

GV CONVERGENT

Version 1.5.0

Quick Tour of Client Tasks

13-00952-030 AA

2018-05-29

www.grassvalley.com

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TitleGV Convergent Version 1.5.0 Quick Tour of Client TasksPart Number13-00952-030 AARevision29-05-2018, 15:54

Notices

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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 or 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.

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		Configuration		\land Monitoring		Control	Ę	Administra	ation	
	ቆ	Area Configurator	ġ.	Path Manager	2	Alias Editor	A	ser Management		
		Logical Level Editor	-\r	System Status	E	Router Control				
	-6	Topology Configurator								
	е	Logical Device Table								
		Category Configurator								
		Panel Configurator								
S	stage	€ €								

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.

GV Convergent Client - jcormack@10.37.72.106			
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🚓 Configuration	\land Monitoring	ng Control	
Eogical Level Editor	Path Manager	Alias Editor	
📲 Topology Configurator	System Status	Router Control	
C Logical Device Table			
Category Configurator			
Panel Configurator			
🕈 Stage 😯 🚭			

Note: Access permissions vary according to the permissions granted to the user's role. For further information, seeAdministration Tasks, on page 87

Viewing Notifications

A notification is an indicator that an event has occurred.

To view your notifications

1 Log in to GV Convergent Client.

GV Convergent Cli	ient - jcormack@10.37.72.106					_ C _X
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	🚓 Configuration		🙇 Monitoring		ra Control	· ·
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-0	Topology Configurator	∿	System Status		Router Control	
e	Logical Device Table					
	Category Configurator					
	Panel Configurator					
🏫 Stage	•					

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

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Genera				SDI Inputs [144] 🖪 1	2 3	
م Conver				Stream SUP Config [9] 1 2	3 4 5 6	A New Task is Available ×
					2 3	System Status
	IP Device (1)	Network Switch		Name Chart Name	GV Node	A New Task is Available
DDR	Encoder (1)			Frame IP Address	OVN	A New Task is Available
				Network Host Name	GVN	C Logical Device Table
Decode		(***)	y	Advanced		A New Task is Available ×
-E Demul	Camera-A (40)	GV Node	Monitor-A (1)	Description	GV Node	
		X		2022-7 Mode		Router Control
Encode				6 HD Mode		A New Task is Available ×
Frame			_	Card Mode	SMPTE2022	Se Path Manager
Synchr	Comera (11)		Monitor (11)	Expose Streams		
🔝 Graphi				Gateway Connection State 1	unknown	A New Task is Available ×
GV Not		X	\backslash	Gateway Connection State 2	unknown	Panel Configurator
			Server (1)	Gateway NP16 Connection State	disabled	
IP Dev				Internal Wiring Done	1	A New Task is Available ×
TPG-39				Join Timeout (ms)	0	Logical Level Editor
	SDI Device (6)	GV Node-B	Multiviewer (6)	Router Connection State 1	unknown	A New Tests in Austichtic
Master Switch				Router Connection State 2	unknown	A New Task is Available *
Monito				SSM Address Enabled		Alias Editor
						A New Task is Available ×
Multini M						Category Configurator
📲 Topologgu	irator 😳 🕀					

- 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.

Configuration Tasks

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

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61	ቆ	Area 📲 Device Graph 🤅	?					¢.	🖁 admin 🔺
	ی پوچ انگا انگا انگا انگا انگا انگا انگا انگ	Area • Device Graph •	- & ≁	Path Manager System Status	1	Router Control	∎ ⊁≜	SP Administra	stion
☆ Sta	ige	0							

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

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.

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67 🔺	Studio A	-	Device Graph 🛛 😳											\$	💄 admin	
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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.

💕 GV Convergent Client - admin@1	0.37.72.106				
🐼 🐁 Studio A 🤘	Device Graph 🔮			\$	💄 admin 📐
Virtual Devices 🗳	Area: Area Graph	G. ≣	Property Editor		R
Area	🥜 Edit 🛛 🦳 Select	S Link O 🗑	Properties		
			Studio A		
Incoming Feeds			Name	Studio A	
Master Control			Short Name	A	
	1		Description	Preproduction studio	
Remote Site			External Id	2	
5tudio	Ar	ea			ļ
(Transmission		_			
		í			
	System Controller (1)	Studio A			l i
🖧 Area Configurator 🛞	🗥 User Management 🛞 🔺	User Management 🛞 📲 Topolog.	gurator 🙁 📲 Topologgurato	or 🙁 🕂 User Management 💿 🛝 User Mar	agement 🖂 🖌 🖵

- 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.

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Virtual Devices	G /	rea: Area Graph						Property Editor				
Area		🖌 Edit	Select	G Link		• Refres	h 😈 Delete	System Controller Group P	roperties Properties			
	- 1							System Controller				
incoming Feeds								Name	System Controller			
Master Control								# Controllers	2			
	-							Short Name	System Controller			
Remote Site								Advanced	Outers Controller			
Studio								Enable NMOS Node Prory	aysten controlle			
								Enable NMOS Registry				
Transmission								MasterController				
						_		NMOS Registry Priority	•			
	- 1			- • 📰	(0		Reference IP	0.0.0.0			
				System Controller		udio A		Virtual IP Address	0.0.0			
🖧 Area Configurator 🔅	A 1	Jser Management	🖯 🧥 User I	Management 🔾	Topologg	ırator 🖂 📲 1	opologgurator 🕓	🛝 User Management 🕓	🗥 User Management 😳	🖧 Area Configurator 🔅	🖧 Area Configurat	or o 🔈

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.

Property Editor								
System Controller Group Properties Properties								
System Controller								
Name	System Controller							
# Controllers	2							
Short Name	System Controller							
Advanced								
Description	System Controller							
Enable NMOS Node Proxy								
Enable NMOS Registry								
MasterController								
NMOS Registry Priority	0							
Reference IP	0.0.0.0							
Virtual IP Address	0.0.0.0							

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 S**ystem 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:

Are you sure?									
The configuration of the primary G controller will overwrite the second configuration. Are you sure you war	/ Converger ary controlle nt to contine	nt er's ue?							
	ОК	Cancel							

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.

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,

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tream I	Browser												Multi	level Table			
												T		Sources	ə [⊕] Destinati	ons	
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0-1			556-2			500-3			536-4								
	\$56-5			S56-6	10	056.7	\$56-7			556-8				S56-12	S56 12 Out 1		
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	\$56-13			\$56-14			\$56-15	- 0		\$56-16	0						
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		1 🔘			1 🔘	S56-23		1 🔘			1 🔘						
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	\$56-37			\$56-38			\$56-39			\$56-40	0	_		S56-20	S56 20 Out 1	138	
-37		1 (0)	\$56-38		1 (0)	556-39		1 (0)	\$56-40		ΓØ		Total S	ources: 300 Fil	tered: 300 Selected	1 Total levels:	24 Filtered: 24

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**.

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Stream B	Browser											ŋ	Multilevel Table			Q
												T	e ^e Sources	⊖ [⊖] Destinations		
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		1 🔘			1 🔘			1 🔘			1 🔘		filter	filter T	filter 🝸	
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		1 🔘			1 🔘			1 🔘			1 🕥		\$56-10	S56 10 Out 1		
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S56-1		1 🔘	S56-2		1 🔘	S56-3		1 🔘	S56-4		1 🔘		550-11	\$56 11 Out 1	"	
	S56-5	()		S56-6	0		S56-7	0		S56-8	0		\$56-12	\$56.12 Out 1	103	
S56-5		1 🔘	S56-6		1 🔘	S56-7		1 🔘	S56-8		1 🔘		000 11			
	S56-9	<i>i</i>		S56-10			S56-11	0		S56-12	<i>(</i>)		\$56-13	S56 13 Out 1	107	
\$56-9		10	\$56-10		10	556-11		10	556-12		10					
	\$56-13			\$56-14			\$56-15			\$56-16	<i>v</i>		\$56-14	S56 14 Out 1		
500-13	010.17		500-14	CEC 10		530-15	CEC 10		530-10	656.20						
	550-17		CSE 10	530-10		556 10	530-19		CS6 20	536-20			\$56-15	S56 15 Out 1		
550 17	\$56-21		550 10	\$56-22		550 15	\$56-32		550 20	\$56-24						
	330 21	10	556-22	330 22	1 (0)	556-23	330 23	10	556-24	330 24	1 0		\$56-16	S56 16 Out 1	139	
	\$56-25	- 0		\$56-26	- 0		\$56-27	- 0		\$56-28	0					
S56-25		10	S56-26		1 0			1 0	S56-28		1 🔘		\$56-17	\$56 17 Out 1	12	
	\$56-29	0		\$56-30	0		S56-31	0		S56-32	7		\$56-19	\$56.18 Out 1	26	
		1 🔘			1 🔘			1 🔘			1 🔘			Loss to Out 1		
	\$56-33	0		\$56-34	0		S56-35	0		\$56-36	0		\$56-19	S56 19 Out 1		
		1 💿			1 🔘			1 📀			1 🔘					
	\$56-37	1		\$56-38	1		\$56-39	0		\$56-40	1		\$56-20	S56 20 Out 1		
		1 ()	\$56-38		1 (0)	\$56-39		1 (0)	S56-40		1 🔘	\sim	Total Sources: 300 F	iltered: 300 Selected: 1	Total levels:	24 Filtered: 24

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.

61	& Area	•C Dev	ice Graph 👰											۵	💄 admin	
Logical Le	evel Editor															
≣ ∕	1							T	Compatible	e with	Contains	Shuffle wit	th			
	SDI		video			SDI audio			tţ ∭							T
Level ID 1		SDI	Level ID 2	v	Level ID 3		A			SDI						
Level ID 4	audio1	A1	Level ID 5	A2	Level ID 6	audio3	A3		Level ID 1		SDI					
	audio4		audio5			audio6										
Level ID 7		A4	Level ID 8	A5	Level ID 9		A6									
Lavel ID 10	audio7	47	audio8		Lovel ID 12	audio9	*0									
Level ID 10	audio10	A/	Level ID II	Að	Level ID 12	audio13	A9									
Level ID 13	uuuvio	A10	Level ID 14	A11	Level ID 15	uuuuuz	A12									
	audio13		audio14			audio15										
Level ID 16		A13	Level ID 17	A14	Level ID 18		A15									
Level ID 19	audio16	A16	ancillary	ANC	vi Level ID 21	deo-ancillary	/ V-ANC									
	тісо		TICO-VIDE	0	1	ICO-V-ANC										
Level ID 22		тісо	Level ID 23	τιςο-ν	Level ID 24		TICO-VA									
E Logic	al Ll Edi	itor 🖸	÷													

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
Ok	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**.

Logical Level Editor			В
🏢 📝 🛱 🗹			T
video-ancillary	TICO-V-ANC	TICO-VIDEO	^
Level ID 33 V-ANC	Level ID 34 TICO-VA	Level ID 35 TICO-V	
SDIHD	videoHD	SDI audioHD	
Level ID 36 SDIHD	Level ID 37 VHD	Level ID 38 AHD	
audio1HD	audio2HD	audio3HD	
Level ID 39 A1HD	Level ID 40 A2HD	Level ID 41 A3HD	
audio4HD	audio5HD	audio6HD	
Level ID 42 A4HD	Level ID 43 A5HD	Level ID 44 A6HD	
audio7HD	audio8HD	audio9HD	
Level ID 45 A7HD	Level ID 46 A8HD	Level ID 47 A9HD	
audio10HD	audio11HD	audio12HD	
Level ID 48 A10HD	Level ID 49 A11HD	Level ID 50 A12HD	
audio13HD	audio14HD	audio15HD	
Level ID 51 A13HD	Level ID 52 A14HD	Level ID 53 A15HD	
audio16HD	ancillaryHD	video-ancillaryHD	
Level ID 54 A16HD	Level ID 55 ANCHD	Level ID 56 V-ANCHD	×
📄 Logical Ll Editor 🖸	Ð		

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.

Logical Le	vel Edit	or						ß
≣ ⁄	Name	_	SDIHD					T
vid	Short La	abel	SDIHD			TICO-VIDEO		^
Level ID 33	Level IC		36		5		TICO-V	
Loval ID 26	Audio				S	GDI audioHD		
Level 1D 30	[Ok		Cancel	7	audio2UD	And	
Level ID 39			ever 1D 40	Адни	Lever ID 41	audioshib	A3HD	

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.

Logical Level Editor			다
🏢 🖌 🖻 🗹			T
video-ancillary	TICO-V-ANC	TICO-VIDEO	^
Level ID 33 V-ANC	Level ID 34 TICO-VA	Level ID 35 TICO-V	
SDIHD	videoHD	SDI audioHD	
Level ID 36 SDIHD	Level ID 37 VHD	Level ID 38 AHD	
audio1HD	audio2HD	audio3HD	
Level ID 39 A1HD	Level ID 40 A2HD	Level ID 41 A3HD	
audio4HD	audio5HD	audio6HD	
Level ID 42 A4HD	Level ID 43 A5HD	Level ID 44 A6HD	
audio7HD	audio8HD	audio9HD	
Level ID 45 A7HD	Level ID 46 A8HD	Level ID 47 A9HD	
audio10HD	audio11HD	audio12HD	
Level ID 48 A10HD	Level ID 49 A11HD	Level ID 50 A12HD	
audio13HD	audio14HD	audio15HD	
Level ID 51 A13HD	Level ID 52 A14HD	Level ID 53 A15HD	
audio16HD	ancillaryHD	video-ancillaryHD	
Level ID 54 A16HD	Level ID 55 ANCHD	Level ID 56 V-ANCHD	×
📄 Logical Ll Editor 🖸	•		

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.

ogical Level Editor										
190				filter 🍸	Compatibl	le with	Contains	Shuffle with		
SDI		video	SDI audio		∎ ≣					
evel ID 1	SDI	evel ID 2 V	Level ID 3	A		SDI				
audio1	۵1	audio2	audio3	43	Level ID 1		SDI			
audio4		audio5	audio6							
evel ID 7	A4	Level ID 8 A5	Level ID 9	A6						
audio7		audio8	audio9							
vel ID 10	A7	Level ID 11 AS	Level ID 12	A9						
audio10	A10	audio11	audio12	412						
audio13	AIU	audio14 Ali	audio15	ALL						
evel ID 16	A13	Level ID 17 A14	Level ID 18	A15						
audio16		ancillary	video-ancillary							
evel ID 19	A16	Level ID 20 ANC	Level ID 21	V-ANC						
TICO		TICO-VIDEO	TICO-V-ANC							
vel ID 22	псо	Level ID 23 TICO-V	Level ID 24	ICO-VA						

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.

l	🚓 Configuration
ቆ	Area Configurator
	Logical Level Editor
-C	Topology Configurator
e	Logical Device Table
	Category Configurator
	Panel 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:

G 🐼 🕹 Area	•(Device Graph															\$	¥ .	admin	
Device Library	暍	oology: Device G	Fraph								Property Editor									
Virtual Devices		🖌 Edit	Select	9	Link	Θ	0	Ç		1	Device Properties									
Camera	^										GV Node 10.37.80.2	238								
Califera											SDI Outputs [144] 🛛 🕫			2	3		4			\$
Changeover											Stream SDP Config [#8]	12	3	3 4		6		8	9	0
Character											Output Lanes [48] 🛛 🗔					3	1.4	4		0
Generator					2004 A	1000					SDI Inputs [144] 🛛 🖓				3		4			0
Converter		Distante In ca									Input Lanes [48] 🛛 🕰	1.1		1.2	1.3	3	1.4	4		
Converter											Frame IP Address		10).37.80.238						
→>> DA				-							Network Host Nan		G	VN						
				T Z	X						Advanced		6	V Nodo 10 2	7 00 320					
											2022-7 Modo			i Node 10.5	.00.230					
Decoder											6 HD Mode									
		- 6								. 1	Card Mode		тв	204						
- 🗧 Demultiplex		Di 19 BEDDIA	01 000 00							1	Expose Streams									
r											Gateway Connecti	on State 1	un	- 1known						
Encoder											Gateway Connecti	on State 2	un	nknown						
Frame											Gateway NP16 Co	nnection State	dis	sabled						
Synchronize											IFM-2T Version		2.3							
Graphics			_							I	Internal Wiring Do	one	v							
CV/ Noda) 					Join Timeout (ms)		0							
ON NODE											Router Connection	state 1	un	hknown						
IP Device											Router Connection	1 State 2	of	fline						
	~										SSM Address Enab	led								
User Management		B Router Co	ontrol 😳 G	÷ Logic	alce Ta	ble 😳	■ P	Panel Co	ogurate	or	🛛 📄 Logical L	l Editor 💿	Q.	Path Mana	ger	0	E Topol	logg	gurator (2

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

GV Conve	rgent Clier	nt - admin@10.37.72.105						- 8 - X
Ø	& Are	a 📑 Device Graph 🛛 🖗					¢ 🕹	admin 📐
		🚓 Configuration		\land Monitoring		ntrol	🗾 Administration	
	ஃ	Area Configurator	e,	Path Manager	2	Alias Editor	\Lambda User Management	
		Logical Level Editor	∿	System Status		Router Control		
	-6	Topology Configurator						
	G	Logical Device Table						
		Category Configurator						
		Panel Configurator						
🐨 Stag	e	• •						

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

This opens a secondary window.

W Convergent Client - jcormack@10.3	7.72.106					
🚱 🔥 Studio A De	vice Graph 🛛 👰				\$	💄 jcormack 🔺
🗙 Cancel 🛛 😂 Load				🕂 Add	🖌 Edit	🖸 Delete
Device Graph	2018-02-26	Video Preproduction (Video Pr	od) 2018-02-26			
	Device Graph Being edited by: admin jcormack	This graph is empty.	Studio A Video Preproduction Being edited by:			

- 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.

GV Convergent Client - jcormack@10.37.72.106			
🐼 \Lambda Studio A 🤜 Device Graph 👰			🌣 🕹 jcormack 🔺
X Cancel S Load		🕂 Add	
Device Graph 2018-	02-26		
👷 🙀 😨 Device Graph			
Being edited by:	Create New Graph		
jcormack			
	Add Car	ncel	

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

GV Convergent Client - jcormack@10.37.72.106			
🐼 🛦 Studio A 🧃 Device Graph 🖗			\$ 🕹 jcormack 🔺
X Cancel S Load		🕂 Add	
Device Graph 2018	-02-26		
Device Graph			
Being edited by:	Create New Graph		
jcormack	Video Preproduction		
	Video Prod		
Ebool Diel Week	Studio A Video Preproduction		
	Add Cancel		

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.

🞬 GV Convergent Client - jcormsck@10.37.72.106	
🚱 🛦 Studio A 📲 Video Preproduction 🖗 🌼	🕹 jcormack 🔺
Virtual Devices 🖪 logy: Video Preproduction 🛛 🖓 Property Editor	G.
🗈 Camera 🏠 🖊 Edit 🦳 Select 🥱 Link 🕑 🔯 🖗 í	
Switch	
CG Character Generator	
Converter	
→> DA	
DDR	
Decoder	
C Demultiples	
Encoder	
Frame Synchroniz	
🔁 Graphics 😠	
+t [®] Topologgurator 🙁 <mark>+t[®] Topologgurator 🌾</mark> 🖸	

The selected topology is opened in the Device Graph.



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.

 BLUE

 BLUE

 BLUE

 BLUE

 IPG12 (1)

 IPG12 (1)

 IPG12 (1)

 IPG2 (1)

 MON1 (5)

 Cancel

 RED

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.

- Topology: Device Graph C Edit Select S Link O Refresh Delete Active Lock BLUE CAM1 (5) IPG12 (1) IPG2 (1) MONI (5) RED
- 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.

Property Editor	ъ.
Device Group Properties Devi	ce Properties
IPG2	
Devices [1] 🛛 🖓 IPG	
Ethernet Ports [2] 🗔 ETH1	ETH2
Gateways [11] 🛛 🖓 SDI In 1	SDI In 2 SDI IO 1 SDI IO 2
IPG2	
S Name	IPG2
G Description	IPG2
Short Name	IPG
Frame IP Address	10.37.83.53
S Network Host Name	IPG2
🕱 Slot Number	2
S Logical Level	
S Automatic Destinations on Input	s a
S Automatic Sources on Outputs	
Connection to Controller 1	unknown
Connection to Controller 2	unknown
S Expose Streams	
Firmware version	1.3.4
Internal Wiring Done	✓
Operation Mode	Redundancy
SSM Address Enabled	

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

Property Editor							
Device Group Properties Device F	evice Group Properties Device Properties						
CAM1							
ουτ							
Ports [1] 🛛 🖓 🚹							
Name	CAM1						
# Devices							
Short Name	CAM1-						
Network Host Name	CAM1						
# Input Connectors							
# Output Connectors							
Advanced							
Description	CAM1						
Logical Level	SDI-HD						
Default Connector Type							
# Streams Per Input							
# Streams Per Output							
Automatic Destinations on Inputs	✓						
Automatic Sources on Outputs	×						
Expose Streams	✓						
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

Property Editor								
Device Group Properties Device P	Properties							
CAM1								
Devices [5] 🛛 🖓 CAM1-1	CAM1-2	CAM1-3	CAM1-4	CAM1-5				
Control Ports [0] 🗔 🕂								
OUT								
Ports [1] 🛛 🖓 🚹								
CAM1 1								
S Name	CAM1 1							
G Description	CAM1 1							
Short Name	CAM1-1							
S Network Host Name	CAM1-1							
G Logical Level	SDI-HD							
ල # Input Connectors								
S # Output Connectors								
G Default Connector Type								
ර # Streams Per Input								
ය # Streams Per Output								
G Automatic Destinations on Inputs	✓							
G Automatic Sources on Outputs	✓							
S Expose Streams	✓							

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.

S Area	•	Device Grap	h₿									\$	*	admin	\sim
Device Library		pology: Device	e Graph				5	Property Editor							
irtual Devices		🖌 Edit	Select	S Link	Θ.	1 0	2 🔒	Device Properties							
Camera	^							GV Node 10.37.80.2	38						
	-							SDI Outputs [144] 🛛 🕰							
Switch	r							Stream SDP Config [48]			56				
Character								Output Lanes [48] 🖪	1.1	1.2	1.3	1.4			
Generator				arrest arresta				SDI Inputs [144] Ca	1	2	3	4			
Converter		an wante						Enome ID Address	1.1	1.2	1.3	1.4			
								Notwork Host Name		CVN					
→>> DA								Advanced		GVN					
				XX				Description		GV Node 10.37	.80.238				
								2022-7 Mode							
Decoder								6 HD Mode							
		-4						Card Mode		TR04					
Demultiple	×e							Expose Streams							
Encoder								Gateway Connectio	n State 1	unknown					
				(_)				Gateway Connectio	n State 2	unknown					
Synchroniz	eı		617 (144)	27 Mar 4	HALL DING			Gateway NP16 Con	nection State	disabled					
Craphice								IFM-2T Version		2.2.5					
Graphics			•		•			Internal Wiring Dor							
GV Node								Join Timeout (ms)		0					
Ä								Router Connection	State 1	unknown					
IP Device	~							Router Connection	State 2	offline					
								SSM Address Enable	ed 🛛						

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.

GV Convergent Client - jcorm	nack@10.	37.72.106	no here been	atus 10 Mil	terms have		- 3	H- H-
🐼 🔉 🕹 Studio A	• Ip	jTopology 🔮						
Virtual Devices		Topology: IpgTo	opology					53 ⊑
Camera	^	🖌 Edit	Select	S Link	⊖ Refr	o Delete	🙄 Active	
Changeover Switch								۲.

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.

W GV Convergent Client - jcormack@10.37.72.106				
🐼 🛦 Studio A 🖪 IpgTopology 🍳				🌣 🕹 jcormack 🔺
X Cancel S Load			🕂 Add 🍃	
IpgTopology 2018-02-27	Device Graph 2018-02-27	GVNodeTopology 2018-02-27	MultiHopTopology	2018-02-27
Device Graph Being celted by: admin to the total total	Device Graph Being edited by: This graph is empty.	Being edited by:		Being edited by:

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.

Confirm							
Are you sure you want to set <ipgtopology> inactive?</ipgtopology>							
	ОК	Cancel					

5 Click **OK** to continue.

The following changes occur.

🐼 🗛 Area	Device Graph			🌣 💄 admin 🔺
Device Library 🛛 🕞	pology: Device Graph 📮	Property Editor		
Virtual Devices -	🖌 Edit 🦳 Select S Link 🕑 🔯	Device Properties		
Camera		GV Node 10.37.80.238		
Cumera		SDI Outputs [144] 🖏 🚹	2 3	4
Changeover		Stream SDP Config [#2] 1 2	3 4 5 6	7 8 9 🗘
Switch		Output Lanes [48] 🗔 1.1	1.2 1.3	1.4
Generator		SDI Inputs [144] 🖏 1	2 3	4
		Input Lanes [48] 🖏 1.1	1.2 1.3	1.4
Converter		Frame IP Address	10.37.80.238	
		Network Host Name	GVN	
		Advanced		
DDR		Description	GV Node 10.37.80.238	
		2022-7 Mode		
Decoder		6 HD Mode		
		Card Mode	TR04	
Demultiplex	REIR PE-WIN-03 00190 00	Expose Streams		
Encodor	$ \wedge $	Gateway Connection State 1	unknown	
		Gateway Connection State 2	unknown	
Frame	60	Gateway NP16 Connection State	disabled	
Synchronizer	n preson	IFM-2T Version	2.2.5	
Graphics		Internal Wiring Done	V	
		Join Timeout (ms)	n in in its second seco	
GV Node		Router Connection State 1	unknown	
IP Device		Pouter Connection State 3	offling	
		CCM Address Epobled		
		SSPEAddress Enabled	-	×
User Management 🤅	🛙 🛗 Router Control 🛛 🕲 C Logicalce Table 🕓 🎟 Panel Cogurat	or 🖂 📄 Logical Ll Editor 🙁 🥳	🗧 Path Manager 🛛 🕒	🖥 Topologgurator 🛛 🗸

- 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.

No commation message appears.

📓 GV Convergent Client - jcormack@10.37.72.106								
🐼 战 Studio A	📲 Ip	gTopology						
Virtual Devices	ŋ	Topology: IpgTo	pology					- 52 =
Camera		_∕ Edit			€ Refr		🍳 Active	A Lock
Ŭ								

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.

C/	ଣ୍ଡ Area	📲 Dev	vice Gra	ph 🥊								\$	\$.	admin	
Stream B	Browser					Multilevel Table									۵.
					filter 🔻	° Sources	⊖ [©] Destinations								
	S2X-1	0		S2X-2	0	≣ ⊕ ₪ 🚔	🖆 📕 😔								
S2X-1		1 🗿	S2X-2		1 🔘	filter 🍸	filter 🍸	filter 🍸		Ŧ		7			
\$77.3	S2X-3	0	\$77-4	S2X-4		Name	Description	#	SDI		v			Α	
328-3	S9-1		528-4	S9-2					\$2X-1		\$2X-1			\$2X-1	
S9-1		1 🔘			1 💿	\$2X-1	S2X 1 Out 1	294	S2X-1	1 🕥	S2X-1	1 🔘			
c0 2	\$9-3	0		\$13-1	0	S2X-2	S2X 2 Out 1			1 (0)	S2X-2 S2X-2	1 (0)			
39.3	\$13-2	. 0	515-1	\$13-3					S2X-3		S2X-3			S2X-3	
S13-2		1 ()			1 🔘	S2X-3	S2X 3 Out 1	295	52X-3	1 🔘	S2X-3	1 🔘			
	S13-4	1		\$13-5	0	S2X-4	S2X 4 Out 1	296							
S13-4		1 🔘			1 💿				52X-4	1 🔘		1 🔘		00.4	
	\$56-1	0		\$56-2	0	S9-1	S9 1 Out 1	298	59-1	1 (0)	59-1 59-1	1 (0)		59-1	
S56-1		1 (0)	\$56-2		1 ()				S9-2		\$9-2			S9-2	
\$56.2	\$56-3	() 1 (a)	S56.4	\$56-4		S9-2	S9 2 Out 1	300		1 💿		1 💿			
350-5	\$56-5	- 0	330-4	\$56-6		S9-3	S9 3 Out 1	299	S9-3		\$9-3			S9-3	
S56-5		1 ()			1 🔘				\$9-3	1 🔘	S9-3	1 🔘	\$9-3		
	S56-7	0		S56-8	0	\$13-1	S13 1 Out 1	290		10		1 @			
S56-7		1 📀			1 📀				S13-3	2	\$13-2			\$13-2	
	S56-9	0		S56-10	0	\$13-2	\$13 2 Out 1	291	513-2	1 🕥	S13-2	1 🕥			
S56-9		1 🔘	S56-10		1 💿	\$12.2	\$12.2 Out 1	202							
ere 11	S56-11	<i>i</i>		S56-12		515.5	515 5 000 1			1 💿		1 🔘			
550-11	\$56-17		530-12	\$56-14		<			\$13-		\$13-4			S13-4	
CEC 12	330-13		CEE 14	050-14		Total Sources: 300 Filt	ered: 300 Selected: 0	Total levels	: 24 Filtered: 0						
G Logi	calce Ta	ble 🖸													

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.

Stream B	Browser						Multilevel Table									
						T	e ^e Sources	⊖ [©] Destinations								
	S2X-1	0		S2X-2	1		🗏 🕂 🗹 🚍 I	C 🖬 O								
		1 🔘			1 🔘		filter 🔻	filter 🔻	filter 🍸			T		T		
	S2X-3	0		S2X-4	0		Name	Description			SDT		v		^	
S2X-3		10	S2X-4		1 ()		Home	beschpaon								
	S9-1			S9-2			S2X-1	S2X 1 Out 1	294	\$7Y-1	52X-1	10	S2X-1	10	\$2X-1	Ê
59-1	50.2		59-2	612.1						5454-1	\$28-2	. 0	\$28-2		\$28-2	
	39-5	10	\$13-1	515-1	1 (0)		S2X-2	S2X 2 Out 1				1 🔘		1 🔘		
	\$13-2	0		\$13-3	0		(3) A	62X 2 0 + 1	205		S2X-3		S2X-3		S2X-3	
		1 🔘			1 ()		524-3	SZX 3 OUT 1	295	S2X-3		1 🔘		1 🔘		
	\$13-4	0		\$13-5	1		S2X-4	S2X 4 Out 1	296			_				
		1 📀			1 🔘					\$2X-4		1 🔘		1 🔘		
	S56-1	0		S56-2	Ø		S9-1	S9 1 Out 1	298	59.1	\$9-1	10	59-1	10	\$9-1	
S56-1		1 🔘	S56-2		1 🔘						\$9-2		59-2		\$9-2	
	S56-3	0		S56-4	0		S9-2	S9 2 Out 1	300			1 🕥		1 🔘		
556-3		10	556-4		10		60 D	60 2 Oct 1	200		S9-3					
C56 5	\$56-5	0	556 6	S56-6			\$9-3	S9 3 Out 1	299	S9-3		1 🔘		1 🔘		
300-3	\$56-7	- 0	350-0	\$56-8			S13-1	\$13 1 Out 1	290							
	0.007	10	S56-8	0.50 0	1 (0)					S13-1		1 🔘		1 🔘		
	S56-9	0		S56-10	7		S13-2	\$13 2 Out 1	291	C12 2	\$13-2		\$13-2		S13-2	
		1 🔘			1 🔘					515-2	\$12-2		\$12.2		\$12.2	
	S56-11	0		S56-12	1		S13-3	\$13 3 Out 1				1 🔘		1 🔘		
		1 📀			1 🔘						S13-4		\$13-4		S13-4	
	S56-13	0		S56-14	1		<								Þ	

5 Select a Source in the Logical Device Table.

6 Click the Logical Levels icon 📄 at the top of the table.

Logical Level Selector			
≣ ■ 器			filter 🍸
SDI	video	SDI aud	lio
Level ID 1 SDI	Level ID 2	Level ID 3	А
audio1	audio2	audio	3
Level ID 4 A1	Level ID 5 A2	Level ID 6	A3
audio4	audio5	audio	5
Level ID 7 A4	Level ID 8 A5	Level ID 9	A6
audio7	audio8	audios	
Level ID 10 A7	Level ID 11 A8	Level ID 12	A9
audio10	audio11	audio1	2
Level ID 13 A10	Level ID 14 A11	Level ID 15	A12
audio13	audio14	audio1	5
Level ID 16 A13	Level ID 17 A14	Level ID 18	AID
audio16	TICO	ancillar	y anc
Level ID 19 A10		Level ID 23	ANC
video-ancillary	TICO-V-ANC	TICO-VII	DEO
		Level 10 33	
			K Cancel

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.

		_		_											
tream I	Browser					•	Multilevel Table								
						T	e ^c Sources	⊖ [©] Destination	s						
	S2X-1	0		S2X-2	Ø	^	🗏 🕀 🗹 🚍	[2 🖩 다							
2X-1		1 🔘	S2X-2		1 🔘		filter 🍸	filter	filter 🍸		Ŧ		Ŧ		
	S2X-3	0		S2X-4	0		Nama	Description		ent		v			•
X-3		1 🔘	S2X-4		1 🔘		Natific	Description		301					
	S9-1	0		\$ 9-2	0		S2X-1	S2X 1 Out 1	294	\$2X-	1	S2X-1			\$2X-1
-1		1 ()	S9-2		1 🔘					S2X-1	10	S2X-1	10		
	\$9-3			S13-1	<i>(</i>)		S2X-2	S2X 2 Out 1			, 1 @	52X-2	1 @		
-3		10	513-1		10					574	· •	527.2			STY
	\$13-2			\$13-3			S2X-3	S2X 3 Out 1	295	52X-3	1 (0)	52X-3	1 (0)		
3-2			513-3	010.5						S2X-	4	S2X-4			\$2X-
	513-4			513-5			S2X-4	S2X 4 Out 1	296		1 🔘		1 🔘		
	\$56-1		515-5	\$56-2			20.4		200	S9-1		\$9-1			S9-1
	330 1	10	\$56.2	330 2	1 @		59-1	S9 1 Out 1	298	S9-1	1 🔘	S9-1	1 🔘		
~ .	\$56-3			\$56-4			50-7	\$9.2 Out 1	200						
	0.50 5	1 @	\$56-4	0.00	1 (0)		372	39 2 Out 1	500		1 🔘		1 🔘		
	\$56-5	- 0		S56-6	0		S9-3	S9 3 Out 1	299	S9 -3		S9-3			S9-3
		1 (0)	S56-6		1 (0)					59-3	1 🔘	S9-3	1 🔘	S9-3	
	S56-7	0		S56-8	7		S13-1	S13 1 Out 1	290		1	\$13-1			
		1 🔘	S56-8		1 🔘					513-1		513-1	10		
	S56-9	9		S56-10	1		\$13-2	S13 2 Out 1	291	\$13-	, 1 @	\$13-2	10		513-1
		1 🔘			1 🔘					\$17		\$12.2			\$12-7
	S56-11	0		S56-12	1		S13-3	S13 3 Out 1			, 1 (0)	\$13-3	1 (0)		
		1 🔘			1 🔘					S13-	4	\$13-4			S13-4
	S56-13	<i>i</i>)		S56-14	1		<								

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

A secondary window appears.



- 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.

							3	¥ -	admin	
Multilevel Table										
e ^e Sources	_∋ ⊖ Destinations									
🗏 O 🖉 🚍 I	C 🖬 🖸									
filter 🔻	filter 🍸	filter 🍸			T		Ŧ			
Name										
Cam1001	Cam1001	302								ŕ
Cam1002										
Cam1003	Cam1003	304								
Cam1004	Cam1004									
Cam1005	Cam1005	306								
S2X-1	S2X 1 Out 1	294	S2X-1	S2X-1	1 🔘		1 🔘			
S2X-2	S2X 2 Out 1	297	S2X-2	S2X-2	1 🔘	S2X-2 S2X-2	1 🔘		S2X-2	
S2X-3	S2X 3 Out 1	295			1 🔘		1 🔘			
S2X-4	S2X 4 Out 1	296	S2X-4	S2X-4	1 🔘	S2X-4 S2X-4	1 📀		S2X-4	
S9-1	S9 1 Out 1	298			1 🔘		1 💿			
				S9-2		S9-2	_		S9-2	×
Total Sources: 305 Filt	ered: 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.

G/	& Area	C De	vice Graph	1 🧐								\$	🗱 🕹 ad	min _
Stream I	Browser						Multilevel Table							
						T	e ^o Sources	⊖ [©] Destinations		\ <i>\</i> ;,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	۸			
	S57-93	<i>i</i>		S57-94	Ø		🗏 🕈 🗹 🚍	C 🖬 🖸		video	Audio			
		1 🔘			1 🔘		filter 🝸	filter 🔻	filter Ţ	Component	- Compone	nts-		
	S57-95	0		S57-96	0		Nomo	Description		, v			_	
\$57-95		1 (0)	S57-96		1 🔘		Nallie	Description						AL
	\$57-97	0	657.00	\$57-98			Cam1001	Cam1001	302					
337-97	\$57.00	1 0	337-96	\$57-100										
S57-99	337 33	1 6		337 100	1 🔘		Cam1002	Cam1002	303					
	S57-101	6		557-102	v									
		1 🔘			1 🔘		Cam1003	Cam1003	304					
	S57-103	Ø		\$57-104	0		Cam1004	Cam1004	305					
\$57-103		1 🔘	S57-104		1 🔘									
	\$57-105	0		S57-106	0		Cam1005	Cam1005	306					
S57-105	057.107		S57-106	057.100										
	557-107	10		557-108	1 0		S2X-1	S2X 1 Out 1	294	S2X-1 1 (S2X-1	1 🔘		
	\$57-109	- 0		\$57-110	0		\$2X-2	S2X 2 Out 1	297	S2X-2	S2X-2	-		S2X-2
		1 🔘			1 🔘					52X-2 1	S2X-2	1 🔘		
	\$57-111	0		\$57-112	0		S2X-3	S2X 3 Out 1	295	\$2X-3	S2X-3			\$2X-3
		1 💿			1 🔘					52A-5 I (S2X-3	10		\$28-4
	\$57-113	0		\$57-114	Ø.		S2X-4	S2X 4 Out 1	296	S2X-4 1 (S2X-4	1 🔘		02A 1
S57-113		1 🔘	S57-114		1 🔘		00.4			S9-1	S9-1			S9-1
	\$57-115	- i		S57-116	0		59-1	59 I Out 1	298	S9-1 1 (S9-1	1 💿		
\$57-115	053.443		\$57-116		10					S9-2	\$9-2			S9-2
	\$57-117			\$57-118	0		Total Sources: 205 Eil	torod: 205 Coloctod: 1	Total lovels	1: 34 Eiltorod: 3				2

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 **1**.

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.

l	🚓 Configuration
ቆ	Area Configurator
	Logical Level Editor
-(Topology Configurator
e	Logical Device Table
-	Category Configurator
***	Panel Configurator

The Category Configurator task opens:

🐼 🔺 Area 🖪 Devi	ce Graph									\$	💄 admir	י 🛦
Sources & Destinations	⊡ ≣	Category Configurator for Topology:	Device Graph			Ш	Keystroke	Label Edit				
	Select All			🕂 Add							•	Add
Home	7	Category					Labels					T
e ^e Sources											4	
ා ^ට Destinations							5	6	7	8	9	
	1	Category Content			G.	≡	Keystroke	Editor				G,
			🗸 Manual Sort				🗸 Au		🕸 Op			
						7						
								P	No keystri	oke in sel	ection	

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.

Home	
ee Sources	ා ^ට Destinations

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.

🐼 🗛 Area 尾 Devi	ice Graph 🥊								₽	🤰 admin	
Sources & Destinations	⊡ ≣	Category Configurator for Topology:	Device Graph			Keystroke	e Label Edit	or			
	Select All		Select All	🕀 Add	😈 Delete					🕀 A	dd
Home	7	Category	-			Labels					Ţ
e ^e Sources						0				4	
ා ^ට Destinations						5	6	7	8	9	
		Category Content			54 ⊑	Keystroke	Editor				
			✓ Manual Sort			🗸 Au		🔅 Op			
					7						
							₽.	No keystro	oke in sel	ection	

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.

🐼 🔈 🛃 🐼 🐼 🐼	ce Graph 🥊				
Sources & Destinations		Category Configurator for Topology:	Device Graph		□ =
	Select All		Select All	🕂 Add	G Delete
Home Sources		Category			7
Cam1001	Â	Cam			
Cam1002					
Cam1003					
Cam1004					
Cam1005		Category Content			n =
⊒ • S2X-1			✓ Manual Sort	Select All	
⊒ ∎ S2X-2		Cam			
⊒ • S2X-3					
≣ ∎ 52X-4					
59-1					
5 9-2					
	M				

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.

Keystroke Editor									
🗸 Auto Add 🕂	Add 🏘 Options	o Delete	🗙 Clear All						
1. 🐁 1									
2. 👆 0									
3. 🟪 0									
4. 🏪 1									

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.

ļ	🚓 Configuration
ጜ	Area Configurator
	Logical Level Editor
H	Topology Configurator
e	Logical Device Table
-	Category Configurator
	Panel Configurator

The Panel Configurator task appears:

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D Blank	D Cancel	Ê	Home										
D Category	:D- Clear		e ^{e s}	ources	⊖ [€] Destinations	Levels	Categories	s 🖁					
D Destination	Destination Ite	m	un ze	ones	Colors	Salvos							
D Indexed Take	€ Keystroke												
⊅ Level	D Level Map												
D List Item	D Load Page												
Đ Lock	D Multi-Select												
D Next	♪ Previous												
D Protect	D Quick Source												
D Reset Panel	⊅ Salvo												
📲 Topologgurator 🗧	🖧 Area Configurator	⊚ ∿	System Sta	stus 🖂 🖧 An	sa Configurator 🔅 诸	Path Manager 🛛 🕄	G Logical ce Table	🛛 💷 Panel G	ogurator O 🕒				

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.



GV Convergent Client - jcormack@10.37.72.25		
🎯 & Studio A 🕂 IpgTopology	New	🌣 💄 jcormack 🛕
X Cancel	NV9644 Panel 1	+ Add 🔯 Delete
	Panel 1 for the NV9654 model	
	Studio A Preproduction Panel	
	NV9648*	
	NV9649*	
	Panel Selected: NV9654	
	Create Cancel]
📲 Topologgurator 💿 🖧 Area Confi	gurator 💿 🍾 System Status 💿 🖧 Area Configurator 💿 👯 Path Manager	🛞 🧲 Logicalce Table 🛞 🎟 Panel Co 🗸

- 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

GV Convergent Client - jcormack@1	0.37.72.25											
🐼 🔺 Studio A 💶	pgTopology 🌻										\$	🕹 jcormack 🔺
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D Category	D. Clear										Comment	Panel 1 for the NV965-
Destination		Item		Zones	Colors	Salvos					Description	Studio A Preproduction
D. Jadawad Taka	Kaustaaka										Panel Definition	NV9654
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D Level											ShortLabel	
₽ List Item												
Đ Lock	D Multi-Select	:										
Đ Next												
₽ Protect		ce										
Reset Panel			4									
•C Topologgurator	🖧 Area Configura	tor ⊖ "∕v	- System S	Status 🛛 🖧	Area Configurator 🛛	🗞 Path Manager	C G Logical	e Table 🛛 🚥 Pan	iel Cogurator 💿 🦳	Category.	gurator 🙁 🕒	

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.

- 🐼 🔺 Area 🤜 Device Graph 🌣 🤳 admin 🛕 Page Editor: Home 🕂 Add Page 🖸 Refresh 🛛 🔠 Select All 🚥 Manage ources for Topology: Device Graph Property Editor ✓ Quick Sou IV9605 ome Behavior Built-In a 1 D Quick Sourc T NV9605 Levels D Reset Panel e^e Sources ಕ್ Panel 1 NV9605 Keyst D Salvo Catego Studio A I ₽ Select Sah V D Select Persist
- 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.





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.



 Image: contract of the state of the st

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.

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

📓 GV Ca	onverge	ent Client - admin@10.37.72.106							
6/	ۍ ک	🔒 Area 🛛 📲 Device Graph	2					\$	🕹 admin 🔺
		- Configuration	Г	ब् Monitoring	1	- Control		🗾 Administr	ation
	ቆ	Area Configurator	á	Path Manager	2	Alias Editor	ł	🚯 User Management	
		Logical Level Editor	-^v	System Status	E	Router Control			
	÷	Topology Configurator			1				
	e	Logical Device Table							
	-	Category Configurator							
		Panel Configurator							
în S	tage	•							

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:

GV Convergent Client - jcormack@10.37.72.25											
🐼 🛦 Studio A 🛃 IpgTopology 🂡										🌣 💄 jcor	mack 🛆
Topology		Path Manage									
	O Refresh	🚽 Tie-lir	1es	🔹 Stream	ns i	e [©] Destinations	- ∿ ∙	Status			
		Tie-line Name		Tie-line Sou	rce Capacity		Tie-line Desti	nation Capacity	BW Source	Destination .	
		SwtrbOut1_FTH2	RED	Switch Out //	(bps)	(bps) 011104	ETH2/2	(bps) 1	(bps)		
BLUE											
CAM1 (5) IPG2 (1) IPG2 (1) MON1 (5)											
la l											
PED											
NV9644 Panel 1 (1)											
Active		Total: 10.06bps	Used: Free	r 10.06hos							

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.



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

🐼 A Studio A < İngTopology 🕴	💄 jcormack 🖌
GVC Controllers Devices	
Parametere OVC Controller 1 OVC Controller 2 Name OVC Controller 1 OVC Controller 2	
p 15.377.25 16.377.26 BLK Athe Sanday	
Subs Adve Indie Fora Adve 1962 1962 Adve Sandry	
Headth Total Total Standard	
10 1 2 FED Adv Surday	
Memory 37% 20% 20%	
Fan FAR	
Network Interface and end	
Fuels	

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.

👔 Of Consequent Client - journals@10.1772.26									
A CIpgTopology						🏟 🕹 jcormack 🔺			
			Devices		G,				
			Name						
					Active				
					Active				
					Active				
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	54%								
tor 🗇 🖧 Area Configurator 🗧	ි 🔨 System Status 🛛 🖧	Area Configurato	or 😳 🎷 System	Status 🛛 🖓 System Status	🖸 👌 Path Manager 🛛 🖸	Ce Logical ce Table 💿 💿			
	ormanic 0.01772.02 over Covernate 1 11.2722.28 302000 1 1.2722.28 302000 9%	OPC Controller 2 OPC Controller 2 1103722 25 10337238 1002 Active 1 2 Pactor Active 1 2 Pactor Pactor PAC FARC PAC FARC	erroret 2017/27/26 OVC Coatender 1 OVC Coatender 2 OVC Coatender 1 OVC Coatender 2 OVC Coatender 1 OVC Coatender 2 OVC OVC Coatender 1 OVC	armantel 13772733 A ■ 1072728 187278 187278	parameter 2137232 A Server Controller 1 Co	xarve de la participande en la			

- 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.

GV Convergent Client	- jcormack@10.37.72.26	ten incoming the state	the base of the		B - M - 1		
67 & Stud	io A 🔩 IpgTopology 🌻						🌣 💄 jcormack 🔺
GVC Controllers			G,				G,
Parameters							
IP	10.37.72.25	10.37.72.26		BLUE	Unknown	Active	
Status	Inactive Force Active					Active	
Health						Active	
10						Addive	
CPU							
Memory	22%	36%					
Fan							
Network Interface							
Paulo -							
• Topologgur	ator 🔅 🖧 Area Configurator 🗧	ි 🔨 System Status 🛛 🖧	Area Configurato	r 🛛 🎷 System	Status 🛛 🔿 System Status	🖸 🛃 Path Manager 🛛 🔇	G Logical ce Table 🛞 💿

- 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.

Control Tasks

Overview

🛒 GV Co	nverge	ent Client - admin@10.37.72.106							
61	۶ ج	ኔ Area 📲 Device Graph	Ō					\$	admin 🛕
		🚓 Configuration		\land Monitoring		- Control] ;	🐴 Administrat	ion
	ቆ	Area Configurator	á	Path Manager	27	Alias Editor	<u>A</u>	User Management	
		Logical Level Editor	∽	System Status	63	Router Control			
	£	Topology Configurator							
	e	Logical Device Table							
	-	Category Configurator							
		Panel Configurator							
â S	age	•							

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**.

	- Control
2	Alias Editor
83	Router Control

The Alias Editor task opens.

💕 GV Converge	nt Client - jcormack@10.37.72.25							
G 7 a	Studio A 📑 IpgTopolog	y 🥊					\$	💄 jcormack 🔺
Alias Editor:	: Sources for Topology "Ipg	Topology"						=
	ලේ Sources	Destinations	🖸 Refresh	μ Cut	🖥 Сору	📋 Paste	Add Column	🖸 Delete Column
filter	7 10 / 10	🗸 Show I	External ID Columns	Show NP0017 ID	Column 🖸 Re-I	ndex Ext. IDs		
Name	e External ID	External Label	NP0017 ID	Alias 1				
CAM1-1	1	CAM1-1	4					
CAM1-2		CAM1-2						
CAM1-3		CAM1-3						
CAM1-4		CAM1-4						
CAM1-5		CAM1-5						
CAM21		CAM21						
CAM22		CAM22						
CAM23		CAM23						
CAM24		CAM24						
CAM25		CAM25						
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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

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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.

Logical Route	Logical Router											
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Cam1001	Cam1002	c ^{None}	11004	Cam1005	^							
S2X-1	S2X-2	Alias 1	X-4	S9-1	I							
59-2	S9-3	S13-1	S13-2	S13-3	•							

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

Administration Tasks

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

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	-	Category Configurator							
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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 • Add in the top left corner.

The user configuration window appears.

User ID	jcormack				
First Name	Jane				
Last Name	Cormack				
Password	•••••				
Confirm Password	•••••				
Ok	Cancel				

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

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.

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			Studio C		Operator			
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- 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.

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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
Area configurator Area Configurator & & I	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	No access
	Maintenance	No access
	Guest	No access
Logical Level Editor	Administrator	View, Edit, Delete
Logical Level Editor	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access
Topology Configurator Topology Configurator	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	View
	Maintenance	No access
	Guest	No access
Category Configurator Category Configurator তি	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access
Logical Device Table Logical Device Table C 6 2 3	Administrator	View, Edit, Delete
	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access

Task	Role	Permissions
Panel Configurator	Administrator	View, Edit, Delete
Panel Configurator	Engineer	View, Edit, Delete
	Operator	No access
	Maintenance	No access
	Guest	No access
User Management User Management 소 소 기 전	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	No access
	Maintenance	No access
	Guest	No access
Path Manager Path Manager	Administrator	View
	Engineer	View
ē 60	Operator	View
	Maintenance	No access
	Guest	No access
System Status	Administrator	View, Edit, Delete
System Status	Engineer	View
∿ ∞∡७	Operator	View
	Maintenance	View
	Guest	No access
Alias Editor	Administrator	View, Edit, Delete
Alias Editor	Engineer	View, Edit, Delete
6d 🖍 🚺	Operator	View, Edit, Delete
	Maintenance	No access
	Guest	No access
Router Control	Administrator	View, Edit, Delete
Router Control ⊞ ∞ ✓ 🗹	Engineer	View, Edit, Delete
	Operator	View
	Maintenance	No access
	Guest	No access
Maintenance & Deployment Maintenance & Deployment ☆	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	No access
	Maintenance	View
	Guest	No access

Task	Role	Permissions
Router Force Unlock Force Unlock ⊞ ∞ ✓ ত	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	View, Edit, Delete
	Maintenance	No access
	Guest	No access
Router Force Unprotect Force Unprotect 田 6전 / 전	Administrator	View, Edit, Delete
	Engineer	No access
	Operator	View, Edit, Delete
	Maintenance	No access
	Guest	No access
External ID 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).

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

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