to the Root branch and to this Signature controller. The status of this device becomes Matched as shown below.

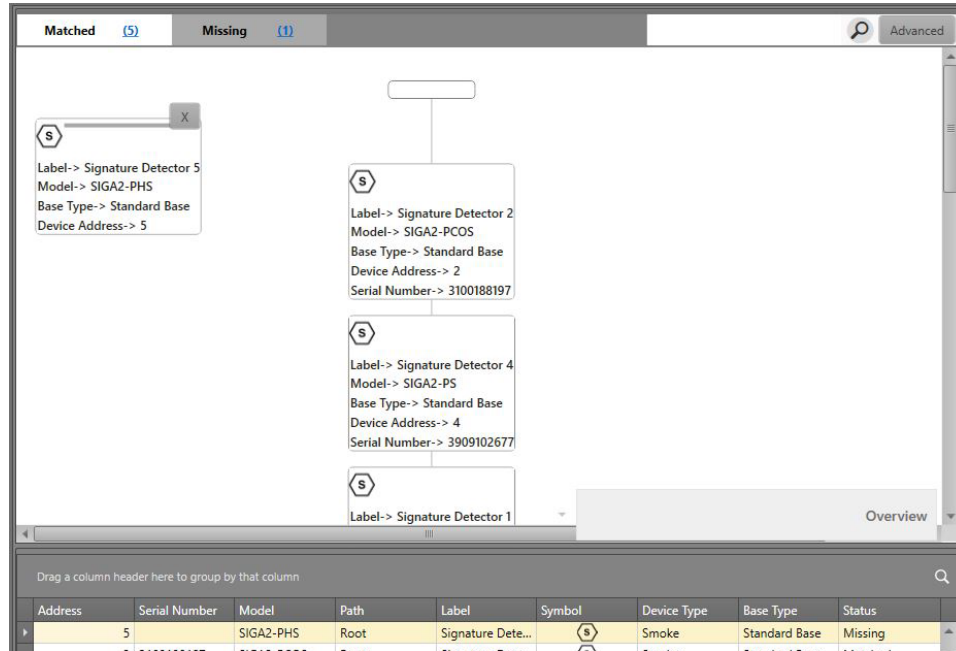


**Missing Mapping Status**

If the device added in the 4-CU's 3-SDDC1(2)/3-SSDC1(2) LRM does not match with the actual device by serial number or device address, then this device is shown under Missing status category as shown in Figure 13.

Clicking the X in the top right corner of the device will delete the device from this Signature controller, not from the branch.

Figure 13: Missing status category



## Add

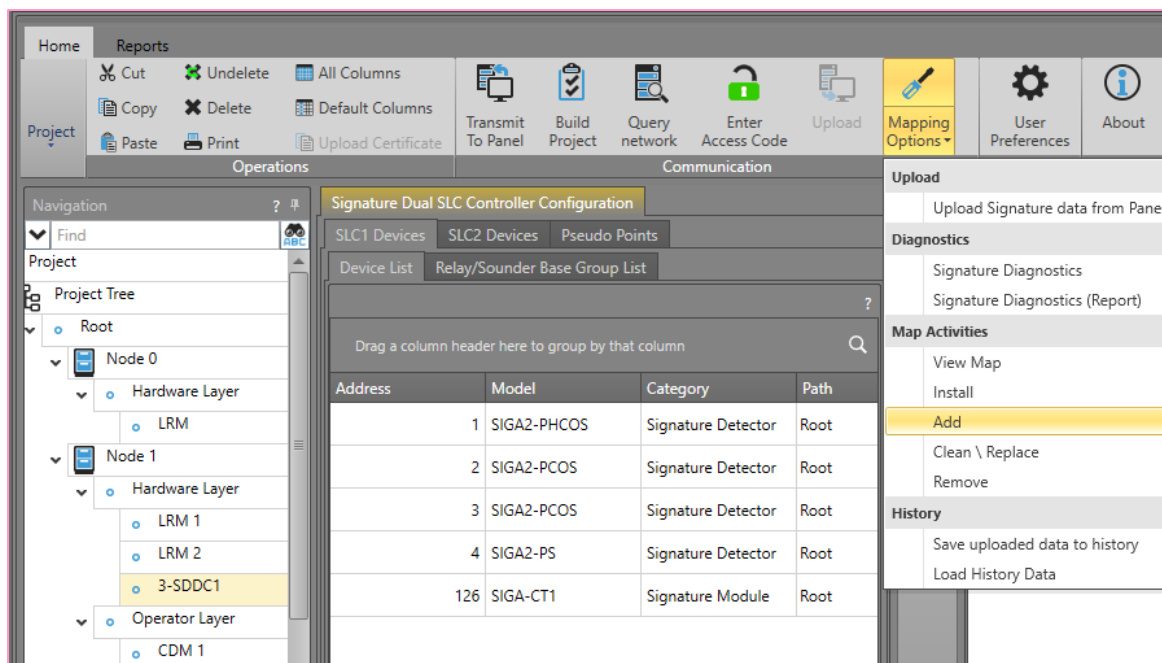
This activity should be performed only when a new device is added to the existing system (Signature controller card).

Choose this activity only when the “Install” activity was performed earlier on this Signature controller card and the project was successfully transmitted (downloaded) to the panel and there were no mapping troubles on the panel.

**Note:** Perform “Upload Signature data from Panel” each time there is a change in the system (i.e. when new device added, removed, or replaced on the Signature controller card), and then choose an activity on the CU to avoid mapping with the wrong data.

### If a new device or devices are added physically to the Signature controller card:

1. Verify that troubles related to this new device display on the panel LCD.
2. Select that Signature controller on the 4-CU.
3. Perform “Upload Signature data from Panel” to the 4-CU successfully.
4. On the Mapping Options menu, click Add. See Figure 14.

**Figure 14: Map Activities Add selection**

This activity tries to match the actual device address and expected devices address. If a match is found and their Model type and Base type are the same, then this device status become Matched. If a match is found and the Model type or Base type are different, then the mapping diagram shows Error for this device. To solve this, follow the process to handle Error status mentioned in the “Install” activity.

If there is no matching device address found in this Signature controller for a newly added device, then CU tries to perform “Install” (match by serial number) activity for this device automatically. If a matching serial number is not found, then that device will be shown as an “Unconfigured” device on the mapping diagram.

Make sure all the device’s statuses are displayed as Matched on the mapping window, and then save the project, and transmit the project to the panel.

## Clean/Replace

This activity is performed when any device is replaced by another device of same type or when two devices of the same type are swapped physically. Mapping should be On and no mapping troubles should be present on the panel for this signaling line circuit.

When any of the above actions are performed, the panel will reconcile the map by itself. Once mapping is completed, panel should not show any mapping related troubles on the panel.

At this point, it is not required to upload the panel data to the 4-CU, perform this activity, and then transmit back to the panel as the map is already reconciled by panel. However, to keep the 4-CU project data up to date (i.e. whatever devices swapped or replaced) with the panel data, you should upload the data from panel, and then perform this activity.

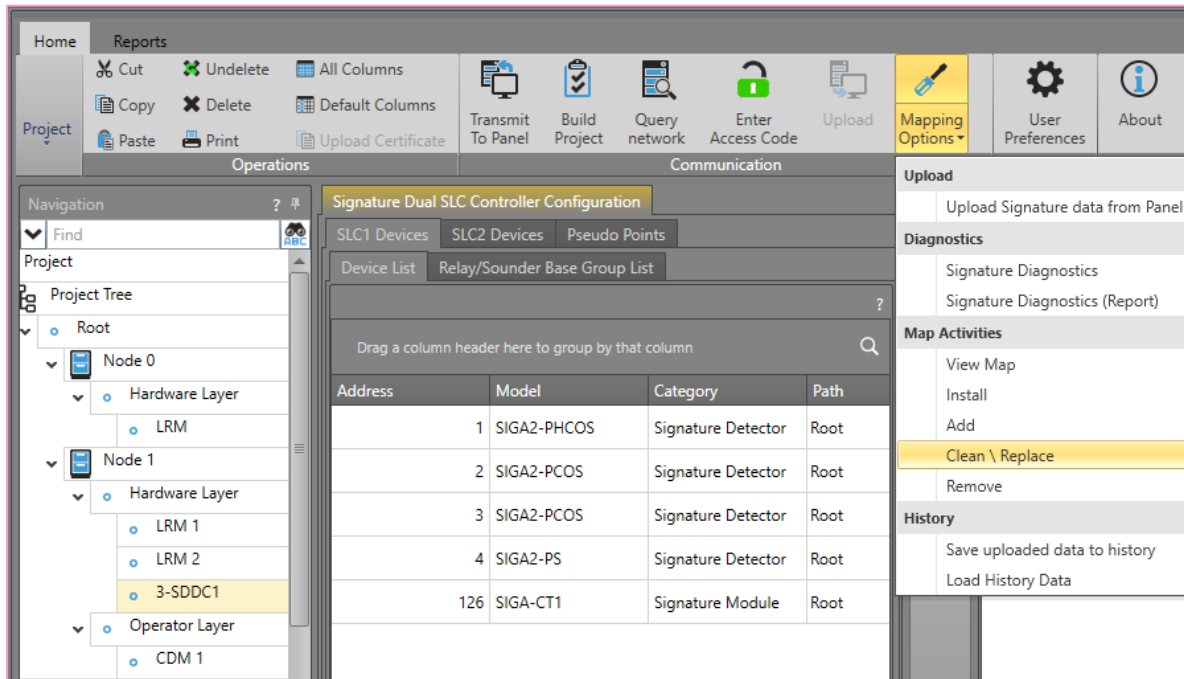
If a device is replaced or swapped with a wrong model, the panel will display a trouble on the LCD, which needs to be resolved before uploading it to 4-CU.

**Note:** After replacing/swapping the devices if there are no mapping troubles reported on the LCD screen then, after performing upload and this activity, there is no need to transmit the project to the panel.



**If a device is replaced or two devices of the same type are swapped:**

1. Select Mapping On (“SLC1/SLC2 Mapping On or Off”).
2. Verify that no troubles related to the swapped or replaced device display on the panel LCD.
3. Perform “Upload Signature data from Panel” to the 4-CU.
4. On the Mapping Options menu click **Clean \ Replace**. See Figure 15.
5. Review the map to verify the swapped or replaced device indicates Matched.
6. Save the project.

**Figure 15: Map Activities Clean \ Replace selection****Changing a Device Address**

The device Address property specifies the device address. The device address is automatically assigned when the device is added to the LRM.

It may be necessary to change or swap device addresses if the physically installed device addresses do not match the approved building drawings. In this case device addresses can be changed to match the drawing. This is done by selecting the device from the loop controller view grid and opening the Edit Properties window.

Under Device Configuration in the Edit Properties window, enter a valid address as shown below.

- Loop 1: Up to 125 detectors with the address range from 1 to 125 and up to 125 modules with the address range from 126 to 250. If you enter an address outside of these ranges, the 4-CU will post an error and not accept the entry.
- Loop 2: Up to 125 detectors with the address range from 251 to 375 and up to 125 modules with the address range from 376 to 500. If you enter an address outside of these ranges, the 4-CU will post an error and not accept the entry.

If the address you choose is already assigned, you will be prompted by a message that allows you to swap the addresses or cancel the operation.

**Example:** If you change device address 4 to address 8 and you accept the option to swap since a device already exists with address 8, then device address 4 becomes address 8 and device address 8 becomes address 4.

Devices that require consecutive address must be changed to a range of available consecutive addresses.

If no address is available, then the Address property becomes not editable.

**Note:** It is always recommended that mapping should not be set to On unless all the device addresses are matched with the addresses of the drawings.

If mapping is on (SLC1/SLC2 Mapping On) and already reconciled on the panel and then a device address is changed from the CU loop controller view and transmitted to the panel, the loop may go into Map fault status.

**If the loop has already been enabled on the panel and you want to change the device address, perform the following:**

1. Change the device Address by selecting the device from the loop controller view grid, and then opening the Edit Properties window.
2. In the Navigation Pane, select the SLC controller where the address changed, and then click “Re-Initialize Loop” on the Mapping Options menu.
3. Wait for mapping operation to complete on the panel.
4. Perform “Upload Signature data from Panel” to the 4-CU.
5. On the Mapping Options menu, click Install.
6. Save the project, build it, and check for errors. When no errors and acceptable warnings display, transmit it to the panel.

## Remove

This activity is performed when a device is removed physically from the existing system. When any device is removed from the Signature controller card, the panel will display a device communication trouble related to that device on the panel LCD.

**To use the Remove activity and clear the LCD trouble:**

1. Perform “Upload Signature data from Panel” to the 4-CU.
2. After the upload is successful, on the Mapping Options menu click Remove. See Figure 16.
3. The mapping window opens and shows an X (remove) button on all physically removed devices.
4. Click on the X remove button shown in Figure 17.

When the remove action is successful for this device, the ‘X’ button will disappear, but the device is still visible on the diagram. And all those removed devices will disassociate from the Signature controller but remain in their branch.

5. If required, go to the Device List tab of the branch and remove that device manually.
6. Once the above action is performed on all the removed devices, save the project, build it and check for errors. When no errors and acceptable warnings display, transmit it to the panel.

Figure 16: Map Activities Remove selection

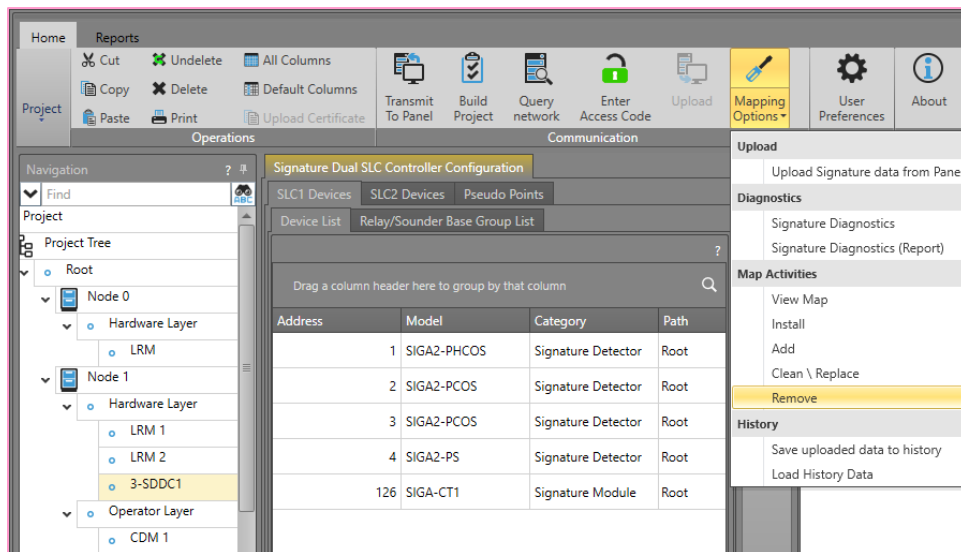
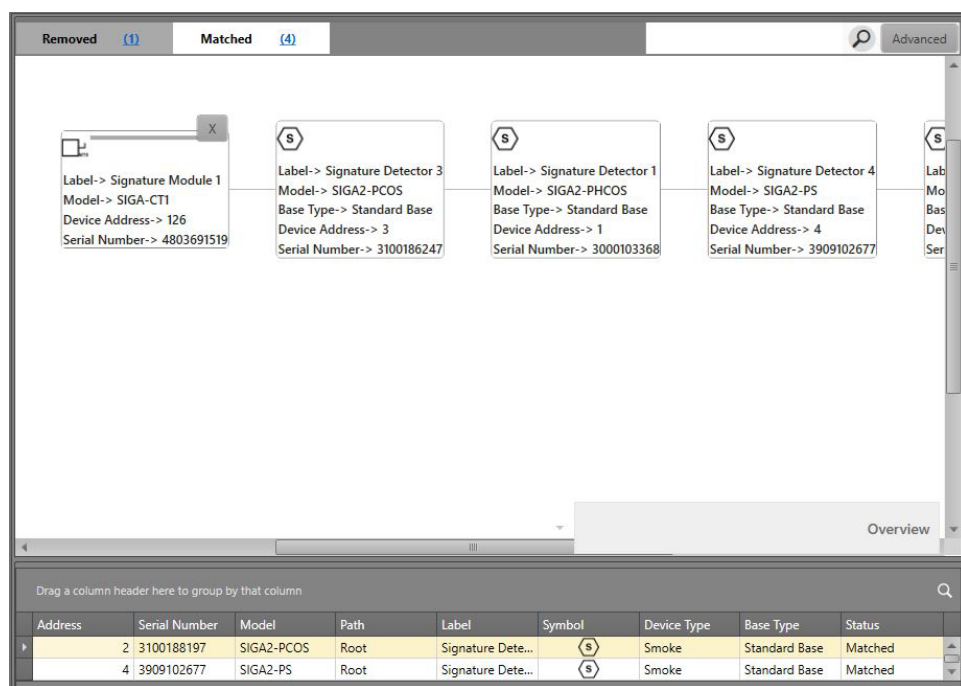


Figure 17: Map window remove button



## History (uploaded data)

History provides an option to verify the last good uploaded data instead of the latest uploaded data from the panel. This option is only available on 4-CU versions 5.x and later.

You can also save multiple snapshots (history) of the uploaded data by providing labels with respect to a Signature controller card. Later these snapshots can be viewed by the label. Based on the selection of a label from the list, the 4-CU loads the saved panel data. This data is compared against the current 4-CU data and a map is created, which can be viewed in read only mode (i.e. it will not modify the 4-CU data). These snapshots are saved and are part of the exported database and available when the databases are re-imported.

There are two options under this feature.

1. Save uploaded data to history
2. Load History Data

## Save uploaded data to history

Clicking Save uploaded data to history (Figure 18) under Mapping Options opens the Save Mapping Data pop-up window that prompts you to enter a label for saving the uploaded panel data. You can save multiple sets of uploaded data for a selected Signature controller. Currently there is no limit on the number of snapshots per Signature controller. This save option is to save the snapshot only to view later.

**To save uploaded data to history:**

1. Select a Signature controller from the project tree.
2. On the Mapping Options menu click Save uploaded data to history as shown in Figure 18.
3. Enter a label for the saved data in the Save Mapping Data pop-up window, and then click Save (Figure 19).

**Figure 18: Save uploaded data to history selection**

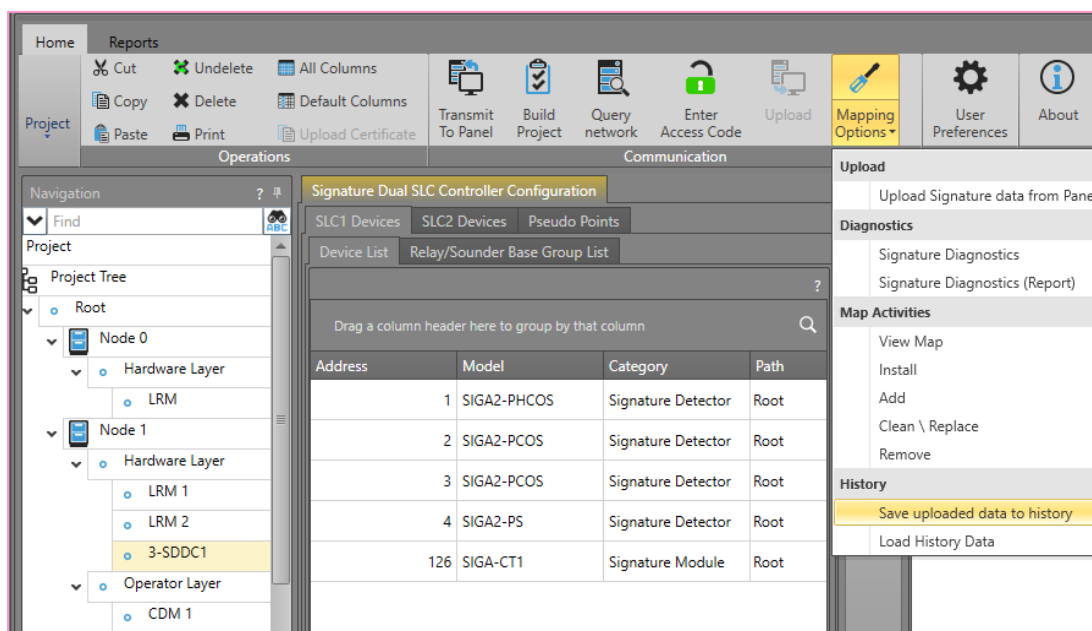
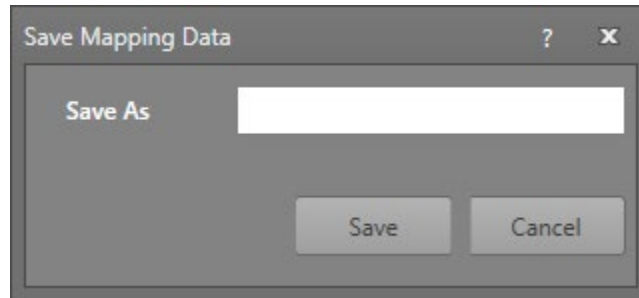


Figure 19: Save Mapping Data pop-up window



## Load History Data

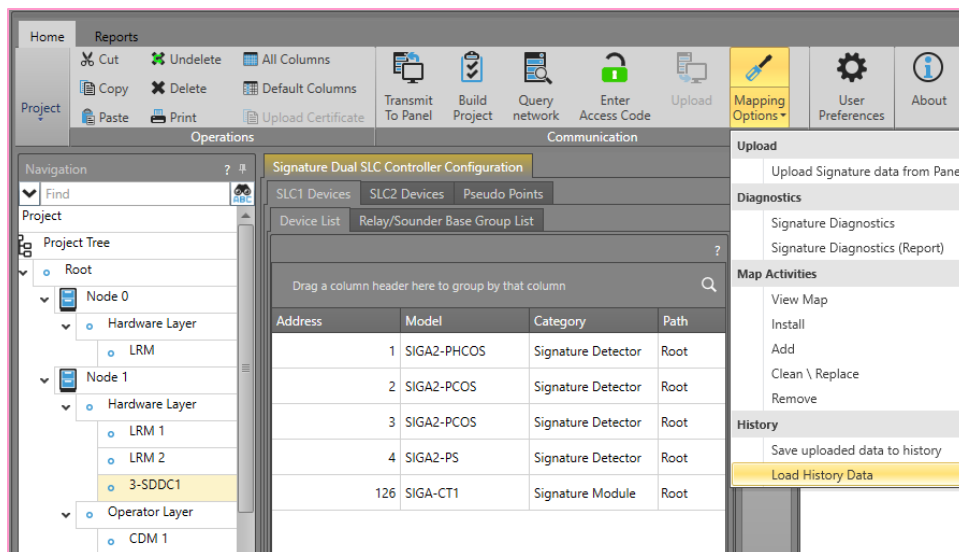
Clicking Load History Data (Figure 20) under Mapping Options opens the Upload Signature data from Panel pop-up window (Figure 21), which allows you to select any of the saved uploaded snapshot data from the list.

The View Map button opens a View Map window to view the map in read-only mode of the selected snapshot data.

### To load history data:

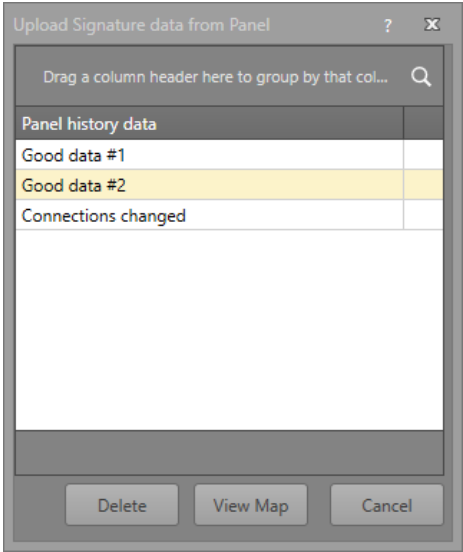
1. Select a Signature controller from the project tree.
2. On the Mapping Options menu click Load History Data as shown in Figure 20.
3. Select a Panel History Data from the list in the Upload Signature data from Panel pop-up window, and then click View Map (Figure 21).

Figure 20: Load History Data



The Delete button deletes saved history data by selecting a single or multiple label from the list (Figure 21).

Figure 21: Upload Signature data from Panel



# Appendix A

## Signature device models

### Summary

This appendix provides a list of supported Signature devices sorted into categories to assist with programming.

### Content

Signature device models by category 30  
Signature device models 30

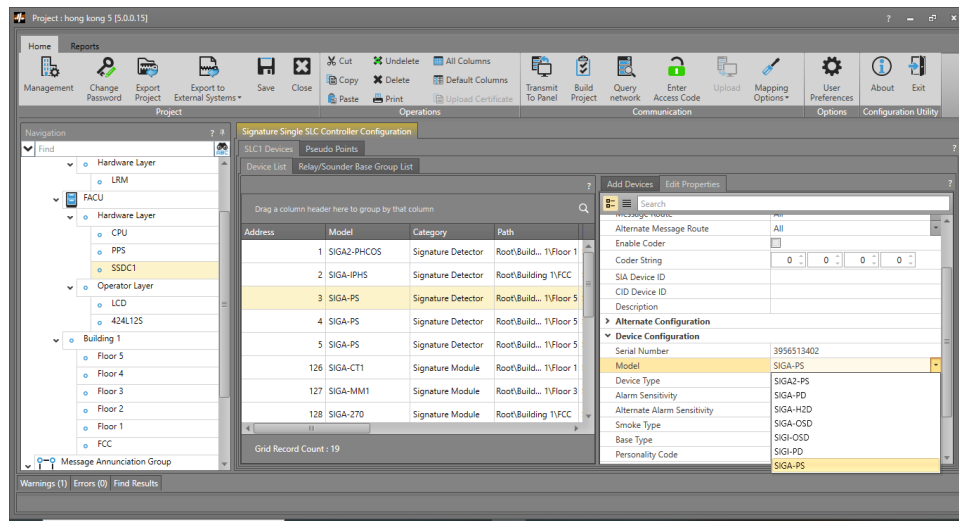
## Signature device models by category

Based on the signature device characteristics and properties, detectors and modules are grouped into categories.

The 4-CU allows you to switch between models within a same category. This switching can be done from the signature device property window, Model drop-down as shown in Figure 22.

Signature mapping does not show an Error if the actual device and expected device of the 4-CU (matched by serial number) falls under the same category. If the actual and expected devices are from different category, then mapping shows a Model mismatch Error on the mapping window of that device. In this use case, you can delete the expected device and create a new device in the branch which falls under the same category of the actual device.

### Figure 22: Device Model drop-down



## Signature device models

The following tables list the supported Signature devices sorted by category.

**Note:** The 4-CU project marketplace impacts visible device models.

Table 2: Detector category

Detector category	Model
CO Stand-alone	SIGA2-COS-CA[1]
	SIGA-COD
	SIGA-COD-CA[1]
	SIGA2-COS
Photo/Heat/CO	SIGA2-PHCOS-CA[1]
	SIGA-PHCD
	SIGA-PHCD-CA[1]
	SIGA-PHCDB



Detector category	Model
Photo/CO	SIGA-OSHCD
	SIGA2-PHCOS
	SIGA-OSCD
	SIGA2-PCOS-CA[1]
	SIGA-PCD
	SIGA-PCD-CA[1]
	SIGA2-PCOS
	SIGI-PCD
Heat/CO	SIGI-OSCD
	SIGA2-HCOS-CA[1]
	SIGA-HCD
	SIGA-HCD-CA
4D Multi-Sensor Smoke Detector	SIGA2-HCOS
	SIGA-IPHSB
	SIGA-IPHSC
	SIGA-IPHSI
3D Multi-Sensor Smoke Detector	SIGA-IPHS
	SIGA-PHS-105
	SIGA-PHSI
	SIGA-PHS
Ionization Smoke Detector	SIGA-ISI
	SIGA-IS
Fixed-Temperature Heat Detector	SIGA-HFSAB
	SIGA-HFS-105
	SIGA-HFS
Rate-Of-Rise/Fixed Temperature Heat Detector	SIGA-HRSAA
	SIGA-HRSI
	SIGA-HRSIC
	SIGA-HRS
Photoelectric Smoke Detector	SIGA-PSI
	SIGA-PSIC
	JTY-GM-SIGAPS
	SIGA-PS
Super Duct Detector	SIGA-SD
Photo, Non-Mapping	JTY-GDM-SIGA-DS2C
	JTY-GDM-SIGA-DS3C
	JTY-GDM-SIGA-DSC
Photo, Non-Mapping	SIGA-DS3I

Detector category	Model
	SIGA-DSI
	SIGA-DS2I
Heat, Non-Mapping	JTW-ZDM-SIGA-DHC
	JTW-ZDM-SIGA-DH2C
Heat, Non-Mapping	SIGA-DH2I
	SIGA-DHI
3D Multi-Sensor Smoke Detector	SIGA-OSHDI
	SIGI-PHD
	JTF-GOM-SIGA-OSHD
	SIGA2-PHSI
	SIGI-OSHD
	JTF-GOM-S2PHSI
	SIGA2-PHS
	SIGA2-PHSB
	SIGA-PHD
	JTF-GOM-SIGA-PHD
	SIGA-OSHD
	SIGA-PHD-105
	SIGA-PHDB
	SIGA-PHDI
	SIGI-OSHDI
Fixed-Temperature Heat Detector	JTW-ZDM-SIGA-HFD
	SIGA-HFD-105
	JTW-ZDM-S2HFSI
	SIGA2-HFS
	SIGA-HFD
	SIGA-HFDI
Rate-Of-Rise/Fixed Temperature Heat Detector	SIGI-HFD
	SIGA2-HRS
	SIGA-HRDI
	JTW-ZOM-SIGA-HRD
	SIGI-HRD
	SIGA-HRD
Photoelectric Smoke Detector	JTW-ZOM-S2HRSI
	SIGA-PD
	JTY-GM-SIGA-OSD
	JTY-GM-SIGA-PD
	SIGA-PDI

Detector category	Model
	SIGI-OSD
	SIGA-H2D
	SIGA-OSD
	SIGA2-PS
	SIGA-OSDI
	SIGI-PD
	SIGI-OSDI
	JTY-GM-S2PSI

**Table 3: Module category**

Module category	Model
<b>Isolator Module</b>	SIGA-IM
	SIGA-IM2
	SIGA-IM2I
	SIGA-IMI
Fire Alarm Station	SIGA-270
	SIGA-270L
	SIGC270C
Fire Alarm Station	SIGC-270B
	SIGC270BC
Fire Alarm Station	SIGC-270F
2-Stage Fire Alarm Station	SIGA-270P
	SIGC270PC
2-Stage Fire Alarm Station	SIGC-270PB
	SIGC270PBC
	SIGC270PBC
	SIGC-270PB
Fire Alarm Station	SIGI-271C
	SIGI-MCP
	SIGI-271
Double Action Fire Alarm Station	SIGA-278
	SIGI-278
30 Watt Amplifier Module	SIGA-AA30
50 Watt Amplifier Module	SIGA-AA50
Auxiliary Power Supply Module	SIGA-APS
	SIGA-APS-220
Single Input Signal Module	SIGI-CC1I
	SIGI-CC1

Module category	Model
Single Input Signal Module Auto-Sync	SIGA-CC1C
	SIGA-CC1I[1]
	SIGA-CC1
	SIGA-CC1S
	SIGA-CC1SI[1]
	SIGI-CC1S
Dual Input Signal Module	SIGI-CC1SI[1]
	SIGA-CC2
	SIGI-CC2
	SIGI-CC2I[1]
Dual Input Signal Module	SIGA-CC2I[1]
	SIGA-CC2A
	SIGI-CC2A
	SIGI-CC2AI[1]
Control Relay Module	SIGA-CR
	SIGI-CR
	SIGA-CRH
	SIGA-CRI
	SIGA-CRHI[1]
	SIGI-CRI
Control Relay Module	SIGI-CR2
	SIGA-CR2
Reverse Polarity Module	SIGA-CRR
	SIGI-CRR
Single Input Module	SIGA-CT1C
	SIGI-CT1I
	SIGI-CT1
	SIGA-CT1
	SIGA-CT1HT
	SIGA-CT1I
Dual Input Module	SIGA-CT2
	SIGI-CT2
	SIGI-CT2I
	SIGA-CT2I[1]
Duct Test Station	SIGA-DTS
	SIGI-DTS
Input/Output Module	SIGA-IO
	SIGA-IOC

Module category	Model
	SIGA-IOI
	SIGI-IO
	SIGI-IOI
Motherboard A/B Module	SIGA-MAB
Motherboard Single Input Signal Module	SIGA-MCC1
Single Input Signal Module Auto-Sync	SIGA-MCC1S
Motherboard Dual Input Signal Module	SIGA-MCC2
	SIGA-MCC2A
Motherboard Control Relay Module	SIGA-MCR
Motherboard Reverse Polarity Module	SIGA-MCRR
Motherboard Dual Input Module	SIGA-MCT2
Motion Detector Module	SIGA-MD
	SIGA-MDS
Digital Message Module	SIGA-MDM
Motherboard Input/Output Module	SIGA-MIO
Monitor Module	SIGI-MM1I[1]
	SIGA-MM1I[1]
	SIGI-MM1
	SIGA-MM1
Motherboard Riser Monitor Module	SIGA-MRM1
Releasing Module	SIGA-REL
Riser Monitor Module	SIGA-RM1
Security Module	SIGA-SEC2
Dual Temporal Code Generator	SIGA-TCDR
Universal Class A/B Module	SIGA-UM
	SIGA-UMI
Waterflow/Tamper Module	SIGI-WTM
	SIGI-WTMI
	SIGA-WTM

[1] These devices are not US marketplace devices.