Caprica

User Guide for OverDrive

Version 24.3

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
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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 OverDrive 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 OverDrive Live and OverDrive 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

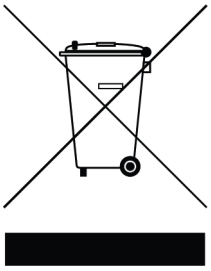
For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your OverDrive system, contact your regional sales manager.

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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Contents

Introduction 1

About This Guide 1-1
Documentation Conventions 1-2
Getting Help 1-3
Contacting Technical Support 1-3
OverDrive Community 1-4

Installation Notes 2

Unpacking 2-2
Software Compatibility 2-2
Computer System Requirements 2-2
Typical Power Consumption 2-3
Ports 2-3
Processes 2-5
New Caprica Server First Log In 2-8
Caprica Server Log In 2-11

Software Installation 3

Before Installing the Software 3-2
Setting the Caprica Hyper-V Automatic Start and Stop Options 3-2
Updating the Caprica Server Operating System 3-4
Updating the Caprica Cockpit Software 3-10
Updating the Caprica Server Software 3-11
Licensing the Caprica Server Software 3-13
Maintaining the Caprica Server 3-14
Accessing the Caprica Server 3-15
Setting the Severity Level for System Logs 3-19

Cockpit HTTPS Connection 4

Creating an Internal Certificate Authority 4-2
Registering Your Certificate Authority with Your Web Browser 4-3
Creating a Certificate Signing Request 4-4
Signing a Server Certificate 4-5
Preparing and Loading a Signed Certificate 4-6
Disabling HTTPS Secure Connections 4-6

Redundant Caprica System 5

Caprica Server A Network Settings 5-2
Caprica Server B Network Settings 5-6
Synchronizing Caprica Server Time 5-9
Cabling the Caprica Server 5-11
Setting Up the Caprica Server Cluster 5-12
Managing the Caprica Server Cluster 5-19
Connecting a Redundant Caprica System to an OverDrive System 5-20

Acuity Setup for OverDrive 6

Limitations 6-2
Bus Map Rules 6-2
Setting Up the OverDrive System 6-2
Connecting the OverDrive System 6-2
Setting Up Switcher Communications 6-4
Configuring an Acuity Switcher Device 6-6
Connecting OverDrive to Your Caprica Server 6-9
Configuring Your Caprica Server 6-9

Ultrix Acuity Setup for OverDrive 7

Limitations 7-2
Bus Map Rules 7-2
Setting Up the OverDrive System 7-2
Connecting the OverDrive System 7-2
Setting Up Switcher Communications 7-4
Configuring an Ultrix Acuity Switcher Device 7-6
Connecting OverDrive to Your Caprica Server 7-9
Configuring Your Caprica Server 7-9

Carbonite Setup for OverDrive 8

Limitations 8-2
Setting Up the OverDrive System 8-2
Connecting the OverDrive System 8-2
Configuring a Switcher Device for a Carbonite Switcher 8-4
Connecting OverDrive to Your Caprica Server 8-7
Configuring Your Caprica Server 8-7

Carbonite Black Setup for OverDrive 9

Limitations 9-2
Setting Up the OverDrive System 9-2
Connecting the OverDrive System 9-2
Configuring a Switcher Device for a Carbonite Black Switcher 9-4
Connecting OverDrive to Your Caprica Server 9-7
Configuring Your Caprica Server 9-7

Carbonite Ultra Setup for OverDrive 10

Limitations 10-2
Setting Up the OverDrive System 10-2
Connecting the OverDrive System 10-2
Configuring a Switcher Device for a Carbonite Ultra Switcher 10-4
Connecting OverDrive to Your Caprica Server 10-8
Configuring Your Caprica Server 10-8

Carbonite Ultra 60 Setup for OverDrive 11

Limitations 11-2
Setting Up the OverDrive System 11-2
Connecting the OverDrive System 11-2
Configuring a Switcher Device for a Carbonite Ultra 60 Switcher 11-4
Connecting OverDrive to Your Caprica Server 11-8
Configuring Your Caprica Server 11-8

Carbonite Code Setup for OverDrive 12

Limitations 12-2
Setting Up the OverDrive System 12-2
Connecting the OverDrive System 12-2
Configuring a Switcher Device for a Carbonite Code Switcher 12-4
Connecting OverDrive to Your Caprica Server 12-7
Configuring Your Caprica Server 12-7

Carbonite HyperMax Setup for OverDrive 13

Limitations 13-2
Setting Up the OverDrive System 13-2
Connecting the OverDrive System 13-2
Configuring a Switcher Device for a Carbonite HyperMax Switcher 13-4
Connecting OverDrive to Your Caprica Server 13-7
Configuring Your Caprica Server 13-7

Ultrix Carbonite Setup for OverDrive 14

Limitations 14-2
Setting Up the OverDrive System 14-2
Connecting the OverDrive System 14-2
Configuring a Switcher Device for an Ultrix Carbonite Switcher 14-4
Connecting OverDrive to Your Caprica Server 14-9
Configuring Your Caprica Server 14-9

Graphite Setup for OverDrive 15

Limitations 15-2
Setting Up the OverDrive System 15-2
Connecting the OverDrive System 15-2
Defining the Copy-Down Post Transition Custom Control 15-4
Setting the Transition Post Custom Control 15-5
Configuring OverDrive to use 1 Floating ME 15-8
Configuring a Switcher Device for a Ross Video Graphite All-In-One Production System 15-9
Connecting OverDrive to Your Caprica Server 15-13
Configuring Your Caprica Server 15-13

Graphite CPC Setup for OverDrive 16

Limitations 16-2
Setting Up the OverDrive System 16-2
Connecting the OverDrive System 16-2
Defining the Copy-Down Post Transition Custom Control 16-4
Setting the Transition Post Custom Control 16-5
Configuring OverDrive to use 1 Floating ME 16-8
Configuring a Switcher Device for a Ross Video Graphite CPC All-In-One Production System 16-9
Connecting OverDrive to Your Caprica Server 16-13
Configuring Your Caprica Server 16-13

Grass Valley Kayak Setup for OverDrive 17

Limintaitons 17-2
Setting Up the OverDrive System 17-2
Connecting the OverDrive System 17-2
Configuring a Switcher Device for a Grass Valley Kayak Switcher 17-4
Connecting OverDrive to Your Caprica Server 17-7
Configuring Your Caprica Server 17-7

Grass Valley Kayenne Setup for OverDrive 18

Limintaitons 18-2
Setting Up the OverDrive System 18-2
Connecting the OverDrive System 18-2
Configuring a Switcher Device for a Grass Valley Kayenne Switcher 18-4
Connecting OverDrive to Your Caprica Server 18-7
Configuring Your Caprica Server 18-7

Grass Valley Maverik Setup for OverDrive 19

Limitations 19-2
Setting Up the OverDrive System 19-2
Connecting the OverDrive System 19-2
Configuring a Switcher Device for a Grass Valley Maverik Switcher 19-4
Connecting OverDrive to Your Caprica Server 19-7
Configuring Your Caprica Server 19-7

Snell Kahuna Setup for OverDrive 20

Limintaitons 20-2
Setting Up the OverDrive System 20-2
Connecting the OverDrive System 20-2
Configuring Your Snell Kahuna Switcher for Caprica 20-4
Configuring a Switcher Device for a Snell Kahuna Switcher 20-5
Connecting OverDrive to Your Caprica Server 20-9
Configuring Your Caprica Server 20-9

Snell Kula Setup for OverDrive 21

Limitations 21-2
Setting Up the OverDrive System 21-2
Connecting the OverDrive System 21-2
Configuring Your Snell Kula Switcher for Caprica 21-4
Configuring a Switcher Device for a Snell Kula Switcher 21-6
Connecting OverDrive to Your Caprica Server 21-9
Configuring Your Caprica Server 21-9

Sony MVS-8000G Setup for OverDrive 22

Limitations 22-12
Setting Up the OverDrive System 22-12
Connecting the OverDrive System 22-12
Configuring the Ethernet to Serial Server 22-15
Configuring the Sony MVS-8000G Switcher Engineering Setup 22-21
Defining Sony Macros for Caprica Support 22-21
Configuring a Switcher Device for a Sony MVS-8000G Switcher 22-23
Connecting OverDrive to Your Caprica Server 22-26
Configuring Your Caprica Server 22-27

Sony XVS-8000 Setup for OverDrive 23

Limitations 23-30
Setting Up the OverDrive System 23-30
Connecting the OverDrive System 23-30
Configuring the Sony XVS-8000 Switcher Engineering Setup 23-32
Defining Sony Macros for Caprica Support 23-32
Configuring a Switcher Device for a Sony XVS-8000 Switcher 23-35
Connecting OverDrive to Your Caprica Server 23-38
Configuring Your Caprica Server 23-38

Sony MLS-X1 Setup for OverDrive 24

Limitations 24-40
Setting Up the OverDrive System 24-40
Connecting the OverDrive System 24-40
Defining Sony Macros for Caprica Support 24-42
Configuring a Switcher Device for a Sony MLS-X1 Switcher 24-44
Connecting OverDrive to Your Caprica Server 24-47
Configuring Your Caprica Server 24-47

Viz Vectar Plus Setup for OverDrive 25

Limitations 25-2
Setting Up the OverDrive System 25-2
Connecting the OverDrive System 25-2
Configuring a Switcher Device for a Viz Vectar Plus Switcher 25-4
Connecting OverDrive to Your Caprica Server 25-7
Configuring Your Caprica Server 25-7

Caprica Server Configuration 26

Configuring Devices to Connect to an OverDrive System 26-2
Configuring Switcher Inputs 26-7
Assigning Names and Custom Controls to Memories 26-11
Configuring Audio 26-13
Customizing Router Source and Destination Names 26-16
Controlling Router Sources and Destinations for OverDrive 26-19
Creating Custom Control Macros 26-23
Saving Caprica Server Configuration 26-29
Recalling Configurations from a Diskset 26-34
Creating Caprica Server Diagnostic Reports 26-37
Controlling User Session Timeout 26-39

Caprica CX Director Panel Setup 27

CX Director Panel 27-2
Cabling a CX Director Panel 27-3
Connecting to the OverDrive System 27-3
Configuring CX Director Panel Buttons 27-4
Customizing CX Director Panel Button Appearance 27-6
Selecting the Faders to Control 27-8
Updating the CX Director Panel Operating System or Application 27-9
Rebooting the CX Director Panel 27-10

Caprica CX Everything Panel Setup 28

CX Everything Panel 28-2
Cabling a CX Everything Panel 28-3
Connecting to the OverDrive System 28-3
Configuring CX Everything Panel Buttons 28-4
Customizing CX Everything Panel Button Appearance 28-8
Selecting the Faders to Control 28-10
Updating the CX Everything Panel Operating System or Application 28-11
Rebooting the CX Everything Panel 28-12

Caprica SideBox Module Setup 29

Cabling a SideBox 29-2
Connecting to the Network 29-2
Configuring a Caprica Device for a SideBox Module 29-5
Configuring a SideShot Module 29-8
Configuring a SideSlide Module 29-12
Configuring a SideStick Module 29-15

Audio Control from Caprica 30

Configuring the Audio Control Client 30-2
Using the Audio Control Client 30-5

Appendix A. Cable Pinouts A

Sony MVS-8000G Panel to DeviceMaster A-1
Sony MVS-8000G Panel to SeaLINK A-2

Appendix B. Caprica Custom Controls B

Switcher B-2
Character Generator B-5
Audio Server B-5
Server/VTR B-6
Special B-8
OverDrive B-10
Audio Mixer B-10
Robotic Cam B-12
Router B-13
RossTalk B-13
PBus B-15
QuickTurn B-15

Appendix C. RossTalk-IN Commands C

Remote Device Port Configuration Settings C-2
Sending RossTalk Commands to Caprica C-2
Switcher Commands C-3
Video Server Commands C-25
Audio Mixer Commands C-41
Camera Commands C-45
Character Generator Commands C-47
QuickTurn Commands C-50
Router Commands C-55
Special Commands C-56
Legacy Acuity and Vision Switcher RossTalk Commands C-58
Virtual Keyers C-61

Appendix D. Software Licenses D

End User Software License Agreement D-2
OverDrive Software License Grant D-10
GNU GENERAL PUBLIC LICENSE D-15
GNU GENERAL PUBLIC LICENSE WITH THE CLASSPATH EXCEPTION D-19
GNU LESSER GENERAL PUBLIC LICENSE D-24
BSD License D-30
Apache License D-31
Eclipse Public License - v 1.0 ..... D-34
Expat License D-37
IMLIB2 ..... D-38
Jiffy D-39
Fedora 14 - License Agreement D-40
PSF LICENSE AGREEMENT FOR PYTHON 2.7.3 ..... D-42
Jetty D-43
Apache ActiveMQ D-45
NewTek NDI Software Development Kit (SDK) License Agreement D-46
Syncthing D-51

Index IX

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 inserted between OverDrive and the production switcher. OverDrive talks to Caprica, which in turn talks to video servers, graphics, cameras, audio, and other broadcast devices – including the production switcher. Caprica accomplishes this using an application that runs Acuity software, providing access to more than 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 information about the general requirements for a 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. "**Cockpit HTTPS Connection**" provides procedures for configuring Cockpit to manage your Caprica Server through a secure HTTPS connection.
5. "**Redundant Caprica System**" provides procedures for setting up and configuring a Redundant Caprica system.
6. "**Acuity Setup for OverDrive**" provides procedures for connecting a Ross Acuity switcher to OverDrive.
7. "**Ultrix Acuity Setup for OverDrive**" provides procedures for connecting a Ross Ultrix Acuity switcher to OverDrive.
8. "**Carbonite Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite switcher to OverDrive.
9. "**Carbonite Black Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite Black switcher to OverDrive.
10. "**Carbonite Ultra Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite Ultra switcher to OverDrive.
11. "**Carbonite Ultra 60 Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite Ultra 60 switcher to OverDrive.
12. "**Carbonite Code Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite Code switcher to OverDrive.
13. "**Carbonite HyperMax Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite HyperMax switcher to OverDrive.
14. "**Ultrix Carbonite Setup for OverDrive**" provides procedures for connecting a Ross Video Carbonite Ultra switcher to OverDrive.
15. "**Graphite Setup for OverDrive**" provides procedures for connecting a Ross Video Graphite All-In-One Production System to OverDrive.
16. "**Graphite CPC Setup for OverDrive**" provides procedures for connecting a Ross Video Graphite CPC All-In-One Production System to OverDrive.
17. "**Grass Valley Kayak Setup for OverDrive**" provides procedures for connecting a Grass Valley Kayak switcher to OverDrive.
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24. "**Sony MLS-X1 Setup for OverDrive**" provides procedures for connecting a Sony MLS-X1 switcher to OverDrive.
25. "**Viz Vectar Plus Setup for OverDrive**" provides procedures for connecting a Viz Vectar Plus switcher to OverDrive.
26. "**Caprica Server Configuration**" provides procedures to configure devices, switcher inputs, and audio channel names for a switcher connected to the Caprica Server in an OverDrive system.
27. "**Caprica CX Director Panel Setup**" provides procedures to configure and connect a CX Director Panel to an OverDrive system.
28. "**Caprica SideBox Module Setup**" provides procedures to configure and connect SideBoxes that contain SideShot™ or SideSlide™ modules to an OverDrive system.
29. "**Audio Control from Caprica**" provides procedures to configure and use the Caprica Audio Control client.

If, at any time, you have a question pertaining to 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 are 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:

- using **RapidRestore** to archive and backup OverDrive rundowns and settings, refer to the chapter "**RapidRestore™**" on page 16–1 in the ***OverDrive 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 OverDrive Online Help system can be accessed from any of the components of OverDrive. Online Help opens in a Microsoft Internet Explorer® window.

The OverDrive 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.

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 at https://support.rossvideo.com/.

OverDrive Community

The OverDrive Community is an exciting benefit available to OverDrive customers. This forum is designed specifically for OverDrive users and enthusiasts to communicate, share ideas, and browse valuable product information. Please visit the forum often and feel free to participate, share experiences, and offer expertise.

- https://livinglive.community/search?s=tags%3A%22OverDrive%22&executesearch=true

Installation Notes

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

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

Unpacking

Unpack your Caprica system from the shipping containers 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 proper operation of a Caprica system, the software versions installed on devices must be compatible with the Caprica Server software.

Caprica Server 24.3 software is compatible with the following versions of associated software:

Table 2.1 Caprica Server 24.3 Compatibility

Carbonite	v10.0, v11.0
Grass Valley Kayak	Please contact Ross Video Technical Support
Sony MVS-8000G	v9.08B
DashBoard	v9.0 or greater
Cockpit	v1.3.0-0011

Computer System Requirements

To ensure proper operation 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 for running Caprica client software:

- **Model** — Dell Precision T5810
- **CPU** — Intel Xeon Processor E5-1607 v3
- **RAM** — 8 GB (2x4GB) 2133MHz DDR4 RDIMM ECC
- **Storage** — 2 x 500 GB 3.5inch Serial ATA (7,200 rpm) configured as RAID 1
- **LAN** — 100 MB/s
- **Display** — 1680x1050 for 16:9 displays or 1280 x 1024 for 4:3 displays
- **Display Adapter** — 128 MB 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 computer software configuration to run Caprica client software:

- Microsoft® Windows® 7 with latest patches
- Microsoft Internet Explorer® 9.0 or greater with the **Display intranet sites in Compatibility View** setting turned **Off**.
- Ensure that the operating system is updated with all necessary security patches and service packs.

Typical Power Consumption

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

Table 2.2 Caprica Power Consumption

Caprica Component	Power Consumption
Server A	700W
Server B	700W
Client Computer	500W
Monitors (2)	100W
Total	2000W

Ports

The information provided in the following sections list the ports used by an OverDrive system:

- OverDrive
- Caprica
- Related Devices

OverDrive

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

Table 2.3 OverDrive Ports

Application	Port	Purpose	Set By	Connection
MOS Gateway	10540	Low NRCS communication port	User	Client to Gateway service
	10541	High NRCS communication port	User	Client to Gateway service
Server	9696, 9697, 9698	RMI connection	Internal	OverDrive Server to client
	61616	JMS/ActiveMQ connection	Internal	OverDrive Server to client
	12405	Batusi connection	Internal	OverDrive Server to client
	8750	Gateway communication		OverDrive Server to Gateway service
ProjectServer	8059	OverDrive ProjectServer Connections	Internal	OverDrive Server to ProjectServer
Data Grid Cluster	8770 - 8790	In-memory ports	Internal	OverDrive Server and Jetty service

Table 2.3 OverDrive Ports

Application	Port	Purpose	Set By	Connection
Jetty	80	OverDrive Jetty server (unsecured)	Internal	OverDrive Server and client to computer running Jetty service
	8443	SSL for Jetty server	Internal	OverDrive Server and client to computer running Jetty service
	9090	Jetty upstream server connector that speaks non-SSL	Internal	OverDrive Server and client to computer running Jetty service
	3030	Jetty server (unsecured)	Internal	Accessible to all OverDrive Servers and clients
Postgres	5432	Postgres database	Internal	OverDrive Server and client to computer running Postgres database
FloorDirector	8760	FloorDirector API	Internal	Socket API connection
SNMP	3000	Simple Network Management Protocol	Internal	OverDrive Server to Network Management Station (NMS)

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	Pull OGLML and related files	Internal	DashBoard Clients
	9090	Caprica web page	Internal	Caprica Servers and external users
	12345	Caprica port	User	OverDrive Server to Caprica Server
Devices	Any	Port defined during configuration	User	Caprica Servers and devices

Related Devices

The information provided in the following table lists the ports used by devices related to OverDrive:

Table 2.5 Related Device Ports

Application	Port	Purpose	Set By	Connection
QuickTurn	43778	Digital Rapids encoder	User	QuickTurn service to encoder
	20000	Anvato encoder	User	QuickTurn service to encoder
	31314	Stream The World encoder	User	QuickTurn service to encoder
	80	Inception encoder	User	QuickTurn service to encoder

Processes

The OverDrive processes that run on Client and Server computers depends on your OverDrive system configuration. OverDrive offers the following system configurations:

- **Standalone** — an OverDrive Primary Server, an OverDrive Redundant Server, MOS Gateways, and a Caprica Server all running on a single computer.
- **Standalone and ProjectServer** — the Standalone configuration with the addition of a ProjectServer all running on a single computer. The ProjectServer in this configuration only serves the OverDrive Server running on the same computer.
- **CentralServer** — an OverDrive Server, a MOS Gateway, a ProjectServer, and the Ross Platform Manager running on a computer for the connected OverDrive Node computers. An OverDrive Node computer runs an OverDrive Primary Server, an OverDrive Redundant Server, and a Caprica Server.

Standalone

A Standalone OverDrive system contains an OverDrive Primary Server, an OverDrive Redundant Server, MOS Gateways, and a Caprica Server all running on a single computer (**Figure 2.1**).

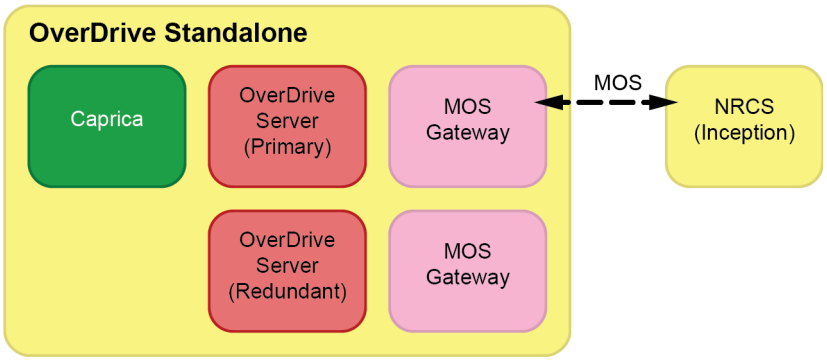


Figure 2.1 Standalone OverDrive System Configuration

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

Table 2.6 Standalone OverDrive System Processes

Process	Primary Server	Redundant Server	Client
OverDrive Server service	Yes	Yes	No
OverDrive Jetty service	Yes	Yes	Optional †
OverDrive Gateway service	Yes	Yes	Optional †
PostgreSQL database	Yes	Yes	No
RundownControl	Optional *	Optional *	Yes
TemplateEditor	Optional *	Optional *	Yes
DirectControl	Optional *	Optional *	Yes
RapidRestore	Yes	Yes	Yes
ActiveMQ	Yes	Yes	No

* Development environment

† Multiple NRCS configuration

Standalone and ProjectServer

A Standalone and ProjectServer OverDrive system is a Standalone OverDrive system with the addition of a ProjectServer all running on a single computer. The ProjectServer in this configuration only serves the OverDrive Server running on the same computer (**Figure 2.2**).

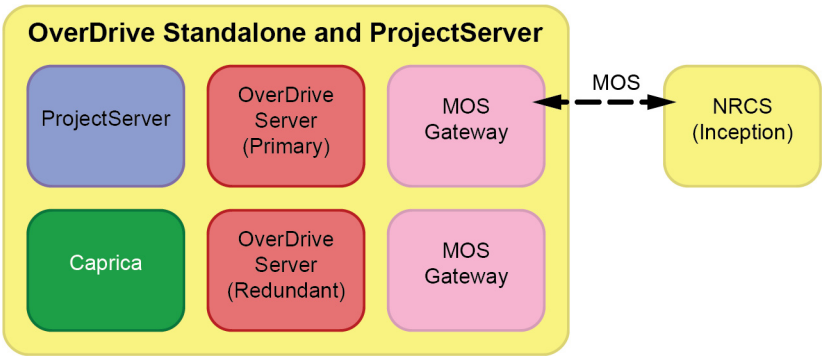


Figure 2.2 Standalone and ProjectServer OverDrive System Configuration

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

Table 2.7 Standalone and ProjectServer OverDrive System Processes

Process	Primary Server	Redundant Server	Utility Node (Optional)	Client
OverDrive Server service	Yes	Yes	No	No
OverDrive Jetty service	Yes	Yes	Optional †	Optional †
OverDrive Gateway service	Yes	Yes	Optional †	Optional †
PostgreSQL database	Yes	Yes	Yes	No
OverDrive ProjectServer	Optional §	Optional §	Yes	No
Ross Platform Manager (RPM)	Optional §	Optional §	Yes	No
RundownControl	Optional *	Optional *	Optional *	Yes
TemplateEditor	Optional *	Optional *	Optional *	Yes
DirectControl	Optional *	Optional *	Optional *	Yes
RapidRestore	Yes	Yes	Optional ‡	Yes
ActiveMQ	Yes	Yes	No	No

* Development environment

† Multiple NRCS configuration

‡ If OverDrive clients are installed (RundownControl, TemplateEditor, DirectControl)

§ If no Utility Node is used

CentralServer

A CentralServer OverDrive system contains an OverDrive Server, a MOS Gateway, a ProjectServer, and the Ross Platform Manager running on a computer for the connected OverDrive Node computers. An OverDrive Node computer runs an OverDrive Primary Server, an OverDrive Redundant Server, and a Caprica Server (**Figure 2.3**).

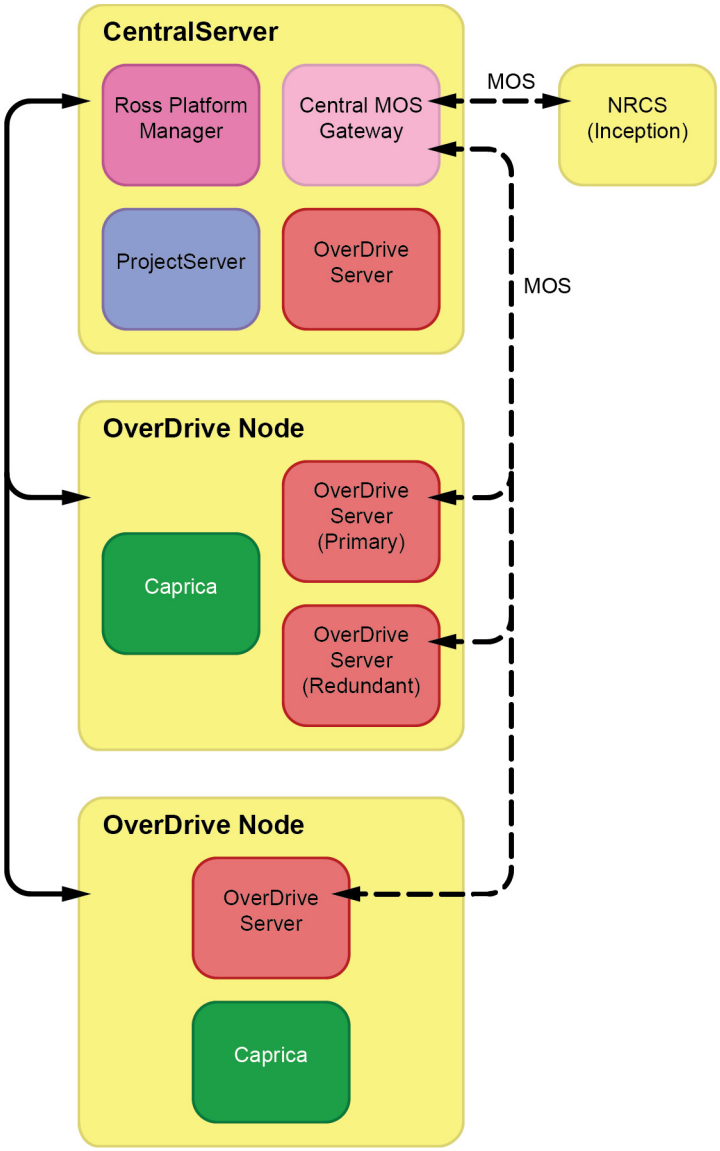


Figure 2.3 CentralServer OverDrive System Configuration

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

Table 2.8 CentralServer OverDrive System Processes

Process	OverDrive CentralServer	OverDrive Node	Client
OverDrive Server service	Yes	Yes	No
OverDrive Jetty service	Yes	Yes	No
OverDrive Gateway service	Yes	No	No
PostgreSQL database	Yes	Yes	No
OverDrive ProjectServer	Yes	No	No
Ross Platform Manager (RPM)	Yes	No	No
RundownControl	Optional *	Optional *	Yes
TemplateEditor	Optional *	Optional *	Yes
DirectControl	Optional *	Optional *	Yes
RapidRestore	Yes	Yes	Yes
ActiveMQ	Yes	No	No

* Development environment

New Caprica Server First Log In

The first time you log in to your new Caprica Server you must set the password for the default caprica account. The caprica account is a super user that can edit all settings and control all processes on a Caprica Server.

✶ DHCP and DNS must be available on you corporate network to set caprica user password on the first log in.

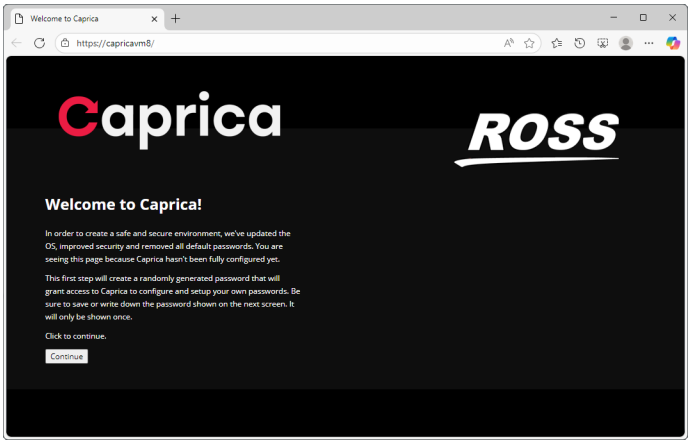
To set the caprica user password on the first log in

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open the Caprica web page URL:

   `http://capricavm8`

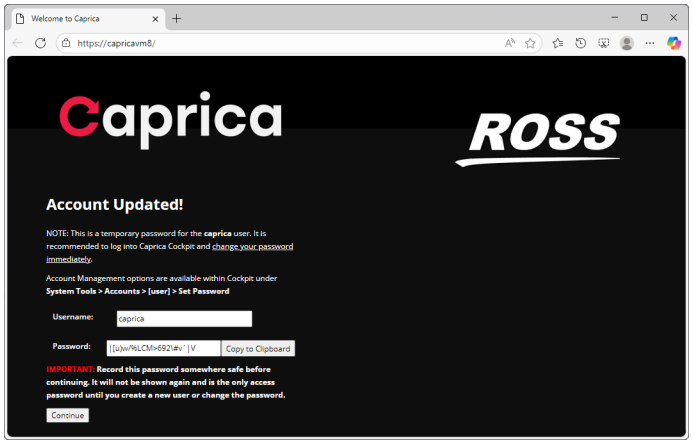
   If the web browser identifies your connection with the Caprica web page as not secure, add an exception for the Caprica web page.

   The **Welcome to Caprica!** web page opens.



3. Click **Continue**.

   The **Account Updated!** web page opens.



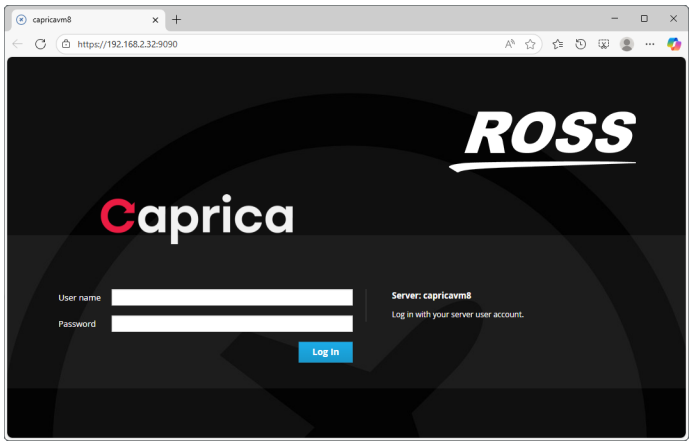
4. Click **Copy to Clipboard**.

   Caprica copies the password displayed in the **Password** box to the clipboard so that you can use the password to log in to Caprica on the next web page.

✶ As a backup, record the displayed password before continuing. The password for the caprica user will not be shown again and is the only access password until you change the it for the caprica user or create a new user.

5. Click **Continue**.

   The **Caprica Login** web page opens.



6. In the **User name** box, enter `caprica`.
7. In the **Password** box, paste the password from the clipboard.
8. Click **Log In**.

   Caprica Cockpit opens.

Change the Caprica User Password

After your first log in to the Caprica server you can change the caprica user password to one that satisfies the password policy of your organization.

To change the caprica user password

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

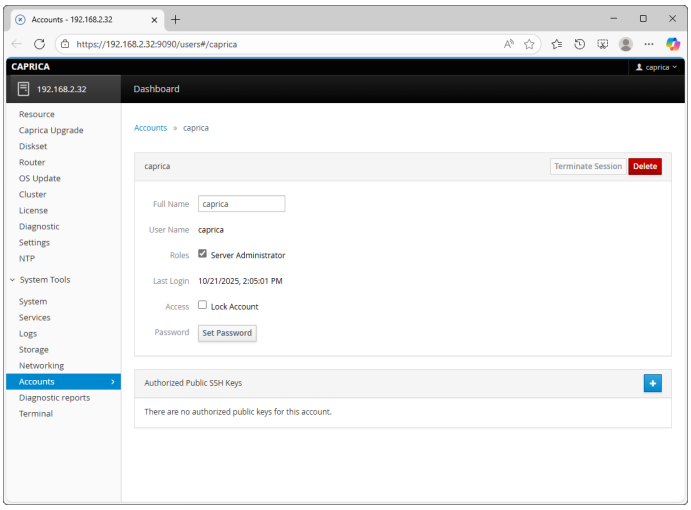
   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

✶ If Caprica Cockpit does not open, your Caprica Server computer is not running the Amazon Linux 2 operating system. Contact Ross Video Technical Support to upgrade the operating system of your Caprica Server computer.

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

   Caprica Cockpit opens.
4. Use the **User (caprica)** menu to select **Account Settings**.

   The **Accounts** web page opens for the **caprica** user.



5. Click **Set Password**.

   The **Set Password** dialog opens.

6. In the **Old Password** box, enter the current password for the **caprica** user.
7. In the **New Password** box, enter a new password for the **caprica** user that satisfies the password policy of your organization.
8. In the **Old Password** box, enter the same password as you entered in the **New Password** box.
9. Click **Set**.

   Cockpit updates the caprica user with the new password the you set.

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 OverDrive 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 the Software
- Setting the Caprica Hyper-V Automatic Start and Stop Options
- Updating the Caprica Server Operating System
- Updating the Caprica Cockpit Software
- Updating the Caprica Server Software
- Licensing the Caprica Server Software
- Maintaining the Caprica Server
- Accessing the Caprica Server
- Setting the Severity Level for System Logs

Before Installing the 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 on the Caprica Server computer to the operating system version required by the Caprica Server software.

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

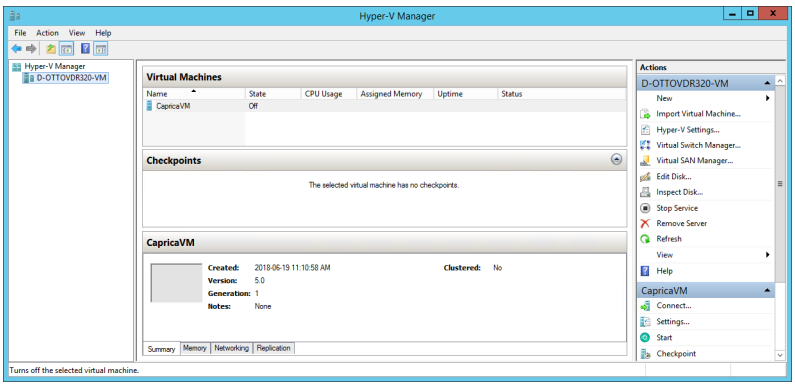
Setting the Caprica Hyper-V Automatic Start and Stop Options

When you use Caprica in your OverDrive system to control your switcher and devices, you must configure Hyper-V to start and stop automatically with the OverDrive Server computer. OverDrive Systems with Acuity switchers do not require Caprica.

To set the Caprica Hyper-V automatic start and stop options

1. Use the following credentials to log in to the OverDrive Server computer that hosts your Caprica Server in Hyper-V:
   - **User**: `overdrive`
   - **Password**: `<your_password>`
2. Use the **Start** menu to select **Hyper-V Manager**.

   The **Hyper-V Manager** window opens.



   When the Caprica VM is running, complete the following steps to turn it off:

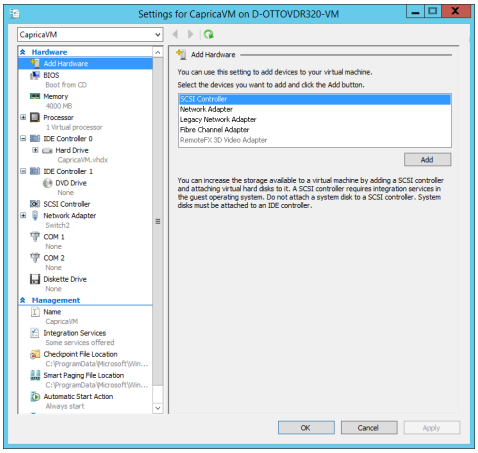
   a. In the **Caprica VM** section of the **Actions** panel, click **Turn Off**.

      An **Alert** opens.

   b. Click **Turn Off** to turn the Caprica VM off.

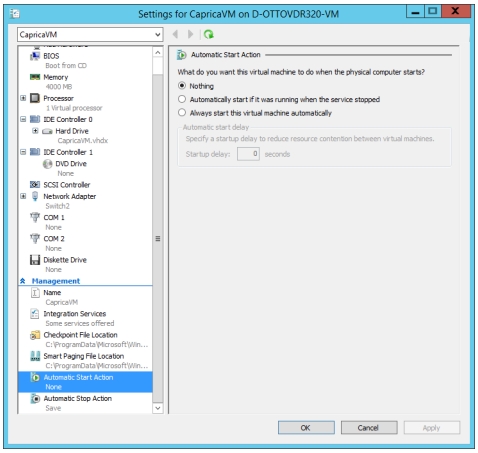
3. In the **Caprica VM** section of the **Actions** panel, select **Settings**.

   The **Settings** dialog box opens.



4. In the **Management** section of the tree view, click **Automatic Start Action**.

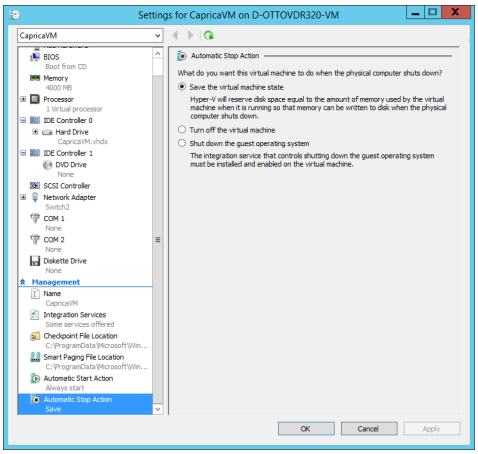
   The **Automatic Start Action** panel opens.



5. Select the **Always start this virtual machine automatically** option to automatically start the Caprica VM with the OverDrive Server computer.

6. In the **Management** section of the tree view, click **Automatic Stop Action**.

   The **Automatic Stop Action** panel opens.



7. Select the **Shutdown the guest operating system** option to automatically shut down the Caprica VM with the OverDrive Server computer.
8. Click **OK** to save the selected Hyper-V automatic start and stop options and close the **Settings** dialog box.
9. To start the Caprica VM after setting the automatic start and stop options, click **Start** in the **Caprica VM** section of the **Actions** panel.

Updating the Caprica Server Operating System

On Caprica Servers running the Amazon Linux 2 operating system and Caprica Cockpit v2.0.1 software, you can use Caprica Cockpit to update the Caprica Server operating system. You can only upgrade the operating system of your Caprica Server to the next specific operating system version to guarantee that all required dependencies are properly installed on your Caprica Server.

- Caprica Server v8.x software and greater requires the Amazon Linux 2 operating system. To install the Amazon Linux 2 operating system on your Caprica Server, contact Ross Video Technical Support.
- You cannot use Caprica Cockpit to rollback the operating system version installed on a Caprica Server or to repair the currently installed operating system on a Caprica Server. Before you upgrade the operating system on your Caprica Server you should create a snapshot of the current state of your Caprica8VM virtual machine.

Caprica Virtual Machine Snapshot

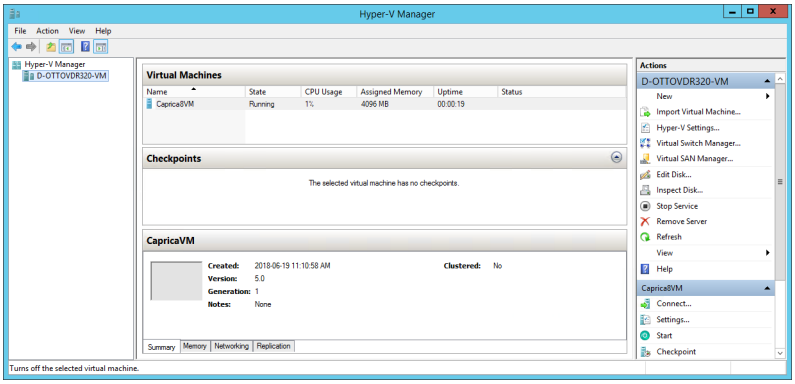
You can use Hyper-V Manager to create a snapshot of the current state of your Caprica8VM virtual machine. The Hyper-V Manager can import the Caprica8VM virtual machine snapshot to restore the passwords, settings, and configuration of the Caprica8VM virtual machine at the time the snapshot was taken.

- While creating a snapshot of the Caprica8VM virtual machine the Caprica Server will not be available to your OverDrive system. Only create Caprica8VM virtual machine snapshots during off hours.

To create a snapshot of your Caprica8VM virtual machine

1. Log in to the OverDrive **Server computer** that hosts your Caprica Server in Hyper-V as the **overdrive** user.
2. Use the **Start** menu to select **Hyper-V Manager**.

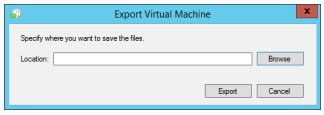
   The **Hyper-V Manager** window opens.



3. In the **Virtual Machines** section select **Caprica8VM**.
4. In the **CapricaVM** section of the **Actions** panel, click **Save**.

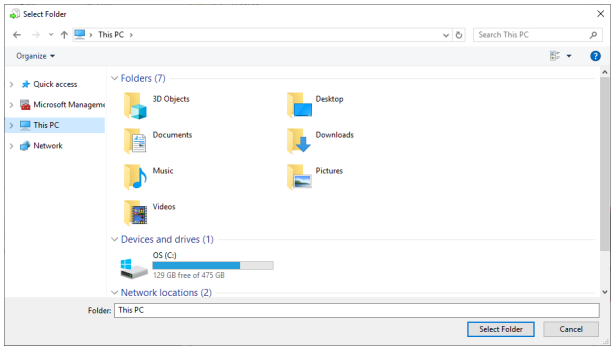
5. In the **CapricaVM** section of the **Actions** panel, click **Export**.

   The **Export Virtual Machine** dialog box opens.



6. Click **Browse**.

   The **Select Folder** dialog box opens.



7. Navigate to the folder in which to save the exported Caprica8VM virtual machine.
8. Click **Select Folder**.

   The **Select Folder** dialog box closes, and the **Folder** box in the **Export Virtual Machine** dialog box displays the full path to the selected folder.
9. In the **Export Virtual Machine** dialog box, click **Export**.

   The **Export Virtual Machine** dialog box closes, and the Hyper-V Manager exports the Caprica8VM virtual machine to the selected folder.
10. Save the folder that contains the export of the **Caprica8VM** virtual machine in a safe offline location along with your other backup files.
11. Record the user names and passwords used in the **Caprica8VM** virtual machine backup and save them in a safe offline location along with your other backup files.

Update the Caprica Server Operating System

After creating a snapshot of the current state of your Caprica8VM virtual machine, you are ready to use Caprica Cockpit to update your Caprica Server operating system.

★ The Caprica Server operating system updates procedure presented in this section is only valid for updating Caprica Servers running the Amazon Linux 2 operating system and Caprica Cockpit v2.0.1 software.

To update your Caprica Server operating system

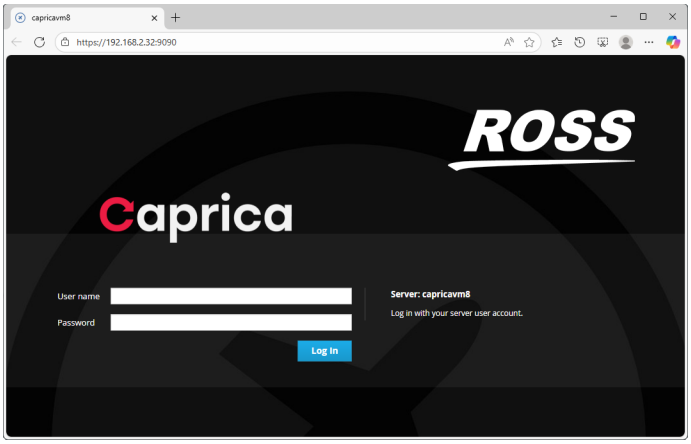
1. Contact Ross Video Technical Support to obtain the most recent Caprica Server operating system upgrade package file.
2. Log in to a computer connected to the same network as the Caprica Server computer.
3. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

✶ If Caprica Cockpit does not open, your Caprica Server computer is not running the Amazon Linux 2 operating system. Contact Ross Video Technical Support to upgrade the operating system of your Caprica Server computer.

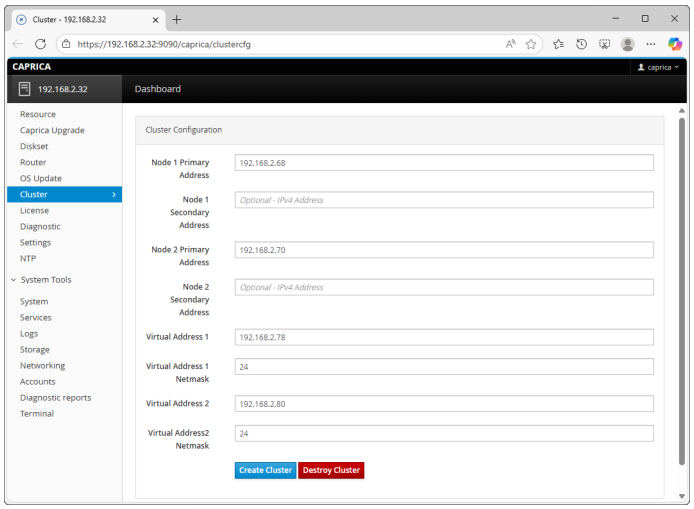
The **Caprica Login** web page opens.



4. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
5. Click **Log In**.

   Caprica Cockpit opens.
6. If your Caprica Server is set up as a cluster, complete the following steps to destroy the cluster before you update the Caprica Server Operating system:
   a. In the tree view, click **Cluster**.

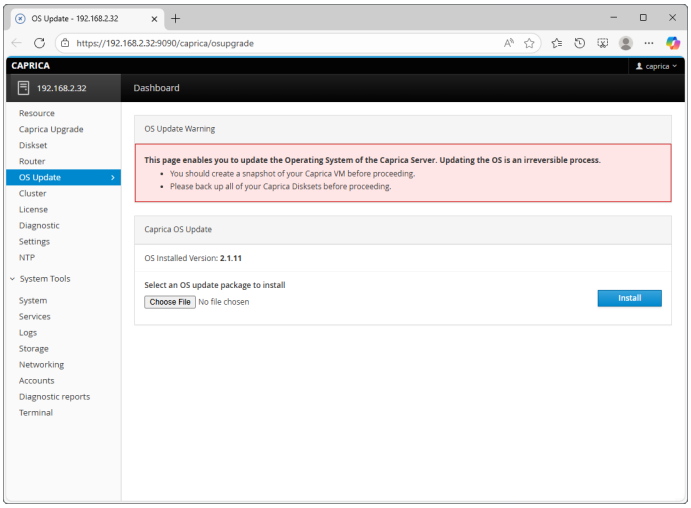
      The **Cluster Configuration** web page opens.



   b. Click **Destroy Cluster**.

7. In the tree view, click **OS Update**.

   The **OS Update** web page opens.



8. In the **Select an OS update package to install** section, click **Choose File**.

   The **Open** dialog box opens.

9. Use the **Open** dialog box to locate and select the **Caprica-OS.X.X.to.Y.Y.pkg** Caprica Server operating system upgrade package file you obtained from Ross Video Technical Support.

   Where **X.X** is the current operating system version installed on your Caprica Server and **Y.Y** is the new operating system version to install on your Caprica Server.

10. Click **Open**.

    The **Open** dialog box closes and the **Select an OS update package to install** section displays the name of the selected PKG file.

11. Click **Install**.

    The **Caprica OS Update Confirmation** alert opens.

12. Click **Yes**. Click **No** to cancel the operating system update for your Caprica Server.

    The Caprica OS Upgrade web page installs the new operating system on the Caprica Server. After the operating system install completes, Caprica Cockpit disconnects while the Caprica Server reboots using the newly installed operating system.

13. In **Caprica Cockpit**, click **Reconnect**.

    The **Caprica Login** web page opens.

14. Use your Caprica credentials to log in to **Caprica Cockpit**.

15. In the tree view, click **OS Update**.

    The **OS Update** web page opens. The **Installed Version** field displays the version of the current operating system installed on the Caprica Server.

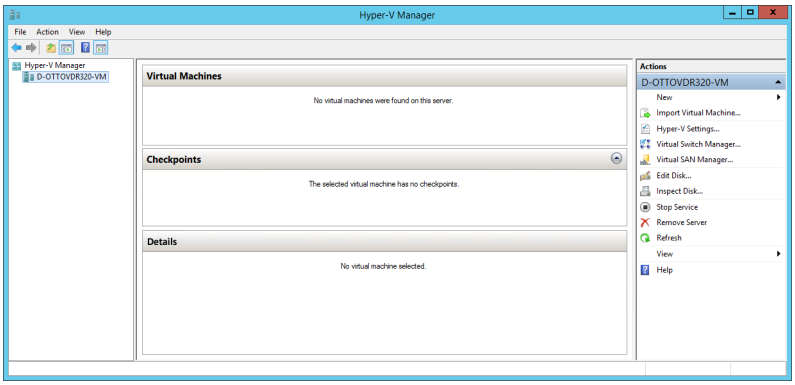
Caprica Virtual Machine Restore

If you encounter problems with a Caprica Server operating system update, you can use Hyper-V Manager to import a Caprica8VM virtual machine snapshot to restore the saved state of your Caprica Server. The new virtual machine created by importing the Caprica8VM virtual machine snapshot retains the passwords, settings, and configuration of the Caprica8VM virtual machine at the time it was exported.

To import a Caprica8VM virtual machine snapshot

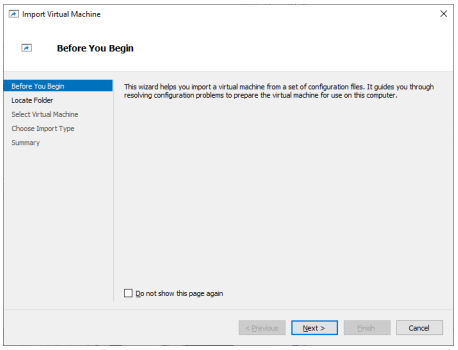
1. Log in to the OverDrive **Server computer** that hosts your Caprica Server in Hyper-V as the **overdrive** user.
2. Use the **Start** menu to select **Hyper-V Manager**.

   The **Hyper-V Manager** window opens.



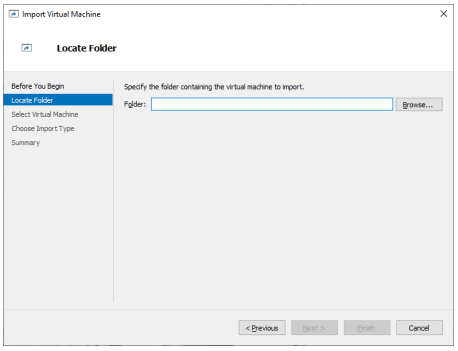
3. In the **Host** section of the **Actions** panel, click **Import Virtual Machine**.

   The **Import Virtual Host Machine** wizard opens.



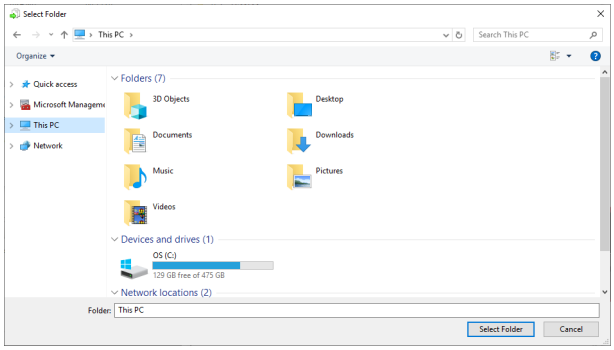
4. Click **Next**.

   The **Locate Folder** screen opens.



5. Click **Browse**.

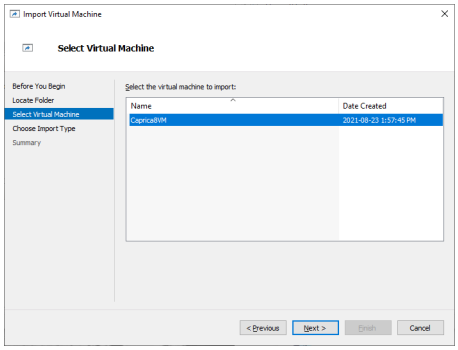
   The **Select Folder** dialog box opens.



6. Navigate to the folder that contains the **Caprica8VM** virtual machine snapshot folder.
7. Select **Caprica8VM** virtual machine snapshot folder.
8. Click **Select Folder**.

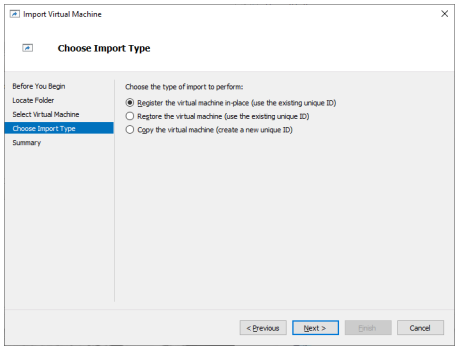
   The **Select Folder** dialog box closes, and the **Folder** box in the **Locate Folder** screen displays the full path to the selected folder.
9. Click **Next**.

   The **Select Virtual Machine** screen opens.



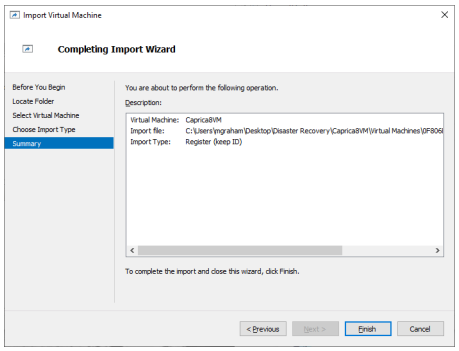
10. In the **Select the virtual machine to import** list, select **Caprica8VM**.
11. Click **Next**.

    The **Choose Import Type** screen opens.



12. Select the **Register the virtual machine in-place** option.
13. Click **Next**.

    The **Completing Import Wizard** screen opens.



14. Click **Finish**.

    The **Import Virtual Host Machine** wizard closes, and Hyper-V Manager imports the Caprica8VM virtual machine.
15. In the **Caprica8VM** section of the **Actions** panel, select **Start**.

Updating the Caprica Cockpit Software

Caprica Cockpit software enables you to use a web user interface to manage your Caprica Server. To access Caprica Cockpit, use a web browser to open the URL `https://<Caprica Server>:9090` where `<Caprica Server>` is the hostname or IP address of your Caprica Server computer.

To update Caprica Cockpit software

1. Contact Ross Video Technical Support to obtain the most recent Caprica Cockpit software installer.

   If you received the Caprica Cockpit software installer on the Windows side of your server you must transfer the installer to the Linux side of the server where your Caprica Server runs. Ross Video recommends using an SFTP application to transfer the installer between the Windows and Linux environments of your server. Contact Ross Video Technical Support if you require help transferring the installer.
2. Use the following credentials to log on to the Caprica Server computer:
   - **User**: `caprica`
   - **Password**: `<your_password>`
3. Verify that the Caprica Server computer is running the Amazon Linux 2 operating system.

   If your Caprica Server computer is not running the Amazon Linux 2 operating system, contact Ross Video Technical Support to upgrade the operating system.
4. On the Caprica Server computer, navigate to the folder where you saved the Caprica Cockpit software installer from Ross Video Technical Support.
5. Open a **Terminal** window.
6. At the prompt in the **Terminal** window, enter the following command to install the new version of Caprica Cockpit on the Caprica Server:

   ```
   sudo yum install caprica-cockpit-X.X.X-####.x86_64.rpm
   ```

   Where `X.X.X` is the minor version letter and `####` is the build number for the Caprica Cockpit software.

Updating the Caprica Server Software

Before updating Caprica Server software to the latest version of Caprica Server software, have a qualified Ross Video technician perform any required maintenance or repairs on the Caprica Server.

- The Caprica Server software upgrade procedure presented in this section is only valid for upgrading from Caprica v3.0. Upgrading Caprica Server software v1.x or v2.x to v3.x should be performed by Ross Video personnel.

To update Caprica Server software to version 24.3

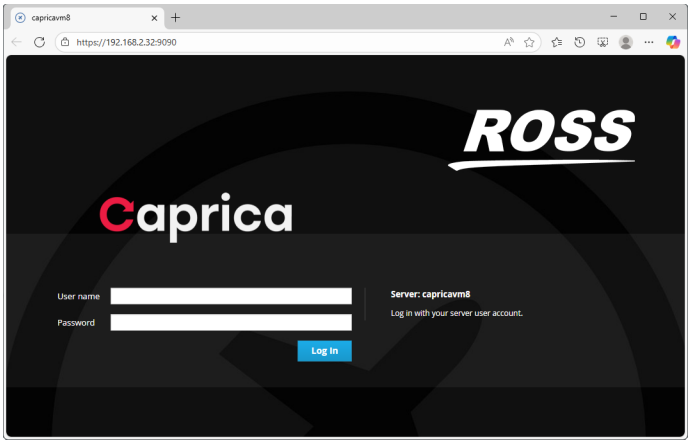
1. Contact Ross Video Technical Support to obtain the most recent Caprica Server software installer.
2. Log in to a computer connected to the same network as the Caprica Server computer.
3. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

- If Caprica Cockpit does not open, your Caprica Server computer is not running the Amazon Linux 2 operating system. Contact Ross Video Technical Support to upgrade the operating system of your Caprica Server computer.

   The **Caprica Login** web page opens.



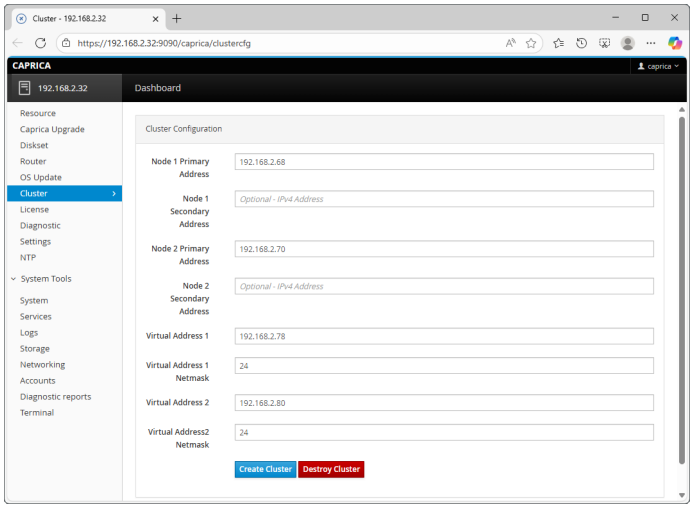
4. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
5. Click **Log In**.

   Caprica Cockpit opens.

6. If your Caprica Server is set up as a cluster, complete the following steps to destroy the cluster before you update the Caprica Server Operating system:

   a. In the tree view, click **Cluster**.

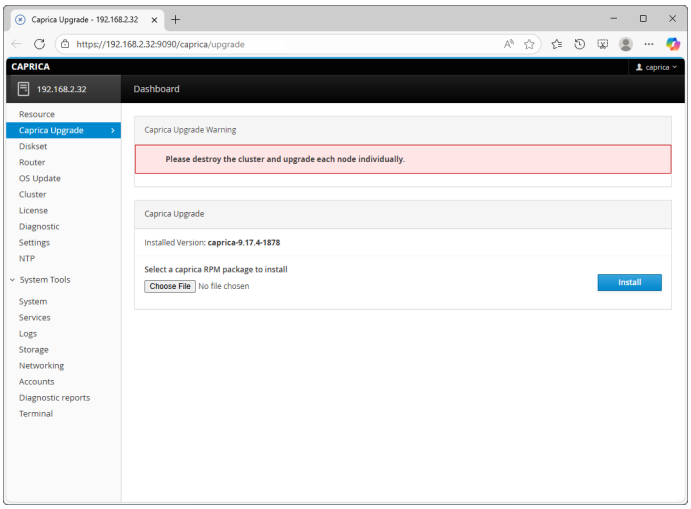
      The **Cluster Configuration** web page opens.



   b. Click **Destroy Cluster**.

7. In the tree view, click **Caprica Upgrade**.

   The **Caprica Upgrade** web page opens.



8. In the **Select a Caprica RPM package to install** section, click **Browse**.

   The **File Upload** dialog box opens.

9. Use the **File Upload** dialog box to locate and select the **caprica-24.3.X-###.x86.rpm** file you downloaded from Ross Video Technical Support.

   Where **X** is the minor version letter and ### is build number for the Caprica Server software.

10. Click **Open**.

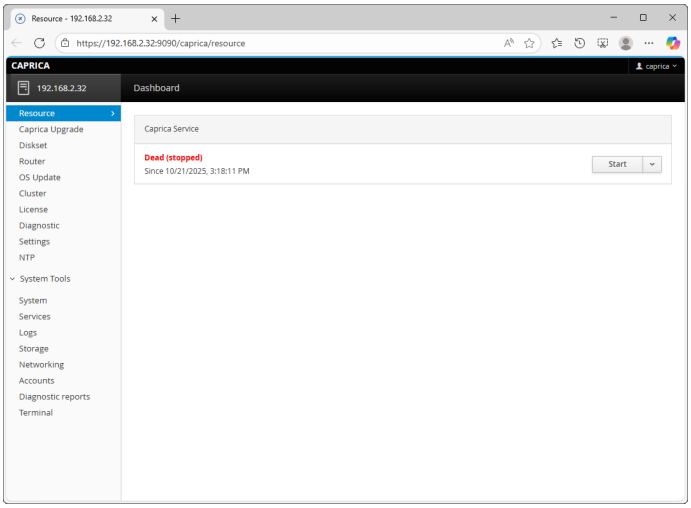
    The **File Upload** dialog box closes and the **Select a Caprica RPM package to install** section displays the name of the selected RPM file.

11. Click **Install**.

    The **Caprica Upgrade** web page installs new version of Caprica Server software.

12. In the tree view, click **Resource**.

    The **Resource** web page opens.



13. In the **Caprica Service** section, use the list to the right of the **Active** Caprica Service to select **Start**.

    The Caprica Server starts running the new version of Caprica Server software.

Licensing the Caprica Server Software

Ross Video uses a product key and feature license keys to control user access to Caprica. The Ross Licensing Service verifies your OverDrive product key and grants access to Caprica.

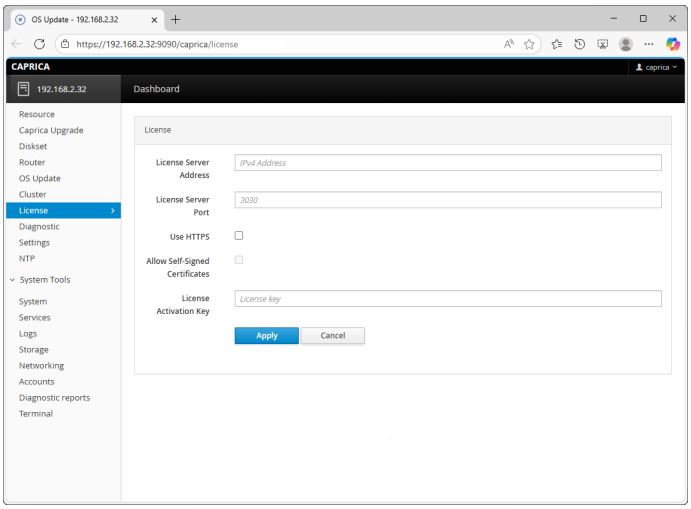
✶ Before you can license Caprica, you must activate your OverDrive product key on the Ross Licensing Service in your OverDrive system. Refer to the OverDrive ***Installation and Configuration Guide*** for information on activating OverDrive product keys.

You can obtain an OverDrive product key from Ross Video Technical Support.

To license a Caprica Server

1. In the **Caprica Cockpit** tree view, click **License**.

    The **License** web page opens.



2. In the **License** section, enter the IP address or hostname of your **Horizon Server** or **Ross Platform Manager Server** computer in the **License Server Address** box.

✶ When you use a secure HTTPS connection to a **Horizon Server** or **Ross Platform Manager Server** for licensing, you must enter the IP address or hostname from your security certificate in the **License Server Address** box.

3. 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.

4. When you use a secure HTTPS connection to a **Horizon Server** or **Ross Platform Manager Server** for licensing, complete the following steps:

   a. Select the **Use HTTPS** check box.

      The **Allow Self-Signed Certificates** check box activates.

   b. When using a self-signed untrusted certificate for your connection, select the **Allow Self-Signed Certificates** check box.

5. In the **License Activation Key** box, enter the OverDrive product key obtained from Ross Video Technical Support.

6. Click **Apply**.

7. Restart the Caprica service.

   For the steps to restart the Caprica service, refer to the procedure "**To control the Caprica Service**" on page 3–15.

8. For each Caprica Server in your OverDrive system, repeat step **1** to step **7**.

Maintaining the Caprica Server

You can use Caprica Cockpit to control and view information about the Caprica Server.

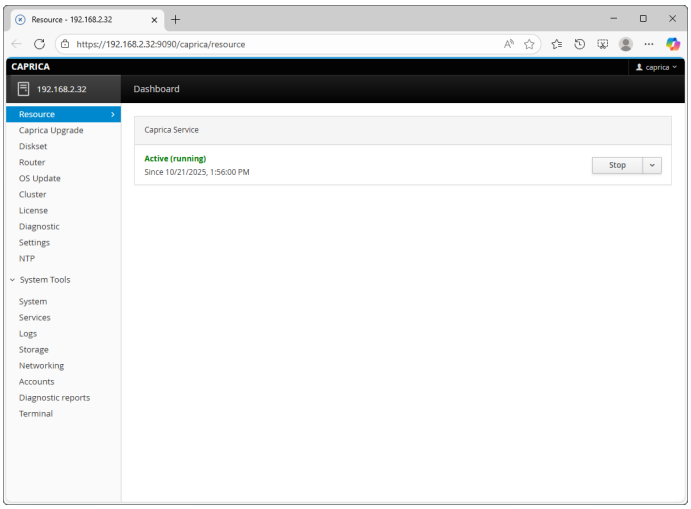
Current Status

You can use Caprica Cockpit to view the current status of a Caprica Service.

To view the status of the Caprica Service

1. In the **Caprica Cockpit** tree view, click **Resource**.

   The **Resource** web page opens.



2. Use the **Caprica Service** section of the Resource web page to view the current status of the Caprica Service.

Control

You can use Caprica Cockpit to control the Caprica Service running on the Caprica Server.

To control the Caprica Service

1. In the **Caprica Cockpit** tree view, click **Resource**.

   The **Resource** web page opens.

2. In the **Caprica Service** section, use the list to the right of the **Active Caprica Service** to control the Caprica Service as follows:

   - **Start** — start the Caprica Service
   - **Stop** — stop the Caprica Service
   - **Restart** — stop and then start the Caprica Service

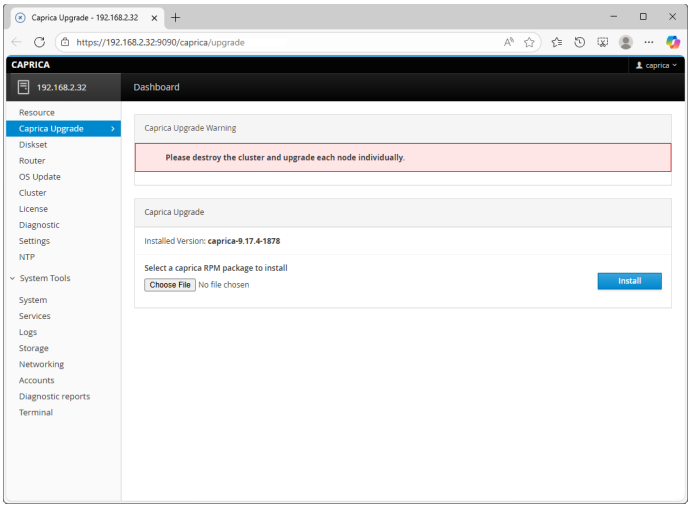
Caprica Server Software Version

You can use Caprica Cockpit to view the version of Caprica Server software installed on a Caprica Server computer.

To view the Caprica Server software version

1. In the **Caprica Cockpit** tree view, click **Caprica Upgrade**.

   The **Caprica Upgrade** web page opens.



2. In the **Caprica Upgrade** section, use the **Installed Version** field to view the version of Caprica Server software installed on a Caprica Server computer.

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.

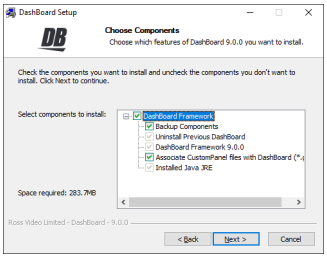


Figure 3.1 DashBoard Application Installer

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.

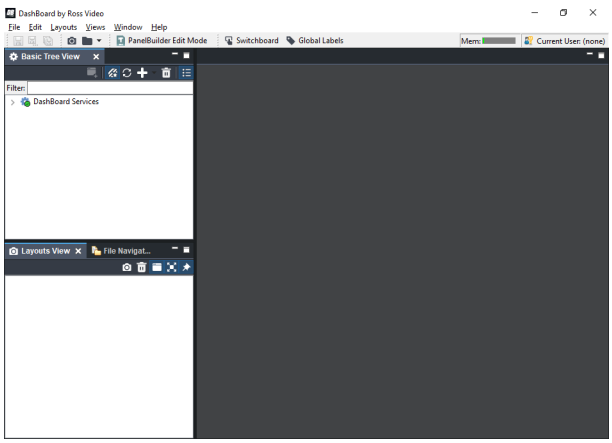
Connecting DashBoard to the Caprica Server

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

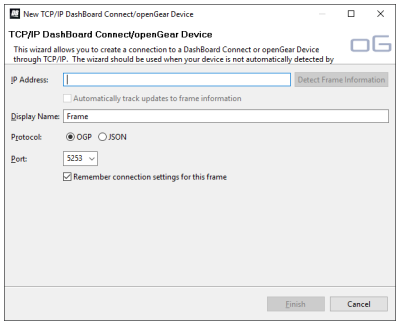
1. On the Client computer, verify that the following conditions are true:
   - The Client computer uses the current version of **DashBoard** software.
   - The Client computer can access a running Caprica Server on the network.
2. Use one of the following methods to launch **DashBoard**:
   - Double-click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

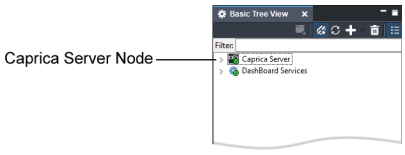
   The DashBoard **Tree View** displays the entered Display Name beside the node associated with the Caprica Server.

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.

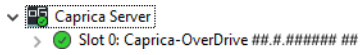


9. Hover the mouse over the **Caprica Server** node to view the following information about the server:

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

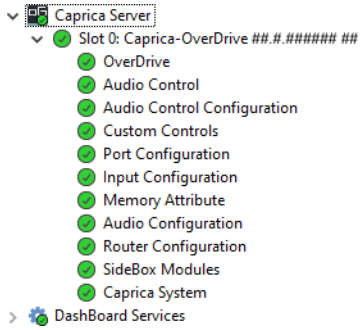
10. In the **DashBoard Tree View**, expand the **Caprica Server** node.

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



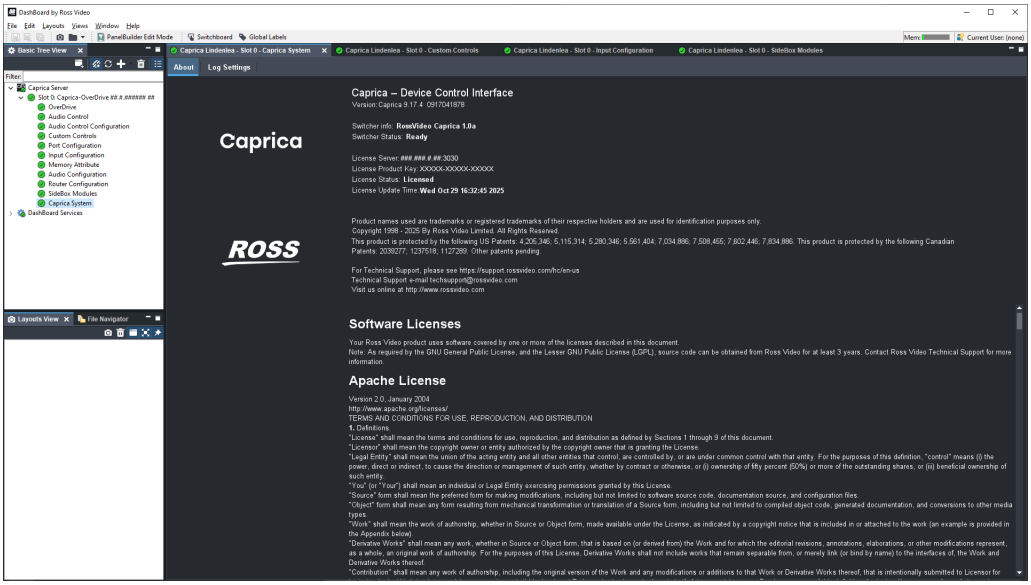
11. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.

    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 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

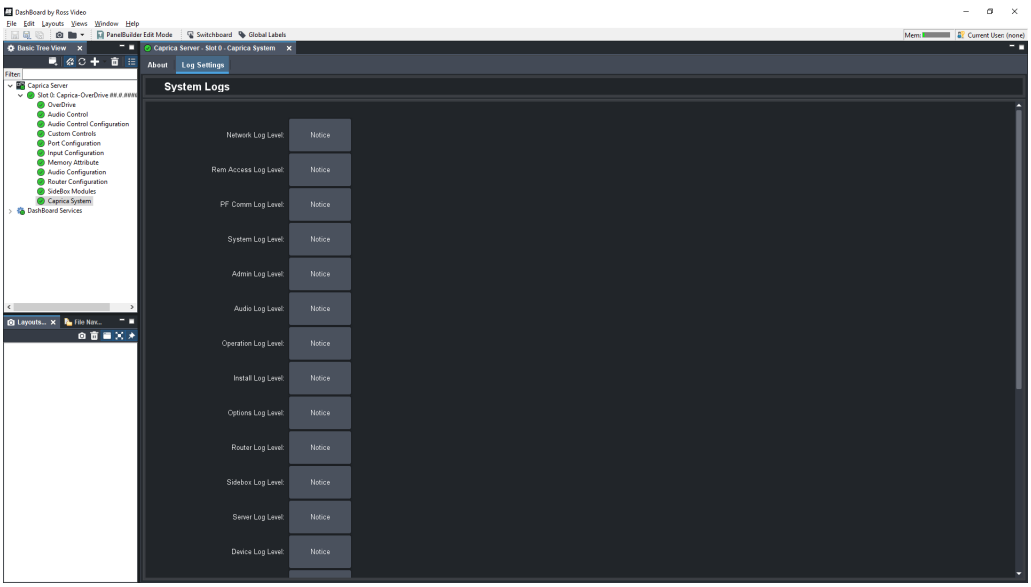
Through the Log Settings tab of the Caprica System node, you can configure the severity level for the various logs in which Caprica saves captured communication events and errors. You can set the severity level for each log listed in the Log Setting tab.

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.

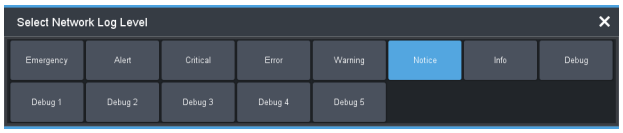
   The **About** tab opens in the **Device View**.
3. Click the **Log Settings** tab.

   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.

6. Use **Caprica Cockpit** to view the system log files as follows:

   a. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

      `https://<Caprica Server>:9090`

      If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

   b. Use the following credentials to log in to **Caprica Cockpit**:

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

   c. Click **Log In**.

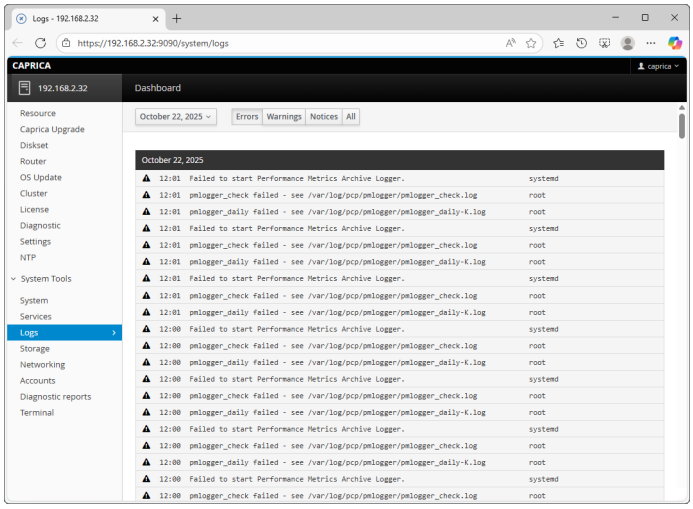
      Caprica Cockpit opens.

   d. In the tree view, click **System Tools**.

      The **System Tools** node expands.

   e. In the **System Tools** node, click **Logs**.

      The **Logs** web page opens.



   f. Use the **Date** menu to change the date of the displayed logs.

   g. Click **Errors**, **Warnings**, **Notices**, or **All** to change the severity of the displayed logs.

Cockpit HTTPS Connection

Cockpit enables you to use a web user interface to manage your Caprica Server through a secure HTTPS connection. Cockpit provides a self-signed certificate to enable web browser HTTPS access. Most modern web browsers flag the provided self-signed certificate as untrusted. To guarantee an HTTPS connection between your web browser and Cockpit, Ross Video recommends using a signed certificate.

The steps to set up a signed certificate depend on your web browser platform, your IT policies, and your Certificate Authority (CA). Ross Video recommends using an external CA to simplify certificate creation, deployment, and maintenance. You can also create your own internal CA and sign your own server certificate.

✶ Since each IT department and external CA has unique requirements that cannot be covered in this document, you should gather requirements from your IT department and CA before you proceed with the procedures in this chapter.

Regardless of whether you use an internal or external CA, you must create a Certificate Signing Request (CSR) and a private key for each Caprica Server in your system. The CA uses the CSR to create a signed certificate. You must copy the signed certificate and private key to the Caprica Server so that Cockpit can use them.

✶ Due to the various customer security environments, this chapter provides the basic steps to configure a secure HTTPS connection for Cockpit.

The following topics are discussed in this chapter:

- Creating an Internal Certificate Authority
- Registering Your Certificate Authority with Your Web Browser
- Creating a Certificate Signing Request
- Signing a Server Certificate
- Preparing and Loading a Signed Certificate
- Disabling HTTPS Secure Connections

Creating an Internal Certificate Authority

✶ If you already have a CA on another server, or your IT department provides you with a CA, or your company uses an external CA, skip this section and continue with the section "**Registering Your Certificate Authority with Your Web Browser**" on page 4–3.

To create an internal Certificate Authority

1. Log in to your **Caprica Server**.
2. Create a folder to store certification files, for example: `ca_files`.
3. Change into your certification files folder.
4. Use a text editor to create a file named `ca.cfg`.
5. Enter the following text in the open `ca.cfg` file. Do not copy and paste the text below into the `ca.cfg` file as this may cause formatting errors in the file.

```
HOME            = .
RANDFILE        = $ENV::HOME/.rnd

[ ca ]
default_ca      = CA_default

[ CA_default ]
default_days     = 1000
default_crl_days = 365
default_md       = sha256
preserve         = no
x509_extensions  = ca_extensions
email_in_dn      = no
copy_extensions  = copy
certificate      = ./cacert.pem
private_key      = ./cakey.pem
new_certs_dir    = .
database         = ./index.txt
serial           = ./serial.txt

[ req ]
prompt  = no
default_keyfile    = cakey.pem
distinguished_name = ca_distinguished_name
x509_extensions    = ca_extensions
string_mask        = utf8only

[ ca_distinguished_name ]
countryName         = <country_name>
stateOrProvinceName = <state_province_name>
localityName        = <city_name>
organizationName    = <company_name>
commonName          = <common_name>
emailAddress        = <email_address>

[ ca_extensions ]
subjectKeyIdentifier   = hash
authorityKeyIdentifier = keyid:always, issuer
basicConstraints       = critical, CA:true
keyUsage               = keyCertSign, cRLSign

[ signing_policy ]
countryName            = optional
stateOrProvinceName    = optional
localityName           = optional
```

```
organizationName       = optional
organizationalUnitName = optional
commonName             = supplied
emailAddress           = optional

[ signing_req ]
subjectKeyIdentifier   = hash
authorityKeyIdentifier = keyid,issuer
basicConstraints       = CA:FALSE
keyUsage               = digitalSignature, keyEncipherment
```

6. In the **[ca_distinguished_name]** section of the `ca.cfg` file, replace the text **<country_name>** with a two-character abbreviation for the country where your Caprica Server is located.
7. Replace the text **<state_province_name>** with the name of the state or province in which your Caprica Server resides.
8. Replace the text **<city_name>** with the name of the city in which your Caprica Server resides.
9. Replace the text **<company_name>** with the name of the company that owns your Caprica Server.
10. Replace the text **<common_name>** with the host name of your Caprica Server.
11. Replace the text **<email_address>** with the email address for the Caprica Server administrator.
12. Save and close the `ca.cfg` file.
13. In the folder that contains your `ca.cfg` file, run the following command to generate a CA certificate and a corresponding key:

    ```
    openssl req -x509 -config ca.cfg -newkey rsa:4096 -sha256 -out cacert.pem -outform PEM
    ```

14. At the **Enter PEM pass phrase:** prompt, enter a pass phrase for the CA certificate.

✶ Ross Video does not recommend creating a CA without a pass phrase.

The **openssl** command generates a CA certificate named **cacert.pem** and a corresponding key named **cakey.pem**.

Registering Your Certificate Authority with Your Web Browser

After you register a CA with a web browser, the web browser will trust any certificate signed by the CA. When using an internal CA, copy the generated `cacert.pem` file to each client computer that you use to access your Caprica Server.

✶ If your CA is already registered with your web browser, skip this section and continue with the section "**Creating a Certificate Signing Request**" on page 4–4.

The procedure to register a CA with a web browser depends on the following factors in your work environment:

- Operating system of your computer.
- Web browser software.
- Your web browser software version.

Please refer to your web browser documentation for information on how to register your CA with your web browser.

Creating a Certificate Signing Request

Before you can generate a signed certificate, you must create a Certificate Signing Request (CSR). A CSR contains information specific to the server. The CA also uses the CSR to generate a signed certificate.

- Each CA has different requirements for a CSR. Ross Video recommends checking CSR requirements with your CA provider before proceeding with the procedure in this section.

To create a Certificate Signing Request for a Certificate Authority

1. Use a text editor to create a file named `csr.cfg`.
2. Enter the text below in the open `csr.cfg` file. Do not copy and paste the text below into the `csr.cfg` file as this may cause formatting errors in the file.

```
[req]
prompt             = no
default_bits       = 4096
default_md         = sha256
default_keyfile    = serverkey.pem
distinguished_name = dn
req_extensions     = v3_req

[dn]
countryName          = <country_name>
stateOrProvinceName = <state_province_name>
localityName         = <city_name>
organizationName     = <company_name>
commonName           = <common_name>
emailAddress         = <email_address>

[v3_req]
keyUsage = keyEncipherment, dataEncipherment
extendedKeyUsage = serverAuth
subjectAltName = @alt_names

[alt_names]
IP.1 = <IP_Address_NIC_1>   # NIC 1 IP address
IP.2 = <IP_Address_Cluster> # Cluster virtual IP address (OPTIONAL)
IP.3 = <IP_Address_NIC_2>   # NIC 2 IP address (OPTIONAL)
```

3. In the **[dn]** section of the `csr.cfg` file, replace the text **<country_name>** with a two-character abbreviation for the country in which your Caprica Server resides.
4. Replace the text **<state_province_name>** with the name of the state or province in which your Caprica Server resides.
5. Replace the text **<city_name>** with the name of the city in which your Caprica Server resides.
6. Replace the text **<company_name>** with the name of the company that owns your Caprica Server.
7. Replace the text **<common_name>** with the host name of your Caprica Server.
8. Replace the text **<email_address>** with the email address for the Caprica Server administrator.
9. In the **[alt_names]** section, replace the text **<IP_Address_NIC_1>** with the IP address of your Caprica Server NIC 1.
10. Replace the text **<IP_Address_Cluster>** with the virtual IP address of your Caprica Server cluster.

- If your Caprica system is not configured as a cluster, delete the **IP.2** alternate name from the `csr.cfg` file.

11. Replace the text **<IP_Address_NIC_2>** with the IP address of your Caprica Server NIC 2.

- If your Caprica system is not configured to use NIC 2, delete the **IP.3** alternate name from the `csr.cfg` file.

12. If you deleted an alternative name from the **[alt_names]** section, rename the alternate names so that they are sequential starting with **IP.1**.
13. Save and close the `csr.cfg` file.
14. In the folder that contains your `csr.cfg` file, run the following command to generate a CSR file:

    ```
    openssl req -config csr.cfg -newkey rsa:4096 -sha256 -nodes -out servercert.csr
    -outform PEM
    ```

    The **openssl** command generates a CSR file named **servercert.csr** and a corresponding key named **serverkey.pem**.

Signing a Server Certificate

IT Department or External CA

If you use a CA managed by your IT department or an external CA, you must send your CSR file to your IT department or external CA so they can generate a signed certificate for you. Remember to get your IT department or an external CA to return the signed certificate generated from your CSR file to you.

- Cockpit expects signed certificates to be PEM-encoded x509 certificates.

In the following sections, the signed certificate is referred to as the **servercert.pem** file.

Internal CA

If you use your own internal CA, you can generate your own signed certificate.

To generate a signed certificate

1. Before signing your first certificate, complete the following steps to create a CA database:
   a. In the folder that contains your `csr.cfg` file, run the following command to create an empty file named `index.txt`:

      ```
      touch index.txt
      ```

      The **openssl** command updates the `index.txt` file every time you sign a certificate.
   b. Run the following command to create a file named `serial.txt` containing a value of `01`.

      ```
      echo '01' > serial.txt
      ```

      The `serial.txt` file contains the next available serial number in hex, which the **openssl** command updates every time you sign a certificate.

   With the CA database created, you are ready to sign certificates.
2. In the folder that contains your servercert.csr, index.txt, and serial.txt files, run the following command to sign your certificate:

   ```
   openssl ca -config ca.cfg -policy signing_policy -extensions signing_req -out
   servercert.pem -infiles server.csr
   ```
3. At the **Enter pass phrase for /cakey.pem:** prompt, enter the pass phrase you set for your CA certificate in step **14** of the procedure "**To create an internal Certificate Authority**" on page 4–2.
4. At the **Sign the certificate? [y/n]:** prompt, enter `y`.

   The **openssl** command creates a signed certificate file named **servercert.pem**.

Preparing and Loading a Signed Certificate

Your signed certificate file (servercert.pem) and private key file (serverkey.pem) are concatenated to make a .cert file. Cockpit loads .cert files from the /etc/cockpit/ws-certs.d folder on a Caprica Server. When Cockpit loads a certificate, it loads the last file alphabetically with the .cert extension.

To prepare and load a signed certificate

1. In your certification files folder, run the following command to create a file named **100-server.cert** and write the contents of your **servercert.pem** to the new file:

   ```
   cat servercert.pem > 100-server.cert
   ```

2. Run the following command to append the content of your **serverkey.pem** file to your **100-server.cert** file:

   ```
   cat serverkey.pem >> 100-server.cert
   ```

3. Run the following command to move your **100-server.cert** file to the **/etc/cockpit/ws-certs.d** folder:

   ```
   sudo mv 100-server.cert /etc/cockpit/ws-certs.d/100-server.cert
   ```

4. Run the following command to restart Cockpit and load your signed certificate:

   ```
   sudo systemctl restart cockpit
   ```

Disabling HTTPS Secure Connections

You can disable HTTPS secure connections for your Caprica system. You should disable HTTPS only on a segregated network that is not accessible from the internet.

✶ Ross Video does not recommend disabling HTTPS secure connections for your Caprica system.

To disable HTTPS secure connections for your Caprica system

1. Log in to your **Caprica Server**.
2. Change into the `/etc/cockpit/` folder.
3. Use a text editor to create a file named `cockpit.conf`.
4. Enter the following text in the open `cockpit.conf` file:

   ```
   [WebService]
   AllowUnencrypted = true
   ```

5. Save and close the `cockpit.conf` file.
6. Run the following command to restart Cockpit:

   ```
   sudo systemctl restart cockpit
   ```

Redundant Caprica System

A Redundant Caprica Server System contains two equal Caprica Servers configured as a cluster. The OverDrive Server connects to the IP address or hostname set for the Caprica Server cluster. The two Caprica Servers in the cluster communicate with each other to maintain an identical system configuration on each server.

Only one Caprica Server is active at a time in the OverDrive system. If the active Caprica Server falters, the other Caprica Server in the Caprica Server cluster automatically takes over from the faltering Caprica server to maintain operation of the OverDrive system.

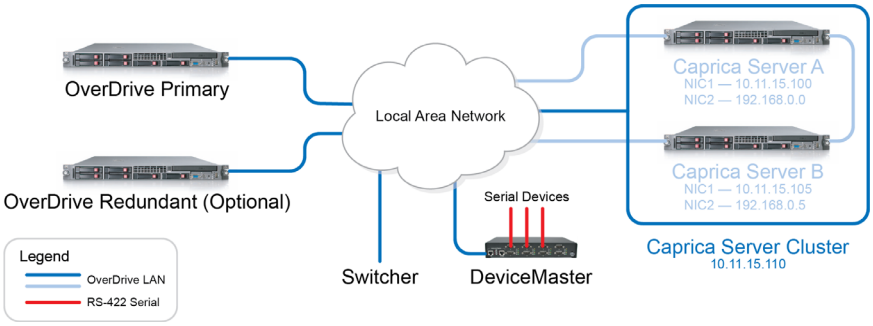


Figure 5.1 Caprica Redundant Server System - Separate Computers

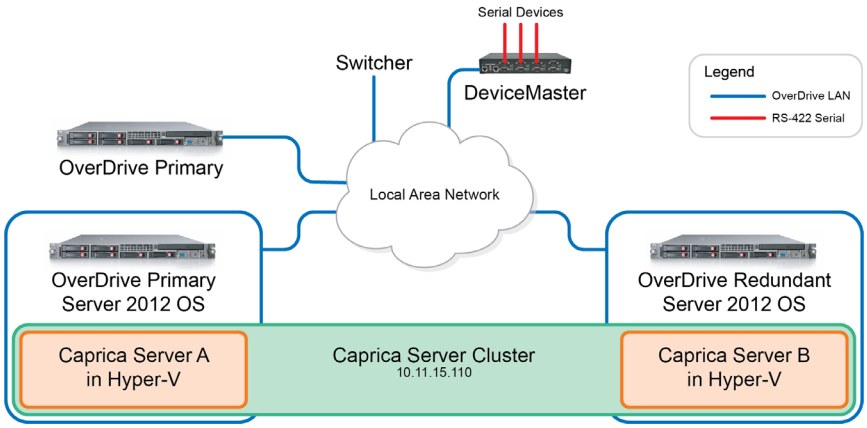


Figure 5.2 Caprica Redundant Server System - Hyper-V

The following topics are discussed in this chapter:

- Caprica Server A Network Settings
- Caprica Server B Network Settings
- Synchronizing Caprica Server Time
- Cabling the Caprica Server
- Setting Up the Caprica Server Cluster
- Managing the Caprica Server Cluster
- Connecting a Redundant Caprica System to an OverDrive System

Caprica Server A Network Settings

Start the setup of a Redundant Caprica Server System by configuring the network settings for Caprica Server A.

✶ Before configuring Caprica Server A to be part of a Redundant Caprica Server System, verify that the installed version of Caprica Server software is the latest released version.

› To check the version of Caprica, refer to the section "**Caprica Server Software Version**" on page 3–15.

› To upgrade Caprica Server software, refer to the chapter "**Software Installation**" on page 3–1.

Hostname

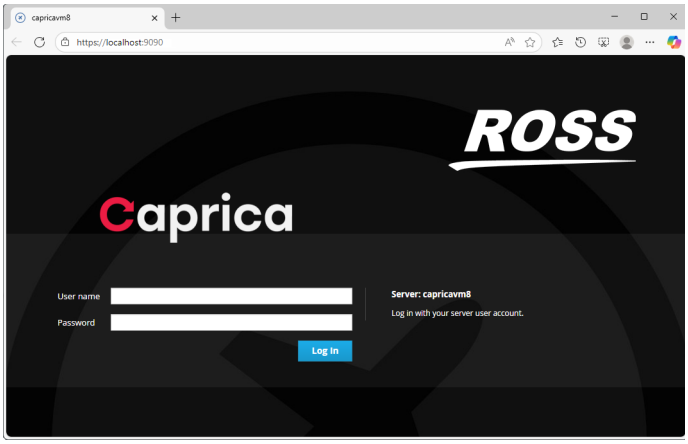
✶ Each Caprica Server in a Redundant Caprica Server System must have a unique hostname.

To set the hostname for Caprica Server A

1. Log in to **Caprica Server A**.
   - **Computer**: refer to the section "**Caprica Server Computer**" on page 2–11
   - **Hyper-V**: refer to the section "**Hyper-V**" on page 2–11
2. Use a web browser to open **Caprica Cockpit** at the following URL:

   `https://localhost:9090`

   The **Caprica Login** web page opens.

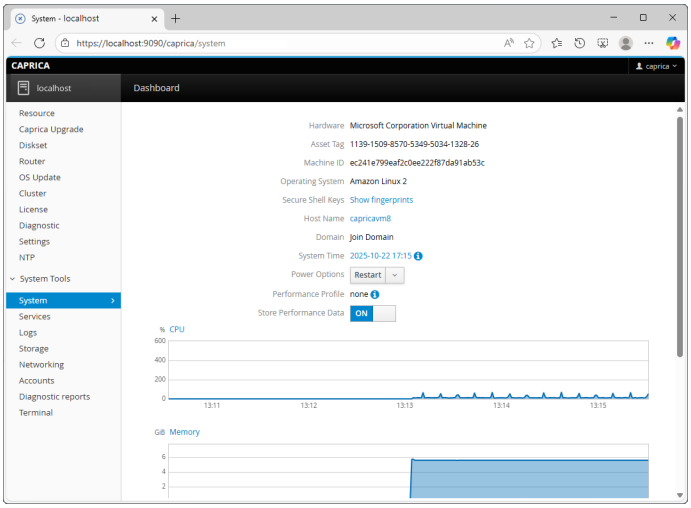


3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

   Caprica Cockpit opens.
5. In the tree view, expand the **System Tools** node.

6. In the **System Tools** node, click **System**.

   The **System** web page opens.



7. In the **Host Name** field, click the current host name.

   The **Change Host Name** dialog box opens.

8. In the **Pretty Host Name** box, enter `Caprica A`.

   The **Real Host Name** box displays `caprica-a`, the real hostname used buy the operating system.

9. Click **Change**.

   The **Host Name** field displays the pretty and real host names set for the server: **Caprica A (caprica-a)**.

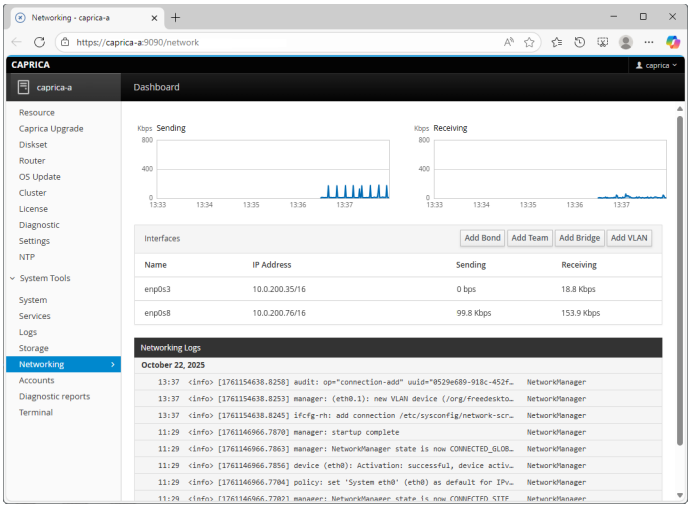
NIC 1 Network Settings

A Caprica Server running on a separate computer uses NIC 1 to connect to the Local Area Network. A Caprica Server running in Hyper-V on the OverDrive Server computer only uses a single NIC.

To configure Caprica Server A network settings for NIC 1

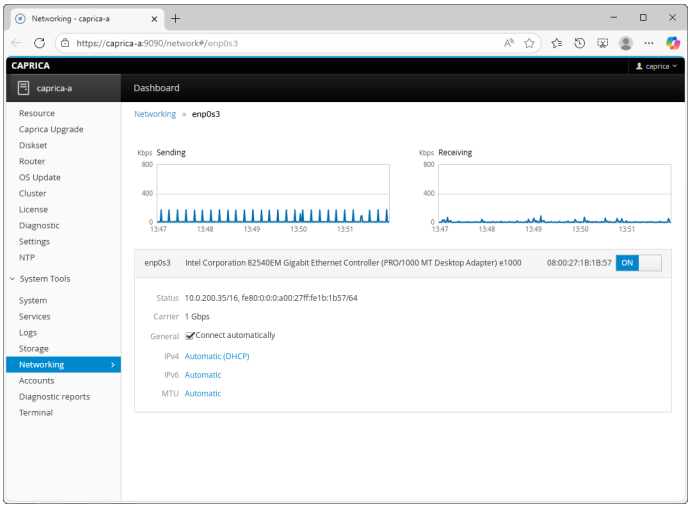
1. In the **Caprica Cockpit** tree view, click **Networking**.

   The **Networking** web page opens.



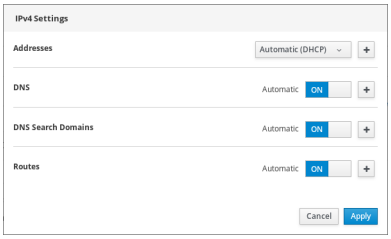
2. In the **Interface** section, click the first **NIC** in the list of available network interfaces.

   A panel opens for the selected NIC.



3. In the **IPv4** field, click the current setting.

   The **IPv4 Settings** dialog box opens.



4. Use the **Addresses** list to select **Manual**.
5. In the **Address** box, enter a static IP address for NIC 1 of Caprica Server A.
6. In the **Prefix length or Netmask** box, enter the network mask for NIC 1 of Caprica Server A.

7. In the **Gateway** box, enter the gateway for NIC 1 of Caprica Server A.
8. Click **Apply**.

   The **IPv4** field displays the set IP address for NIC 1 of the Caprica Server A.

NIC 2 Network Settings

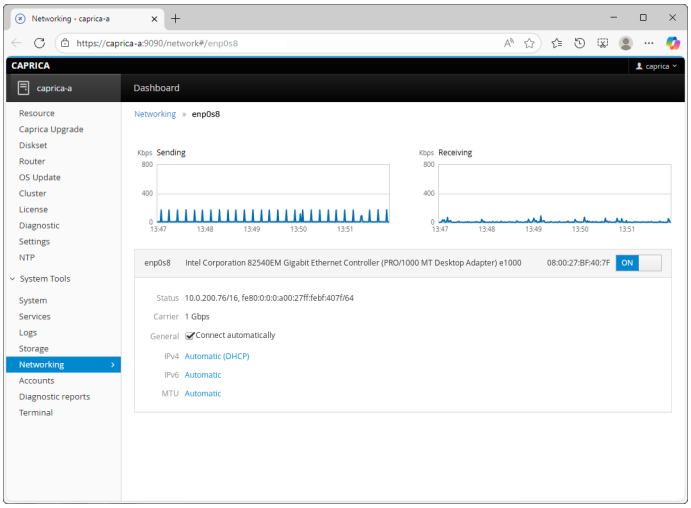
A Caprica Server running on a separate computer uses NIC 2 to directly connect to Caprica Server B in a Redundant Caprica Server System. A Caprica Server running in Hyper-V on the OverDrive Server computer does not require a second NIC.

✶ On Caprica Server A, the IP address set for NIC 2 must be part of a different sub-network that the IP address set for NIC 1.

To configure Caprica Server A network settings for NIC 2

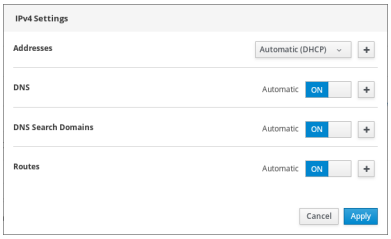
1. In the **Interface** section of the **Networking** web page, click the second **NIC** in the list of available network interfaces.

   A panel opens for the selected NIC.



2. In the **IPv4** field, click the current setting.

   The **IPv4 Settings** dialog box opens.



3. Use the **Addresses** list to select **Manual**.
4. In the **Address** box, enter a static IP address for NIC 2 of Caprica Server A.
5. In the **Prefix length or Netmask** box, enter the network mask for NIC 2 of Caprica Server A.
6. In the **Gateway** box, enter the gateway for NIC 2 of Caprica Server A.
7. Click **Apply**.

   The **IPv4** field displays the set IP address for NIC 2 of the Caprica Server A.

Caprica Server B Network Settings

After configuring the network settings for Caprica Server A, configure the network settings for Caprica Server B.

✶ Before configuring Caprica Server B to be part of a Redundant Caprica Server System, verify that the installed version of Caprica Server software is the latest released version.

› To check the version of Caprica, refer to the section "**Caprica Server Software Version**" on page 3–15.

› To upgrade Caprica Server software, refer to the chapter "**Software Installation**" on page 3–1.

Hostname

Each Caprica Server in a Redundant Caprica Server System must have a unique hostname.

To set the hostname for Caprica Server B

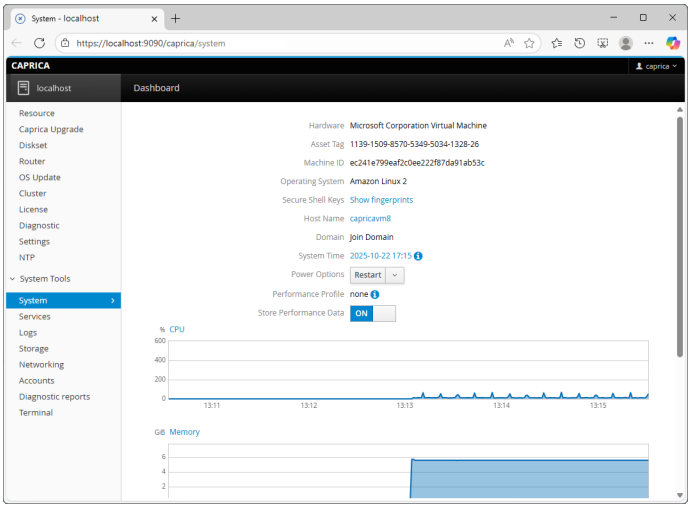
1. Log in to **Caprica Server B**.
   - **Computer**: refer to the section "**Caprica Server Computer**" on page 2–11
   - **Hyper-V**: refer to the section "**Hyper-V**" on page 2–11
2. Use a web browser to open **Caprica Cockpit** at the following URL:

   `https://localhost:9090`

   The **Caprica Login** web page opens.
3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

   Caprica Cockpit opens.
5. In the tree view, expand the **System Tools** node.
6. In the **System Tools** node, click **System**.

   The **System** web page opens.



7. In the **Host Name** field, click the current host name.

   The **Change Host Name** dialog box opens.

8. In the **Pretty Host Name** box, enter `Caprica B`.

   The **Real Host Name** box displays `caprica-b`, the real hostname used buy the operating system.

9. Click **Change**.

   The **Host Name** field displays the pretty and real host names set for the server: **Caprica A (caprica-a)**.

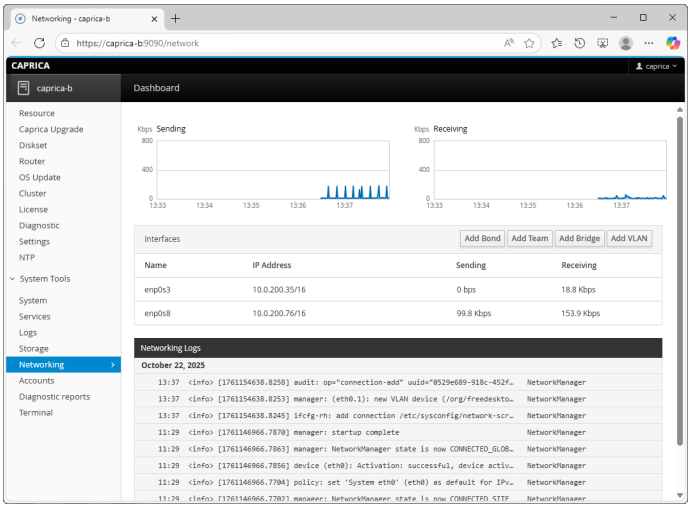
NIC 1 Network Settings

A Caprica Server running on a separate computer uses NIC 1 to connect to the Local Area Network. A Caprica Server running in Hyper-V on the OverDrive Server computer only uses a single NIC.

To configure Caprica Server B network settings for NIC 1

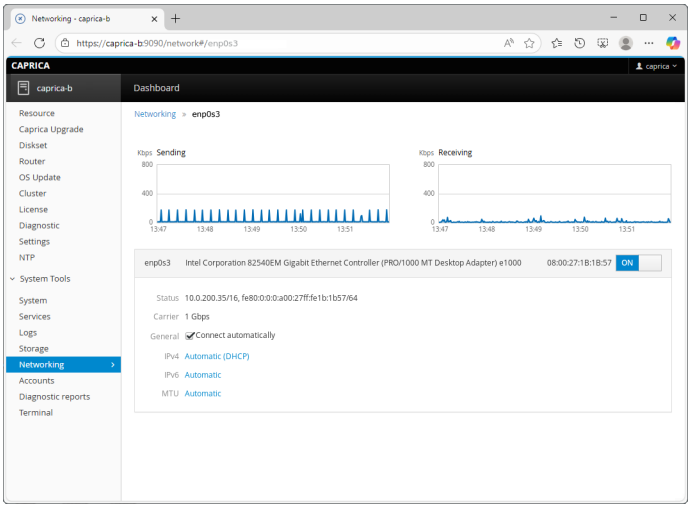
1. In the **Caprica Cockpit** tree view, click **Networking**.

   The **Networking** web page opens.



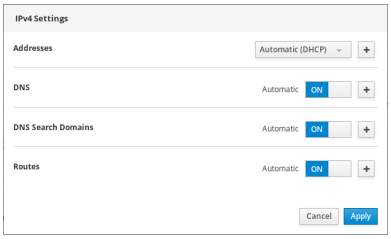
2. In the **Interface** section, click the first **NIC** in the list of available network interfaces.

A panel opens for the selected NIC.



3. In the **IPv4** field, click the current setting.

   The **IPv4 Settings** dialog box opens.



4. Use the **Addresses** list to select **Manual**.
5. In the **Address** box, enter a static IP address for NIC 1 of Caprica Server B.
6. In the **Prefix length or Netmask** box, enter the network mask for NIC 1 of Caprica Server B.
7. In the **Gateway** box, enter the gateway for NIC 1 of Caprica Server B.
8. Click **Apply**.

   The **IPv4** field displays the set IP address for NIC 1 of the Caprica Server B.

NIC 2 Network Settings

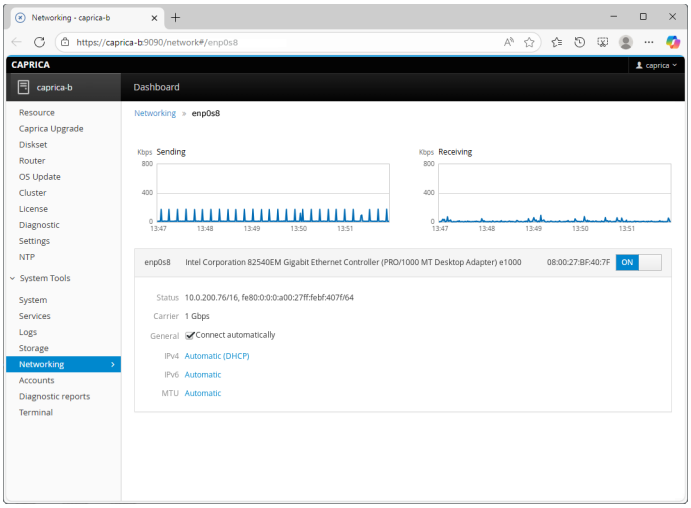
A Caprica Server running on a separate computer uses NIC 2 to directly connect to Caprica Server B in a Redundant Caprica Server System. A Caprica Server running in Hyper-V on the OverDrive Server computer does not require a second NIC.

✶ On Caprica Server B, the IP address set for NIC 2 must be part of a different sub-network that the IP address set for NIC 1.

To configure Caprica Server B network settings for NIC 2

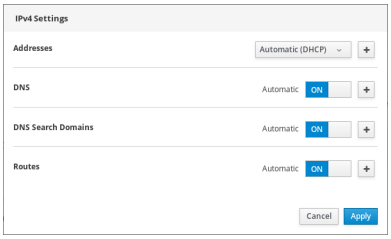
1. In the **Interface** section of the **Networking** web page, click the second **NIC** in the list of available network interfaces.

   A panel opens for the selected NIC.



2. In the **IPv4** field, click the current setting.

   The **IPv4 Settings** dialog box opens.



3. Use the **Addresses** list to select **Manual**.
4. In the **Address** box, enter a static IP address for NIC 2 of Caprica Server B.
5. In the **Prefix length or Netmask** box, enter the network mask for NIC 2 of Caprica Server B.
6. In the **Gateway** box, enter the gateway for NIC 2 of Caprica Server B.
7. Click **Apply**.

   The **IPv4** field displays the set IP address for NIC 2 of the Caprica Server B.

Synchronizing Caprica Server Time

For the Caprica Server resource swap process to run properly, the time on the Caprica Server computers in a Redundant Caprica Server System must be synchronized. You must enable Network Time Protocol (NTP) on each Caprica Server in a Redundant Caprica Server System.

To enable NTP on Caprica Server computers

1. Log in to a **Caprica Server**.
   - **Computer**: refer to the section "**Caprica Server Computer**" on page 2–11
   - **Hyper-V**: refer to the section "**Hyper-V**" on page 2–11
2. Open a **Terminal** window.

3. At the prompt in the **Terminal** window, enter the following command to check if NTP is already configured on the Caprica Server computer:

   ```
   timedatectl
   ```

   When NTP is synchronizing the time on the Caprica Server computer, the Terminal displays the following information:

   ```
         Local time: Mon 2016-03-14 08:37:50 EDT
     Universal time: Mon 2016-03-14 12:37:50 UTC
           RTC time: Mon 2016-03-14 12:37:50
          Time zone: America/Toronto (EDT, -0400)
        NTP enabled: yes
   NTP synchronized: yes
    RTC in local TZ: no
         DST active: yes
    Last DST change: DST began at
                     Sun 2016-03-13 01:59:59 EST
                     Sun 2016-03-13 03:00:00 EDT
    Next DST change: DST ends (the clock jumps one hour backwards) at
                     Sun 2016-11-06 01:59:59 EDT
                     Sun 2016-11-06 01:00:00 EST
   ```

4. When NTP is not enable on a Caprica Server computer, enter the following three commands to enable NTP:

   ```
   sudo systemctl enable chronyd
   ```

   ```
   sudo systemctl start chronyd
   ```

   ```
   sudo timedatectl set-ntp yes
   ```

5. Repeat step **1** to step **4** on each Caprica Server computer in your Redundant Caprica Server System.

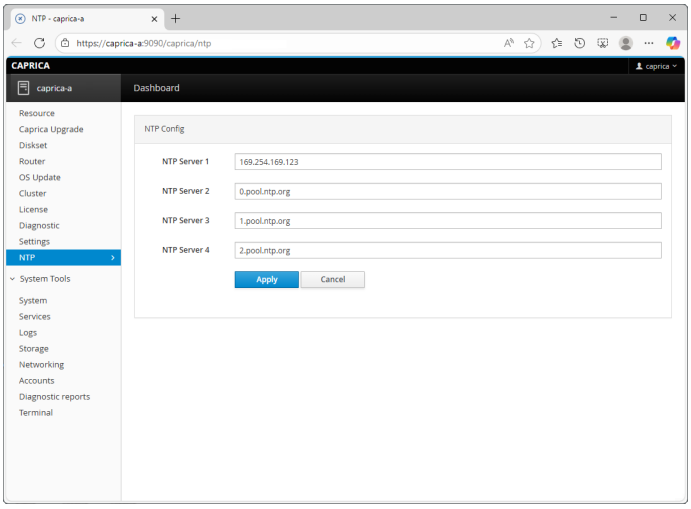
NTP Servers

You can configure a Caprica Server to use up to four NTP Servers with the chronyd command to synchronize the time on the Caprica Server computers in a Redundant Caprica Server System.

To set NTP servers for the chronyd command

1. In the **Caprica Cockpit** tree view, click **NTP**.

   The **NTP Config** web page opens.



2. In the **NTP Server 1** box, enter the IP address or hostname of an NTP server.

3. If required, enter the IP address or hostname of an NTP server in the **NTP Server 2**, **NTP Server 2**, and **NTP Server 2** boxes.
4. Click **Apply**.
5. Repeat step **1** to step **4** on configure each Caprica Server computer in your Redundant Caprica Server System with the same NTP servers.

Cabling the Caprica Server

How you cable your Redundant Caprica System depends on whether your Caprica Servers run on a separate computer or in the Hyper-V virtualization layer of an OverDrive Server computer.

Separate Caprica Server Computers

When the Caprica Servers in your Redundant Caprica System run on separate computers, cabling includes the following connections:

- Caprica Server A to the same network as the OverDrive Server, switcher frame, and devices.
- Caprica Server B to the same network as the OverDrive Server, switcher frame, and devices.
- Caprica Server A NIC 2 to Caprica Server B NIC 2.

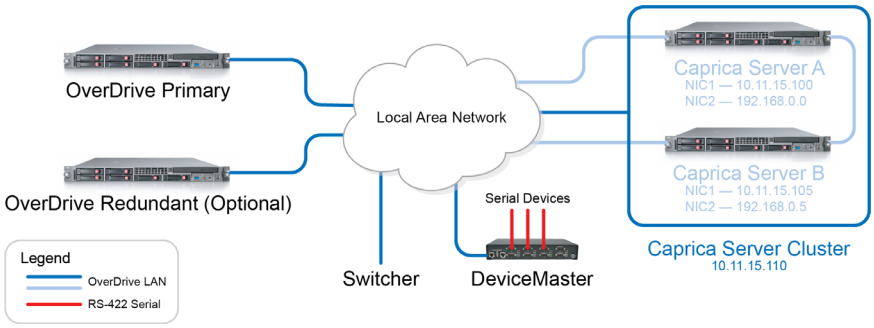


Figure 5.3 Caprica Server Separate Computer Cabling

To cable Caprica Server computers in a Redundant Caprica Server System

1. Plug an Ethernet cable from your Local Area Network into the **Ethernet port 1** on the back of the **Caprica Server A**.
2. Plug an Ethernet cable from your Local Area Network into the **Ethernet port 1** on the back of the **Caprica Server B**.
3. Plug one end of an Ethernet cable into the **Ethernet port 2** on the back of the **Caprica Server A**.
4. Plug the other end of the Ethernet cable connected to Caprica Server A into the **Ethernet port 2** on the back of the **Caprica Server B**.

Hyper-V

A Caprica Server running in Hyper-V on the OverDrive Server computer uses the OverDrive Server computer NICs to communicate with OverDrive System components.

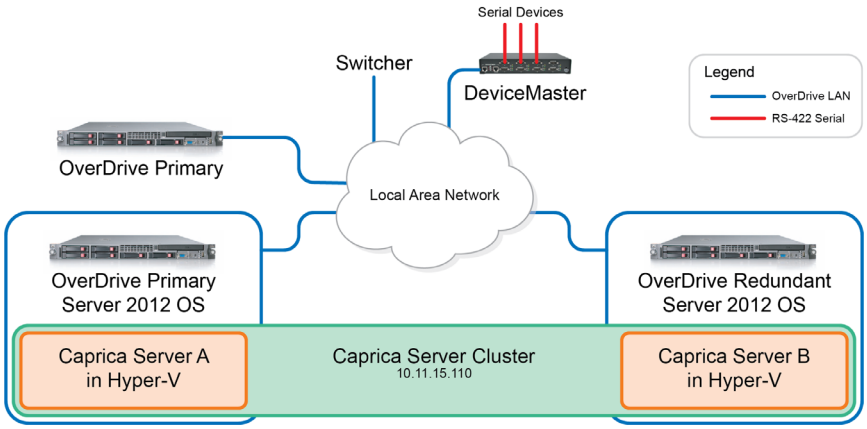


Figure 5.4 Caprica Redundant Server System - Virtual

Setting Up the Caprica Server Cluster

After setting up the Caprica Server A and Caprica Server B computers with the same version of Caprica Server and the required networks settings, you can form a cluster with two computers. A cluster enables the two Caprica Server computers to share a single IP address and hostname to communicate with the OverDrive Server.

Only one Caprica Server is active at a time in the OverDrive system. If the active Caprica Server falters, the other Caprica Server in the Caprica Server cluster automatically takes over from the faltering Caprica server to maintain operation of the OverDrive system.

Caprica Server A Secure Communication Setup

The two Caprica Servers in a cluster use Secure Shell (ssh) to securely communicate with each other.

To set up ssh for Caprica Server A

1. Log on to the **Caprica Server A** computer as the **caprica** user:
2. Open a **Terminal** window.
3. At the prompt in the **Terminal** window, enter the following command to become the super user:

   ```
   sudo su -
   ```

4. At the prompt in the **Terminal** window, enter the following command change into the `/root/.ssh/` folder:

   ```
   cd /root/.ssh/
   ```

5. At the prompt in the **Terminal** window, enter the following command generate an ssh key:

   ```
   ssh-keygen
   ```

6. Press **Return** at the following prompt in the **Terminal** window:

   ```
   Enter file in which to save the key (/root/.ssh/id_rsa):
   ```

7. Press **Return** at the following prompt in the **Terminal** window to not set a passphrase for the ssh key:

   ```
   Enter passphrase (empty for no passphrase):
   ```

✶ Do not set a passphrase for the ssh key, only press **Return** when prompted for an ssh key passphrase.

8. Press **Return** at the following prompt in the **Terminal** window:

   ```
   Enter same passphrase again:
   ```

9. At the prompt in the **Terminal** window, enter the following command view the **id_rsa.pub** value:

   ```
   cat id_rsa.pub
   ```

   The **Terminal** window displays the **id_rsa.pub** value, for example:

   ```
   ssh-rsa
   AAAAB3NzaC1yc2EAAAADAQABAAABAQCzarhel4Qf5iuIfVMgsvKzAxPheOSf6rJEgXZs840A2Tkq5FAknN
   Yg1v
   +LN2lokQmxYBBgbKGtiBcNNsEHY8hsKtoo+bBjiSE7D7kgX6Vd3RCVORXcsHs4EjFSqYX/FvnU8rXvrR7y
   l/z+36j1n2uKV7emvFnhZuY7U59PJswl7t3qYyau8qJQlZ7upt03CFG3gDoL+I90FNuWxCnGir8fUPfk3x
   zXkvkEx4qsVrPxyq5+AeyImhluWexAQo7ceFZU6hGtULPEBF7Weo7DX+o6l1JrzSZHHg
   ```

10. Copy the displayed **id_rsa.pub** value.

11. Use **Cockpit** to add the generated ssh key to the **Caprica Server B** computer **root** user as follows:

    a. Use a web browser to open **Caprica Cockpit** on **Server B**.

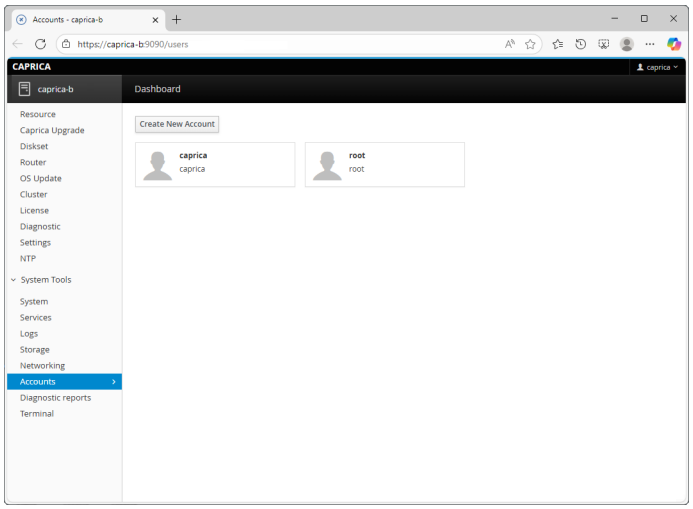
    Caprica Cockpit opens for **Caprica Server B**.

    b. In the tree view, click **System Tools**.

    The **System Tools** node expands.

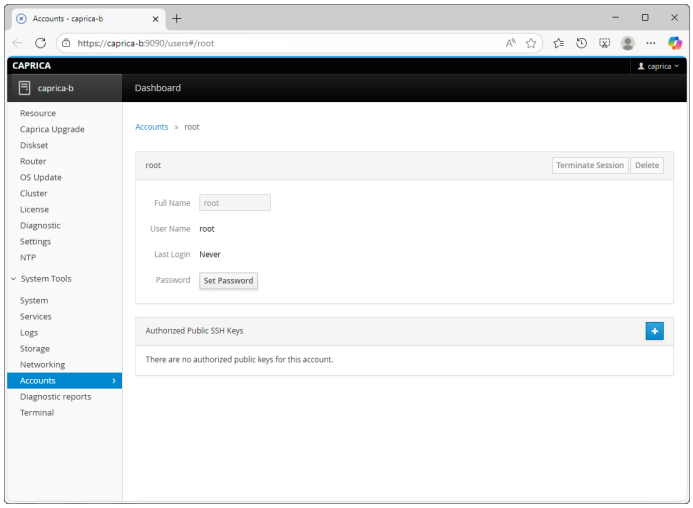
    c. In the **System Tools** node, click **Accounts**.

    The **Accounts** web page opens.



d. Click the **root** account.

The **Accounts >> root** web page opens.



e. In the title bar of the **Authorized Public SSH Keys** section, click **Add**.

The **Add public key** dialog box opens.

12. Pasted the copied **id_rsa.pub** value in the **Add public key** dialog box.

13. Click **Add key**.

The **Add public key** dialog box closes and Cockpit adds the generated ssh key to the **Caprica Server B** computer **root** user.

You can also manually paste the copied **id_rsa.pub** value in the `authorized_keys` file in the /root/.ssh/ directory on the **Caprica Server B** computer.

14. Close **Cockpit**.

15. In the open **Terminal** window on the **Caprica Server A** computer, complete the following steps to initialize the SSH handshake between the **Caprica Server A** and **Caprica Server B** computers:

a. At the prompt in the **Terminal** window, enter the following command to become the super user:

```
sudo su -
```

b. At the prompt in the **Terminal** window, enter the following command to open an SSH connection to the **Caprica Server B** computer:

```
ssh root@<Caprica_Server_B_NIC_1>
```

Where `<Caprica_Server_B_NIC_1>` is the IP address of the **Caprica Server B** computer NIC 1, for example: `10.11.15.105`.

c. At the **Are you sure you want to continue connecting (yes/no)?** prompt, enter `yes`.

Caprica Server B Secure Communication Setup

The two Caprica Servers in a cluster use Secure Shell (ssh) to securely communicate with each other.

To set up ssh for Caprica Server B

1. Log on to the **Caprica Server B** computer as the **caprica** user:
2. Open a **Terminal** window.
3. At the prompt in the **Terminal** window, enter the following command to become the super user:

   ```
   sudo su -
   ```

4. At the prompt in the **Terminal** window, enter the following command change into the `/root/.ssh/` folder:

   ```
   cd /root/.ssh/
   ```

5. At the prompt in the **Terminal** window, enter the following command generate an ssh key:

   ```
   ssh-keygen
   ```

6. Press **Return** at the following prompt in the **Terminal** window:

   ```
   Enter file in which to save the key (/root/.ssh/id_rsa):
   ```

7. Press **Return** at the following prompt in the **Terminal** window to not set a passphrase for the ssh key:

   ```
   Enter passphrase (empty for no passphrase):
   ```

✶ Do not set a passphrase for the ssh key, only press **Return** when prompted for an ssh key passphrase.

8. Press **Return** at the following prompt in the **Terminal** window:

   ```
   Enter same passphrase again:
   ```

9. At the prompt in the **Terminal** window, enter the following command view the **id_rsa.pub** value:

   ```
   cat id_rsa.pub
   ```

   The **Terminal** window displays the **id_rsa.pub** value, for example:

   ```
   ssh-rsa
   AAAAB3NzaC1yc2EAAAADAQABAAABAQCzarhel4Qf5iuIfVMgsvKzAxPheOSf6rJEgXZs840A2Tkq5FAknN
   Yg1v
   +LN2lokQmxYBBgbKGtiBcNNsEHY8hsKtoo+bBjiSE7D7kgX6Vd3RCVORXcsHs4EjFSqYX/FvnU8rXvrR7y
   l/z+36j1n2uKV7emvFnhZuY7U59PJswl7t3qYyau8qJQlZ7upt03CFG3gDoL+I90FNuWxCnGir8fUPfk3x
   zXkvkEx4qsVrPxyq5+AeyImhluWexAQo7ceFZU6hGtULPEBF7Weo7DX+o6l1JrzSZHHg
   ```

10. Copy the displayed **id_rsa.pub** value.
11. Use **Cockpit** to add the generated ssh key to the **Caprica Server A** computer **root** user as follows:
    a. Use a web browser to open **Caprica Cockpit** on **Server A**.

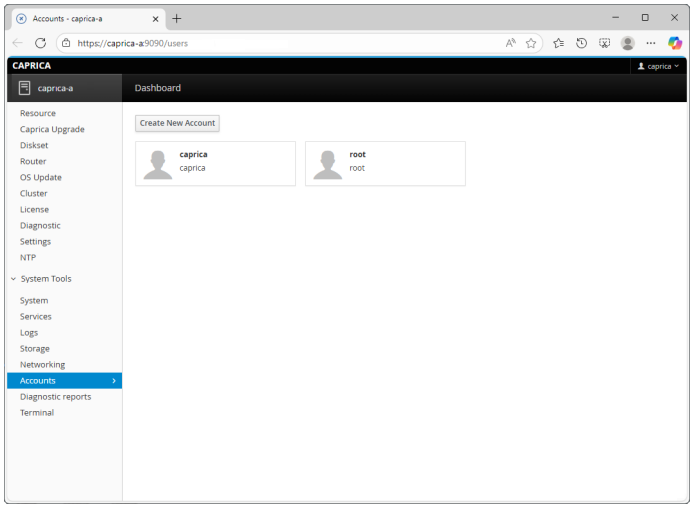
       Caprica Cockpit opens for **Caprica Server A**.

    b. In the tree view, click **System Tools**.

       The **System Tools** node expands.

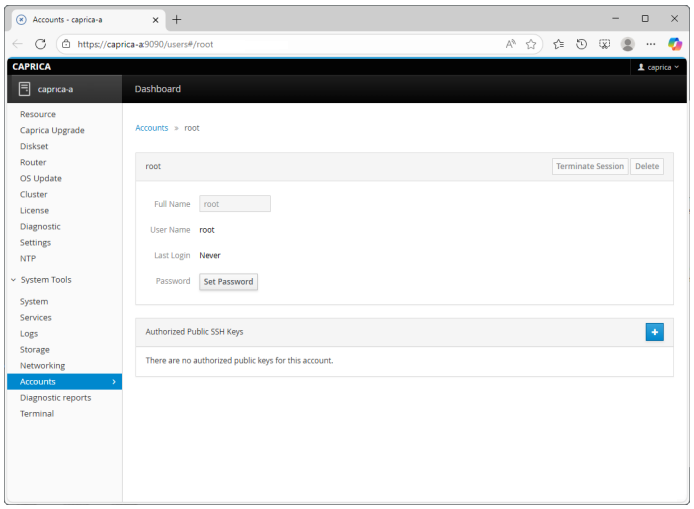
c. In the **System Tools** node, click **Accounts**.

The **Accounts** web page opens.



d. Click the **root** account.

The **Accounts >> root** web page opens.



e. In the title bar of the **Authorized Public SSH Keys** section, click **+** **Add**.

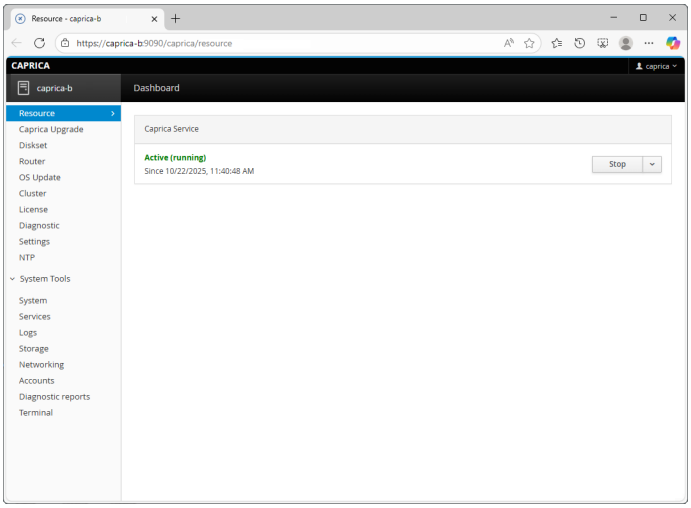
The **Add public key** dialog box opens.

12. Pasted the copied **id_rsa.pub** value in the **Add public key** dialog box.
13. Click **Add key**.

    The **Add public key** dialog box closes and Cockpit adds the generated ssh key to the **Caprica Server A** computer **root** user.

    You can also manually paste the copied **id_rsa.pub** value in the `authorized_keys` file in the /root/.ssh/ directory on the **Caprica Server A** computer.
14. In the tree view, click **Resource**.

    The **Resource** web page opens.



15. In **Caprica Server** section, click **Stop**.

    The Caprica Server B stops.
16. Close **Cockpit**.
17. In the open **Terminal** window on the **Caprica Server B** computer, complete the following steps to initialize the SSH handshake between the **Caprica Server B** and **Caprica Server A** computers:
    a. At the prompt in the **Terminal** window, enter the following command to become the super user:

       ```
       sudo su -
       ```

    b. At the prompt in the **Terminal** window, enter the following command to open an SSH connection to the **Caprica Server B** computer:

       ```
       ssh root@<Caprica_Server_A_NIC_1>
       ```

       Where `<Caprica_Server_A_NIC_1>` is the IP address of the **Caprica Server A** computer NIC 1, for example: `10.11.15.100`.

    c. At the **Are you sure you want to continue connecting (yes/no)?** prompt, enter `yes`.

Cluster Configuration

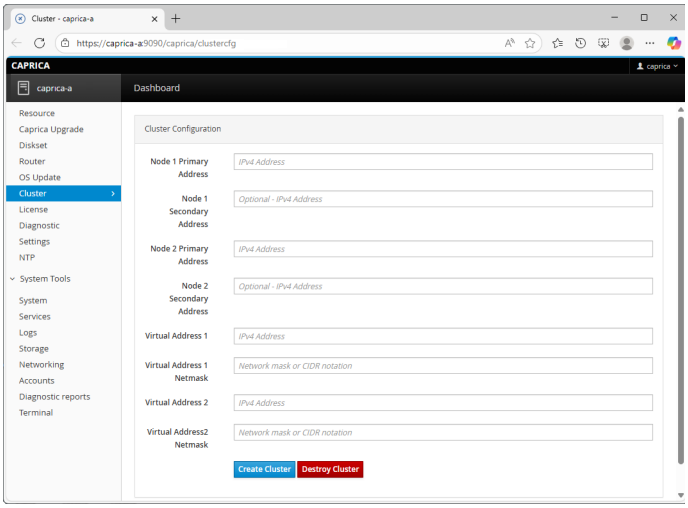
After configuring ssh and setting a password for the hacluster user on the Caprica Server A and Caprica Server B computers, you are ready to configure a cluster for the two Caprica Server computers.

✶ Before you create a Caprica Server cluster the Caprica Service must be running on Caprica Server A and stopped on Caprica Server B.

To configure a cluster for Caprica Server A and Caprica Server B

1. As the **caprica** user on the **Caprica Server A** or the **Caprica Server B** computer, use a web browser to open **Caprica Cockpit**.
2. In the **Caprica Cockpit** tree view, click **Cluster**.

   The **Cluster** web page opens.



3. In the **Node 1 Primary Address** box, enter the IP address of NIC 1 on Caprica Server A.
4. In the **Node 1 Secondary Address** box, enter the IP address of NIC 2 on Caprica Server A. The secondary address for Caprica Server A is an optional setting.
5. In the **Node 2 Primary Address** box, enter the IP address of NIC 1 on Caprica Server B.
6. In the **Node 2 Secondary Address** box, enter the IP address of NIC 2 on Caprica Server B. The secondary address for Caprica Server B is an optional setting.
7. In the **Virtual Address 1** box, enter the IP address of the cluster.
8. In the **Virtual Address Netmask 1**, enter the Network mask or Classless Inter-Domain Routing (CIDR) notation for your network.
9. In the **Virtual Address 2** box, enter the secondary IP address of the cluster.
10. In the **Virtual Address Netmask 2**, enter the Network mask or Classless Inter-Domain Routing (CIDR) notation for your network.
11. On your Caprica Servers verify the following Caprica Service states:
    - **Caprica Server A** — Running
    - **Caprica Server B** — Stopped
12. Click **Create Cluster**.

    The defined cluster of the **Caprica Server A** and **Caprica Server B** computers initializes and starts running. The OverDrive Server can communicate with Caprica through the IP address set in the **Virtual Address** box.

Managing the Caprica Server Cluster

You can use Caprica Cockpit to select the active Caprica Server and view information about the Caprica Server cluster.

Current Status

You can use Caprica Cockpit to view the current status of a Caprica Server cluster.

To view the status of a Caprica Server cluster

1. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server Cluster>` is the hostname or IP address of the Caprica Server Cluster:

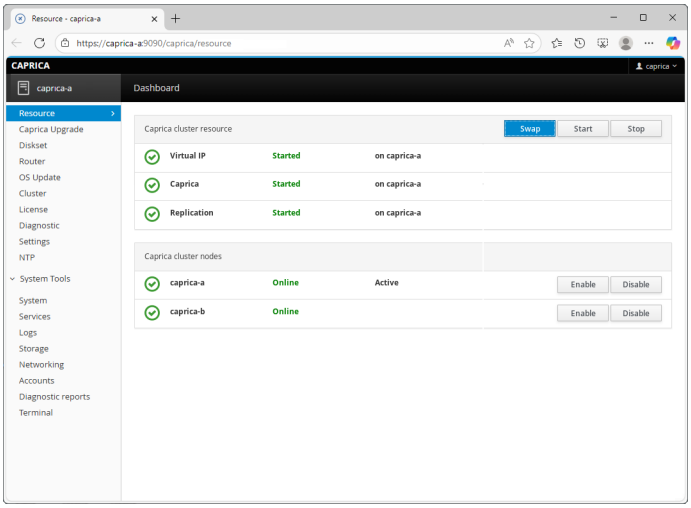
   `http://<Caprica Server Cluster>:9090`

   The **Caprica Maintenance** web page opens.

2. Log in to **Caprica Cockpit** as the **caprica** user.

3. In the **Caprica Cockpit** tree view, click **Resource**.

   The **Resource** web page opens.



4. In **Caprica Cockpit** , use the following sections to view the current status of the Caprica Server cluster:

   - **Caprica cluster resource** — current status of the Caprica Server resource.
   - **Caprica cluster nodes** — current status of individual Caprica Servers in the cluster.

Caprica Server Resource Control

You can use Caprica Cockpit to control the Caprica Server resource and swap Caprica Server resource between the online Caprica Server computers in the Caprica Server cluster.

To control and swap the Caprica Server resource

1. In the **Caprica Cockpit** tree view, click **Resource**.

   The **Resource** web page opens.

2. In the **Caprica cluster resource** section, use the following buttons to control the Caprica Server:

   - **Start** — start the Caprica Server resource
   - **Stop** — stop the Caprica Server resource

3. In the **Caprica cluster resource** section, click **Swap** to swap the Caprica Server resource to the other Caprica Server computer in the Caprica Server cluster.

   The Caprica Server resource starts running on the other Caprica Server computer in the Caprica Server cluster.

Control the Available Caprica Server Nodes in a Caprica Server Cluster

You can use Caprica Cockpit to control the available Caprica Server nodes in a Caprica Server cluster.

✶ Disabling all Caprica Server nodes in a Caprica Server cluster stops the Caprica Server resource.

To control the available Caprica Server nodes

1. In the **Caprica Cockpit** tree view, click **Resource**.

   The **Resource** web page opens.

2. In a **Caprica cluster nodes** section, click the buttons to the right of a Caprica Server node to control the availability of the node:

   - **Enable** — make the Caprica Server node available for the Caprica Server resource
   - **Disable** — remove the Caprica Server node from the Caprica Server

Connecting a Redundant Caprica System to an OverDrive System

To connect a Redundant Caprica System to your OverDrive system, complete the following:

- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Configuring Caprica Communication Settings**" in the ***OverDrive Installation and Configuration Guide***.
- Create a Caprica Switcher device for your switcher. The switchers supported by Caprica are as follows:
  - **Acuity** — refer to the chapter "**Acuity Setup for OverDrive**" on page 6–1.
  - **Ultrix** — refer to the chapter "**Ultrix Acuity Setup for OverDrive**" on page 7–1.
  - **Carbonite** — refer to the chapter "**Carbonite Setup for OverDrive**" on page 8–1.
  - **Carbonite Black** — refer to the chapter "**Carbonite Black Setup for OverDrive**" on page 9–1.
  - **Carbonite Ultra** — refer to the chapter "**Carbonite Ultra Setup for OverDrive**" on page 10–1.
  - **Carbonite Ultra 60** — refer to the chapter "**Carbonite Ultra 60 Setup for OverDrive**" on page 11–1.
  - **Carbonite Code** — refer to the chapter "**Carbonite Code Setup for OverDrive**" on page 12–1.
  - **Carbonite HyperMax** — refer to the chapter "**Carbonite HyperMax Setup for OverDrive**" on page 13–1.
  - **Ultrix Carbonite** — refer to the chapter "**Ultrix Carbonite Setup for OverDrive**" on page 14–1.
  - **Graphite** — refer to the chapter "**Graphite Setup for OverDrive**" on page 15–1.
  - **Graphite CPC** — refer to the chapter "**Graphite CPC Setup for OverDrive**" on page 16–1.
  - **Grass Valley Kayak** — refer to the chapter "**Grass Valley Kayak Setup for OverDrive**" on page 17–1.
  - **Grass Valley Kayenne** — refer to the chapter "**Grass Valley Kayenne Setup for OverDrive**" on page 18–1.
  - **Grass Valley Maverik** — refer to the chapter "**Grass Valley Maverik Setup for OverDrive**" on page 19–1.
  - **Snell Kahuna** — refer to the chapter "**Snell Kahuna Setup for OverDrive**" on page 20–1.
  - **Snell Kula** — refer to the chapter "**Snell Kula Setup for OverDrive**" on page 21–1.
  - **Sony MVS-8000G** — refer to the chapter "**Sony MVS-8000G Setup for OverDrive**" on page 22–11.
  - **Sony XVS-8000** — refer to the chapter "**Sony XVS-8000 Setup for OverDrive**" on page 23–29.
  - **Sony MLS-X1** — refer to the chapter "**Sony MLS-X1 Setup for OverDrive**" on page 24–39.
  - **Viz Vectar Plus** — refer to the chapter "**Viz Vectar Plus Setup for OverDrive**" on page 25–1.

Acuity Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Ross Video Acuity switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Bus Map Rules
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Setting Up Switcher Communications
- Configuring an Acuity Switcher Device
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with an Acuity switcher connected to the OverDrive 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 an Acuity switcher fade to and from black.
- In your Acuity switcher bus map you must set a crosspoint button that maps the highest ME to the switcher program out. For example, on a 3 ME switcher you would map ME 3 to PGM A.

Bus Map Rules

The following bus map rules apply to an OverDrive system configured with an Acuity switcher connected to the OverDrive system through a Caprica Server:

- All buses must use the same bus map. On an Acuity switcher, you can use the Periph port extra options to select the specific bus map for the switcher to use.
- Bus maps used with OverDrive must not contain duplicate sources.
- The Program A output of every ME must be mapped in the bus map used by OverDrive.
- If you are using the Utility Bus feature, the Program B output of every ME must be mapped in the bus map used by OverDrive.

Setting Up the OverDrive System

To set up an OverDrive system with an Acuity switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section “**Connecting the OverDrive System**” on page 6–2.
- Configure you Acuity frame to connect to the OverDrive Server.
  Refer to the section “**Setting Up Switcher Communications**” on page 6–4.
- On the Caprica Server, create a Switcher Device for your Acuity switcher.
  Refer to the section “**Configuring an Acuity Switcher Device**” on page 6–6.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section “**Connecting OverDrive to Your Caprica Server**” on page 6–9.

Connecting the OverDrive System

In an OverDrive system, an Acuity switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 6.1**) illustrates the cabling layout of the Acuity switcher connection to an OverDrive system.

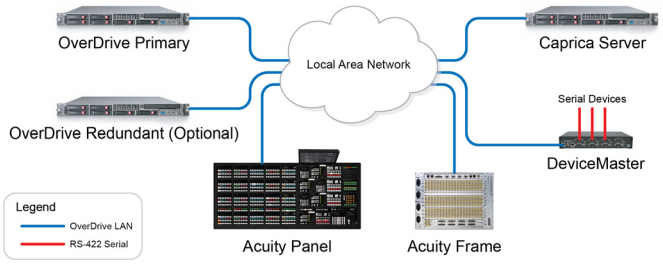


Figure 6.1 OverDrive System Connection to an Acuity Switcher

✶ In an Acuity MultiPanel configuration, OverDrive is only able to interface with the Master Panel. OverDrive cannot interface with the Satellite panels in an Acuity MultiPanel configuration.

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- Acuity frame and panel

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

To connect an Acuity switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 6.2**) illustrates the overall cabling layout of an OverDrive system with an Acuity switcher.

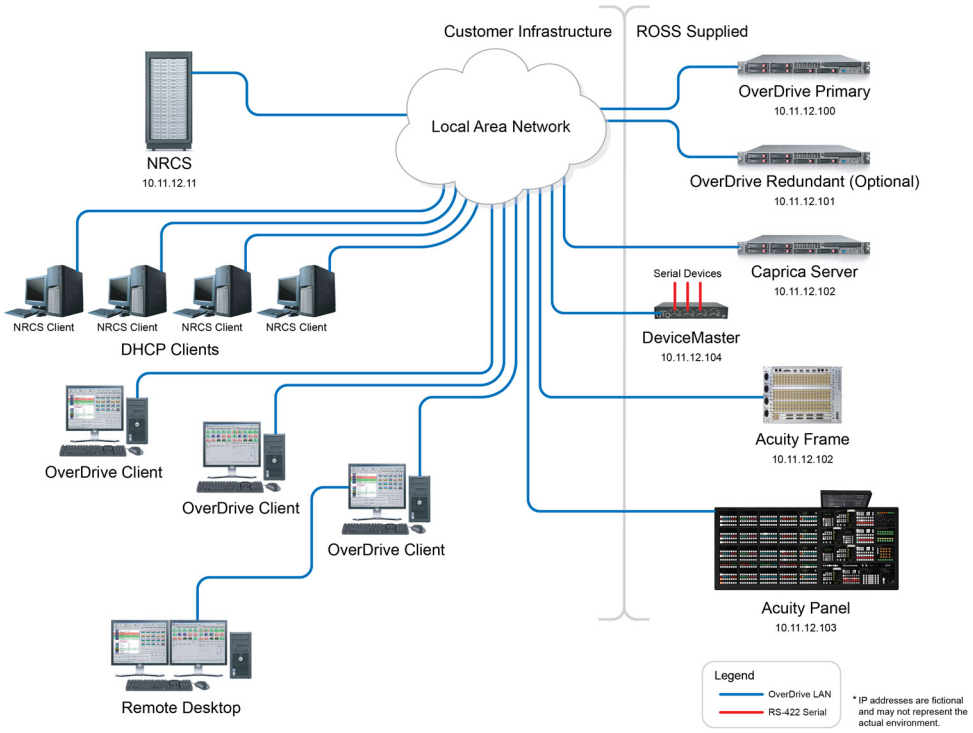


Figure 6.2 OverDrive System with an Acuity Switcher

OverDrive Server Peripheral Connections

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

✶ USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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.

Setting Up Switcher Communications

On your Acuity switcher you must assign a Peripheral port and start communications to enable OverDrive to control your Acuity switcher.

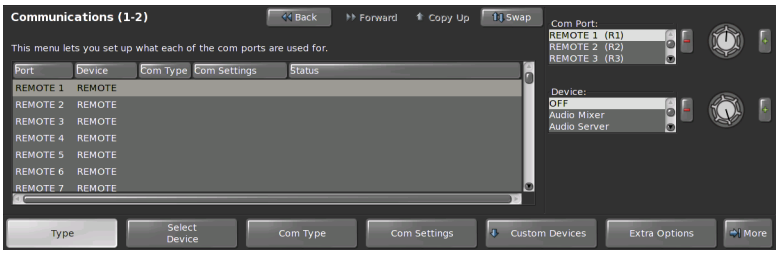
Peripheral Port

OverDrive communicates with your Acuity switcher over a Peripheral port.

To configure a Peripheral port to communicate with OverDrive

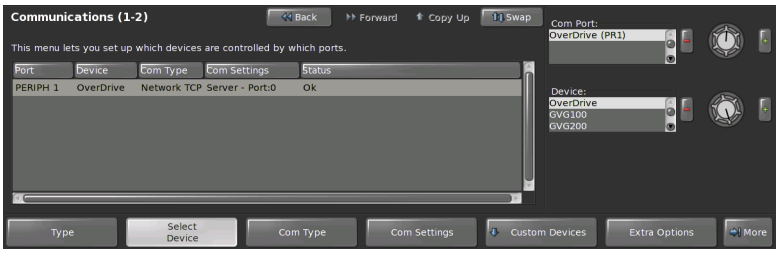
1. Navigate to the **Communications Menu (1-2)** by pressing **Home** > **Setup** > **Installation** > **Com Setup**.
2. Configure the Peripheral port 1 port for OverDrive communication as follows:
   a. Press **Type**.

      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 OverDrive device to Peripheral port 1 as follows:
   a. Press **Select Device**.

      The **Select Device** page opens.

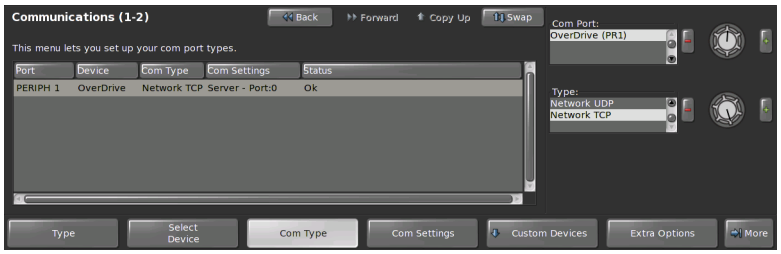


   b. Use the **Com Port** knob to select **PERIPH 1 (PR1)**.
   c. Use the **Device** knob to select **OverDrive**.

4. Select the type of communication that is used to communicate with OverDrive as follows:

   a. Press **Com Type**.

      The **Com Type** page opens.



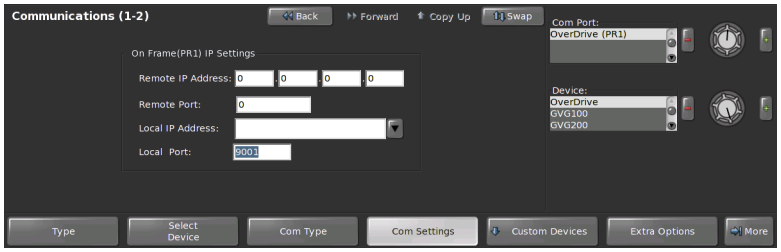
   b. Use the **Com Port** knob to select **PERIPH 1 (PR1)**.

   c. Use the **Type** knob to select **Network TCP**.

5. Set the communication settings 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 OverDrive to control your Acuity switcher.

To enable OverDrive 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

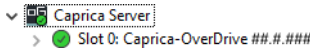
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with an Acuity switcher in an OverDrive system.

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**.

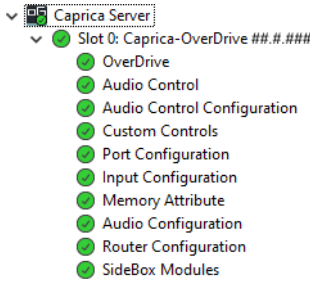
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



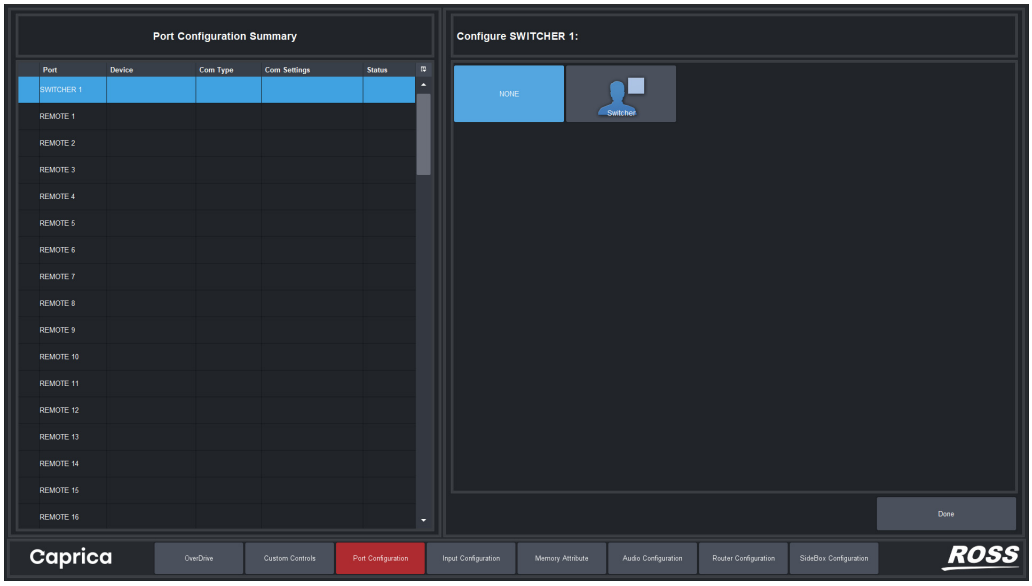
5. Double-click the **Port Configuration** node.

   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.

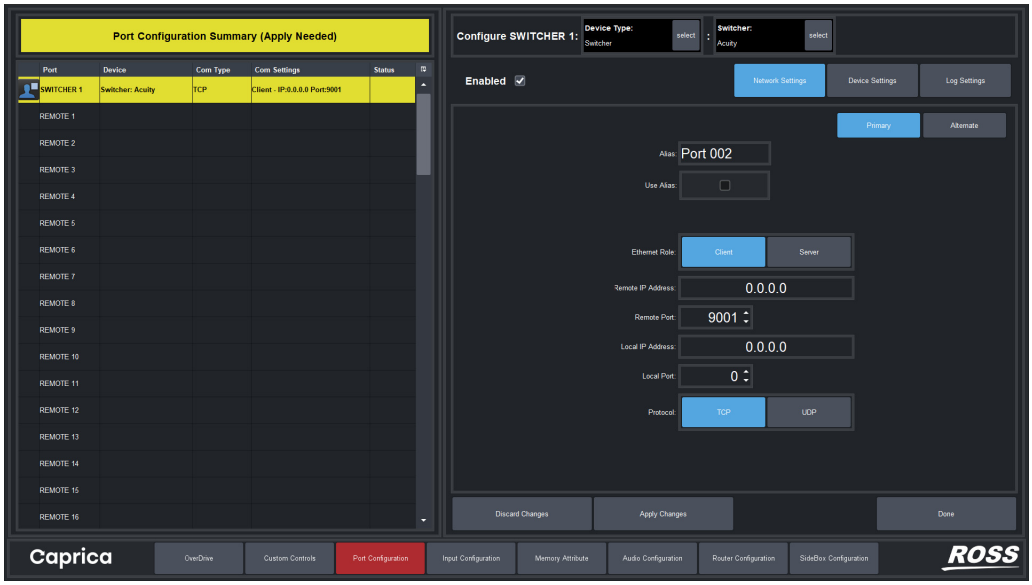


8. In the **Configure SWITCHER1** panel, click **Switcher**.

   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 OverDrive 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 OverDrive 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`.

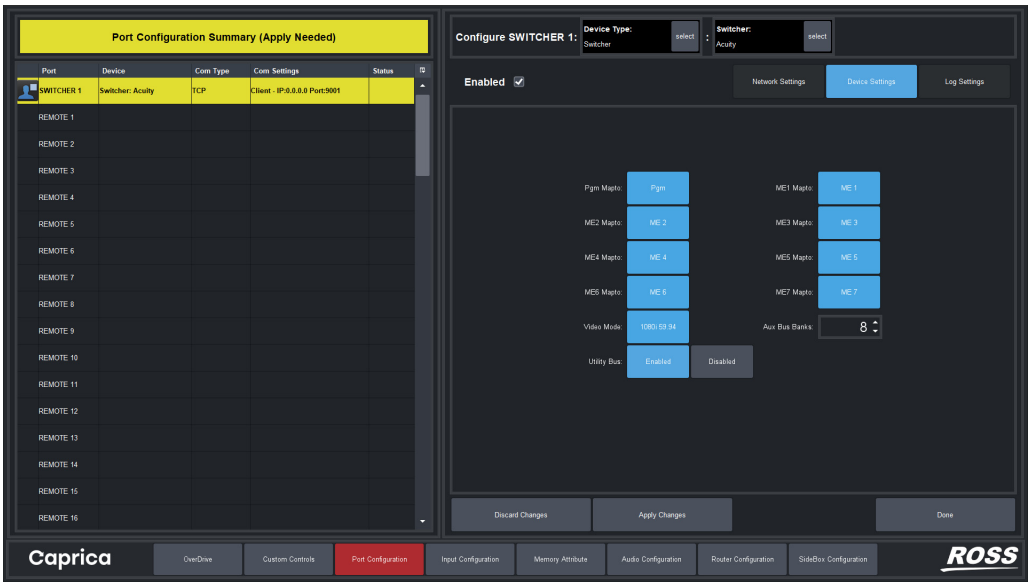
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Ultrix Acuity Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Ross Video Ultrix Acuity switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Bus Map Rules
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Setting Up Switcher Communications
- Configuring an Ultrix Acuity Switcher Device
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with an Ultrix Acuity switcher connected to the OverDrive 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 an Ultrix Acuity switcher fade to and from black.
- In your Ultrix Acuity switcher bus map you must set a crosspoint button that maps the highest ME to the switcher program out. For example, on a 3 ME switcher you would map ME 3 to PGM A.

Bus Map Rules

The following bus map rules apply to an OverDrive system configured with an Ultrix Acuity switcher connected to the OverDrive system through a Caprica Server:

- All buses must use the same bus map. On an Ultrix Acuity switcher, you can use the Periph port extra options to select the specific bus map for the switcher to use.
- Bus maps used with OverDrive must not contain duplicate sources.
- The Program A output of every ME must be mapped in the bus map used by OverDrive.
- If you are using the Utility Bus feature, the Program B output of every ME must be mapped in the bus map used by OverDrive.

Setting Up the OverDrive System

To set up an OverDrive system with an Ultrix Acuity switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 7–2.
- Configure you Ultrix Acuity frame to connect to the OverDrive Server.
  Refer to the section "**Setting Up Switcher Communications**" on page 7–4.
- 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 7–6.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 7–9.

Connecting the OverDrive System

In an OverDrive system, an Ultrix Acuity switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 7.1**) illustrates the cabling layout of the Ultrix Acuity switcher connection to an OverDrive system.

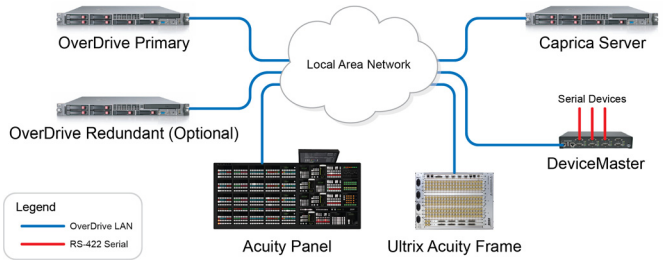


Figure 7.1 OverDrive System Connection to an Ultrix Acuity Switcher

✶ In an Ultrix Acuity MultiPanel configuration, OverDrive is only able to interface with the Master Panel. OverDrive cannot interface with the Satellite panels in an Ultrix Acuity MultiPanel configuration.

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- Ultrix Acuity frame and panel

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

To connect an Ultrix Acuity switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 7.2**) illustrates the overall cabling layout of an OverDrive system with an Ultrix Acuity switcher.

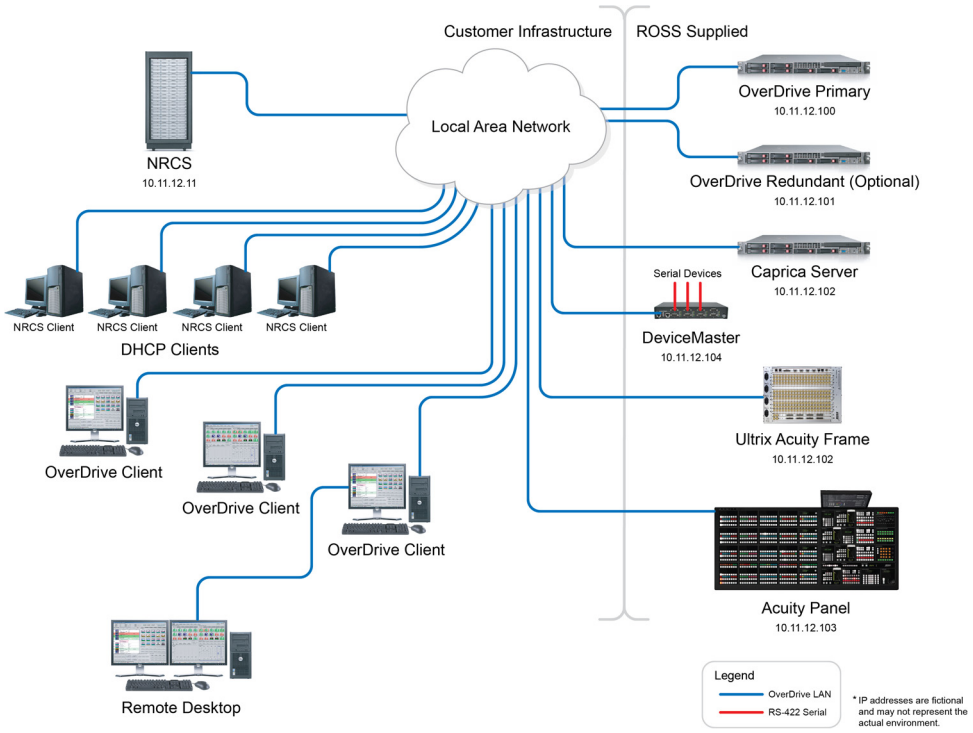


Figure 7.2 OverDrive System with an Ultrix Acuity Switcher

OverDrive Server Peripheral Connections

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

✶ USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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.

Setting Up Switcher Communications

On your Ultrix Acuity switcher you must assign a Peripheral port and start communications to enable OverDrive to control your Ultrix Acuity switcher.

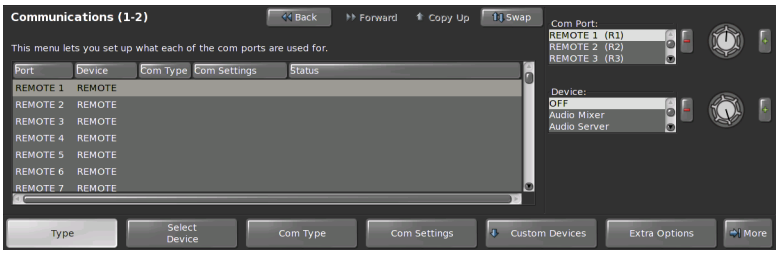
Peripheral Port

OverDrive communicates with your Ultrix Acuity switcher over a Peripheral port.

To configure a Peripheral port to communicate with OverDrive

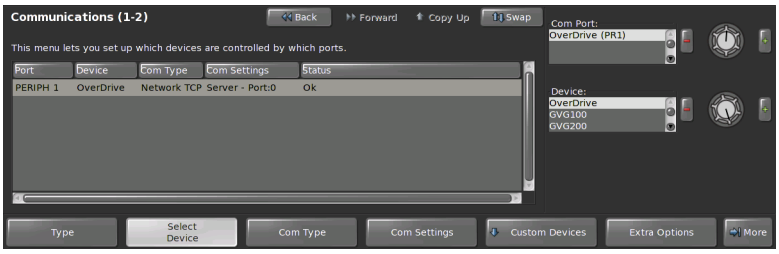
1. Navigate to the **Communications Menu (1-2)** by pressing **Home** > **Setup** > **Installation** > **Com Setup**.
2. Configure the Peripheral port for OverDrive communication as follows:
   a. Press **Type**.

      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 OverDrive device to the selected Frame net port as follows:
   a. Press **Select Device**.

      The **Select Device** page opens.

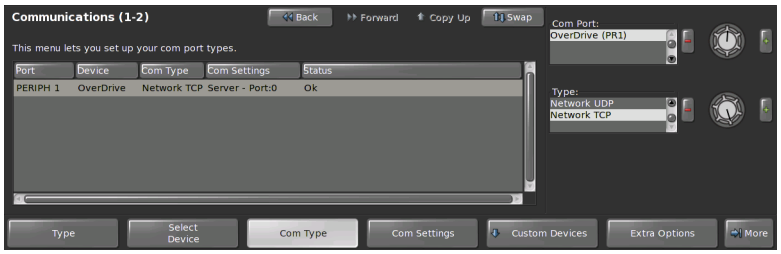


   b. Use the **Com Port** knob to select your Frame net port.
   c. Use the **Device** knob to select OverDrive.

4. Select the type of communication that is used to communicate with OverDrive as follows:

   a. Press **Com Type**.

      The **Com Type** page opens.



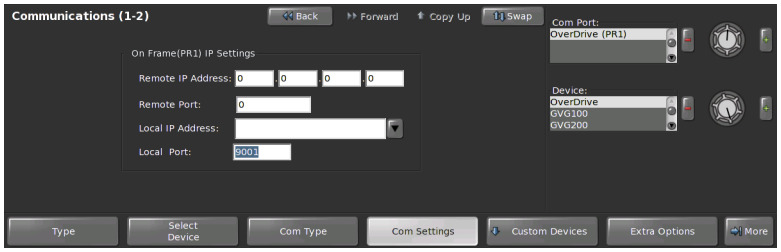
   b. Use the **Com Port** knob to select your Frame net port.

   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 OverDrive to control your Ultrix Acuity switcher.

To enable OverDrive 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

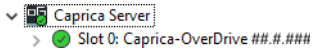
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with an Ultrix Acuity switcher in an OverDrive system.

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**.

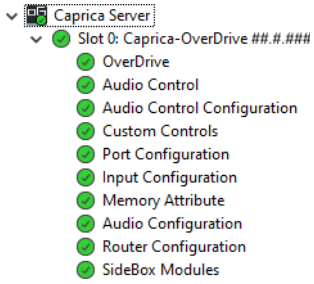
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



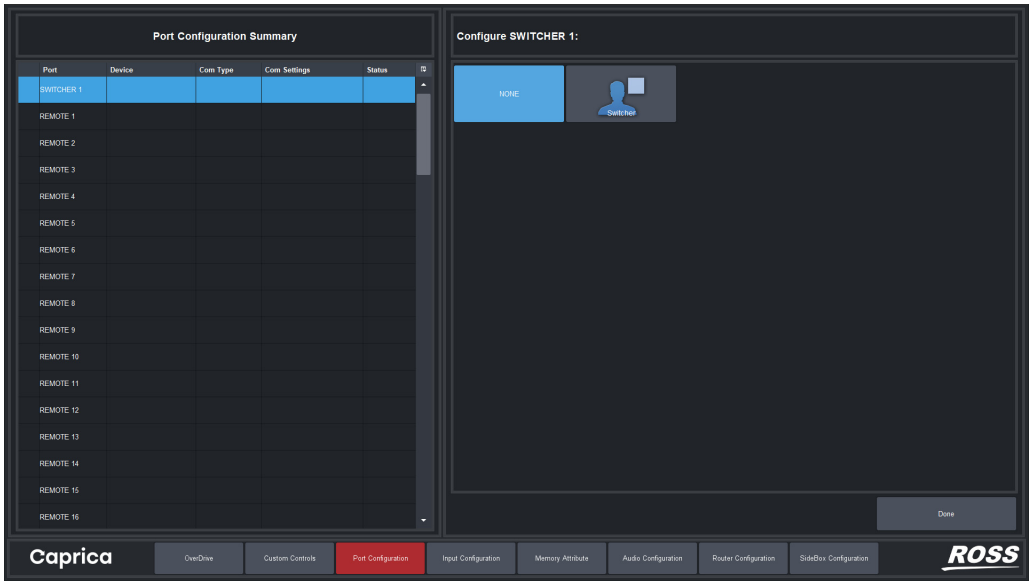
5. Double-click the **Port Configuration** node.

   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.

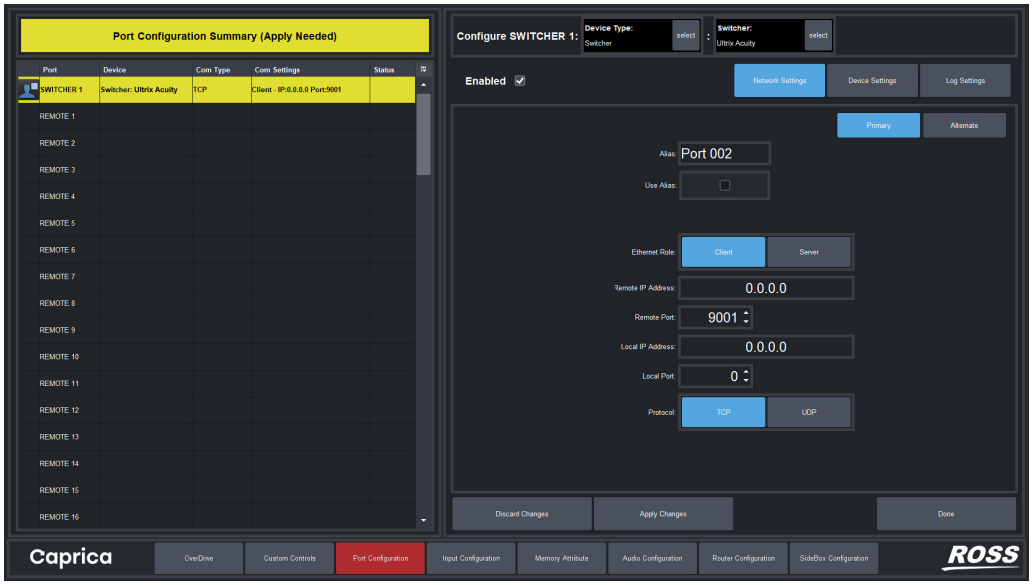


8. In the **Configure SWITCHER1** panel, click **Switcher**.

   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 OverDrive 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 OverDrive 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`.

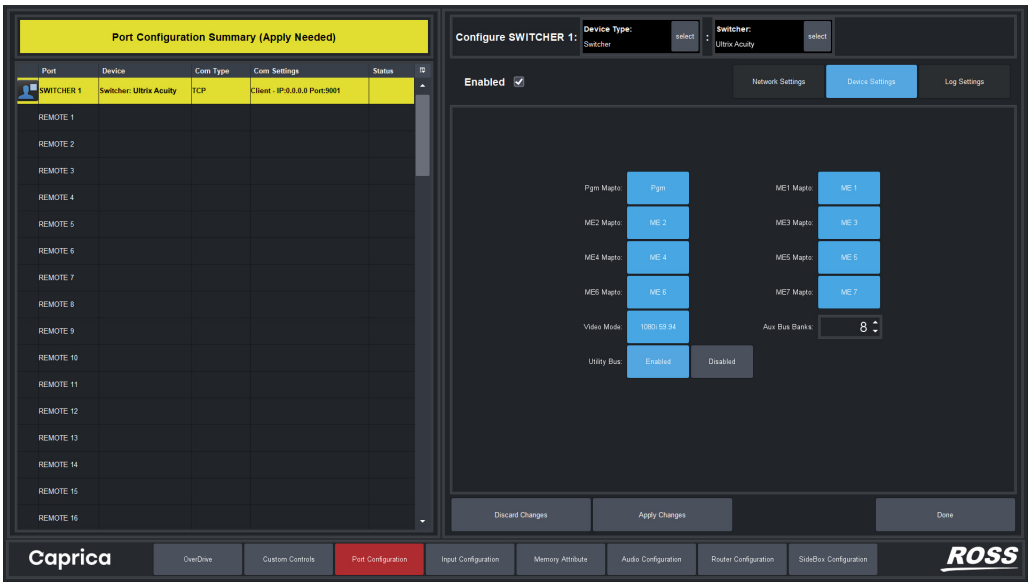
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Carbonite Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Carbonite Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Carbonite switcher connected to the OverDrive 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 switcher fade to and from black.
- You cannot fully control your production system through the Carbonite panel or DashBoard UI.
- Change the Transition setting on your Carbonite switcher to Reset since the control protocol can only set the duration, not transition type.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 8–2.
- 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 8–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 8–7.

Connecting the OverDrive System

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

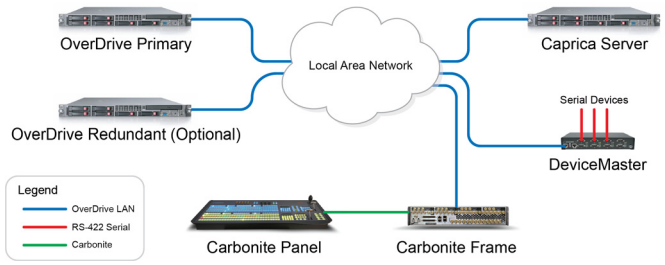


Figure 8.1 OverDrive System Connection to a Carbonite Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Frame and Panel

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

To connect a Carbonite switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 8.2**) illustrates the overall cabling layout of an OverDrive system with a Carbonite switcher.

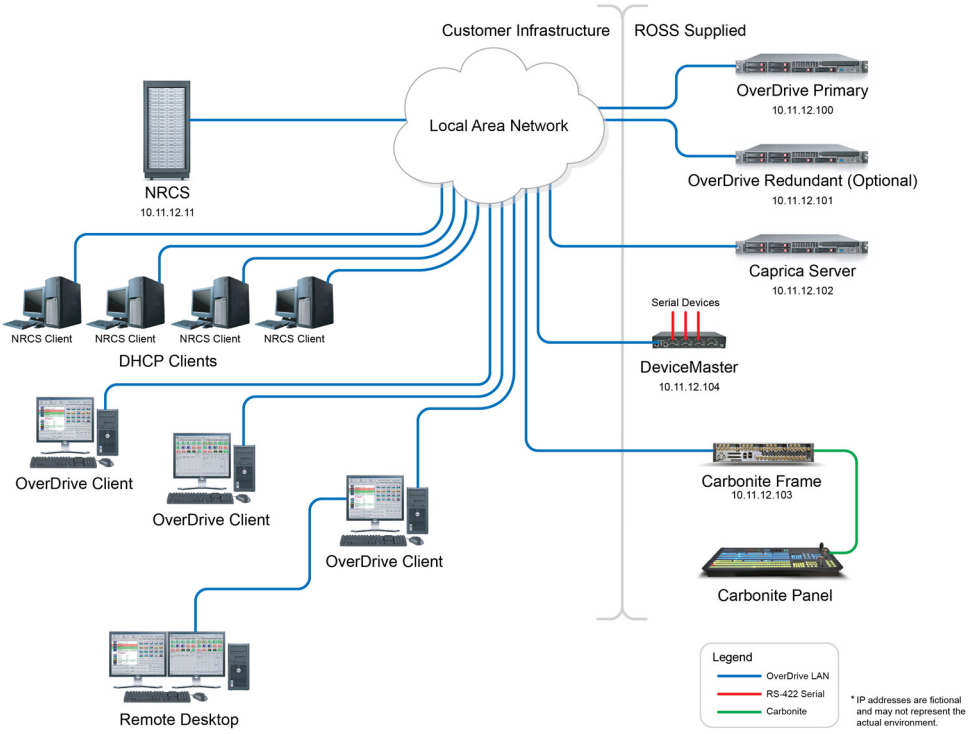


Figure 8.2 OverDrive System with a Carbonite Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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

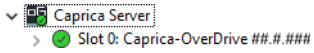
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite switcher in an OverDrive system.

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**.

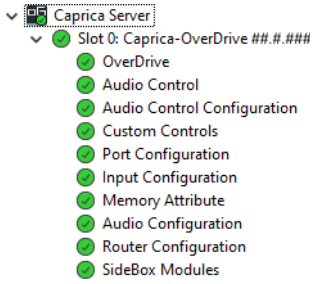
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

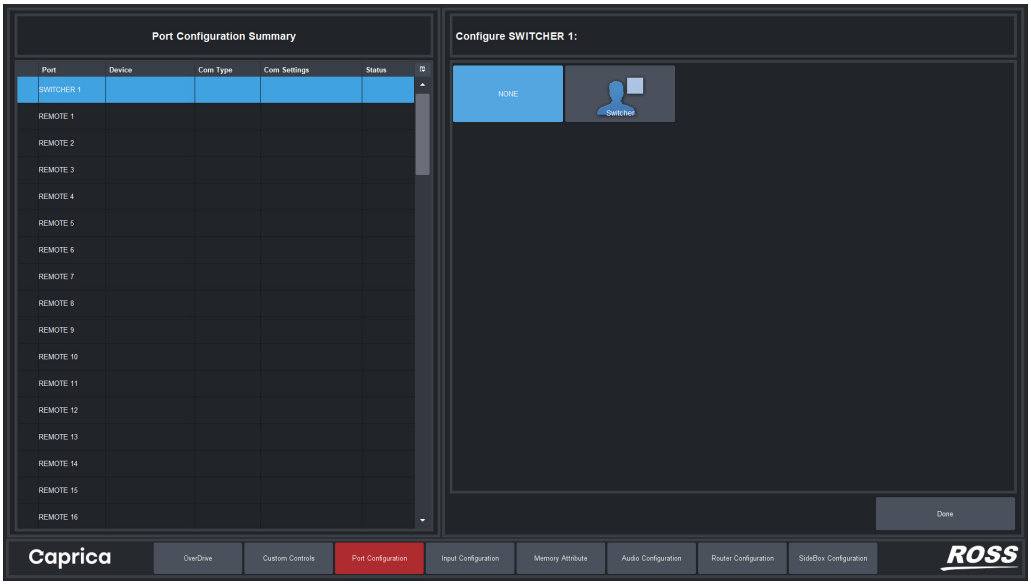


5. Double-click the **Port Configuration** node.

   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.



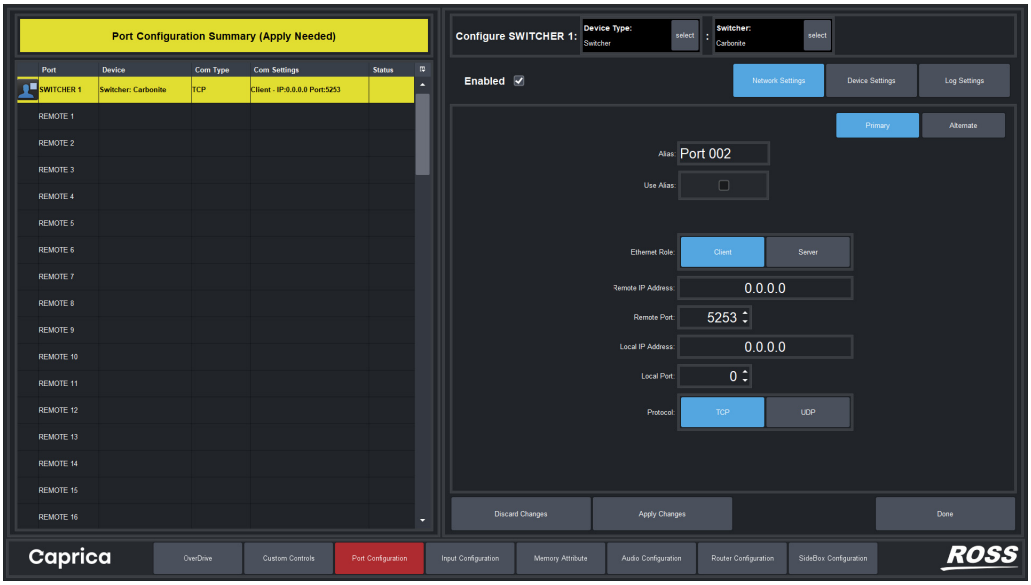
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite switcher in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

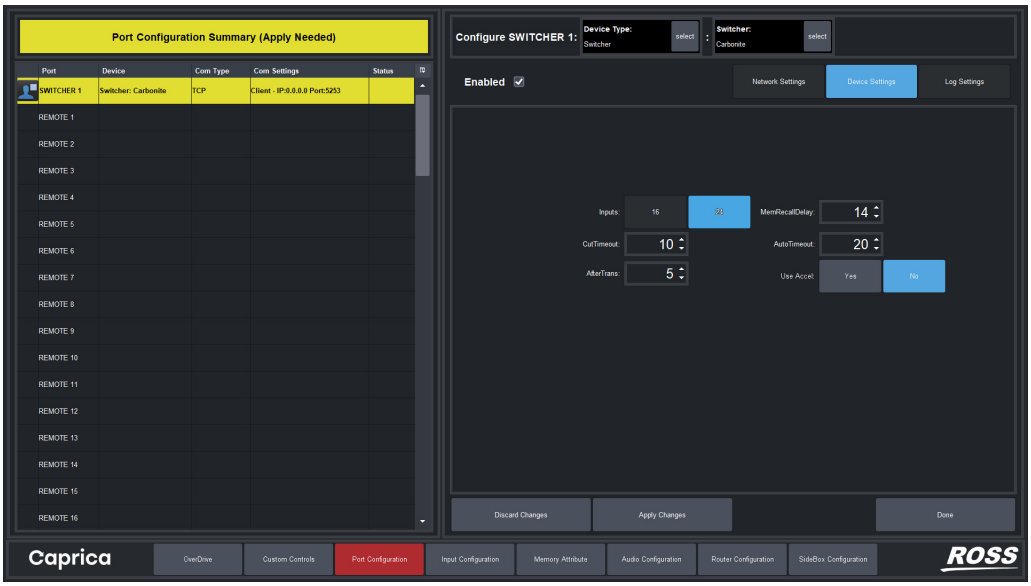
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Carbonite Black Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Carbonite Black Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Carbonite Black switcher connected to the OverDrive 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 Black switcher fade to and from black.
- You cannot fully control your production system through the Carbonite Black panel or DashBoard UI.
- Change the Transition setting on your Carbonite Black switcher to Reset since the control protocol can only set the duration, not transition type.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" 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 9–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 9–7.

Connecting the OverDrive System

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

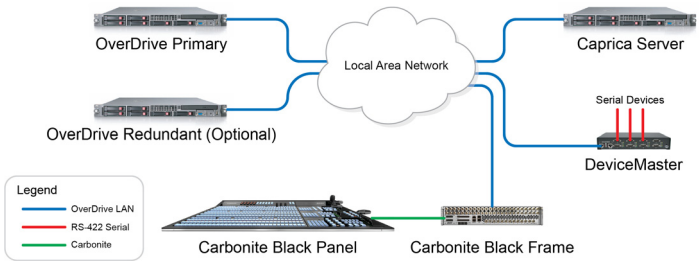


Figure 9.1 OverDrive System Connection to a Carbonite Black Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Black Frame and Panel

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

To connect a Carbonite Black switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 9.2**) illustrates the overall cabling layout of an OverDrive system with a Carbonite Black switcher.

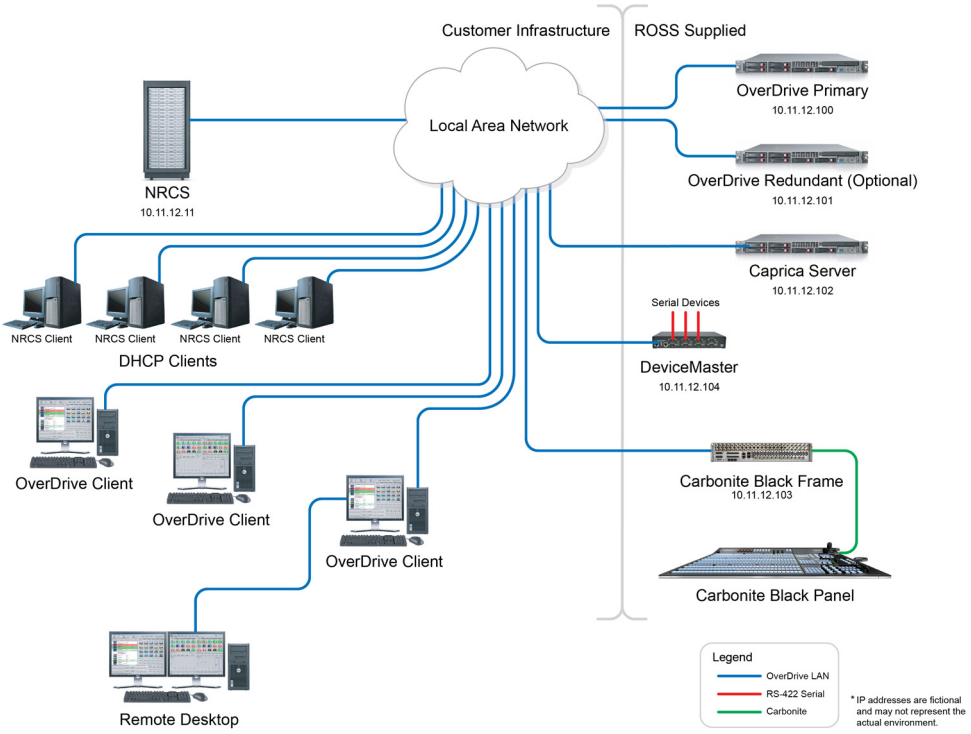


Figure 9.2 OverDrive System with a Carbonite Black Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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

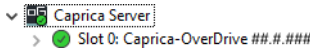
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Black switcher in an OverDrive system.

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**.

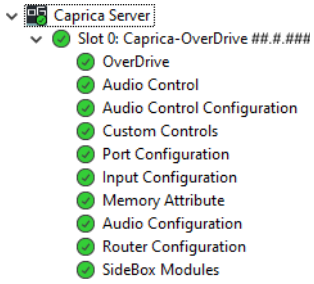
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

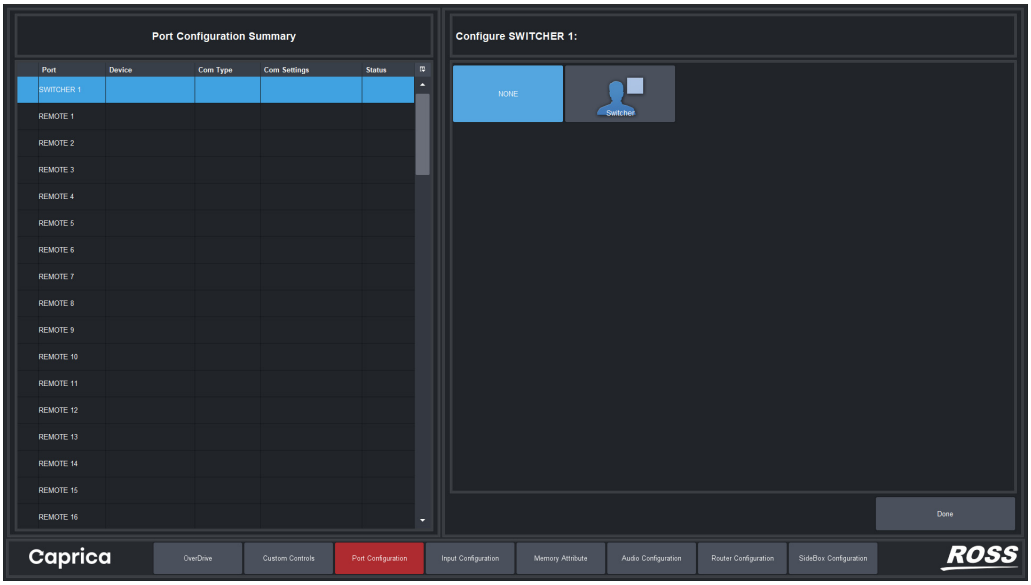


5. Double-click the **Port Configuration** node.

   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.



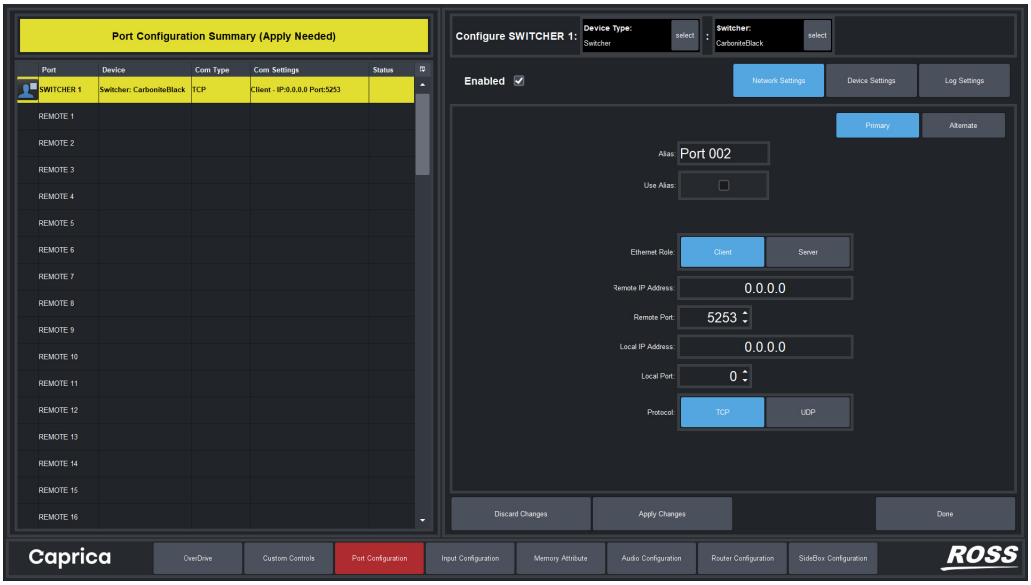
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Black switcher in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

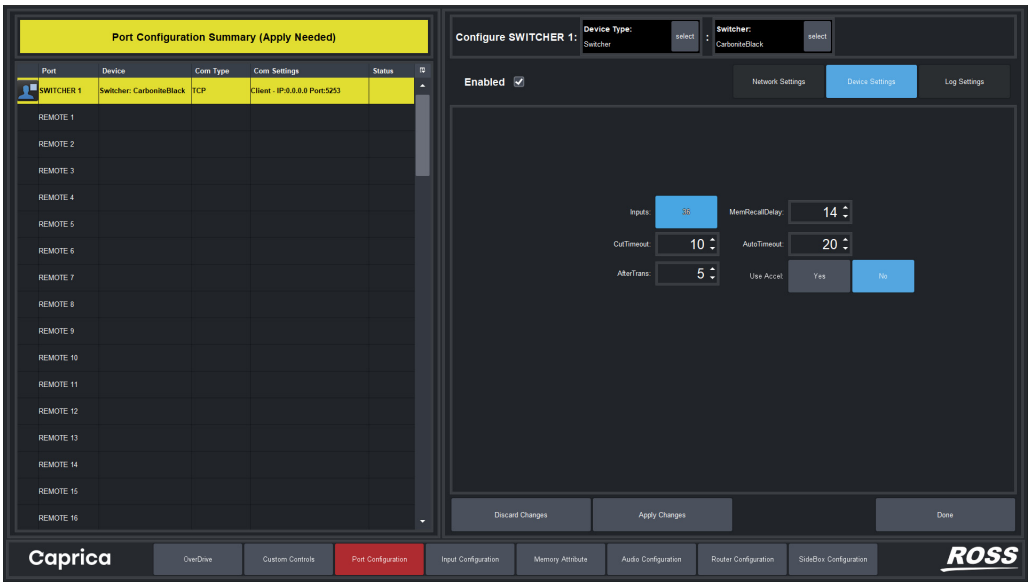
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Carbonite Ultra Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Carbonite Ultra Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Carbonite Ultra switcher connected to the OverDrive 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 Ultra switcher fade to and from black.
- You cannot fully control your production system through the Carbonite Ultra 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 OverDrive taking multi-layered shots on-air.
- Change the Transition setting on your Carbonite Ultra switcher to Reset since the control protocol can only set the duration, not transition type.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 10–2.
- 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 10–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 10–8.

Connecting the OverDrive System

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

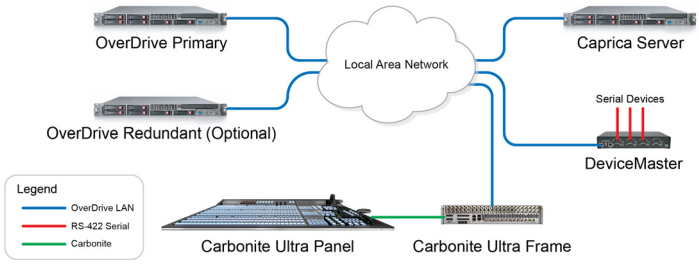


Figure 10.1 OverDrive System Connection to a Carbonite Ultra Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Ultra Frame and Panel

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

To connect a Carbonite Ultra switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 10.2**) illustrates the overall cabling layout of an OverDrive system with a Carbonite Ultra switcher.

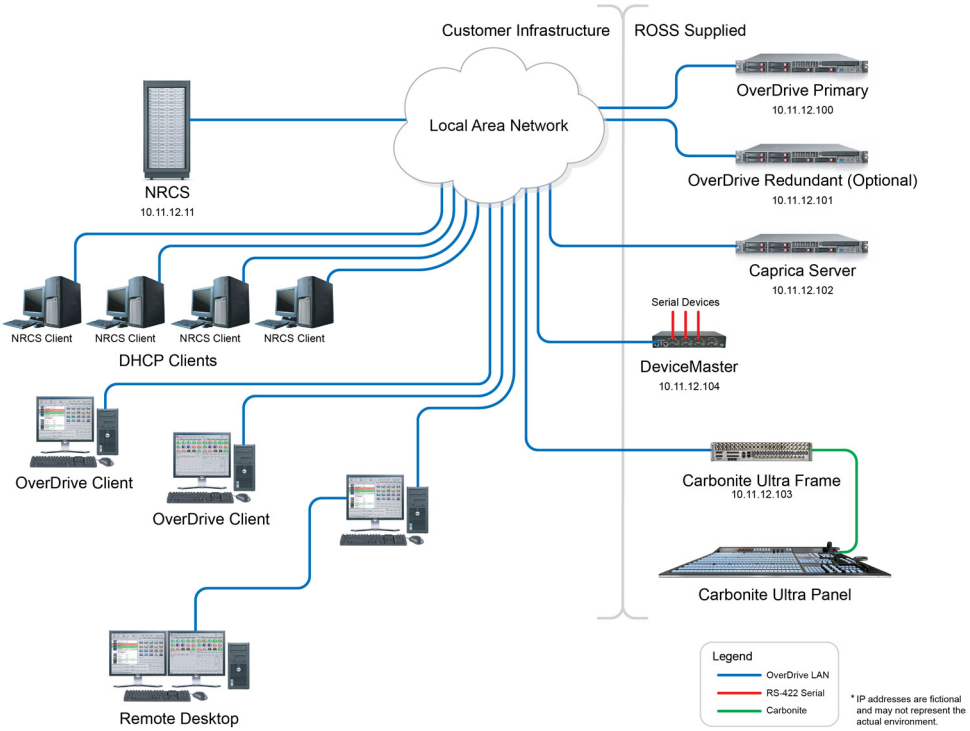


Figure 10.2 OverDrive System with a Carbonite Ultra Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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

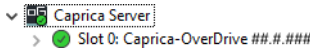
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Ultra switcher in an OverDrive system.

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**.

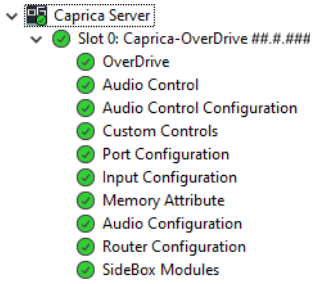
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

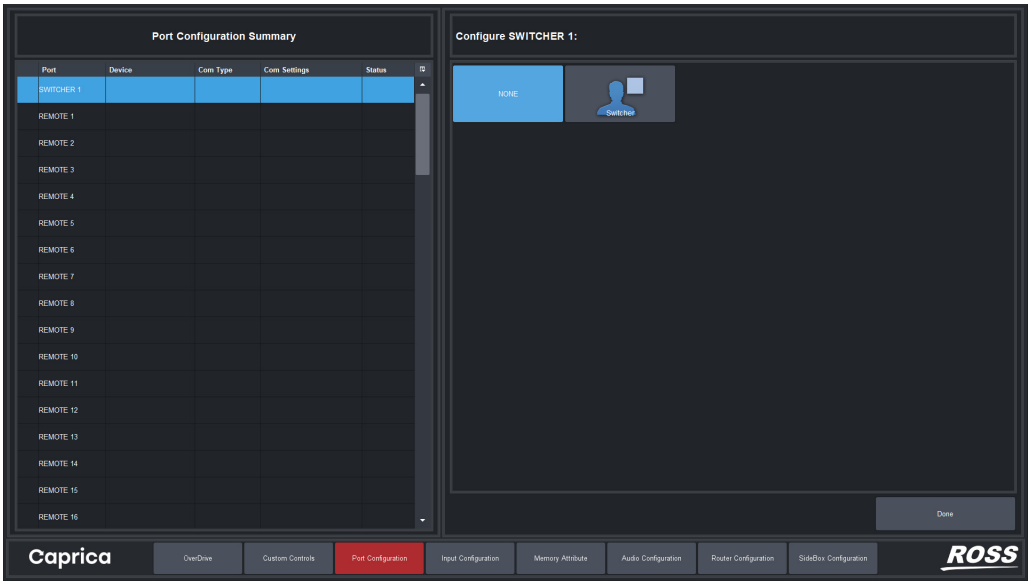


5. Double-click the **Port Configuration** node.

   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.



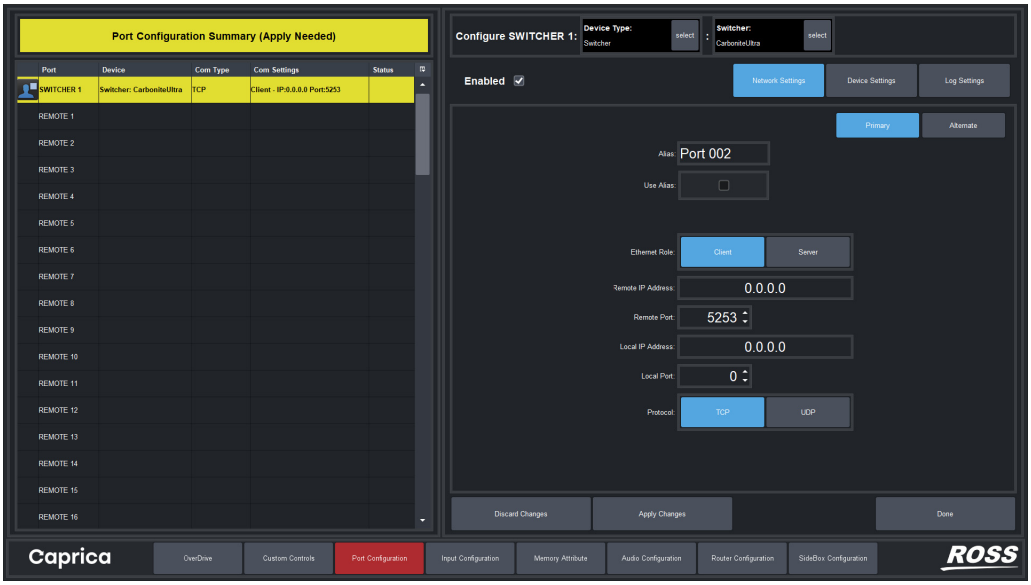
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Ultra switcher in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

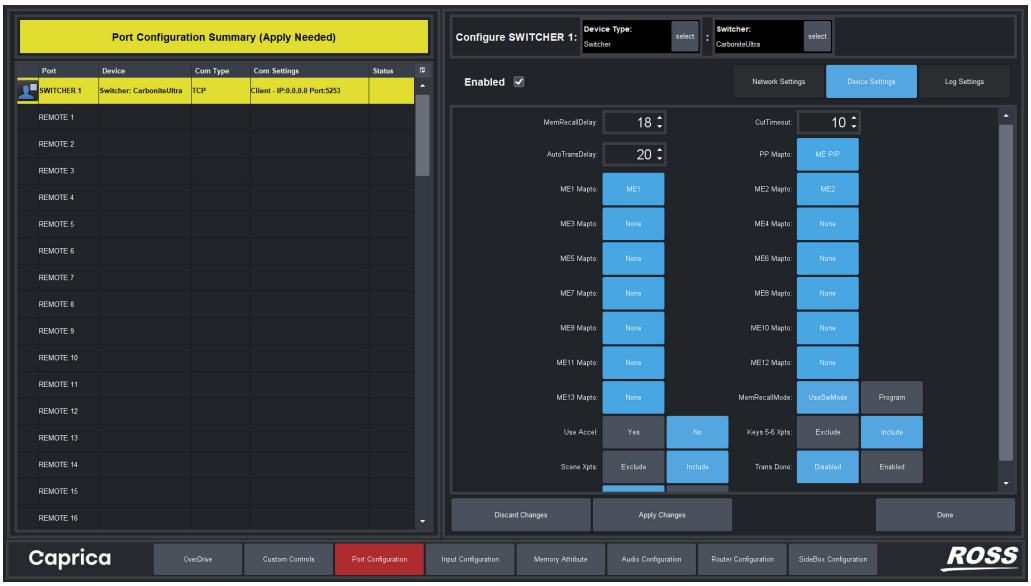
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive 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 ME1 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 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 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 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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Carbonite Ultra 60 Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Carbonite Ultra 60 Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Carbonite Ultra 60 switcher connected to the OverDrive 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 Ultra 60 switcher fade to and from black.
- You cannot fully control your production system through the Carbonite Ultra 60 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 OverDrive taking multi-layered shots on air.
- Change the Transition setting on your Carbonite Ultra 60 switcher to Reset since the control protocol can only set the duration, not transition type.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 11–2.
- 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 11–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 11–8.

Connecting the OverDrive System

In an OverDrive system, a Carbonite Ultra 60 switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 11.1**) illustrates the cabling layout of the Carbonite Ultra 60 switcher connection to an OverDrive system.

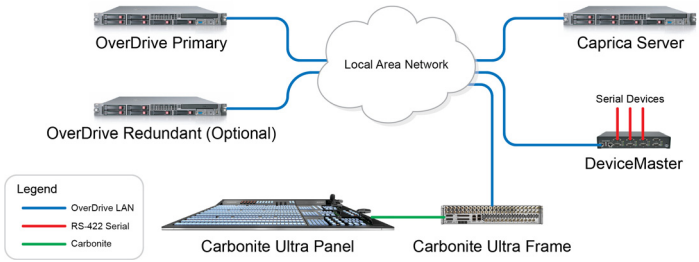


Figure 11.1 OverDrive System Connection to a Carbonite Ultra 60 Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Ultra 60 Frame and Panel

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

To connect a Carbonite Ultra 60 switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 11.2**) illustrates the overall cabling layout of an OverDrive system with a Carbonite Ultra 60 switcher.

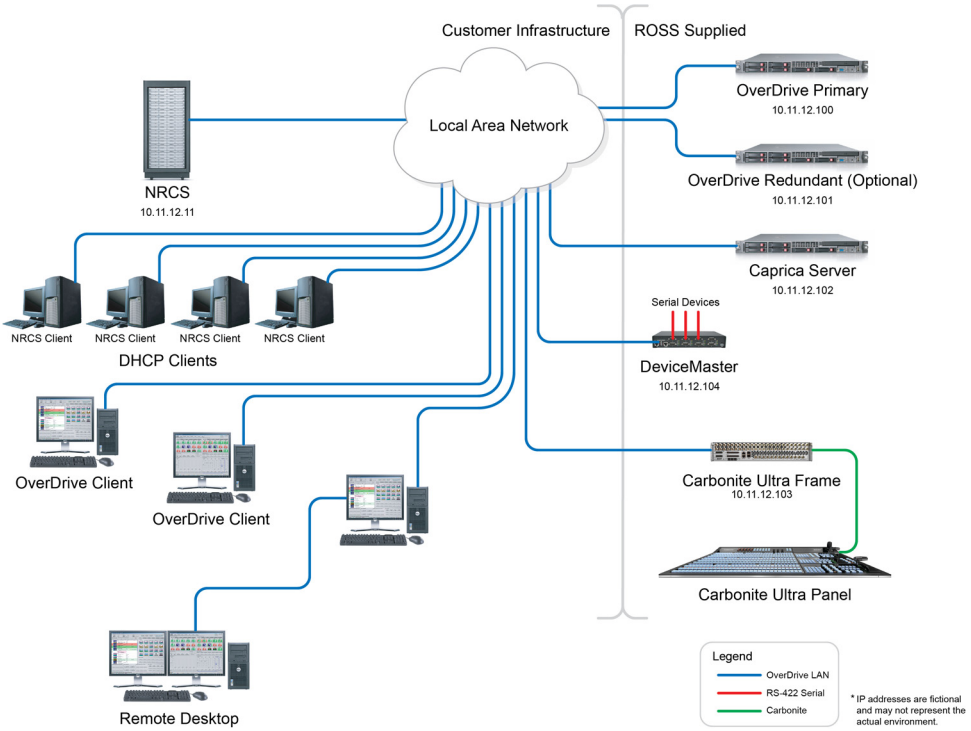


Figure 11.2 OverDrive System with a Carbonite Ultra 60 Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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

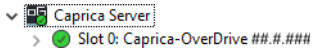
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Ultra 60 switcher in an OverDrive system.

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**.

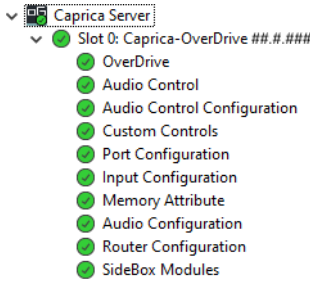
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

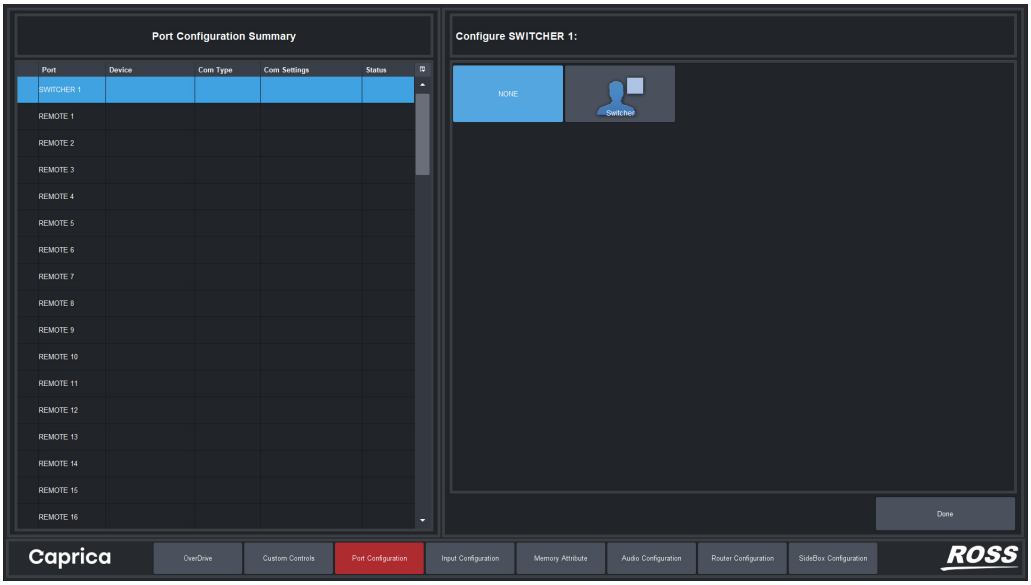


5. Double-click the **Port Configuration** node.

   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.



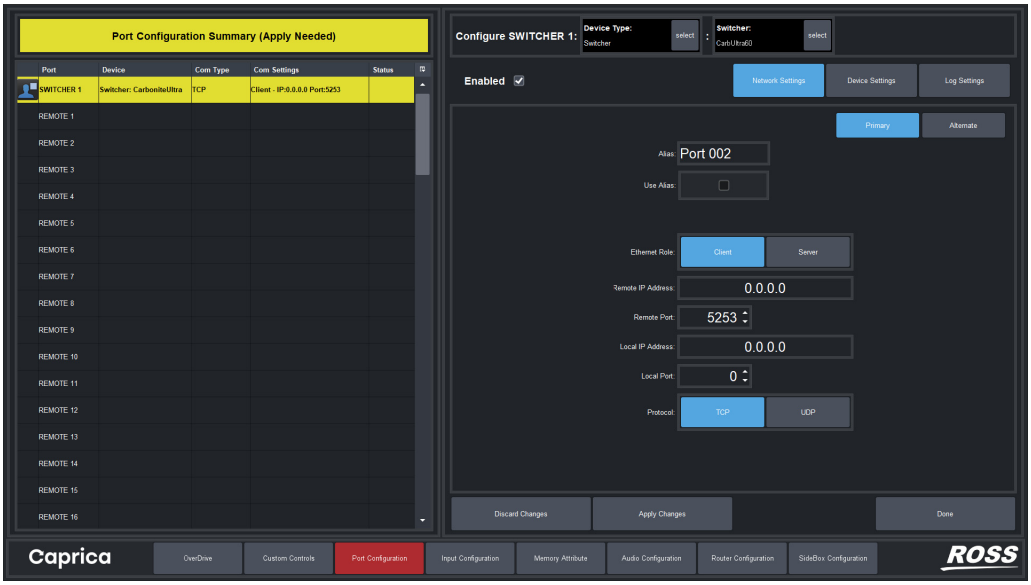
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Ultra 60 switcher in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

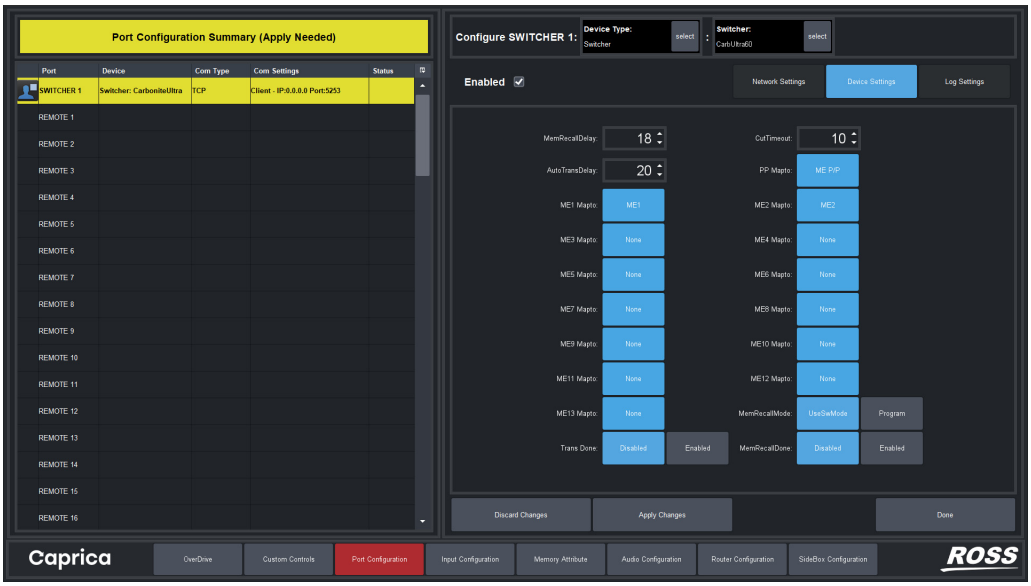
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive 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 ME1 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 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 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 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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher custom controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Carbonite Code Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Carbonite Code Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Carbonite Code switcher connected to the OverDrive 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 OverDrive taking multi-layered shots on air.
- Change the Transition setting on your Carbonite Code switcher to Reset since the control protocol can only set the duration, not transition type.

Setting Up the OverDrive System

To setup an OverDrive system with a Carbonite Code switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 12–2.
- 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 12–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 12–7.

Connecting the OverDrive System

In an OverDrive system, a Carbonite Code switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 12.1**) illustrates the cabling layout of the Carbonite Code switcher connection to an OverDrive system.

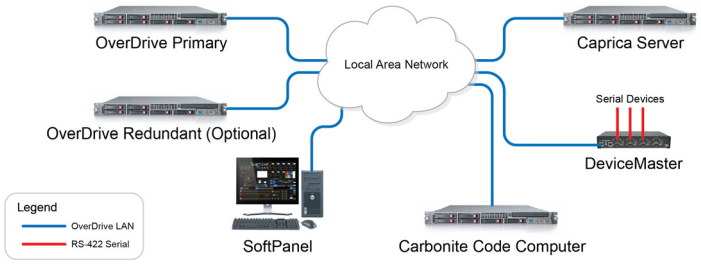


Figure 12.1 OverDrive System Connection to a Carbonite Code Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite Code Frame and Panel

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

To connect a Carbonite Code switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 12.2**) illustrates the overall cabling layout of an OverDrive system with a Carbonite Code switcher.

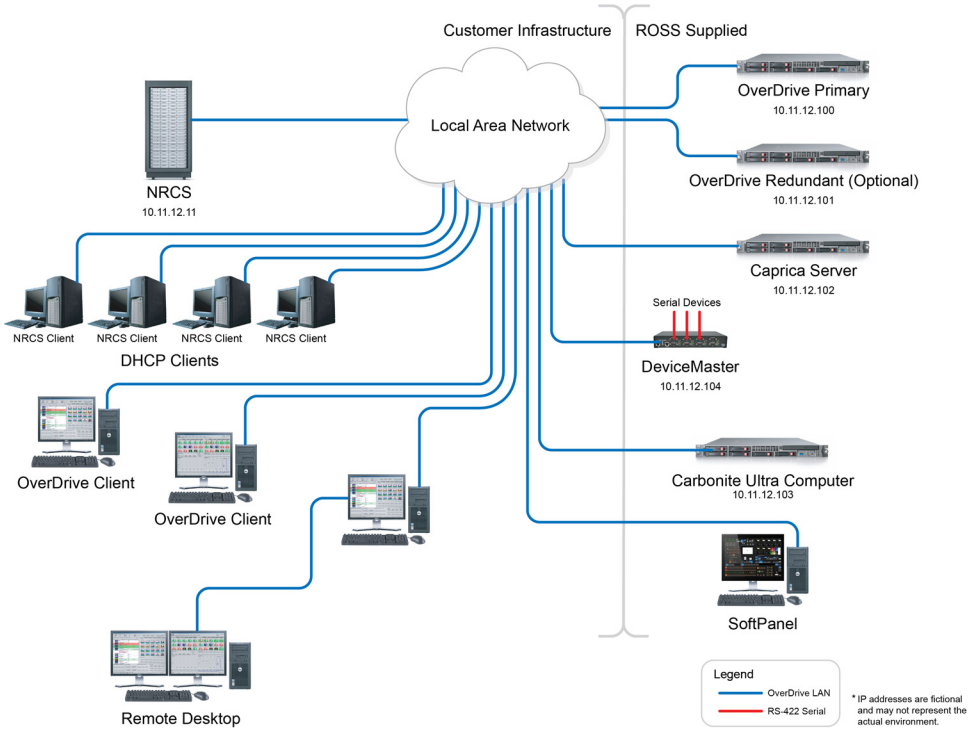


Figure 12.2 OverDrive System with a Carbonite Code Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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

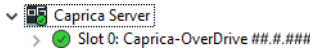
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Code switcher in an OverDrive system.

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**.

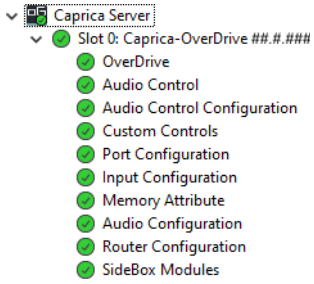
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

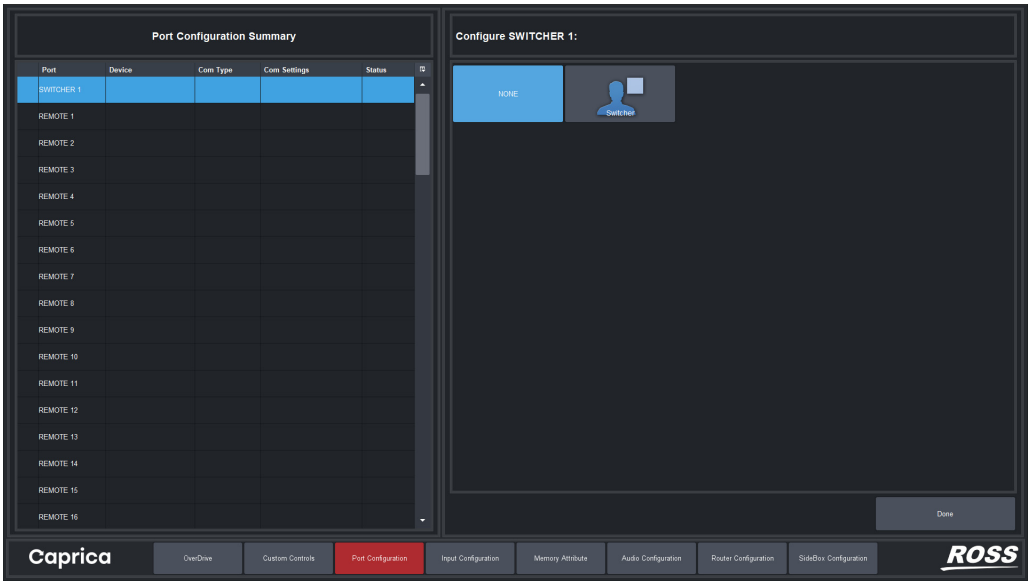


5. Double-click the **Port Configuration** node.

   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.



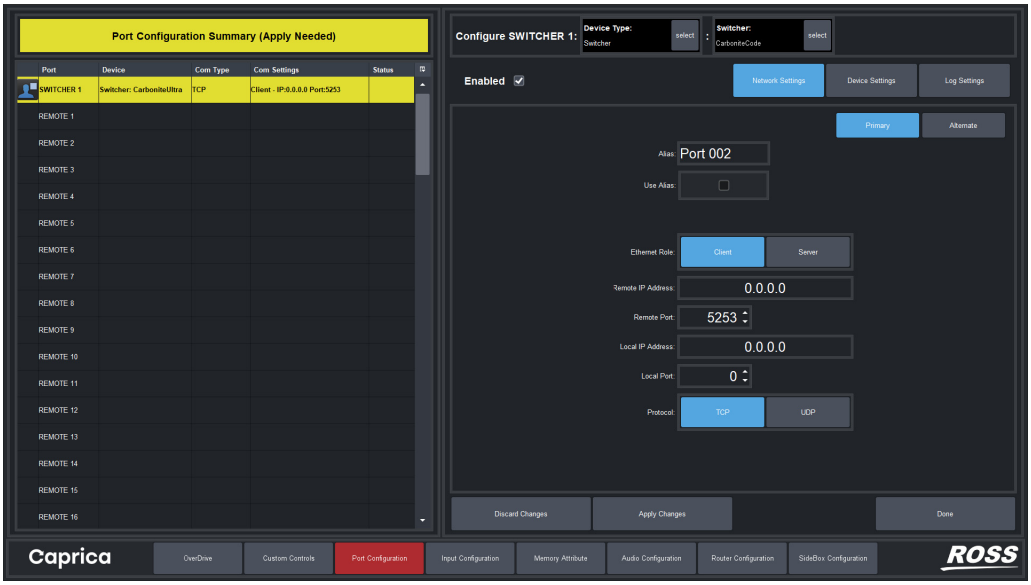
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite Code switcher in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

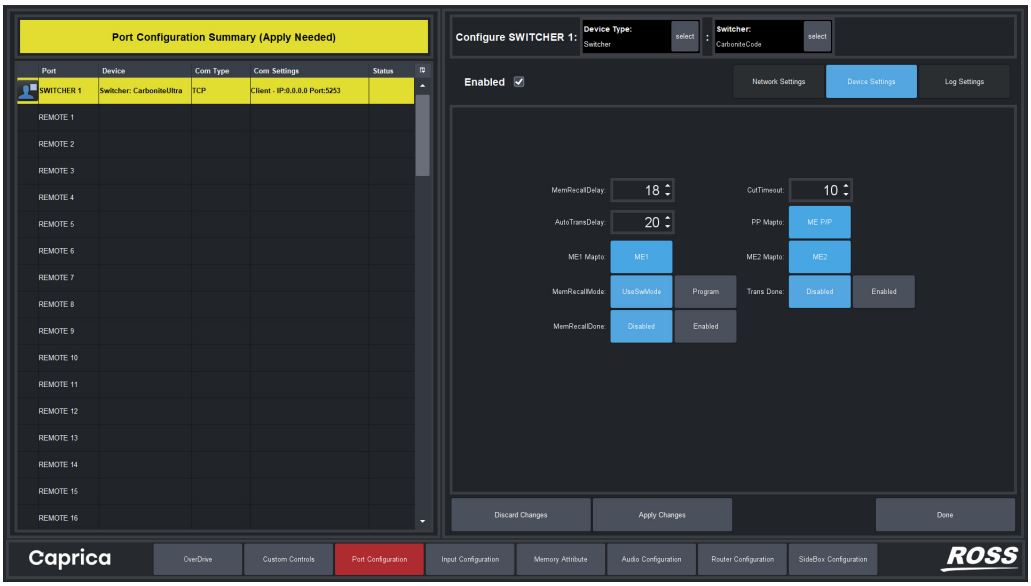
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive 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 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 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 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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Carbonite HyperMax Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Carbonite HyperMax Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Carbonite HyperMax switcher connected to the OverDrive 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 HyperMax switcher fade to and from black.
- You cannot fully control your production system through the Carbonite HyperMax panel or DashBoard UI.

Setting Up the OverDrive System

To set up an OverDrive system with a Carbonite HyperMax switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 13–2.
- On the Caprica Server, create a Switcher device for your Carbonite HyperMax switcher.
  Refer to the section "**Configuring a Switcher Device for a Carbonite HyperMax Switcher**" on page 13–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 13–7.
- Change the Transition setting on your Carbonite HyperMax switcher to Reset since the control protocol can only set the duration, not transition type.

Connecting the OverDrive System

In an OverDrive system, a Carbonite HyperMax switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 13.1**) illustrates the cabling layout of the Carbonite HyperMax switcher connection to an OverDrive system.

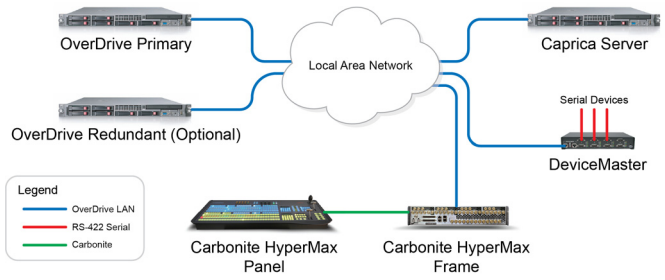


Figure 13.1 OverDrive System Connection to a Carbonite HyperMax Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Carbonite HyperMax Frame and Panel

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

To connect a Carbonite HyperMax switcher to an OverDrive system

1. Verify that the **OverDrive 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 HyperMax Frame to your internal network.
5. Use an **Ethernet** cable to connect the Carbonite HyperMax Panel to your internal network.

The following diagram (**Figure 13.2**) illustrates the overall cabling layout of an OverDrive system with a Carbonite HyperMax switcher.

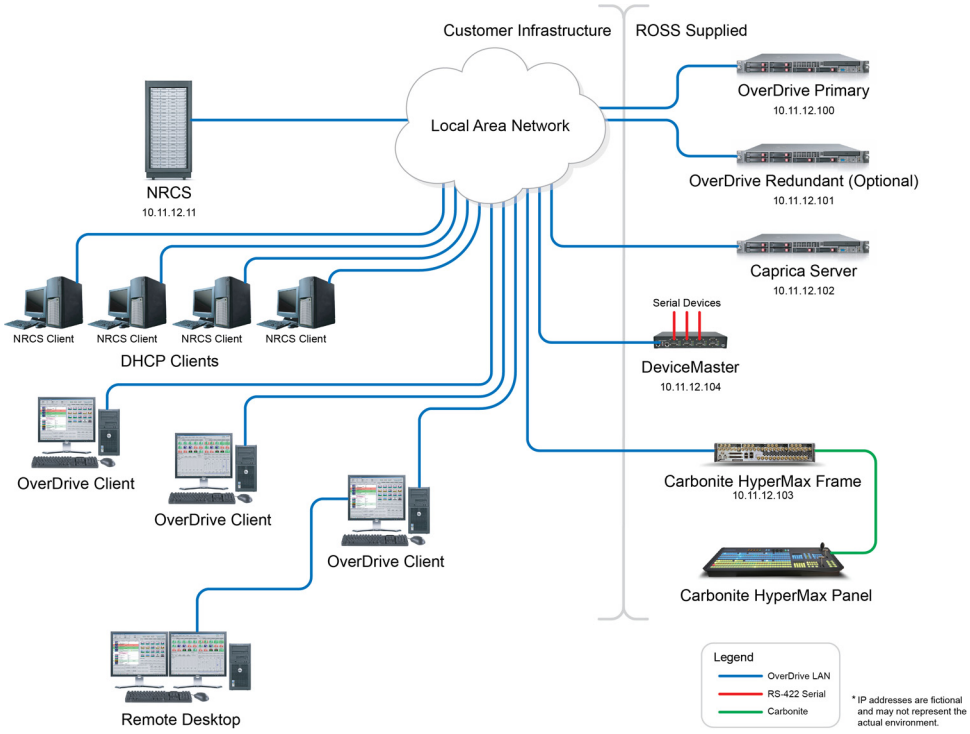


Figure 13.2 OverDrive System with a Carbonite HyperMax Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Carbonite HyperMax switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Carbonite HyperMax Switcher

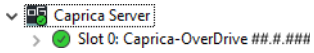
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite HyperMax switcher in an OverDrive system.

To configure the SWITCHER1 device for a Carbonite HyperMax 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**.

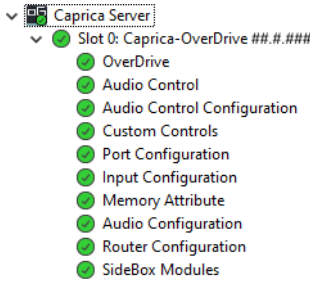
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

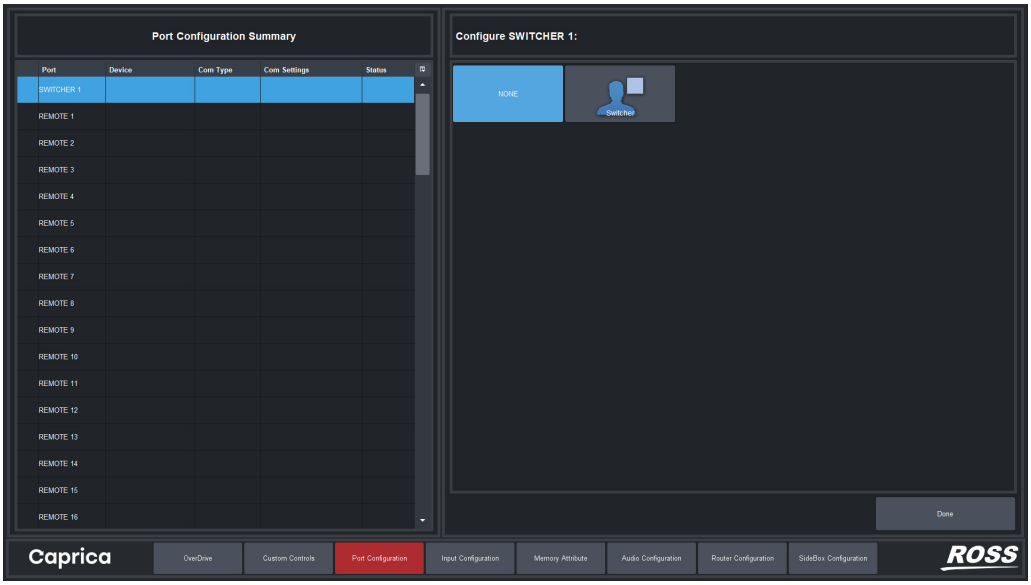


5. Double-click the **Port Configuration** node.

   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.



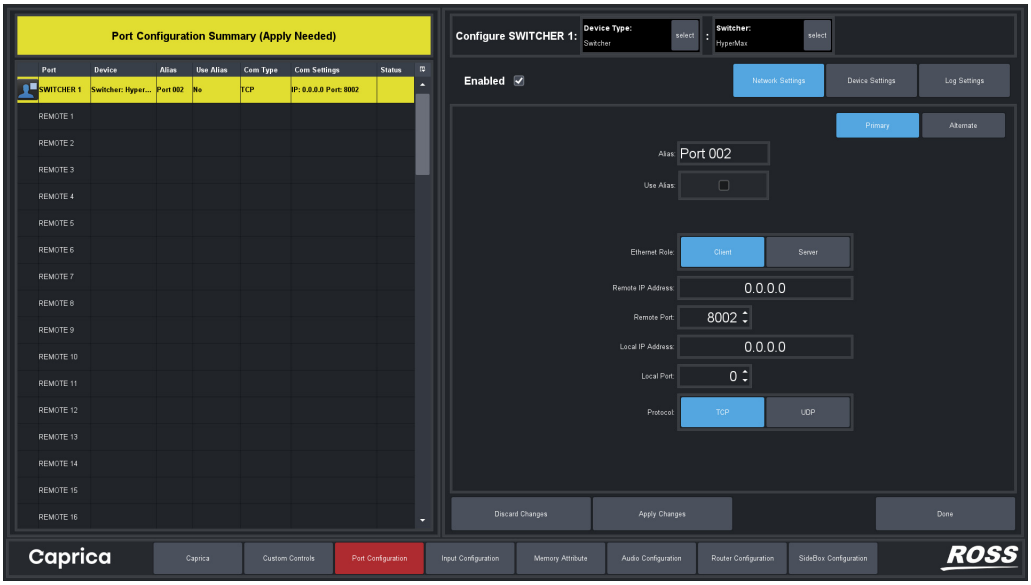
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Carbonite HyperMax switcher in an OverDrive system.

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

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

9. Click **HyperMax**.

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

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

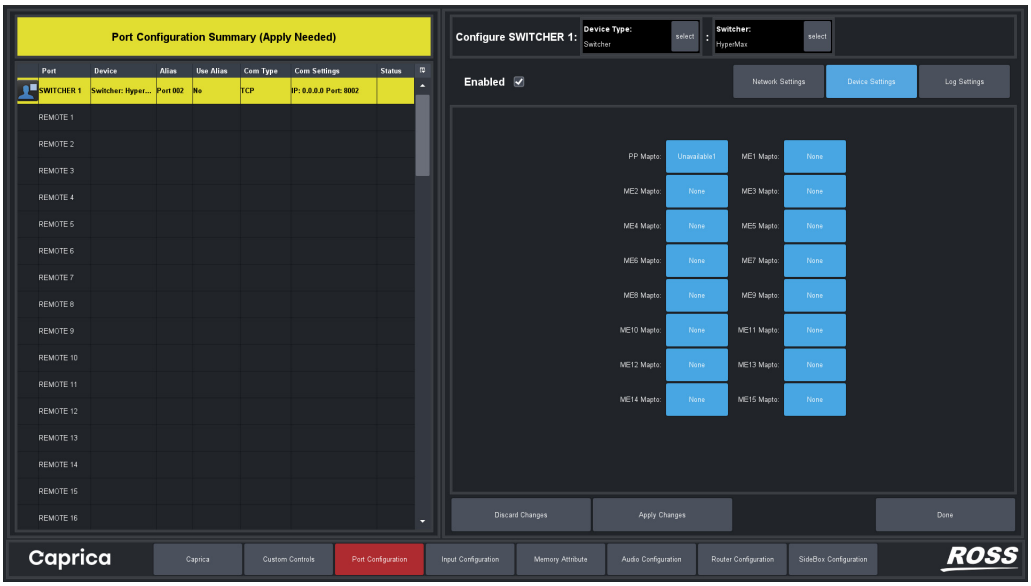
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 HyperMax switcher.



19. Click **PP Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax 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 OverDrive taking multi-layered shots on air.

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

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

22. Click **ME3 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME3 in Caprica.

23. Click **ME4 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME4 in Caprica.
24. Click **ME5 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME5 in Caprica.
25. Click **ME6 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME6 in Caprica.
26. Click **ME7 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME7 in Caprica.
27. Click **ME8 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME8 in Caprica.
28. Click **ME9 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME9 in Caprica.
29. Click **ME10 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME10 in Caprica.
30. Click **ME11 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME11 in Caprica.
31. Click **ME12 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME12 in Caprica.
32. Click **ME13 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME13 in Caprica.
33. Click **ME14 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME14 in Caprica.
34. Click **ME15 Mapto** to select the ME, MiniME, Canvas, or Scene on your Carbonite HyperMax switcher to map to ME15 in Caprica.
35. Click **Apply Changes** to save the switcher settings.
36. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Ultrix Carbonite Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for an Ultrix Carbonite Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with an Ultrix Carbonite switcher connected to the OverDrive 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 an Ultrix Carbonite switcher fade to and from black.
- You cannot fully control your production system through the Ultrix Carbonite 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 OverDrive taking multi-layered shots on air.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 14–2.
- 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 14–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 14–9.

Connecting the OverDrive System

In an OverDrive system, an Ultrix Carbonite switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 14.1**) illustrates the cabling layout of the Ultrix Carbonite switcher connection to an OverDrive system.

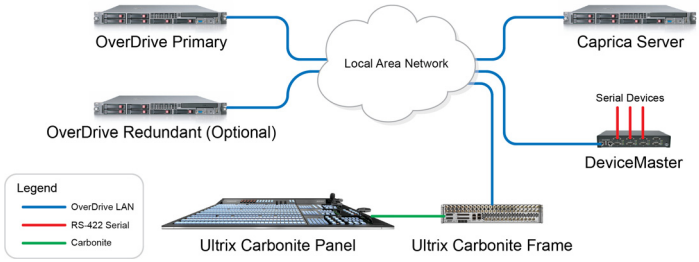


Figure 14.1 OverDrive System Connection to an Ultrix Carbonite Switcher

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Ultrix Carbonite Frame and Panel

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

To connect an Ultrix Carbonite switcher to an OverDrive system

1. Verify that the **OverDrive 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.

The following diagram (**Figure 14.2**) illustrates the overall cabling layout of an OverDrive system with an Ultrix Carbonite switcher.

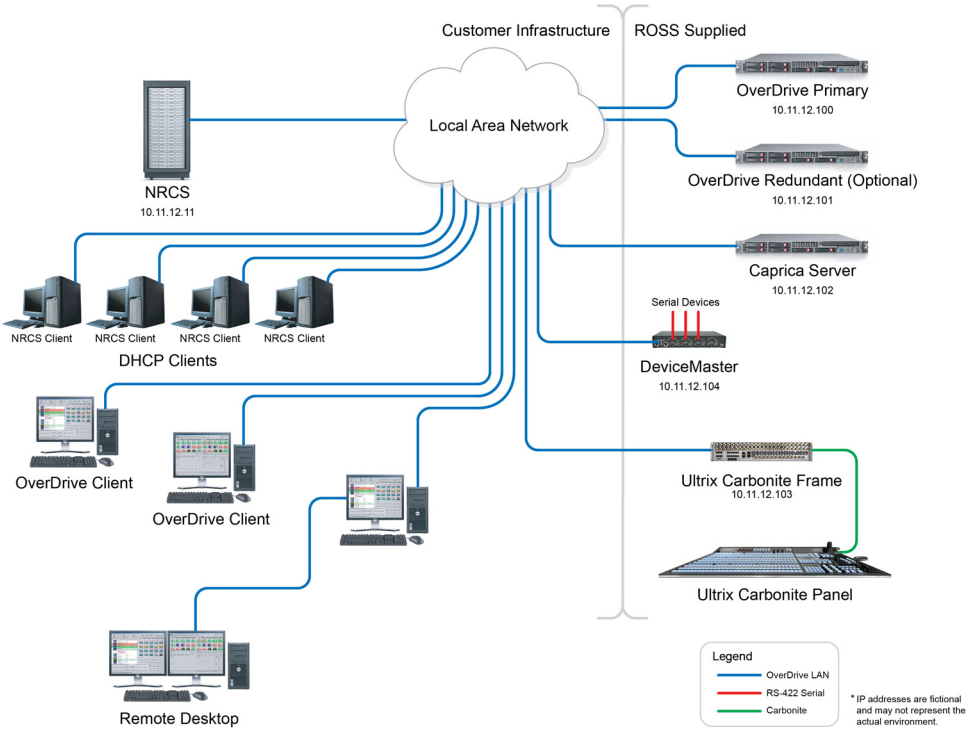


Figure 14.2 OverDrive System with an Ultrix Carbonite Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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

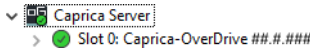
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with an Ultrix Carbonite switcher in an OverDrive system.

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**.

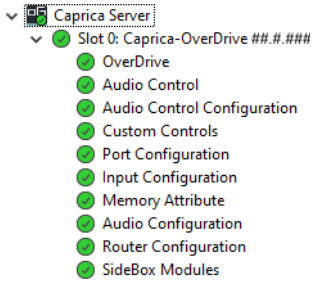
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



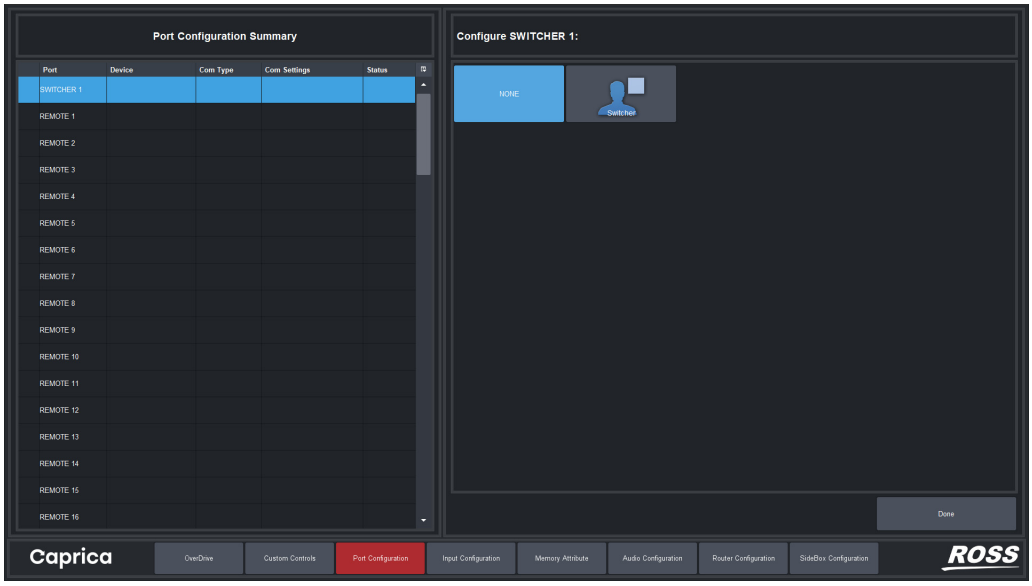
5. Double-click the **Port Configuration** node.

   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.



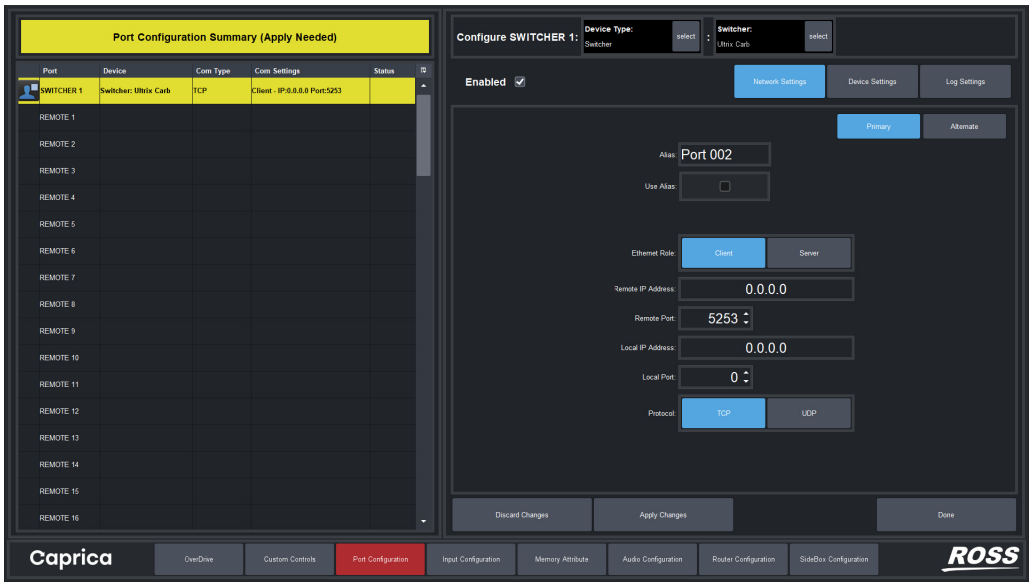
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with an Ultrix Carbonite switcher in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

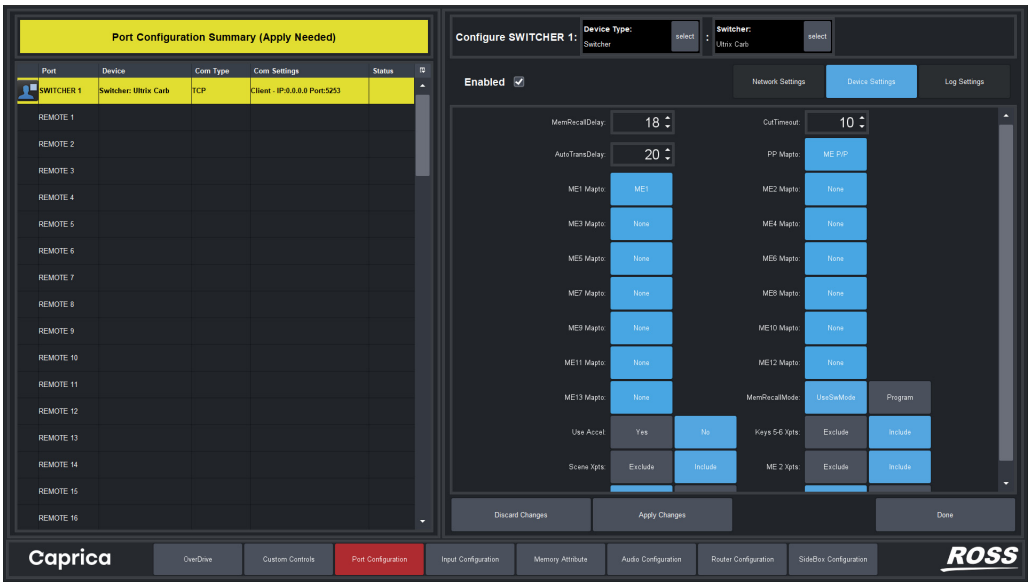
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive 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 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 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 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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Graphite Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Defining the Copy-Down Post Transition Custom Control
- Setting the Transition Post Custom Control
- Configuring OverDrive to use 1 Floating ME
- Configuring a Switcher Device for a Ross Video Graphite All-In-One Production System
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Ross Video Graphite All-In-One Production System connected to the OverDrive 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 Ross Video Graphite All-In-One Production System fade to and from black.
- You cannot fully control your production system through the Graphite panel or DashBoard UI.
- When MediaWipe transitions are pre-loaded into channels 1 and or 2 before the switcher connects to the Caprica Server, launching a MediaWipe will fail. To work around this limitation, run your MediaWipe Custom Controls in Caprica as part of your pre-show preparation.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 15–2.
- 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 15–9.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 15–13.

Connecting the OverDrive System

In an OverDrive system, a Ross Video Graphite All-In-One Production System connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 15.1**) illustrates the cabling layout of the Ross Video Graphite All-In-One Production System connection to an OverDrive system.

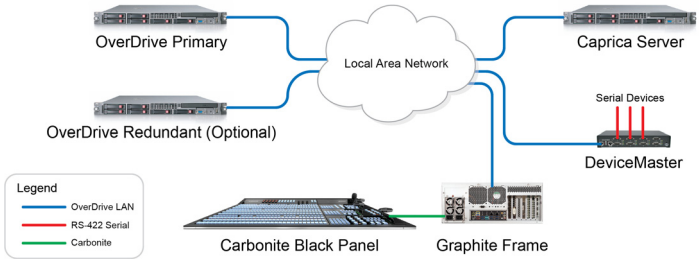


Figure 15.1 OverDrive System Connection to a Ross Video Graphite All-In-One Production System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Graphite Frame and Panel

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

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

1. Verify that the **OverDrive 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.

The following diagram (**Figure 15.2**) illustrates the overall cabling layout of an OverDrive system with a Ross Video Graphite All-In-One Production System.

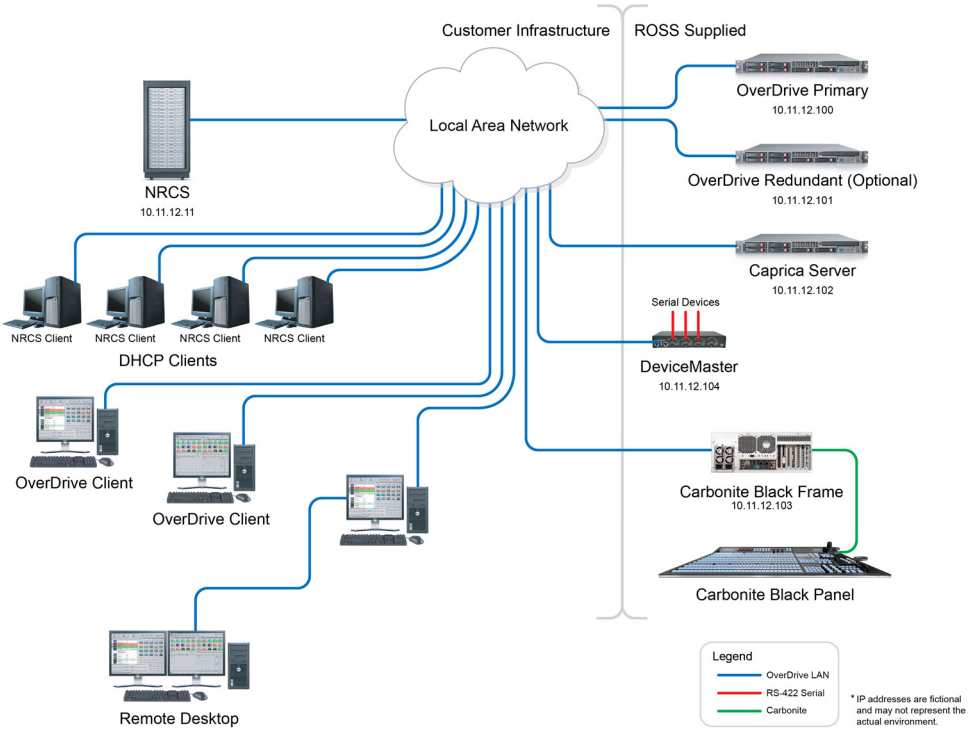


Figure 15.2 OverDrive System with a Ross Video Graphite All-In-One Production System

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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.

Defining the Copy-Down Post Transition Custom Control

When your OverDrive system uses a Graphite switcher, you must configure OverDrive to use 1 Floating ME. In order to run OverDrive using 1 Floating ME, each OverDrive transition must finish by triggering a Copy-Down Custom Control that copies the required key bus information and keys down to the Program bus. The Copy-Down Custom Control is a Caprica Custom Control that triggers a macro on the Graphite switcher to copy keys.

✶ Every transition in a rundown must run the Key Copy Custom Control as post transition Custom Control.

Creating the Graphite Switcher Custom Control

The Custom Control that you create on your Graphite switcher depends on the capabilities of your switcher and whether you want to reserve keys for CGs.

CG Keys

When you want to reserve one or more keys on the program ME for CGs or your Graphite switcher does not support clean copy, build the following Custom Control:

- On your Graphite switcher, build a **Key Copy** Custom Control that copies each key you want brought down to the program bus. Build our **Key Copy** Custom Control to copy keys from the top-most layer down to avoid any flashes that might occur.

Clean-Copy Capability

When your Graphite switcher is capable of on-air clean ME copy (no keys flash during copy) and you do not need to reserve keys on the program ME, build the following Custom Control:

- On your Graphite switcher, build a **Key Copy** Custom Control that does an ME copy.

Since most rundowns contain CGs, this Key Copy Custom Control definition is a rare case.

For More Information on...

- creating Graphite switcher Custom Controls, refer to the **Custom Controls** chapter in the ***Graphite Operation Manual***.

Creating the Caprica Custom Control

The Copy-Down Custom Control triggered at the end of each rundown transition copies the required key bus information and keys down to the Program bus. The Copy-Down Custom Control is a Caprica Custom Control that triggers the Key Copy Custom Control on your Graphite switcher to copy keys.

In Caprica, build a **Copy-Down** Custom Control that contains the following steps:

1. If the **Key Copy** Custom Control on your Graphite switcher does not include the key source (Clean-Copy Capability), use the Caprica **Copy Bus** event to copy the key bus information down.
2. Call the **Key Copy** Custom Control on your Graphite switcher.
3. If the **Key Copy** Custom Control on your Graphite switcher does not copy the on-air state of the keys, whether the keys are on-air or not, use the Caprica **Key State Copy** event to copy the on-air state down.

4. Use the Caprica **Copy Bus** event to copy the upper **ME Bkgd** bus to **Program Bkgd**.
5. Insert a **Pause** event as the last event in the **Copy-Down** Custom Control to ensure that all events in the Custom Control complete before it finishes.

Keep in Mind

- Insert pauses in the **Key Copy** macro wherever necessary to ensure that no flashes happen on air.
- When doing anything by key, always start at the top-most layer and work down to prevent flashes on air. The top-most layer will cover any oddities that occur below it.

For More Information on...

- creating Caprica Custom Controls, refer to "**Creating Custom Control Macros**" on page 26–23.

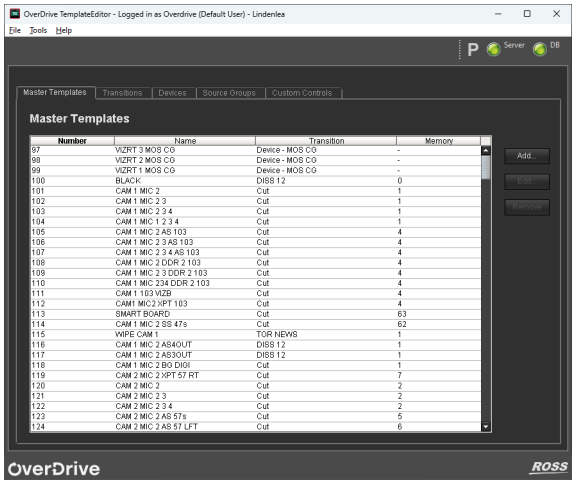
Setting the Transition Post Custom Control

After creating the Copy-Down Custom Control for your Graphite switcher, you must configure each of your OverDrive transitions to run the Copy-Down Custom Control after the transition finishes.

To set the post transition Custom Control for a transition

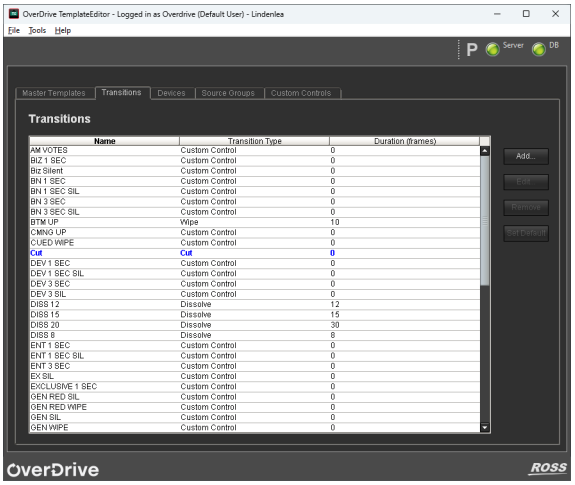
1. On the OverDrive Server or an OverDrive Client computer, use one of the following methods to start **TemplateEditor**:
   - On the desktop, double-click the **TemplateEditor** icon.
   - Use the **Start** menu to select **All Programs** > **OverDrive** > **TemplateEditor**.

   TemplateEditor opens.



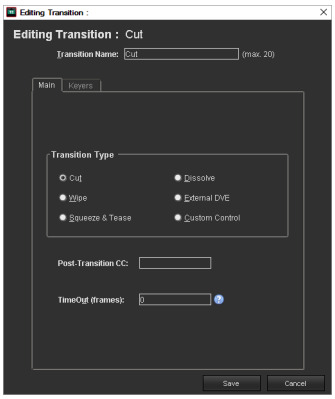
2. In **TemplateEditor**, click the **Transitions** tab.

The **Transitions** tab opens.



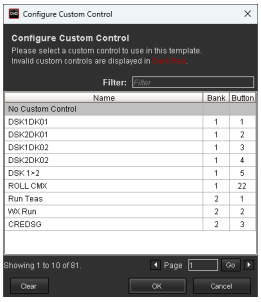
3. Use the **Transitions** list to select the **Transition** template to add a post transition Custom Control.
4. Click **Edit**.

   The **Editing Transition** dialog box opens.



5. Click in the **Post-Transition CC** box.

   The **Configure Custom Control** dialog box opens.



   The **Configure Custom Control** dialog box only lists the Custom Controls that are stored on the switcher. Invalid switcher Custom Controls in the list are displayed in **Dark Red**.

✶ OverDrive is only able to access Custom Controls stored in the first 12 Custom Control banks on a switcher.

6. Use the following methods to view the available Custom Controls:
   - **Filter** — in the **Filter** box, enter a portion of the Custom Control name you are looking for. As you type, the Custom Control list automatically updates to show the Custom Controls that contain the entered text.
   - **Page** — each page of the **Configure Custom Control** dialog box lists ten Custom Controls. To view other pages, click the **Previous** or **Next** icon, press the **Left** or **Right** key, or enter a page number in the **Page** box and then click the **Go** icon.
7. Use the **Name** column to select your **Copy-Down** Custom Control as the Custom Control to run after the transition finishes.
8. Click **OK**.

   The **Configure Custom Control** dialog box closes, and the **Editing Transition** dialog box displays the name of the selected Custom Control in the **Post-Transition CC** box.
9. In the **Timeout** box, enter the maximum number of frames to wait for a transition to complete before advancing the rundown. An **Alert** dialog box opens when the Program ME transition does not take place before the set maximum timeout.

✶ The entered number of frames should be greater than the total number of frames required by the transition and Post-Transition CC to finish. When a Custom Control contains the Hold CC, a variable length pause, make sure that the set number of frames is enough to cover all applications of the Custom Control.

10. Click the **Keyers** tab.

    The **Keyers** tab opens.

11. For each keyer in the transition, complete the following steps to force the keyer off:
    a. Use the **Keyer** list to select the keyer to force off.
    b. Use the **State** list to select **Force OFF**.
    c. Click **Add**.

       The **Keyer** table displays the selected keyer and state.

    Forcing keys off cleanly takes the Program bus keys off air in time to get them ready for the copy-down.
12. Click **OK** to save property changes for the selected Transition template and close the **Editing Transition** dialog box.

For More Information on...

- creating Transition templates, refer to the **TemplateEditor** chapter in the "***OverDrive User Guide***".

Configuring OverDrive to use 1 Floating ME

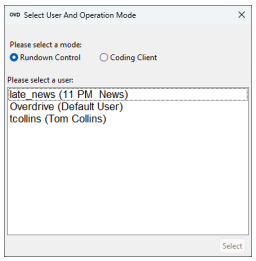
After configuring your OverDrive transitions to run the Copy-Down Custom Control after the transition finishes, you must configure OverDrive to use 1 Floating ME.

To configure the ME Use option

1. On the OverDrive Server or an OverDrive Client computer, use one of the following methods to start **RundownControl**:

   - On the desktop, double-click the **RundownControl** icon.
   - Use the **Start** menu to select **All Programs** > **OverDrive** > **RundownControl**.

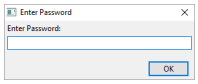
   The **Select User** dialog box opens.



2. In the **Please select a mode** section, select **RundownControl** as the mode in which to use RundownControl.
3. From the **User** list, select the user profile to work with for the RundownControl session.

   Any preference changes made during an RundownControl session are saved with the selected user profile.
4. Click **Select User**.

   For users that have a password, the **Enter Password** dialog box opens.



   To enter a user password, follow these additional steps:

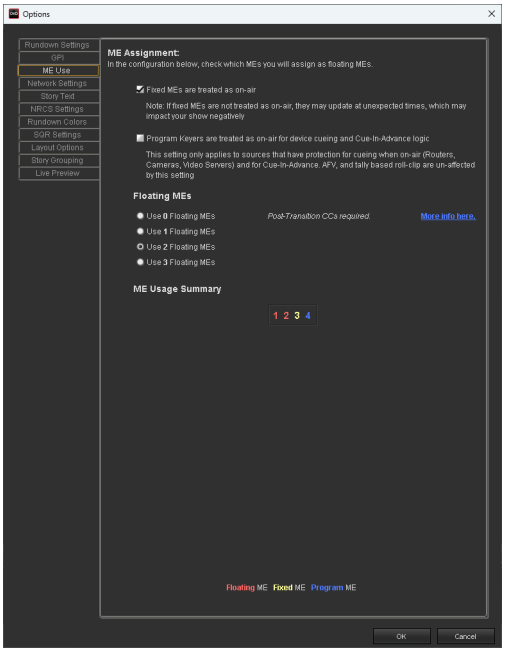
   a. In the **Enter Password** box, enter the password for the selected user profile.

   b. Click **OK**.

   RundownControl opens in the selected mode using the user preferences from the selected user profile. The RundownControl title bar displays the name of the user profile selected to open RundownControl.
5. From the **Tools** menu, select **Options**.

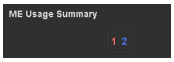
   The **Options** dialog box opens.
6. Click the **ME Use** tab.

The **ME Use** tab opens.



7. In the **Floating MEs** section, select the **Use 1 Floating MEs** option.

   The **ME Usage Summary** section displays the results of the selected Floating ME configuration. The numbers in the box represent the available MEs and the color of the numbers identify the ME use. For example:



   - **Floating MEs** — 1
   - **Fixed MEs** — none
   - **Program ME** — 2

8. Click **OK** to save changes and close the **Options** dialog box.

   TemplateEditor, **RundownControl**, and **DirectControl** are updated to work with the assigned Floating and Fixed MEs.

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

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

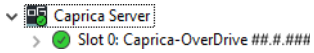
To configure the SWITCHER1 device for a Ross Video Graphite All-In-One Production System

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.

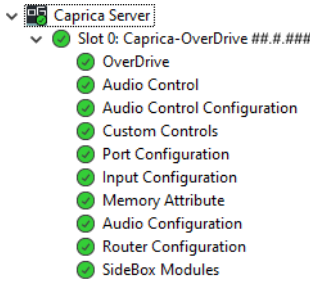
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

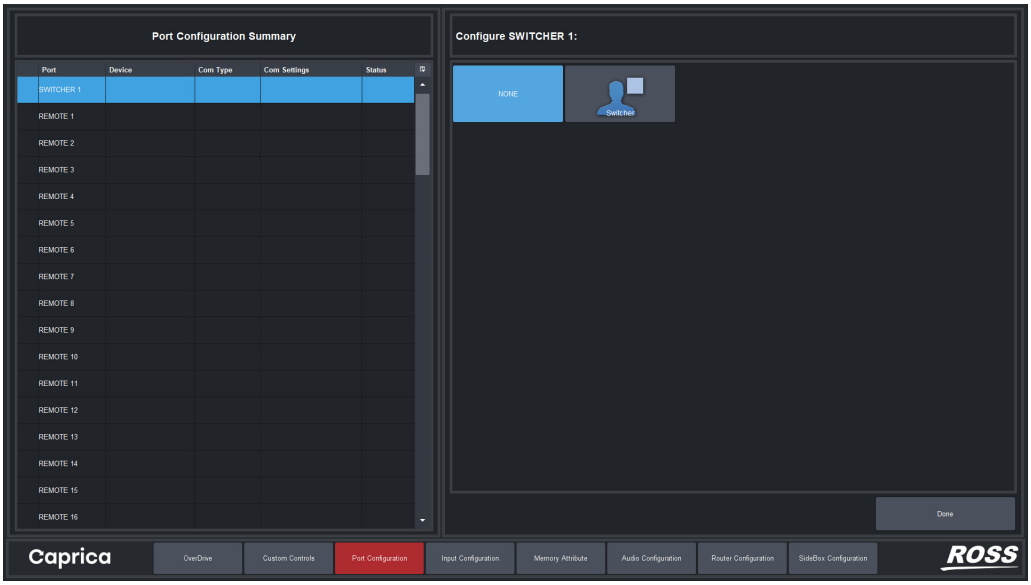
   The **Port Configuration** client opens in the **Device View**.

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.



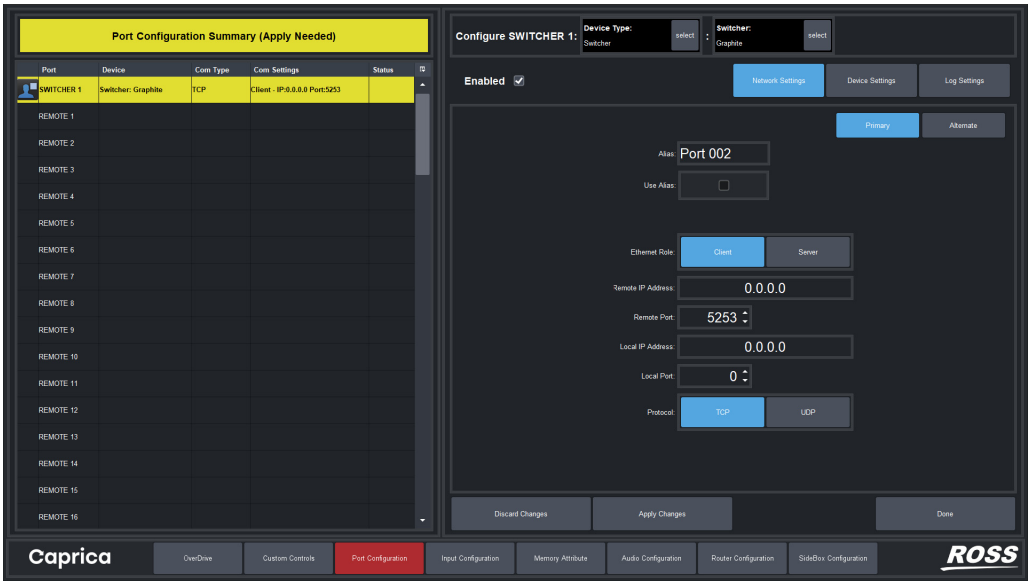
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Ross Video Graphite All-In-One Production System in an OverDrive system.

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.



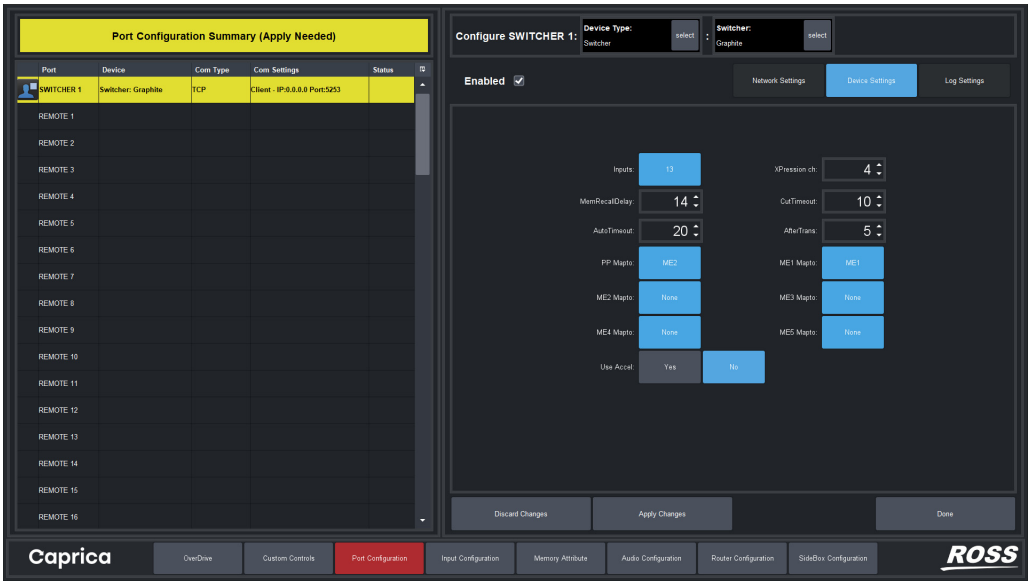
10. To enable Caprica to control the device you are configuring, confirm that the **Enable** check box is selected for the device. When you clear the **Enable** check box for a device, Caprica ignores and does not control the device.
11. To set a custom name for the remote port, complete the following 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 OverDrive 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 OverDrive 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 Carbonite 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 OverDrive 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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Graphite CPC Setup for OverDrive

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

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Defining the Copy-Down Post Transition Custom Control
- Setting the Transition Post Custom Control
- Configuring OverDrive to use 1 Floating ME
- Configuring a Switcher Device for a Ross Video Graphite CPC All-In-One Production System
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Ross Video Graphite CPC All-In-One Production System connected to the OverDrive 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 Ross Video Graphite CPC All-In-One Production System fade to and from black.
- You cannot fully control your production system through the Graphite CPC panel or DashBoard UI.
- When MediaWipe transitions are pre-loaded into channels 1 and or 2 before the switcher connects to the Caprica Server, launching a MediaWipe will fail. To work around this limitation, run your MediaWipe Custom Controls in Caprica as part of your pre-show preparation.

Setting Up the OverDrive System

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

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 16–2.
- 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 16–9.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 16–13.

Connecting the OverDrive System

In an OverDrive system, a Ross Video Graphite CPC All-In-One Production System connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 16.1**) illustrates the cabling layout of the Ross Video Graphite CPC All-In-One Production System connection to an OverDrive system.

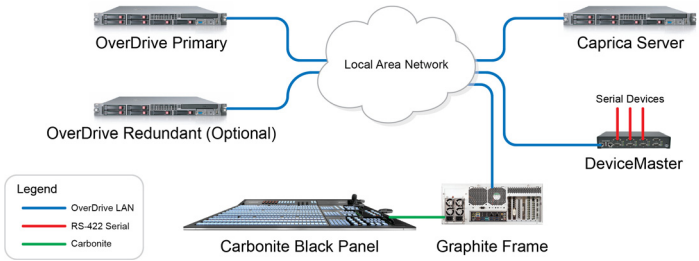


Figure 16.1 OverDrive System Connection to a Ross Video Graphite CPC All-In-One Production System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Graphite CPC Frame and Panel

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

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

1. Verify that the **OverDrive 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.

The following diagram (**Figure 16.2**) illustrates the overall cabling layout of an OverDrive system with a Ross Video Graphite CPC All-In-One Production System.

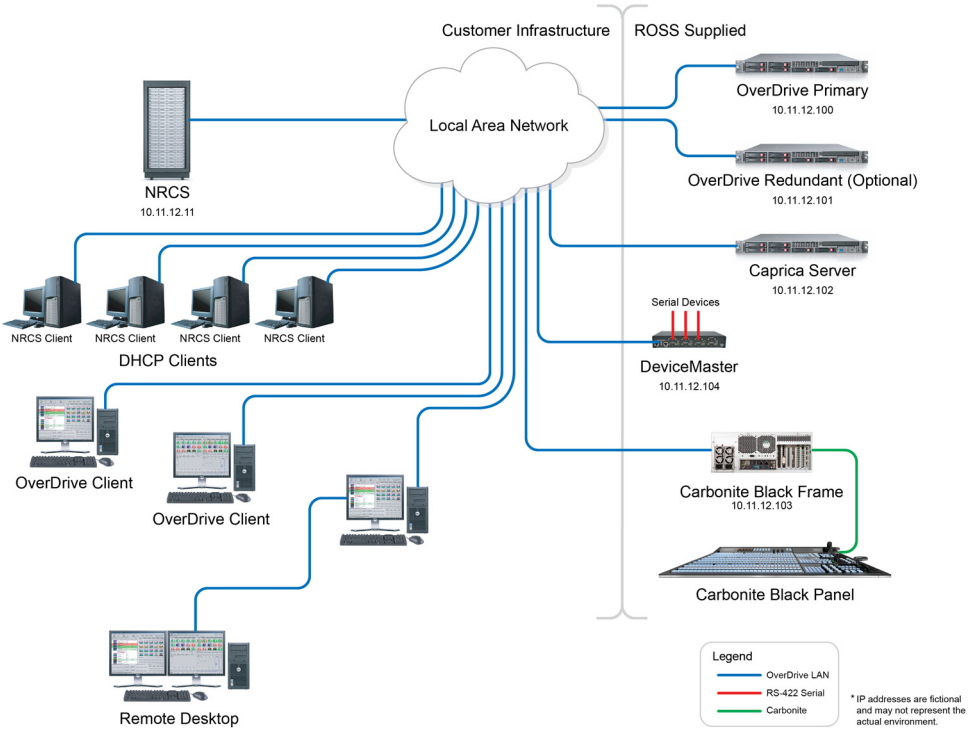


Figure 16.2 OverDrive System with a Ross Video Graphite CPC All-In-One Production System

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive 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.

Defining the Copy-Down Post Transition Custom Control

When your OverDrive system uses a Graphite CPC switcher, you must configure OverDrive to use 1 Floating ME. In order to run OverDrive using 1 Floating ME, each OverDrive transition must finish by triggering a Copy-Down Custom Control that copies the required key bus information and keys down to the Program bus. The Copy-Down Custom Control is a Caprica Custom Control that triggers a macro on the Graphite CPC switcher to copy keys.

✶ Every transition in a rundown must run the Key Copy Custom Control as post transition Custom Control.

Creating the Graphite CPC Switcher Custom Control

The Custom Control that you create on your Graphite CPC switcher depends on the capabilities of your switcher and whether you want to reserve keys for CGs.

CG Keys

When you want to reserve one or more keys on the program ME for CGs or your Graphite CPC switcher does not support clean copy, build the following Custom Control:

- On your Graphite CPC switcher, build a **Key Copy** Custom Control that copies each key you want brought down to the program bus. Build our **Key Copy** Custom Control to copy keys from the top-most layer down to avoid any flashes that might occur.

Clean-Copy Capability

When your Graphite CPC switcher is capable of on-air clean ME copy (no keys flash during copy) and you do not need to reserve keys on the program ME, build the following Custom Control:

- On your Graphite CPC switcher, build a **Key Copy** Custom Control that does an ME copy.

Since most rundowns contain CGs, this Key Copy Custom Control definition is a rare case.

For More Information on...

- creating Graphite CPC switcher Custom Controls, refer to the **Custom Controls** chapter in the ***Graphite CPC Operation Manual***.

Creating the Caprica Custom Control

The Copy-Down Custom Control triggered at the end of each rundown transition copies the required key bus information and keys down to the Program bus. The Copy-Down Custom Control is a Caprica Custom Control that triggers the Key Copy Custom Control on your Graphite CPC switcher to copy keys.

In Caprica, build a **Copy-Down** Custom Control that contains the following steps:

1. If the **Key Copy** Custom Control on your Graphite CPC switcher does not include the key source (Clean-Copy Capability), use the Caprica **Copy Bus** event to copy the key bus information down.
2. Call the **Key Copy** Custom Control on your Graphite CPC switcher.
3. If the **Key Copy** Custom Control on your Graphite CPC switcher does not copy the on-air state of the keys, whether the keys are on-air or not, use the Caprica **Key State Copy** event to copy the on-air state down.

4. Use the Caprica **Copy Bus** event to copy the upper **ME Bkgd** bus to **Program Bkgd**.
5. Insert a **Pause** event as the last event in the **Copy-Down** Custom Control to ensure that all events in the Custom Control complete before it finishes.

Keep in Mind

- Insert pauses in the **Key Copy** macro wherever necessary to ensure that no flashes happen on air.
- When doing anything by key, always start at the top-most layer and work down to prevent flashes on air. The top-most layer will cover any oddities that occur below it.

For More Information on...

- creating Caprica Custom Controls, refer to "**Creating Custom Control Macros**" on page 26–23.

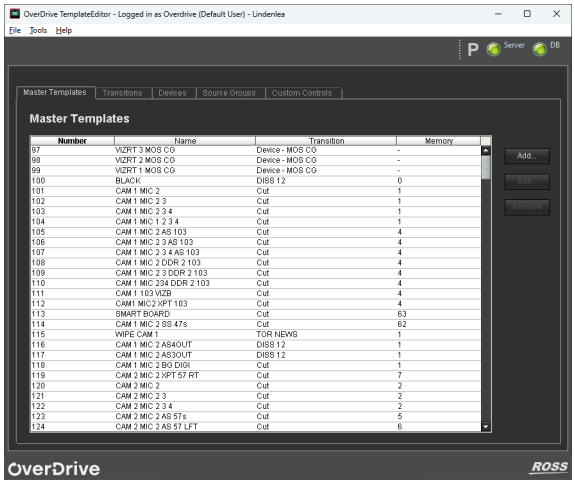
Setting the Transition Post Custom Control

After creating the Copy-Down Custom Control for your Graphite CPC switcher, you must configure each of your OverDrive transitions to run the Copy-Down Custom Control after the transition finishes.

To set the post transition Custom Control for a transition

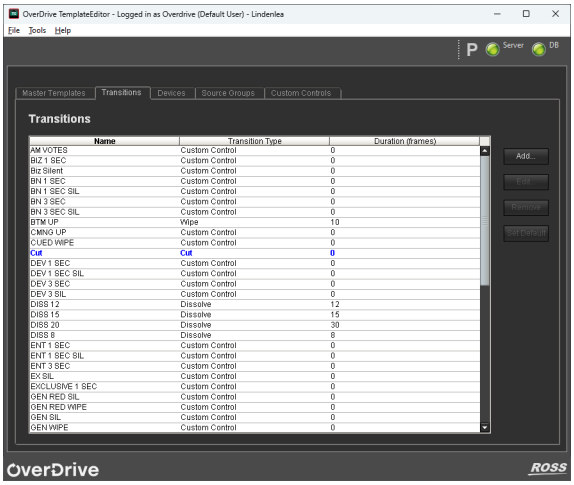
1. On the OverDrive Server or an OverDrive Client computer, use one of the following methods to start **TemplateEditor**:
   - On the desktop, double-click the **TemplateEditor** icon.
   - Use the **Start** menu to select **All Programs** > **OverDrive** > **TemplateEditor**.

   TemplateEditor opens.



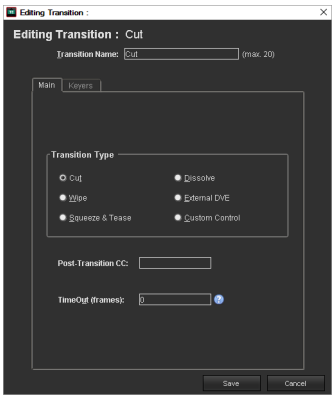
2. In **TemplateEditor**, click the **Transitions** tab.

The **Transitions** tab opens.



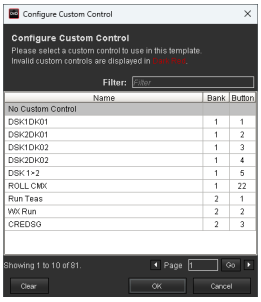
3. Use the **Transitions** list to select the **Transition** template to add a post transition Custom Control.
4. Click **Edit**.

   The **Editing Transition** dialog box opens.



5. Click in the **Post-Transition CC** box.

   The **Configure Custom Control** dialog box opens.



   The **Configure Custom Control** dialog box only lists the Custom Controls that are stored on the switcher. Invalid switcher Custom Controls in the list are displayed in **Dark Red**.

✶ OverDrive is only able to access Custom Controls stored in the first 12 Custom Control banks on a switcher.

6. Use the following methods to view the available Custom Controls:
   - **Filter** — in the **Filter** box, enter a portion of the Custom Control name you are looking for. As you type, the Custom Control list automatically updates to show the Custom Controls that contain the entered text.
   - **Page** — each page of the **Configure Custom Control** dialog box lists ten Custom Controls. To view other pages, click the **Previous** or **Next** icon, press the **Left** or **Right** key, or enter a page number in the **Page** box and then click the **Go** icon.
7. Use the **Name** column to select your **Copy-Down** Custom Control as the Custom Control to run after the transition finishes.
8. Click **OK**.

   The **Configure Custom Control** dialog box closes, and the **Editing Transition** dialog box displays the name of the selected Custom Control in the **Post-Transition CC** box.
9. In the **Timeout** box, enter the maximum number of frames to wait for a transition to complete before advancing the rundown. An **Alert** dialog box opens when the Program ME transition does not take place before the set maximum timeout.

✶ The entered number of frames should be greater than the total number of frames required by the transition and Post-Transition CC to finish. When a Custom Control contains the Hold CC, a variable length pause, make sure that the set number of frames is enough to cover all applications of the Custom Control.

10. Click the **Keyers** tab.

    The **Keyers** tab opens.

11. For each keyer in the transition, complete the following steps to force the keyer off:
    a. Use the **Keyer** list to select the keyer to force off.
    b. Use the **State** list to select **Force OFF**.
    c. Click **Add**.

       The **Keyer** table displays the selected keyer and state.

    Forcing keys off cleanly takes the Program bus keys off air in time to get them ready for the copy-down.
12. Click **OK** to save property changes for the selected Transition template and close the **Editing Transition** dialog box.

For More Information on...

- creating Transition templates, refer to the **TemplateEditor** chapter in the "***OverDrive User Guide***".

Configuring OverDrive to use 1 Floating ME

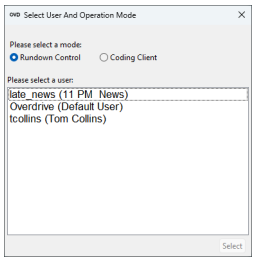
After configuring your OverDrive transitions to run the Copy-Down Custom Control after the transition finishes, you must configure OverDrive to use 1 Floating ME.

To configure the ME Use option

1. On the OverDrive Server or an OverDrive Client computer, use one of the following methods to start **RundownControl**:

   - On the desktop, double-click the **RundownControl** icon.
   - Use the **Start** menu to select **All Programs** > **OverDrive** > **RundownControl**.

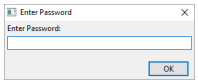
   The **Select User** dialog box opens.



2. In the **Please select a mode** section, select **RundownControl** as the mode in which to use RundownControl.
3. From the **User** list, select the user profile to work with for the RundownControl session.

   Any preference changes made during an RundownControl session are saved with the selected user profile.
4. Click **Select User**.

   For users that have a password, the **Enter Password** dialog box opens.



   To enter a user password, follow these additional steps:

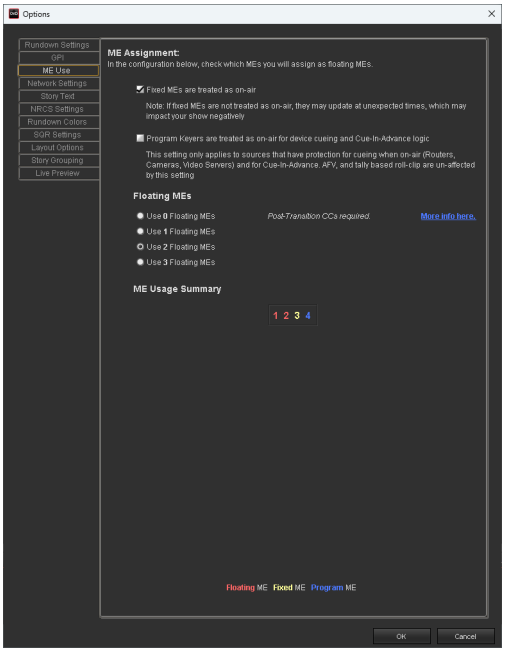
   a. In the **Enter Password** box, enter the password for the selected user profile.

   b. Click **OK**.

   RundownControl opens in the selected mode using the user preferences from the selected user profile. The RundownControl title bar displays the name of the user profile selected to open RundownControl.
5. From the **Tools** menu, select **Options**.

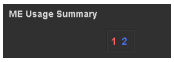
   The **Options** dialog box opens.
6. Click the **ME Use** tab.

The **ME Use** tab opens.



7. In the **Floating MEs** section, select the **Use 1 Floating MEs** option.

   The **ME Usage Summary** section displays the results of the selected Floating ME configuration. The numbers in the box represent the available MEs and the color of the numbers identify the ME use. For example:



   - **Floating MEs** — 1
   - **Fixed MEs** — none
   - **Program ME** — 2

8. Click **OK** to save changes and close the **Options** dialog box.

   TemplateEditor, **RundownControl**, and **DirectControl** are updated to work with the assigned Floating and Fixed MEs.

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

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

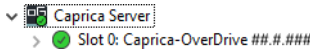
To configure the SWITCHER1 device for a Ross Video Graphite CPC All-In-One Production System

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.

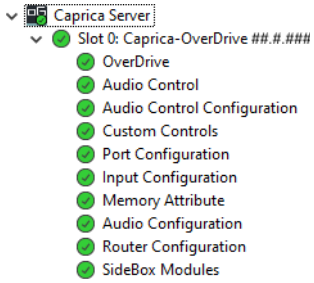
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

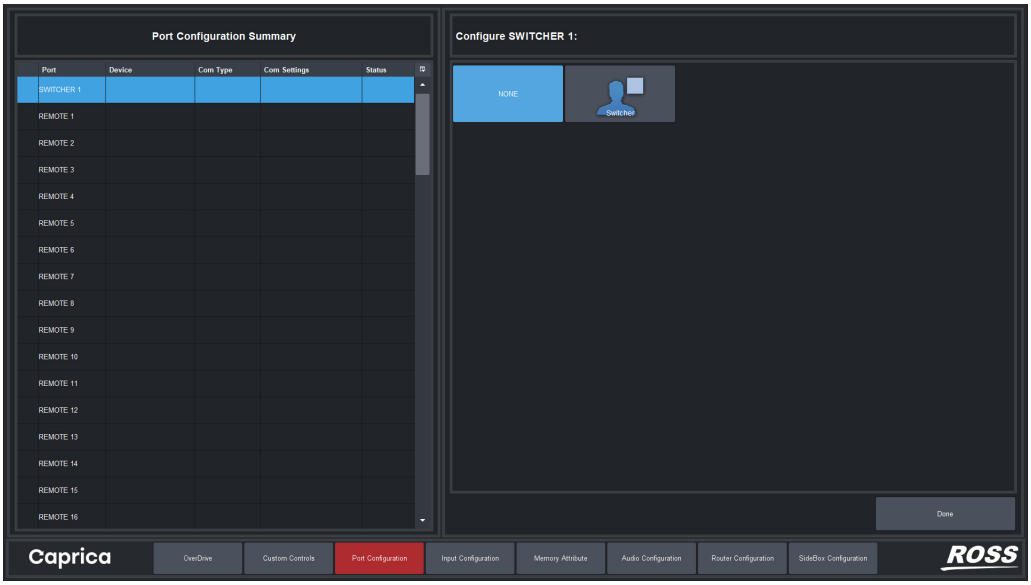
   The **Port Configuration** client opens in the **Device View**.

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.



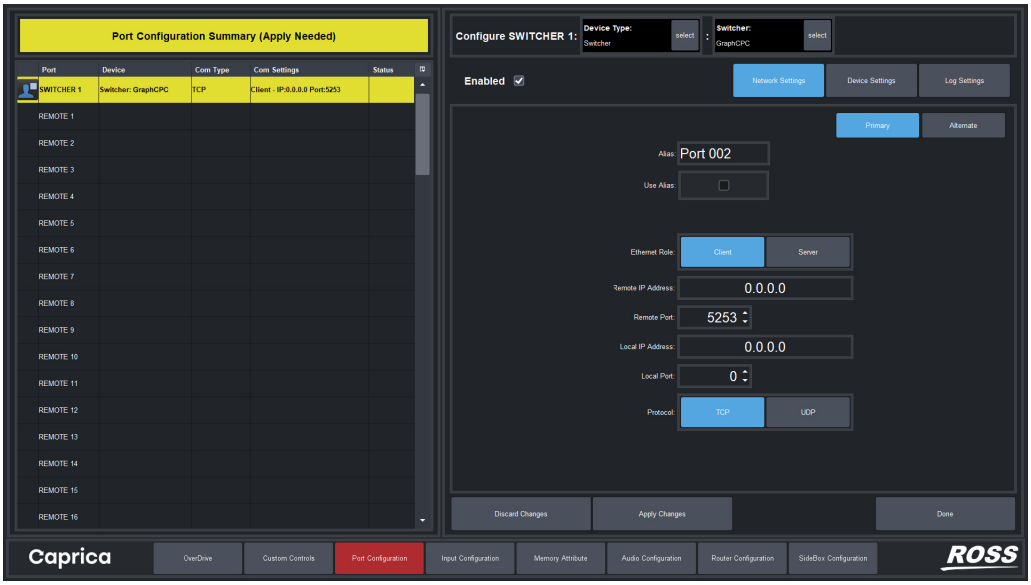
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Ross Video Graphite CPC All-In-One Production System in an OverDrive system.

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 OverDrive 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 OverDrive 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`.

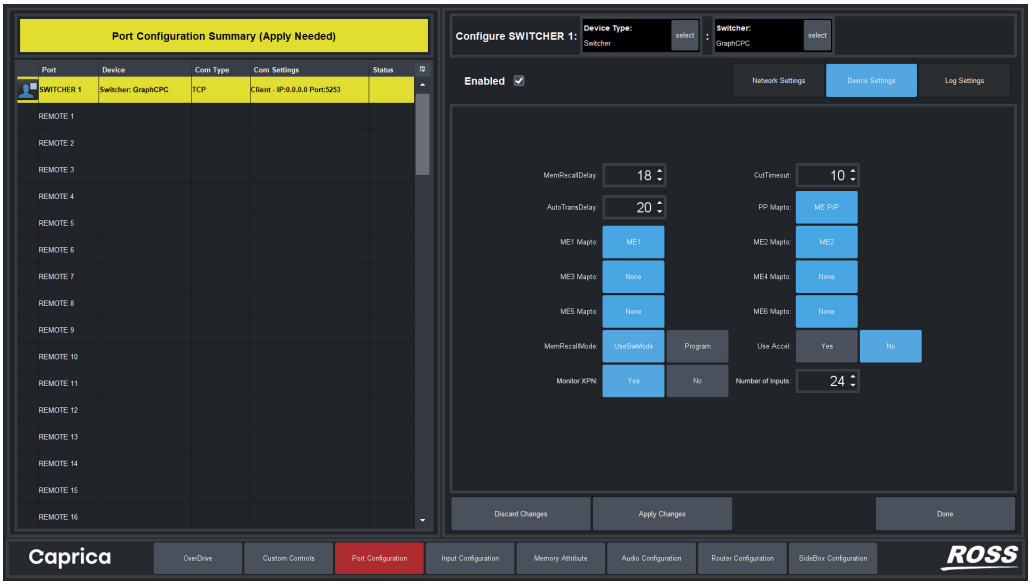
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 OverDrive 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 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 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 OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Grass Valley Kayak Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Grass Valley Kayak switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limintaitons
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Grass Valley Kayak Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limintaitons

The following limitation applies to an OverDrive system configured with a Grass Valley Kayak switcher connected to the OverDrive 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 Grass Valley Kayak switcher fade to and from black.

Setting Up the OverDrive System

To set up an OverDrive system with a Grass Valley Kayak switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 17–2.
- On the Caprica Server, create a Switcher device for your Grass Valley Kayak switcher.
  Refer to the section "**Configuring a Switcher Device for a Grass Valley Kayak Switcher**" on page 17–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 17–7.

Connecting the OverDrive System

In an OverDrive system, a Grass Valley Kayak switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 17.1**) illustrates the cabling layout of the Grass Valley Kayak switcher connection to an OverDrive system.

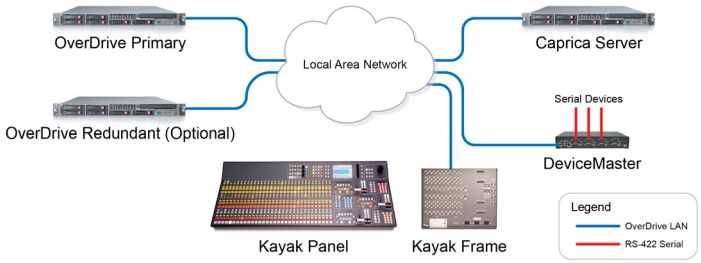


Figure 17.1 Grass Valley Kayak Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Grass Valley Kayak Frame

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

To connect a Grass Valley Kayak switcher to an OverDrive system

1. Verify that the **OverDrive 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 Grass Valley Kayak Frame to your internal network.

The following diagram (**Figure 17.2**) illustrates the overall cabling layout of an OverDrive system with a Grass Valley Kayak switcher.

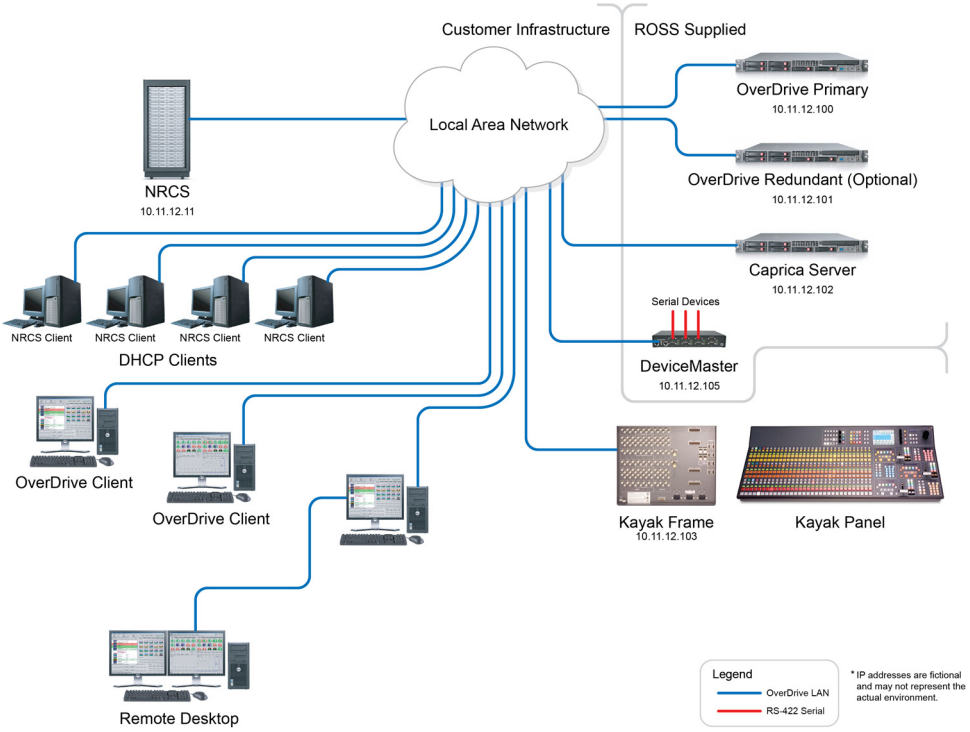


Figure 17.2 OverDrive System with a Grass Valley Kayak Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Grass Valley Kayak switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Grass Valley Kayak Switcher

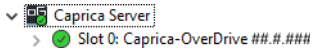
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Grass Valley Kayak switcher in an OverDrive system.

To configure the SWITCHER1 device for a Grass Valley Kayak 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**.

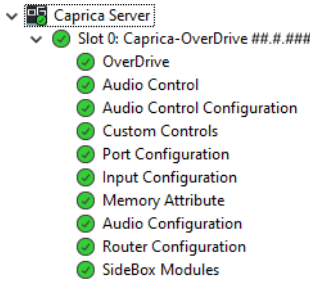
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



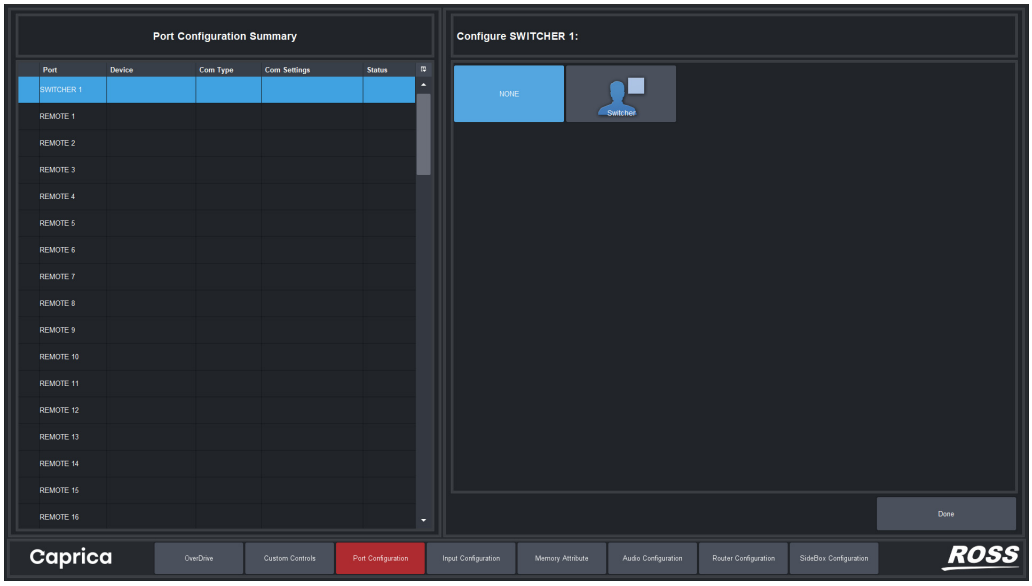
5. Double-click the **Port Configuration** node.

   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.



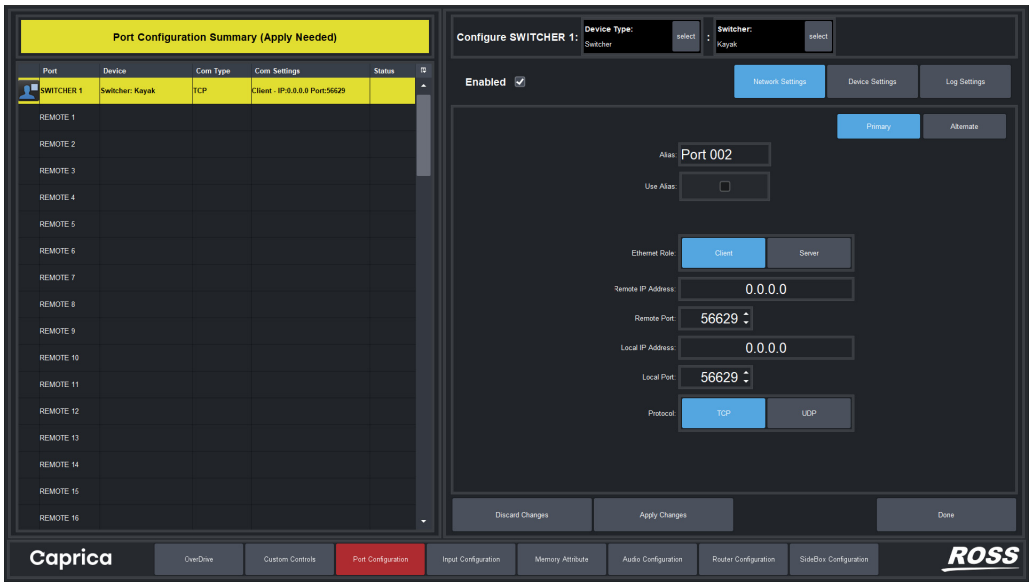
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Grass Valley Kayak switcher in an OverDrive system.

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

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

9. Click **Kayak**.

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

14. Use the **Remote Port** box to enter or select `56629`.

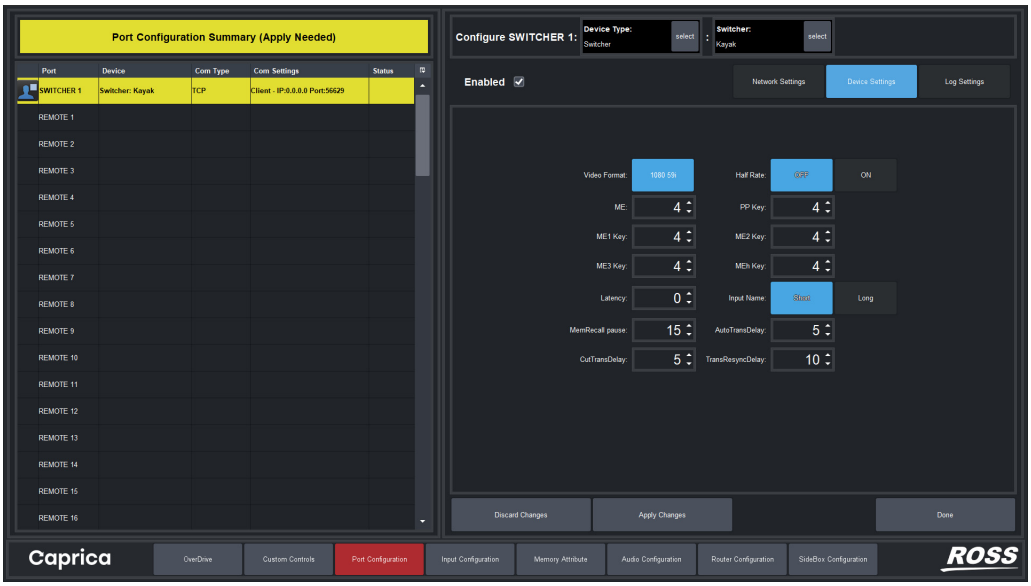
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `56629`.

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

18. Click **Device Settings**.

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



19. Click **Video Format** to select the format of the video output from the Kayak switcher.

20. Use the **Half Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:

    - **ON** — click this button to handle 30 interlaced fields as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields equal 0.5 seconds, 60 progressive frames equal 1 second.

21. Use the **ME** box to enter or select the number of MEs on your Kayak switcher.

22. Use the **PP Key** box to enter or select the number of keys on Program.

23. Use the **ME1 Key** box to enter or select the number of keys on ME 1.

24. Use the **ME2 Key** box to enter or select the number of keys on ME 2.

25. Use the **ME3 Key** box to enter or select the number of keys on ME 3.
26. Use the **MEh Key** box to enter or select the number of keys on the half ME.
27. Use the **Latency** box to enter or select `0`.
28. Use the **Input Name** buttons to set the length of switcher input names to display in OverDrive.
29. Use the **MemRecall pause** box to enter or select the number of fields to wait for memory recalls to complete.
30. 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.
31. Use the **CutTransDelay** box to enter or select the number of frames to wait after an Cut transition until everything is "settled", the transition is officially over, and OverDrive can continue.
32. Use the **TransResyncDelay** box to enter or select the number of fields to wait after a transition before performing a resync to obtain the OverDrive state.
33. Click **Apply Changes** to save the switcher settings.
34. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Grass Valley Kayenne Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Grass Valley Kayenne switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limintaitons
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Grass Valley Kayenne Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limintaitons

The following limitation applies to an OverDrive system configured with a Grass Valley Kayenne switcher connected to the OverDrive 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 Grass Valley Kayenne switcher fade to and from black.

Setting Up the OverDrive System

To set up an OverDrive system with a Grass Valley Kayenne switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 18–2.
- On the Caprica Server, create a Switcher device for your Grass Valley Kayenne switcher.
  Refer to the section "**Configuring a Switcher Device for a Grass Valley Kayenne Switcher**" on page 18–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 18–7.

Connecting the OverDrive System

In an OverDrive system, a Grass Valley Kayenne switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 18.1**) illustrates the cabling layout of the Grass Valley Kayenne switcher connection to an OverDrive system.

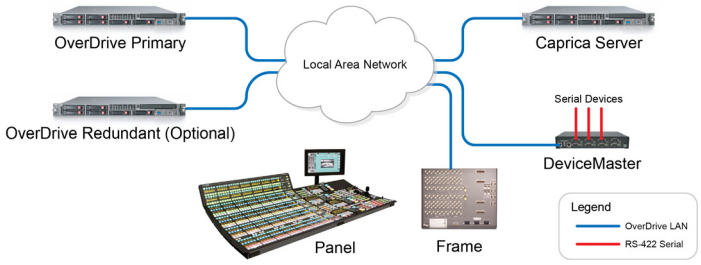


Figure 18.1 Grass Valley Kayenne Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Grass Valley Kayenne Frame

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

To connect a Grass Valley Kayenne switcher to an OverDrive system

1. Verify that the **OverDrive 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 Grass Valley Kayenne Frame to your internal network.

The following diagram (**Figure 18.2**) illustrates the overall cabling layout of an OverDrive system with a Grass Valley Kayenne switcher.

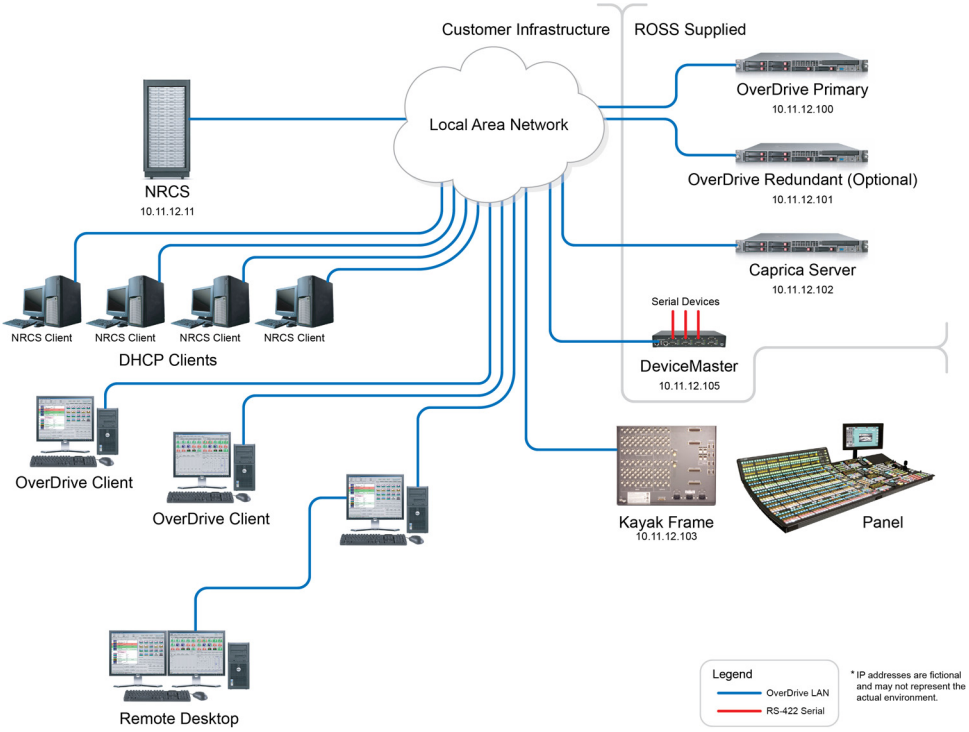


Figure 18.2 OverDrive System with a Grass Valley Kayenne Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Grass Valley Kayenne switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Grass Valley Kayenne Switcher

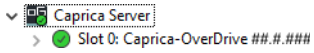
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Grass Valley Kayenne switcher in an OverDrive system.

To configure the SWITCHER1 device for a Grass Valley Kayenne 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**.

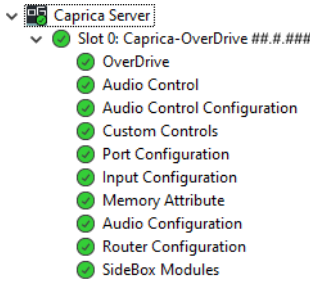
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



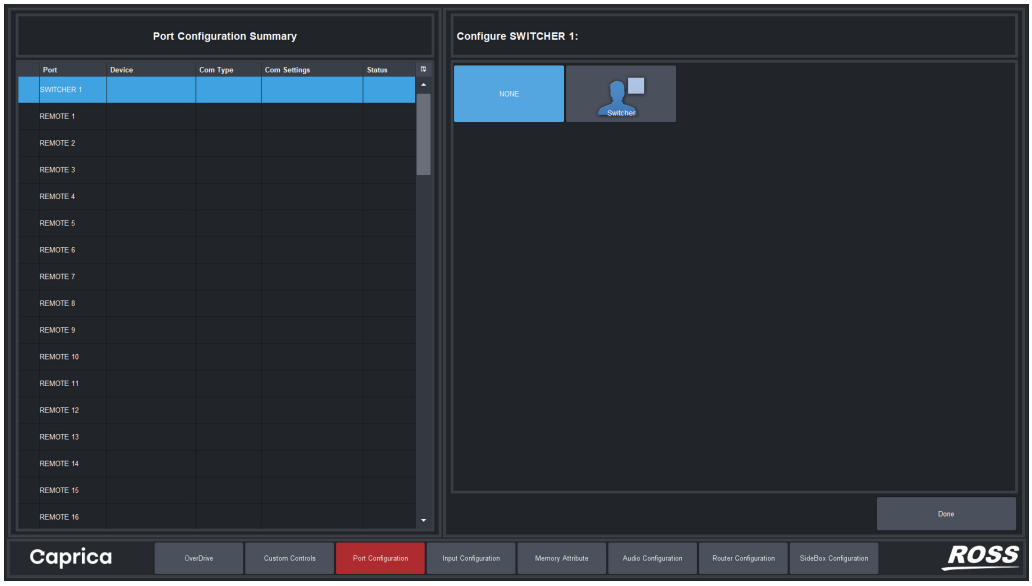
5. Double-click the **Port Configuration** node.

   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.



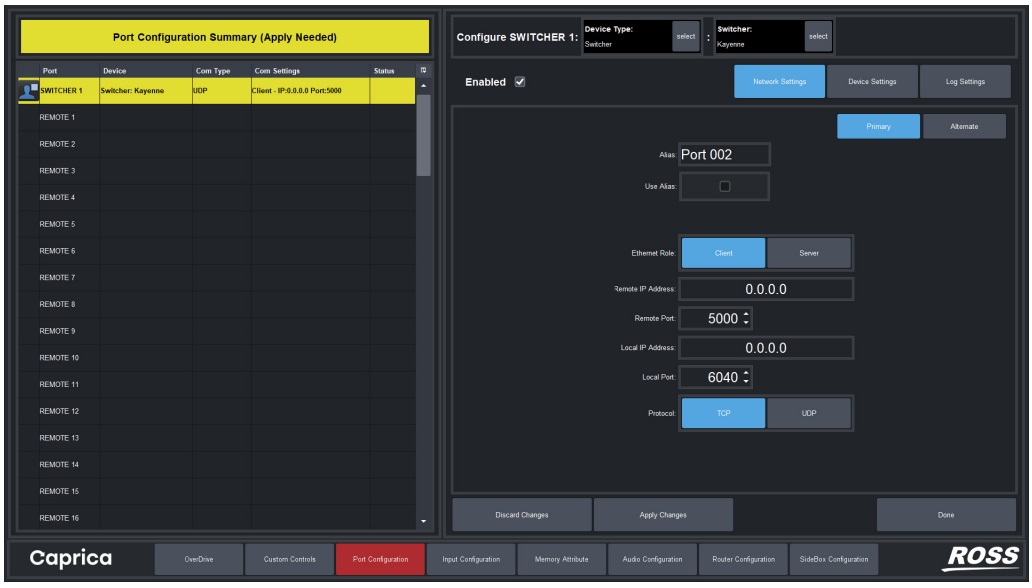
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Grass Valley Kayenne switcher in an OverDrive system.

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

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

9. Click **Kayenne**.

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

14. Use the **Remote Port** box to enter or select `5000`.

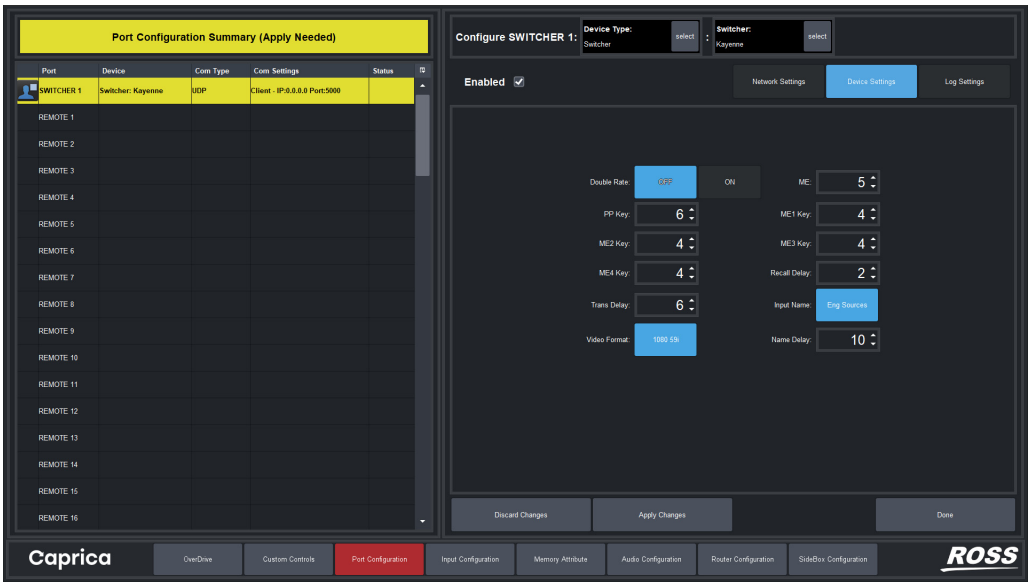
15. In the **Local IP Address** box, enter `0.0.0.0`.

16. Use the **Local Port** box to enter or select `6040`.

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

18. Click **Device Settings**.

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



19. Use the **Double Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:

    - **ON** — click this button to handle 30 interlaced fields or 60 progressive frames as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields as 0.5 seconds, and 60 progressive frames as 1 second.

20. Use the **ME** box to enter or select the number of MEs on your Kayenne switcher.

21. Use the **PP Key** box to enter or select the number of keys on Program.

22. Use the **ME1 Key** box to enter or select the number of keys on ME 1.

23. Use the **ME2 Key** box to enter or select the number of keys on ME 2.

24. Use the **ME3 Key** box to enter or select the number of keys on ME 3.

25. Use the **ME4 Key** box to enter or select the number of keys on ME 4.
26. Use the **Recall Delay** box to enter or select the number of frames to wait after a memory recall until everything is “settled”, the memory recall is officially over, and OverDrive can continue.
27. Use the **Trans Delay** box to enter or select the number of frames to wait after a Cut or AutoTrans transition until everything is “settled”, the transition is officially over, and OverDrive can continue.
28. Use the **Input Name** buttons to set the switcher input name to display in OverDrive.
29. Click **Video Format** to select the format of the video output from the Kayenne switcher.
30. Use the **Name Delay** box to enter or select the number of frames to wait for input names before sending a list of input names to OverDrive.
31. Click **Apply Changes** to save the switcher settings.
32. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section “**Configuring Caprica Communication Settings**” of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter “**Caprica Server Configuration**” on page 26–1.

Grass Valley Maverik Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Grass Valley Maverik switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Grass Valley Maverik Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitation applies to an OverDrive system configured with a Grass Valley Maverik switcher connected to the OverDrive system through a Caprica Server:

- When the Shift button is pressed on the Grass Valley Maverik switcher while Caprica and OverDrive are connected, the switcher alters the input mapping that it provides to Caprica. OverDrive then receives incorrect crosspoints from Caprica.
- OverDrive can select stills as a crosspoint, but you must use macros on the Grass Valley Maverik switcher to control the content of stills.
- The Fade To Black transition in OverDrive does not function. You can use the RossTalk FTB command or a GPI to make a Grass Valley Kayenne switcher fade to and from black.

For More Information on...

- using the Grass Valley Maverik switcher, refer to the ***Grass Valley Maverik User Guide***.
- using DirectControl, refer to the **DirectControl™** chapter in the ***OverDrive User Guide***.

Setting Up the OverDrive System

To set up an OverDrive system with a Grass Valley Maverik switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 19–2.
- On the Caprica Server, create a Switcher device for your Grass Valley Maverik switcher.
  Refer to the section "**Configuring a Switcher Device for a Grass Valley Maverik Switcher**" on page 19–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 19–7.

Connecting the OverDrive System

In an OverDrive system, a Grass Valley Maverik switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 19.1**) illustrates the cabling layout of the Grass Valley Maverik switcher connection to an OverDrive system.

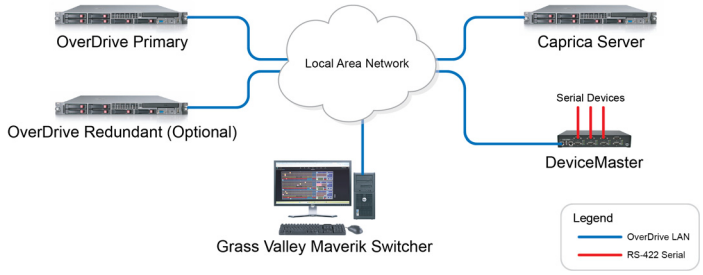


Figure 19.1 Grass Valley Maverik Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Grass Valley Maverik Switcher

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

To connect a Grass Valley Maverik switcher to an OverDrive system

1. Verify that the **OverDrive 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 Grass Valley Maverik switcher to your internal network.

The following diagram (**Figure 19.2**) illustrates the overall cabling layout of an OverDrive system with a Grass Valley Maverik switcher.

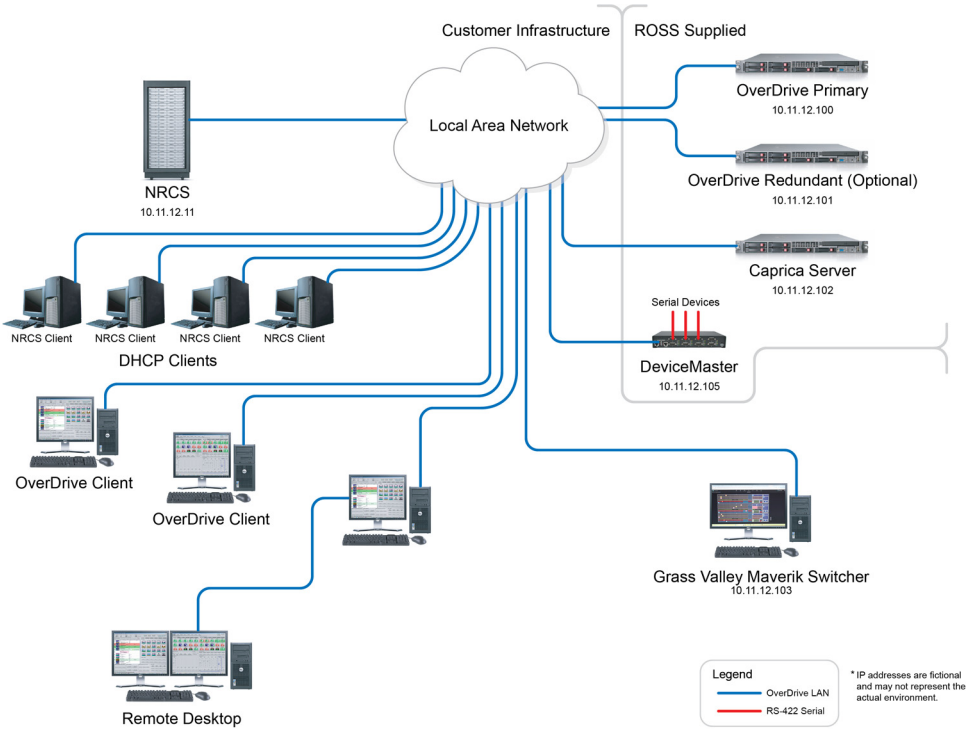


Figure 19.2 OverDrive System with a Grass Valley Maverik Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Grass Valley Maverik switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Grass Valley Maverik Switcher

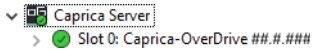
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Grass Valley Maverik switcher in an OverDrive system.

To configure the SWITCHER1 device for a Grass Valley Maverik 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**.

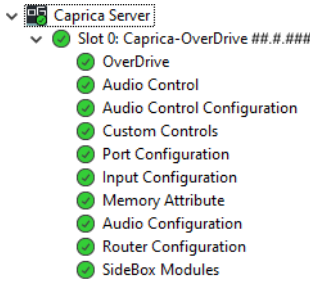
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



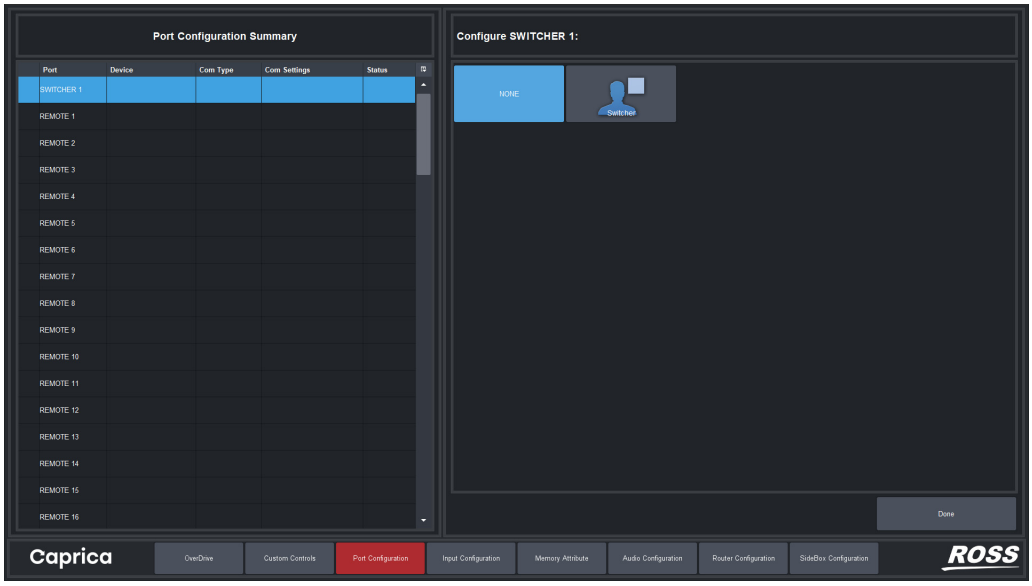
5. Double-click the **Port Configuration** node.

   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.



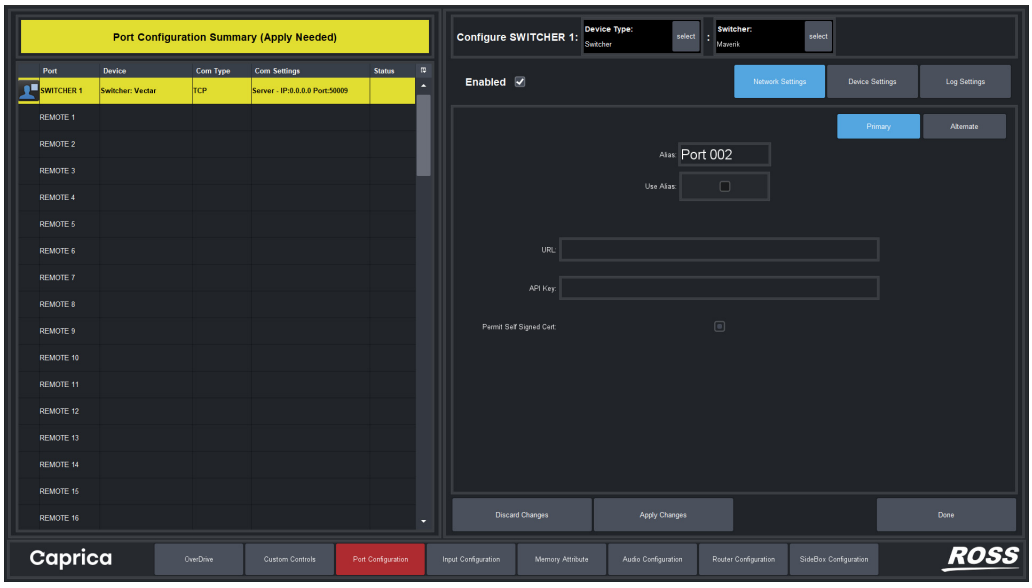
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Grass Valley Maverik switcher in an OverDrive system.

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

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

9. Click **Maverik**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Grass Valley Maverik 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 OverDrive 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 OverDrive use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

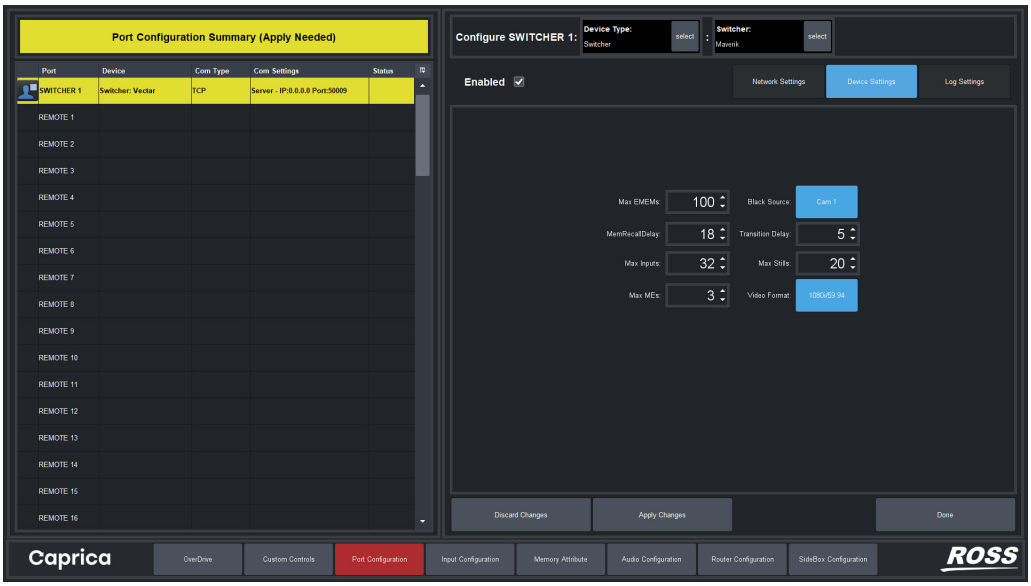
12. In the **URL** box, enter the URL of your Grass Valley Maverik switcher.

13. In the **API Key** box, enter the API key for your Grass Valley Maverik switcher.

14. When you want to use a self signed certificate for HTTPs access to your Grass Valley Maverik switcher, select the **Permit Self Signed Cert** check box.

15. Click **Device Settings**.

    The **Configure SWITCHER1** panel displays the **Device Settings** for a Grass Valley Maverik switcher.



16. Use the **Max EMEMs** box to enter or select the maximum

17. Click **Black Source** to select the source on your Grass Valley Maverik switcher to use as black

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

19. Use the **Transition Delay** box to enter or select the number of fields to wait for transitions to complete.

20. Use the **Max Inputs** box to enter or select the maximum number of inputs that OverDrive can use on your Grass Valley Maverik switcher.

21. Use the **Max Stills** box to enter or select the maximum number of stills that OverDrive can use on your Grass Valley Maverik switcher.

22. Use the **Max MEx** box to enter or select the maximum number of MEs that OverDrive can use on your Grass Valley Maverik switcher.

23. Click **Video Format** to select the video format set on your Grass Valley Maverik switcher.

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

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

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Snell Kahuna Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Snell Kahuna switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limintaitons
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring Your Snell Kahuna Switcher for Caprica
- Configuring a Switcher Device for a Snell Kahuna Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limintaitons

The following limitation applies to an OverDrive system configured with a Snell Kahuna switcher connected to the OverDrive 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 Snell Kahuna switcher fade to and from black.

Setting Up the OverDrive System

To set up an OverDrive system with a Snell Kahuna switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 20–2.
- On the Caprica Server, create a Switcher device for your Snell Kahuna switcher.
  Refer to the section "**Configuring a Switcher Device for a Snell Kahuna Switcher**" on page 20–5.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 20–9.

Connecting the OverDrive System

In an OverDrive system, a Snell Kahuna switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 20.1**) illustrates the cabling layout of the Snell Kahuna switcher connection to an OverDrive system.

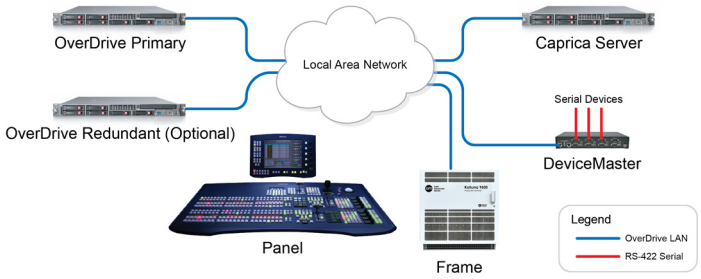


Figure 20.1 Snell Kahuna Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Snell Kahuna Frame

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

To connect a Snell Kahuna switcher to an OverDrive system

1. Verify that the **OverDrive 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 Snell Kahuna Frame to your internal network.

The following diagram (**Figure 20.2**) illustrates the overall cabling layout of an OverDrive system with a Snell Kahuna switcher.

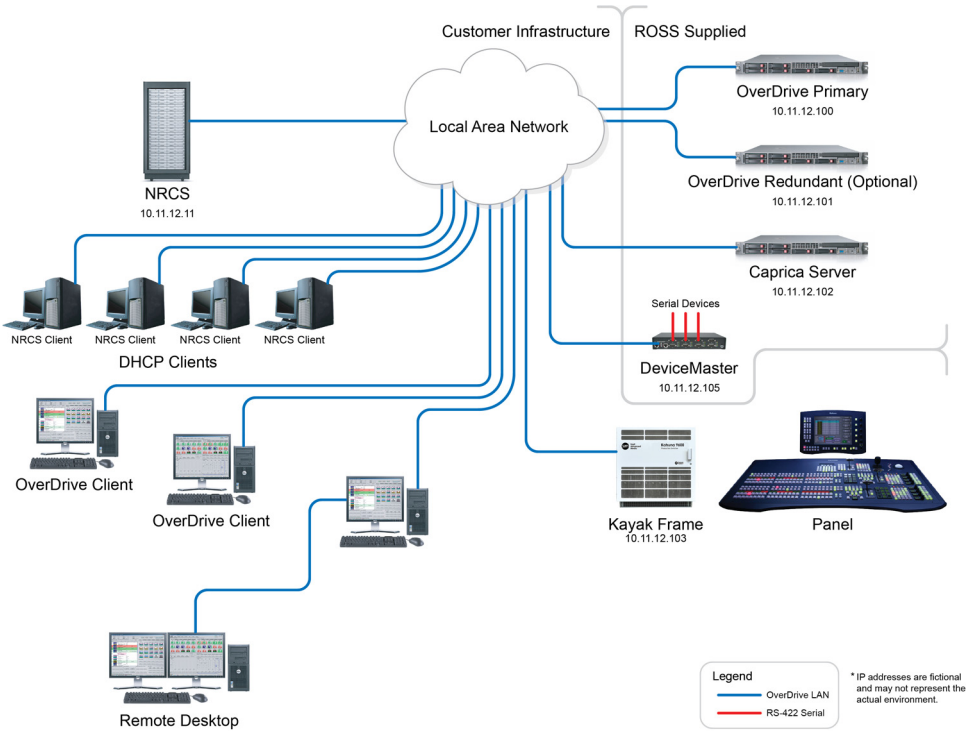


Figure 20.2 OverDrive System with a Snell Kahuna Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Snell Kahuna switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring Your Snell Kahuna Switcher for Caprica

Before you can use your Snell Kahuna switcher in your OverDrive system, you must configure your switcher to work with Caprica. The Snell Kahuna switcher connects to the OverDrive Server through a Caprica Server.

Setting the Editor Protocol

The Snell Kahuna switcher uses the Automation protocol to communicate with the Caprica Server in your OverDrive system.

To set the editor protocol

1. In the **Kahuna** menu, click **Engineering Config**.

   The **Engineering Config** menu opens.

2. Click **Protocols**.

   The **Engineering Config - Protocols** menu opens.

3. Use the **Loaded Protocols** list to select **Automation**.

   If the **Loaded Protocols** list does not contain the **Automation** protocol, complete the following steps to add the protocol to the list:

   a. In the **Loaded Protocols** list, select the **first empty line**.

   b. In the **Available Protocols** list, select **Automation**.

   c. Click **Load**.

      Your Snell Kahuna switcher loads the **Automation** protocol and displays it in the **Loaded Protocols** list.

4. Click **Configure** to configure communication settings for the Automation protocol.

5. Set your Snell Kahuna as an **IP Client**.

6. In the **IP Address of Server** section, enter the IP address and port number of your **Caprica Server** computer.

7. Click **Activate**.

   The Automation protocol is ready to enable.

Enabling the Editor Protocol

After you set and configure the Automation protocol as the Editor protocol for your Snell Kahuna switcher, you must enable the Editor protocol.

To enable the set Editor protocol

1. In the **System Configuration** section of the **Kahuna** menu, click **Peripherals**.

   The **Peripherals** menu opens.

2. Click **Editor Enable**.

   The **Editor Enable** button turns red to indicate that the set Editor protocol is enabled for your Snell Kahuna switcher.

3. Use the **Snapshot Recall** list to select **DMEM**.

4. Use the **Snapshot Project** list to select to project that contains your Macros and DMEM.

5. In the **Map ME** section, set the **Editor ME** to **Logical ME** mappings on your Snell Kahuna switcher to match the ME mappings set for your Caprica Snell Kahuna switcher device. The default ME mappings for a Caprica Snell Kahuna switcher device are as follows:
   - **PP** maps to **ME-3**
   - **ME 1** maps to **ME-1**
   - **ME 2** maps to **ME-2**
6. Use the **Crosspoint Offset** slider to set your Snell Kahuna switcher offset value on to the same value as the **XptOffset** parameter of your Caprica Snell Kahuna switcher device. The default **XptOffset** value for a Caprica Snell Kahuna switcher device is **0**.

Configuring Crosspoint Mapping

You can base the configuration of your control panel button to system crosspoints on M/E and bank.

To configure crosspoint mapping

1. In the **System Configuration** section of the **Kahuna** menu, click **Panel Config**.

   The **Panel Config** menu opens.
2. Click **Button Maps**.

   The **Panel Config - Button Map Assignment** menu opens.
3. Use the **Bank Button Maps** and the **ME Button Maps** sections to configure crosspoint mapping for your Snell Kahuna switcher.

Macros

The macros you create on your Snell Kahuna switcher are saved in a specified Snapshot Project. From Caprica you can use the SamSw Macro Custom Control to run a macro on your Snell Kahuna switcher.

For More Information on...

- creating Snell Kahuna switcher macros, refer to the ***Kahuna Production Switcher User Manual***.

DMEM

OverDrive prepares rundown shots by performing a memory recall on a specific ME, which your Snell Kahuna refers to as the Destination Memory (DMEM).

For More Information on...

- creating a Snell Kahuna switcher DMEM, refer to the ***Kahuna Production Switcher User Manual***.

Configuring a Switcher Device for a Snell Kahuna Switcher

The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Snell Kahuna switcher in an OverDrive system.

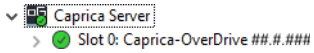
To configure the SWITCHER1 device for a Snell Kahuna switcher

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.

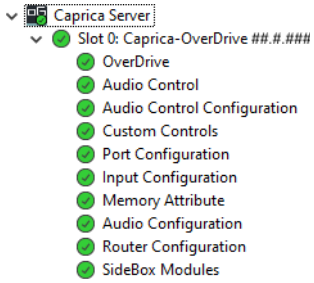
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

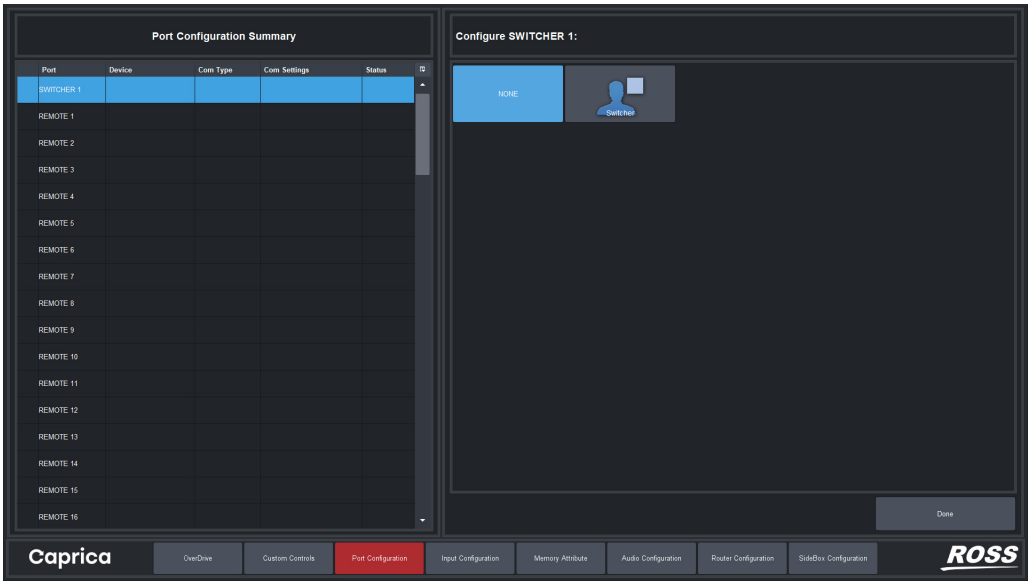
   The **Port Configuration** client opens in the **Device View**.

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.



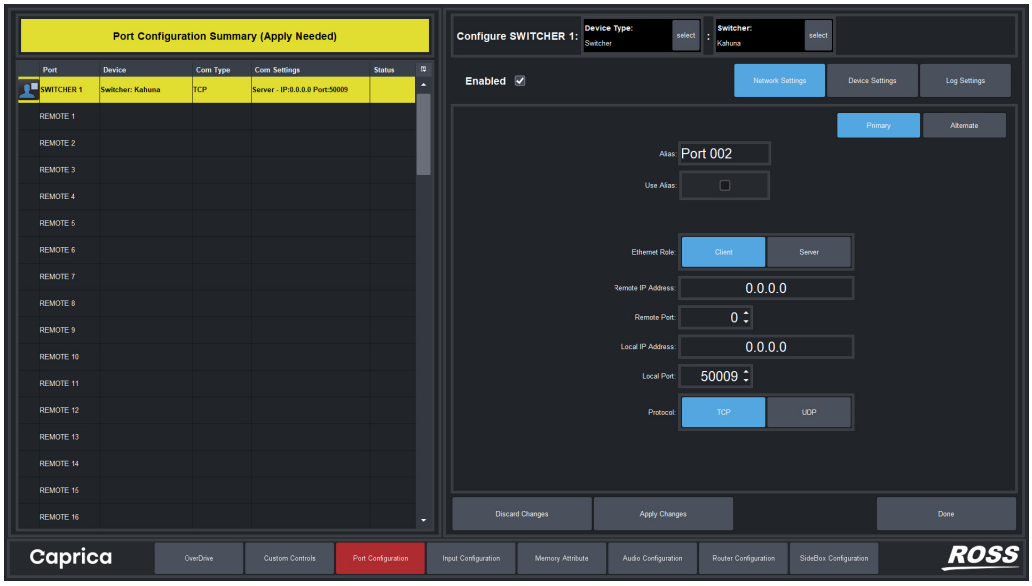
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Snell Kahuna switcher in an OverDrive system.

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

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

9. Click **Kahuna**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Snell Kahuna 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.

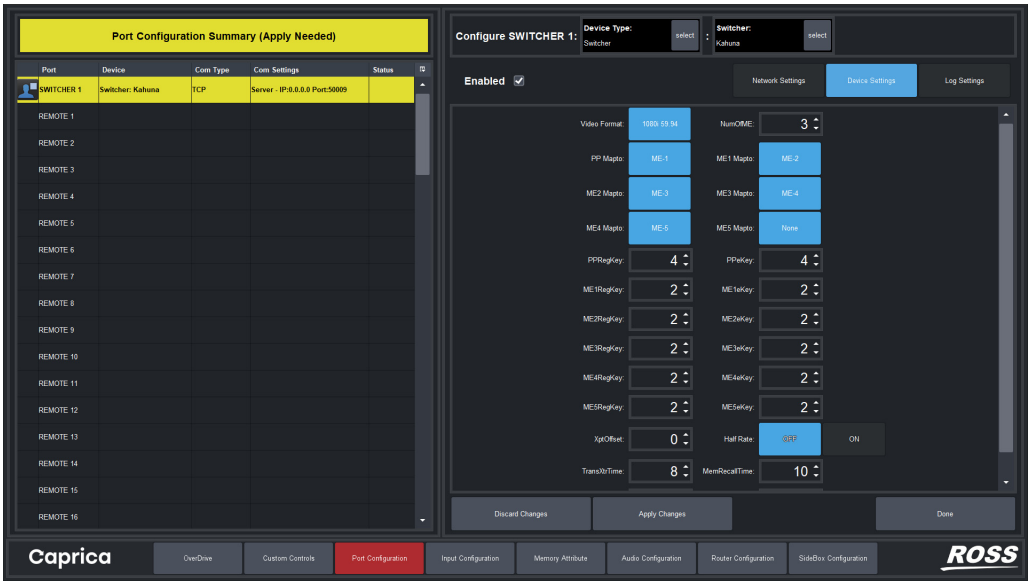
       The **Alias** column in the **Port Configuration Summary** table displays the custom name set for the remote port. The **Use Alias** column displays **Yes** to indicate that Caprica and OverDrive use the custom name set for the remote port.

       To use the default remote port name, clear the **Use Alias** check box. The **Use Alias** column displays **No** to indicate that Caprica and OverDrive 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 **Server**.
13. In the **Remote IP Address** box, enter `0.0.0.0`.
14. Use the **Remote Port** box to enter or select `0`.
15. In the **Local IP Address** box, enter `0.0.0.0`.
16. Use the **Local Port** box to enter or select the port used by your Snell Kahuna switcher.

    Port `50009` is the default port.
17. For the **Protocol** setting, click **TCP**.

18. Click **Device Settings**.

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



19. Click **Video Format** to select the format of the video output from your Snell Kahuna switcher.
20. Use the **NumOfME** box to enter or select the number of MEs on your Snell Kahuna switcher.
21. Click **PP Mapto** to select **ME-3** on your Snell Kahuna switcher to map to the Program bus in Caprica.
22. Click **ME1 Mapto** to select **ME-1** on your Snell Kahuna switcher to map to ME1 in Caprica.
23. Click **ME2 Mapto** to select **ME-2** on your Snell Kahuna switcher to map to ME2 in Caprica.
24. Click **ME3 Mapto** to select the ME on your Snell Kahuna switcher to map to ME3 in Caprica.
25. Click **ME4 Mapto** to select the ME on your Snell Kahuna switcher to map to ME4 in Caprica.
26. Click **ME5 Mapto** to select the ME on your Snell Kahuna switcher to map to ME5 in Caprica.
27. Use the **PPRegKey** box to enter or select the number of regular keyers on the Program bus.
28. Use the **PPeKey** to enter or select the number of extended keyers on the Program bus.
29. Use the **ME1RegKey** to enter or select the number of regular keyers on ME 1.
30. Use the **ME1eKey** to enter or select the number of extended keyers on ME 1.
31. Use the **ME2RegKey** to enter or select the number of regular keyers on ME 2.
32. Use the **ME2eKey** to enter or select the number of extended keyers on ME 2.
33. Use the **ME3RegKey** to enter or select the number of regular keyers on ME 3.
34. Use the **ME3eKey** to enter or select the number of extended keyers on ME 3.
35. Use the **ME4RegKey** to enter or select the number of regular keyers on ME 4.
36. Use the **ME4eKey** to enter or select the number of extended keyers on ME 4.
37. Use the **ME5RegKey** to enter or select the number of regular keyers on ME 5.
38. Use the **ME5eKey** to enter or select the number of extended keyers on ME 5.
39. In the **XptOffset** box, enter or select `0`.

40. Use the **Half Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:
    - **ON** — click this button to handle 30 interlaced fields as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields equal 0.5 seconds, 60 progressive frames equal 1 second.
41. Use the **TransXtrTime** box to enter or select the number of frames to wait after Cut or AutoTrans until everything is "settled", the Transition is officially over, and OverDrive can continue.
42. Use the **MemRecallTime** box to enter or select the number of frames to wait after a memory recall until everything is "settled", the memory recall is officially over, and OverDrive can continue.
43. Use the **CacheProjectTime** box to enter or select the number of frames to wait after a macro recall from the Cache Project until everything is "settled", the macro recall is officially over, and OverDrive can continue. A macro will not run without a pausing after recalling the macro from the Cache Project.
44. Use the **NumOfStores** box to enter or select the number of media file stores on your Snell Kahuna switcher.
45. Use the **KeyDelay** box to enter or select the number of frames to delay the key when resetting the switcher transition area before a transition is made on your Snell Kahuna switcher.

    Increasing the number of frames to delay the key enables the switcher to complete a key cut before resetting the transition area.
46. Click **Apply Changes** to save the switcher settings.
47. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Snell Kula Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Snell Kula switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring Your Snell Kula Switcher for Caprica
- Configuring a Switcher Device for a Snell Kula Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitation applies to an OverDrive system configured with a Snell Kula switcher connected to the OverDrive 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 Snell Kula switcher fade to and from black.
- OverDrive does not support AutoTrans of DSKs.
- OverDrive does not receive an update from a Snell Kula switcher when a user hot punches on the switcher source. As a result of a hot punch, the audio and on-air indications may be out of sync. You can overcome this limitation by using the Hot Cut Bus View in DirectControl or a Custom Control to hot punch a crosspoint.

For More Information on...

- using DirectControl, refer to the **DirectControl™** chapter in the ***OverDrive User Guide***.

Setting Up the OverDrive System

To set up an OverDrive system with a Snell Kula switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 21–2.
- On the Caprica Server, create a Switcher device for your Snell Kula switcher.
  Refer to the section "**Configuring a Switcher Device for a Snell Kula Switcher**" on page 21–6.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 21–9.

Connecting the OverDrive System

In an OverDrive system, a Snell Kula switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 21.1**) illustrates the cabling layout of the Snell Kula switcher connection to an OverDrive system.

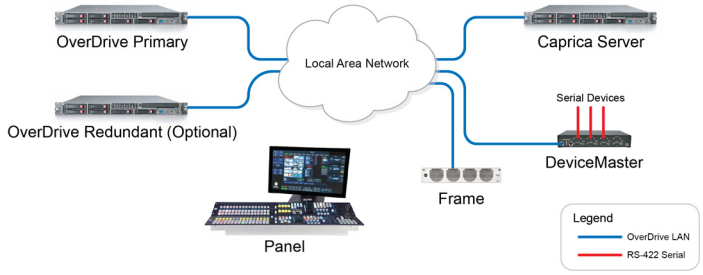


Figure 21.1 Snell Kula Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Snell Kula Frame

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

To connect a Snell Kula switcher to an OverDrive system

1. Verify that the **OverDrive 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 Snell Kula Frame to your internal network.

The following diagram (**Figure 21.2**) illustrates the overall cabling layout of an OverDrive system with a Snell Kula switcher.

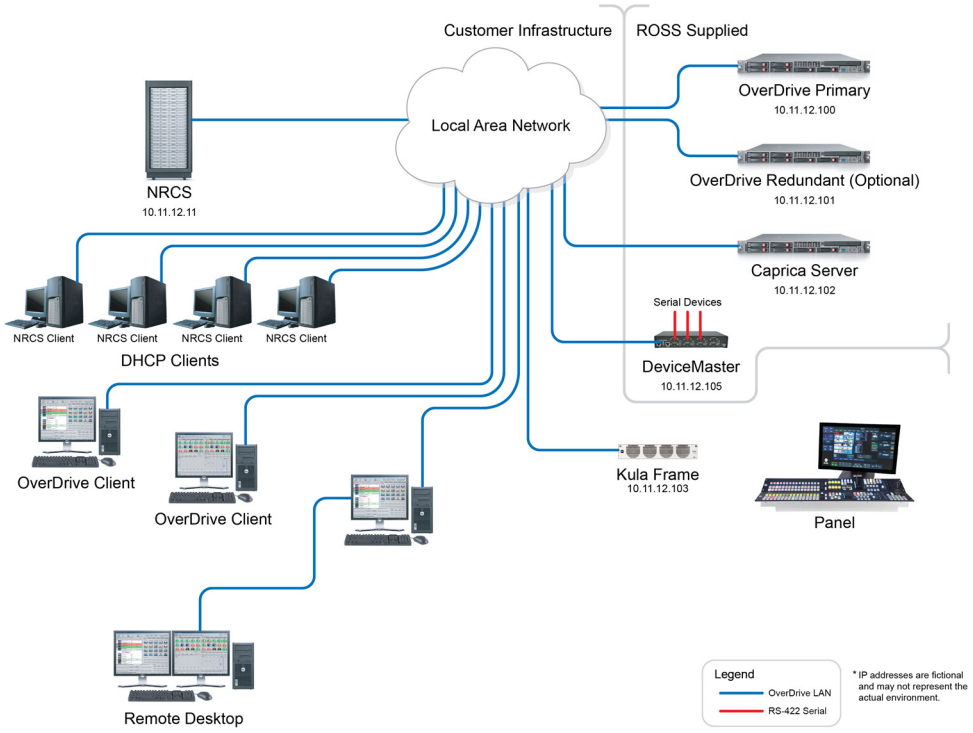


Figure 21.2 OverDrive System with a Snell Kula Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Snell Kula switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring Your Snell Kula Switcher for Caprica

Before you can use your Snell Kula switcher in your OverDrive system, you must configure your switcher to work with Caprica. The Snell Kula switcher connects to the OverDrive Server through a Caprica Server.

Configuring Three MEs

The Snell Kula switcher has two MEs and two subMEs switcher. You can use the subMEs to configure your Snell Kula switcher with three MEs for OverDrive.

To configure three MEs

1. In the **Kula** menu, click **Up** until the top menu opens.
2. Click **Defaults**.

   The **Defaults** menu opens.
3. Click **LogOffFromMainFrame**.

   The **Connect** menu opens.
4. Click **Mainframe Config**.

   The **Mainframe Configuration** menu opens.
5. Click **SME 1&2 As ME3**.

   Your Snell Kula switcher now uses subMEs 1 and 2 as ME 3.
6. Click **Up** until the **Connect** menu opens.
7. Click **Switcher Login** to log back in to your Snell Kula switcher.

Setting the Editor Protocol

The Snell Kula switcher uses the Automation protocol to communicate with the Caprica Server in your OverDrive system.

To set the editor protocol

1. In the **Kula** menu, click **Engineering Config**.

   The **Engineering Config** menu opens.
2. Click **Protocols**.

   The **Engineering Config - Protocols** menu opens.
3. Use the **Loaded Protocols** list to select **Automation**.

   If the **Loaded Protocols** list does not contain the **Automation** protocol, complete the following steps to add the protocol to the list:

   a. In the **Loaded Protocols** list, select the **first empty line**.

   b. In the **Available Protocols** list, select **Automation**.

   c. Click **Load**.

      Your Snell Kula switcher loads the **Automation** protocol and displays it in the **Loaded Protocols** list.
4. Click **Configure** to configure communication settings for the Automation protocol.
5. Set your Snell Kula as an **IP Client**.
6. In the **IP Address of Server** section, enter the IP address and port number of your **Caprica Server** computer.
7. Click **Activate**.

   The Automation protocol is ready to enable.

Enabling the Editor Protocol

After you set and configure the Automation protocol as the Editor protocol for your Snell Kula switcher, you must enable the Editor protocol.

To enable the set Editor protocol

1. In the **System Configuration** section of the **Kula** menu, click **Peripherals**.

   The **Peripherals** menu opens.

2. Click **Editor Enable**.

   The **Editor Enable** button turns red to indicate that the set Editor protocol is enabled for your Snell Kula switcher.

3. Use the **Snapshot Recall** list to select **DMEM**.

4. Use the **Snapshot Project** list to select to project that contains your Macros and DMEM.

5. In the **Map ME** section, set the **Editor ME** to **Logical ME** mappings on your Snell Kula switcher to match the ME mappings set for your Caprica Snell Kula switcher device. The default ME mappings for a Caprica Snell Kula switcher device are as follows:

   - **PP** maps to **ME-3**
   - **ME 1** maps to **ME-1**
   - **ME 2** maps to **ME-2**

6. Use the **Crosspoint Offset** slider to set your Snell Kula switcher offset value on to the same value as the **XptOffset** parameter of your Caprica Snell Kula switcher device. The default **XptOffset** value for a Caprica Snell Kula switcher device is **0**.

Configuring Crosspoint Mapping

You can base the configuration of your control panel button to system crosspoints on M/E and bank.

To configure crosspoint mapping

1. In the **System Configuration** section of the **Kula** menu, click **Panel Config**.

   The **Panel Config** menu opens.

2. Click **Button Maps**.

   The **Panel Config - Button Map Assignment** menu opens.

3. Use the **Bank Button Maps** and the **ME Button Maps** sections to configure crosspoint mapping for your Snell Kula switcher.

Macros

The macros you create on your Snell Kula switcher are saved in a specified Snapshot Project. From Caprica you can use the SamSw Macro Custom Control to run a macro on your Snell Kula switcher.

For More Information on...

- creating Snell Kula switcher macros, refer to the ***Kula Production Switcher User Manual***.

DMEM

OverDrive prepares rundown shots by performing a memory recall on a specific ME, which your Snell Kula refers to as the Destination Memory (DMEM).

For More Information on...

- creating a Snell Kula switcher DMEM, refer to the ***Kula Production Switcher User Manual***.

Configuring a Switcher Device for a Snell Kula Switcher

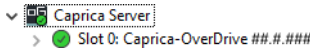
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Snell Kula switcher in an OverDrive system.

To configure the SWITCHER1 device for a Snell Kula 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**.

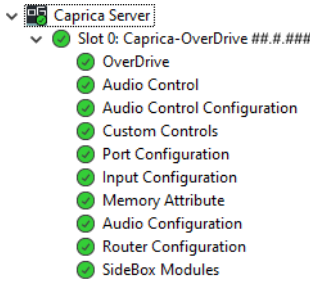
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



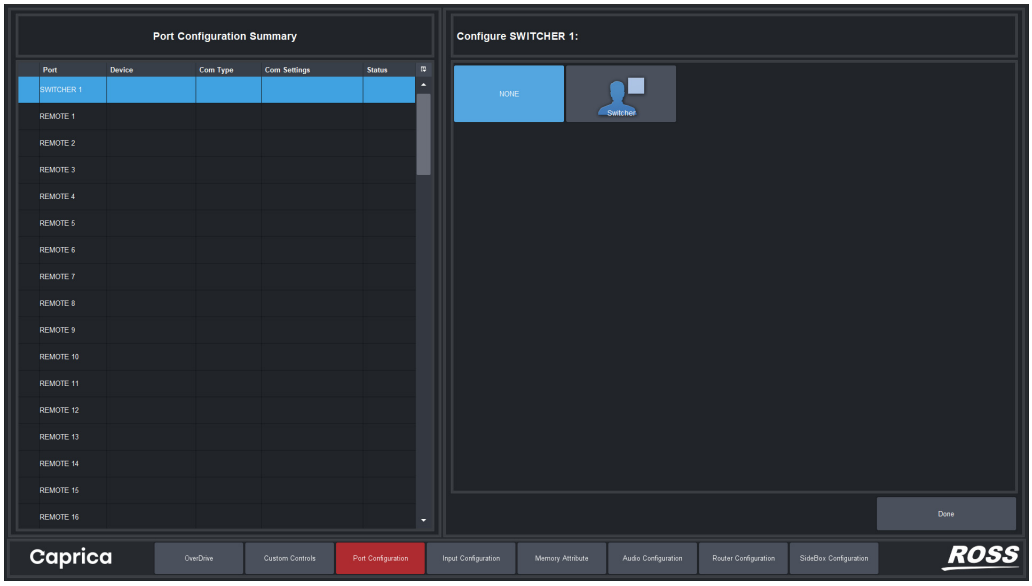
5. Double-click the **Port Configuration** node.

   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.



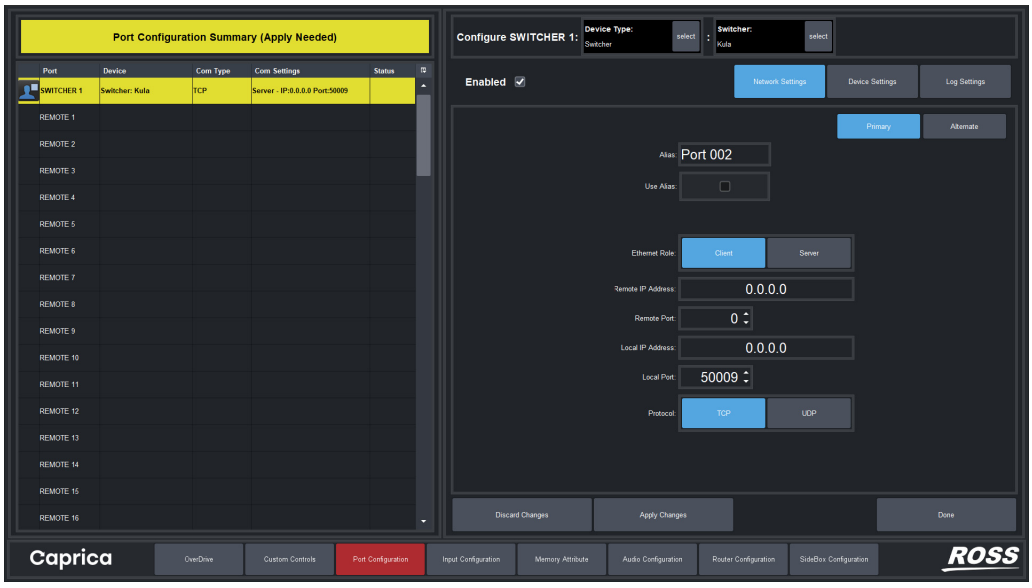
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Snell Kula switcher in an OverDrive system.

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

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

9. Click **Kula**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Snell Kula 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 OverDrive 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 OverDrive 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 **Server**.

13. In the **Remote IP Address** box, enter `0.0.0.0`.

14. Use the **Remote Port** box to enter or select `0`.

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

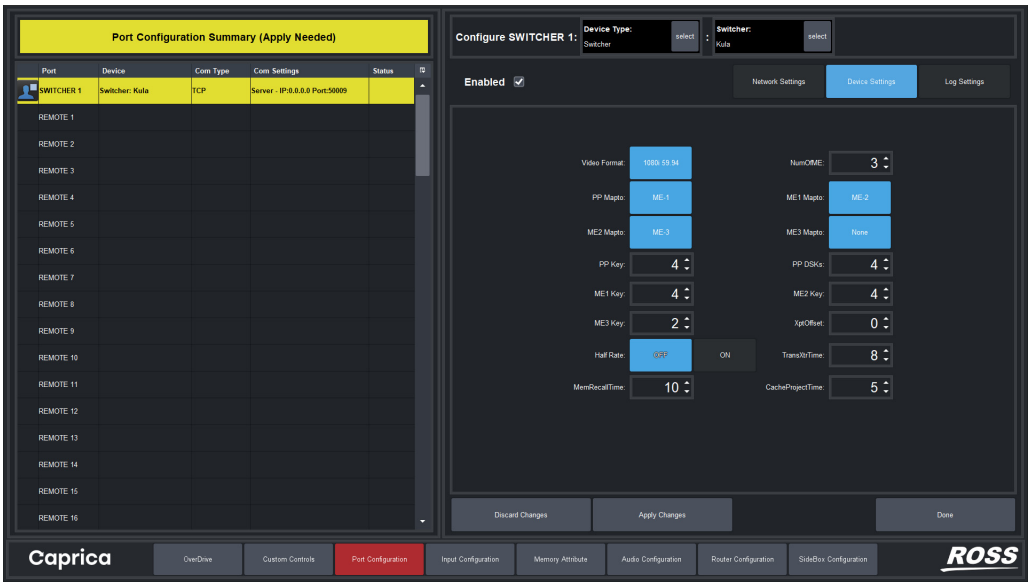
16. Use the **Local Port** box to enter or select the port used by your Snell Kula switcher.

    Port `50009` is the default port.

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

18. Click **Device Settings**.

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



19. Click **Video Format** to select the format of the video output from your Snell Kula switcher.

20. Use the **NumOfME** box to enter or select the number of MEs on your Snell Kula switcher.

21. Click **PP Mapto** to select **ME-3** on your Snell Kula switcher to map to the Program bus in Caprica.

22. Click **ME1 Mapto** to select **ME-1** on your Snell Kula switcher to map to ME1 in Caprica.

23. Click **ME2 Mapto** to select **ME-2** on your Snell Kula switcher to map to ME2 in Caprica.

24. Click **ME3 Mapto** to select the ME on your Snell Kahuna switcher to map to ME3 in Caprica.

25. Use the **PP Key** box to enter or select the number of keyers on the Program bus.

26. Use the **PP DSKs** box to enter or select the number of down stream keyers on the Program bus.

27. Use the **ME1 Key** to enter or select the number of keyers on ME 1.
28. Use the **ME2 Key** to enter or select the number of keyers on ME 2.
29. Use the **ME3 Key** to enter or select the number of keyers on ME 3.
30. In the **XptOffset** box, enter or select `0`.
31. Use the **Half Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:
    - **ON** — click this button to handle 30 interlaced fields as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields equal 0.5 seconds, 60 progressive frames equal 1 second.
32. Use the **TransXtrTime** box to enter or select the number of frames to wait after Cut or AutoTrans until everything is "settled", the Transition is officially over, and OverDrive can continue.
33. Use the **MemRecallTime** box to enter or select the number of frames to wait after a memory recall until everything is "settled", the memory recall is officially over, and OverDrive can continue.
34. Use the **CacheProjectTime** box to enter or select the number of frames to wait after a macro recall from the Cache Project until everything is "settled", the macro recall is officially over, and OverDrive can continue. A macro will not run without a pausing after recalling the macro from the Cache Project.
35. Click **Apply Changes** to save the switcher settings.
36. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Sony MVS-8000G Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Sony MVS-8000G switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring the Ethernet to Serial Server
- Configuring the Sony MVS-8000G Switcher Engineering Setup
- Defining Sony Macros for Caprica Support
- Configuring a Switcher Device for a Sony MVS-8000G Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Sony MVS-8000G switcher connected to the OverDrive 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 Sony MVS-8000G switcher fade to and from black.
- OverDrive does not receive an update from a Sony MVS-8000G switcher when a user hot punches on the switcher source. As a result of a hot punch, the audio and on-air indications may be out of sync. You can overcome this limitation by using the Hot Cut Bus View in DirectControl or a Custom Control to hot punch a crosspoint.

For More Information on...

- using DirectControl, refer to the **DirectControl™** chapter in the ***OverDrive User Guide***.

Setting Up the OverDrive System

To set up an OverDrive system with a Sony MVS-8000G switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 22–12.
- On the Caprica Server, create a Switcher device for your Sony MVS-8000G switcher.
  Refer to the section "**Configuring a Switcher Device for a Sony MVS-8000G Switcher**" on page 22–23.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 22–26.

Connecting the OverDrive System

In an OverDrive system, a Sony MVS-8000G switcher connects to the OverDrive Server through an Ethernet to serial server and a Caprica Server. The following diagram (**Figure 22.1**) illustrates the cabling layout of the Sony MVS-8000G switcher connection to an OverDrive system.

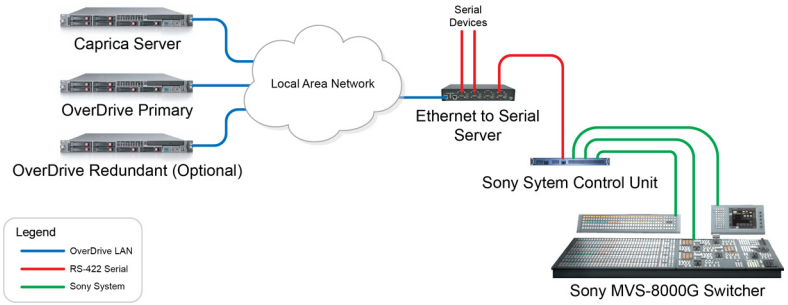


Figure 22.1 Sony MVS-8000G Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- Ethernet to serial server for serial device connections
- Sony MVS-8000G switcher and Sony System Control Unit

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

To connect a Sony MVS-8000G switcher to an OverDrive system

1. Verify that the **OverDrive 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 or SeaLINK **10/100 BASE T** port to your internal network.
4. Depending on the type of **Ethernet to serial server** in your OverDrive system, use a 15-pin to 9-pin **Interface** cable to connect the Sony System Control Unit **Editor Panel** port to the server port **1**, **2**, **3**, or **4**. The **Interface** cable pinouts are as follows:

   DeviceMaster

Editor Panel			Interface Cable						DeviceMaster	
DB-15 Female			DB-15 Male			DB-9 Male			DB-9 Female	
Pin	Signal		Pin	Signal		Pin	Signal		Pin	Signal
1	N/C									
2	RxA (Rx-)	>	2	RxA (Rx-)	>	3	TxA (Tx-)	>	3	TxA (Tx-)
3	TxB (Tx+)	>	3	TxB (Tx+)	>	8	RxB (Rx+)	>	8	RxB (Rx+)
4	N/C									
5	N/C									
6	N/C									
7	N/C									
8	N/C									
9	N/C									
10	RxB (Rx+)	>	10	RxB (Rx+)	>	7	TxB (Tx+)	>	7	TxB (Tx+)
11	TxA (Tx-)	>	11	TxA (Tx-)	>	2	RxA (Rx-)	>	2	RxA (Rx-)
12	N/C									
13	N/C									
14	N/C									
15	N/C									

SeaLINK

Editor Panel			Interface Cable						SeaLINK	
DB-15 Female			DB-15 Male			DB-9 Male			DB-9 Female	
Pin	Signal		Pin	Signal		Pin	Signal		Pin	Signal
1	N/C									
2	RxA (Rx-)	>	2	RxA (Rx-)	>	3	TxA (Tx-)	>	3	TxA (Tx-)
3	TxB (Tx+)	>	3	TxB (Tx+)	>	1	RxB (Rx+)	>	1	RxB (Rx+)
4	N/C									
5	N/C									
6	N/C									
7	N/C									
8	N/C									
9	N/C									
10	RxB (Rx+)	>	10	RxB (Rx+)	>	4	TxB (Tx+)	>	4	TxB (Tx+)
11	TxA (Tx-)	>	11	TxA (Tx-)	>	2	RxA (Rx-)	>	2	RxA (Rx-)
12	N/C									
13	N/C									
14	N/C									
15	N/C									

- Unused control signals should be terminated. Unused RTS and CTS signals can be terminated by connecting the RTS+ pin to the CTS+ pin and the RTS- pin to the CTS- pin. Terminating unused signals helps ensure the best performance from your SeaLINK.

The following diagram (**Figure 22.2**) illustrates the overall cabling layout of an OverDrive system with a Sony MVS-8000G switcher.

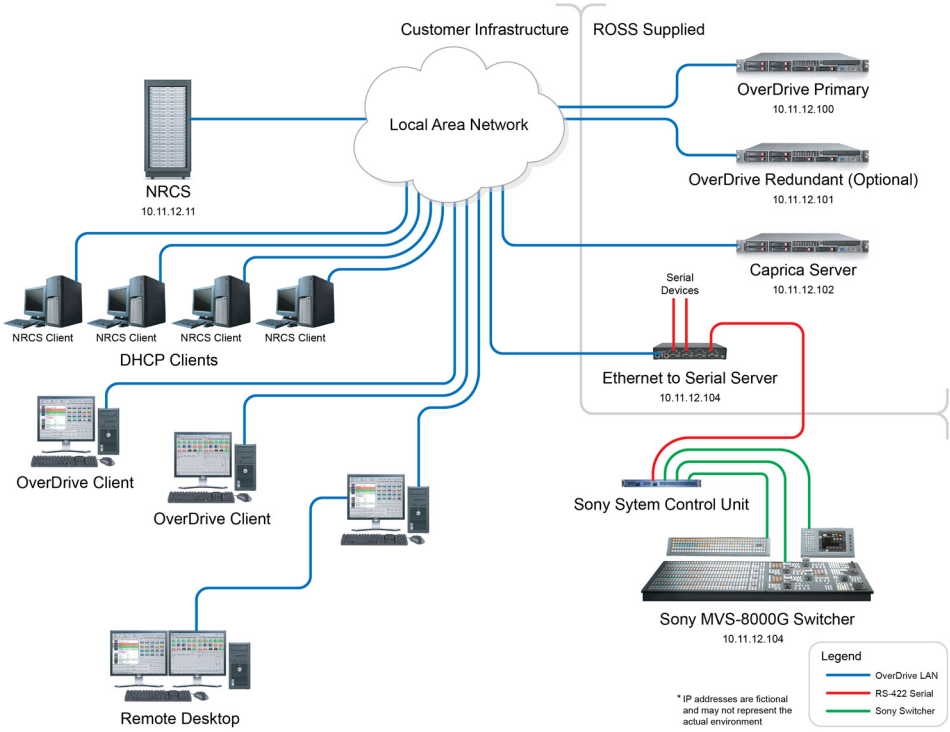


Figure 22.2 OverDrive System with a Sony MVS-8000G Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Sony MVS-8000G switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring the Ethernet to Serial Server

The Ethernet to serial server in an OverDrive system handles the communication between the Sony MVS-8000G switcher and Caprica Server. OverDrive systems can contain a DeviceMaster or SeaLINK Ethernet to serial server. Use one of the following sections to configure the Ethernet to serial server in your OverDrive System:

- "**DeviceMaster**" on page 22–16
- "**SeaLINK**" on page 22–18

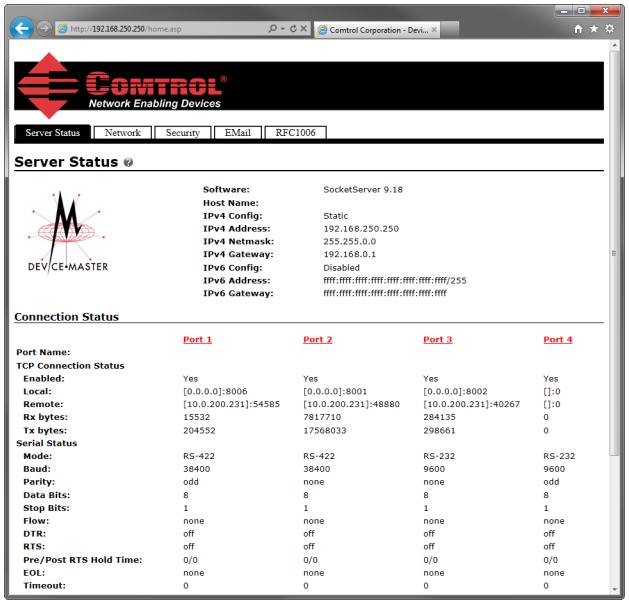
DeviceMaster

The Sony MVS-8000G switcher connects to a serial port on the DeviceMaster. You must configure the connected DeviceMaster serial port to communicate with the Sony MVS-8000G switcher.

To configure the DeviceMaster network settings

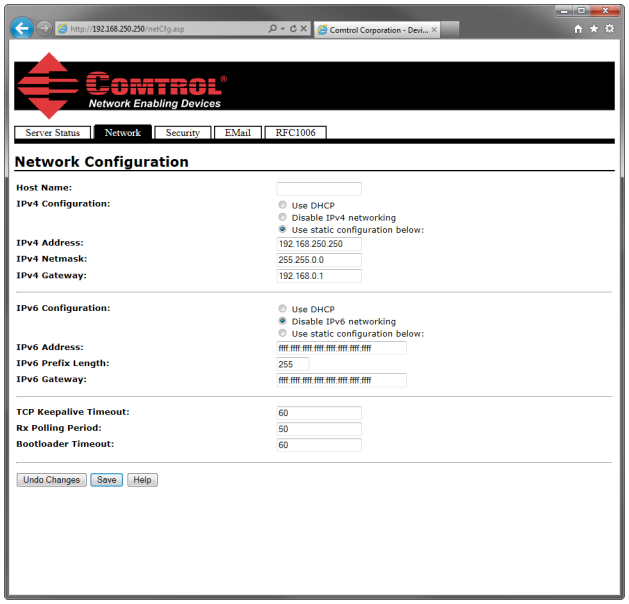
1. Use a web browser to open the **Server Status** web page for your DeviceMaster. The default IP address for a DeviceMaster is `192.168.250.250`.

   The **Server Status** web page opens in the web browser.



2. Click the **Network** tab.

   The **Network** web page opens.



3. For the **IPv4 Configuration** setting, select the **Use static configuration below** option.

✶ The DeviceMaster requires static IP Address to enable the Sony MVS-8000G Switcher to connect to OverDrive Server.

4. In the **IPv4 Address** box, enter the IP address for the DeviceMaster.

   The SeaLINK **IP Address** must match the **Remote IP Address** set for the Sony MVS-8000G switcher (Refer to step **13** in the **To configure the SWITCHER1 device for a Sony MVS-8000G switcher** procedure) device on the Caprica Server.

5. In the **IPv4 Netmask** box, enter the netmask for your network.
6. In the **IPv4 Gateway** box, enter the IP address of the gateway for your network
7. Click **Save**.

   The **Network Configuration Updated** web page opens.

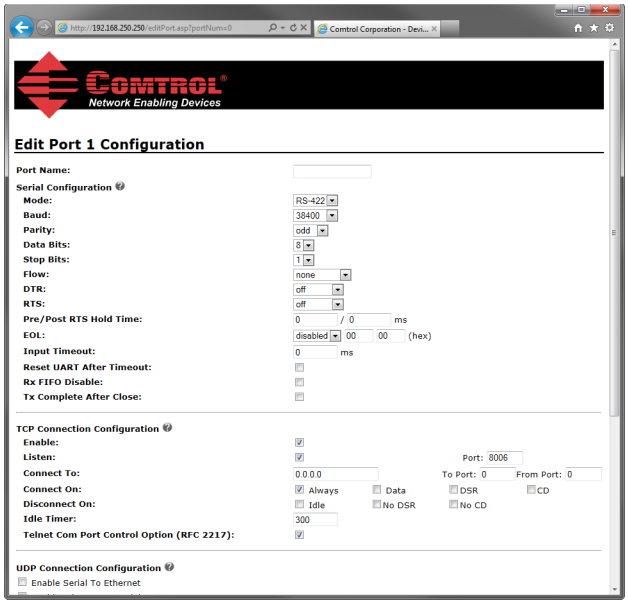
8. Click **Continue**.
9. Click the **Server Status** tab.

   The **Server Status** web page opens.

To configure the serial port settings for a Sony MVS-8000G switcher

1. On the **Server Status** web page of your DeviceMaster, click **Port #** link for the port number on the DeviceMaster that you connect your Sony MVS-8000G switcher.

   The **Edit Port # Configuration** web page opens for the selected port.



2. In the **Port Name** box, enter **Sony MVS-8000G Switcher**.
3. In the **Serial Configuration** section, use the **Mode** list to select **RS-422**.
4. Use the **Baud** list to select **38400**.
5. Use the **Parity** list to select **odd**.
6. Use the **Data Bits** list to select **8**.
7. Use the **Stop Bits** list to select **1**.
8. Use the **DTR** list to select **off**.
9. Use the **EOL** list to select **disabled**.
10. In the **TCP Connection Configuration** section, select the **Enable** check box.
11. Select the **Listen** check box.

12. In the **Port** box, enter the port number that the DeviceMaster uses to listen for communication from the Sony System Control Unit.

    The DeviceMaster **Port** must match the **Remote Port** set for the **Sony MVS-8000G Switcher** device on the **Caprica Server** (Refer to step **14**). Ross Video suggests that you start numbering ports from 1001.

13. Select the **Telnet Com Port Control Option (RFC 2217)** check box.

14. Click **Save**.

    The **Port Configuration Updated** web page opens.

15. Click **OK**.

    The **Server Status** web page opens.

16. Click **Reboot**.

    The DeviceMaster reboots with the new configuration.

For More Information on...

- configuring a DeviceMaster, refer to the ***DeviceMaster Installation and Configuration Guide***.

SeaLINK

The Sony MVS-8000G switcher connects to a serial port on the SeaLINK. You must configure the connected SeaLINK serial port to communicate with the Sony MVS-8000G switcher.

Hardware Configuration

The SeaLINK Ethernet to serial server is primarily configured using the web interface. Before using the web interface, the SeaLINK DB9 port that connects the Sony MVS-8000G switcher to your OverDrive system requires DIP Switch configuration.

Inside the SeaLINK each DB9 serial port has a set of eight DIP Switches. To communicate with the Sony MVS-8000G switcher the RS Mode of the DB 9 serial port that connects the switcher must be set to RS-422. For your model of SeaLINK, set the DIP Switches associated with the connected port as follows (**Figure 22.3**):

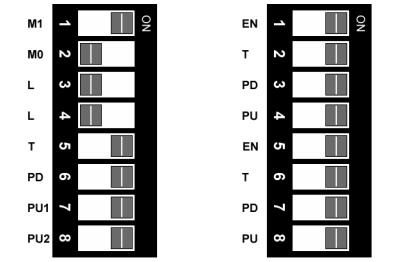


Figure 22.3 DB9 DIP Switch Settings for RS-422

For More Information on...

- configuring the DIP Switches for SeaLINK DB9 ports, refer to the Hardware Configuration section in the ***SeaLINK User Manual | Ethernet Serial Server Family***.

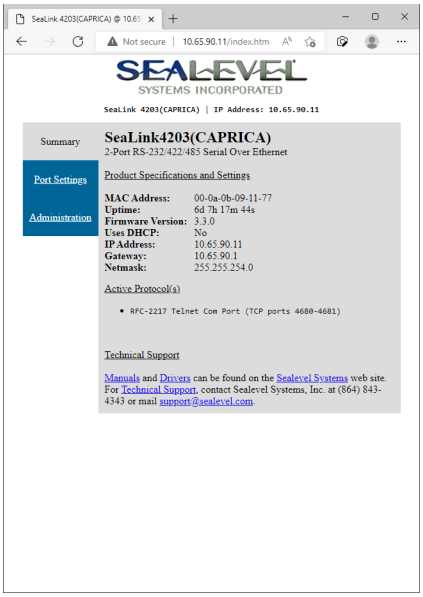
Web Interface Configuration

After setting the DIP Switches associated with the DB9 port on the SeaLINK used to connect the Sony MVS-8000G switcher, you can use the SeaLINK web interface to complete the SeaLINK configuration.

To configure the SeaLINK to communicate with a Sony MVS-8000G switcher

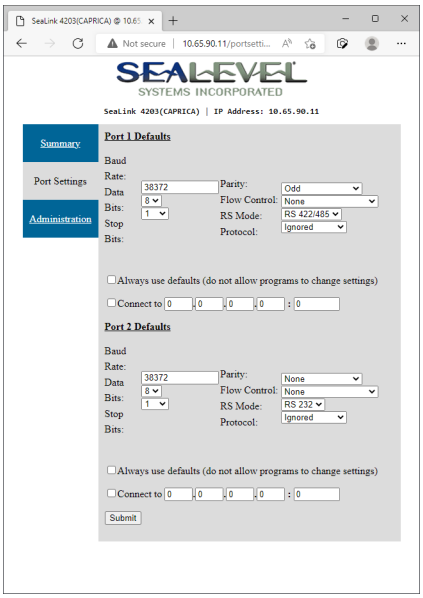
1. Use a web browser to open the **Summary** web page for your SeaLINK. The URL of the **Summary** web page is the IP address of the SeaLINK.

   The **Summary** web page opens in the web browser.



2. Click the **Port Settings** tab.

   The **Port Settings** web page opens.

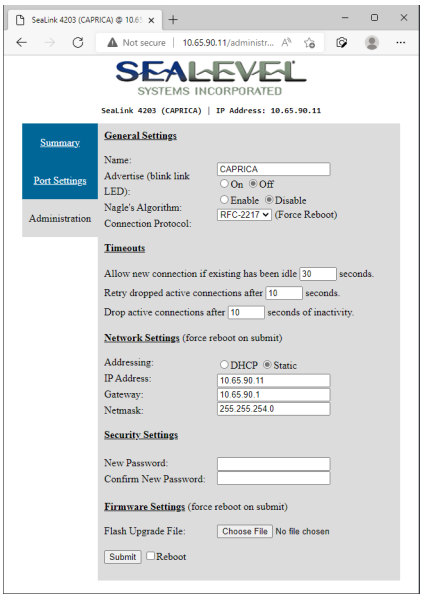


3. In the **Port # Defaults Section** section, where **#** is the port number on the SeaLINK to which you connect your Sony MVS-8000G switcher, enter `38372` in the **Baud Rate** box.
4. Use the **Data Bits** list to select **8**.
5. Use the **Stop Bits** list to select **1**.
6. Use the **Parity** list to select **Odd**.
7. Use the **Flow Control** list to select **None**.

8. Use the **RS Mode** list to select **RS 422/488**.
9. Use the **Protocol** list to select **Ignored**.
10. Click **Submit**.
11. Click the **Administration** tab.

    The **Administration** web page opens.

✶ Values set for settings on the **Administration** web page are set for all SeaLINK serial ports.



12. In the **General Settings** section, enter a name to identify the SeaLINK in the **Name** box.
13. Use the **Connection Protocol** list to select **RFC-2217**.
14. In the **Network Settings** section, select the **Static** option for the **Addressing** setting.

✶ The SeaLINK requires a static IP Address to enable the Sony MVS-8000G switcher to connect to OverDrive Server.

15. In the **IP Address** box, enter the IP address for the SeaLINK.

    The SeaLINK **IP Address** must match the **Remote IP Address** set for the Sony MVS-8000G switcher (Refer to step **13** in the **To configure the SWITCHER1 device for a Sony MVS-8000G switcher** procedure) device on the Caprica Server.
16. In the **Gateway** box, enter the IP address of the gateway for your network.
17. In the **Netmask** box, enter the netmask for your network.
18. At the bottom of the **Administration** web page, select the **Reboot** check box.
19. Click **Submit**.

    The SeaLINK reboots with the new configuration.

For More Information on...

- configuring a SeaLINK, refer to the ***SeaLINK User Manual | Ethernet Serial Server Family***.

Configuring the Sony MVS-8000G Switcher Engineering Setup

Before you can use your Sony MVS-8000G switcher in an OverDrive system, you need to configure the Engineering Setup of your switcher to work with the Caprica Server.

To configure a Sony MVS-8000G Switcher to work in the Caprica Server

1. On your Sony MVS-8000G switcher, select **Engineering Setup** > **Router/Tally** > **Router** to open **Menu Page 7361**.
2. On **Menu Page 7361**, do one of the following:
   - If the **SWR 1 Device** is not defined, set the following values for the **SWR 1 Device**:
     - **Matrix Size** — 136 x 128
     - **Source** — 1
     - **Destination** — 1
     - **Level** — 1
   - If the **SWR 1 Device** is defined for another purpose, leave the settings unchanged and continue with step **3**.
3. Select **Engineering Setup** > **Switcher** > **Key/Wipe/FM/CCR** to open **Menu Page 7335**.
4. On **Menu Page 7335**, set the following values for each **ME**:
   - **Key Memory Mode** — Simple
   - **Xpt Hold Mode** — Xpt Hold

Defining Sony Macros for Caprica Support

The Caprica device for a Sony MVS-8000G Switcher requires several macros on the Sony switcher to support KeyAutoTrans and ME Cut functionality in OverDrive.

✶ Only one macro at a time can run on a Sony switcher. A paused macro stops Caprica from running the macros it uses to perform a KeyAutoTrans or an ME Cut on your Sony switcher.

Macros to support KeyAutoTrans

For each key of each ME, you must create a Key Auto Trans macro on your Sony MVS-8000G Switcher to toggle the key. The TransMacroPosition setting in the Caprica Switcher device you configure for your Sony MVS-8000G Switcher sets the starting position of the block of macros used to support KeyAutoTrans functionality in OverDrive. To configure a Caprica Switcher device for a Sony MVS-8000G Switcher, refer to the section "**Configuring a Switcher Device for a Sony MVS-8000G Switcher**" on page 22–23.

The following table (Table 22.1 on page 21) lists the required macros in relation to the TransMacroPosition setting:

Table 22.1 Mapping ME/Key Macros

ME	Key	Macro
P/P	Key 1	TransMacroPosition + 0
	Key 2	TransMacroPosition + 1
	Key 3	TransMacroPosition + 2
	Key 4	TransMacroPosition + 3
ME 1	Key 1	TransMacroPosition + 4
	Key 2	TransMacroPosition + 5
	Key 3	TransMacroPosition + 6
	Key 4	TransMacroPosition + 7

ME	Key	Macro
ME 2	Key 1	TransMacroPosition + 9
	Key 2	TransMacroPosition + 0
	Key 3	TransMacroPosition + 10
	Key 4	TransMacroPosition + 11
ME 3	Key 1	TransMacroPosition + 12
	Key 2	TransMacroPosition + 13
	Key 3	TransMacroPosition + 14
	Key 4	TransMacroPosition + 15

The content for the macros listed in the previous table (Table 22.1 on page 21) is as follows:

- **Content**: Event
- **EVNT**: KeyAutoTransition
- **ME**: Depends on macro number
- **Key**: Depends on macro number
- **Time**: Current
- **Dir**: Any

After you create all the required Sony macros, you can use the KeyAutoTrans Caprica Custom Control and the OverDrive DKS AutoTrans.

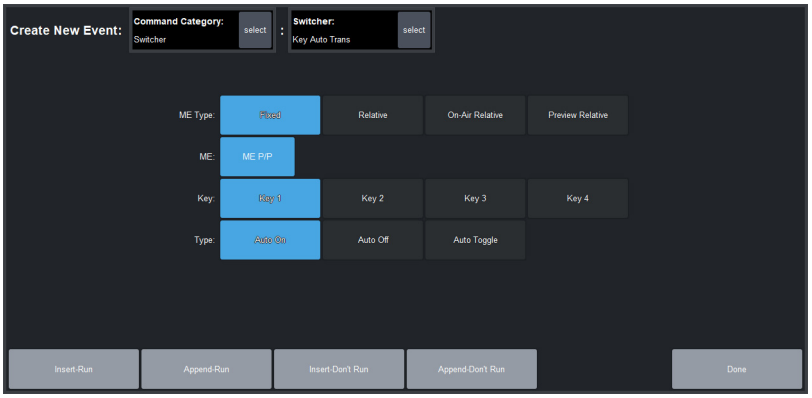


Figure 22.4 Caprica Key AutoTrans Custom Control

✶ Caprica cannot get or set the Sony MVS-8000G Switcher transition rate. Audio requires the Sony transition rate from the Sony switcher to function properly. Caprica also requires the Sony transition rate to maintain the proper switcher key state.

Triggering an additional AutoTrans while and AutoTrans is in progress, may put the Sony MVS-8000G switcher Caprica device out of sync. You must use the following Caprica Set Key Rate Custom Control to set the rate and retain sync:

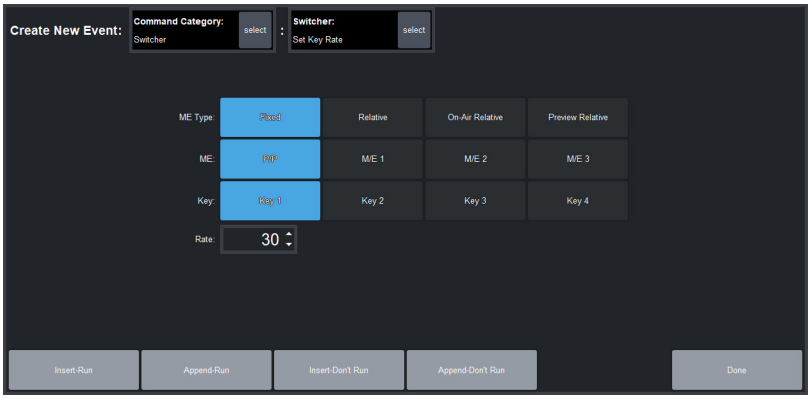


Figure 22.5 Caprica Set Key Rate Custom Control

Macros to support ME Cut Commands

The Sony MVS-8000G Switcher also requires macros for the Caprica ME Cut commands to prevent the commands from setting the trans rate to 0 on the switcher. The ME AutoTrans command still requires a Custom Control to set the rate. The macros that support ME Cut commands are also based on the TransMacroPosition setting of the Caprica Switcher device that you configure for your Sony MVS-8000G Switcher.

The following table (Table 22.1 on page 21) lists the required macros in relation to the TransMacroPosition setting:

Table 22.2 ME Mapping to Macros

ME	Macro
P/P	TransMacroPosition + 16
ME 1	TransMacroPosition + 17
ME 2	TransMacroPosition + 18
ME 3	TransMacroPosition + 19

The content for the macros listed in previous table (Table 22.1 on page 21) is as follows:

- **Content**: Event
- **EVNT**: ME Cut
- **ME**: Depends on macro number

Configuring a Switcher Device for a Sony MVS-8000G Switcher

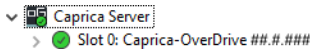
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with the Sony MVS-8000G switcher in an OverDrive system.

To configure the SWITCHER1 device for a Sony MVS-8000G 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**.

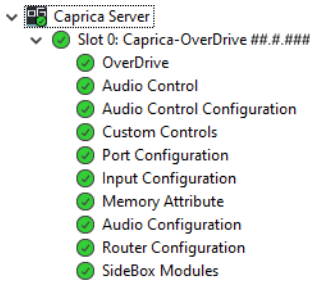
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

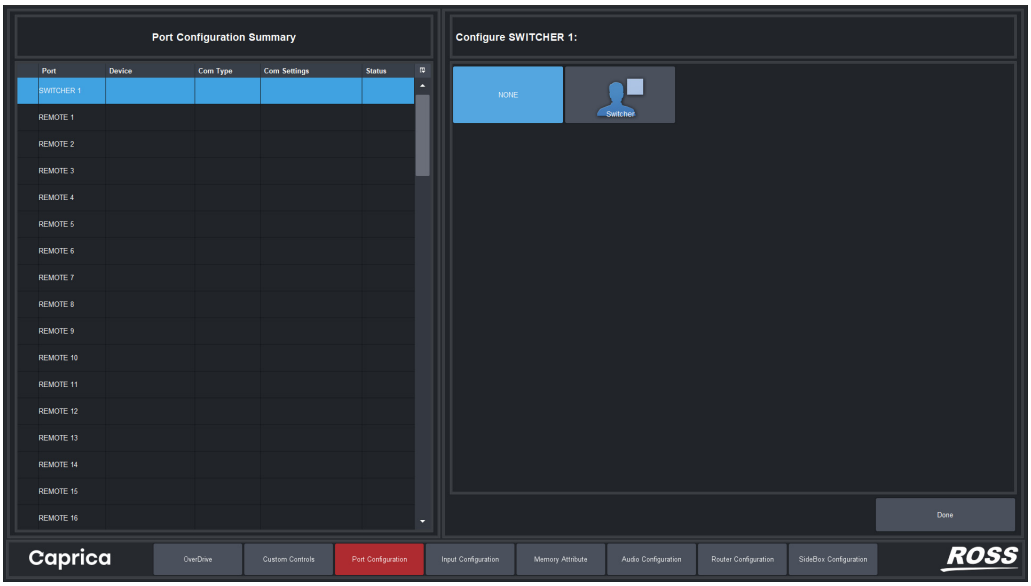
   The **Port Configuration** client opens in the **Device View**.

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.

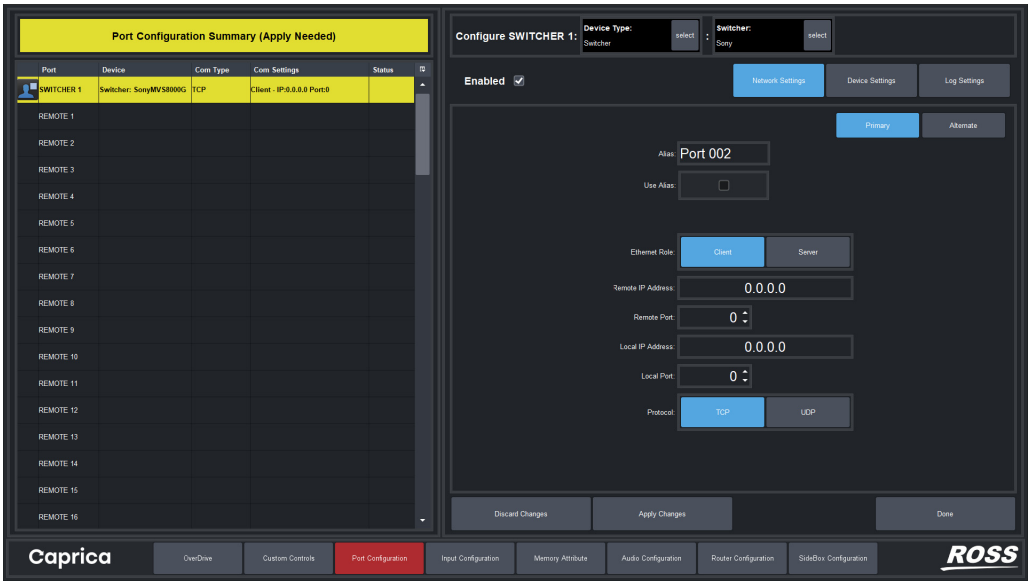


8. In the **Configure SWITCHER1** panel, click **Switcher**.

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

9. Click **Sony**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Sony 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 OverDrive 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 OverDrive 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 the **Ethernet to serial server** in your OverDrive system.

14. Use the **Remote Port** box to enter or select the port number on the **Ethernet to serial server** to which you connect your Sony MVS-8000G switcher.

    When using a SeaLINK Ethernet to serial server in your OverDrive system the **Remote Port** number is associated with the SeaLINK serial port number to which you connected your Sony MVS-8000G switcher. The SeaLINK serial port to **Remote Port** associations are as follows:

SeaLINK Serial Port	Remote Port
1	4680
2	4681
3	4682
4	4683

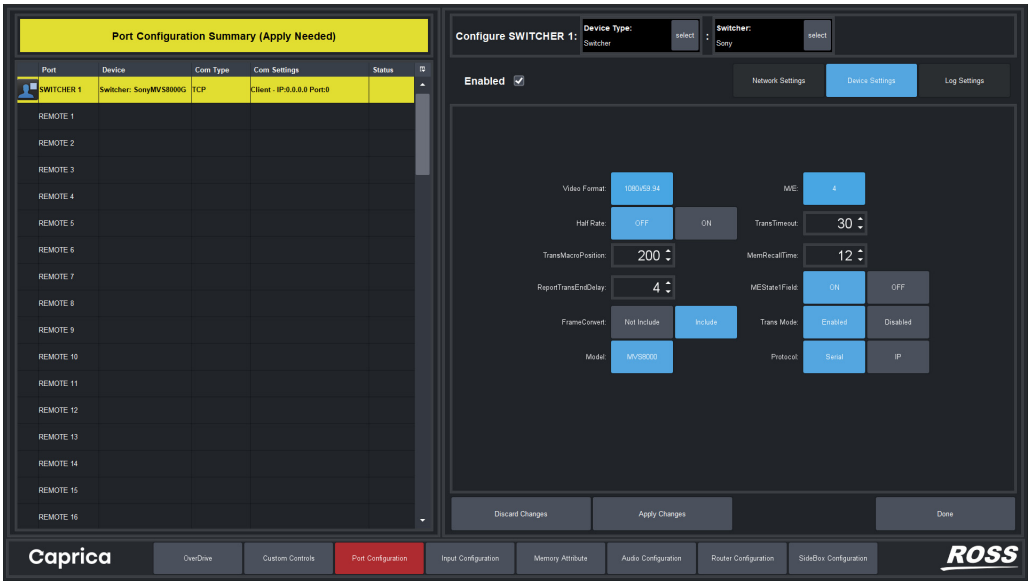
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 Sony switcher.



19. Click the **Video Format** button to select the format of the video output from the Sony MVS-8000G switcher.
20. Click the **M/E** button to select the number of MEs on your Sony MVS-8000G switcher.
21. Use the **Half Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:
    - **ON** — click this button to handle 30 interlaced fields as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields equal 0.5 seconds, 60 progressive frames equal 1 second.
22. Use the **TransTimeout** box to enter or select the number of fields to wait for a transition completed message from the Sony MVS-8000G switcher.
23. Use the **TransMacroPosition** box to enter or select the starting position of the block of macros on the Sony MVS-8000G switcher used to support KeyAutoTrans and ME Cut functionality in OverDrive.
24. Use the **MemRecallTime** box to enter or select the delay in fields that the Sony MVS-8000G switcher requires to recall a memory, and completely report the new ME state.
25. Use the **ReportTransEndDelay** box to enter or select the delay in fields before the Sony MVS-8000G switcher reports the end of a PP transition.
26. Use the **MEState1Field** buttons to set how to handle how to send requests. The available settings are as follows:
    - **ON** — click this button to send multiple requests in a single field. Caprica will receive multiple responses and match the responses with the originating request.
    - **OFF** — click this button to send a single request in a field and wait for a response before sending another request.
27. Use the **FrameConvert** buttons to include or exclude Frame Converters as sources. The available settings are as follows:
    - **Not Include** — click this button to exclude Frame Converters from the Input list.
    - **Include** — click this button to include Frame Converters in the Input list.
28. Use the **Trans Mode** buttons to enable or disable polling of the Sony Trans Mode. The available settings are as follows:
    - **Enabled** — click this button to enable changing the keys in a transition through Sony Emems or macros.
    - **Disabled** — disable polling of the Sony Trans Mode.
29. Click the **Model** button and select **MVS8000**.
30. For the **Protocol** setting, click the **Serial** button.
31. Click **Apply Changes** to save the device settings.
32. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Sony XVS-8000 Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Sony XVS-8000 switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring the Sony XVS-8000 Switcher Engineering Setup
- Defining Sony Macros for Caprica Support
- Configuring a Switcher Device for a Sony XVS-8000 Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Sony XVS-8000 switcher connected to the OverDrive 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 Sony XVS-8000 switcher fade to and from black.
- OverDrive does not receive an update from a Sony XVS-8000 switcher when a user hot punches on the switcher source. As a result of a hot punch, the audio and on-air indications may be out of sync. You can overcome this limitation by using the Hot Cut Bus View in DirectControl or a Custom Control to hot punch a crosspoint.

For More Information on...

- using DirectControl, refer to the **DirectControl™** chapter in the ***OverDrive User Guide***.

Setting Up the OverDrive System

To set up an OverDrive system with a Sony XVS-8000 switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 23–30.
- On the Caprica Server, create a Switcher device for your Sony XVS-8000 switcher.
  Refer to the section "**Configuring a Switcher Device for a Sony XVS-8000 Switcher**" on page 23–35.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 23–38.

Connecting the OverDrive System

In an OverDrive system, a Sony XVS-8000 switcher connects to the OverDrive Server through an Ethernet to serial server and a Caprica Server. The following diagram (**Figure 23.1**) illustrates the cabling layout of the Sony XVS-8000 switcher connection to an OverDrive system.

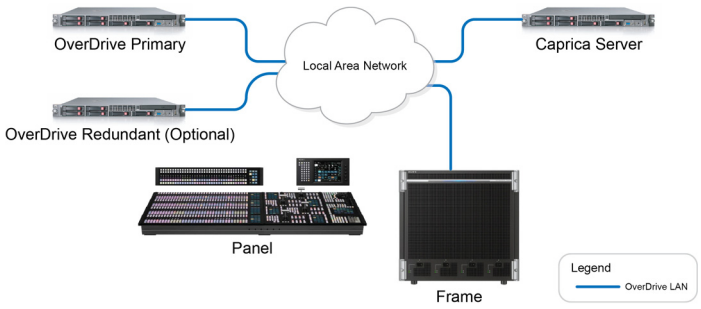


Figure 23.1 Sony XVS-8000 Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- Ethernet to serial server for serial device connections
- Sony XVS-8000 frame

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

To connect a Sony XVS-8000 switcher to an OverDrive system

1. Verify that the **OverDrive 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 Snell Kula Frame to your internal network.

The following diagram (**Figure 23.2**) illustrates the overall cabling layout of an OverDrive system with a Sony XVS-8000 switcher.

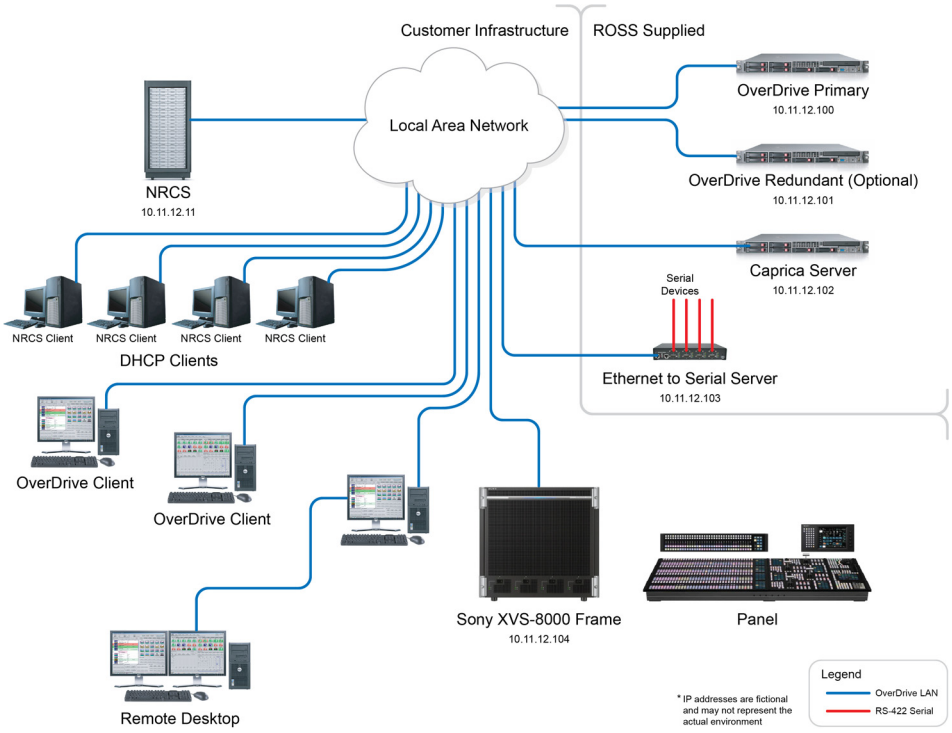


Figure 23.2 OverDrive System with a Sony XVS-8000 Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Sony XVS-8000 switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring the Sony XVS-8000 Switcher Engineering Setup

Before you can use your Sony XVS-8000 switcher in an OverDrive system, you need to configure the Engineering Setup of your switcher to work with the Caprica Server.

✶ The BZPS-7700 license must be installed on your Sony XVS-8000 switcher to enable OverDrive to control the switcher.

To configure a Sony XVS-8000 Switcher to work in the Caprica Server

1. Install the **BZPS-7700** license on your Sony XVS-8000 switcher.
2. On your Sony XVS-8000 switcher, select **Engineering Setup** > **Router/Tally** > **Router** to open **Menu Page 7361**.
3. On **Menu Page 7361**, do one of the following:
   - If the **SWR 1 Device** is not defined, set the following values for the **SWR 1 Device**:
     - › **Matrix Size** — 136 x 128
     - › **Source** — 1
     - › **Destination** — 1
     - › **Level** — 1
   - If the **SWR 1 Device** is defined for another purpose, leave the settings unchanged and continue with step **4**.
4. Select **Engineering Setup** > **Switcher** > **Key/Wipe/FM/CCR** to open **Menu Page 7335**.
5. On **Menu Page 7335**, set the following values for each **ME**:
   - **Key Memory Mode** — Simple
   - **Xpt Hold Mode** — Xpt Hold

Defining Sony Macros for Caprica Support

The Caprica device for a Sony XVS-8000 Switcher requires several macros on the Sony switcher to support KeyAutoTrans and ME Cut functionality in OverDrive.

✶ Only one macro at a time can run on a Sony switcher. A paused macro stops Caprica from running the macros it uses to perform a KeyAutoTrans or an ME Cut on your Sony switcher.

Macros to support KeyAutoTrans

For each key of each ME, you must create a Key Auto Trans macro on your Sony XVS-8000 Switcher to toggle the key. The TransMacroPosition setting in the Caprica Switcher device you configure for your Sony XVS-8000 Switcher sets the starting position of the block of macros used to support KeyAutoTrans functionality in OverDrive. To configure a Caprica Switcher device for a Sony XVS-8000 Switcher, refer to the section "**Configuring a Switcher Device for a Sony XVS-8000 Switcher**" on page 23–35.

The following table (Table 23.1 on page 33) lists the required macros in relation to the TransMacroPosition setting:

Table 23.1 Mapping ME/Key Macros

ME	Key	Macro
P/P	Key 1	TransMacroPosition + 0
	Key 2	TransMacroPosition + 1
	Key 3	TransMacroPosition + 2
	Key 4	TransMacroPosition + 3
	Key 5	TransMacroPosition + 4
	Key 6	TransMacroPosition + 5
	Key 7	TransMacroPosition + 6
	Key 8	TransMacroPosition + 7
ME 1	Key 1	TransMacroPosition + 8
	Key 2	TransMacroPosition + 9
	Key 3	TransMacroPosition + 10
	Key 4	TransMacroPosition + 11
	Key 5	TransMacroPosition + 12
	Key 6	TransMacroPosition + 13
	Key 7	TransMacroPosition + 14
	Key 8	TransMacroPosition + 15

ME	Key	Macro
ME 2	Key 1	TransMacroPosition + 16
	Key 2	TransMacroPosition + 17
	Key 3	TransMacroPosition + 18
	Key 4	TransMacroPosition + 19
	Key 5	TransMacroPosition + 20
	Key 6	TransMacroPosition + 21
	Key 7	TransMacroPosition + 22
	Key 8	TransMacroPosition + 23
ME 3	Key 1	TransMacroPosition + 24
	Key 2	TransMacroPosition + 25
	Key 3	TransMacroPosition + 26
	Key 4	TransMacroPosition + 27
	Key 5	TransMacroPosition + 28
	Key 6	TransMacroPosition + 29
	Key 7	TransMacroPosition + 30
	Key 8	TransMacroPosition + 31

The content for the macros listed in previous table (Table 23.1 on page 33) is as follows:

- **Content**: Event
- **EVNT**: KeyAutoTransition
- **ME**: Depends on macro number
- **Key**: Depends on macro number
- **Time**: Current
- **Dir**: Any

After you create all the required Sony macros, you can use the KeyAutoTrans Caprica Custom Control and the OverDrive DKS AutoTrans.

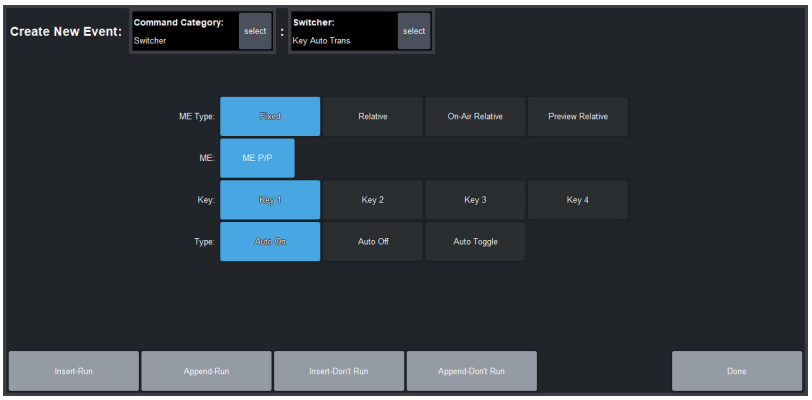


Figure 23.3 Caprica Key AutoTrans Custom Control

- Caprica cannot get or set the Sony XVS-8000 Switcher transition rate. Audio requires the Sony transition rate from the Sony switcher to function properly. Caprica also requires the Sony transition rate to maintain the proper switcher key state.

Triggering an additional AutoTrans while and AutoTrans is in progress, may put the Sony XVS-8000 switcher Caprica device out of sync. You must use the following Caprica Set Key Rate Custom Control to set the rate and retain sync:

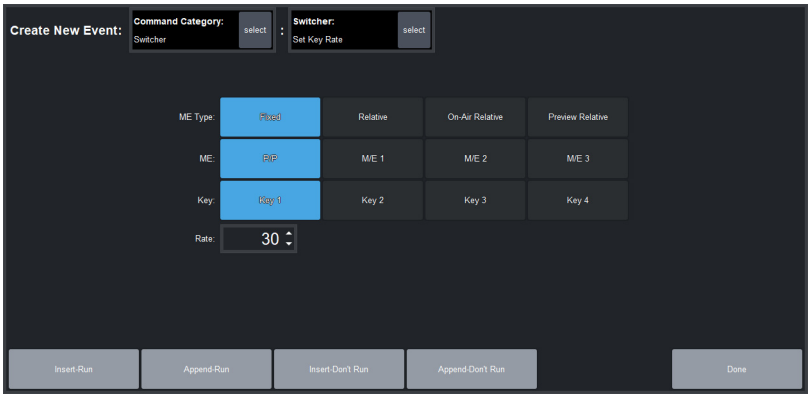


Figure 23.4 Caprica Set Key Rate Custom Control

Macros to support ME Cut Commands

The Sony XVS-8000 Switcher also requires macros for the Caprica ME Cut commands to prevent the commands from setting the trans rate to 0 on the switcher. The ME AutoTrans command still requires a Custom Control to set the rate. The macros that support ME Cut commands are also based on the TransMacroPosition setting of the Caprica Switcher device that you configure for your Sony XVS-8000 Switcher.

The following table (Table 23.1 on page 33) lists the required macros in relation to the TransMacroPosition setting:

Table 23.2 ME Mapping to Macros

ME	Macro
P/P	TransMacroPosition + 32
ME 1	TransMacroPosition + 33
ME 2	TransMacroPosition + 34
ME 3	TransMacroPosition + 35

The content for the macros listed in previous table (Table 23.2 on page 34) is as follows:

- **Content**: Event
- **EVNT**: ME Cut
- **ME**: Depends on macro number

Configuring a Switcher Device for a Sony XVS-8000 Switcher

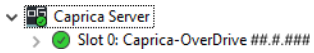
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with the Sony XVS-8000 switcher in an OverDrive system.

To configure the SWITCHER1 device for a Sony XVS-8000 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.

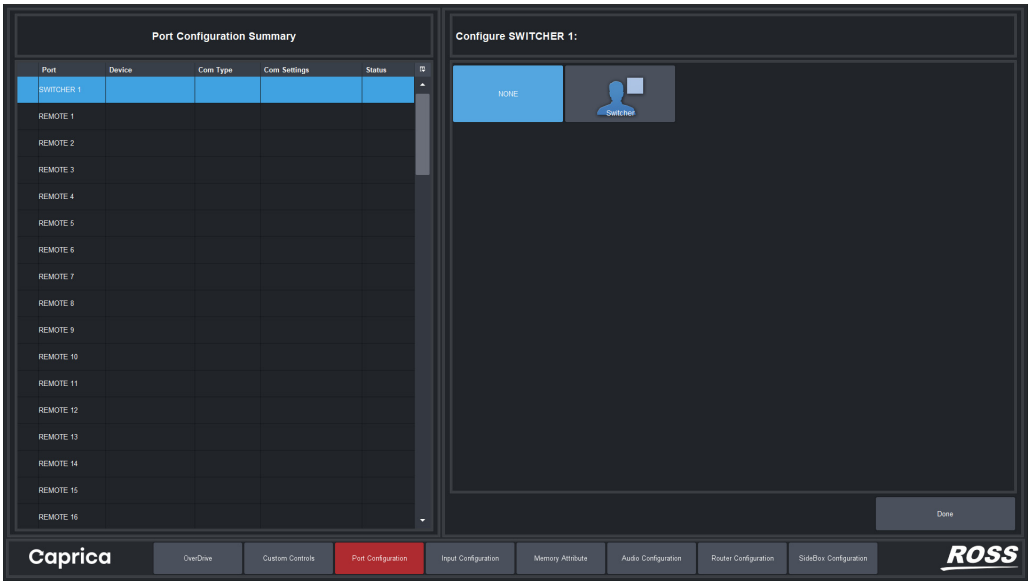
5. Double-click the **Port Configuration** node.

   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.

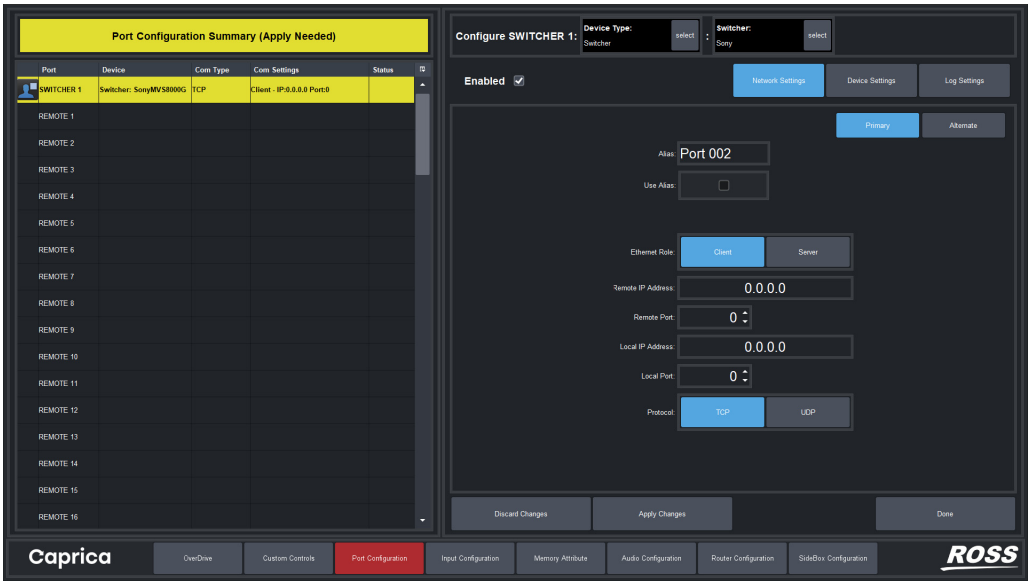


8. In the **Configure SWITCHER1** panel, click **Switcher**.

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

9. Click **Sony**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Sony 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 OverDrive 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 OverDrive 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 Sony XVS-8000 switcher frame.

14. Use the **Remote Port** box to enter or select the port number of your Sony XVS-8000 switcher frame.

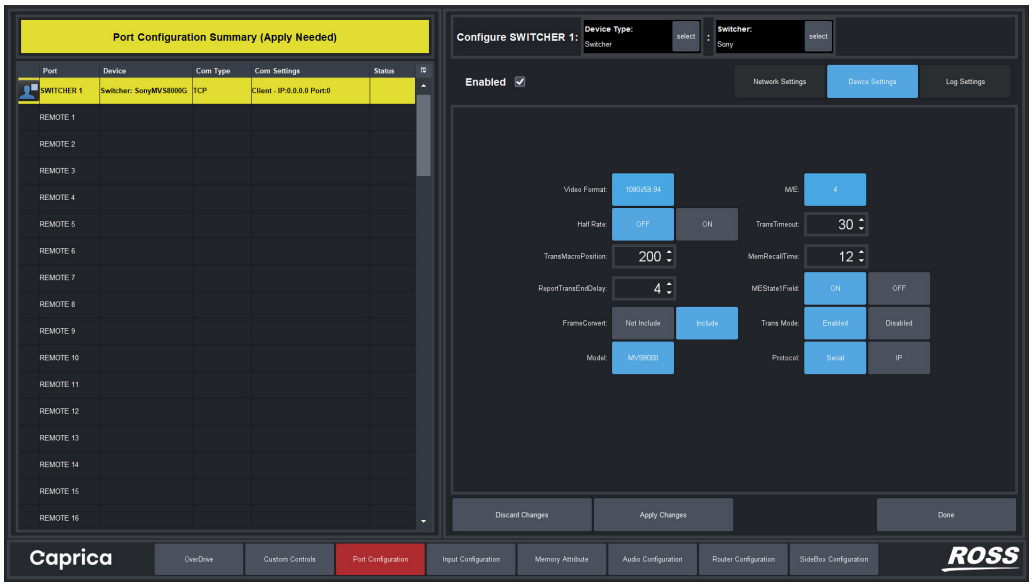
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 Sony switcher.



19. Click **Video Format** to select the format of the video output from the Sony XVS-8000 switcher.

20. Click the **M/E** button to select the number of MEs on your Sony XVS-8000 switcher.

21. Use the **Half Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:

    - **ON** — click this button to handle 30 interlaced fields as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields equal 0.5 seconds, 60 progressive frames equal 1 second.

22. Use the **TransTimeout** box to enter or select the number of fields to wait for a transition completed message from the Sony XVS-8000 switcher.

23. Use the **TransMacroPosition** box to enter or select the starting position of the block of macros on the Sony XVS-8000 switcher used to support KeyAutoTrans and ME Cut functionality in OverDrive.

24. Use the **MemRecallTime** box to enter or select the delay in fields that the Sony XVS-8000 switcher requires to recall a memory, and completely report the new ME state.
25. Use the **ReportTransEndDelay** box to enter or select the delay in fields before the Sony XVS-8000 switcher reports the end of a PP transition.
26. Use the **MEState1Field** buttons to set how to handle how to send requests. The available settings are as follows:
    - **ON** — click this button to send multiple requests in a single field. Caprica will receive multiple responses and match the responses with the originating request.
    - **OFF** — click this button to send a single request in a field and wait for a response before sending another request.
27. Use the **FrameConvert** buttons to include or exclude Frame Converters as sources. The available settings are as follows:
    - **Not Include** — click this button to exclude Frame Converters from the Input list.
    - **Include** — click this button to include Frame Converters in the Input list.
28. Use the **Trans Mode** buttons to enable or disable polling of the Sony Trans Mode. The available settings are as follows:
    - **Enabled** — click this button to enable changing the keys in a transition through Sony Emems or macros.
    - **Disabled** — disable polling of the Sony Trans Mode.
29. Click the **Model** button and select **XVS8000**.
30. For the **Protocol** setting, click the **IP** button.
31. Click **Apply Changes** to save the device settings.
32. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Sony MLS-X1 Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Sony MLS-X1 switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Defining Sony Macros for Caprica Support
- Configuring a Switcher Device for a Sony MLS-X1 Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitations apply to an OverDrive system configured with a Sony MLS-X1 switcher connected to the OverDrive 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 Sony MLS-X1 switcher fade to and from black.
- OverDrive does not receive an update from a Sony MLS-X1 switcher when a user hot punches on the switcher source. As a result of a hot punch, the audio and on-air indications may be out of sync. You can overcome this limitation by using the Hot Cut Bus View in DirectControl or a Custom Control to hot punch a crosspoint.

For More Information on...

- using DirectControl, refer to the **DirectControl™** chapter in the ***OverDrive User Guide***.

Setting Up the OverDrive System

To set up an OverDrive system with a Sony MLS-X1 switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 24–40.
- On the Caprica Server, create a Switcher device for your Sony MLS-X1 switcher.
  Refer to the section "**Configuring a Switcher Device for a Sony MLS-X1 Switcher**" on page 24–44.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 24–47.

Connecting the OverDrive System

In an OverDrive system, a Sony MLS-X1 switcher connects to the OverDrive Server through an Ethernet to serial server and a Caprica Server. The following diagram (**Figure 24.1**) illustrates the cabling layout of the Sony MLS-X1 switcher connection to an OverDrive system.

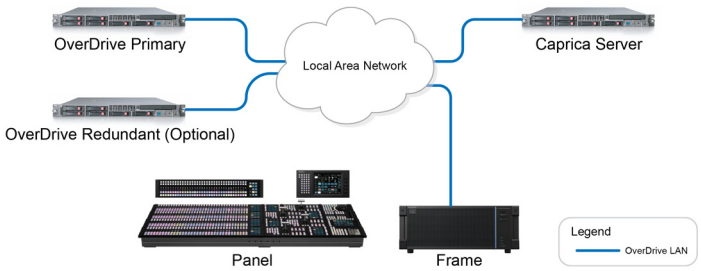


Figure 24.1 Sony MLS-X1 Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- Sony MLS-X1 frame

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

To connect a Sony MLS-X1 switcher to an OverDrive system

1. Verify that the **OverDrive 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 Sony MLS-X1 Frame to your internal network.

The following diagram (**Figure 24.2**) illustrates the overall cabling layout of an OverDrive system with a Sony MLS-X1 switcher.

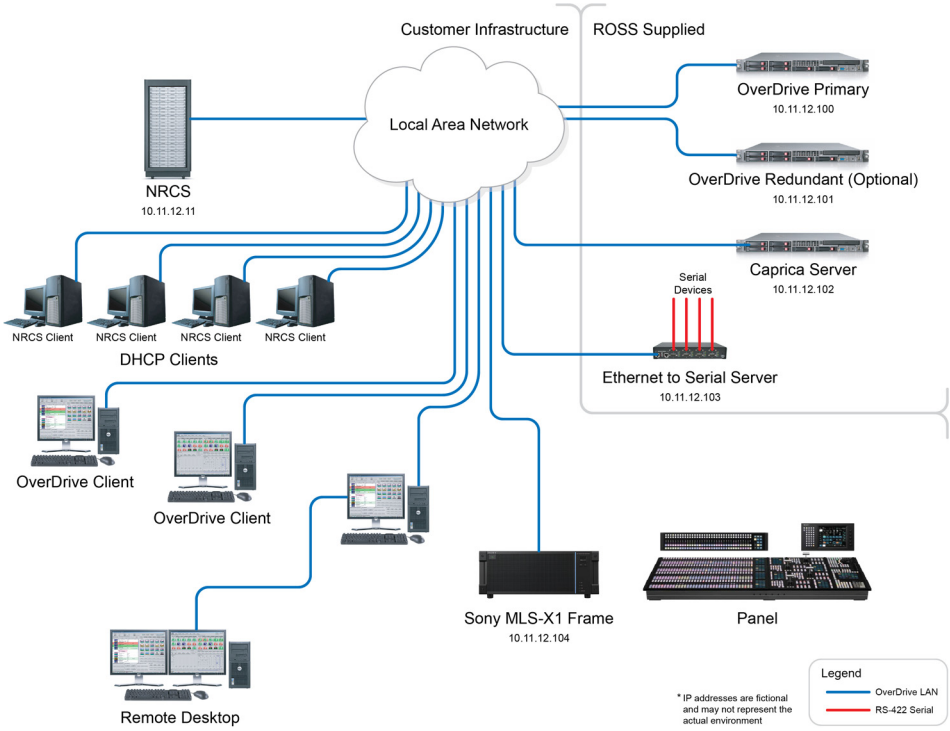


Figure 24.2 OverDrive System with a Sony MLS-X1 Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Sony MLS-X1 switcher, refer to the switcher setup documentation supplied with your switcher.

Defining Sony Macros for Caprica Support

The Caprica device for a Sony MLS-X1 Switcher requires several macros on the Sony switcher to support KeyAutoTrans and ME Cut functionality in OverDrive.

- Only one macro at a time can run on a Sony switcher. A paused macro stops Caprica from running the macros it uses to perform a KeyAutoTrans or an ME Cut on your Sony switcher.

Macros to support KeyAutoTrans

For each key of each ME, you must create a Key Auto Trans macro on your Sony MLS-X1 Switcher to toggle the key. The TransMacroPosition setting in the Caprica Switcher device you configure for your Sony MLS-X1 Switcher sets the starting position of the block of macros used to support KeyAutoTrans functionality in OverDrive. To configure a Caprica Switcher device for a Sony MLS-X1 Switcher, refer to the section "**Configuring a Switcher Device for a Sony MLS-X1 Switcher**" on page 24–44.

The following table (Table 24.1 on page 42) lists the required macros in relation to the TransMacroPosition setting:

Table 24.1 Mapping ME/Key Macros

ME	Key	Macro
P/P	Key 1	TransMacroPosition + 0
	Key 2	TransMacroPosition + 1
	Key 3	TransMacroPosition + 2
	Key 4	TransMacroPosition + 3
	Key 5	TransMacroPosition + 4
	Key 6	TransMacroPosition + 5
	Key 7	TransMacroPosition + 6
	Key 8	TransMacroPosition + 7
ME 1	Key 1	TransMacroPosition + 8
	Key 2	TransMacroPosition + 9
	Key 3	TransMacroPosition + 10
	Key 4	TransMacroPosition + 11
	Key 5	TransMacroPosition + 12
	Key 6	TransMacroPosition + 13
	Key 7	TransMacroPosition + 14
	Key 8	TransMacroPosition + 15
ME 2	Key 1	TransMacroPosition + 16
	Key 2	TransMacroPosition + 17
	Key 3	TransMacroPosition + 18
	Key 4	TransMacroPosition + 19
	Key 5	TransMacroPosition + 20
	Key 6	TransMacroPosition + 21
	Key 7	TransMacroPosition + 22
	Key 8	TransMacroPosition + 23
ME 3	Key 1	TransMacroPosition + 24
	Key 2	TransMacroPosition + 25
	Key 3	TransMacroPosition + 26
	Key 4	TransMacroPosition + 27
	Key 5	TransMacroPosition + 28
	Key 6	TransMacroPosition + 29
	Key 7	TransMacroPosition + 30
	Key 8	TransMacroPosition + 31
ME 4	Key 1	TransMacroPosition + 32
	Key 2	TransMacroPosition + 33
	Key 3	TransMacroPosition + 34
	Key 4	TransMacroPosition + 35
	Key 5	TransMacroPosition + 36
	Key 6	TransMacroPosition + 37
	Key 7	TransMacroPosition + 38
	Key 8	TransMacroPosition + 39
ME 5	Key 1	TransMacroPosition + 40
	Key 2	TransMacroPosition + 41
	Key 3	TransMacroPosition + 42
	Key 4	TransMacroPosition + 43
	Key 5	TransMacroPosition + 44
	Key 6	TransMacroPosition + 45
	Key 7	TransMacroPosition + 46
	Key 8	TransMacroPosition + 47

The content for the macros listed in the previous table (Table 24.1 on page 42) is as follows:

- **Content**: Event
- **EVNT**: KeyAutoTransition
- **ME**: Depends on macro number
- **Key**: Depends on macro number
- **Time**: Current
- **Dir**: Any

After you create all the required Sony macros, you can use the KeyAutoTrans Caprica Custom Control and the OverDrive DKS AutoTrans.

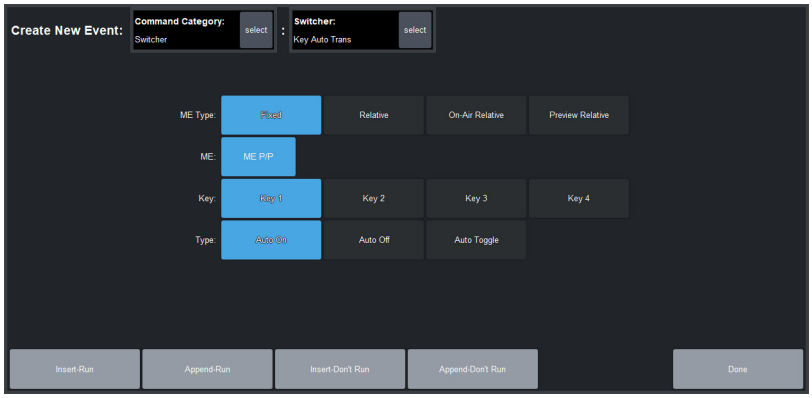


Figure 24.3 Caprica Key AutoTrans Custom Control

✶ Caprica cannot get or set the Sony MLS-X1 Switcher transition rate. Audio requires the Sony transition rate from the Sony switcher to function properly. Caprica also requires the Sony transition rate to maintain the proper switcher key state.

Triggering an additional AutoTrans while and AutoTrans is in progress, may put the Sony MLS-X1 switcher Caprica device out of sync. You must use the following Caprica Set Key Rate Custom Control to set the rate and retain sync:

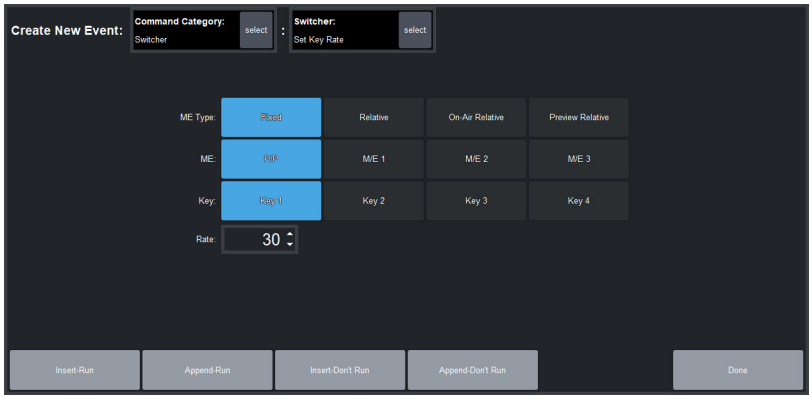


Figure 24.4 Caprica Set Key Rate Custom Control

Macros to support ME Cut Commands

The Sony MLS-X1 Switcher also requires macros for the Caprica ME Cut commands to prevent the commands from setting the trans rate to 0 on the switcher. The ME AutoTrans command still requires a Custom Control to set the rate. The macros that support ME Cut commands are also based on the TransMacroPosition setting of the Caprica Switcher device that you configure for your Sony MLS-X1 Switcher.

The following table (Table 24.1 on page 42) lists the required macros in relation to the TransMacroPosition setting:

Table 24.2 ME Mapping to Macros

ME	Macro
P/P	TransMacroPosition + 48
ME 1	TransMacroPosition + 49
ME 2	TransMacroPosition + 50
ME 3	TransMacroPosition + 51
ME 4	TransMacroPosition + 52
ME 5	TransMacroPosition + 53

The content for the macros listed in previous table (Table 24.2 on page 44) is as follows:

- **Content**: Event
- **EVNT**: ME Cut
- **ME**: Depends on macro number

Configuring a Switcher Device for a Sony MLS-X1 Switcher

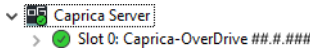
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with the Sony MLS-X1 switcher in an OverDrive system.

To configure the SWITCHER1 device for a Sony MLS-X1 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**.

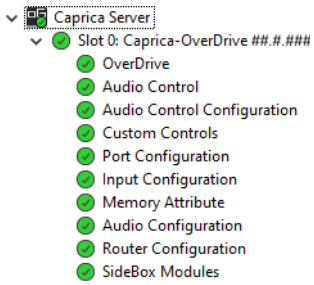
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.

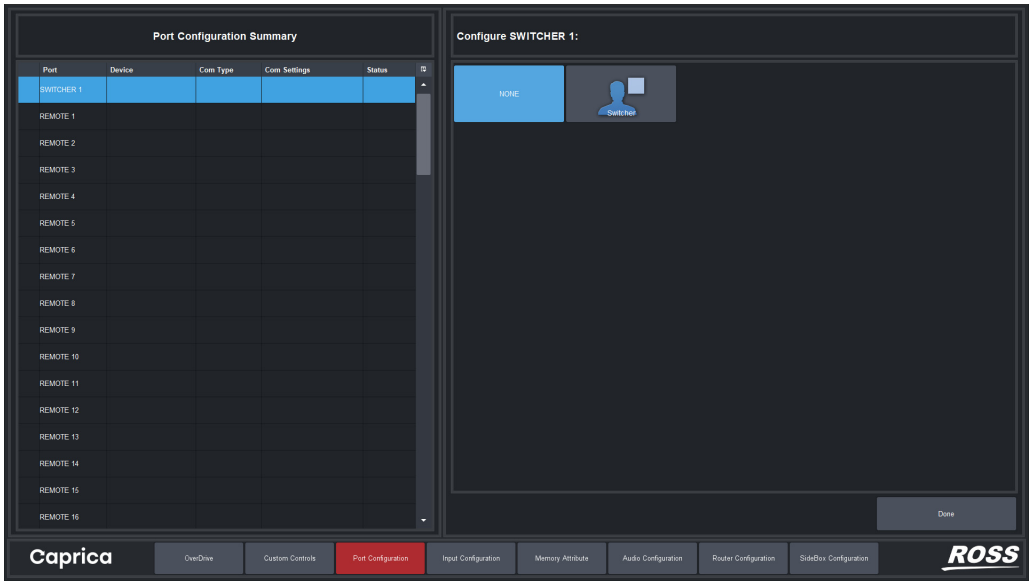
   The **Port Configuration** client opens in the **Device View**.

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.

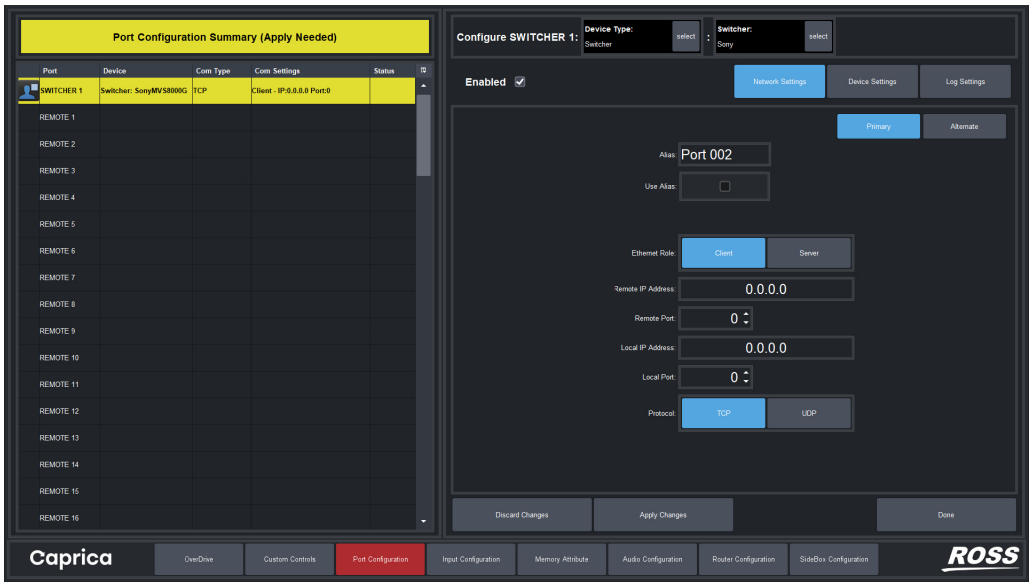


8. In the **Configure SWITCHER1** panel, click **Switcher**.

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

9. Click **Sony**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Sony 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 OverDrive 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 OverDrive 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 Sony MLS-X1 switcher frame.

14. Use the **Remote Port** box to enter or select the port number of your Sony MLS-X1 switcher frame.

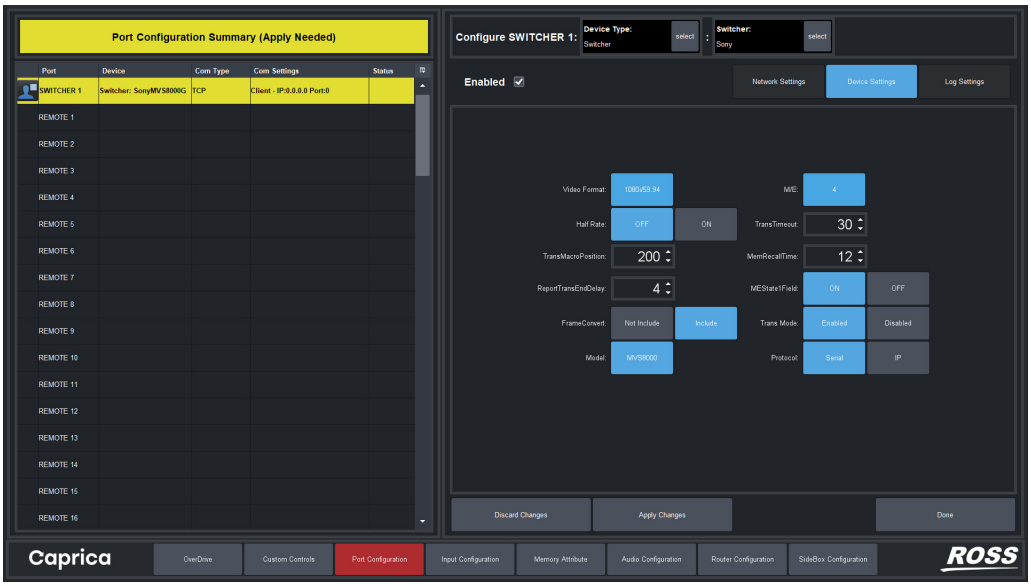
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 Sony switcher.



19. Click **Video Format** to select the format of the video output from the Sony MLS-X1 switcher.

20. Click the **M/E** button to select the number of MEs on your Sony MLS-X1 switcher.

21. Use the **Half Rate** buttons to set how to handle timing for fields and frames. The available settings are as follows:

    - **ON** — click this button to handle 30 interlaced fields as 1 second.
    - **OFF** — click this button to handle interlaced fields as progressive frames: 30 interlaced fields equal 0.5 seconds, 60 progressive frames equal 1 second.

22. Use the **TransTimeout** box to enter or select the number of fields to wait for a transition completed message from the Sony MLS-X1 switcher.

23. Use the **TransMacroPosition** box to enter or select the starting position of the block of macros on the Sony MLS-X1 switcher used to support KeyAutoTrans and ME Cut functionality in OverDrive.

24. Use the **MemRecallTime** box to enter or select the delay in fields that the Sony MLS-X1 switcher requires to recall a memory, and completely report the new ME state.
25. Use the **ReportTransEndDelay** box to enter or select the delay in fields before the Sony MLS-X1 switcher reports the end of a PP transition.
26. Use the **MEState1Field** buttons to set how to handle how to send requests. The available settings are as follows:
    - **ON** — click this button to send multiple requests in a single field. Caprica will receive multiple responses and match the responses with the originating request.
    - **OFF** — click this button to send a single request in a field and wait for a response before sending another request.
27. Do not change the **FrameConvert** setting, as it is not applicable to the Sony MLS-X1 switcher.
28. Use the **Trans Mode** buttons to enable or disable polling of the Sony Trans Mode. The available settings are as follows:
    - **Enabled** — click this button to enable changing the keys in a transition through Sony Emems or macros.
    - **Disabled** — disable polling of the Sony Trans Mode.
29. Click the **Model** button and select **MLS X1**.
30. For the **Protocol** setting, click the **IP** button.
31. Click **Apply Changes** to save the device settings.
32. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Viz Vectar Plus Setup for OverDrive

This chapter provides instructions for connecting an OverDrive system with a Viz Vectar Plus switcher through a Caprica Server.

The following topics are discussed in this chapter:

- Limitations
- Setting Up the OverDrive System
- Connecting the OverDrive System
- Configuring a Switcher Device for a Viz Vectar Plus Switcher
- Connecting OverDrive to Your Caprica Server
- Configuring Your Caprica Server

Limitations

The following limitation applies to an OverDrive system configured with a Viz Vectar Plus switcher connected to the OverDrive system through a Caprica Server:

- The Fade To Black transition in OverDrive does not function. You can trigger a macro on the Viz Vectar Plus switcher to fade to and from black.
- OverDrive supports AutoTrans of DSKs through Custom Controls.
- OverDrive does not receive an update from a Viz Vectar Plus switcher when a user hot punches on the switcher source. As a result of a hot punch, the audio and on-air indications may be out of sync. You can overcome this limitation by using the Hot Cut Bus View in DirectControl or a Custom Control to hot punch a crosspoint.
- OverDrive uses ME numbers 0-7 to control 8 MEs on a Viz Vectar Plus switcher. You can create a macro on the Viz Vectar Plus switcher to control ME 8.

For More Information on...

- using the Viz Vectar Plus switcher, refer to the ***Viz Vectar Plus User Guide***.
- using DirectControl, refer to the **DirectControl™** chapter in the ***OverDrive User Guide***.

Setting Up the OverDrive System

To set up an OverDrive system with a Viz Vectar Plus switcher, complete the following:

- Connect the OverDrive system components together.
  Refer to the section "**Connecting the OverDrive System**" on page 25–2.
- On the Caprica Server, create a Switcher device for your Viz Vectar Plus switcher.
  Refer to the section "**Configuring a Switcher Device for a Viz Vectar Plus Switcher**" on page 25–4.
- Configure the OverDrive Server to connect to the Caprica Server.
  Refer to the section "**Connecting OverDrive to Your Caprica Server**" on page 25–7.

Connecting the OverDrive System

In an OverDrive system, a Viz Vectar Plus switcher connects to the OverDrive Server through a Caprica Server. The following diagram (**Figure 25.1**) illustrates the cabling layout of the Viz Vectar Plus switcher connection to an OverDrive system.

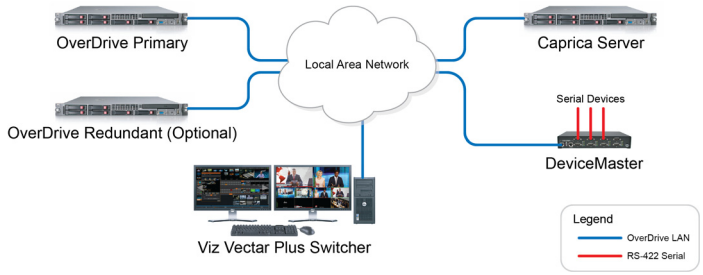


Figure 25.1 Viz Vectar Plus Switcher Connection to an OverDrive System

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

- OverDrive Primary Server and OverDrive Redundant Server (optional)
- Caprica Server
- DeviceMaster for serial device connections
- Viz Vectar Plus Switcher

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

To connect a Viz Vectar Plus switcher to an OverDrive system

1. Verify that the **OverDrive 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 Viz Vectar Plus switcher to your internal network.

The following diagram (**Figure 25.2**) illustrates the overall cabling layout of an OverDrive system with a Viz Vectar Plus switcher.

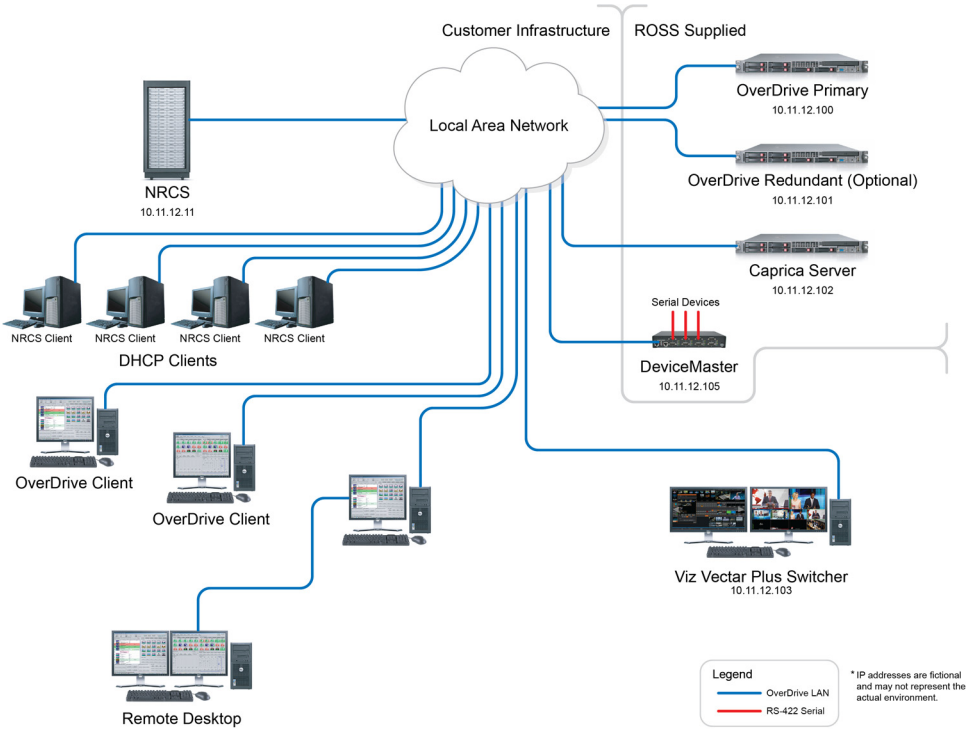


Figure 25.2 OverDrive System with a Viz Vectar Plus Switcher

OverDrive Server Peripheral Connections

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

- USB/KVM extenders can interfere with OverDrive system operation and are not supported for use with OverDrive client computers. Place OverDrive 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 OverDrive 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 an OverDrive Server, refer to the ***Cabling Your OverDrive Server Quick Start Guide***.
- cabling a Caprica Server, refer to the ***Cabling Your Caprica Server Quick Start Guide***.
- cabling a Viz Vectar Plus switcher, refer to the switcher setup documentation supplied with your switcher.

Configuring a Switcher Device for a Viz Vectar Plus Switcher

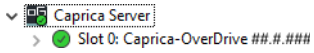
The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Viz Vectar Plus switcher in an OverDrive system.

To configure the SWITCHER1 device for a Viz Vectar Plus 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**.

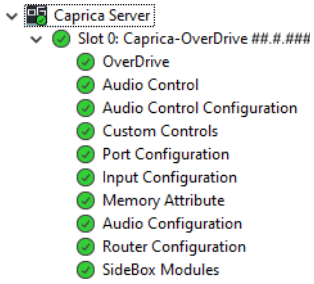
   DashBoard opens.
3. In the **DashBoard Tree View**, expand the **Caprica Server** node.

   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.



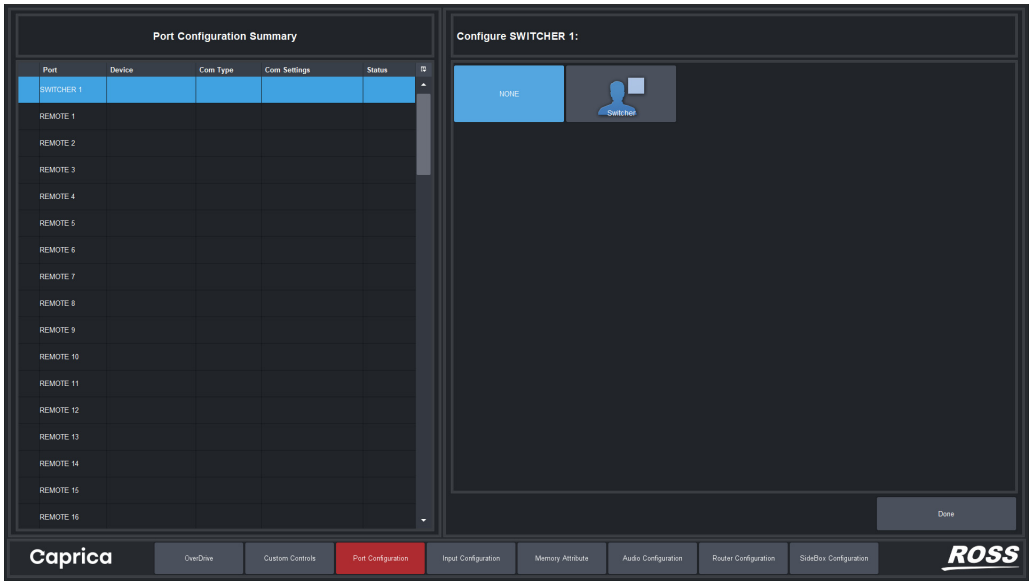
5. Double-click the **Port Configuration** node.

   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.



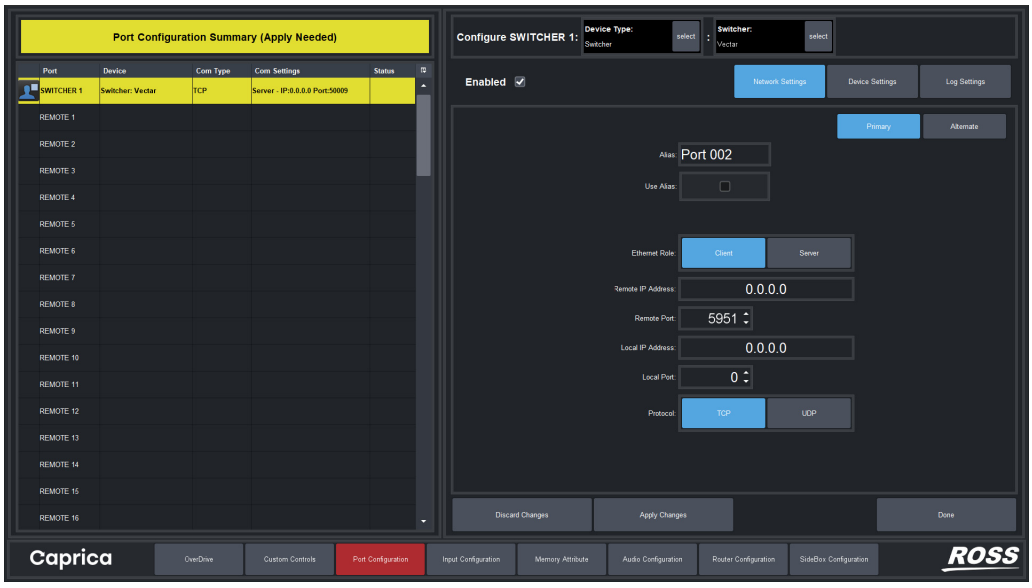
   The SWITCHER1 device on the Caprica Server enables the OverDrive Server to communicate with a Viz Vectar Plus switcher in an OverDrive system.

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

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

9. Click **Vectar**.

   The **Configure SWITCHER1** panel displays the **Network Settings** for a Viz Vectar Plus 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 OverDrive 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 OverDrive 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 Viz Vectar Plus switcher.

14. Use the **Remote Port** box to enter or select the port used by your Viz Vectar Plus switcher.

    Port `5951` is the default port.

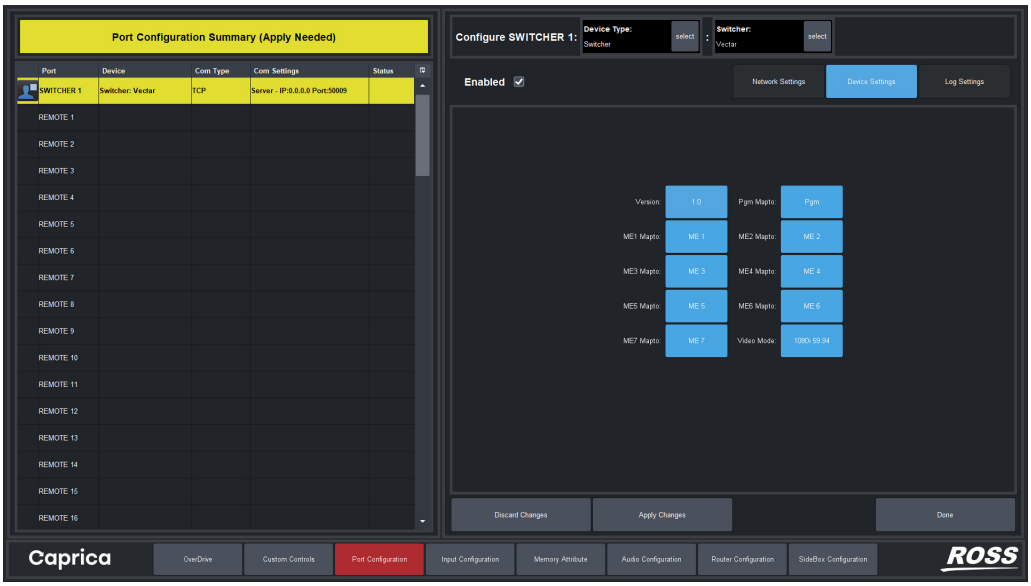
15. In the **Local IP Address** box, enter `0.0.0.0`.

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 Viz Vectar Plus switcher. The **Version** field displays the protocol version used by your Viz Vectar Plus switcher.



19. Click **Pgm Mapto** to select the ME on your Viz Vectar Plus switcher to map to the Program bus in Caprica.

20. Click **ME1 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME1 in Caprica.

21. Click **ME2 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME2 in Caprica.

22. Click **ME3 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME3 in Caprica.

23. Click **ME4 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME4 in Caprica.

24. Click **ME5 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME5 in Caprica.

25. Click **ME6 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME6 in Caprica.

26. Click **ME7 Mapto** to select the ME on your Viz Vectar Plus switcher to map to ME7 in Caprica.
27. Click **Video Mode** to select the video format set on your Viz Vectar Plus switcher.
28. Click **Apply Changes** to save the switcher settings.
29. Click **Done** to close the **Configure SWITCHER1** panel.

Connecting OverDrive to Your Caprica Server

In OverDrive, you use the Server Configuration web page to configure the OverDrive Server to communicate with the OverDrive system switcher through the Caprica Server. To configure an OverDrive Server to connect to a Caprica Server, refer to the section "**Configuring Caprica Communication Settings**" of the ***OverDrive 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 OverDrive system
- Inputs to your OverDrive system
- Audio channel names displayed in OverDrive
- Switcher Custom Controls available in OverDrive

To complete the configuration of your Caprica Server, refer to the chapter "**Caprica Server Configuration**" on page 26–1.

Caprica Server Configuration

After configuring the Caprica Server to connect a switcher to your OverDrive 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 OverDrive system. This chapter provides instructions for completing the configuration of a Caprica Server in an OverDrive system and creating Custom Controls for the switcher in an OverDrive system.

The following topics are discussed in this chapter:

- Configuring Devices to Connect to an OverDrive System
- Configuring Switcher Inputs
- Assigning Names and Custom Controls to Memories
- Configuring Audio
- Customizing Router Source and Destination Names
- Controlling Router Sources and Destinations for OverDrive
- Creating Custom Control Macros
- Saving Caprica Server Configuration
- Recalling Configurations from a Diskset
- Creating Caprica Server Diagnostic Reports
- Controlling User Session Timeout

Configuring Devices to Connect to an OverDrive System

On the Caprica Server, you need to configure each device that you will connect to your OverDrive system to enable OverDrive to control the devices. Using the Port Configuration client on the Caprica Server, you can configure the following types of devices to work with OverDrive:

- 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 OverDrive, Ross Video publishes an ***External Device Setup Sheet*** that contains the settings that enable OverDrive to control the device.

For More Information on...

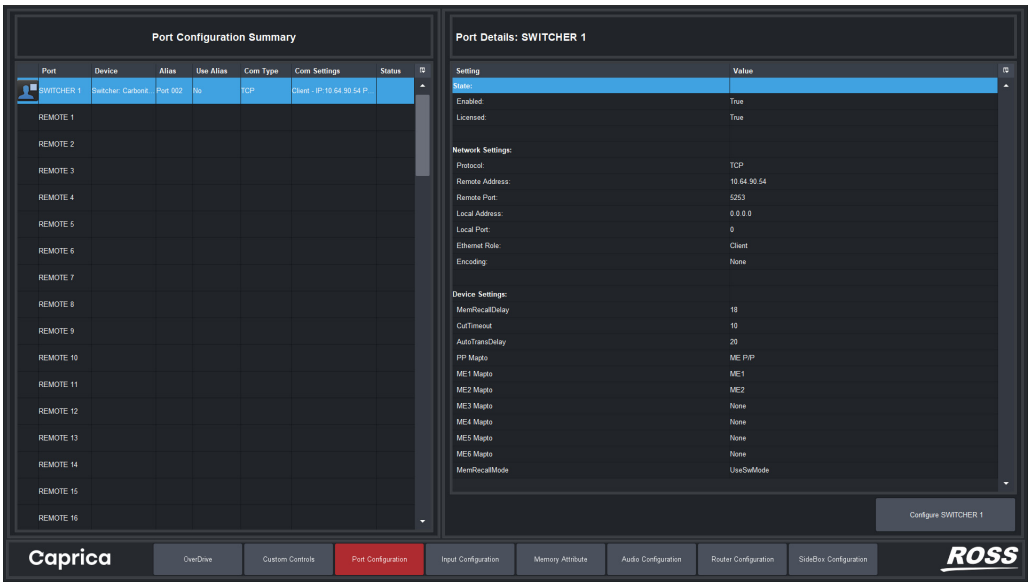
- using devices in OverDrive, refer to the section "**External Device Templates**" in the ***OverDrive User Guide***.

To configure a device for OverDrive

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.

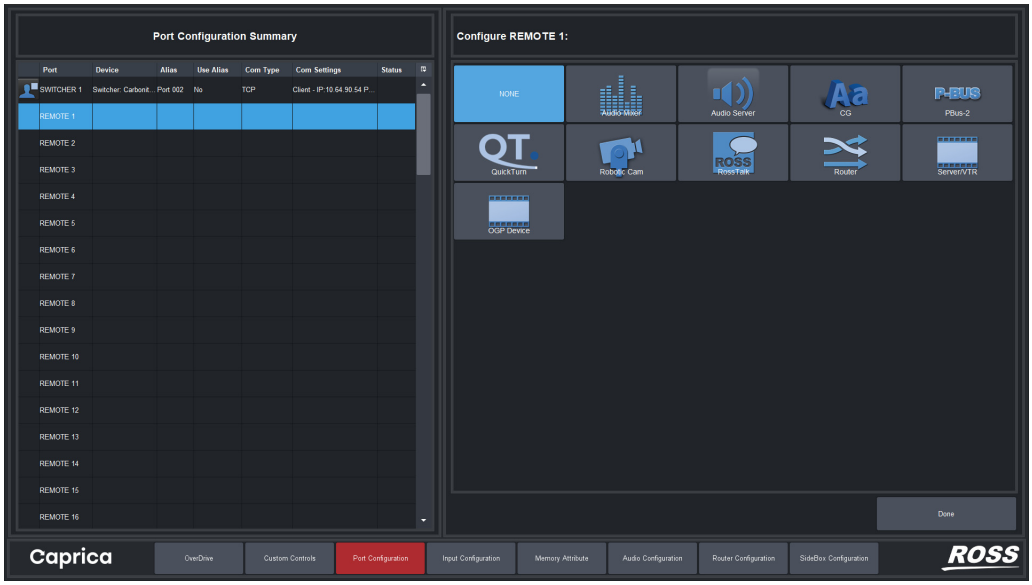
   The **Port Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   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.

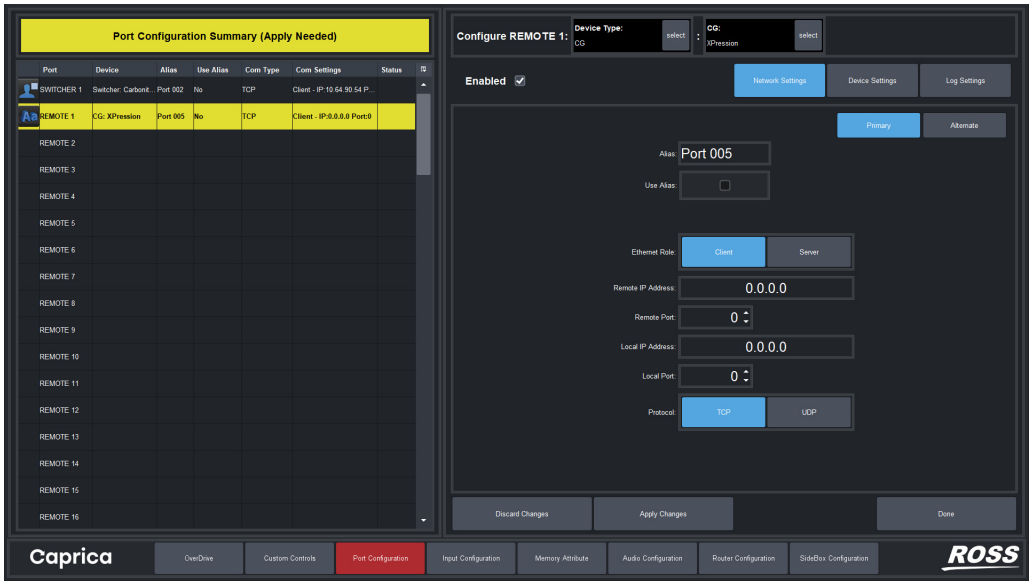


7. In the **Configure REMOTE #** panel, click the type of device to configure.

   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 OverDrive 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 OverDrive 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:

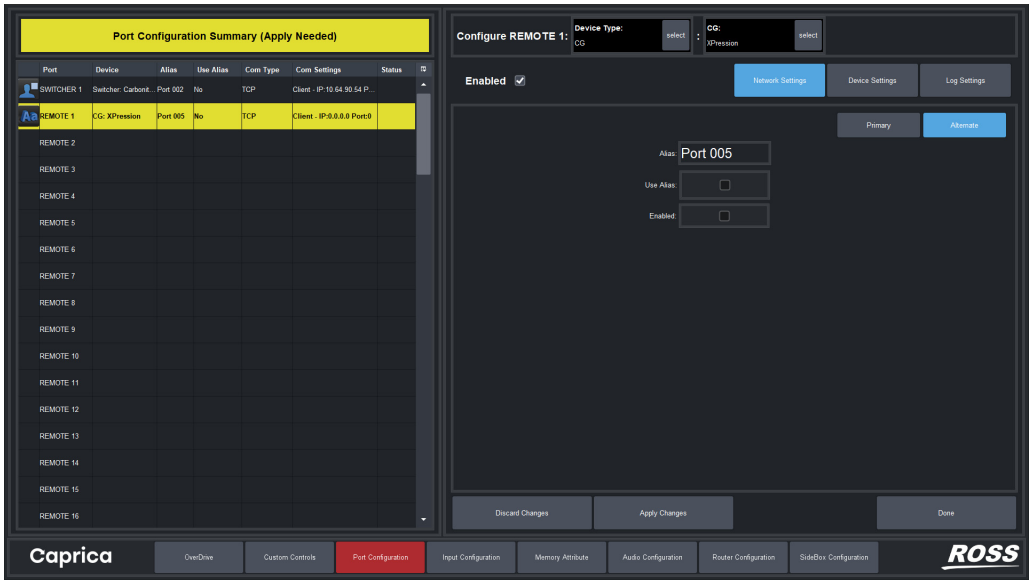
    - https://help.rossvideo.com/caprica/help/devices/index.html

✶ 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:

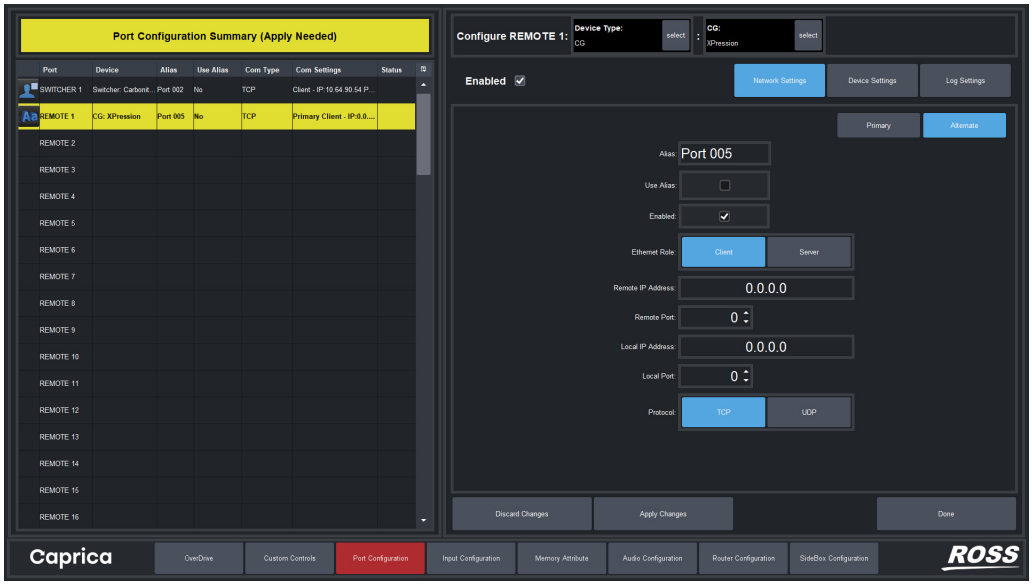
    a. Click **Alternate** to set a second set of network settings for the selected device.

    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.

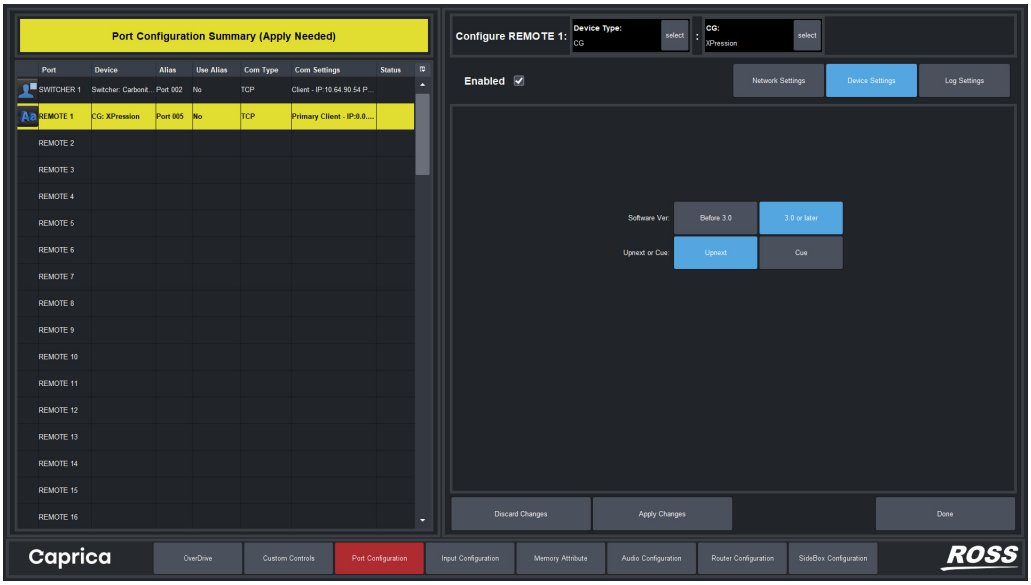


c. Use the displayed **Alternate** network settings to configure the second set of network settings for the selected device.

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.

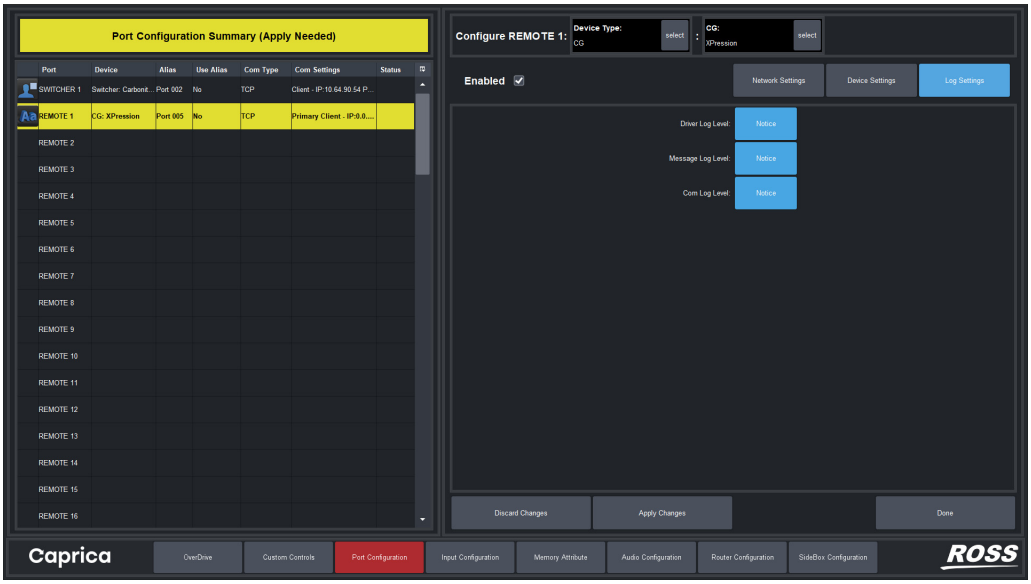
    You can use the following URL to view the ***Caprica Device Setup Sheets*** for supported devices:

    - 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 the 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 OverDrive Server.

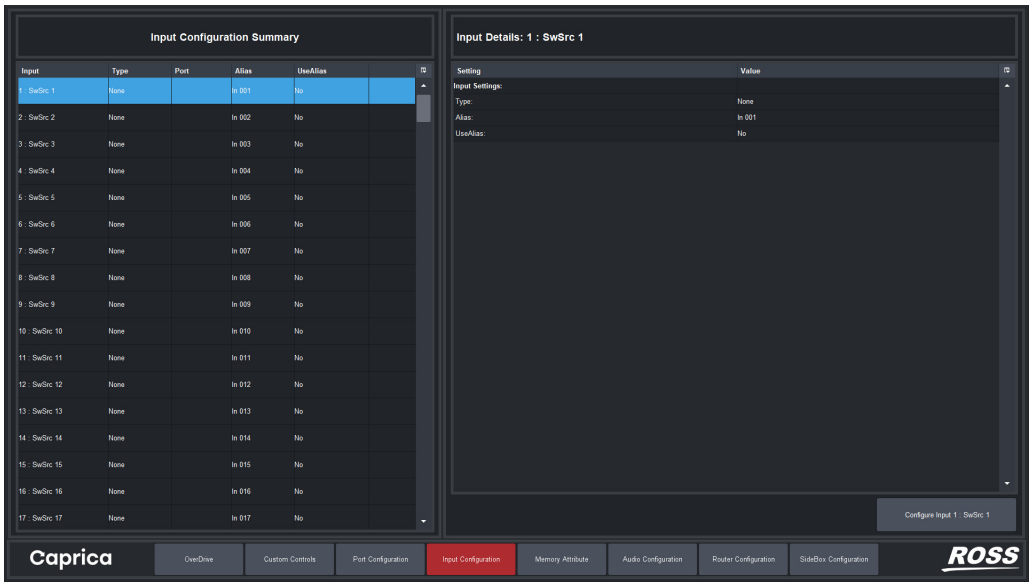
Configuring Switcher Inputs

After you configure the devices to connect to your OverDrive system, you need to configure switcher inputs for the devices.

To configure a switcher input for a device

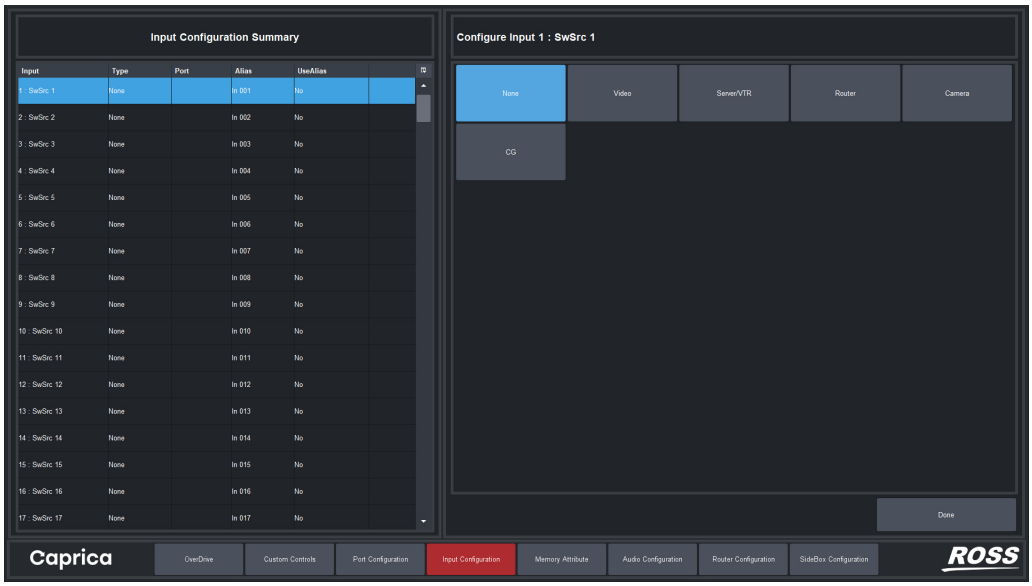
1. At the bottom of the **Device View**, click **Input Configuration**.

   The **Input Configuration** client opens.



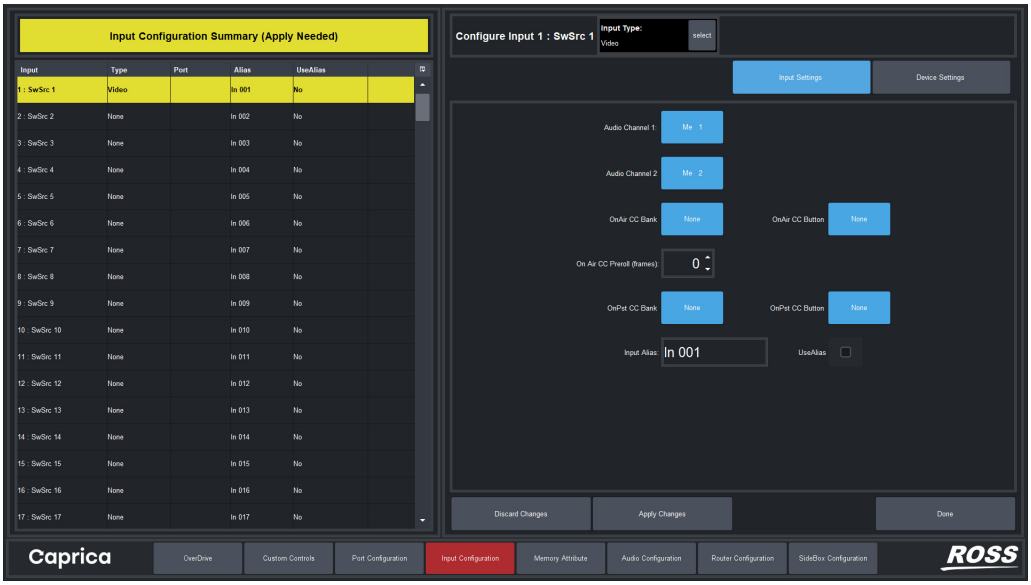
2. In the **Input** column of the **Input Configuration Summary** table, double-click the switcher input to configure for a device.

   The **Configure Input #** panel lists the available input types.

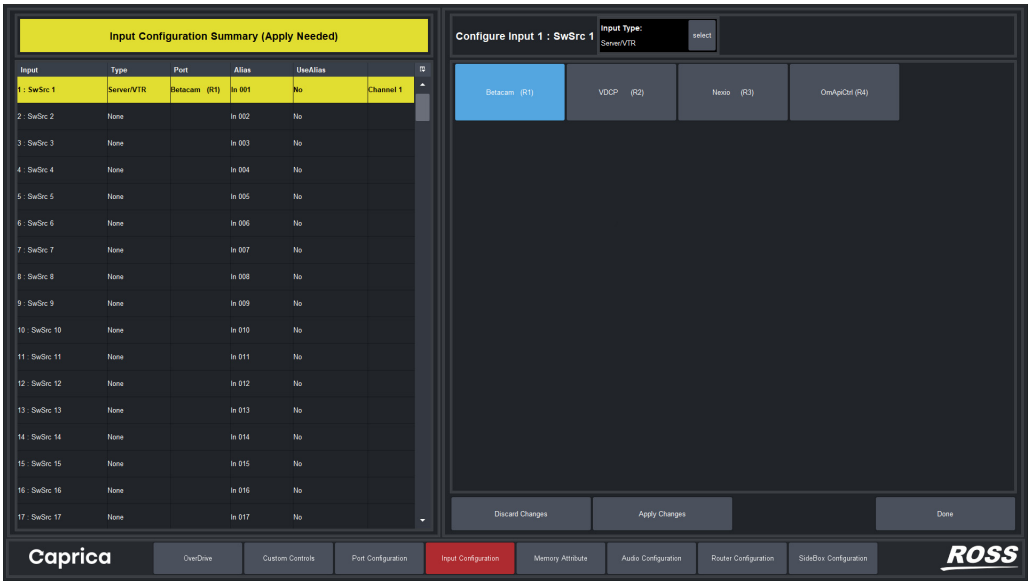


3. Click the **Input Type** to connect to the selected switcher input.

   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.

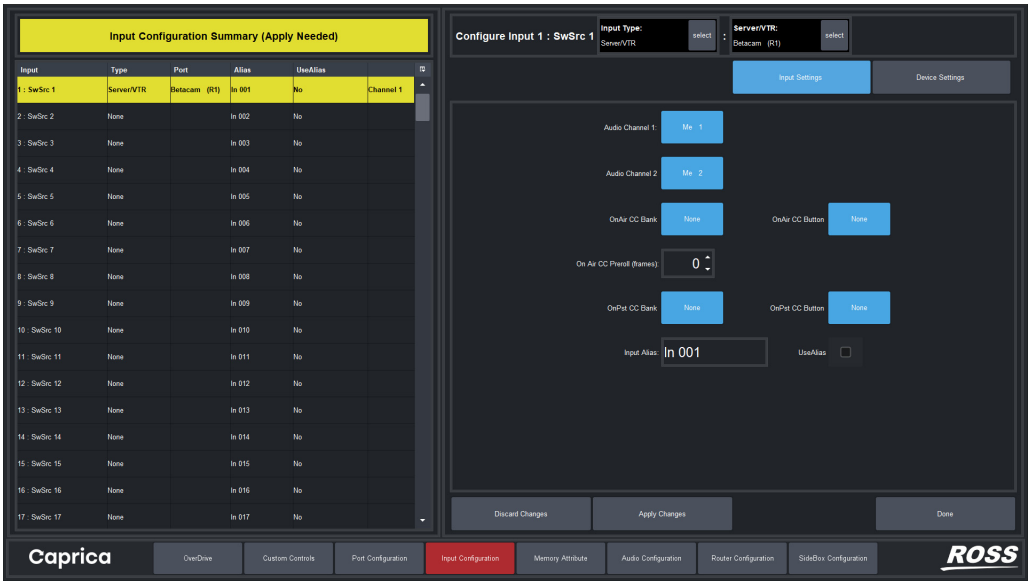


   When you select the **Server/VTR**, **Router**, **Camera**, or **CG** input type, the **Configure Input #** panel lists the available devices for the selected input type. If you selected the wrong input type, click **select** in the **Input Type** area to return to the list of available input types.



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 the audio channel 1 of the selected switcher input.
6. Click **Audio Channel 2** to select the audio channel for the 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 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.
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 OverDrive 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 OverDrive prepares the input.
   b. Click **On Pst CC Button** to select the Custom Control button assigned to the Custom Control to run when OverDrive prepares the input.

   To not run a Custom Control when OverDrive 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.

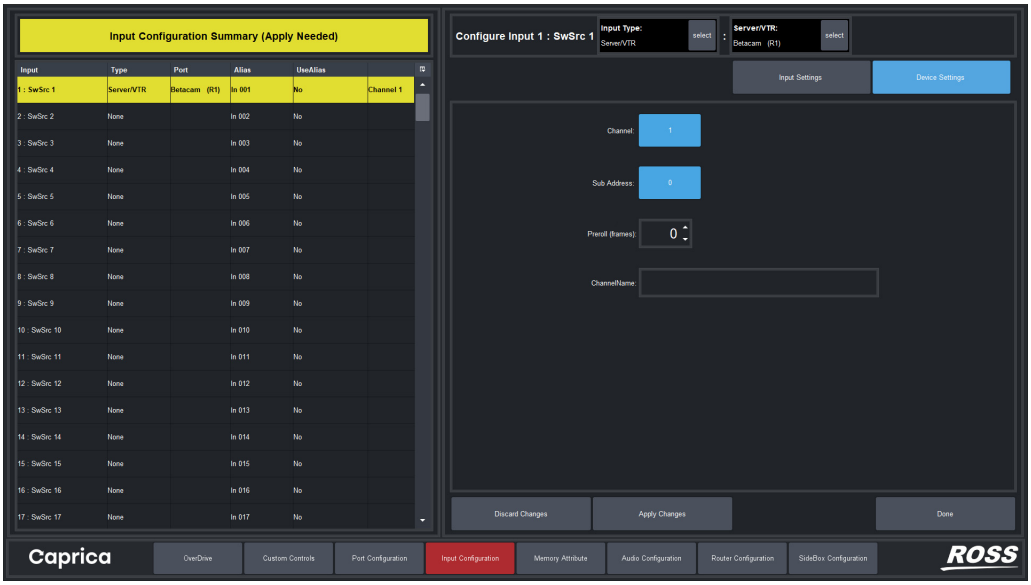
    b. Select the **UseAlias** check box.

    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 OverDrive 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 OverDrive 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 be 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 in the X-axis when using the positioner.

i. Select the **Invert Y** check box to invert the direction that the camera moves in the Y-axis when using the positioner.

j. Select the **Invert Z** check box to invert the direction that the camera moves in 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 OverDrive system.
16. After you configure the ports and inputs on your Caprica Server, you can physically connect your devices to your OverDrive system.

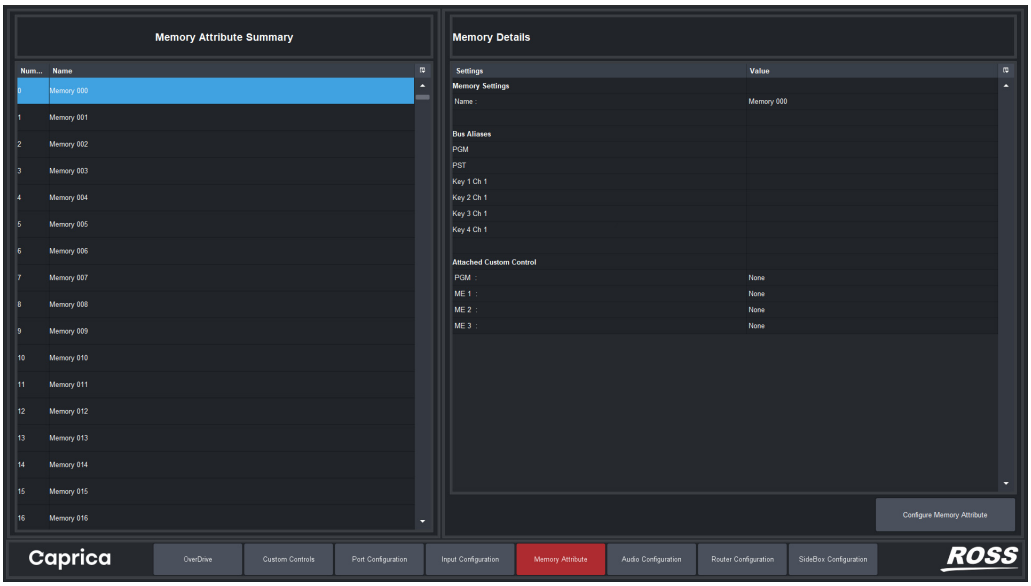
Assigning Names and Custom Controls to Memories

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.

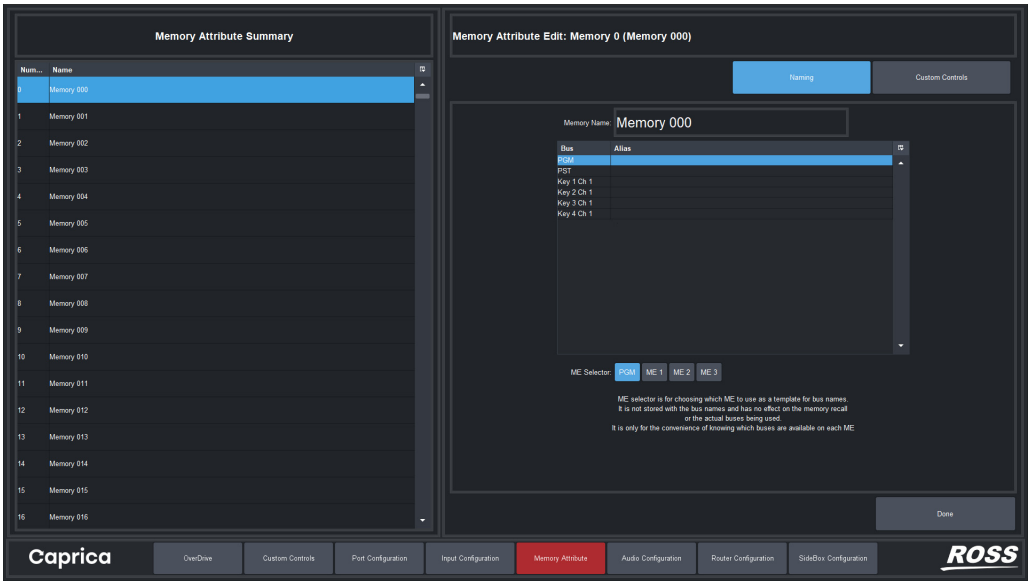


2. In the **Number** column of the **Memory Attribute Summary** table, double-click the memory number to name and assign Custom Controls.

   The **Memory Edit** panel opens for the selected memory.

3. Click **Naming**.

   The **Memory Edit** panel displays the **Naming** settings for the selected memory.

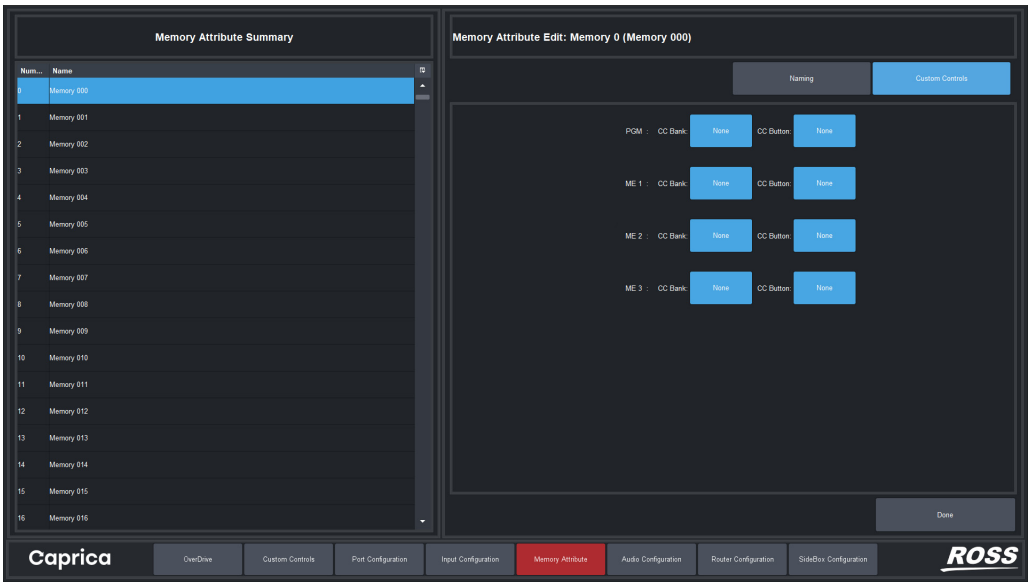


4. In the **Memory Name** box, enter a name for the selected memory.
5. Click an **ME** in the **ME Selector** setting to display the available buses for the selected ME in the **Bus** table.
6. To name a bus, complete the following steps:
   a. Click in the **Alias** column cell to the right of the **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 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 settings.

Customizing Audio Channels for OverDrive

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 OverDrive:

- Channel name
- Initial audio level
- Availability of the channel in OverDrive

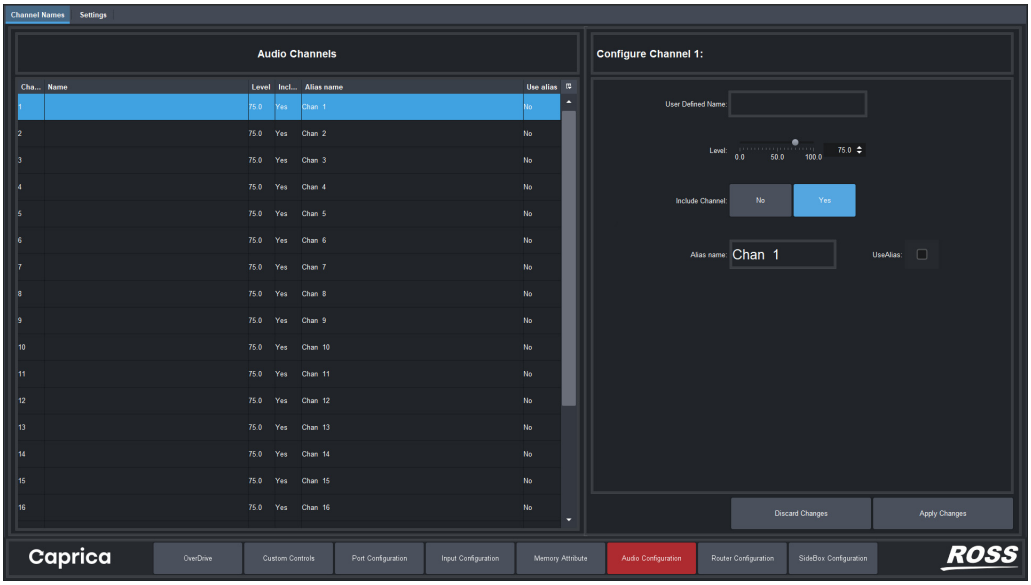
To customize an audio channel for OverDrive

1. At the bottom of the **Device View**, click **Audio Configuration**.

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

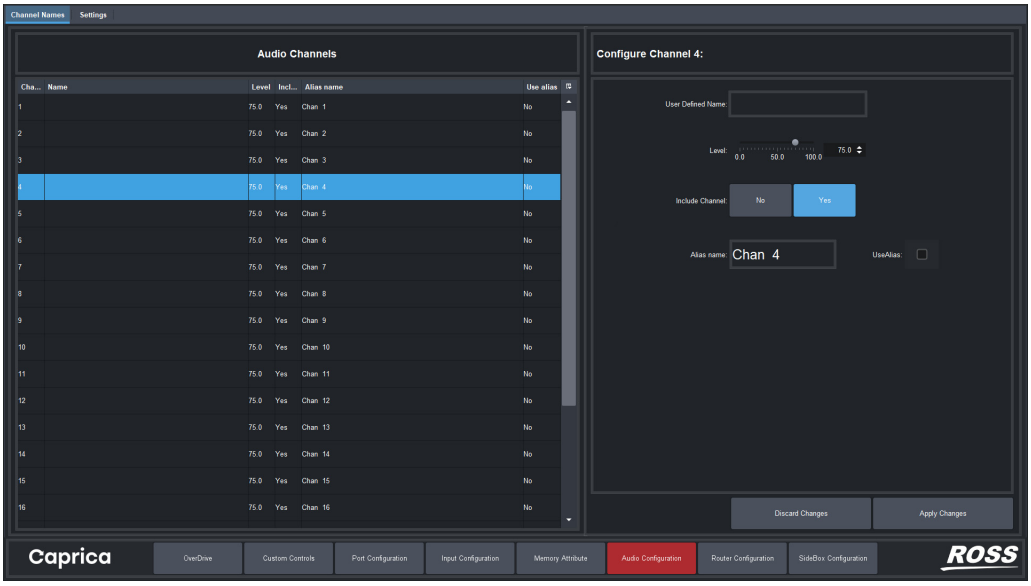
2. Click the **Channel Names** tab.

   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 channels opens.



4. In the **User Defined Name** box, enter a name for the selected audio channel.

   OverDrive 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 OverDrive or **No** to exclude the channel from OverDrive.

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 OverDrive.

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.

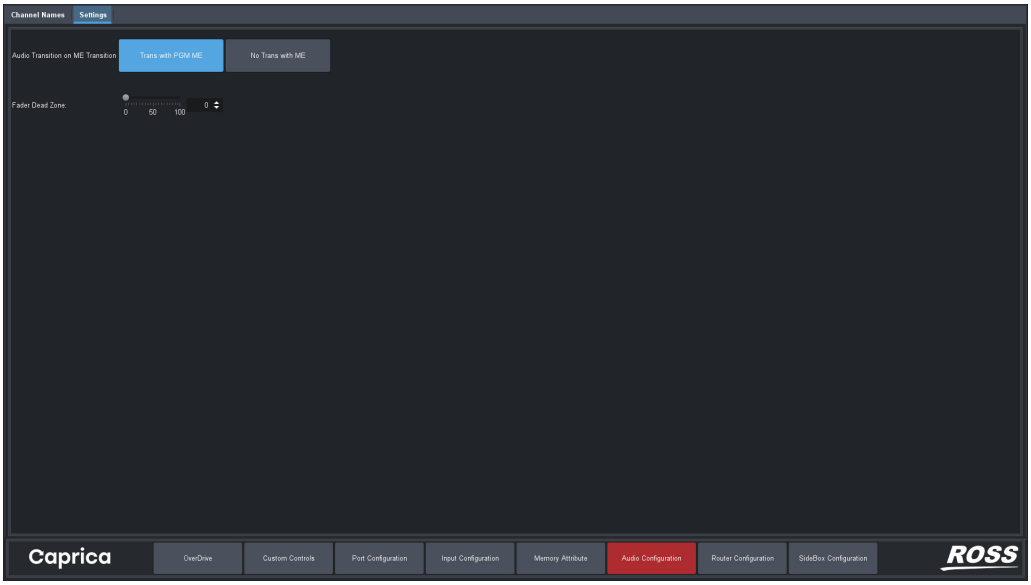
To control audio transition on ME transition

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 map to the active range set for the audio mixer faders, the set dead zone percentage to one hundred percent ((**Figure 26.1**)). Only once an audio mixer fader surpasses the set dead zone percentage does the associated Caprica audio fader begin to move.

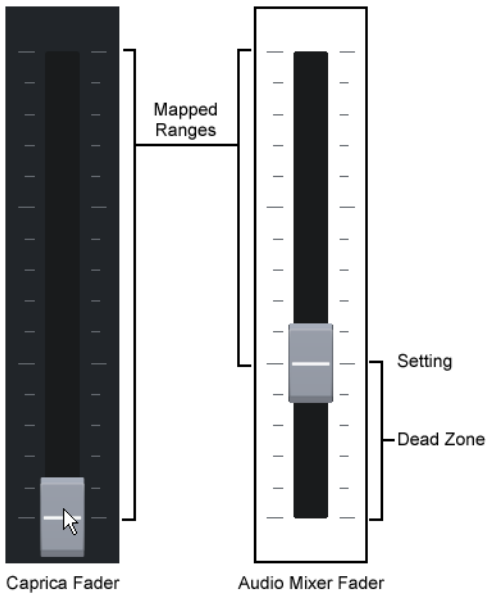


Figure 26.1 Dead Zone Fader Ranges

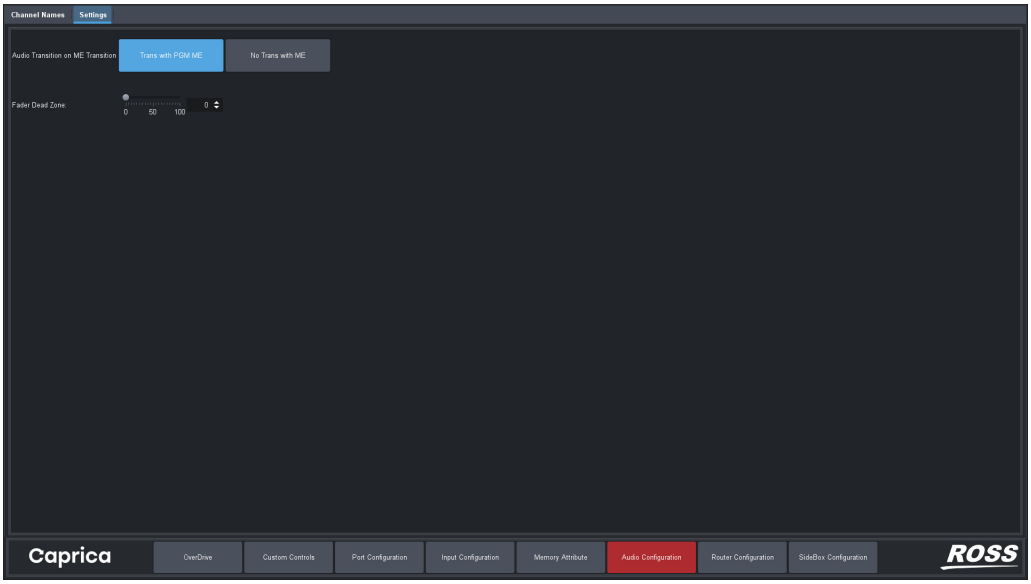
To configure a Dead Zone for audio mixer faders

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 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 an OverDrive 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 number. 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 Caprica Cockpit to upload your custom names to your router.

To upload custom router source and destination names

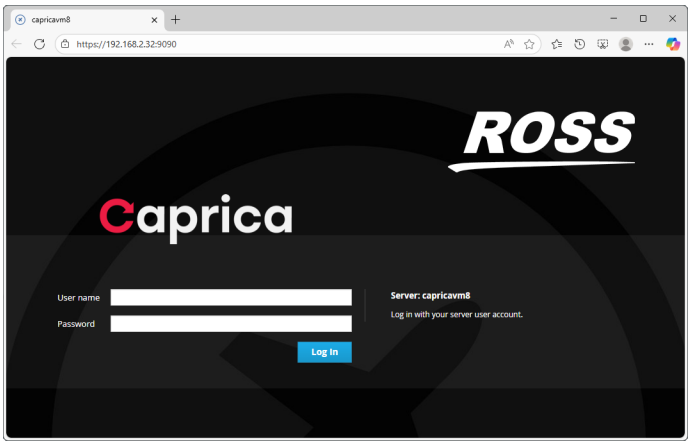
1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

✶ If Caprica Cockpit does not open, your Caprica Server computer is not running the Amazon Linux 2 operating system. Contact Ross Video Technical Support to upgrade the operating system of your Caprica Server computer.

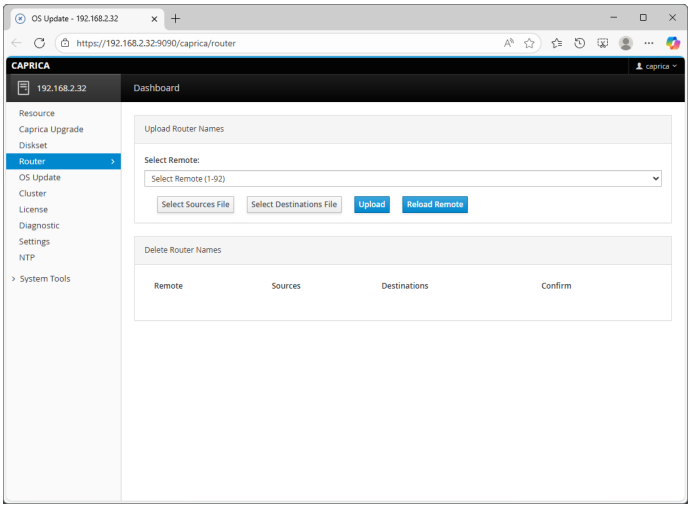
   The **Caprica Login** web page opens.



3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

   Caprica Cockpit opens.
5. In the **Caprica Cockpit** tree view, click **Router**.

   The **Router** web page opens.



6. Use the **Select Remote** list to select the port to which the router whose names you want to customize is connected.
7. 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.

     The **Upload Sources File** dialog opens.

   - **Select Destinations File** — click this button to upload a comma-separated values file that contains router destination names.

     The **Upload Destinations File** dialog opens.

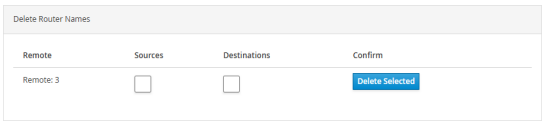
8. Click **Choose File**.

   The **Open** dialog box opens.
9. Use the **Open** dialog box to locate and select the router **sources** or router **destinations** file (.csv).
10. With a router **sources** or router **destinations** file (.csv), click **Open**.

    The **Open** dialog box closes and the **Upload Sources File** or **Upload Destinations File** dialog box displays the name of the selected file.
11. Click **Select**.

    The **Upload Sources File** or **Upload Destinations File** dialog box closes and name of the selected file displays below the **Select Sources File** or **Select Destinations File** button on the **Router** web page.
12. 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 **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 OverDrive**" on page 26–19.
- the Custom Control client, refer to the section "**Creating Custom Control Macros**" on page 26–23.

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 from the router 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 a name files.
4. Click **Reload Remote**.

   Depending on the type of name files you deleted from a router, the source and/or destination names 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 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 OverDrive**" on page 26–19.
- the Custom Control client, refer to the section "**Creating Custom Control Macros**" on page 26–23.

Controlling Router Sources and Destinations for OverDrive

For each router device configured in Caprica for an OverDrive system, you can select the accessible router sources (inputs) and router destinations (outputs) for OverDrive. When working with large routers composed of multiple routing matrices, the list of available sources and destinations grow to tens of thousands of items.

For More Information on...

- configuring devices in Caprica for OverDrive, refer to the section "**Configuring Devices to Connect to an OverDrive System**" on page 26–2.

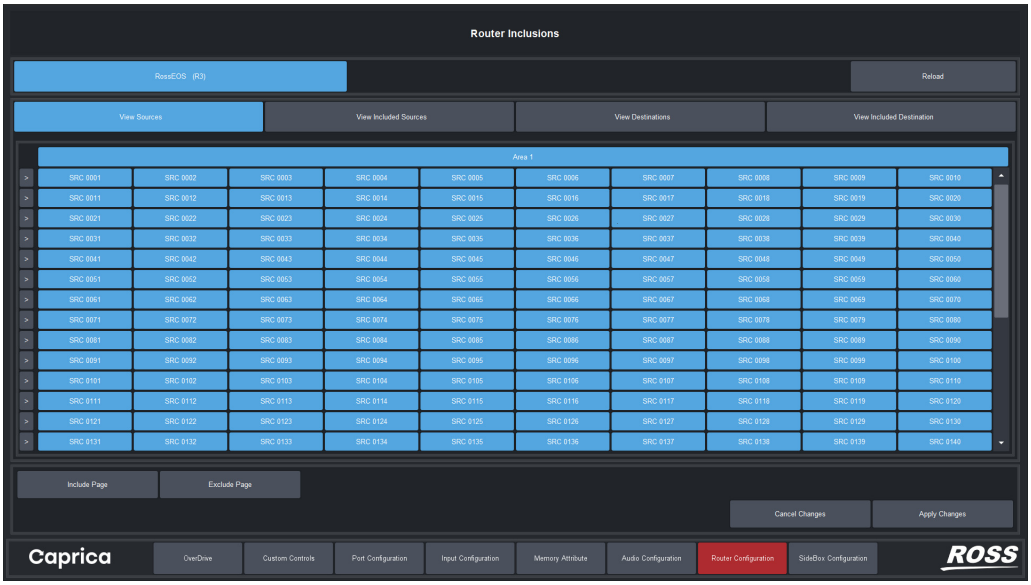
Sources

Creating a list of included sources helps simplify list navigation and item selection in OverDrive.

To create a list of router included sources

1. Use the **Port Configuration** client to configure a router device for your OverDrive 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.

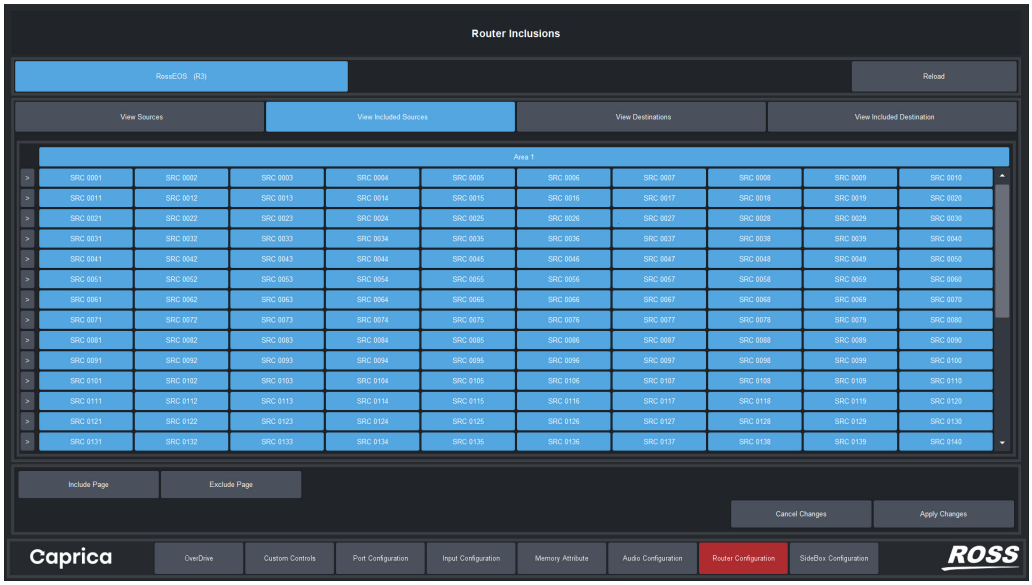
   - **Area** — if the router contains multiple areas, click the **Area 1** to **Area N** button to view the sources in the selected area.
   - **Page** — if the selected router contains more than 256 sources, click the **Page 2** to **Page N** buttons to view the next page of 256 sources.
5. In the source 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.



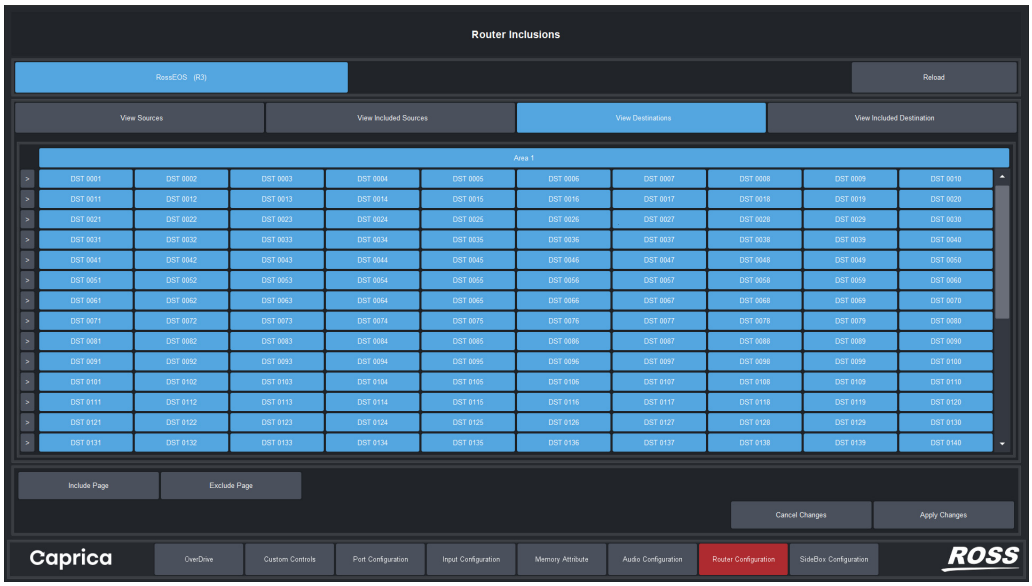
Destinations

Creating a list of included destinations helps simplify list navigation and item selection in OverDrive.

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** to **Area N** button to view the destinations in the selected area.
- **Page** — if the selected router contains more than 256 destinations, click the **Page 2** to **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**.

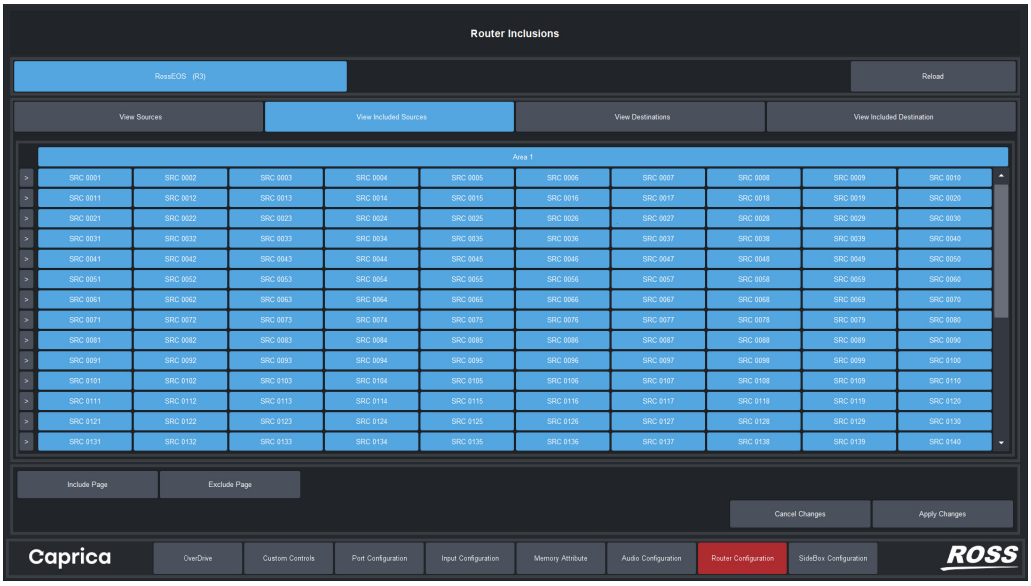
4. To deselect a destination, click a selected destination. To deselect multiple destinations at once, do the following:

   - **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 playback 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 OverDrive 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 play out may cause the rundown to stop playing.

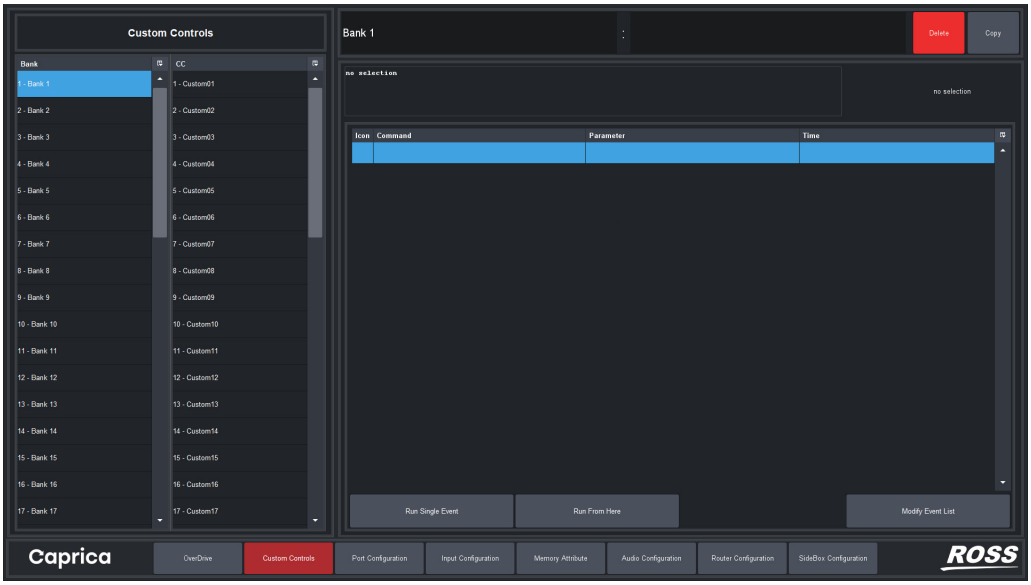
For More Information on...

- using Custom Control macros in OverDrive, refer to the section “**Custom Controls in *OverDrive***” in the ***OverDrive User Guide***.

To create a Custom Control macro

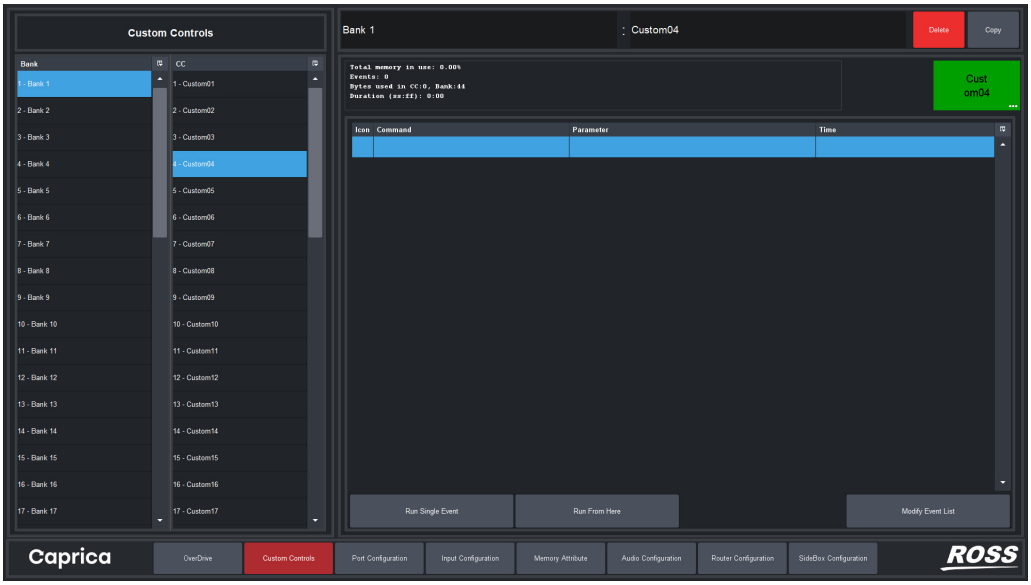
1. At the bottom of the **Device View**, click **Custom Controls**.

   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.

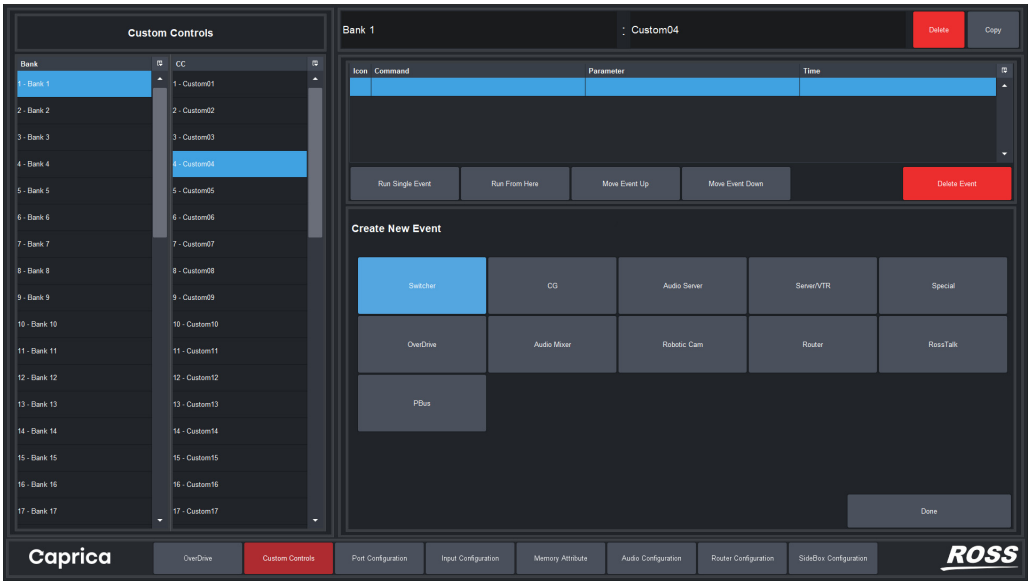


The fields above the Custom Control **Event** list display the following information:

- **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**).

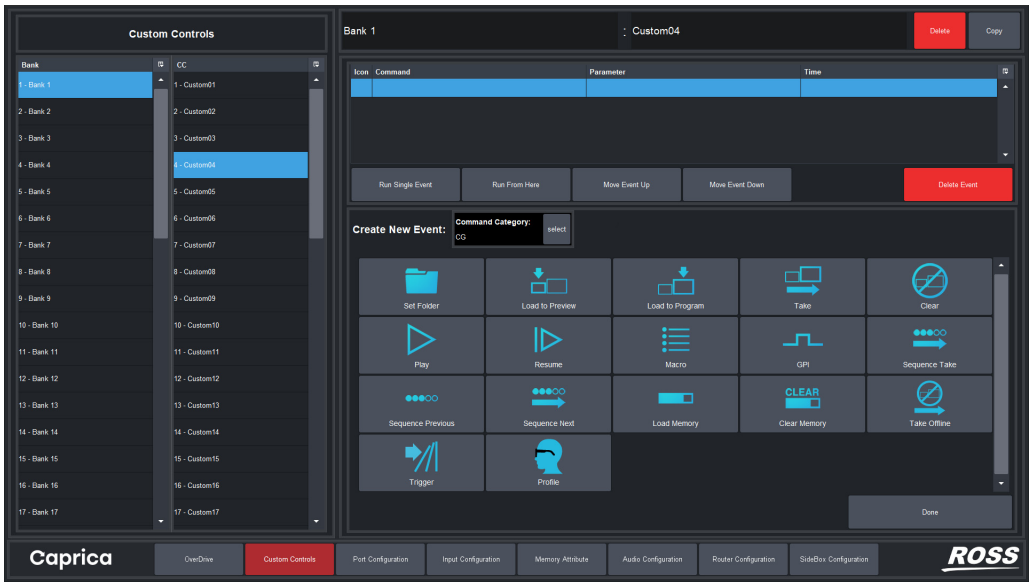
4. Click in the **Bank** box to edit the bank name or the **CC Name** box to edit the Custom Control name.
5. Click **Modify Event List** at the bottom of the **Custom Controls** client.

   The **Create New Event** panel opens listing the available types of Custom Controls that you can use to build a Custom Control macro.



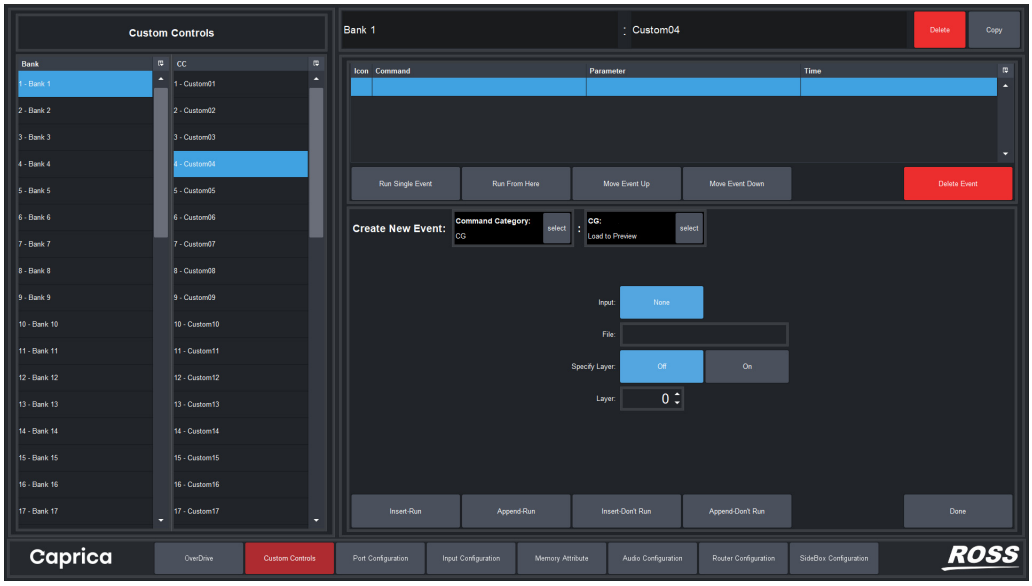
6. In the **Create New Event** panel, click the type of Custom Control that you want to use to create a new event in your Custom Control macro.

   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.

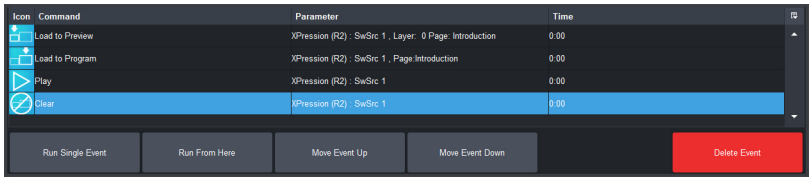


8. Configure the **Custom Control Settings** as required for the new event in your Custom Control macro.

9. Depending on the location 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 OverDrive 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 OverDrive 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 OverDrive 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 OverDrive system. When an event is not selected in the **Event List**, new events are added as the first 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.



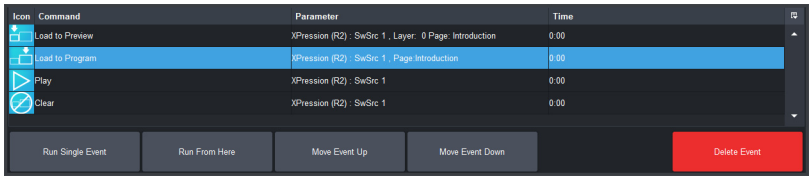
10. Click **select** in the **Command Category** area to start configuring the next event in your Custom Control macro.
11. Repeat step **5** to step **10** to add additional events to your Custom Control macro.
12. After you add the last event to your Custom Control macro, click **Done** to complete 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

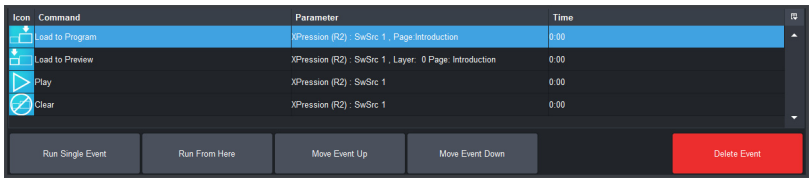
1. In the **Event List** table, select the event to move.



2. Use the following button 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 deletes the selected event from the **Event List** table and the Custom Control macro.

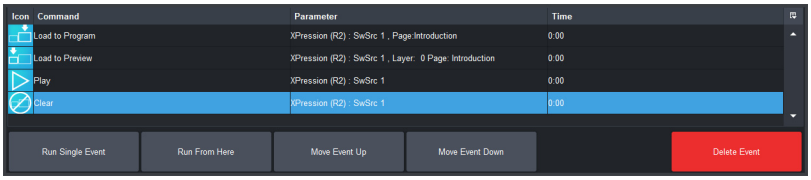


Deleting Events from a Custom Control Macro

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.

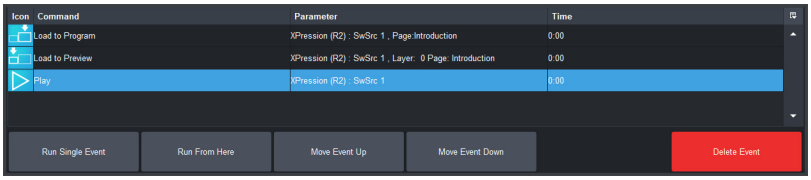


2. Click **Delete Event**.

   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 OverDrive 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 OverDrive system, verify the results of the events.

Making Copies of a Custom Control Macro

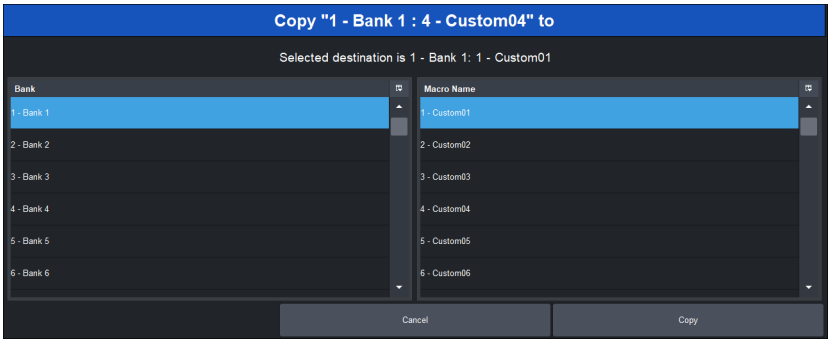
Starting with a copy of a Custom Control macro that does most of what you want is a quick method of building a Custom Control macro.

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 in 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.

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 an OverDrive 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 the Redundant Caprica Server System.

Save 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 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.

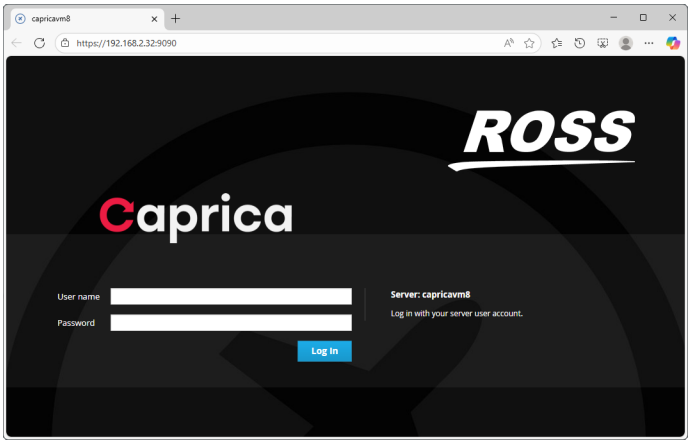
To save all components of the current Caprica Server configuration to a diskset

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

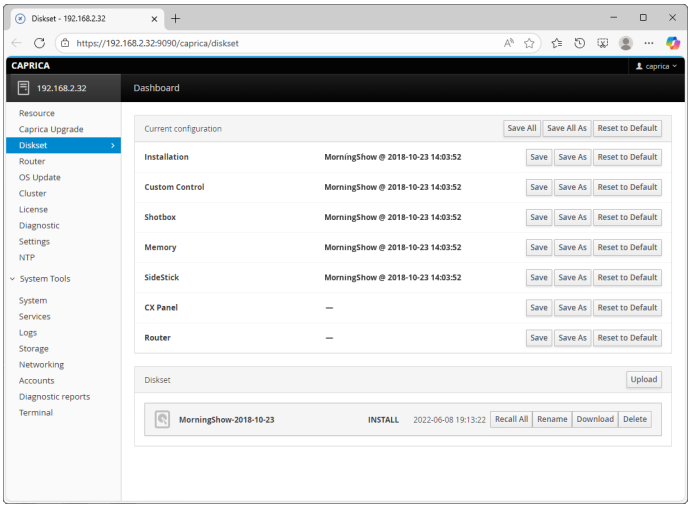
   The **Caprica Login** web page opens.



3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

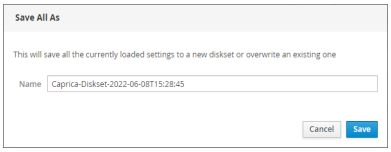
   Caprica Cockpit opens.
5. In the tree view, click **Diskset**.

   The **Diskset** web page 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.



6. In the title bar of the **Current Configuration** section, click **Save All As**.

   The **Save All As** dialog box opens.

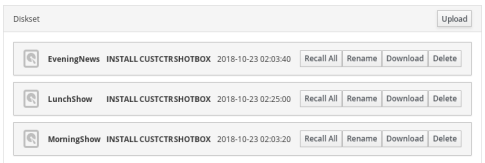


7. In the **Name** box, enter a name for your new diskset or use the suggested diskset name.

✶ 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.

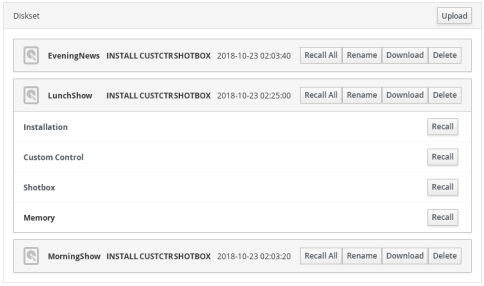
8. Click **Save**.

   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 disksets files in the `/caprica/archive` directory on the Caprica Server computer. The **Diskset** section lists all the diskset files contained in the `/caprica/archive` directory, even diskset files copied into the directory from other sources.



9. 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 connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**.
3. Log in to **Caprica Cockpit** as the **caprica** user.
4. In the tree view, click **Diskset**.

   The **Diskset** web page 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 **Current Configuration** section, click **Save As** to the right of the configuration component to save.

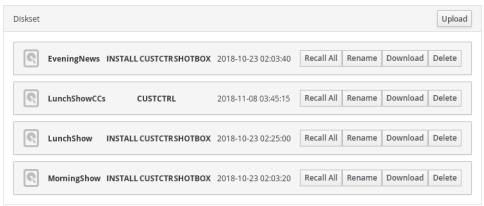
   The **Save Component As** dialog box opens.

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.

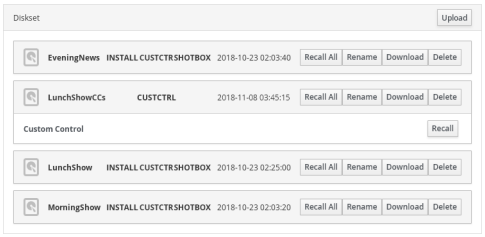
7. Click **Save**.

   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 disksets files in the `/caprica/archive` directory on the Caprica Server computer. The **Diskset** section lists all the diskset files contained in the `/caprica/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 component contained in the diskset.



Save 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

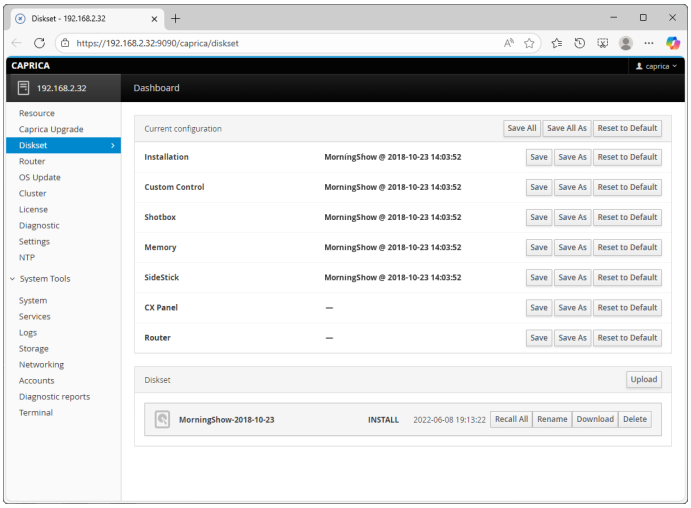
When you choose to save all configuration component changes for the current Caprica Server configuration, Caprica will overwrite the components in the originating disksets with the components in the Current Configuration section of the Diskset web page. The Current Configuration section displays the 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 connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**.
3. Log in to **Caprica Cockpit** as the **caprica** user.
4. In the tree view, click **Diskset**.

   The **Diskset** web page 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**.

   The **Save All** alert opens.

6. Click **Save**.

   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 an individual Caprica Server configuration component changes to the originating diskset

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**.
3. Log in to **Caprica Cockpit** as the **caprica** user.
4. In the tree view, click **Diskset**.

   The **Diskset** web page 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 **Current Configuration** section, click **Save** to the right of the configuration component to save.

   The **Save Installation** alert opens.

6. Click **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 to Another Caprica Server

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 connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**.
3. Log in to **Caprica Cockpit** as the **caprica** user.
4. In the tree view, click **Diskset**.

   The **Diskset** web page 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 **Diskset** section, click **Rename** to right of the diskset to rename.

   The **Rename Diskset** dialog box opens.

6. In the **Name** box, enter a new name for the selected diskset.

✶ If you enter the name of an existing diskset, Caprica will overwrite the existing diskset with the configuration components contained in the renamed diskset. Click **Cancel** to cancel renaming the selected diskset.

7. Click **Save** or **Overwrite**.

   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 connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**.
3. Log in to **Caprica Cockpit** as the **caprica** user.
4. In the tree view, click **Diskset**.

   The **Diskset** web page 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 **Diskset** section, click **Delete** to the right of the diskset to delete from the Caprica Server.

   An **Alert** opens.

6. Click **Delete**.

   The Caprica Server deletes the selected diskset. Click **Cancel** to cancel deleting the selected diskset.

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.

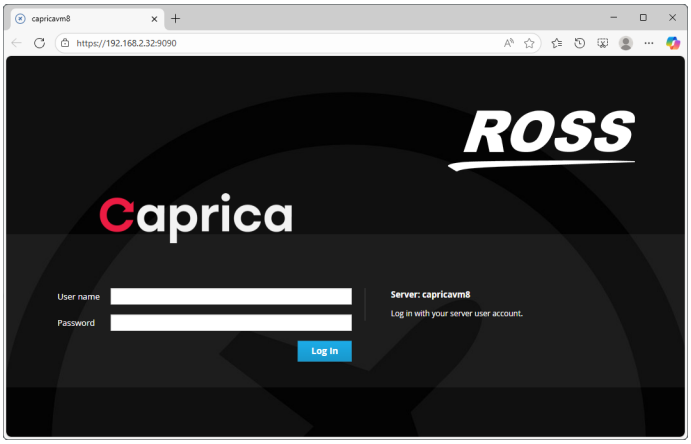
To recall Caprica Server configuration components from a diskset

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

The **Caprica Login** web page opens.



3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

   Caprica Cockpit opens.
5. In the tree view, click **Diskset**.

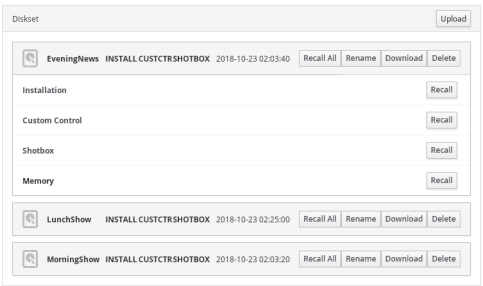
   The **Diskset** web page opens. The **Diskset** section lists the disksets on your Caprica server from which you can recall configuration components. To the right of each diskset name, Caprica displays the components contained in the diskset along with the time and date that the diskset was created.
6. 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 right of the diskset to recall to the Caprica Server.

      An **Alert** opens.

   b. Click **Recall**.

      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. Click **Cancel** to cancel recalling the configuration components from the selected diskset.
7. 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 available Caprica Server configuration components contained in the diskset.



b. In the expanded **Diskset**, click **Recall** to right of the Caprica Server configuration component to recall to the Caprica Server.

An **Alert** opens.

c. Click **Recall**.

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. Click **Cancel** to cancel recalling the selected configuration component from the diskset.

Copying a Diskset to Another Caprica Server

You can use a diskset that you download from a Caprica Server to quickly configure another Caprica Server.

To copy a diskset from one Caprica Server to another Caprica Server

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**.
3. Log in to **Caprica Cockpit** as the **caprica** user.
4. In the tree view, click **Diskset**.

   The **Diskset** web page 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 **Diskset** section, click **Download** to right of the diskset to copy to another Caprica Server.
6. Save the selected diskset to a file to your computer.
7. Use a web browser to open **Caprica Cockpit** on the **other** Caprica Server to which to copy the diskset.
8. Log in to **Caprica Cockpit** as the **caprica** user.
9. In the tree view, click **Diskset**.

   The **Diskset** web page opens.
10. In the title bar of the **Diskset** section, click **Upload**.

    The **Upload Diskset** dialog box opens.

11. In the **Upload Diskset** dialog box, click **Choose File**.

    The **Open** dialog box opens.
12. Use the **Open** dialog box to locate and select the **diskset file** (.tgz) to upload to the current Caprica Server.
13. Click **Open**.

    The **Open** dialog box closes, and the **File Upload** dialog box displays the name of the selected diskset file.

✶ When the diskset that you select has the same name as an existing diskset on the Caprica Server, Caprica will overwrite the existing diskset with the selected diskset. Click **Cancel** to cancel uploading the selected diskset.

14. Click **Upload** or **Overwrite**.

    The **Upload Diskset** dialog box closes and the **Diskset** section of the **Diskset** web page displays the name of the uploaded diskset.

15. Recall all or selected Caprica Server configuration components from the uploaded diskset to the Caprica Server.

Creating Caprica Server Diagnostic Reports

Diagnostic reports are used by Ross Video Technical Support to troubleshoot Caprica Server problems and are small enough to be sent to Ross Video for analysis. A diagnostic report is a .tgz file that contains the following information:

- Log files
- Installation files
- License files
- Cluster configuration
- Caprica software version
- Operating system version
- Support files

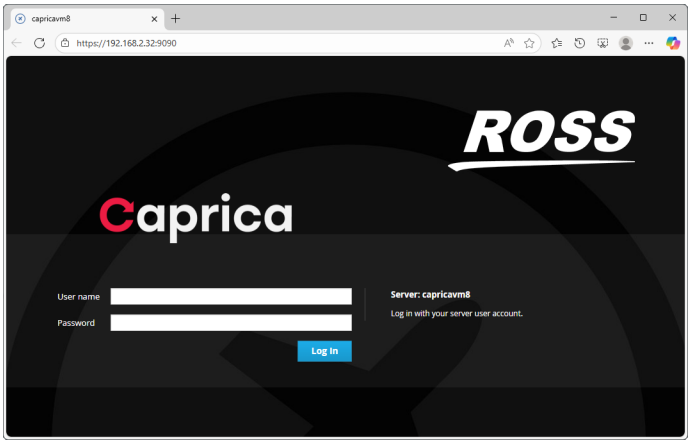
To save a diagnostic report

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   `https://<Caprica Server>:9090`

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

   The **Caprica Login** web page opens.

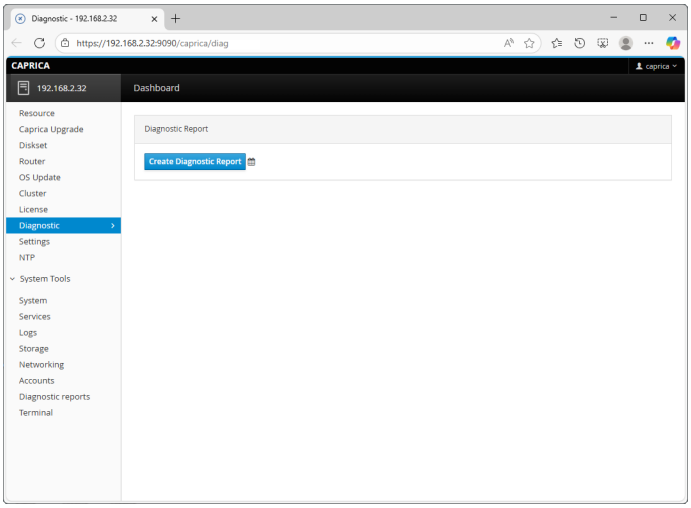


3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

   Caprica Cockpit opens.

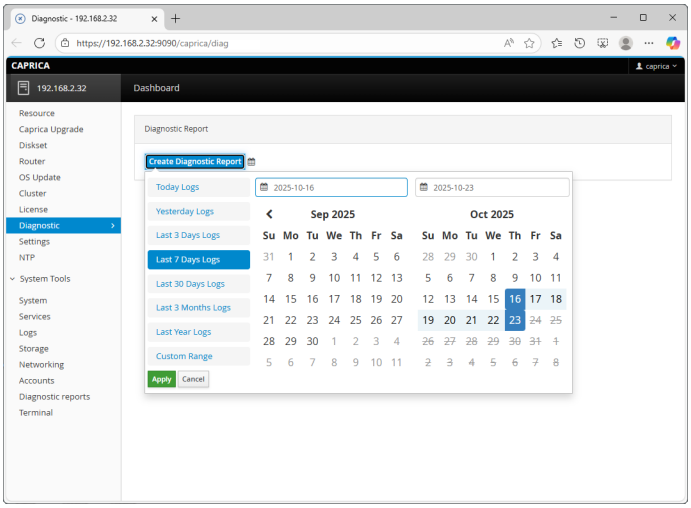
5. In the tree view, click **Diagnostic**.

   The **Diagnostic Report** web page opens.



6. In the **Diagnostic Report** section, click **Create Diagnostic Report**.

   The **Calendar** tool opens.



7. Click a **Preset Date Range** button to create a diagnostic report for a set date range or click the **Custom Range** button to define your own date range.

   To define a custom date range for your diagnostic report:

   a. Click the **Custom Range** button.

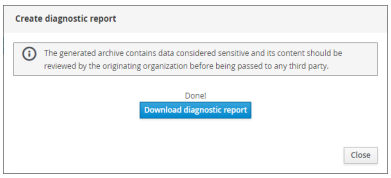
   b. In the **Date** selector, click the start date for the diagnostic report.

   The **Date** selector displays two months. To view other months, click the **Arrows** on either side of the month names.

   c. In the **Date** selector, click the end date for the diagnostic report.

   d. Click **Apply**.

After you select a preset date range or define a custom date range, Caprica generates a diagnostic report for the selected date range. The **Create diagnostic report** dialog box opens.



8. Click **Download diagnostic report**.
9. Follow your web browser prompts to save the diagnostic report .tgz file.
10. In the **Create diagnostic report** dialog box, click **Close**.

Controlling User Session Timeout

For user security, you can configure Caprica Cockpit to automatically log a user session out after a set number of minutes of inactivity.

Automatic User Session Log Out

By default, Caprica Cockpit will automatically log a user session out after 15 minutes of inactivity. Caprica Cockpit will not automatically log out a user session before alerting the user.

To continue a user session after reaching the set timeout limit:

1. When there is only one minute remaining before Caprica Cockpit automatically logs out a user session, Caprica Cockpit displays the **Session is about to expire** alert to the user.

2. Click **Continue Session** to continue the Caprica Cockpit session.

   Caprica Cockpit automatically logs the user session out if the user does not click **Continue Session** before the timer in the **Session is about to expire** alert reaches 0 seconds.

Setting the User Session Timeout

You can set a user session timeout limit of 1 to 60 minutes of inactivity. You can also choose to turn off automatic user session timeout.

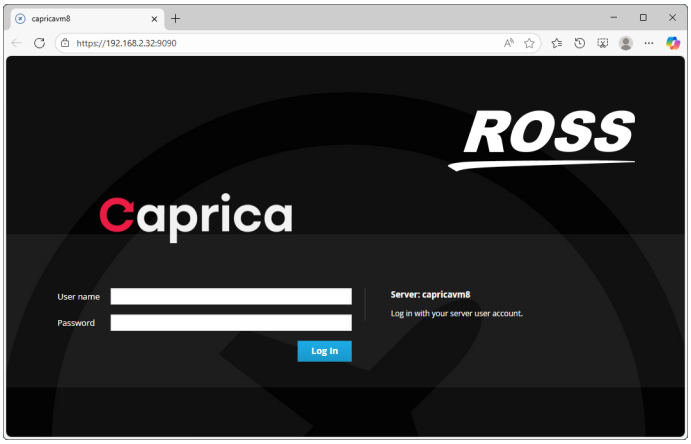
To set the user session timeout limit:

1. Log in to a computer connected to the same network as the Caprica Server computer.
2. Use a web browser to open **Caprica Cockpit**. The format of the URL is as follows, where `<Caprica Server>` is the hostname or IP address of your **Caprica Server** computer:

   ```
   https://<Caprica Server>:9090
   ```

   If the web browser identifies your connection with Caprica Cockpit as not secure, add an exception for Caprica Cockpit.

The **Caprica Login** web page opens.

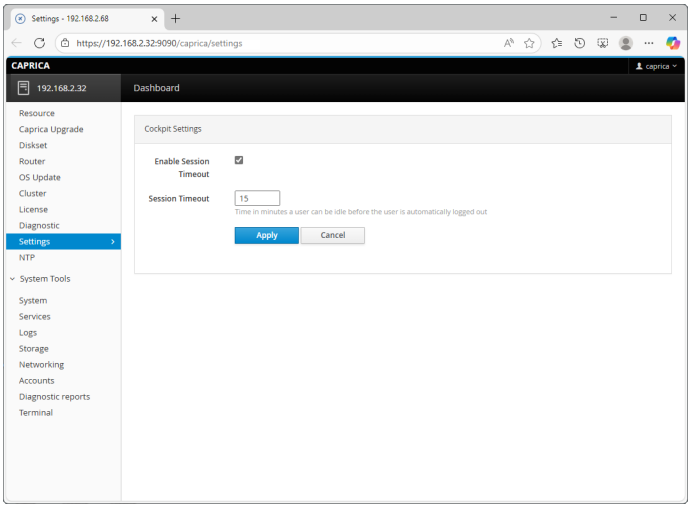


3. Use the following credentials to log in to **Caprica Cockpit**:
   - **User**: `caprica`
   - **Password**: `<your_password>`
4. Click **Log In**.

   Caprica Cockpit opens.

   - In the tree view, click **Settings**.

   The **Settings** web page opens.



5. Select the **Enable Session Timeout** check box to automatically log out user session that have been inactive for the set number of minutes.

   To turn of automatic user session timeout, clear the **Enable Session Timeout** check box.
6. In the **Session Timeout** box, enter or select the number of minutes that a user session can be inactive before Caprica Cockpit automatically logs out the user session. **Session Timeout** can range from 1 to 60 minutes.

   When there is only one minute remaining of the set **Session Timeout**, Caprica Cockpit displays the **Session is about to expire** alert to enable users to continue their session before being logged out.
7. Click **Apply**.

   Caprica Cockpit saves the session timeout settings. Click **Cancel** to cancel saving the session timeout settings.

Caprica CX Director Panel Setup

In an OverDrive system that contains a Caprica Server, you can connect a CX Director Panel that contains physical buttons and audio faders. A CX Director Panel is an optional OverDrive companion control panel for users who prefer a dedicated control surface. A CX Director Panel works in conjunction with the OverDrive touch screen, keyboard, and mouse to offer you multiple interfaces to your OverDrive system.

✶ A CX Director Panel only works with OverDrive v22.0 or higher systems that contain a Caprica Server.

This chapter provides instructions for connecting a CX Director Panel to an OverDrive system and configuring the panel to communicate with the Caprica Server in the OverDrive system.

The following topics are discussed in this chapter:

- CX Director Panel
- Cabling a CX Director Panel
- Connecting to the OverDrive System
- Configuring CX Director Panel Buttons
- Customizing CX Director Panel Button Appearance
- Selecting the Faders to Control
- Updating the CX Director Panel Operating System or Application
- Rebooting the CX Director Panel

CX Director Panel

The CX Director Panel is an optional companion control panel for users who prefer a dedicated control surface to run Custom Controls from Caprica and control audio channel faders.

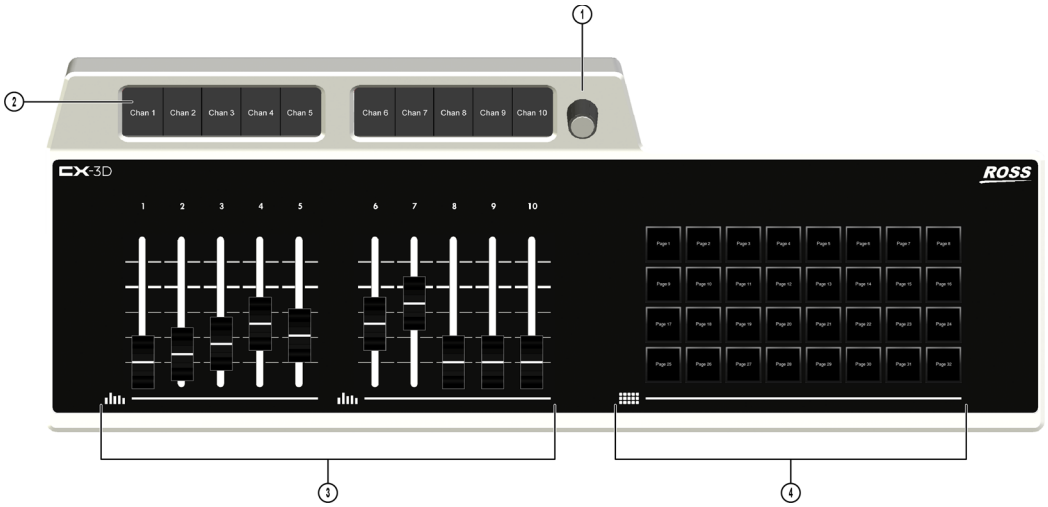


Figure 27.1 CX Director Panel Director Model

1) Menu Button	2) Main Menu or Channel Mnemonics
3) Current Audio Faders	4) Button Pad

1. Menu Button

Press this button to display the CX Director Panel Main menu in the display to the left of the button. Tap the display to select a Main menu function.

2. Main Menu or Channel Mnemonics

A two segment display that displays the CX Director Panel Main menu or the name of the channel controlled by the fader directly beneath it. Channel names are retrieved from the Caprica Server.

3. Current Audio Faders

The current audio faders mirror and control the audio levels in the On-Air Audio view of the DirectControl. The first ten enabled channels in the On-Air Audio view can be controlled by the CX Director Panel audio faders.

4. Button Pad

You can configure the 32 multi-color LCD buttons to run any combination for the following actions:

- Open a new page of buttons for the button pad.
- Run a Custom Control.

Cabling a CX Director Panel

In an OverDrive system, a CX Director Panel connects to the system through your local area network. A CX Director Panel has connectors for a primary (PS1) and a secondary (PS2) power supply, and one Ethernet port on the back of the panel.

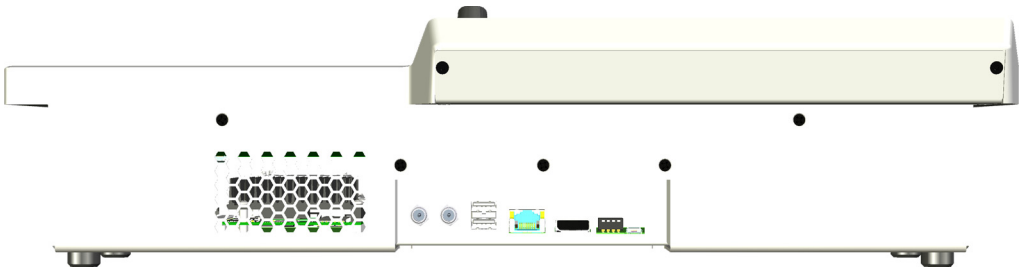


Figure 27.2 CX Director Panel Cable Connections

To cable a CX Director Panel

1. Connect and secure one of the supplied 12V DC power supplies to the **PWR 1** connector on the back of the CX Director Panel before connecting the power supply to the AC mains power.

✶ Connecting the power supply to the AC mains power before connecting to the CX Director Panel could damage the panel.

2. Connect the power supply to the AC mains power.
3. Use an **Ethernet** cable to connect the CX Director Panel **Ethernet** port to your local area network.

For More Information on...

- installing a CX Director Panel, refer to the ***Ross CX Director Panel Installation Caprica Device Setup Sheet***.

Connecting to the OverDrive System

After you physically connect a CX Director Panel to your network, you must set the panel IP address and connect the panel to the Caprica Server to enable it to communicate with the OverDrive Server.

Setting the CX Director Panel IP Address

Setting the IP address of your CX Director Panel enables you to connect to and configure the panel using DashBoard software.

✶ The IP address that you set for your CX Director Panel should not be used by any other device in your network.

For More Information on...

- setting the IP address of your CX Director Panel, refer to the **Connecting to the Network** chapter in the ***CX Panel Hardware Setup Guide***.

Connecting to a CX Director Panel with Dashboard

Now that you know the IP address of your CX Director Panel, you can connect to and configure the panel using DashBoard software.

For More Information on...

- connecting your CX Director Panel to DashBoard for configuration, refer to the **Connecting to DashBoard** chapter in the ***CX Panel Hardware Setup Guide***.

Connecting to the Caprica Server

Connecting the CX Director Panel to the Caprica Server in your OverDrive system enables the CX Director Panel to receive and display information from the Caprica Server. The CX Director Panel Client Connection tab contains the settings to configure your CX Director Panel to connect with the Caprica Server in your OverDrive system.

For More Information on...

- connecting your CX Director Panel to Caprica, refer to the **Connecting to a Client** section of the **Connecting to DashBoard** chapter in the ***CX Panel Hardware Setup Guide***.

Configuring CX Director Panel Buttons

A CX Director Panel contains 32 multi-color LCD buttons that you can configure to run any combination for the following actions when a user presses a button:

- Open a new page of buttons for the button pad.
- Run a Custom Control.

Assigning Page Changes to CX Director Panel Buttons

You can assign a page change to any of the 30 multi-color LCD buttons on your CX Director Panel. Pressing a page change button opens a new page of buttons for button pad 1, 2, or both.

To assign page changes to CX Director Panel buttons

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Panel Configuration** node.

   The **CX Panel Configuration** client opens in the **Device View**.
4. Use the **Window** menu to select **Full Screen**.

   The **CX Panel Configuration** client expands to full screen view.
5. Click the **Director** tab.

   The **Director** tab opens.

6. Use the **Button Pad Page** list in the **CX Director Panel** image to select the button page that contains the button or buttons to assign a page change.

   The **CX Director Panel** image displays the buttons for the selected page.

7. In the **CX Director Panel** image, click the **button** to assign a page change.

8. Use the **Page** list to select the page to open for the button pad.

   Select **None** to keep the current page open in the button pad.

9. Click **Apply**.

   The selected button updates on the CX Director Panel. The assigned page change is only available for the selected **button** in the selected **page**.

Assigning Custom Controls to CX Director Panel Buttons

You can assign a Custom Control to each CX Director Panel button in the accessible 32 button pages. Pressing a CX Director Panel button runs the assigned Custom Control from the Caprica Server in your OverDrive system. You can also add a page change after the assigned Custom Control finishes.

✶ Before you can assign Custom Controls to CX Director Panel buttons, you must create the required Custom Controls on your Caprica Server. Custom Controls must contain at least one command.

To assign Custom Controls to CX Director Panel buttons

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

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

3. Double-click the **CX Panel Configuration** node.

   The **CX Panel Configuration** client opens in the **Device View**.

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

   The **CX Panel Configuration** client expands to full screen view.

5. Click the **Director** tab.

   The **Director** tab opens.

   Caprica automatically loads the assigned Custom Controls into the displayed buttons.

6. Use the **Button Pad Page** list in the **CX Director Panel** image to select the button page that contains the button or buttons to assign a Custom Control.

   The **CX Director Panel** image displays the buttons for the selected page.

7. Use the **Button Pad Page** list in the **CX Director Panel** image to select the button page that contains the button or buttons to assign a Custom Control.

   The **CX Director Panel** image displays the buttons for the selected page.

8. In the **CX Director Panel** image, click the **button** to assign a Custom Control.

9. Use the **Bank** list to select the bank that contains the Custom Control to assign to the selected button.

10. Use the **CC** list to select the Custom Control to assign to the selected button.

11. If you want to change the page after the selected Custom Control finishes, use the **Page** list to select the page to open in the button pad.

    Select **None** to keep the current page open in the button pad.

12. Click **Apply**.

    The selected button updates on the CX Director Panel. The assigned Custom Control is only available for the selected **button** in the selected **page**.

Customizing CX Director Panel Button Appearance

You can customize the names of CX Director Panel buttons that open pages. For CX Director Panel buttons that run Custom Controls, you can customize the button names, name text style, and background color.

Page Buttons

Renaming a CX Director Panel page also changes the name displayed on the CX Director Panel button assigned to open the page.

To rename a CX Director Panel page and the button assigned to open it

1. At the bottom of the **Device View**, click **CX Panel Configuration**.

   The **CX Panel Configuration** client opens in the **Device View**.

2. Click the **Director** tab.

   The **Director** tab opens.

3. Use the **Button Pad Page** list in the **CX Director Panel** image to select the page to rename.

4. Click **...** to the right of the **Button Pad Page** list.

   The **Page Name** box displays below the **CX Director Panel** image.

5. In the **Page Name** box, enter a new name for the page.

6. Click **Apply**.

   The name of the selected page updates, and the CX Director Panel button assigned to open the page displays the new page name.

Custom Control Buttons

The name, name text style, and background color specified for a Custom Control are carried over to the CX Director Panel button to which it is assigned.

To customize a CX Director Panel button assigned to a Custom Control

1. At the bottom of the **Device View**, click **Custom Controls**.

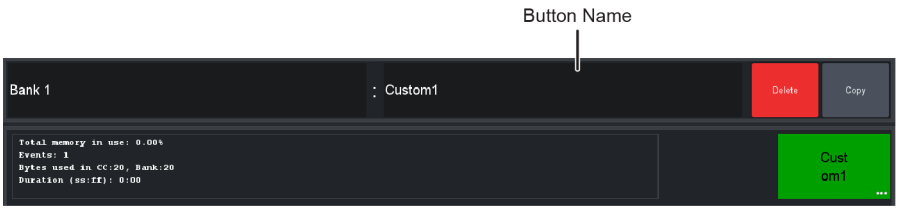
   The **Custom Controls** client opens.

2. In the **Bank** column of the **Custom Controls** table, click the Custom Control **bank** that contains the Custom Control assigned to the CX Director Panel button to customize.

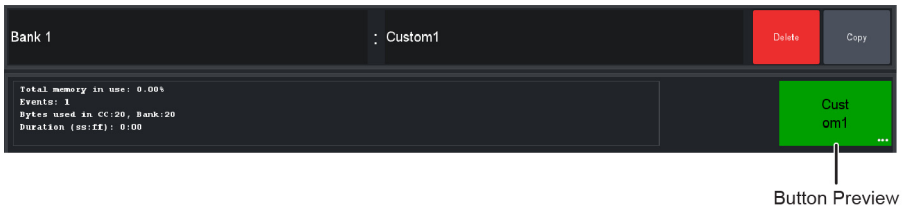
3. In the **CC Name** column of the **Custom Controls** table, click the **Custom Control** assigned to the CX Director Panel button to customize.

   The **Custom Controls** client displays the selected bank and Custom Control name at the top of the client.

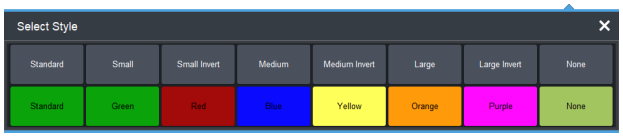
4. In the **Name** box at the top of the **Custom Controls** client, enter the name to display on the CX Director Panel button to which the Custom Control is assigned.



5. At the top of the **Custom Controls** client, click the **Button Preview**.



   The **Select Style** dialog box opens.



6. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the CX Director Panel button assigned to the Custom Control.

   The available text styles for CX Director Panel buttons names are as follows:

Standard	Small	Small Invert	Medium	Medium Invert	Large	Large Invert	None
STD TXT	SMALL TXT	SMALL INV	MED TXT	MED INV	LG	LG	

   The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the CX Director Panel.

7. Click the **Button Preview**.

   The **Select Style** dialog box opens.

8. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for CX Director Panel button assigned to the Custom Control.

   The available background colors for CX Director Panel buttons are as follows:

   The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the CX Director Panel.

Selecting the Faders to Control

A CX Director Panel contains five or ten physical faders that work in conjunction with the DirectAudio interface of DirectControl to control the faders in the On-Air Audio view and on the OverDrive system audio mixer. Since a CX Director Panel does not have enough faders to control all audio channels in the On-Air Audio view, you must select the channels to control with your CX Director Panel faders.

To control an audio channel with a CX Director Panel fader, the channel must meet the following conditions:

- The channel must be selected in the Audio Channel Includes tab.
- The channel must be displayed in the DirectControl On-Air Audio view.
- The channel must be the first five or ten channels that match the previous conditions. The number of channels that you can control depends on the number of physical faders on your CX Director Panel.

On the CX Director Panel, the display above a fader displays the channel name it controls.

✶ Before you can select CX Director Panel faders to control, your Caprica Server must have a configured audio mixer device. For more information on configuring an audio mixer Caprica device, refer to the following:

› The ***Caprica Device Setup Sheet*** for your audio mixer.

› The **Configuring Devices to Connect to an OverDrive System** section on page 26–2.

› The **Configuring Audio** on page 26–13.

To select the audio channels to control with CX Director Panel faders

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Panel Configuration** node.

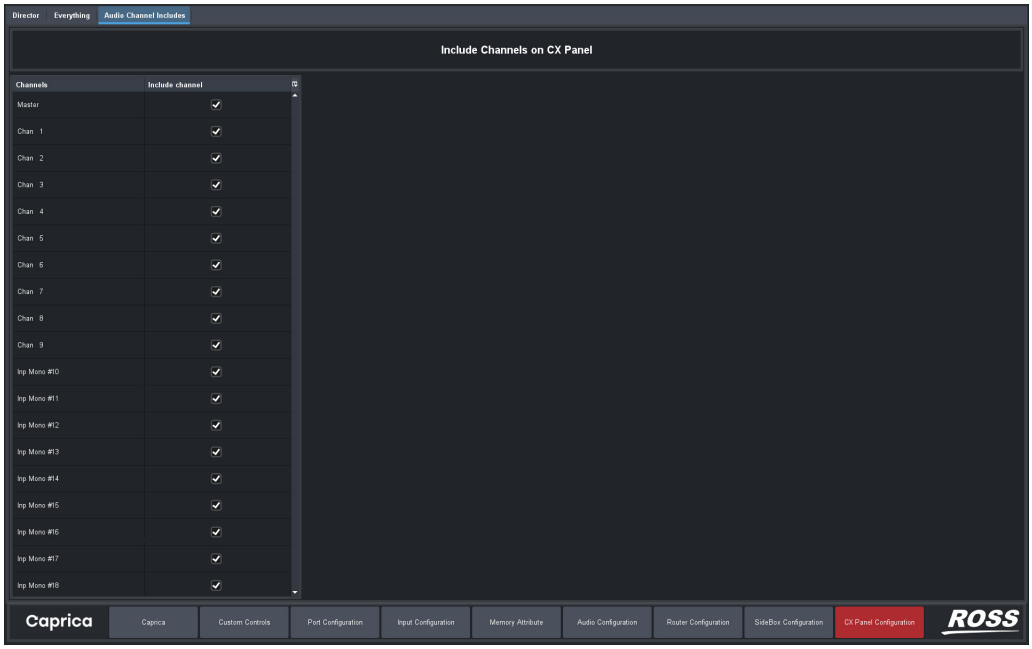
   The **CX Panel Configuration** client opens in the **Device View**.

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

   The **CX Panel Configuration** client expands to full screen view.

5. Click the **Audio Channel Includes** tab.

   The **Audio Channel Includes** tab opens.



6. To manage the audio channels available to the CX Director Panel, use the check boxes in the **Include channel** column as follows:

   - **Control** — select the check box to the right of an audio channel that you want to control with a physical fader on your CX Director Panel.
   - **Do Not Control** —clear the check box to the right of an audio channel that you do not want to control with a physical fader on your CX Director Panel.

Updating the CX Director Panel Operating System or Application

When Ross Video releases updates for the CX Director Panel operating system or applications, you can use DashBoard to install the updates on your CX Director Panel hardware. CX Director Panel operating system and application updates are released as package files and installed using the DashBoard Upload Software Wizard.

✶ When CX Director Panel operating system and application updates are released together, you must install the operating system update before installing the application update.

To update the CX Director Panel operating system or application

1. Contact Ross Video Technical Support to obtain the most recent CX Director Panel operating system and application package files.
2. On a computer connected to the same subnetwork as your CX Director Panel, launch the current version of **DashBoard** software.
3. In the **DashBoard Tree View**, expand your **CX Director Panel** node.
4. Double-click the **CX Director Panel (Director)** node.

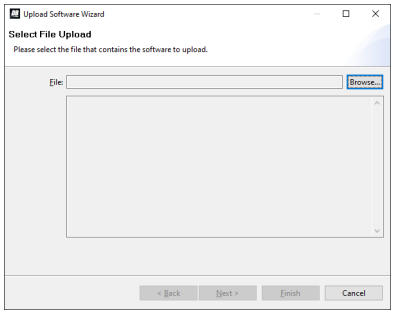
   The **Device View** opens.

5. Click the **Admin** tab.

   The **Admin** tab opens.

6. At the bottom of the **Admin** tab, click Upload.

   The **Select File Upload** screen of the **Upload Software Wizard** opens.



7. To the right of the **File** box, click **Browse**.

   The **Open** dialog box opens.

8. Use the **Open** dialog box to locate and select the CX Director Panel operating system (`cx_panel_os-X.X.X.bin`) or application (`cx_panel_app-X.X.X.bin`) package file you downloaded from Ross Video Technical Support.

9. Click **Open**.

   The **Open** dialog box closes and the **File Summary** field in the **Select File Upload** screen displays information about the selected package file.

10. Click **Finish**.

    The **Upload Software Wizard** installs the selected CX Director Panel operating system or application update. The **Panel Version** or **OS Version** field in the **Admin** tab updates to display the version of the newly installed CX Director Panel operating system or application.

Rebooting the CX Director Panel

If your CX Director Panel requires rebooting, you can cycle the panel power to reboot it.

To reboot a CX Director Panel

1. Disconnect the CX Director Panel power supply from the AC mains power.
2. Wait five seconds to let all power drain from the CX Director Panel.
3. Connect the CX Director Panel power supply to the AC mains power.

   The CX Director Panel reboots.

Caprica CX Everything Panel Setup

In an OverDrive system that contains a Caprica Server, you can connect a CX Everything Panel that contains physical buttons, audio faders, a roller, and a joystick. A CX Everything Panel is an optional OverDrive companion control panel for users who prefer a dedicated control surface. A CX Everything Panel works in conjunction with the OverDrive touch screen, keyboard, and mouse to offer you multiple interfaces to your OverDrive system.

✶ A CX Everything Panel only works with OverDrive v22.0 or higher systems that contain a Caprica Server.

This chapter provides instructions for connecting a CX Everything Panel to an OverDrive system and configuring the panel to communicate with the Caprica Server in the OverDrive system.

The following topics are discussed in this chapter:

- CX Everything Panel
- Cabling a CX Everything Panel
- Connecting to the OverDrive System
- Configuring CX Everything Panel Buttons
- Customizing CX Everything Panel Button Appearance
- Selecting the Faders to Control
- Updating the CX Everything Panel Operating System or Application
- Rebooting the CX Everything Panel

CX Everything Panel

The CX Everything Panel is an optional companion control panel for users who prefer a dedicated control surface to run Custom Controls from Caprica, control audio channel faders, and control robotic cameras.

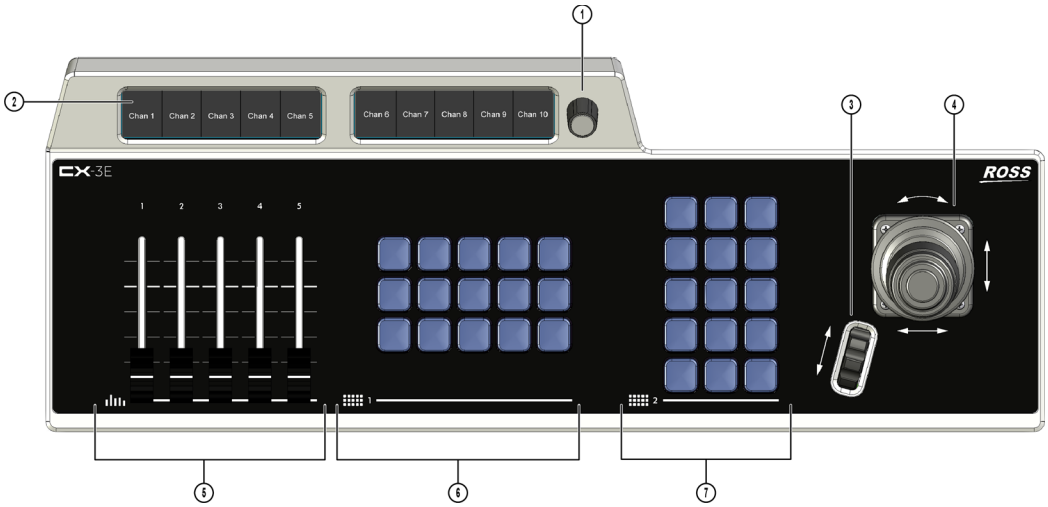


Figure 28.1 CX Everything Panel

1) Menu Button	2) Main Menu or Channel Mnemonics
3) Roller	4) Joystick
5) Current Audio Faders	6) Button Pad 1 (Left)
7) Button Pad 2 (Right)	

1. Menu Button

Press this button to display the CX Everything Panel Main menu in the display to the left of the button. Tap the display to select a Main menu function.

2. Main Menu or Channel Mnemonics

A two segment display that displays the CX Everything Panel Main menu or the name of the channel controlled by the fader directly beneath it. Channel names are retrieved from the Caprica Server.

3. Roller

After selecting a camera, you can use the roller to focus or control the iris.

4. Joystick

After selecting a camera, you can use the joystick to control pan, tilt, and zoom.

5. Current Audio Faders

The current audio faders mirror and control the audio levels in the On-Air Audio view of the DirectControl. The first ten enabled channels in the On-Air Audio view can be controlled by the CX Everything Panel audio faders.

6. Button Pad 1

You can configure the 15 multi-color LCD buttons to run any combination for the following actions:

- Open a new page of buttons for button pad 1, 2, or both.
- Run a Custom Control.
- Select a camera to control.

7. Button Pad 2

You can configure the 15 multi-color LCD buttons to run any combination for the following actions:

- Open a new page of buttons for button pad 1, 2, or both.
- Run a Custom Control.
- Select a camera to control.

Cabling a CX Everything Panel

In an OverDrive system, a CX Everything Panel connects to the system through your local area network. A CX Everything Panel has connectors for a primary (PS1) and a secondary (PS2) power supply, and one Ethernet port on the back of the panel.

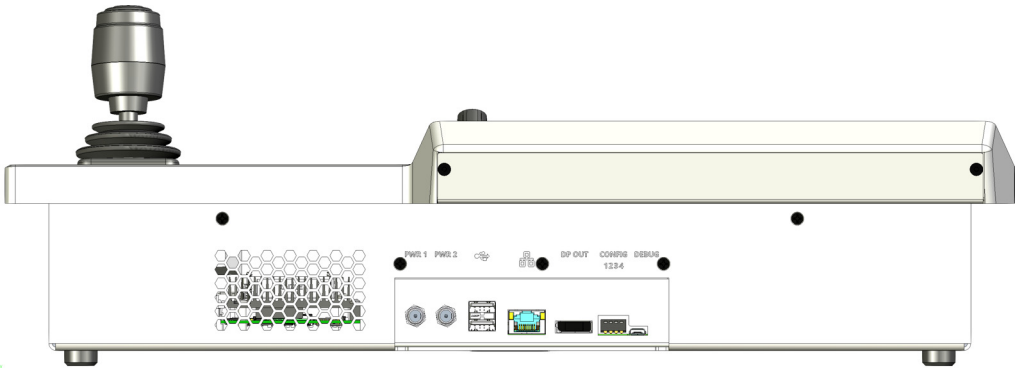


Figure 28.2 CX Everything Panel Cable Connections

To cable a CX Everything Panel

1. Connect and secure one of the supplied 12V DC power supplies to the **PWR 1** connector on the back of the CX Everything Panel before connecting the power supply to the AC mains power.

✶ Connecting the power supply to the AC mains power before connecting to the CX Everything Panel could damage the panel.

2. Connect the power supply to the AC mains power.
3. Use an **Ethernet** cable to connect the CX Everything Panel **Ethernet** port to your local area network.

For More Information on...

- installing a CX Everything Panel, refer to the ***Ross CX Everything Panel Installation Caprica Device Setup Sheet***.

Connecting to the OverDrive System

After you physically connect a CX Everything Panel to your network, you must set the panel IP address and connect the panel to the Caprica Server to enable it to communicate with the OverDrive Server.

Setting the CX Everything Panel IP Address

Setting the IP address of your CX Everything Panel enables you to connect to and configure the panel using DashBoard software.

✶ The IP address that you set for your CX Everything Panel should not be used by any other device in your network.

For More Information on...

- setting the IP address of your CX Everything Panel, refer to the **Connecting to the Network** chapter in the ***CX Panel Hardware Setup Guide***.

Connecting to a CX Everything Panel with Dashboard

Now that you know the IP address of your CX Everything Panel, you can connect to and configure the panel using DashBoard software.

For More Information on...

- connecting your CX Everything Panel to DashBoard for configuration, refer to the **Connecting to DashBoard** chapter in the ***CX Panel Hardware Setup Guide***.

Connecting to the Caprica Server

Connecting the CX Everything Panel to the Caprica Server in your OverDrive system enables the CX Everything Panel to receive and display information from the Caprica Server. The CX Everything Panel Client Connection tab contains the settings to configure your CX Everything Panel to connect with the Caprica Server in your OverDrive system.

For More Information on...

- connecting your CX Everything Panel to Caprica, refer to the **Connecting to a Client** section of the **Connecting to DashBoard** chapter in the ***CX Panel Hardware Setup Guide***.

Configuring CX Everything Panel Buttons

A CX Everything Panel contains two pads of 15 multi-color LCD buttons that you can configure to run any combination for the following actions when a user presses a button:

- Open a new page of buttons for button pad 1, 2, or both.
- Run a Custom Control.
- Select a camera to control.

Assigning Page Changes to CX Everything Panel Buttons

You can assign a page change to any of the 30 multi-color LCD buttons on your CX Everything Panel. Pressing a page change button opens a new page of buttons for button pad 1, 2, or both.

To assign page changes to CX Everything Panel buttons

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Panel Configuration** node.

   The **CX Panel Configuration** client opens in the **Device View**.
4. Use the **Window** menu to select **Full Screen**.

   The **CX Panel Configuration** client expands to full screen view.
5. Click the **Everything** tab.

   The **Everything** tab opens.

6. Use the **TYPE** list to select **Standard**.

   The **Standard** button actions display below the **CX Everything Panel** image.

7. Use the **Left Button Pad Page** list or the **Right Button Pad Page** list in the **CX Everything Panel** image to select the button page that contains the button or buttons to assign a page change.

   The **CX Everything Panel** image displays the buttons for the selected page.

8. In the **CX Everything Panel** image, click the **button** to assign a page change.

9. Use any combination for the following lists to select the page to open in a button pad:

   - **Left Page** — use this list to select page to open for button pad **1**.
   - **Right Page** — use this list to select page to open for button pad **2**.

   Select **None** to keep the current page open in the associated button pad.

10. Click **Apply**.

    The selected button updates on the CX Everything Panel. The assigned page change is only available for the selected **button** in the selected **page**.

Assigning Custom Controls to CX Everything Panel Buttons

You can assign a Custom Control to any of the 30 multi-color LCD buttons on your CX Everything Panel. Pressing a CX Everything Panel button runs the assigned Custom Control from the Caprica Server in your OverDrive system. You can also add a page change after the assigned Custom Control finishes.

✶ Before you can assign Custom Controls to CX Everything Panel buttons, you must create the required Custom Controls on your Caprica Server. Custom Controls must contain at least one command.

To assign Custom Controls to CX Everything Panel buttons

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Panel Configuration** node.

   The **CX Panel Configuration** client opens in the **Device View**.

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

   The **CX Panel Configuration** client expands to full screen view.

5. Click the **Everything** tab.

   The **Everything** tab opens.

6. Use the **TYPE** list to select **Standard**.

   The **Standard** button actions display below the **CX Everything Panel** image.

7. Use the **Left Button Pad Page** list or the **Right Button Pad Page** list in the **CX Everything Panel** image to select the button page that contains the button or buttons to assign a Custom Control.

   The **CX Everything Panel** image displays the buttons for the selected page.

8. In the **CX Everything Panel** image, click the **button** to assign a Custom Control.

9. Use the **Bank** list to select the bank that contains the Custom Control to assign to the selected button.

10. Use the **CC** list to select the Custom Control to assign to the selected button.

11. Use the **Page** list to select the **page** of CX Everything Panel buttons to display on the CX Everything Panel after the Custom Control assigned to the button starts. Select **None** to continue displaying the current page of CX Everything Panel buttons

12. Click **Apply**.

    The selected button updates on the CX Everything Panel. The assigned Custom Control is only available for the selected **button** in the selected **page**.

Assigning Cameras to CX Everything Panel Buttons

You can assign a camera to any of the 30 multi-color LCD buttons on your CX Everything Panel. Pressing a CX Everything Panel button selects the assigned camera so the you can control it using the CX Everything Panel roller and joystick.

✶ Before you can assign cameras to CX Everything Panel buttons, you must have cameras configured on your Caprica Server.

To assign cameras to CX Everything Panel buttons

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Panel Configuration** node.

   The **CX Panel Configuration** client opens in the **Device View**.
4. Use the **Window** menu to select **Full Screen**.

   The **CX Panel Configuration** client expands to full screen view.
5. Click the **Everything** tab.

   The **Everything** tab opens.
6. Use the **TYPE** list to select **Standard**.

   The **Standard** button actions display below the **CX Everything Panel** image.

7. Use the **Left Button Pad Page** list or the **Right Button Pad Page** list in the **CX Everything Panel** image to select the button page that contains the button or buttons to assign a camera.

   The **CX Everything Panel** image displays the buttons for the selected page.
8. In the **CX Everything Panel** image, click the **button** to assign a camera.
9. Use the **Camera** list to select the camera to control.
10. Use the **Mode** list to select the control mode to use for the selected camera. The modes available in the **Mode** list depend on the camera selected in the **Camera** list.
11. Use the **Show** list to select the camera show that contains the shots to use with the selected camera. The shows available in the **Show** list depend on the camera selected in the **Camera** list.
12. Use the **Shot** list to select the shot to position the selected camera. The presets and moves available in the **Shot** list depend on the show selected in the **Show** list.
    - **Shot** — move the camera to the preset position when the user presses the associated CX Everything Panel button.
    - **Move** — load the camera position, but do not move the camera when the user presses the associated CX Everything Panel button. Press the button once again to move the camera to the loaded position.

13. In the **Duration** box, enter or select the number of seconds in which to move the selected camera to the position of the show selected **Shot** list.
14. Optionally, you can add a **Custom Control** and or a **page change** to your camera selection.
15. Click **Apply**.

    The selected button updates on the CX Everything Panel. The assigned camera is only available for the selected **button** in the selected **page**.

    button CC > Cam> shot

Customizing CX Everything Panel Button Appearance

You can customize the names of CX Everything Panel buttons that open pages. For CX Everything Panel buttons that run Custom Controls, you can customize the button names, name text style, and background color.

Page Buttons

Renaming a CX Everything Panel page also changes the name displayed on the CX Everything Panel button assigned to open the page.

To rename a CX Everything Panel page and the button assigned to open it

1. At the bottom of the **Device View**, click **CX Panel Configuration**.

   The **CX Panel Configuration** client opens in the **Device View**.
2. Click the **Everything** tab.

   The **Everything** tab opens.
3. Use the **Left Button Pad Page** list or the **Right Button Pad Page** list in the **CX Everything Panel** image to select the page to rename.
4. Click **...** to the right of the **Button Pad Page** list.

   The **Page Name** box displays below the **CX Everything Panel** image.
5. In the **Page Name** box, enter a new name for the page.
6. Click **Apply**.

   The name of the selected page updates, and the CX Everything Panel button assigned to open the page displays the new page name.

Custom Control Buttons

The name, name text style, and background color specified for a Custom Control are carried over to the CX Everything Panel button to which it is assigned.

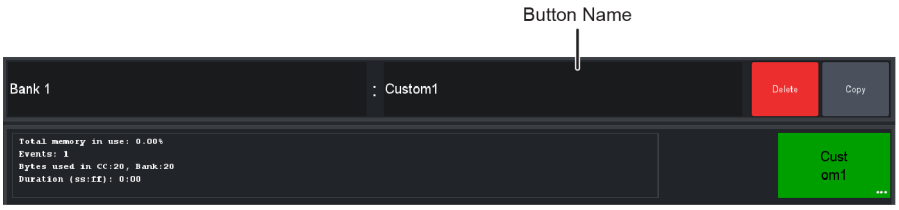
To customize a CX Everything Panel button assigned to a Custom Control

1. At the bottom of the **Device View**, click **Custom Controls**.

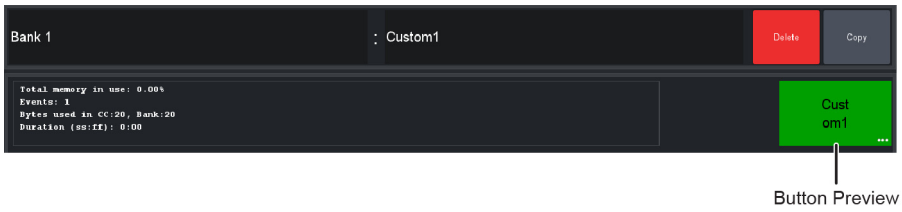
   The **Custom Controls** client opens.
2. In the **Bank** column of the **Custom Controls** table, click the Custom Control **bank** that contains the Custom Control assigned to the CX Everything Panel button to customize.
3. In the **CC Name** column of the **Custom Controls** table, click the **Custom Control** assigned to the CX Everything Panel button to customize.

   The **Custom Controls** client displays the selected bank and Custom Control name at the top of the client.

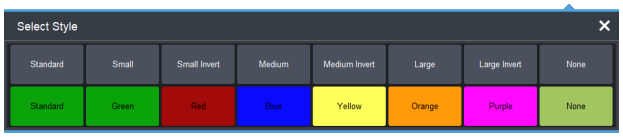
4. In the **Name** box at the top of the **Custom Controls** client, enter the name to display on the CX Everything Panel button to which the Custom Control is assigned.



5. At the top of the **Custom Controls** client, click the **Button Preview**.



The **Select Style** dialog box opens.



6. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the CX Everything Panel button assigned to the Custom Control.

The available text styles for CX Everything Panel buttons names are as follows:

Standard	Small	Small Invert	Medium	Medium Invert	Large	Large Invert	None
STD TXT	SMALL TXT	SMALL INV	MED TXT	MED INV	LG	LG	

The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the CX Everything Panel.

7. Click the **Button Preview**.

The **Select Style** dialog box opens.

8. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for CX Everything Panel button assigned to the Custom Control.

The available background colors for CX Everything Panel buttons are as follows:

Standard	Green	Red	Blue	Yellow	Orange	None
STD VO	GRN VO	RED VO	BLU VO	YLW VO	ORG VO	NON VO

The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the CX Everything Panel.

Selecting the Faders to Control

A CX Everything Panel contains five or ten physical faders that work in conjunction with the DirectAudio interface of DirectControl to control the faders in the On-Air Audio view and on the OverDrive system audio mixer. Since a CX Everything Panel does not have enough faders to control all audio channels in the On-Air Audio view, you must select the channels to control with your CX Everything Panel faders.

To control an audio channel with a CX Everything Panel fader, the channel must meet the following conditions:

- The channel must be selected in the Audio Channel Includes tab.
- The channel must be displayed in the DirectControl On-Air Audio view.
- The channel must be the first five or ten channels that match the previous conditions. The number of channels that you can control depends on the number of physical faders on your CX Everything Panel.

On the CX Everything Panel, the display above a fader displays the channel name it controls.

✶ Before you can select CX Everything Panel faders to control, your Caprica Server must have a configured audio mixer device. For more information on configuring an audio mixer Caprica device, refer to the following:

› The ***Caprica Device Setup Sheet*** for your audio mixer.

› The **Configuring Devices to Connect to an OverDrive System** section on page 26–2.

› The **Configuring Audio** on page 26–13.

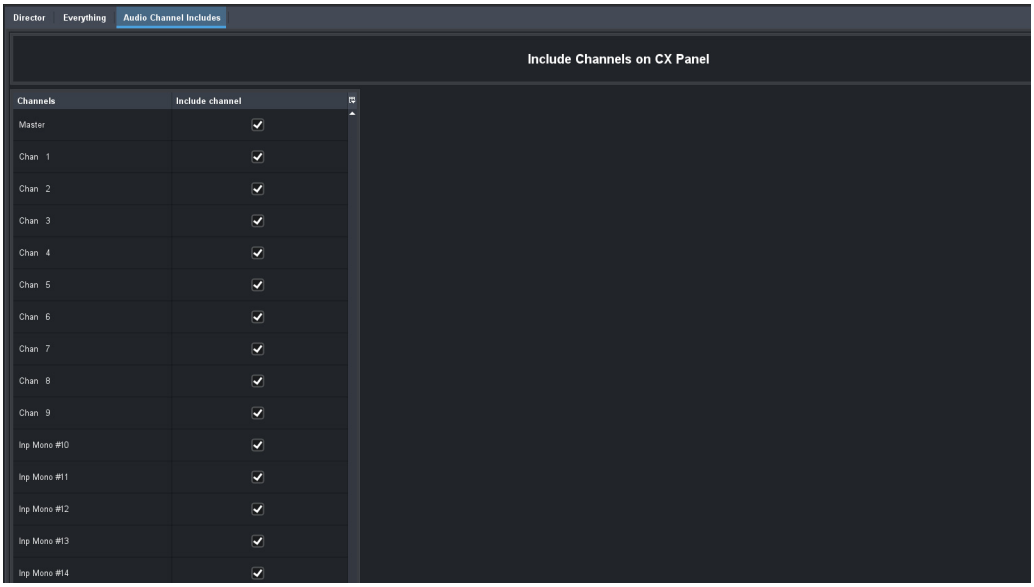
To select the audio channels to control with CX Everything Panel faders

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Panel Configuration** node.

   The **CX Panel Configuration** client opens in the **Device View**.
4. Use the **Window** menu to select **Full Screen**.

   The **CX Panel Configuration** client expands to full screen view.
5. Click the **Audio Channel Includes** tab.

   The **Audio Channel Includes** tab opens.



6. To manage the audio channels available to the CX Everything Panel, use the check boxes in the **Include channel** column as follows:
   - **Control** — select the check box to the right of an audio channel that you want to control with a physical fader on your CX Everything Panel.
   - **Do Not Control** —clear the check box to the right of an audio channel that you do not want to control with a physical fader on your CX Everything Panel.

Updating the CX Everything Panel Operating System or Application

When Ross Video releases updates for the CX Everything Panel operating system or applications, you can use DashBoard to install the updates on your CX Everything Panel hardware. CX Everything Panel operating system and application updates are released as package files and installed using the DashBoard Upload Software Wizard.

✶ When CX Everything Panel operating system and application updates are released together, you must install the operating system update before installing the application update.

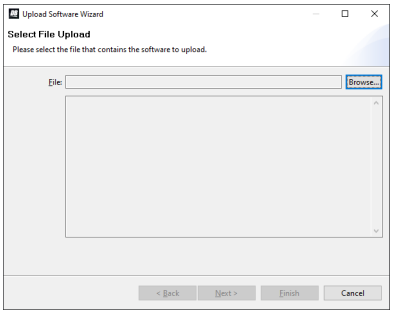
To update the CX Everything Panel operating system or application

1. Contact Ross Video Technical Support to obtain the most recent CX Everything Panel operating system and application package files.
2. On a computer connected to the same subnetwork as your CX Everything Panel, launch the current version of **DashBoard** software.
3. In the **DashBoard Tree View**, expand your **CX Everything Panel** node.
4. Double-click the **CX Everything Panel (Everything)** node.

   The **Device View** opens.
5. Click the **Admin** tab.

   The **Admin** tab opens.
6. At the bottom of the **Admin** tab, click Upload.

   The **Select File Upload** screen of the **Upload Software Wizard** opens.



7. To the right of the **File** box, click **Browse**.

   The **Open** dialog box opens.
8. Use the **Open** dialog box to locate and select the CX Everything Panel operating system (`cx_panel_os-X.X.X.bin`) or application (`cx_panel_app-X.X.X.bin`) package file you downloaded from Ross Video Technical Support.

9. Click **Open**.

   The **Open** dialog box closes and the **File Summary** field in the **Select File Upload** screen displays information about the selected package file.

10. Click **Finish**.

    The **Upload Software Wizard** installs the selected CX Everything Panel operating system or application update. The **Panel Version** or **OS Version** field in the **Admin** tab updates to display the version of the newly installed CX Everything Panel operating system or application.

Rebooting the CX Everything Panel

If your CX Everything Panel requires rebooting, you can cycle the panel power to reboot it.

To reboot a CX Everything Panel

1. Disconnect the CX Everything Panel power supply from the AC mains power.
2. Wait five seconds to let all power drain from the CX Everything Panel.
3. Connect the CX Everything Panel power supply to the AC mains power.

   The CX Everything Panel reboots.

Caprica SideBox Module Setup

In an OverDrive system that contains a Caprica Server, you can connect one or more SideBoxes that contain SideShot™, SideSlide™, or SideStick™ modules. The SideShot, SideSlide, and SideStick modules are optional OverDrive companion control panels for users who prefer a dedicated control surface. SideBox modules work in conjunction with the OverDrive touch screen, keyboard, and mouse to offer you multiple interfaces to your OverDrive system.

✶ SideBox modules only work with OverDrive systems that contain a Caprica Server.

This chapter provides instructions for connecting SideBox modules to an OverDrive system and configuring SideBox modules to communicate with the Caprica Server in the OverDrive system.

The following topics are discussed in this chapter:

- Cabling a SideBox
- Connecting to the Network
- Configuring a Caprica Device for a SideBox Module
- Configuring a SideShot Module
- Configuring a SideSlide Module
- Configuring a SideStick Module

Cabling a SideBox

In an OverDrive system, a SideBox module connects to the system through your local area network. You can connect a maximum of 15 SideBox modules to an OverDrive system. SideBox modules include SideShot, SideSlide, and SideStick modules.

Each SideBox module has connectors for a primary (PS1) and a secondary (PS2) power supply, two Panel Module Controller (PMC) link ports, and two Ethernet ports on the back of the module.

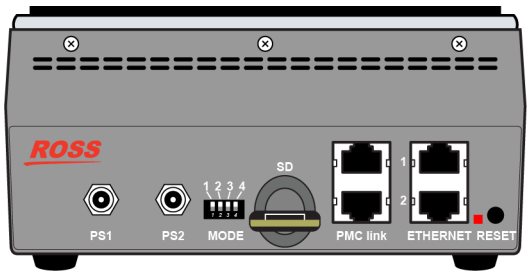


Figure 29.1 SideBox Module Cable Connections

To cable a SideBox module

1. Connect and secure one of the supplied 12V DC power supplies to the **PS 1** connector on the back of the SideBox module before connecting the power supply to the AC mains power.

✶ Connecting the power supply to the AC mains power before connecting to the SideBox module could damage the module.

2. Connect the power supply to the AC mains power.
3. Use an **Ethernet** cable to connect the SideBox module **ETHERNET 1** port to your local area network.

For More Information on...

- installing SideShot, SideSlide, or SideStick modules in a SideBox, refer to the ***SideBox Installation Caprica Device Setup Sheet (4910DR-021-01)***.

Connecting to the Network

After you physically connect a SideBox module to your OverDrive system, you need to configure the network connection between the SideBox module and your local area network.

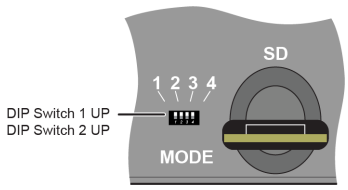
To configure the network connection for a SideBox module

1. Use one of the following procedures to set the DIP Switches on the back of your SideBox module to match how your network sets IP addresses:

   DHCP Enable Network

   a. Disconnect the SideBox module power supply from the AC mains power.

   b. On the back of your SideBox module, set DIP Switches **1** and **2** to the **UP** position to put the SideBox module in **User Set Static IP Address** mode.



   c. Reconnect the SideBox module power supply to the AC mains power.

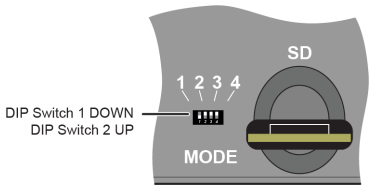
   The SideBox module reboots in **User Set Static IP Address** mode.

Network Without DHCP

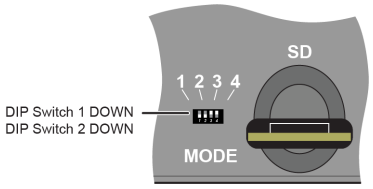
a. Disconnect the SideBox module power supply from the AC mains power.

b. On the back of your SideBox module, set the DIP Switches to assign one of the following Factory IP addresses to the SideBox:

- **192.168.2.10** — set the SideBox DIP Switch **1** to the **DOWN** position and DIP Switch **2** to the **UP** position.



- **10.1.2.10** — set the SideBox DIP Switches **1** and **2** to the **DOWN** position.



Both Factory IP addresses use the **Subnet Mask 255.255.255.0**.

c. Reconnect the SideBox module power supply to the AC mains power.

The SideBox module reboots in with the set IP address.

2. On a computer connected to the same subnetwork as your SideBox module, use one of the following methods to launch the current version of **DashBoard** software:

- Double-click the **DashBoard** icon on the desktop.
- Use the **Start** menu to select **All Programs** > **DashBoard** > **DashBoard**.

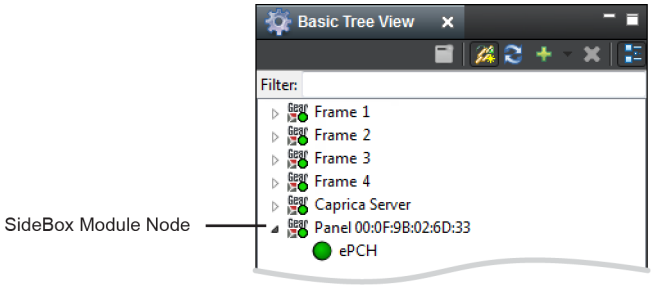
3. In DashBoard, enable **Automatic Discovery** as follows:

a. Use the **Window** menu to select **Preferences**.

b. In the **Preferences** dialog box, click **Automatic Discovery**.

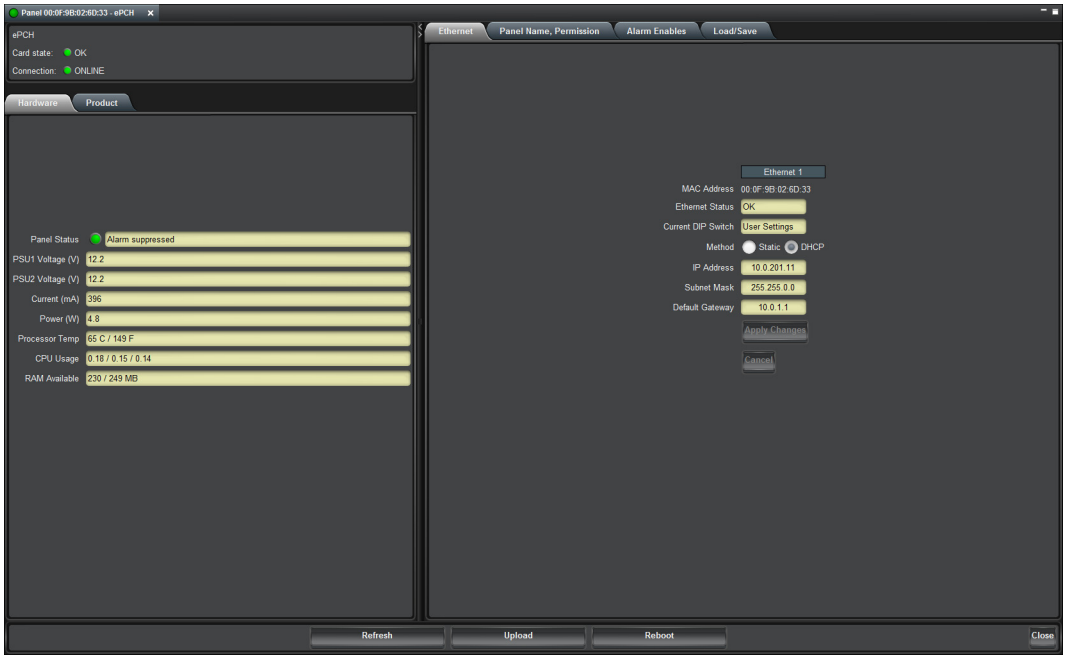
c. In the **Automatic discovery of device** section, select the **Enable** option.

4. In the DashBoard **Tree View**, expand the node named **Panel <MAC Address>** where **<MAC Address>** is the MAC address of your SideBox module.



5. In the expanded node, double-click the **ePCH** node.

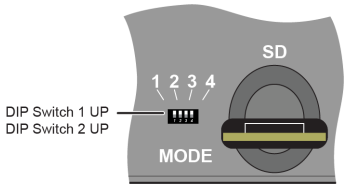
   Settings for the selected SideBox module open in the **Device View**.



6. In the **Device View**, click the **Ethernet** tab.

   The **Ethernet** tab opens. When a SideBox module initially connects to a local area network, it connects to the DHCP server on the network to set an IP address, subnet mask, and a default gateway address.

7. If you set your SideBox to one of the **Factory IP Addresses** in step **1**, set DIP Switches **1** and **2** to the **UP** position to put the SideBox module in **User Set Static IP Address** mode.



   DashBoard enables the **Static** option for the **Method** setting.

8. Select the **Static** option for the **Method** setting.

   The **Static** option configures the SideBox to always use the same set IP address.

9. In the **IP Address** box, enter a static IP address for your SideBox module.

10. In the **Subnet Mask** box, enter the subnet mask for your SideBox module.

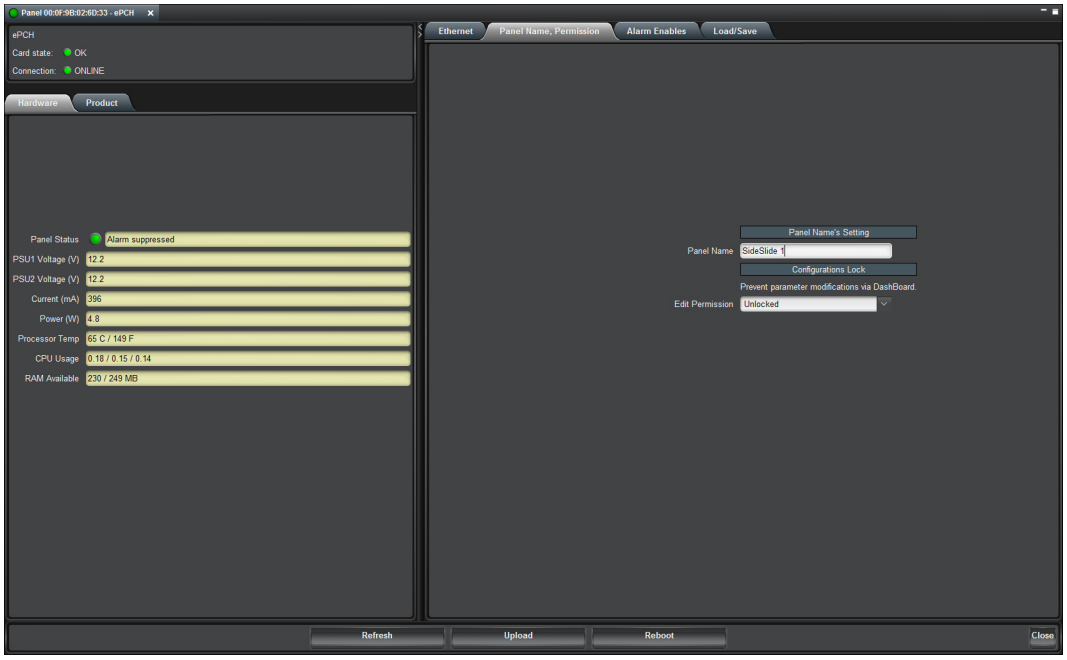
11. In the **Default Gateway** box, enter the IP address of the default gateway for your SideBox module.

12. Click **Apply Changes**.

    The ePCH node status LED turns red while DashBoard updates the SideBox module with your changes. The status LED turns green after the updates complete and the SideBox is ready to use.

13. Click the **Panel Name, Permission** tab.

    The **Panel Name, Permission** tab opens.



14. In **Panel Name** box, enter a name for your SideBox module and then press **Enter**.

    The name of your SideBox module updates in the DashBoard **Tree View**.

15. Click **Refresh**.

16. Click **Close**.

Configuring a Caprica Device for a SideBox Module

On the Caprica Server, you need to configure a Caprica device for each SideBox module that you connect to your OverDrive system to enable OverDrive to control the SideBox module. Using the Port Configuration client on the Caprica Server, you can configure an OGP device for SideBoxes the contain SideShot or SideSlide modules.

For each SideBox module that you can use with OverDrive, Ross Video publishes an ***External Device Setup Sheet*** that contains the settings that enable OverDrive to control the SideBox module.

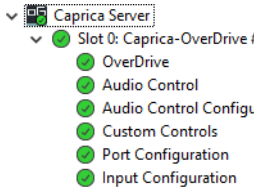
To configure a Caprica device for a SideBox module

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

    The **Caprica Server** node displays the version of the selected Caprica Server.

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

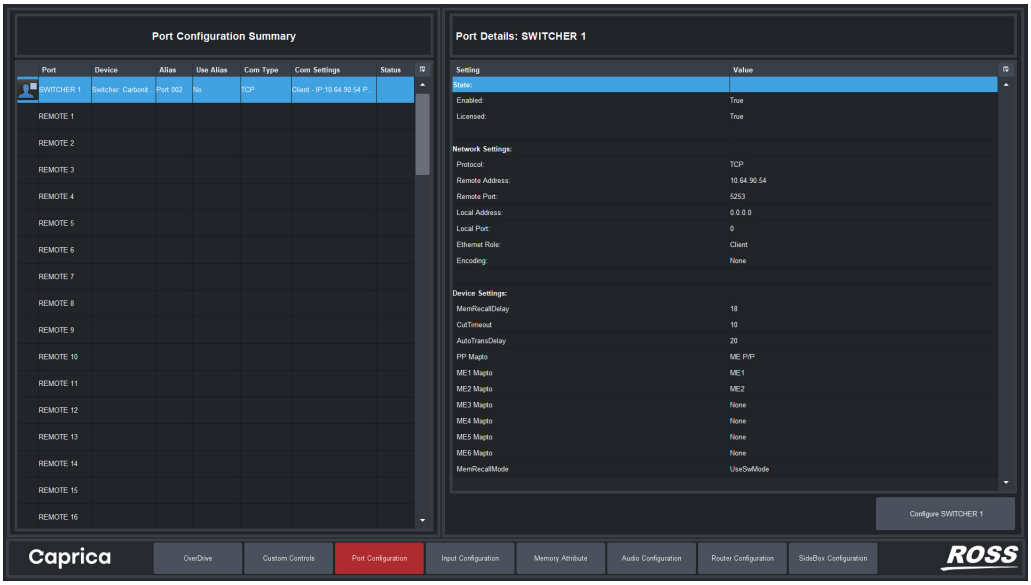
    The **Slot 0: Caprica** node displays the available Caprica Server clients.



3. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
4. Double-click the **Port Configuration** node.

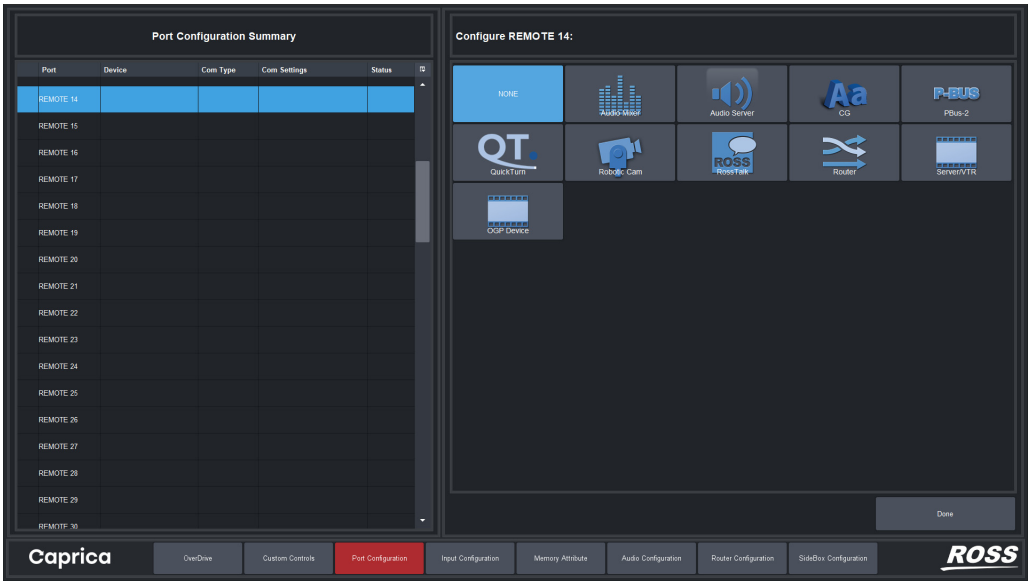
   The **Port Configuration** client opens in the **Device View**.
5. Use the **Window** menu to select **Full Screen**.

   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 SideBox module device (**REMOTE 1 to REMOTE40**).

   The **Configure REMOTE #** panel for the selected port opens.

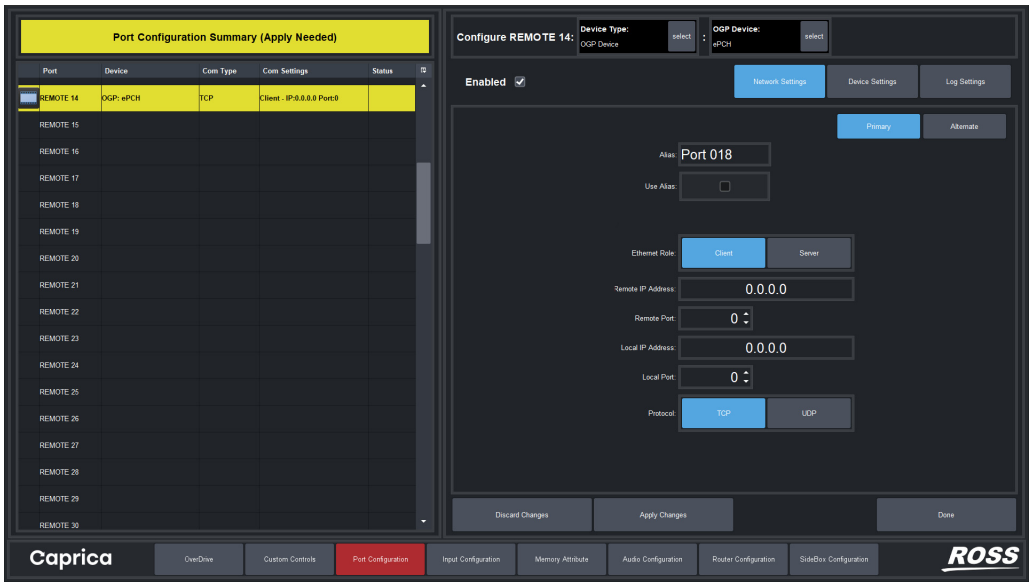


7. In the **Configure REMOTE #** panel, click **OGP Device**.

   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 **ePCH** as the type of 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. Click **Network Settings**.

   The **Network Settings** section opens.

10. 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 OverDrive 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 OverDrive use the default remote port name. The **Alias** column and the **Alias** box retain the custom name set for the remote port.

11. For the **Ethernet Roll** setting, click **Client**.

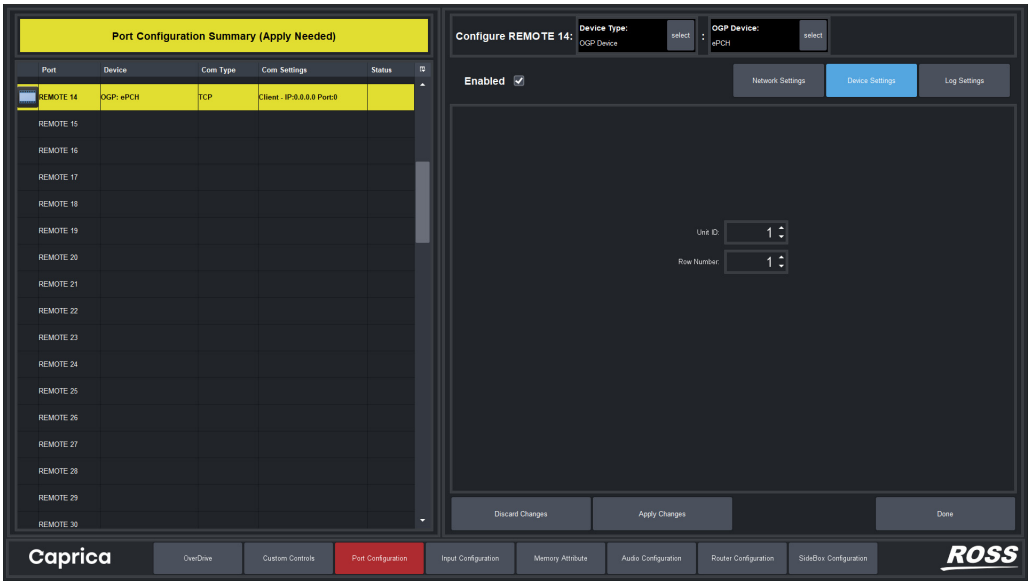
12. In the **Remote IP address** box, enter the IP address that you assigned to the SideBox module in step **9** of the previous procedure.

13. In the **Remote Port** box, enter `5253`.

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

15. Click **Device Settings**.

    The **Configure REMOTE #** panel displays the **Device Settings** for the selected device.



16. Use the **Unit ID** box to enter or select the unit ID number for the SideBox module.

✶ Each SideBox module attached to an OverDrive system must have a unique Unit ID.

17. For **SideShot** modules, use the **Row Number** box to enter or select the row number for the module.

✶ In order to assign distinct Custom Controls to each SideShot module connected to your Caprica system, you must assign each SideShot module a unique row number.

18. Click **Apply Changes** to save the network and device settings for the selected device.

19. Click **Done** to close the **Configure REMOTE #** panel.

20. To configure the module in your SideBox, refer to the following sections:

    - **SideShot module** — "**Configuring a SideShot Module**" on page 29–8
    - **SideSlide module** —"**Configuring a SideSlide Module**" on page 29–12
    - **SideStick module** —"**Configuring a SideStick Module**" on page 29–15

Configuring a SideShot Module

The SideShot module is an optional companion control panel for users who prefer a dedicated control surface to run Custom Controls on the switcher. A SideShot module contains 28 multi-color LCD buttons that you can configure to run selected Custom Controls or open pages of Custom Controls.

✶ SideShot modules only work with OverDrive systems that contain a Caprica Server.

Setting Mnemonic Brightness Levels

A SideShot module contains 28 multi-color LCD mnemonic buttons for which you can set the brightness, contrast, enhanced brightness, and dimmed brightness levels.

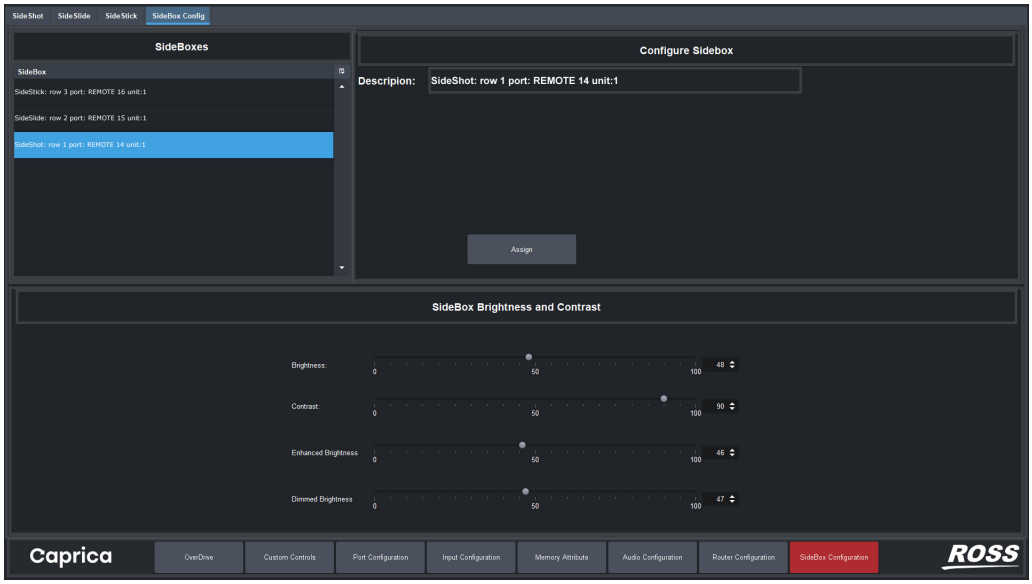
To set the contrast level and brightness levels for SideShot module mnemonics

1. At the bottom of the **Device View**, click **SideBox Configuration**.

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

2. Click the **SideBox Config** tab.

   The **SideBox Config** tab opens.



3. In the **SideBoxes** section, use the list to select the **SideShot** module to configure.
4. Set the brightness level for the mnemonics on your SideShot module using one of the following methods:
   - Drag the **Brightness** slider along scale. The box the right of the scale displays the set brightness level.
   - In the box to the right of the **Brightness** scale, enter or select a brightness level.
5. Set the contrast level for the mnemonics of your SideShot module using one of the following methods:
   - Drag the **Contrast** slider along scale. The box the right of the scale displays the set contrast level.
   - In the box to the right of the **Contrast** scale, enter or select a contrast level.
6. Set the enhanced brightness level for the mnemonics on your SideShot module using one of the following methods:
   - Drag the **Enhanced Brightness** slider along scale. The box the right of the scale displays the set enhanced brightness level.
   - In the box to the right of the **Enhanced Brightness** scale, enter or select an enhanced brightness level.
7. Set the dimmed brightness level for the mnemonics on your SideShot module using one of the following methods:
   - Drag the **Dimmed Brightness** slider along scale. The box the right of the scale displays the set dimmed brightness level.
   - In the box to the right of the **Dimmed Brightness** scale, enter or select a dimmed brightness level.

Assigning Custom Controls and Pages to SideShot Module Buttons

SideShot modules contain 28 multi-color LCD buttons to which you can assign Custom Controls or pages. The Custom Controls assigned to the buttons of a SideShot module change when you change the page displayed by the module. The button on a SideShot module assigned to a page stays the same on all pages of the module.

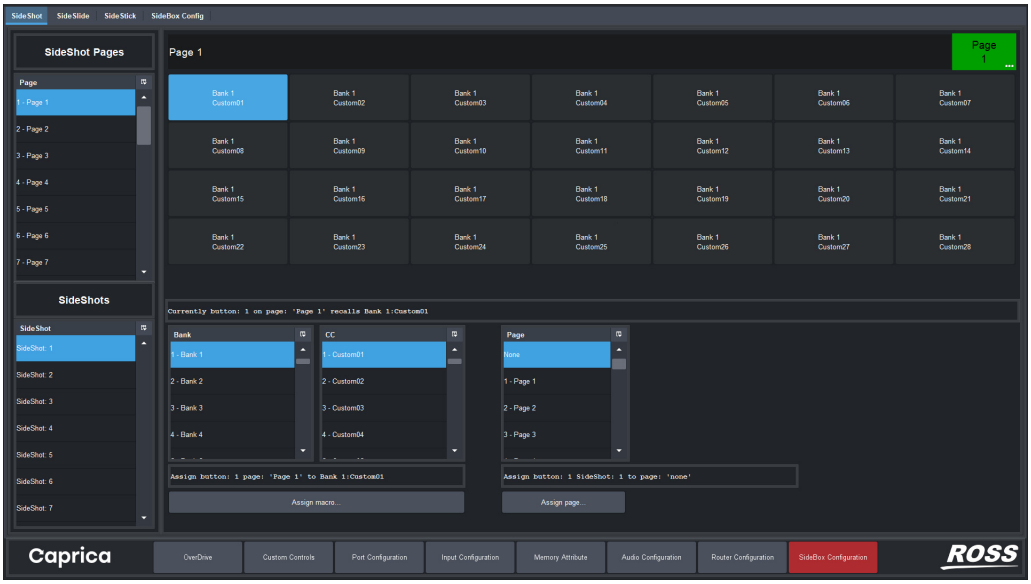
✶ A page can only be assigned to a single button. For example, you cannot assign Page 1 to two buttons on your SideShot module.

Before you can assign Custom Controls to SideShot module buttons, your Caprica Server must have Custom Controls that contain commands.

To assign Custom Controls or pages to a SideBox module

1. In the **SideBox Configuration** client, click the **SideShot** tab.

   The **SideShot** tab opens. Caprica automatically loads all defined Custom Controls into the available buttons on the SideShot tab.



2. Use the **SideShots** list to select the SideShot module to assign Custom Controls and pages.

   The SideBox number matches the **Row Number** set for the SideBox module on the **SideBox Config** tab.

3. To assign a **Custom Control** to a button on your SideBox module:

   a. Use the **SideShot Pages** list to select the page of Custom Controls to display in the **Buttons** section.

   b. In the **Buttons** section, click the **button** to assign a Custom Control.

   c. Use the **Bank** list to select the bank that contains the Custom Control to assign to the selected button.

   d. Use the **CC** list to select the Custom Control to assign to the selected button.

   e. Click **Assign macro**.

      The selected button updates on the SideBox module. The assigned Custom Control is only available for the selected **button** on the selected **page**.

4. To assign a shot box **page** to a button on your SideBox module:

   a. In the **Buttons** section, click the **button** to assign a page.

   b. Use the **Page** list to select the page to assign to the selected button.

   c. Click **Assign page**.

      The selected button updates on the SideBox module. A button on a SideShot module assigned to a page stays the same on all pages of the module.

Customizing SideShot Module Buttons

You can customize the label text and background color of the LCD buttons on a SideShot module. The available button text styles are as follows:

Table 29.1 SideShot Button Text

Standard	Small	Small Invert	Medium	Medium Invert	Large	Large Invert	None

The available button colors are as follows:

Table 29.2 SideShot Button Color

Standard	Green	Red	Blue	Yellow	Orange	None

Custom Control Buttons

The background color and label text style specified for a Custom Control are carried over to the SideShot module button to which it is assigned.

To customize a SideShot module button assigned to a Custom Control

1. At the bottom of the **Device View**, click **Custom Controls**.

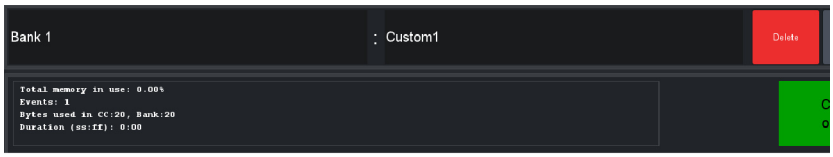
   The **Custom Controls** client opens.

2. In the **Bank** column of the **Custom Controls** table, click the Custom Control **bank** that contains the Custom Control assigned to the SideShot module button to customize.

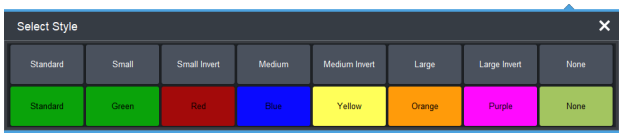
3. In the **CC Name** column of the **Custom Controls** table, click the **Custom Control** assigned to the SideShot module button to customize.

   The **Custom Controls** client displays the selected bank and Custom Control name at the top of the client.

4. At the top of the **Custom Controls** client, click the **Button Preview**.



   The **Select Style** dialog box opens.



5. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for SideShot module button assigned to the Custom Control.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the SideStick module.

6. Click the **Button Preview**.

   The **Select Style** dialog box opens.

7. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for SideShot module button assigned to the Custom Control.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the SideStick module.

Page Buttons

The background color and label text style for SideShot module buttons assigned to pages are specified by the SideBox Configuration client.

To customize a SideShot module button assigned to a page

1. At the bottom of the **Device View**, click **SideBox Configuration**.

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

2. Click the **SideShot** tab.

   The **SideShot** tab opens.

3. Use the **Shot Box Pages** list to select the page of Custom Controls assigned to the SideShot module button to customize.

   The **SideBox Configuration** client displays the selected page name at the top of the client.

4. At the top of the **SideBox Configuration** client, click the **Button Preview**.

   The **Select Style** dialog box opens.

5. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the SideShot module button assigned to the page.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the SideStick module.

6. Click the **Button Preview**.

   The **Select Style** dialog box opens.

7. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for SideShot module button assigned to the page.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the SideStick module.

Configuring a SideSlide Module

The SideSlide module is an optional OverDrive companion module that works in conjunction with the DirectAudio interface of DirectControl to control the faders in the Audio view and on the OverDrive system audio mixer. A SideSlide module contains eight physical faders.

✶ SideSlide modules only work with OverDrive systems that contain a Caprica Server.

Assigning an ID Number to a SideSlide Module

Before you can control audio faders with the SideSlide faders, you must assign an ID number to your SideSlide module. In order to assign distinct audio faders to each SideSlide module connected to your Caprica system, you must assign each SideSlide module a unique ID number.

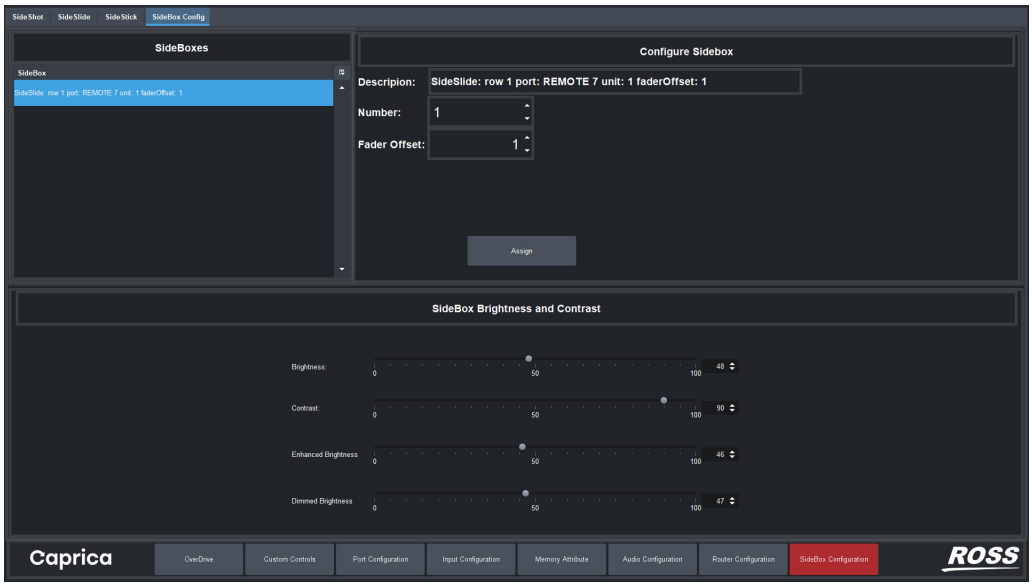
To assign an ID number and fader offset to a SideSlide module

1. At the bottom of the **Device View**, click **SideBox Configuration**.

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

2. Click the **SideBox Config** tab.

   The **SideBox Config** tab opens.



3. In the **SideBoxes** section, use the list to select the **SideSlide** module to assign an ID number.

   The unit ID number in the SideSlide module name matches the **Unit ID** set in the Caprica device associated with the SideSlide module.

4. In the **Configure SideBox** section, use the **Number** box to enter or select the ID number for the SideSlide module.

   The ID number assigned to the SideSlide module uniquely identifies the module, which enables you to connect multiple SideSlide modules to your OverDrive System.

5. In the **Fader Offset** box to the right, enter or select the offset of the first fader in the SideSlide module.

   When you have multiple SideSlide modules connected to your OverDrive system the offset number enables you to use all your SideSlide modules as a single large fader board. Offset numbers are set as follows:

   - **SideSlide module 1** — Fader Offset 1
   - **SideSlide module 2** — Fader Offset 9
   - **SideSlide module 3** — Fader Offset 17
   - and so on…

6. Click **Assign**.

Your SideSlide module is ready for you to select the available faders.

Disabling Faders on a SideSlide Module

Each SideSlide module contains eight physical faders that work in conjunction with the DirectAudio interface of DirectControl to control the faders in the Audio view and on the OverDrive system audio mixer. If you do not want to control a channel from your SideSlide module, you can disable the associated fader on the module.

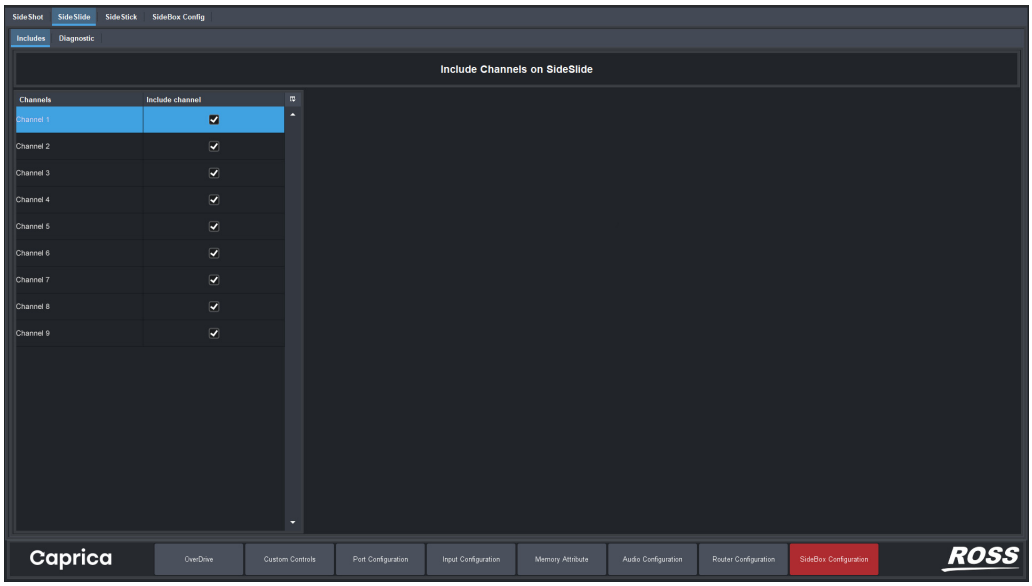
To disable a fader on a SideSlide module

1. In the **SideBox Configuration** client, click the **SideSlide** tab.

   The **SideSlide** tab opens.

2. In the **SideSlide** tab, click the **Includes** tab.

   The **Includes** tab opens. Caprica automatically loads the channel names from DirectControl for the faders on all the SideSlide modules connected to your OverDrive system.



3. Clear the check box to the right of the channel to disable the channel and the associated fader on the SideSlide module.

   On the SideSlide module, the mnemonic above the disabled fader goes dark.

4. Click the check box to the right of disabled channel to enable the channel and the associated fader on the SideSlide module.

   On the SideSlide module, the mnemonic above the enabled fader displays the channel name.

Calibrate Fader Ranges

The range of motion for the faders on your SideSlide module is unique. Through calibration, Caprica can record the range of motion for each fader on a SideSlide module.

To calibrate the range of each fader on a SideSlide module

1. On your **SideSlide** module move each **fader** to the top position of the range that you want to use for the fader.

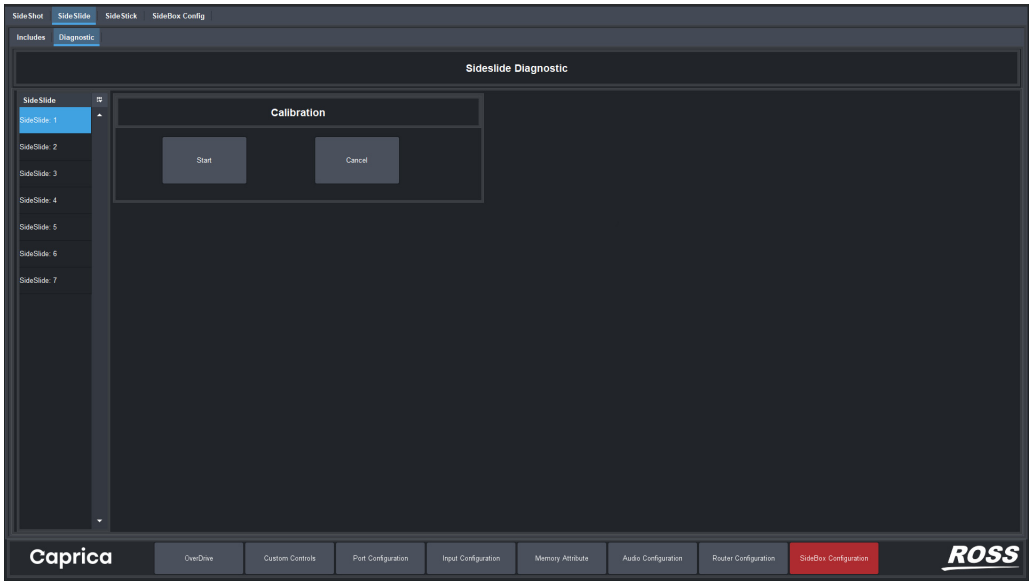
   You can position faders a short distance from the top of the physical fader range to set a dead spot for the fader. A dead spot prevents bounce when a fader physically hits the top of the range and bounces back to a non-zero value.

2. In the **SideBox Configuration** client, click the **SideSlide** tab.

   The **SideSlide** tab opens.

3. In the **SideSlide** tab, click the **Diagnostic** tab.

   The **Diagnostic** tab opens.



4. Use the **SideSlide** list to select the **SideSlide** module to calibrate.
5. In the **Calibration** section click **Start**.
6. On your **SideSlide** module, move the first **fader** from the set **top** position to the **bottom** position of the range that you want to use for the fader.

   You can position faders a small distance from the bottom of the physical fader range to set a dead spot for the fader. A dead spot prevents bounce when a fader physically hits the bottom of the range and bounces back to a non-zero value.
7. Repeat step **6** for the remaining **faders** on your **SideSlide** module.

   During a calibration session you can click **Cancel** to end the session without changing the current fader range calibration.
8. In the **Calibration** section click **End**.

Configuring a SideStick Module

The SideStick module is an optional OverDrive companion module that works in conjunction with the DirectCamera™ interface of DirectControl to control robotic cameras connected to the switcher in an OverDrive system.

✶ SideStick modules only work with OverDrive systems that contain a Caprica Server.

Assigning an ID Number to a SideStick Module

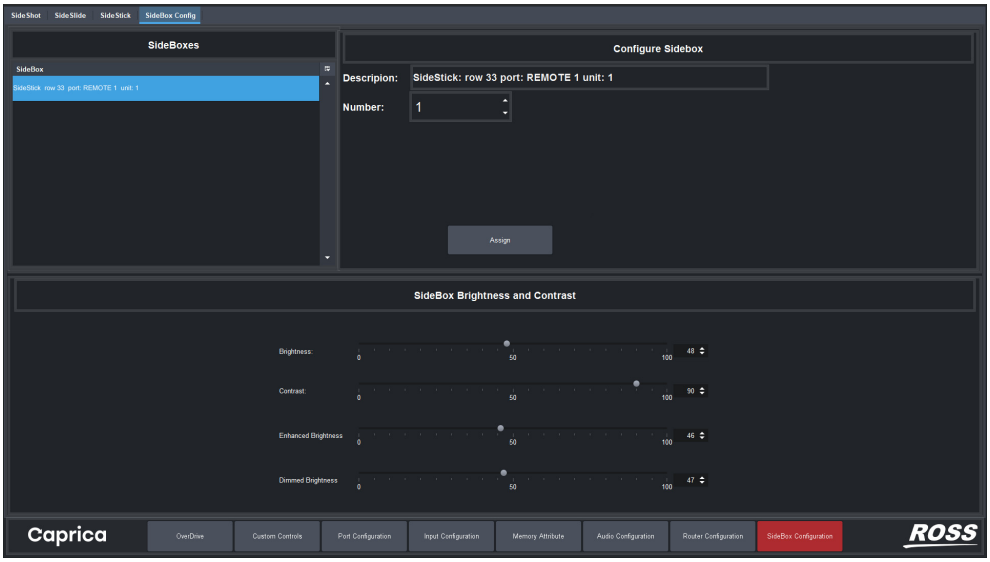
Before you can assign cameras to a SideStick module buttons, you must assign an ID number to your SideStick module. In order to assign distinct cameras to each SideStick module connected to your Caprica system, you must assign each SideStick module a unique ID number.

To assign an ID number to a SideStick module

1. At the bottom of the **Device View**, click **SideBox Configuration**.

   The **SideBox Configuration** client opens in the **Device View**.
2. Click the **SideBox Config** tab.

The **SideBox Config** tab opens.



3. In the **SideBoxes** section, use the list to select the **SideStick** module to assign an ID number.

   The unit ID number in the SideStick module name matches the **Unit ID** set in the Caprica device associated with the SideStick module.

4. In the **Configure SideBox** section, use the **Number** box to enter or select the ID number for the SideStick module.

   The ID number assigned to the SideStick module uniquely identifies the module, which enables you to connect multiple SideStick modules to your OverDrive System.

5. Click **Assign**.

6. Set the brightness level for the mnemonics on your SideStick module using one of the following methods:

   - Drag the **Brightness** slider along scale. The box the right of the scale displays the set brightness level.
   - In the box to the right of the **Brightness** scale, enter or select a brightness level.

7. Set the contrast level for the mnemonics of your SideStick module using one of the following methods:

   - Drag the **Contrast** slider along scale. The box the right of the scale displays the set contrast level.
   - In the box to the right of the **Contrast** scale, enter or select a contrast level.

8. Set the enhanced brightness level for the mnemonics on your SideStick module using one of the following methods:

   - Drag the **Enhanced Brightness** slider along scale. The box the right of the scale displays the set enhanced brightness level.
   - In the box to the right of the **Enhanced Brightness** scale, enter or select an enhanced brightness level.

9. Set the dimmed brightness level for the mnemonics on your SideStick module using one of the following methods:

   - Drag the **Dimmed Brightness** slider along scale. The box the right of the scale displays the set dimmed brightness level.
   - In the box to the right of the **Dimmed Brightness** scale, enter or select a dimmed brightness level.

Your SideStick module is ready for calibration.

Calibrate the Joystick Limits

The range of motion for the joystick on your SideStick module is unique. Through calibration, Caprica can record the range of motion for your joystick.

To calibrate the joystick on a SideStick module

1. At the bottom of the **Device View**, click **SideBox Configuration**.

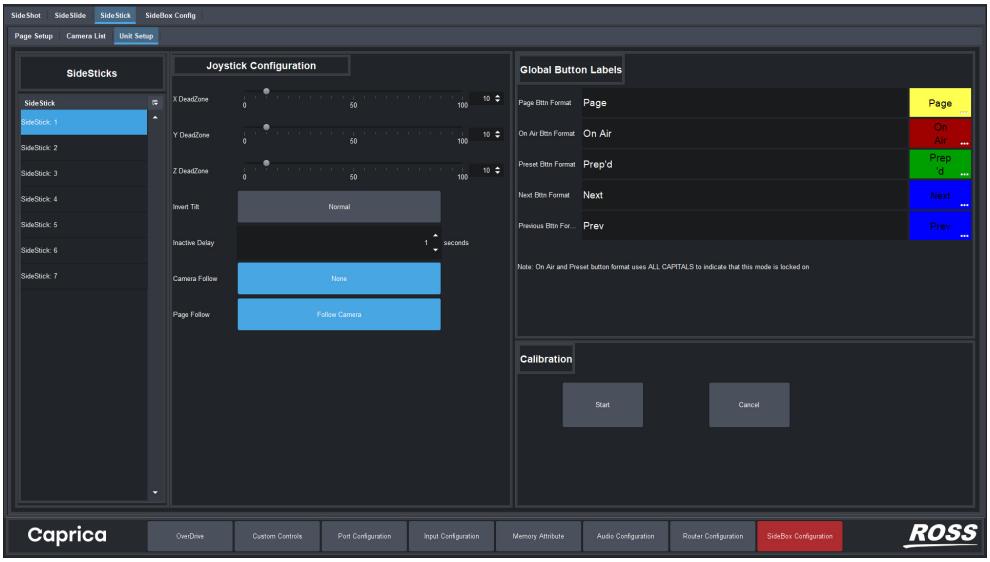
   The **SideBox Configuration** client opens in the **Device View**.

2. Click the **SideStick Config** tab.

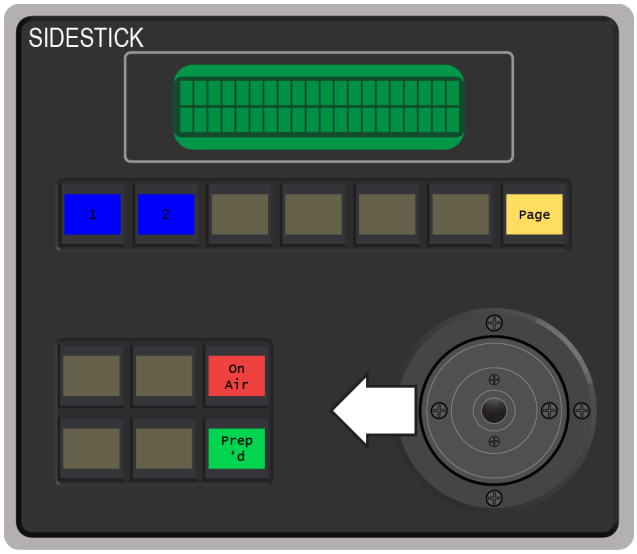
   The **SideStick Config** tab opens.

3. In the **SideStick Config** tab, click the **Unit Setup** tab.

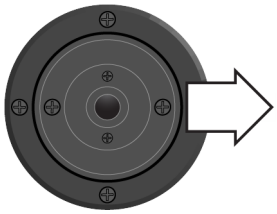
   The **Unit Setup** tab opens.



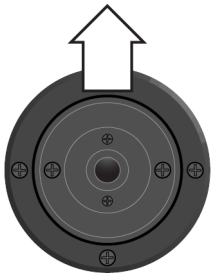
4. In the **SideSticks** section, use the list to select the **SideStick** module to calibrate.
5. In the **Calibration** section, click **Start**.
6. On the **Side Stick** module, move the **joystick** to the **Left** until it stops and then release the joystick.



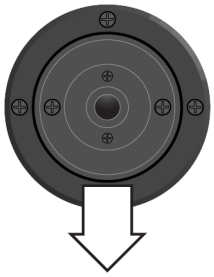
7. Move the **joystick** to the **Right** until it stops and then release the joystick.



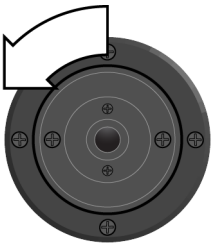
8. Move the **joystick** to the **Top** until it stops and then release the joystick.



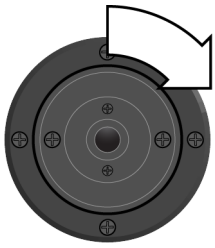
9. Move the **joystick** to the **Bottom** until it stops and then release the joystick.



10. Twist the top of the **joystick** to the **Left** until it stops and then release the joystick.



11. Twist the top of the **joystick** to the **Right** until it stops and then release the joystick.



12. Click **End**.

Your SideStick module is ready for you to configure joystick options.

Configure Joystick Options

After you calibrate the joystick on a SideStick module, you can configure sensitivity and control options for the joystick.

To configure joystick options

1. In the **SideSticks** section of the **Unit Setup** tab, use the list to select the **SideStick** module to configure joystick options.
2. The **X DeadZone** setting sets the distance that the joystick must move left or right from the center before it starts to move a camera. This setting stops left and right camera movement when the joystick returns to center. Use one of the following methods to set the **X DeadZone**:
   - Drag the **X DeadZone** slider along scale. The box the right of the scale displays the set X DeadZone distance.
   - In the box to the right of the **X DeadZone** scale, enter or select an X DeadZone distance.
3. The **Y DeadZone** setting sets the distance that the joystick must move up or down from the center before it start to move a camera. This setting stops up and down camera movement when the joystick returns to center. Use one of the following methods to set the **Y DeadZone**:
   - Drag the **Y DeadZone** slider along scale. The box the right of the scale displays the set Y DeadZone distance.
   - In the box to the right of the **Y DeadZone** scale, enter or select an Y DeadZone distance.
4. The **Z DeadZone** setting sets the distance that the joystick top must twist left or right from the center before it starts to move a camera. This setting stops zoom, focus, or iris change when the joystick returns to center. Use one of the following methods to set the **Z DeadZone**:
   - Drag the **Z DeadZone** slider along scale. The box the right of the scale displays the set Z DeadZone distance.
   - In the box to the right of the **Z DeadZone** scale, enter or select an Z DeadZone distance.
5. Click **Invert Tilt** to toggle between the following tilt modes:
   - **Normal** — tilt the camera in the same direction as you move the joystick. Move the joystick up to tilt the camera up.
   - **Inverted** — tilt the camera in the opposite direction as you move the joystick. Move the joystick up to tilt the camera down.
6. Use the **Inactive Delay** box to enter or select the number of seconds to wait after the joystick stops moving before switching cameras.
7. Click **Camera Follow** to select the camera to follow and control with the SideStick module. The available camera options are as follows:
   - **None** — do not follow a camera, manually select the camera to control.
   - **Follow Preview** — control the camera on Preview. When the camera on Preview changes, the SideStick module automatically starts controlling the new camera.
   - **Follow On Air** — control the on air camera. When the on-air camera changes, the SideStick module automatically starts controlling the new camera.
8. Click **Page Follow** to select the pages to load on the SideStick module for a camera. The available options are as follows:
   - **Don't Follow** — do not load pages for a camera; manually select the page to load on the SideStick module.
   - **Follow Camera** — automatically load the pages assigned to a camera when the SideStick starts controlling a camera.

Your SideStick module is ready for you to configure the Global buttons.

Configure Global Button Labels

Every SideStick page contains the following Global buttons: Page, On Air, Preset, Next, and Previous. For each Global button you can configure the button label, text style, and color.

The available button text styles are as follows:

Table 29.3 SideStick Button Text Styles

Standard	Small	Small Invert	Medium	Medium Invert	Large	Large Invert	None

The available button colors are as follows:

Table 29.4 SideStick Button Background Colors

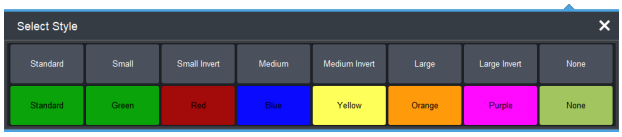
Standard	Green	Red	Blue	Yellow	Orange	None

To configure Global buttons

1. In the **SideSticks** section of the **Unit Setup** tab, use the list to select the **SideStick** module to configure Global buttons.
2. In the **Page Bttn Format** box, enter the label to display on the **Page** button of your SideStick module.

   The number of characters that a SideStick button can display depends on the selected text style.
3. Click the **Button Preview** to the right of the **Page Bttn Format** box.

   The **Select Style** dialog box opens.



4. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the **Page** button.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the **Page** button on the SideStick module.
5. Click the **Button Preview** to the right of the **Page Bttn Format** box.

   The **Select Style** dialog box opens.
6. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for the **Page** button.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the **Page** button on the SideStick module.
7. In the **On Air Bttn Format** box, enter the label to display on the **On Air** button of your SideStick module.

   To set the text style and background color for the **On Air** button, follow step **3** to step **6** in this procedure.
8. In the **Preset Bttn Format** box, enter the label to display on the **Preset** button of your SideStick module.

   To set the text style and background color for the **On Air** button, follow step **3** to step **6** in this procedure.

9. In the **Next Bttn Format** box, enter the label to display on the **Next** button of your SideStick module.

   To set the text style and background color for the **On Air** button, follow step **3** to step **6** in this procedure.

10. In the **Previous Bttn Format** box, enter the label to display on the **Previous** button of your SideStick module.

    To set the text style and background color for the **Previous** button, follow step **3** to step **6** in this procedure.

Your SideStick module is ready for you to assign cameras.

Configure the List of Cameras to Control

You can use the SideStick module to control the cameras configured on the Caprica Server. In the SideBox Configuration client you used the Camera List tab to configure the list of cameras to control. The SideStick Next and Previous buttons use the camera list to select the camera to control.

To create the list of cameras to control

1. At the bottom of the **Device View**, click **SideBox Configuration**.

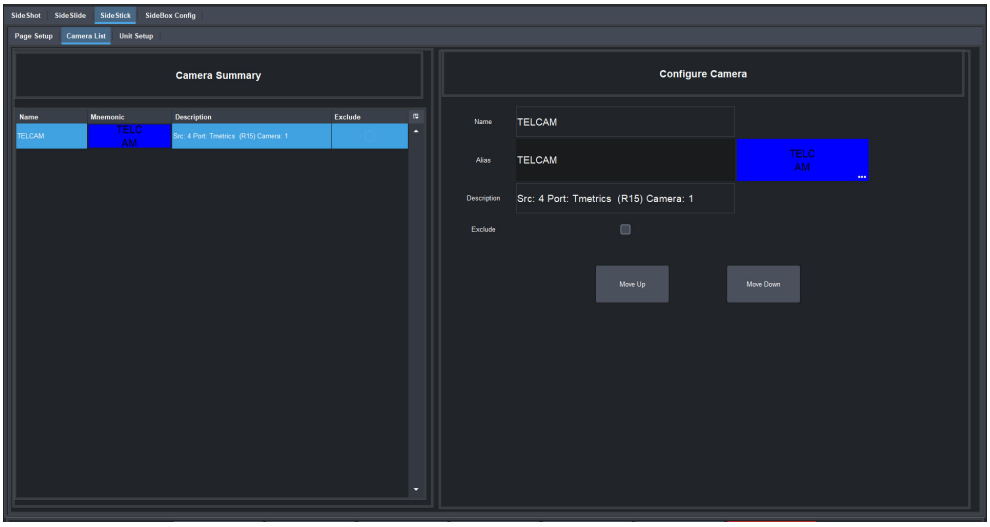
   The **SideBox Configuration** client opens in the **Device View**.

2. Click the **SideStick** tab.

   The **SideStick** tab opens.

3. In the **SideStick** tab, click the **Camera List** tab.

   The **Camera List** tab opens.



1. In the **Camera Summary** section, use the list to select the **Camera** to configure.

   The **Configure Camera** section displays the setting for the selected camera.

2. Enter in the **Alias** box the name to display in the SideStick screen or on SideStick buttons for the selected camera.

   The number of characters that a SideStick button can display depends on the text style you select for the button.

3. Press **Enter** to save the **Alias**.

4. Click the **Button Preview** to the right of the **Alias** box.

   The **Select Style** dialog box opens.

5. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the camera alias when displayed on a SideStick button.

   The **Select Style** dialog box closes and the **Button Preview** updates along with SideStick buttons assigned to the camera.

6. Click the **Button Preview** to the right of the **Page Bttn Format** box.

   The **Select Style** dialog box opens.

7. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for the camera alias when displayed on a SideStick button.

   The **Select Style** dialog box closes and the **Button Preview** updates along with SideStick buttons assigned to the camera.

8. To disable the SideStick module from controlling the selected camera, select the **Exclude** check box, Clear the **Exclude** check box to enable the SideStick module to control the selected camera.

9. Click **Move Up** to move the selected camera up one row in the **Camera** list.

   The SideStick module **Next** and **Previous** buttons use the order of the **Camera** list to select the camera to control.

10. Click **Move Down** to move the selected camera down one row in the **Camera** list.

With the camera list set, you can configure the button functions for your SideStick.

Map Global Button Functions

Each SideStick page contains a set of Global buttons. When you set the functionality for a Global button, you set the same functionality for the button on all SideStick pages.

To set Global button functionality

1. At the bottom of the **Device View**, click **SideBox Configuration**.

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

2. Click the **SideStick** tab.

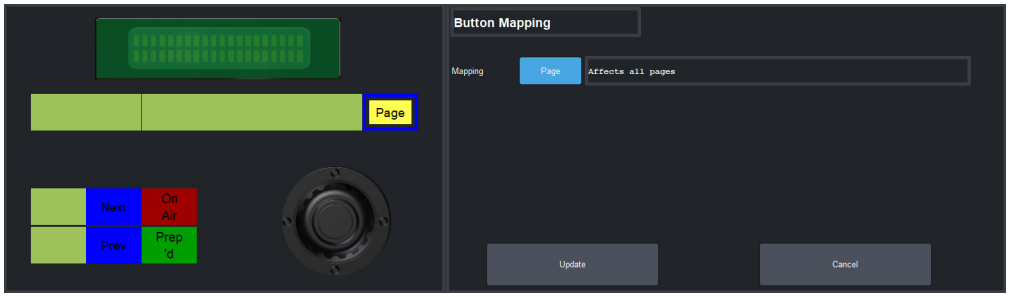
   The **SideStick** tab opens.

3. In the **SideStick** tab, click the **Page Setup** tab.

   The **Page Setup** tab opens.

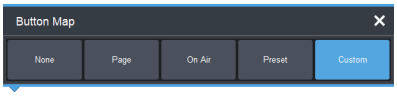
4. In the **SideSticks** section, use the list to select the **SideStick** module to configure button functionality.
5. Click **Global**.

   The top half of the **Page Setup** tab displays the **Global** buttons that you can configure.
6. On the image of the **SideStick**, select a button that you want on to display on all pages.



7. In the **Button Mapping** section, click the **Mapping** button.

   The **Button Map** dialog box opens.



8. Select one of the following options to set the functionality for the selected **Global** button.
   - **None** — remove functionality from the button.
   - **Page** — display the page access buttons.
   - **On Air** — control the camera in the on-air shot.
   - **Preset** — control the camera in the prepared shot.
   - **Custom** — set custom functionality for the button on each page.

   The **Button Map** dialog box closes.

9. Click **Update**.

   The SideStick and the **SideStick** image update to show the configured button. You can use the **Global Button Labels** section in the **Unit Setup** tab to customize the label text and background color of Global buttons.

Set Page Button Functions

When you press the Page button on a SideStick, the Page buttons replace the current buttons. You can use Page buttons to access SideStick pages or connect to cameras.

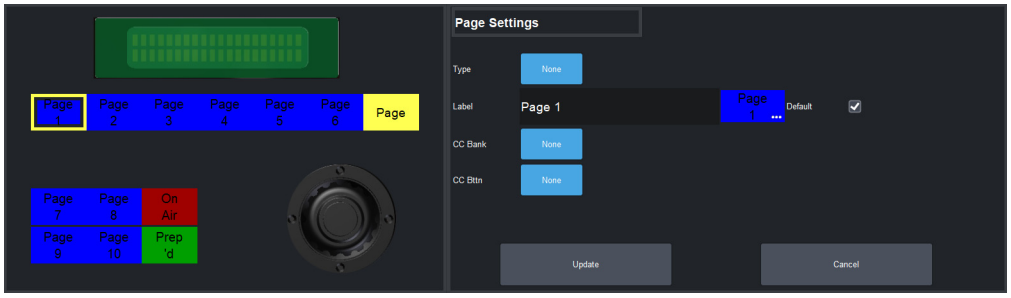
To set Page button functionality

1. In the **SideSticks** section of the **Page Setup** tab, click **Global**.

   The bottom half of the **Page Setup** tab displays the **Page** buttons that you can configure.

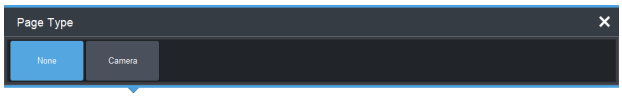
2. On the image of the **SideStick**, select the **Page** button to configure.

   The top half of the **Page Setup** tab updates to display the SideStick buttons in the selected page.



3. In the **Page Settings** section, click the **Type** button.

   The **Page Type** dialog box opens.



4. Select one of the following options to set the functionality for the selected **Page** button.

   - **None** — switch a specific SideStick page.
   - **Camera** — select a camera to control.

   The **Page Type** dialog box closes.

5. In the **Label** box, enter the label to display on the selected **Page** button.

   The number of characters that a SideStick button can display depends on the text style you select for the button.

6. Click the **Button Preview** to the right of the **Label** box.

   The **Select Style** dialog box opens.

7. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the selected **Page** button.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the selected **Page** button on the SideStick module.

8. Click the **Button Preview** to the right of the **Label** box.

   The **Select Style** dialog box opens.

9. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for the selected **Page** button.

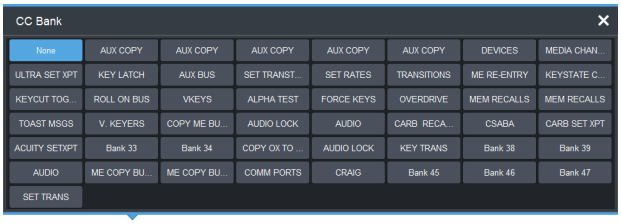
   The **Select Style** dialog box closes and the **Button Preview** updates along with the selected **Page** button on the SideStick module.

10. To set the default text style and background color for the selected **Page** button, select the **Default** check box.

11. To select a Custom Control to trigger when a user presses the selected **Page** button:

    a. Click the **CC Bank** button.

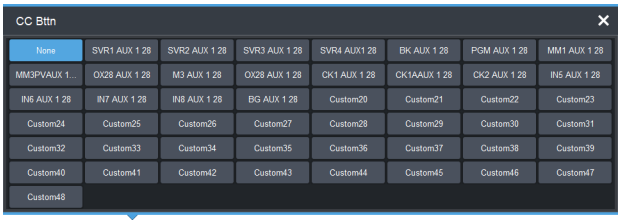
       The **CC Bank** dialog box opens.



    b. Select the **Bank Number** that contains the Custom Control to trigger. Select **None** to remove a Custom Control from a Page button.

    c. Click the **CC Bttn** button.

       The **CC Bttn** dialog box opens.



    d. Select the **Custom Control** to trigger. Select **None** to remove a Custom Control from a Page button.

12. Click **Update**.

    The SideStick and the **SideStick** image update to show the configured **Page** button.

Configure Pages

When you press and hold the SideStick Page button, the Page Number buttons display. Press a Page Number button to change SideStick button functionality. For each page you can set the functionality for each button.

To set the functionality of button on a page

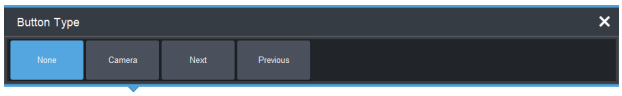
1. In the **SideSticks** section of the **Page Setup** tab, click **Page**.

2. Use the **Page** list to select the **Page** that contains the buttons to configure.

The **Page Setup** tab displays the configuration of the selected **Page**.

3. On the image of the **SideStick**, select the button to configure.
4. In the **Button Settings** section, click the **Type** button.

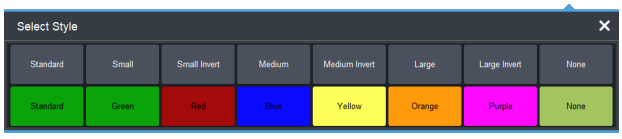
   The **Button Type** dialog box opens.



5. Select one of the following options to set the functionality for the selected button.
   - **None** — switch a specific SideStick page. For this option you can configure the SideStick button, select a Custom Control to trigger, or a page to go to.
   - **Camera** — select a camera to control. For this option you can configure the SideStick button, select a Custom Control to trigger, select a page to go to, and configure camera settings.
   - **Next** — select the next camera in the **Camera List**. This option has no additional settings.
   - **Previous** — select the previous camera in the **Camera List**. This option has no additional settings.
6. In the **Label** box, enter the label to display on the selected button.

   The number of characters that a SideStick button can display depends on the text style you select for the button.
7. Click the **Button Preview** to the right of the **Label** box.

   The **Select Style** dialog box opens.



8. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the selected button.

   The **Select Style** dialog box closes and the **Button Preview** updates along with the selected button on the SideStick module.
9. Click the **Button Preview** to the right of the **Label** box.

   The **Select Style** dialog box opens.

10. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for the selected button.

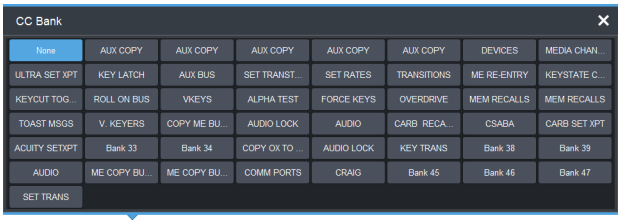
    The **Select Style** dialog box closes and the **Button Preview** updates along with the selected button on the SideStick module.

11. To set the default text style and background color for the selected button, select the **Default** check box.

12. To select a Custom Control to trigger when a user presses the selected button:

    a. Click the **CC Bank** button.

       The **CC Bank** dialog box opens.

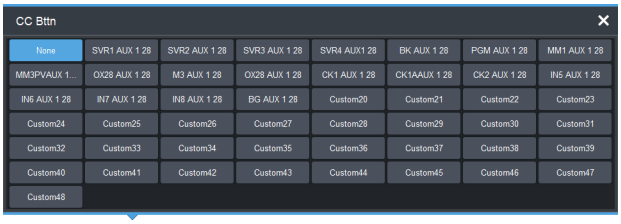


    b. Select the **Bank Number** that contains the Custom Control to trigger. Select **None** to remove a Custom Control from a button.

       The **CC Bank** dialog box closes.

    c. Click the **CC Bttn** button.

       The **CC Bttn** dialog box opens.



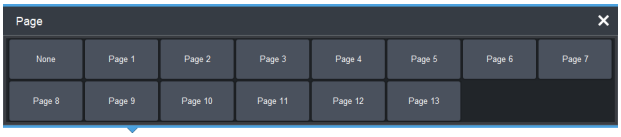
    d. Select the **Custom Control** to trigger. Select **None** to remove a Custom Control from a button.

       The **CC Bttn** dialog box closes.

13. To select a page to go to when a user presses the selected button:

    a. Click the **Go to page** button.

       The **Page** dialog box opens.



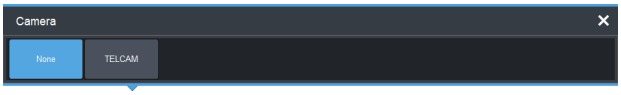
    b. Select the **Page** to go to.

       The **Page** dialog box closes.

14. For **Camera** type buttons, select the camera to control and configure settings as follows:

    a. Click the **Camera** button.

    The **Camera** dialog box opens.



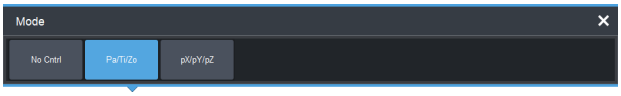
    The **Camera** dialog box lists the cameras configured on the Caprica Server.

    b. Select the **Camera** to control.

    The button **Label** and **Background Color** change to the settings for select camera. The **Camera** dialog box closes.

    c. Click the **Mode** button.

    The **Mode** dialog box opens.



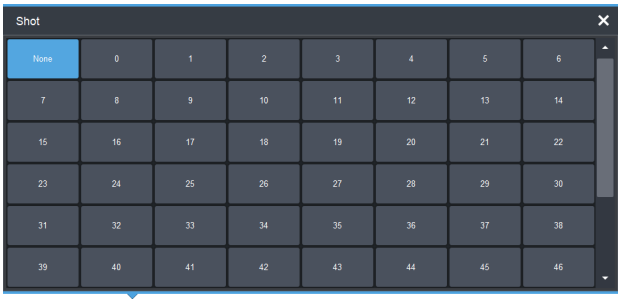
    The **Camera** dialog box lists the cameras configured on the Caprica Server.

    d. Select one of the following options to select how to control the selected camera.

    - **No Cntrl** — do not use the SideStick to control camera pan, tilt, and zoom.
    - **Pa/Ti/Zo** — use the SideStick to control camera pan, tilt, and zoom.
    - **pX/pY/pZ** — use the SideStick to control camera X, Y, and Z.

    e. Click the **Shot** button.

    The **Shot** dialog box opens.



    The **Shot** dialog box lists the available shot presets for the camera.

    f. Select a **Shot** preset to position the camera when a user selects the camera from SideStick.

    g. Use the **Duration** box to enter or select the duration in seconds to move the camera to the selected **Shot**.

15. Click **Update**.

    The SideStick and the **SideStick** image update to show the configured button. Use the steps in this procedure to configure SideStick pages and buttons for your production environment.

Audio Control from Caprica

The Caprica Audio Control client gives you control of individual fader volume levels on a connected audio mixer and access to Custom Controls created in Caprica. The Audio Control Configuration client enables you to select the audio faders to control and the Custom Controls to access from the Audio Control client.

The following topics are discussed in this chapter:

- Configuring the Audio Control Client
- Using the Audio Control Client

Configuring the Audio Control Client

The Audio Control Configuration client enables you to select the audio faders to control and the Custom Controls to access from the Audio Control client.

Audio Faders

Before you configure the audio faders for the Audio Control client, verify that your Caprica Server has a configured audio mixer device.

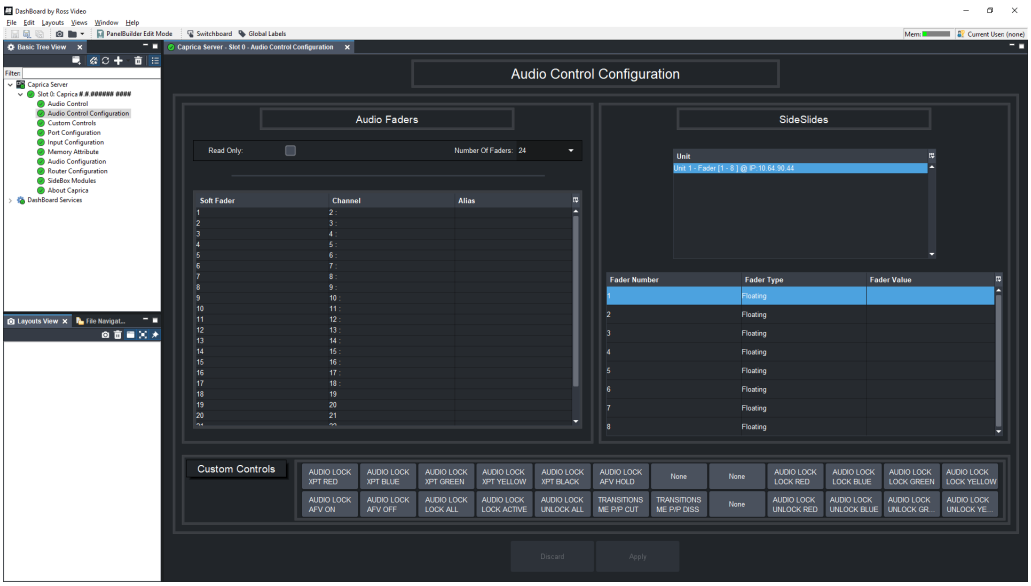
For More Information on...

- configuring devices on a Caprica Server, refer to the section "**Configuring Devices to Connect to an OverDrive System**" on page 26–2.
- device configuration settings, refer to the ***Caprica Device Setup Sheet*** or the ***Ross Video External Device Setup Sheet*** for your audio mixer. Use the following URLs to view the available audio mixer device setup sheets:
  - › **Caprica** http://help.rossvideo.com/caprica/help/devices/index.html#t=Online_Help_System%2FCaprica_Devices_-_Audio_Mixers%2FCaprica_Devices_-_Audio_Mixers.htm
  - › **Acuity** — http://help.rossvideo.com/acuity-device/Topics/Devices/Audio-Mixer/Audio-Mixer.html

To configure audio faders for the Audio Control client

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 **Audio Control Configuration** node.

   The **Audio Control Configuration** client opens in the **Device View**.



5. In the **Audio Faders** section, use the **Number of Faders** list to select the number of faders from the connected audio mixer to display in the **Audio Control** client.

6. To associate a physical fader on the connected audio mixer with a soft fader in the **Audio Control** client, complete the following steps:

   a. In the **Audio Faders** table, click in the **Channel** column cell to the right of the **Soft Fader** to associate with a audio mixer fader.

   b. Use the **Channel** list to select the audio mixer fader to control with **Audio Control** client fader displayed in the **Soft Fader** column.

   c. Enter a custom name for the **Soft Fader** in the **Alias** column to the right of the **Channel** column.

   The **Audio Control** client displays aliases above the associated audio fader. Long aliases are truncated to fit in the available space above an audio fader. Only the **Audio Control** client displays custom names set in the **Alias** column. Caprica does not pass aliases to OverDrive.

   d. Repeat step **a** to step **c** for each audio mixer fader to associate with a soft fader in the **Audio Control** client.

7. Clear the **Read Only** check box to use the soft faders in the **Audio Control** client to control the associated audio mixer faders.

   To disable the **Audio Control** client from controlling audio mixer faders, select the **Read Only** check box. After you select the **Read Only** check box you can only use the **Audio Control** client faders to monitor audio mixer fader volume levels.

8. Click **Apply**.

SideSlides

Before you configure SideSlide faders to control Audio Control client faders, verify that your Caprica Server has a configured SideSlide module.

For More Information on...

- configuring a SideSlide module on a Caprica Server, refer to the section "**Configuring a SideSlide Module**" on page 29–12.

To configure SideSlide faders to control Audio Control client faders

1. In the **SideSlides** section of the **Audio Control Configuration** client use the **Unit** list to select the SideSlide module with which to control **Audio Control** client faders.

2. To associate a physical fader on the SideSlide module with a soft fader in the **Audio Control** client, complete the following steps:

   a. In the **SideSlides** table, click in the **Fader Type** column cell to the right of the **Fader Number** column cell that displays the SideSlide fader number to configure.

   b. Use the **Fader Type** list to select type of fader to control. The available types are as follows:

   - **OVD Fader** — fader channel numbers set by OverDrive.

     Use the **Fader Value** list in the column to the right to select the OverDrive fader thats sets the channel number of the fader to control in the **Audio Control** client.

   - **Static Channel** — regular channel always control.

     Use the **Fader Value** list in the column to the right to select the channel number of the fader to control in the **Audio Control** client.

   - **Floating channel** — Audio Control client fader channel number set by the OverDrive shot.
   - **Disable** — do not use the SideSlide fader to control Audio Control client faders.

   c. Repeat step **a** and step **b** for each audio mixer fader to associate with a soft fader in the **Audio Control** client.

3. Click **Apply**.

Custom Controls

The Audio Control client has 24 Custom Control buttons that you can assign any Custom Control created in Caprica. Clicking a Custom Control button in the Audio Control client runs the associated Caprica Custom Control. You can use the Custom Controls section in the Audio Control Configuration client to assign Caprica Custom Controls to Audio Control client Custom Control buttons.

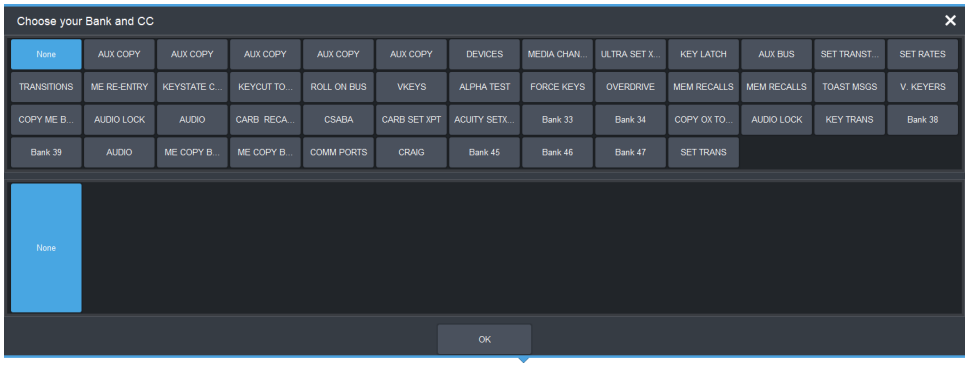
To assign Custom Controls to Audio Control client Custom Control buttons

1. In the **Custom Controls** section of the **Audio Control Configuration** client click the **Custom Control** button to assign a Caprica Custom Control.

   The **Choose Your Bank and CC** dialog box opens.

2. In the **Bank** section of the **Choose Your Bank and CC** dialog box, click the **Bank** button that contains the Custom Control to assign to the selected **Audio Control Configuration** client **Custom Control** button. Select **None** to remove a Custom Control from the selected **Audio Control Configuration** client **Custom Control** button.

   The **CC** section of the **Choose Your Bank and CC** dialog box displays the Custom Controls contained in the selected bank.



3. Click the **CC** button of the Custom Control to assign to the selected **Audio Control Configuration** client **Custom Control** button.

4. Click **OK**.

   The **Choose Your Bank and CC** dialog box closes and the selected **Audio Control Configuration** client **Custom Control** button displays the bank and button names of the assigned Custom Control.

5. Click **Apply**.

Using the Audio Control Client

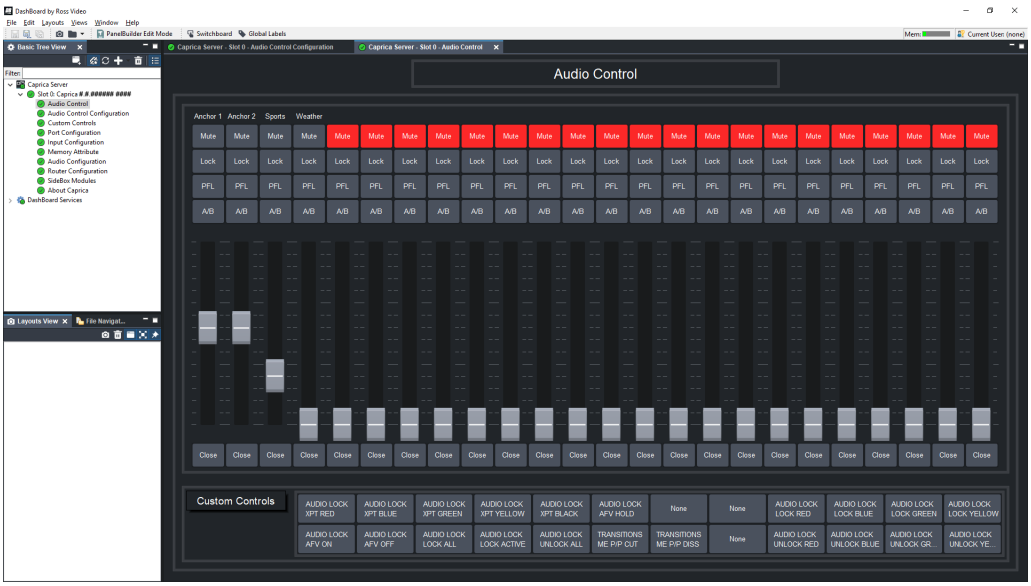
The Caprica Audio Control client gives you control of individual fader volume levels on a connected audio mixer and access to Custom Controls created in Caprica.

✶ All actions that you preform in the Audio Control client are also performed on the physical audio mixer and in OverDrive. The Audio Control client also shows changes made on the physical audio mixer or in OverDrive.

To open the Audio Control client

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 **Audio Control** node.

   The **Audio Control** client opens in the **Device View**.



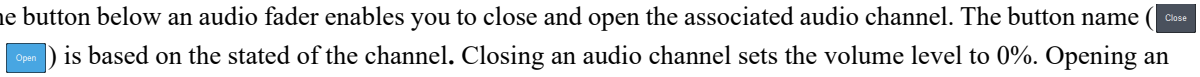
Adjust Audio Faders

Each audio fader in the Audio Control client controls the associated physical audio fader on the connected audio mixer. The Audio Control client can display and control a maximum of 32 audio faders on the connected audio mixer. Audio fader volume range extends from 0% (no volume) to 100% (maximum volume).

You can use the following methods to adjust the volume level of a selected audio fader in the Audio Control client:

- Click and drag the fader slider up or down.
- On a touch screen use a fingertip to drag the fader slider up or down.
- Click above or below the fader slider to move it up or down in 10% increments.
- Use the mouse scroll wheel to move the fader slider up or down.
- Press the cursor **Up** or **Down** arrow keys to move the fader slider up or down by 1%.
- Press the **Page Up** or **Page Down** keys to move the fader slider up or down by 10%.
- Press the **End** key to move the fader slider up to 100%.
- Press the **Home** key to move the fader slider down to 0%.

Close Channels

The button below an audio fader enables you to close and open the associated audio channel. The button name (

or

) is based on the stated of the channel**.** Closing an audio channel sets the volume level to 0%. Opening an audio channel returns the channel to the default volume level set for the channel.

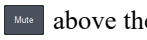
To open and close audio channels

- When an audio channel is open or on, click **Close** below the associated fader to set the channel volume level to 0%. Closing an audio channel does not change the default level for the channel.
- When an audio channel is closed or off, click **Open** below the associated fader to open the channel. A channel will only open when it is associated (AFV) with an on-air source.

Mute Channels

Muting a channel immediately silences the channel on the connected audio mixer. A muted channel is not closed, and the channel fader retains the same volume level as before it was muted. Unmuting a channel returns a channel to the previously held volume level.

To mute and unmute a channel

- To mute an audio channel, click **Mute** 

above the fader associated with the channel to mute.

  The **Mute** button turns red

to indicate that the channel is muted.

- To unmute an audio channel, click **Mute**

above the fader associated with the muted channel.

  The channel fader returns the audio channel to the previously held volume and the **Mute** button turns gray

to indicate that the channel is unmuted.

Lock Channels

Locking a channel stops OverDrive automation from changing the channel volume level. While a channel is locked you can use the physical audio mixer or OverDrive DirectControl to change the volume level of a locked channel. You can create Custom Controls to lock and unlock channels.

To lock and unlock a channel

- To lock an audio channel, click **Lock**

above the fader associated with the channel to lock.

  The **Lock** button turns red

to indicate that the channel is locked.

- To unlock an audio channel, click **Lock**

above the fader associated with the locked channel.

  The **Lock** button turns gray

to indicate that the channel is unlocked.

For More Information on...

- creating Custom Control macros, refer to the section "**Creating Custom Control Macros**" on page 26–23.
- Custom Control commands, refer to the appendix "**Appendix B. Caprica Custom Controls**" on page B–1.

PFL

The PFL (Pre Fade Listen) button above an audio fader enables input on monitor speakers for the associated channel. PFL can be used to verify the presence of audio on a channel or to listen to a mix of two or more channels.

To monitor and unmonitor an audio channel

- To monitor the audio channel associated with a fader, click **PFL**

above the associated fader.
- To unmonitor the audio channel associated with a fader, once again click **PFL**

above the associated fader.

Toggle Between Fader Channels

Some audio mixers can control two input audio channels with a single audio fader. Each audio fader on the audio mixer has a button that toggles audio fader control between the two audio channels assigned to the audio fader. The Audio Control client has an A/B button above an audio fader that you can use to switch between the two audio channels assigned to the physical audio fader on the audio mixer.

✶ The **A/B** button is only compatible with the Wheatstone Audio Control Surface.

To toggle control between the two audio channels assigned to an audio mixer fader

- To toggle fader control from the current audio channel to the other audio channel assigned to the audio mixer fader, click **A/B** above the fader associated with the audio mixer fader.
- To toggle fader control back to the channel initially controlled by the audio mixer fader, once again click **A/B** above the fader associated with the audio mixer fader.

Run Custom Controls

The Audio Control client Custom Controls section contains 24 Custom Control buttons that you can use to run any Custom Control created in Caprica. Custom Controls are assigned to Custom Control buttons in the Audio Control Configuration client. Custom Control buttons display the bank and button names of the assigned Custom Control. Clicking a Custom Control button runs the associated Custom Control.

For More Information on...

- assigning Custom Controls to Custom Control buttons, refer to the section "**Custom Controls**" on page 30–4.

Appendix A. Cable Pinouts

This appendix outlines pinouts for cables used with OverDrive.

The following topics are discussed in this appendix:

- Sony MVS-8000G Panel to DeviceMaster
- Sony MVS-8000G Panel to SeaLINK

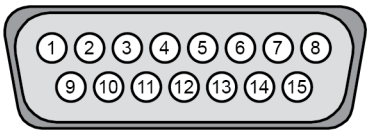
Sony MVS-8000G Panel to DeviceMaster

In an OverDrive system, a Sony MVS-8000G switcher connects to the OverDrive Server through a DeviceMaster and a Caprica Server. Use the following pinouts to create a cable to connect a Sony MVS-8000G panel to a DeviceMaster:

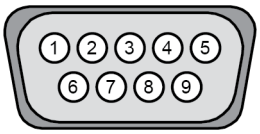
Table A.1 Sony MVS-8000G Panel to DeviceMaster Interface Cable

Panel			Interface Cable						DeviceMaster	
DB-15 Female			DB-15 Male			DB-9 Male			DB-9 Female	
Pin	Signal		Pin	Signal		Pin	Signal		Pin	Signal
1	N/C									
2	RxA (Rx-)	>	8	RxA (Rx-)	>	3	TxA (Tx-)	>	3	TxA (Tx-)
3	TxB (Tx+)	>	7	TxB (Tx+)	>	8	RxB (Rx+)	>	8	RxB (Rx+)
4	N/C									
5	N/C									
6	N/C									
7	N/C									
8	N/C									
9	N/C									
10	RxB (Rx+)	>	3	RxB (Rx+)	>	7	TxB (Tx+)	>	7	TxB (Tx+)
11	TxA (Tx-)	>	2	TxA (Tx-)	>	2	RxA (Rx-)	>	2	RxA (Rx-)
12	N/C									
13	N/C									
14	N/C									
15	N/C									

The Sony MVS-8000G panel to DeviceMaster cable connector pins:



Male DB 15 Connector
Connect to Sony MVS-8000G Frame



Male DB 9 Connector
Connect to DeviceMaster

Sony MVS-8000G Panel to SeaLINK

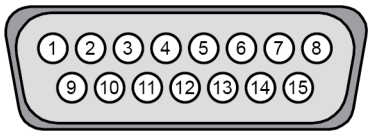
In an OverDrive system, a Sony MVS-8000G switcher connects to the OverDrive Server through a SeaLINK and a Caprica Server. Use the following pinouts to create a cable to connect a Sony MVS-8000G panel to a SeaLINK:

Table A.2 Sony MVS-8000G Panel to DeviceMaster Interface Cable

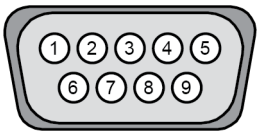
Panel			Interface Cable							SeaLINK	
DB-15 Female			DB-15 Male			DB-9 Male				DB-9 Female	
Pin	Signal		Pin	Signal		Pin	Signal			Pin	Signal
1	N/C										
2	RxA (Rx-)	>	8	RxA (Rx-)	>	3	TxA (Tx-)	>		3	TxA (Tx-)
3	TxB (Tx+)	>	7	TxB (Tx+)	>	8	RxB (Rx+)	>		1	RxB (Rx+)
4	N/C										
5	N/C										
6	N/C										
7	N/C										
8	N/C										
9	N/C										
10	RxB (Rx+)	>	3	RxB (Rx+)	>	7	TxB (Tx+)	>		4	TxB (Tx+)
11	TxA (Tx-)	>	2	TxA (Tx-)	>	2	RxA (Rx-)	>		2	RxA (Rx-)
12	N/C										
13	N/C										
14	N/C										
15	N/C										

- Unused control signals should be terminated. Unused RTS and CTS signals can be terminated by connecting the RTS+ pin to the CTS+ pin and the RTS- pin to the CTS- pin. Terminating unused signals helps ensure the best performance from your SeaLINK.

The Sony MVS-8000G panel to SeaLINK cable connector pins:



Male DB 15 Connector
Connect to Sony MVS-8000G Frame



Male DB 9 Connector
Connect to SeaLINK

Appendix B. Caprica Custom Controls

This appendix lists the commands that your can use to create Custom Controls for use on a switcher connected to a Caprica Server.

The following topics are discussed in this appendix:

- Switcher
- Character Generator
- Audio Server
- Server/VTR
- Special
- OverDrive
- Audio Mixer
- Robotic Cam
- Router
- RossTalk
- PBus
- QuickTurn

Switcher

When you select an ME for a switcher command, the available selections are as follows:

- **ME Type**
  - › **Fixed** — select an absolute ME.
  - › **Relative** — select a relative ME.
  - › **On-Air Relative** — operate relative to the program bus, regardless of how the CC is run.
  - › **Preview Relative** — operate relative to the preview bus regardless of how the CC was run.
- **ME**
  - › **ME#** — Absolute MEs
  - › **Layer #** — select a relative ME where Layer 1 is always the farthest ME from the Program ME.

Table B.1 Switcher Commands for Custom Controls

Command	Description
Recall Memory	Recall a memory from a selected ME.
Set Source	Set the source for a selected combination of ME and Bus.
Copy Bus	Copy the source of a selected ME and Bus to another selected ME and Bus. In a macro, you must include a Pause command with enough seconds or frames before a Copy Bus command to ensure that all previous functions finish properly.
Set Aux Source	Set the source for a selected Aux Bus.
Set ME Rate	Set the Auto Transition rate, in frames, for a selected ME.
Set Key Rate	Set the Auto Transition rate, in frames, for a selected Key of an ME.
Set Transition	Select the Keys of an ME that an Auto Transition affects. • **ON** — transition keys on the Preset bus to the Program bus and transition keys on the Program bus to the Preset bus. • **OFF** — exclude the key from an Auto Transition. Do not change the bus that a key occupies.

Table B.1 Switcher Commands for Custom Controls

Command	Description
Force Keys	Sets the on-air state of an ME to a specific state using a selected transition. Using this command, you can bring keys on or off-air, and transition the background all in one operation. ✶ When using Force Keys events within a Custom Control, if the keyers are already in the same state as the one being forced, a "No Trans" exception may occur due to no actual transition taking place. However, if a Virtual Keyer is involved in the same scenario, a CUT transition will still be executed on the BKGD transition. **Trans Type** — select the transition type for the Background and Keys. • **Cut** — use a Cut transition to transition the Background and Keys. • **Auto** — use an Auto transition to transition the Background and Keys. • **AutoDissolve** — use an AutoDissolve transition to transition the Background and Keys. • **AutoWipe** — use an AutoWipe transition to transition the Background and Keys. **Background** — select the new state for the Background. • **No Trans** — do not change the state of the Background. • **Toggle** — transition the Background on the Preset bus to the Program bus. **Key** — select the new state for a Key. • **No Trans** — do not change the state of the Key. • **Toggle** — change the Key state from On to Off, or from Off to On. • **Force Off** — turn the Key off. • **Force On** — turn the Key on.
Latch Keys	Set the Latch property for the Background and each Key. **Background** — set the Latch property for the Background. • **unLatched** — remove the Background from the transition mode. • **Ignore** — when the background is part of the transition mode, leave it in the transition mode. When not part of the transition mode, leave the Background out of the transition mode. • **Latched** — add the Background to the transition mode. **Key** — set the Latch property for a Key. • **unLatched** — remove the Key from the transition mode. • **Ignore** — when the Key is part of the transition mode, leave it in the transition mode. When not part of the transition mode, leave the Key out of the transition mode. • **Latched** — add the Key to the transition mode. • **Force Off** — when the Key is on-air, add it to the transition mode to bring it off-air. When off-air, do not add the Key to the transition mode. • **Force On** — when the Key is off-air, add it to the transition mode to bring it on-air. When on-air, do not add the key to the transition mode.
ME Cut	Select the ME on which to do a Cut. This command uses the key settings from the Set Transition command.
ME Auto Trans	Select a ME on which to do an Auto Transition. This command uses the key settings from the Set Transition command.

Table B.1 Switcher Commands for Custom Controls

Command	Description
Trans Type	Set the transition type on an ME. The available transition types are as follows: • **Dissolve** • **Wipe** — since Caprica does not have information about foreign switcher transition types, you cannot select the wipe type.
Key Cut	Select a single key and the type of Cut to perform.
Key Auto Trans	Select a single key and the type of Auto Transition to perform.
Key State Copy	Match one ME key to another ME by copying the on-air state of a key to another key.
Resync ME	Select the ME to resynchronize with the switcher.
Clear VKeys	Clear the virtual keys (sets to black) on a selected ME and cut the virtual keys on.
Acuity CC	Select a Custom Control to perform on your Acuity switcher.
Acuity Stop CC	Stop all running Custom Controls or a specific Custom Control on your Acuity switcher.
Sony Macro	Select a macro to perform on your Sony switcher based on the ME loaded in a selected layer.
Sony Macro Resume	Take the paused macro on your Sony switcher. Only one macro at a time can run on a Sony switcher. A paused macro stops you from running another macro on your Sony switcher.
Carbonite CC	Select a Custom Control to perform on your Carbonite switcher.
Carbonite MW	Select a Media Wipe to perform on your Carbonite switcher.
Kayenne Macro	Select a macro to perform on your Kayenne switcher based on the ME loaded in a selected layer.
Kayenne EMEM	Recall an EMEM directly, to enable full access to the EMEM capability of the Kayenne switcher. On a Kayenne switcher, an EMEM controls many areas; such as, MEs, still stores, and aux buses.
SamSW Macro	Select a macro to perform on your Kahuna or Kula switcher based on the ME loaded in a selected layer.
Vectar Macro	Select a macro to perform on your Viz Vectar Plus switcher based on the ME loaded in a selected layer.
Vectar TransBin	Select transition Bins for the MEs and keys on your Viz Vectar Plus switcher.
Vectar TypeIn	Enter a valid command to perform on your Viz Vectar Plus switcher.
Vectar EMEM Dir	Recall an EMEM directly, to enable full access to the EMEM capability of the Viz Vectar Plus switcher. On a Viz Vectar Plus switcher, an EMEM controls many areas; such as, MEs, still stores, and aux buses.
AMPP Get Macros	
AMPP Exec Macros	
HyperMax CC Start	Start a selected Custom Control on your HyperMax switcher.
HyperMax CC Stop	Stop all running Custom Controls or a specific Custom Control on your HyperMax switcher.

Character Generator

Table B.2 Character Generator Commands for Custom Controls

Command	Description
Set Folder	Set the default folder for pages or templates.
Load to Preview	Load a page or template into the character generator preview channel.
Load to Program	Load a page or template into the character generator program channel.
Take	Play the next effect that is cued up on the character generator. The next effect will be on the preview (PV) of the character generator and will be taken to the program (PGM) of the character generator with this event.
Clear	Clear all graphics from the specified layer, or all layers on the program channel. Press Layer to select either a specific layer (On), or all layers (Off).
Play	Play an animation on the character generator.
Resume	Resume playing an animation that was paused.
Macro	Trigger a macro on a character generator. Enter the macro command you want to run in the Macro Name field (up to 62 characters). For example, to open and execute a macro on a Chyron, enter Lyric.Openname. Additional commands can be sent to the CG by inserting another Execute Macro event. You must insert a pause between execute macro events in a Custom Control to ensure that there is enough time for each event to be processed properly.
GPI	Trigger a GPI input on the CG.
Sequence Take	Take the current effect in the sequence on-air.
Sequence Previous	Select the next effect in the sequence.
Sequence Next	Select the previous effect in the sequence.
Load Memory	Load a page or template into the character generator memory.
Clear Memory	Clear the character generator memory.
Take Offline	Take the current effect off-air with a transition.
Trigger	Send a trigger command to the character generator.
Profile	Change the name of the default profile on a Vizrt® character generator.

Audio Server

Table B.3 Audio Server Commands for Custom Controls

Command	Description
Play Cut	Cue the audio server to a selected cut or track. You must select the clip.
Play	Send a play command to the audio server.
Pause	Send a pause command to the audio server.
Stop	Send a stop command to the audio server.

Server/VTR

Table B.4 Server/VTR Commands for Custom Controls

Command	Description
Fast Forward	Have the VTR go into full fast forward mode.
Frame Advance	Have the VTR move (jog) the video one frame forward.
Frame Reverse	Have the VTR move (jog) the video one frame backward.
Cue Clip	Cue to a selected clip.
Recue Clip	Refresh the clip list from the VTR and select a clip to cue.
Rewind	Put the VTR into full fast rewind mode.
Stop	The VTR performs a stop and eject. This command stops the selected channel and unloads the clip.
Record	The VTR goes into record mode. You must use the Stop event to stop the recording. It is a good practice to create a Stop Custom Control before creating the Record Custom Control so that you can stop the recording. After selecting an input for the Record command, enter a clip name in the Clip box. You can use the following keywords to include Caprica Server date and time information in a clip name: • **%date%** — date in the system date format • **%time%** — time in the system time format • **%YYYY%** — year as 4 digits • **%YY%** — year as 2 digits • **%MM%** — month as 2 digits • **%Mon%** — month as a 3-character abbreviation • **%DD%** — date as 2 digits • **%Day%** — data as an abbreviation (Sun, Mon, Tue, Wed, Thu, Fri, Sat) • **%hh%** — hour of the current time as 2 digits • **%mm%** — minutes of the current time as 2 digits • **%ss%** — seconds of the current time as 2 digits The following example shows how keywords and the current Caprica Server date and time generate a clip name: • **Entered Clip Name**: `News-%YY%/%MM%/%DD%-%hh%:%mm%` • **Generated Clip Name**: `News-16/05/31-11:50`
Play	Play a video clip (with alpha if the option is set for the device). The switcher will confirm the status of the video server, and then send the play command.
Play no Stat	Play a video clip (with alpha if the option is set for the device). The switcher does not confirm the status of the video server, but immediately sends the play command.
Pause	Have the VTR go into pause mode.
Loop On	The currently cued and playing clip loops back to the beginning when it finishes playing.
Loop Off	The currently looping clip stops playing the next time it reaches the end.
Preroll	Have the VTR go to the predefined in-entry, minus a set preroll time, when In Recall is active. When In Recall is not active, the VTR will rewind the pre-roll time from the current point. The in-entry point and preroll time are set from the VTR, and not from the switcher.

Table B.4 Server/VTR Commands for Custom Controls

Command	Description
Entry In Mode On	Turn the Entry In mode on the VTR on. When the Entry In mode is on, the VTR will go to the in-entry point that has previously been set on the VTR, minus the preroll, when the Preroll command is issued. The in-entry point is set from the VTR, and not from the switcher.
Entry In Mode Off	Turn the Entry In mode on the VTR off. When the Entry In mode is off, the VTR will rewind the preroll time when the Preroll command is issued.
Standby On	Put the VTR in standby mode. In standby mode, the heads of the VTR are engaged, showing video on the video output. The VTR automatically goes into this mode when the Play, Rewind, Fast Forward, or Pause commands are issued.
Standby Off	Take the VTR out of standby mode. When not in standby mode, the heads of the VTR are removed from the tape, showing noise or black on the video output. This command only works if the VTR is stopped.
Fast Forward Bus	Have the VTR on the selected bus go into full fast forward mode.
Frame Advance Bus	Have the VTR on the selected bus move (jog) the video one frame forward.
Frame Reverse Bus	Have the VTR on the selected bus move (jog) the video one frame backward.
Recue Clip Bus	Refresh the clip list from the VTR on the selected bus and select a clip to cue.
Rewind Bus	Put the VTR on the selected bus into full fast rewind mode.
Stop Bus	The VTR on the selected bus performs a stop and eject. This command stops the selected channel and unloads the clip.
Play Bus	Play a video clip (with alpha if the option is set for the device) from the VTR on the selected bus. The switcher will confirm the status of the video server, and then send the play command.
Play No Stat Bus	Play a video clip (with alpha if the option is set for the device) from the VTR on the selected bus. The switcher does not confirm the status of the video server, but immediately sends the play command.
Pause Bus	Have the VTR on the selected bus go into pause mode.
Cue Clip Bus	Cue to a selected clip on the selected bus.
Loop On Bus	The currently cued and playing clip on the selected bus loops back to the beginning when it finishes playing.
Loop Off Bus	The currently looping clip on the selected bus stops playing the next time it reaches the end.

Special

Table B.5 Special Commands for Custom Controls

Command	Description
Reset Device	Reset the driver for the selected device. This command affects the central configuration of Caprica and may result in communication ports being reset, rendering the related devices unavailable for a period of time.
PauseMinusPreroll	Place a command in a Custom Control that will stop a Custom Control where the pause is placed in the Custom Control. The length of time that the Custom Control pauses is the time set for the event minus the MaxPreroll time calculated by Caprica for the Preview bus. The MaxPreroll is the maximum preroll time for all sources on the Preview bus. For example, if you want a 12-frame pause before taking a camera on-air and the camera has a 3 frame preroll, you would set the MaxPreroll time to 12 frames. When you run the Custom Control, Caprica will pause for 9 frames, send the command to the camera, wait another 3 frames for the camera preroll, and then move to the next command.
Pause	Place a command in a Custom Control that will stop a Custom Control where the pause is placed in the Custom Control. The length of time that the Custom Control pauses is set when the pause event is inserted into the Custom Control.
Run CC	Select a Custom Control to perform.
Stop Other CCs	Place a command in a Custom Control that will stop all other running Custom Controls, except the one the command is in. This can be used to stop other looping Custom Controls at a specific point.
Stop CC	Select a Custom Control to stop.
Loop	Have a Custom Control run continuously until you stop it, or a Stop Custom Control command is executed from another Custom Control.
Hold	Place a command in a Custom Control that will stop a Custom Control where the hold is placed in the Custom Control. To continue the Custom Control, you must press the Custom Control button again, or use a GPI trigger. The mnemonic for the Custom Control shows Held when the Custom Control is at hold.
Notify End of CC	Log the following message when the Custom Control ends: `** EOCC ** End of Custom Control.`
Select Device	Select a device and the network settings, Primary or Alternate, to use with the selected device. This command affects the central configuration of Caprica and may result in communication ports being reset, rendering the related devices unavailable for a period of time.
Swap Device	Select a device to toggle network settings. A device using Primary network settings will switch to using Alternate network settings. A device using Alternate network settings will switch to using the Primary network settings. The Com Setting column of the Port Configuration Summary table in DashBoard displays the current IP address and port number for a device. This command affects the central configuration of Caprica and may result in communication ports being reset, rendering the related devices unavailable for a period of time.

Table B.5 Special Commands for Custom Controls

Command	Description
Hold for Run	Quickly put a hold event in a Custom Control. The Custom Control will hold until the Run Held event is triggered.
Run Held	Resume all of the Custom Controls that are at hold from a Hold or Hold For Run event. Custom Controls that are at hold from a Hold For Group event are unaffected.
Hold for Run Group	Quickly put a hold event in a Custom Control. The Custom Control will hold until the Run Held Group event is triggered for the group that the Hold for Group event was assigned to. For example, if you insert the Hold for Group A event into two Custom Controls and Hold for Group B into another two Custom Controls, the Run Held Group A event will only resume the first two (group A) Custom Control. The remaining two (group B) Custom Controls will remain holding until the Run Held Group B event is triggered.
Run Held Group	Resume all the Custom Controls that are at hold from the Hold for Group event for the same group. Only the Custom Controls that used the Hold for Group event, and are of the same group, resume. For example, if you insert the Hold For Group A command into two Custom Controls and Hold for Group B into another two Custom Controls, the Run Held Group A event will only resume the first two (group A) Custom Control. The remaining two (group B) Custom Controls will remain holding until the Run Held Group B event is triggered.
Stop Held Group	Stop all the Custom Controls that are at hold from the Hold for Group event for the same group. Only the Custom Controls that used the Hold for Group event, and are of the same group, stop. For example, if you insert the Hold for Group A command into two Custom Controls and Hold for Group B into another two Custom Controls, the Stop Held Group A event will only stop the first two (group A) Custom Control. The remaining two (group B) Custom Controls will remain holding until the Run or Stop Held Group B event is triggered.
Enable Device	Enable Caprica control of a device. This command affects the central configuration of Caprica and may result in communication ports being reset, rendering the related devices unavailable for a period of time.
Disable Device	Disable Caprica control of a device. This command affects the central configuration of Caprica and may result in communication ports being reset, rendering the related devices unavailable for a period of time.
Send Warning	Send a warning to the following locations: • **Log Only** — Caprica log file • **Send to OverDrive** — RundownControl warning message and OverDrive log file • Text — text to send to the selected location
Custom Device Action	Execute a custom device named action for a port. • **Port** — select the port name. • **Action** — select the custom device action to execute.
Custom Device Action API	Send the actions configured in a custom device driver to the device to trigger the actions.
SwitcherlessMode	Control Switcherless mode. • **Switcher** — enable Switcher mode, normal operation. • **Switcherless** — enable Switcherless mode to continue controling devices from OverDrive and Caprica when the switcher falters in an OverDrive system.

OverDrive

Table B.6 OverDrive Commands for Custom Controls

Command	Description
Take & Prepare	Send the command to OverDrive to take the current shot on-air and prepare the next shot in the rundown.
Prepare Next	Send the command to OverDrive to prepare the next shot in the rundown.
Prepare Previous	Send the command to OverDrive to prepare the previous shot in the rundown.
Run Prepared CC	Send the command to OverDrive to run one of the prepared Custom Controls in RundownControl.
Run On-Air CC	Send the command to OverDrive to run one of the Custom Controls in RundownControl.
Run Transition	Send the command to OverDrive to activate a button in RundownControl.
Run Switcher Event	Send the command to OverDrive to run a selected event in a rundown.

Audio Mixer

Table B.7 Audio Mixer Commands for Custom Controls

Command	Description
All Channels Off	Fade all audio channels on either the program or preset bus off. This can be useful for quickly removing all audio from either bus or taking all audio channels off-air after you have performed an Audio Memory Recall.
Channel On	Turn an audio channel, or group, on at the level it was last on at, or leave it unchanged as the channel is already on-air. This can be useful if you want to take an audio channel, or group, on-air at once. You can use the Audio Channel On for either the program or preset buses. You can include several Audio Channel On events in a single Custom Control, allowing you to turn multiple audio channels, or groups, on for either the program or preset buses. Unlike the Audio Memory function, the Reset Audio will return the switcher to audio follow video operation. ✶ Only supported audio mixers with the ability to individually turn on an audio channel from the audio mixer are compatible with this command.
Channel Off	Turn an audio channel, or group, off. This can be useful if you want to take an audio channel, or group, off-air at once. You can use the Audio Channel Off for either the program or preset buses. You can include several Audio Channel Off events in a single Custom Control, allowing you to turn multiple audio channels, or groups, off for either the Program or Preset buses. ✶ Only supported audio mixers with the ability to individually turn off an audio channel from the audio mixer are compatible with this command.
Memory Recall	Recall a memory that has been stored on the Audio Mixer. This can be used to take several audio channels on-air at different levels all at once. Refer to the documentation that came with your Audio Mixer for more information on storing audio memories.

Table B.7 Audio Mixer Commands for Custom Controls

Command	Description
Memory Recall by Name	Use a memory name to recall a memory that has been stored on the Audio Mixer. This can be used to take several audio channels on-air at different levels all at once. Refer to the documentation that came with your Audio Mixer for more information on storing audio memories.
Channel Mute On	Mute an audio channel, or group. This is the same as pressing mute on the Audio Mixer.
Channel Mute Off	Un-mute an audio channel, or group. This is the same as un-muting channels on the Audio Mixer.
AFV On	Return the switcher to normal Audio Follow Video (AFV) functionality, after the AFV Off Custom Control was run.
AFV Off	Turn off normal Audio Follow Video (AFV) functionality. Audio channel assigned to video sources will not automatically be taken on-air with the video source. Audio channel can still be taken on-air manually. The AFV Off functionality remains active until the AFV On Custom Control is run.
AFV Hold	Have audio channel assigned to video sources automatically taken on-air with the video source but are unchanged when the video source is taken off-air.
Master Mute On	Mute the master volume. This is the same as setting the master volume on the Audio Mixer to 0.
Master Mute Off	Un-mute the master volume. This is the same as return the master volume on the Audio Mixer to the previous level.
PGM Channel Level/Dur	Override the levels for audio channels on the Program bus over several fields. If the audio channel is already on-air, you can change the level or take it off-air, if the channel is off, you can take the channel on-air as an override. PGM Audio Level Custom Controls differ from Audio Channel On Custom Controls in that you select the level that you want the audio channel to be set to, and the length of time you want to change in level to occur over. When run, the Custom Control will alter the level of the channel over the selected duration, even if it is on-air. You can include several PGM Audio Level events in a single Custom Control, allowing you to alter multiple audio channels, or groups, at the same time. The Open to Default setting enables you to select the level to which an audio channel opens. Select Yes to open an audio channel to its default level. Select No to open an audio channel to its defined level
PST Channel Level	Override the levels for audio channels on the preset bus. If the audio channel is already on-air, you can change the level or take it off-air, if the channel is off, you can take the channel on-air as an override. PST Audio Level Custom Controls differ from Audio Channel On Custom Controls in that you select the level that you want the audio channel to be set to. When run, the Custom Control will alter the level of the channel, even if it is on-air. Audio CH On will only take the channel on-air if it is off and will not change the level. This could be useful when you want to alter the levels of several channels, or groups, at the same time. You can include several PST Audio Level events in a single Custom Control, allowing you to alter multiple audio channels, or groups, at the same time.
Reset to AFV Mode	Return to the normal audio follow video mode and remove all currently selected overrides. This can be performed for either the program or the preset bus. You must set up two Custom Controls if you want to perform both independently.

Table B.7 Audio Mixer Commands for Custom Controls

Command	Description
Lock All	Lock channels to stop OverDrive automation from changing the channel volume level on all audio mixer channels or just the active on-air channels. You can also use this command to unlock all channels to enable OverDrive automation to once again change the channel volume levels. While a channel is locked you can use the physical audio mixer or OverDrive DirectControl to change the volume level of a locked channel.
Lock Channel	Stop OverDrive automation from changing the volume level of a selected channel.You can also use this command to unlock a channel to enable OverDrive automation to once again change the channel volume level. While a channel is locked you can use the physical audio mixer or OverDrive DirectControl to change the volume level of a locked channel.
Channel Mute All On	Mute all audio channels. This is the same as pressing mute for all of the channels on the Audio Mixer.
Channel Mute All Off	Un-mute all audio channels. This is the same as un-muting all channels on the Audio Mixer.

Robotic Cam

Table B.8 Robotic Camera Commands for Custom Controls

Command	Description
Shotoku Set Show	Load a set of shot recalls for a Shotoku robotic camera.
Recall Shot Number	Recall a shot on a robotic camera with a specific duration for the recall to be performed. When programming this Custom Control, you are recalling a specific camera on a remote port by selecting its BNC, or BNC name.
Recall Shot Name	Use a shot name to recall a shot on a robotic camera with a specific duration for the recall to be performed. When programming this Custom Control, you are recalling a specific camera on a remote port by selecting its BNC, or BNC name.
Vinten Recall Shot	Recall a shot on a Vinten robotic camera with a specific duration for the recall to be performed. When programming this Custom Control, you are recalling a specific camera on a remote port by selecting its BNC, or BNC name.
Prepare Move	Prepare a camera move on a robotic camera.
Execute Move	Execute a prepared camera move on a robotic camera.
Resave Last	Overwrite the last prepared shot or recalled move with the current position of the robotic camera. For a move, only the prepared position is overwritten. You must re-prepare the move before you can execute it. Some robotic cameras may not support this command.
All Stop	Stop all robotic camera operations. Use this command to stop all motion of a robotic camera with a single command. Some robotic cameras may not support this command.
Radamec, Shotoku Deselect Camera	Deselect the Radamec or Shotoku robotic camera that was last selected. When a Radamec or Shotoku camera is selected by the switcher, that camera remains selected until another camera is selected, or the Radamec, Shotoku Deselect Cam Custom Control is run.
Camera Set Show	Set or clear the show for a connected robotic camera.

Router

Table B.9 Router Commands for Custom Controls

Command	Description
Take Xpt	Change the source and destination on the router with a single Custom Control.
Fire Salvo	Fire a salvo on the router. You will have to program your salvos on the router itself in order to be able to fire them. Refer to your router documentation for information on storing a salvo on your router.
Read In Names	Read in source and destination names for the router from the following: • Default Caprica names when source and destination names cannot be read from a comma-separated values (.csv) file or the router. • A comma-separated values (.csv) file if uploaded to the router. • Request source and destination names from the router if a comma-separated values (.csv) file has not been uploaded.

For More Information on...

- creating CSV files for router name sources and destinations, refer to the section "**Customizing Router Source and Destination Names**" on page 26–16.

RossTalk

Table B.10 RossTalk Commands for Custom Controls

Command	Description
Take	Load a template to air in a specific frame-buffer and on a specific layer of a RossTalk device. **Device** — select the RossTalk device to load a template. **Take ID** — enter or select the take ID of the template to load. **Buffer** — enter or select the frame-buffer in which to load the template. **Layer** — enter or select the layer that contains the selected frame-buffer.
Resume	Resume a specific layer in a specific frame-buffer of a RossTalk device. **Device** — select the RossTalk device that contains the frame-buffer and layer to resume. **Buffer** — enter or select frame-buffer that contains the layer to resume. **Layer** — enter or select the layer to resume.
Resume Channel	Resume a specific frame-buffer of a RossTalk device. **Device** — select the RossTalk device that contains the fame-buffer to resume. **Buffer** — enter or select frame-buffer to resume.
Trigger	Send the Trigger command with a text value to a RossTalk device. **Device** — select the RossTalk device to send the Trigger command. **Trigger** — enter the value to send with the Trigger command.
GPI	Trigger a simulated GPI on a RossTalk device. **Device** — select the RossTalk device on which to trigger a simulated GPI. **GPI** — enter or select the simulated GPI to trigger.

Table B.10 RossTalk Commands for Custom Controls

Command	Description
Clear FB	Clear a specific frame-buffer on a RossTalk device. **Device** — select the RossTalk device that contains the fame-buffer to clear. **Buffer** — enter or select the frame-buffer to clear.
Clear FB Layer	Clear a specific layer in a specific frame-buffer of a RossTalk device. **Device** — select the RossTalk device that contains the frame-buffer and layer to clear. **Buffer** — enter or select frame-buffer that contains the layer to clear. **Layer** — enter or select the layer to clear.
Clear All	Clear all the frame-buffers of a RossTalk device. **Device** — select the RossTalk device that contains the fame-buffers to clear.
Sequence Read	Take the current selection in the Sequencer to air on a RossTalk device. **Device** — select the RossTalk device that is running the Sequencer.
Sequence Next	Take the current selection in the Sequencer to air and advance the current selection to the next item in the list. **Device** — select the RossTalk device that is running the Sequencer.
Sequence Up	Move the current selection in the Sequencer to the item above in the list. **Device** — select the RossTalk device that is running the Sequencer.
Sequence Down	Move the current selection in the Sequencer to the item below in the list. **Device** — select the RossTalk device that is running the Sequencer.
Sequence Focus	Set the Sequencer focus to a specific template. **Device** — select the RossTalk device that is running the Sequencer. **Take ID** — enter or select the take ID of the template to load.
Sequence In	Load a template to air on a specific layer to the output channel selected in the template. The Sequencer focus moves to the selected item. **Device** — select the RossTalk device that is running the Sequencer. **Take ID** — enter or select the take ID of the template to load. **Layer** — enter or select the layer in which to load the selected template.
Sequence Out	Take a template off-air. **Device** — select the RossTalk device that is running the Sequencer. **Take ID** — enter or select the take ID of the template to take off-air.
SpyderRSC	Recall an existing script at a specified cue. User enters the script ID and the cue.
SpyderBPR	Recall an existing basic preset. User enters the preset ID.
SpyderFKR	Recall a single function key defined in Spyder. User enters the function key ID.
TypeInCmd	Enter a valid command for a device using ASCII or HEX notation. A carriage return and a line feed (CR/LF) is automatically added to each entry.
TypeInCmd No CRLF	Enter a valid command for a device using ASCII or HEX notation. This command does not automatically add carriage returns and line feeds (CR/LF) to entries.

PBus

Table B.11 PBus Commands for Custom Controls

Command	Description
Trigger	Send a trigger value to the selected port on the PBus device. **Port** — select the PBus port number. **Device** — select the PBus device number. **Trigger** — enter or select the trigger value to send.
Store	Store a memory to the selected register on the PBus device. **Port** — select the PBus port number. **Device** — select the PBus device number. **Memory** — enter or select the register in which to store a memory.
Recall	Recall a memory from the selected register on the PBus device. **Port** — select the PBus port number. **Device** — select the PBus device number. **Memory** — enter or select the register from which to recall a memory.

QuickTurn

Table B.12 QuickTurn Commands for Custom Controls

Command	Description
Cue Record	Cue the Record operation for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control. **Filename** — enter the file name for the recorded clip.
Cue Stop	Cue the Stop operation for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Cue Pause	Cue the Pause operation for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Cue Resume	Cue the Resume operation for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Cue Split	Cue the Split operation for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Run Cued	Run the cued operations for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Clear Cued	Clear the cued operations from a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.

Table B.12 QuickTurn Commands for Custom Controls

Command	Description
Stop Immediate	Immediately stop the operations running on a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Split Immediate	Immediately split the output file for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Pause Immediate	Immediately pause the operations running on a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Resume Immediate	Immediately resume paused operations on a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control.
Cue Metadata	Cue metadata for a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control. **Metadata** — enter the metadata to cue for the QuickTurn device, up to a maximum of 100 bytes. Character encodings use the following number of bytes: • **ISO-8895-1** — 1 byte. • **UTF-8** — between 1 and 4 bytes. • **UTF-16** — between 2 and 4 bytes, most common characters take 2 bytes.
Metadata Immediate	Immediately send metadata to a QuickTurn device. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control. **Metadata** — enter the metadata to send to the QuickTurn device, up to a maximum of 100 bytes. Character encodings use the following number of bytes: • **ISO-8895-1** — 1 byte. • **UTF-8** — between 1 and 4 bytes. • **UTF-16** — between 2 and 4 bytes, most common characters take 2 bytes.
Set SourceURL	Set a web video stream to record. **Port** — select the Caprica port of the QuickTurn device to control. **Channel** — select the channel name on the QuickTurn device to control. **SourceURL** — enter the URL of the web video stream to record. **Use Source URL** — select the source to record. • **Yes** — click to record the web video stream from the set source URL. • **No** — click to record from standard video input.

Appendix C. RossTalk-IN Commands

The Caprica RossTalk-IN device enables external applications or devices in an OverDrive system to use the RossTalk protocol to control the switcher in the OverDrive system. The RossTalk protocol is a plain text based protocol that you can use to send commands to the OverDrive system switcher through the Caprica RossTalk-IN device.

The following topics are discussed in this appendix:

- Remote Device Port Configuration Settings
- Sending RossTalk Commands to Caprica
- Switcher Commands
- Video Server Commands
- Audio Mixer Commands
- Camera Commands
- Character Generator Commands
- QuickTurn Commands
- Router Commands
- Special Commands
- Legacy Acuity and Vision Switcher RossTalk Commands
- Virtual Keyers

Remote Device Port Configuration Settings

Use the following procedure to configure a RossTalk-IN device on the Caprica Server:

1. Use the current version of **DashBoard** software to connect to your **Caprica Server**.
2. In the **DashBoard Tree View**, double-click the **Port Configuration** node of your Caprica Server.
3. In the **Port Configuration Summary** table, double-click a **REMOTE#** in the **Port** column.
4. In the **Configure REMOTE#** panel, click **RossTalk**.
5. Click **RTalk-IN**.
6. Click **Network Settings**.
7. Use the following settings to configure the **Network Settings** for your RossTalk-IN device:
   - **Ethernet Role** — Server
   - **Remote IP Address** — 0.0.0.0
   - **Remote Port** — 0
   - **Local IP Address** — enter 0.0.0.0 to receive RossTalk commands through all network interface cards of a Caprica Server. Enter a specific IP address to only receive RossTalk commands through the network interface card associated with the entered IP address.
   - **Local Port** — 7788
   - **Protocol** — TCP
8. Click **Apply Changes** to save the RossTalk-IN device settings.
9. Click **Done** to close the Configure REMOTE# panel.

For More Information on...

- configuring remote devices for OverDrive systems that contain a Caprica Server, refer to the section "**Configuring Devices to Connect to an OverDrive System**" on page 26–2.

Sending RossTalk Commands to Caprica

Use the following procedure to use external applications or devices to send RossTalk commands to the RossTalk-IN device on the Caprica Server:

1. Use the **Local IP Address** and the **Local Port** set for the **RossTalk-IN** device to create a network connection to your Caprica Server.
2. Use an external application or device to send RossTalk commands to the **RossTalk-IN** device on your Caprica Server. Terminate each RossTalk command with a carriage return and a line feed (CR/LF).

For More Information on...

- creating custom DashBoard panels to send RossTalk commands, refer to the ***DashBoard Control, Monitoring, and Workflow Automation System User Guide*.**

Switcher Commands

This section lists the RossTalk commands that you can use to control the OverDrive system switcher from an external device through the Caprica RossTalk-IN device.

Memory Recall

The Memory Recall command recalls a memory on an ME.

Table C.1 Memory Recall Command Syntax

Command	Description
SW MEM : *mem* : **ME** : *me*	Recalls a memory (*mem*) on an ME (*me)*. • *mem* — memory number or name • *me* — ME number (0 = program) or name
SW MEM : *mem* : **O_ME** : *layer*	Recalls a memory (*mem*) on an ME that is a layer (*layer*). • *mem* — memory number or name • *layer* — layer on the Program output (1= background)
SW MEM : *mem* : **P_ME** : *layer*	Recalls a memory (*mem*) on an ME that is a layer (*layer*). • *mem* — memory number or name • *layer* — layer number on the Preview output (1= background)

Set Source

The Set Source command sets source on an ME.

Table C.2

Command	Description
SW XPT : **ME** : *me* : **BUS** : *bus* : **IN** : *input*	Sets the input (*input*) on bus (*bus*) on ME (*me*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *input* — source number in the Input list
SW XPT : **ME** : *me* : **BUS** : *bus* : **SRC** : *src*	Sets the source (*src*) on bus (*bus*) on ME (*me*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *src* — source name
SW XPT : **ME** : *me* : **BUS** : *bus* : **XPT** : *xpt*	Sets the crosspoint (*xpt*) on bus (*bus*) on ME (*me*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *xpt* — source number in the Crosspoint list
SW XPT : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus* : **IN** : *input*	Sets the input (*input*) on bus (*keybus*) of key (*keyer*) on ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *input* — source number in the Input list

Table C.2

Command	Description
SW XPT : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus* : **SRC** : *src*	Sets the source (*src*) on bus (*keybus*) of key (*keyer*) on ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *src* — source name
SW XPT : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus* : **XPT** : *xpt*	Sets the crosspoint (*xpt*) on bus (*keybus*) of key (*keyer*) on ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *xpt* — source number in the Crosspoint list
SW XPT : **O_ME** : *layer* : **BUS** : *bus* : **IN** : *input*	Sets the input (*input*) on bus (*bus*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name • *input* — source number in the Input list
SW XPT : **O_ME** : *layer* : **BUS** : *bus* : **SRC** : *src*	Sets the source (*src*) on bus (*bus*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name • *src* — source name
SW XPT : **O_ME** : *layer* : **BUS** : *bus* : **XPT** : *xpt*	Sets the crosspoint (*xpt*) on bus (*bus*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name • *xpt* — source number in the Crosspoint list
SW XPT : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **IN** : *input*	Sets the input (*input*) on bus (*keybus*) of key (*keyer*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *input* — source number in the Input list
SW XPT : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **SRC** : *src*	Sets the source (*src*) on bus (*keybus*) of key (*keyer*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *src* — source name
SW XPT : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **XPT** : *xpt*	Sets the crosspoint (*xpt*) on bus (*keybus*) of key (*keyer*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *xpt* — source number in the Crosspoint list

Table C.2

Command	Description
SW XPT : **P_ME** : *layer* : **BUS** : *bus* : **IN** : *input*	Sets the input (*input*) on bus (*bus*) on Preview relative ME (*layer*). • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name • *input* — source number in the Input list
SW XPT : **P_ME** : *layer* : **BUS** : *bus* : **SRC** : *src*	Sets the source (*src*) on bus (*bus*) on Preview relative ME (*layer).* • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name • *src* — source name
SW XPT : **P_ME** : *layer* : **BUS** : *bus* : **XPT** : *xpt*	Sets the crosspoint (*xpt)* on bus (*bus)* on Preview relative ME (*layer).* • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name • *xpt* — source number in the Crosspoint list
SW XPT : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **IN** : *input*	Sets the input (*input*) on bus (*keybus*) of key (*keyer*) on Preview relative ME (*layer).* • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *input* — source number in the Input list
SW XPT : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **SRC** : *src*	Sets the source (*src*) on bus (*keybus*) of key (*keyer*) on Preview relative ME (*layer).* • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *src* — source name
SW XPT : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **XPT** : *xpt*	Sets the crosspoint (*xpt*) on bus (*keybus*) of key (*keyer*) on Preview relative ME (*layer).* • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *xpt* — source number in the Crosspoint list
SW XPT : **AUX** : *aux* : **IN** : *input*	Sets the input (*input*) on aux bus (*aux*). • *aux* — aux bus name or number • *input* — source number in the Input list
SW XPT : **AUX** : *aux* : **SRC** : *src*	Sets the source (*src*) on aux bus (*aux*). • *aux* — aux bus name or number • *src* — source name
SW XPT : **AUX** : *aux* : **XPT** : *xpt*	Sets the crosspoint (*xpt*) on aux bus (*aux*). • *aux* — aux bus name or number • *xpt* — source number in the Crosspoint list

Set Source Query

The Set Source Query command displays the source on an ME.

Table C.3 Set Source Query Command Syntax

Command	Description
SW XPT : **ME** : *me* : **?**	Displays the source on ME (*me*). • *me* — ME number (0 = program) or name
SW XPT : **ME** : *me* : **BUS** : *bus* : **?**	Displays the source on bus (*bus*) on ME (*me*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW XPT : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus* : **?**	Displays the source on bus (*keybus*) of key (*keyer*) on ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW XPT : **O_ME** : *layer* : **BUS** : *bus* : **?**	Displays the source on bus (*bus*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name
SW XPT : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **?**	Displays the source on bus (*keybus*) of key (*keyer*) on On-Air relative ME (*layer*). • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW XPT : **P_ME** : *layer* : **BUS** : *bus* : **?**	Displays the source on bus (*bus*) on Preview relative ME (*layer*). • *layer* — layer on the program output (1= background) • *bus* — bus number (1 = background, 2 = preset) or name
SW XPT : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **?**	Displays the source on bus (*keybus*) of key (*keyer*) on Preview relative ME (*layer*). • *layer* — layer on the program output (1= background) • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW XPT : **AUX** : *aux* : **?**	Displays the source on auxbus (*aux*). • *aux* — aux bus name or number

Copy Bus

The Copy Bus command copies a selected ME to a bus.

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_ME** : *me* : **D_BUS** : *bus*	Copies the input from a select ME (*me*) and bus (*bus*) to another ME (*me*) and bus (*bus*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies the input from a select ME (*me*) and bus (*bus*) to the On-Air ME (*layer*) and bus (*bus*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *layer* — ME layer relative to the Program bus
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies the input from a select ME (*me*) and bus (*bus*) to the Preview ME (*layer*) and bus (*bus*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *layer* — ME layer relative to the Preview bus
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_ME** : *me* : **D_BUS** : *bus*	Copies the input from a selected ME (*me*), keyer (*keyer*), and bus (*keybus*) to another ME (*me*) and bus (*bus*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies the input from a selected ME (*me*), keyer (*keyer*), and bus (*keybus*) to the On-Air ME (*layer*) and bus (*bus*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name • *layer* — ME layer relative to the Program bus
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies the input from a selected ME (*me*), keyer (*keyer*), and bus (*keybus*) to the Preview ME (*layer*) and bus (*bus*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name • *layer* — ME layer relative to the Preview bus
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_ME** : *me* : **D_BUS** : *bus*	Copies the input from the On-Air ME (*layer*) and bus (*bus*) to an ME (*me*) and bus (*bus*). • *layer* — ME layer relative to the Program bus • *bus* — bus number (1 = background, 2 = preset) or name • *me* — ME number (0 = program) or name

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the On-Air ME (*layer*) and bus (*bus*) to the On-Air ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Program bus • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the On-Air ME (*layer*) and bus (*bus*) to the Preview ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Program or Preview bus • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_ME** : *me* : **D_BUS** : *bus*	Copies the input from the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*) to an ME (*me*) and bus (*bus*). • *layer* — ME layer relative to the Program bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the On-Air ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Program bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the Preview ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Program or Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_ME** : *me* : **D_BUS** : *bus*	Copies the input from the Preview ME (*layer*) and bus (*bus*) to an ME (*me*) and bus (*bus*). • *layer* — ME layer relative to the Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *me* — ME number (0 = program) or name
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the Preview ME (*layer*) and bus (*bus*) to the On-Air ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Program or Preview bus • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the Preview ME (*layer*) and bus (*bus*) to the Preview ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Preview bus • *bus* — bus number (1 = background, 2 = preset) or name

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_ME** : *me* : **D_BUS** : *bus*	Copies the input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to an ME (*me*) and bus (*bus*). • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the On-Air ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Program or Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies the input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the Preview ME (*layer*) and bus (*bus*). • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_AUX** : *aux* : **D_ME** : *me* : **D_BUS** : *bus*	Copies input from the aux bus (*aux*) to an ME (*me*) and bus (*bus*). • *aux* — aux bus name or number • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_AUX** : *aux* : **D_O_ME** : *layer* : **D_BUS** : *bus*	Copies input from the aux bus (*aux*) to the On-Air ME (*layer*) and bus (*bus*). • *aux* — aux bus name or number • *layer* — ME layer relative to the Program bus • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_AUX** : *aux* : **D_P_ME** : *layer* : **D_BUS** : *bus*	Copies input from the aux bus (*aux*) to the Preview ME (*layer*) and bus (*bus*). • *aux* — aux bus name or number • *layer* — ME layer relative to the Preview bus • *bus* — bus number (1 = background, 2 = preset) or name
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from an ME (*me*) and bus (*bus*) to an ME (*me*), keyer (*keyer*), and bus (*keybus*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from an ME (*me*) and bus (*bus*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *layer* — ME layer relative to the Program bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from an ME (*me*) and bus (*bus*) to the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from an ME (*me*), keyer (*keyer*), and bus (*keybus*) to another ME (*me*), keyer (*keyer*), and bus (*keybus*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from an ME (*me*), keyer (*keyer*), and bus (*keybus*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *layer* — ME layer relative to the Program bus
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from an ME (*me*), keyer (*keyer*), and bus (*keybus*) to the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *layer* — ME layer relative to the Preview bus
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the On-Air ME (*layer*) and bus (*bus*) to an ME (*me*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program bus • *bus* — bus number (1 = background, 2 = preset) or name • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the On-Air ME (*layer*) and bus (*bus*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program bus • *bus* — bus number (1 = background, 2 = preset) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the On-Air ME (*layer*) and bus (*bus*) to the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program or Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the On-Air ME (*layer*) and bus (*bus*) to an ME (*me*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program or Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program or Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*) to an ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program or Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the Preview ME (*layer*) and bus (*bus*) to an ME (*me*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the Preview ME (*layer*) and bus (*bus*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program or Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the Preview ME (*layer*) and bus (*bus*) to an ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to an ME (*me*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *me* — ME number (0 = program) or name
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Program or Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to an ME (*me*), keyer (*keyer*), and bus (*keybus*). • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_AUX** : *aux* : **D_ME** : *me* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the aux bus (*aux*) to an ME (*me*), keyer (*keyer*), and bus (*bus*). • *aux* — aux bus name or number • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_AUX** : *aux* : **D_O_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the aux bus (*aux*) to the On-Air ME (*layer*), keyer (*keyer*), and bus (*bus*). • *aux* — aux bus name or number • *layer* — ME layer relative to the Program bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name
SW COPY : **S_AUX** : *aux* : **D_P_ME** : *layer* : **D_KEY** : *keyer* : **D_BUS** : *keybus*	Copies input from the aux bus (*aux*) to the Preview ME (*layer*), keyer (*keyer*), and bus (*bus*). • *aux* — aux bus name or number • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name

Table C.4 Copy Bus Command Syntax

Command	Description
SW COPY : **S_ME** : *me* : **S_BUS** : *bus* : **D_AUX** : *aux*	Copies input from an ME (*me*) and bus (*bus*) to the aux bus (*aux*). • *me* — ME number (0 = program) or name • *bus* — bus number (1 = background, 2 = preset) or name • *aux* — aux bus name or number
SW COPY : **S_ME** : *me* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_AUX** : *aux*	Copies input from an ME (*me*), keyer (*keyer*), and bus (*keybus*) to the aux bus (*aux*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *aux* — aux bus name or number
SW COPY : **S_O_ME** : *layer* : **S_BUS** : *bus* : **D_AUX** : *aux*	Copies input from the On-Air ME (*layer*) and bus (*bus*) to the aux bus (*aux*). • *layer* — ME layer relative to the Program bus • *bus* — bus number (1 = background, 2 = preset) or name • *aux* — aux bus name or number
SW COPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_AUX** : *aux*	Copies input from the On-Air ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the aux bus (*aux*). • *layer* — ME layer relative to the Program bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *aux* — aux bus name or number
SW COPY : **S_P_ME** : *layer* : **S_BUS** : *bus* : **D_AUX** : *aux*	Copies input from the Preview ME (*layer*) and bus (*bus*) to the aux bus (*aux*). • *layer* — ME layer relative to the Preview bus • *bus* — bus number (1 = background, 2 = preset) or name • *aux* — aux bus name or number
SW COPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **S_BUS** : *keybus* : **D_AUX** : *aux*	Copies input from the Preview ME (*layer*), keyer (*keyer*), and bus (*keybus*) to the aux bus (*aux*). • *layer* — ME layer relative to the Preview bus • *keyer* — keyer number or name • *keybus* — bus number of the key (usually channel number) or name • *aux* — aux bus name or number
SW COPY : **S_AUX** : *aux* : **D_AUX** : *aux*	Copies input from aux bus (*aux*) to aux bus (*aux*). • *aux* — aux bus name or number

Set ME Rate

The Set ME Rate command sets the ME transition rate.

Table C.5 Set ME Rate Command Syntax

Command	Description
SW TRANSRATE : **ME** : *me* : *frames*	Set the trans rate on the selected ME (*me*) to frames (*frames*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *frames* — transition duration in frames
SW TRANSRATE : **O_ME** : *layer* : *frames*	Set the trans rate on the selected On-Air relative ME (*layer*) to frames (*frames*). • *layer* — layer on the Program output (1= background) • *keyer* — keyer number or name • *frames* — transition duration in frames
SW TRANSRATE : **P_ME** : *layer* : *frames*	Set the trans rate on the selected Preview relative ME (*layer*) to frames (*frames*). • *layer* — layer on the Preview output (1= background) • *keyer* — keyer number or name • *frames* — transition duration in frames

Set Key Rate

The Set Key Rate command sets the key transition rate.

Table C.6 Set Key Rate Command Syntax

Command	Description
SW KEYRATE : **ME** : *me* : **KEY** : *keyer* : *frames*	Set the key trans rate on the selected ME (*me*) to frames (*frames*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *frames* — transition duration in frames
SW KEYRATE : **O_ME** : *layer* : **KEY** : *keyer* : *frames*	Set the key trans rate on the selected On-Air relative ME (*layer*) to frames (*frames*). • *layer* — layer on the Program output (1= background) • *keyer* — keyer number or name • *frames* — transition duration in frames
SW KEYRATE : **P_ME** : *layer* : **KEY** : *keyer* : *frames*	Set the key trans rate on the selected Preview relative ME (*layer*) to frames (*frames*). • *layer* — layer on the Preview output (1= background) • *keyer* — keyer number or name • *frames* — transition duration in frames

Set Transition

The Set Transition command sets the transition on a selected ME.

Table C.7 Set Transition Command Syntax

Command	Description
SW TRANSINCL : **ME** : *me* : *B* : *key1* : *key2* : ...	Set the transition on the selected ME (*me*) and put the background bus on (*B* option) along with the listed keys. • *me* — ME number (0 = program) or name • *B* — put the background bus on when present • *key1*, *key2*... — the keys to include in the transition. Specify keys by key number (1 = *key1*, 2 = *key2*...). 8 is the maximum key number.
SW TRANSINCL : **O_ME** : *layer* : *B* : *key1* : *key2* : ...	Sets the transition on the selected On-Air relative ME (*layer*) and puts the background bus on (*B* option) along with the listed keys. • *layer* — layer on the On-Air output (1= background) • *B* — put the background bus on when present • *key1*, *key2*... — the keys to include in the transition. Specify keys by key number (1 = *key1*, 2 = *key2*...). 8 is the maximum key number.
SW TRANSINCL : **P_ME** : *layer* : *B* : *key1* : *key2* : ...	Sets the transition on the selected Preview relative ME (*layer*) and puts the background bus on (*B* option) along with the listed keys. • *layer* — layer on the Preview output (1= background) • *B* — put the background bus on when present • *key1*, *key2*... — the keys to include in the transition. Specify keys by key number (1 = *key1*, 2 = *key2*...). 8 is the maximum key number.

Set Transition Query

The Set Transition Query command displays the transition set on an ME.

Table C.8 Set Transition Query Command Syntax

Command	Description
SW TRANSINCL : **ME** : *me* : **?**	Displays the transition set on ME (*me*). • *me* — ME number (0 = program) or name
SW TRANSINCL : **O_ME** : *layer* : **?**	Displays the source on bus (*bus*) on ME (*me*). • *layer* — layer on the On-Air output
SW TRANSINCL : **P_ME** : *layer* : **?**	Displays the source on bus (*keybus*) of key (*keyer*) on ME (*me*). • *layer* — layer on the Preview output

Transition Type

The Transition Type command sets the transition type for a selected ME.

Table C.9 Transition Type Command Syntax

Command	Description
SW TRANSTYPE : **ME** : *me* : *type*	Set the transition type on the selected ME (*me*). • *me* — ME number (0 = program) or name • *type* — set to **DISS** or **WIPE**
SW TRANSTYPE : **O_ME** : *layer* : *type*	Set the transition type on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output • *type* — set to **DISS** or **WIPE**
SW TRANSTYPE : **P_ME** : *layer* : *type*	Set the transition type on the selected Preview ME (*layer*). • *layer* — layer on the Preview output • *type* — set to **DISS** or **WIPE**

Force Keys

The Force Keys command forces keys on or off air.

Table C.10 Force Keys Command Syntax

Command	Description
SW FORCE : **ME** : *me* : *meMode* : *B* : *bmode* : *K1* : *kmode* : *K2* : *kmode* : ...	Force keys on or off air on the selected ME (*me*). • *me* — ME number (0 = program) or name • *meMode* — set to **CUT**, **AUTO**, **DISS** or **WIPE** • *B* — put the background bus on when present • *bmode* — set to **NONE** or **TOGGLE** • *K1*, *K2*... — *kmode* for associated keys • *kmode* — set to **None**, **Toggle**, **On**, or **Off**
SW FORCE : **O_ME** : *layer* : *meMode* : *B* : *mode* : *K1* : *kmode* : *K2* : *kmode* : ...	Force keys on or off air on the selected On-Air relative ME (*layer*). • *layer* — layer on the On-Air output • *meMode* — set to **CUT**, **AUTO**, **DISS** or **WIPE** • *B* — put the background bus on when present • *bmode* — set to **NONE** or **TOGGLE** • *K1*, *K2*... — *kmode* for associated keys • *kmode* — set to **None**, **Toggle**, **On**, or **Off**
SW FORCE : **P_ME** : *layer* : *meMode* : *B* : *mode* : *K1* : *kmode* : *K2* : *kmode* : ...	Force keys on or off air on the selected Preview ME (*layer*). • *layer* — layer on the Preview output • *meMode* — set to **CUT**, **AUTO**, **DISS** or **WIPE** • *B* — put the background bus on when present • *bmode* — set to **NONE** or **TOGGLE** • *K1*, *K2*... — *kmode* for associated keys • *kmode* — set to **None**, **Toggle**, **On**, or **Off**

Force All Keys

The Force All Keys command forces all keys on or off air.

Table C.11 Force All Keys Command Syntax

Command	Description
SW FORCE : **ME** : *me* : *meMode* : *B* : *bmode* : **ALLKEYS** : *kmode*	Force all keys on or off air on the selected ME (*me*). • *me* — ME number (0 = program) or name • *meMode* — set to **CUT**, **AUTO**, **DISS** or **WIPE** • *B* — put the background bus on when present • *bmode* — set to **NONE** or **TOGGLE** • *kmode* — set to **None**, **Toggle**, **On**, or **Off**
SW FORCE : **O_ME** : *layer* : *meMode* : *B* : *bmode* : **ALLKEYS** : *kmode*	Force all keys on or off air on the selected On-Air relative ME (*layer*). • *layer* — layer on the On-Air output • *meMode* — set to **CUT**, **AUTO**, **DISS** or **WIPE** • *B* — put the background bus on when present • *bmode* — set to **NONE** or **TOGGLE** • *kmode* — set to **None**, **Toggle**, **On**, or **Off**
SW FORCE : **P_ME** : *layer* : *meMode* : *B* : *mode* : **ALLKEYS** : *kmode*	Force keys on or off air on the selected Preview ME (*layer*). • *layer* — layer on the Preview output • *meMode* — set to **CUT**, **AUTO**, **DISS** or **WIPE** • *B* — put the background bus on when present • *bmode* — set to **NONE** or **TOGGLE** • *kmode* — set to **None**, **Toggle**, **On**, or **Off**

Latch Keys

The Latch Keys command sets the Latch property for the Background and Keys on a selected ME.

Table C.12 Latch Keys Command Syntax

Command	Description
SW LATCH : **ME** : *me* : *B* : *bmode* : *K1* : *kmode* : *K2* : *kmode* : ...	Set Latch property for the the Background and Keys on the selected ME (*me*). • *me* — ME number (0 = program) or name • *B* — Background is either present or not • *bmode* — set to **IGNORE**, **LATCH**, or **UNLATCH** • *K1*, *K2*... — *kmode* for associated keys • *kmode* — set to **IGNORE**, **LATCH**, **UNLATCH**, **On**, or **Off**

ME Cut

The ME Cut command performs a cut transition on a selected ME.

Table C.13 ME Cut Command Syntax

Command	Description
SW MECUT : **ME** : *me*	Perform a cut transition on the selected ME (*me*). • *me* — ME number (0 = program) or name
SW MECUT : **O_ME** : *layer*	Perform a cut transition on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output
SW MECUT : **P_ME** : *layer*	Perform a cut transition on the selected Preview ME (*layer*). • *layer* — layer on the Preview output

ME Auto

The ME Auto command performs an auto transition on a selected ME.

Table C.14 ME Auto Command Syntax

Command	Description
SW MEAUTO : **ME** : *me*	Perform an auto transition on the selected ME (*me*). • *me* — ME number (0 = program) or name
SW MEAUTO : **O_ME** : *layer*	Perform an auto transition on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output
SW MEAUTO : **P_ME** : *layer*	Perform an auto transition on the selected Preview ME (*layer*). • *layer* — layer on the Preview output

Key Cut

The Key Cut command performs a cut transition of a keyer on a selected ME.

Table C.15 Key Cut Command Syntax

Command	Description
SW KEYCUT : **ME** : *me* : **KEY** : *keyer* : *mode*	Perform a cut transition of a keyer on the selected ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *mode* — set to **On**, **Off**, or **Toggle**
SW KEYCUT : **O_ME** : *layer* : **KEY** : *keyer* : *mode*	Perform a cut transition of a keyer on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output • *keyer* — keyer number or name • *mode* — set to **On**, **Off**, or **Toggle**
SW KEYCUT : **P_ME** : *layer* : **KEY** : *keyer* : *mode*	Perform a cut transition of a keyer on the selected Preview ME (*layer*). • *layer* — layer on the Preview output • *keyer* — keyer number or name • *mode* — set to **On**, **Off**, or **Toggle**
SW KEYCUT : **ME** : *me* : **?**	Display the key setting (On or Off) for all the keys on the selected ME (*me*). • *me* — ME number (0 = program) or name

Table C.15 Key Cut Command Syntax

Command	Description
SW KEYCUT : **O_ME** : *layer* : **?**	Display the key setting (On or Off) for all the keys on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output
SW KEYCUT : **P_ME** : *layer* : **?**	Display the key setting (On or Off) for all the keys on the selected Preview ME (*layer*). • *layer* — layer on the Preview output
SW KEYCUT : **ME** : *me* : **KEY** : *keyer* : **?**	Display the key setting (On or Off) for the key (*keyer*) on the selected ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name
SW KEYCUT : **O_ME** : *layer* : **KEY** : *keyer* : **?**	Display the key setting (On or Off) for the key (*keyer*) on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output • *keyer* — keyer number or name
SW KEYCUT : **P_ME** : *layer* : **KEY** : *keyer* : **?**	Display the key setting (On or Off) for the key (*keyer*) on the selected Preview ME (*layer*). • *layer* — layer on the Preview output • *keyer* — keyer number or name

Key Auto Trans

The Key Auto Trans command performs an auto transition of a keyer on a selected ME.

Table C.16 Key Auto Trans Command Syntax

Command	Description
SW KEYAUTO : **ME** : *me* : **KEY** : *keyer* : *mode*	Perform an auto transition of a keyer on the selected ME (*me*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name • *mode* — set to **On**, **Off**, or **Toggle**
SW KEYAUTO : **O_ME** : *layer* : **KEY** : *keyer* : *mode*	Perform an auto transition of a keyer on the selected On-Air ME (*layer*). • *layer* — layer on the On-Air output • *keyer* — keyer number or name • *mode* — set to **On**, **Off**, or **Toggle**
SW KEYAUTO : **P_ME** : *layer* : **KEY** : *keyer* : *mode*	Perform an auto transition of a keyer on the selected Preview ME (*layer*). • *layer* — layer on the Preview output • *keyer* — keyer number or name • *mode* — set to **On**, **Off**, or **Toggle**

Key State Copy

The Key State Copy command copies the key state of a selected keyer to another keyer.

Table C.17 Key State Copy Command Syntax

Command	Description
SW KEYCOPY : **S_ME** : *me* : **S_KEY** : *keyer* : **D_ME** : *me* : **D_KEY** : *keyer*	Perform a state copy of the source ME (*me*) and keyer (*keyer*) to the destination keyer (*keyer*). • *me* — ME number (0 = program) or name • *keyer* — keyer number or name
SW KEYCOPY : **S_O_ME** : *layer* : **S_KEY** : *keyer* : **D_O_ME** : *layer* : **D_KEY** : *keyer*	Perform a state copy of the source ME (*me*) and keyer (*keyer*) to the destination keyer (*keyer*). • *layer* — ME number (0 = program) or name • *keyer* — keyer number or name
SW KEYCOPY : **S_P_ME** : *layer* : **S_KEY** : *keyer* : **D_P_ME** : *layer* : **D_KEY** : *keyer*	Perform a state copy of the source ME (*me*) and keyer (*keyer*) to the destination keyer (*keyer*). • *layer* — ME number (0 = program) or name • *keyer* — keyer number or name

Resync ME

The Resync MEcommand resynchronizes a selected ME.

Table C.18 Resync ME Command Syntax

Command	Description
SW RESYNC : **ME** : *me*	Resync an ME (*me*). • *me* — ME number (0 = program) or name
SW RESYNC : **O_ME** : *layer*	Resync an ME that is layer (*layer*). • *layer* — layer on the Program output (1= background)
SW RESYNC : **P_ME** : *layer*	Resync an ME that is layer (*layer*). • *layer* — layer on the Preview output (1= background)

Clear Virtual Keys

The Clear Virtual Keys command clears the virtual keys (sets to black) on a selected ME, on-air layer, or preview layer and cut the virtual keys on.

Table C.19 Clear Virtual Keys Command Syntax

Command	Description
SW CVKEYS : **ME** : *me*	Clear the virtual keys (sets to black) on an ME (*me*) and cut the virtual keys on. • *me* — ME number (0 = program) or name
SW CVKEYS : **O_ME** : *layer*	Clears the virtual keys (sets to black) on the on-air layer (*layer*) and cuts the virtual keys on. • *layer* — layer on the Program output (1= background)
SW CVKEYS : **P_ME** : *layer*	Clears the virtual keys (sets to black) on the preview (*layer*) and cuts the virtual keys on. • *layer* — layer on the Preview output (1= background)

Caprica Custom Control

The Caprica Custom Control command runs a selected Caprica Custom Control.

Table C.20 Caprica Custom Control Command Syntax

Command	Description
CC : *bank* : *bttn*	Runs a Caprica Custom Control (*bank* : *bttn*). • *bank* — bank number of the Caprica Custom Control to run • *bttn* — button number within the bank of the Caprica Custom Control to run

Acuity CC

The Acuity CC command starts a selected Custom Control on a Ross Video Acuity switcher.

Table C.21 Acuity CC Command Syntax

Command	Description
SW ACUITYCC : **PORT** : *port name* : *bank* : *bttn*	Starts an Acuity CC (*bank* : *bttn*) on a port (*port name*). • *port name* — must be **SW1** or **Switcher 1** • *bank* — bank number of the CC to start • *bttn* — button number within the bank of the CC to start

Acuity Stop CC

The Acuity Stop CC command stops a selected Custom Control on a Ross Video Acuity switcher.

Table C.22 Acuity Stop CC Command Syntax

Command	Description
SW ACUITYSTOPCC : **PORT** : *port name* : **CC** : *bank* : *bttn*	Stops an Acuity CC (*bank* : *bttn*) on a port (*port name*). • *port name* — must be **SW1** or **Switcher 1** • *bank* — bank number of the CC to stop • *bttn* — button number within the bank of the CC to stop
SW ACUITYSTOPCC : **PORT** : *port name* : **ALL** .	Stops all Acuity CCs on a port (*port name*). • *port name* — must be **SW1** or **Switcher 1**

Carbonite Macro

The Carbonite Macro command recalls a selected Custom Control on a Ross Video Carbonite switcher.

Table C.23 Carbonite Macro Command Syntax

Command	Description
SW CARBCC : **GLOBAL** : *bank* : *bttn*	Recalls a Custom Control on a Carbonite switcher. • *bank* — bank number of the CC to start • *bttn* — button number within the bank of the CC to start
SW CARBCC : **O_L1** : **PP** : *bank* : *bttn* : **ME1** : *bank* : *bttn* : **ME2** : *bank* : *bttn*	Recalls a Custom Control on a Carbonite switcher depending on which ME is layer 1 On-Air. • *bank* — bank number of the CC to start • *bttn* — button number within the bank of the CC to start
SW CARBCC : **O_L2** : **PP** : *bank* : *bttn* : **ME1** : *bank* : *bttn* : **ME2** : *bank* : *bttn*	Recalls a Custom Control on a Carbonite switcher depending on which ME is layer 2 On-Air. • *bank* — bank number of the CC to start • *bttn* — button number within the bank of the CC to start
SW CARBCC : **P_L1** : **PP** : *bank* : *bttn* : **ME1** : *bank* : *bttn* : **ME2** : *bank* : *bttn*	Recalls a Custom Control on a Carbonite switcher depending on which ME is layer 1 Preview. • *bank* — bank number of the CC to start • *bttn* — button number within the bank of the CC to start
SW CARBCC : **P_L2** : **PP** : *bank* : *bttn* : **ME1** : *bank* : *bttn* : **ME2** : *bank* : *bttn*	Recalls a Custom Control on a Carbonite switcher depending on which ME is layer 2 Preview. • *bank* — bank number of the CC to start • *bttn* — button number within the bank of the CC to start

Carbonite Media Wiper

The Carbonite Media Wiper command performs a media wipe on a Ross Video Carbonite switcher.

Table C.24 Carbonite Media Wipe Command Syntax

Command	Description
SW CARBMW : **ME** : *me* : *media*	Perform a media wipe on a Carbonite switcher for the selected ME (*me*) and media (media). • *me* — ME number (0 = program) or name • *media* — set to **M1** or **M2**
SW CARBMW : **O_ME** : *layer* : *media*	Perform a media wipe of the media (*media*) on a Carbonite switcher ME (*me*) that is layer (*layer*). • *layer* — layer on the On-Air output (1 is the background layer) • *media* — set to **M1** or **M2**
SW CARBMW : **P_ME** : *layer* : *media*	Perform a media wipe of the media (*media*) on a Carbonite switcher ME (*me*) that is layer (*layer*). • *layer* — layer on the On-Air output (1 is the background layer) • *media* — set to **M1** or **M2**

Kayenne Macro

The Kayenne Macro command recalls a selected macro on a Kayenne Grass Valley switcher

Table C.25 Kayenne Macro Command Syntax

Command	Description
SW KAYENNEMACRO : **GLOBAL** : *macro*	Recalls a macro on a Kayenne switcher. • *macro* — the macro number to recall
SW KAYENNEMACRO : **O_L1** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kayenne switcher depending on which ME is layer 1 On-Air. • *macro* — the macro number to recall
SW KAYENNEMACRO : **O_L2** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kayenne switcher depending on which ME is layer 2 On-Air. • *macro* — the macro number to recall
SW KAYENNEMACRO : **P_L1** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kayenne switcher depending on which ME is layer 1 Preview. • *macro* — the macro number to recall
SW KAYENNEMACRO : **P_L2** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kayenne switcher depending on which ME is layer 2 Preview. • *macro* — the macro number to recall

Kayenne EMEM

The Kayenne EMEM command recalls a selected extended memory (EMEM) on a Grass Valley Kayenne switcher.

Table C.26 Kayenne EMEM Command Syntax

Command	Description
SW KAYENNEEMEM : *emem*	Recalls an extended memory (EMEM) on a Kayenne switcher. • *emem* — the EMEM number to recall

Sony Macro

The Sony Macro command recalls a selected macro on a Sony switcher.

Table C.27 Sony Macro Command Syntax

Command	Description
SW SONYMACRO : **GLOBAL** : *macro*	Recalls a macro on a Sony switcher. • *macro* — the macro number to recall
SW SONYMACRO : **O_L1** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Sony switcher depending on which ME is layer 1 On-Air. • *macro* — the macro number to recall
SW SONYMACRO : **O_L2** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Sony switcher depending on which ME is layer 2 On-Air. • *macro* — the macro number to recall
SW SONYMACRO : **P_L1** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Sony switcher depending on which ME is layer 1 Preview. • *macro* — the macro number to recall

Table C.27 Sony Macro Command Syntax

Command	Description
SW SONYMACRO : **P_L2** : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Sony switcher depending on which ME is layer 2 Preview. • *macro* — the macro number to recall

Sony Resume

The Sony Macro command resume running a stopped macro on a Sony switcher.

Table C.28 Sony Resume Command Syntax

Command	Description
SW SONYRESUME	Resume running a stopped macro on a Sony switcher.

SAMSW Macro

The SAMSW Macro command starts a selected macro on a Snell Kula or Kahuna switcher.

Table C.29 SAMSW Macro Command Syntax

Command	Description
SW SAMCC : **GLOBAL** : *project* : *macro*	Recalls a macro on a Kula switcher. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **O_L1** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 1 On-Air. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **O_L2** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 2 On-Air. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **O_L3** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 3 On-Air. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **O_L4** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 4 On-Air. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **P_L1** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 1 Preview. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **P_L2** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 2 Preview. • *project* — the project number of the macro to recall • *macro* — the macro number to recall

Table C.29 SAMSW Macro Command Syntax

Command	Description
SW SAMCC : **P_L3** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 3 Preview. • *project* — the project number of the macro to recall • *macro* — the macro number to recall
SW SAMCC : **P_L4** : *project* : **PP** : *macro* : **ME1** : *macro* : **ME2** : *macro* : **ME3** : *macro*	Recalls a macro on a Kula switcher depending on which ME is layer 4 Preview. • *project* — the project number of the macro to recall • *macro* — the macro number to recall

Video Server Commands

This section lists the RossTalk commands that you can use to control Caprica video servers from an external device.

Cue Clip

The Cue Clip command cues a selected video clip on a video server.

Table C.30 Cue Clip Command Syntax

Command	Description
VTR CUE: **IN** : *input* : **CLIP** : *clipname*	Cue a selected clip (*clipname*) for the video server on input (*input*). • *input* — source number in the Input list • *clipname* — name of the clip to cue
VTR CUE: **SRC** : *src* : **CLIP** : *clipname*	Cue a selected clip (*clipname*) for the video server on source (*src).* • *src* — source name • *clipname* — name of the clip to cue
VTR CUE: **XPT** : *xpt* : **CLIP** : *clipname*	Cue a selected clip (*clipname*) for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list • *input* — source number in the Input list

Fast Forward

The Fast Forward command fast forwards the current video clip on a video server.

Table C.31 Fast Forward Command Syntax

Command	Description
VTR FFW: **IN** : *input*	Fast forward the video server on input (*input*). • *input* — source number in the Input list
VTR FFW: **SRC** : *src*	Fast forward the video server on source (*src).* • *src* — source name
VTR FFW: **XPT** : *xpt*	Fast forward the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Frame Advance

The Frame Advance command frame advances the current video clip on a video server.

Table C.32 Frame Advance Command Syntax

Command	Description
VTR FAD: **IN** : *input*	Frame advance the video server on input (*input*). • *input* — source number in the Input list
VTR FAD: **SRC** : *src*	Frame advance the video server on source (*src)*. • *src* — source name
VTR FAD: **XPT** : *xpt*	Frame advance the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Frame Reverse

The Frame Reverse command frame reverses the current video clip on a video server.

Table C.33 Frame Reverse Command Syntax

Command	Description
VTR FRV: **IN** : *input*	Frame reverse the video server on input (*input*). • *input* — source number in the Input list
VTR FRV: **SRC** : *src*	Frame reverse the video server on source (*src)*. • *src* — source name
VTR FRV: **XPT** : *xpt*	Frame reverse the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Play

The Play command plays the current video clip on a video server.

Table C.34 Play Command Syntax

Command	Description
VTR PLAY: **IN** : *input*	Play the current video clip from the video server on input (*input*). • *input* — source number in the Input list
VTR PLAY: **SRC** : *src*	Play the current video clip from the video server on source (*src)*. • *src* — source name
VTR PLAY: **XPT** : *xpt*	Play the current video clip from the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Play No Status

The Play No Status command plays the current video clip on a video server without requesting clip status.

Table C.35 Play No Status Command Syntax

Command	Description
VTR PLAYNS: **IN** : *input*	Play the current video clip from the video server on input (*input*) without requesting clip status. • *input* — source number in the Input list
VTR PLAYNS: **SRC** : *src*	Play the current video clip from the video server on source (*src)* without requesting clip status. • *src* — source name
VTR PLAYNS: **XPT** : *xpt*	Play the current video clip from the video server on crosspoint (*xpt*) without requesting clip status. • *xpt* — source number in the Crosspoint list

Recue Clip

The Recue Clip command recues the current video clip on a video server.

Table C.36 Recue Clip Command Syntax

Command	Description
VTR RECUE: **IN** : *input*	Recue the current video clip for the video server on input (*input*). • *input* — source number in the Input list
VTR RECUE: **SRC** : *src*	Recue the current video clip for the video server on source (*src)*. • *src* — source name
VTR RECUE: **XPT** : *xpt*	Recue the current video clip for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Rewind

The Rewind command rewinds the current video clip on a video server.

Table C.37 Rewind Command Syntax

Command	Description
VTR REW: **IN** : *input*	Rewind the current video clip for the video server on input (*input*). • *input* — source number in the Input list
VTR REW: **SRC** : *src*	Rewind the current video clip for the video server on source (*src)*. • *src* — source name
VTR REW: **XPT** : *xpt*	Rewind the current video clip for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Stop

The Stop command stops all video clip actions (playing, fast forwarding, rewinding, ...,) on a video server.

Table C.38 Stop Command Syntax

Command	Description
VTR STOP: **IN** : *input*	Stop all video clip actions for the video server on input (*input*). • *input* — source number in the Input list
VTR STOP: **SRC** : *src*	Stop all video clip actions for the video server on source (*src)*. • *src* — source name
VTR STOP: **XPT** : *xpt*	Stop all video clip actions for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Standby

The Standby command controls STANDBY mode for a video server.

Table C.39 Standby Command Syntax

Command	Description
VTR STANDBY: **IN** : *input* : *mode*	Control STANDBY mode for the video server on input (*input*). • *input* — source number in the Input list • *mode* — set to **On** or **Off**
VTR STANDBY: **SRC** : *src* : *mode*	Control STANDBY mode for the video server on source (*src)*. • *src* — source name • *mode* — set to **On** or **Off**
VTR STANDBY: **XPT** : *xpt* : *mode*	Control STANDBY mode for the video server on input (*input*). • *xpt* — source number in the Crosspoint list • *mode* — set to **On** or **Off**

Pause

The Pause command pauses the current video clip on a video server.

Table C.40 Pause Command Syntax

Command	Description
VTR PAUSE: **IN** : *input*	Pause the current video clip for the video server on input (*input*). • *input* — source number in the Input list
VTR PAUSE: **SRC** : *src*	Pause the current video clip for the video server on source (*src)*. • *src* is the name of the source
VTR PAUSE: **XPT** : *xpt*	Pause the current video clip for the video server on crosspoint (*xpt*). • *xpt* is the number of the source in the crosspoint list

Loop

The Loop command controls LOOP mode for a video server.

Table C.41 Loop Command Syntax

Command	Description
VTR LOOP: **IN** : *input* : *mode*	Control LOOP mode for the video server on input (*input*). • *input* — source number in the Input list • *mode* — set to **On** or **Off**
VTR LOOP: **SRC** : *src* : *mode*	Control LOOP mode for the video server on source (*src)*. • *src* — source name • *mode* — set to **On** or **Off**
VTR LOOP: **XPT** : *xpt* : *mode*	Control LOOP mode for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list • *mode* — set to **On** or **Off**

Preroll

The Preroll command prerolls the current video clip on a video server.

Table C.42 Preroll Command Syntax

Command	Description
VTR PREROLL: **IN** : *input*	Preroll the current video clip for the video server on input (*input*). • *input* — source number in the Input list
VTR PREROLL: **SRC** : *src*	Preroll the current video clip for the video server on source (*src)*. • *src* — source name
VTR PREROLL: **XPT** : *xpt*	Preroll the current video clip for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list

Record Clip

The Record Clip command records a video clip on a video server.

Table C.43 Record Clip Command Syntax

Command	Description
VTR RECORD: **IN** : *input* : **CLIP** : *clipname*	Cause the server on input (*input*) to record a clip. • *input* — source number in the Input list • *clipname* — name of the clip to record
VTR RECORD: **SRC** : *src* : **CLIP** : *clipname*	Cause the video server on source (*src)* to record a clip. • *src* — source name • *clipname* — name of the clip to record
VTR RECORD: **XPT** : *xpt* : **CLIP** : *clipname*	Cause the video server on crosspoint (*xpt*) to record a clip. • *xpt* — source number in the Crosspoint list • *clipname* — name of the clip to record

Mode

The Mode command sets the entry mode on a video server.

Table C.44 Mode Command Syntax

Command	Description
VTR ENTRYMODE: **IN** : *input* : *On/Off*	Set the Mode for the video server on input (*input*). • *input* — source number in the Input list • *On/Off* — set the Mode **On** or **Off**
VTR ENTRYMODE: **SRC** : *src* : *On/Off*	Set the Mode for the video server on source (*src)*. • *src* — source name • *On/Off* — set the Mode **On** or **Off**
VTR ENTRYMODE: **XPT** : *xpt* : *On/Off*	Set the Mode for the video server on crosspoint (*xpt*). • *xpt* — source number in the Crosspoint list • *On/Off* — set the Mode **On** or **Off**

Fast Forward Bus

The Fas t Forward Bus command fast forwards the clip on a video server. This command only works with video servers.

Table C.45 Fast Forward Bus Command Syntax

Command	Description
VTR FFWB : **ME** : *me* : **BUS** : *bus*	Fast forward the video server on the selected ME and bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FFWB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Fast forward the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR FFWB : **O_ME** : *layer* : **BUS** : *bus*	Fast forward the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FFWB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Fast forward the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR FFWB : **P_ME** : *layer* : **BUS** : *bus*	Fast forward the video server on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name

Table C.45 Fast Forward Bus Command Syntax

Command	Description
VTR FFWB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Fast forward the video server on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR FFWB : **AUX** : *auxbus*	Fast forward the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Frame Advance Bus

The Frame Advance Bus command advances the clip on a video server one frame. This command only works with video servers.

Table C.46 Frame Advance Bus Command Syntax

Command	Description
VTR FADB : **ME** : *me* : **BUS** : *bus*	Advance the video server one frame on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FADB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Advance the video server one frame on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR FADB : **O_ME** : *layer* : **BUS** : *bus*	Advance the video server one frame on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FADB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Advance the video server one frame on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR FADB : **P_ME** : *layer* : **BUS** : *bus*	Advance the video server one frame on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FADB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Advance the video server one frame on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR FADB : **AUX** : *auxbus*	Advance the video server one frame on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Frame Reverse Bus

The Frame Reverse Bus command reverses the clip on a video server one frame. This command only works with video servers.

Table C.47 Frame Reverse Bus Command Syntax

Command	Description
VTR FRVB : **ME** : *me* : **BUS** : *bus*	Reverse the video server one frame on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FRVB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Reverse the video server one frame on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR FRVB : **O_ME** : *layer* : **BUS** : *bus*	Reverse the video server one frame on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FRVB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Reverse the video server one frame on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR FRVB : **P_ME** : *layer* : **BUS** : *bus*	Reverse the video server one frame on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR FRVB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Reverse the video server one frame on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR FRVB : **AUX** : *auxbus*	Reverse the video server one frame on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Recue Clip Bus

The Recue Clip Bus command recues the last cued clip on a video server. This command only works with video servers.

Table C.48 Recue Clip Bus Command Syntax

Command	Description
VTR RECUEB : **ME** : *me* : **BUS** : *bus*	Recue the last cued clip on the video server on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR RECUEB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Recue the last cued clip on the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR RECUEB : **O_ME** : *layer* : **BUS** : *bus*	Recue the last cued clip on the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR RECUEB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Recue the last cued clip on the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR RECUEB : **P_ME** : *layer* : **BUS** : *bus*	Recue the last cued clip on the video server on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR RECUEB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Recue the last cued clip on the video server on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR RECUEB : **AUX** : *auxbus*	Recue the last cued clip on the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Rewind Bus

The Rewind Bus command rewinds the clip on a video server. This command only works with video servers.

Table C.49 Rewind Bus Command Syntax

Command	Description
VTR REWB : **ME** : *me* : **BUS** : *bus*	Rewind the video server on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR REWB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Rewind the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR REWB : **O_ME** : *layer* : **BUS** : *bus*	Rewind the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR REWB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Rewind the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR REWB : **P_ME** : *layer* : **BUS** : *bus*	Rewind the video server on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR REWB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Rewind the video server on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR REWB : **AUX** : *auxbus*	Rewind the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Stop Bus

The Stop Bus command stops playing the clip on a video server. This command only works with video servers.

Table C.50 Stop Bus Command Syntax

Command	Description
VTR STOPB : **ME** : *me* : **BUS** : *bus*	Stop the video server on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR STOPB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Stop the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR STOPB : **O_ME** : *layer* : **BUS** : *bus*	Stop the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR STOPB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Stop the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR STOPB : **P_ME** : *layer* : **BUS** : *bus*	Stop the video server on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR STOPB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Stop the video server on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR STOPB : **AUX** : *auxbus*	Stop the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Play Bus

The Play Bus command plays the clip on a video server. This command only works with video servers.

Table C.51 Play Bus Command Syntax

Command	Description
VTR PLAYB : **ME** : *me* : **BUS** : *bus*	Play the clip on the video server on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Play the clip on the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR PLAYB : **O_ME** : *layer* : **BUS** : *bus*	Play the clip on the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Play the clip on the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYB : **P_ME** : *layer* : **BUS** : *bus*	Play the clip on the video server on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Play the clip on the video server on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYB : **AUX** : *auxbus*	Play the clip on the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Play No Status Bus

The Play No Status Bus command plays the clip on a video server. This command only works with video servers.

Table C.52 Play No Status Bus Command Syntax

Command	Description
VTR PLAYNSB : **ME** : *me* : **BUS** : *bus*	Play the clip on the video server on the selected ME bus without retrieving status. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYNSB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Play the clip on the video server on the selected Key bus without retrieving status. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR PLAYNSB : **O_ME** : *layer* : **BUS** : *bus*	Play the clip on the video server on the selected On-Air Relative ME bus without retrieving status. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYNSB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Play the clip on the video server on the selected On-Air Relative Key bus without retrieving status. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYNSB : **P_ME** : *layer* : **BUS** : *bus*	Play the clip on the video server on the selected Preview Relative ME bus without retrieving status. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYNSB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Play the clip on the video server on the selected Preview Relative Key bus without retrieving status. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR PLAYNSB : **AUX** : *auxbus*	Play the clip on the video server on the selected Aux bus without retrieving status. • *auxbus* — the aux bus number or aux bus name

Pause Bus

The Pause Bus command pauses the clip on a video server. This command only works with video servers.

Table C.53 Pause Bus Command Syntax

Command	Description
VTR PAUSEB : **ME** : *me* : **BUS** : *bus*	Pause the video server on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PAUSEB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus*	Pause the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name
VTR PAUSEB : **O_ME** : *layer* : **BUS** : *bus*	Pause the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PAUSEB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Pause the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR PAUSEB : **P_ME** : *layer* : **BUS** : *bus*	Pause the video server on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name
VTR PAUSEB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus*	Pause the video server on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name
VTR PAUSEB : **AUX** : *auxbus*	Play the clip on the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name

Cue Clip Bus

The Cue Clip Bus command cues the clip on a video server. This command only works with video servers.

Table C.54 Cue Clip Bus Command Syntax

Command	Description
VTR CUEB : **ME** : *me* : **BUS** : *bus* : **Clip** : *clipname*	Cue the clip on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name • *clipname* — name of the clip to cue
VTR CUEB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus* : **Clip** : *clipname*	Cue the clip on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name • *clipname* — name of the clip to cue
VTR CUEB : **O_ME** : *layer* : **BUS** : *bus* : **Clip** : *clipname*	Cue the clip on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name • *clipname* — name of the clip to cue
VTR CUEB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **Clip** : *clipname*	Cue the clip on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name • *clipname* — name of the clip to cue
VTR CUEB : **P_ME** : *layer* : **BUS** : *bus* : **Clip** : *clipname*	Cue the clip on the selected Preview Relative ME bus. • *layer* — the layer on the preview output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name • *clipname* — name of the clip to cue
VTR CUEB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : **Clip** : *clipname*	Cue the clip on the selected Preview Relative Key bus. • *layer* — the layer on the preview output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name • *clipname* — name of the clip to cue
VTR CUEB : **AUX** : *auxbus* : **Clip** : *clipname*	Cue the clip on the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name • *clipname* — name of the clip to cue

Loop Bus

The Loop Bus command loops the clip on a video server. This command only works with video servers.

Table C.55 Loop Bus Command Syntax

Command	Description
VTR LOOPB: **ME** : *me* : **BUS** : *bus* : *mode*	Control LOOP mode for the video server on the selected ME bus. • *me* — the ME number (0 = program ME) or ME Name • *bus* — the bus number (1 = background, 2 = preset) or bus name • *mode* — set to **On** or **Off**
VTR LOOPB : **ME** : *me* : **KEY** : *keyer* : **BUS** : *keybus* : *mode*	Control LOOP mode for the video server on the selected Key bus. • *me* — the ME number (0 = program ME) or ME Name • *keyer* — the keyer number or keyer name • *keybus* — the bus number of the key (typically channel number) or bus name • *mode* — set to **On** or **Off**
VTR LOOPB: **O_ME** : *layer* : **BUS** : *bus* : *mode*	Control LOOP mode for the video server on the selected On-Air Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name • *mode* — set to **On** or **Off**
VTR LOOPB : **O_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : *mode*	Control LOOP mode for the video server on the selected On-Air Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name • *mode* — set to **On** or **Off**
VTR LOOPB: **P_ME** : *layer* : **BUS** : *bus* : *mode*	Control LOOP mode for the video server on the selected Preview Relative ME bus. • *layer* — the layer on the program output (1 is the background layer) • *bus* — the bus number (1 = background, 2 = preset) or bus name • *mode* — set to **On** or **Off**
VTR LOOPB : **P_ME** : *layer* : **KEY** : *keyer* : **BUS** : *keybus* : *mode*	Control LOOP mode for the video server on the selected Preview Relative Key bus. • *layer* — the layer on the program output (1 is the background layer) • *keyer* — the keyer number or keyer name • *keybus* — the bus number (1 = background, 2 = preset) or bus name • *mode* — set to **On** or **Off**
VTR LOOPB : **AUX** : *auxbus* : *mode*	Control LOOP mode for the video server on the selected Aux bus. • *auxbus* — the aux bus number or aux bus name • *mode* — set to **On** or **Off**

Audio Mixer Commands

This section lists the RossTalk commands that you can use to control Caprica audio mixers from an external device.

Audio Default Level

The Audio Default Level command sets the default volume level for an audio channel.

Table C.56 Audio Default Level Command Syntax

Command	Description
AM DEFLVL : **CHAN** : *channel* : **LVL** : *level*	Set the default volume level for an audio channel. • *channel* — the audio channel number, name, or alias for which to set the default volume level • *level* — the default volume level as a percentage

Audio Default Level Query

The Audio Default Level Query command displays the default level for all or a selected audio channel.

Table C.57 Audio Default Level Query Command Syntax

Command	Description
AM DEFLVL : **CHAN** : *channel* : **?**	Display the default volume level of an individual audio channel. • *channel* — the audio channel number, name, or alias for which to report default volume level
AM LOCK : **ALL** : **?**	Display the default volume level of all the audio channels

Audio Lock

The Audio Lock command locks an audio mixer channels to stop OverDrive automation from changing the channel volume level. You can also use this command to unlock all channels to enable OverDrive automation to once again change the channel volume levels.

Table C.58 Audio Lock Command Syntax

Command	Description
AM LOCK : **CHAN** : *channel* : **ON**	Lock an audio channel. • *channel* — the audio channel number, name, or alias to lock
AM LOCK : **CHAN** : *channel* : **OFF**	Unlock an audio channel. • *channel* — the audio channel number, name, or alias to unlock

Audio Lock All

The Audio Lock All command locks all audio mixer channels to stop OverDrive automation from changing the channel volume level on all audio channels or just the active on-air audio channels. You can also use this command to unlock all channels to enable OverDrive automation to once again change the channel volume levels.

Table C.59 Audio Lock All Command Syntax

Command	Description
AM LOCKALL : **ON**	Lock all audio mixer channels.
AM LOCKALL : **ACTIVE**	Lock all active on-air audio mixer channels.
AM LOCKALL : **OFF**	Unlock all audio mixer channels.

Audio Lock Query

The Audio Lock Query command displays the channel lock status of all or a selected audio channel.

Table C.60 Audio Lock Query Command Syntax

Command	Description
AM LOCK : **CHAN** : *channel* : **?**	Display the channel lock status of an individual audio channel. • *channel* — the audio channel number, name, or alias for which to report channel lock status
AM LOCK : **ALL** : **?**	Display the channel lock status of all the audio channels.

Program Channel Level

The Program Channel Level command overrides the set volume level for an audio channel on the Program bus over a set duration..

Table C.61 Program Channel Level Command Syntax

Command	Description
AM PGMLVL : CHAN : *channel* **: LVL :** *level* **: Sec :** *seconds* **: FRAMES :** *frames*	Override the volume level for an audio channel on the Program bus over a set duration. • *channel* — the audio channel number, name, or alias for which to override the volume level • *level* — the volume level as a percentage to set the channel volume level • *seconds* (optional) — the length of time in seconds that you want to change the volume level on the selected audio channel • *frames* (optional) — the length of time in frames that you want to change the volume level on the selected audio channel
AM PGMLVL : **CHAN :** *channel* **: ?**	Display the level for an audio channel on the Program bus. • *channel* — the audio channel number, name, or alias for which to display the volume level

Preview Channel Level

The Preview Channel Level command overrides the set volume level for an audio channel on the Preview bus over a set duration..

Table C.62 Preview Channel Level Command Syntax

Command	Description
AM PSTLVL : **CHAN** : *channel* **: LVL** : *level*	Override the volume level for an audio channel on the Preview bus. • *channel* — the audio channel number, name, or alias for which to override the volume level • *level* — the volume level as a percentage to set the channel volume level
AM PSTLVL : **CHAN** : *channel* **: ?**	Display the level for an audio channel on the Preview bus. • *channel* — the audio channel number, name, or alias for which to display the volume level
AM PSTLVL : **CHAN** : **ALL** : **?**	Display the levels for all audio channels on the Preview bus.

Audio Mute

The Audio Mute command mutes an audio mixer channel. You can also use this command to unmute a muted audio mixer channel.

Table C.63 Audio Mute Command Syntax

Command	Description
AM MUTE : **CHAN** : *channel* : **MUTE** : **On**	Mute an audio channel. • *channel* — the audio channel number, name, or alias to lock
AM MUTE : **CHAN** : *channel* : **MUTE** : **Off**	Unmute an audio channel. • *channel* — the audio channel number, name, or alias to unlock
AM MUTE : **ALL** : **MUTE** : **On**	Mute all audio channels.
AM MUTE : **ALL** : **MUTE** : **Off**	Unmute all audio channels.
AM MUTE : **ALL** : **?**	Display the mute status of all audio channels.

Audio Channel

The Audio Channel command opens or closes a channel on an audio bus.

Table C.64 Audio Channel Command Syntax

Command	Description
AM CHANNEL : **BUS** : *bus* : **CHAN** : *channel* : **Open**	Open a channel on an audio bus. • *bus* — the audio bus name (ONAIR or PREVIEW) • *channel* — the audio channel number, name, or alias to open
AM CHANNEL : **BUS** : *bus* : **CHAN** : *channel* : **Close**	Close a channel on an audio bus. • *bus* — the audio bus name (ONAIR or PREVIEW) • *channel* — the audio channel number, name, or alias to close
AM CHANNEL : **BUS** : *bus* : **CHAN** : *channel* : **Close**	Close a channel on an audio bus. • *bus* — the audio bus name (ONAIR or PREVIEW) • *channel* — the audio channel number, name, or alias to close
AM CHANNEL : **BUS** : *bus* : **CHAN** : *channel* : **?**	Display the open/close status of a channel on an audio bus. • *bus* — the audio bus name (ONAIR or PREVIEW) • *channel* — the audio channel number, name, or alias to query
AM CHANNEL : **BUS** : *bus* : **ALL** : **?**	Display the open/close status of all channels on an audio bus. • *bus* — the audio bus name (ONAIR or PREVIEW)

Audio Channel All

The Audio Channel All command closes all the channels on an audio bus.

Table C.65 Audio Channel All Command Syntax

Command	Description
AM CHANNELALL* : **BUS** : *bus* : ***CLOSE_**	Close all the channels on an audio bus. • *bus* — the audio bus name (ONAIR or PREVIEW)

Audio Follow Video

The Audio Follow Video command turns AFV mode on or off.

Table C.66 Audio Follow Video Command Syntax

Command	Description
AM AVF : *afv*	Set the AFV mode. • *afv* — the new AFV mode (ON, OFF, or HOLD)
AM AVF : **?**	Display the current AFV status.

Audio Rest to AFV Mode

The Audio Rest to AFV Mode command resets audio overrides on a bus the AFVmode.

Table C.67 Audio Reset to AFV Mode Command Syntax

Command	Description
AM RESETAVF : **BUS** : *bus*	Reset audio overrides on a bus the AFVmode. • *bus* — the audio bus name (ONAIR or PREVIEW)

Audio Memory Recally

The Audio Memory Recall command recalls audio mixer presets by preset name, snapshot name, or scene number.

Table C.68 Audio Memory Recall Command Syntax

Command	Description
AM MEM : **NAME** : *name*	Recall an audio mixer preset by preset or snapshot name. • *name* — audio mixer preset or snapshot name
AM MEM : **SCENE** : *scene*	Recall an audio mixer preset by scene number. • *name* — audio mixer scene number
AM MEM : **?**	Display the last preset name, snapshot name, or scene number recalled by the audio mixer.

Camera Commands

This section lists the RossTalk commands that you can use to control Caprica robotic cameras from an external device.

Set Show

The Set Show command sets or clears the show for a connected robotic camera.

Table C.69 Set Show Command Syntax

Command	Description
CAM SETSHOW : **SET** : **IN** : *input* : *show*	Set an input to the show. • *input* — the input number, 0 based • *show* — the name of the show
CAM SETSHOW : **SET** : **SRC** : *src* : *show*	Set a source to the show. • *src* — the source name or number • *show* — the name of the show
CAM SETSHOW : **SET** : **XPT** : *xpt* : *show*	Set a crosspoint to the show. • *xpt* — the crosspoint number • *show* — the name of the show
CAM SETSHOW : **SET** : **ACTIVE** : *show*	Set the show on the active camera sources (where a show was previously set). • *show* — the name of the show
CAM SETSHOW : **SET** : **ALL** : *show*	Set the show on all camera sources. • *show* — the name of the show
CAM SETSHOW : **CLEAR** : **IN** : *input* : *show*	Clear the show from an input. • *input* — the input number, 0 based. • *show* — the name of the show
CAM SETSHOW : **CLEAR** : **SRC** : *src* : *show*	Clear the show from a source. • *src* — the source name or number • *show* — the name of the show
CAM SETSHOW : **CLEAR** : **XPT** : *xpt* : *show*	Clear the show from a crosspoint. • *xpt* — the crosspoint number • *show* — the name of the show
CAM SETSHOW : **CLEAR** : **ACTIVE** : *show*	Clear the show from the active camera sources (where a show was previously set). • *show* — the name of the show
CAM SETSHOW : **CLEAR** : **ALL** : *show*	Clear the show from all camera sources. • *show* — the name of the show

Set Show Query

The Set Source Query command displays the show for a connected robotic camera.

Table C.70 Set Show Query Command Syntax

Command	Description
CAM SETSHOW : **IN** : *input* : **?**	Display the show on an input. • *input* — the input number, 0 based
CAM SETSHOW : **SRC** : *src* : **?**	Display the show on a source. • *src* — the source name or number
CAM SETSHOW : **XPT** : *xpt* : **?**	Display the show on a crosspoint. • *xpt* — the crosspoint number
CAM SETSHOW : **ACTIVE** : **?**	Display the show on the active camera sources.
CAM SETSHOW : **ALL** : **?**	Display the show on all camera sources.

Recall

The Recall command recalls shots for a connected robotic camera.

Table C.71 Recall Command Syntax

Command	Description
CAM RECALL : IN : *input* **: ID :** *shot_id* **: DUR :** *seconds*	Recall a shot by shot ID on an input. • *input* — the input number, 0 based • *shot_id* — the shot ID number • *seconds* — the recall duration in seconds (optional) • *seconds* (optional) — the length of time in seconds for the recall
CAM RECALL : SRC : *src* **: ID :** *shot_id* **: DUR :** *seconds*	Recall a shot by shot ID on a soruce. • *src* — the source name or number • *shot_id* — the shot ID number • *seconds* — the recall duration in seconds (optional) • *seconds* (optional) — the length of time in seconds for the recall
CAM RECALL : XPT : *xpt* **: ID :** *shot_id* **: DUR :** *seconds*	Recall a shot by shot ID on a crosspoint. • *xpt* — the crosspoint number • *shot_id* — the shot ID number • *seconds* (optional) — the length of time in seconds for the recall
CAM RECALL : IN : *input* **: SHOW: show_name : Name :** *shot_name* **: DUR :** *seconds*	Recall a shot by shot name on an input. • *input* — the input number, 0 based • *show* (optional) — the name of the show • *shot_name* — the shot name • *seconds* (optional) — the length of time in seconds for the recall
CAM RECALL : SRC : *src* **: SHOW: show_name : Name :** *shot_name* **: DUR :** *seconds*	Recall a shot by shot name on a source. • *src* — the source name or number • *show* (optional) — the name of the show • *shot_name* — the shot name • *seconds* (optional) — the length of time in seconds for the recall

Table C.71 Recall Command Syntax

Command	Description
CAM RECALL : XPT : *xpt* **: SHOW: show_name : Name :** *shot_name* **: DUR :** *seconds*	Recall a shot by shot name on a crosspoint. • *xpt* — the crosspoint number • *show* (optional) — the name of the show • *shot_name* — the shot name • *seconds* (optional) — the length of time in seconds for the recall

Recall Query

The Recall Query command displays the last recalled shot for a connected robotic camera.

Table C.72 Recall Query Command Syntax

Command	Description
CAM RECALL : **IN** : *input* : **?**	Display the last recalled shot on an input. • *input* — the input number, 0 based
CAM RECALL : **SRC** : *src* : **?**	Display the last recalled shot on a source. • *src* — the source name or number
CAM RECALL : **XPT** : *xpt* : **?**	Display the last recalled shot on a crosspoint. • *xpt* — the crosspoint number
CAM RECALL : **ALL** : **?**	Display the last recalled shot on all camera sources.

Character Generator Commands

This section lists the RossTalk commands that you can use to control Caprica character generators from an external device.

Set Folder

The Set Folder command sets the directory on the character generators to a folder for the input.

Table C.73 Set Folder Command Syntax

Command	Description
CG SETFOLDER : **INPUT** : *input* : **FOLDER** : *folder*	Set the directory on the character generators to a folder for the input. • *input* — the input number to load the folder • *folder* — the folder name

Load To Program

The Load To Program command loads a file to PGM on an input. When a layer is present, the file loads to the layer on the PGM input.

Table C.74 Load To Program Command Syntax

Command	Description
CG LOADPGM : **INPUT** : *input* : **FILE** : *file* [: **LAYER** : *layer*]	Load a file to PGM on an input. • *input* — the input number to load the file • *file* — the name of the file to load • *layer* — the layer in the file to load, if present

Load To Preview

The Load To Preview command loads a file to PV on an input. When a layer is present, the file loads to the layer on the PV input.

Table C.75 Load To Preview Command Syntax

Command	Description
CG LOADPV : **INPUT** : *input* : **FILE** : *file* [: **LAYER** : *layer*]	Load a file to PV on an input. • *input* — the input number to load the file • *file* — the name of the file to load • *layer* — the layer in the file to load, if present

Take

The Take command takes the content cued on an input to air.

Table C.76 Take Command Syntax

Command	Description
CG TAKE : **INPUT** : *input*	Take the content cued on an input to air. • *input* — the input number to take

Clear

The Clear command clears the content loaded on an input, including layers when present.

Table C.77 Clear Command Syntax

Command	Description
CG CLEAR : **INPUT** : *input* [: **LAYER** : *layer*]	Clear the content loaded on an input. • *input* — the input number to clear • *layer* — the layer to clear, if present

Play

The Play command plays the content loaded on an input.

Table C.78 Play Command Syntax

Command	Description
CG PLAY : **INPUT** : *input*	Play the content loaded on an input. • *input* — the input number to play

Resume

The Resume command resumes playout of the content loaded on an input, including layers when present.

Table C.79 Resume Command Syntax

Command	Description
CG RESUME : **INPUT** : *input* [: **LAYER** : *layer*]	Resume playout of the content loaded on an input. • *input* — the input number to resume playing out • *layer* — the layer to resume playing out, if present

Macro

The Macro command loads a macro to an input.

Table C.80 Macro Command Syntax

Command	Description
CG SETMACRO : **INPUT** : *input* : **MACRO** : *macro*	Load a macro to an input. • *input* — the input number to which to load the macro • *macro* — the name of the macro to load

GPI

The GPI command sets a GPI on an input.

Table C.81 GPI Command Syntax

Command	Description
CG GPI : **INPUT** : *input* : **GPI** : *gpi*	Set a GPI on an input. • *input* — the input number on which to set the GPI • *gpi* — the name of the GPI to set

Sequence Take

The Sequence Take command runs the current shot in the sequence on an input.

Table C.82 Sequence Take Command Syntax

Command	Description
CG SEQTAKE : **INPUT** : *input*	Run the current shot in the sequence on an input. • *input* — the input number on which to run the current sequence shot

Sequence Previous

The Sequence Previous command runs the previous shot in the sequence on an input.

Table C.83 Sequence Previous Command Syntax

Command	Description
CG SEQPREV : **INPUT** : *input*	Run the previous shot in the sequence on an input. • *input* — the input number on which to run the previous sequence shot

QuickTurn Commands

This section lists the RossTalk commands that you can use to control the QuickTurn media workflow from an external device.

Cue Clip

The Cue Clip command cues the Record operation for a QuickTurn device.

Table C.84 Cue Clip Command Syntax

Command	Description
QT CUE : **RECORD** : **NAME** : *clipname* : **PORT** : *port* : **CHAN** : *chan*	Cue the Record operation for a QuickTurn device on a channel on a port. • *clipname* — the file name for the recorded clip • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to cue the Clip operation
QT CUE : **RECORD** : **NAME** : *clipname* : **PORT** : *port* : **CHAN** : **ALL**	Cue the Record operation for a QuickTurn device on all channels on a port. • *clipname* — the file name for the recorded clip • *port* — the port name or number set for the QuickTurn device
QT CUE : **RECORD** : **NAME** : *clipname* : **PORT** : **ALL**	Cue the Record operation for a QuickTurn device on all channels on all ports. • *clipname* — the file name for the recorded clip

Cue Stop

The Cue Stop command cues the Stop operation for a QuickTurn device.

Table C.85 Cue Stop Command Syntax

Command	Description
QT CUE : **STOP** : **PORT** : *port* : **CHAN** : *chan*	Cue the Stop operation for a QuickTurn device on a channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to cue the Stop operation
QT CUE : **STOP** : **PORT** : *port* : **CHAN** : **ALL**	Cue the Stop operation for a QuickTurn device on all channels on a port. • *port* — the port name or number set for the QuickTurn device
QT CUE : **STOP** : **PORT** : **ALL**	Cue the Stop operation for a QuickTurn device on all channels on all ports.

Cue Pause

The Cue Pause command cues the Pause operation for a QuickTurn device.

Table C.86 Cue Pause Command Syntax

Command	Description
QT CUE : **PAUSE** : **PORT** : *port* : **CHAN** : *chan*	Cue the Pause operation for a QuickTurn device on a channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to cue the Pause operation
QT CUE : **PAUSE** : **PORT** : *port* : **CHAN** : **ALL**	Cue the Pause operation for a QuickTurn device on all channels on a port. • *port* — the port name or number set for the QuickTurn device
QT CUE : **PAUSE** : **PORT** : **ALL**	Cue the Pause operation for a QuickTurn device on all channels on all ports.

Cue Resume

The Cue Resume command cues the Resume operation for a QuickTurn device.

Table C.87 Cue Resume Command Syntax

Command	Description
QT CUE : **RESUME** : **PORT** : *port* : **CHAN** : *chan*	Cue the Resume operation for a QuickTurn device on a channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to cue the Resume operation
QT CUE : **RESUME** : **PORT** : *port* : **CHAN** : **ALL**	Cue the Resume operation for a QuickTurn device on all channels on a port. • *port* — the port name or number set for the QuickTurn device
QT CUE : **RESUME** : **PORT** : **ALL**	Cue the Resume operation for a QuickTurn device on all channels on all ports.

Cue Split

The Cue Split command cues the Split operation for a QuickTurn device.

Table C.88 Cue Split Command Syntax

Command	Description
QT CUE : **SPLIT** : **PORT** : *port* : **CHAN** : *chan*	Cue the Split operation for a QuickTurn device on a channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to cue the Split operation
QT CUE : **SPLIT** : **PORT** : *port* : **CHAN** : **ALL**	Cue the Split operation for a QuickTurn device on all channels on a port. • *port* — the port name or number set for the QuickTurn device
QT CUE : **SPLIT** : **PORT** : **ALL**	Cue the Split operation for a QuickTurn device on all channels on all ports.

Cue Metadata

The Cue Metadata command cues metadata strings for a QuickTurn device.

Table C.89 Cue Metadata Command Syntax

Command	Description
QT CUE : **METADATA** : **PORT** : *port* : **CHAN** : *chan* : **META** : *metadata*	Cue a metadata string for a QuickTurn device on a channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to cue metadata • *metadata* — the metadata to cue in string form
QT CUE : **METADATA** : **PORT** : *port* : **CHAN** : **ALL** : **META** : *metadata*	Cue a metadata string for a QuickTurn device on all channels on a port. • *port* — the port name or number set for the QuickTurn device • *metadata* — the metadata to cue in string form
QT CUE : **METADATA** : **PORT** : **ALL** : **META** : *metadata*	Cue a metadata string for a QuickTurn device on all channels on all ports. • *metadata* — the metadata to cue in string form

Cue Clip Query

The Cue Clip Query command gets the cued status of a QuickTurn device.

Table C.90 Cue Clip Query Command Syntax

Command	Description
QT CUE : **PORT** : *port* : **CHAN** : *chan*	Get the cued status for a QuickTurn device channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT CUE : **PORT** : *port* : **CHAN** : **ALL**	Get the cued status for all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT CUE : **PORT** : **ALL**	Get the cued status for all QuickTurn device channels on all ports.

Run Cued

The Run Cued command runs the cued operations for a QuickTurn device.

Table C.91 Run Cued Command Syntax

Command	Description
QT RUN : **PORT** : *port* : **CHAN** : *chan*	Run the cued operations for a QuickTurn device channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT RUN : **PORT** : *port* : **CHAN** : **ALL**	Run the cued operations for all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT RUN : **PORT** : **ALL**	Run the cued operations for all QuickTurn device channels on all ports.

Run Clip Query

The Run Clip Query command gets the current status of a QuickTurn device.

Table C.92 Run Clip Query Command Syntax

Command	Description
QT RUN : **PORT** : *port* : **CHAN** : *chan*	Get the current status for a QuickTurn device channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT RUN : **PORT** : *port* : **CHAN** : **ALL**	Get the current status for all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT RUN : **PORT** : **ALL**	Get the current status for all QuickTurn device channels on all ports.

Clear Cued

The Clear Cued command clears the cued operations from a QuickTurn device.

Table C.93 Clear Cued Command Syntax

Command	Description
QT CLEAR : **PORT** : *port* : **CHAN** : *chan*	Clear the cued operations from a QuickTurn device channel on a port • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT CLEAR : **PORT** : *port* : **CHAN** : **ALL**	Clear the cued operations from all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT CLEAR : **PORT** : **ALL**	Clear the cued operations from all QuickTurn device channels on all ports

Stop Immediate

The Stop Immediate command immediately stops the operations running on a QuickTurn device.

Table C.94 Stop Command Syntax

Command	Description
QT STOP : **PORT** : *port* : **CHAN** : *chan*	Stop the operations running on a QuickTurn device channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT STOP : **PORT** : *port* : **CHAN** : **ALL**	Stop the operations running on all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT STOP : **PORT** : **ALL**	Stop the operations running on all QuickTurn device channels on all ports.

Pause Immediate

The Pause Immediate command immediately pauses the operations running on a QuickTurn device.

Table C.95 Pause Immediate Command Syntax

Command	Description
QT PAUSE : **PORT** : *port* : **CHAN** : *chan*	Pause the operations running on a QuickTurn device channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT PAUSE : **PORT** : *port* : **CHAN** : **ALL**	Pause the operations running on all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT PAUSE : **PORT** : **ALL**	Pause the operations running on all QuickTurn device channels on all ports.

Resume Immediate

The Resume Immediate command immediately resumes the paused operations on a QuickTurn device.

Table C.96 Resume Immediate Command Syntax

Command	Description
QT PAUSE : **PORT** : *port* : **CHAN** : *chan*	Resume the paused operations on a QuickTurn device channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to get cued status
QT PAUSE : **PORT** : *port* : **CHAN** : **ALL**	Resume the paused operations on all QuickTurn device channels on a port. • *port* — the port name or number set for the QuickTurn device
QT PAUSE : **PORT** : **ALL**	Resume the paused operations on all QuickTurn device channels on all ports.

Metadata Immediate

The Metadata Immediate command immediately sends metadata to a QuickTurn device.

Table C.97 Metadata Immediate Command Syntax

Command	Description
QT : **METADATA** : **PORT** : *port* : **CHAN** : *chan* : **META** : *metadata*	Send a metadata string to a QuickTurn device on a channel on a port. • *port* — the port name or number set for the QuickTurn device • *chan* — the QuickTurn device channel number to send metadata • *metadata* — the metadata to send in string form
QT : **METADATA** : **PORT** : *port* : **CHAN** : **ALL** : **META** : *metadata*	Send a metadata string to a QuickTurn device on all channels on a port. • *port* — the port name or number set for the QuickTurn device • *metadata* — the metadata to send in string form
QT : **METADATA** : **PORT** : **ALL** : **META** : *metadata*	Send a metadata string to a QuickTurn device on all channels on all ports. • *metadata* — the metadata to send in string form

Set Source URL

The Set Source URL command immediately sets the source URL for the cue and record commands.

Table C.98 Set Source URL Command Syntax

Command	Description

QT : **SETSOURCEURL** : **PORT** : *port* : **CHAN** : *chan* : **URL** : *url*	Send a metadata string to a QuickTurn device on a channel on a port.
	• *port* — the port name or number set for the QuickTurn device
	• *chan* — the QuickTurn device channel number to send metadata
	• *url* — the source url for the Media IO Server to record content
	When using the DashBoard custom panel, the *url* must contain three escape characters (\) before the colon (:) in the url. For example:
	`http\\\://<source_url>`
	When using the Stream Deck plugin, the *url* must contain a single escape characters (\) before the colon (:) in the url. For example:
	`http\://<source_url>`

Router Commands

This section lists the RossTalk commands that you can use to control Caprica routers from an external device.

Take

The Take command connects a router source to a router destination on the set take crosspoint level on the selected router port.

Table C.99 Take Command Syntax

Command	Description
RTR TAKE : **PORT** : *port* : **SRC** : *src* : **DST** : *dst* : **LVL** : *level*	Cue the Record operation for a QuickTurn device on a channel on a port. • *port* — the port name or number set for the Router device • *src* — the router source • *dst* — the router destination • *level* — the take crosspoint level

Read in Names

The Read in Names command reads names from a router.

Table C.100 Read in Names Command Syntax

Command	Description
RTR NAMES : **PORT** : *port*	Read names from a router. • *port* — the port name or number set for the Router device

Fire Salvo

The Fire Salvo command fires a salvo for a router.

Table C.101 Fire Salvo Command Syntax

Command	Description
RTR SALVO : **PORT** : *port* : **NUM** : *num*	Fire a salvo for a router. • *port* — the port name or number set for the Router device • *num* — the number of the salvo to fire

Special Commands

This section lists the Special RossTalk commands that you can use to control external devices.

Custom Devices

The Custom Devices command executes a custom device action.

Table C.102 Reset Command Syntax

Command	Description
SP API : **PORT** : *port* : **INDEX** : *ndx*	Execute a custom device index action for a port. • *port* — port name • *ndx* — action index, 1-based
SP API : **PORT** : *port* : **NAME** : *name*	Execute a custom device named action for a port. • *port* — port name • *name* — action name, first found match

Reset

The Reset command resets a device on a port.

Table C.103 Reset Command Syntax

Command	Description
SP RESET : **PORT** : *port*	Reset the device on a port. • *port* — port name

Select

The Select command selects the device on a port.

Table C.104 Select Command Syntax

Command	Description
SP DEVICE : **SELECT** : *config* : **PORT** : *port*	Select the device on a port. • *config* — either primary or alternate • *port* — port name

Swap

The Swap command swaps the device on a port.

Table C.105 Swap Command Syntax

Command	Description
SP DEVICE : **SWAP** : **PORT** : *port*	Swap the device on a port. • *port* — port name

Enable

The Enable command enables the device on a port.

Table C.106 Enable Command Syntax

Command	Description
SP DEVICE : **ENABLE** : **PORT** : *port*	Enable the device on a port. • *port* — port name

Disable

The Disable command disables the device on a port.

Table C.107 Disable Command Syntax

Command	Description
SP DEVICE : **DISABLE** : **PORT** : *port*	Disable the device on a port. • *port* — port name

Switcherless

The Switcherless command controls Switcherless mode.

Table C.108 Switcherless Command Syntax

Command	Description
SP SWITCHERLESS : **ON**	• Enters Switcherless mode. This command only runs when available.
SP SWITCHERLESS : **OFF**	• Leaves Switcherless mode. This command only runs when available.

Popup

The Popup command displays a popup message in OverDrive or adds a message to the Caprica logs.

Table C.109 Popup Command Syntax

Command	Description
SP POPUP : *message*	Display a popup message in the OverDrive user interface. • *message* — text to display in the popup
SP POPUP : **LOGONLY** : *message*	Add a message to the Caprica logs. • *message* — text to add to the Caprica logs

Version

The Version command displays version and build number for the product. Caprica is the only product that currently supports the Version command.

Table C.110 Version Command Syntax

Command	Description
VER : *product*	Display the version and build of a product. • *product* — product name (Caprica)

Legacy Acuity and Vision Switcher RossTalk Commands

The Caprica RossTalk-IN device supports a number of legacy Acuity and Vision switcher RossTalk commands. The exact commands and how the switcher reacts to the commands are outlined in Table C.111, "Legacy Acuity and Vision Switcher RossTalk Command Syntax," on page 58.

- When you are entering commands for Vision, you must use MLE instead of ME. Acuity™ supports both ME and MLE.
- All commands are case sensitive.

Table C.111 Legacy Acuity and Vision Switcher RossTalk Command Syntax

Command	Description
CC *b:cc*	Executes Custom Control (*cc*) on bank (*b*). For example, `CC 1:05` triggers Custom Control 5 on bank 1.
FTB	Performs a fade-to-black transition.
HELP	Prints a list of the supported commands.
KEYAUTO *ME:keyer*	Performs an auto transition of keyer number (*keyer*) on ME number (*ME*). For example, `KEYAUTO 1:4` triggers an auto transition of key 4 on ME 1.
KEYCUT *ME:keyer*	Performs a cut of keyer number (*keyer*) on ME number (*ME*). For example, `KEYCUT 2:1` triggers a cut of key 1 on ME 2.
KEYSTATE *ME:key*	Returns whether key number (*key*) on ME number (**ME**) is on (`On`) or off (`Off`). For example, `KEYSTATE 4:4` returns the on-air state of key 4 on ME 4.
LOADSET USB/HD:*setname*	Loads setup name (*setname*) from the USB drive (`USB`) or hard drive (`HD`). For example, `LOADSET HD:SETUP01` loads SETUP01 from the hard drive.
MEAUTO *ME*	Performs an auto transition on ME (*ME*). The elements included with the transition are set in the next transition area of the switcher. For example, `MEAUTO 2` triggers an auto transition on ME 2.
MECUT *ME*	Performs a cut on ME (*ME*). The elements included with the transition are set in the next transition area of the switcher. For example, `MECUT 1` triggers a cut on ME 1.

Table C.111 Legacy Acuity and Vision Switcher RossTalk Command Syntax

Command	Description
MEM *bm:ME*	Performs a memory recall of memory (*m*) on bank (*b*) on ME (*ME*). For example, `MEM 19:2:1` recalls memory 9 on bank 1 of ME 2 and ME 1.
SAVESET USB/HD:*setup:setname*	Saves the switcher setting to setup number (*setup*) with the name (*setname*) to the USB drive (`USB`) or hard drive (`HD`). For example, `SAVESET USB:5:MORNING` saves a setup called MORNING to setup 5 on the USB drive. If you don't include the setup number the switcher will try to match the setname and overwrite it.
TRANSINCL *ME:incl:incl:incl*	Sets the next transition area on ME number (*ME*), to include the background (`B`) and/or keys (*incl*). For example, `TRANSINCL 2:B:2:3` configures the next transition area for ME 2 with **BKGD**, **KEY 2**, and **KEY 3** selected. Note that any existing selections are lost.
TRANSRATE *ME:rate*	Sets the transition rate (*rate*), in frames, on ME number (*ME*). For example, `TRANSRATE 2:15` sets the ME transition rate for ME 2 to 15 frames.
TRANSTYPE *ME:type*	Sets the transition type (*type*), see below, on ME number (**ME**). For example, `TRANSTYPE 3:DISS` sets the transition type for ME 3 to DISS. • **Dissolve** — `DISS` • **Wipe** — `WIPE` • **DVE** — `DVE` • **Media Wipe** — MEDIA
XPT *vid-dest:vid-source*	Select a video source (*vid-source*) on (*vid-dest*). For example, `XPT ME:2:PGM:IN:6` selects input C6 on the Program bus of ME 2. Refer to the sections "**Video Destinations**" on page C–59 and "**Video Sources**" on page C–60 for a list of possible video destinations and sources.

Video Destinations

Possible video destinations (*vid-dest*) are as follows:

- **Aux Bus** — `AUX:aux-bank-number:aux-number`
- **Key** — `ME:ME-number:KEY:key-number`
- **Preset** — `ME:ME number:PST`
- **Program** — `ME:ME number:PGM`

Video Sources

Possible video sources (*vid-source*) are as follows:

- **Aux Bus** — `AUX:aux-bank-number:aux-number`
- **Black** — `BK` (*vid-source* only)
- **Clean** — `ME:ME number:CLN:cln-number` (Clean Feed 1-2 only) (*vid-source* only)
- **Global-Store** — `GS:channel-number`
- **Input Source** — `IN:input-number` (*vid-source* only)
- **Key** — `ME:ME-number:KEY:key-number`
- **Matte Color** — `BG:BKGD-number` (*vid-source* only)
- **ME-Store** — `MS:ME-number:channel-number`
- **MultiViewer A** — `MVA:Head A on MultiViewer number`
- **MultiViewer B** — `MVB:Head B on MultiViewer number`
- **Preview** — `ME:ME number:PV`
- **Program** — `ME:ME number:PGM`

Virtual Keyers

You can access up to 32 keyers. The range of keyers that starts after the physical number of keyers on your switcher and goes to 32 are virtual keyers. You can use virtual keyers to control devices, but you cannot use virtual keyers to output video through the switcher.

- The switcher connected to your Caprica Server cannot access virtual keyers. You can access virtual keyers from Caprica using Custom Controls and RossTalk-IN commands.
- On Caprica power-up, virtual keyers are assigned to the first crosspoint, which could be black or an input (usually the first input). Ross Video recommends recalling a memory for each ME using a Caprica Custom Control or OverDrive shot in order to initialize the virtual keyers to an appropriate state following power-up.

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“Governmental Authority” means (a) and federal, provincial, state, local, municipal, regional, territorial, aboriginal, or other government, governmental or public department, branch, ministry, or court, domestic or foreign, including any district, agency, commission, board, arbitration panel or authority and any subdivision of any of them exercising or entitled to exercise any administrative, executive, judicial, ministerial, prerogative, legislative, regulatory, or taxing authority or power of any nature; and (b) any quasi-governmental or private body exercising any regulatory, expropriation or taxing authority under or for the account of any of them, and any subdivision of any of them.

“Improvements” means all inventions, works, discoveries, improvements and innovations of or in connection with the Software, including error corrections, bug fixes, patches and other updates in Object Code form to the extent made available to Licensee in accordance with Ross Video’s release schedule.

“License Fee” means the fee(s) payable in respect of the Software in accordance with the relevant invoice(s) or other purchase documents delivered in connection with this Agreement.

“License Period” means the period of time that Licensee will have the rights granted under this Agreement, as may be specified in a Quote.

“Maintenance Fee” means the yearly maintenance fee(s) payable by Licensee to Ross Video, as determined by Ross Video, for the support, maintenance and update of the Software after the expiry of the Maintenance Period as set forth in this Agreement.

“Maintenance Period” means, in connection with the Software, the maintenance period of one (1) year from the date of shipment unless otherwise specified in the table below:

Product Category	Software Maintenance Period
Switchers	For the life of the Designated Equipment
Routers (excluding Ultrix)	For the life of the Designated Equipment
Master Control System Software (Dashboard)	For the life of the Designated Equipment
Gear	For the life of the Designated Equipment
Neilsen Encoders	For the life of the Designated Equipment
Sports Analysis	For the License Period

“Modifications” means any enhancements, changes, corrections, translations, adaptations, revisions, developments, upgrades or updates thereto; and “**Modify**” shall mean the creation of any of the foregoing.

“Object Code” means the machine readable executable form of a computer software program.

“Parties” means both Ross Video and Licensee and “Party” means either one of them as the context requires.

“Person” will be broadly interpreted and includes (a) a natural person, whether acting in his or her own capacity, or in his or her capacity as executor, administrator, estate trustee, trustee or personal or legal representative; (b) a corporation or a company of any kind, a partnership of any kind, a sole proprietorship, a trust, a joint venture, as association, an unincorporated association, an unincorporated syndicate, an unincorporated organization or any other association, organization or entity of any kind; and (c) a Governmental Authority.

“Primary System” means the Designated Equipment upon which the Software is installed and executed to deliver it’s intended functionality.

"Quote" means the document provided by Ross Video to Licensee detailing the Ross Video products contemplated for purchase, the corresponding fees and any License Period that may apply to the Software.

"Software" shall mean the version of the Object Code sold and delivered to Licensee by Ross Video concurrently with delivery of this Agreement and any subsequent error corrections, updates, Modifications or Improvements provided to Licensee by Ross Video pursuant to this Agreement, but specifically excluding any features or plug-ins that may be purchased by you directly from third parties as upgrades or enhancements to the Software.

"Source Code" means the human readable form of a computer software program, all tools and documentation necessary for a reasonably computer programmer to understand, maintain and Modify the Software.

"Third Party Software" means those portions of the Software, if any, which are owned or controlled by third parties and licensed to Ross Video pursuant to certain license agreements or arrangements with such third parties, including the NewTek NDI™ software (http://NDI.NewTek.com/)

"Use" means to execute, run, display, store, copy, make, use, sell, merge, network, Modify, translate, host, outsource, or integrate with Licensee's products or other third party software;

3. **LICENSE.** Subject to the terms and conditions of this Agreement, upon payment of the applicable License Fee by Licensee, Ross Video hereby grants to Licensee a non-transferable and non-exclusive right to Use the Software and Documentation solely for the internal use of Licensee (the "**License**"), during the License Period. In the event that a License Period is not identified on the Quote, such License Period shall be deemed to be perpetual, subject to Section 7 D of this Agreement. The Software shall only be used in connection with or installed on the Designated Equipment and, where applicable, shall only be used on the Primary System, provided such Primary System is operating properly. If the Primary System is not operating properly for any reason, the Software may be used on the designated Backup System for that Primary System until such time that the Primary System begins operating properly. The Software and Documentation are provided to Licensee for the exclusive use by Licensee's organization for its ordinary business purposes and shall not be used by any third party for any purposes. Licensee may make copies of the Software as required for internal backup and archival purposes. To the extent permitted hereunder, Licensee may distribute copies of the Software and/or Documentation to members of its organization, provided (a) this Agreement is included with each copy, (b) any member of its organization who uses the Software and/or Documentation accepts and agrees to be bound by the terms of this Agreement and by any other license agreements or other agreement incorporated by reference into this Agreement, and (c) Licensee has paid any applicable additional License Fees in respect of copying and redistributing of the Software. To the extent Licensee is permitted to make copies of the Software under this Agreement, Licensee agrees to reproduce and include on any copy made or portion merged into another work, all Ross Video proprietary notices, including any notices with respect to copyrights, trademarks and this License. With the exception of copying the Software for backup or archival purposes, Licensee agrees to keep a record of the number and location of all such copies and will make such record available at Ross Video's request. The Software may include mechanisms to limit or inhibit copying.

4. **LICENSE RESTRICTIONS.** Except as otherwise provided in section 2 above, Licensee shall not: (1) copy any Software or Documentation, or part thereof, which is provided to Licensee by Ross Video pursuant to this Agreement, in Object Code form, Source Code form or other human or machine readable form, including written or printed documents, without the prior written consent of Ross Video; (2) in any way market, distribute, export, translate, transmit, merge, Modify, transfer, adapt, loan, rent, lease, assign, share, sub-license, sell, make available for download on any website or make available to another Person, the Software and/or Documentation, in whole or in part, provided that Licensee shall not be prohibited from renting or leasing the Software if Ross Video has consented, in writing, to Licensee engaging in such activities in respect of the Software; (3) reverse engineer, decompile or disassemble the Software or electronically transfer it into another computer language; or (4) otherwise Use the Software or Documentation in a manner that is inconsistent with the License granted hereunder or that will result in a breach of this Agreement. Licensee agrees to take all reasonable precautions to prevent third parties from using the Software and/or Documentation in any way that would constitute a breach of this Agreement, including such precautions Licensee would ordinarily take to protect its own proprietary software, hardware or information.

5. **DELIVERY.** Ross Video shall deliver to Licensee one (1) master copy of the Software in compiled binary (executable) form suitable for reproduction in electronic files only and Ross Video shall deliver to Licensee a minimum of one copy of the Documentation.

6. **IMPROVEMENTS.** Licensee may from time to time request Ross Video to incorporate certain Improvements into the Software. Ross Video may, in its sole discretion, undertake to incorporate and provide such Improvements to Licensee with or without payment of a fee to be negotiated at the time of such request. All Improvements, whether recommended and developed by Ross Video or Licensee, shall be considered the sole property of Ross Video and shall be used by Licensee pursuant to the terms of the License granted under this Agreement.

7. **LIMITED REPRESENTATIONS AND WARRANTIES.**

(A) Software Warranties

Ross Video represents and warrants that:

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.

OverDrive Software License Grant

TERMS AND CONDITIONS

The sale to you and installation of the OVERDRIVE 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 per cent (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
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Index

A

Acuity Switcher 6-1
Audio Control Client 30-5
  Audio Faders 30-5
  Custom Controls 30-7
  Faders 30-2
Audio Control Configuration Client
  Custom Controls 30-4
  Faders 30-2
  SideSlide Modules 30-3
Audio Faders
  Adjust 30-5
  Close 30-6
  Lock 30-6
  Mute 30-6
  PFL 30-6
  Toggle 30-7

C

Cables A-1
  Sony MVS-8000G Frame to DeviceMaster A-1
Caprica Cockpit
  Upgrade 3-10
Caprica Server
  Maintenance 3-14
  Peripheral Devices
    Carbonite 8-3
    Carbonite Black 9-3, 14-3
    Carbonite HyperMax 13-3
    Carbonite Ultra 10-3, 12-3
    Carbonite Ultra 60 11-3
    Graphite 15-3
    Graphite CPC 16-3
    Grass Valley Kayak 17-3
    Grass Valley Kayenne 18-3
    Snell Kahuna 20-3
    Snell Kula 19-3, 21-3, 25-3
    Sony MLS-X1 24-41
    Sony MVS-8000G 22-15
    Sony XVS-8000 23-31
  Redundant Cabling 5-11
  Update 3-11
Caprica Server Cluster
  Configuration 5-18
  Maintenance 5-19
  Network Settings
    Server 1 5-2
    Server B 5-6
  SSH
    Server 2 5-15
    Server A 5-12
Caprica User
  Password 2-8
Carbonite Black Switcher 9-1
Carbonite HyperMax Switcher 13-1
Carbonite Switcher 8-1
Carbonite Ultra 60 Switcher 11-1
Carbonite Ultra Switcher 10-1, 12-1
Configuration 26-1
Configuration Diskset
  Copy 26-33, 26-36
  Delete 26-34
  Recall 26-34
  Save 26-29
Connection Status
  Caprica Server 3-18
Custom Controls B-1
CX Director Panel
  Button Configuration 27-4
  Cabling 27-3
  Caprica Connection 27-4
  Fader Selection 27-8
  Network Configuration 27-3
  OS Update 27-9
CX Everything Panel
  Button Configuration 28-4
  Cabling 28-3
  Fader Selection 28-10
  Network Configuration 28-3
  OS Update 28-11
CX Panel
  App Update 27-9, 28-11
  Caprica Connection 28-4

D

DeviceMaster
  Sony MVS-8000G 22-16
Diagnostic Report 26-37
  Create 26-37

Documentation Conventions 1-2

F

First Login 2-8

G

Graphite All-In-One Production System15-1, 16-1
Grass Valley Kayak Switcher 17-1
Grass Valley Kayenne Switcher 18-1
Grass Valley Maverik Switcher 19-1

H

Help 1-3

I

Installation Wizard
  Caprica Server Software 3-11
  CX Panel OS or App 27-9, 28-11
  Update Caprica Server Software 3-10

L

License Installation 3-13
Limitations
  Canbonite HyperMax 13-2
  Carbonite 8-2
  Carbonite Black 9-2, 14-2
  Carbonite Ultra 10-2, 12-2
  Carbonite Ultra 60 11-2
  Graphite 15-2
  Graphite CPC 16-2
  Grass Valley Kayak 17-2
  Grass Valley Kayenne 18-2
  Snell Kahuna 20-2
  Snell Kula 19-2, 21-2, 25-2
  Sony MLS-X1 24-40
  Sony MVS-8000G 22-12
  Sony XVS-8000 23-30
Logs
  Severity Level 3-19
  Viewing 3-20

M

Mute 30-6

N

NTP 5-9
  Server 5-10

O

Operating System
  Upgrade 3-4
    VM Restore 3-8
    VM Snapshot 3-4
Operating System Update 3-5
OverDrive System Connections
  Acuity 6-2
  Carbonite 8-2
  Carbonite Black 9-2, 14-2
  Carbonite HyperMax 13-2
  Carbonite Ultra 10-2, 12-2
  Carbonite Ultra 60 11-2
  Graphite 15-2
  Graphite CPC 16-2
  Grass Valley Kayak 17-2
  Grass Valley Kayenne 18-2
  Snell Kahuna 20-2
  Snell Kula 19-2, 21-2, 25-2
  Sony MLS-X1 24-40
  Sony MVS-8000G 22-12
  Sony XVS-8000 23-30
  Ultrix Acuity 7-2

P

Pinouts A-1
  Sony MVS-8000G Frame to DeviceMaster. A-1
Ports 2-3
Power Consumption 2-3
Pre Fade Listen 30-6
Processes 2-5

R

Redundant System 5-1
RossTalk-IN Commands C-1
  Audio Mixer C-41
  Camera C-45
  Character Generator C-47
  QuickTurn C-50, C-55
  Special C-56

Switcher C-3
Switcher Legacy C-58
Video Server C-25

S

SeaLINK
Sony MVS-8000G 22-18
SideBox
Cabling 29-2
Caprica Device 29-5
Networking 29-2
SideShot
Caprica Device 29-5
Configuration 29-8
SideSlide
Caprica Device 29-5
Configuration 29-12
SideStick
Configuration 29-15
Snell Kahuna Switcher 20-1
Configuration 20-4
Snell Kula Switcher 21-1
Configuration 21-4
Software Installation 3-1
Before Installing
Windows Updates 3-2
Software Licenses D-1
Sony MLS-X1 Switcher 24-39
Macros 24-42
Sony MVS-8000G Switcher 22-11
Macros 22-21
Sony XVS-8000 Switcher 23-29
Macros 23-32
Switchers
Acuity 6-1
Carbonite 8-1
Carbonite Black 9-1
Carbonite HyperMax 13-1
Carbonite Ultra 10-1, 12-1
Carbonite Ultra 60 11-1
Graphite 15-1
Graphite CPC 16-1
Grass Valley Kayak 17-1
Grass Valley Kayenne 18-1
Grass Valley Maverik 19-1
Snell Kahuna 20-1
Snell Kula 21-1
Sony MLS-X1 24-39
Sony MVS-8000G 22-11
Sony XVS-8000 23-29
Ultrix Acuity 7-1
Ultrix Carbonite 14-1
Viz Vectar Plus 25-1
System Requirements
Hardware 2-2
Software 2-2

T

TemplateEditor
Creating a Transition Template 15-5, 16-5
Transition Templates
Creating 15-5, 16-5
New 15-5, 16-5

U

Ultrix Acuity Switcher 7-1
Ultrix Carbonite Switcher 14-1
Unpacking 2-2
Upgrade
Caprica Cockpit 3-10
Caprica Server 3-11
Operating System 3-4
User Session Timeout 26-39

V

Viz Vectar Plus Switcher 25-1

W

Windows Updates 3-2