Caprica

User Guide for Quorum

Version 5.1



ROSS

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Our mission is to:

1. Provide a Superior Customer Experience
   - offer the best product quality and support
2. Make Cool Practical Technology
   - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at *solutions@rossvideo.com*.



David Ross
CEO, Ross Video
dross@rossvideo.com

Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

1. We will always act in our customers' best interest.
2. We will do our best to understand our customers' requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)*

Caprica · User Guide

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Patents

Patent numbers US 7,034,886; US 7,508,455; US 7,602,446; US 7,802,802 B2; US 7,834,886; US 7,914,332; US 8,307,284; US 8,407,374 B2; US 8,499,019 B2; US 8,519,949 B2; US 8,743,292 B2; GB 2,419,119 B; GB 2,447,380 B; and other patents pending.

Notice

The material in this manual is furnished for informational use only. It is subject to change without notice and should not be construed as commitment by Ross Video Limited. Ross Video Limited assumes no responsibility or liability for errors or inaccuracies that may appear in this manual.

Important Regulatory and Safety Notices to Service Personnel

Before using this product and any associated equipment, read all the Important Safety Instructions listed below so as to avoid personal injury and to prevent product damage.

The Quorum system makes use of a number of individual component products to make up a complete turnkey system. The Important Safety Instructions section of this manual is intended to compliment individual OEM product manuals and the User must refer to, and heed, any safety instruction outline in these supplementary product manuals. Separate manuals are included for the following component products:

- Server PC(s)
- LCD Flat Screen Display(s) & Power Supply

This system may also require specific equipment, and /or installation procedures be carried out to satisfy certain other regulatory compliance requirements. Notices have been included in this publication to call attention to these specific requirements.

Symbol Meanings



Protective Earth — *This symbol identifies a Protective Earth (PE) terminal, which is provided for connection of the supply system's protective earth (green or green/yellow) conductor.*



This symbol on the equipment refers you to important operating and maintenance (servicing) instructions within the Product Manual Documentation. Failure to heed this information may present a major risk of damage or injury to persons or equipment.



Warning — *The symbol with the word "**Warning**" within the equipment manual indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.*



Caution — *The symbol with the word "**Caution**" within the equipment manual indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.*



Warning Hazardous Voltages — *This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of shock to persons.*



ESD Susceptibility — *This symbol is used to alert the user that an electrical or electronic device or assembly is susceptible to damage from an ESD event.*

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warning.
- Follow all instructions.



Warning The safe operation of this product requires that a protective earth connection be provided. A grounding conductor in the equipment's supply cord provides this protective earth. To reduce the risk of electrical shock to the operator and service personnel, this ground conductor must be connected to an earthed ground.

Use only power cords specified for this product and certified for the country of use. Refer to the Product Power Cord Requirement Section that follows.

Do not defeat safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is prong is provided for your safety. If the provided plug does not fit in to your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinching particularly at plugs, convenience receptacles, and point where they exit from the apparatus.



Warning Indoor Use: “WARNING – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE”

Do not use this apparatus near water.

Do not block any ventilation openings. Install in accordance with manufacturer’s instructions.

Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Only use attachments/accessories specified by the manufacturer.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Clean only with a dry cloth.



Warning Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug damage, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Caution To reduce the risk of fire, replacement fuses must be the same type and rating.



Warning This product contains safety critical parts, which if incorrectly replaced may present a risk of fire or electrical shock. Components contained within the product’s power supplies and power supply area, are not intended to be customer serviced and should be returned to the factory for repair

Product Power Cord Requirements

Warning **North American Line Voltages 100 - 120 Volt**

This product is supplied with certified 10A/125V SVT type supply cords.

Conductors are color coded white (neutral), black (line) and green or green/yellow (ground).

Operation of this equipment at line voltages exceeding 130V requires that alternative supply cords with appropriate voltage and current ratings be used.

Warning **International Line Voltages 200 - 240 Volt**

This product has been designed for use with certified IEC 320- C13 10A/250V - H03 VV-F3G 1.00mm2 type line cord.

International product orders are supplied with a certified 10A/250V line cords, utilizing a molded 3-pin IEC 320-C13 type connector at one end and stripped conductors on the other. One line cord is provided. Conductors are CEE color coded; blue (neutral), brown (line), and green/yellow (ground).

Installation by a qualified Electrician, of an appropriately approved A/C wall plug certified for the country of use, is required.

Alternatively, other IEC 320 C-13 type power cords may be used, provided that they meet the necessary safety certification requirements for the country in which they are to be used. Refer to the correctly specified line cord above.

EMC Notices

US FCC Part 15

This equipment has been tested and found to comply with the limits for a class A Digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a Commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice Changes or modifications to this equipment not expressly approved by Ross Video Ltd. could void the user's authority to operate this equipment.

CANADA

This Class "A" digital apparatus complies with Canadian **ICES-003**.

Cet appareil numerique de la classe "A" est conforme a la norme **NMB-003** du Canada.

EUROPE

This equipment is in compliance with the essential requirements and other relevant provisions of **CE Directive 93/68/EEC**.

INTERNATIONAL

This equipment has been tested to **CISPR 22:1997** along with amendments **A1:2000** and **A2:2002** and found to comply with the limits for a Class A Digital device.

Notice This is a Class A product. In domestic environments, this product may cause radio interference, in which case the user may have to take adequate measures.

Warranty and Repair Policy

The Quorum Live and Quorum News systems are backed by a comprehensive one-year warranty on all components.

Notice — *Changes or modifications to this equipment not expressly approved by Ross Video Limited could void the user's authority to operate this equipment.*

If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

This warranty is TRANSFERABLE to subsequent owners, subject to Ross' notification of change of ownership.

Extended Warranty

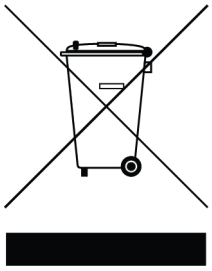
For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your Quorum system, contact your regional sales manager.

Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

Use of Hazardous Substances in Electrical and Electronic Products (China RoHS)

Ross Video Limited has reviewed all components and processes for compliance to:

“Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products” also known as China RoHS.

The “Environmentally Friendly Use Period” (EFUP) and Hazardous Substance Tables have been established for all products. We are currently updating all of our Product Manuals.

The Hazardous substances tables are available on our website at:

http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html

电器电子产品中有害物质的使用

Ross Video Limited 按照以下的标准对所有组件和流程进行了审查：

“电器电子产品有害物质限制使用管理办法”也被称为中国RoHS。

所有产品都具有“环保使用期限”（EFUP）和有害物质表。目前，我们正在更新我们所有的产品手册。

有害物质表在我们的网站：

http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html

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E-mail (General Information):	solutions@rossvideo.com
Website:	http://www.rossvideo.com

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Introduction

Thank you, and congratulations on choosing the Caprica Server to control your third-party devices. A Caprica Server acts as a timing engine and device control hub, which is inserted between Quorum and the production switcher. Quorum talks to Caprica, which in turn talks to video servers, graphics, cameras, audio, and other broadcast devices – including the production switcher of course. Caprica accomplishes this by using an application that essentially runs switcher software, giving it access to all 200+ device drivers that exist today.

About This Guide

This guide covers the installation and configuration of your Caprica Server. The following chapters are included:

1. "**Introduction**" provides a summary of important terms, conventions, and features.
2. "**Installation Notes**" provides general instructions about the Caprica system.
3. "**Software Installation**" provides procedures for installing Caprica Server software after a system re-image, or to upgrade to a newer software version.
4. "**Carbonite Ultra Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Ultra switcher to Quorum.
5. "**Carbonite Ultra 60 Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Ultra 60 switcher to Quorum.
6. "**Carbonite Ultra Solo Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Ultra Solo switcher to Quorum.
7. "**Carbonite Code Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Code switcher to Quorum.
8. "**Ultrix Carbonite Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Ultra switcher to Quorum.
9. "**Carbonite Black Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Black switcher to Quorum.
10. "**Carbonite Black Solo Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite Black Solo switcher to Quorum.
11. "**Carbonite Setup for Quorum**" provides procedures for connecting a Ross Video Carbonite switcher to Quorum.
12. "**Graphite CPC Setup for Quorum**" provides procedures for connecting a Ross Video Graphite CPC All-In-One Production System to Quorum.
13. "**Graphite Setup for Quorum**" provides procedures for connecting a Ross Video Graphite All-In-One Production System to Quorum.
14. "**Ultrix Acuity Setup for Quorum**" provides procedures for connecting a Ross Ultrix Acuity switcher to Quorum.
15. "**Acuity Setup for Quorum**" provides procedures for connecting a Ross Acuity switcher to Quorum.
16. "**Camera Configuration**" provides procedures for configuring Caprica devices for the cameras in your venue.
17. "**Graphics System Configuration**" provides procedures for configuring a Caprica device for the graphics system used in your Quorum system.
18. "**Caprica Server Configuration**" provides procedures to configure devices, switcher inputs, and audio channel names for a switcher connected to the Caprica Server in a Quorum system.

If, at any time, you have a question about the installation or operation of your Caprica Server, please contact us at the numbers listed in the section "**Contacting Technical Support**" on page 1–3. Our technical staff is always available for consultation, training, or service.

Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

Interface Elements

Bold text is used to identify a user interface element such as a dialog box, menu item, or button. For example:

In the **RundownControl** section, click **Install License**.

User Entered Text

Courier text is used to identify text that a user must enter. For example:

1. In the **Open** box, enter the following application name:

   ```
   services.msc
   ```

Referenced Guides

Italic text is used to identify the titles of referenced guides, manuals, or documents. For example:

- Use **RapidRestore** to archive and back up Quorum rundowns and settings, refer to the chapter "**RapidRestore™**" on page 16–1 in the ***Quorum User Guide***.

Menu Sequences

Menu arrows are used in procedures to identify a sequence of menu items that you must follow. For example, if a step reads "**File** > **Exit**," you would click the **File** menu and then click **Exit**.

Important Instructions

Star icons are used to identify important instructions or features. For example:

✶ After installing Caprica Server software, licenses must be obtained from Ross Video Technical Support before using the Caprica Server.

Getting Help

The Quorum Online Help system can be accessed from any of the components of Quorum. Online Help opens in a Microsoft Internet Explorer® window.

The Quorum Online Help system displays, by default, the **Contents** pane. To access the **Search** or **Glossary** panes, click the **Search** or **Glossary** button on the top toolbar in the Online Help system.

Contacting Technical Support

Technical Support is staffed by a team of experienced specialists ready to assist you with any question or technical issue.

Ross Video has technical support specialists strategically located around the globe to ensure a prompt response to technical inquiries. Our primary technical support center is located in Ottawa, Ontario, Canada. In addition, we have offices in The United Kingdom (London), Australia (Sydney), and Singapore with satellite locations in New York City, The Netherlands, and China. As we expand our presence globally, we are constantly evaluating other key locations to have a local technical support specialist in order to better service our customers.

North America

Our North America center located in Ottawa, Ontario, Canada and is open Monday to Friday 8:30 a.m. to 6:00 p.m. EST, with 24/7/365 on-call service after hours.

Our telephone number is: +1-613-686-1557

Toll free within North America: +1 833-859-0499

EMEA

Our EMEA center is open Monday to Friday 8:30 a.m. to 5:00 p.m. GMT. After hours support is provided by our North America location.

Our telephone number is: +44 (0)1189502446

International toll free: +800 3540 3545

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Australia

Our Sydney, Australia office is located in Alexandria, NSW.

Our local support telephone number is: 1300 007 677

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Online

E-mail: techsupport@rossvideo.com

Website: open a support request using the link https://support.rossvideo.com/.

Installation Notes

This chapter provides information about the general requirements of a Caprica system and instructions on how to log in to your Caprica Server. The following topics are discussed in this chapter:

- Unpacking
- Software Compatibility
- Computer System Requirements
- Typical Power Consumption
- Ports
- Processes
- Caprica Server Log In

Unpacking

Unpack your Caprica system from the shipping container(s) you received and check the contents against the packing list to ensure that all items are included. If any items are missing or damaged, contact your sales representative or Ross Video for assistance.

Software Compatibility

To ensure the proper function of a Caprica system, the software versions installed on devices must be compatible with the installed Caprica Server software.

Caprica Server 5.1 software is compatible with the following versions of associated software:

Table 2.1 Caprica Server 5.1 Compatibility

Quorum	v10.0 or greater
DashBoard	v9.0 or greater

Computer System Requirements

To ensure the proper function of a Caprica system, verify that the Caprica client computer (customer supplied) meets the requirements described in the following sections:

Hardware

Ross Video recommends the following computer hardware configuration to run Caprica client software:

Table 2.2 Caprica Client Computer Hardware Specifications

Model	Dell Precision T5810
CPU	Intel Xeon Processor E5-1607 v3
RAM	8GB (2x4GB) 2133MHz DDR4 RDIMM ECC
Storage	2 x 500GB 3.5inch Serial ATA (7,200 rpm) configured as RAID 1
LAN	100 MB/s
Display	1680x1050 for 16:9 displays or 1280x1024 for 4:3 displays
Display Adapter	128MB Video RAM

- Client PCs must be set up on the same subnet as the Caprica Server.

✶ USB/KVM extenders can interfere with Caprica system operation and are not supported for use with Caprica client computers. Place Caprica client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Operating System

Ross Video recommends the following minimum operating system requirements to run Caprica client software:

- Microsoft® Windows® 10 or 11 64 bit with the latest patches. **Windows 11 is recommended**.

✶ Ensure that the operating system is updated with all necessary security patches and service packs before installing Quorum software on a computer.

Web Browser

Quorum can be accessed using one of the following web browsers:

- Microsoft Edge version 100 or greater
- Google Chrome™ browser version 100 or greater
- Mozilla Firefox® version 100 or greater
- Apple Safari® version 16 or greater

Typical Power Consumption

The information provided in the following table lists the typical power consumption for each component in a Caprica system:

Table 2.3 Caprica Power Consumption

Caprica Component	Power Consumption
Server	700W
Client Computer	500W
Monitors (2)	100W
Total	1300W

Ports

The information provided in the following sections lists the ports used by a Quorum system:

- Caprica
- Quorum

Caprica

The information provided in the following table lists the ports used by Caprica:

Table 2.4 Caprica Ports

Application	Port	Purpose	Set By	Connection
Caprica	22	SSH	Internal	Caprica Servers
	973	rsync	Internal	Caprica Servers
	5253	Dashboard OGP Interface	Internal	DashBoard Clients and Caprica Servers
	5404	Cluster / Corrosync	Internal	Caprica Servers
	5405	Cluster / Corrosync	Internal	Caprica Servers
	5406	Cluster / Corrosync	Internal	Caprica Servers
	5901	VNC	Internal	Caprica Servers
	8080	Vintage Caprica web page	Internal	Caprica Servers and external users
	9090	Caprica web page	Internal	Caprica Servers and external users
	12345	Caprica port	User	Quorum Server to Caprica Server
Devices	Any	Port defined during configuration	User	Caprica Servers and devices

Quorum

The information provided in the following table lists the ports used by Quorum:

Table 2.5 Quorum Ports

Application	Port	Purpose	Set By	Connection
Quorum	80	Quorum Jetty server (unsecured)	Internal	Quorum client to the Quorum Server
	443	SSL for Jetty server	Internal	Quorum client to the Quorum Server
Postgres	5432	Postgres database	Internal	Quorum Server and client to computer running Postgres database
Ross Product Manager	3030	Licensing	Internal	Quorum Server to Ross Product Manager
	8443	SSL for Licensing	Internal	Quorum Server to Ross Product Manager
DataLinq	2222	XPression DataLinq	Internal	XPression to Quorum Server
Bosch	443	Bosch microphone system	Internal	Microphone system to Quorum Server
Shure	3142	Shure microphone system	Internal	Microphone system to Quorum Server
BiAmp	2300	BiAmp microphone system	Internal	Microphone system to Quorum Server

Processes

The information provided in the following table lists the Quorum processes that run on Client and Server computers in a Quorum system:

Table 2.6 Quorum System Processes

Process	Quorum Server	Client
Quorum Server service	Yes	No
Quorum Jetty service	Yes	Optional
PostgreSQL database	Yes	No
Web Browser	Optional *	Yes

* Development environment

Caprica Server Log In

How you log in to your Caprica Server depends on whether your Caprica Server is running on a computer or in the Hyper-V virtualization layer of the Quorum Server computer.

Caprica Server Computer

When your Caprica Server runs on a computer, you can use the following credentials to directly log in to the Caprica Server Computer.

- **User**: `caprica`
- **Password**: `<your_password>`

Hyper-V

When your Caprica Server runs in the Hyper-V virtualization layer, you must use a VNC viewer application to log in to the Caprica Server.

To log in to a Caprica Server running in Hyper-V

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a VNC viewer application to connect to your Caprica server on port 5901. The connection address format is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer and 5901 is the connection port:

   `<Caprica Server>:5901`
3. Use the following credentials to log in to the Caprica Server.
   - **User**: `caprica`
   - **Password**: `<your_password>`

   The **VNC view** window opens displaying the desktop of your Caprica Server.

Software Installation

This chapter provides instructions for installing Caprica Server software on a Caprica Server computer, either after a system re-image or to upgrade to a newer version of Caprica.

The following topics are discussed in this chapter:

- Before Installing Software
- Caprica Server Operating System Responsibility
- Installing the Product Toolkit
- Preparing the Caprica Server Operating System
- Installing or Upgrading Caprica Server Software
- Maintaining a Caprica Server
- Accessing the Caprica Server
- Setting the Severity Level for System Logs
- Gathering Diagnostic and Log Files

Caprica Server Operating System Responsibility

Caprica Server software runs in the Ubuntu 24.04 LTS operating system installed on a computer or virtual machine.

The Ubuntu operating system is not supplied, installed, or managed as part of Caprica. Users are responsible for getting, installing, licensing (where applicable), securing, updating, and maintaining their own Ubuntu operating system environment in accordance with their organization's policies and requirements.

For More Information on...

- the Ubuntu operating system, visit the Ubuntu website at https://www.ubuntu.com/.

Before Installing Software

Before installing software on a Caprica Server system, perform the following tasks:

- Have a qualified Ross Video technician perform any required maintenance or repairs on your Caprica system.
- Back up all Caprica Server settings.
- Update the operating system of the Caprica Server computer or virtual machine to Ubuntu 24.04 LTS.

Contact a Ross Video sales representative for information about Caprica Server Commissioning, Training, and Update services.

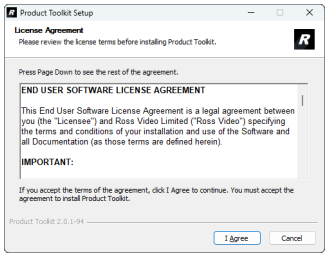
Installing the Product Toolkit

The Product Toolkit enables you to manage a Caprica Server. You can install the Product Toolkit on any Windows computer that is connected to the same network as the Caprica Server computer.

To install the Product Toolkit software

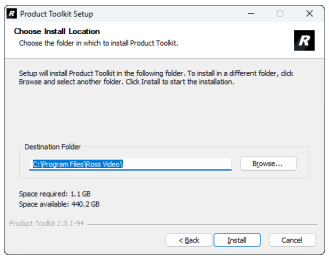
1. Log in to a Windows® computer connected to the same network as the Caprica Server computer.
2. Before installing the Product Toolkit software on the computer, perform the following tasks:
   - Contact Ross Video Technical Support to obtain the **Ross_Product_Toolkit_Setup_caprica.exe** installer application.
   - Exit all other Windows programs currently running on the computer.
   - Temporarily disable antivirus software running on the computer. Some heuristic-based intrusion detection systems prevent the installation of Product Toolkit software. Re-enable antivirus software after installing Product Toolkit software.
3. Uninstall any existing versions of **Product Toolkit** from your computer.
4. Copy the **Ross_Product_Toolkit_Setup_caprica.exe** installer application that you obtained from Ross Video Technical Support to your computer.
5. Navigate to the folder where you downloaded the **Ross_Product_Toolkit_Setup_caprica.exe** installer application.
6. Double-click the **Ross_Product_Toolkit_Setup_caprica.exe** installer application.

   The **Ross Product Toolkit Setup** application opens displaying the **License Agreement** screen.



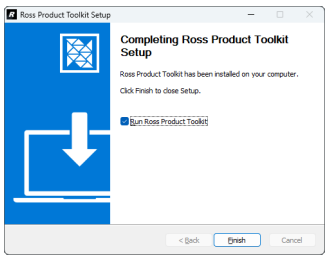
7. Read the **License Agreement**.
8. Click **I Agree**.

   The **Choose Install Location** screen opens.



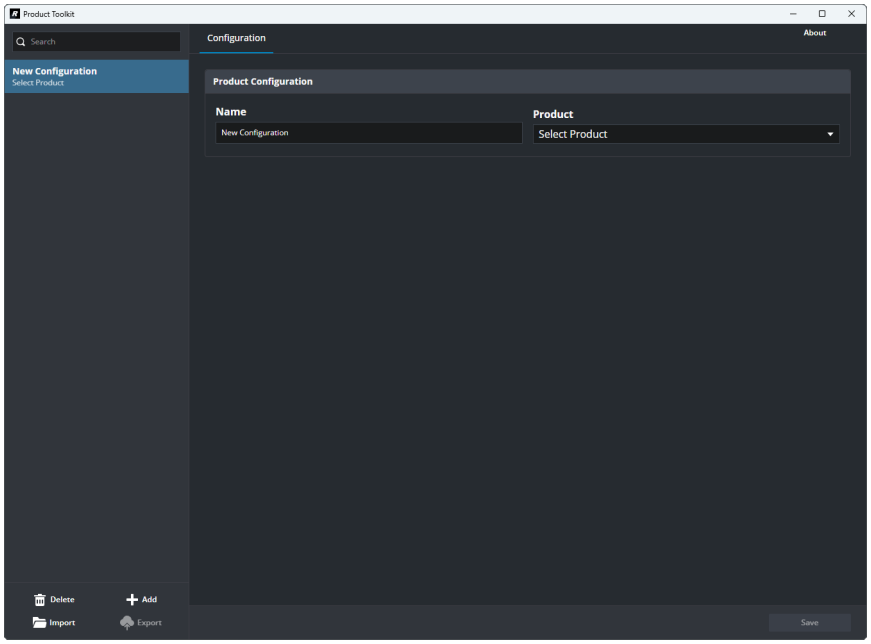
9. Click **Install**.

   After the installation of the Ross Product Toolkit completes, the **Completing Ross Product Toolkit Setup** panel opens.



10. Click **Finish**. If you do not want to run the Product Toolkit at this time, clear the **Run Ross Product Toolkit** check box before you click **Finish**.

    The **Ross Product Toolkit Setup** application closes, followed by the **Product Toolkit** opening.



Preparing the Caprica Server Operating System

Caprica Server software runs in the following Linux operating system installed on a computer or virtual machine.

- Ubuntu 24.04 LTS or 26.04 LTS
- Alpine Linux 3.24
- Red Hat 9

The Product Toolkit is used to manage Caprica Server software and requires the following preparations to be made on the Caprica Server computer to enable communication between the toolkit and server:

- A user account with administrative access
- A running SSH Server

To prepare the Caprica Server operating system

1. Log in to the computer where the Caprica Server software will be installed.
2. Open a **Terminal** window.
3. Create a caprica user with administrative access by completing the following steps:
   a. At the prompt in the **Terminal** window, enter the following command to create the caprica user:

      ```
      adduser caprica
      ```

   b. Record the **password** you set for the caprica user.
   c. At the prompt, enter the following command to give the caprica user administrative access:

      ```
      usermod -aG sudo caprica
      ```

4. At the prompt, enter the following command to verify that an SSH Server is running on the Caprica computer.

   ```
   sudo systemctl status ssh
   ```

   If an SSH Server is not running, complete the following steps to install one and start it:

   a. At the prompt, enter the following command to install an SSH Server:

      ```
      sudo apt install openssh-server
      ```

   b. At the prompt, enter the following command to enable the installed SSH Server:

      ```
      sudo systemctl enable --now ssh
      ```

Installing or Upgrading Caprica Server Software

With the Caprica Server operating system prepared, you can use the Product Toolkit to install or upgrade Caprica Server software on the Caprica Server computer. The main steps to install or upgrade Caprica Server software are as follows:

- **Defining a Product Toolkit Configuration** — when installing Caprica Server software on a new Caprica Server computer, you must first define a configuration for the Product Toolkit to communicate with the Caprica Server computer.
- **Installing Caprica Server Software** — install Caprica Server software on the Caprica Server computer for the first time.
- **Upgrading Caprica Server Software** — upgrade the existing Caprica Server software to a newer version.

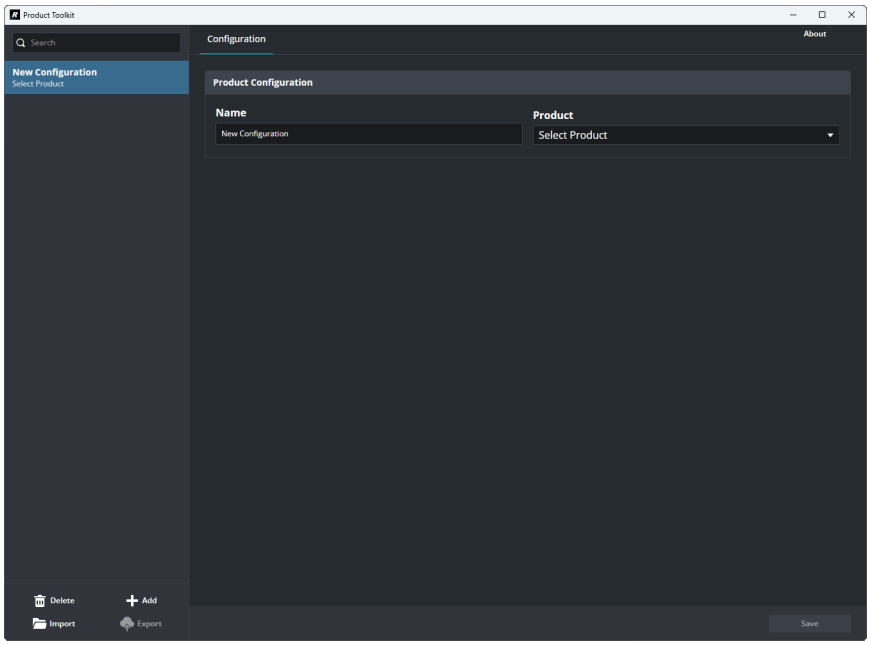
Defining a Product Toolkit Configuration

Product Toolkit configurations contain the information required to connect the Product Toolkit to a Caprica Server computer. Once connected to a Caprica Server computer, you can use the Product Toolkit to manage the Caprica Server.

To define a Product Toolkit configuration

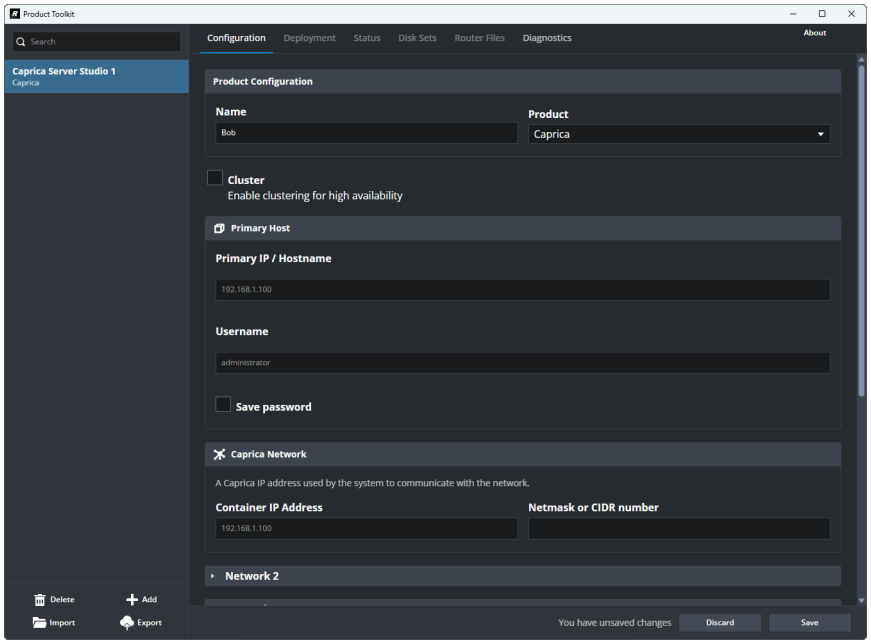
1. Contact Ross Video Technical Support to obtain an Quorum product key for your Caprica Server.
2. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
3. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.



4. In the **Product Configuration** section, enter a name for the Caprica Server configuration in the **Name** box.
5. Use the **Product** list to select **Caprica**.

   The **Configuration** tab displays the product configuration settings for the **Caprica** product.



6. In the **Primary Host** section, enter the IP address or hostname of the Caprica Server computer in the **IP Address/Hostname** box.

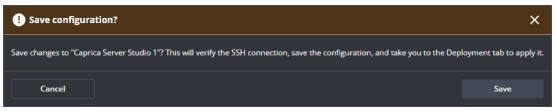
7. In the **Username** box, enter the name of a user (for example, caprica) on the Caprica Server computer that has administrative access.
8. Select the **Save password** check box to save the user account password with the configuration.

   The **Password** box displays below the **Username** box. If you do not want to save the user account password with the configuration, clear the **Save password** check box.
9. In the **Password** box, enter the password for the user entered in the **Username** box.
10. In the **Caprica Network** section, enter the IP address used to access the Caprica Server in the **Container IP Address** box.
11. In the **Netmask or CIDR** number box, enter the netmask or Classless Inter-Domain Routing (CIDR) value for your network.
12. In the **License** section, complete the following steps to license the Caprica Server:
    a. In the **License Activation Key** box, enter the Quorum product key that you obtained from Ross Video Technical Support.
    b. In the **License Server Address** box, enter the IP address or hostname of your **Horizon Server** or **Ross Platform Manager Server** computer.
    c. In the **License Server Port** box, enter the network port number of Ross Licensing Service.

       Horizon Servers use port `3030` as the default network port for unsecure HTTP connections. **Ross Platform Manager Servers** use port `443` for secure HTTPS connections.
13. When using a secure HTTPS connection to a **Horizon Server** or **Ross Platform Manager Server** for licensing, complete the following steps:
    - Select the **Use HTTPS** check box.

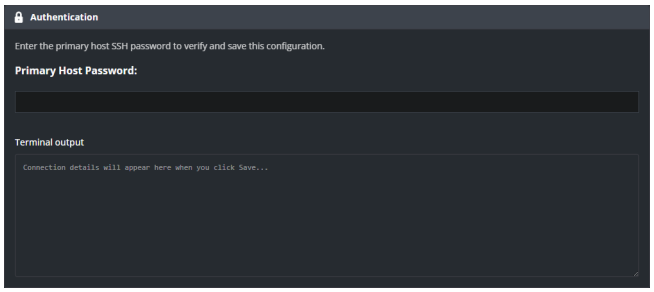
      The **Allow Self-Signed Certificates** check box activates.
    - When using a self-signed untrusted certificate for your connection, select the **Allow Self-Signed Certificates** check box.
14. Click **Save**.

    The **Save configuration?** alert opens.



15. Click **Save**.

    If you did not select the **Save password** check box, the **Authentication** section opens in the **Configuration** tab.

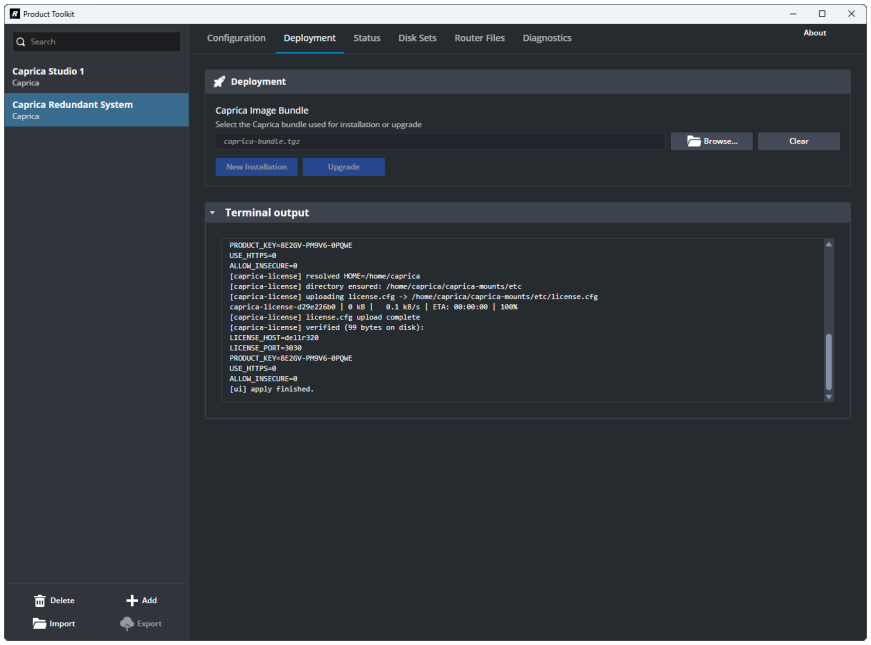


Complete the following steps to authenticate the user that you entered in the **Username** box:

a. In the **Primary Host Password** box, enter the password for the user entered in the **Username** box.

b. Click **Authenticate**.

The **Deployment** tab opens.



Adding Additional Networks to a Product Toolkit Configuration

You can add up to five network connections to a Product Toolkit configuration to add Caprica-controlled devices that are outside the network on which Caprica communicates with OverDrive. Selecting a configuration connects you to the configured Caprica server and the devices on the enabled additional networks.

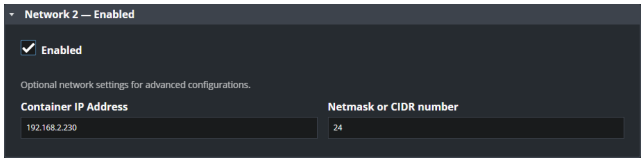
To add additional network connections to a Product Toolkit configuration

1. In the Product Toolkit **Configurations** list, select the configuration to which to add additional network connections. You can also add additional network connections when creating a configuration.
2. Click the **Configuration** tab.

   The **Configuration** tab opens.
3. Expand one of the **Network (2-6)** sections.

   The expanded **Network** section displays the network connection settings.
4. Select the **Enabled** check box to enable the network.

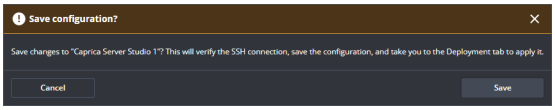
   The settings for this network are only available when the **Enabled** check box is selected.



5. In the **Container IP Address** box, enter the IP address used to access the device.
6. In the **Netmask or CIDR** number box, enter the netmask or Classless Inter-Domain Routing (CIDR) value for the device network.

7. Click **Save**.

   The **Save configuration?** alert opens.



8. Click **Save**.

Managing Product Toolkit Configurations

After defining Product Toolkit configurations, you can export all configurations to a .tgz file. You can use configuration files (.tgz) to import configuration into your or another Product Toolkit. You can also delete configurations that you no longer need.

✶ Exported configuration files do not save account passwords. After importing configurations in to the Product Toolkit, you must re-enter account passwords.

To export Product Toolkit configurations

1. In the Product Toolkit **Configurations** list, click **Export** at the bottom of the **Configuration** list.

   The **Export Configurations** dialog box opens.

2. Use the **Export Configurations** dialog box to select a folder in which to save the configuration file (.tgz).

   The **File name** box displays the name of the configuration file (.tgz). You can change the file name before you save the configuration file (.tgz).

3. Click **Save**.

   The Product Toolkit saves all configurations to a file (.tgz) in the selected folder.

✶ Exported configuration files do not save account passwords. After importing configurations into the Product Toolkit, you must re-enter account passwords for the imported configurations.

To import Product Toolkit configurations

1. In the Product Toolkit **Configurations** list, click **Import** at the bottom of the **Configuration** list.

   The **Import Configurations** dialog box opens.

2. Use the **Import Configurations** dialog box to select the configuration file (.tgz) that contains the configurations to import.

3. Click **Open**.

   An **Alert** opens.

4. Click **Yes** to import the configurations. Click **No** to not import the configurations.

   The Product Toolkit imports the configurations contained in the selected configuration file (.tgz).

✶ Imported configurations will overwrite existing configurations that have the same name.

5. Use the **Configuration** tab to enter account passwords for each imported configuration.

To delete a Product Toolkit configuration

1. In the Product Toolkit **Configurations** list, select the configuration to delete.
2. Click **Delete** at the bottom of the **Configuration** list.
3. Click **Delete**.

   An **Alert** opens.
4. Click **Delete** to delete the selected configuration. Click **Cancel** to keep the selected configuration.

   The Product Toolkit deletes the selected configuration.

Installing Caprica Server Software

After defining a Product Toolkit configuration for the Caprica Server computer, you are ready to install Caprica Server software on the Caprica Server computer.

To install Caprica Server Software

1. Contact Ross Video Technical Support to obtain the most recent Caprica Server software bundle.

✶ Before you can license Caprica, you must activate your Quorum product key on the Ross Licensing Service in your Quorum system. Refer to the Quorum ***Installation and Configuration Guide*** for information on activating Quorum product keys.

2. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server on which you want to install Caprica Server software.
3. Click the **Deployment** tab.

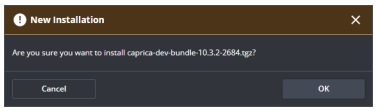
   The **Deployment** tab opens.
4. In the **Deployment** section, click **Browse**.

   The **Select Caprica Image Bundle** dialog box opens.
5. Use the **Select Caprica Image Bundle** dialog box to locate and select the **caprica-bundle-XX.X.X-###.tgz** file that you obtained from Ross Video Technical Support.

   Where **XX.X.X** is the version and ### is the build number for the Caprica Server software.
6. Click **Open**.

   The **Select Caprica Image Bundle** dialog box closes and the **Caprica Image Bundle** box displays the name of the selected .tgz file.
7. Click **New Installation**.

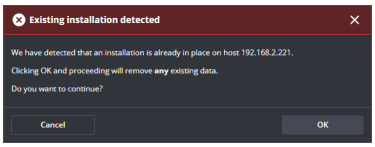
   The **New Installation** alert opens.



8. Click **OK**.

   The Product Toolkit installs the Caprica Server software on the Caprica Server computer and starts the Caprica Server.

The **Existing Installation Detected** alert opens when Caprica Server software is already installed on a Caprica Server computer.



Click **OK** to continue the installation or **Cancel** to cancel the installation.

Upgrading Caprica Server Software

When new releases of the Caprica Server software become available, you can use the Product Toolkit to upgrade the Caprica Server software on a Caprica Server.

To upgrade Caprica Server Software

1. Contact Ross Video Technical Support to obtain the most recent Caprica Server software bundle.
2. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server on which you want to upgrade Caprica Server software.
3. Click the **Deployment** tab.

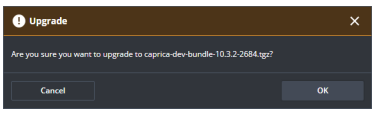
   The **Deployment** tab opens.
4. In the **Deployment** section, click **Browse**.

   The **Select Caprica Image Bundle** dialog box opens.
5. Use the **Select Caprica Image Bundle** dialog box to locate and select the **caprica-bundle-XX.X.X-###.tgz** file that you obtained from Ross Video Technical Support.

   Where **XX.X.X** is the version and ### is the build number for the Caprica Server software.
6. Click **Open**.

   The **Select Caprica Image Bundle** dialog box closes and the **Caprica Image Bundle** box displays the name of the selected TGZ file.
7. Click **Upgrade**.

   The **Upgrade** alert opens.



8. Click **OK**.

   The Product Toolkit installs the Caprica Server software on the Caprica Server computer and starts the Caprica Server.

Maintaining a Caprica Server

You can use the Product Toolkit to view information about and control a Caprica Server.

Viewing the Current Status of a Caprica Server

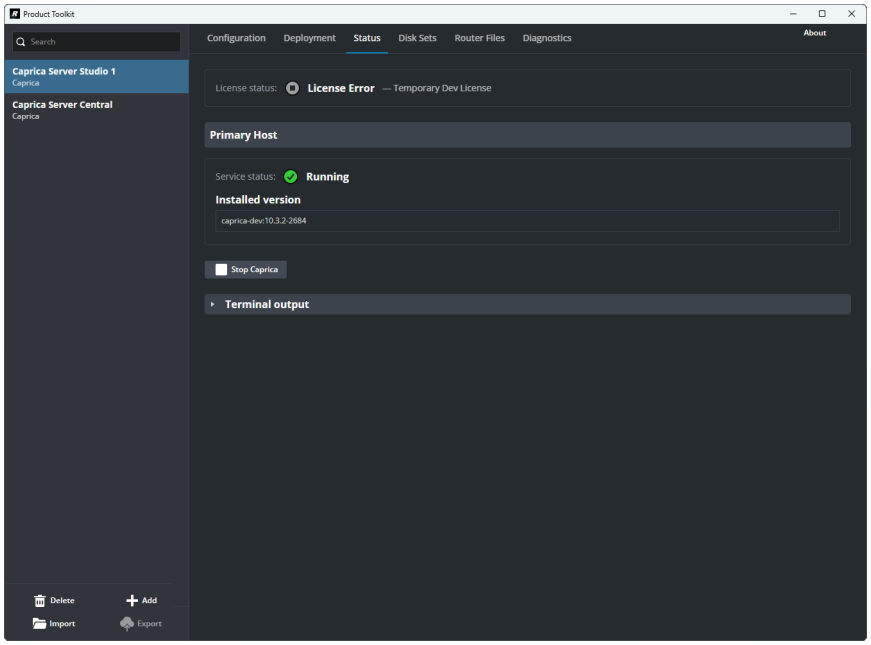
You can use the Product Toolkit to view the current status of a Caprica Server.

To view the status of a Caprica Server

1. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server that you want to view the current status of.
2. Click the **Status** tab.

   The **Status** tab opens and displays the following information:

   - Current license status.
   - Caprica Service status.
   - Caprica Server software version installed on the Caprica Server.



Controlling the Caprica Service

You can use the Product Toolkit to control the Caprica service running on a Caprica Server.

To control the Caprica service

1. In the Product Toolkit **Configurations** list, select the configuration for the Caprica Server that you want to control.
2. Click the **Status** tab.

   The **Status** tab opens.
3. In the **Primary Host** section, use the following buttons to control the Caprica Service as follows:

   - Start Caprica — start the Caprica Service
   - Stop Caprica — stop the Caprica Service

Accessing the Caprica Server

To access and configure a Caprica Server, you need to use the DashBoard™ Control System application on a computer that has connectivity to the Caprica Server. You can download the DashBoard application installer from the Ross Video website.

When installing DashBoard for the sole purpose of configuring a Caprica Server, complete the following recommended component selections on the **Choose Components** screen of the DashBoard application installer:

- Select the **DashBoard Framework** box.

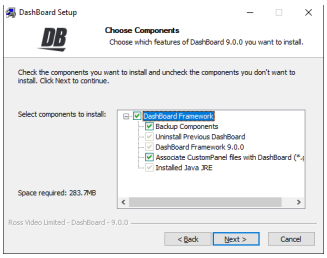


Figure 3.1 DashBoard Application Installer

For More Information on...

- DashBoard application installation or uninstall, refer to the ***DashBoard Control System User Manual*** and the ***DashBoard Online Help*** system.
- DashBoard plug-in updates, refer to the ***DashBoard Control System User Manual*** and the ***DashBoard Online Help*** system.
- where to download the DashBoard application installer, refer to the **Terminal Equipment | openGear | Control & Monitoring | DashBoard** section of the Ross Video website.

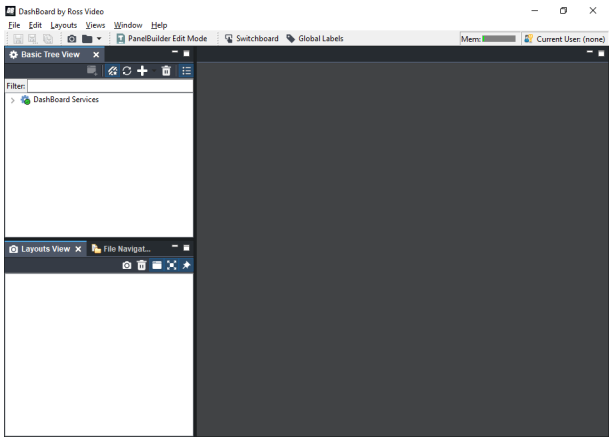
Connecting DashBoard to the Caprica Server

Before you configure a Caprica Server, you must configure the DashBoard application on a Client computer to connect to your Caprica Server.

To connect DashBoard to the Caprica Server

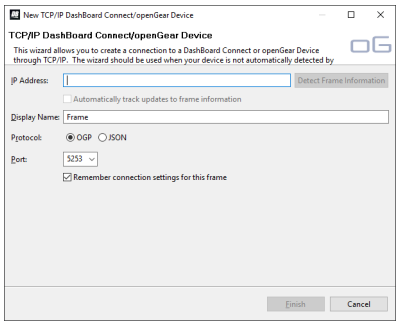
1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

DashBoard opens.



3. Use the **File** menu to select **New** > **TCP/IP openGear Frame**.

   The **New TCP openGear Frame Connection** dialog box opens.



4. In the **IP Address** box, enter the IP address or hostname of the Caprica Server or Caprica Server Cluster.

   Your Network Administrator can provide you with the IP address or hostname of your Caprica Server or Caprica Server Cluster.

5. In the **Display Name** box, enter a name to describe the Caprica Server.

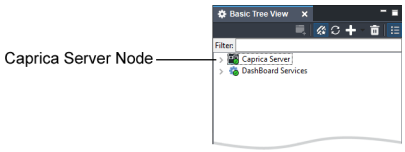
   The DashBoard **Tree View** displays the entered Display Name beside the node associated with the Caprica Server.

6. Use the **Port** list to select **5253** as the port number that the Caprica Server uses to communicate with DashBoard.

7. Select the **Remember connection settings for this frame** check box.

8. Click **Finish**.

   The DashBoard **Tree View** displays a node for the new Caprica Server.

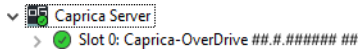


9. Hover the mouse over the **Caprica Server** node to view the following information about the server:

   - IP address of the server
   - Client to server connection status

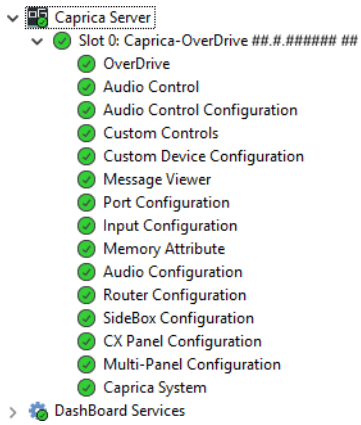
10. In the **DashBoard Tree View**, expand the **Caprica Server** node.

    The **Caprica Server** node displays the available Caprica Servers.



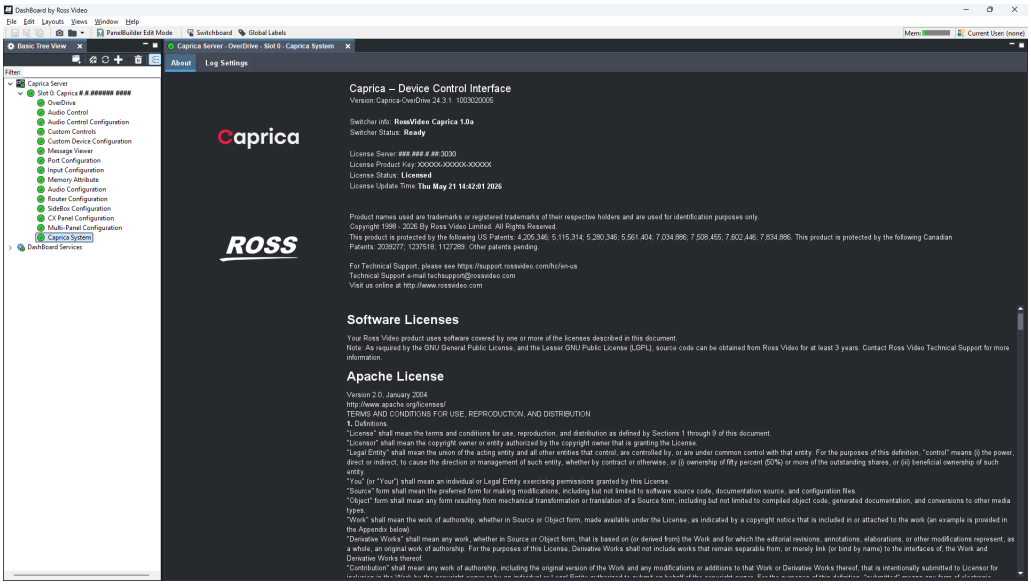
11. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

    The **Slot 0: Caprica** node displays the available Caprica Server clients.



12. Double-click the **Caprica System** node.

    The **About** tab opens in the **Device View** and displays the Caprica version, switcher, switcher status, and Caprica license information.



Connection Status

The LED in the lower right corner of a Caprica Server node indicates the current connection status between DashBoard and the Caprica Server. The LED reports the following connection states:

Table 3.1 Caprica Server Connection Status

LED	Status
	A connection exists between DashBoard and the Caprica Server.
	DashBoard is trying to establish a connection with the Caprica Server, but there may be a connectivity problem.
	There is no connection between DashBoard and the Caprica Server. Check with your IT Department to verify that the Caprica Server is running.

Setting the Severity Level for System Logs

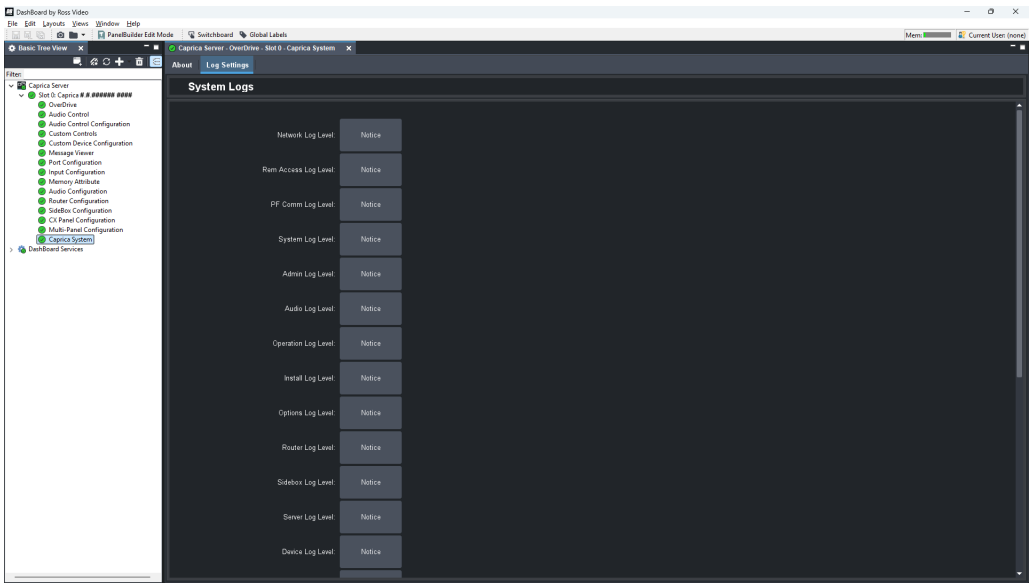
Through the Log Settings tab of the Caprica System node, you can configure the severity level for the various logs in which Caprica saves captured communication events and errors. You can set the severity level for each log listed in the Log Settings tab.

To configure the severity level of a log

1. In the **DashBoard Tree View**, expand the **Caprica Server** node.
2. Double-click the **Caprica System** node.

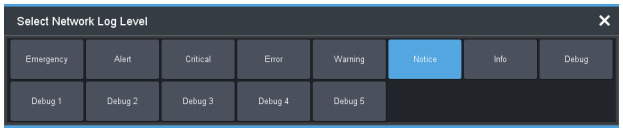
   The **About** tab opens in the **Device View**.
3. Click the **Log Settings** tab.

   The **Log Settings** tab opens.



4. Click the button to the **right** of the **log file** for which to set a severity level.

   The **Select Log Level** dialog box opens for the selected log file.



5. Click the **severity level** to set for the selected log file. The available severity levels are as follows:

   - **Emergency** — system is unusable.
   - **Alert** — action must be taken immediately.
   - **Critical** — critical conditions.
   - **Error** — error conditions.
   - **Warning** — warning conditions.
   - **Notice** — normal but significant conditions. This is the default severity level.
   - **Info** — informational messages.
   - **Debug** — debug messages.
   - **Debug 1 to 5** — debug-level messages 1 to 5.

   The **Select Log Level** dialog box closes and the button to the left of the log file displays the selected severity level.

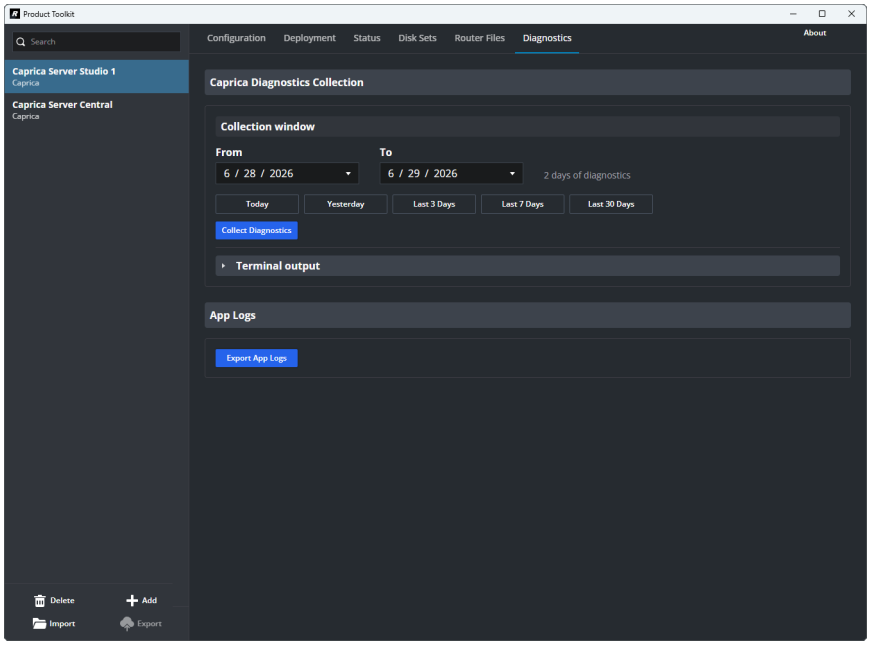
Gathering Diagnostic and Log Files

You can collect the diagnostic files that your Caprica Server has generated and save them to a .tgz file that can be sent to Ross Video Technical Support for review. You can also export application log files and save them to a .zip file. Diagnostic and log files can greatly help Ross Video Technical Support staff finding a solution to an issue you may have with your Caprica Server.

To collect diagnostic files and export application log files

1. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server that you want to collect logs for.
2. Click the **Diagnostics** tab.

   The **Diagnostics** tab opens.



3. To set a custom date range for the Caprica diagnostics to collect, complete the following steps:

   a. In the **Collection Window** section, use the **From** box as follows to set the starting date of your custom date range:

      - Edit the date display in the **From** box.
      - Click the **From** box arrow to use the **Calendar** tool.

   b. Use the **To** box as follows to set the ending date of your custom date range:

      - Edit the date displayed in the **To** box.
      - Click the **To** box arrow to use the **Calendar** tool.

4. To set a pre-configured date range, click one of the following buttons:

   - **Today**
   - **Yesterday**
   - **Last 3 days**
   - **Last 7 days**
   - **Last 30 days**

5. Click **Collect Diagnostics**.

   The **Save Caprica Diagnostic Archive** dialog box opens.

6. Use the **Save Caprica Diagnostic Archive** dialog box to select a folder in which to save the collected logs.

7. Click **Save**.

   The **Save Caprica Diagnostic Archive** dialog box closes, and the Product Toolkit downloads the gathered logs to your computer in a **.tgz** file.

8. Click **Show in Folder** to open the folder on your computer that contains the downloaded .tgz file that contains the gathered log files.

9. To export application log files, complete the following steps:

   a. In the **App Logs** section, click **Export App Logs**.

      The **Export Electron App Logs** dialog box opens.

   b. Use the **Export Electron App Logs** dialog box to select a folder in which to save the exported logs.

   c. Click **Save**.

      The **Export Electron App Logs** dialog box closes, and the Product Toolkit downloads the exported logs to your computer in a **.zip** file.

   d. Click **Show in Folder** to open the folder on your computer that contains the downloaded .zip file that contains the exported log files.

Carbonite Ultra Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite Ultra switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Ultra Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Carbonite Ultra switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 4–2.
- On the Caprica Server, create a Switcher device for your Carbonite Ultra switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Ultra Switcher**" on page 4–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 4–7.

Quorum System Connections

In a Quorum system, a Carbonite Ultra switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 4.1**) illustrates the cabling layout of the Carbonite Ultra switcher connection to a Quorum system.

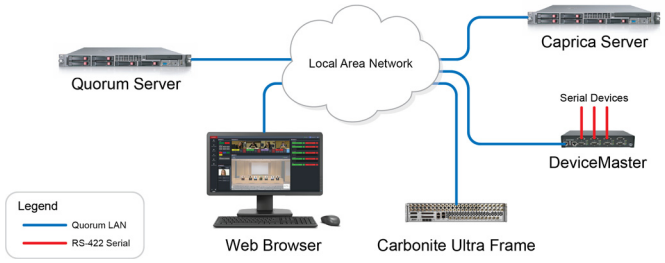


Figure 4.1 Quorum System Connection to a Carbonite Ultra Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Ultra Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite Ultra switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Ultra Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Ultra Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite Ultra switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Ultra Switcher

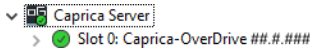
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Ultra switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite Ultra switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

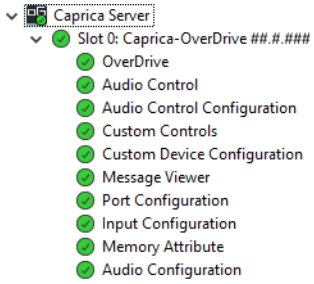
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



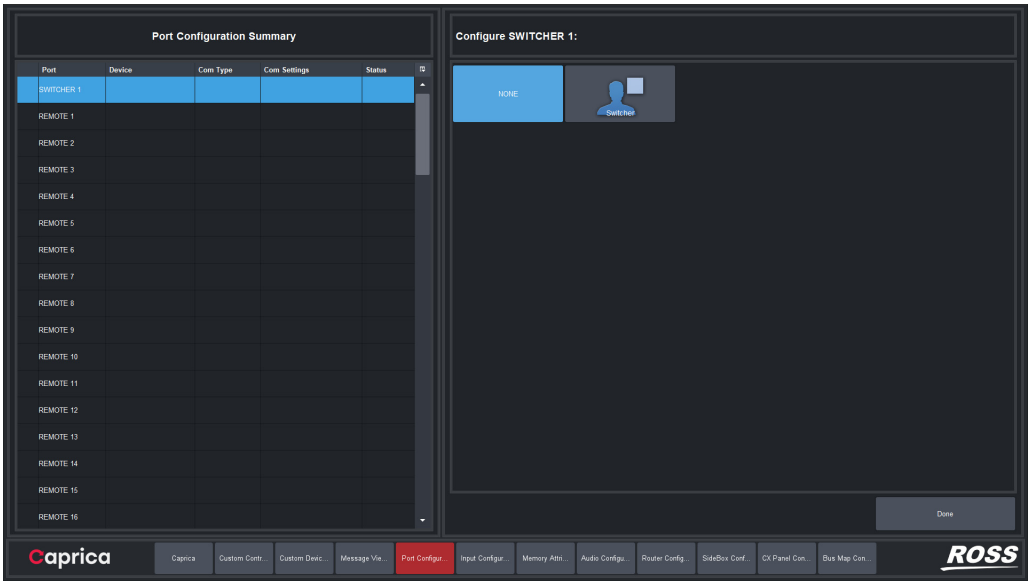
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



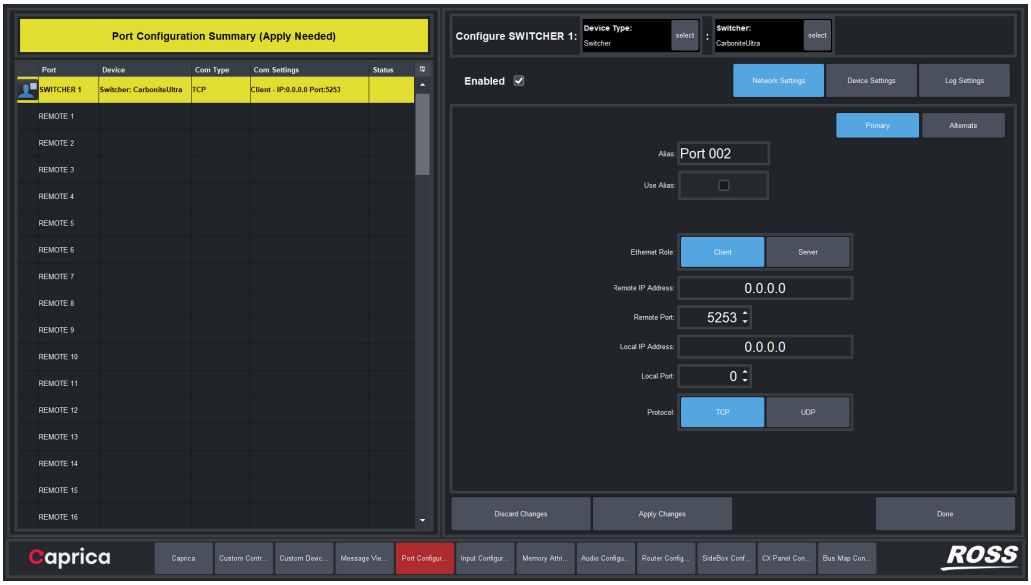
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Ultra switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarboniteUltra**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite Ultra switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite Ultra switcher.

14. Use the **Remote Port** box to enter or select `5253`.

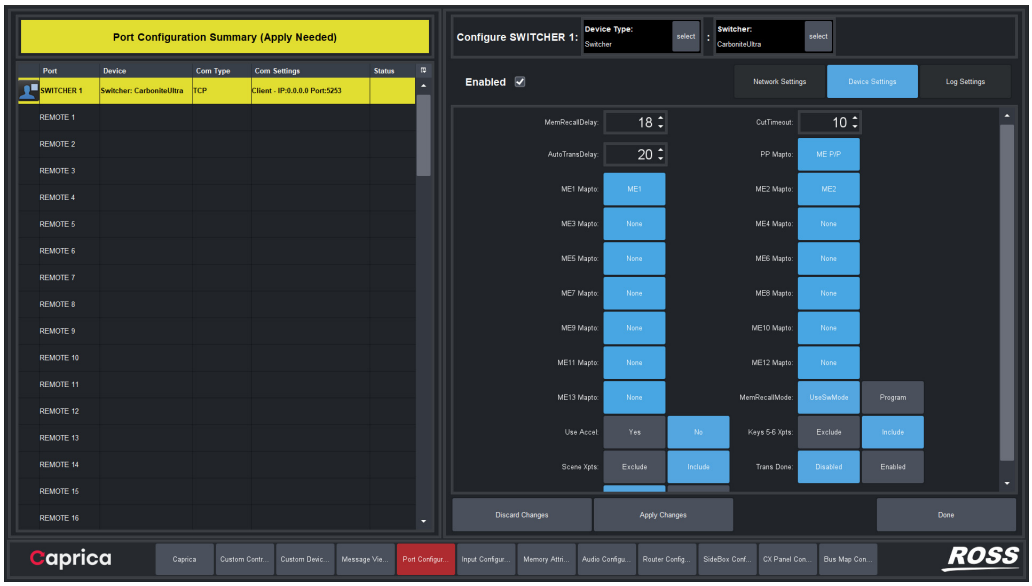
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite Ultra switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

23. Click **ME1 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME1 in Caprica.
24. Click **ME2 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME2 in Caprica.
25. Click **ME3 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME3 in Caprica.
26. Click **ME4 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME4 in Caprica.
27. Click **ME5 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME5 in Caprica.
28. Click **ME6 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME6 in Caprica.
29. Click **ME7 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME7 in Caprica.
30. Click **ME8 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME8 in Caprica.
31. Click **ME9 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME9 in Caprica.
32. Click **ME10 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME10 in Caprica.
33. Click **ME11 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME11 in Caprica.
34. Click **ME12 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME12 in Caprica.
35. Click **ME13 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra switcher to map to ME13 in Caprica.
36. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:
    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.
37. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Carbonite Ultra switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
38. Use the **Keys 5-6 Xpts** buttons to prevent virtual inputs from shifting after updating a Carbonite Ultra switcher to version 7.0 or greater. The available settings are as follows:
    - **Exclude** — use this setting to maintain virtual input positions after upgrading a Carbonite Ultra switcher to version 7.0 or greater. Using this setting maintains virtual input positions for Custom Controls created on Carbonite Ultra versions before version 7.0.
    - **Include** — use this setting to shift virtual inputs after updating a Carbonite Ultra switcher to version 7.0 or greater. Custom Controls that use virtual inputs and were created on Carbonite Ultra versions before version 7.0 may not work properly with this setting.

39. Use the **Scene Xpts** buttons to prevent virtual inputs from shifting after updating a Carbonite Ultra switcher to version 7.0 or greater. The available settings are as follows:

    - **Exclude** — use this setting to maintain virtual input positions after upgrading a Carbonite Ultra switcher to version 7.0 or greater. Using this setting maintains virtual input positions for Custom Controls created for Carbonite Ultra versions before version 7.0.
    - **Include** — use this setting to shift virtual inputs after updating a Carbonite Ultra switcher to version 7.0 or greater. Custom Controls that use virtual inputs and were created for Carbonite Ultra versions before version 7.0 may not work properly with this setting.

40. Use the **Trans Done** buttons to set the switcher response to transitions. The available settings are as follows:

    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to transitions. This option makes OverDrive operation more reliable.

41. Use the **MemRecallDone** buttons to set the switcher response to memory recalls. The available settings are as follows:

    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to memory recalls. This option makes OverDrive operation more reliable.

42. Click **Apply Changes** to save the switcher settings.

43. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Carbonite Ultra 60 Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite Ultra 60 switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Ultra 60 Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Carbonite Ultra 60 switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 5–2.
- On the Caprica Server, create a Switcher device for your Carbonite Ultra 60 switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Ultra 60 Switcher**" on page 5–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 5–7.

Quorum System Connections

In a Quorum system, a Carbonite Ultra 60 switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 5.1**) illustrates the cabling layout of the Carbonite Ultra 60 switcher connection to a Quorum system.

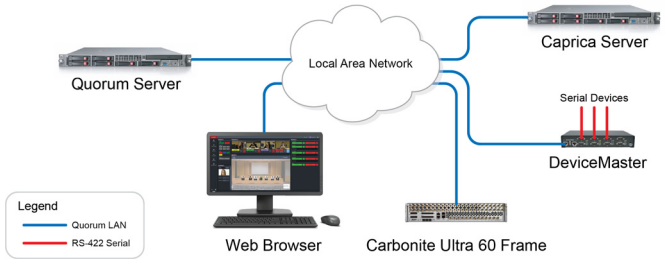


Figure 5.1 Quorum System Connection to a Carbonite Ultra 60 Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Ultra 60 Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite Ultra 60 switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Ultra 60 Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Ultra 60 Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite Ultra 60 switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Ultra 60 Switcher

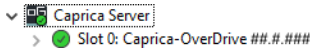
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Ultra 60 switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite Ultra 60 switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

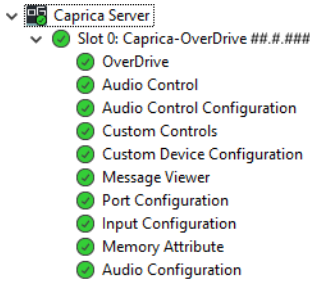
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



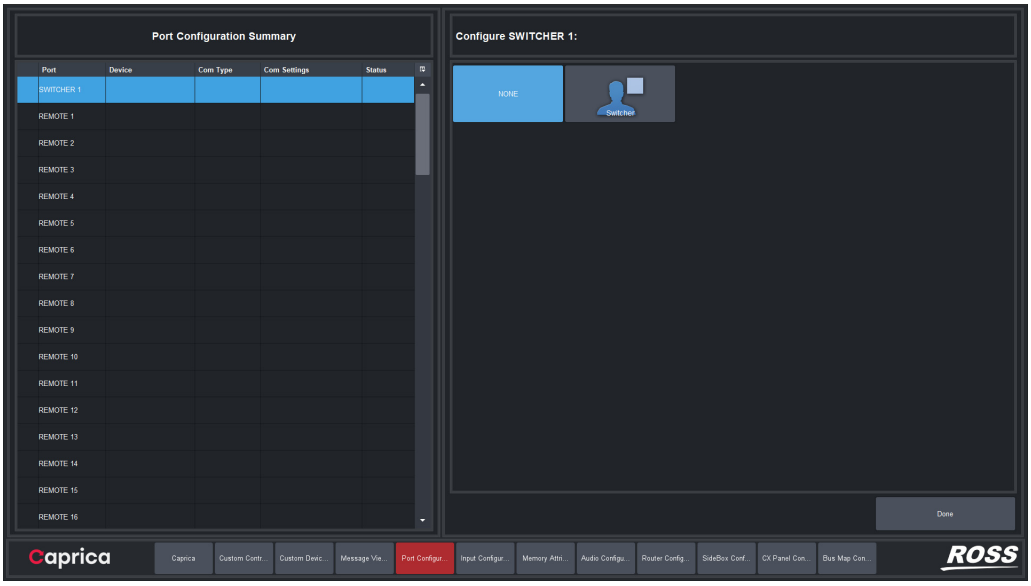
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



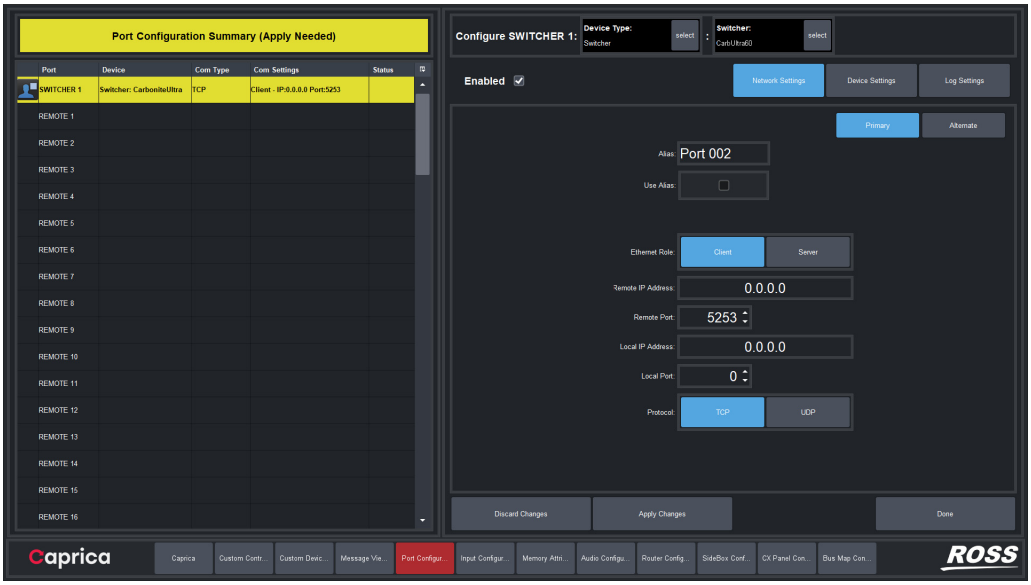
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Ultra 60 switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarbUltra60**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite Ultra 60 switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite Ultra 60 switcher.

14. Use the **Remote Port** box to enter or select `5253`.

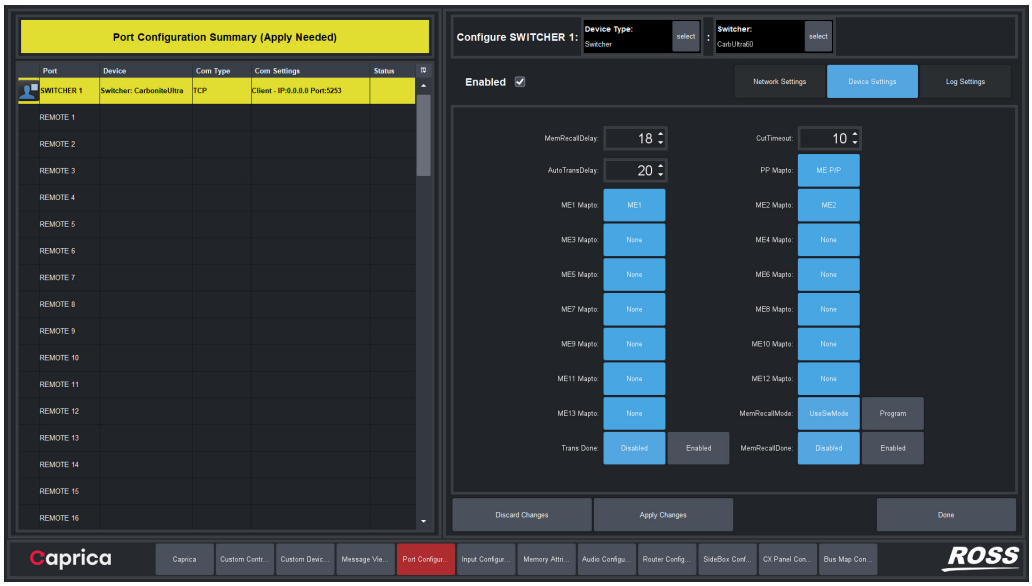
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite Ultra 60 switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

23. Click **ME1 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME1 in Caprica.
24. Click **ME2 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME2 in Caprica.
25. Click **ME3 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME3 in Caprica.
26. Click **ME4 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME4 in Caprica.
27. Click **ME5 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME5 in Caprica.
28. Click **ME6 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME6 in Caprica.
29. Click **ME7 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME7 in Caprica.
30. Click **ME8 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME8 in Caprica.
31. Click **ME9 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME9 in Caprica.
32. Click **ME10 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME10 in Caprica.
33. Click **ME11 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME11 in Caprica.
34. Click **ME12 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME12 in Caprica.
35. Click **ME13 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra 60 switcher to map to ME13 in Caprica.
36. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:
    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.
37. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Carbonite Ultra 60 switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
38. Use the **Keys 5-6 Xpts** buttons to prevent virtual inputs from shifting after updating a Carbonite Ultra 60 switcher to version 7.0 or greater. The available settings are as follows:
    - **Exclude** — use this setting to maintain virtual input positions after upgrading a Carbonite Ultra 60 switcher to version 7.0 or greater. Using this setting maintains virtual input positions for Custom Controls created on Carbonite Ultra 60 versions before version 7.0.
    - **Include** — use this setting to shift virtual inputs after updating a Carbonite Ultra 60 switcher to version 7.0 or greater. Custom Controls that use virtual inputs and were created on Carbonite Ultra 60 versions before version 7.0 may not work properly with this setting.

39. Use the **Scene Xpts** buttons to prevent virtual inputs from shifting after updating a Carbonite Ultra 60 switcher to version 7.0 or greater. The available settings are as follows:
    - **Exclude** — use this setting to maintain virtual input positions after upgrading a Carbonite Ultra 60 switcher to version 7.0 or greater. Using this setting maintains virtual input positions for Custom Controls created for Carbonite Ultra 60 versions before version 7.0.
    - **Include** — use this setting to shift virtual inputs after updating a Carbonite Ultra 60 switcher to version 7.0 or greater. Custom Controls that use virtual inputs and were created for Carbonite Ultra 60 versions before version 7.0 may not work properly with this setting.
40. Use the **Trans Done** buttons to set the switcher response to transitions. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to transitions. This option makes OverDrive operation more reliable.
41. Use the **MemRecallDone** buttons to set the switcher response to memory recalls. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to memory recalls. This option makes OverDrive operation more reliable.
42. Click **Apply Changes** to save the switcher settings.
43. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Carbonite Ultra Solo Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite Ultra Solo switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Ultra Solo Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Carbonite Ultra Solo switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 6–2.
- On the Caprica Server, create a Switcher device for your Carbonite Ultra Solo switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Ultra Solo Switcher**" on page 6–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 6–6.

Quorum System Connections

In a Quorum system, a Carbonite Ultra Solo switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 6.1**) illustrates the cabling layout of the Carbonite Ultra Solo switcher connection to a Quorum system.

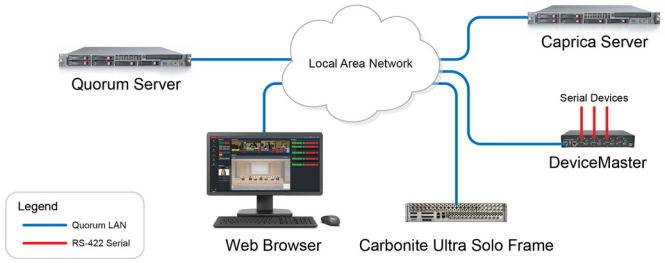


Figure 6.1 Quorum System Connection to a Carbonite Ultra Solo Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Ultra Solo Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite Ultra Solo switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Ultra Solo Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Ultra Solo Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite Ultra Solo switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Ultra Solo Switcher

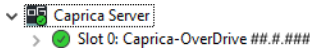
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Ultra Solo switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite Ultra Solo switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

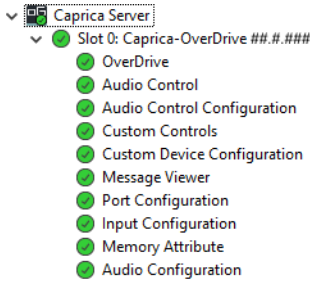
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



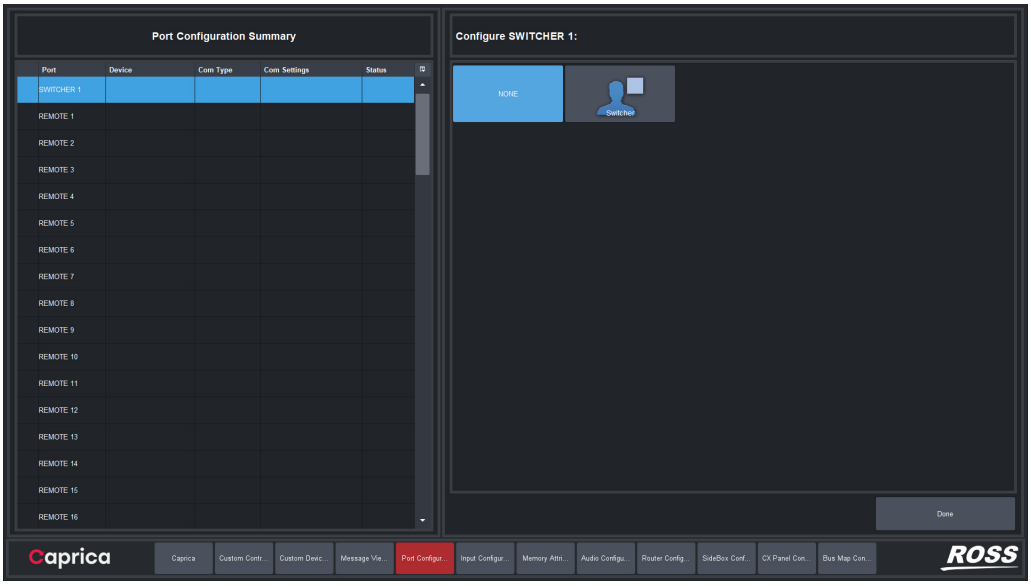
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



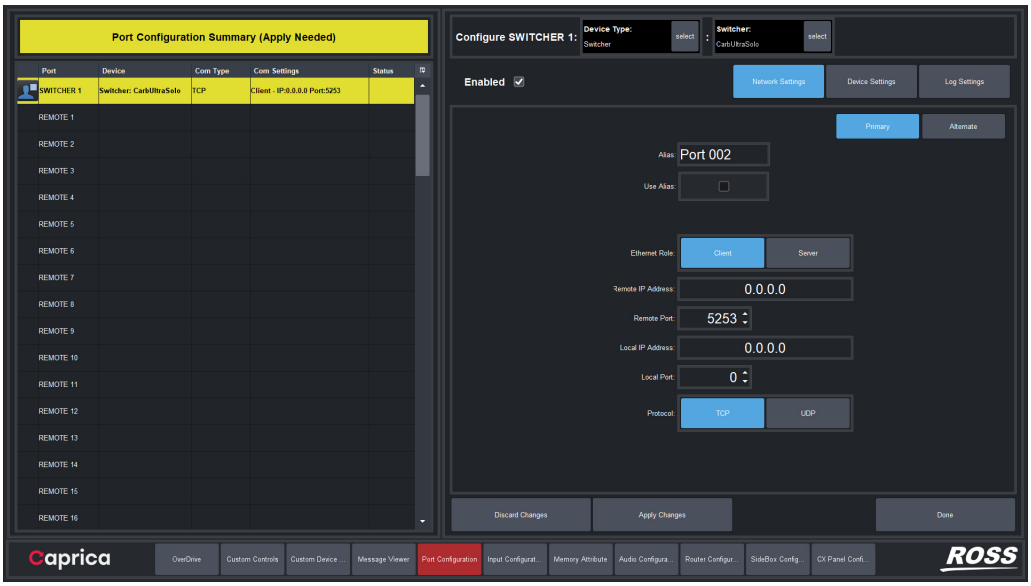
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Ultra Solo switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarbBlackSolo**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite Ultra Solo switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite Ultra Solo switcher.

14. Use the **Remote Port** box to enter or select `5253`.

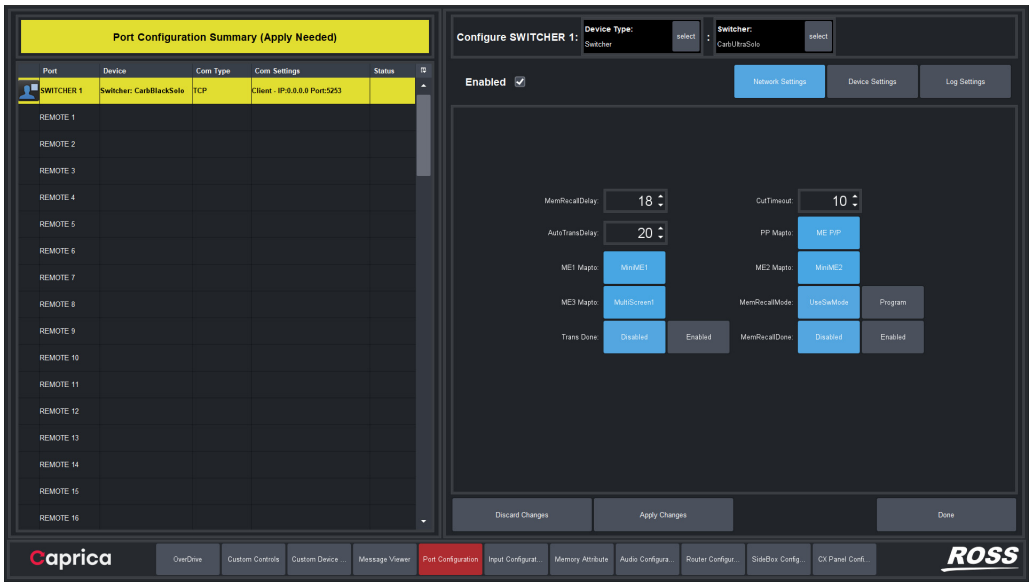
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite Ultra Solo switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra Solo switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

23. Click **ME1 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra Solo switcher to map to ME1 in Caprica.
24. Click **ME2 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra Solo switcher to map to ME2 in Caprica.
25. Click **ME3 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Ultra Solo switcher to map to ME3 in Caprica.
26. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:
    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.
27. Use the **Trans Done** buttons to set the switcher response to transitions. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to transitions. This option makes OverDrive operation more reliable.
28. Use the **MemRecallDone** buttons to set the switcher response to memory recalls. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to memory recalls. This option makes OverDrive operation more reliable.
29. Click **Apply Changes** to save the switcher settings.
30. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Carbonite Code Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite Code switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Code Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to a Quorum system configured with a Carbonite Code switcher connected to the Quorum system through a Caprica Server:

- The Fade To Black transition in OverDrive does not function. You can use the RossTalk FTB command or a GPI to make a Carbonite Code switcher fade to and from black.
- You cannot fully control your production system through the Carbonite Code panel or DashBoard UI.
- When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

Quorum System Setup

To set up a Quorum system with a Carbonite Code switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 7–2.
- On the Caprica Server, create a Switcher device for your Carbonite Code switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Code Switcher**" on page 7–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 7–7.

Quorum System Connections

In a Quorum system, a Carbonite Code switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 7.1**) illustrates the cabling layout of the Carbonite Code switcher connection to a Quorum system.

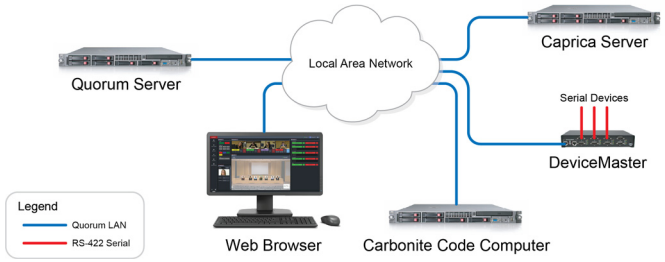


Figure 7.1 Quorum System Connection to a Carbonite Code Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Code Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite Code switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Code computer to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Code SoftPanel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

- USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

- For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite Code switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Code Switcher

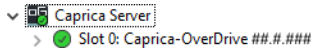
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Code switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite Code switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

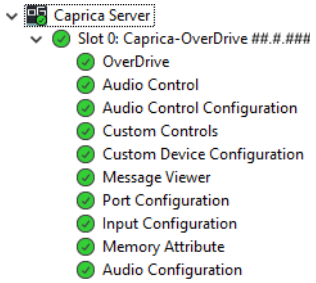
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



5. Double-click the **Port Configuration** node.

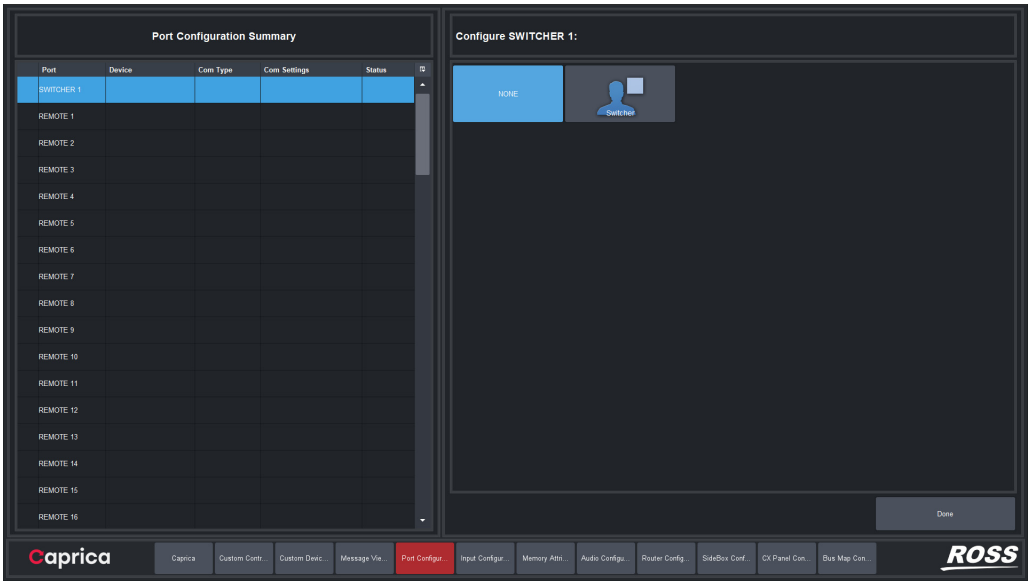
   The **Port Configuration** client opens in the **Device View**.

6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



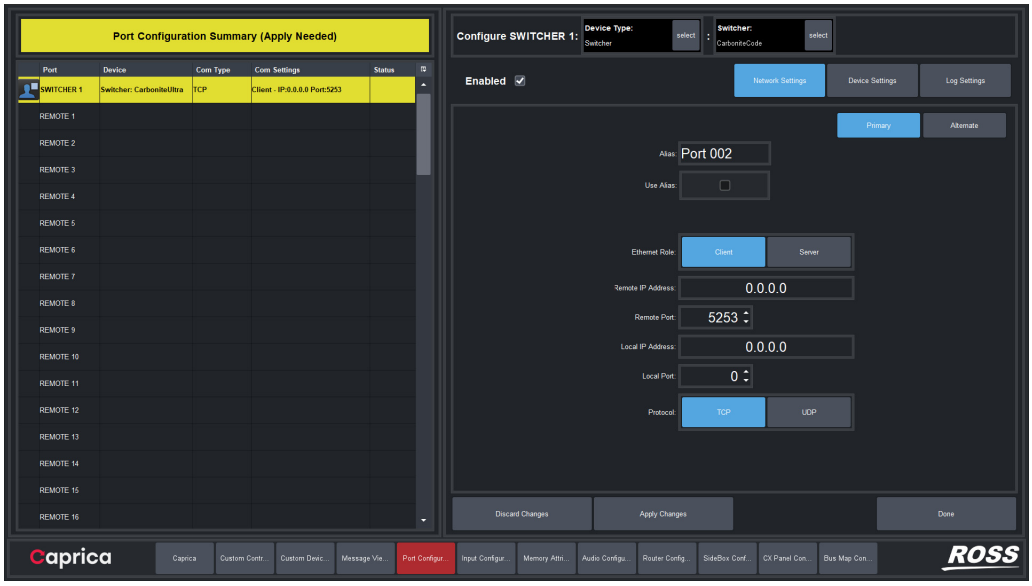
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Code switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarboniteCode**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite Code switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite Code switcher.

14. Use the **Remote Port** box to enter or select `5253`.

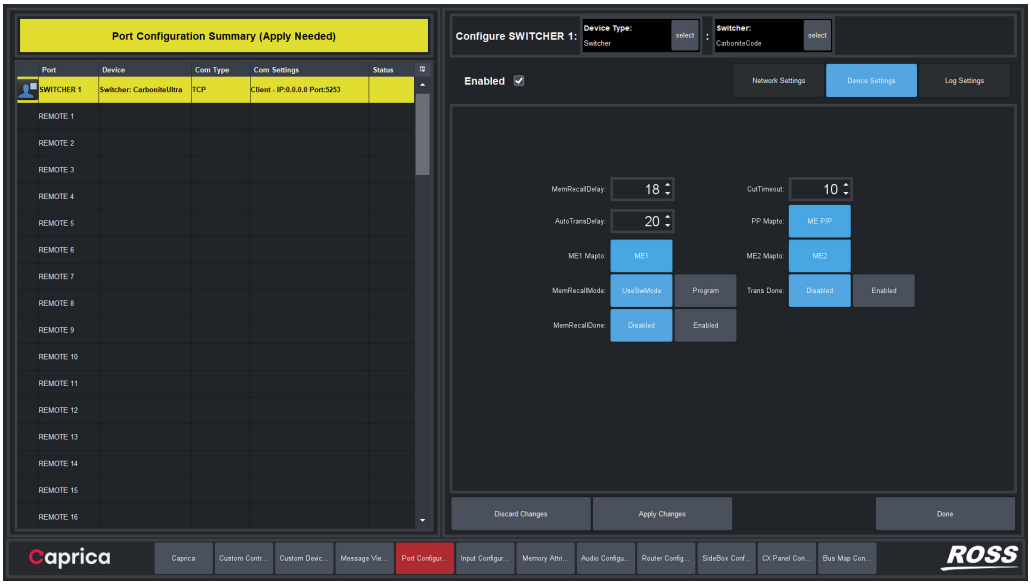
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite Code switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Code switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

23. Click **ME1 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Code switcher to map to ME1 in Caprica.

24. Click **ME2 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Code switcher to map to ME2 in Caprica.

25. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:

    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.

26. Use the **Trans Done** buttons to set the switcher response to transitions. The available settings are as follows:

    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to transitions. This option makes OverDrive operation more reliable.

27. Use the **MemRecallDone** buttons to set the switcher response to memory recalls. The available settings are as follows:

    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to memory recalls. This option makes OverDrive operation more reliable.

28. Click **Apply Changes** to save the switcher settings.

29. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Ultrix Carbonite Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Ultrix Carbonite switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for an Ultrix Carbonite Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with an Ultrix Carbonite switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 8–2.
- On the Caprica Server, create a Switcher device for your Ultrix Carbonite switcher.
  Refer to the section "**Configuring a Switcher Device for an Ultrix Carbonite Switcher**" on page 8–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 8–8.

Quorum System Connections

In a Quorum system, an Ultrix Carbonite switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 8.1**) illustrates the cabling layout of the Ultrix Carbonite switcher connection to a Quorum system.

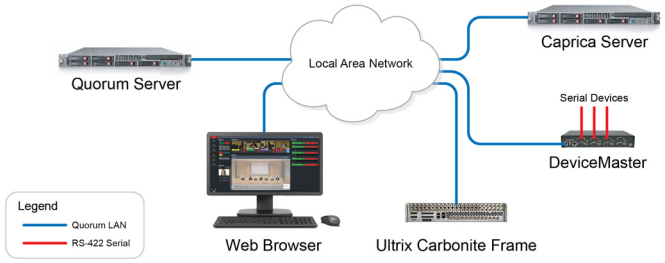


Figure 8.1 Quorum System Connection to an Ultrix Carbonite Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Ultrix Carbonite Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect an Ultrix Carbonite switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Ultrix Carbonite Frame to your internal network.
5. Use an **Ethernet** cable to connect the Ultrix Carbonite Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling an Ultrix Carbonite switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for an Ultrix Carbonite Switcher

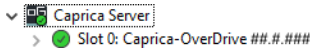
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with an Ultrix Carbonite switcher in a Quorum system.

To configure the SWITCHER1 device for an Ultrix Carbonite switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

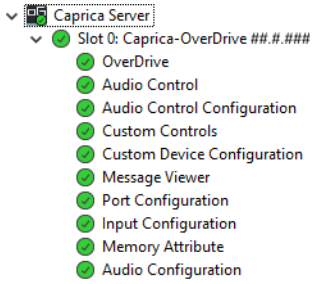
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



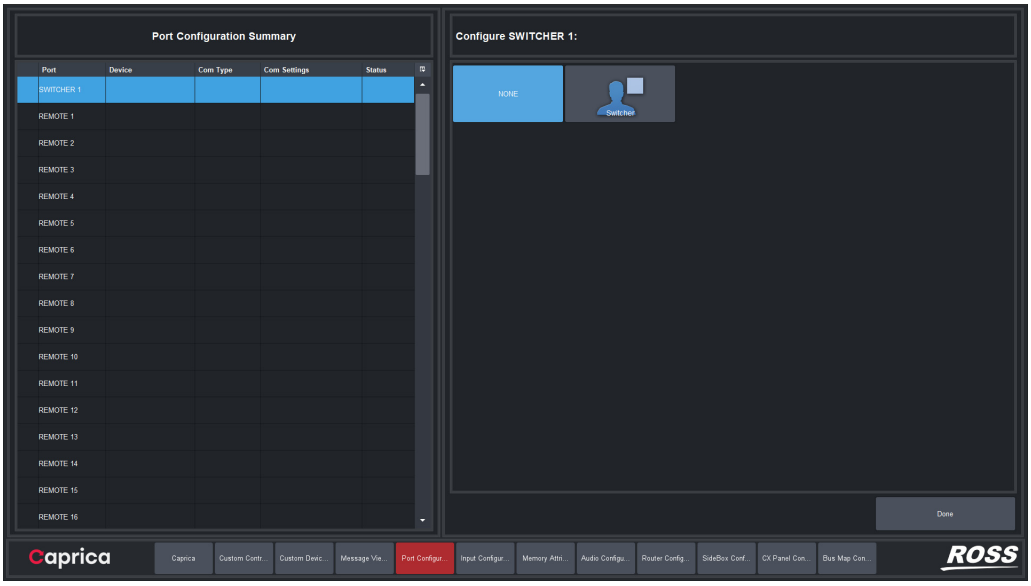
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



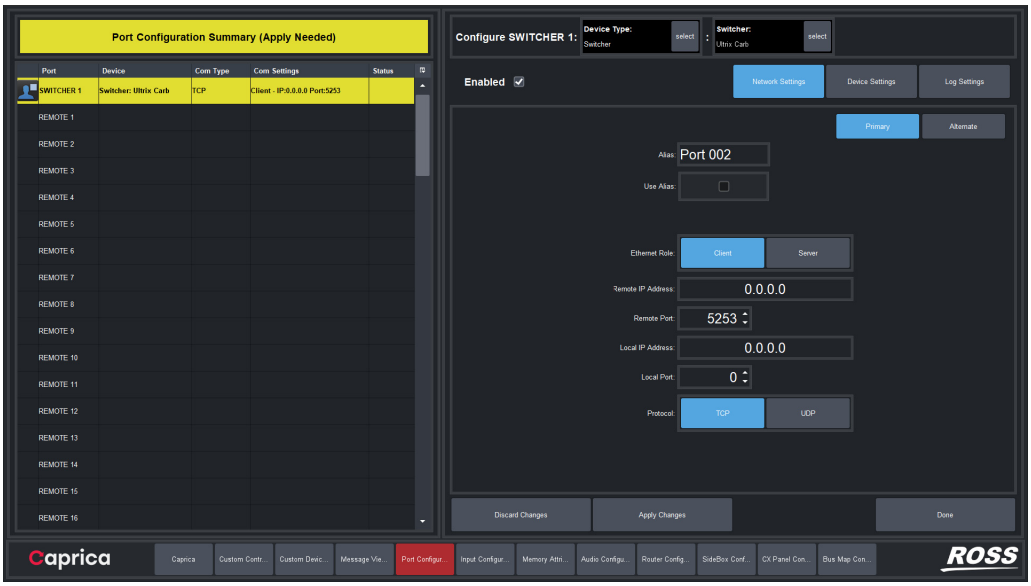
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with an Ultrix Carbonite switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarboniteUltra**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for an Ultrix Carbonite switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Ultrix Carbonite switcher.

14. Use the **Remote Port** box to enter or select `5253`.

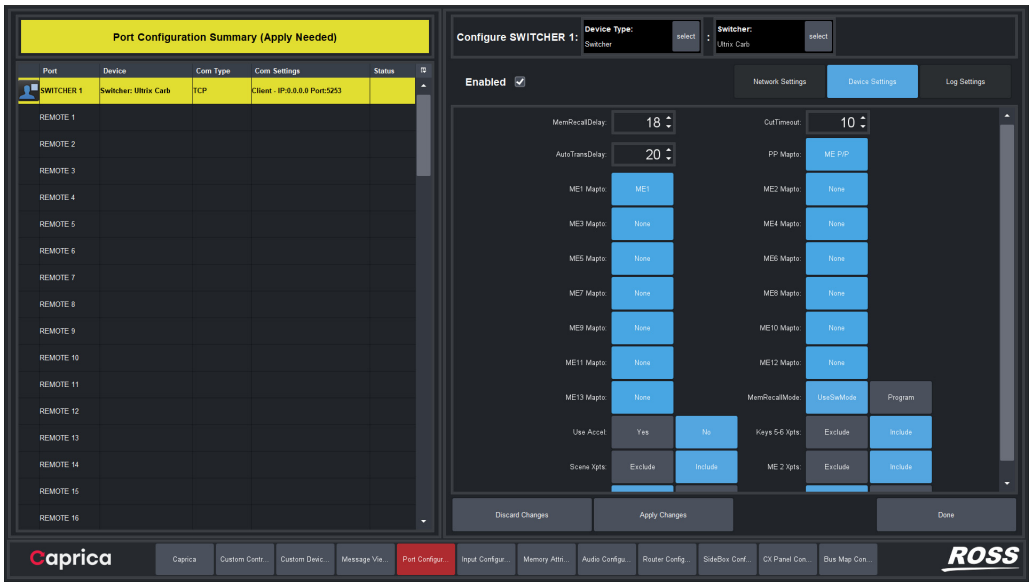
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for an Ultrix Carbonite switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

    The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

23. Click **ME1 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME1 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

24. Click **ME2 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME2 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

25. Click **ME3 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME3 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

26. Click **ME4 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME4 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

27. Click **ME5 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME5 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

28. Click **ME6 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME6 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

29. Click **ME7 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME7 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

30. Click **ME8 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME8 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

31. Click **ME9 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME9 in Caprica. The ME mode set on the switcher limits the available options as follows:

    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.

32. Click **ME10 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME10 in Caprica. The ME mode set on the switcher limits the available options as follows:
    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.
33. Click **ME11 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME11 in Caprica. The ME mode set on the switcher limits the available options as follows:
    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.
34. Click **ME12 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME12 in Caprica. The ME mode set on the switcher limits the available options as follows:
    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.
35. Click **ME13 Mapto** to select the ME, Canvas, or Scene on your Ultrix Carbonite switcher to map to ME13 in Caprica. The ME mode set on the switcher limits the available options as follows:
    - **HD 2 ME 4 MM** — ME2 is not available in this mode.
    - **HD 3 ME** — mini MEs are not available in this mode.
36. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:
    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.
37. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Ultrix Carbonite switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
38. Use the **Keys 5-6 Xpts** buttons to prevent virtual inputs from shifting after updating an Ultrix Carbonite switcher to version 7.0 or greater. The available settings are as follows:
    - **Exclude** — use this setting to maintain virtual input positions after upgrading an Ultrix Carbonite switcher to version 7.0 or greater. Using this setting maintains virtual input positions for Custom Controls created on Ultrix Carbonite versions before version 7.0.
    - **Include** — use this setting to shift virtual inputs after updating an Ultrix Carbonite switcher to version 7.0 or greater. Custom Controls that use virtual inputs and were created on Ultrix Carbonite versions before version 7.0 may not work properly with this setting.
39. Use the **Scene Xpts** buttons to prevent virtual inputs from shifting after updating an Ultrix Carbonite switcher to version 7.0 or greater. The available settings are as follows:
    - **Exclude** — use this setting to maintain virtual input positions after upgrading an Ultrix Carbonite switcher to version 7.0 or greater. Using this setting maintains virtual input positions for Custom Controls created for Ultrix Carbonite versions before version 7.0.
    - **Include** — use this setting to shift virtual inputs after updating an Ultrix Carbonite switcher to version 7.0 or greater. Custom Controls that use virtual inputs and were created for Ultrix Carbonite versions before version 7.0 may not work properly with this setting.

40. Use the **ME 2 Xpts** buttons to prevent virtual inputs from shifting after switching an Ultrix Carbonite switcher to **HD 3 ME** mode on. The available settings are as follows:
    - **Exclude** — use this setting to maintain virtual input positions after switching to HD 3 ME mode. Using this setting maintains virtual input positions for Custom Controls created for your Ultrix Carbonite switcher when it was in HD 2 ME 4 MM mode.
    - **Include** — use this setting to shift virtual inputs after switching to HD 3 ME mode. Custom Controls that use virtual inputs and were created for your Ultrix Carbonite switcher when it was in HD 2 ME 4 MM mode may not work properly with this setting.
41. Use the **Trans Done** buttons to set the switcher response to transitions. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to transitions. This option makes OverDrive operation more reliable.
42. Use the **MemRecallDone** buttons to set the switcher response to memory recalls. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to memory recalls. This option makes OverDrive operation more reliable.
43. Click **Apply Changes** to save the switcher settings.
44. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Carbonite Black Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite Black switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Black Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Carbonite Black switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 9–2.
- On the Caprica Server, create a Switcher device for your Carbonite Black switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Black Switcher**" on page 9–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 9–6.

Quorum System Connections

In a Quorum system, a Carbonite Black switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 9.1**) illustrates the cabling layout of the Carbonite Black switcher connection to a Quorum system.

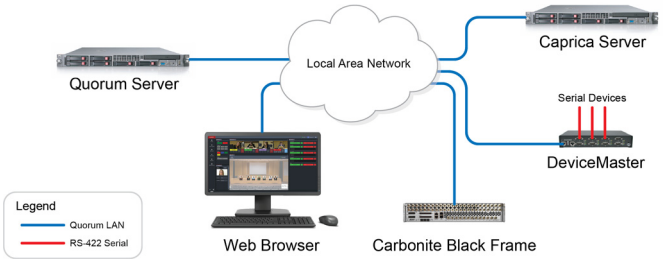


Figure 9.1 Quorum System Connection to a Carbonite Black Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Black Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite Black switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Black Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Black Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite Black switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Black Switcher

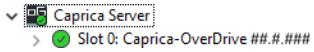
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Black switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite Black switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

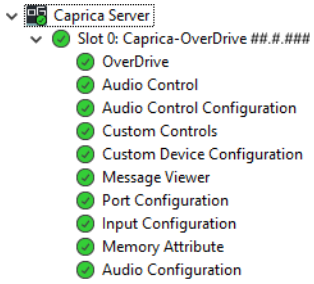
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



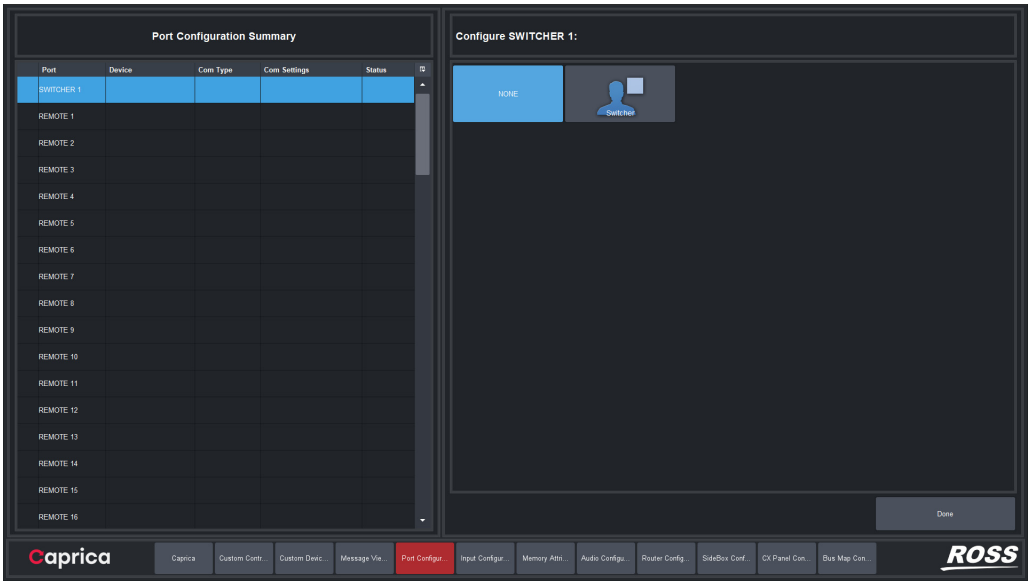
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



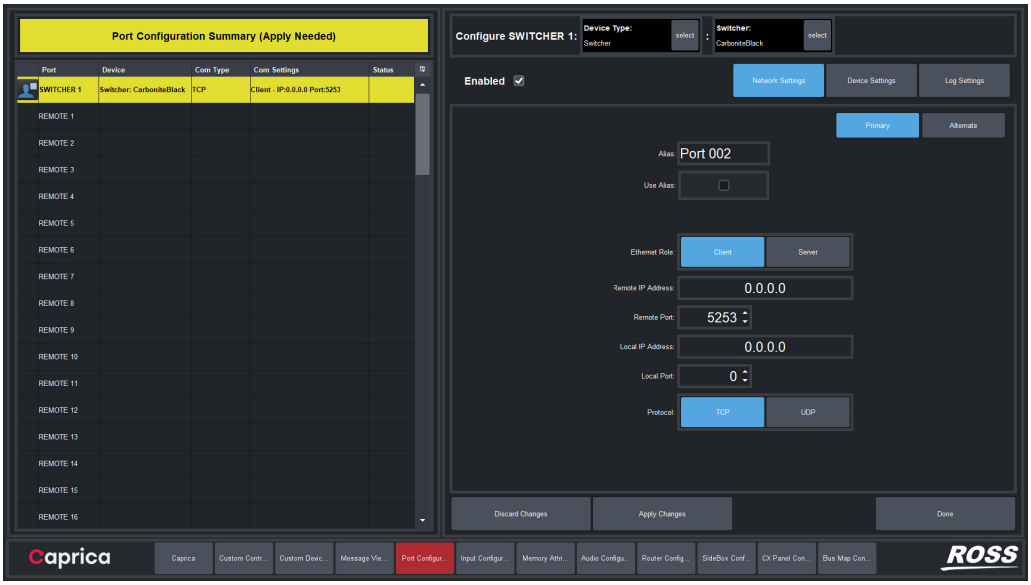
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Black switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarboniteBlack**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite Black switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite Black switcher.

14. Use the **Remote Port** box to enter or select `5253`.

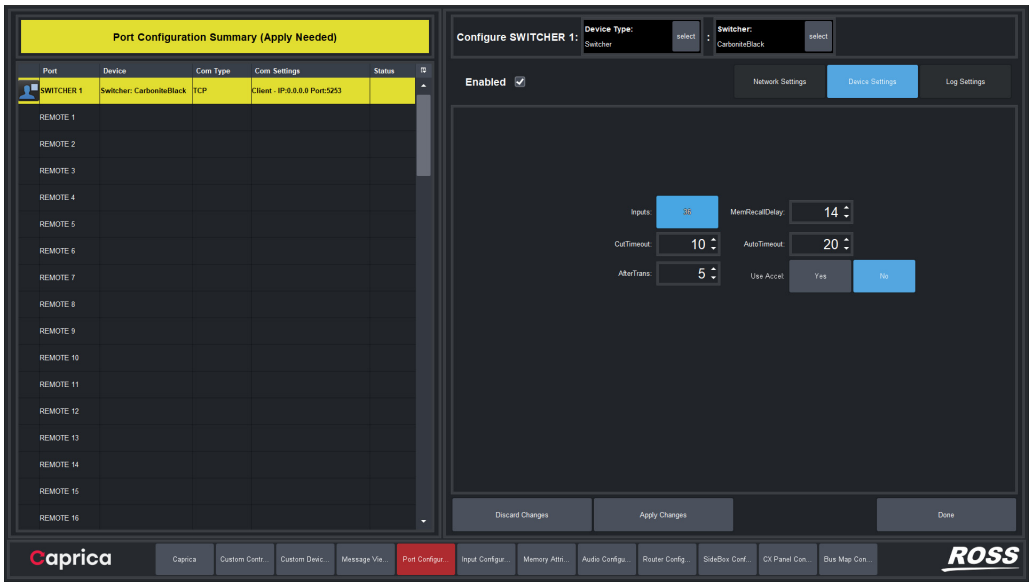
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite Black switcher.



19. Click **Inputs** to set the number of inputs on your Carbonite Black frame.

20. Use the **MemRecallDelay** setting to enter or select the number of fields to wait for memory recalls to complete.

21. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Use the **AutoTimeout** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

23. Use the **AfterTrans** box to enter or select the number of frames to wait after Caprica confirms that a transition is complete.

24. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Carbonite Black switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
25. Click **Apply Changes** to save the switcher settings.
26. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Carbonite Black Solo Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite Black Solo switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Black Solo Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Carbonite Black Solo switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 10–2.
- On the Caprica Server, create a Switcher device for your Carbonite Black Solo switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Black Solo Switcher**" on page 10–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 10–6.

Quorum System Connections

In a Quorum system, a Carbonite Black Solo switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 10.1**) illustrates the cabling layout of the Carbonite Black Solo switcher connection to a Quorum system.

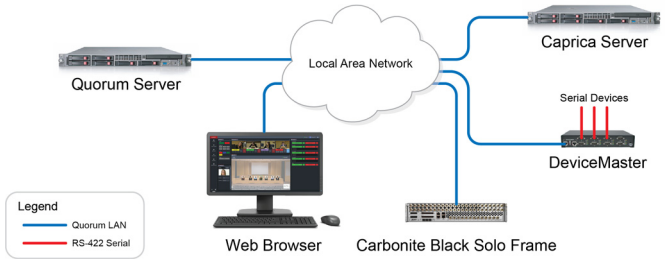


Figure 10.1 Quorum System Connection to a Carbonite Black Solo Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Black Solo Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite Black Solo switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Black Solo Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Black Solo Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite Black Solo switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Black Solo Switcher

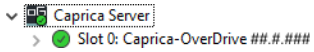
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Black Solo switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite Black Solo switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

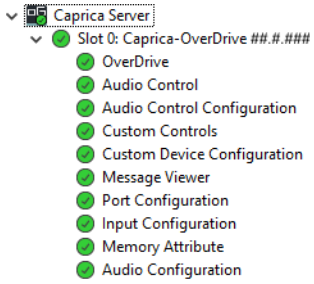
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



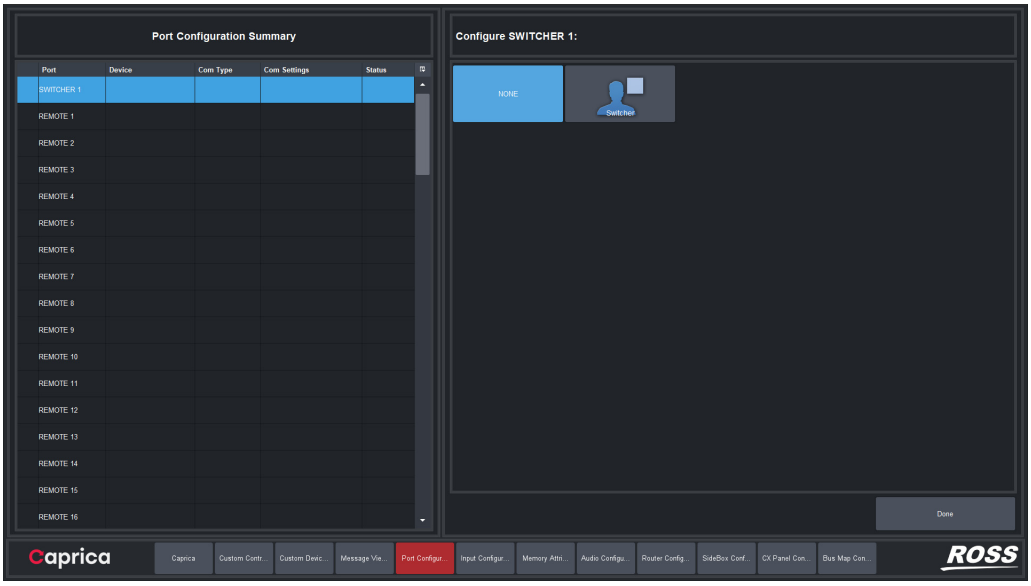
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



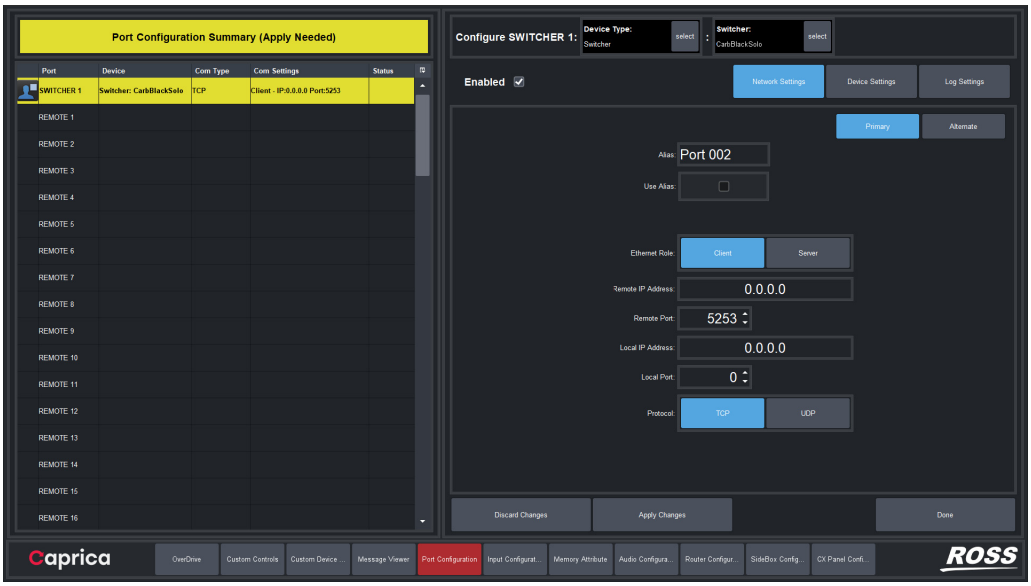
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite Black Solo switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **CarbBlackSolo**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite Black Solo switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite Black Solo switcher.

14. Use the **Remote Port** box to enter or select `5253`.

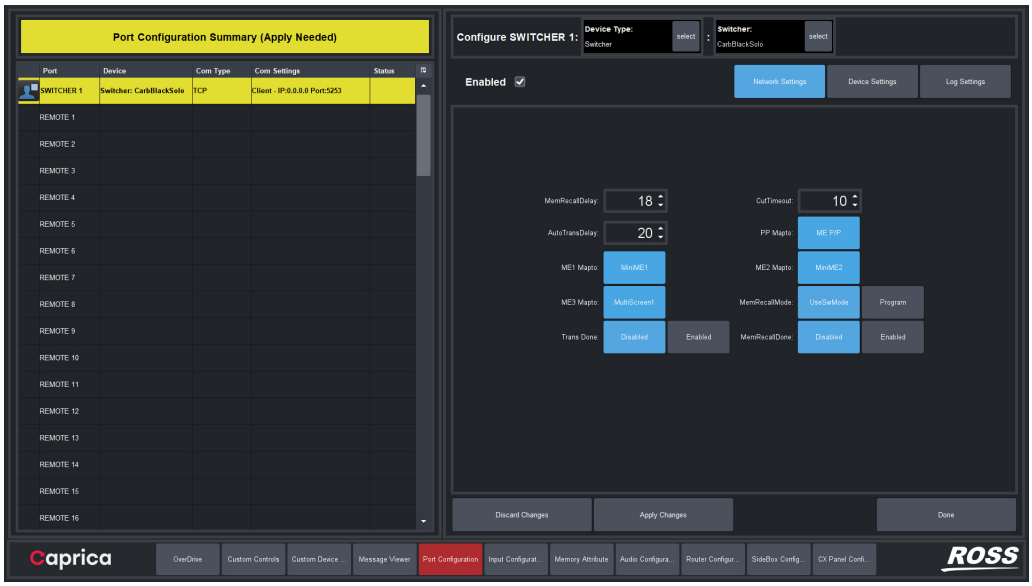
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite Black Solo switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Black Solo switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

23. Click **ME1 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Black Solo switcher to map to ME1 in Caprica.
24. Click **ME2 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Black Solo switcher to map to ME2 in Caprica.
25. Click **ME3 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite Black Solo switcher to map to ME3 in Caprica.
26. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:
    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.
27. Use the **Trans Done** buttons to set the switcher response to transitions. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to transitions. This option makes OverDrive operation more reliable.
28. Use the **MemRecallDone** buttons to set the switcher response to memory recalls. The available settings are as follows:
    - **Disabled** — select this option when your switcher does not support this functionality.
    - **Enabled** — for switchers that support this functionality, select this option to speed up the switcher response to memory recalls. This option makes OverDrive operation more reliable.
29. Click **Apply Changes** to save the switcher settings.
30. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Carbonite Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Carbonite switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Carbonite Switcher
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Carbonite switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 11–2.
- On the Caprica Server, create a Switcher device for your Carbonite switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite Switcher**" on page 11–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 11–6.

Quorum System Connections

In a Quorum system, a Carbonite switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 11.1**) illustrates the cabling layout of the Carbonite switcher connection to a Quorum system.

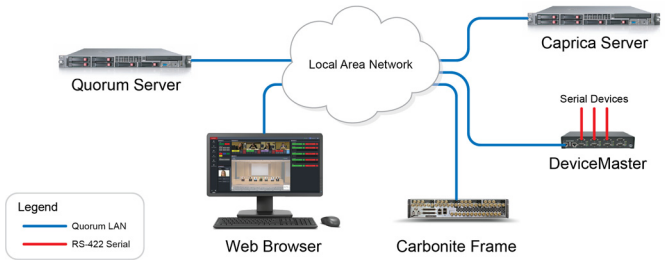


Figure 11.1 Quorum System Connection to a Carbonite Switcher

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Carbonite switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Carbonite Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite Switcher

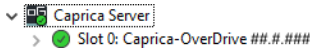
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite switcher in a Quorum system.

To configure the SWITCHER1 device for a Carbonite switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

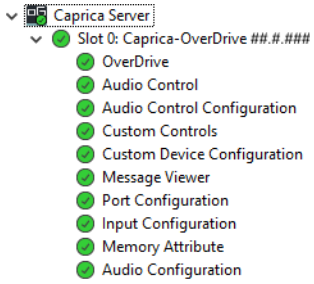
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



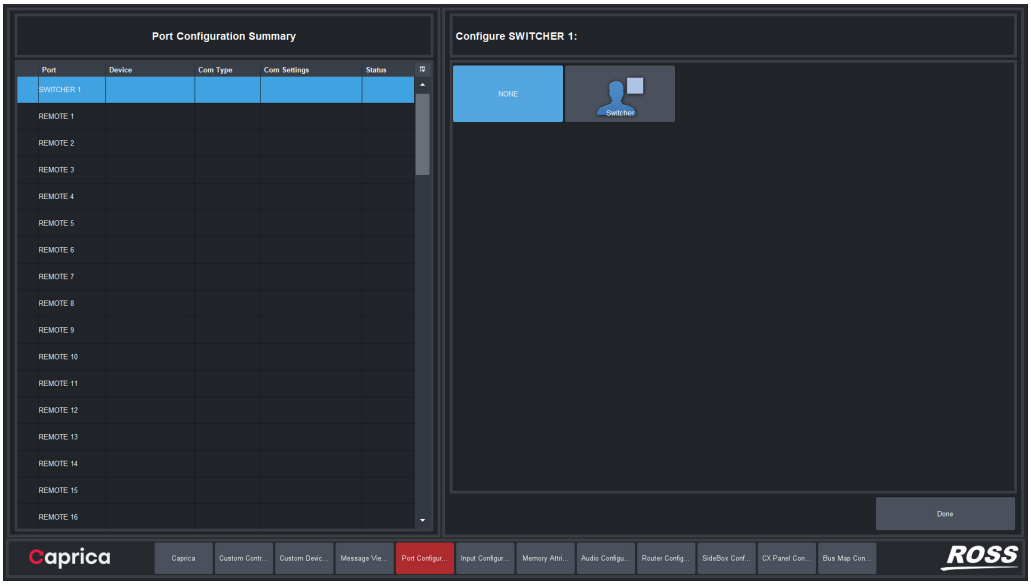
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



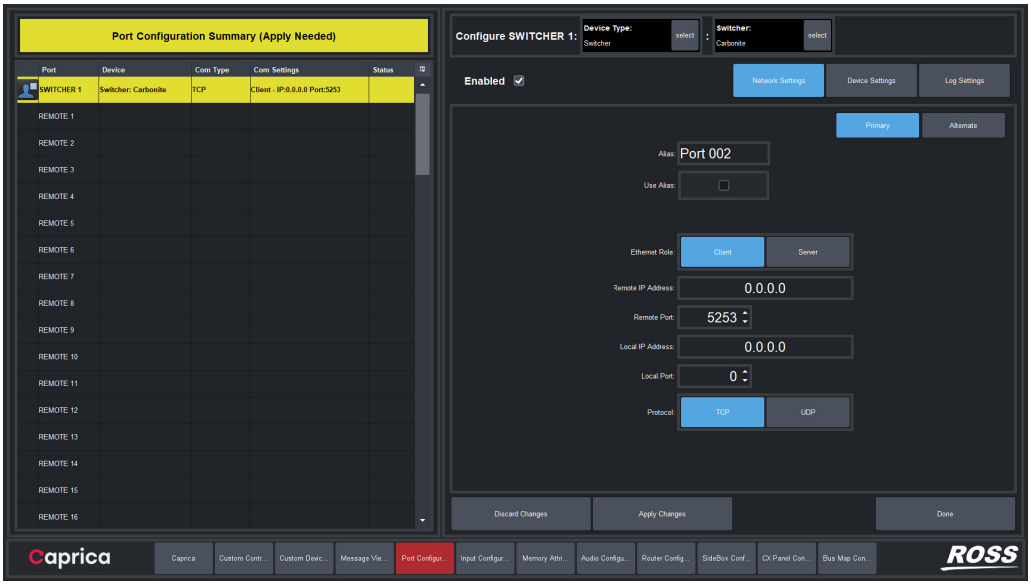
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Carbonite switcher in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **Carbonite**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Carbonite switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

       The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

       To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Carbonite switcher.

14. Use the **Remote Port** box to enter or select `5253`.

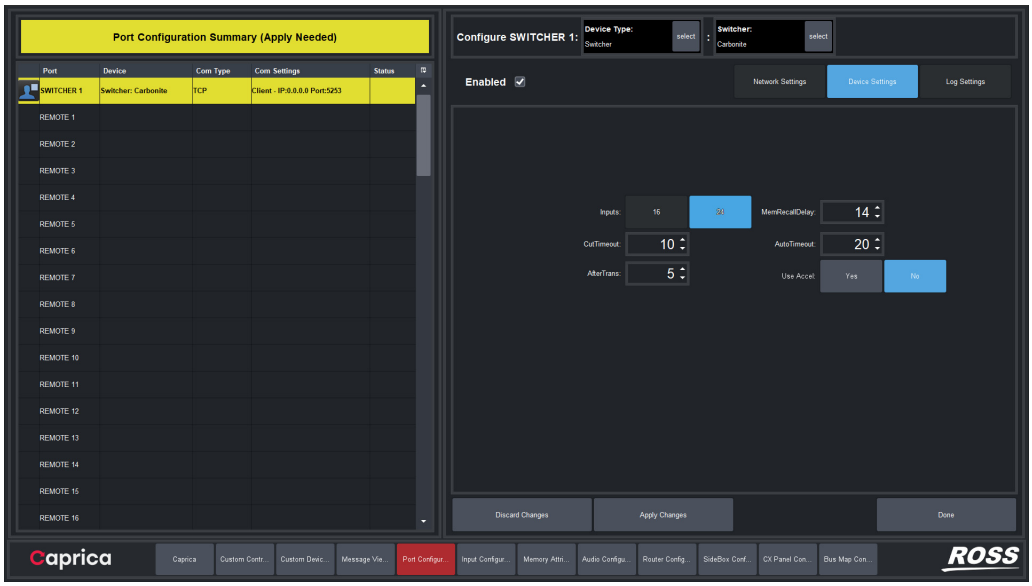
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Carbonite switcher.



19. Use the **Inputs** buttons to set the number of inputs on your Carbonite frame.

20. Use the **MemRecallDelay** setting to enter or select the number of fields to wait for memory recalls to complete.

21. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Use the **AutoTimeout** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

23. Use the **AfterTrans** box to enter or select the number of frames to wait after Caprica confirms that a transition is complete.

24. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Carbonite switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
25. Click **Apply Changes** to save the switcher settings.
26. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Graphite CPC Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Graphite CPC All-In-One Production System through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Ross Video Graphite CPC All-In-One Production System
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Ross Video Graphite CPC All-In-One Production System, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 12–2.
- On the Caprica Server, create a Switcher device for your Ross Video Graphite CPC All-In-One Production System. Refer to the section "**Configuring a Switcher Device for a Ross Video Graphite CPC All-In-One Production System**" on page 12–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 12–6.

Quorum System Connections

In a Quorum system, a Ross Video Graphite CPC All-In-One Production System connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 12.1**) illustrates the cabling layout of the Ross Video Graphite CPC All-In-One Production System connection to a Quorum system.

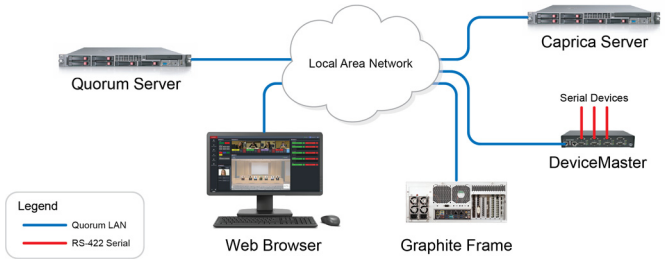


Figure 12.1 Quorum System Connection to a Ross Video Graphite CPC All-In-One Production System

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Graphite CPC Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Ross Video Graphite CPC All-In-One Production System to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Graphite CPC Frame to your internal network.
5. Use an **Ethernet** cable to connect the Graphite CPC Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Ross Video Graphite CPC All-In-One Production System, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Ross Video Graphite CPC All-In-One Production System

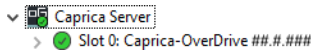
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Ross Video Graphite CPC All-In-One Production System in a Quorum system.

To configure the SWITCHER1 device for a Ross Video Graphite CPC All-In-One Production System

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

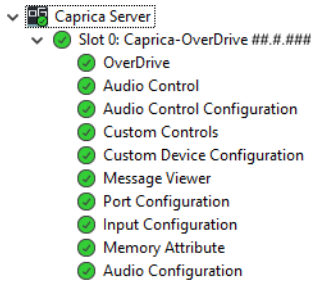
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



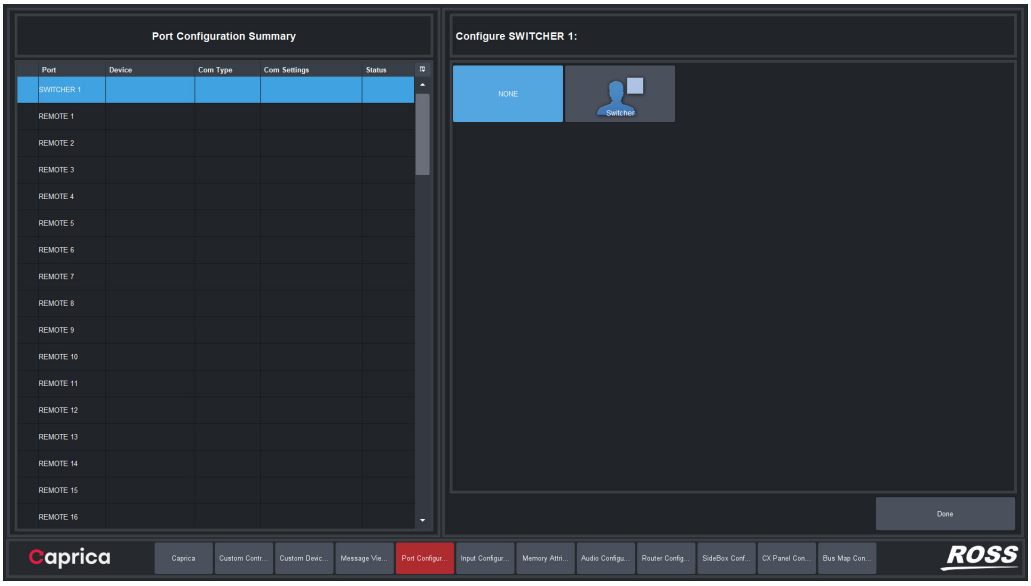
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



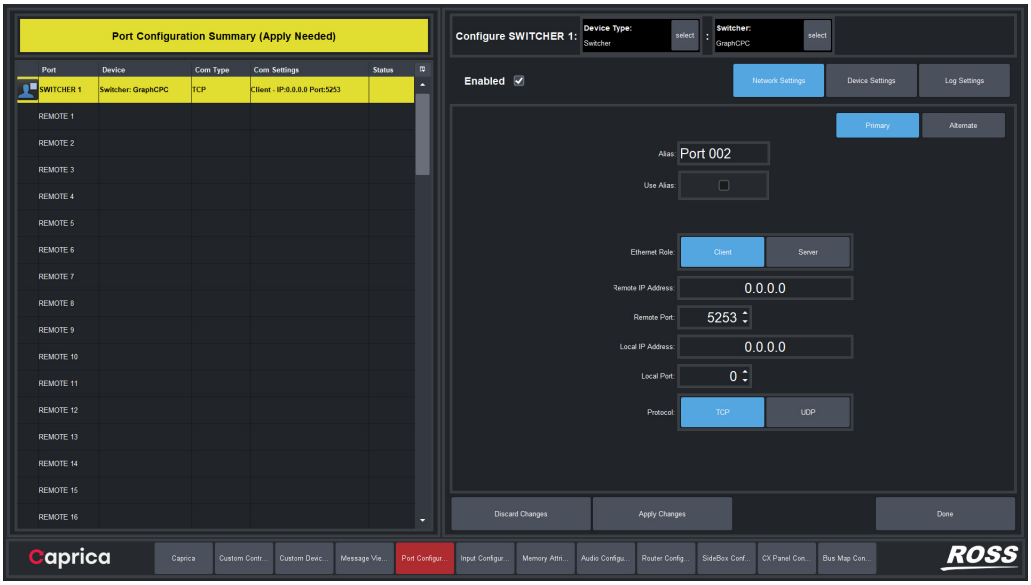
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Ross Video Graphite CPC All-In-One Production System in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **GraphCPC**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Ross Video Graphite CPC All-In-One Production System.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Ross Video Graphite CPC All-In-One Production System.

14. Use the **Remote Port** box to enter or select `5253`.

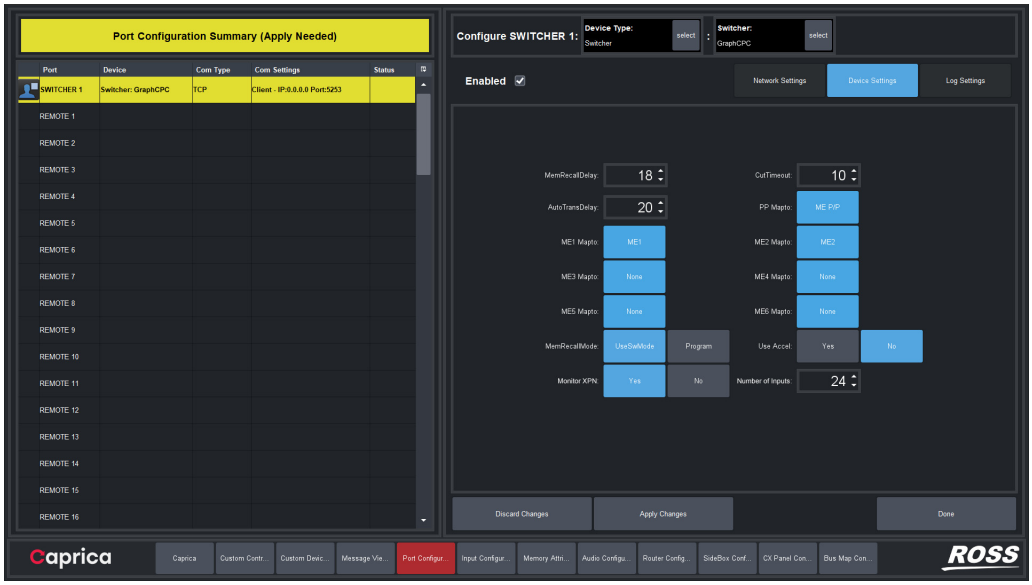
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Graphite CPC switcher.



19. Use the **MemRecallDelay** box to enter or select the number of fields to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.

20. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

21. Use the **AutoTransDelay** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

22. Click **PP Mapto** to select the ME on your Graphite CPC switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

23. Click **ME1 Mapto** to select the ME on your Graphite CPC switcher to map to ME1 in Caprica.
24. Click **ME2 Mapto** to select the ME on your Graphite CPC switcher to map to ME2 in Caprica.
25. Click **ME3 Mapto** to select the ME on your Graphite CPC switcher to map to ME3 in Caprica.
26. Click **ME4 Mapto** to select the ME on your Graphite CPC switcher to map to ME4 in Caprica.
27. Click **ME5 Mapto** to select the ME on your Graphite CPC switcher to map to ME5 in Caprica.
28. Click **ME6 Mapto** to select the ME on your Graphite CPC switcher to map to ME6 in Caprica.
29. Use the **MemRecallMode** buttons to set the memory recall method to use. The available settings are as follows:
    - **UseSwMode** — use the memory recall mode set on the switcher to execute memory recalls.
    - **Program** — use the Program memory recall mode to execute memory recalls.
30. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Graphite CPC switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
31. Use the **Monitor XPN** buttons to set the connection between the Graphite CPC switcher and XPression for live production. The available settings are as follows:
    - **Yes** — treat the Graphite CPC switcher as not connected to XPression, just like the Caprica Server not being able to connect to the Graphite CPC switcher. Most users should select this setting.
    - **No** — let the Caprica Server try to control the Graphite CPC switcher, even if it is not connected to XPression.
32. Use the **Number of Inputs** box to enter or select the number of inputs on your Graphite CPC frame.
33. Click **Apply Changes** to save the switcher settings.
34. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Graphite Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Graphite All-In-One Production System through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Configuring a Switcher Device for a Ross Video Graphite All-In-One Production System
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with a Ross Video Graphite All-In-One Production System, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 13–2.
- On the Caprica Server, create a Switcher device for your Ross Video Graphite All-In-One Production System.
  Refer to the section "**Configuring a Switcher Device for a Ross Video Graphite All-In-One Production System**" on page 13–3.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 13–6.

Quorum System Connections

In a Quorum system, a Ross Video Graphite All-In-One Production System connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 13.1**) illustrates the cabling layout of the Ross Video Graphite All-In-One Production System connection to a Quorum system.

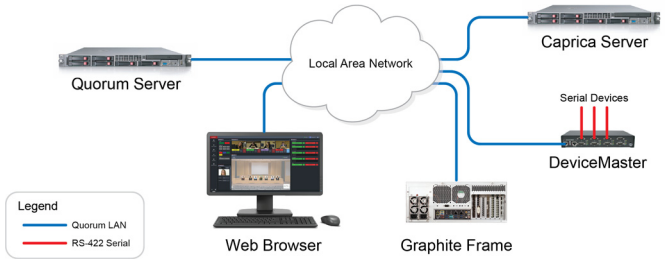


Figure 13.1 Quorum System Connection to a Ross Video Graphite All-In-One Production System

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- DeviceMaster for serial device connections
- Graphite Frame and Panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect a Ross Video Graphite All-In-One Production System to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Graphite Frame to your internal network.
5. Use an **Ethernet** cable to connect the Graphite Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

✶ USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

✶ For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Ross Video Graphite All-In-One Production System, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Ross Video Graphite All-In-One Production System

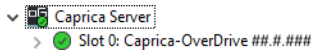
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Ross Video Graphite All-In-One Production System in a Quorum system.

To configure the SWITCHER1 device for a Ross Video Graphite All-In-One Production System

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

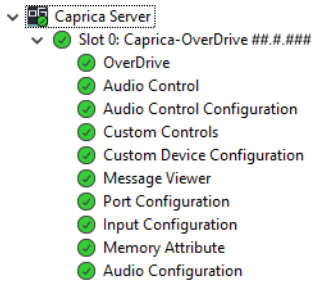
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



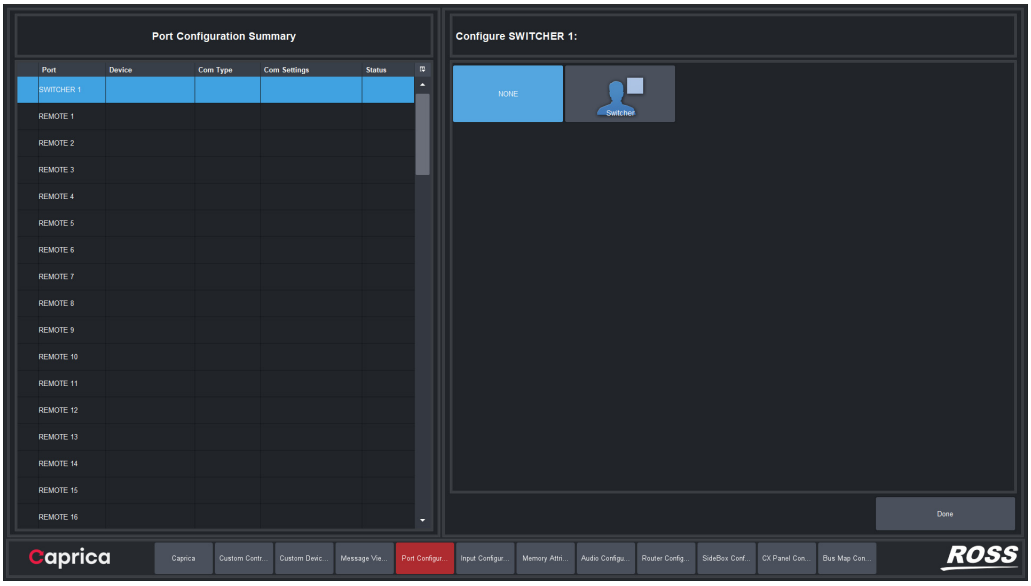
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.



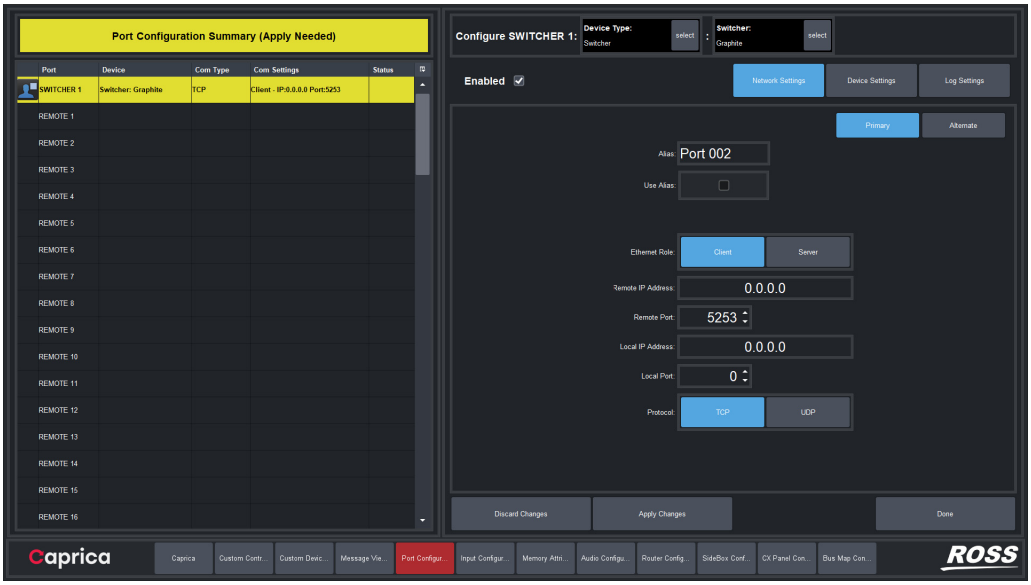
   The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with a Ross Video Graphite All-In-One Production System in a Quorum system.

8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **Graphite**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Ross Video Graphite All-In-One Production System.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Ross Video Graphite All-In-One Production System.

14. Use the **Remote Port** box to enter or select `5253`.

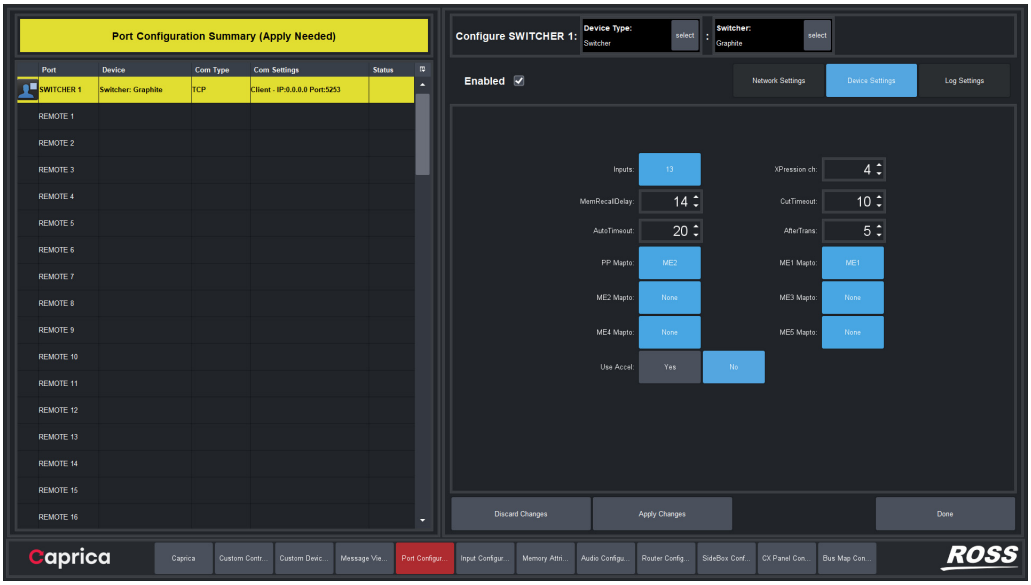
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Graphite switcher.



19. Click **Inputs** to set the number of inputs on your Graphite frame.

20. Use the **XPression ch** setting to enter or select the number of internal XPression video/alpha input pairs on your Graphite frame.

21. Use the **MemRecallDelay** setting to enter or select the number of fields to wait for memory recalls to complete.

22. Use the **CutTimeout** box to enter or select the number of frames to wait after a Cut transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

23. Use the **AutoTimeout** box to enter or select the number of frames to wait after an AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.

24. Use the **AfterTrans** box to enter or select the number of frames to wait after Caprica confirms that a transition is complete.

25. Click **PP Mapto** to select the ME on your Graphite switcher to map to the Program bus in Caprica.

    When using a MiniME as Program/Preset, Ross Video recommends that you use the highest numbered MiniME to avoid re-entry conflicts and errors. Using a lower numbered MiniME as Program/Preset may hinder Quorum taking multi-layered shots on air.

26. Click **ME1 Mapto** to select the ME on your Graphite switcher to map to ME1 in Caprica.
27. Click **ME2 Mapto** to select the ME on your Graphite switcher to map to ME2 in Caprica.
28. Click **ME3 Mapto** to select the ME on your Graphite switcher to map to ME3 in Caprica.
29. Click **ME4 Mapto** to select the ME on your Graphite switcher to map to ME4 in Caprica.
30. Click **ME5 Mapto** to select the ME on your Graphite switcher to map to ME5 in Caprica.
31. Use the **Use Accel** buttons to control the use of an experimental feature to improve communication performance between your Graphite switcher and Caprica Server. The available settings are as follows:
    - **Yes** — use this experimental feature.
    - **No** — do not use this experimental feature.
32. Click **Apply Changes** to save the switcher settings.
33. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Ultrix Acuity Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Ultrix Acuity switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Switcher Communications Setup
- Configuring an Ultrix Acuity Switcher Device
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with an Ultrix Acuity switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 14–2.
- Configure you Ultrix Acuity frame to connect to the Quorum Server.
  Refer to the section "**Switcher Communications Setup**" on page 14–3.
- On the Caprica Server, create a Switcher Device for your Ultrix Acuity switcher.
  Refer to the section "**Configuring an Ultrix Acuity Switcher Device**" on page 14–5.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 14–8.

Quorum System Connections

In a Quorum system, an Ultrix Acuity switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 14.1**) illustrates the cabling layout of the Ultrix Acuity switcher connection to a Quorum system.

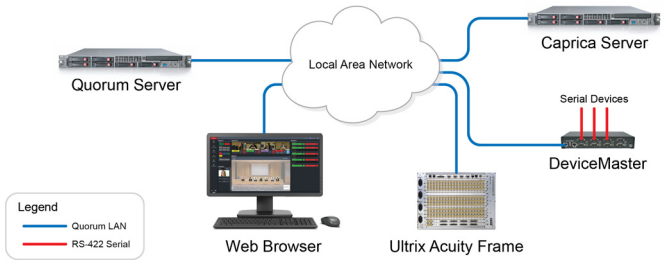


Figure 14.1 Quorum System Connection to an Ultrix Acuity Switcher

✶ In an Ultrix Acuity MultiPanel configuration, Quorum is only able to interface with the Master Panel. Quorum cannot interface with the Satellite panels in an Ultrix Acuity MultiPanel configuration.

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- Ultrix Acuity frame and panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect an Ultrix Acuity switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Ultrix Acuity Frame to your internal network.
5. Use an **Ethernet** cable to connect the Ultrix Acuity Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

- USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

- For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling an Ultrix Acuity switcher, refer to the switcher setup documentation supplied with your switcher.

Switcher Communications Setup

On your Ultrix Acuity switcher you must assign a Peripheral port and start communications to enable Quorum to control your Ultrix Acuity switcher.

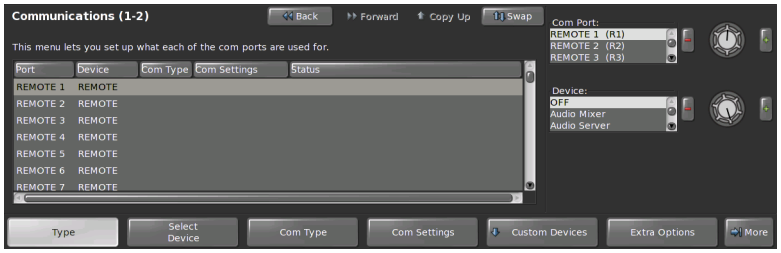
Peripheral Port

Quorum communicates with your Ultrix Acuity switcher over a Peripheral port.

To configure a Peripheral port to communicate with Quorum

1. Navigate to the **Communications Menu (1-2)** by pressing **Home** > **Setup** > **Installation** > **Com Setup**.
2. Configure the Peripheral port for Quorum communication as follows:
   a. Press **Type**.

      The **Type** page opens.

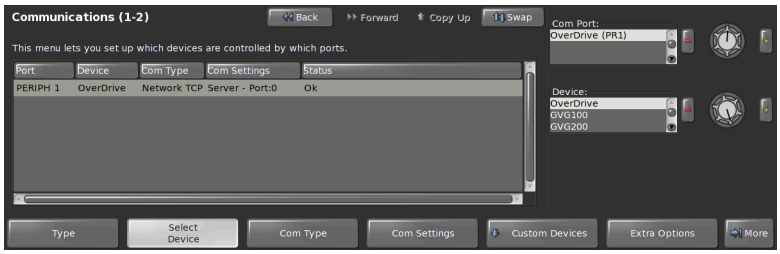


   b. Use the **Com Port** knob to select the first available Frame net port.
   c. Use the **Device** knob to select **Editor**.

3. Assign the Quorum device to the selected Frame net port as follows:

   a. Press **Select Device**.

      The **Select Device** page opens.



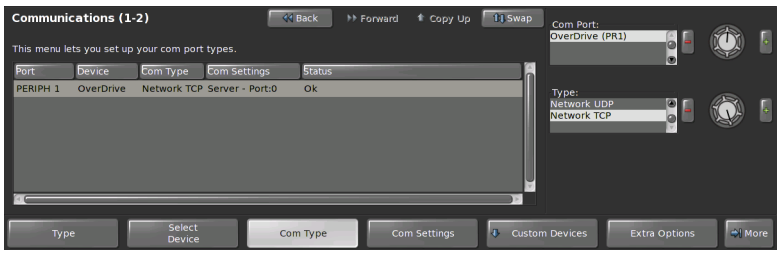
   b. Use the **Com Port** knob to select your Frame net port.

   c. Use the **Device** knob to select Quorum.

4. Select the type of communication that is used to communicate with Quorum as follows:

   a. Press **Com Type**.

      The **Com Type** page opens.



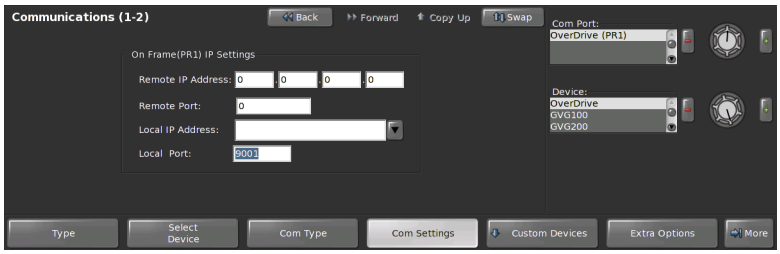
   b. Use the **Com Port** knob to select your Frame net port.

   c. Use the **Type** knob to select **Network TCP**.

5. Set the communication settings for the Peripheral port as follows:

   a. Press **Com Settings**.

      The **Com Settings** page opens.



   b. Use the **Com Port** knob to select your Frame net port.

   c. Use the **Client/Server** knob to select **Server**.

   d. In the **Local Port** box, enter `9001`.

6. Press **Home**.

   The **Installation Change Confirmation Screen** opens.

7. Press **Confirm** to save your Peripheral port configuration.

Start Communications

After configuring Peripheral port 1 and an External Link port 2, you must turn the Editor on to enable Quorum to control your Ultrix Acuity switcher.

To enable Quorum to control your Ultrix Acuity switcher

1. Navigate to the **Remote Enables** menu by pressing **Home** > **More** > **Remote Enables**.
2. Toggle the **Editor** button to **ON**.

Configuring an Ultrix Acuity Switcher Device

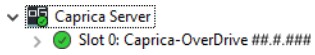
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with an Ultrix Acuity switcher in a Quorum system.

To configure the SWITCHER1 device for an Ultrix Acuity switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

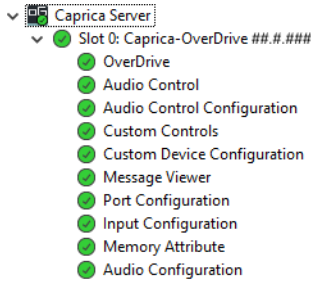
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



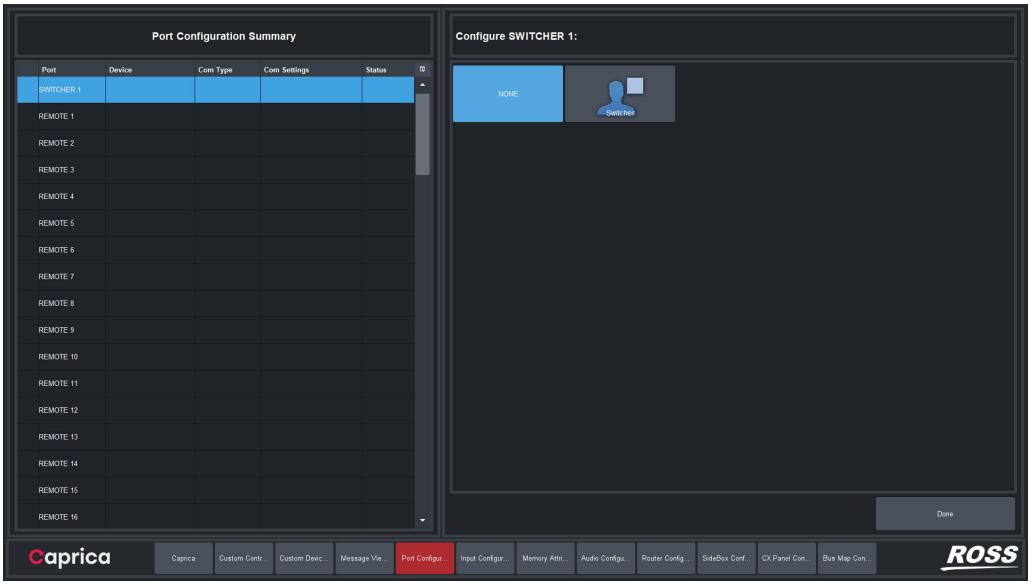
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.

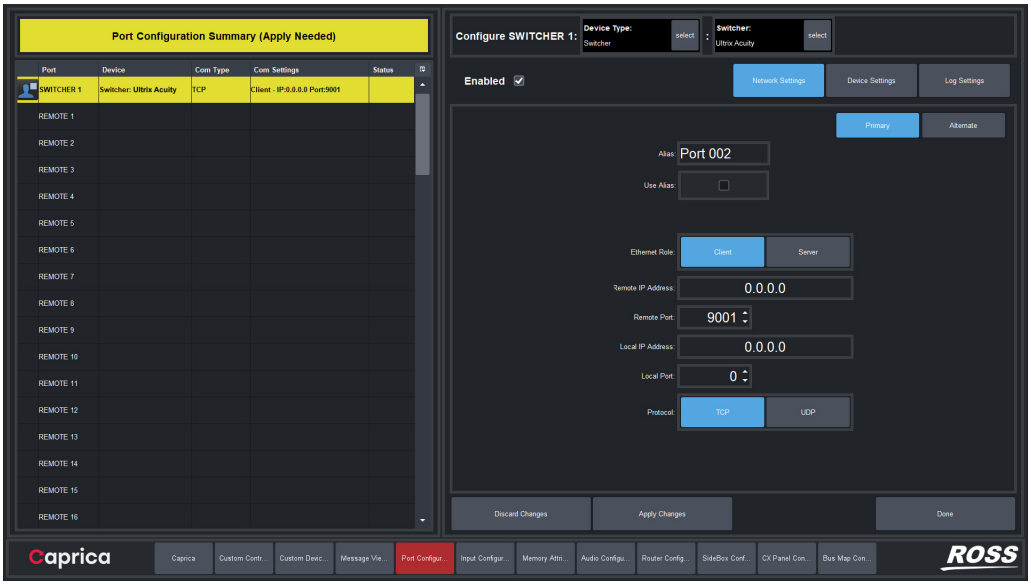


8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **Ultrix Acuity**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for an Ultrix Acuity switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Ultrix Acuity switcher.

14. Use the **Remote Port** box to enter or select `9001`.

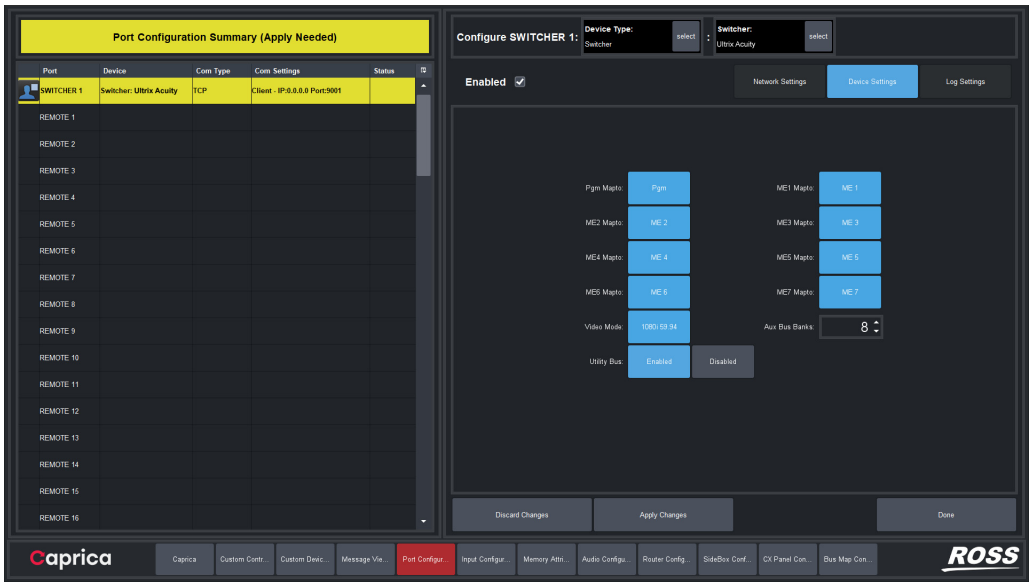
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for an Ultrix Acuity switcher.



19. Click **PP Mapto** to select the ME on your Ultrix Acuity switcher to map to the Program bus in Caprica.

20. Click **ME1 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME1 in Caprica.

21. Click **ME2 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME2 in Caprica.

22. Click **ME3 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME3 in Caprica.

23. Click **ME4 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME4 in Caprica.

24. Click **ME5 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME5 in Caprica.

25. Click **ME6 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME6 in Caprica.

26. Click **ME7 Mapto** to select the ME on your Ultrix Acuity switcher to map to ME7 in Caprica.

27. Click the **Video Mode** setting button to select the video format set on your Ultrix Acuity switcher.

28. Use the **Utility Bus** buttons to control the use of the Acuity switcher Utility Bus. The available settings are as follows:
    - **Enable** (new install default) — enable access to the Acuity switcher Utility Bus.
        - **Custom Controls** — access Custom Controls in the Utility Bus, including setting bus sources and copying bus functions. Custom Control Utility Bus functions also work using RossTalk commands.
        - **Memory Recalls** — switcher memories that include Utility Buses. Caprica Custom Controls can also recall these memories. When OverDrive templates recall these memories the Utility Buses will recall their saved bus sources.
    - **Disable** (upgrade default) — disable access to the Acuity switcher Utility Bus.
29. Use the **Aux Bus Banks** box to enter or select the number of aux bus banks on your Ultrix Acuity switcher.
30. Click **Apply Changes** to save the switcher settings.
31. Click **Done** to close the **Configure SWITCHER1** panel.
32. To view the connection status between your switcher and Caprica, click the **About Caprica** node of your **Caprica Server** in the **DashBoard Tree View**.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Acuity Setup for Quorum

This chapter provides instructions for connecting a Quorum system with a Ross Video Acuity switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Quorum System Setup
- Quorum System Connections
- Switcher Communications Setup
- Configuring an Acuity Switcher Device
- Connecting Quorum to Your Caprica Server
- Configuring Your Caprica Server

Quorum System Setup

To set up a Quorum system with an Acuity switcher, complete the following:

- Connect the Quorum system components together.
  Refer to the section "**Quorum System Connections**" on page 15–2.
- Configure your Acuity frame to connect to the Quorum Server.
  Refer to the section "**Switcher Communications Setup**" on page 15–3.
- On the Caprica Server, create a Switcher Device for your Acuity switcher.
  Refer to the section "**Configuring an Acuity Switcher Device**" on page 15–5.
- Configure the Quorum Server to connect to the Caprica Server.
  Refer to the section "**Connecting Quorum to Your Caprica Server**" on page 15–8.

Quorum System Connections

In a Quorum system, an Acuity switcher connects to the Quorum Server through a Caprica Server. The following diagram (**Figure 15.1**) illustrates the cabling layout of the Acuity switcher connection to a Quorum system.

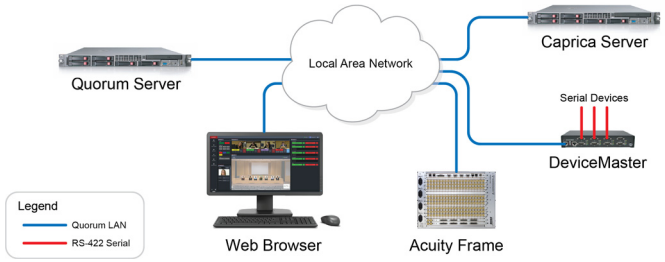


Figure 15.1 Quorum System Connection to an Acuity Switcher

✶ In an Acuity MultiPanel configuration, Quorum is only able to interface with the Master Panel. Quorum cannot interface with the Satellite panels in an Acuity MultiPanel configuration.

The following Quorum system components connect through the internal network of your company:

- Quorum Server
- Caprica Server
- Acuity frame and panel

Cabling to connect Quorum system components to an internal network is not provided with Quorum systems.

To connect an Acuity switcher to a Quorum system

1. Verify that the **Quorum Server** is connected to your internal network through Ethernet port **1** on the back of the server.
2. Verify that the **Caprica Server** is connected to your internal network.
3. Use an **Ethernet** cable to connect the DeviceMaster **UP** port to your internal network.
4. Use an **Ethernet** cable to connect the Acuity Frame to your internal network.
5. Use an **Ethernet** cable to connect the Acuity Panel to your internal network.

Quorum Server Peripheral Connections

The Quorum system comes with a USB keyboard that can be connected to a USB port on the Quorum computer.

- USB/KVM extenders can interfere with Quorum system operation and are not supported for use with Quorum client computers. Place Quorum client computers within the standard keyboard, video, and mouse cable lengths from the operator.

Touch-screen monitors may be purchased as an option to provide a dual-monitor display. Contact your Ross Video representative for more information on this option.

- For DELL Quorum computers, connect the primary monitor to plug number 1 on the Y break-out cable attached to the back of the computer to ensure that the primary monitor is used for the POST and the operating system.

For More Information on...

- cabling a Quorum Server, refer to the ***Cabling Your Quorum Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling an Acuity switcher, refer to the switcher setup documentation supplied with your switcher.

Switcher Communications Setup

On your Acuity switcher you must assign a Peripheral port and start communications to enable Quorum to control your Acuity switcher.

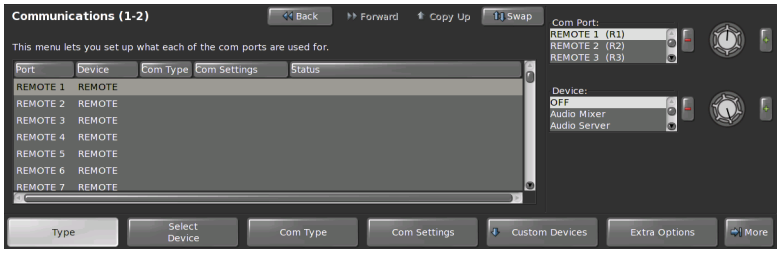
Peripheral Port

Quorum communicates with your Acuity switcher over a Peripheral port.

To configure a Peripheral port to communicate with Quorum

1. Navigate to the **Communications Menu (1-2)** by pressing **Home** > **Setup** > **Installation** > **Com Setup**.
2. Configure the Peripheral port 1 port for Quorum communication as follows:
   a. Press **Type**.

      The **Type** page opens.



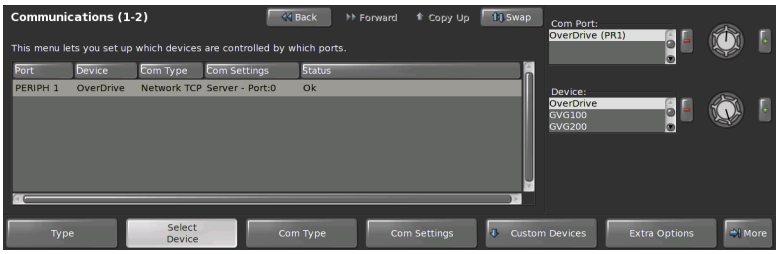
   b. Use the **Com Port** knob to select **PERIPH 1 (PR1)**.

   c. Use the **Device** knob to select **Editor**.

3. Assign the Quorum device to Peripheral port 1 as follows:

   a. Press **Select Device**.

      The **Select Device** page opens.



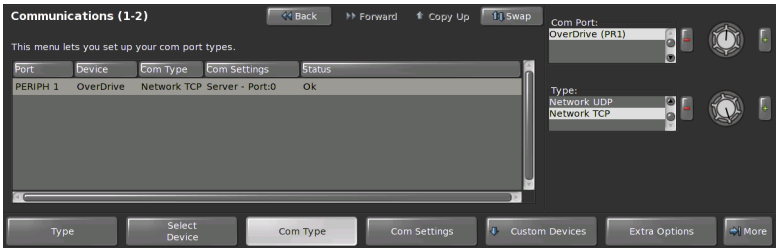
   b. Use the **Com Port** knob to select **PERIPH 1 (PR1)**.

   c. Use the **Device** knob to select **Quorum**.

4. Select the type of communication that is used to communicate with Quorum as follows:

   a. Press **Com Type**.

      The **Com Type** page opens.



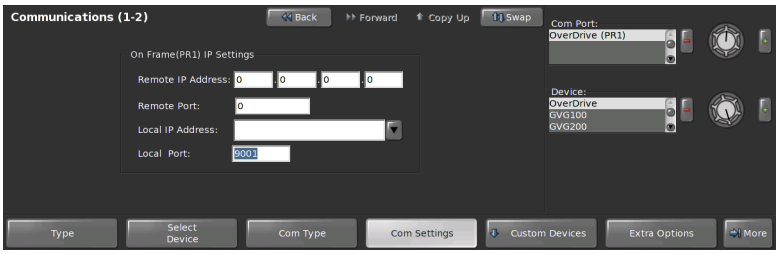
   b. Use the **Com Port** knob to select **PERIPH 1 (PR1)**.

   c. Use the **Type** knob to select **Network TCP**.

5. Set the communication settings for Peripheral port 1 as follows:

   a. Press **Com Settings**.

      The **Com Settings** page opens.



   b. Use the **Com Port** knob to select **PERIPH 1 (PR1)**.

   c. Use the **Client/Server** knob to select **Server**.

   d. In the **Local Port** box, enter `9001`.

6. Press **Home**.

   The **Installation Change Confirmation Screen** opens.

7. Press **Confirm** to save your Peripheral port 1 configuration.

Start Communications

After configuring Peripheral port 1, you must turn the Editor on to enable Quorum to control your Acuity switcher.

To enable Quorum to control your Acuity switcher

1. Navigate to the **Remote Enables** menu by pressing **Home** > **More** > **Remote Enables**.
2. Toggle the **Editor** button to **ON**.

Configuring an Acuity Switcher Device

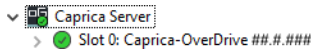
The SWITCHER1 device on the Caprica Server enables the Quorum Server to communicate with an Acuity switcher in a Quorum system.

To configure the SWITCHER1 device for an Acuity switcher

1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

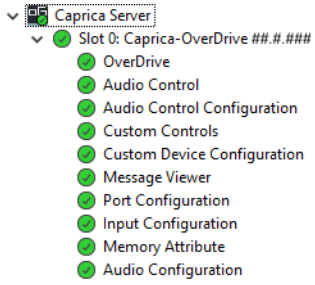
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   The **Caprica Server** node displays the available Caprica Servers.



4. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

   The **Slot 0: Caprica** node displays the available Caprica Server clients.



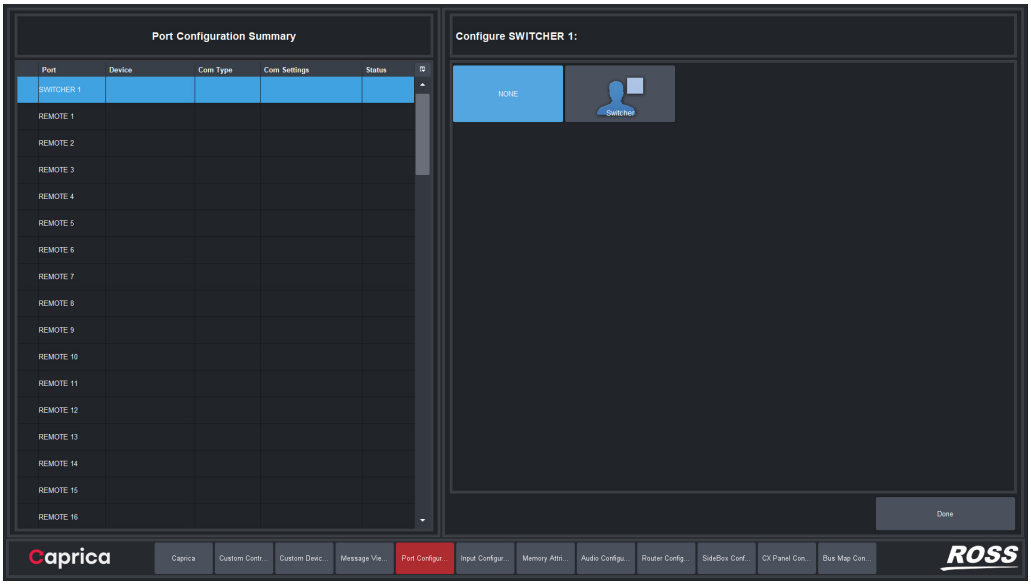
5. Double-click the **Port Configuration** node.

   The **Port Configuration** client opens in the **Device View**.
6. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.

7. In the **Port Configuration Summary** table, double-click **SWITCHER1** in the **Port** column.

   The **Configure SWITCHER1** panel opens.

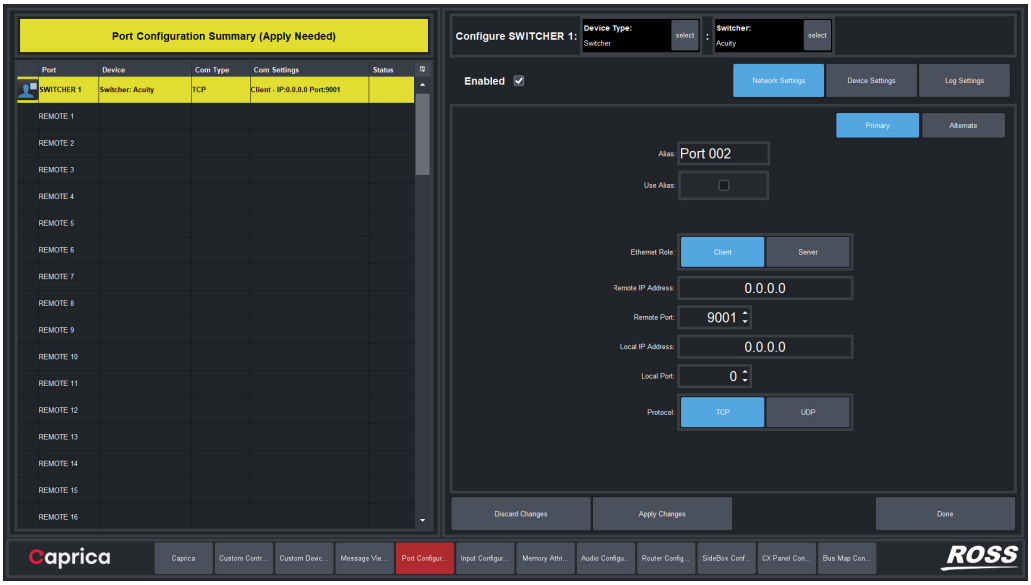


8. In the **Configure SWITCHER1** panel, click **Switcher**.

   The **Configure SWITCHER1** panel lists the available switchers.

9. Click **Acuity**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for an Acuity switcher.



10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.

11. To set a custom name for the remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

12. For the **Ethernet Role** setting, click **Client**.

13. In the **Remote IP Address** box, enter the IP address of your Acuity switcher.

14. Use the **Remote Port** box to enter or select `9001`.

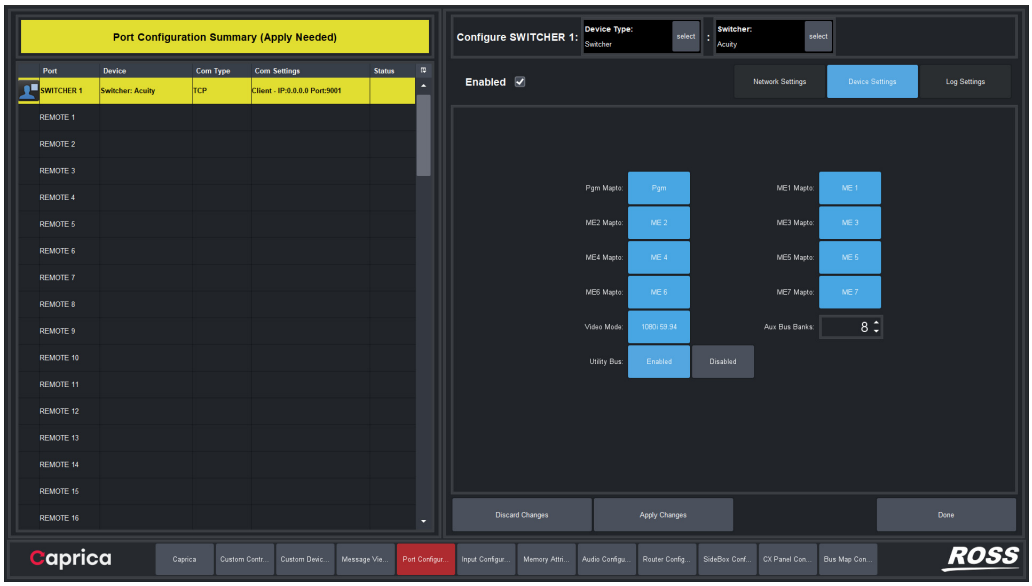
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `0`.

17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for an Acuity switcher.



19. Click **PP Mapto** to select the ME on your Acuity switcher to map to the Program bus in Caprica.

20. Click **ME1 Mapto** to select the ME on your Acuity switcher to map to ME1 in Caprica.

21. Click **ME2 Mapto** to select the ME on your Acuity switcher to map to ME2 in Caprica.

22. Click **ME3 Mapto** to select the ME on your Acuity switcher to map to ME3 in Caprica.

23. Click **ME4 Mapto** to select the ME on your Acuity switcher to map to ME4 in Caprica.

24. Click **ME5 Mapto** to select the ME on your Acuity switcher to map to ME5 in Caprica.

25. Click **ME6 Mapto** to select the ME on your Acuity switcher to map to ME6 in Caprica.

26. Click **ME7 Mapto** to select the ME on your Acuity switcher to map to ME7 in Caprica.

27. Click the **Video Mode** setting button to select the video format set on your Acuity switcher.

28. Use the **Utility Bus** buttons to control the use of the Acuity switcher Utility Bus.The available settings are as follows:
    - **Enable** (new install default) — enable access to the Acuity switcher Utility Bus.
        - **Custom Controls** — access Custom Controls in the Utility Bus, including setting bus sources and copying bus functions. Custom Control Utility Bus functions also work using RossTalk commands.
        - **Memory Recalls** — switcher memories that include Utility Buses. Caprica Custom Controls can also recall these memories. When OverDrive templates recall these memories the Utility Buses will recall their saved bus sources.
    - **Disable** (upgrade default) — disable access to the Acuity switcher Utility Bus.
29. Use the **Aux Bus Banks** box to enter or select the number of aux bus banks on your Acuity switcher.
30. Click **Apply Changes** to save the switcher settings.
31. Click **Done** to close the **Configure SWITCHER1** panel.
32. To view the connection status between your switcher and Caprica, click the **About Caprica** node of your **Caprica Server** in the **DashBoard Tree View**.

Connecting Quorum to Your Caprica Server

In Quorum, you use the Server Configuration web page to configure the Quorum Server to communicate with the Quorum system switcher through the Caprica Server. To configure a Quorum Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***Quorum Installation and Configuration Guide***.

Configuring Your Caprica Server

After configuring a Caprica device for your switcher, configure the following on your Caprica Server:

- Devices connected to your Quorum system
- Inputs to your Quorum system
- Audio channel names displayed in Quorum
- Switcher Custom Controls available in Quorum

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 18–1.

Camera Configuration

Quorum uses Caprica to control the cameras in a meeting venue. In Caprica, you must configure a Caprica device for each camera in your venue and assign it to a switcher input.

The following topics are discussed in this chapter:

- Configuring a Caprica Device for Your Cameras
- Connecting Camera Devices to Switcher Inputs

Configuring a Caprica Device for Your Cameras

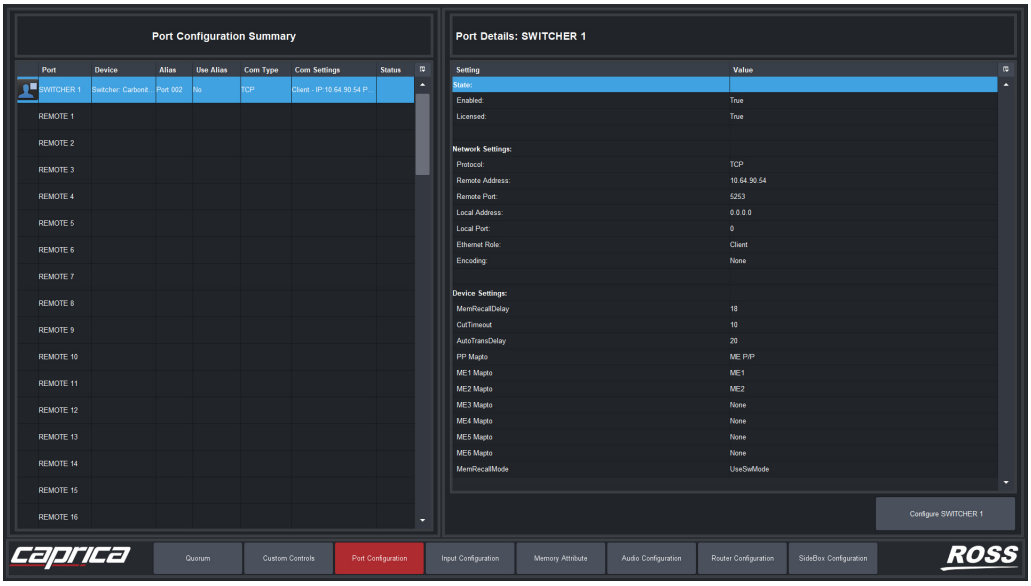
On the Caprica Server, you need to configure a Caprica device for each camera in your venue. Using the Port Configuration client on the Caprica Server, you can configure Caprica devices for your cameras.

To configure a Caprica device for a camera

1. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica-Quorum** node.
4. Double-click the **Port Configuration** node.

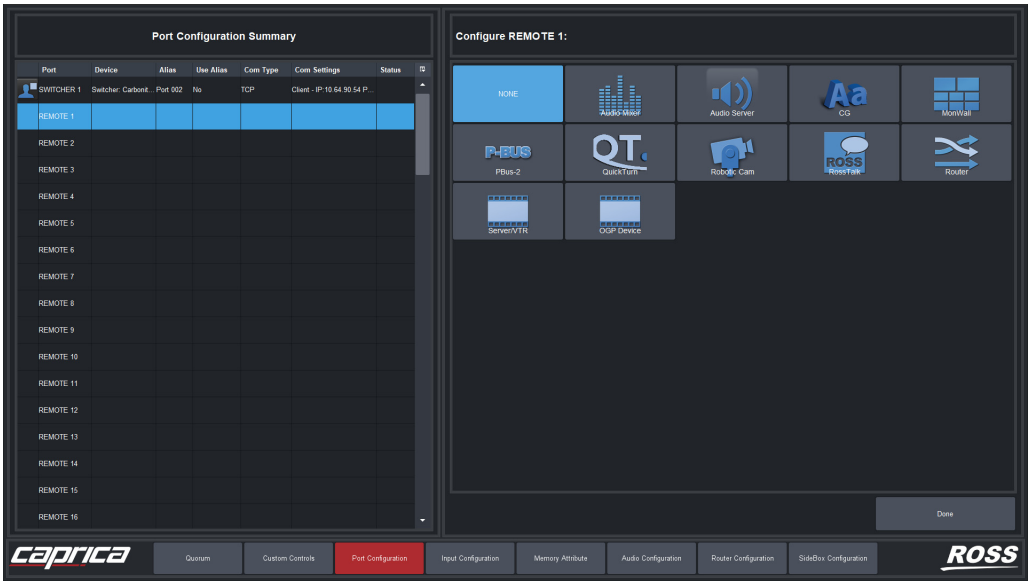
   The **Port Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.



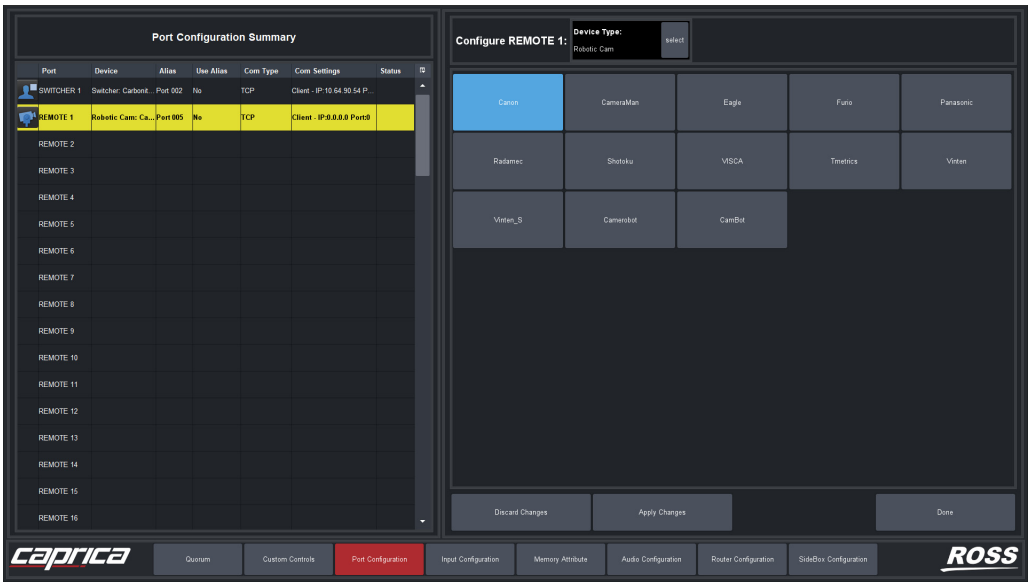
6. In the **Port** column of the **Port Configuration Summary** table, double-click the port to configure for the device (**REMOTE 1 to REMOTE72**).

The **Configure REMOTE #** panel for the selected port opens.



7. In the **Configure REMOTE #** panel, click **Robotic Cam**.

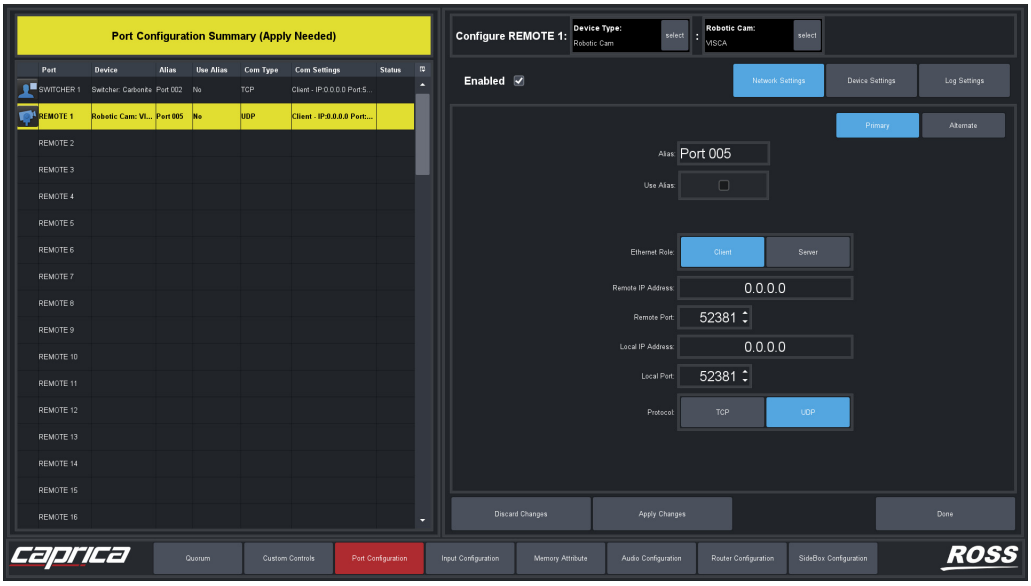
   The **Configure REMOTE #** panel lists the available cameras.



   If you selected the wrong device type, click **select** in the **Device Type** area to return to the list of available device types.

8. Click the device to configure for your brand of camera. To configure a Ross Video PTZ camera, click **VISCA**.

   The **Configure REMOTE #** panel displays the **Network Settings** for the selected camera device.



   If you selected the wrong device, click **select** in the **Device Name** area to return to the list of available devices.

9. In the **Configure REMOTE #** panel, select the **Enable** check box to enable Caprica to control the device you are configuring. Clear the **Enable** check box for a device when you do not want Caprica to control the device.

10. In the **Alias** box, enter a custom name for the camera device on the remote port.

    For example: **PTZ1**.

11. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

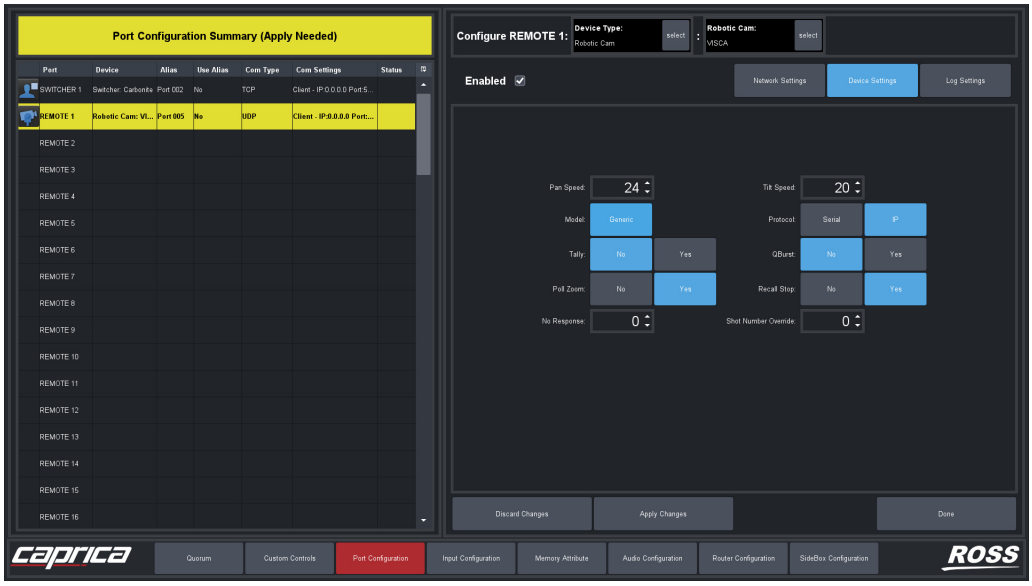
12. Use the settings in the ***Ross Video External Device Setup Sheet*** for the selected camera device to configure the settings in the **Network Settings** section for the device.

    Use the following settings to configure the **Network Settings** for a Ross Video PTZ camera:

    - **Ethernet Role** — Client
    - **Remote IP Address** — IP address of your PTZ camera
    - **Remote Port** — Port number that your PTZ uses to communicate with other devices
    - **Local IP Address** — 0.0.0.0
    - **Local Port** — 0
    - **Protocol** — TCP

13. Click **Device Settings**.

    The **Configure REMOTE #** panel displays the **Device Settings** for the selected camera device.

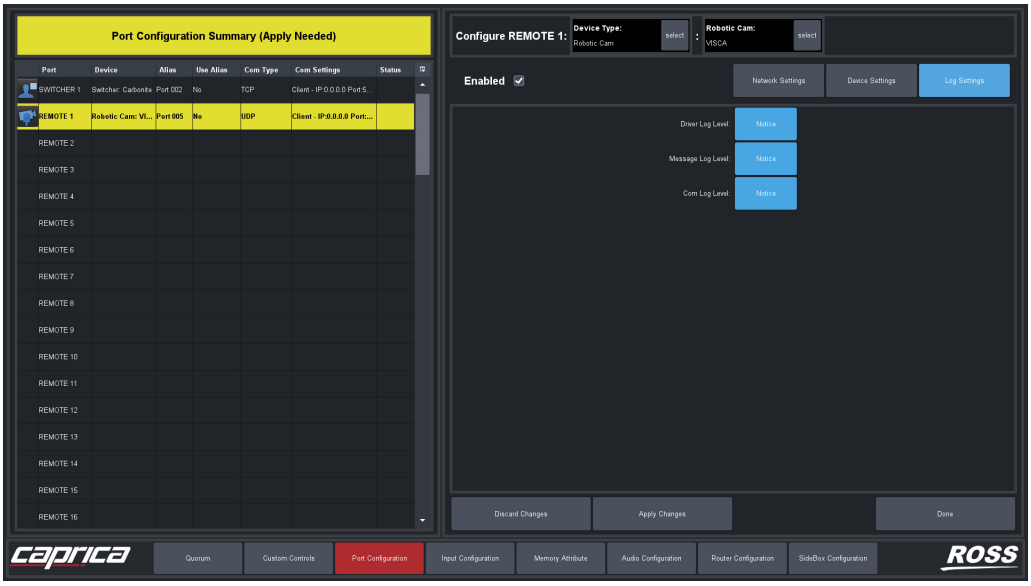


14. Use the following settings to configure the **Device Settings** for a Ross Video PTZ camera:

    - **Pan Speed** — enter or select the speed at which to pan the camera, **1** to **24**.
    - **Model** — click **Ross PTZ**.
    - **Tally** — click **Yes** to enable camera tally. Click **No** to disable camera tally.
    - **Poll Zoom** — click **Yes** to enable poll zoom. Click **No** to disable poll zoom.
    - **No Response** — enter or select the interval for no response, **0** to **20**.
    - **Tilt Speed** — enter or select the speed at which to tilt the camera, **1** to **20**.
    - **Protocol** — click **IP**.
    - **QBurst** — click **Yes** to enable QBurst. Click **No** to disable QBurst.
    - **Recall Stop** — click **Yes**, to connect recalls. Click **No** to not connect recalls.
    - **Shot Number Override** — enter or select the number of shots that Quorum can recall from the camera, **1** to **255**. Enter **0** to use the camera default as the number of shots that Quorum can recall.

15. To select the logging level of a device, click **Log Settings**.

    The **Configure REMOTE #** panel displays the **Log Settings** for the camera device.



16. Click the **Log Level** buttons to set the logging level for the camera device.
17. Click **Apply Changes** to save the network, device, and log settings for the camera device.
18. Click **Done** to close the **Configure REMOTE #** panel.
19. Repeat step **6** to step **17** for each camera you want to connect to your Quorum Server.

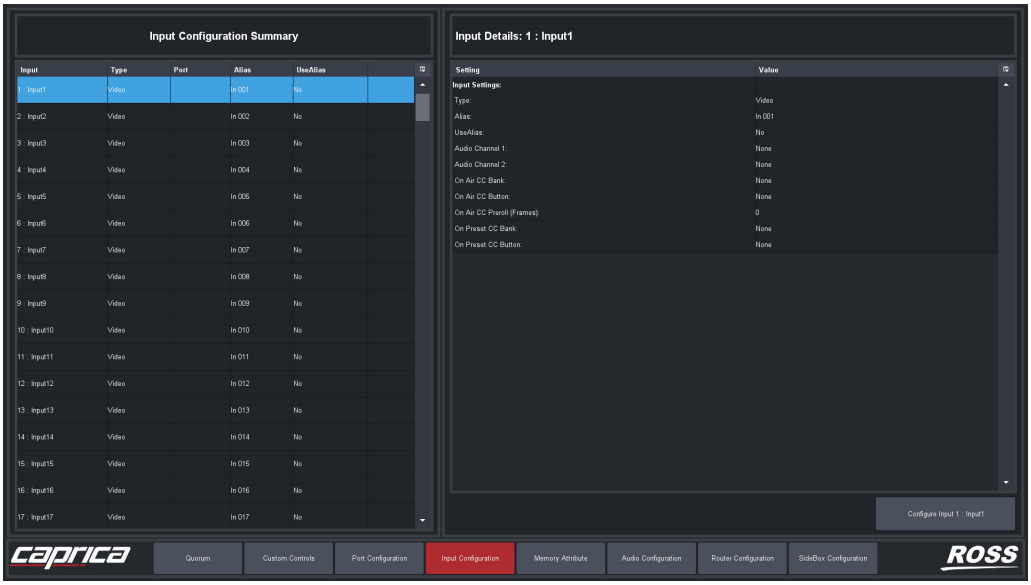
Connecting Camera Devices to Switcher Inputs

After configuring Caprica devices for your cameras, you need to connect the camera devices to switcher inputs.

To configure a switcher input for a camera device

1. At the bottom of the **Device View**, click **Input Configuration**.

    The **Input Configuration** client opens.

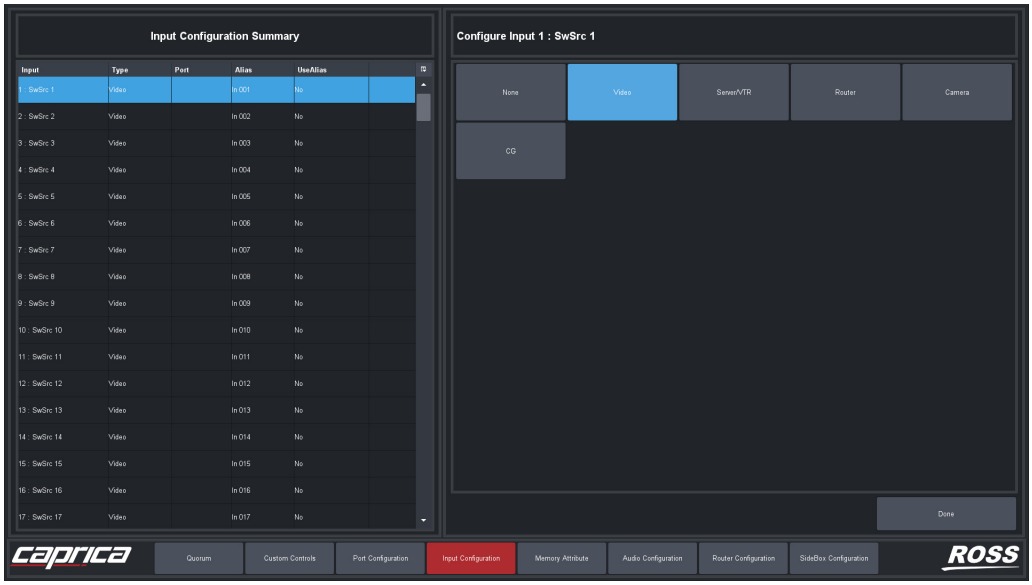


2. In the **Input** column of the **Input Configuration Summary** table, double-click the switcher input to connect with a camera.

   The **Configure Input #** panel displays the **Input Settings** the current **Input Type** associated with the selected switcher input.

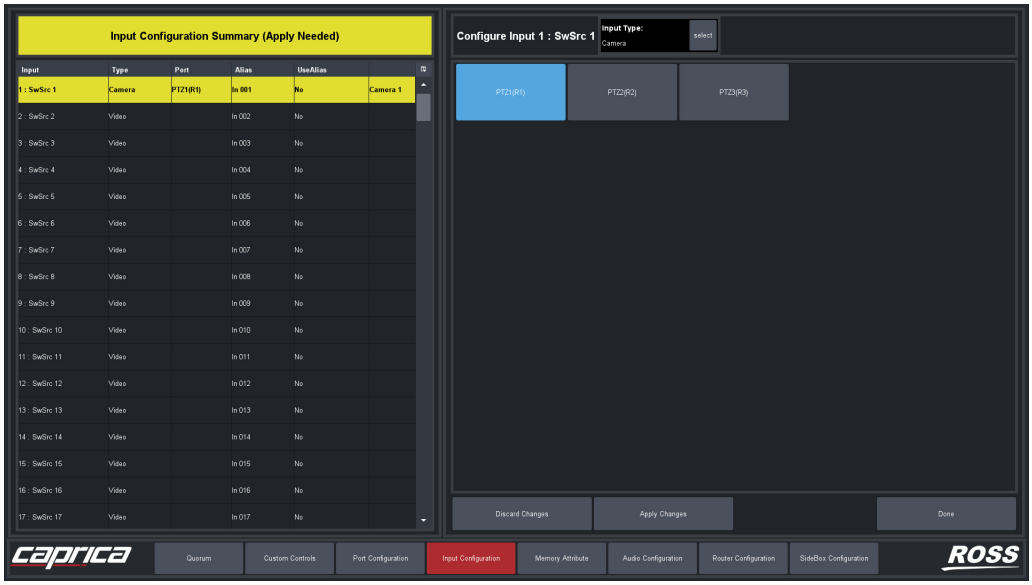
3. At the top of the **Configure Input #** panel, click **select** in the **Input Type** area.

   The **Configure Input #** panel lists the available input types.



4. Click **Camera**.

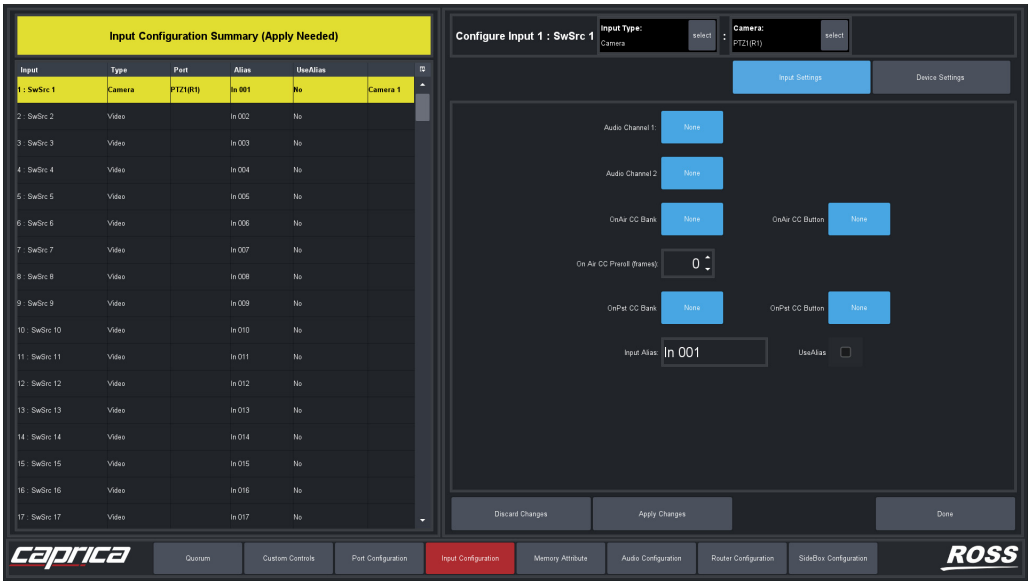
   The **Configure Input #** panel lists the camera devices that you can connect with the selected switcher input.



   If you selected the wrong input type, click **select** in the **Input Type** area to return to the list of available input types.

5. Click the **Camera Device** to connect to the selected switcher input.

   The **Configure Input #** panel displays the **Input Settings** for the selected switcher input.



   If you selected the wrong device, click **select** in the **Device Name** area to return to the list of available devices.

6. Use the following settings to configure the **Device Settings** for the combination of switcher input and camera device:

   - **Audio Channel 1** — click this button to select the audio channel for the audio channel 1 of the selected switcher input.
   - **Audio Channel 2** — click this button to select the audio channel for the audio channel 2 of the selected switcher input.
   - **On Air CC Bank** — click this button to select the custom control bank that contains the custom control button assigned to the custom control to run when the input goes on air.
   - **On Air CC Button** — click this button to select the custom control button assigned to the custom control to run when the input goes on air.

     To not run a custom control when the input goes on air, select **None** for either the **On Air CC Bank** or the **On Air CC** setting.
   - **On Air CC Preroll (frame)** — in this box, enter or select the number of frames to delay taking the input on air after firing the selected On Air custom control.
   - **On Pst CC Bank** — click this button to select the custom control bank that contains the custom control button assigned to the custom control to run when Quorum prepares the input.
   - **On Pst CC Button** — click this button to select the custom control button assigned to the custom control to run when Quorum prepares the input.

     To not run a custom control when Quorum prepares the input, select **None** for either the **On Pst CC Bank** or the **On Pst CC Button**.

7. To set a custom name for a switcher input, complete the following steps:

   a. In the **Input Alias** box, enter a custom name for the selected switcher input.

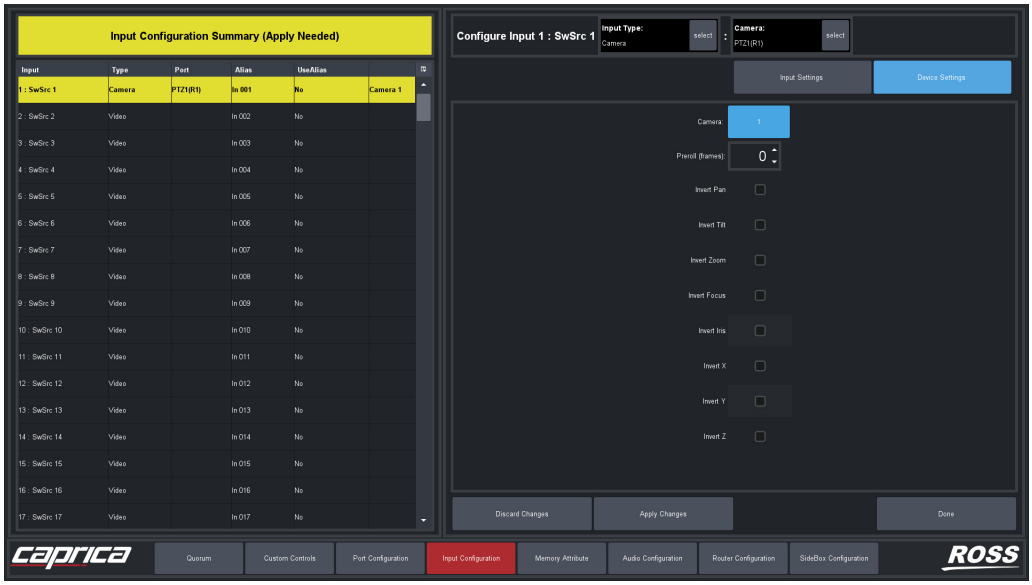
   b. Select the **UseAlias** check box.

      The **Alias** column in the **Input Configuration Summary** table displays the custom name set for the switcher input. The **UseAlias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the switcher input.

      To use the default switcher input name, clear the **UseAlias** check box. The **UseAlias** column displays **No** to indicate that Caprica and Quorum use the default switcher input name. The **Alias** column and the **Input Alias** box retain the custom name set for the switcher input.

8. Click **Device Settings**.

   The **Configure Input #** panel displays the **Device Settings** for the selected switcher input.



9. Use the following settings to configure the **Device Settings** for the combination of switcher input and camera device:

   - **Camera** — click this button to select the input number to which the camera is connected.
   - **Preroll (frames)** — in this box, enter or select the number of frames to delay transitioning to the camera.
   - **Invert Pan** — select this check box to invert the pan direction that the camera pans when using the positioner.
   - **Invert Tilt** — select this check box to invert the direction that the camera tilts when using the positioner.
   - **Invert Zoom** — select this check box to invert the zoom direction when using the positioner.
   - **Invert Focus** — select this check box to invert the focus direction when using the positioner.
   - **Invert Iris** — select this check box to invert the iris direction when using the positioner.
   - **Invert X** — select this check box to invert the direction that the camera moves in the X-axis when using the positioner.
   - **Invert Y** — select this check box to invert the direction that the camera moves in the Y-axis when using the positioner.
   - **Invert Z** — select this check box to invert the direction that the camera moves in the Z-axis when using the positioner.

10. Click **Apply Changes** to save the network and device settings for the selected switcher input.

11. Click **Done** to close the **Configure Input #** panel.

12. Repeat step **2** to step **10** for each device you want to connect to your Quorum system.

After you configure the ports and inputs on your Caprica Server, you can physically connect your devices to your Quorum system.

Graphics System Configuration

Quorum uses Caprica to control the graphics system of a meeting venue. In Caprica, you must configure a Caprica device for the graphics system used in your Quorum system.

The following topic is discussed in this chapter:

- Configuring a Caprica Device for Your Graphics System

Configuring a Caprica Device for Your Graphics System

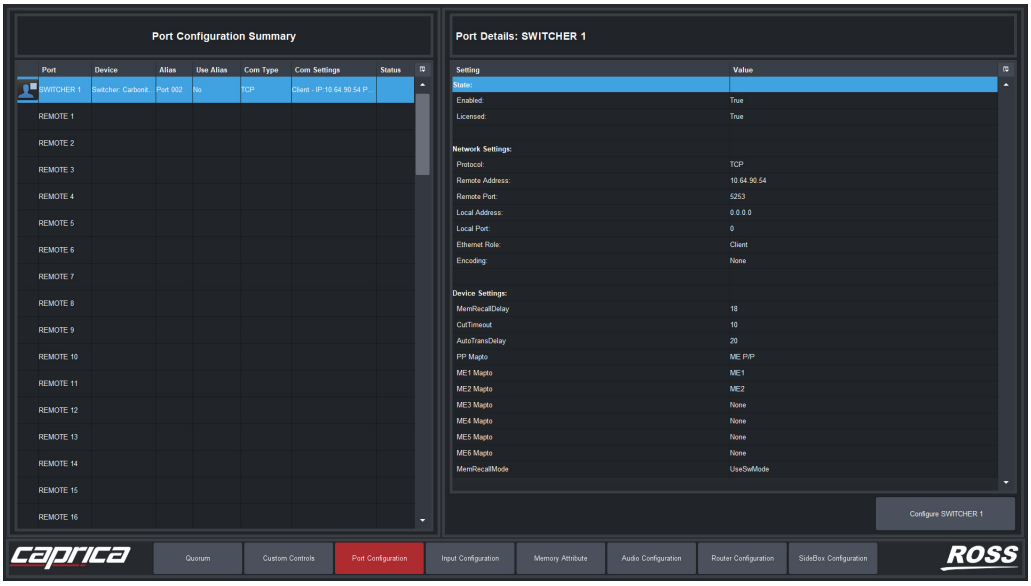
On the Caprica Server, you need to configure a Caprica device for the graphics system in your Quorum system. Using the Port Configuration client on the Caprica Server, you can configure a Caprica device for your graphics system.

To configure a Caprica device for a graphics system

1. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica-Quorum** node.
4. Double-click the **Port Configuration** node.

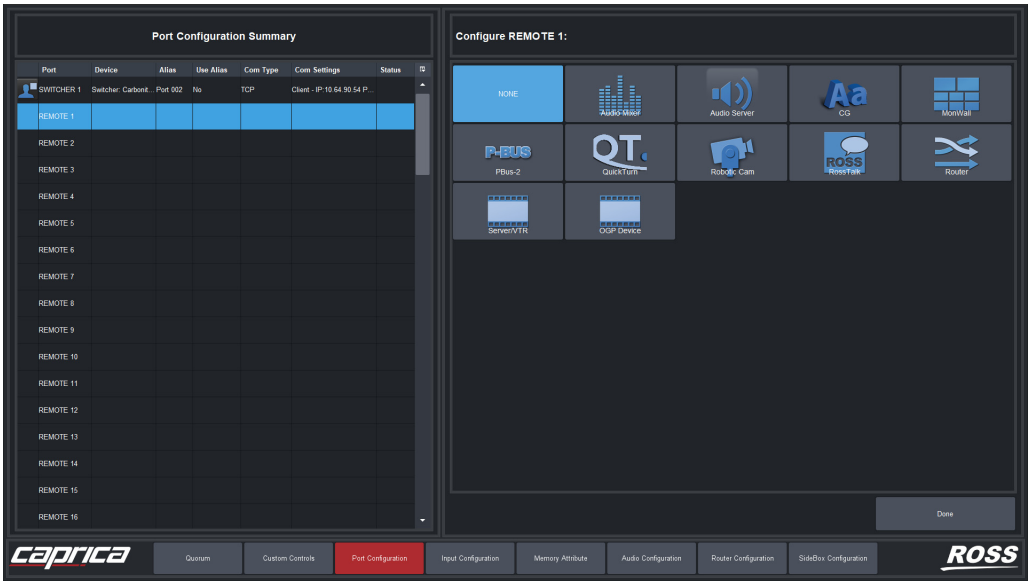
   The **Port Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.



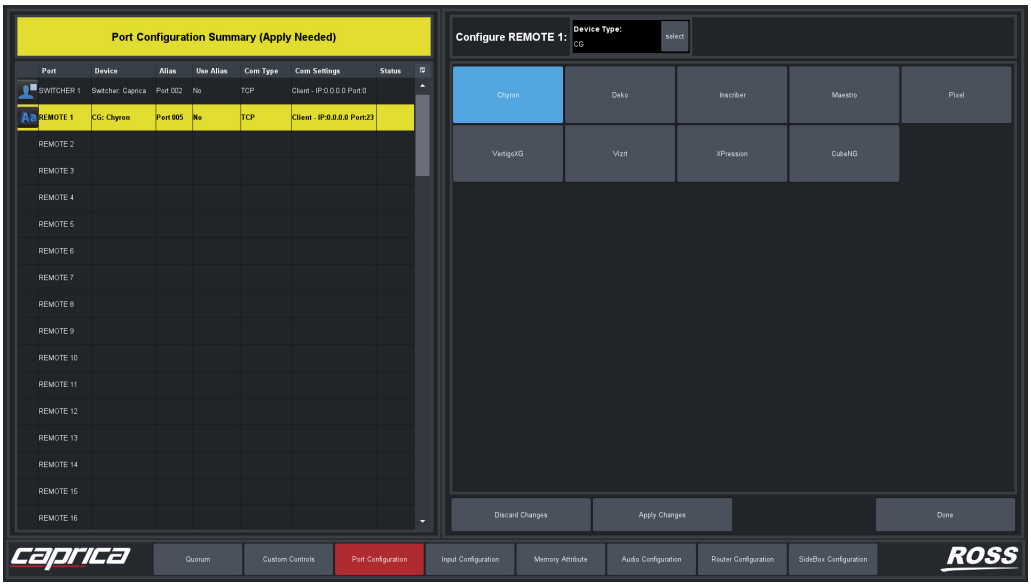
6. In the **Port** column of the **Port Configuration Summary** table, double-click the port to configure for the device (**REMOTE 1 to REMOTE72**).

The **Configure REMOTE #** panel for the selected port opens.



7. In the **Configure REMOTE #** panel, click **CG**.

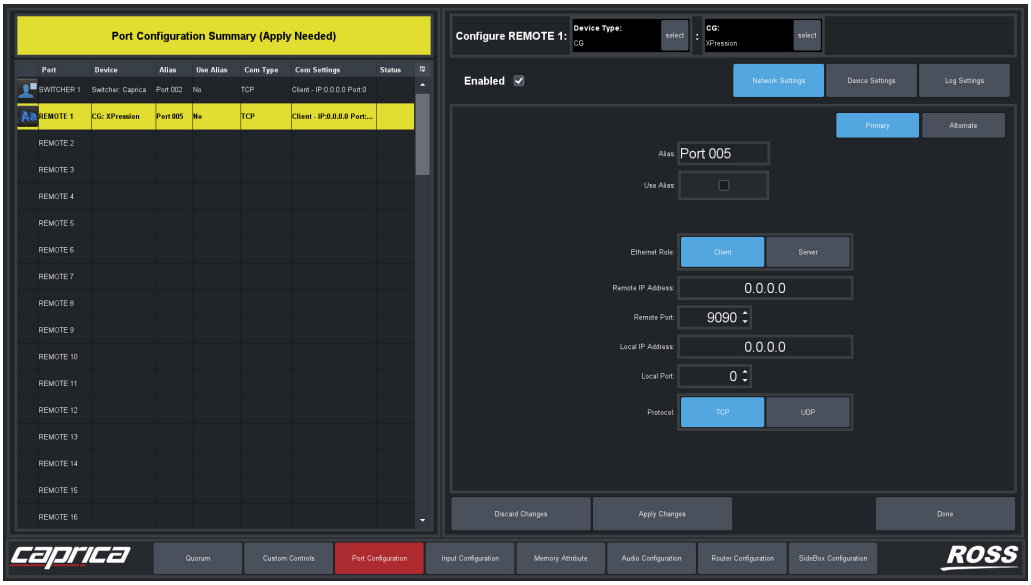
   The **Configure REMOTE #** panel lists the available graphics systems.



If you selected the wrong device type, click **select** in the **Device Type** area to return to the list of available device types.

8. Click the device to configure for your brand of graphics system. To configure a Ross XPression graphics system, click **XPression**.

   The **Configure REMOTE #** panel displays the **Network Settings** for the selected graphics system device.



   If you selected the wrong device, click **select** in the **Device Name** area to return to the list of available devices.

9. In the **Configure REMOTE #** panel, select the **Enable** check box to enable Caprica to control the device you are configuring. Clear the **Enable** check box for a device when you do not want Caprica to control the device.

10. In the **Alias** box, enter a custom name for the graphics system on the remote port.

    For example: **XPression**.

11. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

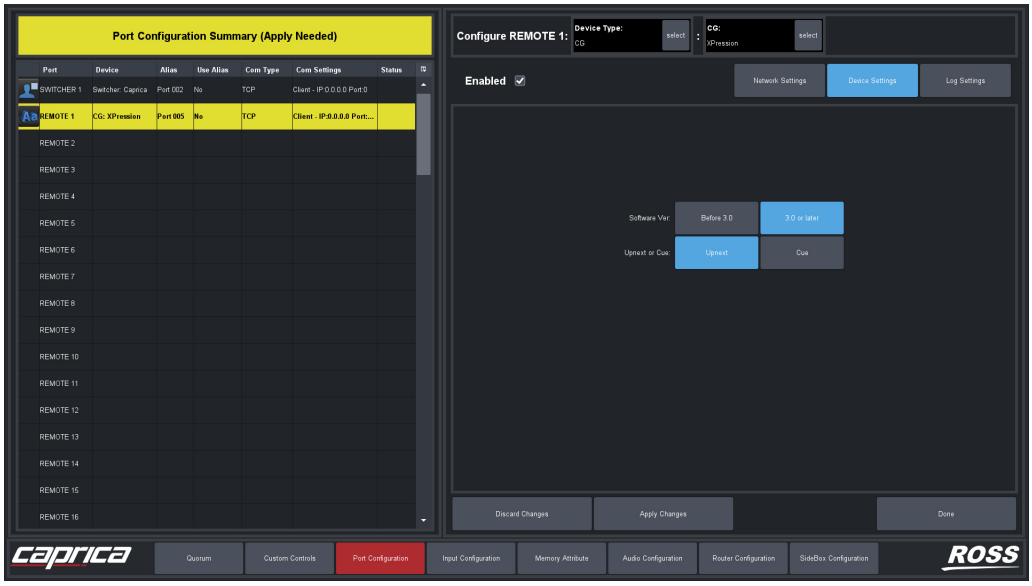
12. Use the settings in the ***Ross Video External Device Setup Sheet*** for the selected graphics system device to configure the settings in the **Network Settings** section for the device.

    Use the following settings to configure the **Network Settings** for a Ross Video XPression graphics system:

    - **Ethernet Role** — Client
    - **Remote IP Address** — IP address of your XPression graphics system
    - **Remote Port** — 9090
    - **Local IP Address** — 0.0.0.0
    - **Local Port** — 0
    - **Protocol** — TCP

13. Click **Device Settings**.

    The **Configure REMOTE #** panel displays the **Device Settings** for the selected graphics system device.

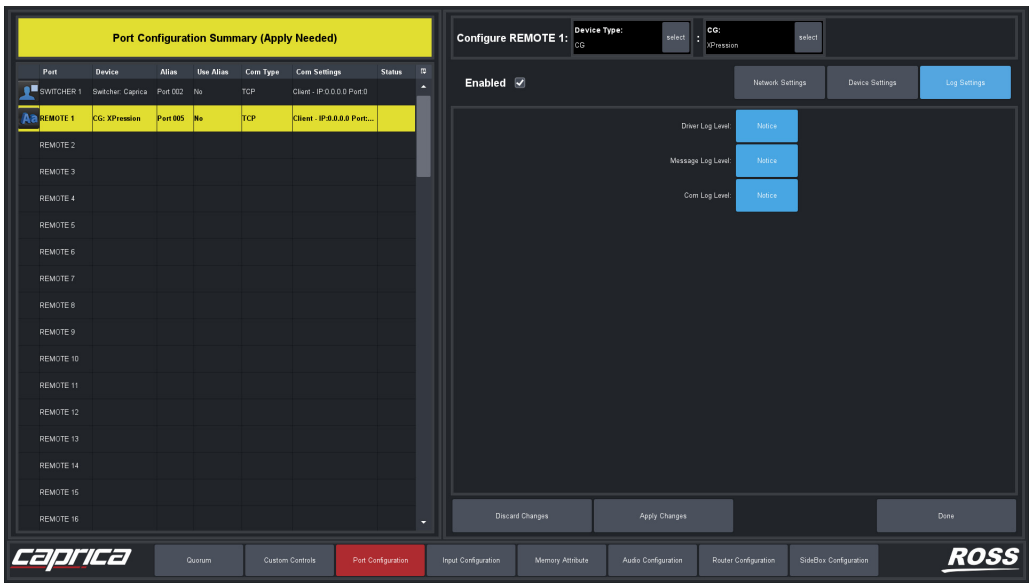


14. Use the following settings to configure the **Device Settings** for a Ross Video XPression graphics system:

    - **Software Ver** — click the software version installed on your XPression. The available options are as follows:
      - › **Before 3.0**
      - › **3.0 or later**
    - **Upnext or Cue** — click the method with which to handle take item takeids. The available options are as follows:
      - › **Upnext** — set the preview to the take item *takeid* in the sequencer without moving the focus bar.
      - › **Cue** — prepare the take item *takeid* to go to air next in framebuffer number buffer on layer number layer. The take item is not taken to air but is prepared to be taken to air without any frame delay.

15. To select the logging level of a device, click **Log Settings**.

    The **Configure REMOTE #** panel displays the **Log Settings** for the graphics system device.



16. Click the **Log Level** buttons to set the logging level for the graphics system device.
17. Click **Apply Changes** to save the network, device, and log settings for the camera device.
18. Click **Done** to close the **Configure REMOTE #** panel.

Caprica Server Configuration

After configuring the Caprica Server to connect a switcher to your Quorum Server, you also need to configure devices, switcher inputs, audio channel names, router sources (inputs), and router destinations (outputs). You may also want to create Custom Controls for the switcher in your Quorum system. This chapter provides instructions for completing the configuration of a Caprica Server in a Quorum system and creating Custom Controls for the switcher in a Quorum system.

The following topics are discussed in this chapter:

- Configuring Devices to Connect to a Quorum System
- Configuring Custom Device Drivers
- Configuring Switcher Inputs
- Assigning Names and Custom Controls to Memories
- Configuring Audio
- Customizing Router Source and Destination Names
- Controlling Router Sources and Destinations for Quorum
- Creating Custom Control Macros
- Configuring Bus Maps
- Saving Caprica Server Configuration
- Recalling Configurations from a Diskset

Configuring Devices to Connect to a Quorum System

On the Caprica Server, you need to configure each device that you will connect to your Quorum system to enable Quorum to control the devices. Using the Port Configuration client on the Caprica Server, you can configure the following types of devices to work with Quorum:

- Audio Mixers
- Audio Servers
- Character Generators
- PBus-2 Devices
- QuickTurn Devices
- Robotic Cameras
- RossTalk Devices
- Routers
- Video Servers / VTRs
- OGP Devices

For each device that you can use with Quorum, Ross Video publishes an ***External Device Setup Sheet*** that contains the settings that enable Quorum to control the device.

For More Information on...

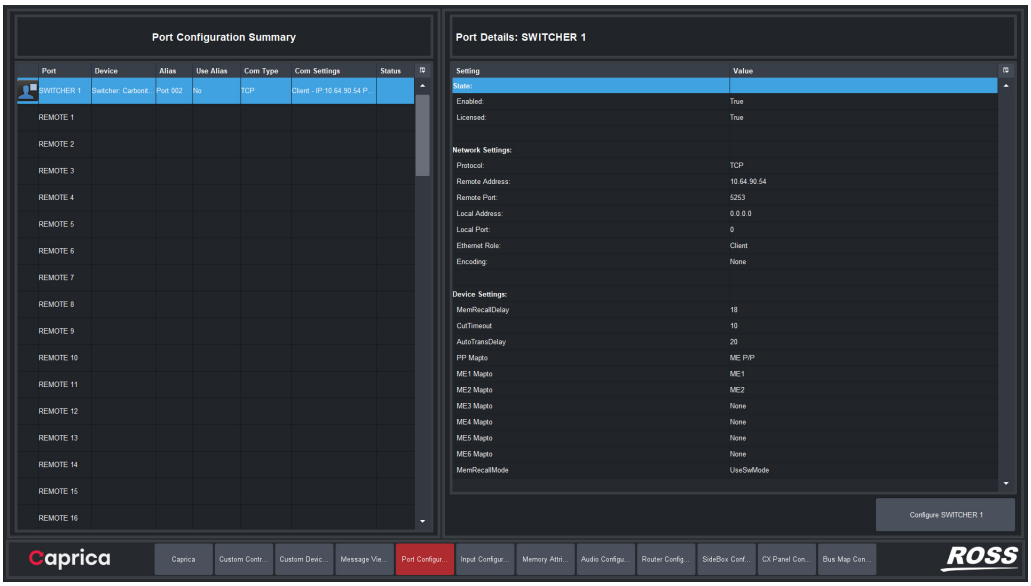
- using devices in Quorum, refer to the section "**External Device Templates**" in the ***Quorum User Guide***.

To configure a device for Quorum

1. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
4. Double-click the **Port Configuration** node.

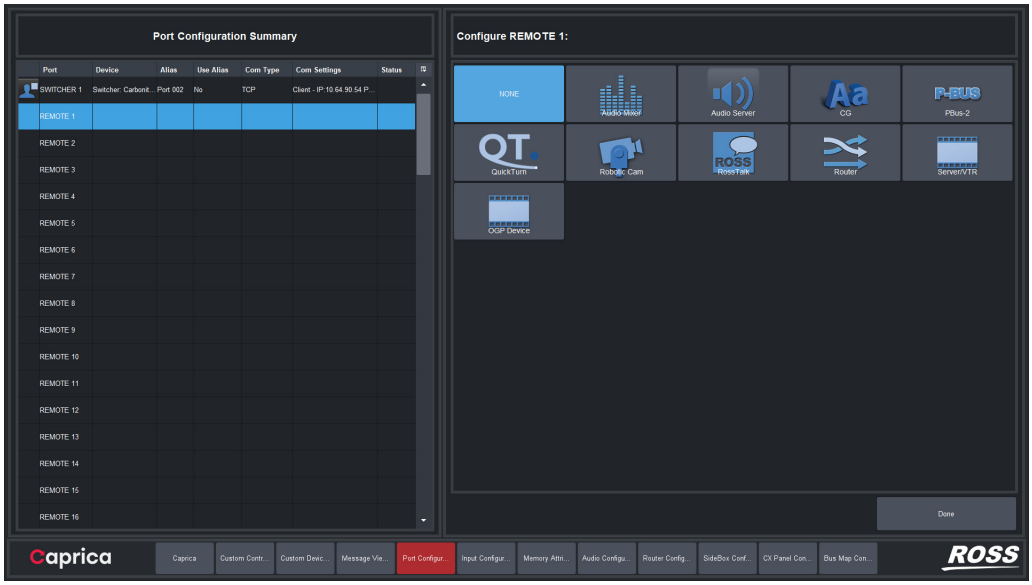
   The **Port Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   The **Port Configuration** client expands to full screen view.



6. In the **Port** column of the **Port Configuration Summary** table, double-click the port to configure for the device (**REMOTE 1 to REMOTE72**).

   The **Configure REMOTE #** panel for the selected port opens.

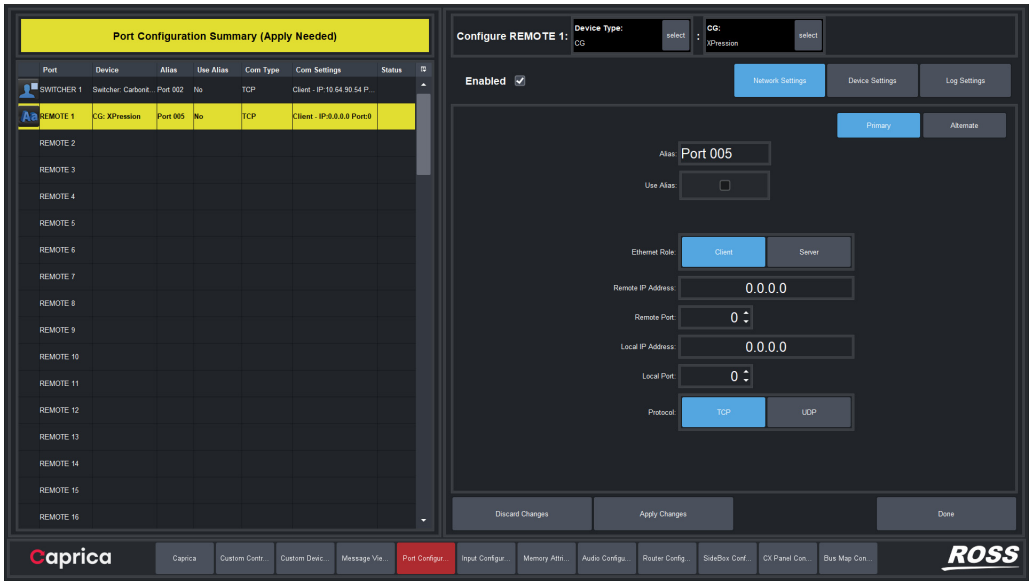


7. In the **Configure REMOTE #** panel, click the type of device to configure.

   The **Configure REMOTE #** panel lists the available devices for the selected device type. If you selected the wrong device type, click **select** in the **Device Type** area to return to the list of available device types.

8. Click the device to configure.

   The **Configure REMOTE #** panel displays the **Network Settings** for the selected device.



   If you selected the wrong device, click **select** in the **Device Name** area to return to the list of available devices.

9. In the **Configure REMOTE #** panel, select the **Enable** check box to enable Caprica to control the device you are configuring. Clear the **Enable** check box for a device when you do not want Caprica to control the device.

10. To set a custom name for a remote port, complete the following steps:

    a. In the **Alias** box, enter a custom name for the remote port.

    b. Select the **Use Alias** check box.

    The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

    To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

11. Configure the settings in the **Network Settings** section for the selected device using the settings in the ***Caprica Device Setup Sheet*** for the device.

    You can use the following URL to view the ***Caprica Device Setup Sheets*** for supported devices:

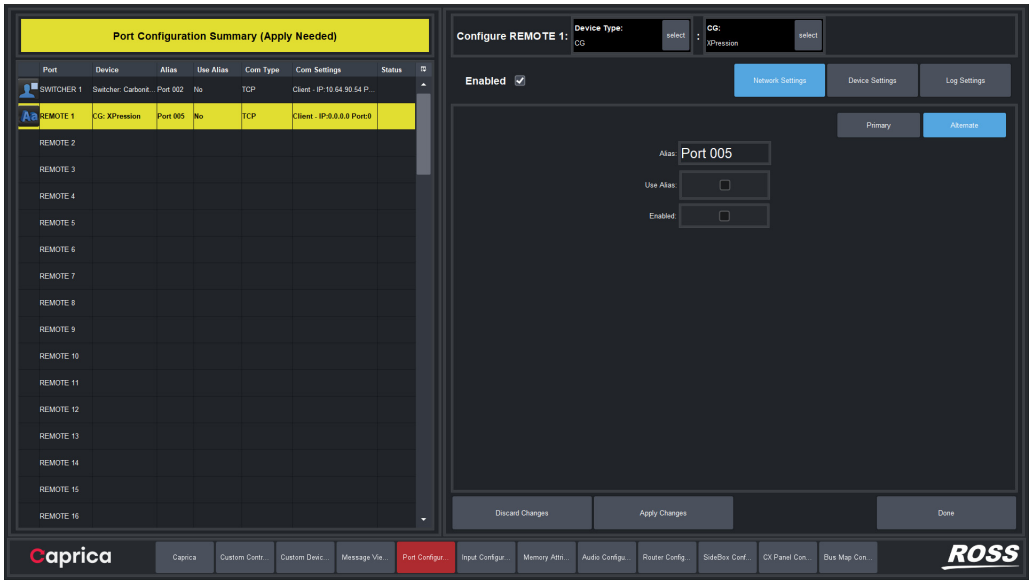
    - https://help.rossvideo.com/caprica/help/devices/index.html

✶ Changing a setting value automatically applies the new value to the device, but does not save the new value. You should not operate Caprica with unsaved changes. You must click **Apply Changes** to save your setting changes.

12. For devices that you want to switch between network locations, define an alternate location as follows:

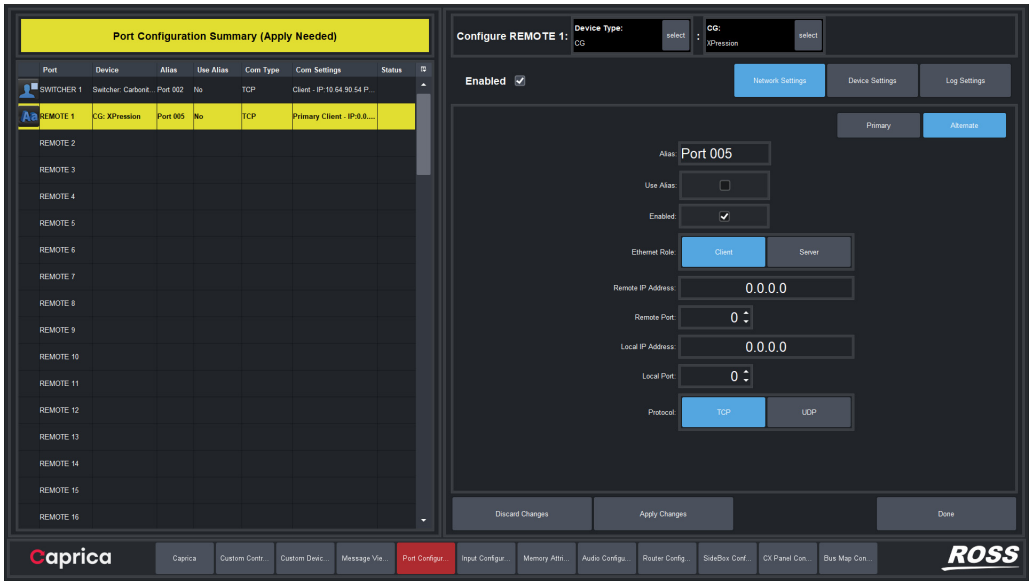
    a. Click **Alternate** to set a second set of network settings for the selected device.

    The **Configure REMOTE #** panel displays the **Alternate Network Settings** for the selected device.



b. Select the **Enabled** check box to configure a second set of network settings for the selected device. Clearing the **Enable** check box also deletes the previously set **Alternate** networks settings.

The **Configure REMOTE #** panel displays the **Alternate Network Settings** for the selected device.

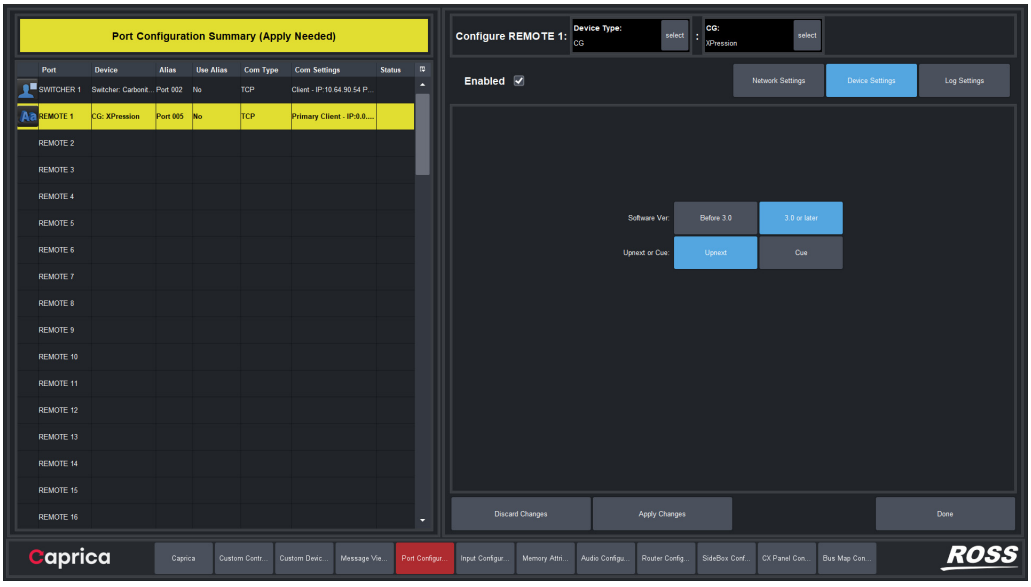


c. Use the displayed **Alternate** network settings to configure the second set of network settings for the selected device.

To switch between Primary and Alternate networks settings, create a Custom Control that runs the **Select Device** or **Swap Device** Custom Control command. Refer to the section "**Special**" on page B-8 for more information about the **Select Device** and **Swap Device** Custom Control commands.

13. Click **Device Settings**.

The **Configure REMOTE #** panel displays the **Device Settings** for the selected device.



14. Configure the settings in the **Device Settings** section for the selected device using the settings in the ***Caprica Device Setup Sheet*** for the device.

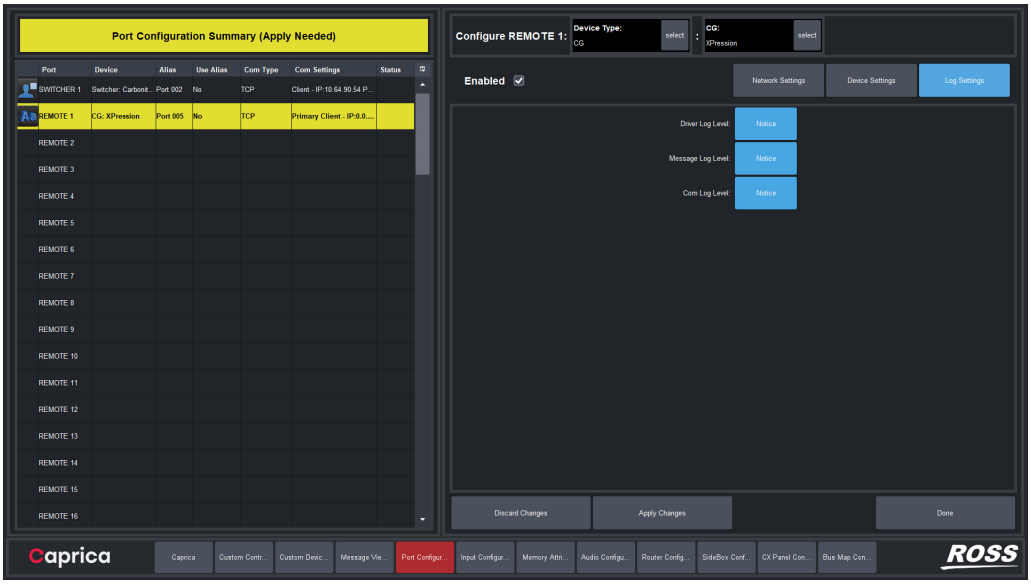
    You can use the following URL to view the ***Caprica Device Setup Sheets*** for supported devices:

    - https://help.rossvideo.com/caprica/help/devices/index.html

✶ Changing a setting value automatically applies the new value to the device, but does not save the new value. You should not operate Caprica with unsaved changes. You must click **Apply Changes** to save your setting changes.

15. To select the logging level of a device, click **Log Settings**.

    The **Configure REMOTE #** panel displays the **Log Settings** for the selected device.



16. Click the **Log Level** buttons to set the logging level for the device.
17. Click **Apply Changes** to save the network and device settings for the selected device.
18. Click **Done** to close the **Configure REMOTE #** panel.
19. Repeat step **6** to step **17** for each device you want to connect to your Quorum Server.

Configuring Custom Device Drivers

If Caprica lacks a device driver for your third-party device, you can create a custom driver to connect it to Quorum if the device has a REST API. On your Caprica Server, you can define up to 50 custom device drivers. Each custom device driver can contain up to 50 actions.

✶ When creating a custom device driver for a third-party device, refer to the device's API documentation for the parameters that Caprica requires to configure a custom device driver.

To configure a custom device driver

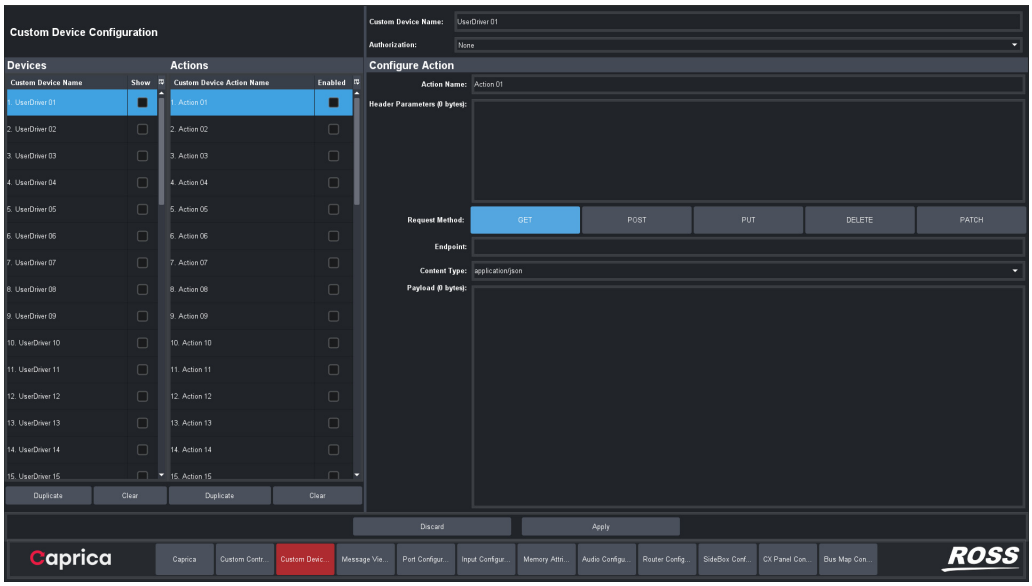
1. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

4. Double-click the **Custom Device Configuration** node.

   The **Custom Device Configuration** client opens in the **Device View**.

5. Use the **Window** menu to select **Full Screen**.

   The **Custom Device Configuration** client expands to full screen view.



6. In the **Custom Device Name** column of the **Devices** list, select the **User Driver** to configure for your custom device (**UserDriver01** to **UserDriver50**).

7. In the **Show** column, select the check box for the custom device to show it in the **Port Configuration** client. Clear this check box to hide your custom device from the **Port Configuration** client. Hiding a custom device does not delete the device.

8. In the **Custom Device Name** box, enter a name for your custom device.

9. Use the **Authorization** list to select the authorization method to use for your custom device. The available authorization methods are as follows:

   - **None** — do not use authorization.
   - **Basic** — a simple authorization method where the client sends a username and password encoded in Base64 format in the HTTP request header. The server then verifies the credentials and grants access if they are valid. This method is not suitable for high-security applications.
   - **API Token** — an authentication method in which the client needs to authenticate with a token. You can obtain an API token through a web portal or with an API call to the server where you initially used another authentication type, such as basic authentication. After you obtain the token, you will use it for all subsequent API calls.

10. In the **Custom Device Action Name** column of the **Actions** list, select the **Action** to define for your custom device (**Action 01** to **Action 50**).

11. In the **Enabled** column, select the check box to enable the action for the custom device. Clear this check box to exclude the action from the custom device. Excluding an action does not delete the action.

12. In the **Action Name** box, enter a name for the selected action.

13. In the **Header Parameters** box, enter the rules and instructions for how requests and responses are handled.

    Header parameters can be used to pass details like tokens, accepted formats, or custom parameters, while response headers instruct clients on caching, redirection, rate limits, and error handling.

14. For the **Request Method** setting, click the request method to use for the action. The available request methods are as follows:
    - **GET** — retrieve a record or a collection of records from the server.
    - **POST** — send data to create a new record on the server.
    - **PUT** — send data to update an existing record on the server.
    - **DELETE** — delete a record or a collection of records from the server.
    - **PATCH** — send data to apply a partial modification to an existing record on the server.
15. In the **Endpoint** box, enter the URL where the device API receives requests and sends responses.
16. Use the **Content Type** list to select the content type of the resource being sent or received. The available content types are as follows:
    - **application/json** — data in JSON format, which is easy for machines to parse and generate.
    - **application/octet-stream** — raw binary data.
    - **application/xml** — data in XML format, often used in legacy systems or when XML is preferred.
    - **application/x-www-form-urlencoded** — form submissions where key-value pairs are encoded in the request body.
    - **multipart/form-data** — file uploads or when sending both files and text data in the same request.
    - **text/plain** — plain text data.
    - **None** — do not use a content type.
17. In the **Payload box**, enter the actual data to send in the HTTP request or return in an HTTP response.

    The payload is the message body that carries the information the client and server exchange, excluding headers and metadata.
18. Click **Apply**.

    Caprica adds the defined action to your custom device.
19. To add another action to your custom device, repeat step **10** to step **18** of this procedure.

Using a Custom Device Driver

After defining a custom device driver for a third-party device, you can use it to connect the device to your Quorum system. Caprica stores your custom device drivers in the Custom Device device type.

To use a custom device driver to connect a device to Quorum

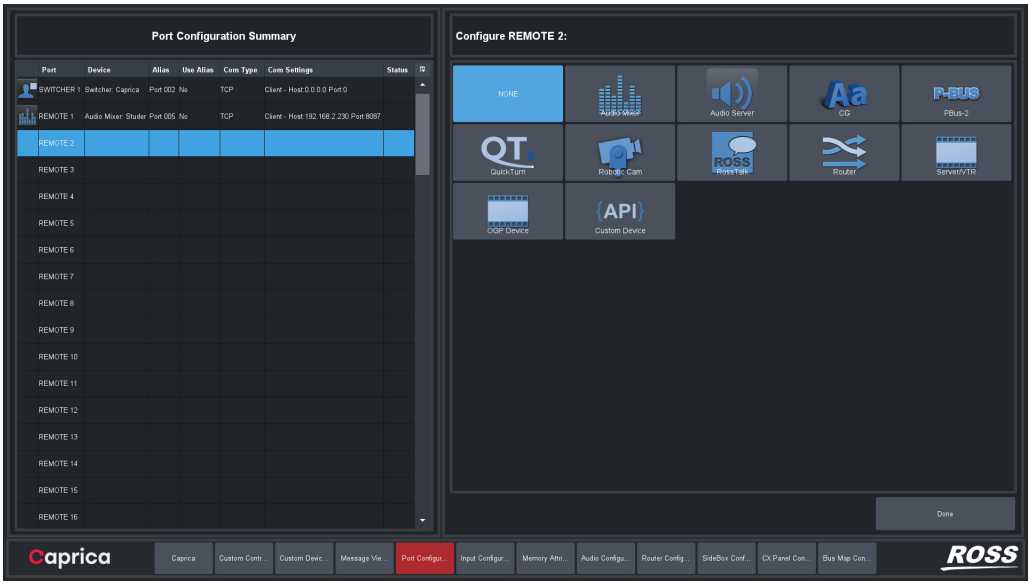
1. Use one of the following methods to launch **DashBoard**:
    - Double-click the **DashBoard** icon on the desktop.
    - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
4. Double-click the **Port Configuration** node.

    The **Port Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

    The **Port Configuration** client expands to full screen view.

6. In the **Port** column of the **Port Configuration Summary** table, double-click the port to configure for the device (**REMOTE 1 to REMOTE72**).

   The **Configure REMOTE #** panel for the selected port opens.

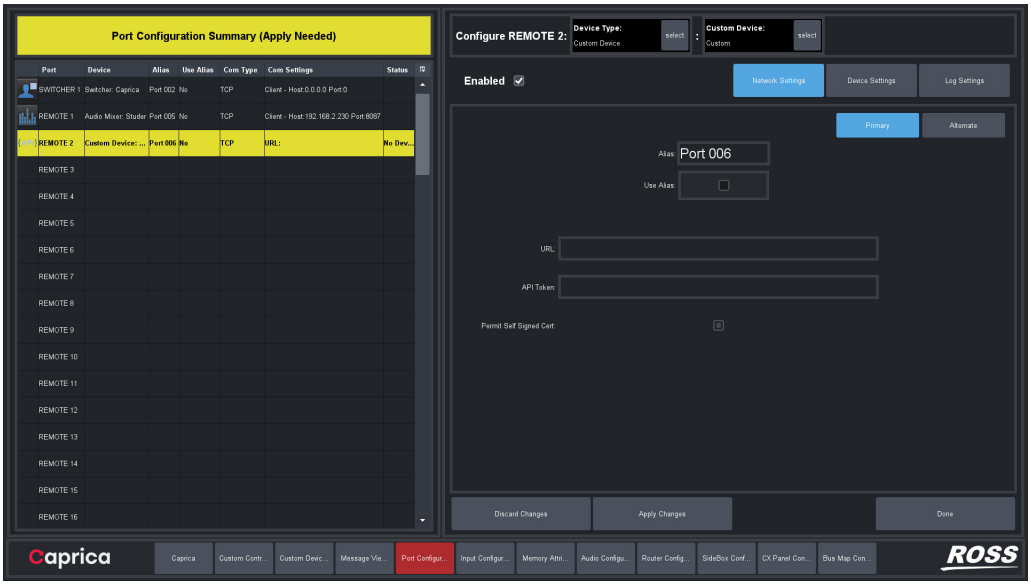


7. In the **Configure REMOTE #** panel, click **Custom Device**.

   The **Configure REMOTE #** panel lists the available custom devices.

8. Click the custom device to configure.

   The **Configure REMOTE #** panel displays the **Network Settings** for the selected custom device.



If you selected the wrong custom device, click **select** in the **Device Name** area to return to the list of available custom devices.

9. In the **Configure REMOTE #** panel, select the **Enable** check box to enable Caprica to control the device you are configuring. Clear the **Enable** check box for a device when you do not want Caprica to control the device.
10. To set a custom name for a remote port, complete the following steps:
    a. In the **Alias** box, enter a custom name for the remote port.
    b. Select the **Use Alias** check box.

       The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the remote port.

       To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and Quorum use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.
11. In the **URL** box, enter the URL of your third-party device.
12. In the **API Key** box, enter the API key for your third-party device.
13. When you want to use a self signed certificate for HTTPS access to your third-party device, select the **Permit Self Signed Cert** check box.
14. Click **Apply Changes** to save the network and device settings for the selected custom device.
15. Click **Done** to close the **Configure REMOTE #** panel.

Viewing Custom Device Driver Action REST Messages

The Message Viewer client displays REST messages from the actions in custom device drivers that are part of triggered Custom Controls or RossTalk commands sent to Caprica.

To view the REST messages from custom device driver actions

1. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
4. Double-click the **Message Viewer** node.

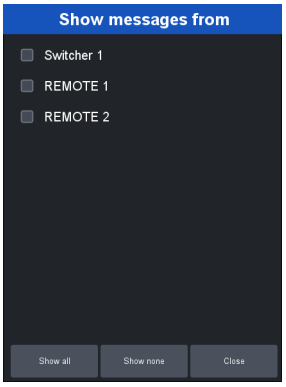
   The **Message Viewer** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   The **Message Viewer** client expands to full screen view.
6. Trigger a Custom Control or send a RossTalk command that starts collecting messages and uses a custom device driver for which you want to view action REST messages.
   - **Custom Control**
     - **Special** > **Collect Messages** > **Port**: `<your_custom_device>` **Action**: Start
     - **Special** > **Custom Device Action** > **Port**: `<your_custom_device>` **Action**: `<action_to_view>`
   - **RossTalk**
     - **SP COLLECT** : **PORT** : `<your_custom_device>` : **START**
     - **SP API** : **PORT** : `<your_custom_device>` : **NAME** : `<action_to_view>`

   Refer to the following sections for more information about Custom Controls and RossTalk commands:
   - "**Creating Custom Control Macros**" on page 18–28.
   - "**RossTalk-IN Commands**" on page C–1.

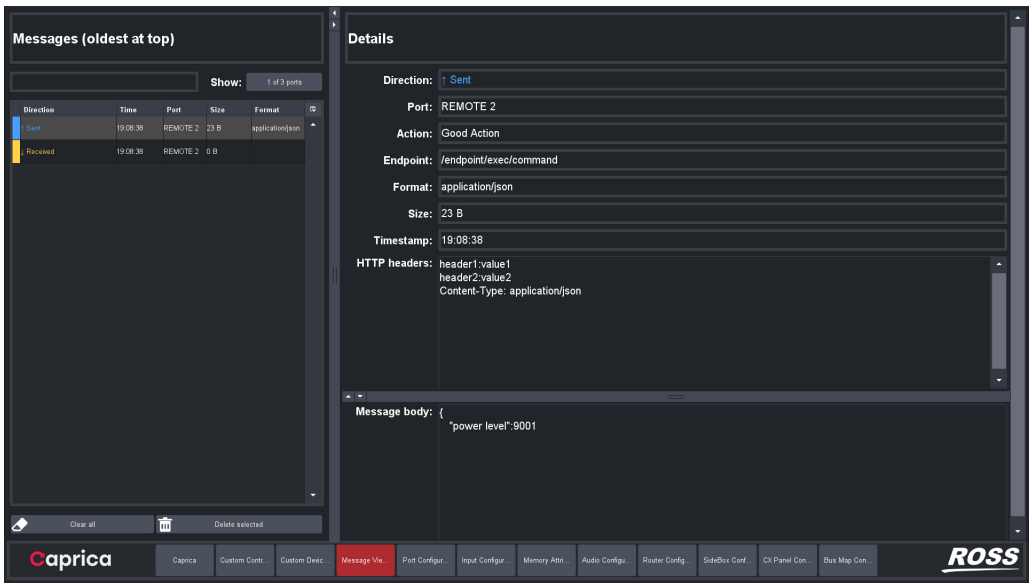
7. In the **Message Viewer** client, click the button to the right of the Show setting.

   The **Show Messages From** dialog box opens.



8. Select the check box to the left of the **Remote Port** to which your custom device driver is connected.
9. Click **Close**.

   The **Message Viewer** client displays messages generated by the custom device driver connected to the selected **Remote Port**.



10. To view details about a REST message, select the message in the **Messages** list.

    The **Details** section displays the following information about the selected REST message:

    - **Direction** — message direction, sent or received.
    - **Port** — Caprica port assigned to the custom device driver that contains the action.
    - **Action** — name of the action.
    - **Endpoint** — URL where the device API receives requests and sends responses.
    - **Format** — media type of the resource being sent or received.
    - **Size** — size of the message.
    - **Timestamp** — the time of day that the message was sent or received.
    - **HTTP headers** — key-value pairs sent in the request or response of the HTTP transaction.
    - **Message body** — actual data sent to or received by the server.

11. To search for text in the gathered messages, enter the text to search for in the Search box at the top of the **Messages** list.

12. To delete REST messages from the **Messages** list, use the following buttons at the bottom of the **Messages** list:
    - **Clear all** — click this button to delete all of the REST messages from the Messages list.
    - **Delete selected** — click this button to delete the selected REST message from the Messages list.

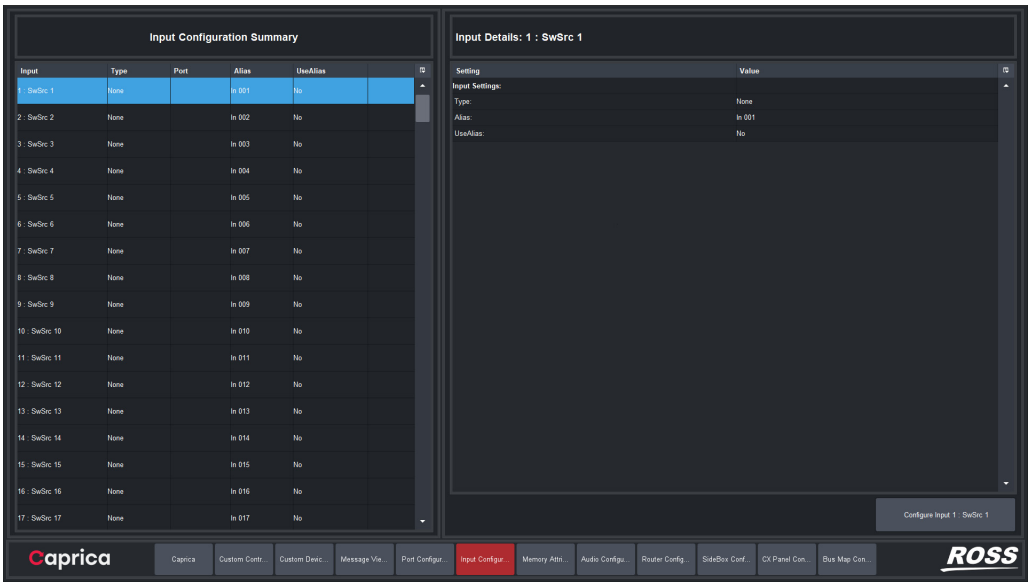
Configuring Switcher Inputs

After you configure the devices to connect to your Quorum system, you need to configure switcher inputs for the devices.

To configure a switcher input for a device

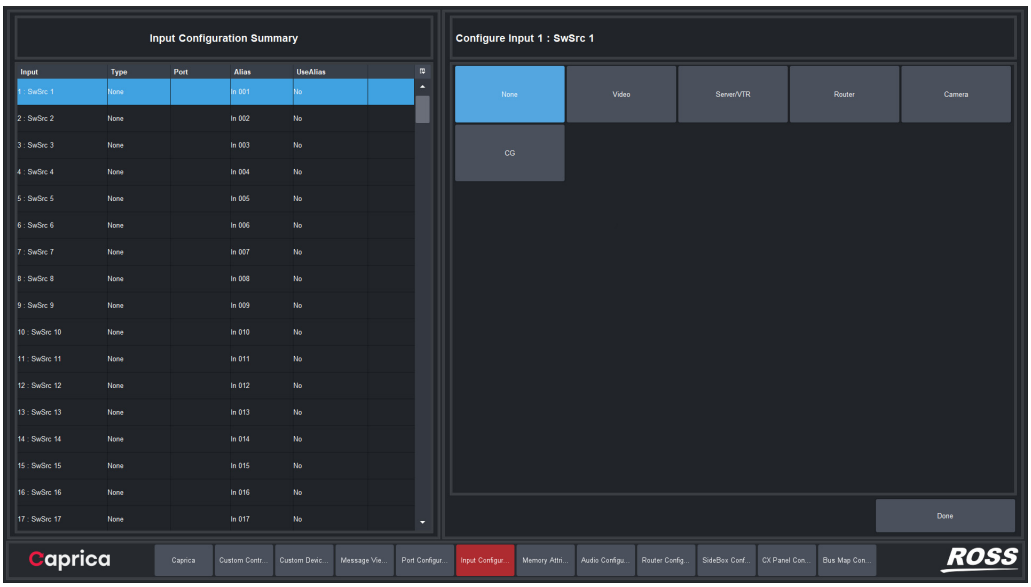
1. At the bottom of the **Device View**, click **Input Configuration**.

   The **Input Configuration** client opens.



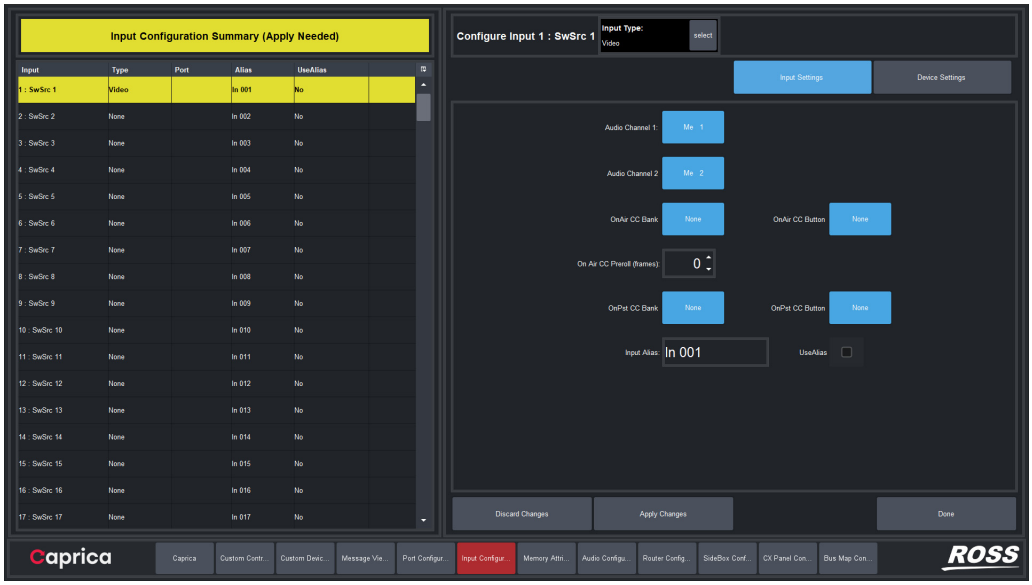
2. In the **Input** column of the **Input Configuration Summary** table, double-click the switcher input to configure for a device.

   The **Configure Input #** panel lists the available input types.

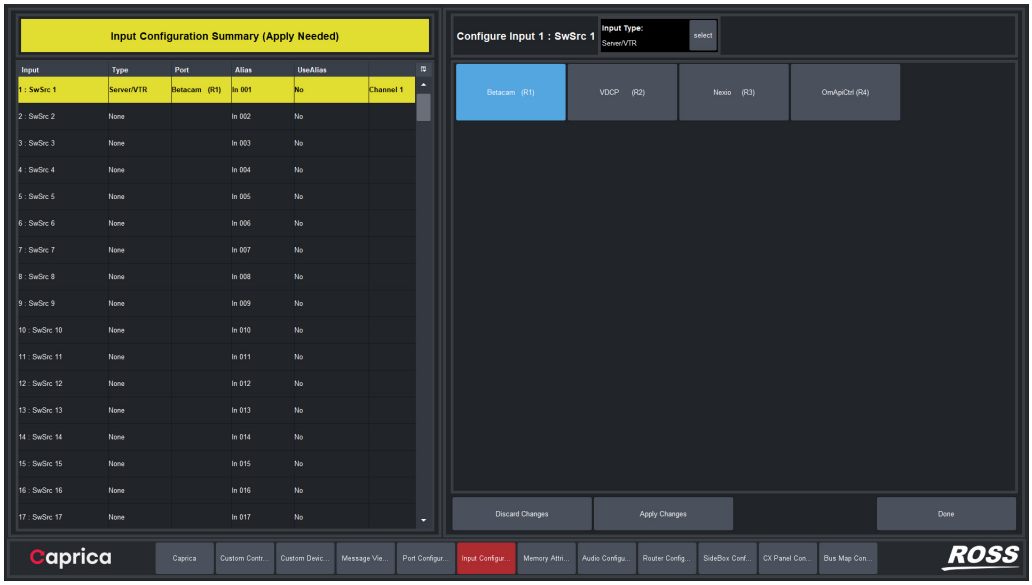


3. Click the **Input Type** to connect to the selected switcher input.

   When you select the **Video** input type, the **Configure Input #** panel displays the **Input Settings** for the selected switcher input. Skip to step **5**. If you selected the wrong input type, click **select** in the **Input Type** area to return to the list of available input types.

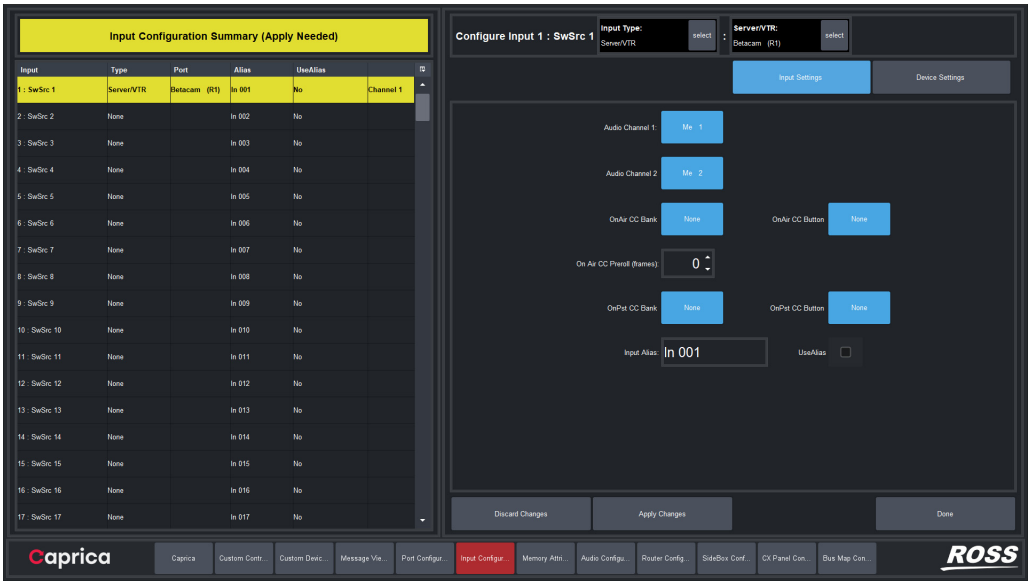


   When you select the **Server/VTR**, **Router**, **Camera**, or **CG** input type, the **Configure Input #** panel lists the available devices for the selected input type. If you selected the wrong input type, click **select** in the **Input Type** area to return to the list of available input types.



4. Click the **Device** to connect to the selected switcher input.

   The **Configure Input #** panel displays the **Input Settings** for the selected switcher input. If you selected the wrong device, click **select** in the **Device Name** area to return to the list of available devices.



5. Click **Audio Channel 1** to select the audio channel for audio channel 1 of the selected switcher input.
6. Click **Audio Channel 2** to select the audio channel for audio channel 2 of the selected switcher input.
7. Select the Custom Control to run when the input goes on air as follows:
   a. Click **On Air CC Bank** to select the Custom Control bank that contains the Custom Control button assigned to the Custom Control to run when the input goes on air.
   b. Click **On Air CC Button** to select the Custom Control button assigned to the Custom Control to run when the input goes on air.

   To prevent a Custom Control from running when the input goes on air, select **None** for either the **On Air CC Bank** or the **On Air CC** setting.
8. Use the **On Air CC Preroll (frame)** box to enter or select the number of frames to delay taking the input on air after firing the selected On Air Custom Control.
9. Select the Custom Control to run when Quorum prepares the input as follows:
   a. Click **On Pst CC Bank** to select the Custom Control bank that contains the Custom Control button assigned to the Custom Control to run when Quorum prepares the input.
   b. Click **On Pst CC Button** to select the Custom Control button assigned to the Custom Control to run when Quorum prepares the input.

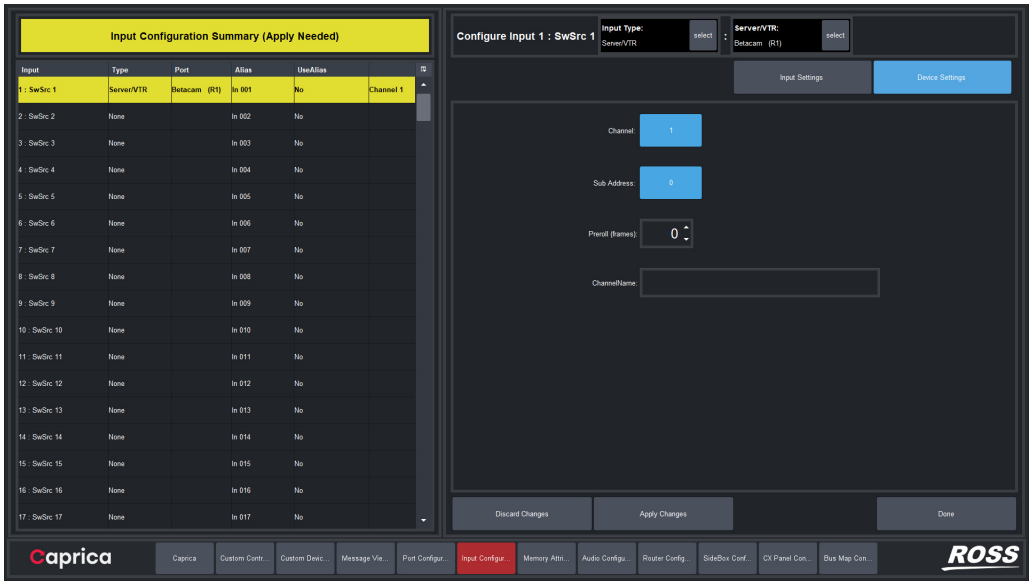
   To prevent a Custom Control from running whenQuorum prepares the input, select **None** for either the **On Pst CC Bank** or the **On Pst CC Button**.
10. To set a custom name for a switcher input, complete the following steps:
    a. In the **Input Alias** box, enter a custom name for the selected switcher input.
    b. Select the **UseAlias** check box.

       The **Alias** column in the **Input Configuration Summary** table displays the custom name set for the switcher input. The **UseAlias** column displays **Yes** to indicate that Caprica and Quorum use the custom name set for the switcher input.

To use the default switcher input name, clear the **UseAlias** check box. The **UseAlias** column displays **No** to indicate that Caprica and Quorum use the default switcher input name. The **Alias** column and the **Input Alias** box retain the custom name set for the switcher input.

11. Click **Device Settings**.

    The **Configure Input #** panel displays the **Device Settings** for the selected switcher input.



12. Use the steps for the selected **Device** to configure the **Device Settings** as required for the combination of switcher input and device.

    Server/VTR

    a. Click **Channel** to select the channel for the video server.

    b. Click **Sub Address** to select the VDCP sub address for the video server.

    c. Use the **Preroll (frames)** box to enter or select the number of frames to delay transitioning to the video server.

    d. In the **ChannelName** box, enter the channel name to use on the Omneon Server. This setting is only used by Omneon API devices.

    Router

    a. Click **Destination** to select the router destination to map to the selected input.

    b. Click **Level** to select the level for the selected destination.

    Camera

    a. Click **Camera** to select the input number to which the camera is connected.

    b. Use the **Preroll (frames)** box to enter or select the number of frames to delay transitioning to the camera.

    c. Select the **Invert Pan** check box to invert the pan direction that the camera pans when using the positioner.

    d. Select the **Invert Tilt** check box to invert the direction that the camera tilts when using the positioner.

    e. Select the **Invert Zoom** check box to invert the zoom direction when using the positioner.

    f. Select the **Invert Focus** check box to invert the focus direction when using the positioner.

    g. Select the Invert Iris check box to invert the iris direction when using the positioner.

    h. Select the **Invert X** check box to invert the direction that the camera moves along the X-axis when using the positioner.

i. Select the **Invert Y** check box to invert the direction that the camera moves along the Y-axis when using the positioner.

j. Select the **Invert Z** check box to invert the direction that the camera moves along the Z-axis when using the positioner.

CG

a. Click **Channel** to select the channel for the character generator.

13. Click **Apply Changes** to save the network and device settings for the selected switcher input.
14. Click **Done** to close the **Configure Input #** panel.
15. Repeat step **2** to step **13** for each device you want to connect to your Quorum system.
16. After you configure the ports and inputs on your Caprica Server, you can physically connect your devices to your Quorum system.

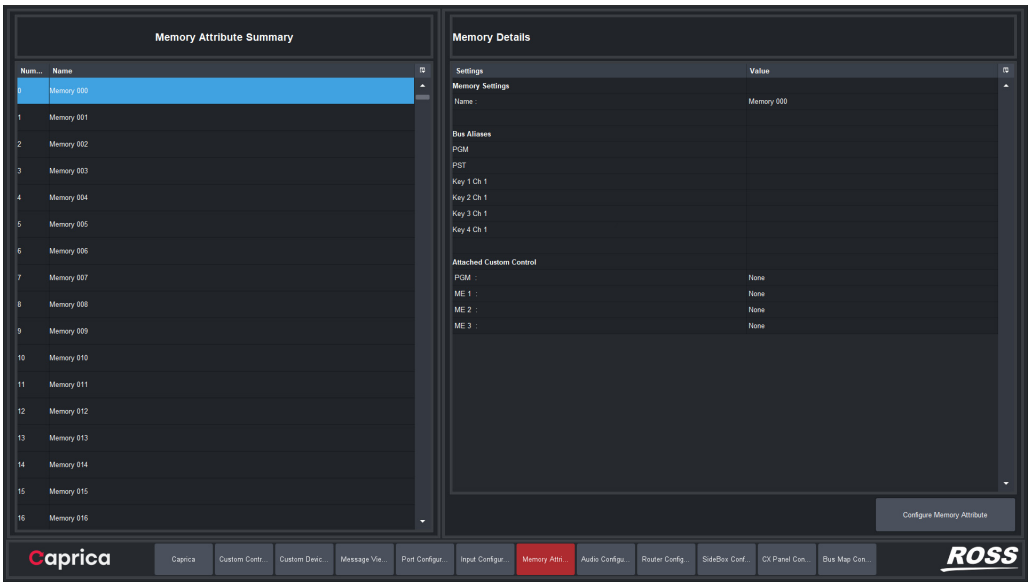
Assigning Names and Custom Controls to Memories

The Memory Attribute client enables you to name switcher memories, name the buses of a switcher memory, and assign a Custom Control to each ME of a switcher memory. The Custom Control assigned to a memory ME automatically runs when you recall the memory for the ME.

To configure switcher memory attributes

1. At the bottom of the **Device View**, click **Memory Attribute**.

   The **Memory Attribute** client opens.

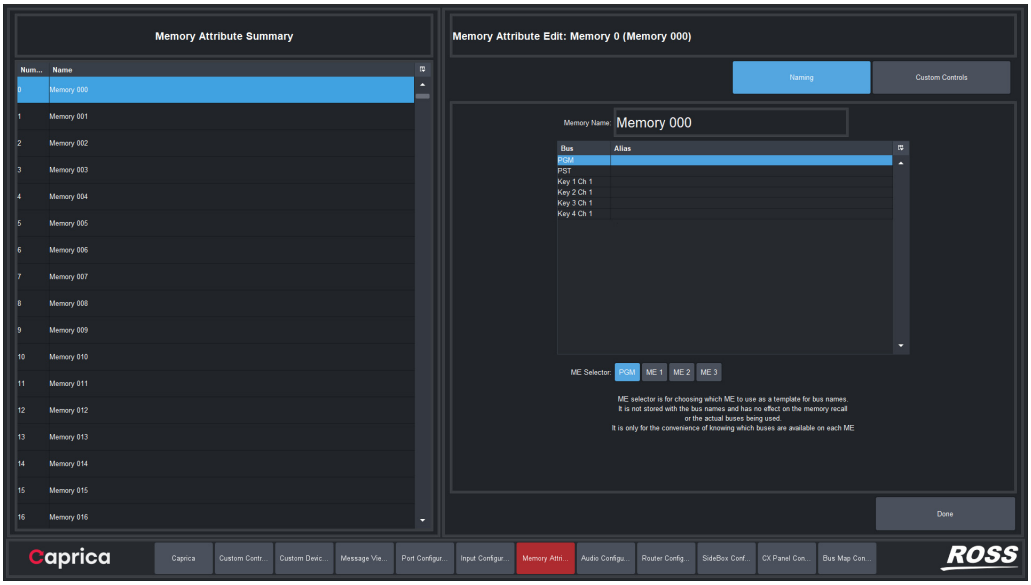


2. In the **Number** column of the **Memory Attribute Summary** table, double-click the memory number to name and assign Custom Controls.

   The **Memory Edit** panel opens for the selected memory.

3. Click **Naming**.

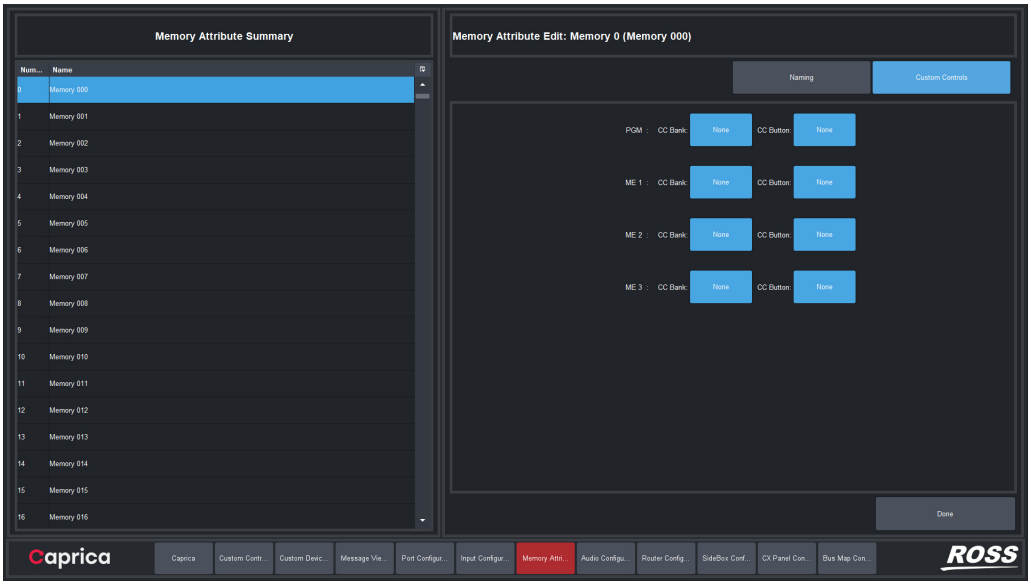
The **Memory Edit** panel displays the **Naming** settings for the selected memory.



4. In the **Memory Name** box, enter a name for the selected memory.
5. Click an **ME** in the **ME Selector** setting to display the available buses for the selected ME in the **Bus** table.
6. To name a bus, complete the following steps:
   a. Click in the **Alias** column cell to the right of the **Bus** to name.
   b. In the **Alias** cell, enter a name for the bus (up to 14 characters).

      The name set for a bus is the same for all MEs of a memory. Bus names can differ between memories.
   c. Repeat step **a** and step **b** for each bus that you want to name.
7. Click **Custom Controls**.

   The **Memory Edit** panel displays the **Custom Controls** settings for the selected memory.



8. For each ME, select the Custom Control to run on memory recall as follows:

   a. To the right of an **ME** name, click **CC Bank** to select the Custom Control bank that contains the Custom Control button assigned to the Custom Control to run on memory recall for the ME.

   b. Click **CC Button** to select the Custom Control button assigned to the Custom Control to run on memory recall for the ME.

   c. Repeat step **a** and step **b** for each ME that you want to assign a Custom Control.

9. Click **Apply Changes** to save the memory configuration.

10. Repeat step **2** to step **9** for each memory that you want to assign a Custom Control.

11. Click **Done** to close the **Memory Edit** panel.

Configuring Audio

The Audio Configuration client contains two tabs that enable you to configure audio channel names and audio settings.

Customizing Audio Channels for Quorum

The Channel Names tab of the Audio Configuration client enables you to customize the following settings for the audio channels associated with the remote or peripheral devices you configured for Quorum:

- Channel name
- Initial audio level
- Availability of the channel in Quorum

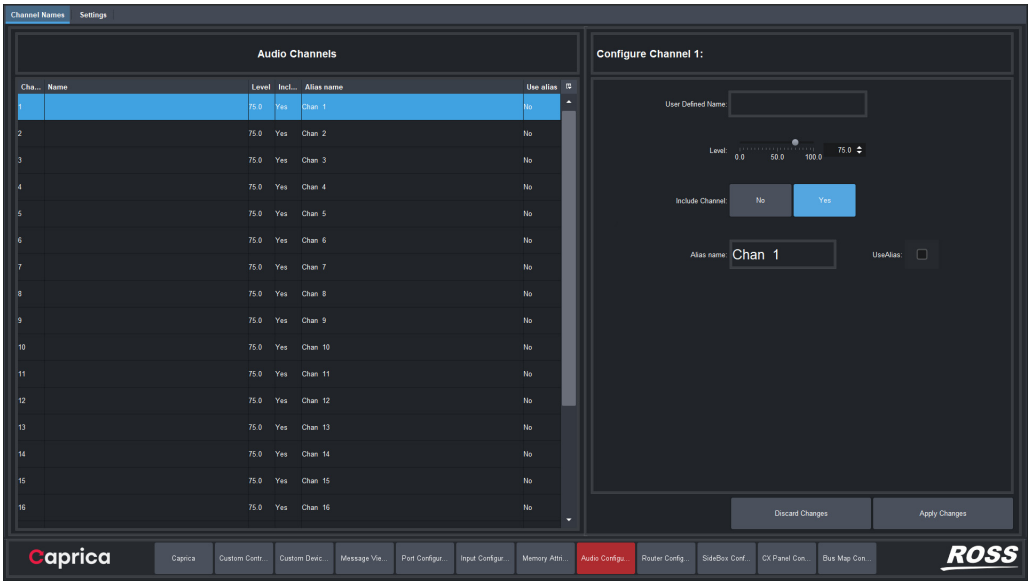
To customize an audio channel for Quorum

1. At the bottom of the **Device View**, click **Audio Configuration**.

   The **Audio Configuration** client opens in the **Device View**.

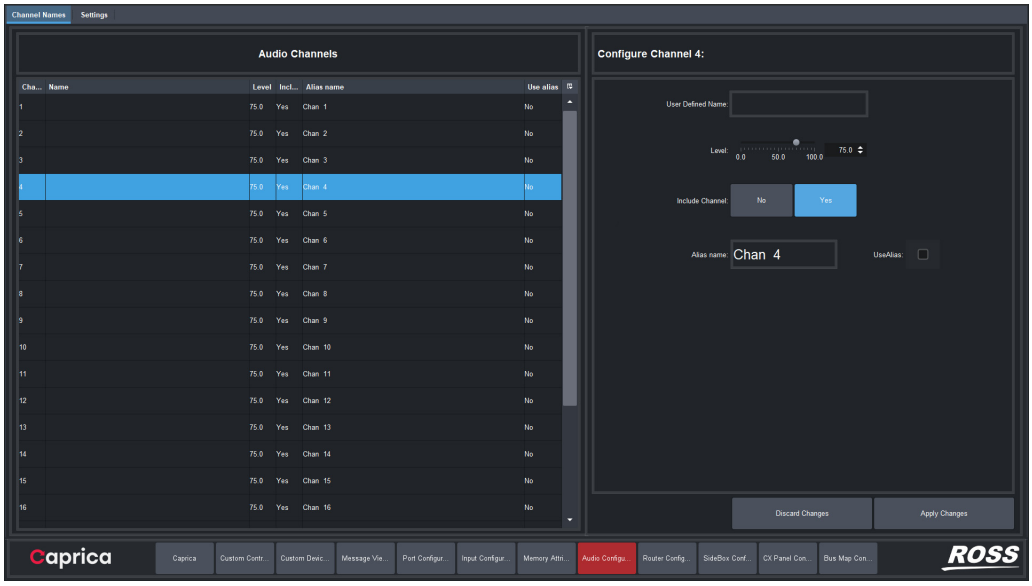
2. Click the **Channel Names** tab.

   The **Channel Names** tab opens.



3. In the **Channel** column of the **Audio Channels** table, double-click the audio channel to customize.

   The **Configure Channel #** panel for the selected audio channel opens.



4. In the **User Defined Name** box, enter a name for the selected audio channel.

   Quorum displays audio channel names in the **Rundown Control**, **Direct Control**, and **Template Editor** clients.

5. Use one of the following methods to set the initial audio level for the selected audio channel:

   - Click and drag the **Level** slider to set the initial audio level for the audio channel.

     As you drag the slider, the **Level** box displays the set initial audio level for the channel.

   - Use the **Level** box to enter or select the initial audio level for the audio channel.

     The **Level** slider moves to show the set initial audio level.

6. For the **Include Channel** setting, click **Yes** to include the audio channel in Quorum or **No** to exclude the channel from Quorum.

7. Click **Apply Changes** to save your customized audio channel settings.

8. Repeat step **3** to step **7** for each audio channel you wish to customize for Quorum.

Configuring Audio Settings

In the Settings tab of the Audio Configuration client, you can control audio transitions and set a fader dead zone.

Audio Transition

You can choose to transition audio with the Program ME or stop audio when the Program or other MEs transition.

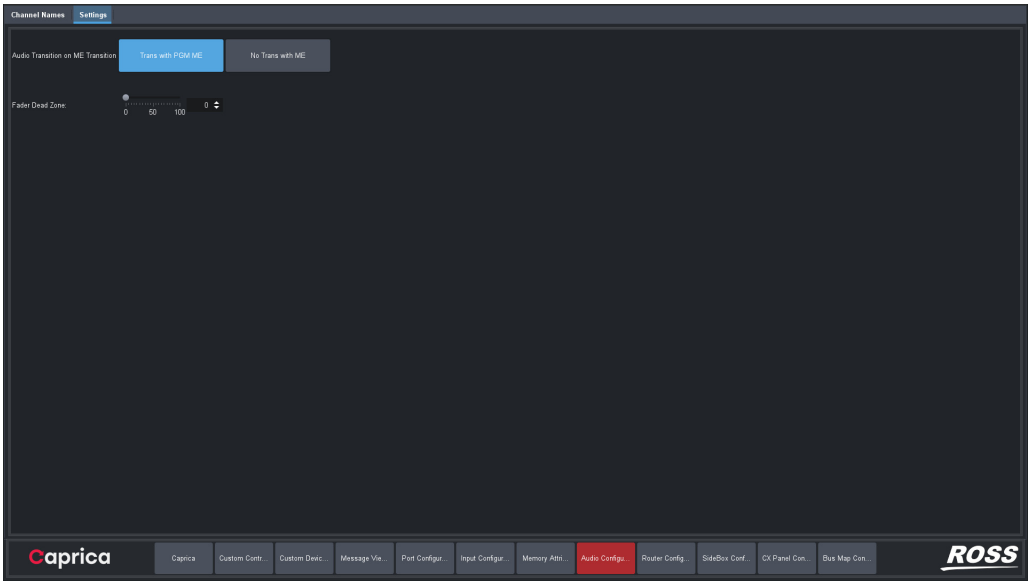
To control audio transition on ME transition

1. At the bottom of the **Device View**, click **Audio Configuration**.

   The **Audio Configuration** client opens in the **Device View**.

2. Click the **Settings** tab.

The **Settings** tab opens.



3. Use the **Audio Transition on ME Transition** setting buttons to select one of the following options to set how to transition audio with ME transitions:

   - **Trans with PGM ME** — transition audio with the Program ME.
   - **No Trans with ME** — stop audio transitions when the Program ME or any other ME transitions.

Fader Dead Zone

You can configure a dead zone in Caprica to ignore audio mixer fader output from zero percent to a set percentage of the fader range. The dead zone percentage affects all audio channels in Caprica and is reflected in Custom Controls using audio percentages and passed through to OverDrive DirectControl.

✶ The **SideSlide** module is not affected by the **Fader Dead Zone** setting.

The full range of Caprica audio faders maps to the active range set for the audio mixer faders, from the configured dead zone percentage to one hundred percent (**Figure 18.1**). Only once an audio mixer fader surpasses the set dead zone percentage does the associated Caprica audio fader begin to move.

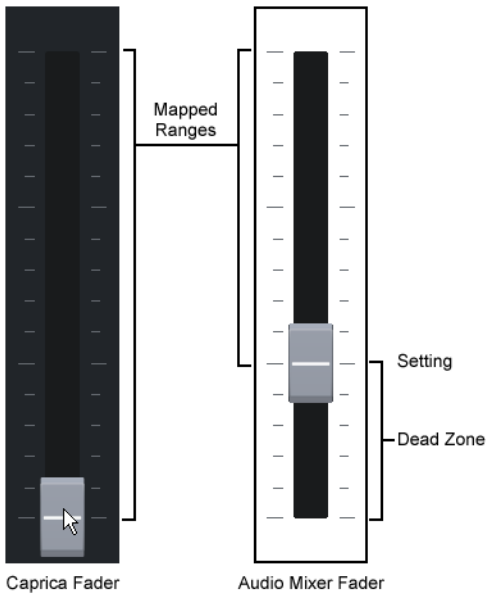


Figure 18.1 Dead Zone Fader Ranges

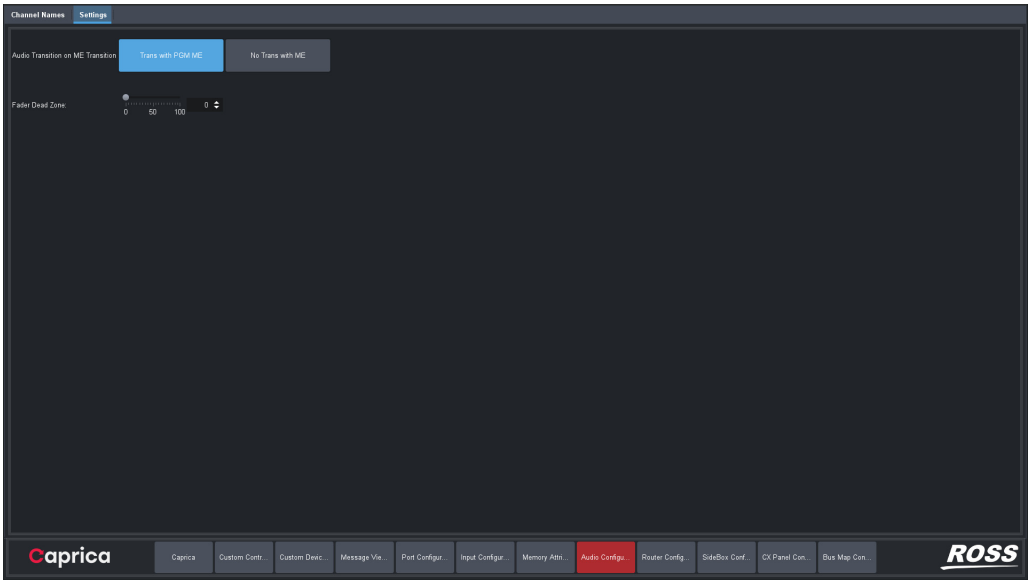
To configure a Dead Zone for audio mixer faders

1. At the bottom of the **Device View**, click **Audio Configuration**.

   The **Audio Configuration** client opens in the **Device View**.

2. Click the **Settings** tab.

   The **Settings** tab opens.



3. Drag the **Fader Dead Zone** slider to set the size of the fader dead zone for all audio mixer faders. You can also use the box to the right of the slider to enter or select the fader dead zone size.

   Caprica automatically saves the set **Fader Dead Zone** value.

Customizing Router Source and Destination Names

For each router device configured in Caprica for a Quorum system, you can customize the names of router sources (inputs) and destinations (outputs). In Caprica, the Router Configuration client and the Custom Controls client display custom router source and destination names for selection. OverDrive also displays custom router source and destination names for selection.

Comma-separated values (.csv) files are used to upload custom source and destination names to a router. Name files must contain a heading for each column, a list of the source or destination numbers, and the names to apply to the source or destination numbers. The format of a name file is as follows:

```
"Device_ID,Device_Mnemonic",
0,VTR 1
1,AUDIO 2
2,BARS
3,BLACK
4,CAM 1
8,AUX 3
```

You can use a text editor or a spreadsheet program that can export to comma-separated values format to create router source or destination name files.

Uploading Custom Router Source and Destination Names

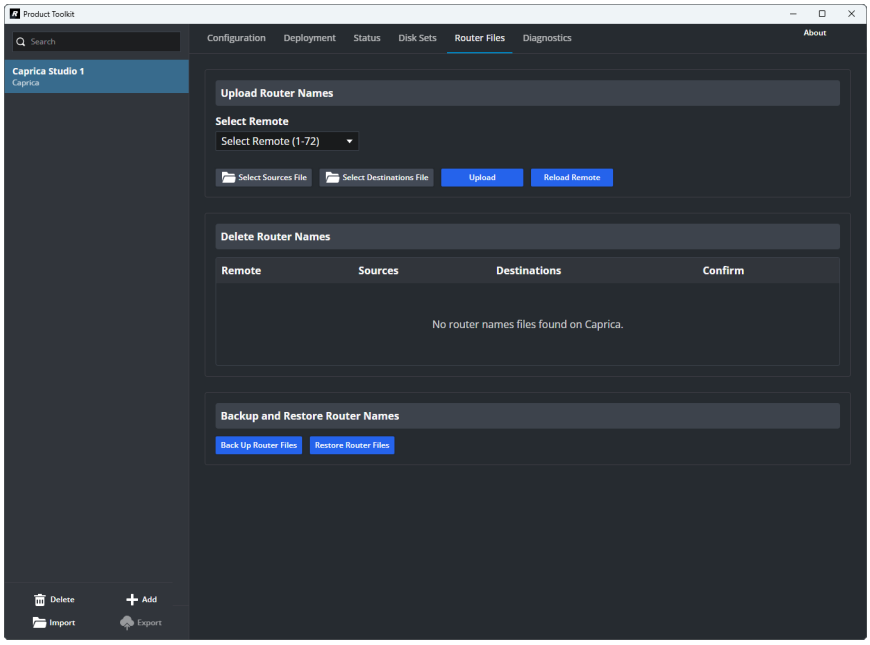
After creating a file containing custom router source or destination names, you are ready to use the Product Toolkit to upload your custom names to your router.

To upload custom router source and destination names

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server to which you want to upload custom names for your router.
4. Click the **Router Files** tab.

   The **Router Files** tab opens.



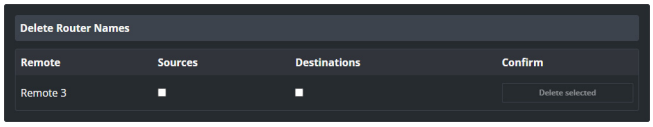
5. Use the **Select Remote** list to select the port to which the router whose names you want to customize is connected.
6. Depending on the names that you want to customize for a router, click one of the following buttons:
   - **Select Sources File** — click this button to upload a comma-separated values file that contains router source names.
   - **Select Destinations File** — click this button to upload a comma-separated values file that contains router destination names.

   The **Select Router Names CSV** dialog box opens.
7. Use the **Select Router Names CSV** dialog box to locate and select the router **sources** or router **destinations** file (.csv).
8. With a router **sources** or router **destinations** file (.csv) selected, click **Open**.

   The **Select Router Names CSV** dialog box closes and the name of the selected file displays to the right of the **Select Sources File** or **Select Destinations File** button in the Upload Router Names section of the **Router Files** tab.

9. Click **Upload**.

   The selected file or files are uploaded to the router associated with the remote port selected from the **Select Remote** list. The **Delete Router Names** section displays the remote port to which you uploaded name files and a check box for each type of uploaded file.



   You can view the uploaded source and destination names for a router in the DashBoard **Router Configuration** client or in the **Custom Controls** client when adding a **Router Take Xpt** command to a Custom Control.

For More Information on...

- the Router Configuration client, refer to the section "**Controlling Router Sources and Destinations for Quorum**" on page 18–24.
- the Custom Control client, refer to the section "**Creating Custom Control Macros**" on page 18–28.

Resetting Default Router Source and Destination Names

Router source and destination names can be reset to the default names by deleting the name file or files uploaded to a router.

To reset default router source and destination names

1. In the **Delete Router Names** section of the **Router** web page, select one of the following check boxes to the right of the remote port associated with the router that you want to reset to default names:
   - **Sources** — select this check box to delete the router source names file from the router associated with the remote port.
   - **Destinations** — select this check box to delete the router destination names file from the router associated with the remote port.
2. With the type of name files to delete selected, click **Delete selected**.

   The selected name files are deleted from the **Delete Router Names** section.
3. In the **Upload Router Names** section, use the **Select Remote** list to select the remote port from which you just deleted the name files.
4. Click **Reload Remote**.

   Depending on the type of name files you deleted from a router, the source names, destination names, or both are reset to the default names. You can view the reset source and destination names for a router in the DashBoard **Router Configuration** client or in the **Custom Controls** client when adding a **Router Take Xpt** command to a Custom Control.

For More Information on...

- the Router Configuration client, refer to the section "**Controlling Router Sources and Destinations for Quorum**" on page 18–24.
- the Custom Control client, refer to the section "**Creating Custom Control Macros**" on page 18–28.

Backing Up and Restoring Router Source and Destination Names

You can back up all uploaded router source names and destinations to a single .tar.gz file, which can be used to restore router source names and destinations.

To back up router source and destination names

1. In the **Backup and Restore Router Names** section, click **Back Up Router Files**.

   The **Save Router Names Backup** dialog box opens.

2. Use the **Save Router Names Backup** dialog box to locate and select a folder in which to save the router names backup file (.tar.gz).

3. Click **Save**.

   The Caprica Server saves the router names backup file (.tar.gz) in the selected folder.

To restore router source and destination names

1. In the **Backup and Restore Router Names** section, click **Restore Router Files**.

   The **Select Router Names Backup Archive** dialog box opens.

2. Use the **Select Router Names Backup Archive** dialog box to locate and select the router names backup file (.tar.gz) to restore.

3. Click **Open**.

   The Caprica Server restores the router source names and destinations from the selected router names backup file (.tar.gz).

Controlling Router Sources and Destinations for Quorum

For each router device configured in Caprica for a Quorum system, you can select the accessible router sources (inputs) and router destinations (outputs) for Quorum. When working with large routers composed of multiple routing matrices, the list of available sources and destinations can grow to tens of thousands of items.

For More Information on...

- configuring devices in Caprica for Quorum, refer to the section "**Configuring Devices to Connect to a Quorum System**" on page 18–2.

Sources

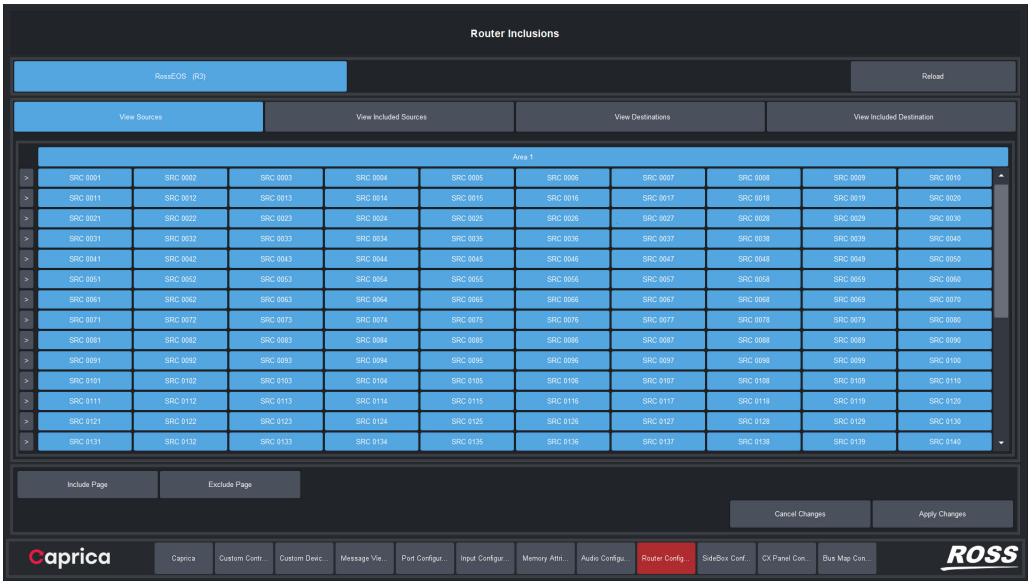
Creating a list of included sources helps simplify list navigation and item selection in Quorum.

To create a list of router included sources

1. Use the **Port Configuration** client to configure a router device for your Quorum system.

2. At the bottom of the **Device View**, click **Router Configuration**.

The **Router Configuration** client opens.



3. At the top of the **Router Configuration** client, click the **Router** (for example, RossEOS (R1)) for which to create a list of included sources.
4. Click **View Sources**.

   The **Router Configuration** client displays a list that contains a button for each available source on the selected router. You may need to click the following buttons to view all the available router sources.

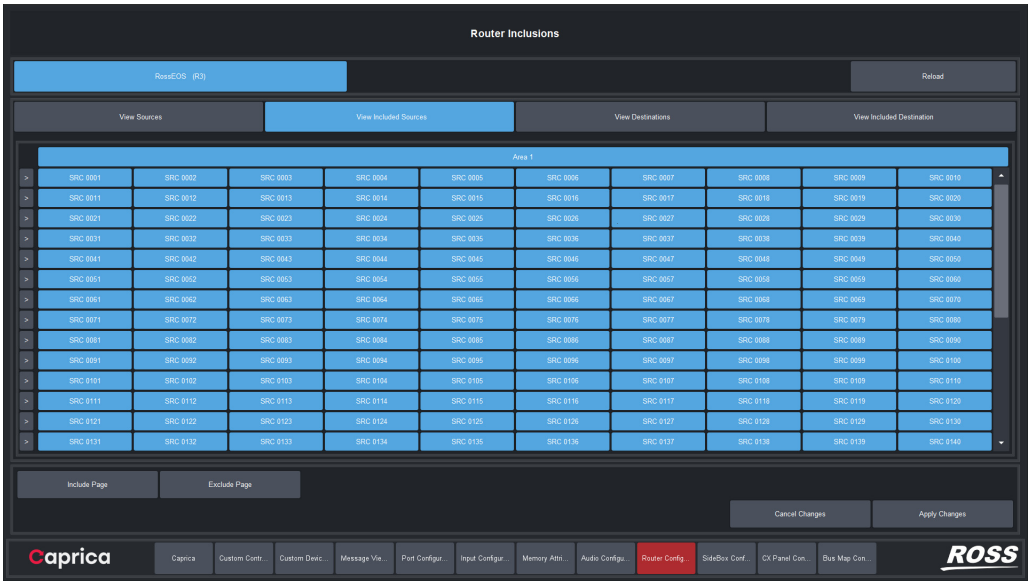
   - **Area** — if the router contains multiple areas, click the **Area 1** to **Area N** button to view the sources in the selected area.
   - **Page** — if the selected router contains more than 256 sources, click the **Page 2** to **Page N** buttons to view the next page of 256 sources.
5. In the source list, click each source that you want to make accessible to OverDrive. To select multiple sources at once, do the following:

   - **Row** — to select all the sources in a row, click the > **Arrow** button to the left of the row that contains the sources to select.
   - **Page** — to select all the sources on a page, click **Include Page**.
6. To deselect a source, click a selected source. To deselect multiple sources at once, do the following:

   - **Row** — to deselect a row of selected sources, click the > **Arrow** button to the left of the row that contains the sources to deselect. When a row contains an unselected source, all the sources change to selected. Click the > **Arrow** button once again to deselect all the sources in the row.
   - **Page** — to deselect all the sources on a page, click **Exclude Page**.
7. Click **Apply Changes** to save the selected sources to the router included sources list.

8. To view only the sources in the router included sources list, click **View Included Sources**.

   The **Router Configuration** client displays the sources in the router included sources list.



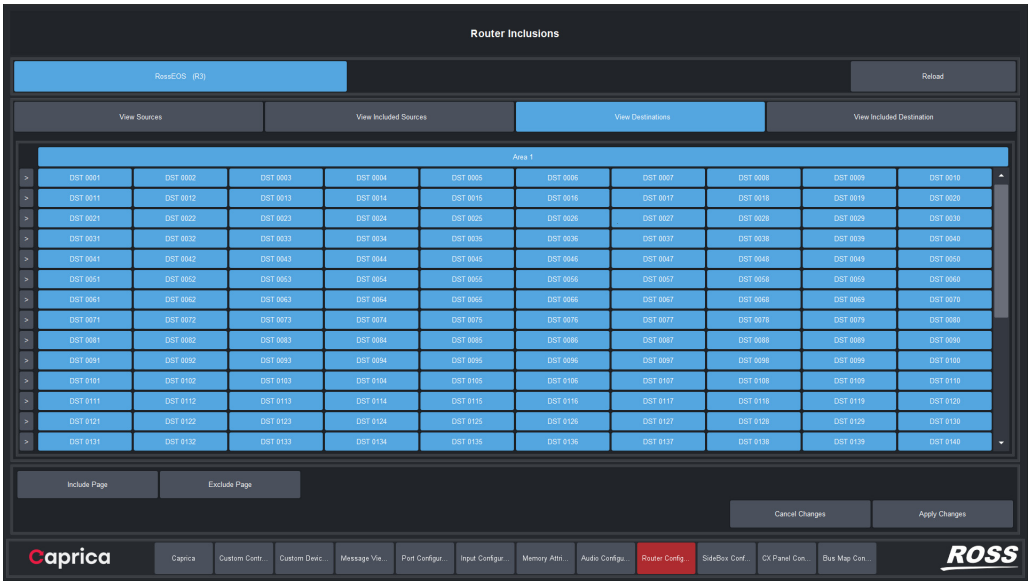
Destinations

Creating a list of included destinations helps simplify list navigation and item selection in Quorum.

To create a list of router included destinations

1. At the top of the **Router Configuration** client, click the **Router** (for example, RossEOS (R1)) for which to create a list of included destinations.
2. Click **View Destinations**.

   The **Router Configuration** client displays a list that contains a button for each available destination on the selected router.



You may need to click the following buttons to view all the available router destinations.

- **Area** — if the router contains multiple areas, click the **Area 1** through **Area N** buttons to view the destinations in the selected area.
- **Page** — if the selected router contains more than 256 destinations, click the **Page 2** through **Page N** buttons to view the next page of 256 destinations.

3. In the destination list, click each destination that you want to make accessible to OverDrive. To select multiple destinations at once, do the following:

   - **Row** — to select all the destinations in a row, click the > **Arrow** button to the left of the row that contains the destinations to select.
   - **Page** — to select all the destinations on a page, click **Include Page**.

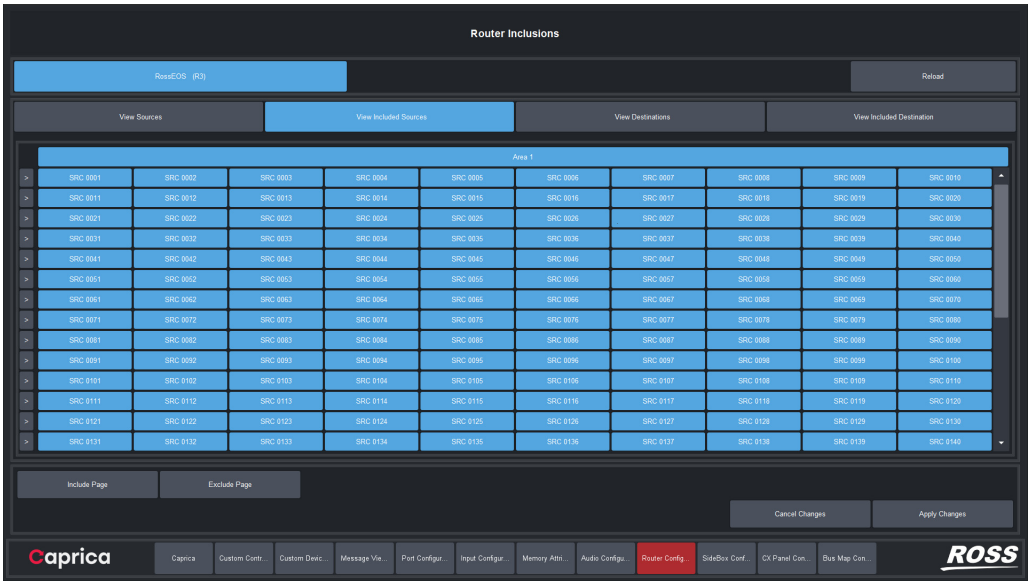
4. To deselect a destination, click a selected destination. To deselect multiple destinations at once, do the following:

   - **Row** — to deselect a row of selected destinations, click the > **Arrow** button to the left of the row that contains the destinations to deselect. When a row contains an unselected destination, all the destinations change to selected. Click the > **Arrow** button once again to deselect all the destinations in the row.
   - **Page** — to deselect all the destinations on a page, click **Exclude Page**.

5. Click **Apply Changes** to save the selected destinations to the router included destinations list.

6. To view only the destinations in the router included destinations list, click **View Included Destinations**.

   The **Router Configuration** client displays the destinations in the router included destinations list.



Creating Custom Control Macros

The Custom Control function of the switcher enables you to program sequences of keystrokes (called “macros”) and other special switcher functions — and store them in dedicated buttons and banks in the Custom Control group. Once programmed, you can play back a macro by pressing the associated button in the Custom Control group. A Custom Control macro can be as simple as triggering an output GPI pulse, or as complex as recalling a specific memory register, performing a switcher transition, and flying a group of keys — all with one-button simplicity. You can use the Caprica Custom Controls client to create Custom Control macros for your Quorum switcher.

✶ Do not use the Caprica Custom Controls client to create or edit Custom Controls while playing out a rundown. Creating or editing Custom Controls during rundown playout may cause the rundown to stop playing.

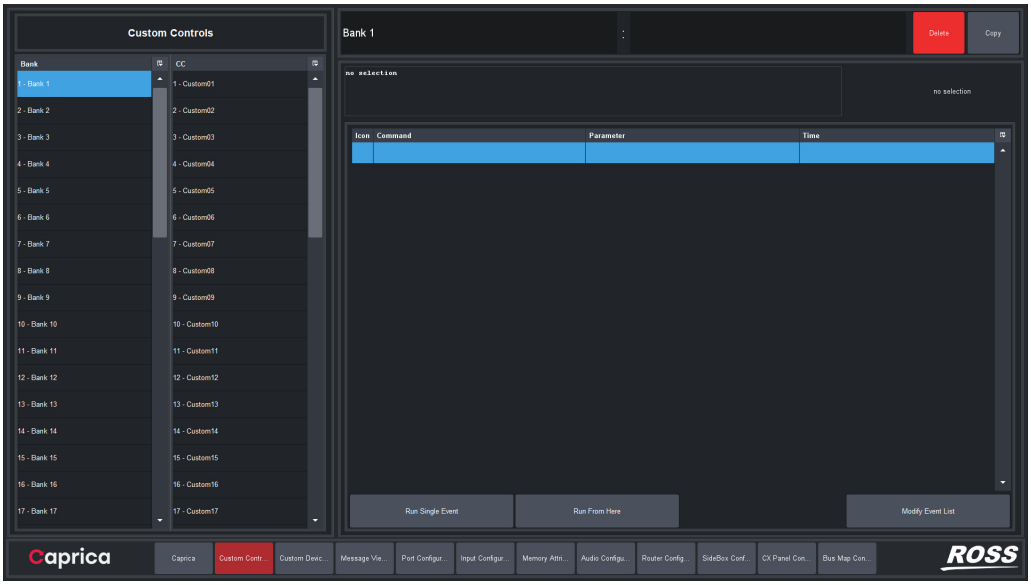
For More Information on...

- using Custom Control macros in Quorum, refer to the section “**Custom Controls in *Quorum***” in the ***Quorum User Guide***.

To create a Custom Control macro

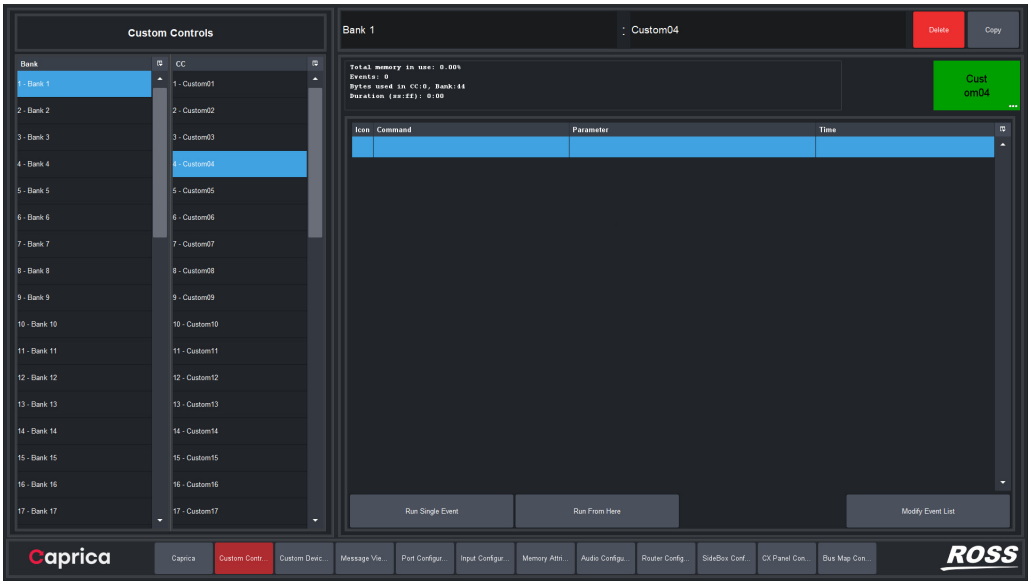
1. At the bottom of the **Device View**, click **Custom Controls**.

   The **Custom Controls** client opens.



2. In the **Bank** column of the **Custom Controls** table, click the bank name that contains the Custom Control that you want to program with a new Custom Control macro.
3. In the **CC Name** column, click the name of the Custom Control to program.

The **Bank** and **CC Name** boxes display the selected bank and Custom Control names.

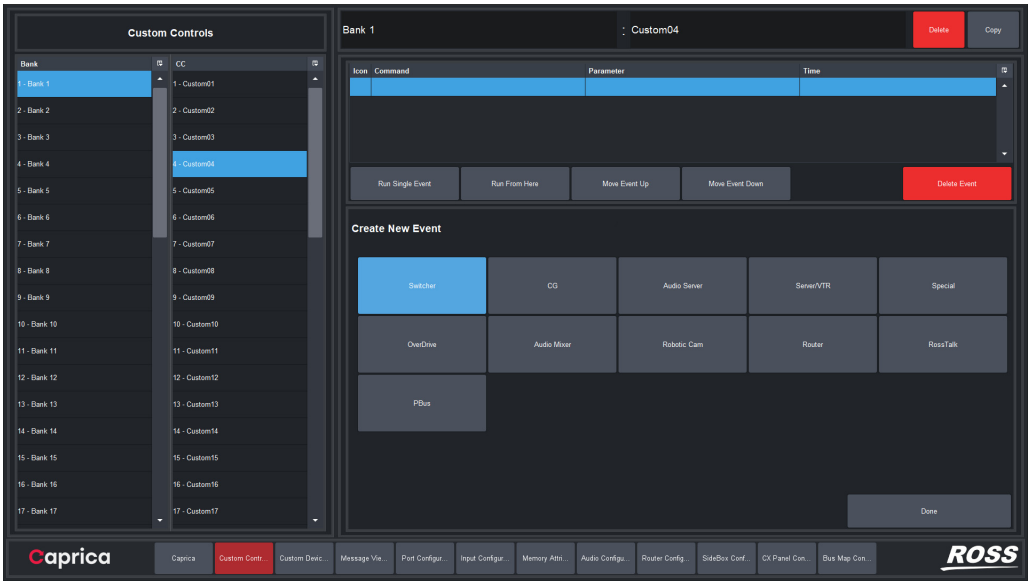


The fields above the Custom Control **Event** list display the following information:

- **Total memory in use** — this field displays the percentage of the Caprica Custom Control memory that is used by all of the Custom Controls on your Caprica Server.
- **Events** — this field displays the number of events in the selected Custom Control.
- **Bytes used in** — this field displays the amount of Caprica Custom Control memory in bytes used by the selected Custom Control (**CC**) and bank (**Bank**).
- **Duration** — this field displays the duration of the selected Custom Control in seconds (**ss**) and frames (**ff**).

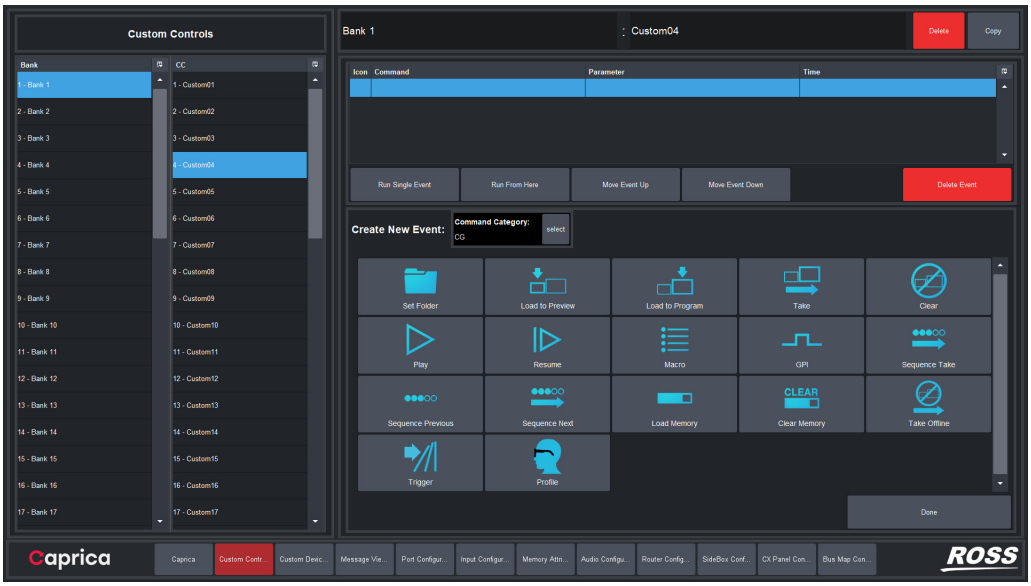
4. Click in the **Bank** box to edit the bank name or the **CC Name** box to edit the Custom Control name.
5. Click **Modify Event List** at the bottom of the **Custom Controls** client.

   The **Create New Event** panel opens listing the available types of Custom Controls that you can use to build a Custom Control macro.



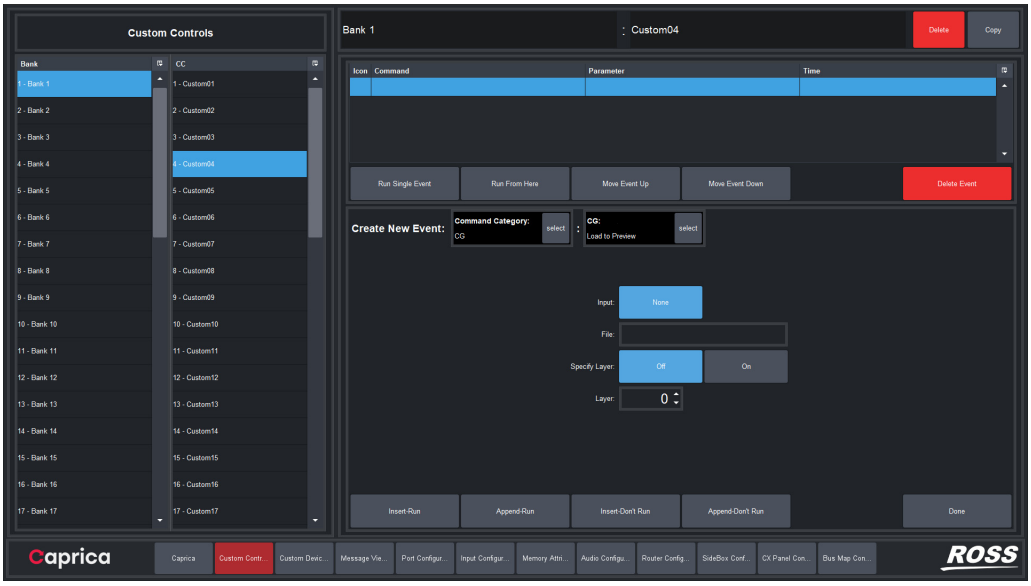
6. In the **Create New Event** panel, click the type of Custom Control that you want to use to create a new event in your Custom Control macro.

   The **Create New Event** panel lists the available Custom Controls that you can use to create an event in your Custom Control macro. If you selected the wrong Custom Control type, click **select** in the **Command Category** area to return to the list of available Custom Control types.



7. Click the **Custom Control** to add to your macro as an event.

   The **Create New Event** panel displays the setting for the selected Custom Control. If you selected the wrong Custom Control, click **select** in the **Custom Control Name** area to return to the list of available Custom Controls.

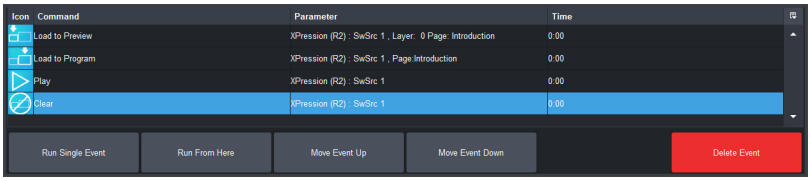


8. Configure the **Custom Control Settings** as required for the new event in your Custom Control macro.

9. Depending on where you want to add a configured Custom Control as an event in your Custom Control macro, click one of the following:

   - **Insert-Run** — add a configured Custom Control above the currently selected event in the **Event List** and run the Custom Control on the switcher connected to the Quorum system. When an event is not selected in the **Event List**, new events are added as the first event in the **Event List**.
   - **Append-Run** — add a configured Custom Control below the currently selected event in the **Event List** and run the Custom Control on the switcher connected to the Quorum system. When an event is not selected in the **Event List**, new events are added as the last event in the **Event List**.
   - **Insert-Don't Run** — add a configured Custom Control above the currently selected event in the **Event List**, but do not run the Custom Control on the switcher connected to the Quorum system. When an event is not selected in the **Event List**, new events are added as the first event in the **Event List**.
   - **Append-Don't Run** — add a configured Custom Control below the currently selected event in the **Event List**, but do not run the Custom Control on the switcher connected to the Quorum system. When an event is not selected in the **Event List**, new events are added as the last event in the **Event List**.

   The **Custom Controls** client adds the configured Custom Control to the **Event List** and highlights the new event. The **Event List** displays Custom Control macro events in the order of execution.



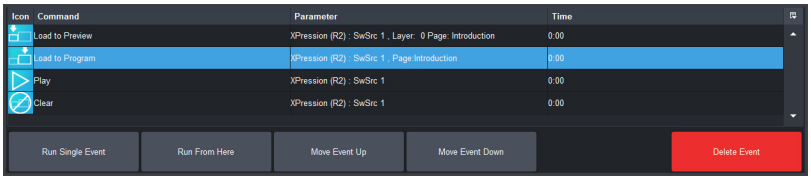
10. Click **select** in the **Command Category** area to start configuring the next event in your Custom Control macro.
11. Repeat step **5** to step **10** to add additional events to your Custom Control macro.
12. After you add the last event to your Custom Control macro, click **Done** to complete the macro.

Moving Events in a Custom Control Macro

If you inserted an event at the wrong location in your Custom Control macro, you can move the offending event to the correct location in your Custom Control macro.

To move an event in a Custom Control macro

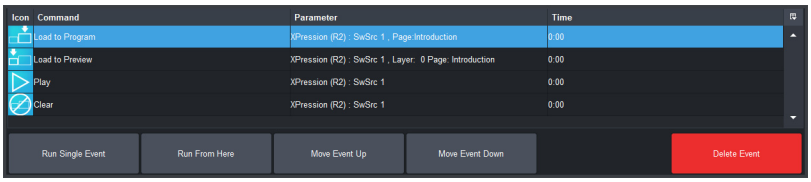
1. In the **Event List** table, select the event to move.



2. Use one of the following buttons to move the selected event in the Event List table:

   - **Move Event Up** — move the selected event up one row in the **Event List** table.
   - **Move Event Down** — move the selected event down one row in the **Event List** table.

   The **Custom Controls** client moves the selected event from the **Event List** table and the Custom Control macro.

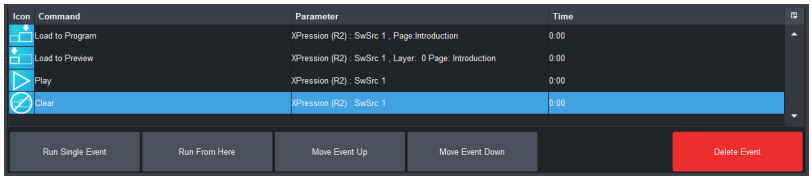


Deleting Events from a Custom Control Macro

If you added an incorrect event to your Custom Control macro, you can delete the offending event from your Custom Control macro.

To delete an event from a Custom Control macro

1. In the **Event List** table, select the event to delete.

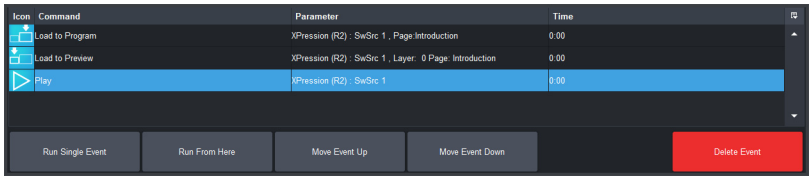


2. Click **Delete Event**.

   The **Confirm Delete** alert opens.

3. Click **Delete Event**. Click **Cancel** if you do not want to delete the selected event. You cannot recover deleted events.

   The **Custom Controls** client deletes the selected event from the **Event List** table and the Custom Control macro.



Testing Custom Control Macros

While creating a Custom Control macro or after completing a macro, you can use the following procedures to test the macro:

To test individual events in a Custom Control macro

1. In the **Event List** table, click the event to test.
2. Click **Run Single Event** at the bottom of the **Event List** table.
3. On the switcher in your Quorum system, verify the results of the event.

To test from a selected event to the last event in a Custom Control macro

1. In the **Event List** table, click the event from which you want to start testing the Custom Control macro. Click the first event in the **Event List** to test the entire Custom Control macro.
2. Click **Run From Here** at the bottom of the **Event List** table.
3. On the switcher in your Quorum system, verify the results of the events.

Making Copies of a Custom Control Macro

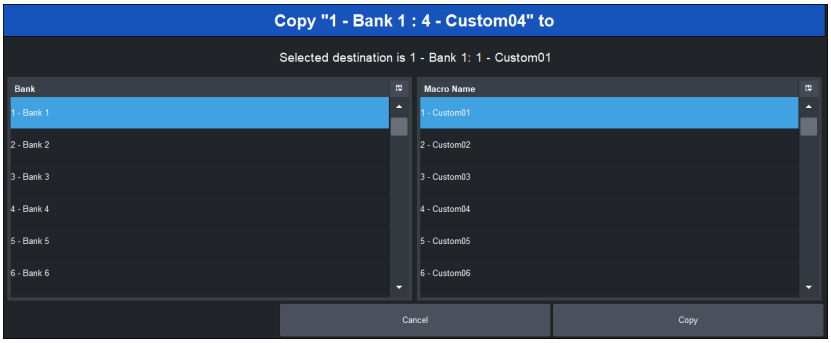
Making a copy of a Custom Control macro that already does most of what you want is a quick way to build a new Custom Control macro.

To create a copy of a Custom Control macro

1. In the **Bank** column of the **Custom Controls** table, click the Custom Control bank that contains the Custom Control macro to copy.
2. In the **CC Name** column of the **Custom Controls** table, click the name of the Custom Control macro to copy.

   The **Custom Controls** client displays the selected bank and Custom Control name in the **Bank** and **CC Name** boxes at the top of the client.
3. Click **Copy** to the right of the **Bank** and **CC Name** boxes.

   The **Copy** dialog box opens.



4. In the **Bank** column of the **Copy** dialog box, click the Custom Control bank in which you want to save a copy of the selected Custom Control macro.
5. In the **Macro Name** column of the **Copy** dialog box, click the Custom Control name under which to save a copy of the selected Custom Control macro.
6. Click **Copy**.

   The Custom Controls client copies the selected Custom Control macro to the selected **Bank** and **Macro Name**.
7. To access the copied Custom Control macro, use the **Bank** and **CC Name** columns in the **Custom Controls** table.

Deleting Custom Control Macros

When you no longer require a Custom Control macro, you can delete the Custom Control macro. Deleting a Custom Control macro deletes all the events in the Custom Control macro, preparing it for a new Custom Control macro.

To delete a Custom Control macro

1. In the **Bank** column of the **Custom Controls** table, click the Custom Control bank that contains the Custom Control macro to delete.
2. In the **CC Name** column of the **Custom Controls** table, click the name of the Custom Control macro to delete.

   The **Custom Controls** client displays the selected bank and Custom Control name in the **Bank** and **CC Name** boxes at the top of the client.
3. Click **Delete** to the right of the **Bank** and **CC Name** boxes.

   The **Confirm Delete** alert opens.
4. Click **Delete**. Click **Cancel** if you do not want to delete the selected Custom Control macro. You cannot recover deleted Custom Control macros.

   The **Custom Controls** client deletes all the events in the selected Custom Control macro.

Configuring Bus Maps

The Bus Map Configuration client enables you to map sources to crosspoints. OverDrive will use the source order that you configure in the Bus Map Configuration client.

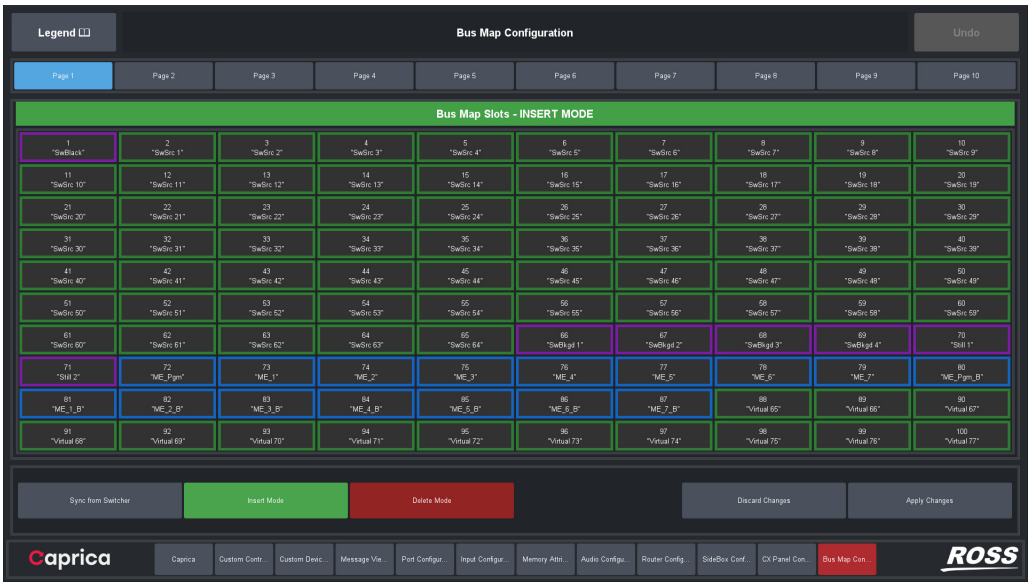
✶ Inserting slots from a Bus Map can change the other slots it in the Bus Map. The Bus Map Configuration client displays the ⚠ Modified Slot icon in the upper right corner of the modified slots. Always review your Bus Map changes before applying them.

To insert a slot into the Bus Map

1. Use one of the following methods to launch **DashBoard**:
   - Double-click the **DashBoard** icon on the desktop.
   - Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.
2. In the **DashBoard Tree View**, expand the **Caprica Server** node.
3. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
4. Double-click the **Bus Map Configuration** node.

   The **Bus Map Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   The **Bus Map Configuration** client expands to full screen view.



The **Bus Map Configuration** client displays the Bus Map source crosspoint mappings. The border of a slot indicates the source type as follows:

- ▢ — miscellaneous source
- ▢ — external source
- ▢ — ME re-entry

While working in the **Bus Map Configuration** client, you can click **Legend** to view what the slot border colors indicate.

6. At the top of the **Bus Map Configuration** client, click the **Page** button that contains the **crosspoint** to which you want to map a source.

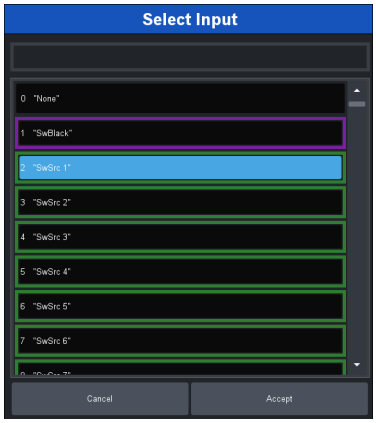
   Each page contains 100 crosspoints.

7. At the bottom of the **Bus Map Configuration** client, click **Insert Mode**.

   The **Bus Map Configuration** client switches to **Insert Mode**.

8. Click the **crosspoint** to which you want to map a source.

   The **Select Input** dialog box opens.

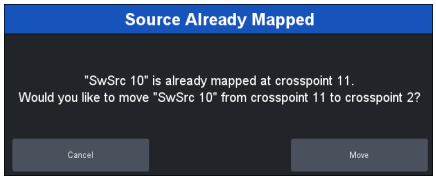


9. Select the **source** to map to the selected **crosspoint**.

10. Click **Accept**.

    Caprica inserts the a slot into the Bus Map for the set source and crosspoint mapping.

    You can only map a source to a single crosspoint. When the selected source is already mapped to a crosspoint, the **Source Already Mapped** alert opens.



    Click **Move** to map the selected **source** to the selected **crosspoint**. Click **Cancel** to leave the Bus Map unchanged.

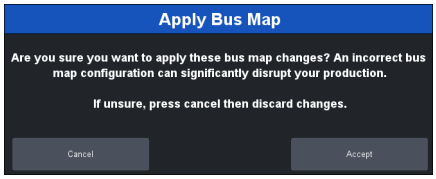
11. Review the changes you have made to the Bus Map before applying them.

Inserting a slot changes the slots that follow it in the Bus Map. The **Bus Map Configuration** client displays the **Modified Slot** icon in the upper right corner of the modified slots.



12. After verifying your Bus Map changes, click **Apply Changes**. Click **Discard Changes** to leave the Bus Map unchanged.

    The **Apply Bus Map** alert opens.



13. Click **Accept** to save your Bus Map changes. Click **Cancel** to leave the Bus Map unchanged.

Deleting Bus Map Slots

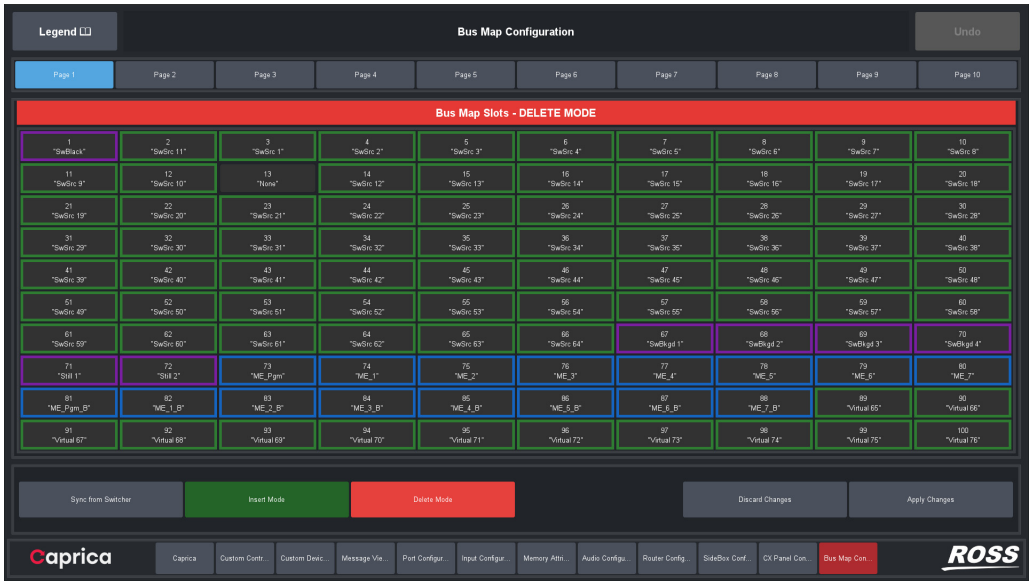
As well as inserting slots in a Bus Map, you can also delete slots from the Bus Map.

- Deleting slots from a Bus Map can change the other slots it in the Bus Map. The Bus Map Configuration client displays the Modified Slot icon in the upper right corner of the modified slots. Always review your Bus Map changes before applying them.

To delete a Bus Map slot

1. At the top of the **Bus Map Configuration** client, click the **Page** button that contains the Bus Map **slot** to delete.
2. At the bottom of the **Bus Map Configuration** client, click **Delete Mode**.

The **Bus Map Configuration** client switches to **Delete Mode**.



3. Click the Bus Map **slot** to delete.

   Caprica removes the selected **slot** from the Bus Map.

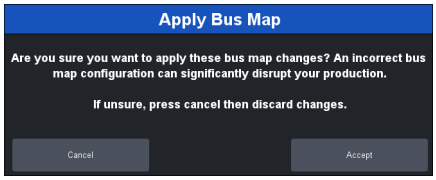
4. Review the changes you have made to the Bus Map before applying them.

   Deleting a slot changes the slots that follow it in the Bus Map. The **Bus Map Configuration** client displays the **Modified Slot** icon in the upper right corner of the modified slots.



5. After verifying your Bus Map changes, click **Apply Changes**. Click **Discard Changes** to leave the Bus Map unchanged.

   The **Apply Bus Map** alert opens.



6. Click **Accept** to save your Bus Map changes. Click **Cancel** to leave the Bus Map unchanged.

Synchronizing the Bus Map from your Switcher

You can reset the Bus Map by synchronizing it from the switcher in you Caprica system.

✶ Synchronizing the Bus Map from your switcher can change the slots in the Bus Map. The Bus Map Configuration client displays the Modified Slot icon in the upper right corner of the modified slots. Always review your Bus Map changes before applying them.

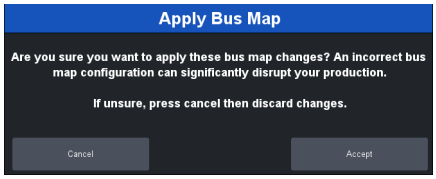
To synchronize the Bus Map from your Switcher

1. At the bottom of the **Bus Map Configuration** client, click **Sync from Switcher**.

   The Bus Map slot update to match the Bus Map from the switcher in you Caprica system.

2. After verifying your Bus Map changes, click **Apply Changes**. Click **Discard Changes** to leave the Bus Map unchanged.

   The **Apply Bus Map** alert opens.



3. Click **Accept** to save your Bus Map changes. Click **Cancel** to leave the Bus Map unchanged.

Saving Caprica Server Configuration

After you finish configuring your Caprica Server, it is a good idea to save the Caprica Server configuration to a diskset. You can use a diskset as a Caprica Server backup or to copy Caprica Server configurations to another Caprica Server. A diskset may contain one or more of the following Caprica Server configuration components:

- **Installation**
  - › Devices to connect to a Quorum system
  - › Switcher inputs
  - › Audio channels
  - › Router sources and destinations
- **Custom Control** - Custom Control macro definitions
- **Shotbox** — SideShot module configuration
- **Memory** — Memory Attribute configuration

When you create a diskset on a Caprica Server in a Redundant Caprica Server system, the diskset is automatically copied to the other Caprica Server in the Redundant Caprica Server system.

Saving Caprica Server Configuration to a New Diskset

At any time, you can save the current configuration of your Caprica Server to a new diskset. You can also save an existing diskset on your Caprica Server to a diskset with a new name. When you save Caprica Server configurations to a new diskset, you can choose to save all or individual components in the diskset.

All Current Configuration Components

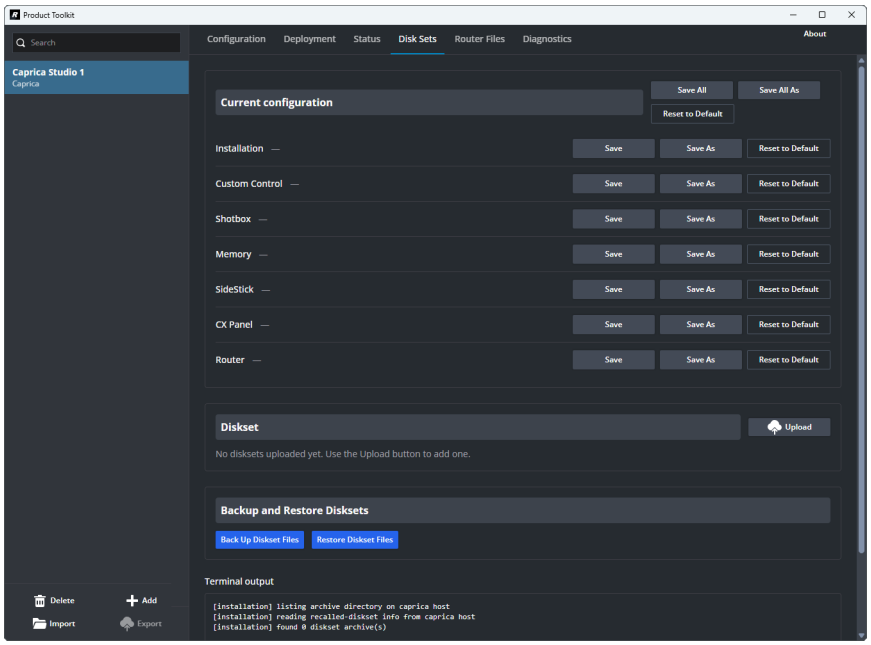
When you choose to save all components of the current Caprica Server configuration, Caprica compresses the Installation, Custom Control, Shotbox, and Memory configuration components into a single diskset file.

To save all components of the current Caprica Server configuration to a diskset

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

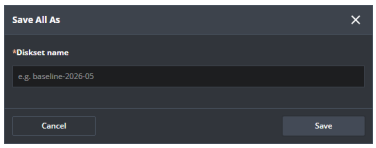
   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

   The **Disk Sets** tab opens. For each configuration component of the Caprica Server, the **Current configuration** section displays the name of the current diskset that contains the component and the time that component was recalled to configure the Caprica Server.



5. In the title bar of the **Current Configuration** section, click **Save All As**.

   The **Save All As** dialog box opens.

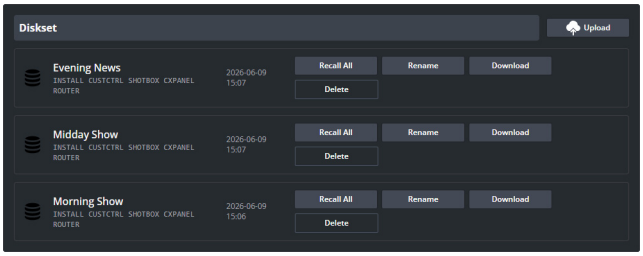


6. In the **Name** box, enter a name for your new diskset or use the suggested diskset name.

✶ If you enter the name of an existing diskset, Caprica will overwrite the configuration components contained in the existing diskset with the components from the current configuration.

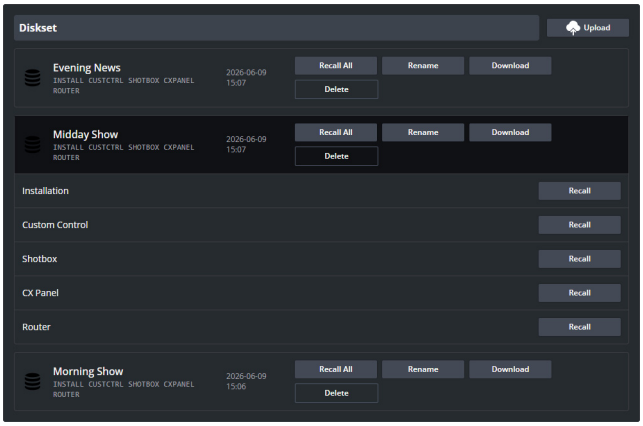
7. Click **Save**.

   Caprica creates a new diskset by compressing the current configuration components into a single file (.tgz) with the name set in the **Save All As** dialog box. Caprica saves diskset files in the `/home/ubuntu/caprica-mounts/archive` directory on the Caprica Server computer. The **Diskset** section lists all the diskset files contained in the `archive` directory, even diskset files copied into the directory from other sources.



8. To view the configuration components contained in the new diskset, click the name of the new diskset in the **Diskset** section.

   The selected diskset expands to display the configuration components contained in the diskset.



Individual Current Configuration Components

You can choose to individually save the Installation, Custom Control, Shotbox, or Memory configuration from the current Caprica Server configuration to a diskset. You can add additional configuration components to an existing diskset.

To save an individual component of the current Caprica Server configuration in a diskset

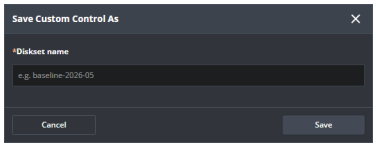
1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

   The **Diskset** tab opens.

5. In the **Current Configuration** section, click **Save As** to the right of the configuration component to save.

   The **Save Component As** dialog box opens.

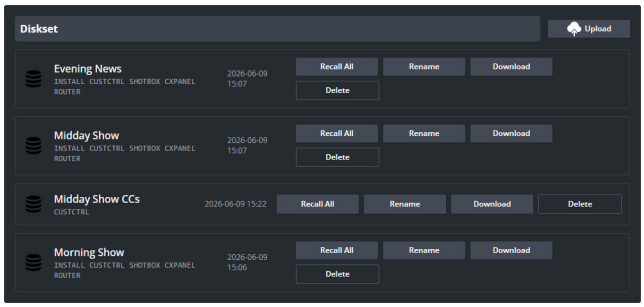


6. In the **Name** box, enter a name for your new diskset or use the suggested diskset name.

✶ If you enter the name of an existing diskset, Caprica will overwrite the configuration component in the diskset that matches the component you selected to save. When the diskset does not contain the configuration component you selected to save, Caprica will add the component to the diskset.

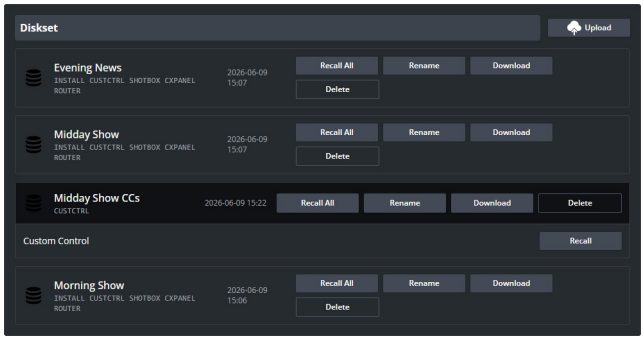
7. Click **Save**.

   Caprica creates a new diskset by saving the selected current configuration component in a file (.tgz) with the name set in the **Save Component As** dialog box. Caprica saves diskset files in the `/home/ubuntu/caprica-mounts/archive` directory on the Caprica Server computer. The **Diskset** section lists all the diskset files contained in the `archive` directory, even diskset files copied into the directory from other sources.



8. To view the configuration component contained in the new diskset, click the name of the new diskset in the **Diskset** section.

   The selected diskset expands to display the configuration components contained in the diskset.



Saving Changes Made to a Caprica Server Configuration

After you make changes to the current configuration of your Caprica Server, you can save the configuration component changes back to the original disksets from which you recalled the components.

All Current Configuration Components

When you choose to save all configuration component changes for the current Caprica Server configuration, Caprica will overwrite the components in the originating disksets with the components in the Current Configuration section of the Diskset web page. The Current Configuration section displays the name of the originating diskset to the right of each configuration component.

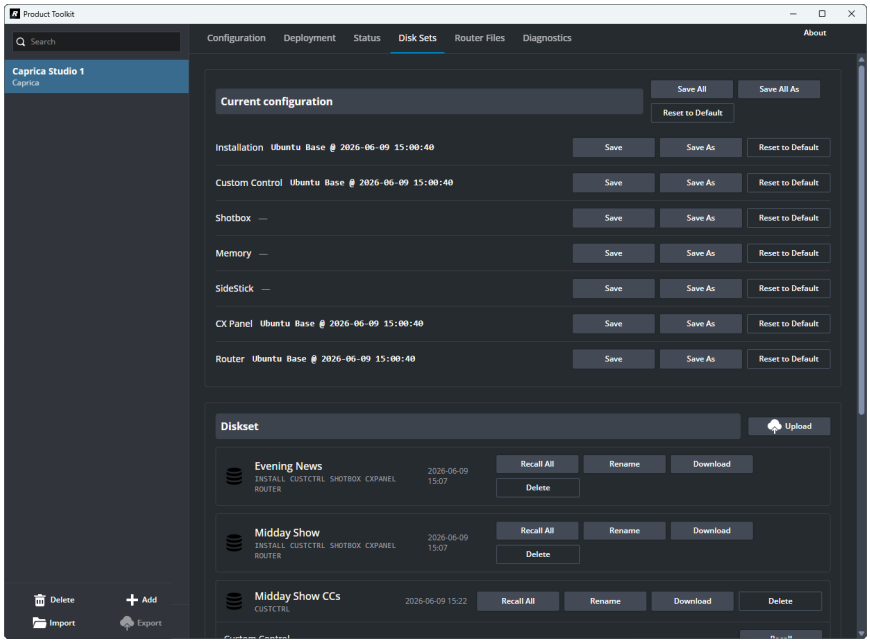
✶ Saving the current Caprica Server configuration overwrites the configuration components in the originating disksets with the current Caprica Server configuration.

To save all Caprica Server configuration component changes to the originating disksets

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

   The **Disk Sets** tab opens.



5. In the title bar of the **Current Configuration** section, click **Save All**.

   Caprica overwrites the configuration components in the originating disksets with the current Caprica Server configuration. Click **Cancel** to cancel saving the current Caprica Server configuration back to the originating disksets.

Individual Current Configuration Components

You can choose to individually save the Installation, Custom Control, Shotbox, or Memory configuration from the current Caprica Server configuration back to the originating diskset.

✶ Saving an individual configuration component overwrites the configuration component in the originating disksets with the current Caprica Server configuration.

To save individual Caprica Server configuration component changes to the originating diskset

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

   The **Disk Sets** tab opens.
5. In the **Current Configuration** section, click **Save** to the right of the configuration component to save.

   Caprica overwrites the configuration component in the originating diskset with the current Caprica Server configuration. Click **Cancel** to cancel saving the current Caprica Server configuration back to the originating diskset.

Renaming a Diskset

You can rename any of the disksets stored on your Caprica Server.

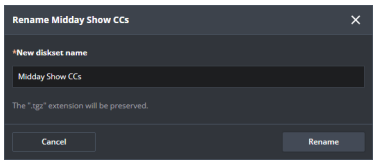
To rename a diskset on a Caprica Server

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

   The **Disk Sets** tab opens.
5. In the **Diskset** section, click **Rename** to the right of the diskset to rename.

   The **Rename Diskset** dialog box opens.



6. In the **Name** box, enter a new unique name for the selected diskset.

✶ If you enter the name of an existing diskset, Caprica will not rename the selected diskset.

7. Click **Rename**. Click **Cancel** to cancel renaming the selected diskset.

   The **Rename Diskset** dialog box closes and the **Diskset** section of the **Diskset** web page displays the renamed diskset.

Deleting a Diskset

When you no longer require a diskset, you can delete the diskset from the Caprica Server to save disk space.

To delete a diskset from a Caprica Server

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

   The **Disk Sets** tab opens.
5. In the **Diskset** section, click **Delete** to the right of the diskset to delete from the Caprica Server.

   An **Alert** opens.
6. Click **Delete**. Click **Cancel** to cancel deleting the selected diskset.

   The Caprica Server deletes the selected diskset.

Transferring a Bus Map Between Disksets

Bus Maps can be transfered between disksets, enabling the correct Bus Map for your shows to be loaded on a new or updated Caprica system.

- By default, a new or updated Caprica system will create the Bus Map by synchronizing with the switcher, which may not work with your existing shows.

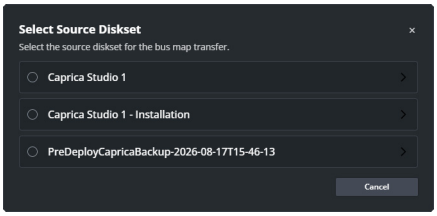
To transfer a Bus Map between Bus Maps

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.
2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.
3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.
4. Click the **Disk Sets** tab.

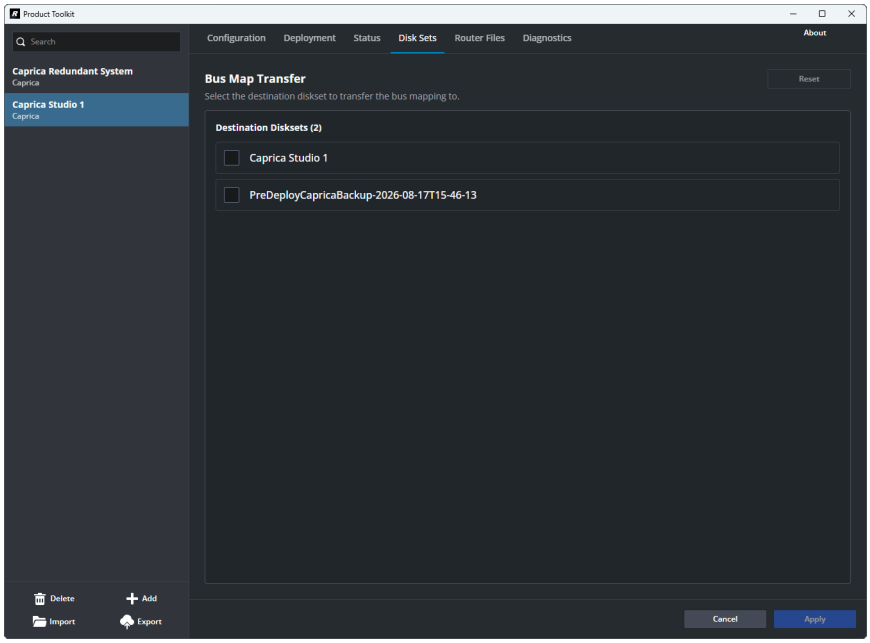
   The **Disk Sets** tab opens.
5. In the **Bus Map Transfer** section, click **Bus Map Transfer**.

   The **Select Source Diskset** dialog box opens.



6. Select the diskset that contains the Bus Map to transfer.

   The **Bus Map Transfer** panel opens.



7. Use the **Destination Disksets** list to select one or more disksets to which to transfer the Bus Map contained in the diskset that you selected in the **Select Source Diskset** dialog box. Click **Reset** to deselect the selected disksets.

8. Click **Apply**. Click **Cancel** to cancel the Bus Map transfer.

   The **Bus Map Transfer** panel closes, and the Bus Map contained in the diskset that you selected in the **Select Source Diskset** dialog box is transferred to the disksets selected in the **Destination Disksets** list.

9. To load the transferred Bus Map, recall an updated diskset to a Caprica Server.

Recalling Configurations from a Diskset

You can recall all or selected Caprica Server configuration components from a diskset to change the configuration of your Caprica Server. The Diskset section of the Diskset web page lists the available disksets on your Caprica Server.

✶ Recalling Caprica Server configuration components from a diskset overwrites the current Caprica Server configuration with the configuration components contained in the selected diskset and then restarts the Caprica Server.

To recall Caprica Server configuration components from a diskset

1. Log in to a computer that has the latest version of the **Product Toolkit** installed and is connected to the same network as the **Caprica Server** computer.

2. On the desktop, double-click the **Ross Product Toolkit** icon.

   The **Product Toolkit** opens.

3. In the Product Toolkit **Configurations** list, select the **configuration** of the Caprica Server for which you want to manage disksets.

4. Click the **Disk Sets** tab.

   The **Disk Sets** tab opens.

5. To recall all the Caprica Server configuration components contained in a diskset, complete the following steps:

   a. In the **Diskset** section, click **Recall All** to the right of the diskset to recall to the Caprica Server.

      An **Alert** opens.

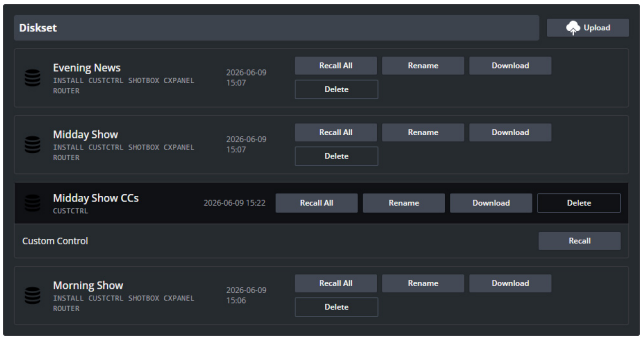
   b. Click **Recall**. Click **Cancel** to cancel recalling the configuration components from the selected diskset.

      Caprica overwrites the current Caprica Server configuration with the configuration components contained in the selected diskset and automatically restarts the Caprica Server to start using the new configuration. For the components contained in the selected diskset, the **Current Configuration** section displays the name of the recalled diskset and the time that it was recalled.

6. To recall an individual Caprica Server configuration component from a diskset, complete the following steps:

   a. In the **Diskset** section, click the name of the diskset from which to recall a Caprica Server configuration component.

      The selected diskset expands to display the configuration components contained in the diskset.



   b. In the expanded **Diskset**, click **Recall** to the right of the Caprica Server configuration component to recall to the Caprica Server.

      An **Alert** opens.

   c. Click **Recall**. Click **Cancel** to cancel recalling the selected configuration component from the diskset.

      Caprica overwrites the current Caprica Server configuration with the selected configuration component from the diskset and automatically restarts the Caprica Server to start using the new configuration.

Copying a Diskset to Another Caprica Server

You can use a diskset that you downloaded from a Caprica Server to quickly configure another Caprica Server.

To copy a diskset from one Caprica Server to another Caprica Server

1. Download the disksets to copy from the original Caprica Server.
   - **All disksets** — use the **Backup and Restore** section to download a diskset backup file that contains all disksets.
   - **Individual diskset** — use the **Diskset** section to download individual diskset files.
2. Transfer the diskset file to the other Caprica Server computer.
3. Upload the disksets contained in the copied diskset file to the other Caprica Server.
   - **Diskset Backup** — in the **Backup and Restore** section, click **Restore Diskset Files**.
   - **Individual diskset** — in the title bar of the **Diskset** section, click **Upload**.
4. Recall the uploaded disksets on the other Caprica Server.

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Neilsen Encoders	For the life of the Designated Equipment
Sports Analysis	For the License Period

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a. During the Maintenance Period the Software is warranted to be free from material defects under normal use;

b. Ross Video has the authority to enter into this Agreement, is the owner or licensee of the Software and Documentation and has the right to grant all of the license rights herein;

c. Except as expressly stated herein, no disabling mechanism or protection feature designed to prevent the Software's Use, including any computer virus, worm, lock, drop dead device, Trojan-horse routine, trap door, time bomb or any other codes or instructions that may be used to access, Modify, delete, damage or disable the Software or any other hardware or computer system, will be used or activated by Ross Video in respect of Software that is delivered to Licensee under a valid License; and

d. The Software, if properly installed and used with Designated Equipment, will perform substantially as described in Ross Video's then current Documentation for such Software for the Maintenance Period.

(B) Warranty Exclusions and Inclusions

Notwithstanding the above, all of Ross Video's obligations with respect to the warranties set out in 7(A) above shall be contingent on Licensee's use of the Software in accordance with the terms and conditions of this Agreement and Ross Video's instructions as provided in the Documentation. Ross Video shall have no warranty obligations where any Software failure occurs as a result of misuse, neglect, accident, abuse, misapplication, improper installation, unauthorized modification, extreme power surge or extreme electromagnetic field or other Act of God. Ross Video shall pass through to Licensee the benefit of all warranties from third party manufacturers and suppliers.

(C) Remedy

If the Software becomes defective, and a valid claim is received by Ross Video during the Maintenance Period, Ross Video will, at its sole option and sole discretion, either (1) repair the defective Software at no charge, or (2) exchange the defective Software for a comparable product at no charge. The remedies set forth in this Section shall be the exclusive remedies available to Licensee in connection with a breach of the limited warranties set out above.

(D) Maintenance Charges

Technical support for the Software by telephone and email contact with Ross Video is provided by Ross Video to Licensee at no extra charge for the life of the product. During the Maintenance Period, Ross Video shall supply downloadable Software Modifications upon request of Licensee, when available, at no extra charge to Licensee. Notwithstanding the foregoing, Ross Video shall be under no legal obligation to create or release Software Modifications at any time or in accordance with a fixed schedule. Upon expiry of the Maintenance Period, where applicable, Licensee may purchase Software maintenance, including downloadable Software upgrades in one (1) year increments at the then applicable extended Maintenance Fee rates offered by Ross Video, in which case the warranties granted by this Agreement shall survive and remain in full force and effect during each such one (1) year term.

8. **OWNERSHIP.** The Parties acknowledge and agree that, as between the Parties, Ross Video shall be the owner of all intellectual property rights in the Software, Documentation and all related Modifications and Improvements, written materials, logos, trademarks, trade names, copyright, patents, trade secret and moral rights, registered or unregistered. No proprietary interest or title in or to the intellectual property in the Software, Documentation or any Improvements or Modifications is transferred to Licensee by this Agreement. Ross Video reserves all rights not expressly licensed to Licensee under section 3.

9. **THIRD PARTY SOFTWARE.** Licensee acknowledges that the Third Party Software is not owned by Ross Video. Notwithstanding any other provision of this Agreement, Ross Video, to the extent permitted by applicable law, offers no warranties (whether express, implied, statutory or by course of communication or dealing with Licensee, or otherwise) with respect to the Third Party Software. Ross Video may pass through to Licensee, if and to the extent permitted by applicable law, any warranties expressly provided by such third parties to Ross Video for such Third Party Software.

10. **INTELLECTUAL PROPERTY INDEMNITY.** Ross Video agrees to defend, indemnify and hold harmless Licensee from final damages awarded by a court of competent jurisdiction (hereinafter referred to as the "**Losses**"), which Licensee, or any of its officers or directors, may incur, suffer or become liable for as a result of, or in connection with, any third party claim asserted against Licensee to the extent such claim is based on a contention that the Software, Documentation or any portion thereof, infringes any valid, registered, enforceable patents, copyrights, trade secrets, trademarks or other intellectual property rights of any third party, provided that (a) the allegedly infringing Software or Documentation has been used within the scope of and in accordance with the terms of this Agreement, and (b) Licensee notifies Ross Video in writing of such claim within ten (10) days of a responsible officer of Licensee becoming aware of such claim. If the Software, Documentation or any portion thereof is held to constitute an infringement of a third party's intellectual property rights, and use thereof is enjoined, Ross Video shall, at its election and expense, either (i) procure the right to use the infringing element of the Software or Documentation; or (ii) replace or modify the element of the Software or Documentation so that the infringing portion is no longer infringing and still performs the same function without any material loss of functionality. Ross Video shall make every reasonable effort to correct the situation with minimal effect upon the operations of Licensee.

    Notwithstanding the above, Ross Video reserves the right to terminate this Agreement and the License granted hereunder on immediate notice to Licensee, and without liability to Licensee, in the event that the Software or Documentation constitutes or may, in Ross Video's determination, constitute, an infringement of the rights of a third party that Ross Video, in its sole discretion, does not consider to be affordably remediable.

    Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right and, in such event, there shall be no claim by either Licensee or Ross Video against the other arising out of such termination, provided that the foregoing shall not apply to a claim for infringement by Ross Video against Licensee in the event that Licensee is alleged to have infringed Ross Video's intellectual property rights, in which case Licensee shall remain liable for all outstanding License Fees and other amounts owing to Ross Video.

    Notwithstanding the foregoing, Ross Video shall have no liability for any claim of infringement based on use of other than a current, unaltered release of the Software and/or Documentation available from Ross Video if such infringement would have been avoided by the use of a current, unaltered release of the Software and/or Documentation provided that such current, unaltered release performs substantially in conformance with the specifications set out in the Documentation and was provided, at no additional cost by Ross Video, to those subscribing for maintenance services for the Software or Documentation.

11. **CONFIDENTIALITY.** Each Party shall maintain in confidence all Confidential Information of the other Party, shall use such Confidential Information only for the purpose of exercising its rights and fulfilling its obligations under this Agreement, and shall not disclose any Confidential Information of the disclosing Party to any third party except as expressly permitted hereunder or make any unauthorized use thereof. Each Party shall disclose the Confidential Information only to those of its employees, consultants, advisors, and/or subcontractors who have a need to know the Confidential Information. Each Party shall, prior to disclosing the Confidential Information to such employees, consultants, advisors and/or subcontractors, obtain their agreement to receive and use the Confidential Information on a confidential basis on the same terms and conditions contained in this Agreement. The receiving Party shall treat the Confidential Information of the disclosing Party with the same degree of care against disclosure and/or unauthorized use as it affords to its own information of a similar nature, or a reasonable degree of care, whichever is greater. The receiving Party further agrees not to remove or destroy any proprietary or confidential legends or markings placed upon any documents or other materials of the disclosing Party. The obligations of confidence set forth in this Agreement shall extend to any Affiliates that have received Confidential Information of the disclosing Party and shall also cover Confidential Information disclosed by any Affiliate. The receiving Party shall be responsible for any actions or omissions of its Affiliates as if such actions or omissions were its own.

Either party may disclose certain Confidential Information if it is expressly required to do so pursuant to legal, judicial, or administrative proceedings, or otherwise required by law, provided that (i) such Party provides the other Party with reasonable written notice prior to such disclosure; (ii) such Party seeks confidential treatment for such Confidential Information; (iii) the extent of such disclosure is only to the extent expressly required by law or under the applicable court order; and (iv) such Party complies with any applicable protective or equivalent order.

Each of Ross Video and Licensee (the "**Indemnifying Party**", as applicable) agree to indemnify the other (the "**Indemnified Party**", as applicable) for all Losses incurred by the Indemnified Party as a result of a failure of the Indemnifying Party to comply with its obligations under this Section 11 provided that the Indemnified Party has given prompt notice of any such claim and, to the extent that a claim may lie against a third party for the unauthorized disclosure of such Confidential Information, the right to control and direct the investigation, preparation, action and settlement of each such claim and, further, provided that the Indemnified Party reasonably co-operates with the Indemnifying Party in connection with the foregoing and provides the Indemnifying Party with all information in the Indemnified Party's possession related to such claim and such further assistance as reasonably requested by the Indemnifying Party.

The Parties acknowledge and agree that any breach of the confidentiality provisions of this Agreement by one Party may cause significant and irreparable injury to the other Party that is not compensable monetarily, as well as damages that may be difficult to ascertain, and agrees that, in addition to such other remedies that may be available at law or in equity, the other Party shall be entitled to seek injunctive relief (including temporary restraining orders, interim injunctions and permanent injunctions) in a court of competent jurisdiction in the event of the breach or threatened breach by such party of any of the confidentiality provisions of this Agreement. The relief contemplated in this Section shall be available to each Party without the necessity of having to prove actual damages and without the necessity of having to post any bond or other security. Each Party further agrees to notify the other Party in the event that it learns of or has reason to believe that any Person has breached the confidentiality provisions of this Agreement.

12. **LIMITATION OF LIABILITY.** The limitation of liability provisions of this Agreement reflect an informed voluntary allocation of the risks (known and unknown) that may exist in connection with the licensing of the Software or Documentation hereunder by Ross Video, and that voluntary risk allocation represents a material part of the Agreement reached between Ross Video and Licensee. Should Ross Video be in breach of any obligation, Licensee agrees that Licensee's remedies will be limited to those set forth in this Agreement. No action, regardless of form, arising out of this Agreement may be brought by Licensee more than twelve (12) months after the facts giving rise to the cause of action have occurred, regardless of whether those facts by that time are known to, or reasonably ought to have been discovered by, Licensee.

    a. EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, THE SOFTWARE AND DOCUMENTATION ARE PROVIDED "AS IS" AND ROSS VIDEO (I) MAKES NO OTHER REPRESENTATIONS, AND PROVIDES NO WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, STATUTORY, BY USAGE OF TRADE CUSTOM OF DEALING, OR OTHERWISE, AND (II) SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING ANY IMPLIED WARRANTY OF UNINTERRUPTED OR ERROR FREE OPERATION, MERCHANTABILITY, QUALITY OR FITNESS FOR A PARTICULAR PURPOSE. ROSS VIDEO DOES NOT REPRESENT OR WARRANT THAT THE SOFTWARE WILL MEET ANY OR ALL OF LICENSEE'S PARTICULAR REQUIREMENTS, THAT THE USE AND OPERATION OF THE SOFTWARE WILL OPERATE ERROR-FREE OR UNINTERRUPTED, THAT ALL PROGRAMMING ERRORS IN THE SOFTWARE CAN BE FOUND IN ORDER TO BE CORRECTED, OR THAT THE SOFTWARE WILL BE COMPATIBLE WITH OTHER PROGRAMS, SYSTEMS, AND HARDWARE.

    a. IN NO EVENT SHALL ROSS VIDEO, ITS AFFILIATES AND LICENSORS, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS, BE LIABLE FOR ANY CLAIM FOR INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, AGGRAVATED DAMAGES; LOST PROFITS, OR LOST REVENUE ARISING FROM OR IN CONNECTION WITH THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, OR IN TORT, EVEN IF THE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

    a. IN ANY EVENT THE AGGREGATE LIABILITY OF ROSS VIDEO, ITS AFFILIATES AND LICENSORS, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS,

FOR ANY CLAIM FOR DIRECT DAMAGES WITH RESPECT TO THE SUBJECT MATTER OF THIS AGREEMENT SHALL NOT EXCEED THE AMOUNT OF THE PURCHASE PRICE PAID TO ROSS VIDEO UNDER THIS AGREEMENT.

13. TERM AND TERMINATION.

a. Unless terminated earlier in accordance with the terms of this Agreement, the term of this Agreement shall commence upon Licensee's first download, access, installation, or other use of the Software or Documentation and continues until, in the case of Software sold with Designated Equipment provided by Ross Video, the earliest of (a) the end of the License Period, or (b) if the Designated Equipment is assigned or transferred in accordance with this Agreement, the date on which the Designated Equipment is no longer owned by Licensee;

a. Either Party shall have the right to terminate this Agreement on notice to the other Party if:

a. the other Party fails to pay any fees or other amounts when due hereunder or under any other agreement between the Parties (or any Affiliates of the Parties, as applicable) in connection with the Software and/or Designated Equipment and such breach is not cured within thirty (30) days after written notice of such failure to pay is given to the defaulting Party by the non-defaulting Party;

a. the other Party shall file a voluntary petition in bankruptcy or insolvency or shall petition for reorganization under any bankruptcy law, consent to an involuntary petition in bankruptcy, or if a receiving order is given against it under the *Bankruptcy and Insolvency Act* (Canada) or the comparable law of any other jurisdiction (and such is not dismissed within ten (10) days);

a. there shall be entered an order, judgment or decree by a court of competent jurisdiction, upon the application of a creditor, approving a petition seeking reorganization or appointing a receiver, trustee or liquidator of all or a substantial part of the other Party's assets and such order, judgment or decree continues in effect for a period of thirty (30) consecutive days; or

a. the other Party shall fail to perform any of the other material obligations set forth in this Agreement and such default, in the case of a default which is remediable, continues for a period of thirty (30) days after written notice of such failure has been given by the non-defaulting Party or, in the case of a non-remediable default, immediately upon notice.

a. Notwithstanding any to the contrary contained in this Agreement:

a. Ross Video may forthwith terminate this Agreement if Licensee is in breach of any of sections 3, 4 or 11 of this Agreement. For greater certainty, In such instances Ross Video shall provide written notice of such termination as soon as practicable but written notice shall not be a necessary prerequisite to such termination; and

a. in the event of a Change of Control of Licensee, Ross Video shall have the rights to terminate this Agreement and the License granted hereunder upon thirty (30) days' prior written notice to Licensee. For greater certainty, Ross Video's right to terminate in the event of a Change of Control of Licensee shall continue for a period of six (6) months from the date Licensee delivers notice of such Change of Control to Ross Video.

a. Ross Video may terminate the License immediately on the date on which it provides notice to Licensee, if its agreements for Third Party Software are terminated.

a. Upon the termination or expiry of this Agreement:

a. Licensee shall immediately cease and desist all use of the Software and Documentation;

a. Licensee shall immediately deliver to Ross Video any of Ross Video's Confidential Information provided hereunder (including the Software and Documentation) then in its possession or control, if any, and shall deliver a certificate of an officer of Licensee certifying the completeness of same;

a. Licensee shall refrain from further use of such Confidential Information; and

a. Licensee shall forthwith pay all amounts owing to Ross Video or any of its Affiliates hereunder.

14. SURVIVAL. The provisions of sections 1, 2, 4, 6, 8, 9, 11, 12, 13, 14, 17 and 19 herein shall survive the expiry or termination of this Agreement.

15. **FORCE MAJEURE.** Dates and times by which Ross Video is required to render performance under this Agreement shall be automatically postponed to the extent and for the period that Ross Video is prevented from meeting them by reason of events of force majeure or any cause beyond its reasonable control provided Ross Video notifies Licensee of the commencement and nature of such cause and uses its reasonable efforts to render performance in a timely manner.

16. **ASSIGNMENT.** Ross Video may assign this Agreement, or any of its rights or obligations hereunder, in whole or in part, upon notice to Licensee. Licensee shall not assign this Agreement, or any of its rights or obligations hereunder, in whole or in part, without the prior written consent of Ross Video, which consent may not be unreasonably withheld. This Agreement enures to the benefit of and is binding upon each of the Parties and their respective successors and permitted assigns.

17. **GOVERNING LAW.** This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and federal laws of Canada applicable therein and shall be treated, in all respects, as an Ontario contract. Each Party irrevocably and unconditionally submits and attorns to the exclusive jurisdiction of the courts of the Province of Ontario to determine all issues, whether at law or in equity, arising from this Agreement.

18. **LANGUAGE.** The Parties have expressly required that this Agreement and all documents relating thereto be drawn-up in English. Les parties ont expressément exigé que cette convention ainsi que tous les documents qui s'y rattachent soient rédigés en anglais.

19. **GOVERNMENT CONTRACTS.** If the Software and/or Documentation to be furnished to Licensee hereunder are to be used in the performance of a government contract or subcontract, the Software and/or Documentation shall be provided on a "restricted rights" basis only and Licensee shall place a legend, in addition to applicable copyright notices, in the form provided under the applicable governmental regulations. For greater certainty, Ross Video shall not be subject to any flowdown provisions required by any customers of Licensee that are a Governmental Authority unless Ross Video expressly agrees to be bound by such flowdown provisions in writing.

20. **EXPORT AND IMPORT LAWS.** Licensee acknowledges and agrees that the Software (including any technical data and related technology) may be subject to the export control laws, rules, regulations, restrictions and national security controls of the United States and other applicable countries (the "**Export Controls**") and agrees not export, re-export, import or allow the export, re-export or import of such export-controlled Software (including any technical data and related technology) or any copy, portion or direct product of the foregoing in violation of the Export Controls. Licensee hereby represents that it is not an entity or person to whom provision of the Software (including any technical data and related technology) is restricted or prohibited by the Export Controls. Licensee agrees that it has the sole responsibility to obtain any authorization to export, re-export, or import the Software (including any technical data and related technology), as may be required. Licensee will defend, indemnify and hold Ross Video harmless from any and all claims, losses, liabilities, damages, fines, penalties, costs and expenses (including attorney's fees) arising from or relating to any breach by Licensee of its obligations under this Section.

21. **AMENDMENT AND WAIVER.** No amendment, discharge, modification, restatement, supplement, termination or waiver of this Agreement or any Section of this Agreement is binding unless it is in writing and executed by the Party to be bound. No waiver of, failure to exercise or delay in exercising, any Section of this Agreement constitutes a waiver of any other Section (whether or not similar) nor does any waiver constitute a continuing waiver unless otherwise expressly provided.

22. **SEVERABILITY.** Each Section of this Agreement is distinct and severable. If any Section of this Agreement, in whole or in part, is or becomes illegal, invalid, void, voidable or unenforceable in any jurisdiction by any court of competent jurisdiction, the illegality, invalidity or unenforceability of that Section, in whole or in part, will not affect (a) the legality, validity or enforceability of the remaining Sections of this Agreement, in whole or in part; or (b) the legality, validity or enforceability of that Section, in whole or in part, in any other jurisdiction.

23. **ENTIRE AGREEMENT.** This Agreement, and any other documents referred to herein, constitutes the entire agreement between the Parties relating to the subject matter of this Agreement and supersedes all prior written or oral agreements, representations and other communications between the Parties.

Quorum Software License Grant

TERMS AND CONDITIONS

The sale to you and installation of the QUORUM SOFTWARE (the Software) by Ross Video Limited (Ross) is conditional on your acceptance of the following terms and conditions of the grant of license to use the Software, which you accept by acceptance of the agreement to purchase, installation and use of the Software. If you do not wish to accept these terms and conditions of the license grant, do not use the Software and contact Ross immediately.

This license grant ("grant") is effective from the date of Software installation (the "Effective Date") by Ross as agreed upon by you, the purchaser of the Software ("Licensee").

1. DEFINITIONS.

1.1 ”Change of Control” means, with respect to any corporation, the sale, transfer, pledge, assignment or other conveyance of in excess of fifty percent (50%) of the voting equity of the corporation.

1.2 "Designated Equipment" shall mean the hardware products identified on Exhibit "A" with which the Software is licensed for use.

1.3 "Documentation" shall mean all manuals, user documentation, and other related materials pertaining to the Software that are furnished to Licensee by or on behalf of Ross in connection with the Software.

1.4 “Hardware” refers to the Designated Equipment.

1.5 “Improvements” means all inventions, works, discoveries, improvements and innovations of or in connection with the Software including without limitation error corrections, bug fixes, patches and other updates made by or on behalf of Ross;

1.6 "License Fee" shall mean the fee payable in accordance with the provisions of this grant of the license to the Licensee of the Software and the Documentation.

1.7 “Software Maintenance Fee” shall mean the yearly fee to support, maintain and update software as set forth in this grant.

1.8 "Software" shall mean the computer programs in machine-readable object code form listed in Exhibit "A" attached hereto and any subsequent error corrections or updates supplied to Licensee by Ross pursuant to this grant as well as any Improvements. The definition of the Software set forth in Exhibit "A" may be amended from time to time by Ross in its sole discretion on written notice to the Licensee.

1.9 “Territory” means worldwide.

2. GRANT OF RIGHTS.

Subject to the provisions of this grant, Ross hereby grants to Licensee the non-exclusive perpetual right, license and privilege to use the Software and the Documentation in the Territory solely on the number of primary systems of Designated Equipment identified on Exhibit A. The Software shall be used only on such primary systems if they are operating properly. If any primary system is down, the Software may be used on a backup system for that primary system.

2.2 Sub-Licensing. Licensee shall not grant sub-licenses of the Software.

3. DELIVERY.

3.1 Software. Ross shall deliver to Licensee a master copy of the Software licensed hereunder in object code form, suitable for reproduction, in electronic files only.

3.2 Documentation. Ross shall deliver copies of Documentation.

4. MODIFICATIONS.

4.1 Error Corrections and Updates. Ross will provide Licensee with any Improvements, in the form of error corrections, bug fixes, patches or other updates, in object code form to the extent available in accordance with Ross's release schedule for a period of one (1) year from the date of shipment.

4.2 Other Modifications. Licensee may, from time to time, request that Ross incorporate certain Improvements such as features, enhancements or modifications into the Software. Ross may, in its sole discretion, undertake to incorporate such changes and distribute the Software so modified to all or any of Ross's licensees.

4.3 Title to Modifications. All such Improvements, whether recommended and developed by Ross or Licensee, shall be the sole property of Ross and Licensee hereby disclaims any proprietary interest of any kind in any Improvement.

5. COPIES.

5.1 Printed Matter. Except as specifically set forth herein, no Software or Documentation which is provided by Ross pursuant to this grant in human readable form, such as written or printed documents, shall be copied in whole or in part by Licensee without Ross's prior written agreement. Additional copies of printed materials may be obtained from Ross at the charges then in effect.

5.2 Machine-Readable Matter. Except as specifically set forth herein, any Software provided in machine-readable form may not be copied by Licensee in whole or in part, except for Licensee's backup or archive purposes. Licensee agrees to maintain appropriate records of the number and location of all copies of the Software and make such records available upon Ross's request. Licensee further agrees to reproduce all copyright and other proprietary notices on all copies of the Software in the same form and manner that such copyright and other proprietary notices are originally included on the Software.

6. LICENSE FEES AND PAYMENT.

6.1 License Fee. In consideration of the license rights granted in Article 2 above, Licensee shall pay the License Fees or other consideration for the Software and Documentation as set forth on Exhibit "A" attached hereto. All amounts payable hereunder by Licensee shall be payable no later than thirty (30) days following receipt of invoice without deductions for taxes, assessments, fees, or charges of any kind. Cheques shall be made payable to Ross and shall be forwarded to the Office at Ross as follows:

Ross Video Ltd.
8 John Street
Iroquois, ON
K0E 1K0

6.2 Software/Hardware Maintenance Fee. In consideration of the license rights granted in Article 2 above, Licensee shall pay, on a yearly basis, the Software/Hardware Maintenance Fee or other consideration for the maintenance, support and update of the software as set forth on Exhibit “B”. The Software/Hardware Maintenance Fee is due on a yearly basis starting on the date that is 15 months after shipment by Ross of the product described on Exhibit "A" attached hereto and thereafter on each 12 month anniversary of such date. All amounts payable hereunder by Licensee shall be payable no later than thirty (30) days following receipt of invoice without deductions for taxes, assessments, fees, or charges of any kind. Cheques shall be made payable to Ross and shall be forwarded to the Office at Ross as follows:

Ross Video Ltd.
8 John Street
Iroquois, ON
K0E 1K0

Provided that the Licensee has paid in full the Software/Hardware Maintenance Fees for 3 consecutive years, Licensee shall receive a Quorum Server Hardware upgrade as per Exhibit “B” after payment of the 3rd consecutive Maintenance Payment. The Quorum Server Hardware may change from time to time and the model and type used is designated by Ross. If Licensee is in default of payment of a Software/Hardware Maintenance Fee, such must be paid in full for any default years before a hardware or software upgrade will be provided. Such upgrade will be available to the Licensee at the end of each three (3) year period, following the end of the first (1st) year of the term of this License, provided that the Licensee continues to own and operate the Designated Equipment in connection with which this License is granted and provided, as stated above, that the Licensee has paid its Software/Hardware Maintenance Fee in each of the 3 preceding years.

6.3 Taxes and Other Charges. Licensee shall be responsible for paying all (i) sales, use, excise, value-added, or other tax or governmental charges imposed on the licensing or use of the Software or Documentation hereunder, (ii) freight, insurance and installation charges, and (iii) import or export duties or like charges.

7. PROTECTION OF SOFTWARE.

7.1 Proprietary Notices. Licensee agrees to respect and not to remove, obliterate, or cancel from view any copyright, trademark, confidentiality or other proprietary notice, mark, or legend appearing on any of the Software or output generated by the Software, and to reproduce and include same on each copy of the Software.

7.2 No Reverse Engineering. Licensee agrees not to modify, reverse engineer, disassemble, or decompile the Software, or any portion thereof.

7.3 Ownership. All copies of the Software, and all copies of the Documentation, in any form provided by Ross or made by Licensee, are the sole property of Ross and/or its suppliers. Licensee shall not have any right, title, or interest to any such Software, Documentation or copies thereof except as provided in this grant, and further shall secure and protect all Software and Documentation consistent with maintenance of Ross's proprietary rights therein.

8. CONFIDENTIALITY.

8.1 Acknowledgement. The Software and Documentation constitute and contain valuable proprietary products and trade secrets of Ross, embodying substantial creative efforts and confidential information, ideas, and expressions. Accordingly, Licensee agrees to treat (and take precautions to ensure that its employees treat) the Software and Documentation as confidential in accordance with the confidentiality requirements and conditions set forth below.

8.2 Maintenance of Confidential Information. Each party agrees to keep confidential all confidential information disclosed to it by the other party in accordance herewith, and to protect the confidentiality thereof in the same manner it protects the confidentiality of similar information and data of its own (at all times exercising at least a reasonable degree of care in the protection of confidential information); provided, however, that neither party shall have any such obligation with respect to use or disclosure to others not parties to this Agreement of such confidential information as can be established to: (a) have been known publicly; (b) have been known generally in the industry before communication by the disclosing party to the recipient; (c) have become known publicly, without fault on the part of the recipient, subsequent to disclosure by the disclosing party; (d) have been known otherwise by the recipient before communication by the disclosing party; or (e) have been received by the recipient without any obligation of confidentiality from a source (other than the disclosing party) lawfully having possession of such information.

8.3 Injunctive Relief. Licensee acknowledges that the unauthorized use, transfer or disclosure of the Software and Documentation or copies thereof will (i) substantially diminish the value to Ross of the trade secrets and other proprietary interests that are the subject of this grant; (ii) render Ross's remedy at law for such unauthorized use, disclosure or transfer inadequate; and (iii) cause irreparable injury in a short period of time. If Licensee breaches any of its obligations with respect to the use or confidentiality of the Software or Documentation, Ross shall be entitled to equitable relief to protect its interests therein, including, but not limited to, preliminary and permanent injunctive relief.

8.4 Survival. Licensee's obligations under this Article 8 will survive the termination of this grant of license for whatever reason.

9. WARRANTIES; SUPERIOR RIGHTS.

9.1 Ownership. Ross represents its belief that it is the owner of the entire right, title, and interest in and to Software and the Documentation, and that it has the sole right to grant licenses thereunder, and that it has not knowingly granted licenses thereunder to any other entity that would restrict rights granted hereunder except as stated herein.

9.3 Limited Warranty. Ross represents and warrants to Licensee that the Software, when properly installed by Licensee and used with the Designated Equipment, will perform substantially as described in Ross's then current Documentation for such Software for a period of one (1) year from the date of shipment.

9.4 Limitations. Notwithstanding the warranty provisions set forth in Section 9.3 above, all of Ross's obligations with respect to such warranties shall be contingent on Licensee's use of the Software in accordance with this grant and in accordance with Ross's instructions as provided by Ross in the Documentation, as such instructions may be amended, supplemented, or modified by Ross from time to time. Ross shall have no warranty obligations with respect to any failures of the Software which are the result of accident, abuse, misapplication, extreme power surge or extreme electromagnetic field.

9.5 Licensee's Sole Remedy. Ross's entire liability and Licensee's exclusive remedy shall be, at Ross's option, either (a) return of the price paid and termination of this grant; or (b) repair or replacement of the Software upon its return

to Ross; provided Ross receives written notice from Licensee during the warranty period of a breach of warranty. Any replacement Software will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer.

9.6 Disclaimer of Warranties. ROSS DOES NOT REPRESENT OR WARRANT THAT ANY ERRORS IN THE SOFTWARE AND DOCUMENTATION WILL BE CORRECTED. IN THE EVENT OF UNAUTHORIZED ALTERATION BY THE LICENSEE OF THE SOFTWARE, THE WARRANTIES STATED IN THIS GRANT ARE NULL AND VOID. THE WARRANTIES STATED IN SECTION 9.3 ABOVE ARE THE SOLE AND THE EXCLUSIVE WARRANTIES OFFERED BY ROSS. THERE ARE NO OTHER WARRANTIES RESPECTING THE SOFTWARE AND DOCUMENTATION OR SERVICES PROVIDED HEREUNDER, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY, EXPRESS OR IMPLIED BY LAW, OF DESIGN, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, EVEN IF ROSS HAS BEEN INFORMED OF SUCH PURPOSE. NO AGENT OF ROSS IS AUTHORIZED TO ALTER OR EXCEED THE WARRANTY OBLIGATIONS OF ROSS AS SET FORTH HEREIN.

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Oracle
The following artifacts are CDDL + GPLv2 with classpath exception.
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 * javax.servlet:javax.servlet-api
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Oracle OpenJDK
If ALPN is used to negotiate HTTP/2 connections, then the following
artifacts may be included in the distribution or downloaded when ALPN
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 * java.sun.security.ssl
These artifacts replace/modify OpenJDK classes. The modifications
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http://openjdk.java.net/legal/gplv2+ce.html
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OW2
The following artifacts are licensed by the OW2 Foundation according to the
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org.mortbay.jasper:apache-jsp
 org.apache.tomcat:tomcat-jasper
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 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-api
 org.apache.tomcat:tomcat-util-scan
 org.apache.tomcat:tomcat-util
org.mortbay.jasper:apache-el
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-el-api
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