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# **GV CONVERGENT**

Version 1.5.0

## **Quick Tour of Client Tasks**

13-00952-030 AA

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[www.grassvalley.com](http://www.grassvalley.com)

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# toc

## Table of Contents

<b>1 Introduction</b>	<b>7</b>
<b>2 Getting Started With GV Convergent Client</b>	<b>9</b>
Logging In To GV Convergent Client	9
Navigating Back to Stage	10
Switching User Profiles	11
Viewing Notifications	12
<b>3 Configuration Tasks</b>	<b>15</b>
Area Configurator Tasks	16
Configuring the Areas in GV Convergent Client	16
Adding an Area	17
Configuring a Controller Group	18
Selecting an Area	21
Deleting an Area	22
Logical Level Editor Tasks	23
Logical Level Editor Task Overview	23
Viewing the Default Logical Levels	24
Duplicating a Logical Level	26
Editing a Logical Level	27
Deleting a Logical Level	28
Configuring a New Logical Level	28
Configuring the Logical Levels of the Devices in a Topology	29
Topology Configurator Tasks	31
Accessing the Topology Configurator	31
Selecting a Topology	32
Refreshing the Device Graph	35
Viewing the Topology in Full Screen Mode	35
Creating a Topology	37
Adding Devices to a Topology	39
Linking the Devices in a Topology	40
Deleting the Connection Between Device Groups	41
Defining Properties for the Devices	42
Deleting a Device From a Topology	44
Activating a Topology	45
Making an Active Topology Inactive	47
Unlocking / Relocking a Topology	48
Locking an Unlocked Topology	50
Logical Device Table Tasks	52
Accessing the Logical Device Table task	52
Modifying the Default Sources in the Logical Level Table	53

Adding a Source to the Logical Level Table .....	54
Configuring Streams for New Sources .....	55
Adding and Configuring a Destination .....	56
Deleting a Source or Destination .....	56
Exporting a Logical Device Table .....	56
Selecting all Devices in the Logical Device Table .....	57
Category Configurator Tasks .....	58
Accessing the Category Configurator .....	58
Creating a Category for the Sources in Your Topology .....	59
Assigning a Keystroke Label to a Source or Destination .....	61
Creating a Keystroke Label .....	62
Panel Configurator Tasks .....	63
Accessing the Panel Configurator .....	63
Creating a New Panel .....	64
Adding Actions to a Panel .....	65
Adding Resources to the Panel .....	66
Adding the New Panel to the Topology .....	67
<b>4 Monitoring Tasks .....</b>	<b>71</b>
Overview .....	71
Path Manager Tasks .....	72
Accessing the Path Manager .....	72
Viewing Information about the Tie Lines .....	72
Viewing Information about the Streams .....	73
Viewing Information about the Destinations .....	73
Viewing Information about the Status .....	74
System Status Task .....	75
Accessing the System Status Task .....	75
Forcing the Inactive Controller to be the Active Controller .....	76
Permissions .....	78
<b>5 Control Tasks .....</b>	<b>81</b>
Overview .....	81
Alias Editor Tasks .....	82
Accessing the Alias Editor .....	82
Router Control Tasks .....	84
Accessing the Router Control Task .....	84
Performing Actions in Router Control .....	84
Selecting the Name of Sources and Destinations .....	85
<b>6 Administration Tasks .....</b>	<b>87</b>
The User Management Task Overview .....	88
Creating User Profiles .....	89
Granting Access Permissions to an Area .....	91
Viewing Permissions by Role .....	94

# 1 Introduction

The purpose of this guide is to provide a brief introduction to GV Convergent Client and its features.

When you log in to GV Convergent Client you open the Stage.

The GV Convergent Client Stage presents a series of tiles, which are arranged in the order you would perform the tasks if you were to configure a GV Convergent system from start to finish. Each task builds on the last. It all begins by defining one or more areas. Once you have area, you can add logical levels. Then, you can create a topology.

These tasks are described in the chapters that follow.

## **GV Convergent Documentation**

Other GV Convergent Client guides include:

- *GV Convergent Release Notes*
- *GV Convergent A Quick Tour of the Admin Tasks*



# Getting Started With GV Convergent Client



This chapter describes the following tasks:

- [Launching GV Convergent Client](#), on page 9
- [Logging In To GV Convergent Client](#), on page 9
- [Navigating Back to Stage](#), on page 10
- [Switching User Profiles](#), on page 11
- [Viewing Notifications](#), on page 12

## Launching GV Convergent Client

Once GV Convergent Client is installed on your computer, the shortcut icon appears on your desktop.

For details on installing GV Convergent Client for the first time, refer to *A Quick Tour of GV Convergent Admin tasks*.

## Logging In To GV Convergent Client

**Tip:** Before logging in to GV Convergent Client ensure that you have a valid **user name** and **password**, as well as the **Management IP address** of GV Convergent Admin.

**To log in to GV Convergent Client**

- 1 Click the GV Convergent Client icon on your PC.  
The GV Convergent Client login screen appears.



- 2 Enter your user name and password in the **User name** and **password** text boxes.
- 3 Enter the Management IP address of the GV Convergent Admin in the **Server** text box.
- 4 Click **Log in**.

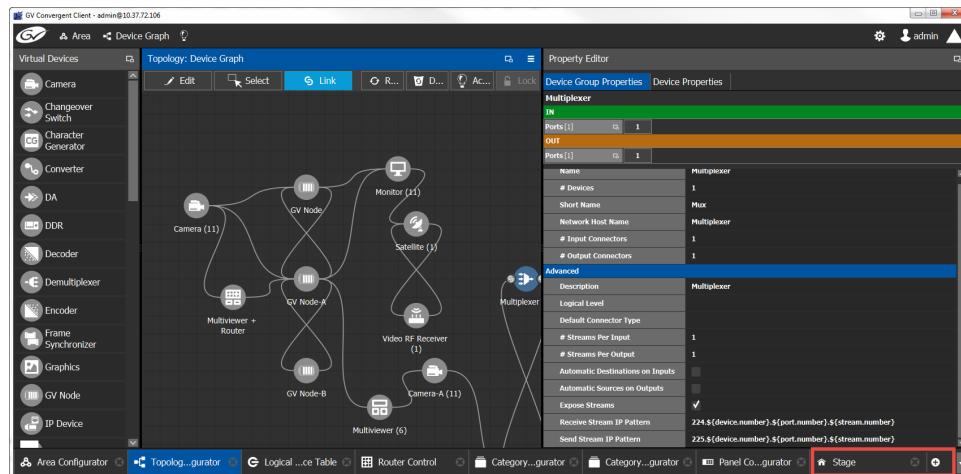
## Navigating Back to Stage

At any time, you can return to the Stage view.

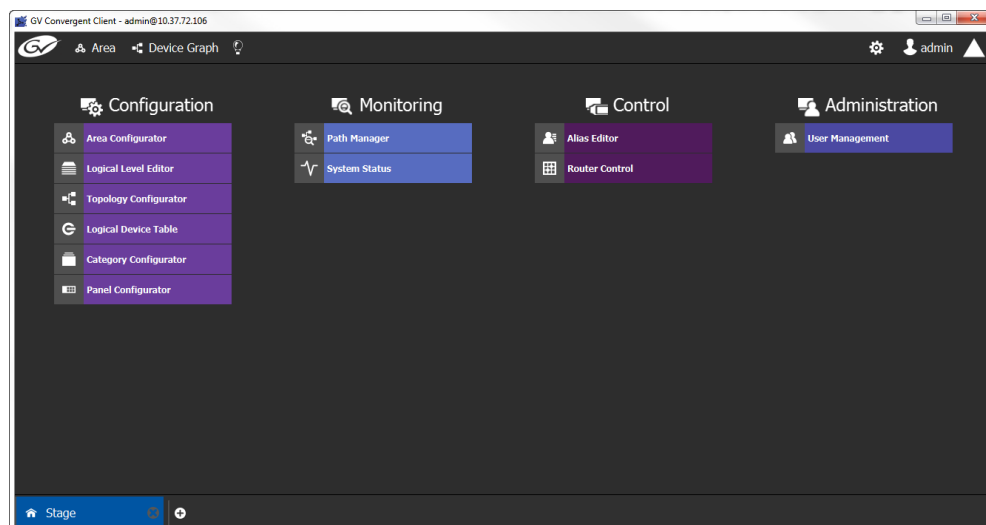
### To navigate back to Stage

- 1 Open GV Convergent Client to any task.
- 2 Do one of the following:
  - Click the Stage tab at the bottom of the UI.
  - Click the plus button at the bottom of the UI.

**Tip:** The second option is useful, if you have a lot of tasks open.



The home or Stage view appears.



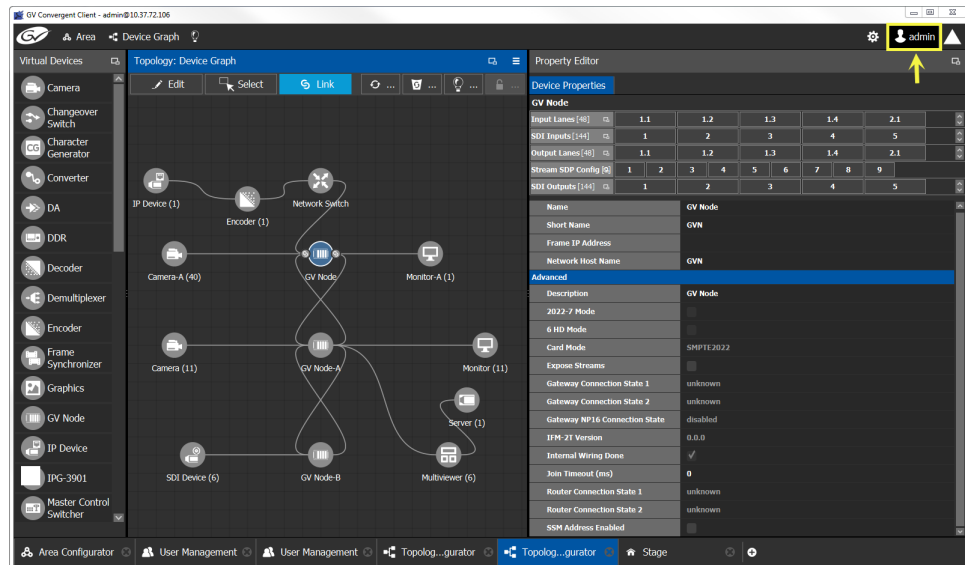
## Switching User Profiles

From the Stage or any open task, you can change to another user profile.

**Note:** Before switching to another user profile, ensure that you have the required user name, password, and Management IP address.

### To switch to another user profile

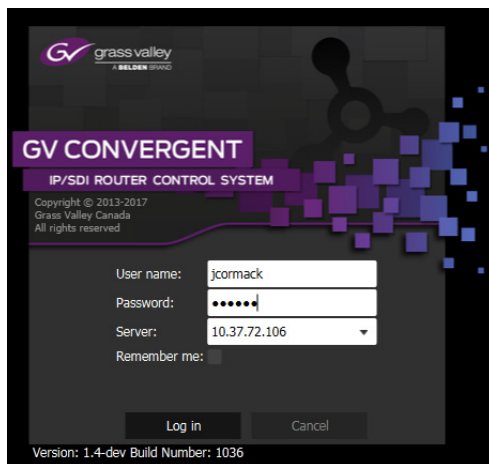
- 1 Click on the user profile name at the top right of GV Convergent Client.



A confirmation message appears.

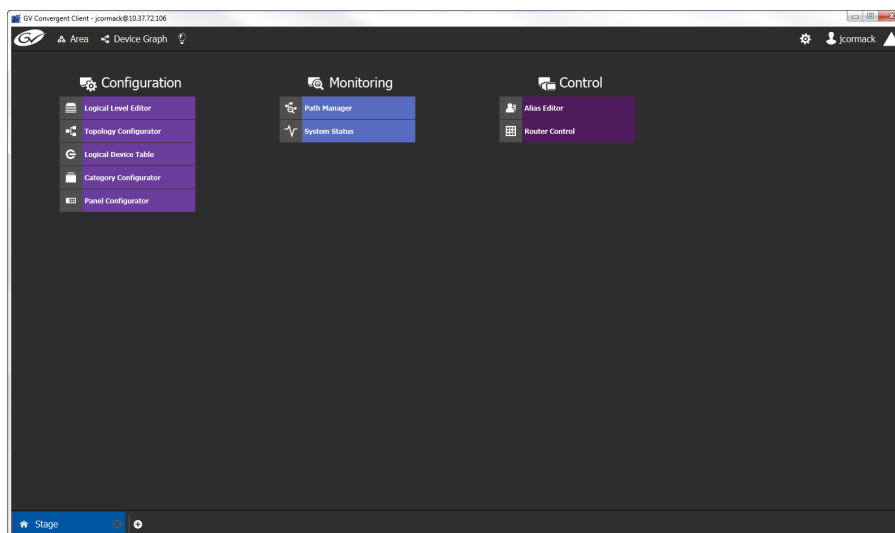


- 2 Click **Log out** to continue.  
The Log in screen appears.



- 3 Enter your login credentials in the **User name** and **Password** text boxes.
- 4 Enter the Management IP address of the GV Convergent server you are connecting to in the **Server** field.
- 5 Click **Log in**.

GV Convergent Client opens to the view applicable to the user.



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**Note:** Access permissions vary according to the permissions granted to the user's role. For further information, see [Administration Tasks](#), on page 87

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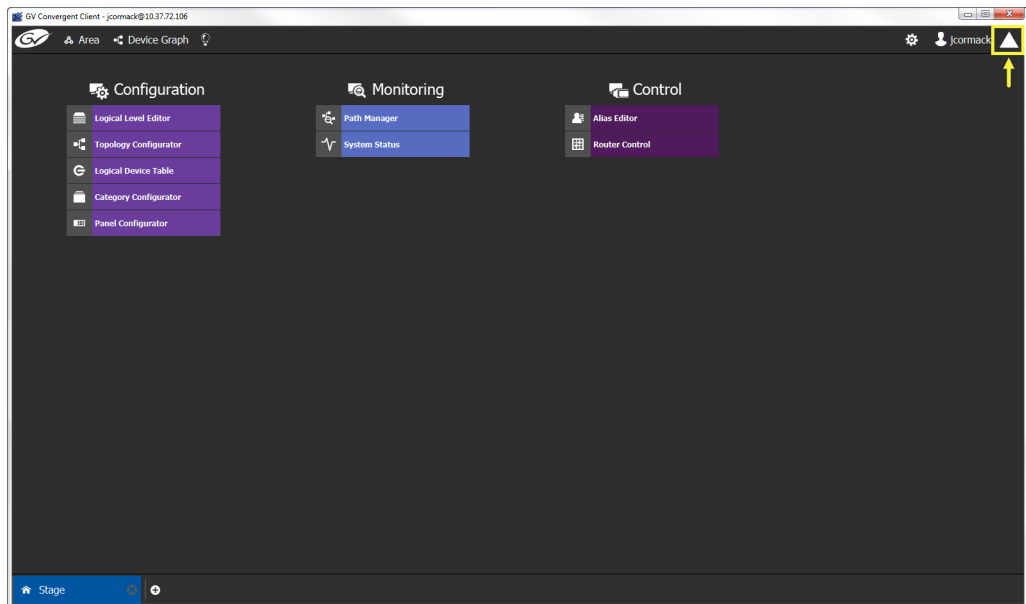
## Viewing Notifications

A notification is an indicator that an event has occurred.

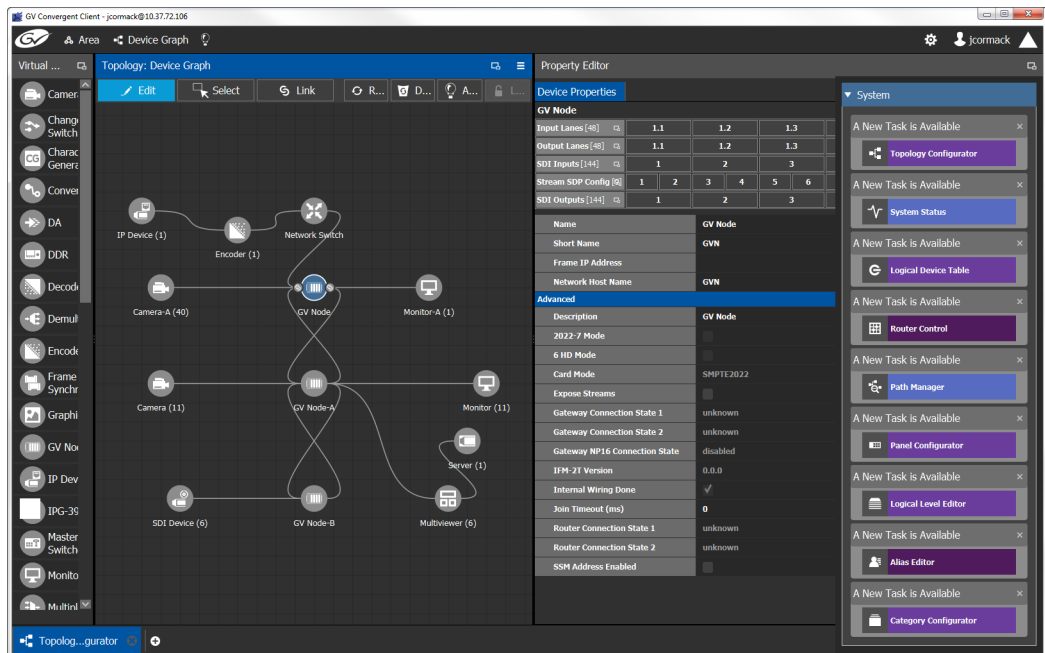
### To view your notifications

- 1 Log in to GV Convergent Client.





- 2 Click on the up arrow in the top right corner of the UI.  
The Notification window appears.

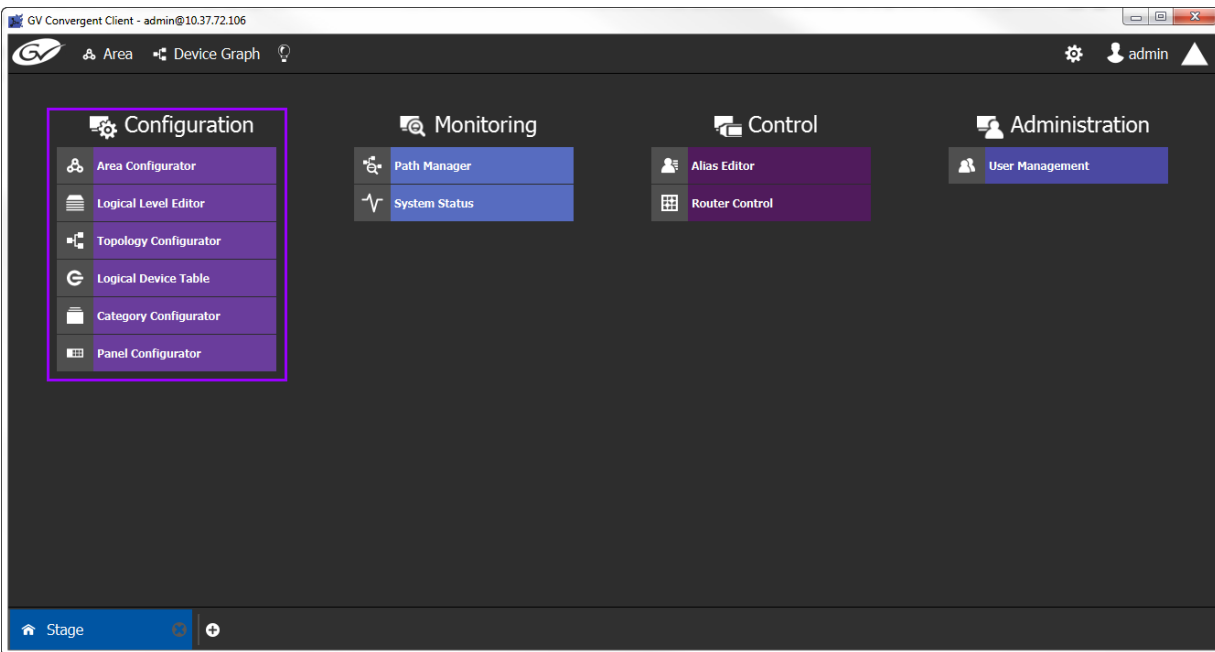


- 3 Expand the **System** list. The list of new events appears.
- 4 Click on a listed event on the right to view it in the UI.



# 3 Configuration Tasks

The Configuration tasks in GV Convergent Client are used for creating and maintaining areas, topologies, categories, and panels.



The Configuration Tasks are described under the following headings:

- [Area Configurator Tasks](#), on page 16
- [Logical Level Editor Tasks](#), on page 23
- [Topology Configurator Tasks](#), on page 31
- [Logical Device Table Tasks](#), on page 52
- [Category Configurator Tasks](#), on page 58
- [Panel Configurator Tasks](#), on page 63

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## Area Configurator Tasks

The Area Configurator task is used for configuring the *Areas* and controllers in GV Convergent.

An *Area* is container that is used for grouping together a subset of resources within a system. Typically, these resources are closely related, by physical location, functionality, ownership, and/or logical organization. An area is managed by a single controller group, which is made up of:

- a single controller
- or optionally, two redundant controllers to provide 1:1 failover protection

This section describes the following:

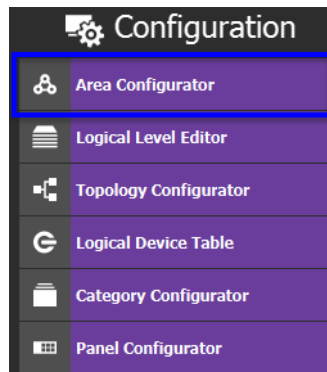
- [Configuring the Areas in GV Convergent Client](#), on page 16
- [Adding an Area](#), on page 17
- [Configuring a Controller Group](#), on page 18
- [Selecting an Area](#), on page 21
- [Deleting an Area](#), on page 22

## Configuring the Areas in GV Convergent Client

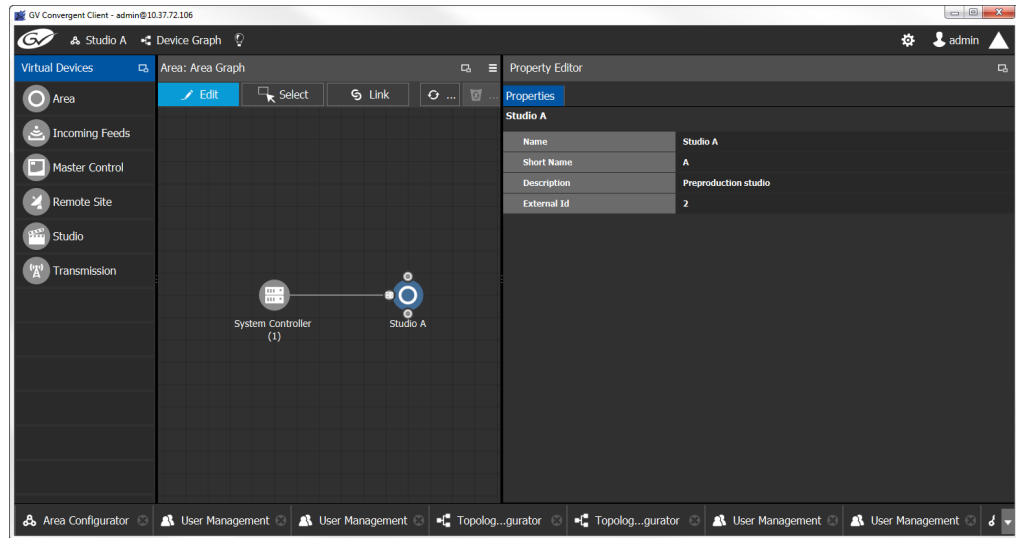
All configuration in GV Convergent Client begins with the areas. Once you have the areas defined, you can add the logical levels, the topologies, and so on.

**To configure the area in GV Convergent Client**

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Area Configurator**.



The Area Graph appears.



By default, there is one area, called Area. Use the Property Editor on the right to rename it and make it easy to identify.

- 3 Select the Area to access the Property Editor.  
You are automatically in Edit mode. **Edit** is highlighted in the bar at the top.
- 4 Enter the required information in the **Name**, **Short Name**, **Description**, and **External ID** fields to identify the area.
- 5 Repeat the procedure for each area in your system.

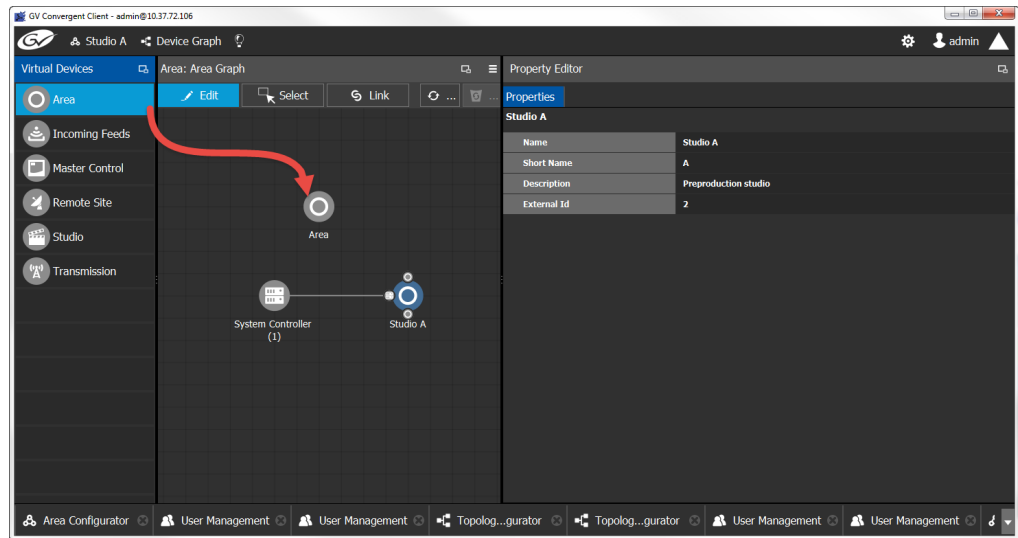
## Adding an Area

You can create multiple areas for your system. This can facilitate configuration and control tasks. Smaller subsets are easier to bring into focus and manage.

### To add an area

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Area Configurator**.

This opens the Area Graph.



- 3 Select the area tile on the left.
- 4 Drag it to the Area Graph.
- 5 Repeat the procedure as many times as required to add all the areas you need.

## Configuring a Controller Group

By default, there is one area and one System Controller group on the Area Configurator device graph.

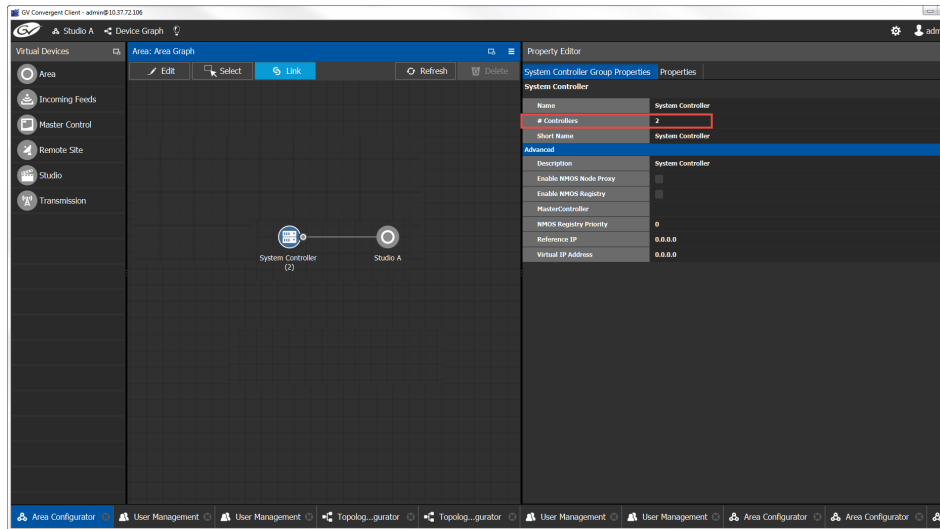
A controller group can have one or more areas. The controller is a physical or virtual server that runs the GV Convergent software.

A Controller group can be made up of either one or two controllers. You need two controllers to have redundancy. In the redundant configuration, one controller is active and the other is on standby. If there is a problem, such as a network connection loss, the standby controller becomes the active controller, automatically. In addition, you can force the standby controller to become the active controller by performing a manual failover operation, at any time.

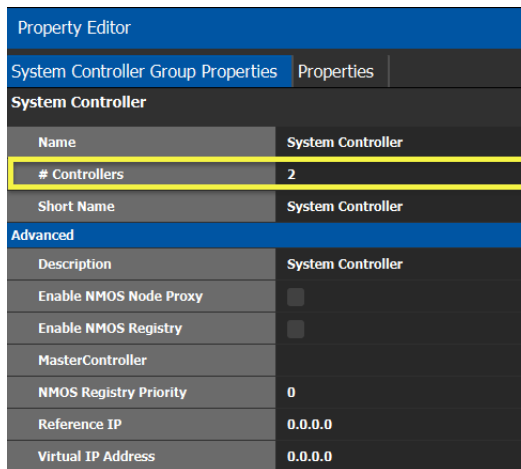
### To configure a controller group

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Area Configurator**.

By default, there is one controller and one area on the graph.



- 3 Select the bubble for the **System Controller** you are configuring.
- 4 Select the **System Controller Group Properties**.



- 5 Enter **2** in the **#Controllers** field if you are setting up redundancy. Otherwise, enter **1**.

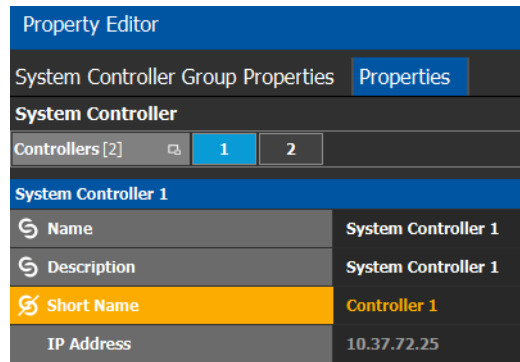
---

Note: You can only have a minimum of one system controllers in a group and a maximum of two system controllers in a group.

---

- 6 Select the **Properties** tab.

- 
- 7 Select **1** under **System Controller** to configure the first controller.



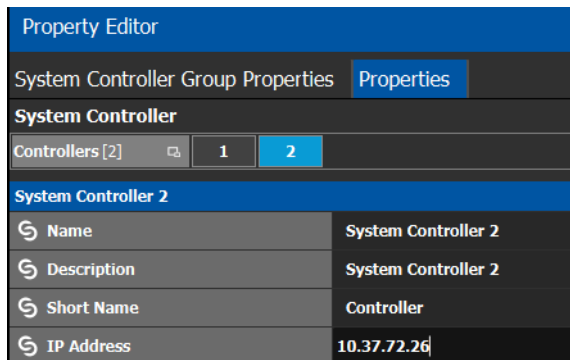
- 8 Update the **Name**, **Description**, and **Short Name** fields to make it easy to identify the controller.

---

Note: The **IP address** field for **System Controller 1** is populated automatically with the Management IP address. This cannot be changed.

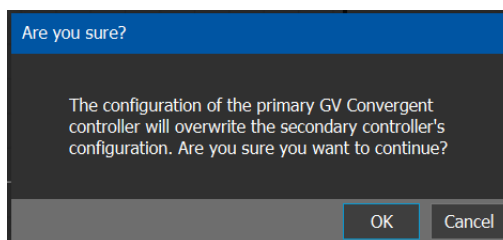
---

- 9 Select tab **2** under **System Controller** to configure the second controller.



- 10 Update the identification fields for the second controller: **Name**, **Description**, **Short Name**, and **IP Address**.

A confirmation message is displayed:



- 11 Click **OK** to continue.

---

**Note** System Controller 2 joins the Controller group automatically as the standby controller. It becomes the active controller in the event of an automatic or manual failover. You must enter a unique IP addresses for both controllers.

---



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**Note:** When you click OK, the database from Controller 1 is copied to Controller 2

---

You can view the health of both controllers on the System Status task. The System Status Task page will show the status of the controllers at all times, and the right hand section shows the health of devices specific to a topology. However, you must create your areas and topologies first. See [System Status Task](#), on page 75.

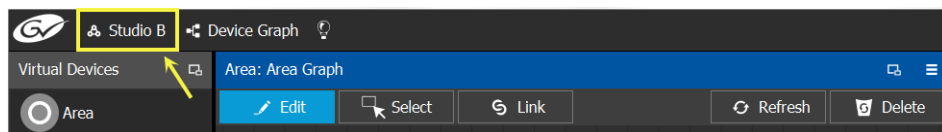
## Selecting an Area

You must select an area before you can create or maintain a topology within it. Only one area can be selected at a time.

**To switch from one selected area to another**

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.

The currently selected Area is displayed at the top of the interface.



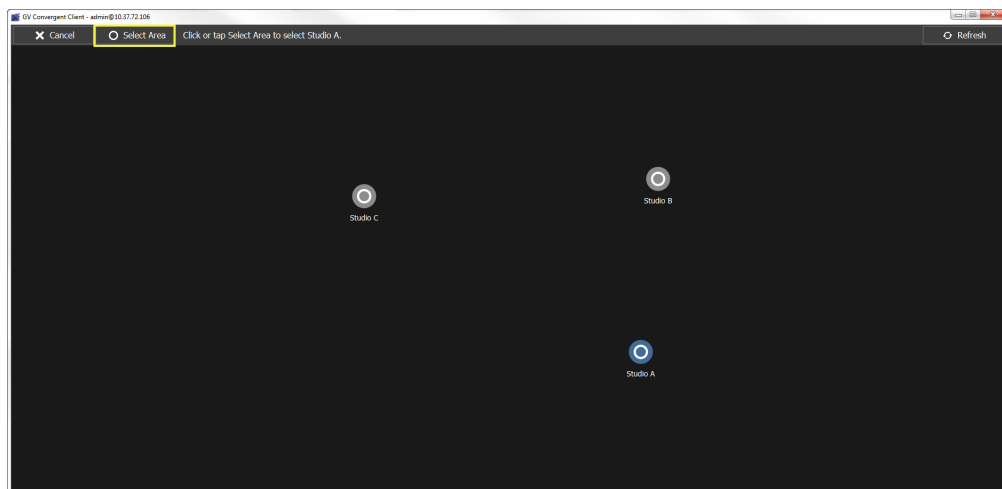
---

Note: You can perform this procedure from Stage or from any open task. You can always select an area.

---

- 2 Click on this area.

A secondary window appears.



- 3 Click on the area that you to select.  
In the screen shot above, this is Studio A.
- 4 Click **Select Area** at the top of the window.

---

## Deleting an Area

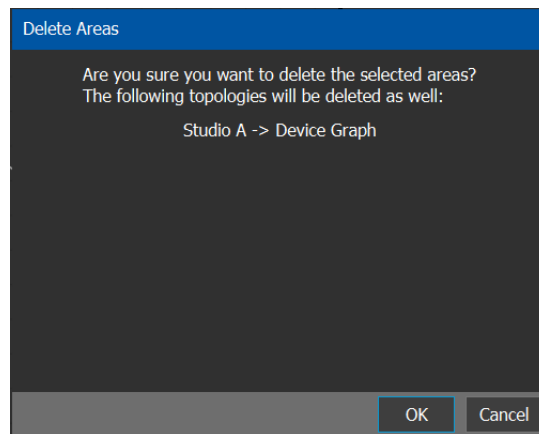
---

Note: You cannot the selected Area.

---

### To delete an area

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Area Configurator**.
- 3 Click on the Area you want to delete.
- 4 A confirmation message appears. It lists the topologies created in the Area.



- 5 Click **OK** to continue.

## Required Permissions

Users with Administrator rights are the only users that have view, edit, or delete permissions in the Area task.

## Logical Level Editor Tasks

This section describes the following:

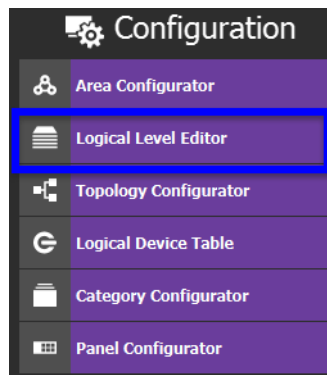
- [Logical Level Editor Task Overview](#), on page 23
- [Viewing the Default Logical Levels](#), on page 24
- [Duplicating a Logical Level](#), on page 26
- [Editing a Logical Level](#), on page 27
- [Deleting a Logical Level](#), on page 28
- [Configuring a New Logical Level](#), on page 28
- [Configuring the Logical Levels of the Devices in a Topology](#), on page 29

### Logical Level Editor Task Overview

Use the Logical Level Editor to define new logical levels and to view the compatibility of the default levels.

#### To access the Logical Level Editor Task

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select an area.
- 3 Select **Configuration > Logical Level Editor**.

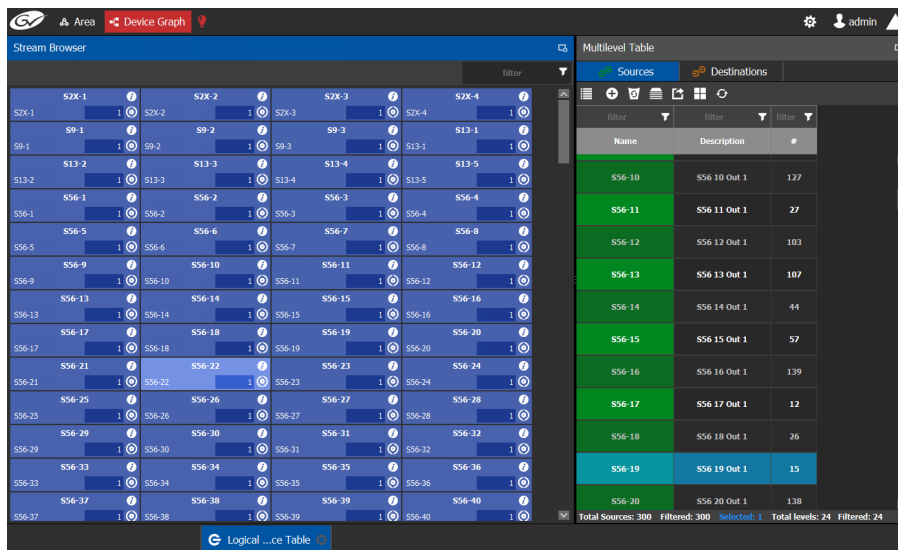


The Logical Level Editor appears.

---

**Note:** Only users who are Administrators or Engineers in the selected area have View, Edit, and Delete permissions in the Logical Level Editor task. See [Viewing Permissions by Role](#), on page 94,

---



**Note:** Before you can open the Logical Level Editor, you must open an Area and a Topology. Logical levels are defined specifically for each topology.

The Logical Level Editor has two columns:

- The first column contains tiles for all default logical levels along with the logical levels you have added.
- The second column has three tabs: *compatible with*, *contains* and *shuffles with*. The *shuffles with* allows a user to configure which audio levels can be shuffled with which.

## Viewing the Default Logical Levels

The default logical levels are represented by the first tiles displayed in the left and center columns, beginning with video, then audio, and finally ancillary. When you create new logical levels, they are added after these.

You can change the Short Label and Level ID of a default Logical Level, but not the Name. Also, you cannot delete a default level.

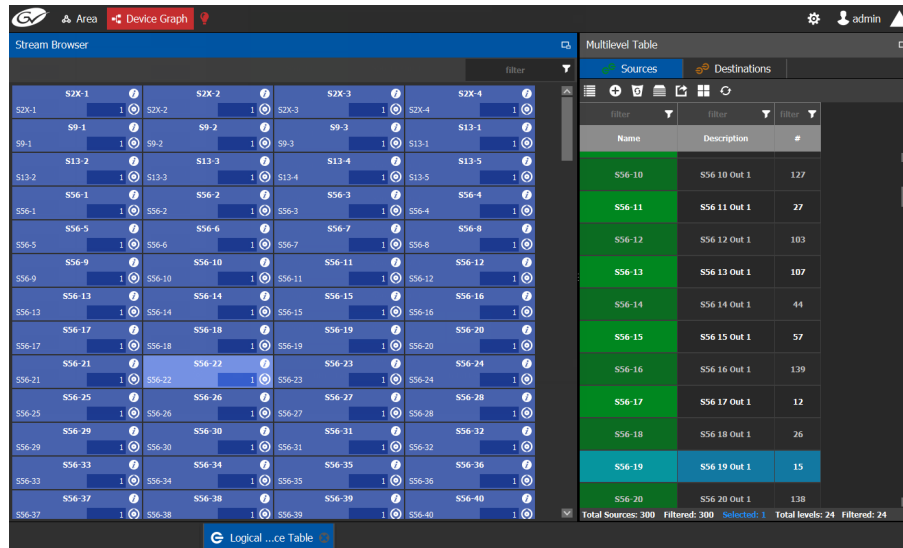
## Verifying the Compatibility of the Default Logical Levels

The compatibility of the default levels is predefined and cannot be changed. However, you always modify the compatibility of the logical levels you create. The rule applies to the signal types.

### To verify the compatibility of Logical Levels

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Logical Level Editor**.

The Logical Level Editor appears.



The Logical Level Editor has three columns:

- The left hand column contains tiles for all default logical levels along with the logical levels you have added.
- The center column contains the same tiles. When you select a tile in the left hand column, the compatible logical levels are highlighted in this column.
- The right hand column contains tiles representing the signal type the logical level contains, such as video, audio, or ancillary.

3 Select a logical level tile on the left.

The tiles for the logical levels it is compatible with are highlighted in the center column.

**Note:** A logical level is always compatible with itself.

## Verifying the Signal Type of the Default Logical Levels

Like the compatibility, the signal types of the default logical levels is predefined and cannot be changed. However, you always modify the signal type for the logical levels you create.

To verify the signal types of the default logical levels

- 1 Follow the procedure under [Verifying the Signal Type of the Default Logical Levels](#), on page 25.
- 2 When you select a tile for a logical level in the left hand column, the compatibility is highlighted in the center column and the signal type is displayed in the right hand column.

## Duplicating a Logical Level

Use the following procedure to create a copy of a pre-existing logical level.

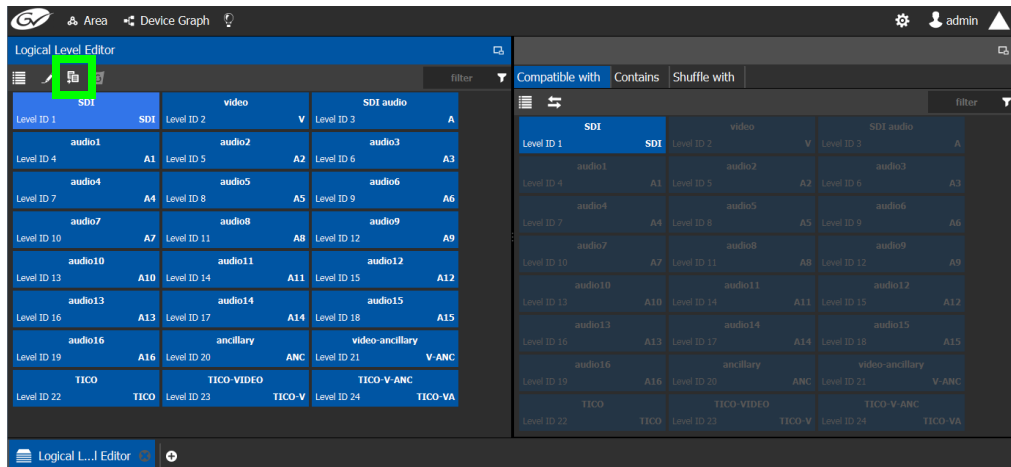
### Notes

Logical levels are specific to topologies. In another topology, you won't see the logical levels you create in the currently selected topology.

Only SDI and TICO levels can be duplicated.

### To duplicate a logical level

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Logical Level Editor**.
- 3 Select a pre-existing level on the left-hand panel that you want to duplicate.



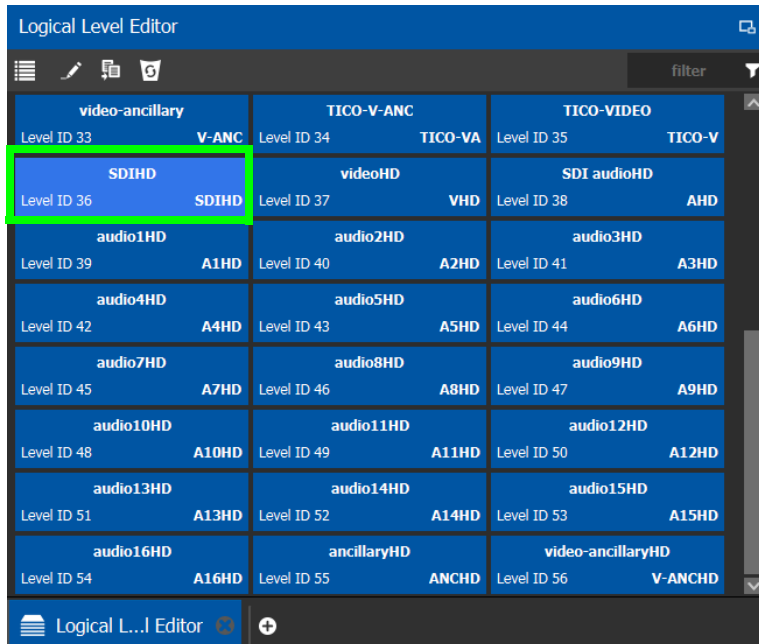
- 4 Click the **Duplicate** button  at the top of the interface.

The Logical Level configuration window opens.

Level To Duplicate	SDI
Name Prefix	
Name Suffix	HD
Short Label Prefix	
Short Label Suffix	HD
Starting Level ID	36
<input type="button" value="Ok"/> <input type="button" value="Cancel"/>	

- 5 Enter meaningful names to identify the level in the **Name Prefix**, **Name Suffix**, **Short Label Prefix**, and **Short Label Suffix** text boxes.
- 6 Enter a unique identifier in the **Starting Level ID** text box.
- 7 Click **OK**.

A tile for your new logical level is displayed in the left hand column.



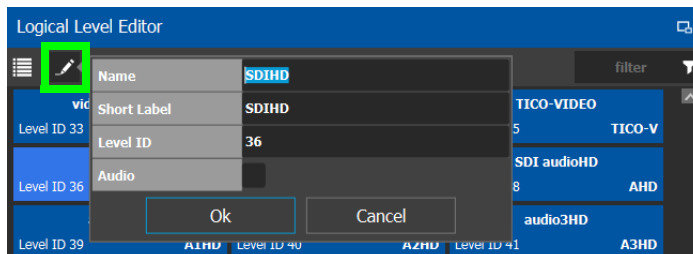
See [Configuring the Logical Levels of the Devices in a Topology](#), on page 29.

## Editing a Logical Level

Use the following procedure to modify the identification information of a logical level. The audio setting signals that the level is an audio level.

### To configure a new logical level

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Logical Level Editor**.
- 3 Select a level on the left-hand panel that you want to edit.



Note: For the default logical levels, you can modify the Short Label and Level ID. You cannot modify the Name.

- 4 Click **Edit** at the top of the logical level editor.
- 5 Modify the text in the **Name**, **Short Label**, and/or **Level ID** fields and/or the **Audio** setting as required.  
A level with **Audio** set will appear in the Shuffles with tab of the right pane for shuffling rules.

- 6 Click **OK**.

## Deleting a Logical Level

Use the following procedure to delete a logical level that is not required in the selected topology.

---

Note: You cannot delete the default logical levels. The Delete button is disabled when you click on these levels

---

### To configure a new logical level

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Logical Level Editor**.
- 3 Select the tile for the logical level you want to delete.



- 4 Click **Delete** at the top of the logical level editor.

---

Note: There is no confirmation for the deletion.

---

## Configuring a New Logical Level

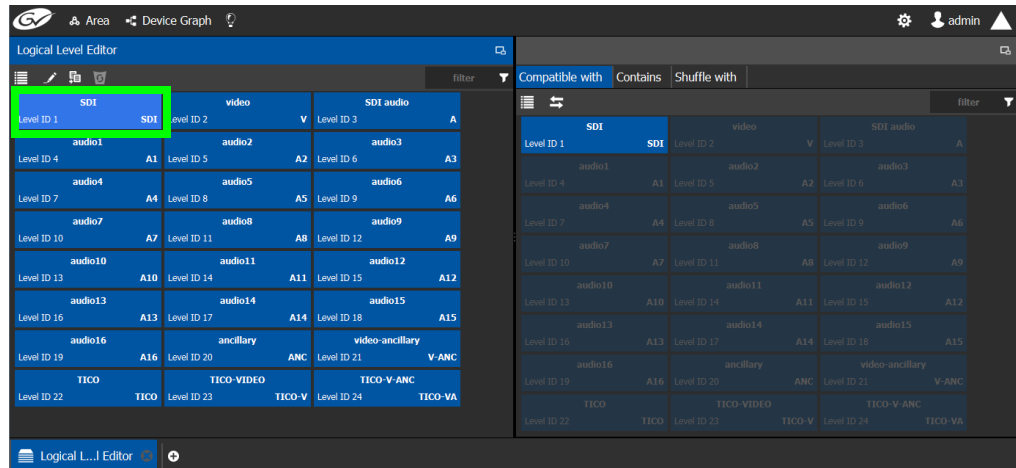
Use the following procedure to configure your new logical level. This determines which signal types are compatible with this level.

### To configure a new logical level

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Logical Level Editor**.



- 3 Select the tile for the logical level you want to configure.



The tile for your new logical level is automatically highlighted in the right hand column.

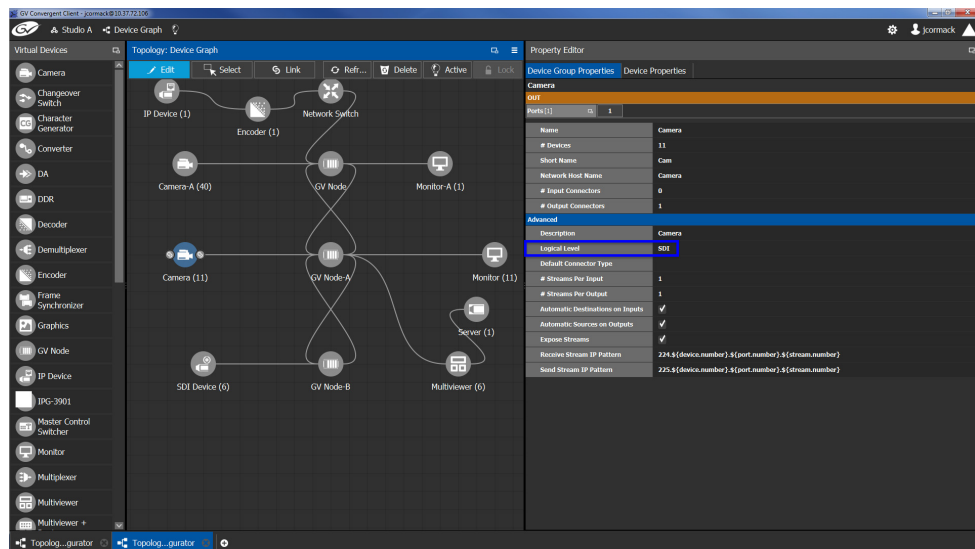
- 4 Select the tiles for the signal types in the right hand column that are compatible. Click a tile a second time to deselect it.

## Configuring the Logical Levels of the Devices in a Topology

Use the following procedure to add logical levels to the devices in your topology.

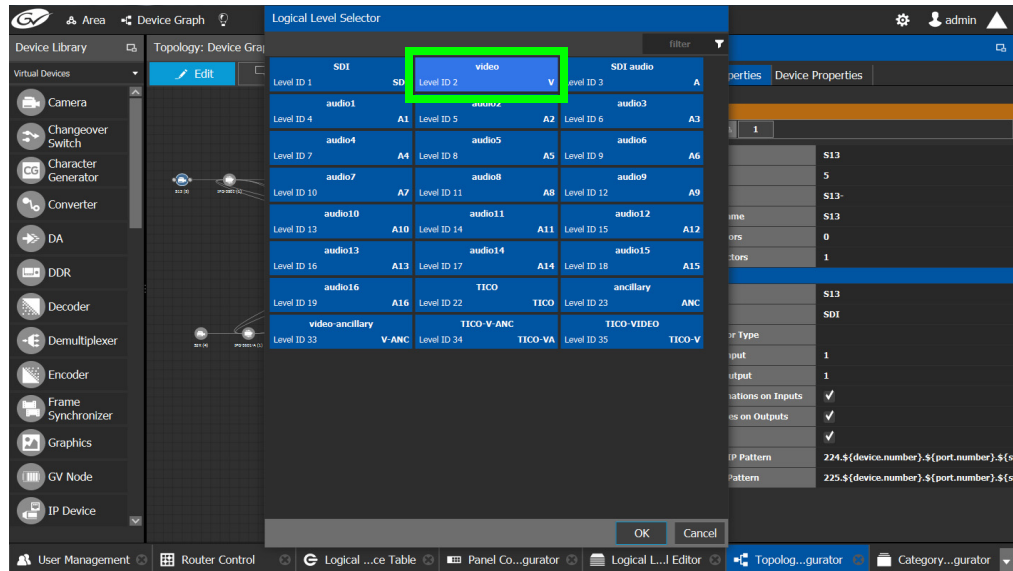
### To configuring an area in GV Convergent Client

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Topology Configurator**.
- 3 Select the required Area. See [Selecting an Area](#), on page 21.
- 4 Select the required topology in the area.



- 5 Select the device for which you are configuring a logical level.  
In the example, shown in the screen shot above, the camera is selected.  
SDI is the default logical level for cameras.

- 6 Select Device Group Properties.
- 7 Select the **Logical Level** parameter in the Property Editor.  
This opens the Logical Level list.



- 8 Select the required logical level for the device group.

## Topology Configurator Tasks

In the previous task, the Area Configurator, you defined the various Areas in your system. Within each Area, you can create multiple *Topologies*. The topologies show how the various physical and logical devices are arranged within the broadcasting facility.

The Topology Configurator comprises three sections. The left hand column has a list of bubbles, representing the device groups, such as cameras, routers, and monitors. You drag these onto to a device graph and create connections between them. Then, you can configure the properties for the Device Groups in the Property Editor;

See [Area Configurator Tasks](#), on page 16.

These sections describes the following:

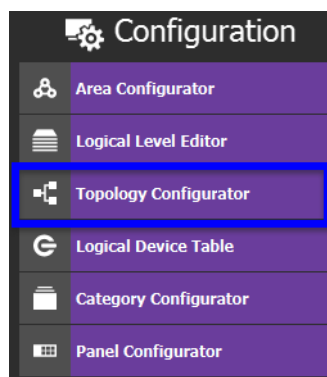
- [Accessing the Topology Configurator](#), on page 31
- [Selecting a Topology](#), on page 32
- [Refreshing the Device Graph](#), on page 35
- [Creating a Topology](#), on page 37
- [Adding Devices to a Topology](#), on page 39
- [Linking the Devices in a Topology](#), on page 40
- [Defining Properties for the Devices](#), on page 42
- [Deleting a Device From a Topology](#), on page 44
- [Activating a Topology](#), on page 45
- [Making an Active Topology Inactive](#), on page 47
- [Unlocking / Relocking a Topology](#), on page 48
- [Locking an Unlocked Topology](#), on page 50

## Accessing the Topology Configurator

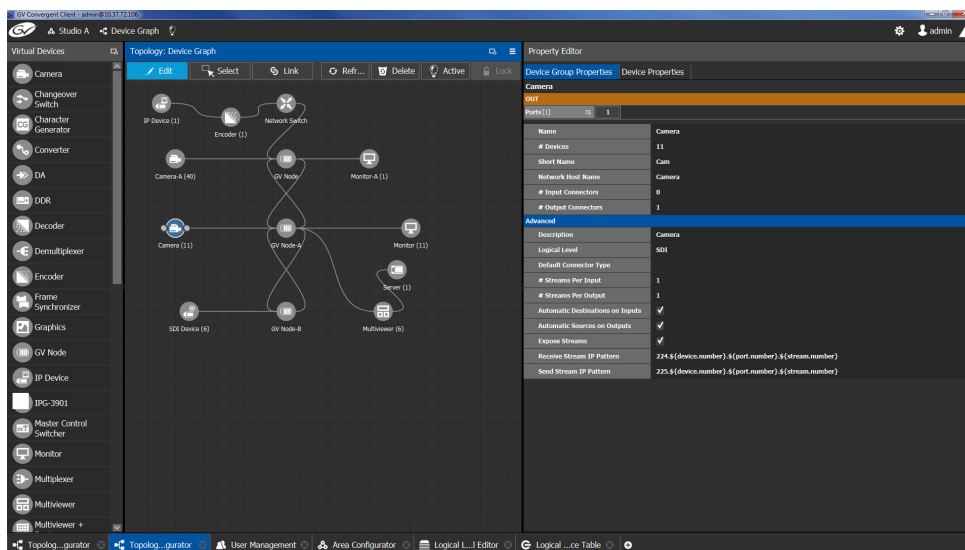
You can access the Topology Configurator from Stage or from any open task. Access permissions are required. See also [Selecting a Topology](#), on page 32.

**To access the Topology Configurator from Stage**

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select **Configuration > Topology Configurator**.



The Topology Configurator appears.



If an Area is open, the Topology Configurator opens in that area. You can switch areas from anywhere in GV Convergent Client. See [Selecting an Area](#), on page 21.

## Access Permissions

Access permissions to the Topology Configurator vary according to role. Administrators and Engineers have permission view, edit, and delete topologies and device properties. Operators have the right to view topologies and device properties. Maintenance staff and Guests have no access. See [Viewing Permissions by Role](#), on page 94.

## Selecting a Topology

To work on a topology, you need to select it so that it is open in the Topology Configurator. You can work on only one topology at a time.

### To select a topology

- 1 Launch and log in to GV Convergent Client if it's not already open.

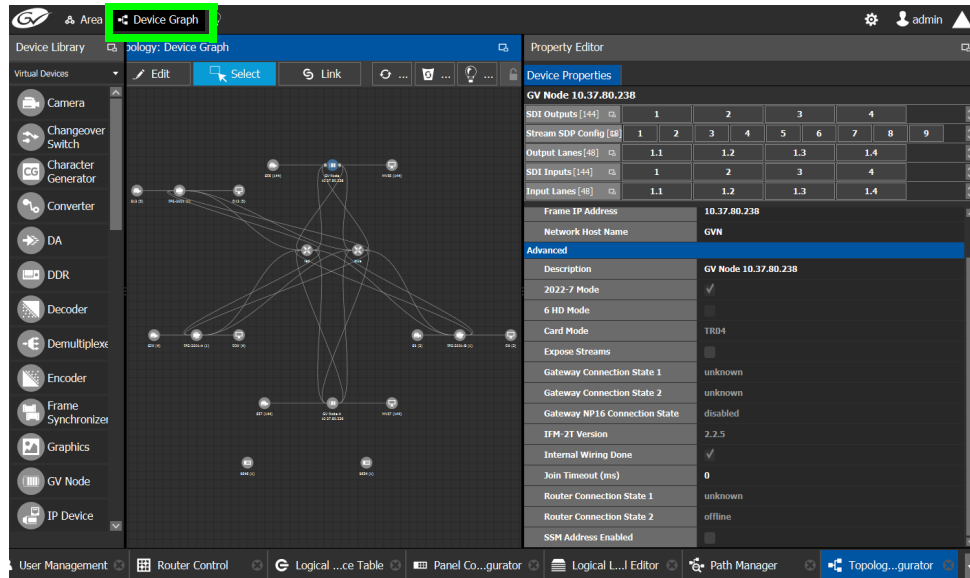
---

Note: A topology must be created in an area. Then, it is available only in the area where it was created.

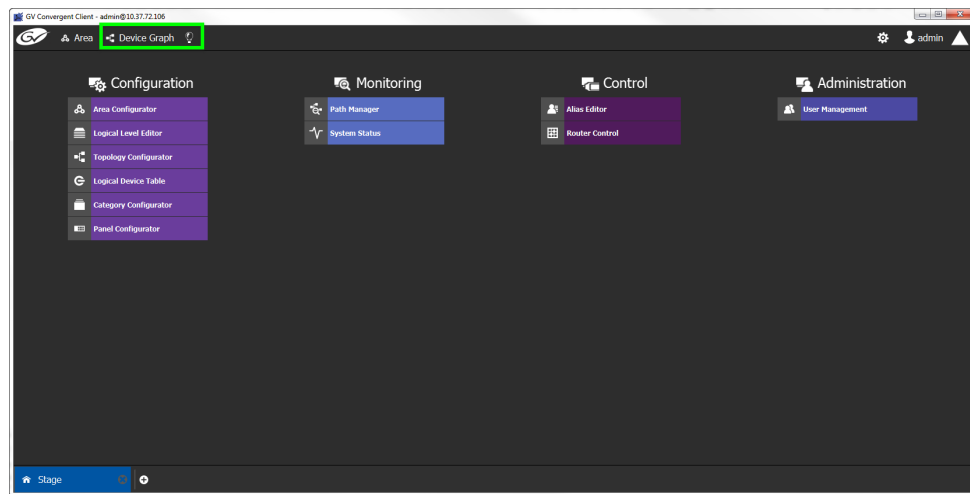
---

- 2 Select the required Area. See [Selecting an Area](#), on page 21.

3 Do one of the following:

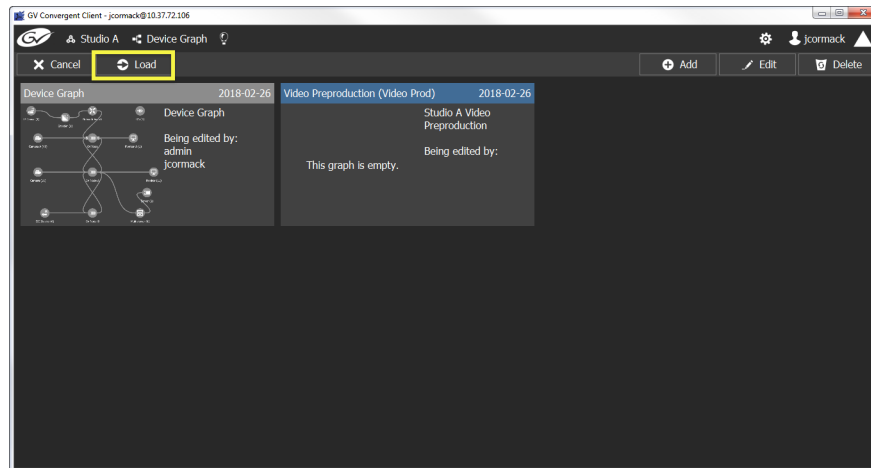


- Click on the icon for the currently selected topology at the top left of GV Convergent Client.

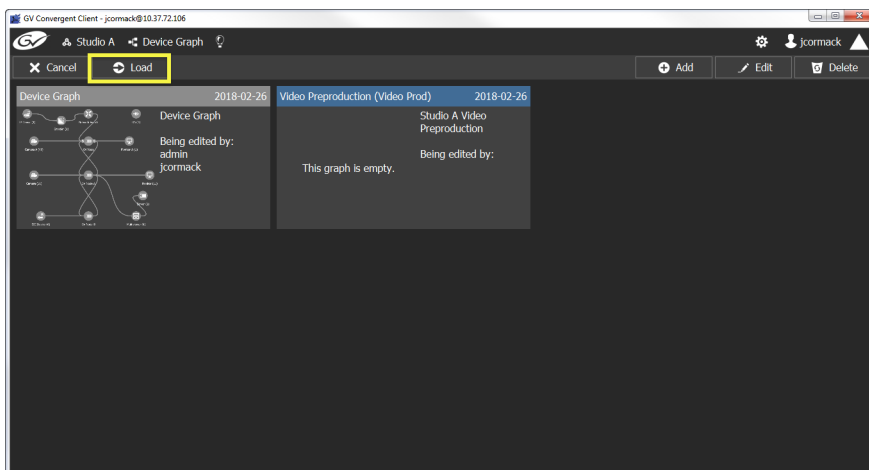


- Select the icon for the Device Graph editor at the left of GV Convergent Client.

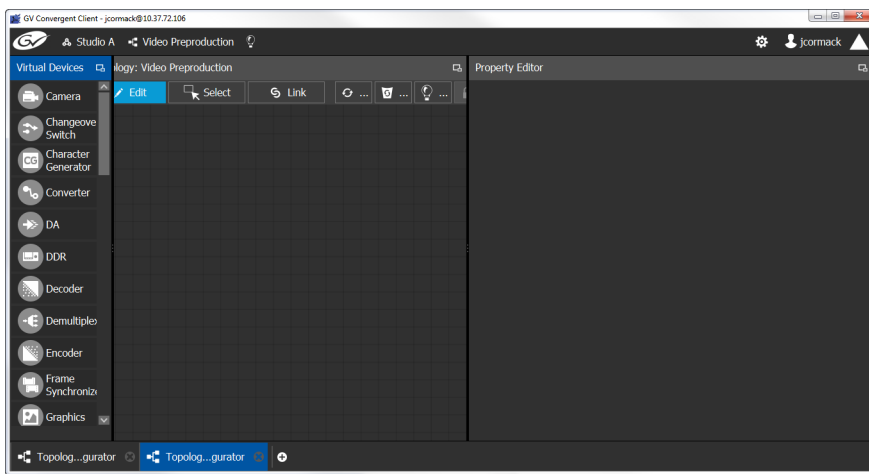
This opens a secondary window.



- 4 Select the topology you want to update.
- 5 Click **Load**.



The selected topology is opened in the Device Graph.



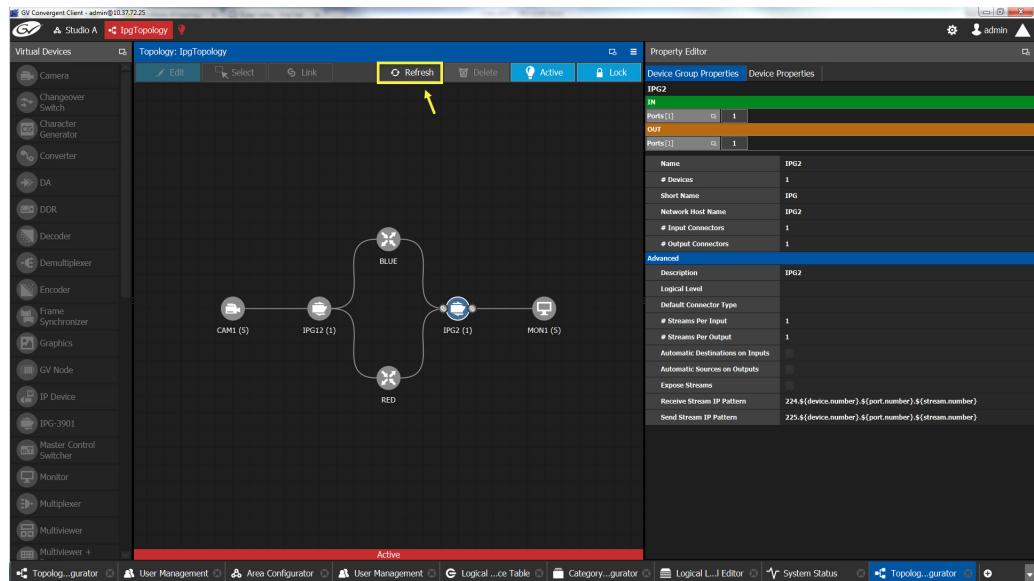
If the topology is new, the device graph is blank. The next step is to begin adding devices. See [Adding Devices to a Topology](#), on page 39.

## Refreshing the Device Graph

If you have added a lot of devices to a topology in the device graph or made many other modifications to it, you may need to refresh the device graph. You can refresh topology regardless of whether it is active or inactive.

### To refresh the device graph

- 1 Open a topology in the Topology Configurator.



- 2 Click the Refresh button at the top of the interface.  
The topology is inaccessible during the brief time it takes to refresh the window.

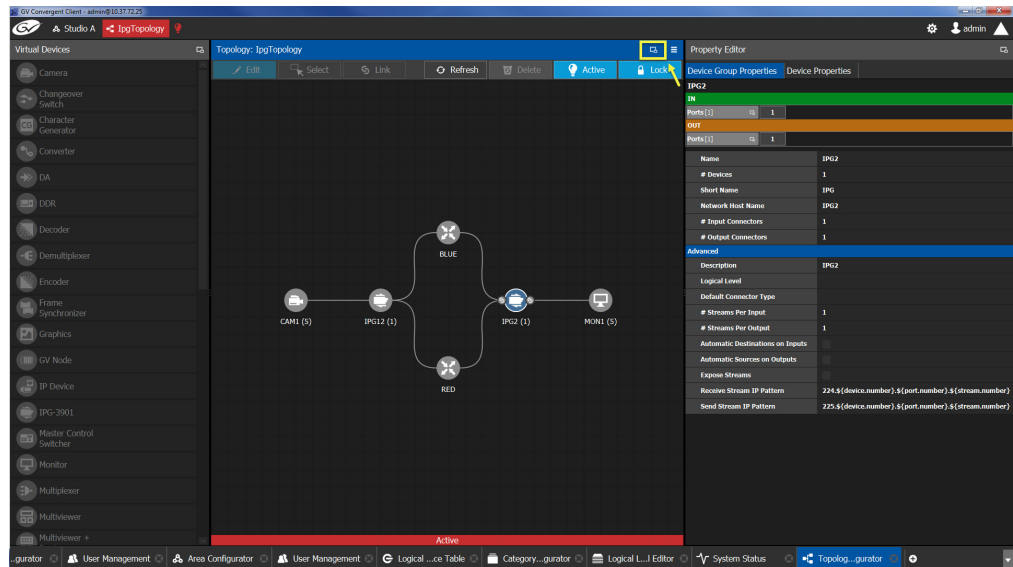
## Viewing the Topology in Full Screen Mode

By default, the selected topology is displayed in the device graph in the center of the Topology Configurator task. The devices are displayed on the left and the Property Editor is displayed on the right.

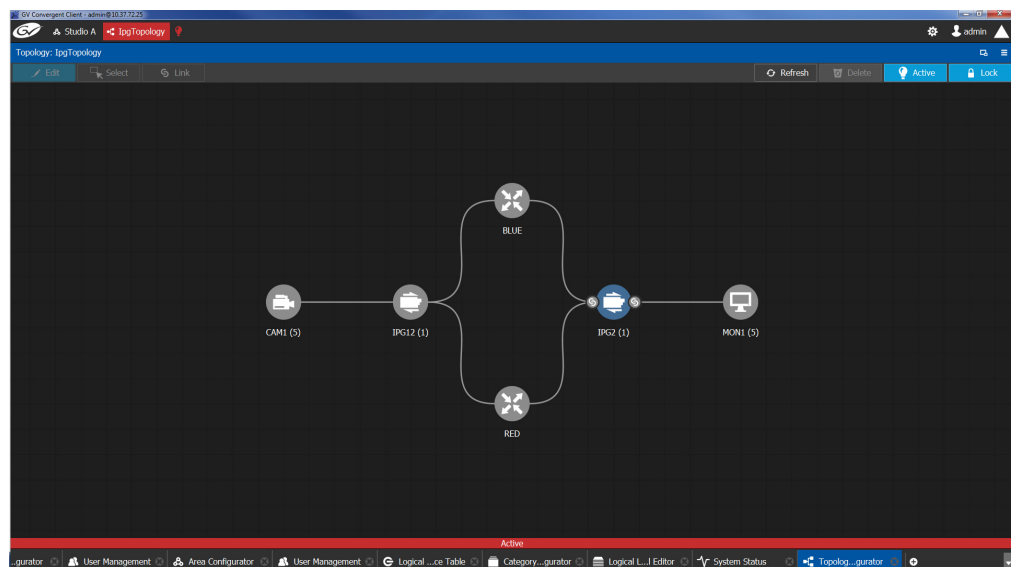
### To view the topology in fullscreen mode

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.

3 Select the required topology. See [Selecting a Topology](#), on page 32.



4 Click the Fullscreen toggle button at the top of the interface.  
The device graph expands across all three columns in the Topology Configurator.



Tip: To zoom and center the topology view:

- click the Refresh button.
- double-click an empty space.

**To return to default mode**

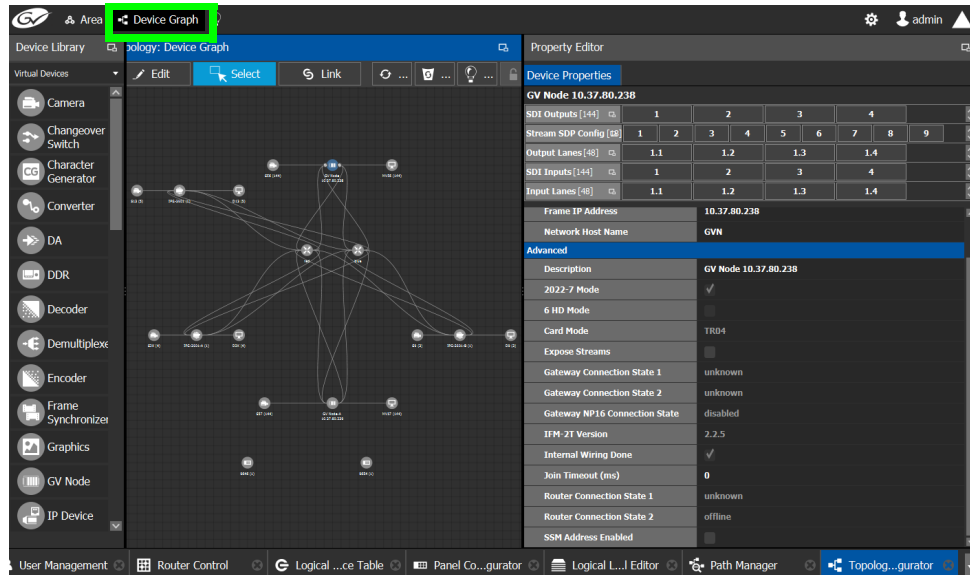
1 When the device graph is in fullscreen mode, click the Fullscreen button to toggle the display back to the default mode.




## Creating a Topology

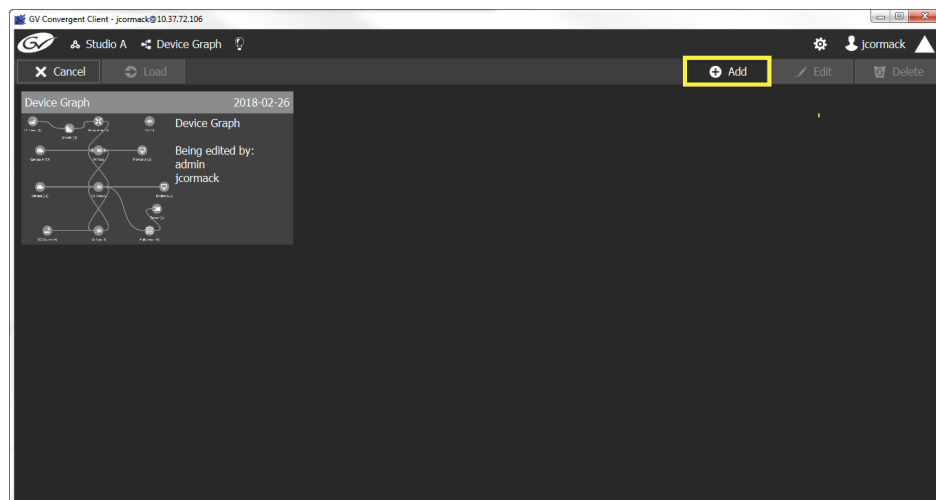
### To create a new topology

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.



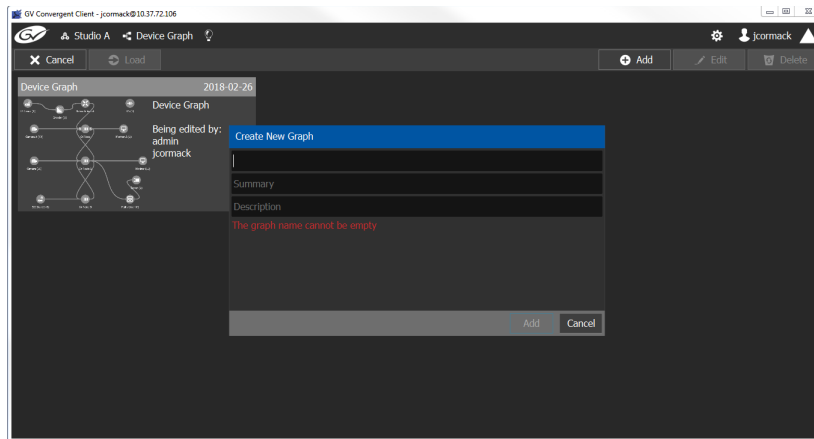
- 3 Click the topology icon . This is located beside **Device graph** or the name of the open topology at to the top of the Topology Configurator.

This opens a secondary window.

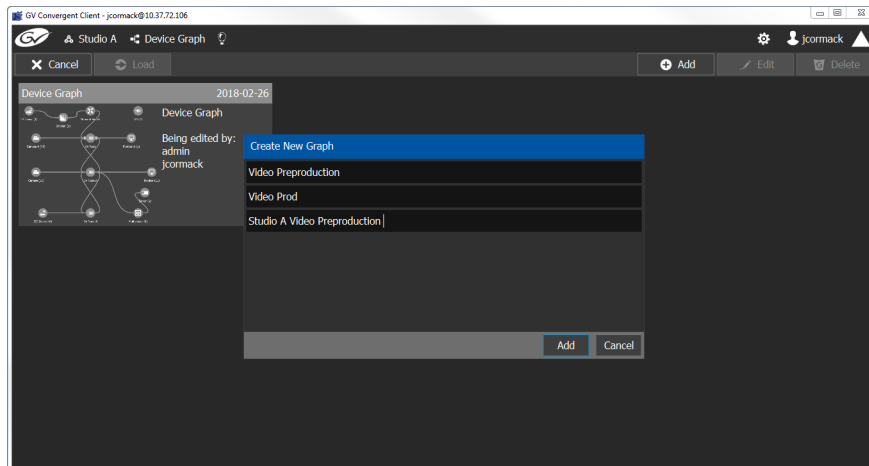


- 4 Click **Add**.

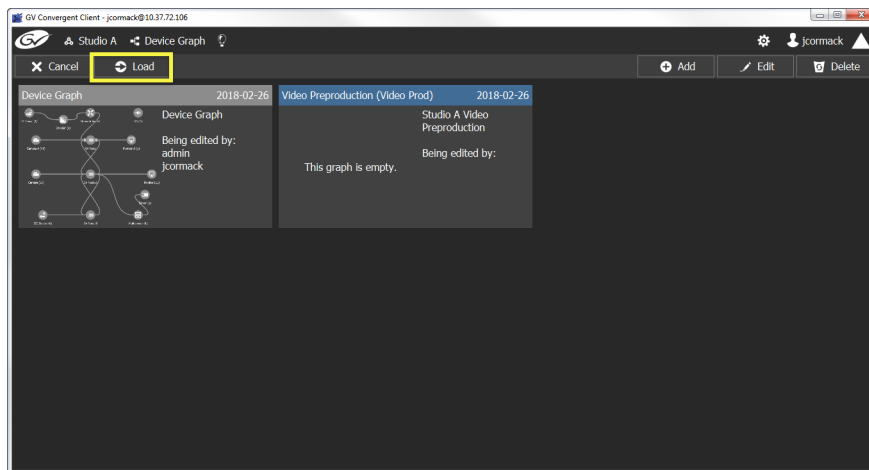
The Create New Graph window appears.



- 5 Enter a name for the new topology.
- 6 Enter meaningful text in the **Summary** and **Description** fields for easy identification.

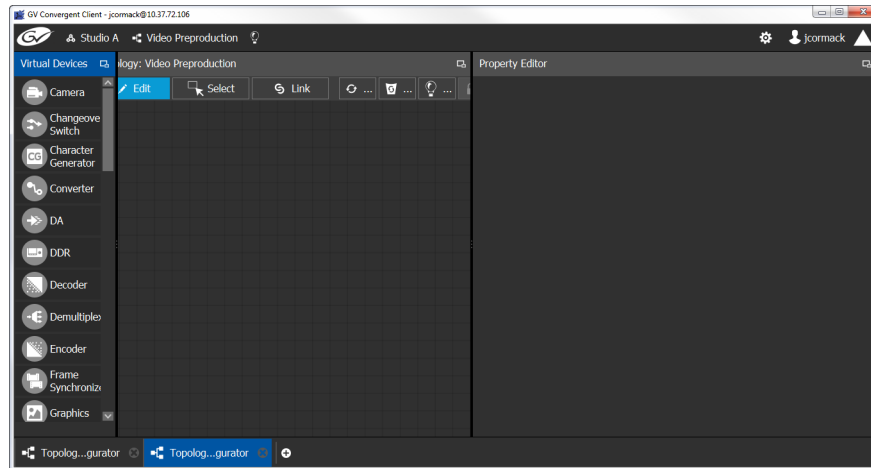


- 7 Click **Add** on the Create New Graph window.  
The new topology appears in the list box with the existing topologies.



- 8 Select the new topology and click **Load**. Or double-click the topology.

The selected topology is opened in the Device Graph.

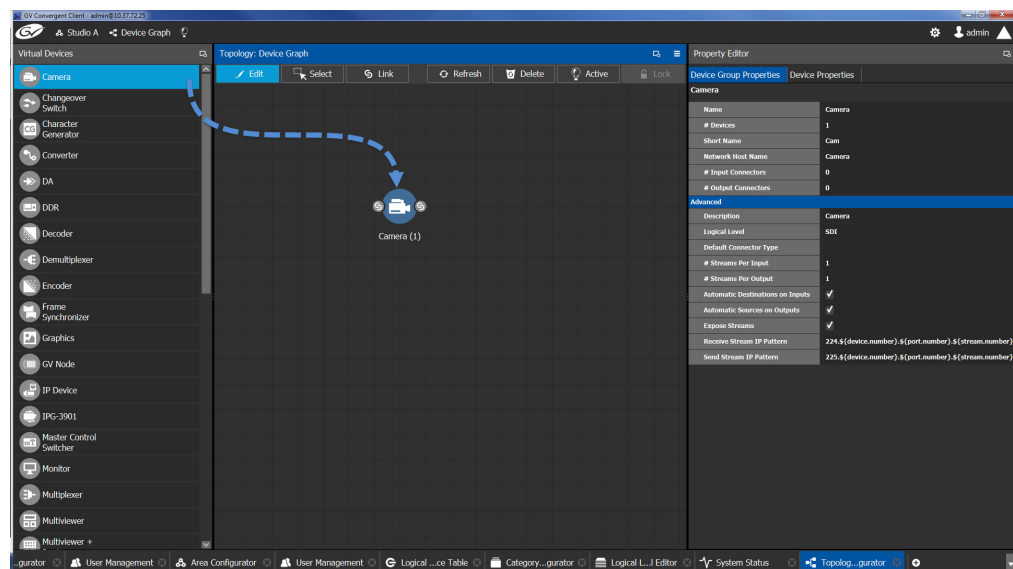


If the topology is new, the device graph is blank. The next step is to begin adding devices. See [Adding Devices to a Topology](#), on page 39.

## Adding Devices to a Topology

To add a device to a topology

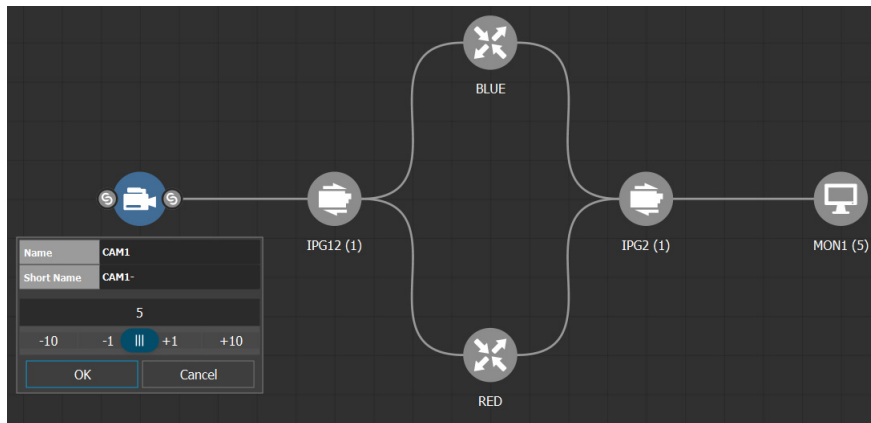
- 1 Launch and log in to GV Convergent Client if it's not already open.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.



- 4 Select a device bubble on the left.
- 5 Drag it into position on the device graph and release the mouse button.  
Initially, the device bubble represents a single device, such as a single camera.
- 6 Click on the name of the device underneath the bubble to create a device group.

A device group is a collection of devices of the same type that can be configured together. All bubbles in a graph are automatically device groups; the only exceptions are routers, network switches and GV Nodes.

The Device Group configuration window appears.



- 7 Enter meaningful names to identify the device group in the **Name** and **Short Name** fields.

In this case, the Camera device group is named CAM1 to identify the cameras controlled by Controller 1. These parameters can also be set in the Property Editor.

- 8 Use the plus and minus buttons to enter the number of devices in the group.
- 9 Click **OK**.
- 10 Repeat [step 4](#) to [step 9](#) until you have added all the required devices to the topology.  
In this example, five monitors, two IPGs, and two network switches, the red and blue networks are added to the device graph.

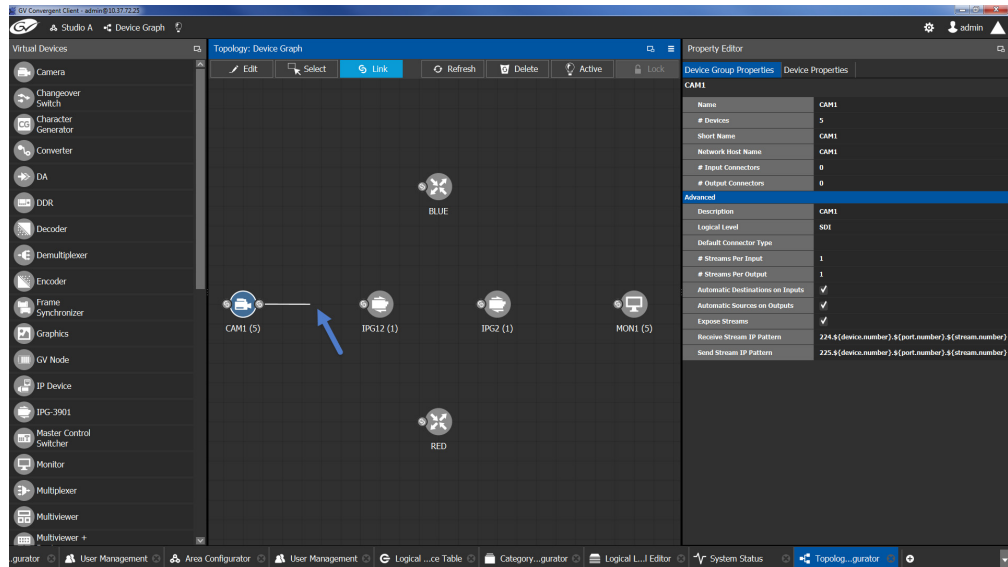
## Linking the Devices in a Topology

Once the device groups are added to the device graph, the next step is to create links between them.

### To link devices or device groups in a topology

- 1 Open the required topology in the device graph.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.

- 3 Select the required topology. See [Selecting a Topology](#), on page 32.



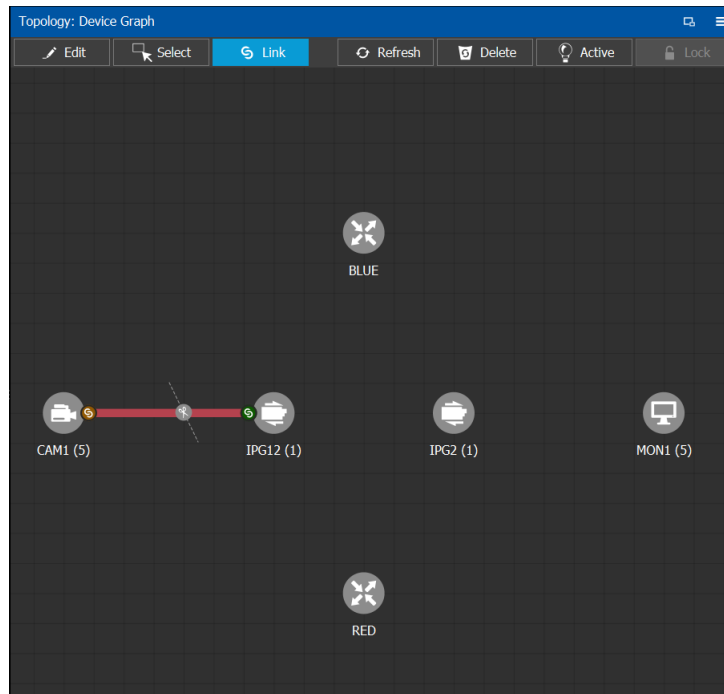
- 4 Click the **Link** button at the top of the interface.
- 5 Select the first bubble in the pair you want to connect.  
When the bubble is selected, the device is highlighted in blue and both the bubble's input and outputs ports become available. Input ports are on the left side of the bubble. Output ports are on the right side of the bubble.
- 6 Select an input or output port on the bubble.  
If the input port was selected, the output ports of all the available devices appear. If the output port was selected, the input ports of all the available devices appear.
- 7 Draw a line, with your mouse, between the ports of the two devices to make the connection between them.  
You can link devices together like this in the edit mode as well.  
To work better with touch-based devices, the Link mode allows you to link bubbles together by dragging a bubble over others so that the connectors touch each other and then pull them apart to their final position.

## Deleting the Connection Between Device Groups

### To delete the connection between devices

- 1 Open the required topology in the device graph.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.

- 3 Select the required topology. See [Adding Devices to a Topology](#), on page 39.



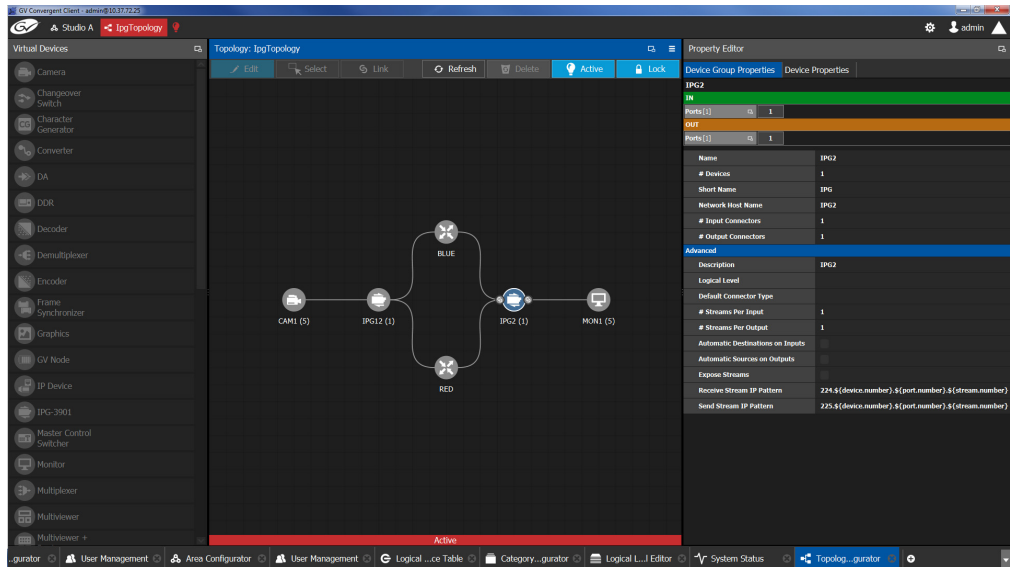
- 4 Select the **Link** button at the top of the interface.
- 5 Draw a line across the connection.  
The scissor icon appears on the line and the link turns red.
- 6 release the mouse.  
The connection line is removed.

## Defining Properties for the Devices

### To define properties for a device

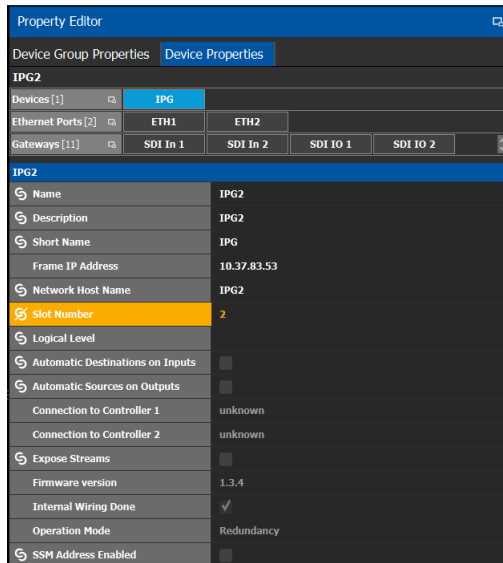
- 1 Open the required topology in the device graph. See [Selecting a Topology](#), on page 32.
- 2 Select the device you want to configure.

The Property Editor is displayed on the right.



In this case, the IPG2 bubble is selected and the Device Group Properties tab is selected in the Property Editor.

- 3 Select the **Device Properties** tab to view the properties for the individual device.



For example, for the Cameras, there is a Device Group Properties tab for the camera group and a separate tab for each of the five cameras.

---

## Camera Device Group Properties

The screenshot shows the 'Property Editor' window with the 'Device Group Properties' tab selected. The main title is 'CAM1'. Below it, there is a section for 'OUT' with a 'Ports [1]' dropdown set to '1'. A table lists the following properties:

Name	CAM1
# Devices	5
Short Name	CAM1-
Network Host Name	CAM1
# Input Connectors	0
# Output Connectors	1

Below this is an 'Advanced' section with the following properties:

Description	CAM1
Logical Level	SDI-HD
Default Connector Type	
# Streams Per Input	1
# Streams Per Output	1
Automatic Destinations on Inputs	<input checked="" type="checkbox"/>
Automatic Sources on Outputs	<input checked="" type="checkbox"/>
Expose Streams	<input checked="" type="checkbox"/>
Receive Stream IP Pattern	224.\${device.number}.\${port.number}.\${stream.number}
Send Stream IP Pattern	225.\${device.number}.\${port.number}.\${stream.number}

## Camera Device Properties

The screenshot shows the 'Property Editor' window with the 'Device Properties' tab selected. The main title is 'CAM1'. Below it, there is a section for 'Devices [5]' with buttons for 'CAM1-1', 'CAM1-2', 'CAM1-3', 'CAM1-4', and 'CAM1-5'. The 'CAM1-1' button is highlighted. Below this, there is a section for 'OUT' with a 'Ports [1]' dropdown set to '1'. A table lists the following properties for 'CAM1 1':

Name	CAM1 1
Description	CAM1 1
Short Name	CAM1-1
Network Host Name	CAM1-1
Logical Level	SDI-HD
# Input Connectors	0
# Output Connectors	1
Default Connector Type	
# Streams Per Input	1
# Streams Per Output	1
Automatic Destinations on Inputs	<input checked="" type="checkbox"/>
Automatic Sources on Outputs	<input checked="" type="checkbox"/>
Expose Streams	<input checked="" type="checkbox"/>

---

Note: All devices, device groups, and connections have properties.

---

## Deleting a Device From a Topology

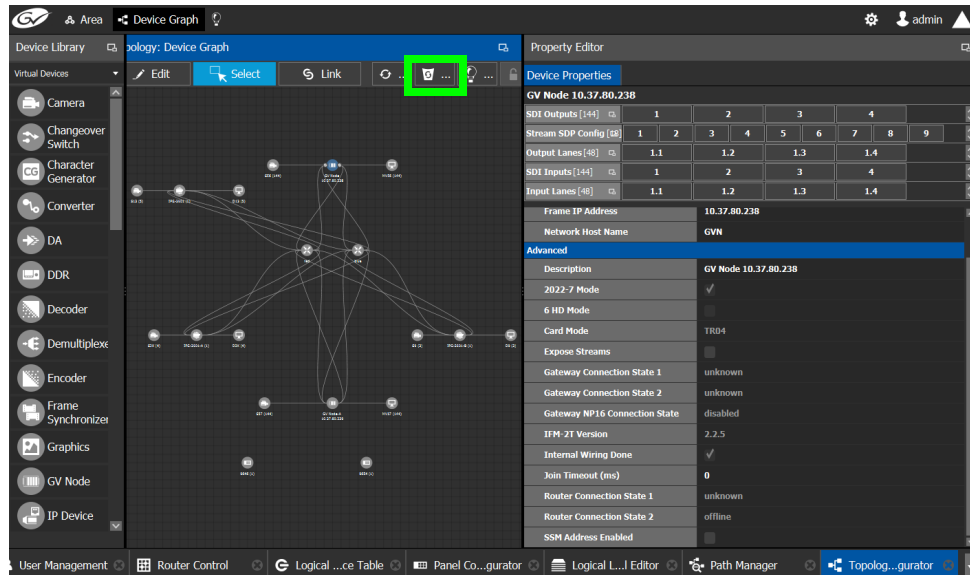
You must open a topology in the Topology Configurator before you can delete it.

### To delete a topology

- 1 Launch and log in to GV Convergent Client if it's not already open.
- 2 Select the Area. See [Selecting an Area](#), on page 21.



- 3 Select the topology. See [Selecting a Topology](#), on page 32.



- 4 Select the device you want to remove.  
The device is highlighted on the graph.
- 5 Click **Delete**.

## Activating a Topology

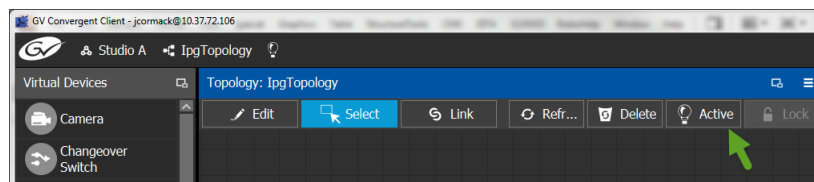
By activating a topology makes GV Convergent connect to and activate all drivers to devices in the topology. For example, for a GV Node it means initiating the Densité and NP0016 connections and being able to control them. By activating a topology, panels will become active and light up.

You must select a topology and open it in the Topology Configurator before you can make it active.

Note: Only one topology can be active at a time for each area.

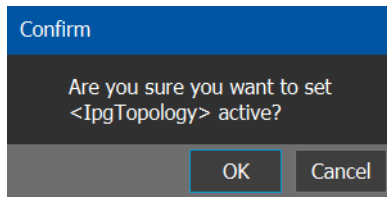
### To make a topology active

- 1 Launch and log in to GV Convergent Client if it's not already open.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.



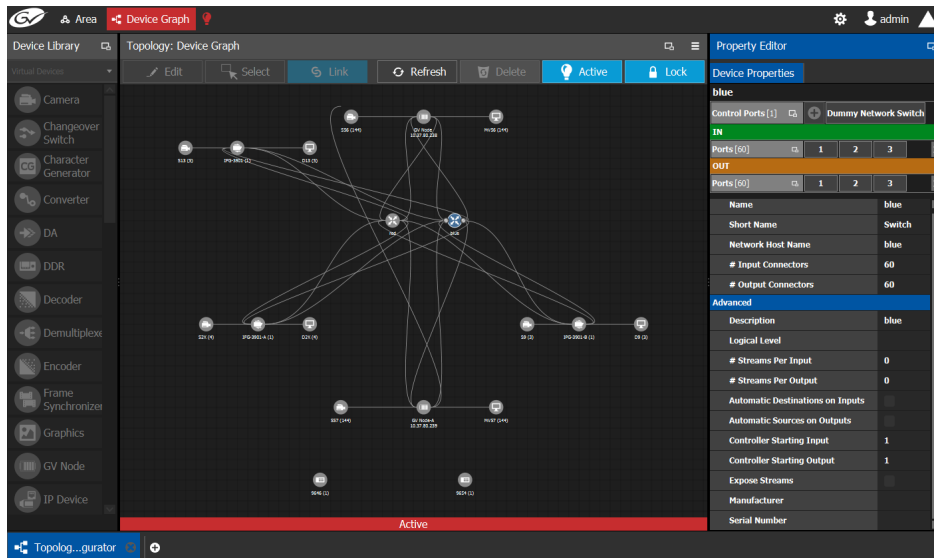
- 4 Click **Active** at the top of the Topology Configurator.

A confirmation message appears.

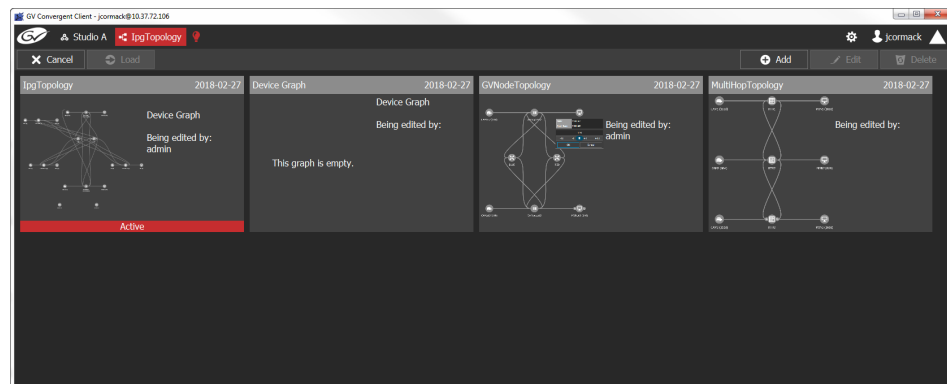


5 Click **OK** to continue.

The following changes occur.



- The topology name is displayed in red at the top of the Topology Configurator.
- A red lightbulb is displayed beside the topology name.
- A red bar is displayed at the base of the device graph.
- Active is written on the bar.
- The topology is locked.
- The red Active bar is displayed on the thumbnail for the active topology.

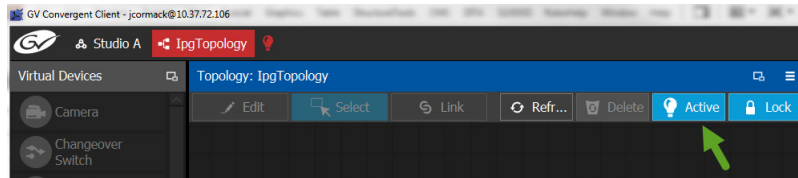


## Making an Active Topology Inactive

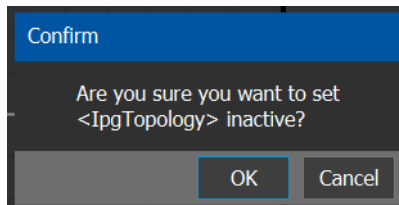
Only one topology can be active at a time for each area. You must open the active topology in the Topology Configurator before you can make it inactive.

### To make an active topology inactive

- 1 Launch and log in to GV Convergent Client if it's not already open.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Adding Devices to a Topology](#), on page 39.

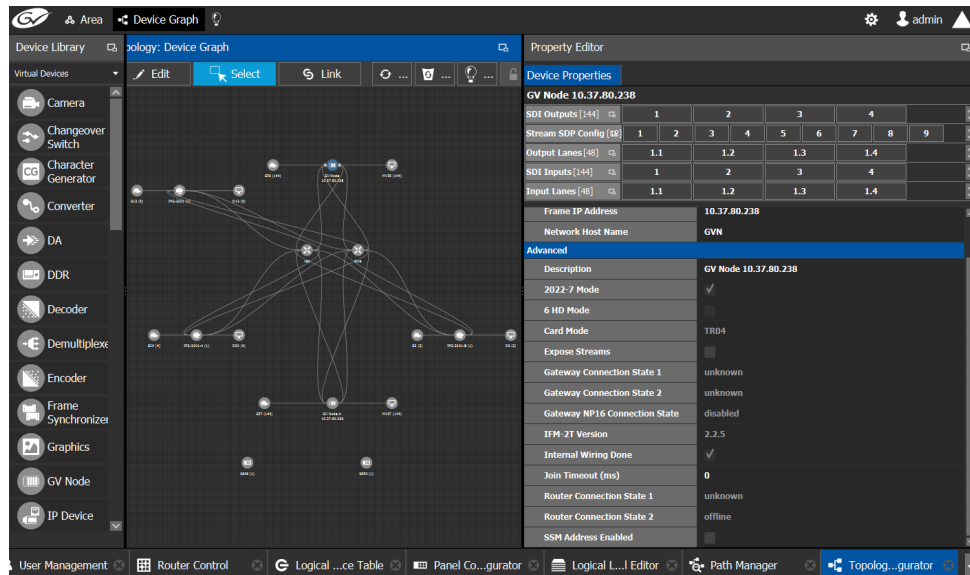


- 4 Click the **Active** button at the top of the Topology Configurator.  
A confirmation message appears.



- 5 Click **OK** to continue.

The following changes occur.



- The topology name no longer appears in red at the top of the Topology Configurator.
- The red bar no longer appears at the base of the device graph.
- The topology is unlocked.
- The red Active bar is no longer displayed on the thumbnail for the active topology in the secondary window.

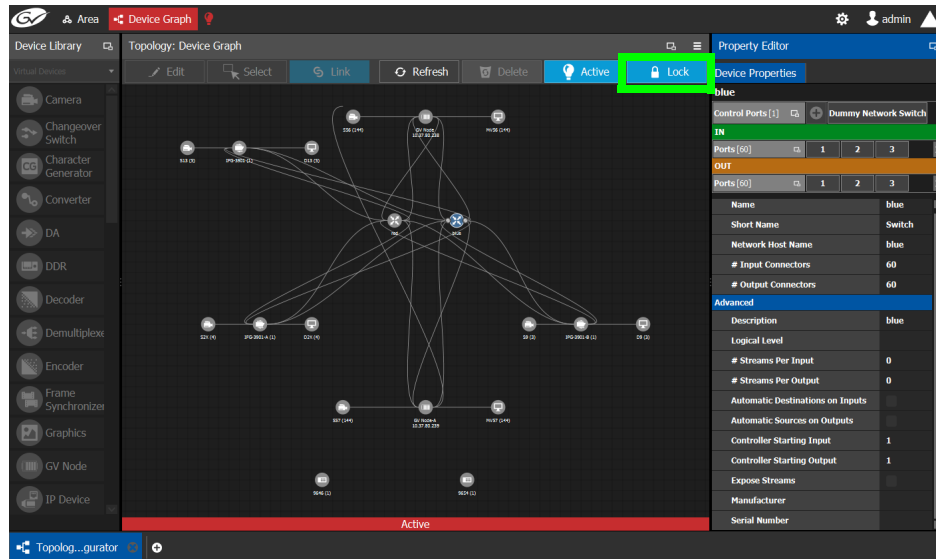
## Unlocking / Relocking a Topology

A topology is locked automatically when you make it active. The lock only affects the current GV Convergent Client application. If multiple users have the same topology open, then each user can lock/unlock their client to do edits; this setting is not global to all open clients.

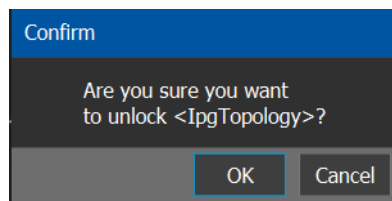
### To unlock an active topology

- 1 Launch and log in to GV Convergent Client if it's not already open.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.

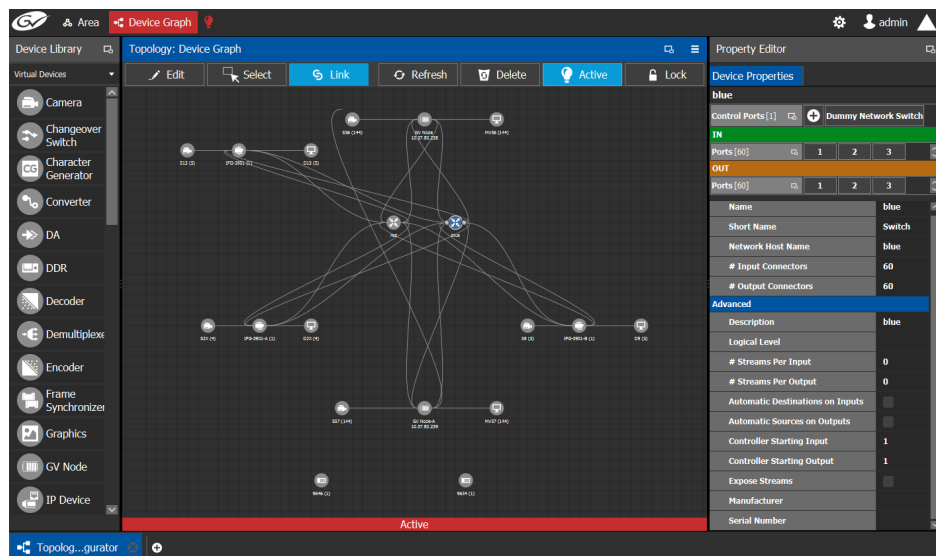
This opens the topology in the Topology Configurator.



- 4 Click the **Lock** button.  
A confirmation message appears.



- 5 Click **OK** to continue.



When a topology is unlocked

- The Lock icon is no longer highlighted in blue.
- The lock icon is unlocked.
- If you have Edit permissions to the Topology Configurator for the selected area, you can modify the active topology.

## Locking an Unlocked Topology

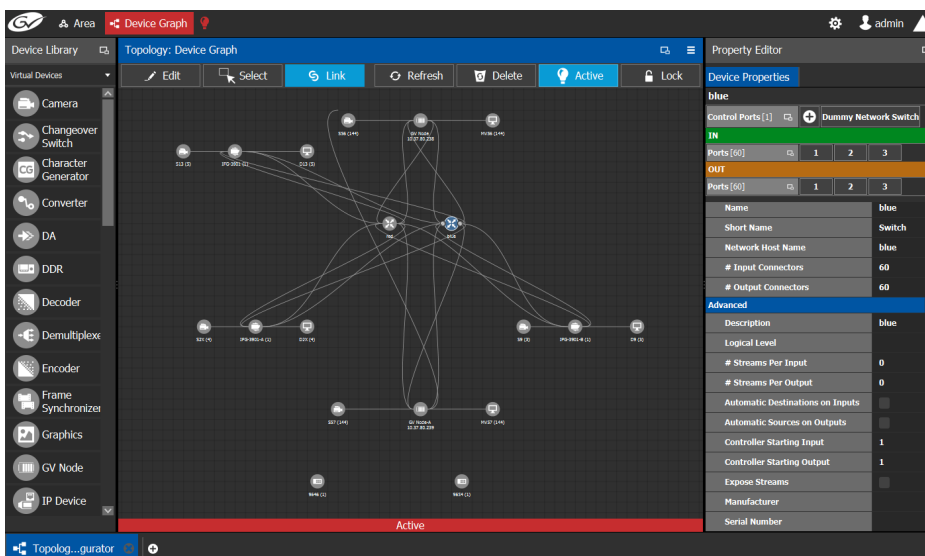
It is recommended to relock an unlocked topology, when you have finished your edits. This prevents you from inadvertently making edits on an active topology, such as selecting an object and pressing delete by accident.

Note: You can only lock an unlocked active topology. Inactive topologies cannot be locked or unlocked.

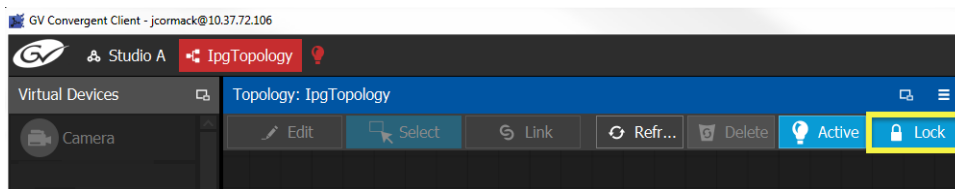
### To lock a unlocked active topology

- 1 Launch and log in to GV Convergent Client if it's not already open.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.

This opens the topology in the Topology Configurator.



- 4 Click the unlocked Lock button at the top of the Topology Configurator. No confirmation message appears.



The **Lock** icon switches to the locked state.

No one can edit the topology.

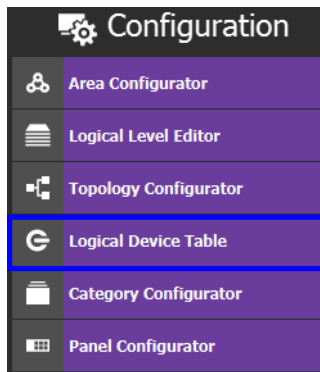
# Logical Device Table Tasks

Use the Logical Device Table task to view and configure the streams for the logical levels.

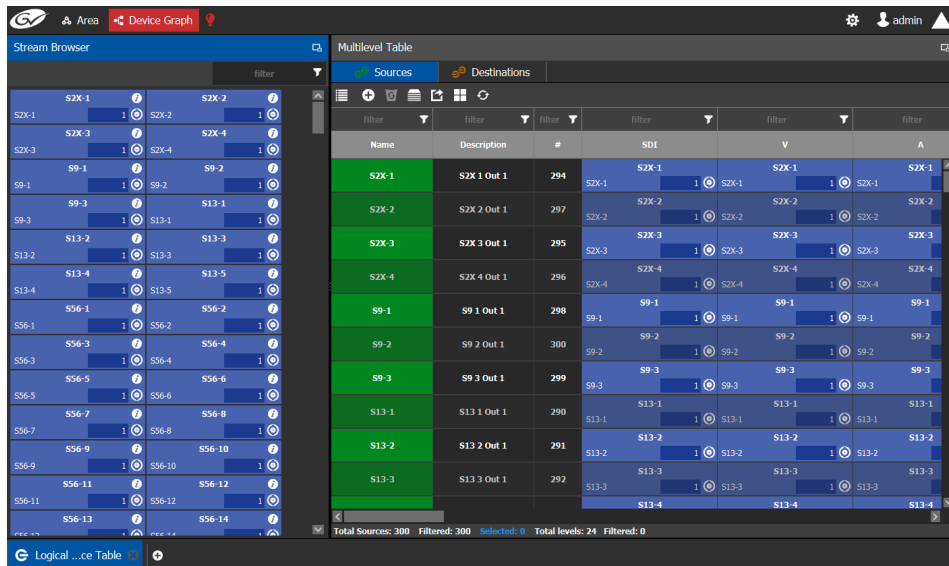
## Accessing the Logical Device Table task

To access the Logical Device Table Task

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select an area. See [Selecting an Area](#), on page 21.
- 3 Select a topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Configuration > Logical Device Table**.



The Logical Device Table task appears.



The default streams, for your topology, are displayed in the left hand column under **Stream Browser**.

There are two tabs in the right hand column under **Multilevel Table**.

- 5 Select **Sources** to view the streams from the sources.

The Logical Level associated with the source are displayed. For information on the logical levels, see [Logical Level Editor Tasks](#), on page 23.



- 6 Scroll down in the **Sources** view to see all the levels for the selected source.

## Modifying the Default Sources in the Logical Level Table

Note: You cannot delete a default source from the Logical Level Table. However, you can modify the levels associated with the source. Also, you can modify or delete the sources that you create.

If you try to delete a default source from the Logical Level Table, the following message is displayed at the bottom of the task.

The selected sources are automatically generated, and cannot be deleted. **OK**

### To modify the logical levels associated with a source

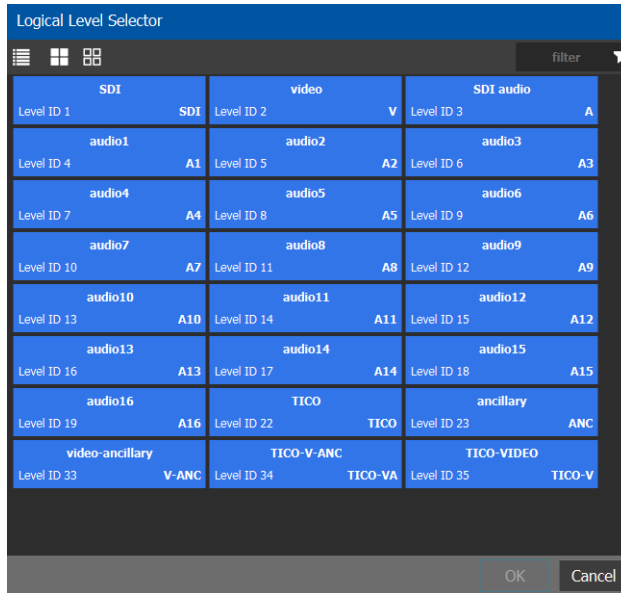
- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select an area. See [Selecting an Area](#), on page 21.
- 3 Select a topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Configuration > Logical Device Table**.

filter	filter	filter	filter	filter	filter
Name	Description	#	SDI	V	A
SZX-1	SZX 1 Out 1	294	SZX-1	SZX-1	SZX-1
SZX-2	SZX 2 Out 1	297	SZX-2	SZX-2	SZX-2
SZX-3	SZX 3 Out 1	295	SZX-3	SZX-3	SZX-3
SZX-4	SZX 4 Out 1	296	SZX-4	SZX-4	SZX-4
S9-1	S9 1 Out 1	298	S9-1	S9-1	S9-1
S9-2	S9 2 Out 1	300	S9-2	S9-2	S9-2
S9-3	S9 3 Out 1	299	S9-3	S9-3	S9-3
S13-1	S13 1 Out 1	290	S13-1	S13-1	S13-1
S13-2	S13 2 Out 1	291	S13-2	S13-2	S13-2
S13-3	S13 3 Out 1	292	S13-3	S13-3	S13-3
S13-4	S13 4 Out 1		S13-4	S13-4	S13-4

Total Sources: 300 Filtered: 300 Selected: 0 Total levels: 24 Filtered: 0

- 5 Select a Source in the Logical Device Table.
- 6 Click the Logical Levels icon at the top of the table.

A secondary window opens displaying the levels for the selected source.



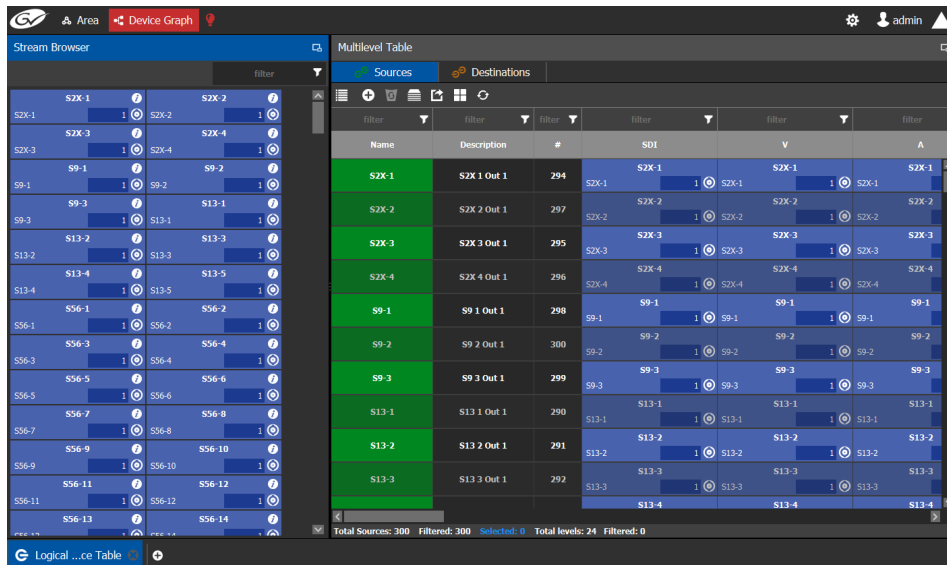
- 7 Select the levels you want to use.
- 8 Click **OK**.

## Adding a Source to the Logical Level Table

By default, the logical device table displays the sources in the selected topology. You can add a logical device to the table that is not in the topology. You would then have the option of switching to the new logical device in place of the existing device.

To add a source to the logical level table

- 1 Open the logical level table for the required topology.



- 2 Click the **Add** icon at the top of the table.

A secondary window appears.

Base Name:	CAM100
Start Index:	1
Count (Max 200):	5
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

- 3 Enter the required information in the **Base Name**, **Start Index**, and **Count fields**.
- 4 Click **OK**.

New sources are created. The **Base Name** is displayed under the **Name** and **Description** fields. The number of new sources created corresponds to the number you enter in the **Count** field.

Name	Description	#	SDI	V	A
Cam1001	Cam1001	302			
Cam1002	Cam1002	303			
Cam1003	Cam1003	304			
Cam1004	Cam1004	305			
Cam1005	Cam1005	306			
S2X-1	S2X 1 Out 1	294	S2X-1	S2X-1	S2X-1
S2X-2	S2X 2 Out 1	297	S2X-2	S2X-2	S2X-2
S2X-3	S2X 3 Out 1	295	S2X-3	S2X-3	S2X-3
S2X-4	S2X 4 Out 1	296	S2X-4	S2X-4	S2X-4
S9-1	S9 1 Out 1	298	S9-1	S9-1	S9-1
			S9-2	S9-2	S9-2

Total Sources: 305 Filtered: 305 Selected: 5 Total Levels: 24 Filtered: 0

In the example, five new sources are created. The name for each device begins with the base name CAM100. A number is appended to the base name. This begins with the starting index and increases by one for every number in the count.

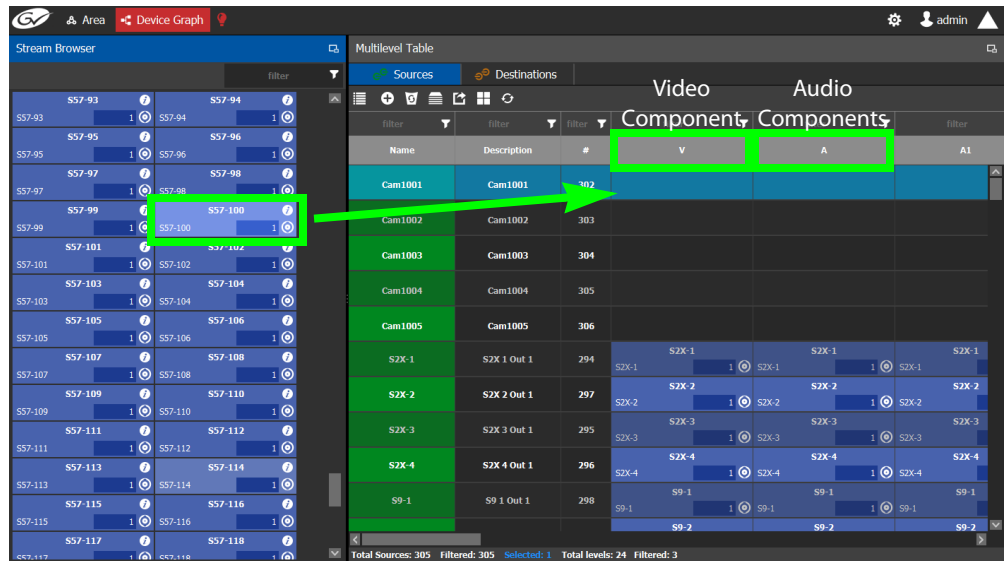
## Configuring Streams for New Sources

After creating new sources, the next step is to configure the streams for them. Different streams can be assigned to different levels, so that a source is composed of streams from different devices (to do implicit breakaway). For instance, you could create a source with Video from a GV Node and the audio from an IPG. You would do this by assigning the GV Node stream under SDI, and the IPG stream under Audio.

### To configure streams for the new sources

- 1 Open the logical level table for the required topology.  
In the left hand column under **Stream Browser**, the default streams for your topology are displayed.

## 2 Drag a stream onto a source.



In the above image, a stream is added to a source for its video components. Drag the same stream or another stream from the **Stream Browser** to a source to add its audio components.

## Adding and Configuring a Destination

The procedures for adding and configuring destinations are the same as for adding and configuring sources. For details, see [Adding a Source to the Logical Level Table](#), on page 54 and [Configuring Streams for New Sources](#), on page 55.

## Deleting a Source or Destination

You can delete any source or destination that you create.

### To delete a source or destination

- 1 Open the Logical Device Table task for the required topology.
- 2 Select the Sources tab or the Destination tab according to what you are deleting.
- 3 Select the sources or destinations in the table.

---

Note: You can delete one or more sources or destinations at the same time.


---

- 4 Click the **Delete** icon .

## Exporting a Logical Device Table

You can export the data in your logical device table in a csv file.

### To export a logical device table


- 1 Open the Logical Device Table task for the required topology.
- 2 Click the **Export** icon .

- 3 Navigate to the folder where you want to save the file.
- 4 Click **Save**.

## Selecting all Devices in the Logical Device Table

You can select all devices in the logical device table, for example, to export the Device Table's configuration data to a csv file.

### To select all the devices and save their configuration data

- 1 Open the Logical Device Table task for the required topology.
- 2 Click the **Export** icon .
- 3 Navigate to the folder where you want to save the file.
- 4 Click **Save**.

## Category Configurator Tasks

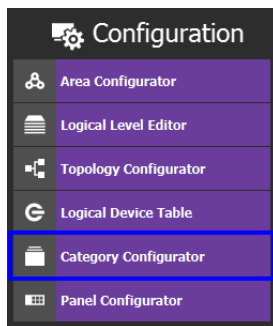
Use the Category Configurator to make it easier to manage the sources in your topologies. Creating groups or categories, based on type or use, is useful when you have multiple resources.

Categories are used to group sources and destinations together thereby allowing them to be accessed quickly on a panel, either by adding a category button or by using keyboard shortcuts.

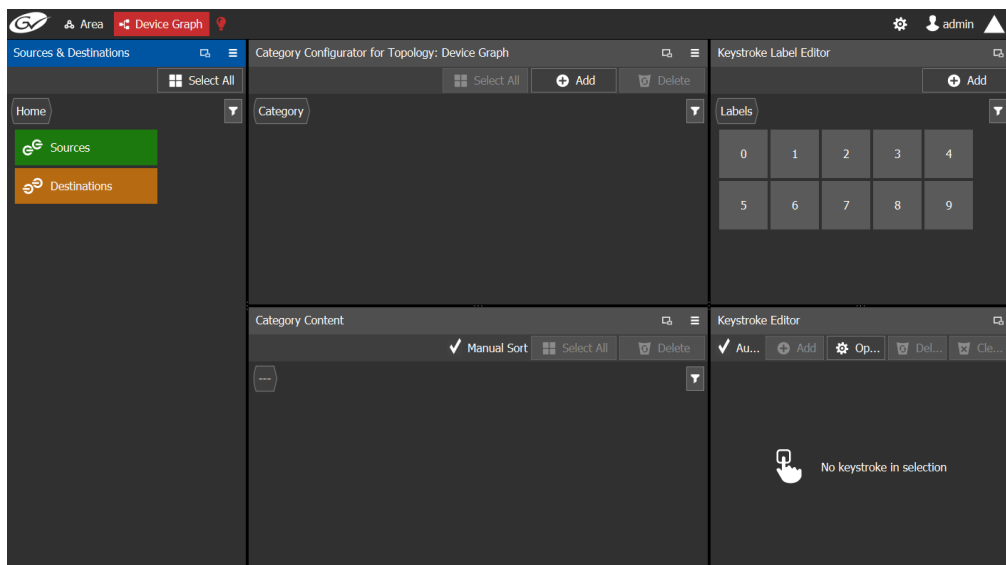
### Accessing the Category Configurator

#### To access the Category Configurator Task

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select an area. See [Selecting an Area](#), on page 21.
- 3 Select a topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Configuration > Category Configurator**.



The Category Configurator task opens:



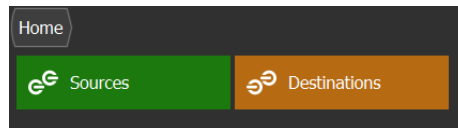
The Category Configurator has three columns and two rows. The Sources and Destinations column on the left. See:

- [Creating a Category for the Sources in Your Topology](#), on page 59

- [Assigning a Keystroke Label to a Source or Destination](#), on page 61
- [Creating a Keystroke Label](#), on page 62

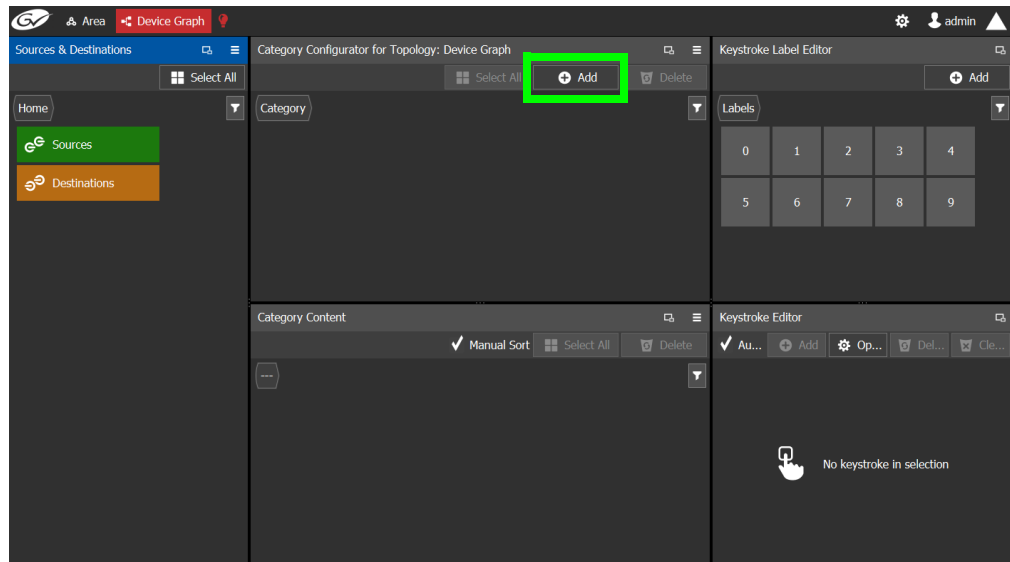
## Creating a Category for the Sources in Your Topology

When you first open the Category Configurator, the Home tab appears in the Sources and Destinations tab.

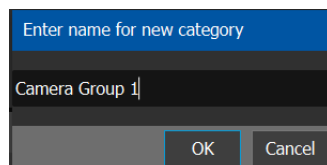


### To create a category for your sources

- 1 Open the Category Configurator task for the required topology. See [Accessing the Category Configurator](#), on page 58.
- 2 Click **Add**.

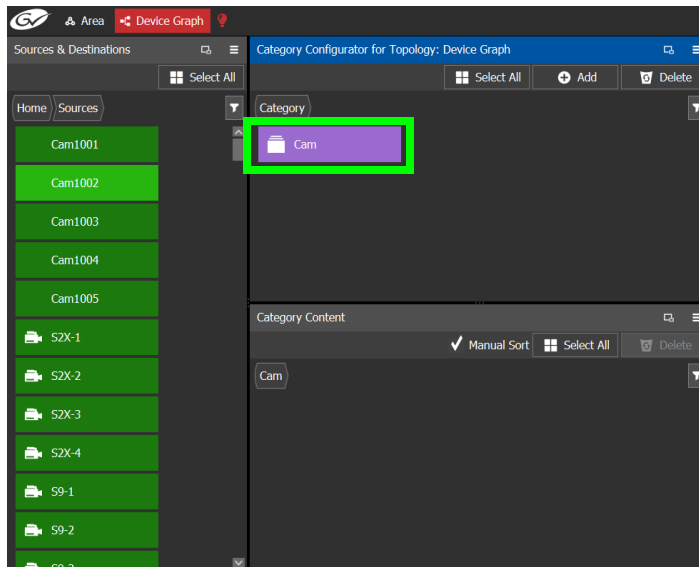


- 3 The Enter a name for the new category window appears:



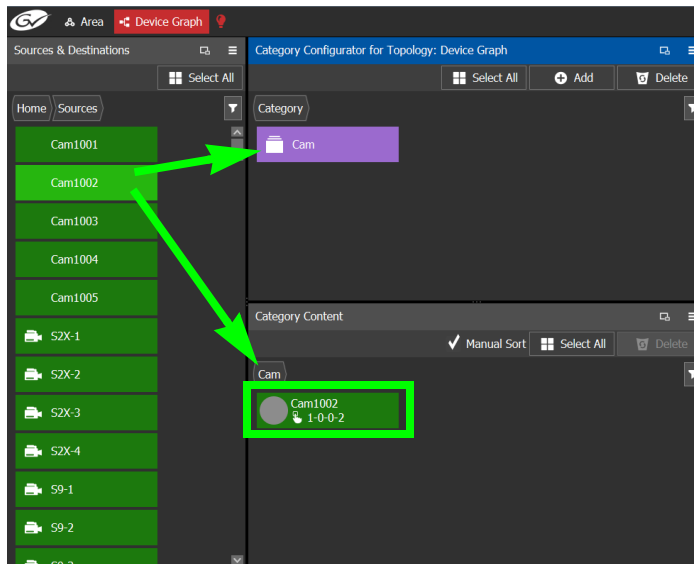
- 4 Enter a name for the new category and click **OK**.  
The new category is added to the top of the **Category Configurator** column.
- 5 Click **Sources** or **Destinations** to view the available sources / destinations.  
All the sources / destinations in the selected topology are displayed. This includes the logical sources you created in the Logical Devices Table task. See [Logical Device Table Tasks](#), on page 52.

6 Select the newly created category.



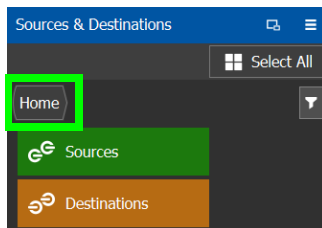
The category is added to the lower part of the center column under Category Content.

7 Drag the sources / destinations from the **Sources & Destinations** column to the **Category Content** area.



Alternatively, you can drag a source/destination to the created Category button.

8 Click Home to toggle between **Sources** (Green) or **Destinations** (Orange) as necessary.



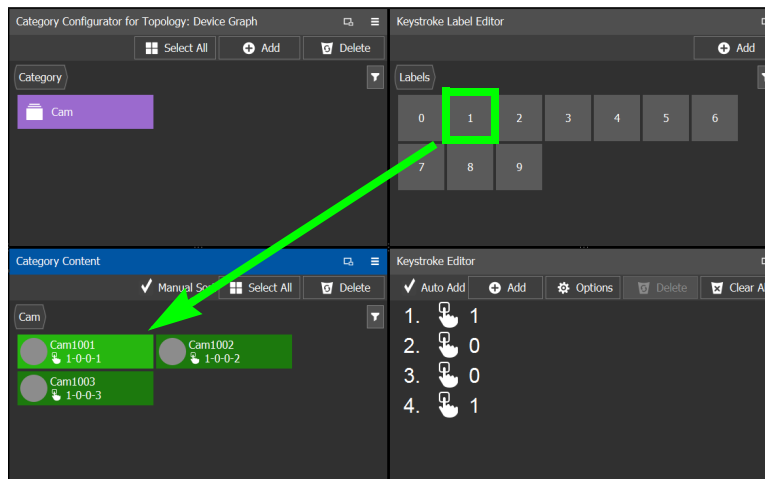


## Assigning a Keystroke Label to a Source or Destination

A keystroke label can be added to sources and destinations once they have been added to a category. Assigning a keystroke label to a source or destination allows a user to bring up categories by using a keypad on a panel. For example, if you have 100 categories in your system, a panel can bring up category 37 by pressing 3 then 7 instead of browsing through dozens of panel pages. This also applies to selecting sources or destinations. For instance, Cam17 can be directly accessed by pressing 1 then 7 on the panel instead of searching for the Cam17 button.

### To add a keystroke label to a source or destination

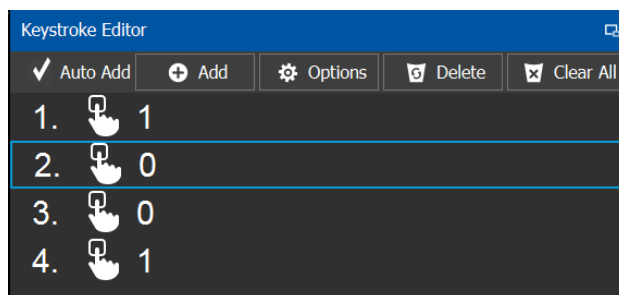
- 1 Open the Category Configurator task for the required topology. See [Accessing the Category Configurator](#), on page 58.
- 2 Click a **Category** to show sources and destinations that have been configured for that category, shown in **Category Content**.
- 3 From the Keystroke Label Editor drag one or more labels onto a source or destination to create a unique sequence for that source or destination.



The **Keystroke Editor** shows the current keystroke label for the selected source or destination.

### Edit a Source or Destination Keystroke Sequence

The **Keystroke Editor** allows you to change the selected source or destination's keystroke label. Setting for automatically assigning keystroke labels to a source or destination can also be set.



---

Set **Auto Add** to automatically assign a keystroke to a source or destination as it is added to a category. Click **Options** to configure this feature.

Proceed as follows to delete a keystroke.

- 1 Select a source or destination shown in **Category Content**.
- 2 Select a keystroke in the **Keystroke Editor** and click Delete.

Proceed as follows to delete all keystrokes.

- 3 Select a source or destination shown in **Category Content**.
- 4 Click **Clear All** in the **Keystroke Editor**.

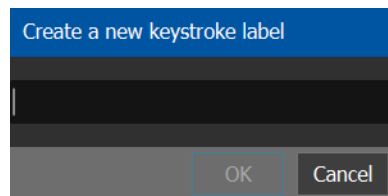
## Creating a Keystroke Label

You can assign custom keystrokes to a source or destination. Create a keystroke label to do so.

### To creating a keystroke label

- 1 Open the Category Configurator task for the required topology. See [Accessing the Category Configurator](#), on page 58.
- 2 In the Keystroke Label Editor, click **Add**.

The Create a new keystroke label window opens.



- 3 Set the keystroke label as required and click **OK**.

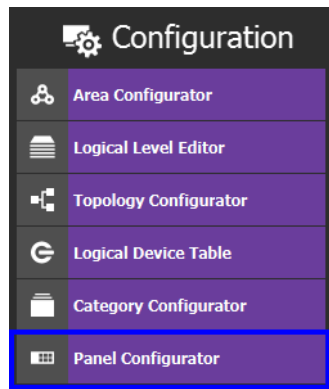
## Panel Configurator Tasks

This allows you to add buttons and behaviors to a panel. Those buttons represent sources, destinations, levels, groups and various operations that can be saved under specific configurations and then pushed to a software or hardware panel.

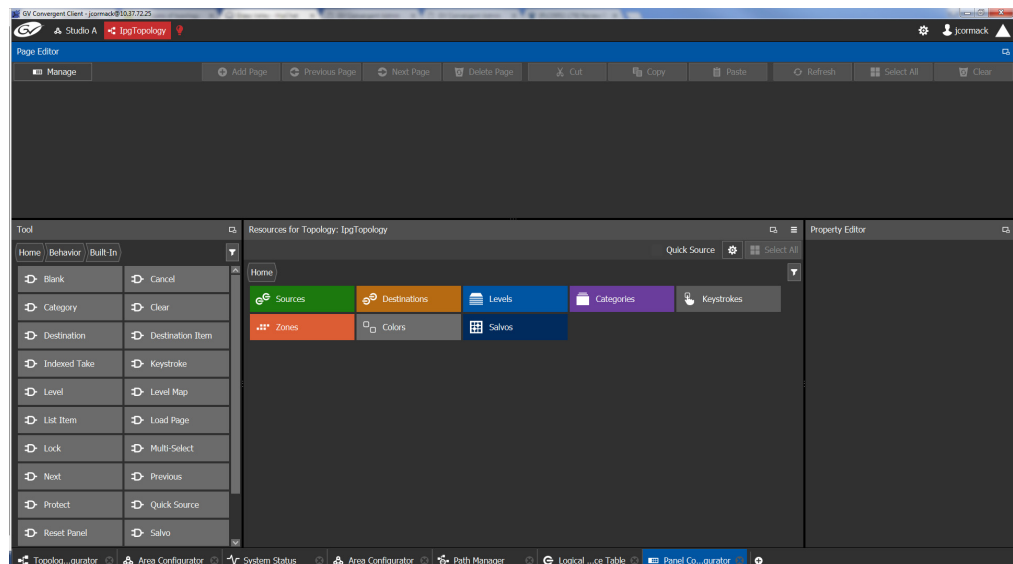
### Accessing the Panel Configurator

#### To access the Panel Configurator Task

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select an area. See [Selecting an Area](#), on page 21.
- 3 Select a topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Configuration > Panel Configurator**.



The Panel Configurator task appears:

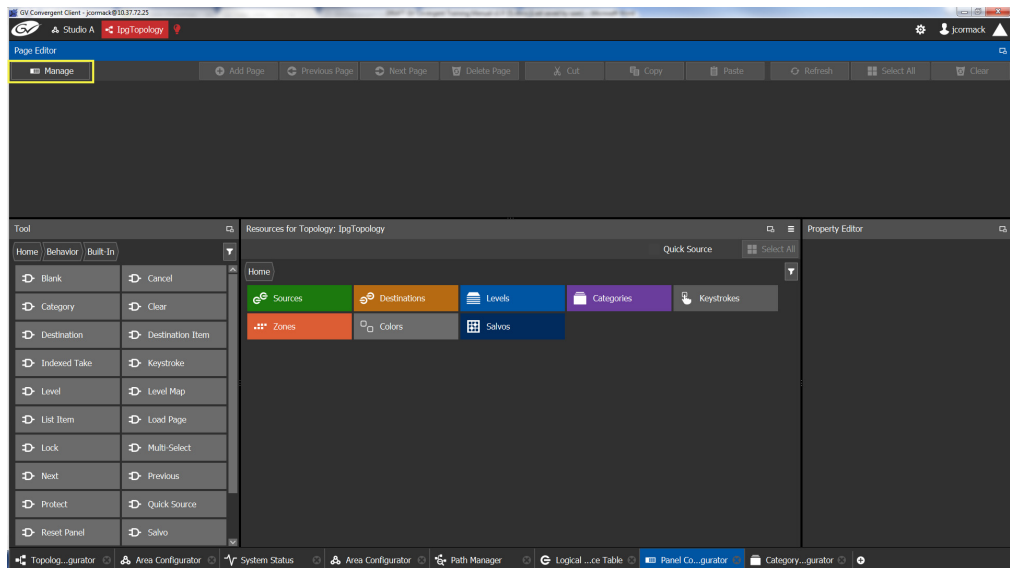


## Creating a New Panel

You can create multiple templates for hardware or software panels of various models. Then, you can add the template to a panel that you have added to the topology.

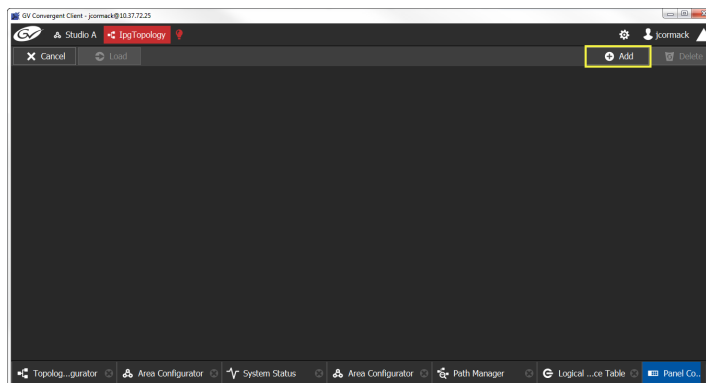
### To create a new panel

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select an area. See [Selecting an Area](#), on page 21.
- 3 Select a topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Configuration > Panel Configurator**.



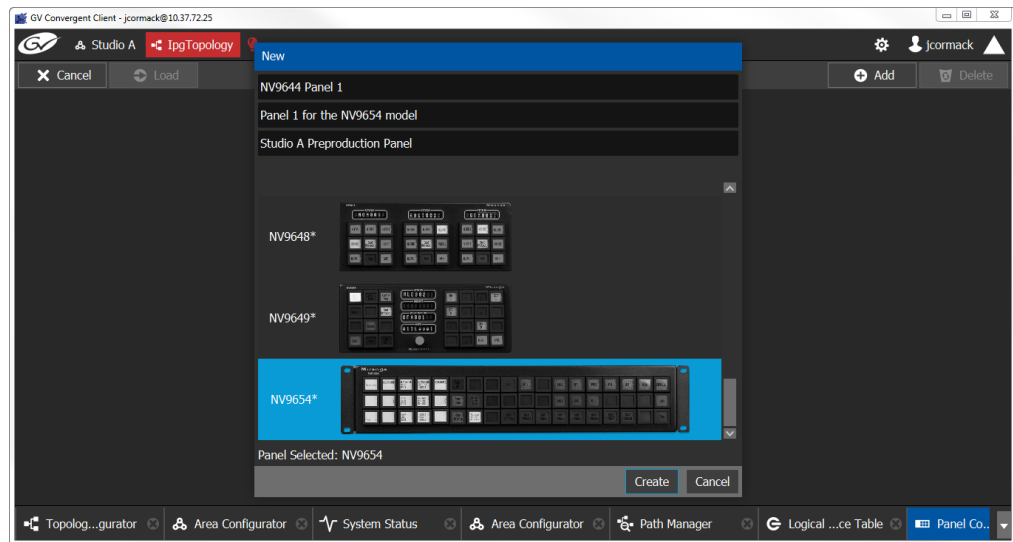
- 5 Click **Manage**.

A secondary window opens.



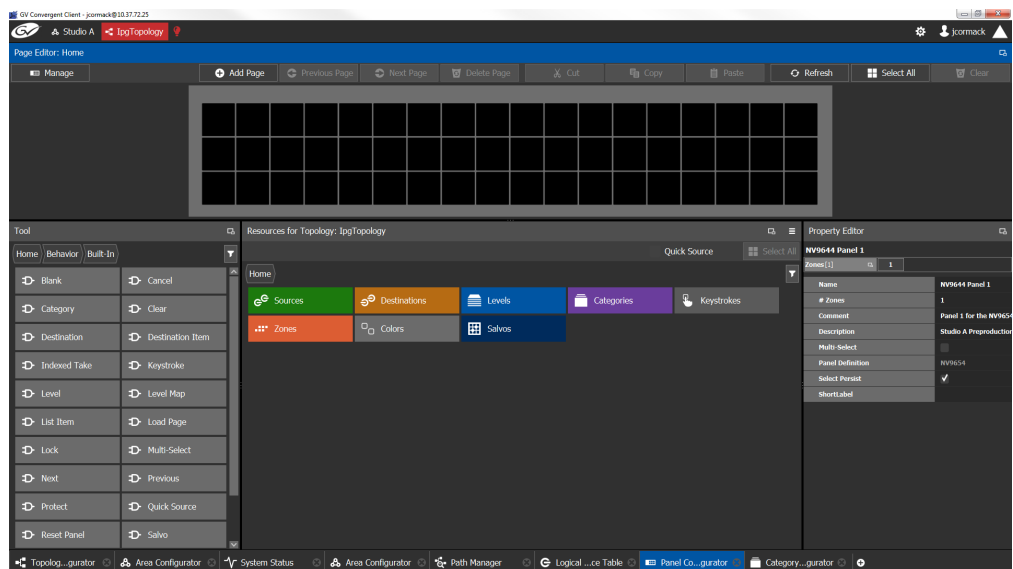
- 6 Click the **Add** button.

The **New** window appears.



- 7 Enter meaningful text in the **Name**, **Summary**, and **Description** fields to identify the panel.
- 8 Select the required model from the list.
- 9 Click **Create**.

The new panel is added

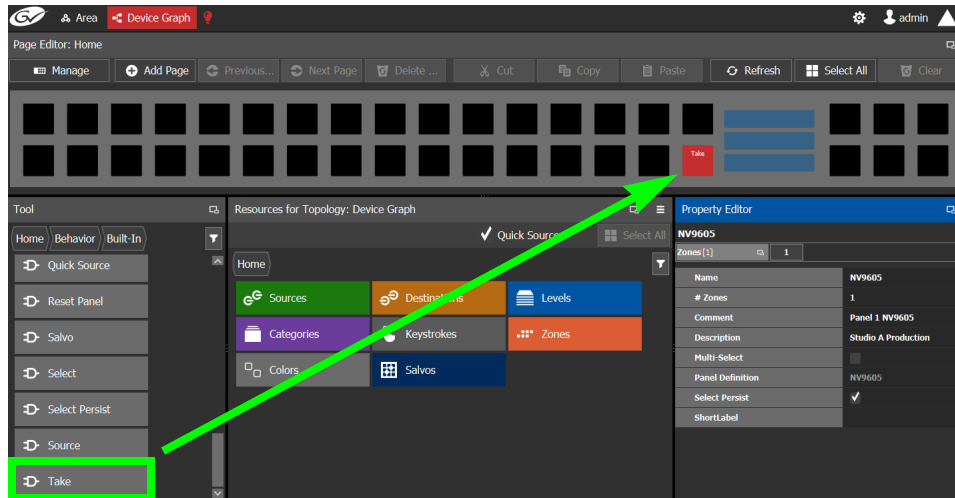


## Adding Actions to a Panel

A panel can support a number of actions that must be added to it before the action becomes available to the user. For example, add a Take button to a panel as follows.

- 1 Open the Panel Configurator task for the required topology. See [Creating a New Panel](#), on page 64.
- 2 Select the required Panel.

### 3 Drag the **Take** tool from the **Tools** column onto a panel button.

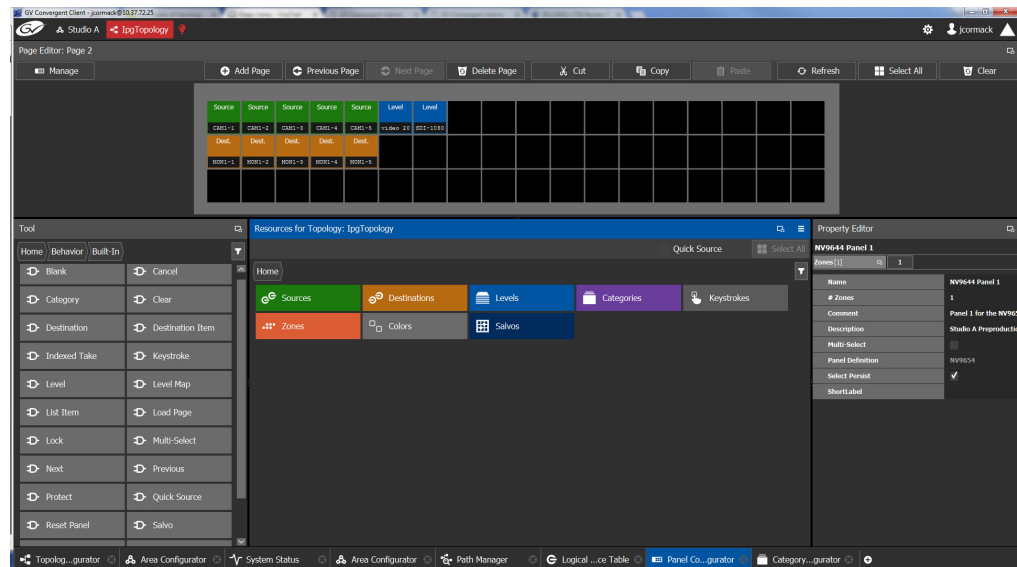


## Adding Resources to the Panel

Now add the resources to the panel.

### To add the resources

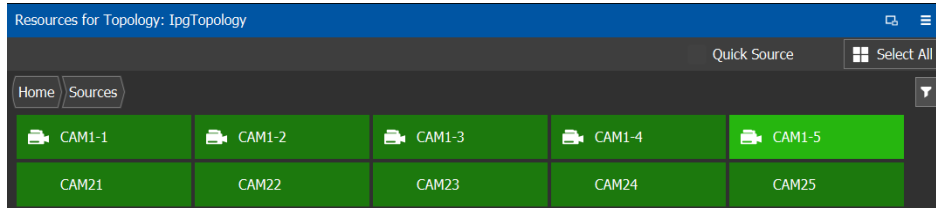
- 1 Open the Panel Configurator task for the required topology. See [Creating a New Panel](#), on page 64.
- 2 Select the required Panel.



The resources that can be added to the panel are displayed in the lower section of the center column under **Resources for Topology**.

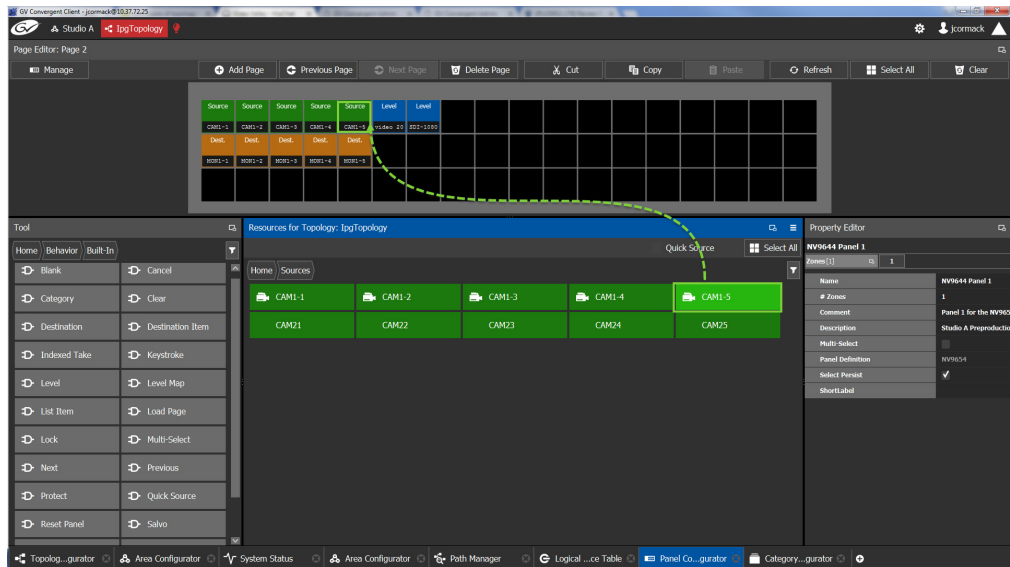
- 3 Click on resource type to begin adding individual resources to the panel.

For example, click **Sources** to add cameras and other types of sources.



All the sources available in the topology are listed. This includes the logical sources you created in the Logical Devices table task. See [Logical Device Table Tasks](#), on page 52.

- 4 Select a resource and drag it to one of the panel buttons at the top of the column.

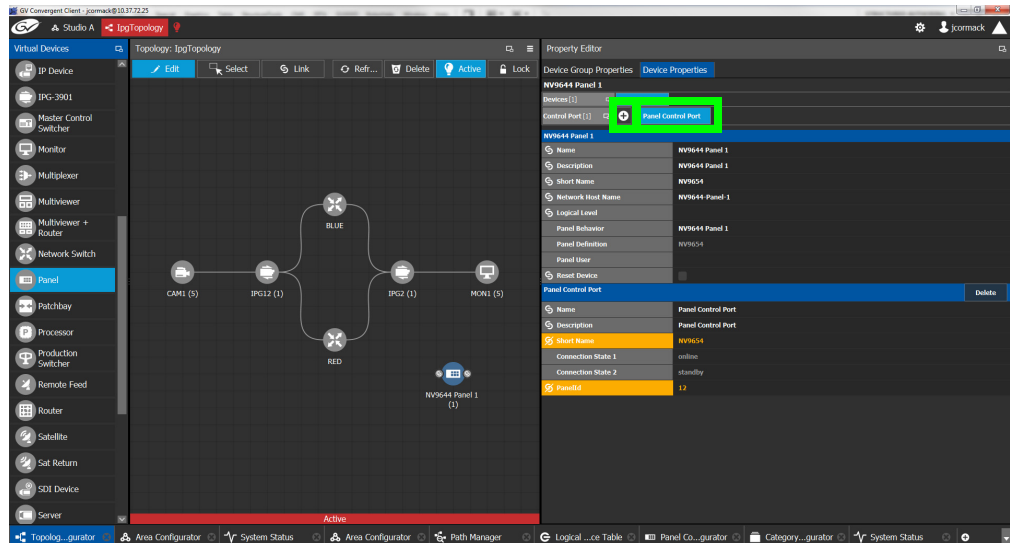



## Adding the New Panel to the Topology

After you have configured one or more templates for your software or hardware panels, you can add a panel to your topology.

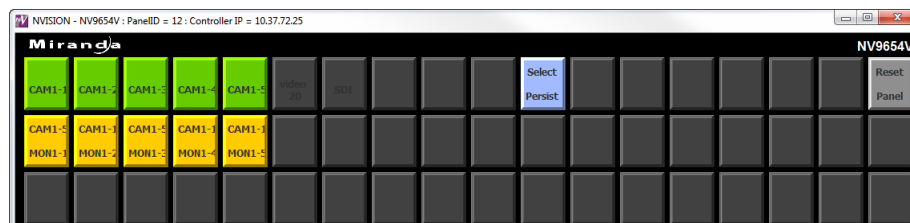
## To add a panel to the topology

- 1 Open the Topology Configurator task for the selected panel. See [Selecting a Topology](#), on page 32.



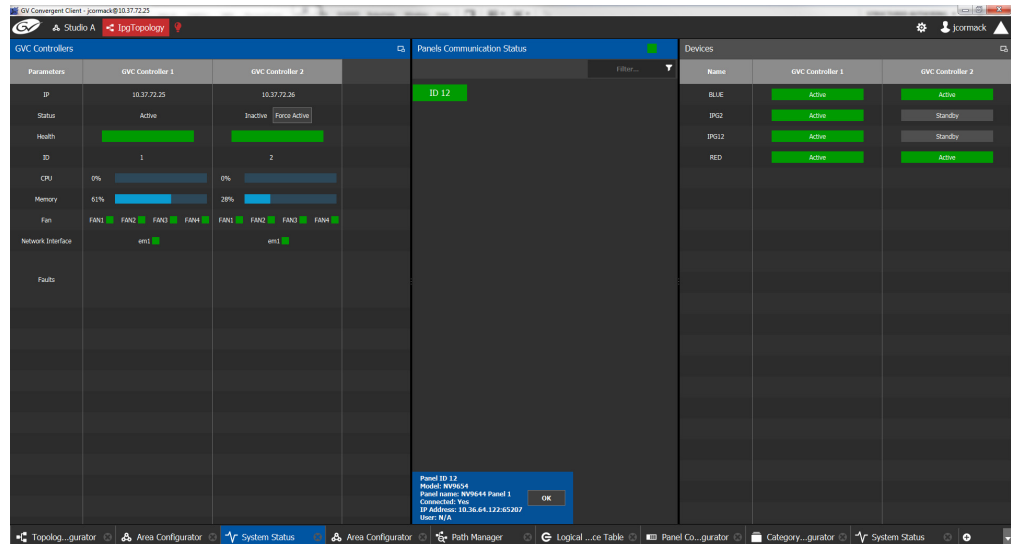
- 2 Select the Panel from the **Virtual Devices** on the left and drag it to the device graph.
- 3 Select the bubble for the panel device to configure the properties.
- 4 Rename the panel device in the **Property Editor**.
- 5 Select **Device Properties** and click **Add**  next to **Control Port** at the top of the **Property Editor**.
- 6 Select **NV96XX Panel Control** from the list.  
The **Panel Control Port** tab appears.
- 7 Select **Panel Control Port** tab to make these properties visible.
- 8 Set the panels's **Short Name** and **Description** parameters.
- 9 Enter a unique ID for the panel in the **PanelID** parameter.
- 10 In the hardware or software panel, ensure you have configured with the Panel ID IP and the Controller 1 IP address.

When the panel is online, you can control GV Convergent from the panel.





You can view the health of the panel in the System Status task. See [System Status Task](#), on page 75.



The green bar indicates the health of the panel is good.

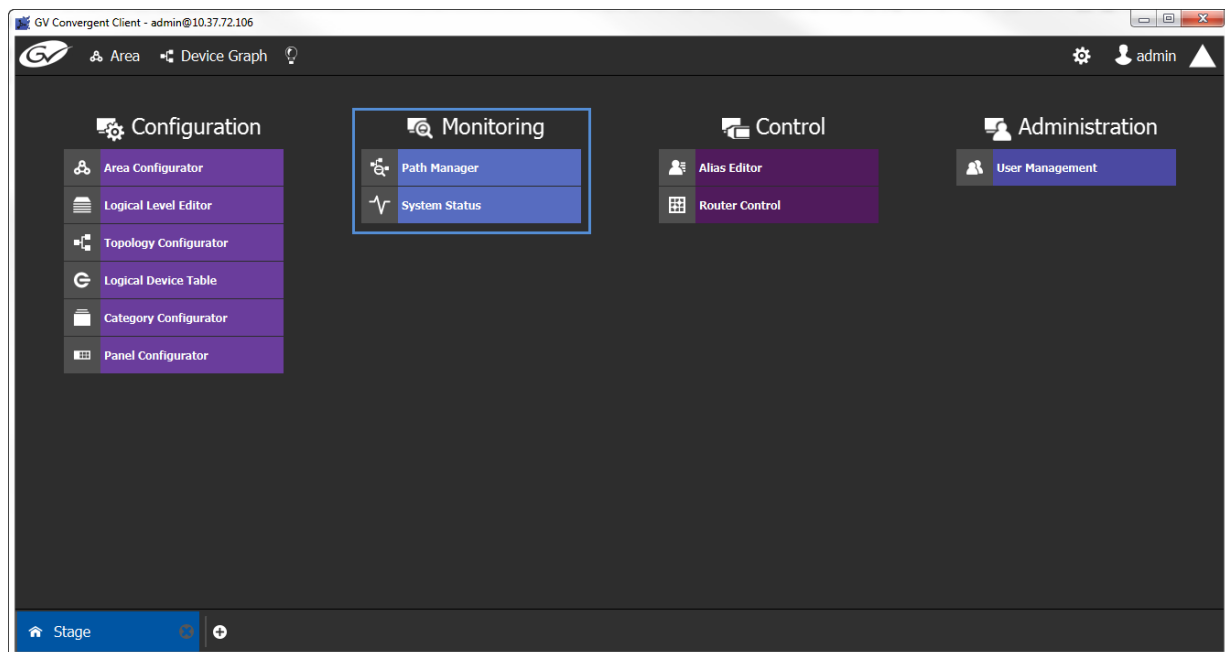
- 11 Click the Panel ID at the top of Panel Communication Status column to view data on the panel. This appears at the bottom of the interface.



# 4 Monitoring Tasks

## Overview

The Monitoring tasks in GV Convergent Client are used to view information about tie line use and the source to destination path of the streams and to monitor the health of the GV Convergent Controllers and the devices in the selected topology



The GV Convergent Monitoring Tasks include:

- [Path Manager Tasks](#), on page 72
- [System Status Task](#), on page 75

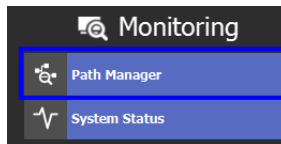
## Path Manager Tasks

Use the Path Manager task to view information about the tie line use and the source to destination path of the streams.

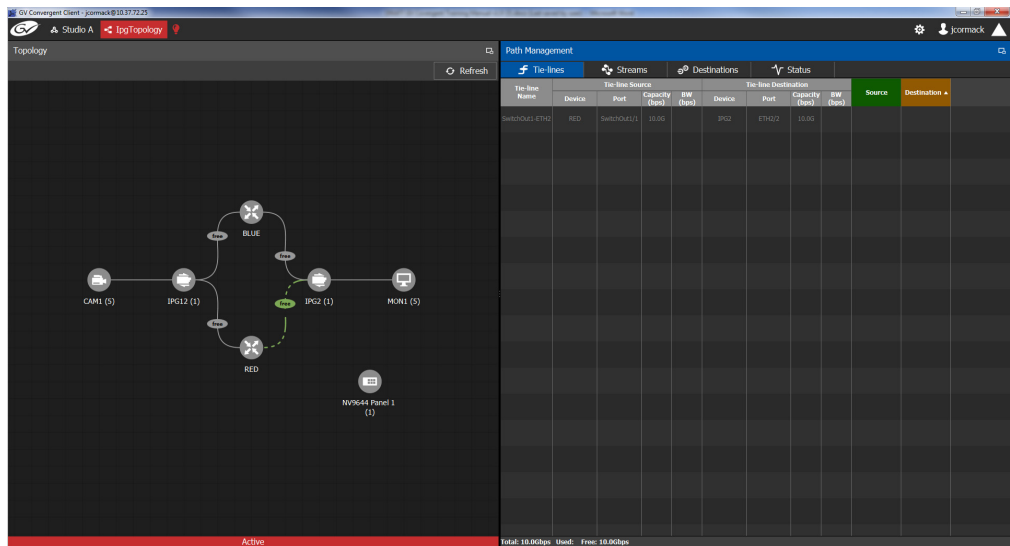
### Accessing the Path Manager

To access the System Status Task

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.
- 4 Make the topology active. See [Activating a Topology](#), on page 45.
- 5 Select **Monitoring > Path Manager**.



The Path Manager task opens:



Under Path Management, click any of the following tabs for more information:


- Tie lines
- Streams
- Destinations
- Status

### Viewing Information about the Tie Lines

To view information about the tie lines

- 1 Open the Path Manager for the selected topology. See [Accessing the Path Manager](#), on page 72.

- 2 Click Overview .
- 3 Select a tie line in the topology on the device graph.




Tie-line Name	Tie-line Source			Tie-line Destination		
	Device	Port	Capacity (bps)	Device	Port	Capacity (bps)
Switch-OU25-4-1	blue	Switch-OU25/25	10.0G	GV Node-A 10.37.80.229	4.1/13	10.0G
Switch-OU26-4-2	blue	Switch-OU26/26	10.0G	GV Node-A 10.37.80.229	4.2/14	10.0G
Switch-OU27-4-3	blue	Switch-OU27/27	10.0G	GV Node-A 10.37.80.229	4.3/15	10.0G
Switch-OU28-4-4	blue	Switch-OU28/28	10.0G	GV Node-A 10.37.80.229	4.4/16	10.0G
Switch-OU29-5-1	blue	Switch-OU29/29	10.0G	GV Node-A 10.37.80.229	5.1/17	10.0G
Switch-OU30-5-2	blue	Switch-OU30/30	10.0G	GV Node-A 10.37.80.229	5.2/18	10.0G
Switch-OU31-5-3	blue	Switch-OU31/31	10.0G	GV Node-A 10.37.80.229	5.3/19	10.0G
Switch-OU32-5-4	blue	Switch-OU32/32	10.0G	GV Node-A 10.37.80.229	5.4/20	10.0G
Switch-OU33-6-1	blue	Switch-OU33/33	10.0G	GV Node-A 10.37.80.229	6.1/21	10.0G
Switch-OU34-6-2	blue	Switch-OU34/34	10.0G	GV Node-A 10.37.80.229	6.2/22	10.0G
Switch-OU35-6-3	blue	Switch-OU35/35	10.0G	GV Node-A 10.37.80.229	6.3/23	10.0G

The source and destination information is displayed under the following headings:

- Tie line Name
- Tie line Source: Device, Port, Capacity (bps), BW (bps)
- Tie line Destination: Device, Port, Capacity (bps), BW (bps)
- Source
- Destination

## Viewing Information about the Streams

To view information about the streams

- 1 Open the Path Manager for the selected topology. See [Accessing the Path Manager](#), on page 72.
- 2 Click **Overview** .
- 3 Select a tie line in the topology on the device graph.
- 4 Select the **Streams** tab.
- 5 Select a Tie-line under **Path Management**.

The information is displayed under the following headings:

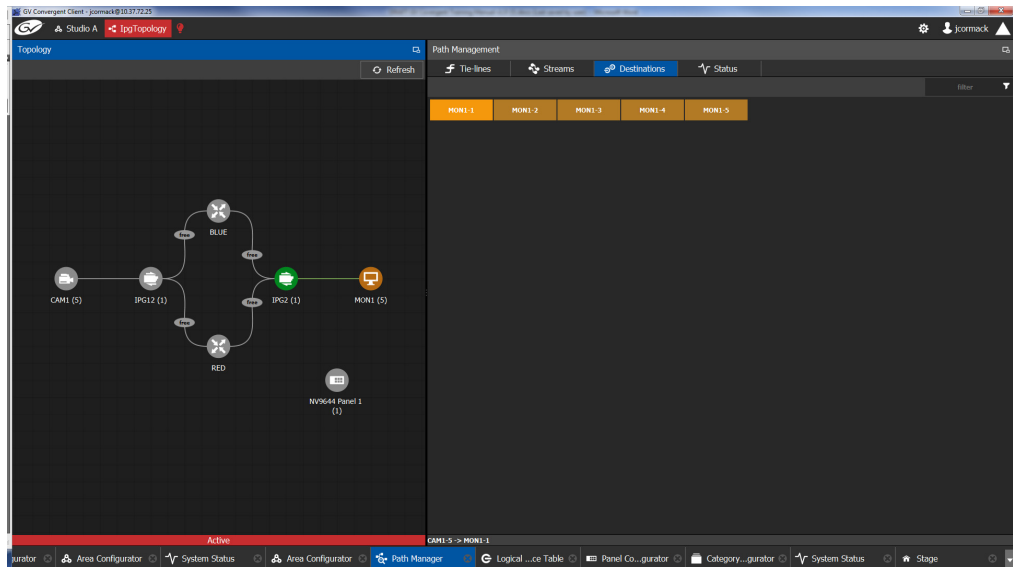
- Stream
- IP address
- BW (bps)
- Source
- Destination

## Viewing Information about the Destinations


To view information about the destinations

- 1 Open the Path Manager for the selected topology. See [Accessing the Path Manager](#), on page 72.

2 Select the **Destinations** tab.



All the destinations are listed on the right.

3 Select a destination. The path details are shown. Click **Overview**  to view a highlighted path between the source, shown in green, and destination, shown in brown.

## Viewing Information about the Status

### To view information about the status

- 1 Open the Path Manager for the selected topology. See [Accessing the Path Manager](#), on page 72.
- 2 Select the **Status** tab.  
The flow status of the DCNM is displayed, if applicable.

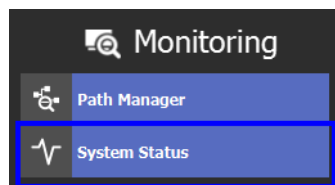
## System Status Task

Use the System Status Task to monitor the health of the GV Convergent Controllers and the devices in the selected topology. You can also perform a manual failover from this task.

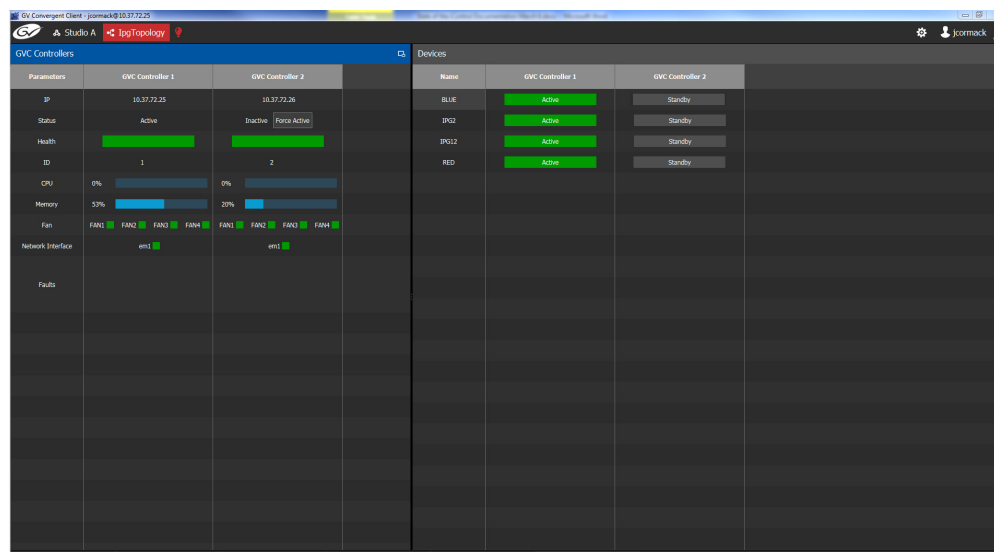
### Accessing the System Status Task

To access the System Status Task

- 1 Open GV Convergent Client Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Monitoring > System Status**.



The System Status task opens



In this configuration, Controller 1 is the active controller and Controller 2 is inactive.

The System Status task displays the following information:

- The **status** of **Controller 1** is now **Active**.
- The **status** of **Controller 2** is now **Inactive**.
- The **health** field for both controllers displays a **green bar** indicating it is good.
- The **CPU** and **Memory** fields for both controllers show the current level of activity.
- The **fans** for both controllers show **green** boxes indicating health.
- The **Network Interface** port of both controllers is displayed, **em1**.
- The **status** of the devices on **Controller 1** is **active**.
- The **status** of the devices on **Controller 2** is **standby**.

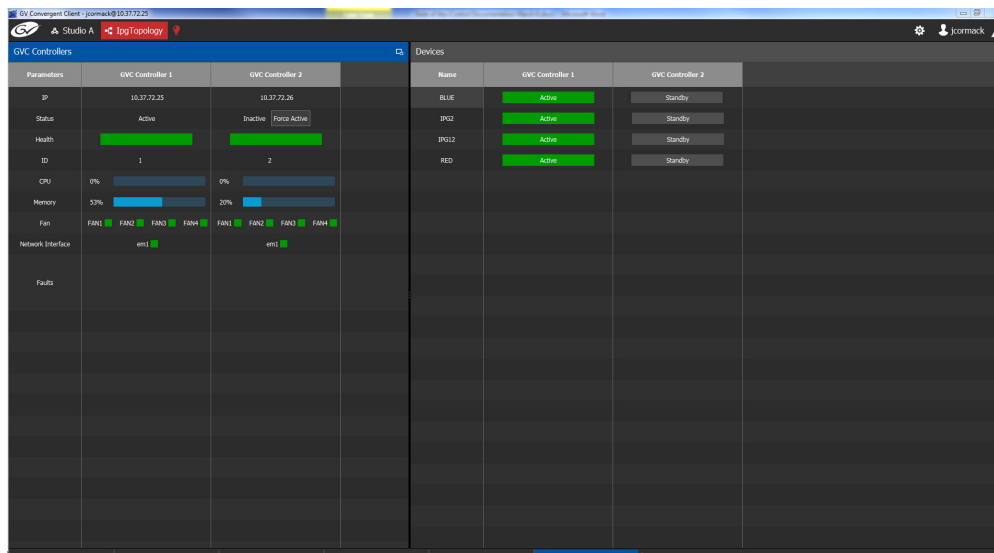
## Forcing the Inactive Controller to be the Active Controller

If two controllers are configured in a redundant configuration, then during the normal course of operations, one controller is active and the other is inactive at all times.

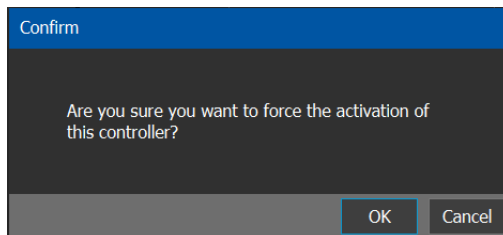
If a problem occurs, such as network loss or connectivity issues, the inactive controller (Controller 2) becomes the active controller. The controller that was formerly active (Controller 1) reboots. This is an automatic failover. You can perform a manual failover if you have administrator rights in the selected Area. See [Viewing Permissions by Role](#), on page 94.

### To perform a manual failover

- 1 Open the System Status task for the required topology. See [Accessing the System Status Task](#), on page 75.



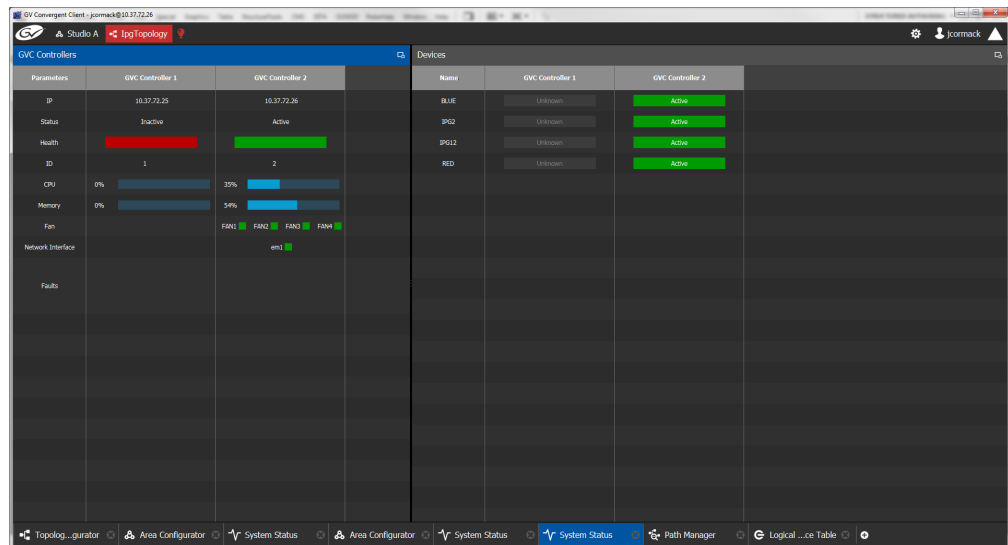
- 2 Click the **Force Active** button for the Inactive Controller.  
A confirmation message appears.



- 3 Click **OK** to continue.

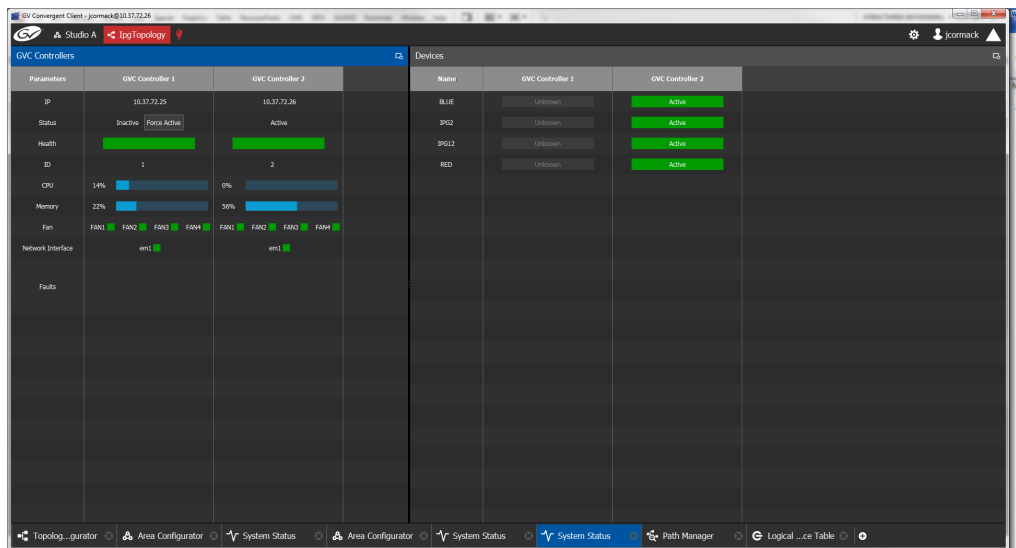
The controllers switch states. The formerly inactive controller (Controller 2) becomes active. The formerly active controller (Controller 1) reboots. As it shuts down, the following changes occur and are reflected on the System Status task.





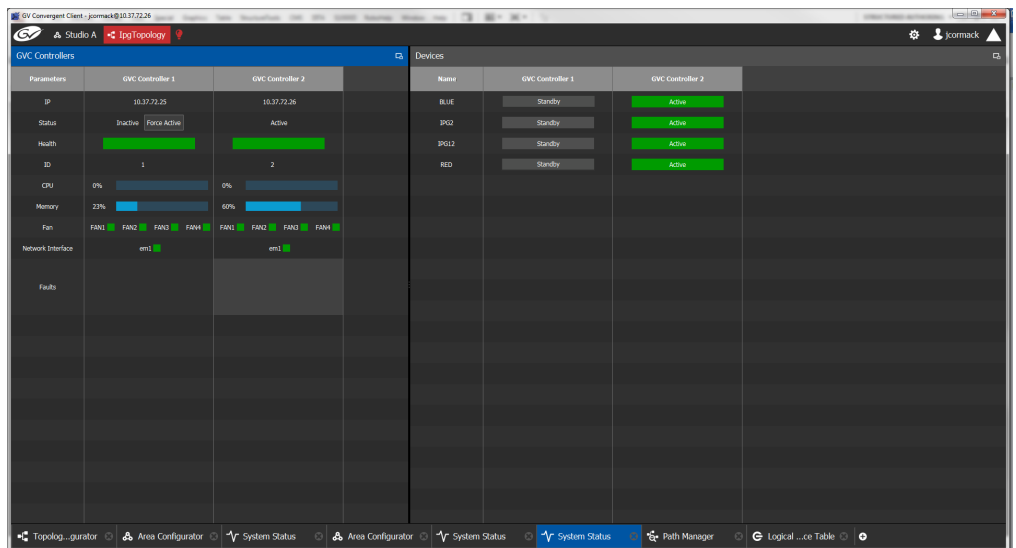
- The **Status** of the **Controller 1** is now **Inactive**.
- A **red bar** is displayed for the **Health** of Controller 1, indicating it is not good.
- The **CPU** and **Memory** are at **0%**.
- The **Fans** and **Network Interface** are blank.
- The **Status** of the **Controller 2** is now **Active**.
- A **green bar** is displayed for the **Health** of Controller 1, indicating it is good.
- The **CPU** and **Memory** fields show their level of activity.
- The **Fans** are green, indicating health.
- The **Network Interface** displays the Management Interface port name (em1).
- The status of all **devices** controlled by **Controller 1** is **unknown**.
- The status of all **devices** controlled by **Controller 2** is **active**.

When Controller 1 comes back, the following changes occur and are reflected in the interface.



- The **status** of **Controller 1** is now **Inactive**.
- The **health** field for Controller 1 displays a **green bar** indicating it is good.
- The **CPU** and **Memory** fields for both controllers show the current level of activity.
- The **fans** for both controllers show **green** boxes indicating health.
- The **Network Interface** port of both controllers is displayed, **em1**.
- The **status** of the devices on **Controller 1** is **unknown**.
- The **status** of the devices on **Controller 2** is **active**.

Finally, when Controller 1 is fully rebooted, the following changes occur:



- The **status** of the devices on **Controller 1** is **standby**.

## Permissions

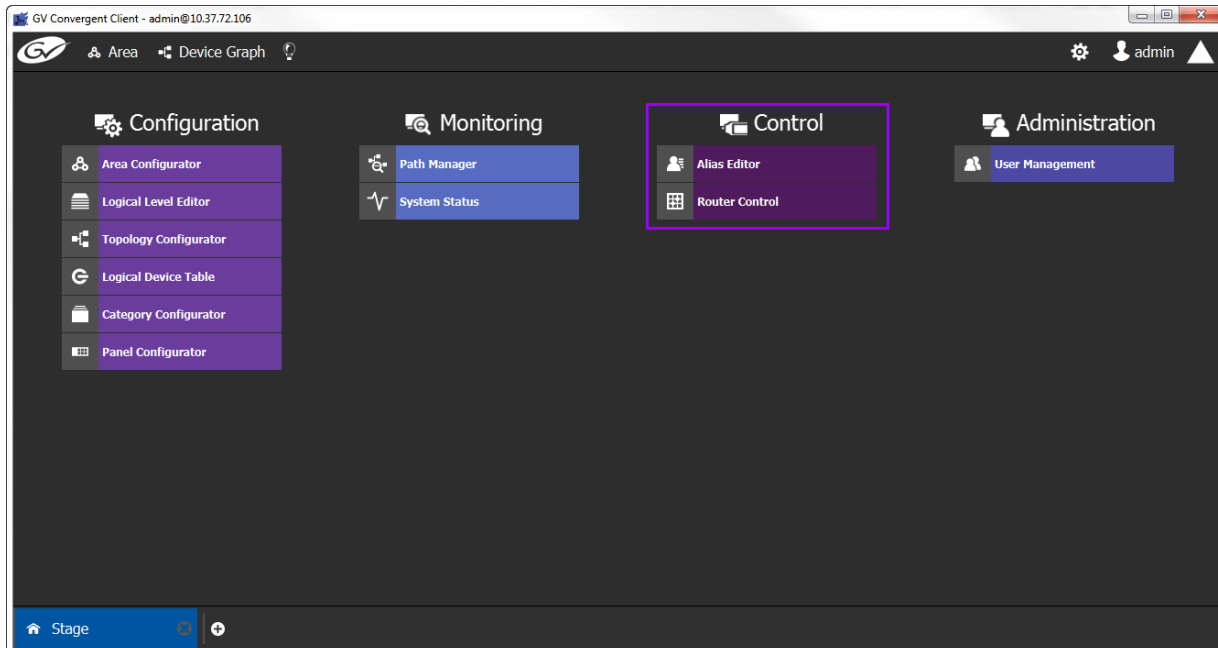
Members of the administrator role in the selected area have view, edit, and delete rights for the System Status task. Engineers, Operators, and Maintenance personnel have view rights

only. See [Viewing Permissions by Role](#), on page 94.



# 5 Control Tasks

## Overview



The GV Convergent Monitoring Tasks include:

- [Alias Editor Tasks](#), on page 82
- [Router Control Tasks](#), on page 84

## Alias Editor Tasks

Use the Alias Editor to assign aliases to sources and destinations.

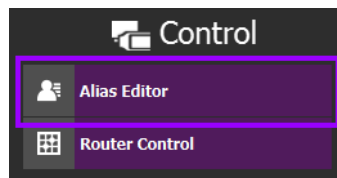
These aliases can be used in router control to change the name of sources and destinations from short labels to the corresponding aliases.

Once an alias column has been added, you can also copy/paste a list of values from an Microsoft Excel spreadsheet column into the alias column to bulk name the sources and destinations.

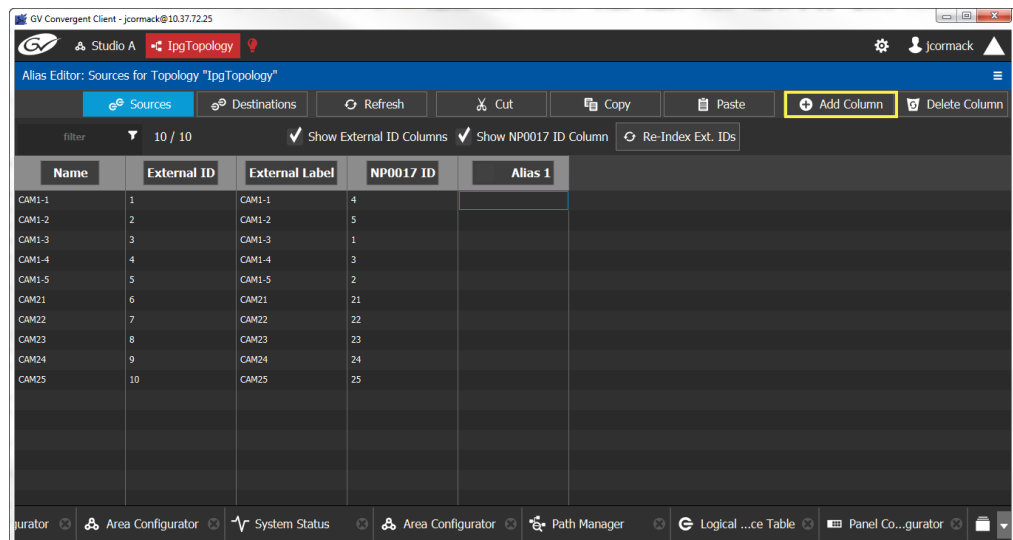
## Accessing the Alias Editor

### To access the Alias Editor

- 1 Open GV Convergent Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Control** > **Alias Editor**.



The Alias Editor task opens.



The Alias Editor has tabs for Source and Destination IDs.

- 5 Select options for the IDs you want to view from the following:
  - Show External ID columns
  - Show NP0017 ID column

You can add one or more columns to create an aliases for the sources.

- 6 Click **Add Column** at the top of the UI to add a column for the aliases. Enter the corresponding aliases in this column or paste a list of values from an Microsoft Excel spreadsheet column into the alias column to bulk name the sources.

---

## Router Control Tasks

Use the Router Control task to control the sources and destination in an active topology.

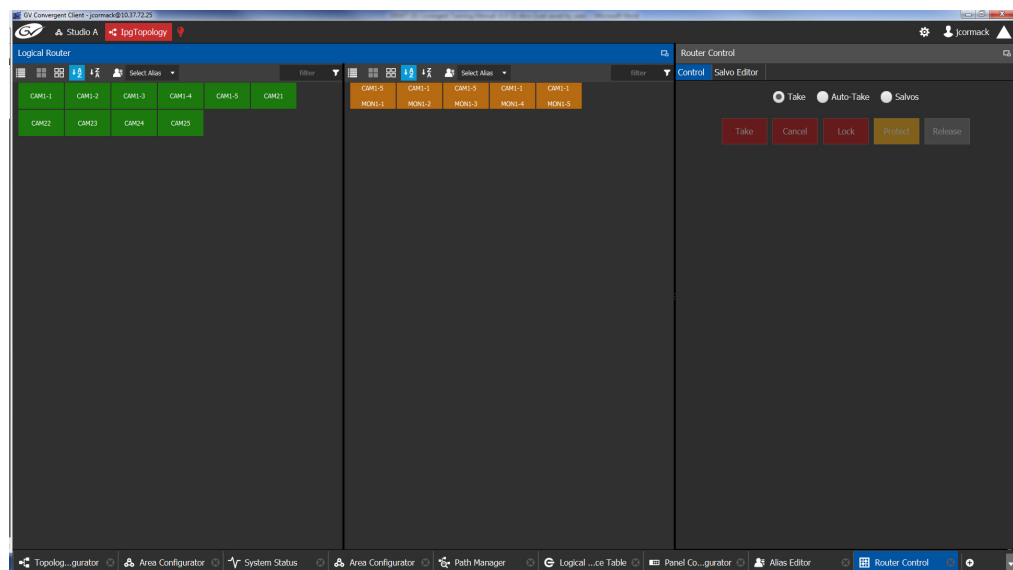
### Accessing the Router Control Task

To access the Router Control task

- 1 Open GV Convergent Stage. See [Navigating Back to Stage](#), on page 10.
- 2 Select the required Area. See [Selecting an Area](#), on page 21.
- 3 Select the required topology. See [Selecting a Topology](#), on page 32.
- 4 Select **Control** > **Router Control**.



The Router Control task opens



The sources are listed on the left under Logical Router. The destinations are listed in the center. The right hand column displays the actions you can perform.

### Performing Actions in Router Control

You can perform a take in Router Control as follows.

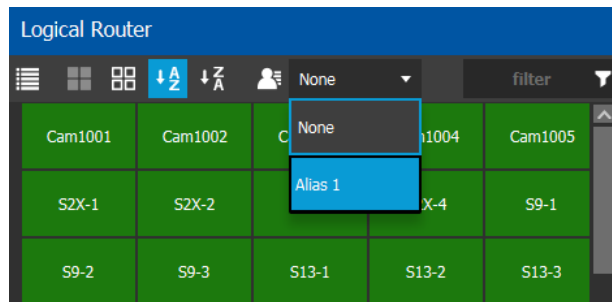
- 1 Under **Logical Router**, select a source, shown in green.
- 2 Select a destination, shown in brown.
- 3 Under Router Control, click **Take**.



## Selecting the Name of Sources and Destinations

When a source or destination has been assigned an alias, you can select the alias to be shown through the Alias drop-down menu.

- 1 Select a source or destination under **Logical Router**.
- 2 Click the alias drop-down menu and select an alias option.

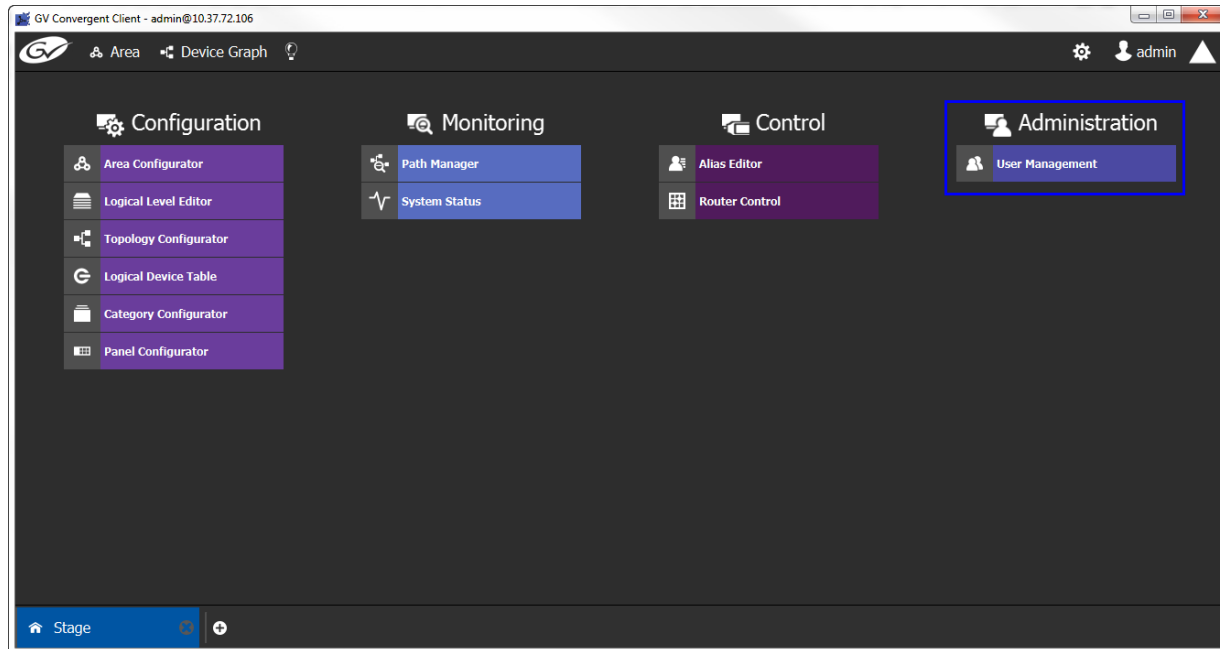


The label for the selected source or destination changes to the selected option.



# 6 Administration Tasks

User Management is the only Administration task. Only administrators have access to it.



## User Management Task

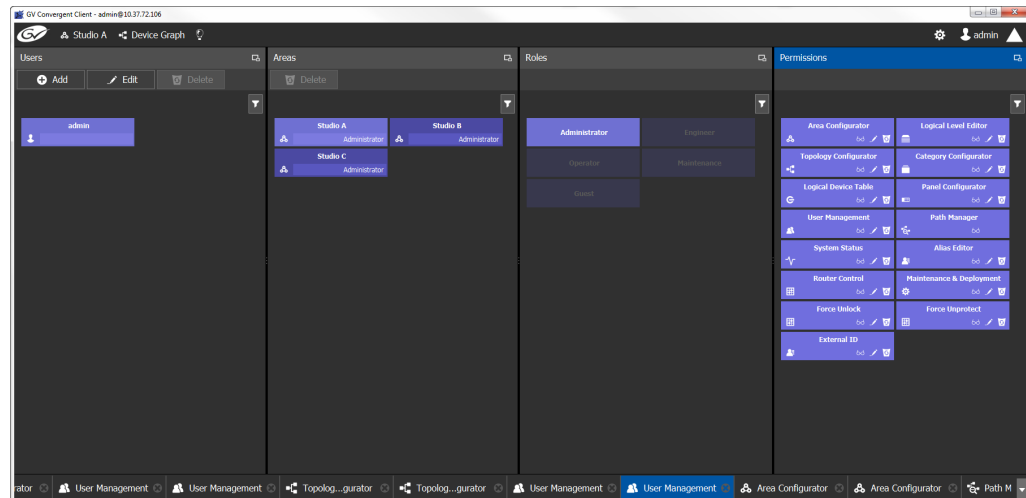
As an administrator, you have access to the User Management Task. This is used for:

- Creating, editing, and deleting user profiles. See [Creating User Profiles](#), on page 89.
- Managing access rights to the areas in your system. See [Granting Access Permissions to an Area](#), on page 91.
- Viewing and assigning permissions according to predefined user roles. See [Viewing Permissions by Role](#), on page 94.

## The User Management Task Overview

**Note:** Before you assign access permissions, you must create areas in your system. For details, see [Area Configurator Tasks](#), on page 16.

When you first log in to the User Management Task, the admin tile appears in the **Users** section.



The User Management Task UI has four columns:

- **Users:** The column displays a tile for each user who has access to your system. See [Creating User Profiles](#), on page 89.
- **Areas:** The column displays a tile for each area defined in your system. See [Granting Access Permissions to an Area](#), on page 91.
- **Roles:** The column displays a tile for each of the predefined roles: Administrator, Engineer, Operator, Maintenance, and Guest. Permissions to view, edit, and delete within each client task vary by role. These permissions can be seen when you select the role in the Roles column; i.e., **Administrator** is selected in the screen shot above. The permissions granted to the administrator role are shown in the **Permissions** column. (Members of the administrator role have full access permissions to all areas in the system). See [Viewing Permissions by Role](#), on page 94 for a list of the permissions available to each role.
- **Permissions:** The column displays a tile for the tasks that users can perform within the areas in your system according to the selected User, Area, and Role. View, edit and delete icons show the current user's rights for the task.

## Creating User Profiles

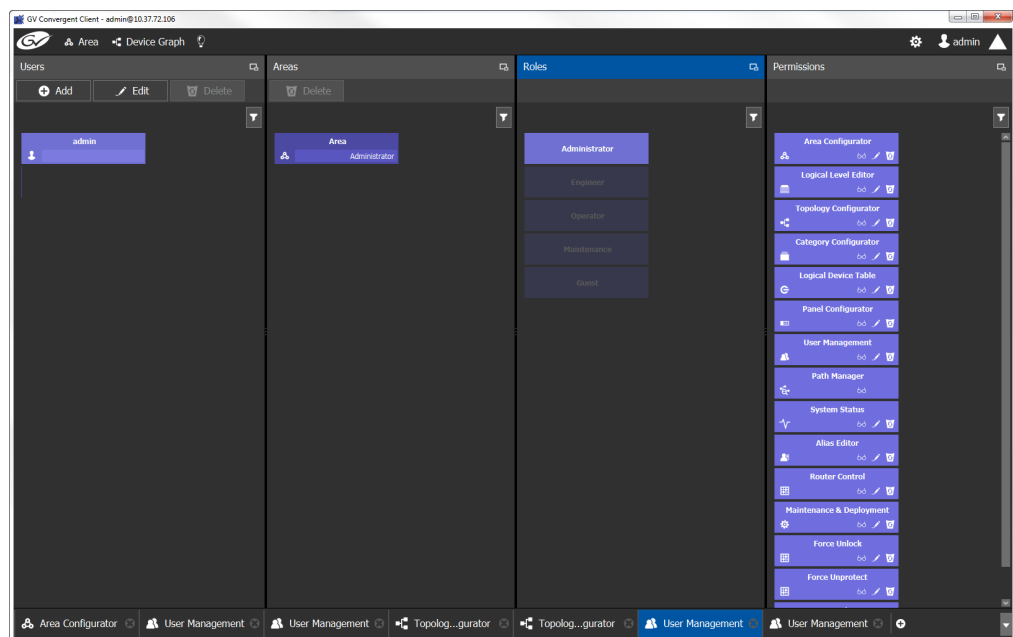
The first step is to create your user profiles.

**Note:** To access the user profiles, you must belong to the administrator role. Otherwise, Administration tasks are not visible in GV Convergent Client Stage.

To create a new user account:

- 1 Launch GV Convergent Client.
- 2 Log in as an administrator.
- 3 Select **Administration > User Management**.

The User Management window appears.



- 4 Click the **Add** button  in the top left corner.

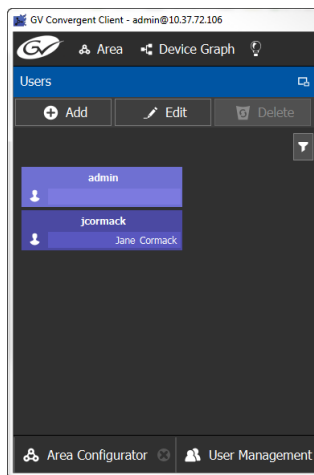
The user configuration window appears.

User ID	jcormack
First Name	Jane
Last Name	Cormack
Password	•••••
Confirm Password	•••••
<input type="button" value="Ok"/> <input type="button" value="Cancel"/>	

- 5 Enter the required information in the **User ID**, **First Name**, **Last Name**, **Password**, and **Confirm Password** fields.

- 6 Click **OK**.

A new tile representing the new user account appears in the **Users** section.



In addition, you can perform the following procedures in the **Users** section:

- **Edit:** Select the icon for the user and click **Edit** to modify the user's credentials.
- **Delete:** Select the icon for the user and click **Delete** to remove the user account. There is no confirmation when you click **Delete**. The user profile is immediately removed.

**See also**

- [Switching User Profiles](#), on page 11

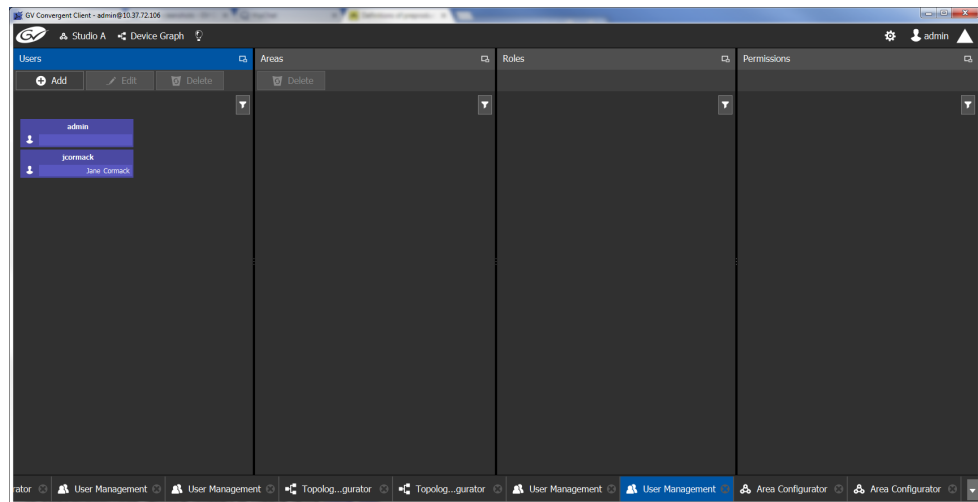
## Granting Access Permissions to an Area

Users are granted access to each area via a predefined role. The procedure is as follows:

### To grant access to an area

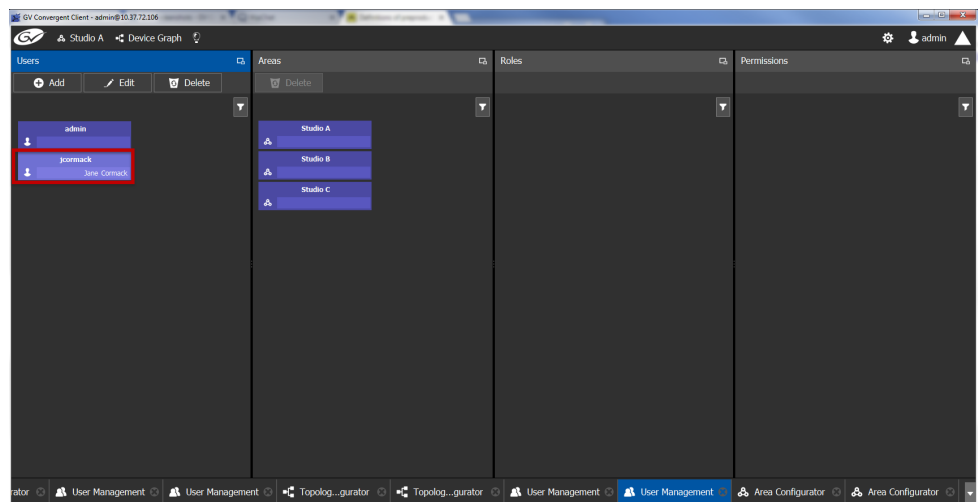
- 1 Launch GV Convergent Client.
- 2 Log in as an administrator.
- 3 Select **Administration > User Management**.

The User Management task appears.

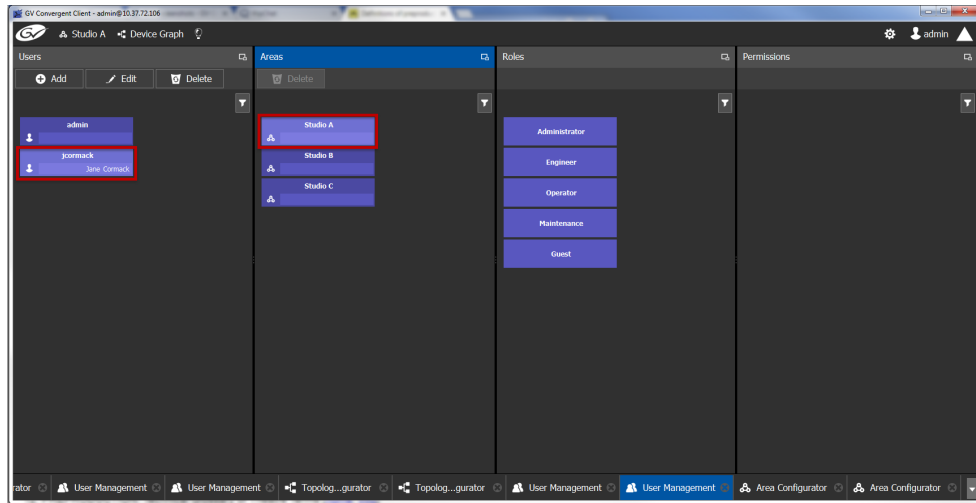


The **Users** column displays tiles for all the users who have access to the system.

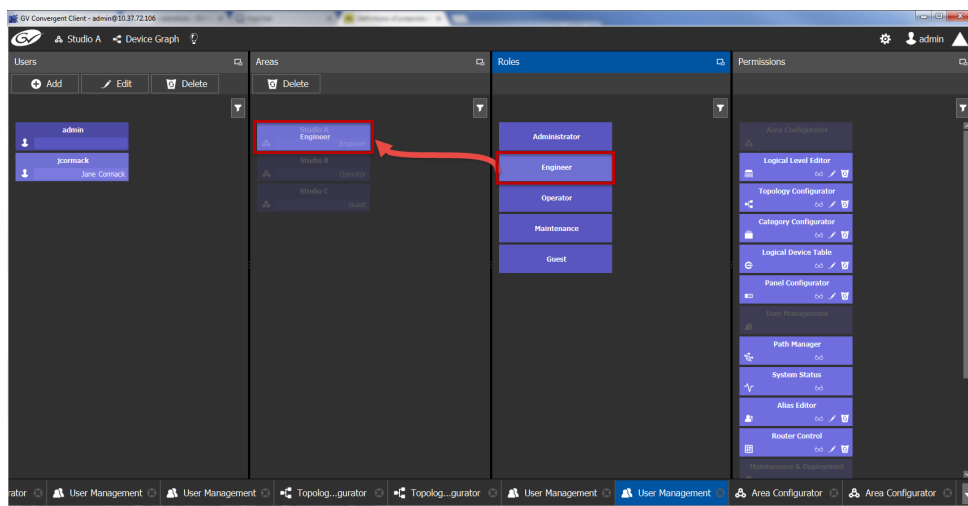
- 4 Select the applicable user tile in the **Users** section.



The **Areas** column displays tiles for all the areas defined in your system.

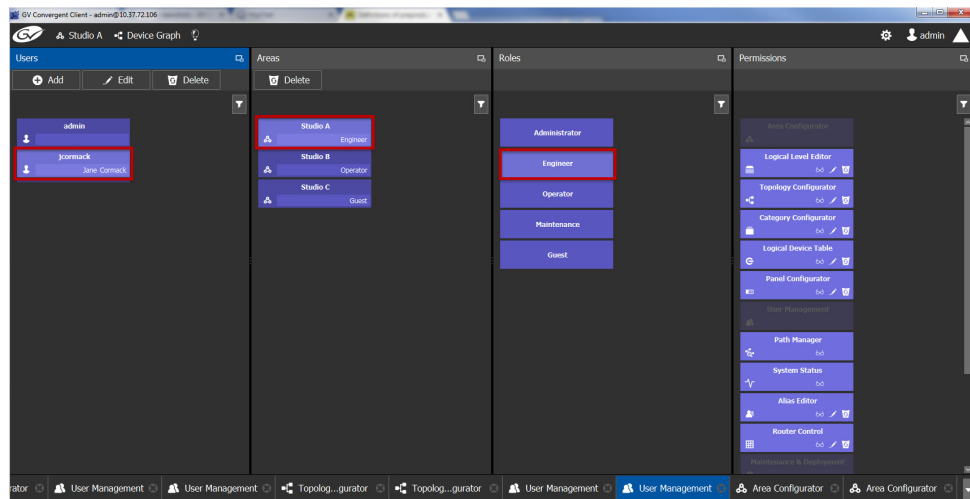


- 5 Select an area tile in the **Areas** section while keeping the user tile selected.  
The **Roles** column displays tiles for all the roles when both the user tile and the area tile are selected, at the same time.
- 6 Select a role tile and drag it on top of the area tile.

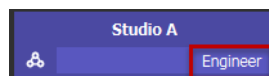


This action gives the user all the permissions defined for the role in the selected area.

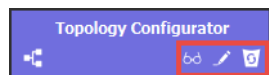




When you select the user tile in the Users section, the user's role in the area is displayed at the bottom right of the Area tile.



The permissions granted to the selected role; i.e., view, edit, delete, are displayed on the Permissions tile in the **Permissions** column.



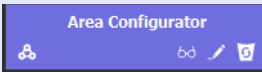

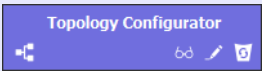
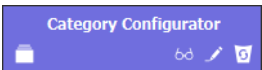
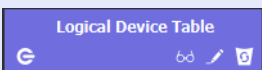
These are listed in the next section.

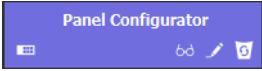
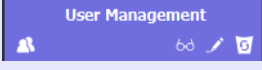
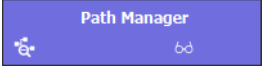
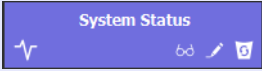
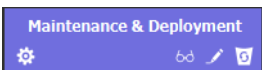
## Viewing Permissions by Role

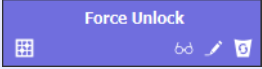
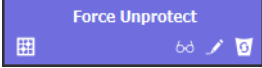
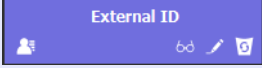
Users are granted access to the areas in the system via their assigned roles. The following rules apply:

- Users can be assigned to different roles in different areas.
- Users cannot be granted permissions as individuals, only according to role.
- The roles are predefined, as follows: Administrator, Engineer, Operator, Maintenance, and Guest. The roles cannot be modified.
- Administrators have full access to all tasks in all areas. Guests have the least permissions. The Engineer, Operator, and Maintenance roles have various permissions, as listed in the following table:

The permissions granted to each role can be viewed on the tiles in the Permissions list book of the User Management task. These can be viewed when the user, the area, and the role are all selected at the same time.

Task	Role	Permissions
<b>Area configurator</b> 	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	No access
	Maintenance	No access
	Guest	No access
<b>Logical Level Editor</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access
<b>Topology Configurator</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	View
	Maintenance	No access
	Guest	No access
<b>Category Configurator</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access
<b>Logical Device Table</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access

Task	Role	Permissions
<b>Panel Configurator</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access
<b>User Management</b> 	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	No access
	Maintenance	No access
	Guest	No access
<b>Path Manager</b> 	Administrator	View
	Engineer	View
	Operator	View
	Maintenance	No access
	Guest	No access
<b>System Status</b> 	Administrator	View, Edit, Delete
	Engineer	View
	Operator	View
	Maintenance	View
	Guest	No access
<b>Alias Editor</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	View, Edit, Delete
	Maintenance	No access
	Guest	No access
<b>Router Control</b> 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	View
	Maintenance	No access
	Guest	No access
<b>Maintenance &amp; Deployment</b> 	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	No access
	Maintenance	View
	Guest	No access

Task	Role	Permissions
Router Force Unlock 	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	View, Edit, Delete
	Maintenance	No access
	Guest	No access
Router Force Unprotect 	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	View, Edit, Delete
	Maintenance	No access
	Guest	No access
External ID 	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access





## **Grass Valley Technical Support**

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1-530-478-4148.

To obtain a local phone number for the support center nearest you, consult the Contact Us section of Grass Valley's website ([www.grassvalley.com](http://www.grassvalley.com)).

An online form for e-mail contact is also available from the website.

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