

GV ORBIT CLIENT

DYNAMIC SYSTEM ORCHESTRATOR V1.4.0

Quick Start Guide

13-03082-030 AD

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www.grassvalley.com

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This document is available on the Grass Valley website at:

https://www.grassvalley.com/products/gv_orbit/

Related Documentation

Use the following related documentation to configure GV Orbit and to better understand the available features. You can obtain the latest product documentation from the Documentation Library section of Grass Valley's website (www.grassvalley.com/docs/gvorbit).

Part Number	Document Title
GVB-2-0860A-EN-DS	GV Orbit Datasheet
13-03082-010	GV Orbit Release Notes
13-03082-020	GV Orbit Welcome
13-03082-030	GV Orbit Client Quick Start Guide (this document)
13-03082-090	GV Orbit Admin Guide (Includes GV Orbit Services)
13-03082-130	GV Orbit Routing Panel User Guide
13-03082-160	GV Orbit Control User Guide

Latest Software

You can obtain the latest GV Orbit software from Grass Valley Technical Support. See Grass Valley Technical Support, on page 105.

Notices

Table of Contents

	Related Documentation	iii
1	Introduction	1
	Product Introduction	1
	GV Orbit Products	
	GV Orbit Client	
	GV Orbit Client and Existing Orbit	
	GV Orbit Project Types	
	Requirements	
2	Quick Start Steps	5
	Step 1: Download, Install and Launch	
	Step 1.1: Download Client Installers	
	Step 1.2: Installation of GV Orbit Client.	
	Step 1.3: Installation of GV Orbit Control Client	
	Step 1.4: Launch GV Orbit Client	
	Step 2: GV Orbit Projects	
	Step 2.1: New Project	
	Project Home Screens	
	Step 2.2: Save, Push, and Close	
	Open and Pull.	20
	Exit GV Orbit Client	
	Step 3: Device Configuration	21
	Step 3.1: Direct Configuration of RollCall-protocol Devices	21
	Step 3.2: Configuration of Densité and RollCall Devices	22
	Step 4: Device Upgrade	27
	Step 4.1: Upgrade RollCall-protocol Devices	27
	Step 4.2: Upgrade Densité-protocol Devices	30
	Step 5: Adding Densité Card Support	33
	Add or Update Densité Card Support	
	Step 6: Multiviewer Project	
	Step 6.1: Simple Multiviewer Project Editing Example	35
	Step 7: C&M Project Setup (Professional/Enterprise)	
	Step 7.1: New C&M Project	
	Step 7.2: C&M Setup Dialog	40
	Step 7.3: Further Setup	
	Step 7.4: Saving and Pushing a Project	47

3	Further Information	. 49
	Project Home Screen	51
	Home Screen Windows	51
	Project Window	52
	Network Window	53
	History Window (Alarm History)	54
	Properties Window	56
	Workflow Window	57
	Network Window	
	What is the Network Window?	
	Network Window List-View Filter	
	Network Window Actions	
	Alarms	
	Alarm List - Live Alarms/Status	
	Alarm History for a Device	
	Alarm Masking (Professional and Enterprise)	
	History Window (Alarm History)	
	View Alarm History for System-wide Alarms	
	Search Parameters Dialog	
	Graphical Router Workflow	
	(1) IP Configuration and Spreadsheet Import	
	(2) Logical Level Editor	
	(3) Topology	
	(4) Logical Device Table	
	(5) Category	
	(6) Panel Configurator	
	(7) GPIO Configurator	
	(8) Bulk Routing	
	(9) Snapshots	
	(10) Router Control	
	(11) Alias Editor	
	(12) System Status	
	(13) Path Visualization	
	Bulk Routing Control Panel Open Bulk Routing Panel	
	Bulk Routing Panel - List View	
	Bulk Routing Panel Operation	
	Routing Snapshots	
	Simple Custom Monitoring Screen Example	
	Create a New Monitoring Screen Schematic	
	Add Monitoring	
	Save and Push Project	
	Run Custom Monitoring Screen	
	GV Orbit Server Login	
	From GV Orbit Client	
	From a Browser	
	Server Admin Login Screen	
	GV Orbit Server Home Stage	
	Accessing Services Configuration Screens.	

 view Event Log

Table of Contents

Introduction

Summary contents of this chapter: Introduction Product Introduction 1 GV Orbit Products 2

GV Orbit Products	2
GV Orbit Client	3
GV Orbit Client and Existing Orbit	3
GV Orbit Project Types	3
Requirements	4

Welcome to the *GV Orbit Client Quick Start Guide*. The purpose of the guide is to provide the minimum steps required to install, configure and get started with the GV Orbit Client application.

In the first chapter, there is an introduction to the GV Orbit Client. The next chapter contains the quick start steps. A final chapter provides additional information.

Product Introduction

GV Orbit is a single, consolidated, overarching configuration, control and monitoring package specifically designed for the dynamic orchestration of broadcast media networks, whether they be SDI, hybrid or pure IP. The underlying client-server architecture is targeted at open standards-based IP systems with many features and functions specifically crafted to make IP easy.

'Dynamic Orchestration' is GV Orbit's core strength that differentiates it from competitive systems. The ability to build, configure and change systems on-the-fly is hugely powerful, whether it is the adding/removing of devices or simply changing a name. In today's cost-conscious world, fast and efficient deployment and re-purposing of systems for alternative scenarios or productions is a key requirement.

GV Orbit uses one or more GV Orbit servers running the GV Orbit services and one or more client computers running the GV Orbit Client application.

This GV Orbit Client Quick Start Guide outlines steps to get going with the GV Orbit Client application.

GV Orbit Products

The GV Orbit **Professional** and **Enterprise** products require a GV Orbit server (GVO-HW) and are shipped with various software license options pre-installed. The options purchased determine the overall functionality and feature set available in a GV Orbit deployment.

The GV Orbit **Lite** product is a free-of-charge download from the Grass Valley website; it operates without a GV Orbit server and has basic functionality.

	Lite	Professional			Enterprise
Functionality	(Free of charge)	GVO- CFG-PRO	GVO- MON-PRO	GVO- CTL-PRO	GVO- CTL-ENT
Uses GV Orbit Client	•	•	•	•	•
Requires GV Orbit Control Client		•	•	•	•
Requires min. one GV Orbit server ^a		•	•	•	•
Functionality:					
Device Configuration	•	•	•	•	•
Device Upgrade	•	•	•	٠	•
Design MV-8 Series Video Wall	•	•	•	•	•
Client Real-Time Video Wall ^b	•	•	•	•	•
1 Seat GV Orbit Client/Control Client		•	•	•	•
Advanced Configuration		•			
Bulk Upgrade		•			
Custom Screens			•		
Custom Screens in Web View			•		
Alarm Logging			•		
Routing Configuration				•	•
Hardware Panel Support				•	•
Simple Routing				•	•
Advanced Routing					•
Third-party Device Routing Control					•

Table 1-1: GV Orbit Products - Functionality and Options Codes

a. For system redundancy, purchase two **Professional** or **Enterprise** systems.

b. Displays H.264 video streams from compatible multiviewers (e.g. MV-8 series multiviewers).

Sections and/or sub-sections of this quick start guide are marked as being *applicable to* **Lite**, and/or **Professional** (Pro), and/or **Enterprise** (Ent) users accordingly.

GV Orbit Client

GV Orbit Client comprises two client applications:

- 1 GV Orbit Client.
- 2 GV Orbit Control Client, launched seamlessly from within the GV Orbit Client.

Both client applications are installable on PCs running MS Windows™. All the steps required to download, install and get started are covered in this guide.

GV Orbit Client and Existing Orbit

GV Orbit Client may be installed on the same client PC as the older Orbit client application.

Legacy Orbit projects can be opened and run by GV Orbit Client. However, any new features offered by GV Orbit will *not* be available in legacy Orbit projects run in GV Orbit Client.

Note: GV Orbit projects *cannot* be opened by a legacy Orbit client.

GV Orbit Project Types

GV Orbit uses a project-based workflow. The Control and Monitoring project (C&M project) is the *main* GV Orbit project type and is used for control and monitoring, and for routing control applications in GV Orbit **Professional** and **Enterprise**.

Drojact Turpa	Product		:t	Description	Supported Devices	
Project Type	Lite	Lite Pro Ent		Description		
Multiviewer Project	•	•	•	Defines a video wall targeted at MV-8 series multiviewers.	MV-8 Series multiviewer devices.	
IQ Multiviewer Project	IC) Multiviewer Project		IQ-MV multiviewer devices, e.g. IQUCP25-MV.			
Connected Multiviewer Project	•	•	•	Pulls a Multiviewer project from a multiviewer into GV Orbit Client for video wall editing.	MV-8 Series and IQ-MV multiviewers.	
Control and Monitoring Project (C&M project)	-	•	•	 Main project type. Includes: Design and deployment of custom graphical operator screens. Device configuration, control and monitoring. Device routing control. Uses services/applications running on GV Orbit server(s). 	Densité-protocol and RollCall- protocol devices. Routing control: • IP end-points (Grass Valley and NMOS). • Traditional/SDI (NP-0017 and SW-P-08 protocols).	

Table 1-2: GV Orbit Project Types

Requirements

For a full list of requirements, please refer to the GV Orbit Release Notes, see Related Documentation, on page iii.

Domain IDs and IP Ports

A GV Orbit system employs 'domains' to segregate internal communications. Domains are specified with a Domain ID number (1 to 252) and each Domain uses separate IP ports. (For further information about IP Ports and Domain IDs for the GV Orbit client and server, refer to the *GV Orbit Release Notes* see Related Documentation, on page iii.)

Note:

Domain ID numbers may be changed by the user. When using changed Domain ID numbers, recalculate the IP port numbers (refer to the *GV Orbit Client Release Notes* in Related Documentation, on page iii).

GV Orbit Services Requirements

Lite:

There are no GV Orbit servers and no GV Orbit services in a GV Orbit Lite system.

Professional and Enterprise:

GV Orbit Client requires at least one GV Orbit server running configured GV Orbit Services. Please refer to related GV Orbit documentation, see Related Documentation, on page iii.

Quick Start Steps

Summary contents of this chapter:

Quick Start Steps

Step 1: Download, Install and Launch	6
Step 1.1: Download Client Installers	6
Step 1.2: Installation of GV Orbit Client	7
Step 1.3: Installation of GV Orbit Control Client	10
Step 1.4: Launch GV Orbit Client	12
Step 2: GV Orbit Projects	13
Step 2.1: New Project	13
Project Home Screens	18
Step 2.2: Save, Push, and Close	19
Open and Pull	20
Exit GV Orbit Client	20
Step 3: Device Configuration	21
Step 3.1: Direct Configuration of RollCall-protocol Devices	21
Step 3.2: Configuration of Densité and RollCall Devices	22
Step 4: Device Upgrade	27
Step 4.1: Upgrade RollCall-protocol Devices	27
Step 4.2: Upgrade Densité-protocol Devices	30
Step 5: Adding Densité Card Support	33
Add or Update Densité Card Support	33
Step 6: Multiviewer Project	35
Step 6.1: Simple Multiviewer Project Editing Example	
Step 7: C&M Project Setup (Professional/Enterprise)	39
Step 7.1: New C&M Project	
Step 7.2: C&M Setup Dialog	
Step 7.3: Further Setup	
Step 7.4: Saving and Pushing a Project	

The minimum steps required to install, configure and get started with the GV Orbit Client application are given in this section.

Step 1: Download, Install and Launch



This section describes how to download/install client installers and launch GV Orbit Client.

Step 1.1: Download Client Installers

Download Installer for GV Orbit Lite

On the client PC:

1 Go to https://www.grassvalley.com/products/gv_orbit/

The GV Orbit product web page is shown.

- 2 Select the 'Product Documents' tab and click on 'Software Downloads'.
- 3 On the next page, click on 'GV Orbit software downloads'.

The downloads page for GV Orbit opens and shows different GV Orbit versions.

4 Click on the required installer. For example, for GV Orbit Lite v1.1.0, click on v4.1.0.

Note:

The 'GV Orbit Lite' product uses solely 'GV Orbit Client':

- 'GV Orbit Lite' software version numbers start from v1.0.0; and
- corresponding 'GV Orbit Client' versions start at v4.0.0.

The software downloads page for the GV Orbit version is opened in a new browser tab. Software and release notes may be downloaded from this page.

(Web address for the software downloads page for a GV Orbit version may be similar to: www.grassvalley.com/downloads/routers/gv_orbit_v1.1.0/

- Note: The actual URL web address of the page might change in the future.)
- 5 Select the 'Software' tab and click on the link to download the installer to your computer.

Note:

Downloading of documentation or software may require logging into the GV website, or registering with the website if not already done so.

The GV Orbit Lite client installer has been downloaded.

Download Installers for GV Orbit Professional and Enterprise

GV Orbit **Professional** and **Enterprise** use one or more GV Orbit servers which are the source of client installers in GV Orbit **Professional** and **Enterprise** systems.

Note:

Downloading of the **GV Orbit Client** installer is separate from the downloading of the **GV Orbit Control Client** installer.

Download both the **GV Orbit Client** and the **GV Orbit Control Client** installer from the GV Orbit server. (Thus, client versions are kept compatible.)

(For full download instructions, refer to the *GV Orbit Admin Guide*, see Related Documentation, on page iii.)

On the client PC:

- 1 Enter the GV Orbit server's IP address into a browser. (Chrome recommended.) The GV Orbit server **Admin Login** screen appears. (See Figure 2-1.)
- 2 Click on each of the client installer download links to download the installers.

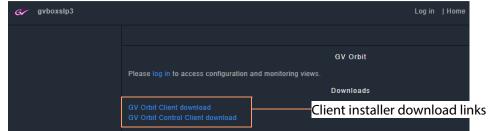


Fig. 2-1: GV Orbit Server Admin Login Screen

Note:

Client installers on the GV Orbit server are updated with a server update. After a server update, download and reinstall the clients (recommended).

Step 1.2: Installation of GV Orbit Client

Lite	Professional	Enterprise		
•	•	•		

Installation of GV Orbit Client and of GV Orbit Control Client is done separately. This section covers GV Orbit Client installation, including some information about any existing, legacy Orbit installs.

(For GV Orbit Control Client, see Step 1.3: Installation of GV Orbit Control Client, on page 10.)

Legacy Orbit Client Users

For users with the older, legacy 'Orbit' client already installed on the client PC, the following applies:

- GV Orbit Client may be installed on the same client PC as the legacy 'Orbit' client application.
- GV Orbit Client and the legacy 'Orbit' client may not be run together.
- At installation, GV Orbit Client inherits registry settings from any already-installed legacy 'Orbit' client (e.g. multicast/unicast discovery setting, and 'recent projects' list).

Install GV Orbit Client

Note: GV Orbit client installs into client PC's 'Program Files' folder by default.

1 Run the downloaded installer file on the client PC.

Allow the installer to run by responding to any Windows[™] dialogs accordingly.

The GV Orbit Client installer 'Setup GV Orbit' screen is then shown.

- 2 Click **Next** to begin the installation.
- 3 Accept the License Agreement in the following dialog and click **Next**.

The installer will install into the folder of an existing installation of GV Orbit Client.

4 If no previous GV Orbit Client is found, then an installation folder is prompted for.



Fig. 2-2: GV Orbit Client's Setup Screen

(Default folder location is C:\Program Files\Grass Valley\GV Orbit.)

- 5 Select a new folder, if required. Click **Next**.
- 6 At the next dialog, click Install.GV Orbit Client installation begins and a progress bar is shown:
- 7 When GV Orbit Client installation is complete, the GV Orbit Client setup 'Completing' screen is shown.

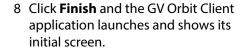




Fig. 2-3: GV Orbit Client Setup 'Completing' Screen

9 Close the GV Orbit Client application. GV Orbit Client is installed.

Note:

A shortcut is available from the Windows[™] Start menu. (Start -> Grass Valley -> GV Orbit)



Firewall

Fig. 2-4: GV Orbit Client Initial Screen

10 Check that the GV Orbit Client application is not blocked by your client PC's firewall.

Note: Firewall:

'orbit.exe' should be on a list of allowed apps (or programs) that can communicate through the client PC's firewall.

These PC settings may be controlled by your network administrator.

Step 1.3: Installation of GV Orbit Control Client



This sub-section is applicable to GV Orbit Professional and Enterprise product versions.

Note:

The GV Orbit Control client installs into a *user* folder on the client PC. Thus it is normally only available to the user who carries out the installation.

- 1 Log into the client PC as the user who will be operating the GV Orbit clients.
- 2 Run the downloaded GV Orbit Control Client installer file.

Allow the file to run on the client PC by responding to any dialogs accordingly.

A splash screen is shown during installation:

3 When the installation is complete, the GV Orbit Control Client login screen appears.





Fig. 2-5: GV Orbit Control Client Login Screen

- 4 Enter 'admin' for both the **User name** and the **Password**.
- 5 Enter the IP address of the GV Orbit server in the **Server** text box.
- 6 Click Log in.

A blank GV Orbit Control Client screen appears.

📓 GV Orbit Control Client - ac	dmin@172.19.79.151			- 🗆 ×
🐼 🗛 Area 🧧	Device Graph 🥊			🌣 🕹 admin 🔺
	🗞 Configuration	🗟 Monitoring	Control	🔁 Administration
Å	Area Configurator	🙀 Path Hanager	Alias Editor	🔊 User Hanagement
		∿ System Status	Router Control	
-:	Topology Configurator			
e	Logical Device Table			
	Category Configurator			
	Panel Configurator			
	GP10 Configurator			
ಹಿ	Stream Configurator			
e 4 1				
* Stage	•			

Fig. 2-6: GV Orbit Control Client Screen Example

7 Close GV Orbit Control Client.

GV Orbit Control Client installation is complete.

The installation folder is in the user folder, for example:

C:\Users\A_User\AppData\Roaming\JWrapper-GVOrbitControlClient\

CAUTION:

The GV Orbit Control Client is installed in a user folder and is therefore normally only available to the user who carried out the installation.

Note:

GV Orbit Control Client is *not* normally launched manually by the user. Instead, it is launched by the GV Orbit Client application. (Although a shortcut is available on the client PC desktop and from the Windows[™] Start menu: Start -> Grass Valley -> GV Orbit Control Client)

Firewall

8 Check that the installed application is not blocked by your client PC's firewall.

Note: Firewall:

'GVOrbitControlClient.exe' should be on a list of allowed apps (or programs) that can communicate through the client PC's firewall. These PC settings may be controlled by your network administrator.

Step 1.4: Launch GV Orbit Client

 GV Orbit Client may be launched from the Windows[™] Start button. ("GV Orbit")
 A splash screen is shown during start up: And then the GV Orbit Client initial screen is shown. See Figure 2-7.



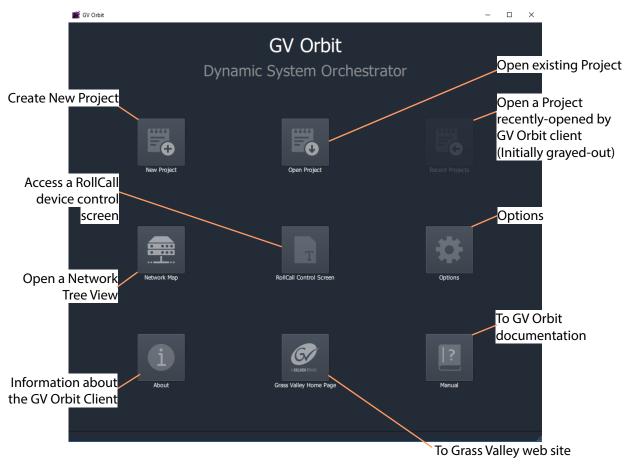


Fig. 2-7: GV Orbit Client Initial Screen

Step 2: GV Orbit Projects



This section describes how to open a project. GV Orbit project types are listed in Table 1-2 on page 3. Once a project is created in GV Orbit Client, it can be saved locally on the client PC but it needs to be deployed for use by saving it (pushing it) to either:

- a multiviewer device (multiviewer projects; GV Orbit Lite, Enterprise and Professional); or to
- a GV Orbit server (C&M projects; GV Orbit Professional and Enterprise only).

Multiviewer project types are used to define a compatible multiviewer's video wall. These are applicable to GV Orbit Lite, Enterprise and Professional.

The main project type for GV Orbit is a 'Control and Monitoring' project (C&M project) which is used for control and monitoring applications, and for routing control. This project type uses services running on a GV Orbit server and is applicable to GV Orbit **Professional** and **Enterprise** only.

Step 2.1: New Project

To Open a Project from the Initial Screen

1 Click New Project.

The New Project dialog is shown.

2 Select a project type.

? ×	📓 New Project	? ×
	Project Type	
	Connected Multiviewer Project Multiviewer Project	
	Description	
d.	Creates a project focused at configuring and control of a multiviewer.	
	Details	
	Name My_New_C&M	
owse	Location C:/GV-Orbit_Projects/C&M B	
	Next Cancel	
	I.	Project Type Connected CeM Project Multiviewer Project Multiviewer Project Multiviewer Project Multiviewer Project Multiviewer Project Multiviewer Project Description Creates a project focused at configuring and control of a multiviewer Details Name My_New_C&M Location C;/GV-Orbit_Projects/C&M B Next Cancel

Entered project name. Path to chosen folder.

a) C&M project type selected

b) Multiviewer project type selected

Fig. 2-8: New Project Dialogs

3 Click **Browse** and browse to a local folder on the client PC (or to a network folder accessible from the client PC) where the new project files will be placed. Click **Choose**.

Note: The chosen folder is not on a GV Orbit server.

- 4 Enter a name for the new project.
- 5 Click **OK / Next**.

A sub-folder is created with the name of the project. It contains the new project files.

If prompted, answer Yes to create a directory (sub-folder).

For a Multiviewer project,

see For a Multiviewer Project (GV Orbit Lite, Enterprise and Professional), on page 14. For a C&M project,

see For a C&M Project (GV Orbit Enterprise and Professional), on page 14.

For a Multiviewer Project (GV Orbit Lite, Enterprise and Professional)

A dialog is shown for setting up the resolution of the multiviewer head display outputs.

- 6 Select the **Output Size** (1920x1080 or 1280x720).
- 7 Click **OK**.

The new multiviewer project is created and its GV Orbit Client project **Home Screen** is shown. See Project Home Screens, on page 18.

For a C&M Project (GV Orbit Enterprise and Professional)

A Setup dialog is shown.

(For more information about setting up a C&M project, see Step 7: C&M Project Setup (Professional/Enterprise), on page 39.)

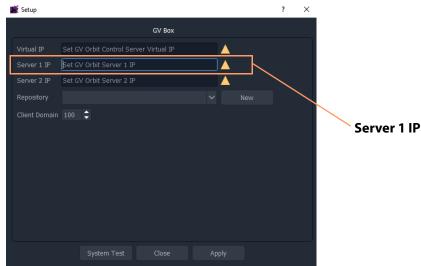


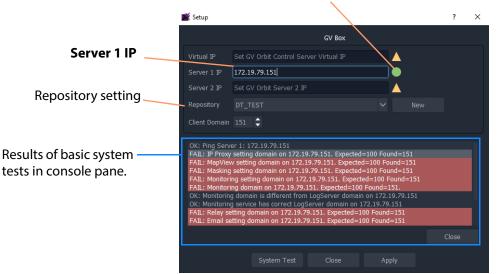
Fig. 2-9: C&M Project Setup Dialog

For the C&M project, in the **Setup** dialog:

8 Set Server 1 IP to the IP address of the GV Orbit server.
 (For a dual-server GV Orbit system, still just enter the IP address of one server. The second server will be discovered automatically in the steps below.)

After the IP address is entered, GV Orbit Client carries out some basic system tests; it uses the current **Setup** dialog settings. System connectivity is checked and some basic system information is discovered from the GV Orbit server.

9 After these system tests are done, the results are listed in the dialog in a console pane. See Figure 2-10.



Green indicating GV Orbit Client's server connection is OK.

(For more information, see Step 7: C&M Project Setup (Professional/Enterprise), on page 39.)

Fig. 2-10: Example Basic System Test Results (Single Server Shown)

Note:

Some system test console items may be shown in 'red', indicating where discovered information disagrees with settings in the **Setup** dialog. In this case, settings in the dialog are then filled out automatically to be consistent with discovered settings.

A subsequent system re-test (performed below) will clear these red items.

Repository in Setup Dialog

For deployment, a C&M project is saved to the GV Orbit server in a **Repository**, one project per **Repository**. This setting selects which **Repository** is used by the project.

10 For the **Repository** setting, click New.

The Create Repository dialog is shown:

11 Enter a name for the new repository and click **OK**.

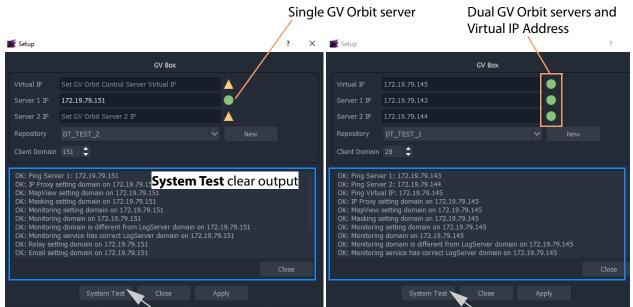
📓 Create repository	?	×
Name:		
DT_TEST_2		
ОК	Cancel	

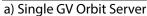
System Re-Test

A system re-test will now remove any red items in the console pane. In the **Setup** dialog:

12 Click System Test.

This forces the GV Orbit Client to redo its basic system tests. The results are shown in the console. Any 'red' items from before should now be cleared.



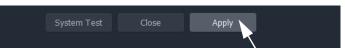


b) Dual GV Orbit Server Cluster

Fig. 2-11: System Test Console Output: a) Single GV Orbit Server. b) Dual GV Orbit Server Cluster.

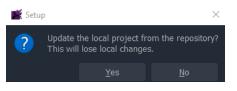
13 Click Apply.

The settings are applied to the



project and a progress bar appears in the dialog.

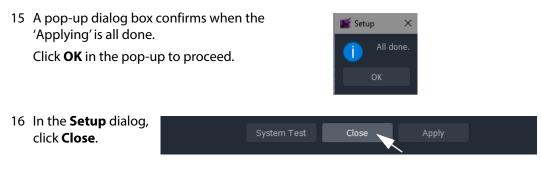
- 14 A pop-up dialog may appear, asking if the local project should be updated from the chosen repository.
 - Click **Yes** to update the local project (and lose any local changes made).



• Click **No** to keep the local project changes (and not pull the project from the repository on the server).

The applying of settings continues and progress is shown in the progress bar:

System Test Close Apply			
	System Test	Close	Apply



The new C&M project is created in GV Orbit Client and its **Home Screen** is shown. (See Project Home Screens, on page 18.)

Note:

The **Setup** dialog can also be viewed when a C&M project is open by clicking **Connections -> GV Server** in the main menu of GV Orbit Client.

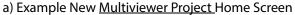
Project Home Screens

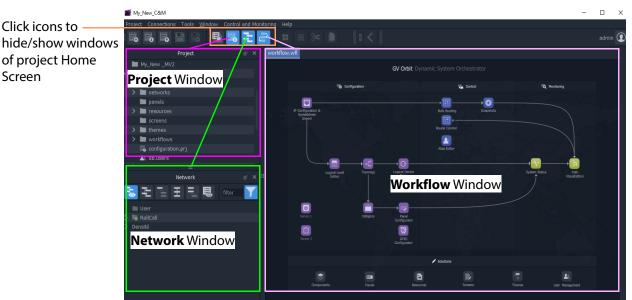
The project's Home Screen is shown and a new GV Orbit project has been created.

Note:

The **Home Screen** appearance varies according to project type and which GV Orbit Client windows are enabled and being shown.







b) Example New <u>C&M Project</u> Home Screen (See Project Home Screen for Information)

Fig. 2-12: GV Orbit Home Screen Examples: a) Multiviewer Project; b) C&M Project.

Note:

A C&M project type is for GV Orbit **Professional** and **Enterprise** only. A C&M project can be created in GV Orbit **Lite**, but may not be used.

Step 2.2: Save, Push, and Close

Step 2.2.1: Save a Project Locally

To locally save a project from GV Orbit Client:

 Click Project -> Save Project in the main menu to save the project into the local folder on the client PC.

Step 2.2.2: Push Project (Save to Server)

To push an open project back into a repository (on the GV Orbit server, or on a multiviewer device):

1 Click **Project -> Push** in the main menu.

A Choose Projects dialog is shown.

Choose Projects	×
Select Proje	ects to Push
My_C <u>M_</u> F	Project_J
My_MV_	Project
My_Sim	ple_Mon
My_Sin	gle_C <u>M</u>
All	None
ОК	Cancel

Projects listed have been opened by the GV Orbit Client before. These appear in the **Project** window on the client.

Fig. 2-13: Choose Projects Dialog

2 Select the project to be pushed. (More than one may be selected.) Click **OK**.

The project is pushed to the repository.

Once a project is in a repository, it is deployed for use:

- **Multiviewer project** A project is pushed to a multiviewer which can then adopt the project's video wall design.
- **C&M project** A project is pushed to the GV Orbit server. Applications/services etc. on the server can then access the project. For example, the Web Renderer service can read the project and render its custom operator screens for viewing in a web browser.

Step 2.2.3: Close a Project

To close a project in GV Orbit Client:

• Click **Project** -> **Close Project** to close the project.

Open and Pull

Open Existing Local Project

To open an existing local project from the GV Orbit Initial Screen:

1 Click the **Open Project** icon.

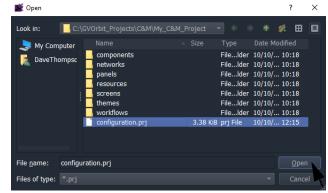
The **Open** dialog is shown:

- 2 Browse *into* the local project folder required and select the 'configuration.prj' file within it.
- 3 Click **Open**.

A login screen is shown.

4 For a new project, enter User name 'admin' and Password 'admin' and click Login.

and click **Login**. The project's **Home Screen** is shown.



Note: New GV Orbit projects have **User name** 'admin', **Password** 'admin.

Pull a Project (Load from Server)

To pull a project from a repository (on the GV Orbit server, or on a compatible multiviewer):

1 Click **Project -> Pull** in the main menu.

A Choose Projects dialog is shown. (See Figure 2-13.)

- 2 Select the project to pull.
- 3 Click OK.

The project is pulled from the repository, stored locally on the client PC, and is opened by the GV Orbit Client.

Note: Pull and Push:

When connecting to a repository, the user may be prompted to **Pull** a project from a **Repository**. **Pull** a project in order to either:

- edit the project locally (any local project is overwritten); or
- run the project locally (for example, to run operator screens).

Do not Pull:

• if a local project has all been created or changed and which needs to be put into a **Repository**. (This requires a **Push**.)

Exit GV Orbit Client

To exit and close the GV Orbit Client application:

1 Click Project -> Exit.

The application shuts down and exits.

?

Please enter the IP Address of the unit.

 \times

🎽 Open Template

10.162.51.151

Step 3: Device Configuration



This section describes how to access device control screens with GV Orbit Client. Devices can then be configured as required. RollCall- and Densité-protocol devices are covered.

Step 3.1: Direct Configuration of RollCall-protocol Devices

RollCall-protocol devices can be configured directly from GV Orbit Client with the device's IP address from the GV Orbit Client **Initial Screen**:

 Click the RollCall Control Screen icon, (or, with a project open, in the main menu click Connections -> RollCall -> RollCall Control Screen).

The **Open Template** dialog is shown:

- 2 Enter the IP address of the target device.
- 3 Click OK.

The control screen is shown in a tab.

Click on x on tab to close device control screen

🛒 GV Orbit	-	\times
MV-820 - 0000:30:00 - 816 💈		
System - Setup System Video Alarms System: OK Audio Alarms System: OK Reference Alarms Video Alarms		
Product Name Serial Number S12345678 NV-820 S12345678 Software Version 3.2.10 FPGA Version 293 Software Version 293		
Network Settings		
1G1 Interface IG2 Interface IP Address DHCP 10.162.51.151 P Subnet Mask Default Gateway Address 255.255.0.0/16 10.162.254.1		
MAC Address NIC Bonding 00:23:70:00:05:a2 00:23:70:00:05:a1		
Eng Interface DNS Server Primary IP Address Secondary IP Address 10.54.1.200 P 10.54.1.201 P		
Subnet Mask Default Gateway Address 255.255.0.0/16 10.162.254.1 MAC Address 00:e0:4b:52:04:41		

Fig. 2-14: Example Device Control Screen (RollCall-protocol Device shown)

4 When all device configuration changes are complete, close the control screen tab.

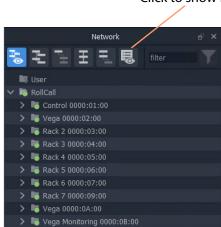
Step 3.2: Configuration of Densité and RollCall Devices

With a GV Orbit project open in GV Orbit Client, GV Orbit **Professional** and **Enterprise** can show RollCall-protocol and Densité-protocol devices with full status indication listed in a **Network** window.

However, GV Orbit **Lite** can only *list* RollCall-protocol device items in the **Network** window and *without* any status indication.

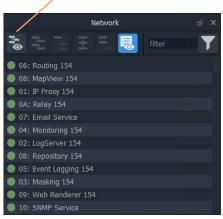
Network Window Views

The **Network** window can show devices either in a tree-view or in a list-view. Toggle between these views with the tool bar controls shown in Figure 2-15. See Network Window for a description of the Network window.



Click to show List-View

Click to show Tree-View







Note:

The **Network** window may already be showing system devices etc. for a C&M project open in GV Orbit Client if the GV Orbit services have been set up on the GV Orbit server, so no set up may be required here.

Initial set up of the **Network** window can be done in a project; this is done differently for RollCall-protocol devices than for Densité-protocol devices and each is described below:

- Step 3.2.1: Network Window Setup For RollCall Devices
- Step 3.2.2: View a Device Control Screen RollCall Devices
- Step 3.2.3: Network Window Setup For Densité Devices
- Step 3.2.4: View a Device Control Screen Densité Devices

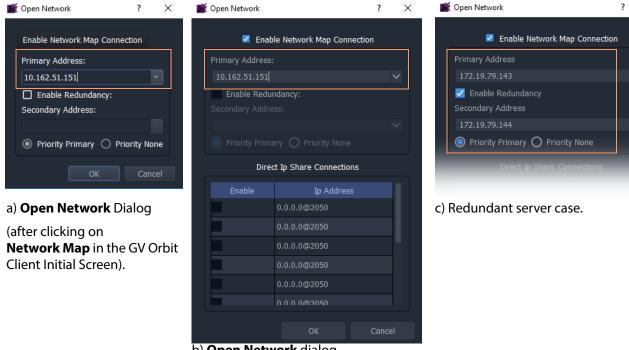
Step 3.2.1: Network Window Setup For RollCall Devices

RollCall device control screens can be viewed with GV Orbit Client via a GV Orbit server (which runs a GV Orbit IP Proxy service).

To set up the **Network** window:

- 1 For GV Orbit:
 - Lite From the GV Orbit Client Initial Screen, click the Network Map icon.
 - Professional and Enterprise and with a C&M project open -Click Connections -> RollCall -> Network Map in the main menu.

An **Open Network** dialog is shown. (See Figure 2-16.)



b) **Open Network** dialog

(after clicking on RollCall -> Network Map in GV Orbit Client's main menu).

Fig. 2-16: Open Network Dialogs:

a) After clicking Network Map icon in GV Orbit Client Initial Screen.
b) After clicking RollCall -> Network Map in GV Orbit Client main menu.
c) Redundant server case.

- 2 Select Enable Network Map Connection, if available in the dialog.
- 3 Enter an IP address for the **Primary Address**:
 - GV Orbit Lite: Enter the address of an IQ frame controller to be able to access all devices in the frame.
 - GV Orbit Professional and Enterprise:

Enter the IP address of a GV Orbit server.

This will connect to the IP Proxy service running on the server and allow access to all devices connected to the IP Proxy service.

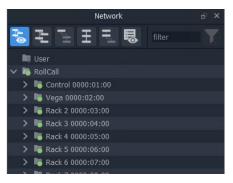
Note:

The IP address entered in the **Open Network** dialog may be for either:

- a GV Orbit server, which runs a IP Proxy service; or for
- a single device.
- 4 For redundant GV Orbit systems, select **Enable Redundancy** and enter the IP address of a second GV Orbit server.
- 5 Click OK.

A **Network** window appears in the GV Orbit Client:

This can be re-sized. It can show an expandable tree-view of *all* devices attached to the IP Proxy service.

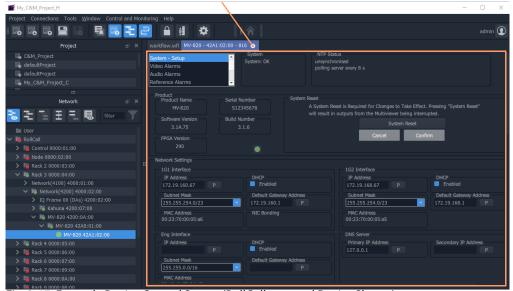


Step 3.2.2: View a Device Control Screen - RollCall Devices

To view a RollCall device control screen from the **Network** window:

1 Locate the target device in the **Network** window (tree-view or list-view). Right-click on the item and select 'Control'.

The control screen and its sub-menus are loaded and are then shown in a tab.



Click to close the device control screen tab

Fig. 2-17: Example Device Control Screen (RollCall-protocol Device Shown)

2 When all required user device configuration changes are done, close the control screen tab.

Right-click on any other device in the **Network** window to display/edit its control screen, as required.

Step 3.2.3: Network Window Setup For Densité Devices

Densité device control screens (card control panels) can be viewed with GV Orbit Client from the **Network** window via a GV Orbit server (which runs a GV Orbit Densité service). GV Orbit Client must be configured to connect to the Densité server/service.

In a C&M project open in GV Orbit Client:

1 Click **Connections -> Densité** in the main menu.

The **Densité Configuration** dialog is shown:

- 2 Enter the GV Orbit server IP address.
- 3 Select:
 - · 'Lookup Service'; and
 - 'Densité REST'.
- 4 Enter the **Username** and **Password** (if not already set up) to access the GV Orbit server (and hence the Densité service).

Note: These are *not* the same login credentials as those used when opening a GV Orbit project with GV Orbit Client.

📓 Densité Confi	guration		? ×	
	Densité Manager Connection			
IP address(s)	172.19.79.143 172.19.79.144			
		🗾 Lookup service	🗾 Densité REST	
		Add	Delete	
Username	admin			
Password	••••			
Other Settings				
Panel launcher port 9627				
	ОК	Cancel		

Note: Densité service credentials are set up automatically if the **Setup** dialog (**Connections -> GV Server** in main menu) was used when creating the C&M project.

5 Click OK.

GV Orbit Client connects to the Densité service on the GV Orbit server.

6 Add all Densité frames to the Densité service. (Refer to the Densité Manager service chapter in the *GV Orbit Admin Guide* in the Related Documentation.)

Added Densité frames become visible in the **Network** window.

This has set up the **Network** window in GV Orbit Client to show Densité frames and to show fitted cards supported by the GV Orbit server.

Note: Densité cards can appear in the **Network** window if the card is:

- present in a Densité frame that has been added into the GV Orbit Densité Manager service on the GV Orbit server; and is
- supported by the GV Orbit server; and is
- accessible by the GV Orbit server over the network.

If a Densité card is still not shown in the window, support for it may need to be added to the GV Orbit server. To add support for other Densité cards, if required, see Step 5: Adding Densité Card Support.

Note: GV Orbit **Professional** and **Enterprise** ship with native support for some Densité cards. Refer to the GV Orbit release notes documentation for a list of natively-supported Densité cards. See Related Documentation.

Step 3.2.4: View a Device Control Screen - Densité Devices

This step assumes that the Densité card is shown in the **Network** window (see Step 3.2.3: Network Window Setup For Densité Devices).

Note: Densité cards can appear in the GV Orbit Client **Network** window if the card is:

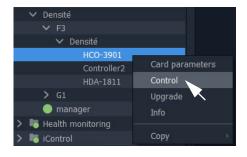
- present in a Densité frame that has been added into the GV Orbit Densité Manager service;
- supported by the GV Orbit server; and is
- accessible by the GV Orbit server over the network.

To add support for a card, see Step 5: Adding Densité Card Support.

To access a Densité device control screen (device control panel) from the **Network** window:

- 1 Locate the target device in the **Network** window.
- 2 Right-click on the device and select 'Control'.

Note: An informative message appears (bottom left of GV Orbit Client) while the control screen is being accessed.



The Densité-protocol device's control screen opens in a *separate window* (i.e. not in the GV Orbit Client's overall window) and may be obscured on your client PC's screen. Check

that this window is not behind the GV Orbit Client window or other windows.

💻 IPG-3901 [SLOT : 1	11 –	
Gateway	REM SI C G G C Grass valley	Click to close the
Network	Gateway	Densité device
тісо	Gateway Status	control panel.
	SDI IN 1 SDI IN 2	control punci.
Reference	SDI I/O 1 SDI I/O 2 SDI I/O 3 SDI I/O 4 SDI I/O 5 SDI I/O 6 SDI I/O 7	
	SDI OUT 1 SDI OUT 2	
	TICO 1 TICO 2	
	Gateway Table	
	OUT 1 OUT 2 DEC 2 INPUT System	
	Alignment Mode Status SMPTE 2022-8 Timing to Reference AES-87 Link Latency	
	Separate ETH1 (usec) ETH1 (usec) Link Offset (usec)	
	N/A N/A N/A	
Þ	Group Sync TR04) TR04	
	Config	

Fig. 2-18: Example Densité Device Control Panel

3 When all the required user device configuration is complete, close the control panel.

Right-click on any other device in the **Network** window to open its control screen, as required.

Step 4: Device Upgrade



This section describes how to upgrade software/firmware on a device using GV Orbit Client.

Upgrade packages for RollCall or Densité cards comprise a version of software and a version of firmware bundled together in a .zip file.

To upgrade a device (or unit), the **Network** window must be open and showing the system device to be upgraded. (See Network Window Views, on page 22.)

Note:

Before starting, ensure that the upgrade package file is:

- accessible;
- for the correct RollCall or Densité card model; and is
- the correct version required.

Contact Grass Valley customer support for advice about upgrade packages.

Step 4.1: Upgrade RollCall-protocol Devices

- Lite Simple device upgrade is possible directly from GV Orbit Client.
- **Professional** and **Enterprise** Simple device upgrade and advanced device upgrades are possible with the GVO-CFG-PRO option.

Simple Upgrade

Check the Current Software/Firmware Version

- 1 Open the **Network** window.
- 2 Locate the device to be upgraded, right-click on it and select Info.

A **Details** window is shown for the unit, displaying unit information which includes the device's current version of software/firmware.

MIX-38 3250:03:00			
MIX-39 3250:04:00		Details: MIX-41	? ×
MIX-40 3250:05:00			
✓ 👼 MIX-41 3250:06:00		Unit Information	
MIX-41 3256:30:00	Alarm list	Name MIX-41	
> 🛤 MIX-42 3250:07:00	Alarm history		
> 障 IQ Frame 08 3200:06:00		Address 3256:30:00	
> 🍋 IQ Frame 09 3200:07:00	Alarm masking	Services Alarm	
IQ Frame 10 - Neal 3200:08:00	Control	RollCallv3 RollCallv3.Control	
> 晴 IQ Frame 17 3200:09:00	Upgrade	RollCallv3.Menu	
> 晴 Rack 3 0000:04:00	Info	Version 15.5 .97	
> 🐻 Rack 4 0000:05:00	Copy	Version 15.5.57	
> 隋 Rack 5 0000:06:00	Сору	Type: IQMIX10_KP	
> 🛅 Rack 6 0000:07:00		ID 848	
✓ № Rack 7 0000:09:00		Device's software/firmware	version
Network(9100) 9000:01:00			

Fig. 2-19: Unit Information in Details Window

3 Close the **Details** window.

Import Upgrade Packages

4 Right-click on the tree-view device item and select 'Upgrade'.

The **RollCall Upgrade** window is shown. Any software/firmware upgrade packages that have been previously uploaded to the GV Orbit Client are shown listed on the left hand side. For a fresh install of GV Orbit Client, no packages are listed.

📓 RollCall upgrade	? ×
Available packages	Unit
	Unit Name 138/MDXIOM/401 - BI Unit Type IQMDX4000 Address 3294:30:00 Unit Version 11.73D.76
	Options
	Upgrade changed files only Upgrade all files
Import upgrade package(s)	elete Upgrade Cancel

Fig. 2-20: RollCall Upgrade Window

5 Click **Import Upgrade Package(s)** and browse to the upgrade package to be uploaded. Select the package and click **Open**.

The package is imported into the GV Orbit Client.

After the package has been imported, it is listed under 'Available Packages' in the **RollCall Upgrade** window.

Upgrade the Device

- 6 Select a package in the 'Available Packages' list of the RollCall Upgrade window.
- 7 Select **Upgrade All Files** in the 'Options' pane to upgrade *all files* on the device, regardless of whether a file is the same on the device and in the upgrade package. (Deselect **Upgrade All Files** for a quicker upgrade.)

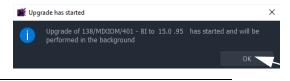
📽 RollCall upgrade	? ×
Available packages	Unit
15.0 .95 build: 0.22.174 11.73D.76 build: 0.20.33	Unit Name 138/MDXIOM/401 - BI Unit Type IQMDX4000 Address 3294:30:00 Unit Version 11.73D.76
	Options O Upgrade changed files only O Upgrade all files
Import upgrade package(s) Del	ete Upgrade Cancel

Options pane

Fig. 2-21: RollCall Upgrade Window

8 Click the **Upgrade** button to start the upgrade of the device.

A message box appears informing you that the upgrade has started and will proceed in the background. Click **OK**.



Note:

The user may continue using the GV Orbit Client project while the upgrade proceeds.

However, only <u>one</u> RollCall upgrade can be running at any one time.

The progress of the upgrade is reported bottom left in the GV Orbit Client window.



Fig. 2-22: Upgrade Progress Messages (Bottom left in GV Orbit Client window)

9 When the device has been upgraded, this is indicated by:

- a final message at the bottom of the GV Orbit Client window; and also by
- a pop-up notification message in the Windows[™] system tray.

Check the Upgraded Software/Firmware Version

10 Right-click on the **Network** window upgraded-device item and select **Info**.

A **Details** window is shown displaying unit information.

11 Check that the device's current (upgraded) version of software/firmware is correct.

Note:

If the **Network** window is being presented through an IP Proxy then a GV Orbit server fail-over (in a dual server cluster system) during an upgrade will cause a failed upgrade.

Step 4.2: Upgrade Densité-protocol Devices

• Lite - Simple device upgrade of Densité devices is not possible via the GV Orbit Client.

Note:

Densité modular devices may still be upgraded independently of GV Orbit Client using Grass Valley's iControl Solo product.

 Professional and Enterprise - Densité device upgrade is possible via GV Orbit Client with the GVO-CFG-PRO option, including upgrade of single and multiple Densité devices.

Device Upgrade (GV Orbit Professional and Enterprise only)

This sub-section assumes that the Densité card is shown in the **Network** window (see Step 3.2.3: Network Window Setup For Densité Devices).

Note: Densité cards can appear in the GV Orbit Client **Network** window if the card is:

- present in a Densité frame that has been added into the GV Orbit Densité Manager service;
- supported by the GV Orbit server; and is
- accessible by the GV Orbit server over the network.

To add support for a card, see Step 5: Adding Densité Card Support to be able to see the card to upgrade.

Check Current Device Software/Firmware Version

- 1 Open the **Network** window and locate the device to be upgraded.
- 2 Right-click on the device item to be upgraded and select Info.

A **Details** window is shown for the unit, displaying unit information which includes the device's current version of software/firmware.

✓ densite					
V D		Details: IP	G-3901	?	\times
> Frame					
V GV			Unit Information		
✓ Node			IPG-3901		
✓ Densite		Name	1PG-3901		
IPG-3901		Address:	densite_D_GV_vode_Densite_SLOT_10_168		
IPG-3901	Alarm masking 🔋 🔋 🕨	Services:	Densite		
IFM-2T	Info	Services:			
ETH3-REF	Display Ca & Parameters				
	Open Control Screen				
IPG-4901	, Open Upgrade Screen	frameId	densite_D_GV_Node_Densite		
Health monitoring		devId	168		
 iControl 	Сору	- uctio	100/		
-		version	2.3.2		
		slot	10		
		gsm	densite_D_GV_Node_Densite_SLOT_10_168@overall_status		

Device's software/firmware version

Fig. 2-23: Unit Information in Details Window

3 Close the **Details** window.

Import Upgrade Packages

4 Right-click on the tree-view device item and select 'Upgrade'.

The **Densité Upgrade Manager** window is shown.

Navigation	Туре	Installed firmware	Installed package	Available package	Select / By	Install progress	Package histor
Frame Reference	Frame Refe	. 2.0.2					
HCO-3901	HCO-3901	1.3.6					
HDA-1811	HDA-1811	1.1.0					
IFM-2T	IFM-2T	2.3.0					
PG-3901	IPG-3901	2.3.2					.
IPG-3901	IPG-3901	2.3.2					
IPG-4901	IPG-4901	1.1.0					
KMX-4921	KMX-4921	9.2.0					
KMX-4921	KMX-4921	9.2.0					
XIO-4901	XIO-4901	2.3.0					
XIO-4901	XIO-4901	2.3.0					
Logical view 📃 🗭 Physical	view 📃 🖬 Flat view	N					

Fig. 2-24: Densité Upgrade Manager

5 Click **Upload Files...** and browse to the upgrade package to be uploaded. Select the package and click **Open**.

A message window appears prompting the user to start the upload.

6 Click **Upload** in the **Progress** window.

Progress of the upload is shown in the window and the package is uploaded to the **Densité Upgrade Manager**.

7 When complete, the **Progress** window shows 100% done, 'Operation finished':

Click Close.

8 Verify the uploaded package is present in the **Densité**

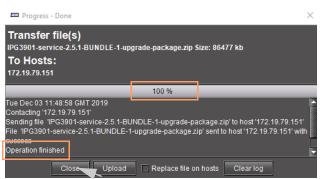


Fig. 2-25: Progress Window - Upgrade Package 100%

Upgrade Manager window by clicking in the 'Available package' column and looking in the drop-down list.

Note: After an upgrade package has been uploaded, it is available in a dropdown box in the 'Available Package' column, in all rows for Densité devices compatible with the newly-uploaded package. (I.e. for an IPG-3901 package, check in any IPG-3901 device row.) Upgrade the Device

In the **Densité Upgrade Manager** window, in the row for the device to be upgraded:

9 Select an upgrade package in the 'Available Package' column's drop-down list.

Navigation	Туре	Installed firmware	Installed package	Available package	Select / By	Install progress	Pack	age history
Frame Reference	Frame Refe	.2.0.2						
HCO-3901	HCO-3901	1.3.6						
-HDA-1811	HDA-1811	1.1.0						
-IFM-2T	IFM-2T	2.3.0					E	
-IPG-3901	IPG-3901	2.3.2		_				
-IPG-3901	IPG-3901	2.3.2 -> 2.5.1	> 2.5.1-BUNDLE-1	2.5.1-BUNDLE-1 🔫		0.0 %		
-IPG-4901	IPG-4901	1.1.0						
-KMX-4921	KMX-4921	9.2.0					E	
-KMX-4921	KMX-4921	9.2.0						
-XIO-4901	XIO-4901	2.3.0						
-XIO-4901	XIO-4901	2.3.0						
🚽 Logical view 🛛 🚍 Physica	I view 🔲 Flat view	N						
		Upgrade (1) F	orce upgrade (1)	Clear Upload fil	es			

10 Click the **Upgrade** button to start Upgrade confirmation the upgrade of the device.

An **Upgrade Confirmation** message box appears.

All cards with upgrade package selections will be upgraded. Do you want to continue ? It's highly recommended that you read the release notes before proceeding.

28.1 %

×

11 Click **Yes** to start the upgrade.

Progress is reported in the 'Install

Progress' column as a progress bar and a percentage (%): When done, a 'Finished 100%' message appears in the 'Install progress' column.

📼 Densite Upgrade Manager							- 🗆 X
Navigation	Туре	Installed firmware	Installed package	Available package	Select / By	Install progress	Package history
Frame Reference	Frame Refe	. 2.0.2					
-HCO-3901	HCO-3901	1.3.6					
HDA-1811	HDA-1811	1.1.0					
HFM-2T	IFM-2T	2.3.0					
-IPG-3901	IPG-3901	232		_			
⊢IPG-3901	IPG-3901	2.5.1	2.5.1-BUNDLE-1			Finished (100.0 %)	E Current: 2.5.1-BUNDLE-1
HPG-4901	IPG-4901	1.1.0					
-KMX-4921	KMX-4921	9.2.0					
-KMX-4921	KMX-4921	9.2.0		(t			
-XIO-4901	XIO-4901	2.3.0		software/firn	nware v	ersion on dev	rice is snown
LXIO-4901	XIO-4901	2.3.0					

Fig. 2-27: Upgrade 'Finished 100%'

12 Close the **Densité Upgrade Manager** window.

Check Software/Firmware Version on Upgraded Device

- 13 In the Network window, right-click on the upgraded-device item and select Info.A Details window is shown for the device/unit.
- 14 Check that the newly-upgraded device software/firmware version is correct.

Note: The Densité Upgrade Manager can upgrade multiple devices.

Step 5: Adding Densité Card Support

Lite	Professional	Enterprise
	•	•

GV Orbit fully supports all Densité cards. GV Orbit **Professional** and **Enterprise** ship with native support for many Densité cards; for other cards, support needs to be added to your GV Orbit server. This section describes how to add support for Densité cards to your GV Orbit server.

Support is added by uploading the requisite Densité card software package. Once uploaded, the GV Orbit server can recognize the cards and they may be integrated into the **Network** window.

Carry out this procedure to add or to update support of a Densité card.

Add or Update Densité Card Support

Many Densité cards are automatically recognized by GV Orbit. However, some Densité cards may not show in the **Network** window, even though they are physically installed in a Densité frame. For example, a frame's controller card may be shown but one or more cards in the same frame are not shown (in the tree-view nor list-view). To make such cards available, the corresponding card software packages must be uploaded through the Densité Upgrade Manager tool.

Note: Refer to GV Orbit release notes documentation for a list of natively supported Densité cards. See Related Documentation.

Prerequisite:

- All Densité frames are added to the Densité Manager service on the GV Orbit server. (Refer to the Densité Manager service chapter in the GV Orbit Admin Guide. See Related Documentation.)
- Software package are available for each Densité card type to be added/updated. (See each separate card documentation for how to obtain each software package.)

The procedure is similar to upgrading Densité cards (see Step 4.2: Upgrade Densité-protocol Devices):

- 1 Locate a Densité frame item in the **Network** window *tree-view* and expand it to show all available cards.
- 2 If one or more cards are not shown in the **Network** window tree-view, right-click on a fitted card item (for example, on the frame controller card item) and select 'Upgrade'.

The Densité Upgrade Manager tool is opened showing all the cards in the Densité frame. Some cards may be grayed-out.

For each Densité card type for which support is to be added/updated:

3 Import the card's software package. (See Import Upgrade Packages for how to do this.)

4 Upgrade each card. (See Upgrade the Device for how to do this).

After a card type has been upgraded, it should appear in the Densité Upgrade Manager tool and *not* be grayed-out.

Support for the card has now been added to the GV Orbit server.

When the support for all cards has been added:

5 Close the Densité Upgrade Manager window.

Support for the Densité cards has now been added to the GV Orbit server and the cards are displayed in the GV Orbit Client's **Network** window.

Step 6: Multiviewer Project



This section is applicable to GV Orbit Client and multiviewer applications. It describes a simple edit to a GV Orbit multiviewer project pulled from a multiviewer (MV-8 series or IQ-MV series multiviewer). The simple edit changes the appearance of the video wall and the project is pushed back to the device.

Note:

Multiviewer projects are pushed/pulled to/from a compatible *multiviewer device* rather than a server.

Step 6.1: Simple Multiviewer Project Editing Example

Pull Project and Open

1 Open GV Orbit Client at the initial screen and click **New Project**.

The **New Project** dialog is shown.

- 2 Select Connected Multiviewer Project type.
- 3 Browse into a new, empty folder (into which project information will be placed).
- 4 Click Choose.
- 5 Click Next.

Kew Project

A list of available multiviewers is shown.

🎬 New Project	?	×
Project Type		
Connected Multiviewer Project Multiviewer Project		
Description		
Connects to a multiviewer and pulls the project to the local PC.		
Details		
Location: C:/GV-Orbit_Projects/MV/My_Connected_MV		
Note: Location must be an empty folder.		X
Next Cancel		

Domain	Name	Address	Host	Unit Type	Location	Notes	Type Id
41	Validation MV-821-IP	FFFF:41:00	10.162.51.41	MV-821-IP-MAIN	Rack Room		923
	MV-831	FFFF:39:00	10.162.51.3	MV-831	Lab	DDS 39 RollCall FFFF:39:00	917
	MV-800-160	FFFF:60:00	10.162.51.160	MV-800	Lab bench	MV-800 DDS=160 RollCall=60 Lab bench	
	Validation MV-800	FFFF:66:00	10.162.51.166	MV-800	Validation Rack	DDS=166, RollCall=66	784
	FRED		10.162.51.151	MV-820	Lab bench	JG DDS=151, RollCall=1000:30:00	816
	MV-820-IP	6000:01:00	10.162.51.220	MV-820-IP-MAIN	Lab	Development MV-820-IP	885
	Validation MV-820	FFFF:80:00	10.162.51.180	MV-820	Validation rack	DDS=180, RollCall=80	816
75	MV800	FFFF:75:00	10.162.51.75	MV-800	F2		784
	MV-851-6	FFFF:06:00	10.162.51.6	MV-851	Lab bench	MV-851 DDS=6 RollCall=06 Lab bench	919

Fig. 2-28: Select Multiviewer to Connect To

? X

Note:

The IP network used needs to support multicast for automatic discovery of devices to occur (for example, for listing available multiviewers).

6 Select the multiviewer to connect to and click OK.

GV Orbit Client connects to the multiviewer, pulls the GV Orbit project from it, attempts to open the project, and shows the login screen.

7 Enter the correct **User name** and **Password** for the accessing the GV Orbit project.

Note: The default login for new projects is 'admin' 'admin'.

8 Click Login.

The project is opened and the multiviewer project **Home Screen** is shown.

Folder path where project is stored on the client PC.

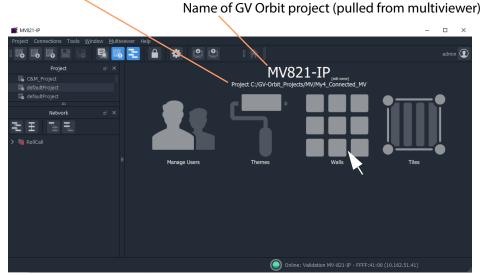


Fig. 2-29: Multiviewer Project Home Screen

The GV Orbit multiviewer project has been pulled from the target multiviewer device, locally stored on the client PC, and opened in GV Orbit Client.

The multiviewer video wall design may now be edited in GV Orbit Client.

Edit the Multiviewer Project

9 Click on the large **Walls** icon, and select one of the wall items that is shown listed.

The multiviewer video wall design is opened in a tab in the overall GV Orbit Client window. See Figure 2-30.

	INV820-IP (*)			- 🗆 ×
	Project Connections Tools Wind			
Wall tab		🗟 🚾 🔁 🔒 🌐 🚺 🌣		비 🕂 🕸 🏚 🖬 🖬 admin 🖸
	Project 👌 🗡	Wall_02.wall 😞		Properties 🗗
Video Wall design_	> 🖿 themes	1 2 3 4 5 6 7 8	9 10 11 12 Layout1	∽ Wall
5	Intes Intes Intes Intes			Name Wall2 Background Color #ffffff
	Walls Wall-06.wall	Input 13	Input 15	Background Image
	• Wall-11.wall			Image Display Mode Stretch Rotation Landscape
	• Wall_01.wall	input 17 Input 18	Input 19	Rotation Lanuscape
	o Wall_02.wall			
	o Wall_04.wall			
	• Wall_05.wall	Input 20	Imput 23	
	Wall_08.wall			
	Wall_09.wall	17 11 and David Input 22 Input 23	Input 24	
Video tiles	Wall_10.wall			
	configuration.prj			
	· · · · · · · · · · · · · · · · · · ·			
	Network 🗗 🔀	Output: Output 2 🗸 🗸		
	된 프 프 린	Rows: 4		
	> 🐚 RoliCali	Columns: 4		
		Spacing: 10		$\langle \rangle$
		Clear Output Fill Output		
		Delete Grid Add Grid		Properties Box
		Add Ghu		
	i 🗗 📑 🖯 📚 v 📺			
			Online: MV-82	20-IP - 6000:01:00 (10.162.51.220)

Run Mode / Design Mode icon (GV Orbit Client is shown in Design Mode)

Fig. 2-30: Example Video Wall Tab in Wall Editor

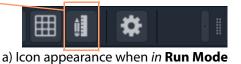
The Wall tab is the stage on which a Wall is:

- designed and edited (in GV Orbit Client **Design** mode); and
- may be run and viewed (in GV Orbit Client Run mode).
 Although a video wall is fully deployed when running on a compatible multiviewer device.
- 10 Click the Run Mode / Design Mode tool bar icon to select 'Design Mode'.

Note:

Clicking the **Run Mode / Design Mode** tool bar icon toggles between 'Run' and 'Design' modes of GV Orbit Client.

Click to exit Run Mode



Click to *enter* Run Mode



b) Icon appearance when in **Design Mode**

Fig. 2-31: Run Mode / Design Mode Tool Bar Icon

Note:

- In **Design Mode**, a project may be edited (for example, a video wall may be modified).
- In Run Mode, a project monitors log and alarm data and generates display screens in real-time.

This example edit will do a simple change to the video wall:

- 11 Click on one of the video tiles on the wall to select it. (E.g. the top-left video tile.)
- 12 In the **Properties Box**, change the **Preferences -> Type** property value to 'Analogue Clock' via the drop-down menu.

The selected tile changes to a round-faced clock within the Wall tab.

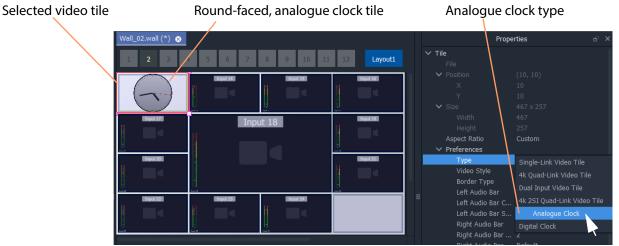


Fig. 2-32: Edited Wall Design

13 Click **Project -> Save Project** to save the whole project locally, including the video wall design.

Push Project Back to Multiviewer

14 Click **Project -> Push** in the main menu.

The **Choose Projects** dialog is shown.

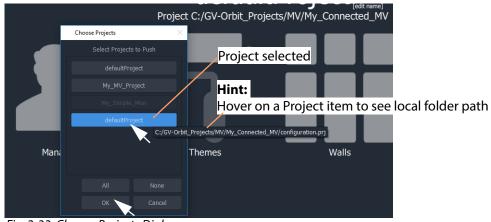


Fig. 2-33: Choose Projects Dialog

- 15 Select just the project to push to the multiviewer.
- 16 Click OK.

The selected project is pushed back to the multiviewer. The edited video wall is then used and shown by the multiviewer device.

Step 7: C&M Project Setup (Professional/Enterprise)

Lite	Professional	Enterprise
-	•	•

This section is applicable to GV Orbit **Professional** and **Enterprise** only. It describes setting up a new C&M project ('Control and Monitoring' project), which is the main project type applicable to GV Orbit **Professional** and **Enterprise**. Following its setting up, a C&M project is ready for use. For example, custom graphical operator screens etc. can be designed, created and used.

All C&M projects are centrally stored in and used from repositories on the GV Orbit server (one project per repository). The GV Orbit Client application needs to be configured to communicate with the GV Orbit server(s) (see Step 7.2: C&M Setup Dialog, on page 40). A project is loaded by GV Orbit Client from a server repository and stored locally on the client PC.

Requirement:

GV Orbit Client requires network access to one or more GV Orbit servers running configured GV Orbit services.

Step 7.1: New C&M Project

From the GV Orbit Client Initial Screen:

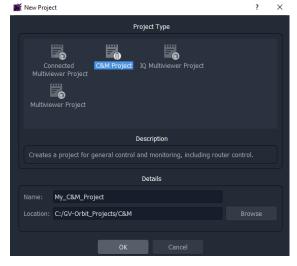
1 Click New Project.

The **New Project** dialog is shown.

- 2 Select the C&M project type.
- 3 Click **Browse** and browse to a folder where the project will be placed. Click **Choose**.
- 4 Enter a name for the new project.
- 5 Click OK.

And, if prompted, answer **Yes** to create a directory.

The **Setup** dialog is shown. See Step 7.2: C&M Setup Dialog, on page 40.



Step 7.2: C&M Setup Dialog

	ጅ Setup					?	\times
				GV Box			
	Virtual IP			rver Virtual IP			
		Set G\	/ Orbit Server 1 IF	,			
	Server 2 IP		/ Orbit Server 2 IF				
	Client Domain		\$				
				Close	ply		
L		, i	-,		-F-7		

Fig. 2-34: C&M Project Setup Dialog

The C&M Setup dialog provides a quick way to enter key project parameters for a project.

The dialog is shown automatically when creating a new C&M project. And it can be accessed when an existing C&M project is open by clicking **Connections -> GV Server** in the main menu.

Note:

Some key project parameters are entered in the **Setup** dialog and used for the project settings. Some settings may be subsequently edited by the user, if required. Refer to Step 7.3.1: Project Variables (Project -> Edit Variables), on page 44.

Server IP Address(es)

Enter the IP address of the GV Orbit server into the Server 1 IP text box.
 For dual-server systems, enter the IP address of one server. The second server's address will be discovered automatically in the steps below.

Check the address is correct.

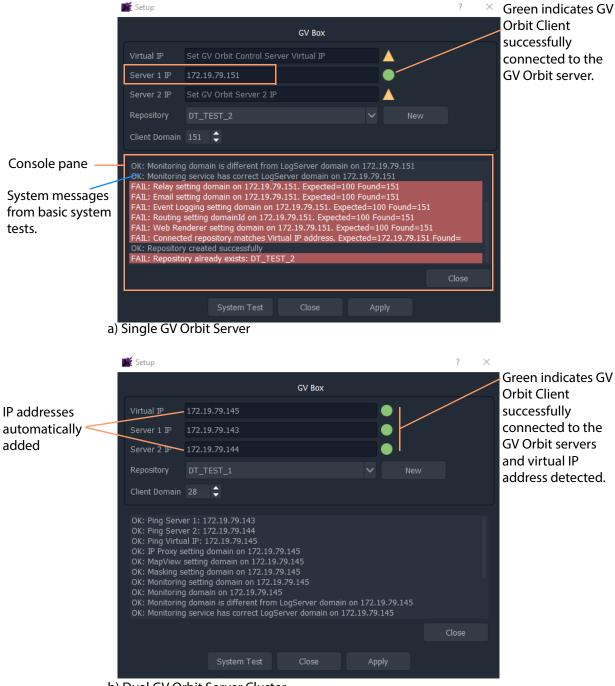
The GV Orbit Client attempts to connect to the server and performs some basic system tests.

Note:Basic System Tests:

- a. Connect to the GV Orbit server.
 - A good connection status is shown with a green light indicator.
- b. Find out other GV Orbit system information from the server.
- c. Fill out settings in the **Setup** dialog.

For example:

- Client Domain number being used (default is 100).
- Available **Repositories** on the server.
- IP address of any second GV Orbit server; and any IP address being commonly used by the servers ('Virtual IP').



The resulting connection status from the basic system tests is indicated in a console pane showing any system messages issued. See Figure 2-35a.

b) Dual GV Orbit Server Cluster

Fig. 2-35: C&M Project Setup Dialog: a) Single GV Orbit Server; b) Dual GV Orbit Server Cluster

Select a Repository

Note: Repository:

Projects may be locally stored on the client PC but, for deployment, a C&M project must be saved to the GV Orbit server (Pushed) into a **Repository**, one project per **Repository**. Multiple clients can access the same project.

Note:

The **Repository Manager** service, running on the GV Orbit server, can be configured on the server and each repository may be set up from there. Alternatively,

a **New** repository may be created from the C&M Project's **Setup** dialog. Available **Repositories** are listed in a drop-down box in the **Setup** dialog.

Note:

Pull a project from a **Repository** to load the project from a server. **Push** a project to a **Repository** to save it back to the GV Orbit server.

2 In the **Setup** dialog, click **New**.

The Create Repository dialog is shown:

3 Enter a name for the new repository and click **OK**.

Alternatively, to select an *existing* repository:

4 Select a **Repository** in the 'Repository' drop-down list in the **Setup** dialog.

The C&M project will use the project from this **Repository**.

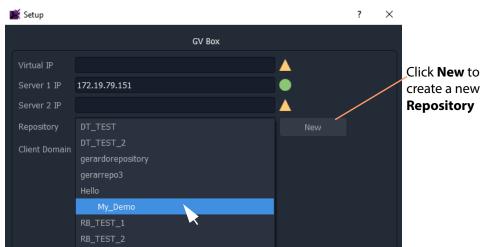


Fig. 2-36: Select a Repository in Setup Dialog

System Re-Test

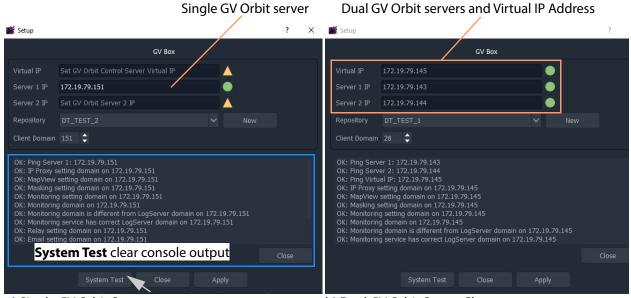
5 Click **System Test** to *redo* the basic system tests.

For the basic system test, GV Orbit Client performs a:



- ping to each server;
- · client-server communication check;
- services check on the server; and
- check of service Domain configurations (Monitoring and Log Server services).

The console pane in the **Setup** dialog may have shown some red messages which highlight differences between entered dialog settings and those of the GV Orbit system connected to. (For example, a Client Domain number difference.) Re-do the basic system tests and the red messages should clear.



a) Single GV Orbit Server

b) Dual GV Orbit Server Cluster

Fig. 2-37: System Test Re-done and Console Output OK: a) Single GV Orbit Server. b) Dual GV Orbit Server Cluster.

Apply Settings

- 6 In the Setup dialog, click Apply to apply these settings to the project.
 - Click **OK** to any pop-up message.
- 7 Click **Close** to close the dialog.

The GV Orbit pulls the project etc. from the repository and shows the Home Screen.

Note:

When connecting to a **Repository**, the user may be prompted to **Pull** a project from a **Repository**, i.e. get a project from the server. **Pull** a project in order to either:

- edit the project locally (any existing local project is overwritten); or
- run the project locally (for example, to run operator screens).

Do not **Pull** if a local project has been created/changed and it needs to be put into a **Repository**. This requires a **Push** to a repository.

Step 7.3: Further Setup

Following initial set up, a C&M project is ready for use. Project settings and variables are set up from the settings in a C&M Project's **Setup** window.

This sub-section describes how to adjust the project settings (including project variables) further, if any parameters need changing for some reason.

Step 7.3.1: Project Variables (Project -> Edit Variables)

C&M projects have a set of project variables that are set up when using the C&M Project **Setup** window to establish connection to a GV Orbit server. This done as part of creating a new C&M Project. (The **Setup** window is also accessed by selecting **Connections -> GV Server** in the main menu.)

The **Project Variables** enable GV Orbit Client workflows, and other user graphical screens, to communicate with GV Orbit services and server(s).

Note:

Most **Project Variables** hold default values consistent with the default GV Orbit server and GV Orbit services settings. Do not change the values of these variables unless the items have been changed from their default.

To access the project variables from the project **Home Screen**:

- 1 Click Project -> Edit Variables... in the main menu.
 - A Variables window is shown for the C&M project.

	Variables		? ×
	Filter		GV Orbit Control Client login credential
Virtual IP address	Name	Туре	Value
of GV Orbit servers	GVOC IP	String	172.19.79.145
	GVOC Launcher	String	$\label{eq:stars} \ensuremath{\scarses} \ensuremath{\scarsess} \scar$
	GVOC Password	String	admin Network file name
	GVOC User	String	admin for IP endpoint
	IP Network	String	default.net configuration
Server 1 IP address	Routing Address	Address	F110:01:06
Server 2 IP address	Server IP 1	String	172.19.79.143 RollCall 'Control' address of
	Server IP 2	String	172.19.79.144 Routing Service on GV Orbit server(s)
		Options	✓ New New(N) Delete
			OK Cancel Apply
	Fig. 2-38: C&M Pro	ject Variab	bles Window

Path to launcher for GV Orbit Control Client

Note: For a multiviewer project there are fewer variables.

- 2 Click **OK** when project-variable value changes have been done.
- 3 Click **Project -> Save Project** in the main menu to save the project locally to disk.
- 4 Push the project to the repository when all changes are done.

Custom Project Variables

The **Variables** window also allows a user to create custom project variables for their own use. For example, the RollCall addresses of system devices, a company name, the TV channel/studio name, etc. These may each be set up as custom project variables and used in custom control and monitoring screens. Custom project variables can be created and deleted.

CAUTION Do not delete any of the C&M project variables presented here.

Step 7.3.2: Client Domain Number (Connections -> GVOP)

To configure the **Client Domain** for the GV Orbit Client to use for the project:

1 Click **Connections -> GVOP** in the main menu.

The GV Orchestration Protocol dialog is shown.

Client domain	28 🗘	Set the Client Domain number for the project to use. (Default is100.)
Multicast discovery	(Check to enable automatic	
Unicast discovery IP address(s)	172.19.79.143 172.19.79.144	Select for multicast discovery of server IP addresses. (Default is unicast discovery.)
		Click to add a new IP address (for unicast discovery).
	Add	ete
Interfaces(s)	Ethernet (169.254.3.58) Ethernet 2 (10.162.64.76) Local Area Connection* 9 (1 Local Area Connection* 11 (WiFi (10.54.68.88) Bluetooth Network Connection Loopback Pseudo-Interface	.254.143 Client. 169.254.:
		Set multicast packet 'Time to Live'
Multicast TTL	4 Cancel	(TTL) - defines the number of "hops" that a network multicast message is allowed to do between IP network routers. The TTL value can limit the distance these messages travel withi a network.

Fig. 2-39: GV Orchestration Protocol Dialog

- 2 Set the **Domain** number of the Client Domain that the C&M project will use. (Default is 100.)
- 3 Other project parameters can be changed in the dialog, see Figure 2-39.
- 4 Click **OK** to finish and close the dialog.

Step 7.3.3: Configure Network Window for RollCall-protocol Devices

5 Click **Connections -> RollCall -> Network Map** in the main menu.

The **Open Network** dialog is shown.

🔮 Open Network 🔽 Enab	le Network Map Connectior	? ×
Primary Address: 10.162.51.41 Enable Redui Secondary Addre	ndancy: ss:	IP address of a server running a IP Pros service, typically, a GV Orbit server.
	ary OPriority None t Ip Share Connections Ip Address	
	0.0.0.0@2050 0.0.0.0@2050 0.0.0.0@2050 0.0.0.0@2050 0.0.0.0@2050	
	0.0.0.0@2050 0.0.0.0@2050	

Fig. 2-40: Open Network Dialog

- 6 Enter the IP address of the server running an **IP Proxy** service as 'Primary Address'. Typically, this is the IP address of a GV Orbit server.
- 7 For a dual-redundant GV Orbit server system, select **Enable Redundancy** and enter the IP address of the second GV Orbit server.
- 8 Click **OK** to finish and close the dialog.

Step 7.3.4: Configure Network Window for Densité-protocol Devices

9 Click Connections -> Densité in the main menu.
 The iControl/Densité Configuration dialog is shown.

📓 Densité Confi	iguration		? ×	
	Densité Man	ager Connection		- IP address(es) of a server running a Densité Manager service, typically, a
IP address(s)	172.19.79.143 172.19.79.144			GV Orbit server.
		🗹 Lookup service 🔽	Densité REST	
		Add	Delete	
Username	admin			Click Add to add a new IP address.
Password	•••••			
	Other	Settings		
Panel launche	er port 9627	;		
	ОК	Cancel		

Fig. 2-41: iControl/Densité Configuration Dialog

- 10 Click **Add** and enter the IP address(es) of GV Orbit server(s) (which run a Densité Manager service), or add the IP address of a server.
- 11 Select 'Lookup Service' and 'Densité REST'.
- 12 Enter the Username and Password to access the Densité Manager service.
- 13 Click **OK** to finish and close the dialog.

Finally:

- 14 Click Project -> Save Project in the main menu to save the project locally.
- 15 Push the project to the repository when all changes are done. See Step 7.4: Saving and Pushing a Project, on page 47.

Step 7.4: Saving and Pushing a Project

Save Project (Locally)

To save a project locally to the folder on the client PC:

• Click **Project** -> **Save Project** in the main menu.

Push Project (Save to Server)

To push a project back into a repository (on the GV Orbit server):

 Click Project -> Push. (See Step 2.2.2: Push Project (Save to Server), on page 19.) In the Choose Project dialog, select the project to be pushed and click OK.

Pull Project (Load from Server)

To pull a project from a repository (on the GV Orbit server):

• Click **Project -> Pull** in the main menu.

Close Project

To close a project that is open in GV Orbit Client:

• Click **Project** -> **Close Project** in the main menu.

Further Information

Summary contents of this chapter: **Further Information**

LIIPTHAT	Intorm	STICK
Further		αιιυι

Project Home Screen	51
Home Screen Windows	. 51
Project Window	
Network Window	
History Window (Alarm History)	
Properties Window	
Workflow Window	
Network Window	
What is the Network Window?	
Network Window List-View Filter	. 60
Network Window Actions	63
Alarms	66
Alarm List - Live Alarms/Status	
Alarm History for a Device	
Alarm Masking (Professional and Enterprise)	. 71
History Window (Alarm History)	74
View Alarm History for System-wide Alarms	. 74
Search Parameters Dialog	. 74
Graphical Router Workflow	77
(1) IP Configuration and Spreadsheet Import	. 78
(2) Logical Level Editor	
(3) Topology	
(4) Logical Device Table	. 79
(5) Category	. 80
(6) Panel Configurator	. 80
(7) GPIO Configurator	. 80
(8) Bulk Routing	
(9) Snapshots	
(10) Router Control	
(11) Alias Editor	
(12) System Status	
(13) Path Visualization	
Bulk Routing Control Panel	
Open Bulk Routing Panel	
Bulk Routing Panel - List View	
Bulk Routing Panel Operation	
Routing Snapshots	
Simple Custom Monitoring Screen Example	
Create a New Monitoring Screen Schematic	
Add Monitoring	
Save and Push Project	
Run Custom Monitoring Screen	
GV Orbit Server Login	
From GV Orbit Client	. 98

From a Browser	98
Server Admin Login Screen	99
GV Orbit Server Home Stage	99
Accessing Services Configuration Screens	100
Logs	
Event Logs	101
View Event Log	103

This chapter provides further information to get started with GV Orbit Client.

Project Home Screen



Home Screen Windows

The appearance of the GV Orbit Client project **Home Screen** varies according to project type and according to which GV Orbit Client windows are enabled and being shown. Use tool bar icons to show/hide windows.

Some tool bar icons to show/hide windows in the Home Screen:

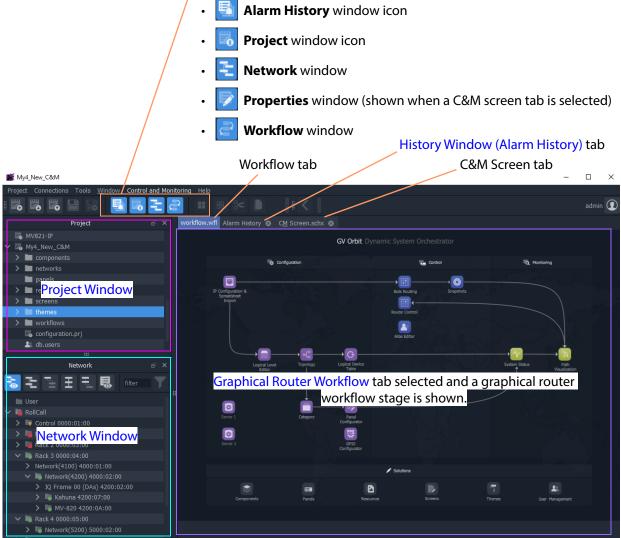


Fig. 3-1: GV Orbit Client Project Home Screen Windows

To close all windows and just see a default workflow:

• Click **Window -> Close All** in the main menu.

Window	Description	See		
Project	A tree view of projects opened by the GV Orbit Client. Allows users to access aspects of the current project, or to load another project.	Project Window, on page 52.		
Network	A view of devices/frames/services etc. in a GV Orbit system, presented in a tree-view or a list-view. A user can access device information and alarms.	Network Window, on page 53.		
Alarm History	A list of alarms that have occurred across the system over time.	History Window (Alarm History), on page 74.		
Properties	Shows the properties of the selected graphical widget when designing a graphical C&M project.	Properties Window, on page 56.		
Workflow	A graphical presentation of all the tasks and functions available in GV Orbit. Click on an icon to access a task or a function.	Graphical Router Workflow, on page 77.		

Table 3-1: Home Screen Windows

Project Window

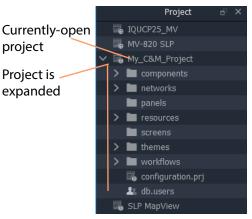
The **Project** window lists the project currently open and any projects previously opened by the GV Orbit Client on the client PC.

The currently-open project is expandable in a tree view to show the various project items. The user can access and manage different aspects/functions of the project from this tree view item.

Project Items

Project items seen when a project is expanded include:

- **Components** Graphical custom components that appear on GV Orbit Client graphical control and monitoring screens.
- Networks IP End-point configuration files, used in IP routing control set up.
- Panels Soft XY Router control panels, created with a wizard and user-customizable.
- Resources Imported resource items used in the project (e.g. logo images etc.).
- Screens C&M project user-defined graphical control/monitoring screens.
- **Themes** The appearance of each graphical element on a GV Orbit custom graphical screen (multiviewer video wall screen, or C&M project control and monitoring screen) can have a style applied to it. A theme is a set of styles that can be applied to a project.
- Workflows Workflow screen.
- **configuration.prj** The GV Orbit project file. Select this file when opening an existing project in GV Orbit Client. <u>Do not edit this file.</u>
- **db.users** Project users, user roles and their associated permissions can be managed. New user names and logins etc. can be set up.



Note:

Some project items are also accessible via icons in the router workflow window (see Graphical Router Workflow, on page 77).

Project Window Actions

Right-click on a **Project** window tree-view item to open, import, or create a new item.

For example, right click on:

- Screens Select New to create a new user screen in a C&M project.
- Walls Select New to create a new video wall in a multiviewer project.
- Resources Select Import File(s) to import an image file into a project.
- db.users
 - Select **Open** to open the User Management window in a tab to set up users and roles.
 - Select Import user database to import users from another project.
- <Project Name> Select Rename project to rename the project.

Network Window

The **Network** window shows a tree-view or a list-view of devices/frames/services etc. in a GV Orbit system. A user can access control screens, information and alarms about these items from the window. For more information, see <u>Network Window</u> for more information.

Note:

To set up the **Network** window for a project, see Network Window Views, on page 22 onwards.

Show/Hide Network Window

The Network window may be shown/hidden using a main tool bar icon, see Figure 3-7.

Click icon to hide/show the Network window (toggles).

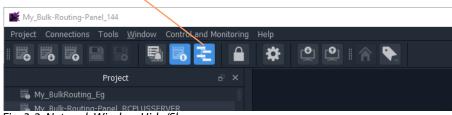
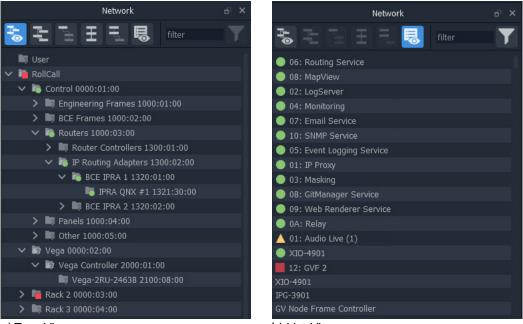


Fig. 3-2: Network Window Hide/Show



a) Tree-View

b) List-View

Fig. 3-3: Network Window Examples: a) Tree-View; b) List-View.

Network Window Actions

Locate a device in the **Network** window and right-click on the item. The following actions are possible in GV Orbit:

- Lite, Professional and Enterprise:
 - Device Information View information about a device.
 - Card Parameters View Densité-protocol device parameters.
 - Device Control View and change device configuration settings. (Lite: RollCall devices only.)
 - Upgrade Device Upgrade (or downgrade) device software/firmware.
- And for Professional and Enterprise only:
 - Alarm List Live Alarms/Status View a list of a device's live status and alarms.
 - Alarm History for a Device View the alarm history of a device.
 - Alarm Masking (Professional and Enterprise) Mask device alarms.

History Window (Alarm History)



The GV Orbit Client **History** window can show the history of *system-wide* alarms and status messages which are read from the **Event Logging** service on the GV Orbit server.

Note:

The **History** window is similar to the window shown for Alarm History for a Device, on page 69.

For more information, see History Window (Alarm History).

View Alarm History for System-wide Alarms

To view the **Alarm History** for GV Orbit system-wide alarms:

1 Click the **Alarm History** icon in the main tool bar.

The **History** window appears in a tab. **Note:** The tab shows no specific device

address when showing system-wide alarms.

Select the **History** tab to view it.



				All Devices		
<u>⊼</u> ⊯ ۹ ↔			Time stamp rar	nge: 08/1/20 @ 12:13:00 - 08/1/20 @ 13:13:59		
Time stamp	Current 🔻	Current value 🍸	Previous 🝸	Previous value	Alarm 🔻	Address 🍸
08/1/20 @ 13:13:59	● ок	WARN:TPG	● ок	WARN:SD	INPUT_8_SDI_ERRCNT	B111:10:01
08/1/20 @ 13:13:59	A Minor	WARN:Address change	A Minor	WARN:Name Change	LOGGING_STATE	A111:0F:00
	● ок		Minor			
08/1/20 @ 13:13:59	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
	Minor		● ок			
08/1/20 @ 13:13:58	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:57	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
	● ок		Minor			
	Minor		● ок			
08/1/20 @ 13:13:56	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:55	● ок	001:01:30:00	● ОК	001:01:29:00	RC_UPTIME	3291:20:0A
08/1/20 @ 13:13:55	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:54	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:51	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
	● ок		Minor			
08/1/20 @ 13:13:50	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:49	● ок	ок	Critical	FAIL:LAN_2_STATE=FAIL:SFP_2_STATUS=FAIL:RX PWR LO	LAN_STATE	3291:20:07
	Minor		● ок			
08/1/20 @ 13:13:49	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:49	● ок	ок	Critical	FAIL:SFP_2_STATUS=FAIL:RX PWR LO	LAN_2_STATE	3291:20:07
H 4 1 2 3 4	5 6 7	8 9 10 🕨	H		1 - 20 of	7650 items

Fig. 3-4: Alarm History Window Example

Properties Window



The **Properties** window shows the properties of a selected graphical widget or on-screen item when designing/editing a C&M screen in GV Orbit Client in 'Design' mode. The window may be shown when a C&M screen tab, or a multiviewer video wall, or other graphical GV Orbit project item is selected.

Run/Design Mode icon indicates GV Orbit Client is in 'Design' mode **Properties** Window for graphical editing and design. 🛒 dt t 0 0 ₿ 💾 P 2 ⊞ * **⋒** 2 E. 1 0 n.schx 😣 Properties 1 4 民 Ξ #ffffoo Selected Alarm List widget and its corresponding properties shown in **Properties** window #fffff

a) Example C&M Screen Running in 'Design' mode in GV Orbit Client

b) Example C&M Screen Running in GV Orbit Client

/ = + Ă ☆ / * ◆ � ⊠ ⊡ ⊡ ज़ ∐ ॻ ☷ ◙ ◳ ➡ ⅲ Ც ━ � ♬ ฿ ☷ & ● -- ☆ H -- ฿ №

Proprie and provide the second and provide th

Alarm List widget showing live alarms in a system



Workflow Window



Note:

A **Workflow** window may be visible in GV Orbit **Lite** but it is *not applicable* to the GV Orbit **Lite** product version.

A workflow window shows a graphical presentation of all the tasks and functions available in GV Orbit **Professional** and **Enterprise** systems. The **Workflow** window is the stage which presents all the tasks and functions the system has to offer to the GV Orbit Client user. Click on a workflow icon for direct access to a task or a function.

View WorkFlow Stage

To view the **Workflow** stage:

1 Click the 📄 icon in the tool bar.

Workflow stage is then shown in a tab.

2 Select the workflow tab (if it is not already selected) to view it.

The workflow in Figure 3-6 is available to all new projects.

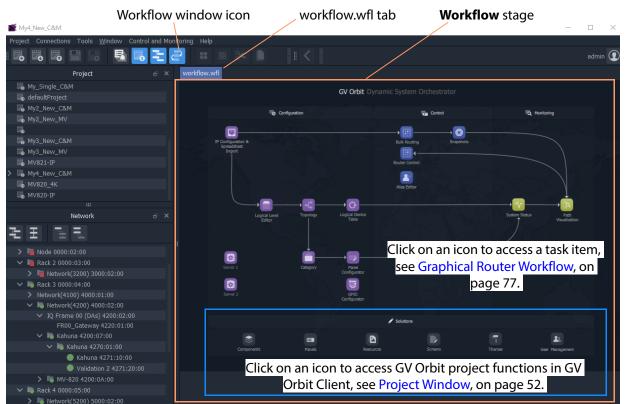


Fig. 3-6: Graphical Workflow Stage

The graphical **Workflow** stage makes it easy to understand how tasks and functions are related and each icon provides direct access to the task/function it represents.

The workflow is optimized for carrying out the system configuration required:

- when re-purposing an existing routing infrastructure; or
- for the steps to set up a fresh, new routing environment.

Routing configuration and control is done via the GV Orbit Control application running on a GV Orbit server, which supports Grass Valley NP0017 and SW-P-08 protocols. Both IP and SDI routing etc. may be controlled. The GV Orbit Client communicates with the GV Orbit Control service via the GV Orbit Control Client, launched automatically from the GV Orbit Client.

Network Window

What is the Network Window?

The **Network** window shows a tree-view or a list-view of devices/frames/services etc. in a GV Orbit system. A user can access control screens, information and alarms about these items from the window.

Note:

To set up the **Network** window for a project, see Network Window Views, on page 22 onwards.

(See Step 3.2.1: Network Window Setup For RollCall Devices, on page 23; Step 3.2.2: View a Device Control Screen - RollCall Devices, on page 24; Step 3.2.3: Network Window Setup For Densité Devices, on page 25; and Step 3.2.4: View a Device Control Screen - Densité Devices, on page 26.)

Note: Automatically discovered devices: For devices that are automatically discoverable by a GV Orbit system, these are shown in the **Network** window. For example, GV Fabric IP switch.

Show/Hide Network Window

The Network window may be shown/hidden using a main tool bar icon, see Figure 3-7.

Click icon to hide/show the **Network** window (toggles).

My_Bulk-Routing-Panel_144	
Project Connections Tools Window Control and	Monitoring Help
16 16 16 19 18 16 16 16 16 16 16 16 16 16 16 16 16 16	
Project	
🐻 My_BulkRouting_Eg	
K Mv Bulk-Routing-Panel RCPLUSSERVER	

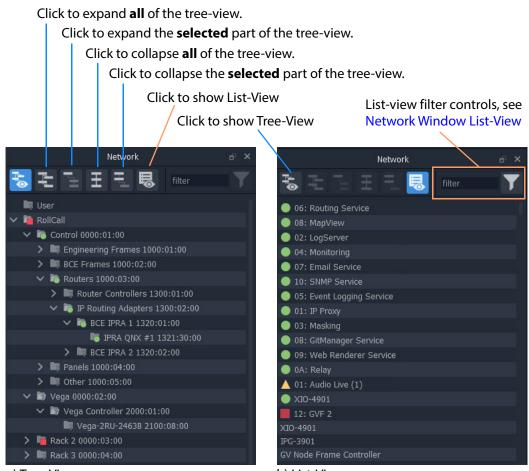
Fig. 3-7: Network Window Hide/Show

Tree-View and List-View

The tree-view and list-view forms of the **Network** window are shown in Figure 3-8.

The tree-view presents a hierarchical view of system devices/units/frames/services. See Figure 3-8a. The tree-view's expand/collapse controls are presented in Figure 3-8a.

The list-view is a flattened view, listing all system devices/units/frames/services. See Figure 3-8b. The list may be filtered, see Network Window List-View Filter for a description of the list-view filter controls.



a) Tree-View b) List-View *Fig. 3-8: Network Window: a) Tree-View; b) List-View.*

Network Window List-View Filter

In the **Network** window, the displaying of items in the list-view can be filtered. Filtering can be done:

- with a text string; and/or
- by card type; and/or
- by alarm state.

The filter controls are shown in Figure 3-9.

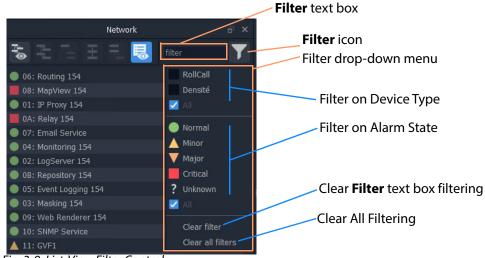


Fig. 3-9: List-View Filter Controls

Example 1: Filter List Item Name

To filter the **Network** window list-view for a particular device by its name:

1 Enter a fragment of text in the **Filter** text box. For example, "UCP or "XIO".

The displayed names are those containing the entered text. See Figure 3-10b or c.

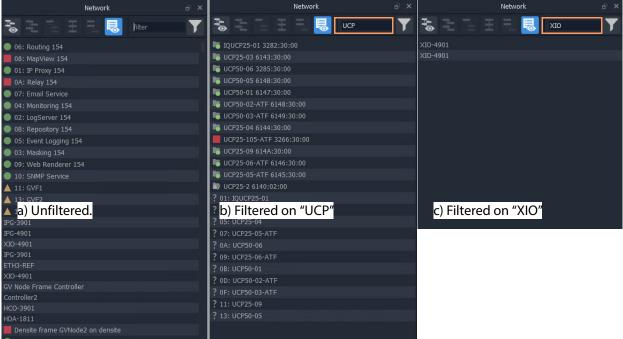


Fig. 3-10: List-View Filtered Names on Text

2 Click on the Filter icon and select 'Clear Filter'.

The text box is cleared and the text--box filtering is cleared.

Example 2: Filter Device Type and then Alarm State

With all filters cleared, to filter on a device type and then their alarm states:

- 1 Click on the **Filter** icon and select 'RollCall'. RollCall-protocol devices are shown. See Figure 3-11a.
- 2 Click on the **Filter** icon and select 'Minor.

'Minor Warning' RollCall-protocol devices are shown. See Figure 3-11c.

Network	в×	Network		Network 🗗 🛪
	filter		filter	🐱 🗄 🗄 🕂 🧮 filter 🏹
06: Routing 154		06: Routing 154	🗹 RollCall	▲ 11: GVF1
08: MapView 154	Densite	08: MapView 154	Densité	13: GVF2
01: IP Proxy 154		01: IP Proxy 154		🔺 14: GVF3
📕 0A: Relay 154		📕 0A: Relay 154		M BCE RC2 1312:08:00
07: Email Service	Normal	07: Email Service	Normal	▲ 07: 07:IQMIX00
04: Monitoring 154	A Minor	04: Monitoring 154	A Minor	▲ 08: 08:IQVDA00
02: LogServer 154	V Major	02: LogServer 154	Major	
OB: Repository 154	Critical	OB: Repository 154	Critical	
05: Event Logging 154	? Unknown	05: Event Logging 154	? Unknown	
03: Masking 154	🗾 All	🔵 03: Masking 154	🗹 All	
09: Web Renderer 154		09: Web Renderer 154		
10: SNMP Service	Clear filter	10: SNMP Service	Clear filter	
🔺 11: GVF1	Clear all filters	🔺 11: GVF1	Clear all filters	
🔺 13: GVF2		🔺 13: GVF2		
🔺 14: GVF3		🔺 14: GVF3		
🛅 Vega 0000:0A:00		🋅 Vega 0000:0A:00		
Vega Monitoring 0000:0B:00		ia Vega Monitoring 0000:0B:00		
Mat1: IP Routing 0000:11:00		🝺 Mat1: IP Routing 0000:11:00		
Mat2: Audio Live 0000:12:00		Mat2: Audio Live 0000:12:00		
?private-node 0000:81:00		?private-node 0000:81:00		
M BCE RC2 1312:08:00		BCE RC2 1312:08:00		
IPRA QNX #2 1312:30:00		🛤 IPRA QNX #2 1312:30:00		
04: 04:IQMIX00		04: 04:IQMIX00		
01: MIX40-13 DO NOT DEL		01: MIX40-13 DO NOT DEL		
05: MD X40-14		05: MIX40-14		
0E: IQAMD4010		0E: IQAMD4010		
01: 01:IQMIX2500		01: 01:IQMIX2500		
a) Filter RollCall-pro	tocol devices	b) Select to Show M	inor Warning	c) Minor Warning RollCall-

Filter icon indicates some filtering is active

Fig. 3-11: Filter on Device Type and then Alarm State

c) Minor Warning RollCall protocol devices shown

To clear the alarms:

3 Click on the Filter icon and select 'Clear All Filters'.

Alarm States

All filters are cleared and all devices are shown.

Network Window Actions

Locate a device in the **Network** window and right-click on the item. The following actions are possible in GV Orbit:

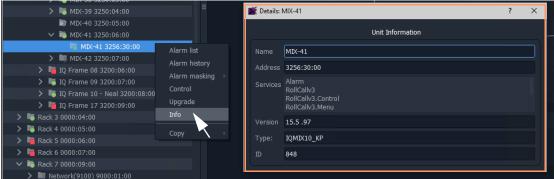
- Lite, Professional and Enterprise:
 - Device Information View information about a device.
 - Card Parameters View Densité-protocol device parameters.
 - Device Control View and change device configuration settings. (Lite: RollCall devices only.)
 - Upgrade Device Upgrade (or downgrade) device software/firmware.
- And for Professional and Enterprise only:
 - Alarm List Live Alarms/Status View a list of a devices' live status and alarms.
 - Alarm History for a Device View the alarm history of a device.
 - Alarm Masking (Professional and Enterprise) Mask device alarms.

Device Information

To inspect device information from the **Network** window (tree-view or list-view):

1 Right-click on a device and select 'Info'.

Device information is shown in a **Details** pop-up window.



a) RollCall-protocol Device - Details window

ጅ Details: HDA-	E Details: HDA-1811						
	Unit Information						
Name	HDA-1811						
Address	densite_Densite3_Densite_SLOT_6_4						
Status Alarm	densite_Densite3_Densite_SLOT_6_4@overall_status						
Frame ID	densite_Densite3_Densite						
Slot	6						
Device ID	4						
Version	1.1.0						

b) Densité-protocol Device - Details window

Fig. 3-12: Device Info - Details Pop-up Windows

Card Parameters

To view a Densité-protocol device's parameter settings from the **Network** window:

1 Right-click on a Densité-protocol device and select 'Card Parameters'.

A summary of the device's parameter settings is shown in a tab. See Figure 3-13.

Right-click and select 'Card Parameters', a summary of card parameters is shown in a tab

📓 dt_test							- 🗆
Project Connections Tools Window Control and M	nitoring Help						
15 5 5 🖻 13 🖥 15 🔁	2 🔒 🖷 🌞		•				admin
Network 🗗 🗙	HDA-1811 🛞 HCO-3901 ⊗	\					į.
😸 🗄 🗄 🗄 🗟 🐻 filter 🝸	Filter Parameter Id 🗸	,				Clear	
> 🛤 User	Parameter Id						Current Va
V 🐚 RollCall	aAgcAlcBypassPGM1	ALC Bypass	choice	read/write	string	OFF;ON	ON
> Control 0000:01:00	aAgcAlcBypassPGM2	ALC Bypass	choice	read/write	string	OFF;ON	ON
 Vega 0000:02:00 Rack 2 0000:03:00 	aAqcAlcBypassPGM3	ALC Bypass	choice	read/write	string	OFF;ON	ON
Rack 2 0000:03:00							The second se
> 🖪 Rack 4 0000:05:00	aAgcAlcBypassPGM4						ON
> 🐚 Rack 5 0000:06:00	aAgcAlcBypassPGM5	ALC Bypass	choice				ON
> Rack 6 0000:07:00	aAgcAlcBypassPGM6						ON
 Rack 7 0000:09:00 Rack 8 0000:0A:00 	aAgcAlcBypassPGM7						ON
Rack 9 0000:0A:00	aAgcAlcBypassPGM8	ALC Bypass			string		ON
> 📭 Rack 11 0000:0C:00	aAqcAlcRespTimePGM1	Response Time		read/write		5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	15 sec
> 🖳 Removed Frames 0000:0F:00	aAgcAlcRespTimePGM2	Response Time	choice	read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	15 sec
✓ Densité ✓ densite							
✓ densite ✓ Densite3	aAgcAlcRespTimePGM3	Response Time	choice				di serese se
✓ Densite	aAgcAlcRespTimePGM4		choice				15 sec
HCO-3901 Card parameters	aAgcAlcRespTimePGM5						15 sec
Controller: Card parameters HDA-1811 Control	aAgcAlcRespTimePGM6						15 sec
> GVNode Upgrade	aAgcAlcRespTimePGM7						15 sec
Health monitoring Info Info	aAgcAlcRespTimePGM8	Response Time			string		15 sec
Copy	aAgcCh1						Write only
	aAgcCh10				string		Write only
	aAgcCh11				string		Write only
	aAgcCh12				string		Write only
	aAgcCh13						Write only
	aAgcCh14						

Fig. 3-13: Card Parameters Tab

- 2 Click on a column heading to sort the listed parameters on a column.
- 3 Use the filter controls to restrict the shown listed items. See Figure 3-14.

DA-1811 🛞 HCO	-3901 🙁	Exampl		ig on par		
ilter Name	✓ Resp				Clear	
	^ Name	Туре	Access Type	Value Type	Choices	
pTimePGM1	Response Time	choice	read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM2	Response Time		read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM3	Response Time	choice	read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM4	Response Time		read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM5	Response Time	choice	read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM6	Response Time		read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM7	Response Time	choice	read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	
pTimePGM8	Response Time		read/write	string	5 sec;10 sec;15 sec;20 sec;30 sec;45 sec;1 min;5 min;10 m	

Example: Filtering on parameter name containing 'Resp'

Fig. 3-14: Example Filtered Card Parameters

4 Read/Write card parameters can be entered via the 'Current Value' column.

Device Control

To inspect a device's configuration settings from the **Network** window:

1 Right-click on a device and select 'Control' to view the device's control screen. (See Step 3.2: Configuration of Densité and RollCall Devices, on page 22.)

Note: For GV Fabric IP Switch devices, the control screen that is opened in the GV Orbit Client window is the device's web page.

Upgrade Device

To upgrade a device from the **Network** window:

1 Right-click on a device and select 'Upgrade' to open the device's upgrade screen. (See Step 4: Device Upgrade, on page 27.)

Alarms

See Alarms section for more information.

Alarms

Note: Alarms in GV Orbit v1.2 onwards:

In GV Orbit systems, alarms are handled 'behind the scenes' with internal addresses. These addresses have changed for GV Orbit v1.2.0 onwards:

- **v1.2.0 onwards**: Alarm-addresses for Densité-protocol devices are now aligned with the respective device/card address.
- *Earlier than* v1.2.0: Densité-protocol device alarm-addresses are separate and are *not* aligned to device addresses.

CAUTION

As a result of this alarm addressing change, when upgrading to GV Orbit v1.2.0 onwards, addresses specified for alarms must be changed. This applies to custom operator panels of C&M projects and to Alarm Behaviours.

Alarm List - Live Alarms/Status

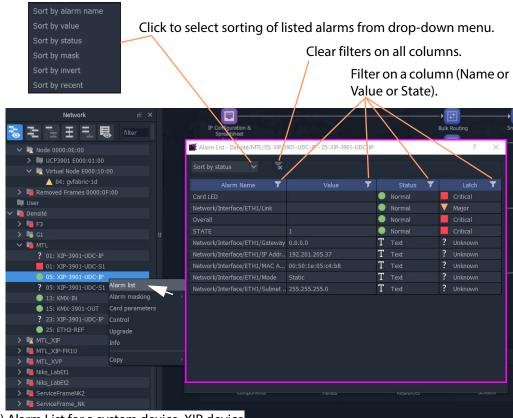
Professional and Enterprise only.

Alarm List Window

To inspect live alarms and status of a device/frame/service from the **Network** window:

1 Right-click on a device item in the Network window and select 'Alarm List'.

The live status and alarms reported by the device/frame/service are listed in an **Alarm** List window. See examples shown in Figure 3-15a and b, and Figure 3-16a and b.



a) Alarm List for a system device, XIP device

 DT_Drag-on_Test_2 components 		📸 Alarm List - E000:10:04 - gvfabric-	1d		? >
		Sort by status			
Network 🗗	×	Sort by status 🗸 🗙			
_		Alarm Name 🏾 🍸	Value 🍸	Status 🍸	Latch 🍸
🔁 🔁 🗄 🗄 🔁 🐻 filter 🍸		LAN_STATE	WARN:LAN_PORT_3_STAT	Minor .	🔺 Minor
> 🐚 Vega 0000:02:00		LOCATION	unknown	Minor .	🔺 Minor
> Rack 2 0000:03:00		STATE	50	Minor	Critical
> 晴 Rack 3 0000:04:00		SYSTEM_CONTACT	unknown	Minor .	🔺 Minor
> 🐚 Rack 4 0000:05:00		ADDRESS	E000:10:04	Normal	Normal
> 📑 Rack 5 0000:06:00		CPU_1_LOAD	9% CPU loading	Normal .	🔺 Minor
Rack 6 0000:07:00		CPU_1_NAME	GenuineIntel: Intel(R) Atom	Normal .	🔺 Minor
> 🛤 Rack 7 0000:09:00		CPU_2_LOAD	9% CPU loading	Normal .	🔺 Minor
> 🍋 Vega 0000:0A:00		CPU_2_NAME	GenuineIntel: Intel(R) Atom	Normal .	🔺 Minor
> 📮 Vega Monitoring 0000:08:00		CPU_3_LOAD	9% CPU loading	Normal .	🔺 Minor
 Rack 11 0000:0C:00 GV Live Servers 0000:0D:00 		CPU_3_NAME	GenuineIntel: Intel(R) Atom	Normal .	🔺 Minor
Node 0000:0E:00		CPU_4_LOAD	9% CPU loading	Normal .	🔺 Minor
Note 0000:02:00 Note 0000:02:00 UCP3901 E000:01:00		CPU_4_NAME	GenuineIntel: Intel(R) Atom	Normal .	🔺 Minor
Virtual Node E000:10:00		CURRENT_TRAP_OID		Normal	Normal
A 04: ovfabric-1d		FAN_1_NAME	MGMT/FAN1/F1	Normal .	🔺 Minor
Removed Frames 0000: Alarm list		FAN_1_SPEED	OK: 6967 RPM	Normal .	🔺 Minor
Virtual Node 00F0:0f ^{Alarm} masking		FAN_2_NAME	MGMT/FAN2/F1	Normal .	🔺 Minor
Free Network(F100) Upgrade		FAN_2_SPEED	OK: 6859 RPM	Normal .	🔺 Minor
> 📑 Network(F200) F000 Info		FAN_3_NAME	MGMT/FAN3/F1	Normal .	🔺 Minor
> F000:03:00 F000:03 Control		FAN_3_SPEED	OK: 7234 RPM	Normal	🔺 Minor
? F000:04:00 F000:04 Copy	÷	FAN_4_NAME	MGMT/FAN4/F1	Normal	🔺 Minor
> Virtual Node F000:06-00	1	FAN_4_SPEED	OK: 7234 RPM	Normal	🔺 Minor
Mat1: Vega Video 0000:11:00		ID	341	Normal	Normal
Alarm List for an Auto-o	disc	overed GV Fabri	c IP Switch	Normal	Normal

Fig. 3-15: Example Alarm List Windows for: a) System Device (XIP) b) GV Fabric IP Switch.

Project Connections Tools <u>W</u> ine						
		🔅 🔿	.a.			#
Project	e x		Alarm List - Servers/gvos-jc2 - gvo	s-jc2		?
DT C&M Test			Sort by status 🗸 🗙			
DT_Com_rest						
MV821-IP			Alarm Name 🏾 🍸	Value 🍸	Status 🔻	Latch 🔻
My_Bulk-Routing_001		-		50	A Minor	Critical
Wy_New_C&M_1		—	System/Storage Usage	Warn:92%	A Minor	Critical
My_Clust-MV_2		IP Configuration	Applications/Densité GVOC/CPU		Normal	Normal
🐻 MV821-IP		Spreadsheet Import	Applications/Densité GVOC/Insta		Normal	Normal
🐻 My_Test_Project			Applications/Densité GVOC/Mem		Normal	Normal
		and the state	Applications/Densité GVOC/Mem	NoStatus:196.9MiB / 15.64Gif	Normal	Normal
Network			Applications/Densité GVOC/Status		Normal	Normal
			Applications/Densité GVOC/Versi		Normal	Normal
5 E F E E	filter	(Applications/Densité/CPU Level		Normal	Normal
🖷 RollCall		\sim	Applications/Densité/Installation		Normal	Normal
📭 User					Normal	Normal
Norma Densité					Normal	Normal
🐚 Servers					Normal	Normal
caroline					Normal	Normal
gvo-49					Normal	🔵 Normal
gvos-52		Server 1			Normal	🔵 Normal
▲ gvos-jc2		Server 1			Normal	Normal
localhost			Applications/Device Manager/Me	NoStatus:51.42MiB / 15.64Gil	Normal	Normal
					Normal	Normal
					Normal	Normal
					Normal	🔺 Minor
					Normal	Normal
					Normal	Normal
			Applications/Elastic/Memory Usage	NoStatus:1.092GiB / 15.64GiB	Normal	Normal

a) Alarm List for a GV Orbit Server

My_C&M_Project_H My_C&M_Project_J		📓 Alarm List - F000:02:01 - LogServer	151		?
💑 my_cam_riojec.j		Sort by Status 🗸 🗙			
🐻 My_MV_Project					
🐻 My_New_C&M		Alarm Name 🏾 🍸	Value 🍸	Status 🍸	Latch 🗍
🐻 My_Simple_Mon					
My_Single_C&M					
My2_New_C&M		DISTRIBUTED_WRITER_SAMPLE		🔍 ок	🔵 ок
My2_New_MV				🔍 ок	🔵 ок
My3_New_C&M				🔍 ок	🔵 ок
Wy3_New_MV				🔵 ок	🔵 ок
			LogServer Service	🔵 ок	🔵 ок
Network	- н			🔍 ок	🔵 ок
■ 王 王 王 見 局 filter	$\mathbf{\nabla}$			🔍 ок	🔵 ок
			gvboxslp3	🔍 ок	🔵 ок
User		LOG_SERVER_NAME	LogServer151	🔍 ок	🔵 ок
a RollCall				🔍 ок	🔵 ок
> 🎽 Frame 17 0000:01:00	:	NAME	LogServer 151	🔍 ок	🔵 ок
V B GV Orbit Services 0000:0F:00		NUM_IP_ENDPOINTS		🔵 ок	🔵 ок
> IP Proxy F000:01:00		NUM_IP_ENDPOINTS_CONNECTED		🔍 ок	🔵 ок
In the server F000:02:00 01: LogServer 151		NUM_IP_ENDPOINTS_DISCONNE		🔍 ок	🔵 ок
Alarm list Alarm list		RC_RX_QUEUE_SIZE		🔍 ок	🔵 ок
> Monitoring F000:04:00		REDUNDANT_READER_SAMPLE		🔵 ок	— ок
Kent Logging F000:05:00 Alarm masking		REDUNDANT_READER_SAMPLE		🔍 ок	🔵 ок
> 🖡 Routing F000:06:00 Info		REDUNDANT_READS_PER_SECO		🔍 ок	🔵 ок
> Semail F000:07:00 Open panel		REDUNDANT_WRITER_SAMPLE		• ок	🔵 ок
> 🐚 Map View F000:08:00 Copy		REDUNDANT_WRITER_SAMPLE		• ок	🔵 ок
> 🖷 Web Renderer F000:09:00			- 2019-12-13T10:45:16Z	• ок	• ок
> 🐚 Relay F000:0A:00			127.0.0.1		 ок
➤ Nepository Manager F000:0B:00			12/10/012		

b) Alarm List for a GV Orbit Service

Fig. 3-16: Example Alarm List Windows for: a) GV Orbit Server; b) GV Orbit Service.

Alarm List Window Masking

In the Alarm List window, alarms can be masked:

- at a device-level; or
- individual alarms for a device can be masked (alarm-level).

Right-click on an item in the **Alarm List** window to see masking options. See Alarm Masking (Professional and Enterprise), on page 71 for further information on masking.

Right-click options

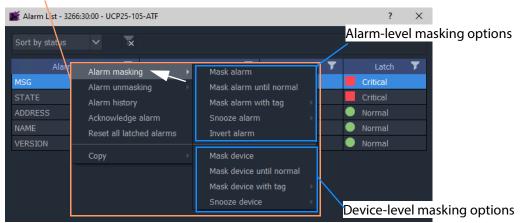


Fig. 3-17: Alarm List Window Right-Click Options

Alarm History for a Device

Professional and Enterprise only.

Note:

The **Alarm History** window uses the following GV Orbit services: IP Proxy, Log Server, Monitoring, Event Logging, and Densité Manager. These services are all required for **Alarm History**.

To inspect the history of device status and alarms from the **Network** window:

1 Right-click on a device in the Network window and select 'Alarm History'.

The status messages and alarms etc. reported by the device are listed in a new **History** window tab. The address of the device is shown in the window tab. See Figure 3-18.

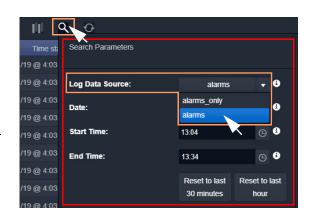
2 Click the search icon (**Q**) in the **History** window.

The **Search Parameters** dialog is shown.

3 Select a **Log Data Source** from the drop-down menu.

Note:

The Log Data Source dropdown menu lists the Event Logging filters that are set up on the GV Orbit server's Event Logging service.



This selects an alarm data source to view in the window.

Note:

See History Window (Alarm History), on page 74 for further information on data sources and the controls in this tab window.

4 To close the Search Parameters dialog,

(re-)click on the search icon (or click somewhere else in the History window).

The selected data source is shown in the **History** window. (See History Window (Alarm History), on page 74 for further information.)

Address	of device shown	in tab	Click to filt	er on a colu	ımn (Name	or Value or State
💕 My_Bulk-Routing_001						:
Project Connections Tools <u>W</u> indow Control and Mc		合 💽				admin (
Project	B × History:F110:01:04 ⊗					
My_Bulk-Routing_001			Dev	ice: F110:01:04		
🖬 dt_test 🖬 My_WebRender_Eg 🐻 Test	<u> </u>					
	Time stamp	Current state	▼ Current value	 Previous state 	Previous value	T Alarm T
*** Network	o≊ × 08/4/20 @ 18:07:38	Normal	5565	Normal	5564	TOTAL_LOG_COUNT
	08/4/20 @ 15:18:08	Normal		Normal		TOTAL_LOG_COUNT
	08/4/20 @ 12:32:38	Normal	5563	Normal		TOTAL_LOG_COUNT
02: LogServer 154 03: Masking 154	08/4/20 @ 12:32:18	Normal		Normal	5043	TOTAL LOG COUNT
04: Monitoring 154 Alarm lis	06/4/20 @ 11:42:08	Normal	5043	Normal	5042	TOTAL LOG COUNT
05: Event Logging 1 Alarm bit	, Ŭ	Normal	5042	Normal	5041	TOTAL LOG COUNT
06: Routing 154 O7: Email Service Alarm ma		Normal	5041	? Unknown	undefined	TOTAL LOG COUNT
	05/4/20 @ 13:50:38	Normal	5040		5039	TOTAL LOG COUNT
09: Web Renderer J 0A: Relay 154	· · · · · · · · · · · · · · · · · · ·					
OB: Repository 154	# 05/4/20 @ 10:42:18					TOTAL_LOG_COUNT
10: SNMP Service	04/4/20 @ 20:21:28	Normal		Normal		TOTAL_LOG_COUNT
▲ 11: GVF1 ▲ 13: GVF2	04/4/20 @ 06:07:48	Normal		Normal		TOTAL_LOG_COUNT
14: GVF3	04/4/20 @ 04:10:18	Normal		Normal		TOTAL_LOG_COUNT
> 🛤 Mat1: IP Routing 0000:11:00	04/4/20 @ 02:55:48	Normal		Normal		TOTAL_LOG_COUNT
Mat2: Audio Live 0000:12:00 ?private-node 0000:81:00	04/4/20 @ 01:04:28	Normal		Normal		TOTAL_LOG_COUNT
Densité	03/4/20 @ 15:40:08	Normal		Normal		TOTAL LOG COUNT
densite DFrame20	03/4/20 @ 01:49:08			Normal		TOTAL_LOG_COUNT
 ✓ Densite 	Ŭ					
HCO-3901 Controller2	02/4/20 @ 23:44:48					TOTAL_LOG_COUNT
HDA-1811	02/4/20 @ 20:14:48	Normal		Normal		TOTAL_LOG_COUNT
	02/4/20 @ 20:12:18	Normal		Normal		TOTAL_LOG_COUNT
Health monitoring	02/4/20 @ 20:04:58	Normal		Normal		TOTAL_LOG_COUNT
Densite frame DFrame20 on densite Densite frame GVNode2 on densite Densite frame MTL on densite	H 4 1 2 3 4	5 6 7 8	9 10 F H			1 - 20 of 10000 items

Click to filter on a column (Name or Value or State)

(See History Window (Alarm History), on page 74 for further information on the History window.)

Fig. 3-18: Example History Window

Note: Masked alarms are shown "grayed-out" in the History window.

Alarm Masking (Professional and Enterprise)

Alarm masking may be done on a device (device-level masking), or it may be done on a an individual alarm from a device (alarm-level masking):

- Device-level masking/unmasking can be done from the Network window, or from the Alarm List window for a device.
- Alarm-level masking/unmasking may be done from a device's the Alarm List window.

Device-level masking is applied separately and additionally to any alarm-level masking. For example, if an alarm-level mask is applied to alarm A for a device and then a devicelevel mask is applied to the device, when the device-level mask is removed, the alarm-levelmask will still apply.

Apply a Device-Level Mask

To mask alarms associated with a device, from the **Network** window:

1 Right-click on a device, select 'Alarm Masking'. See Figure 3-22.

NCP25-04 6144:30:00		14/4/20 @ 09:17:20	
UCP25-105-ATF 3266:30:00	Alarm list Alarm history	# 14/4/20 @ 09:17:20	'Mask device until
 UCP25-06-ATF 6146:30:00 UCP25-05-ATF 6145:30:00 	Alarm masking →	14/4/20 @ 09:17:20 Mask device	normal' is grayed-out
💭 UCP25-2 6140:02:00	Info Copy	Mask device until normal Mask device with tag	for devices with OK status.
		Snooze device	

Fig. 3-19: 'Alarm Masking' Menu Options

- 2 Select one masking option from:
 - Mask Device Mask all alarms from a device/unit/frame/service.
 - Mask Device Until Normal Mask alarms from a device/unit until alarm state is OK ('green'). I.e. mask a device/unit until any fault/error is corrected. Note: This menu item is grayed-out for devices with an OK Alarm state.
 - Mask Device with Tag Mask a device with a Masking Tag. See Alarm Masking Tags.
 - Snooze Device Mask alarms from a device/unit for a period of time. See Alarm Masking Snooze Times.
 - Unmask Unmask a device or a set of tagged devices.

Note: Masking or unmasking menu options may be grayed-out in the menu.

Apply an Alarm-Level Mask

Mask an alarm from a device, from the device's Alarm List window. See Figure 3-17 on page 69.

Alarm Masking Tags

A set of device(s) can be masked with a **Masking Tag**.

UCP25-105-ATF 3266:30:00 UCP25-09 614A:30:00 UCP25-06-ATF 6146:30:00	Alarm list Alarm history		Server 1	Category
UCP25-05-ATF 6145:30:00	Alarm masking 🔸	Mask device		
UCP25-2 6140:02:00	Info	Mask device until normal		
	Сору	Mask device with tag	Mask-Tag_Chan	nel1
l	Сору	Snooze device	Mask-Tag_Back	up-Channels
		Unmask	•	

Fig. 3-20: Mask a Device with a Masking Tag

Masking Tags are created in the 'Tools > Options > Monitoring' dialog from the main menu and provide the user with a flexible, multiple and layered masking facility.

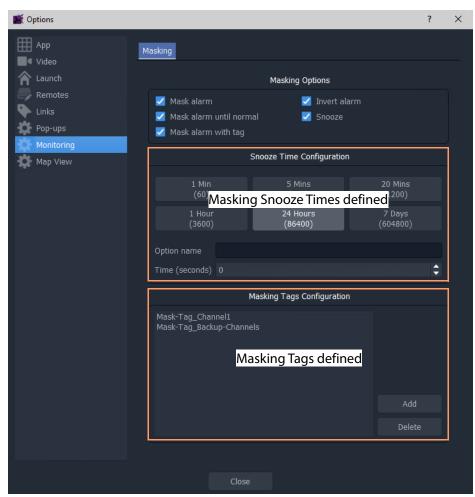


Fig. 3-21: Tools > Options > Monitoring Dialog

Alarm Masking Snooze Times

Alarms for a device/unit/frame/service may be masked for a period of time.

UCP25-105-ATF 3266:30:00 UCP25-09 614A:30:00 UCP25-06-ATF 6146:30:00 UCP25-05-ATF 6145:30:00	Alarm list Alarm history Alarm masking →		Masking 'Snooze' times
UCP25-2 6140:02:00	Info Copy	Mask device until normal Snooze device Unmask	1 Min 5 Mins
			20 Mins 1 Hour 24 Hours 7 days

Fig. 3-22: Masking Snooze Times

The selectable masking snooze times are configurable, see 'Tools > Options > Monitoring' in main menu in Figure 3-21 on page 73.

History Window (Alarm History)



The GV Orbit Client **History** window can show the history of *system-wide* alarms and status messages which are read from the **Event Logging** service on the GV Orbit server.

Note:

The **History** window is similar to the window shown for Alarm History for a Device, on page 69.

Note:

By default, the **History** window sources event log data from the event log store which is set up as default in the **Event Logging** service. (I.e. the event log for which the **Default Index** setting is selected.) A user can change the event log data source for an **History** window (I.e. change **Log Data Source** in the **Search Parameter** dialog.)

A GV Orbit Professional or Enterprise user can:

- Select an event log data-set to use from the event log store.
- Search for messages from a particular time period.
- Filter what is shown in the pages (for example, to just display minor alarms).

Note: Log Data Sources:

A **History** window sources log data from the GV Orbit system event log store. All events are logged by an **Event Logging** service running on the GV Orbit server (see Event Logs, on page 101). Depending on a log data-set's configuration, some and/or all events and alarms are logged. A store may be selected as the log data source for display in the **History** window.

View Alarm History for System-wide Alarms

To view the Alarm History for GV Orbit system-wide alarms:

1 Click the **Alarm History** icon in the main tool bar.

The **History** window appears in a tab. **Note:** The tab shows no specific device address when showing system-wide alarms.

Select the **History** tab to view it.



Search Parameters Dialog

The **Search Parameters** dialog appears in the **History** window for both system-wide alarms or for device alarms.

1 Click on the search icon (\bigcirc).

The **Search Parameters** dialog is shown. See Figure 3-23.

2 Set Log Data Source to the log data-set to use from the event log store.

Search Parameters				
Log Data Source	dt_log_2	¥	i	
Date	alarms alarms_only	^	1	
Start Time	densite_dev_group		i	
	dt_alarms		_	
End Time	dt_log_1		i	
	dt_log_2	17	ast	Reset to
	rsnmp	-	dist	show all

a) Select **Log Data Source** to display.

Search Parameters				
Log Data Source	dt_log_2		i	
Date	06 January 2020	0 🛱	1	
Start Time	07:45	G	1	
End Time	14:05	G	1	
	Reset to last 30 minutes	Reset to hour	last	Reset to show all

b) Select **Date** and **Start Time** and **End Time** of messages to display.

Search Parameters				
Log Data Source	dt_log_2		•	
Date	08 January 2020		i	
Start Time	12:06	G	•	
End Time	13:06	G	i	
	Reset to last 30 minutes	Reset to hour		Reset to show all

c) Display only messages from the last hour.

Fig. 3-23: Search Parameters Dialog

- 3 Select the date and time period to display. This can be done by:
 - setting **Date**, **Start Time**, and **End Time**; or by
 - selecting to see a last period (Reset to last 30 minutes, or Reset to last hour).

All event logs, including alarm messages, are listed in time stamp order, most recent first. See Figure 3-24.

Click to:

Clear column filter settings.

Show Search Parameters *Q* dialog,

to select log file and time period to display.

Hide/show columns.

Refresh data in the table.

See Figure 3-23.)

State alarm icons:



 Click I in a column heading on to filter displayed data on a column.

				All Devices		
× ∥ < ↔			Time stamp ran	nge: 08/1/20 @ 12:13:00 - 08/1/20 @ 13:13:59		
Time stamp	Current 🔻	Current value 🔻	Previous 🍸	Previous value	Alarm 🔻	Address 🔻
08/1/20 @ 13:13:59	● ок	WARN:TPG	● ОК	WARN:SD	INPUT_8_SDI_ERRCNT	B111:10:01
08/1/20 @ 13:13:59	A Minor	WARN:Address change	A Minor	WARN:Name Change	LOGGING_STATE	A111:0F:00
	● ок		Minor			
08/1/20 @ 13:13:59	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
	Minor		● ок			
08/1/20 @ 13:13:58	🔍 ОК		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:57	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
	● ок		Minor			
	Minor		● ок			
08/1/20 @ 13:13:56	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:55	● ок	001:01:30:00	● ок	001:01:29:00	RC_UPTIME	3291:20:0A
08/1/20 @ 13:13:55	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:54	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:51	● ок		● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
	● ок	ок	Minor			
08/1/20 @ 13:13:50	● ок	0	● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:49	● ок	ок	Critical	FAIL:LAN_2_STATE=FAIL:SFP_2_STATUS=FAIL:RX PWR LO	LAN_STATE	3291:20:07
08/1/20 @ 13:13:49	Minor	WARN	● ок			
08/1/20 @ 13:13:49	● ок	3	● ок		DISTRIBUTED_WRITES_PER_SECOND	F000:02:01
08/1/20 @ 13:13:49	● ок	ок	Critical	FAIL:SFP_2_STATUS=FAIL:RX PWR LO	LAN_2_STATE	3291:20:07
K 1 2 3 4	5 6 7 8	3 9 10 🕨	н		1 - 20 ol	7650 items

Alarms which are masked are shown "grayed-out"

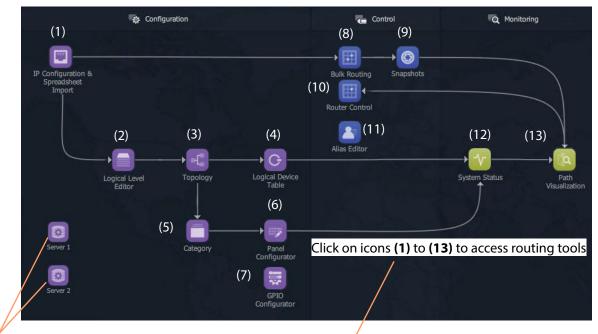


Fig. 3-24: Alarm History Window (History Tab Selected)

Graphical Router Workflow



The factory-set **Workflow** stage shows a graphical workflow for routing system configuration and control with clickable icons to access tools via GV Orbit Control Client.



Click on server icons to access landing pages for each GV Orbit server.

Each icon (1) to (13) is described in the Steps for Graphical Router Workflow Stage Icons table, on page 78.

Fig. 3-25: Graphical Router Workflow Stage - with Icons (1) to (13)

Steps relating to icons in Figure 3-25 Graphical Router Workflow Stage - with Icons (1) to (13), on page 77

(1) IP Configuration and Spreadsheet Import

Access the IP Routing endpoint configuration editing tool and a new, default GV Orbit IP Routing project:

1 Click the **Comms Setup** button:

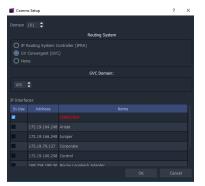
- Select **Routing System** controller type to be 'GVC', (to work with the GV Orbit server).
- Select **Domain** number for IP End-point setup (default '101').
- Leave the GVC domain number at its default (105).
- Select the client PC network IP interfaces to use.

Click **OK**.

GV Orbit Client will discover IP End-points and list them. 2 Click on the **Devices** tab to see the listed devices.

 3 Click **Export** to export the discovered IP end-point devices and their current settings. (A spreadsheet file, .xlsx file, is exported and this shows the spreadsheet file format. Settings include: device

names, router port numbers, source/destination IP flows, and



multi-cast IP addresses etc.) 4 Edit the spreadsheet file to change settings and/or add more IP end-point devices.

5 Click **Import** to import IP End-point device settings via a spreadsheet.

6 Project -> Save Project from the main menu. Close the IP Endpoint Editor tab.

			IP Fi	ndp	ooir	۱t	Edito	or tab				
Device tab	Export I	mport	/						Comm	ıs	Setup	Butto
Pile Lott Project View Tools Whow Bolic III III III III III III III III III II	router workflow.wfl Routing Control © 32	2.13 127 (Russing) LOLINET O	ште ц	LDP A	LLDP B R	outra :	Satura Bandwidth S	tatus Lod			Proper	nd rbes Is Setup
14 MV-620 SLP	Ritera Reperc Refresh Table	Purge Doot Import	Subnet Scan		Connectio							
🖏 SLP MapView	Davice GLID	Device Name	Device Type		Emeran			contav IP Address Control IP Addres	s Primary Link Strend			
	(1299ADDE-1002-1102-9040-002370002209		104034000	15.0.95	14275863		172.19.164.202	172 19 166 202	40.66			
	[13M016E10021182-8898-0023700022F5]	AM04010-02										
	(P20F1192-8F72-5202-928F-30CE7D4E58A2)	BASESTATION 1	Camera Bas				172.19.164.9	172 19 166 9				
Network View & ×	(00000000-0000-4000-0000-0000000000	DEVELOPMENT									~ General	
	(13471855-1002-1182-8540-002370003686)	EDGE25-01	IDEDSE25.6	11,710,76	01274845		172.19.164.218	172.19.164.248				
-문화 '금 및	(13998605-1002-1182-9245-002370002288)	EDGE40-6-01	IDEDGE40 6		01250676		172.19.164.191 📀	172.19.166.191				
Der	(PB409C48-84C5-51FE-8454-3719C5D89C0D)	OVCAMERASCRIMER, A	ComerciCont				172.19.164.220	172.19.166.220 172.19.160.220				
V 👰 RollColl	CHTSGATH-CAND-SEAS-IDAII-21105D1EASDD	GVCAMERASDRIVER II										
> 🗰 Control 0000101:00	(302F785E-1002-1182-AF18-0023700035D4)	P110	KahunaPito		ROE3ACA		172.19.164.165	172.19.166.165				
Vega 0000:02:00 Rack 2 0000:03:00	(13A2FCAE-1002-1182-8805-002370004118)		Kabupa(214)		10265071		172.19.164.167				Auto Interval	
Network(3200) 3000:02:00	(13A05000-1002-1182-AE07-002370009176)	P1.50	Kabuna(P150		FC266908		172.19.164.185	172.19.166.189	50.60		Spicot Filter	
> Reck 3 0000194100					R264050		172.19.164.164		10 60		Show Device Provo	Folse
	Discovered	devices are	licta	d							✓ Flows	
> 📴 Rack 5 0000/06/00	Discovered	ucvices are	iiste	U es	FC254006		172.19.164.166	172.19.166.166	40.60			
Rack 6 0000:07:00 Rack 7 0000:09:00	(03319817-9845-1331-8138-002370009179)	P0.50	Kahuna P050	150.94	8726/202		172.19.164.185		50 60		Y Stc Flows	
> Rack 8 0000/0A/00	(3C2C030A-62E7-5E95-0F2F-2902C5E4AF77)	IPRA QNK #1	IP Adaptor				172.19.164.220	172 19 166 220 172 19 160 220				
	0379CA0240566-540A-8A28-F51788FF83A5T	#9A ONK #2										
Rack 11 0000:00:00	(139A712E-1002-1182-A465-002370002822)		104000	15.0.95	F4272876		172.19.164.154	172.19.166.154	10 60			
> 📮 0000.00:00 0000:00.00	(19198600-1002-1182-9543-002370003734)	10(0254)	1000725.50		F4276124		172.19.164.101	172 19 164 105				
 Torbit Services 0000:0E:00 Removed Premes 0000:0F:00 	(13000030-1002-1182-8720-002370006467)		KulaP50		10264654		172.19.164.190 🥝		50 68			
0000:E1:00 0000:E1:00	(13E11340-1D02-1182-9398-0023700064E7)	Kulu50 L8	KuluEPSO	15.0.95	RC26A128		172.19.164.189 @		50.00		Meta Ease Addres Meta Ease Addres	
	(14684870-1002-1182-A34F-002370002876)	MIX-01	104000	11,730,76	99222400		172.19.164.11		10 65		Audio Base Addres	
My Monitoring Service 0000cE6:00	(1A6AFA50-1002-1182-8C80-0023700028755		104000		F4272876		172.19.164.12		10 60		Audio Esse Addres.	
Ny Masking Service 0000:E9:00	(1A68FE80-1002-1182-ADFE-002370002898)	MX44	1040100	15.0.95	F4272876		172.19.164.14		10 (2)		Nulticed Cenerative	
 Ny Recording Service 0000:EA:00 Densite 	(14644C30-1002-1182-048C-002370002896)		101010_07		222724CD		172.19.164.10		10 00			
	(1A69C100-1002-1182-8166-002370003606)		1040110	15:0.95	F4272450		172.19.164.22		10 60			
> FRiFrane > NikyFrame	(1A6A5E10-1D02-1182-900P-002370003603)	MDC09	101010.07		P4272876		172.19.164.23		10 60			
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	(14696860-1002-1182-8784-002370002883)	M0011	101000	11,730,76	99272400		172.19.164.25 Ø	172.19.166.25	10 60			
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	(14695850-1002-1182-8166-002370002874)		101000	15.0.95	F4272876		172.19.164.43		10 60			
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Fig. 3-26: IP Endpoint Configuration Editor tab in GV Orbit Client (Device sub-tab shown)

This screen also allows:

- Manual configuration of end-points, if required.
- · Review IP End-point settings, edit settings, validate settings, make engineering routes, if required.
- Monitor bandwidths at device interfaces, if required.

Note: SDI 'end-point' configuration etc. is set up via GV Orbit Control in the remaining controls on the router workflow.

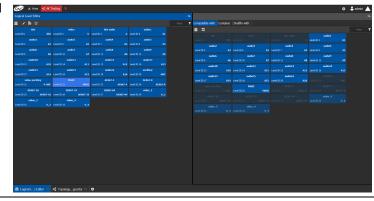
Steps relating to icons in Figure 3-25 Graphical Router Workflow Stage - with Icons (1) to (13), on page 77

(2) Logical Level Editor



Access logical route editor tool in GV Orbit Control Client. For the target router:

 Define, review, edit logical routing levels. For example, levels for audio channel(s), video channels, SDI video, ancillary data etc.

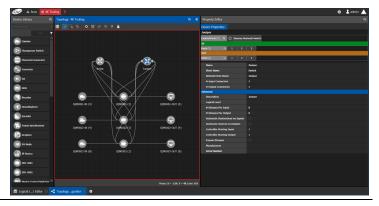


(3) Topology



Access router topology configurator tool in GV Orbit Control Client:

- Define router topology with the logical levels. I.e. how physical and logical devices are arranged in the broadcast facility.
- Select topology to use.



(4) Logical Device Table



Access the logical devices editor tool in GV Orbit Control Client:

- Define logical devices in a table.
- Configure levels and IP streams.
- Configure audio shuffled streams and break-away streams.
- Create virtual crosspoints and logical destinations devices.

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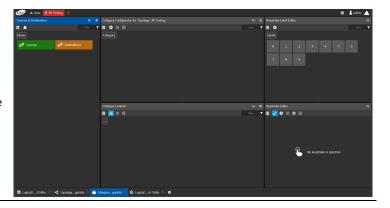
Steps relating to icons in Figure 3-25 Graphical Router Workflow Stage - with Icons (1) to (13), on page 77

(5) Category



Access the Category Configurator tool in GV Orbit Control Client:

Manage sources and destinations with groups (or categories) based on type or usage. This is useful when there are multiple resources. Categories allow sources/destinations to be accessed quickly on a routing control panel.



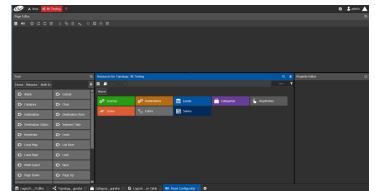
(6) Panel Configurator



tool in GV Orbit Control Client:Create soft router control panel designs.

Access the Panel Configurator

- Add buttons and behaviors to a routing control panel.
- Push the design to soft or hard panels.

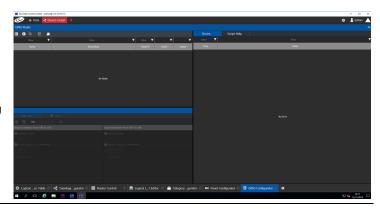


(7) GPIO Configurator



Access the GPIO Configurator tool for GPIs and GPOs on supported panels (e.g. GPI-1501) with GV Orbit Control Client:

- Add rules for GPIs to trigger events such as a salvo or routing a source to a destination.
- Add rules for GPOs to activate on combinations of conditions.



Steps relating to icons in Figure 3-25 Graphical Router Workflow Stage - with Icons (1) to (13), on page 77

(8) Bulk Routing

Access the Bulk Routing Control Panel tool in GV Orbit Client:

- Make routes between sources and destinations.
- Form break-away routes and shuffled routes.
- Execute salvos.

For an introduction to the Bulk Routing Control panel, see Bulk Routing Control Panel, on page 83.

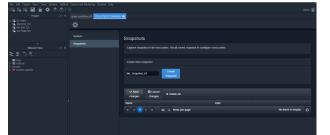


(9) Snapshots



Access the Snapshots tab of the GV Orbit Routing Service that runs on the GV Orbit server:

- Recall routing snapshots. •
 - Create and save new snapshots.

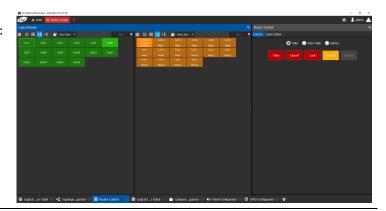


(10) Router Control



Access the Router Control Panel tool in GV Orbit Control:

- Make routes between sources and destinations.
- Create and execute salvos.

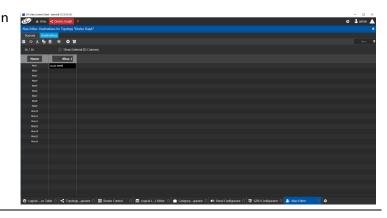


Steps relating to icons in Figure 3-25 Graphical Router Workflow Stage - with Icons (1) to (13), on page 77

(11) Alias Editor

Access the Alias editor tool in GV Orbit Control:

Assign aliases to sources and destinations (to support shorter length names, other languages, or different production staff needs).



(12) System Status



screen of the GV Orbit Control router controllers:

Access the System Status

- Monitor the health of GV Orbit Control router controller(s).
- View device health for a selected topology.
- Manual fail-over, if required.

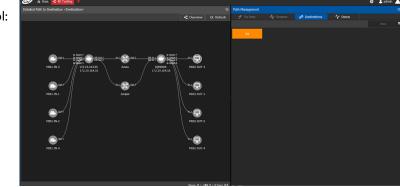
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Network Interface	em1 p15p1 p15p2					
Faults						

(13) Path Visualization



Access the Path Manager screen of GV Orbit Control:

- View source-destination paths of routed streams.
- View Tie-Line usage information, including % bandwidth used.



Bulk Routing Control Panel

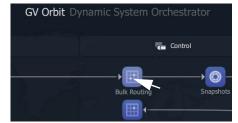


The Bulk Routing Control Panel is a built-in router control panel accessible from the **Network** window in GV Orbit Client. It requires the GV Orbit **Routing** service to be running on GV Orbit server(s). IP routing or traditional (e.g. SDI) routing may be controlled.

Open Bulk Routing Panel

- 1 Open an existing C&M project and set the GV Orbit Client window size to 1920x1080.
- 2 Click on the **Bulk Routing** icon in the **Router Workflow** stage.

A Bulk Routing Panel is shown in a window tab in the GV Orbit Client. See Figure 3-27.



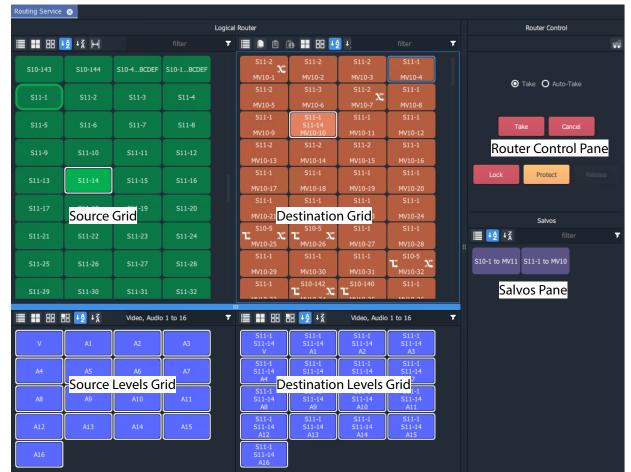


Fig. 3-27: Example Bulk Routing Panel

Troubleshooting

If problems are encountered when opening a Bulk Routing Panel, carry out the following checks:

1 Check that the project's **Client Domain** is set for the GV Orbit system.

(Click **Connections -> GVOP** in the main menu. Set **Client Domain** to be the system's 'Client Domain' number.)

- 2 The project's **Routing Address** project variable (a RollCall address) should be set to the **Routing** service's **Logging Address**. To verify this:
 - To see the project variables, click Project -> Edit Variables in the main menu.
 - To see the Routing service's Logging Address: Log into the GV Orbit server and access the Routing service's 'System' configuration screen. (See GV Orbit Server Login, on page 98, and Accessing Services Configuration Screens, on page 100.)

To save any changes made to the project settings:

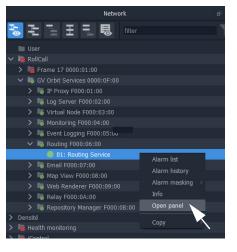
- 3 Click Project -> Save Project in the main menu to save the project locally.
- 4 Click **Project -> Push** to push and save the project to the GV Orbit server.

Alternative Open Bulk Routing Panel

The Bulk Routing Panel may also be opened from the **Network** window in GV Orbit Client:

- 1 Display the **Network** window tree-view (click in the main tool bar to toggle displaying the window) and expand the tree-view.
- 2 In the Network window, locate the 'Routing service' item. (The item's name is the Routing service's "Logging Name".)
- 3 Right-click on the **Routing** service item and select **Open Panel**.

A Bulk Routing Panel is shown in a window tab in the GV Orbit Client. See Figure 3-27 on page 83.



Note: A '**Routing** service' item appears in the GV Orbit **Network** window when a **Routing** service is running on the connected GV Orbit server and is configured to talk to a router controller.

Bulk Routing Panel 'Source' and 'Destination' buttons are annotated with router port names obtained through the **Routing** service.

Bulk Routing Panel - List View

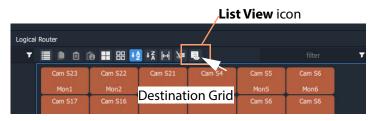
List View is a level-centric view of a Bulk Routing Panel, allowing a user to focus on routing to Destination Levels. **List View** presents all of the destinations in a 'list' format; each list item is a Destination with all of its Levels.

To access List View mode:

- 1 Open the Bulk Routing Panel and set the GV Orbit Client window size to 1920x1080.
- 2 In the Destination Grid's tool bar, click on the List View icon.

This toggles between the normal Bulk Routing Panel view and the **List View** mode.

The **List View** is shown. See Figure 3-28.



Click icon to toggle between List View and the normal view

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S10-5	v S10-5	A1 S10-5	A2 S10-5	A5 S11-4	S11-4	A5 S11-4	A0 S10-5	S10-5	A0 S10-5	A9 S10-5
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Fig. 3-28: Bulk Routing Panel - List View

Scrollable list of destinations

For information on the Bulk Routing Panel's **List View**, refer to the *GV Orbit Routing Panel User Guide* (see Related Documentation, on page iii).

Bulk Routing Panel Operation

Refer to the GV Orbit Routing Panel User Guide (see Related Documentation, on page iii).

Routing Snapshots

Snapshots of all routes and crosspoints in a GV Orbit system can be taken and restored. This is done from the **Routing** service configuration screen on the GV Orbit server.

- 1 Go to the GV Orbit Client workflow.wfl **Workflow** window.
- 2 Click on the **Snapshots** icon.

The GV Orbit server window is shown in a tab.

3 Scroll down the server window on the left and locate the 'Services' section and select 'Routing'.

The **Routing** service configuration screen is shown.

4 Select the 'Snapshots' side-tab on the left.

The **Routing** service's **Snapshots** screen is shown. See Figure 3-29.



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	Name			
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Fig. 3-29: Routing Service Snapshots Configuration Screen

To Take a Routing Snapshot

In the Routing service Snapshots screen:

- 1 Enter a name for the new snapshot.
- 2 Click Create Snapshot.

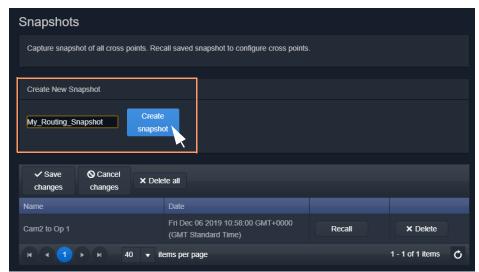


Fig. 3-30: Routing Service Snapshots Configuration Screen

A snapshot of all routes and crosspoints is taken. And the new snapshot appears in the list.

Snapshots							
Capture snapshot of all cross points. Recall saved snapshot to configure cross points.							
Create New Snapshot							
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Save Cancel changes X Dele							
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My_Routing_Snapshot	Fri Dec 06 2019 11:29:39 GMT+0000 (GMT Standard Time)	Recall	× Delete				
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Fig. 3-31: New Snapshot Item in List

3 Click Save Changes.

To Recall a Snapshot

In the Routing service Snapshots screen:

1 Find a snapshot in the list and click **Recall**.

The signal routing and crosspoint settings present when the snapshot was taken are restored.

Snapshots							
Capture snapshot of all cross points. Recall saved snapshot to configure cross points.							
Create New Snapshot							
Enter a name	Enter a name Create snapshot						
✓ Save O Cancel changes changes changes	te all						
Name	Date						
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My_Routing_Snapshot	Fri Dec 06 2019 11:28:17 GMT+0000 (GMT Standard Time)	Recall	× Delete				
	ems per page		1 - 2 of 2 items 💍				

Fig. 3-32: Recall Snapshot

Simple Custom Monitoring Screen Example



A simple custom graphical operator screen is presented here. The example described is a monitoring screen using a C&M project; device status is monitored by the screen. This requires a configured C&M project, a configured GV Orbit server, and the following minimum GV Orbit services to be running:

- IP Proxy.
- Log Server.
- Monitoring.
- Densité.

Create a New Monitoring Screen Schematic

- 1 Open the C&M Project and show the **Project** window and the **Workflow** window with the **Workflow** stage.
- 2 On the workflow stage, click on the **Screens** icon.

The Screens dialog is shown.

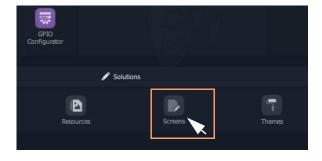




Fig. 3-33: Screens Dialog

3 Click New Screen.

The New Screen dialog is shown.

4 Enter a name for the new screen schematic and click OK.

A new, blank custom screen schematic is created. The new, blank schematic is shown in a window tab in GV Orbit Client. See Figure 3-34.

Note:

A custom screen schematic is shown in GV Orbit Client; this is the 'stage' on which the schematic is:

- designed when GV Orbit Client is in Design Mode; and
- run and operated when GV Orbit Client is in Run Mode.

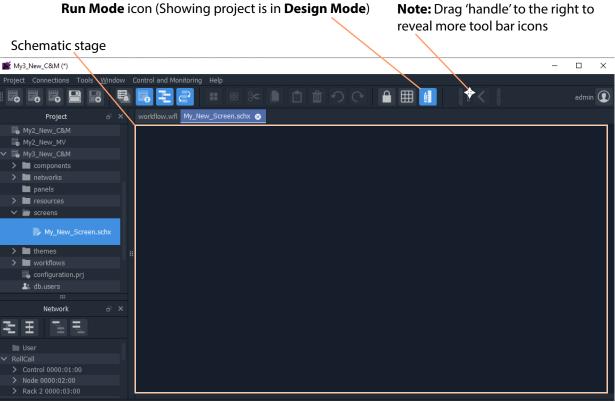


Fig. 3-34: New, Blank Custom Schematic

5 Click the **Run Mode** tool bar icon to select GV Orbit Client **Design Mode**. See Figure 3-35.

Note: A project's 'mode' toggles between **Run Mode** and **Design Mode**.

Click to exit Run Mode



Click to enter Run Mode



b) Icon appearance when in **Design Mode** *Fig. 3-35: Run Mode / Design Mode Tool Bar Icon*

Note:

In **Design Mode**, a project may be edited (for example, a video wall may be modified).

In **Run Mode**, a project monitors log and alarm data and displays updated custom operator screens in real-time.

Add Monitoring

A control and monitoring (C&M) screen will monitor items in a system with individual or aggregate alarms for a device (or collection of devices), or an individual alarm (or collection of alarms). This is quick and easy to achieve with GV Orbit Client.

Items to be monitored can be dragged onto a C&M screen either from the **Network** window or from an Alarm List window. One or more devices or device alarms can be monitored.

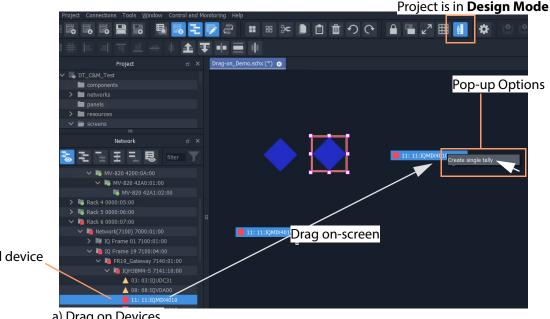
Add Monitoring of Devices

For a C&M screen schematic open in GV Orbit Client in **Design Mode**:

- 1 Expand the **Network** window to find a RollCall- or Densité-protocol device to monitor.
- 2 Drag a device onto the C&M screen schematic, and release.

At release, GV Orbit Client pops up a list of options. These control what will be created from the drag. See Figure 3-36a.

(Figure 3-36b shows the resulting Run Mode screen appearance, see later steps.)



Selected device

a) Drag on Devices

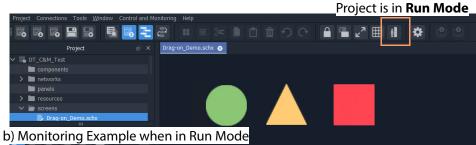


Fig. 3-36: Drag Device Monitoring onto the Schematic: a) Drag on Devices; b) Monitoring Shown when in Run Mode

3 Click 'Create Single Tally' in the pop-up options list.

GV Orbit Client then infers a default, graphical Tally widget on the schematic which is automatically set up to graphically indicate the overall status of the device when in Run Mode.

4 Drag on more devices, as required.

(Figure 3-36b shows what the graphical items may look like in Run Mode.)

This has quickly added simple device alarm state monitoring to the C&M project.

Note: Add Device:

Dragging a device onto the schematic and releasing it on top of an *existing* monitoring Tally widget will *add* the device to the screen widget, thus creating an aggregate alarm.

Add Monitoring of Alarms

Device alarm monitoring can also be added:

1 Expand the **Network** window to find a device to monitor. Then right-click on the device item and select 'Alarm List'.

The device's alarms are all shown in a pop-up **Alarm List** window.

2 Select one or more alarms in the **Alarm List** window and drag them onto the C&M screen schematic, and release.

(To select more than one alarm item, click on an item to select it, and select more with CTRL-click.)

At release, a list of options pops up which will control what will be created from the drag. See Figure 3-37.

Note: Pop-up Options: These pop-up options are described in 'Drag-On' Options, on page 94.

Pop-up options: Create multiple labels Create multiple tallies Create multiple stateful labels Create single aggregate tally	Alarm List window Selected alarms
Drag-on_Demo.schx (*) 📀	■ Alarm List - 3291:20:0F - 15:10HC031 ? ×
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Create multiple staterul labels Drag on screen	INPUT_2_EMBEDDED_AUDIO_1 FAIL:Input Lost
	INPUT_2_STATE FAIL:Lost Critical Critical
	INPUT_STATE FAIL:INPUT_1_STATE=FAIL. Critical Critical
	IO_1_ERROR FAIL:INPUT_1_STATE=FAIL. Critical Critical
	IO_2_ERROR FAIL:INPUT_2_STATE=FAIL Critical Critical
	MASTER_STATE FAIL Critical Critical
	OUTPUT_1_STATE FAIL:Input Critical Critical
	REFERENCE_1_STATE FAIL:Lost Critical Critical
	SPIGOT_1_STATE FAIL:INPUTSTATE=FAIL Critical Critical
GENLOCK_1_STATE WARN:Freerun 🔺 Minor 🔺 Minor	SPIGOT_2_STATE FAIL:INPUT_2_STATE=FAIL. Critical Critical
	STATE 100 Critical Critical
	TIME_REF FAIL:REFERENCE_1_STATE Critical Critical
	GENLOCK_1_STATE WARN:Freerun 🔺 Minor 🔺 Minor
	INPUT_1_STANDARD Unknown 🔺 Minor 🔺 Minor
	INPUT_2_STANDARD Unknown 🔺 Minor 🔺 Minor
	LAST_MODIFIED - 🔺 Minor
	REFERENCE_1_STANDARD Unknown 🔺 Minor
	REFERENCE_1_TYPE WARN:Unknown 🔺 Minor 🔺 Minor
	ADDRESS 3291:20:0F Ormal Ormal
	BUILD_NUMBER 5016.5016 Ormal Ormal
	CMD_101_STATE OK:Unused Okormal Okormal
	CMD_102_STATE OK:Unused Okormal Okormal
GPI_1_STATE OK:Unused Okral Normal Normal	CMD_103_STATE OK:Unused Okormal Okormal
	CMD_104_STATE OK:Unused Okrmal Okrmal
COM analysis in Deal 11	FIRMWARE_VERSION 4979 Onrmal Onrmal
C&M project is in Design Mode	GPL_1_STATE OK:Unused Okrmal Okrmal
	GPI_2_STATE OK:Unused Okormal Okormal

Fig. 3-37: Drag Alarm Monitoring onto the C&M Screen Schematic

3 Select the pop-up option required.

GV Orbit Client then infers graphical monitoring widget(s) on the schematic which are automatically set up to indicate the alarm status.

This has quickly added simple device alarm monitoring to the C&M project.

Note: Add an Alarm: Dragging an alarm (from the same or from a different device) onto an existing monitoring widget will add the alarm to the screen widget.

Note: Right-click Drag:

Right-click dragging will use the last pop-up option selected and will avoid the user having to select the same pop-up option each time.

Note: Label Style Change:

A text label is difficult to see against a black background. In this case, change the label's appearance by selecting it and changing its 'Style' property value, see Text Label Style Change, on page 95.

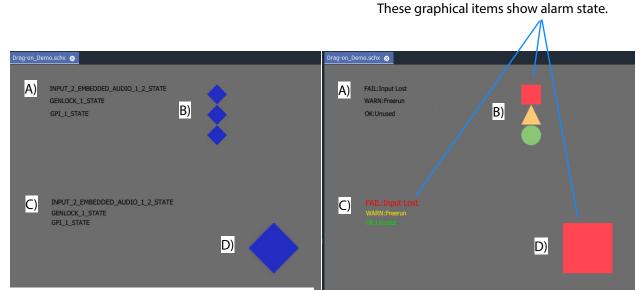
When all monitoring widgets have been added, proceed to Save and Push Project, on page 96.

'Drag-On' Options

The pop-up options for creating graphical, on-screen from the 'drag-on' item(s) are shown in Table 3-3. Figure 3-38b and Figure 3-38c show the result of each option **Design Mode** and in **Run Mode** respectively.

	Option	Description
A)	Create multiple labels	Creates a text label per item.
B)	Create multiple tallies	Creates a graphical Tally widget per item, to show the individual alarm state of each item.
C)	Create multiple 'stateful' labels	Creates a colorful text label per item, where the text color indicates each individual alarm state.
D)	Create single aggregate tally	Creates one graphical Tally widget to show a combined, aggregate alarm state of all the dragged-on items.

Table 3-3: 'Drag-On Options



a) Result of options A), B), C), and D) in **Design Mode** b) Result of options A), B), C), and D) in **Run Mode**

Fig. 3-38: Dragged-on Monitoring Options A), B), C), and D) in:a) Design Mode;b) Run Mode.

Text Label Style Change

When creating a text label with this 'drag-on' method, the resulting default label may be difficult to see (for example, if against a black background). In this case, change the appearance of the text label by changing its 'Style' property value, see Figure 3-39a and Figure 3-39b.

• Select the label(s) on the schematic.

In the **Properties** box, click on the Style'property's value (see Figure 3-39a).

A drop-down menu is shown.

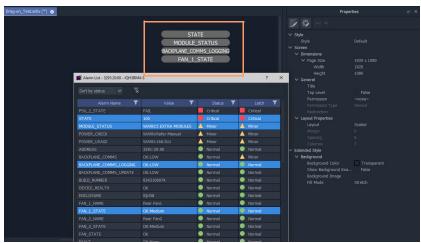
- Select a Style value from the drop-down menu, for example 'Solid Caption'.
- Click 'Yes' in the dialog that is shown.



The label appearance has been changed (see Figure 3-39b).

				Proj	erties	
				✓ Style Style ✓ General	Default *	
	-					Gen
	PAN_L_STATE					
				Permission Type Tool Tip		
				Caption		
				Multi Line	False	
				✓ Dimensions		
-				Y Size		
Marm List - 3291:20:00 - IQH3BM	4-S		?	× Width		
_				Height		
Alarm Name 🍸	Value 🔻	Status 🍸	Latch	xtended Style		
PSU_2_STATE	FAIL	Critical	Critical		#000000	
STATE	100	Critical	Critical	Family	Sans Serif	
MODULE_STATUS	WARN:5 EXTRA MODULES	Minor	Minor	Font Scale Factor		
	WARN: BEAT NA MODULES	Minor	Minor	Font Size		
POWER_CHECK						
POWER_USAGE	WARN:168.5LU	A Minor	A Minor			
		Normal	Normal			
BACKPLANE_COMMS	OK:LOW	Normal	🔺 Minor	Horizontal Alignment Vertical Alignment	Left Top	
BACKPLANE_COMMS_LOGGING	OK:LOW	Normal	Normal	 Verucal Alignment Border 		
		Normal	Normal	Border Color		
		Normal	Normal			
		Normal	Normal			
			Normal			
		Normal				
ENCLOSURE FAN 1 NAME	IQH3B Rear Fan1	Normal Normal	Normal	Fill Color Mouse Over Fill	Transparent Transparent	





b) New Text Label Style Fig. 3-39: Changing Text Label Style Property

Save and Push Project

When all the required device/alarm monitoring is added to the C&M project screen:

- 1 Click **Project -> Save Project** in the main menu to save the project locally.
- 2 Click **Project -> Push** to push the project to the GV Orbit server repository.

Run Custom Monitoring Screen

1 Click the Design/Run Mode tool bar icon to take GV Orbit Client out of 'Design Mode' and into 'Run Mode':



GV Orbit Client runs the C&M project and gets device status information to display on the custom monitoring screen's Lamp widgets, which illuminate red/yellow/green to show device status. See Figure 3-40.



	Project in Run Mode
iff My_Single_C&M	
Project Connections Tools Windo	w Control and Monitoring Help
	N N N N N N N N N N N N N N N N N N N
Project 🗗	× workflow.wfl Single_Mon_Eg.schx 3
✓ ■ My_Single_C&M	
> 🖿 components	
> 🖿 networks	
banels	
> 🖿 resources	
> 🖿 screens	
> 🖿 themes	
> 🖿 workflows	
Network 🗗	×
분표 도원	Device status shown in Network window is reflected
User	
🗸 🛅 RollCall	in the custom monitoring screen
✓ 🐚 Frame 17 0000:01:00	
✓ № IQH3BM4-S 1000:20-00	
● 01: MIX40-17	
• 04:	
▲ 07: 138/MIXIOM/	
🔺 (A: MIX40-20	
CD: IQCAG00	
E: IQGPI00	
F: IQHCO31	
BE. LogServer_MC	
90: WIN-FLN610D3J0F	ustom Monitor Example Rupping in GV Orbit Client

Fig. 3-40: Simple Custom Monitor Example Running in GV Orbit Client

Note: Tally Widget graphics: The graphics shown by these Tally widgets are:

Shape	Alarm Status
Green circle	ОК

Yellow/amber triangle	Minor Warning
Orange inverted triangle	Major Warning
Red square	Failure/Error
Blue diamond	Unknown

- 2 To go back to 'Design Mode', click the **Design/Run Mode** icon again.
- 3 To save the project locally, click **Project -> Save Project** from the main menu.
- 4 To push the project back to the GV Orbit server:
 - click Project -> Push from the main menu;
 - select the project name in the list (it may already be selected/highlighted); and
 - click OK.
- 5 To close the project, click **Project -> Close Project**.
- 6 To close the GV Orbit Client application, click **Project -> Exit**.

GV Orbit Server Login



This section describes how to log into a GV Orbit server from either the GV Orbit Client or with a web browser. When logged in, various configurations can be viewed, including settings for the GV Orbit services. For more details, please refer to the *GV Orbit Admin Guide* in Related Documentation, on page iii.

From GV Orbit Client

With a GV Orbit C&M project open in GV Orbit Client, to open a GV Orbit server's **Home** stage, either:

- click Project -> URLs in the main menu and select the GV Orbit server item; or
- click on a server icon in the **Workflow** stage (e.g. **Server 1**).



Fig. 3-41: Click on Server Icon in Workflow Stage

The GV Orbit server Admin Login screen is then shown. See Figure 3-42.

From a Browser

The instructions below show an example of how to access a GV Orbit server. For more details, please refer to the *GV Orbit Admin Guide* in Related Documentation, on page iii.

• Enter the IP address of a GV Orbit server into a web browser (Chrome recommended). The GV Orbit server **Admin Login** screen is shown. See Figure 3-42.

Server Admin Login Screen

G gvboxslp3			Log in	Home
		GV Orbit		
	Please log in to access configuration and monitoring views.	Downloads		
				, and the second se

Fig. 3-42: GV Orbit Server Admin Login Screen

Note:

The GV Orbit Client and GV Orbit Control Client installers may also be downloaded from the GV Orbit server **Admin Login** screen.

1 Click Log in.

A login screen is shown.

2 Enter the **User ID** and **Password** (the default user ID is 'admin' with password 'admin'). Click **Login**.

The GV Orbit server **Home** stage is shown. See Figure 3-43.

GV Orbit Server Home Stage

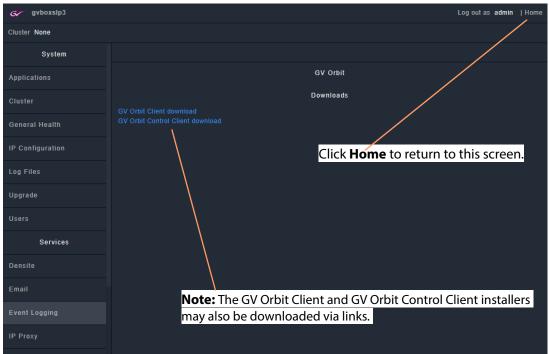


Fig. 3-43: Example GV Orbit Server Home Stage

Accessing Services Configuration Screens

Services should be set up by the GV Orbit system administrator. Services running on the GV Orbit server are configured via their configuration screens accessible from the GV Orbit server **Home** stage.

For information about the server and services, please refer to the *GV Orbit Admin Guide*. See Related Documentation, on page iii.

Logs

Lite	Professional	Enterprise
-	•	•

Logs are kept for system device status/alarm messages (events) and also for applications/services running on the GV Orbit server.

- Event Logs In an operating GV Orbit system, GV Orbit device/service status, alarm messages and events are logged by a GV Orbit service running on a GV Orbit server. Events etc. are logged to an event log data set. This is set up when configuring the **Event Logging** service on the server.
- Server Application and Service Log Files Each application/service running on the GV Orbit server also has a set of log files.

Please refer to the *GV Orbit Admin Guide* in Related Documentation, on page iii, for further information about the GV Orbit server and the available log files.

Event Logs

Instructions for quickly viewing event log files are presented here. For full log file instructions, please refer to the *GV Orbit Admin Guide*.

A new GV Orbit system is set up with a default log file configuration. To set up custom event logging in the GV Orbit system, a new event log file configuration can be set up for the **Event Logging** service. This can be done on the GV Orbit server:

1 Log into a GV Orbit server. (See GV Orbit Server Login, on page 98.) And view the GV Orbit server **Home** stage.

G gvboxslp3	Log out as admin	Home
Cluster None		
System		
Applications	GV Orbit	
Cluster	Downloads GV Orbit Client download	
General Health		
IP Configuration		
Log Files		
Upgrade		
Users		
Services		
Densite		
Email		
Event Logging		

Fig. 3-44: Select Event Logging from the GV Orbit Server Home Stage

2 Select **Event Logging**. (Scroll down on the left-hand side, if required.)

The **Event Logging** service configuration screen on the GV Orbit server is shown.

3 Click on the **Event Log Setup** tab.

The Elastic Search Setup tab for the Event Logging service is shown.

System	Elastic Search Setup	
Event Log Setup	The Event Logging service can be configured to push alarm data into an Elastic search database.	
Event Log Viewer	You have the ability to push different filtered sets of alarm data into different indexes.	
	Current Index Configurations 3	
	Indexes tc_2 •	
	New Delete	
	Configuration 3	
	Enable this index	
	Index name tc_2	

Fig. 3-45: Event Logging Service - Search Setup Tab

New log data-sets can be created. For more information, refer the **Event Logging** service information in the *GV Orbit Admin Guide* in Related Documentation, on page iii.

Example New Event Log

To quickly create a new event log:

- 1 Click New to view the Event Logging service dialog.
- 2 Enter a name (identifier) for a new event log file configuration (index). For example, 'chan_001'. (The name acts as an identifier for the event log data-set to be created.)

Note: Event log naming rules:	 Lowercase only Cannot include \ /, *, ?, ", <,>, , `` (space character), ,, # Cannot start with -, _, + Cannot be _ or Cannot be longer than 255
--------------------------------------	---

3 Click **OK** in the dialog.

The Index name field shows the new event log file configuration name.

- 4 Select Enable this index.
- 5 At the bottom of the screen, set Delete Data After (days) to '7'.

Log data will be kept for 7 days.



Fig. 3-46: Event Logging Service - Search Setup Screen Controls

- 6 Set Recording Mode to 'Everything'.
- 7 Click Save.

This has set up a new event log to record all events, alarms and log messages.

View Event Log

Event log data may be viewed from the:

- Event Log Viewer (on GV Orbit Server); or
- Alarm History Window (in GV Orbit Client).

Event Log Viewer (on GV Orbit Server)

1 Select the **Event Log Viewer** tab for the **Event Logging** service.

A log viewer screen is shown. (See Event Log Viewer Screen, on page 103.)

Alarm History Window (in GV Orbit Client)

- 1 Open a C&M project in the GV Orbit Client.
- 2 View the **Alarm History** window (click on the **Alarm History** window tool bar icon) and select the required tab. (See History Window (Alarm History), on page 74.)

This is a log viewer screen. (See Event Log Viewer Screen, on page 103.)

Event Log Viewer Screen

In the log viewer screen:

- 1 Click on the **Search Parameters** icon (Q). The **Search Parameters** dialog is shown.
- 2 Set Log Data Source to the required event log name in the drop-down list.
- 3 Select Reset to last 30 minutes. (To show the last 30 minutes of log messages.)
- 4 Re-click on the **Search Parameters** icon () to close the dialog and view the resulting logged data.

Note:

For information about viewing the event logs, please refer to the *GV Orbit Admin Guide* in Related Documentation, on page iii.



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, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

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

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