

OverDrive

Installation and Configuration Guide

Version 24.3

ROSS

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

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

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



David Ross
CEO, Ross Video
dross@rossvideo.com

Ross Video Code of Ethics

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

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

OverDrive · Installation and Configuration 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 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 numérique 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

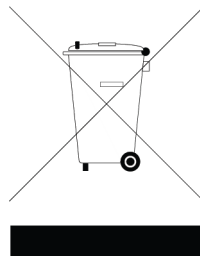
For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your OverDrive system, contact your regional sales manager.

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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Introduction

Thank you, and congratulations on choosing the OverDrive Automated Production Control System. With extensive experience in external device control united with over 30 years of production switcher design and manufacturing, Ross Video is proud to present the next evolution in production control systems. As you read through this guide, you will discover that Ross Video has again broken new ground with OverDrive.

OverDrive Overview

Ross Video developed the OverDrive system for live events, including sports, faith-based, and live entertainment productions. Using an intuitive touch screen Graphical User Interface (GUI), OverDrive allows operators direct control over production devices including the production switcher, DVEs, video and audio servers, robotic cameras, audio mixers, and more. A unique advantage of OverDrive is its ability to be used in semi or fully automated productions, while still allowing full manual access to the production equipment. Productions are cleaner, more consistent and staffing can be optimized for each production to suit requirements.

OverDrive News adds a MOS newsroom interface and an ActiveX plugin to the system. This interface provides a LiveLink™ between the NRCS and the OverDrive rundown. Any changes made in the newsroom rundown will automatically and instantly update the rundown in OverDrive, providing continuity and the ability to bring last second changes to air. Stories can be floated, dropped or changed, and OverDrive automatically reassigns all resources associated with the shot.

Warning messages are provided to indicate upcoming events that may require additional user input, such as a video server clip name, allowing the operator to correct for errors before they make it to air, always ensuring a clean production. The centralized control of production devices combined with the newsroom interface in one intuitive GUI allows the operator to focus on the quality of the on-air product, leaving management of resources to OverDrive.

About This Guide

This guide covers the installation and configuration of your OverDrive Production Control System. The following chapters are included:

1. “**Introduction**” provides a summary of important terms, conventions, and features.
2. “**Installation Notes**” provides pre-installation instructions for your OverDrive system.
3. “**IP Address Configuration**” provides instructions for configuring the IP addresses for the Windows and Linux environments on the server computer in your OverDrive system.
4. “**Software Installation**” provides procedures for installing your OverDrive software after a system re-image, or to upgrade to a newer software version.
5. “**Caprica Communication Configuration**” provides procedures for connecting Caprica supported switchers to OverDrive.
6. “**User Settings**” provides procedures for Network Administrators to properly set domain users on the OverDrive system.
7. “**Preparing Templates**” provides a brief explanation of how to map out the required templates and prepare your OverDrive system.
8. “**SideStick™**” provides procedures for connecting a SideStick™ module to your OverDrive system.

If, at any time, you have a question pertaining to the installation or operation of your OverDrive system, please contact us at the numbers listed in the section “**Contacting Technical Support**” on page 1–2. 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 OverDrive software, licenses must be obtained from Ross Video Technical Support before using OverDrive features.

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 **Index** or **Search** panes, click the **Index** or **Search** 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 using the link <https://support.rossvideo.com/> to open a support request.

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 an OverDrive system. The following topics are discussed in this chapter:

- Unpacking
- Software Compatibility
- Computer System Requirements
- Switcher Requirements
- Typical Power Consumption
- Ports
- Processes

Unpacking

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

Software Compatibility

To ensure the proper function of an OverDrive system, the version of software installed on the switcher must be compatible with the installed OverDrive software.

OverDrive 24.3 software is compatible with the following versions of associated software:

Table 2.1 OverDrive 24.3 Compatibility

Acuity	v9.2 or greater
Ultrix Acuity	v10.1b or greater
Vision	v18.1e or greater
Carbonite	v13.0.2 or greater
Carbonite Black	v13.0.6 or greater
Carbonite Ultra	v4.0 or greater
Ultrix Carbonite	v6.0.0 or greater
Graphite	v4.0 or greater
Caprica	v7.2h or greater
Grass Valley K-Frame	K-Frame v8 to v14
Inception	v7.0 or greater
Dalet	v3.5, Galaxy 4.0 or Galaxy 5.0
iNEWS 5	Server 5.3, Client 5.3.0.21
iNEWS 6	Server 6.1, Client 6.1
iNEWS 7	2021.3
iNEWS 8	2022.3.1
iNEWS 9	2024.10.4
Open Media	Contact Ross Video for Details
Octopus	v8
ENPS	v6, v7, v8.2.3, v9.0.0, v9.3
QNews	Contact Ross Video for Details
MOS	v2.8.4, v4.0
MOS NRCS Plugin	v2.8.5, v4.0

Computer System Requirements

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

Server Hardware

Ross Video recommends the following computer hardware configuration to run OverDrive Server software:

Table 2.2 Dell R350XE PowerEdge OverDrive Server Specifications

CPU	Intel® Xeon® E-2378G 2.8GHz, 16M Cache, 8C/16T, Turbo (80W), 3200MT/s
RAM	32GB (4x8GB) UDIMM, 3200MT/s, ECC
Storage	2 x 480GB SSD SATA 6Gbps 515 2.5in Hot-plug AG Drive (Hardware Raid 1)
RAID Controller	PERC H355 Raid Controller
LAN	Broadcom 5720 Dual Port 1Gb On-Board LOM
Power Supply	Dual, Hot-Plug, Redundant Power Supply (1+1), 600W
Operating System	Windows 2022 Server 64-bit
Trusted Platform Module	TPM 2.0 V3

Table 2.3 Dell 3930 OverDrive Server Specifications

CPU	Intel Core i5-8600, 6 Core, 9MB Cache, 3.1GHz, 4.3Ghz CPU
RAM	32GB (2x16GB) 2666MHz DDR4 UDIMM
Storage	512GB SATA Class 20 SSD
RAID Controller	N/A
LAN	1x1Gigabit and 1x10Gigabit ports
Power Supply	Dual Hot Plug Power Supplies 550W
Operating System	Windows Server 2016 64-bit

Client PC Hardware

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

Table 2.4 OverDrive Client Computer Hardware

Model	Dell Precision T5820 or comparable
CPU	Intel(R) Xeon(R) W-2223 CPU @ 3.60GHz 3.60 GHz
RAM	16 GB (2 x 8 GB), DDR4, 2933 MHz, ECC
Storage	2 x 500GB 2.5in SATA (7,200 rpm) in a RAID 1 Configuration
LAN	Single port Intel GiGe controller
Display	Recommended: 3440 x 1440 for 21:9 UltraWide Minimum: 1680x1050 for 16:9
Display Adapter	NVIDIA T400, 4GB GDDR6, 3 Mini DisplayPort

- ★ Client PCs must be set up on the same subnet as the OverDrive Server and MOS Gateway system.
- ★ 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.

Operating System

Ross Video recommends the following minimum computer software configuration to run OverDrive software:

Table 2.5 OverDrive Computer Software

OverDrive Server	Microsoft® Windows Server 2019 or 2022 with the latest patches. Windows Server 2022 is recommended.
OverDrive Client	Microsoft® Windows® 10 or 11 64 bit with the latest patches. Windows 11 is recommended.
Web Browser	Google Chrome with latest patches or Microsoft Internet Explorer 11 or greater with the following settings: <ul style="list-style-type: none">• Check for newer version of stored pages set to Every time I visit the web page• Display intranet sites in Compatibility View turned Off

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

Switcher Requirements

To ensure the proper function of your OverDrive system, please comply with the following requirements:

- OverDrive uses the first available floating ME on the switcher to recall memories. Each ME must be fitted with identical options to enable OverDrive to properly recall memories. This means that when creating a memory on the switcher, the exact same effect must be stored in the same register on each ME.
- Only map one crosspoint to a given ME. When more than one crosspoint is mapped to an ME, OverDrive may see a crosspoint as available when in fact it is not available.
- Any devices to be controlled from OverDrive must be connected to the switcher and checked for proper configuration before being added to Device templates.
- GPI Lines must be enabled on the switcher before configuring GPI Events in OverDrive.
- When copying a memory to a PGM ME, the EDITOR button must be toggled off. If the EDITOR button is left on, any active keys on air may be turned off.
- In a Vision MultiPanel configuration, OverDrive is only able to interface with the Master Panel. OverDrive cannot interface with the Satellite panels in a Vision MultiPanel configuration.

For More Information on...

- setting up a Vision switcher to properly work with OverDrive, refer to the specific switcher *Engineering/Installation* manual set.

Typical Power Consumption

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

Table 2.6 OverDrive Power Consumption

OverDrive Component	Power Consumption
Primary Server	700W
Backup Server	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 2.7 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
	5432	Postgres database	Internal	ProjectServer database
	3306	MariaDB client connections and sometimes SST via mysqldump	Internal	ProjectServer Redundant System database
	4567	Main Galera replication traffic	Internal	ProjectServer Redundant System database
	4568	IST (Incremental State Transfer)	Internal	ProjectServer Redundant System database
	4444	SST (State Snapshot Transfer)	Internal	ProjectServer Redundant System database
	8384	SyncThing	User	SyncThing Web Client
	22000	SyncThing Listen Port	Internal	SyncThing Listen Port
Data Grid Cluster	8770 - 8790	In-memory ports	Internal	OverDrive Server and Jetty service
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 2.8 Caprica Ports

Application	Port	Purpose	Set By	Connection
Caprica	22	SSH	Internal	Caprica Servers
	973	rsync	Internal	Caprica Servers
	5253	Dashboard OGP Interface	Internal	DashBoard Clients and Caprica Servers
	5404	Cluster / Corrosync	Internal	Caprica Servers
	5405	Cluster / Corrosync	Internal	Caprica Servers
	5406	Cluster / Corrosync	Internal	Caprica Servers
	5901	VNC	Internal	Caprica Servers
	8080	Vintage Caprica web page	Internal	Caprica Servers and external users
	9090	Caprica web page	Internal	Caprica Servers and external users
	12345	Caprica port	User	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 2.9 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**).

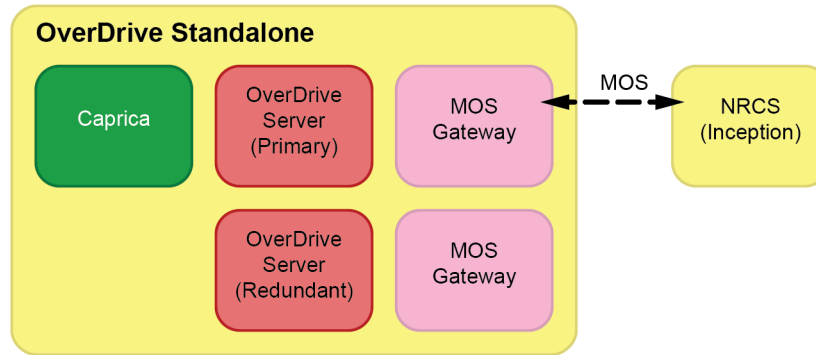


Figure 2.1 Standalone OverDrive System Configuration

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

Table 2.10 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**).

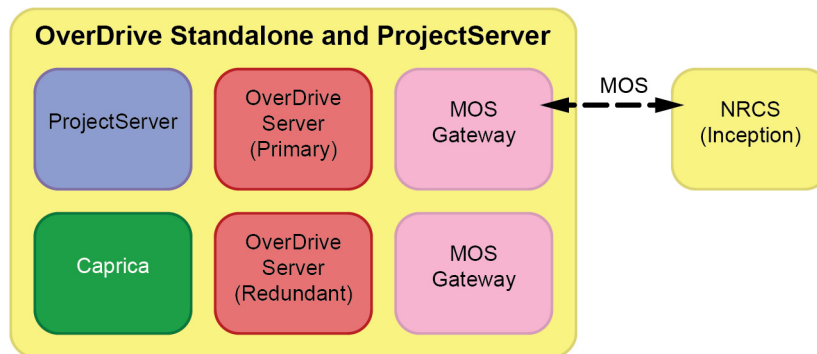


Figure 2.2 Standalone and ProjectServer OverDrive System Configuration

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 2.11 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**).

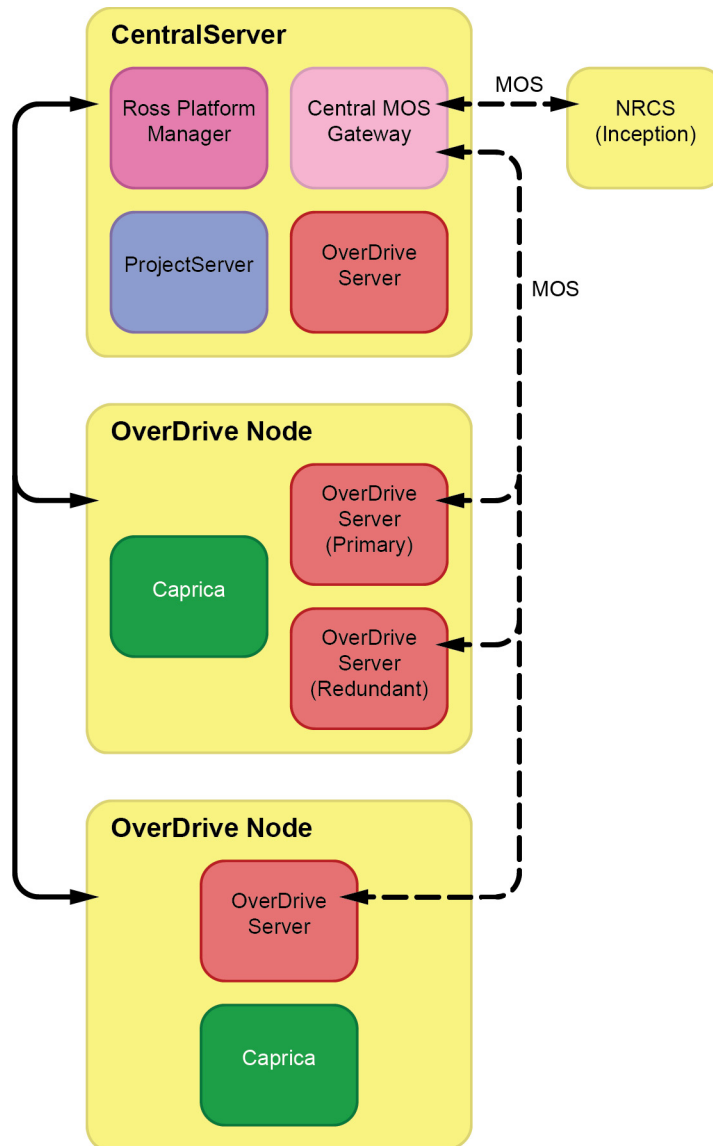


Figure 2.3 CentralServer OverDrive System Configuration

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

Table 2.12 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

IP Address Configuration

This chapter provides instructions for configuring the IP addresses in the Windows and Linux environments of the server computer in your OverDrive system. The procedures in this chapter apply to OverDrive Server SE and OverDrive Server LE server computers supplied by Ross Video. IP address configuration on customer supplied server computers may differ from the procedures in this chapter.

★ If you are in doubt about configuring the IP addresses for your OverDrive system, please contact Ross Video Technical Support for assistance.

The following topics are discussed in this chapter:

- Set the Windows Server IP Address
- Set the Caprica VM (Hyper -V) IP Address

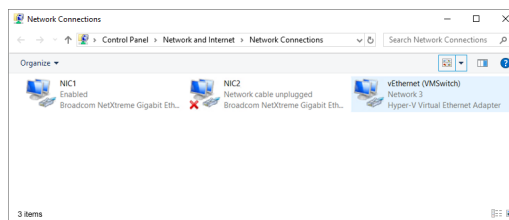
Set the Windows Server IP Address

Set the IP address for your OverDrive Server in your network.

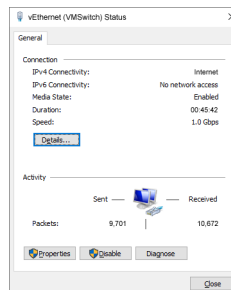
To set the Windows server IP address

1. Use the following credentials to log in to the OverDrive Server computer.
 - **User:** overdrive
 - **Password:** <your_password>
2. Open the **Control Panel**.
3. In the **Control Panel** click **Network and Internet**.
4. In the **Network and Internet** panel click **Network and Sharing Center**.
5. In the left hand list of the **Network and Sharing Center** panel click **Change adapter settings**.

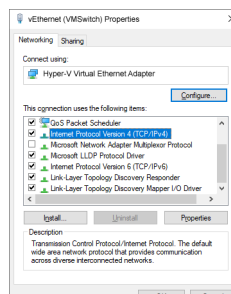
The **Network Connections** window opens.



6. Double click the **vEthernet (VMSwitch)** network.
The **vEthernet (VMSwitch) Status** dialog box opens.



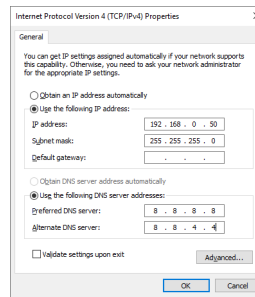
7. Click **Properties**.
The **vEthernet (VMSwitch) Properties** dialog box opens.



8. Select **Internet Protocol Version 4 (TCP/IPv4)**.

- Click **Properties**.

The **Internet Protocol Version 4 (TCP/IPv4) Properties** dialog box opens.



- Select the **Use the following IP address** option.
- In **Use the following IP address** section, enter the IP address settings for your OverDrive server.
- Select the **Use the following DNS server addresses** option.
- In **Use the following DNS server addresses** section, enter the IP addresses for your DNS server.
- Click **OK**.

The **Internet Protocol Version 4 (TCP/IPv4) Properties** dialog box closes.

- Close the **vEthernet (VMSwitch) Properties** dialog box.
- Close the remaining open dialog boxes and windows.

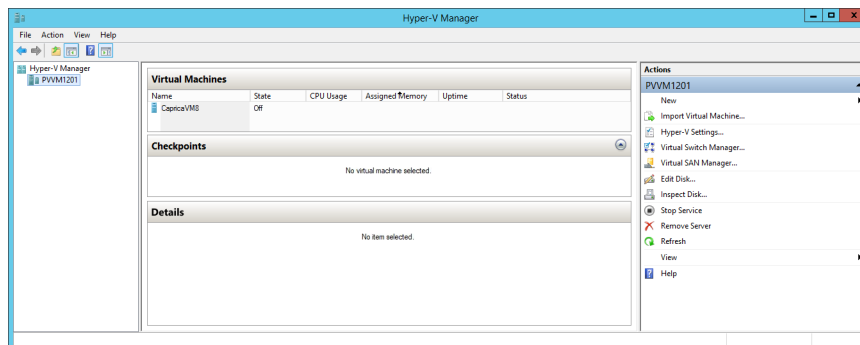
Set the Caprica VM (Hyper -V) IP Address

Set the IP address for your Caprica VM (Hyper-V) in your network.

- ★ If you are setting up a Redundant Caprica system, refer to the “**Redundant Caprica System**” chapter in the *Caprica User Guide*.

To set the Caprica VM (Hyper -V) IP address

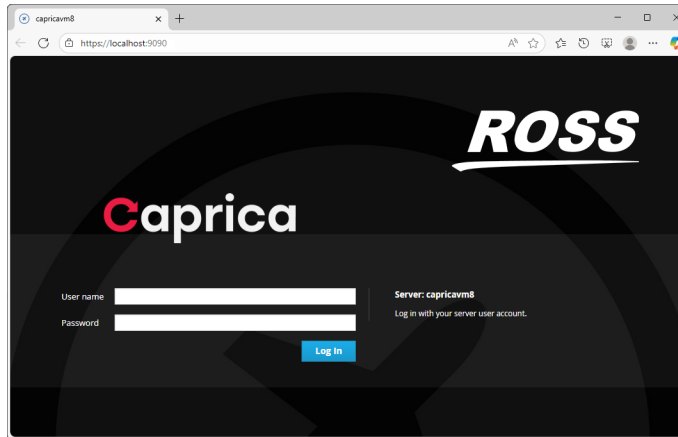
- Use the following credentials to log in to the OverDrive Server computer that hosts your Caprica Server in Hyper-V:
 - **User:** overdrive
 - **Password:** <your_password>
- Use the **Start** menu to select **Hyper-V Manager**.
The **Hyper-V Manager** window opens.



- In the **Virtual Machines** section, right-click the **CapricaVM8** virtual machine and select **Start** from the shortcut menu.

4. Wait a minute or so to let the **CapricaVM8** virtual machine finish starting up.
5. Use a web browser to open the **Caprica** web page at the following URL:
<https://localhost:9090>

The **Caprica Login** web page opens.



6. Use the following credentials to log in to the Caprica web page:
 - **User:** caprica
 - **Password:** <your_password>

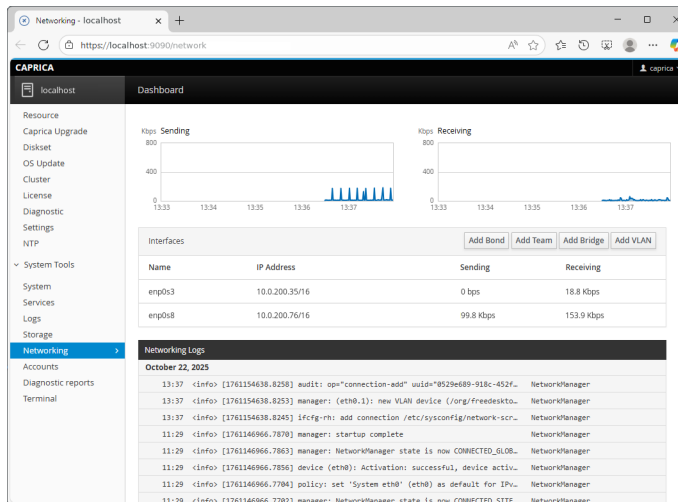
7. Click **Log In**.

The **Caprica** web page opens.

8. In the tree view, expand the **System Tools** node.

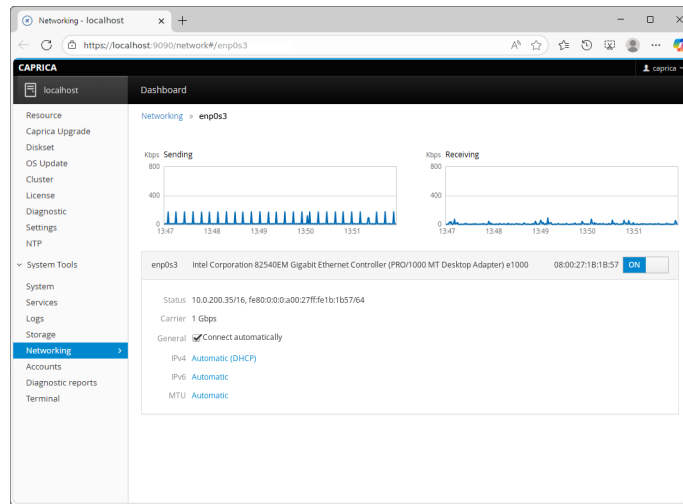
9. Click **Networking**.

The **Networking** web page opens.



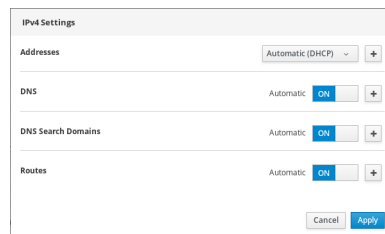
10. In the **Interface** section, click the first **NIC** in the list of available network interfaces.

A panel opens for the selected NIC.



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

The **IPv4 Settings** dialog box opens.



12. Use the **Addresses** list to select **Manual**.

13. In the **Address** box, enter a static IP address for NIC 1 of your Caprica Server.

14. In the **Prefix length or Netmask** box, enter the network mask for NIC 1 of your Caprica Server.

15. In the **Gateway** box, enter the gateway for NIC 1 of your Caprica Server.

16. Click **Apply**.

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

Software Installation

This chapter provides instructions for installing OverDrive software onto the OverDrive computer(s), either after a system re-image or to upgrade to a newer version of OverDrive.

The following topics are discussed in this chapter:

- Before You Install Software
- OverDrive Server Software Installation
- PostgreSQL Database Tuning
- OverDrive Server HTTPS
- After You Install OverDrive Software
- OverDrive Root Account Set Up
- Ross Support Account Access
- Ross Platform Manager Setup
- Activate OverDrive Product Keys
- License OverDrive Software
- OverDrive Clients Software Installation
- OverDrive ProjectServer Installation
- OverDrive ProjectServer Backup Automation

Before You Install Software

Before you install OverDrive version 24.3 software on the OverDrive Server in your OverDrive system, you must prepare your OverDrive system for the new OverDrive software.

To prepare your OverDrive System for OverDrive version 24.3

1. Configure the IP addresses for your server computer.
2. Set the **system locale** to an **English** locale and the **Windows display language** to an **English** language on your server computer.
3. Contact Ross Video Technical Support to obtain the OverDrive software installer for your OverDrive version.
4. Verify that the OverDrive Server computer hostname only contains the uppercase or lowercase ASCII letters “A” through “Z”, the digits “0” through “9”, or the hyphen character (“-”). No other symbols, punctuation characters, or white space are permitted.
5. Have a qualified Ross Video technician perform any required maintenance or repairs on the OverDrive system.
6. Update OverDrive Server and Client computers with the latest Windows® updates recommend by your Network Administrator.
7. Verify that **Microsoft Internet Explorer® 9.0** or greater is installed on the OverDrive Server computer and that the **Display intranet sites in Compatibility View** setting is turned **Off**.
8. Exit all other Windows® programs currently running on the OverDrive Server computer.
9. Temporarily disable antivirus software running on the OverDrive Server computer. Some heuristic-based intrusion detection systems prevent the installation of OverDrive software. Re-enable antivirus software after installing OverDrive software.
10. Use **RapidRestore** to archive and backup all OverDrive rundowns and settings.
11. If your current **OverDrive** software is older than version **22.0**, perform the following tasks:
 - a. Use **Add/Remove Programs** control panel to remove any existing versions of **OverDrive Server**, **PostgreSQL**, and **pgAdmin III** software.
 - b. Delete the **PostgreSQL** data folder C:\Program Files\PostgreSQL\##.# where ##.# is the PostgreSQL version.
 - c. Delete the **pgAdmin** roaming data folder C:\Users\overdrive\AppData\Roaming\pgadmin.
 - d. Reboot the **OverDrive Server** computer.

OverDrive Server Software Installation

The OverDrive Server installer installs the OverDrive Server and OverDrive MOS Gateway.

The OverDrive Server informs OverDrive components of changes made on the switcher, backup systems and other attached devices. It also collects switcher and audio mixer information and performs switcher control as directed by RundownControl and DirectControl.

The OverDrive MOS Gateway communicates with OverDrive, manages OverDrive rundowns, and coordinates playout status for OverDrive clients in the system. The Gateway also communicates with Newsroom system (NRCS) and routes MOS messages from the NRCS to OverDrive clients. The OverDrive MOS Gateway can handle multiple rundowns and multiple clients simultaneously.

★ After installing OverDrive software, licenses must be obtained from Ross Video Technical Support before using OverDrive features.

For More Information on...

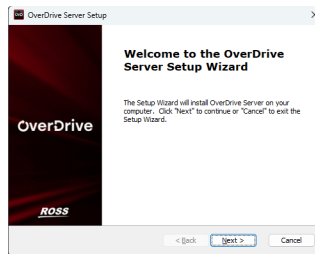
- licensing an OverDrive feature, refer to the section “**License OverDrive Software**” on page 4–23.

To install OverDrive Server software

1. Complete the procedure “**To prepare your OverDrive System for OverDrive version 24.2**” on page 4–2.
2. Copy the OverDrive software installer obtained from Ross Video Technical Support to your OverDrive Server computer.
3. Navigate to the folder where you downloaded the OverDrive software installer.
4. If you are upgrading your OverDrive Server, refer to the appendix “**Appendix C. PostgreSQL Upgrade**” on page C–1 before you start the OverDrive software installer.
5. Double-click **Overdrive Server-24.3.#.####.ex**.

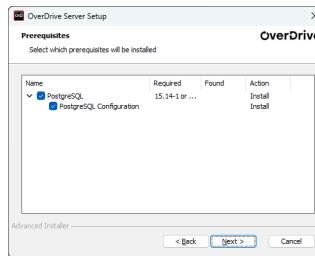
When your OverDrive system already has Postgres database software installed, go to step 8 on page 4-4.

For OverDrive systems that do not have Postgres database software installed, the **OverDrive Server Setup** wizard opens and determines the program software to install.



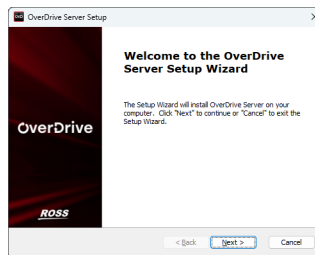
6. Click **Next**.

The **Prerequisites** screen opens when the **OverDrive Server Setup** wizard needs to install additional programs for the OverDrive Server to run on the OverDrive Server computer. The **OverDrive Server Setup** wizard must install the PostgreSQL database on a new or OverDrive Server computers you are re-imaging.



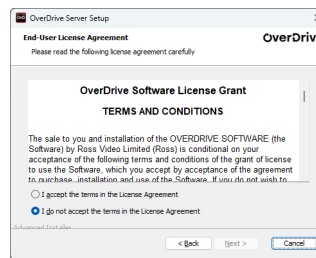
7. Click **Next**.

The **OverDrive Server Setup** wizard installs the additional programs required by the OverDrive Server to run on the OverDrive Server computer. The **OverDrive Server Setup** screen opens after the **OverDrive Server Setup** wizard finishes installing the required additional programs.



- On the **OverDrive Server Setup** screen, click **Next**.

The **End-User License Agreement** screen opens.

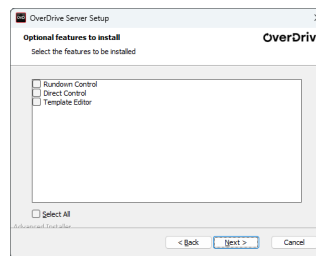


- Read the **OverDrive License Agreement**.

- Select the **I accept the terms in the License Agreement** option to install OverDrive Server software.

- Click **Next**.

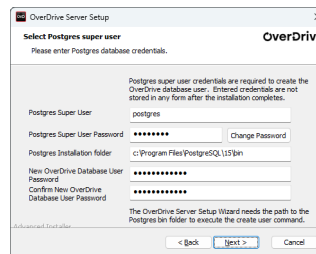
The **Optional features to install** screen opens.



- In the list of optional features, select the check box to the left of the features to install.

- Click **Next**.

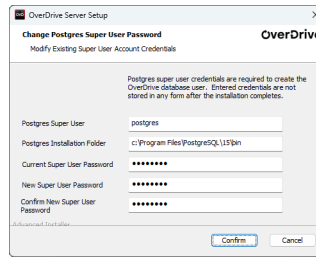
The **Select Postgres super user** screen opens.



Ensure that the **Postgres Installation folder** box contains the path to the Postgres folder that the OverDrive Server Setup Wizard requires to execute the create user command.

- ★ If the **Next** button is grayed out, enter the Postgres super user password in the **Password** box to enable the button. If the **OverDrive Database User Password** boxes are empty, enter a new password in the **New OverDrive Database User Password** box, then re-enter that same password in the **Confirm New OverDrive Database User Password** box.

14. To change the Postgres super user password, click **Change Password** to open the **Change Postgres Super User Password** screen.



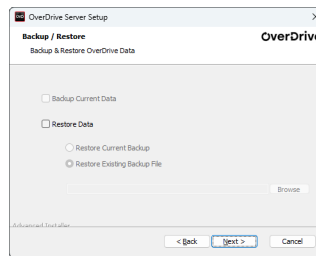
Complete the following steps to change the Postgres super user password.

- a. In the **Current Super User Password** box, enter the current password for the Postgres super user.
- b. In the **New Super User Password** box, enter a new password for the Postgres super user.
- c. In the **Confirm New Super User Password** box, re-enter a the password that you entered in the **New Super User Password** box.
- d. Click **Confirm**.

The **Change Postgres Super User Password** screen closes and you return to the **Select Postgres super user** screen.

15. Click **Next**.

The **Back / Restore** screen opens.



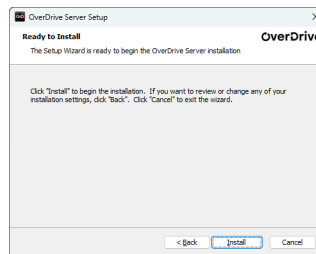
16. Select the **Restore Data** check box to restore a RapidRestore backup file after installing the OverDrive Server. Clear the **Restore Data** check box to install without restoring a RapidRestore backup file.

Select one of the following options to choose the RapidRestore backup file to restore on the OverDrive Server:

- **Restore Current Backup** — create a backup file for the current OverDrive Server and use the backup file to restore the new OverDrive Server.
- **Restore Existing Backup File** — click **Browse** to select the backup file to restore.

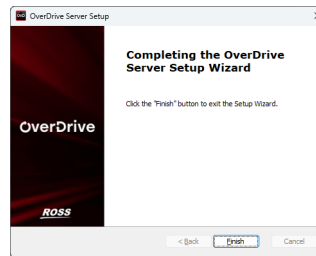
17. Click **Next**.

The **Ready to Install** screen opens.

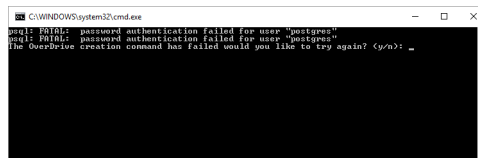


18. Click **Install**.

After the installation of the OverDrive Server is complete, the **Wizard Complete** screen opens.



A **Command Prompt** window opens when the **OverDrive Server Setup** wizard encounters a problem with creating the `od_user` Postgres user.



Follow these steps to re-enter the Postgres super user password:

- At the `Would you like to try again? (y/n) :` prompt, enter **y** and then press **Enter**.
- At the `Postgres super user name:` prompt, press **Enter**.
- At the `Postgres super password:` prompt, enter the password set for the Postgres super user and then press **Enter**.
- At the `Postgres install folder:` prompt, press **Enter** for the default folder path or enter the actual path to the Postgres install folder on the OverDrive computer.

After entering the correct Postgres super user password and Postgres install folder path, the **Wizard Complete** screen opens. If you continue to have problems completing the **OverDrive Server Setup Wizard**, contact Ross Video Technical Support.

19. Click **Finish**.

The **OverDrive Server Setup** wizard closes, and an alert opens.

20. Click **Yes** to restart the OverDrive Server Computer.

21. Re-enable antivirus software after installing OverDrive Server software.

PostgreSQL Database Tuning

Tuning PostgreSQL database settings maximizes the use of system resources to perform work as efficiently and rapidly as possible. PostgreSQL saves configuration settings in the `postgresql.conf` file. The settings to tune are as follows:

- max_connections** — sets the maximum number of concurrent connections to the database server.
- work_mem** — sets the amount of memory that the internal sort operations table and hash table use before switching to temporary disk files.
- shared_buffers** — sets the amount of memory dedicated to PostgreSQL to use for caching data.
- effective_cache_size** — sets the amount of memory available for disk caching by the operating system and within the database itself.

To tune database settings in the postgresql.conf file

1. Log into the OverDrive Server computer.
2. Stop the OverDrive services as follows:
 - a. From the Windows Desktop, press **Windows Key+R**.
 - b. In the **Open** box, type `services.msc`.
 - c. Click **OK**.
 - d. In the **Services** list, locate and select the **OverDrive Server** service.
 - e. Click **Stop** for the **OverDrive Server** service.
 - f. Repeat step **d** to step **e** for the **OverDrive Web Server** and **OverDrive MosGateway** services.

3. Locate the **postgresql.conf** file stored in the PostgreSQL data folder.

By default, the following folder contains the postgresql.conf file:

```
C:\Program Files\PostgreSQL\15\data
```

If you changed the Data Directory folder during the PostgreSQL database software install, look for the postgresql.conf file in the specified Data Directory folder.

4. Use a text editor to open and edit the **postgresql.conf** file.
5. In the **postgresql.conf** file, locate the following setting:

```
max_connections
```

6. Replace the default connections value for the **max_connections** setting (100) with the following tuned value:

```
max_connections = 400
```

7. Locate the following setting:

```
work_mem
```

8. If a # character precedes the **work_mem** setting, delete the # character.
9. Replace the default memory value for the **work_mem** setting (1 MB) with a tuned value. The tuned value depends on the amount of RAM installed in your OverDrive Server computer. Use the following table to set the **work_mem** value for your computer:

	System RAM			
	4 GB	8 GB	16 GB	32 GB
work_mem	4 MB	4 MB	4 MB	8 MB

10. Locate the following setting:

```
shared_buffers
```

11. If a # character precedes the **shared_buffers** setting, delete the # character.
12. Replace the default memory value for the **shared_buffers** setting (128 MB) with a tuned value. The tuned value depends on the amount of RAM installed in your OverDrive Server computer. Use the following table to set the **shared_buffers** value for your computer:

	System RAM			
	4 GB	8 GB	16 GB	32 GB
shared_buffers	256 MB	512 MB	512 MB	512 MB

13. In the **postgresql.conf** file, locate the following setting:

```
effective_cache_size
```

14. If a # character precedes the **effective_cache_size** setting, delete the # character.

15. Replace the default memory value for the **effective_cache_size** setting (100 MB) with a tuned value. The tuned value depends on the amount of RAM installed in your OverDrive Server computer. Use the following table to set the **shared_buffers** value for your computer:

	System RAM			
	4 GB	8 GB	16 GB	32 GB
effective_cache_size	1536 MB	3072 MB	4096 MB	6144 MB

16. Save the updated **postgresql.conf** file and exit the text editor.

17. Restart the PostgreSQL service as follows:

- In the **Services** list of the **Services** dialog box, locate and select the **postgresql-x64-15** service.
- Click **Restart** for the **postgresql-x64-15** service.

18. Start the OverDrive services as follows:

- In the **Services** list of the **Services** window, locate and select the **OverDrive Server** service.
- Click **Start** for the **OverDrive Server** service.
- Repeat step **a** and step **b** for the **OverDrive Web Server** and **OverDrive MosGateway** services.
- Use the **File** menu to select **Exit**.

OverDrive Server HTTPS

When your OverDrive Server is accessible from the internet, you can use HTTPS (Hyper Text Transfer Protocol Secure) to encrypt communication between the OverDrive system Jetty web server and connected web browsers.

- ★ Ross Video recommends that you employ Ross Video personnel or your IT System Administrator to configure the OverDrive system Jetty web server to use HTTPS.
- ★ Before you can configure an OverDrive Jetty web server to use HTTPS, you must have or obtain an SSL (Secure Sockets Layer) Certificate.

Install Your SSL Certificate

Before you can configure an OverDrive Jetty web server to use HTTPS, you must install your SSL Certificate on your OverDrive Jetty web server.

Copy the Keystore File to Jetty

Your SSL Certificate keystore file must be copied to the OverDrive system Jetty web server etc folder

To the keystore file to the Jetty etc folder

- On the **OverDrive Server** computer, open the C:\ross\OverDrive\jetty\etc\ folder.
- In the C:\ross\OverDrive\jetty\etc\ folder, rename the **keystore** file to **keystore_old**.
RapidRestore in OverDrive version 21.3 or higher does not backup old keystore files. If you want to backup your old restore file, copy it to a safe location.
- Copy your **new keystore** file into the In the C:\ross\OverDrive\jetty\etc\ folder.
- Rename your **new keystore** file to **keystore**.

Update the Jetty start.ini File

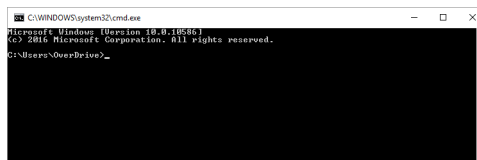
With your new keystore file copied into the etc folder, you must update the Jetty start.ini file. The procedure you use to update the start.ini file depends on whether or not the default “storepwd” password was used to create your SSL Certificate.

If the default “storepwd” password was used to created your SSL Certificate:

1. Open the C:\ross\OverDrive\jetty\ folder.
2. Use a text editor to edit the start.ini file.
3. Find the line that starts with jetty.keystore.password and replace it with the following line:
jetty.sslContext.keyStorePassword=OBF:1vn1z1o1x8e1vnw1vn61x8g1z1u1vn4
4. Find the line that starts with jetty.keymanager.password and replace it with the following line:
jetty.sslContext.keyManagerPassword=OBF:1vn1z1o1x8e1vnw1vn61x8g1z1u1vn4
5. Find the line that starts with jetty.truststore.password and replace it with the following line:
jetty.sslContext.trustStorePassword=OBF:1vn1z1o1x8e1vnw1vn61x8g1z1u1vn4
6. Save the start.ini file.

If the default “storepwd” password was not used to created your SSL Certificate:

1. Open the C:\ross\OverDrive\jetty\lib folder.
2. Open a **Command Prompt** window.



3. In the **Command Prompt** window, enter the following command to encrypt the keystore password:

```
java -cp jetty-util-9.4.56.v20240826 org.eclipse.jetty.util.security.Password  
<your_password>
```

Replace <your_password> with the password used to create your SSL Certificate, and the .jar file name with the actual file name on your system.

The .jar application should display the following message in the **Command Prompt** window:

```
2016-09-30 15:20:53.255:INFO::main: Logging initialized @127ms  
<Jetty_pwd>  
OBF:xxxxxxxxxxxxxxxxxxxx  
MD5:xxxxxxxxxxxxxxxxxxxx
```

On your computer, the xxxxxxxxxxxxxxxxxxxx string will be replaced by the generated encrypted password.

4. Record the encrypted password from the line the starts with OBF: in the output from step 3 on page 4-9.
5. Open the C:\ross\OverDrive\jetty\ folder.
6. Use a text editor to edit the start.ini file.
7. Find the line that starts with jetty.keystore.password and replace it with the following line, where xxxxxxxxxxxxxxxxxxxx is the encrypted password you recorded in step 4 on page 4-9:

```
jetty.sslContext.keyStorePassword=OBF:xxxxxxxxxxxxxxxxxxxx
```

- Find the line that starts with `jetty.keymanager.password` and replace it with the following line, where `xxxxxxxxxxxxxxxxxxxx` is the encrypted password you recorded in step 4 on page 4-9:

```
jetty.sslContext.keyManagerPassword=OBF:xxxxxxxxxxxxxxxxxxxx
```

- Find the line that starts with `jetty.truststore.password` and replace it with the following line, where `xxxxxxxxxxxxxxxxxxxx` is the encrypted password you recorded in step 4 on page 4-9:

```
jetty.sslContext.trustStorePassword=OBF:xxxxxxxxxxxxxxxxxxxx
```

- Save the `start.ini` file.

★ When your keystore and keypair passwords are different, you must create an OBF for each.

Configure Jetty to Use HTTPS

After you install your SSL Certificate, you can configure your OverDrive system Jetty web server to use HTTPS.

To configure an OverDrive system Jetty web server to use HTTPS

- To redirect all HTTP requests to HTTPS, use a text editor to add the following lines to the `<web-app>` tag in the `webdefault.xml` file of the `C:\ross\OverDrive\jetty\etc` folder:

```
<security-constraint>
  <web-resource-collection>
    <web-resource-name>Everything in the webapp</web-resource-name>
    <url-pattern>/newsroomplugin/*</url-pattern>
  </web-resource-collection>
  <user-data-constraint>
    <transport-guarantee>CONFIDENTIAL</transport-guarantee>
  </user-data-constraint>
</security-constraint>
```

- If you want to be very explicit about excluding insecure ciphers, use a text editor to add the following lines to the `<configure>` tag in the `jetty-ssl.xml` file of the `C:\ross\OverDrive\jetty\etc` folder:

```
<!-- Eliminate Old / Insecure / Anonymous Ciphers -->
<Call name="addExcludeCipherSuites">
  <Arg>
    <Array type="String">
      <Item>.*NULL.*</Item>
      <Item>.*RC4.*</Item>
      <Item>.*MD5.*</Item>
      <Item>.*DES.*</Item>
      <Item>.*DSS.*</Item>
    </Array>
  </Arg>
</Call>
```

You can enter the following command to use the `ssllscan` tool to verify the supported server ciphers:

```
ssllscan localhost:8443
```

If the `ssllscan` tool is not installed on your system, you can use the following URL to download the tool:

<https://github.com/rbsec/ssllscan/releases>

- Restart your OverDrive system Jetty web server to start using HTTPS.

After You Install OverDrive Software

After successfully installing OverDrive Server and/or Client software, perform the following tasks:

- Re-boot the computer.
- Read the *OverDrive Software Release Notes* document in the C:\ross\OverDrive\Documentation folder.
- Set a name for your OverDrive system
- Set Up the OverDrive Root account.
- Set Up the Ross Support account.
- Obtain a license activation key from Ross Video Technical Support for OverDrive features.
- Activate your OverDrive product key in Ross Platform Manager.
- Install your license activation key on every OverDrive Server and Caprica Server in your OverDrive system.

For More Information on...

- installing a license activation key on an OverDrive Server, refer to the procedure “**To install OverDrive feature licenses on the OverDrive Server**” on page 4–23.
- installing a license activation key on a Caprica Server, refer to the *Caprica Server User Guide*.

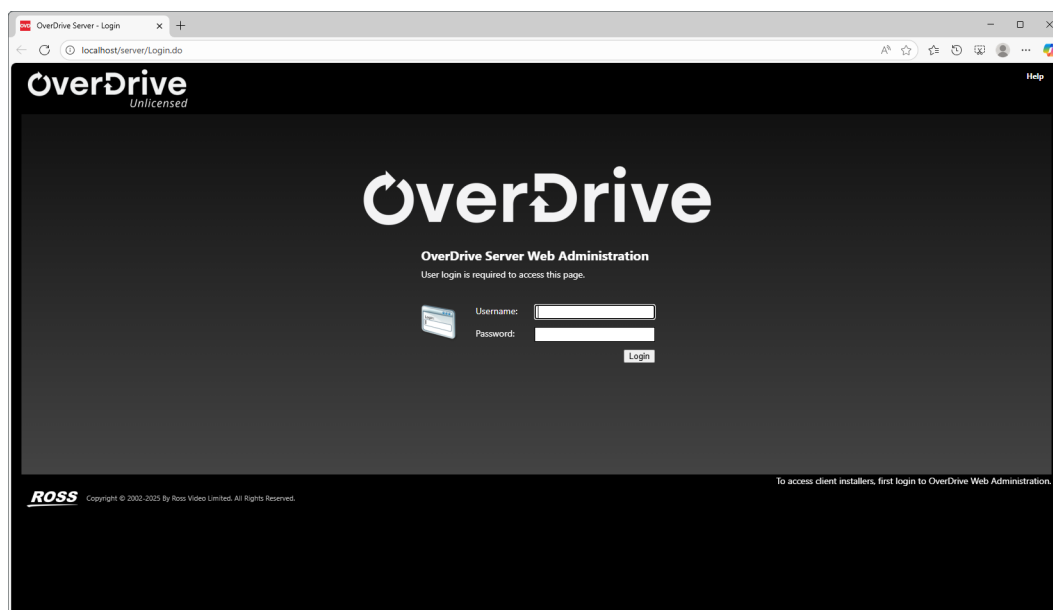
OverDrive Server System Name

The system name for an OverDrive Server name helps you identify the role of the server in an OverDrive Redundant Server System.

To set the system name for an OverDrive Server

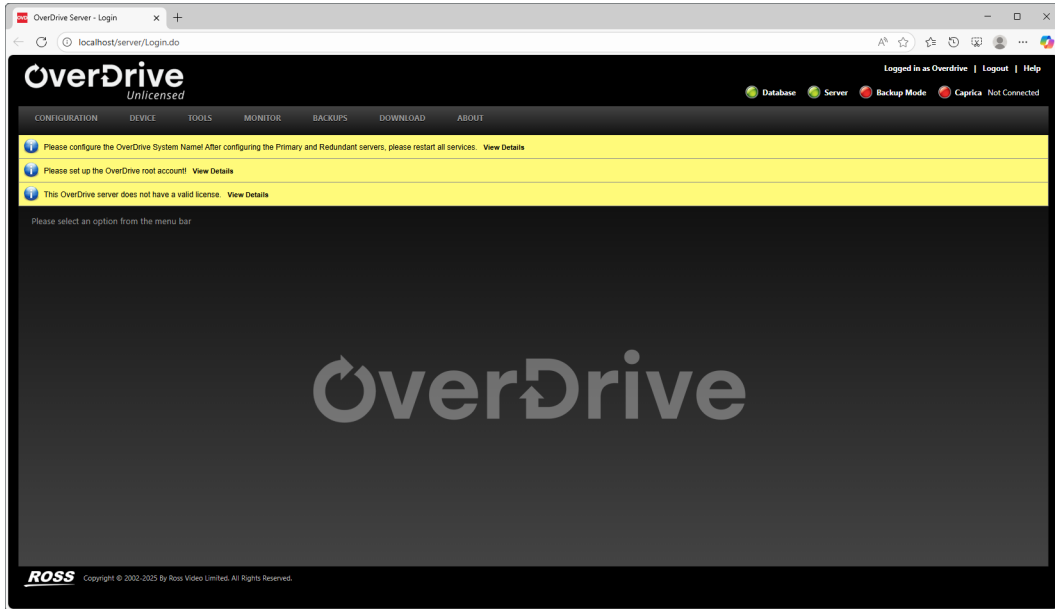
1. Use one of the following methods to open the **OverDrive Server Web Administration** web page for the OverDrive Server in your OverDrive system:
 - On the desktop, double-click the **OverDrive Server** icon.
 - Use the **Start** menu to select **All Programs > OverDrive > OverDrive Server**.

The **OverDrive Server - Login** web page opens in a web browser window.

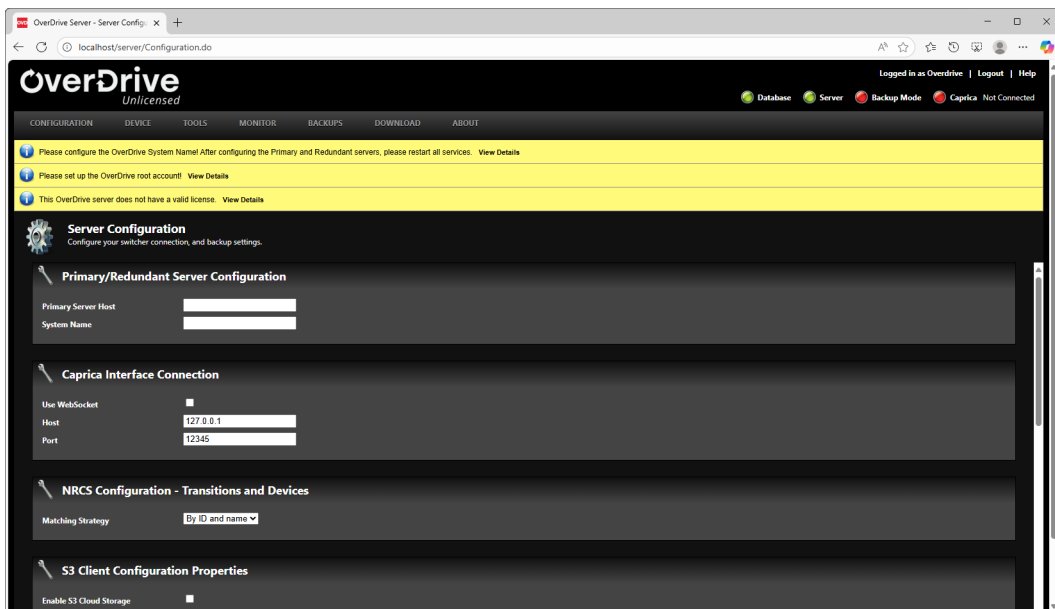


2. Enter the following user name and password in the provided boxes:
 - **Username** — overdrive
 - **Password** — <initial_password>
3. Click **Login**.

The **OverDrive Server - Main** web page opens.



4. Click **View Details** in the **Please configure the OverDrive System Name!** information message.
The **Manage User** web page opens for the **Default root user**.



5. In the **Primary/Redundant Server Configuration** section, enter a name for your OverDrive Server in the **System Name** box.

OverDrive displays the system name in the following locations:

- **OverDrive Server** — above the connection LEDs and in the About OverDrive web page.
- **OverDrive Clients** — in the title bar of OverDrive clients.
- **RundownControl** — in the System Status view Identifier column for the Server Type.
- **OverDrive NRCS plugin** — in right-hand side of the main toolbar.

6. Click **Apply Configuration**.

OverDrive updates the OverDrive Server system name.

OverDrive Root Account Set Up

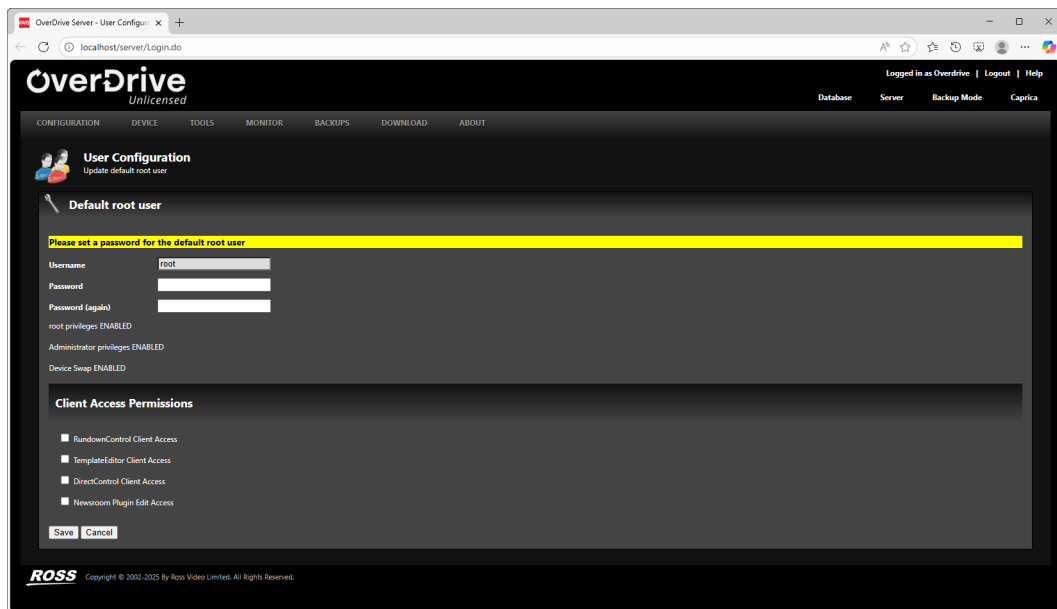
The first time you log in to your OverDrive Server you should set a password for the default root account. The root account is a super user that can edit all settings and control all processes on an OverDrive Server.

- ★ After setting up the root account you can only edit the account settings by logging in to the OverDrive Server Web Administration web page with the root account.

To set up the OverDrive default root account

1. On an **OverDrive Server Web Administration** web page, click **View Details** in the **Please set up the OverDrive root account!** information message.

The **Manage User** web page opens for the **Default root user**.

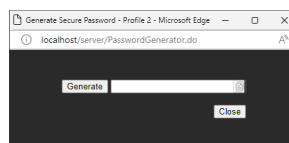


2. In the **Password** box, enter a password for the root user that satisfies the password policy of your organization.

To generate a secure password, complete the following steps:

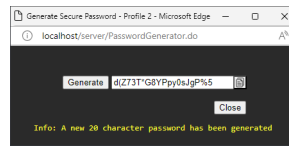
- a. use the **TOOLS** menu to select **Password Generator**.


The **Generate Secure Password** dialog box opens.



- b. Click **Generate**.

The **Password** box displays a generated secure password.



- c. Click the  **Copy** icon to copy the generated password.
 - d. Click **Close**.

The **Generate Secure Password** dialog box closes.
 - e. Paste the copied password into the **Password** and **Password (again)** boxes.
 - f. Skip to step step 4.
3. In the **Password (again)** box, enter the same password as entered in the **Password** box.
 4. Control the user's access to OverDrive clients using the following options in the **Client Access Permissions** section:
 - **RundownControl Client Access** — select this check box to allow the user to open and use the RundownControl client.

Clear this check box to stop the user from opening the **RundownControl** client. The **Select User and Operation Mode** dialog box will not display the user's name when they start **RundownControl**.
 - **TemplateEditor Client Access** — select this check box to allow the user to open and use the TemplateEditor client.

Clear this check box to stop the user from opening the **TemplateEditor** client. The **Select User and Operation Mode** dialog box will not display the user's name when they start **TemplateEditor**.
 - **DirectControl Client Access** — select this check box to allow the user to open and use the **DirectControl** client.

Clear this check box to stop the user from opening the DirectControl client. The **Select User and Operation Mode** dialog box will not display the user's name when they start **DirectControl**.
 - **Editing in the Newsroom Plugin** — select this check box to allow the user to create new templates and shots and save the edits that they make to existing templates and shots in OverDrive.

Clear this check box to limit the user to viewing the templates and shots in the OverDrive NRCS plugin. Users with view only permission for the OverDrive NRCS plugin can edit a shot in the plugin and add the edited shot to a Newsroom rundown, but they cannot save the edited shot in OverDrive.
 5. Click **Save**.

OverDrive updates the root account settings.

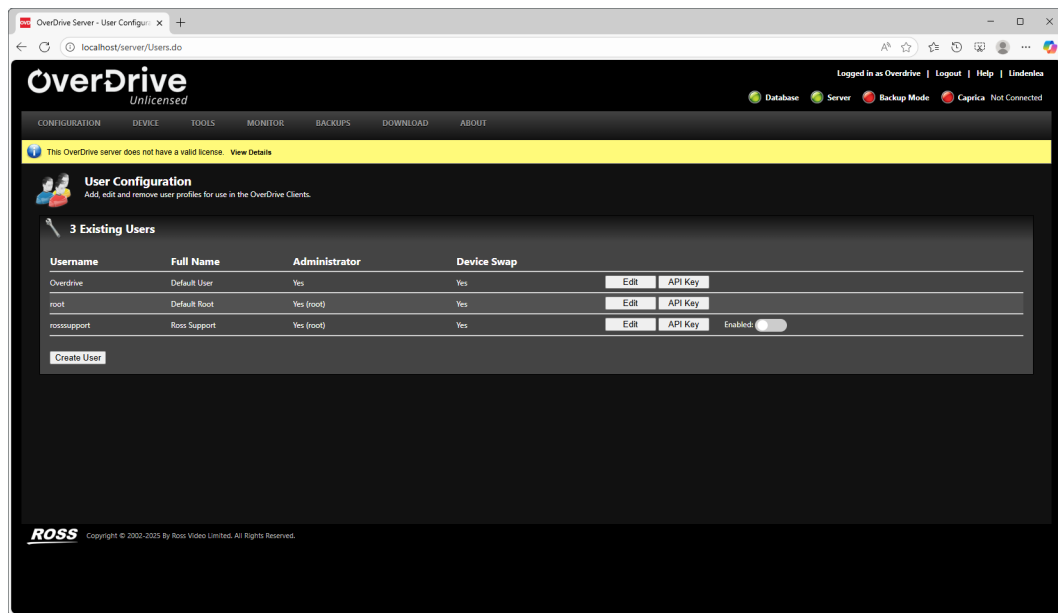
Ross Support Account Access

After you setup the OverDrive root account you should enable the Ross Support account to allow Ross Technical Support to log in to your OverDrive Server to preform diagnostics if you have a problem with your OverDrive Server. You have control of the Ross Support account so that you can control when Ross Technical Support can use the account to access your OverDrive Server.

- ★ After setting up the Ross Support account you can only edit the account settings by logging in to the OverDrive Server Web Administration web page with the root account.

To control Ross Support account access to your OverDrive Server

1. On an **OverDrive Server Web Administration** web page, use the **Configuration** menu to select **Users**.
The **Manager User** web page opens.



2. The **Enabled** slider to the right of the **Ross Support** account displays the current access state of the account. Click the **Enabled** slider to toggle the access state for the Ross Support account as follows:
 - **Enabled** — Ross Support account access is **enabled**. Click the **Enabled** slider to **disable** the Ross Support account from accessing your OverDrive Server.
 - **Enabled** — the Ross Support account is **disabled**. Click the **Enabled** slider to **enable** the Ross Support account to access your OverDrive Server.
 - Edit Ross Support Account S

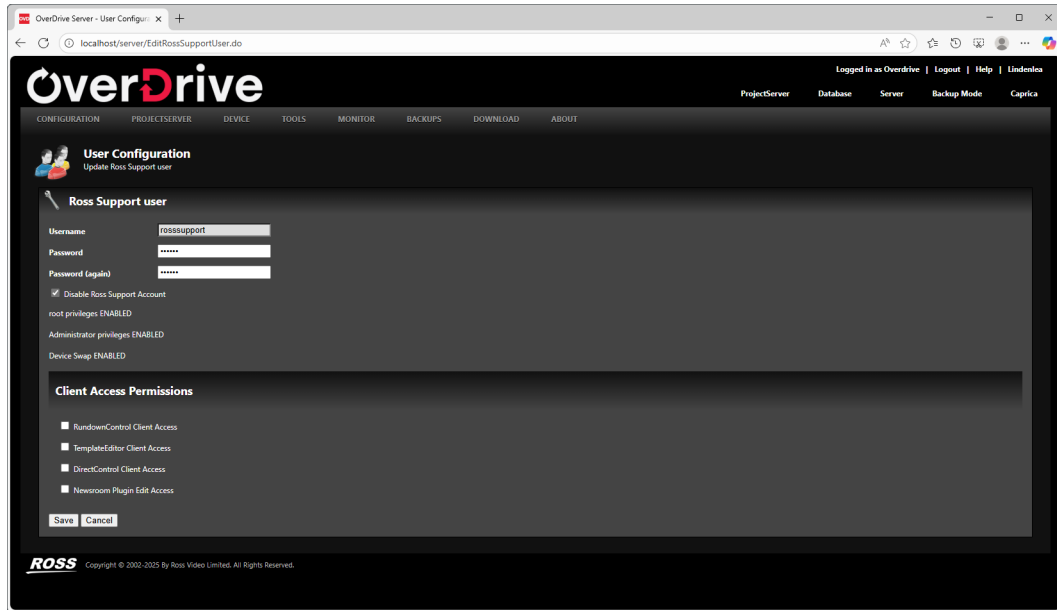
Edit Ross Support Account Settings

When your requirements change for the Ross Support account, you can edit the account settings.

To edit the Ross Support account settings

1. On the **OverDrive Server Web Administration** web page, use the **CONFIGURATION** menu to select **Users**.
The **Manager User** web page opens for the **Ross Support** user.
2. In the **Existing Users** list, locate the **rosssupport** user to edit and click **Edit** to the right of the username.

The **Ross Support** user section opens.

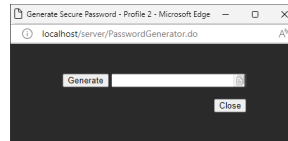


3. In the **Password** box, enter a password for the Ross Support user that satisfies the password policy of your organization.

To generate a secure password, complete the following steps:

- a. use the **TOOLS** menu to select **Password Generator**.


The **Generate Secure Password** dialog box opens.



- b. Click **Generate**.

The **Password** box displays a generated secure password.



- c. Click the  **Copy** icon to copy the generated password.
 - d. Click **Close**.
The **Generate Secure Password** dialog box closes.
 - e. Paste the copied password into the **Password** and **Password (again)** boxes.
 - f. Skip to step step 5.
4. In the **Password (again)** box, enter the same password as entered in the **Password** box.
 5. Select the **Disable Ross Support Account** check box to disable the Ross Support account from being used to log in to your OverDrive Server. Clear this check box to enable the Ross Support account to log in to your OverDrive Server.

6. Control the user's access to OverDrive clients using the following options in the **Client Access Permissions** section:
 - **RundownControl Client Access** — select this check box to allow the user to open and use the RundownControl client.
Clear this check box to stop the user from opening the **RundownControl** client. The **Select User and Operation Mode** dialog box will not display the user's name when they start **RundownControl**.
 - **TemplateEditor Client Access** — select this check box to allow the user to open and use the TemplateEditor client.
Clear this check box to stop the user from opening the **TemplateEditor** client. The **Select User and Operation Mode** dialog box will not display the user's name when they start **TemplateEditor**.
 - **DirectControl Client Access** — select this check box to allow the user to open and use the **DirectControl** client.
Clear this check box to stop the user from opening the DirectControl client. The **Select User and Operation Mode** dialog box will not display the user's name when they start **DirectControl**.
 - **Editing in the Newsroom Plugin** — select this check box to allow the user to create new templates and shots and save the edits that they make to existing templates and shots in OverDrive.
Clear this check box to limit the user to viewing the templates and shots in the OverDrive NRCS plugin. Users with view only permission for the OverDrive NRCS plugin can edit a shot in the plugin and add the edited shot to a Newsroom rundown, but they cannot save the edited shot in OverDrive.
7. Click **Save**.
OverDrive updates the Ross Support account settings.
8. Securely send the new password for the Ross Support account to Ross Technical Support.

Ross Platform Manager Setup

With the release of OverDrive version 22.0, Ross Platform Manager replaces Horizon as the manager of your OverDrive product keys. Complete the following sections to initially set up Ross Platform Manager for an OverDrive system.

- ★ Please contact Ross Video Technical Support before upgrading your OverDrive system from Horizon to Ross Platform Manager.

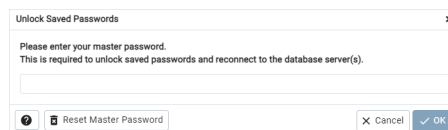
Create the Ross Platform Manager Database

You must create a PostgreSQL database named “platform_manager” before you install Ross Platform Manager software on the Ross Platform Manager computer in your OverDrive system.

To create the Ross Licensing Service database

1. From the Windows Desktop of your **Ross Platform Manager** computer, use the **Start** menu to select **PostgreSQL 15 > pgAdmin 4**.

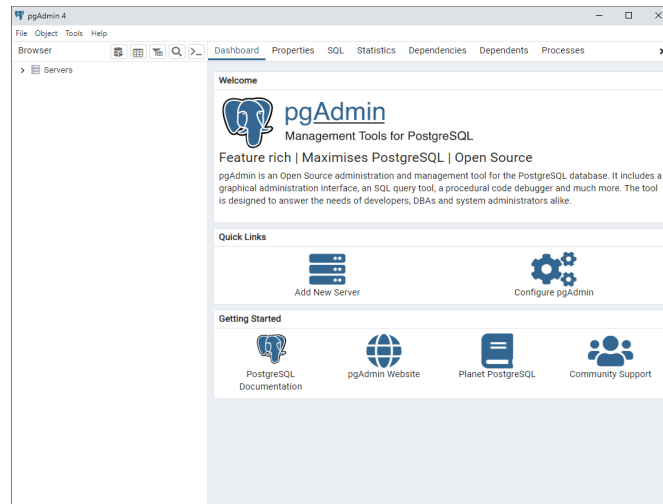
The **Unlock Saved Passwords** dialog box opens.



2. In the **Unlock Saved Passwords** dialog box, enter the **master password** for **pgAdmin 4**.

3. Click **OK**.

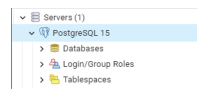
The **pgAdmin 4** PostgreSQL management tool opens.



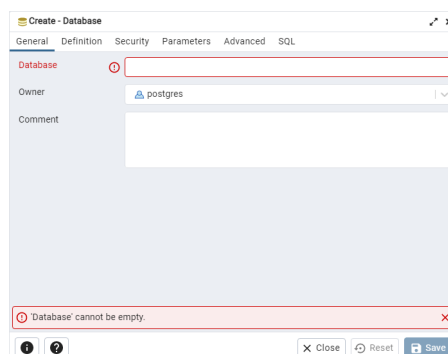
4. In the **Browser** tree view, expand the **Servers** node.
The **Browser** tree view displays the available Postgres servers.
5. Right-click the **PostgreSQL 15** server and select **Connect Server** from the shortcut menu.
The **Connect to Server** dialog box opens.



6. In the **Password** box, enter the custom password set during the installation of the Ross Licensing Service database software on the Ross Licensing Service computer.
7. Click **OK**.
The **PostgreSQL 15** node expands in the **Object Browser** tree view.



8. In the expanded **PostgreSQL 15** node, right-click the **Databases** node and select **Create > Database** from the shortcut menu.
The **Create - Database** dialog box opens.



9. In the **Database** box, type the following name:

platform_manager

10. Click **Save**.

PostgreSQL adds the **platform_manager** database to the **Databases** node in the **Browser** tree view.

11. Close **pgAdmin 4**.

The **pgAdmin 4** PostgreSQL management tool.

Install Ross Platform Manager

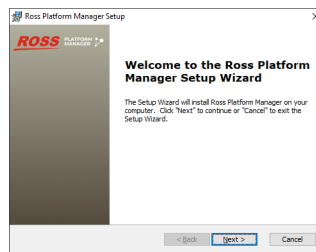
After you create the platform_manager database, you can install Ross Platform Manager to manage your OverDrive product keys.

To install Ross Platform Manager software

1. Contact Ross Video Technical Support to obtain the most recent **Ross Platform Manager** software installer.
2. On the **Ross Platform Manager** computer, exit all currently running Windows® applications.
3. Temporarily disable antivirus software running on the Ross Platform Manager computer.
Some heuristic-based intrusion detection systems prevent the installation of Ross Platform Manager software.
4. Copy the **Ross Platform Manager** software installer obtained from Ross Video Technical Support to your Ross Platform Manager Server computer.
5. Navigate to the folder where you copied the Ross Platform Manager software installer.
6. Double-click **PlatformManager-X.X.X-XXXX.XX.XX-XX.XX.msi**.

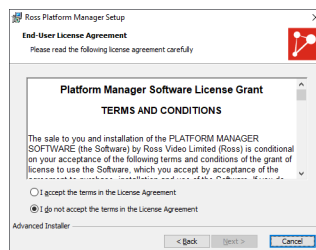
If a **Security Warning** message displays, click **Run**.

The **Ross Platform Manager Setup** wizard opens.



7. Click **Next**.

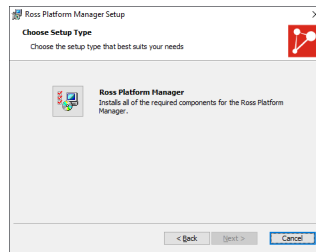
The **End-User License Agreement** screen opens.



8. Read the **Platform Manager Software License Grant**.
9. Select the **I accept the terms of the License Agreement** option.

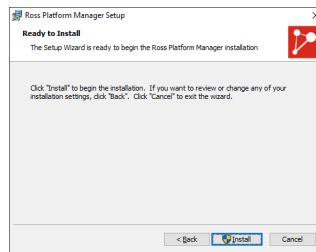
10. Click **Next**.

The **Choose Setup Type** screen opens.



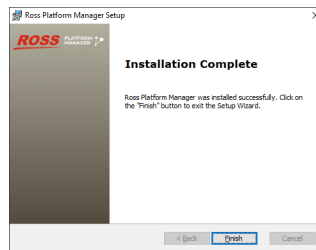
11. Click the **Ross Platform Manager** icon.

The **Ready to Install** screen opens.



12. Click **Install**.

After the Ross Platform Manager installation completes, the **Installation Complete** screen opens.



13. Click **Finish**.

The **Ross Platform Manager Setup** wizard closes and adds the **Ross Platform Manager** icon to the Desktop. Ross Platform Manager Server starts automatically after the installation of the Ross Platform Manager software.

14. Re-enable antivirus software.

Configure the Ross Platform Manager Port Number

Before you can run Ross Platform Manager in your OverDrive system, you must configure Ross Platform Manager to run on port number 3030 or the port number on which you ran Horizon.

To run Ross Platform Manager port number 3030

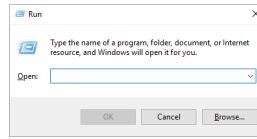
1. On the Ross Platform Manager Server computer, locate the **http.conf** file in the following folder.

```
C:\Program Files\Ross Video\RossPlatformManager\configuration
```

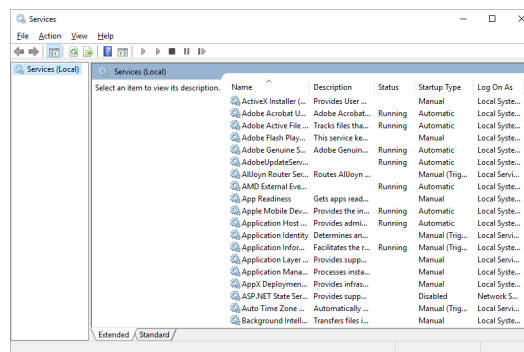
2. As an administrator use a text editor to open and edit the **http.conf** file.
3. In the **http.conf** file, locate the following setting:

```
wrapper.java.additional.41=-Dorg.eclipse.equinox.http.jetty.http.port=80
```

- Replace **80** with **3030** or the port number on which your OverDrive Licensing Service ran.
- Save the updated **http.conf** file and exit the text editor.
- From the Windows Desktop, press **Windows Key+R**.
The **Run** dialog box opens.



- In the **Open** box, type the following application name:
`services.msc`
- Click **OK**.
The **Services** window opens.




- In the **Services** list, locate and select the **Ross Platform Manager** service.
- Click **Restart** for the **Ross Platform Manager** service.
- Use the **File** menu to select **Exit**.
The **Services** dialog box closes.


Activate OverDrive Product Keys

You must activate your OverDrive, OverDrive ProjectServer, and Caprica product keys in your Ross Platform manager before you can use them to license your Ross Video software.

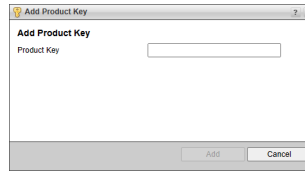
To active product keys in Ross Platform Manager

- Use a web browser to open the **Ross Platform Manager** web page URL. The format of the URL is as follows, where **<Ross Platform Manager Server>** is the hostname or IP address of your **Ross Platform Manager Server** computer:
`http://<Ross Platform Manager Server>:3030`
- Log in to the **Ross Platform Manager** web page as an **administrator**.
- Point to the  **Product Keys** icon in the toolbar and then select **Product Key Manager** from the menu.
The **Product Key Manager** panel opens.

4. Add an OverDrive, OverDrive ProjectServer, or Caprica product key by completing the following steps:

- a. In the **Product Key Manager** panel toolbar, click the  **Add Product Key** icon.

The **Add Product Key** dialog box opens.



- b. In the **Product Key** box, enter your product key.


- c. Click **Add**.

Ross Platform Manager adds the entered product key to the **Product Key Manager** panel.

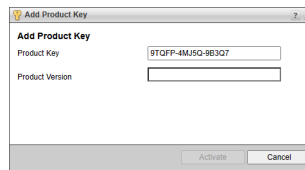
5. Active your added OverDrive, OverDrive ProjectServer, or Caprica product keys by completing the following steps:

- a. Double-click a **Not Active** product key.

The selected product key opens in the **Product Key View** panel.

- b. In the **Product Key View** panel toolbar, click the  **Activate** icon.

The **Add Product Key** dialog box opens.



- c. Enter the associated OverDrive, OverDrive ProjectServer, or Caprica version in the **Version** box.

- d. Click **Activate**.

6. After activating your product keys, close the **Ross Platform Manager** web page.

7. Open OverDrive, OverDrive ProjectServer, or Caprica to verify that your product keys have licensed your applications as expected.

You should not encounter **Invalid License** or **License Not Present** warnings.

License OverDrive Software

Ross Video uses a product key and feature license keys to control user access to OverDrive features. The Ross Platform Management Server in your OverDrive system verifies your OverDrive product key and enables your OverDrive system to access the OverDrive features you purchased from Ross Video.

- ★ Before you can license OverDrive features, you must activate your OverDrive product key on the Ross Platform Manager Server in your OverDrive system. Refer to the *Ross Platform Manager User Guide* for information on activating OverDrive product keys.

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

To install OverDrive feature licenses on the OverDrive Server

1. Use one of the following methods to open the **OverDrive Server Web Administration** web page for an OverDrive Server in your OverDrive system:

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

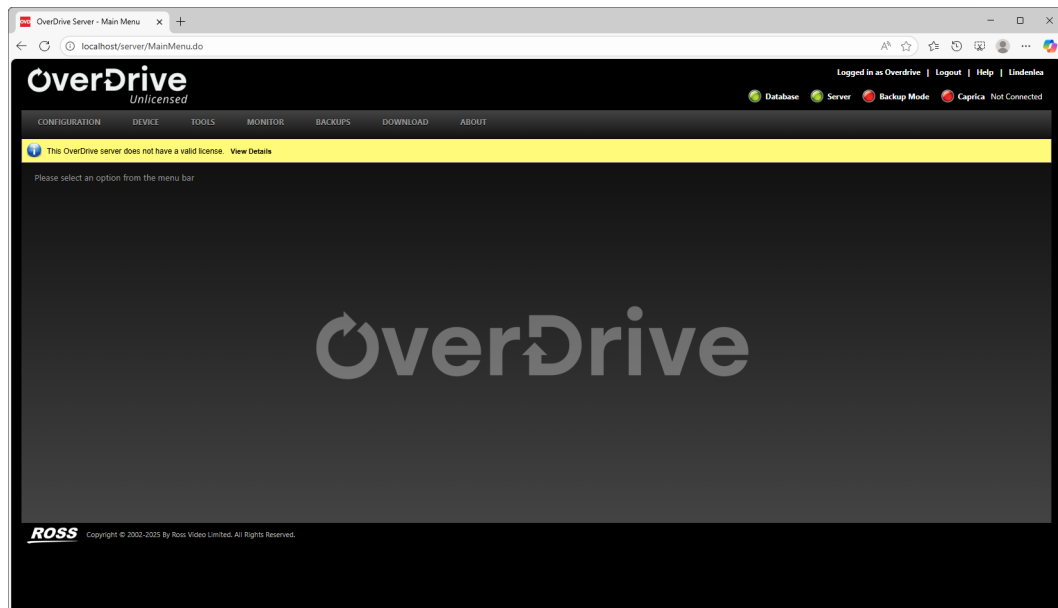
The **OverDrive Server - Login** web page opens in a web browser window.

2. Enter the following user name and password in the provided boxes:

- **Username** — `overdrive`
- **Password** — `<your_password>`

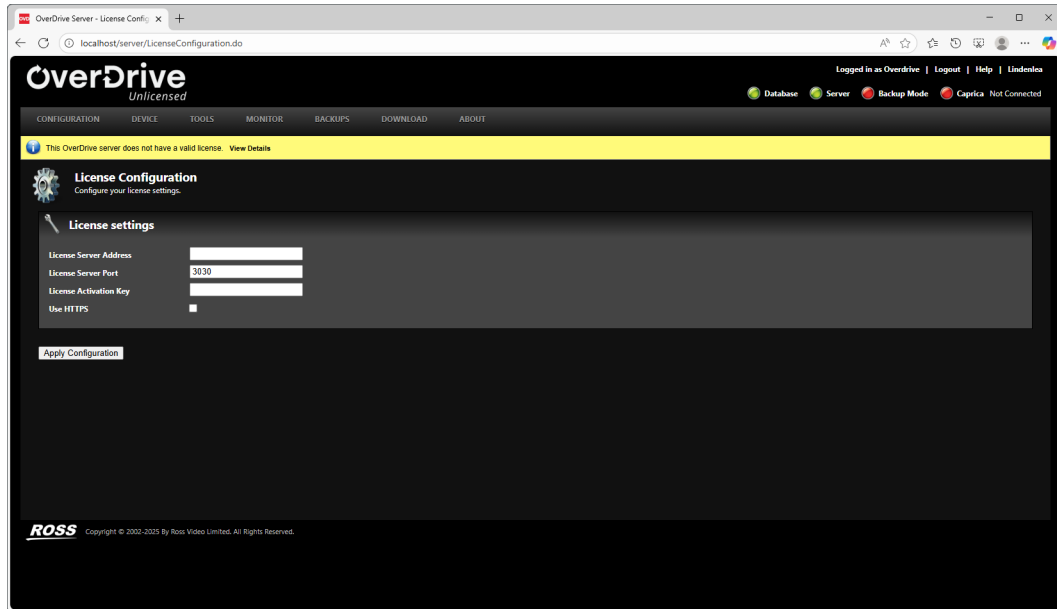
3. Click **Login**.

The **OverDrive Server - Main** web page opens.



4. Click **View Details** in the **OverDrive server does not have a valid license** information message.

The **License Configuration** web page opens.



5. In the **License Settings** section, enter the IP address or hostname of your **Ross Platform Manager Server** computer in the **License Server Address** box.
 - ★ When you use a secure HTTPS connection to a **Ross Platform Manager Server** for licensing, you must enter the IP address or hostname from your security certificate in the **License Server Address** box.
6. In the **License Server Port** box, enter the network port number of your **Ross Platform Manager Server**.

Ross Platform Manager Servers in an OverDrive system use port 3030 as the network port for unsecure HTTP connections. **Ross Platform Manager Servers** use port 443 for secure HTTPS connections.
7. In the **License Activation Key** box, enter the OverDrive product key obtained from Ross Video Technical Support.
8. When you use a secure HTTPS connection to a **Ross Platform Manager Server** for licensing, complete the following steps:
 - a. Select the **Use HTTPS** check box.

The **License Settings** section displays the **Allow Untrusted Certs** check box.
 - b. When using a self-signed untrusted certificate for your connection, select the **Allow Untrusted Certs** check box.
9. Click **Apply Configuration**.
10. Restart your OverDrive System.
11. Repeat step **1** to step **10** for each OverDrive Server in your OverDrive system.

OverDrive Clients Software Installation

After installing the OverDrive Server software on the OverDrive computer, you can download the OverDrive Clients installer to install the following clients on an OverDrive client computer:

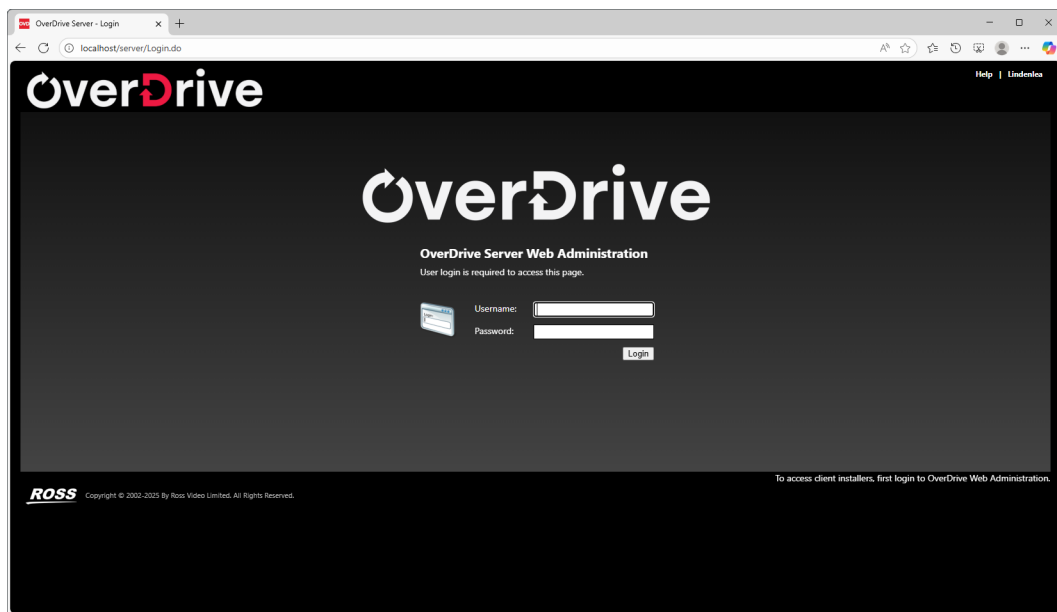
- **RundownControl**
- **DirectControl**
- **TemplateEditor**
- **MOS Gateway**

- ★ The Windows operating system language, region, time zone, and time settings on each OverDrive client computer must match the Windows operating system settings on the OverDrive Server computer.
- ★ The OverDrive Clients installer cannot install OverDrive clients on the OverDrive Server computer. Use the OverDrive Server installer to install OverDrive clients on the OverDrive Server computer.

To install OverDrive Clients software

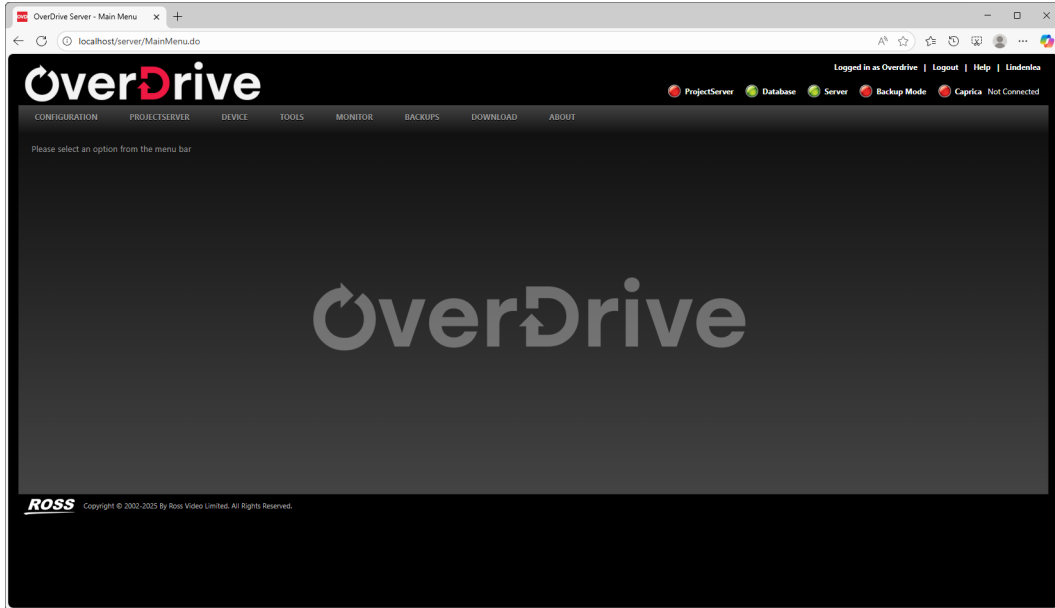
1. On the computer to install OverDrive Clients software, use a web browser to open the **OverDrive Server Web Administration** web page. Ask the OverDrive System Administrator for the URL of the **OverDrive Server Web Administration** web page for your OverDrive system.

The **OverDrive Server - Login** web page opens in a web browser window.



2. In the provided boxes, enter the **Username** and **Password** of an OverDrive user with administrative privileges.
3. Click **Login**.

The **OverDrive Server - Main** web page opens.



4. Use the **DOWNLOAD** menu to select **Client Applications**.

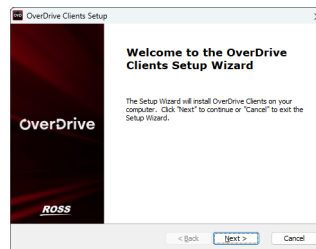
The **OverDriveClients.msi** installer file downloads to your computer.

5. Temporarily disable antivirus software running on the OverDrive computer.

Some heuristic-based intrusion detection systems prevent the installation of OverDrive software.

6. In the downloads folder on your computer, double-click **OverDriveClient-24.3.#.####.msi**.

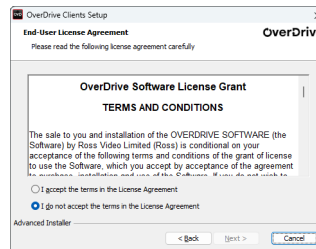
The **OverDrive Clients Setup** wizard opens.



- ★ The **OverDrive Clients Setup** wizard does not allow you to install OverDrive clients on the OverDrive Server computer.

7. Click **Next**.

The **End-User License Agreement** screen opens.

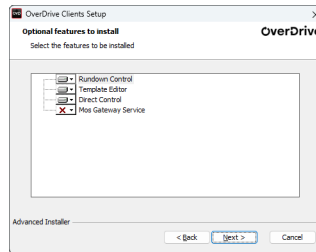


8. Read the **OverDrive License Agreement**.

9. Select the **I accept the terms in the License Agreement** option to install OverDrive Clients software.

10. Click **Next**.

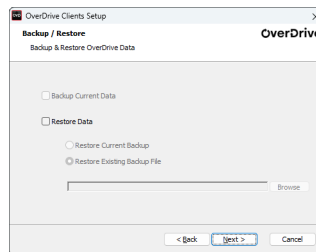
The **Optional Features to Install** screen opens. Rundown Control, Template Editor, and Direct Control are option feature installations for the client computer.



11. When you do not want to install a feature on the client computer, click the menu to the left of the feature and select **Entire feature will be unavailable**.

12. Click **Next**.

The **Backup / Restore** screen opens.



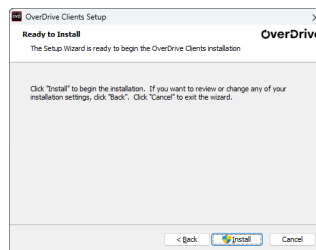
13. Select the **Restore Data** check box to restore client preference settings after installing OverDrive Client software. Clear the **Restore Data** check box to install without restoring preference settings.

Select one of the following options to select the RapidRestore backup file to restore on the OverDrive Server:

- **Restore Current Backup** — create a backup file for the current OverDrive Server and use the backup file to restore the new OverDrive Server.
- **Restore Existing Backup File** — click **Browse** to select the backup file to restore.

14. Click **Next**.

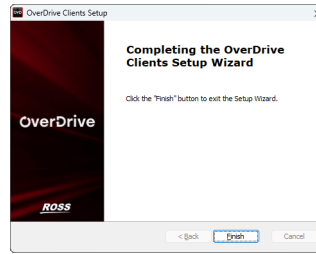
The **Ready to Install** screen opens.



15. Click **Install**.

When installing OverDrive Clients on the OverDrive Server computer, the Installer Information dialog box opens. Click **Yes** to restart the computer and complete the installation of OverDrive Clients software.

After the installation of the OverDrive Clients is complete, the **Wizard Complete** screen opens.



16. Click **Finish**.

The **OverDrive Clients Setup** wizard closes.

17. Re-enable antivirus software after installing OverDrive Clients software.

OverDrive ProjectServer Installation

Install the OverDrive ProjectServer on a the same computer as the OverDrive Server from which you will publish show and global system configurations. An OverDrive Server must be able to connect to the OverDrive ProjectServer to deploy show and global system configurations to the OverDrive system.

★ You can only publish global system configurations from the OverDrive CentralServer (license required). In a Redundant OverDrive Node System, both primary and redundant nodes reference the ProjectServer hosted on the CentralServer computer.

Complete the following sections to install an OverDrive ProjectServer for an OverDrive system.

★ The ProjectServer software major and minor version must match the OverDrive software major and minor installed on each OverDrive node in your system. For example, you must install ProjectServer v24.3.X to work with OverDrive v24.3.X. The X in the example ProjectServer and OverDrive software version numbers does not need to match.

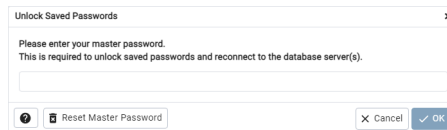
Create the OverDrive ProjectServer Database

You must create a PostgreSQL database named “overdriveprojectserver” before you install OverDrive ProjectServer software on the OverDrive ProjectServer computer in your OverDrive system.

To create the OverDrive ProjectServer database

1. From the Windows Desktop of your **OverDrive ProjectServer** computer, use the **Start** menu to select **PostgreSQL 15 > pgAdmin 4**.

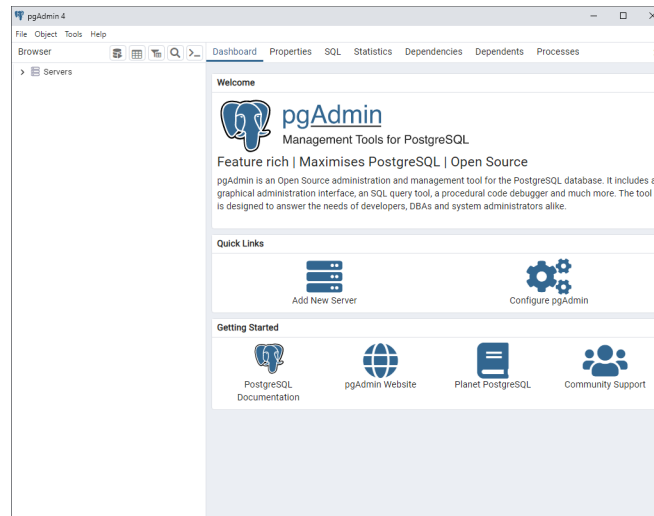
The **Unlock Saved Passwords** dialog box opens.



2. In the **Unlock Saved Passwords** dialog box, enter the **master password** for **pgAdmin 4**.

3. Click **OK**.

The **pgAdmin 4** PostgreSQL management tool opens.



4. In the **Browser** tree view, expand the **Servers** node.

The **Browser** tree view displays the available Postgres servers.

5. Right-click the **PostgreSQL 15** server and select **Connect Server** from the shortcut menu.

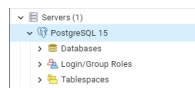
The **Connect to Server** dialog box opens.



6. In the **Password** box, enter the custom password set during installation of the Ross Licensing Service database software on the Ross Licensing Service computer.

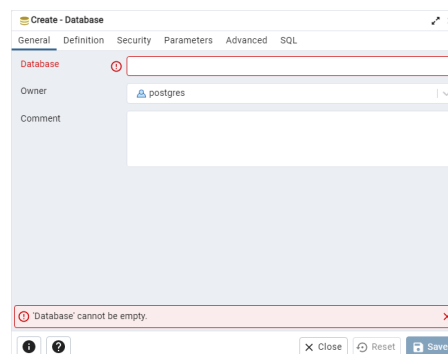
7. Click **OK**.

The **PostgreSQL 15** node expands in the **Object Browser** tree view.



8. In the expanded **PostgreSQL 15** node, right-click the **Databases** node and select **Create > Database** from the shortcut menu.

The **Create - Database** dialog box opens.



9. In the **Database** box, type the following name:

overdriveprojectserver

10. Click **Save**.

PostgreSQL adds the **overdriveprojectserver** database to the **Databases** node in the **Browser** tree view.

11. Close **pgAdmin 4**.

The **pgAdmin 4** PostgreSQL management tool.

Install OverDrive ProjectServer Software

After you create the overdriveprojectserver database, you can install OverDrive ProjectServer software to manage your show configurations.

- ★ After installing OverDrive ProjectServer software, you must obtain OverDrive ProjectServer product key from Ross Video Technical Support before you can access OverDrive ProjectServer features.
- ★ You must clear the cache of the web browser you use to access the OverDrive ProjectServer web page before logging in following a software upgrade.

To install OverDrive ProjectServer software

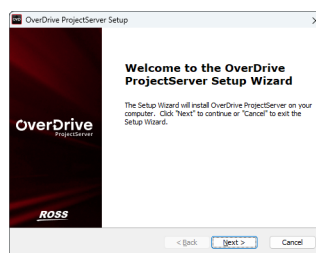
1. Contact Ross Video Technical Support to obtain the **OverDrive ProjectServer** software installer that matches the OverDrive version installed on the OverDrive nodes in your system.

ProjectServer major and minor versions must match all of the OverDrive nodes in the system. For example, you must install ProjectServer v24.3.x to work with OverDrive v24.3.x. The x in the example version numbers does not need to be the same across OverDrive nodes.

2. On the **OverDrive ProjectServer** computer, exit all currently running Windows® applications.
3. Temporarily disable antivirus software running on the OverDrive ProjectServer computer.
Some heuristic-based intrusion detection systems prevent the installation of OverDrive ProjectServer software.
4. Copy the **OverDrive ProjectServer** software installer obtained from Ross Video Technical Support to your OverDrive ProjectServer computer.
5. Navigate to the folder where you copied the OverDrive ProjectServer software installer.
6. Double-click **OverDriveProjectServer-24.3.X-.msi**.

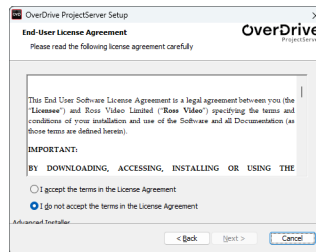
If a **Security Warning** message displays, click **Run**.

The **OverDrive ProjectServer Setup** wizard opens.



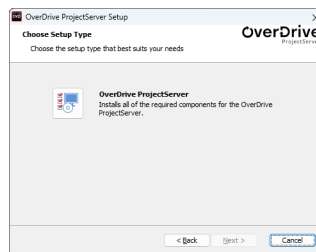
7. Click **Next**.

The **End-User License Agreement** screen opens.



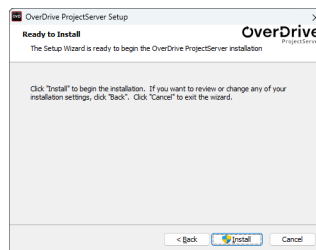
8. Read the **OverDrive ProjectServer License Agreement**.
9. Select the **I accept the terms in the License Agreement** option.
10. Click **Next**.

The **Choose Setup Type** screen opens.



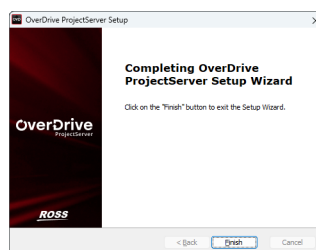
11. Click the **OverDrive ProjectServer** icon.

The **Ready to Install** screen opens.



12. Click **Install**.

After the OverDrive ProjectServer installation completes, the **Installation Complete** screen opens.



13. Click **Finish**.

The **OverDrive ProjectServer Setup** wizard closes and adds the **OverDrive ProjectServer** icon to the Desktop. The OverDrive ProjectServer starts automatically after the installation of the OverDrive ProjectServer software.

14. Re-enable antivirus software.
15. Before logging in to the OverDrive ProjectServer web page after a software update, you must clear the cache of the web browser you use to access the OverDrive ProjectServer web page.

Updating OverDrive ProjectServer

When you upgrade a version of OverDrive ProjectServer that is v23.3.X or older to OverDrive ProjectServer v23.4.X or newer, you must switch your OverDrive ProjectServer database driver back to PostgreSQL.

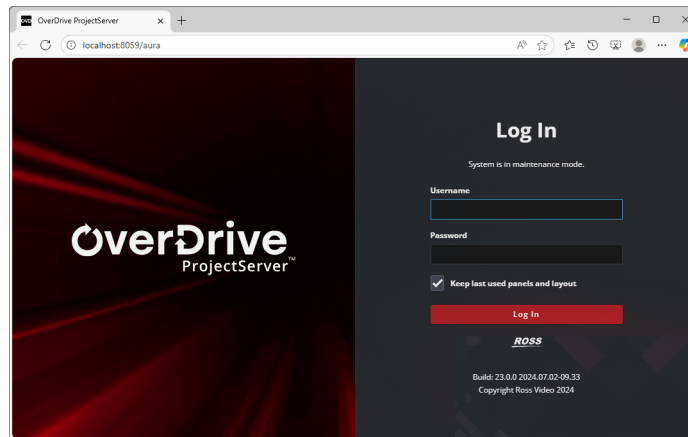
To switch your OverDrive ProjectServer database driver to PostgreSQL

1. Use one of the following methods to open the **OverDrive ProjectServer** web page:
 - On the desktop of your **OverDrive ProjectServer** computer, double-click the **Ross OverDrive ProjectServer** icon.
 - On your **OverDrive ProjectServer** computer, use the **Start** menu to select **Ross OverDrive ProjectServer > Ross OverDrive ProjectServer**.
 - On a computer connected to the same subnetwork as your **OverDrive ProjectServer** computer, use a supported web browser to open the following URL:

`http://<OverDrive_ProjectServer>:8059/`

In the URL, `<OverDrive_ProjectServer>` is the hostname or IP address of the OverDrive ProjectServer in your OverDrive system.

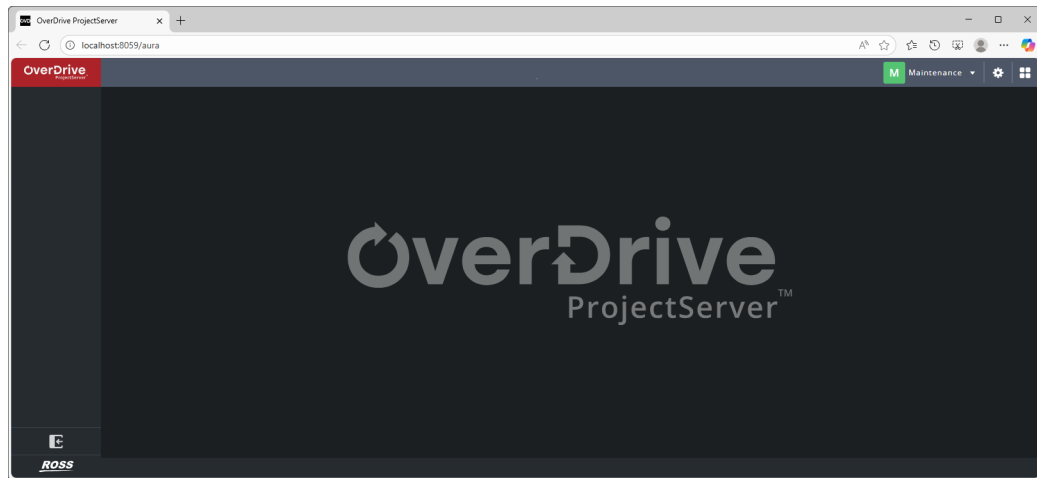
The **Log In** web page opens in **maintenance mode**.



2. In the **Log In** section, enter the following login credentials:
 - **Username** — `maintenance`
 - **Password** — `<maintenance_password>`

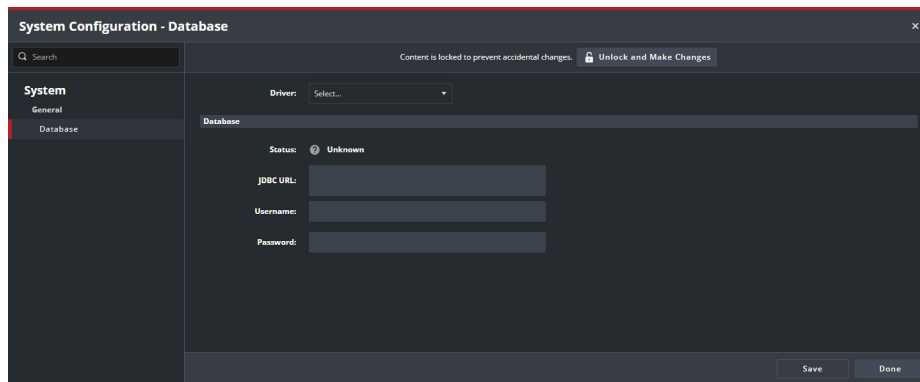
3. Click **Log In**.

The **OverDrive ProjectServer** opens.



4. On the main toolbar, click the  **System Configuration** icon.

The **System Configuration** window opens displaying the **Database** panel.



5. To edit the database configuration, click **Unlock and Make Changes** at the top of the panel.
6. Use the **Driver** list to select **PostgreSQL**.
7. In the **Password** box, enter the password for the PostgreSQL user.
8. Click **Save**.

ProjectServer saves the set database configuration. You must restart the **OverDrive ProjectServer** service for database configuration changes to take effect.

9. Click **Done**.

The **System Configuration** window closes.

10. Use the **User** menu at the right-side of the title bar to select **Logout**.

An **Alert** dialog box opens.

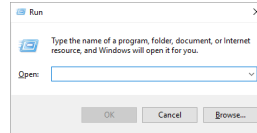
11. Click **Logout**.

ProjectServer logs you out.

12. Close the web browser.

13. From the Windows desktop, press **Windows Key R**.

The **Run** dialog box opens.

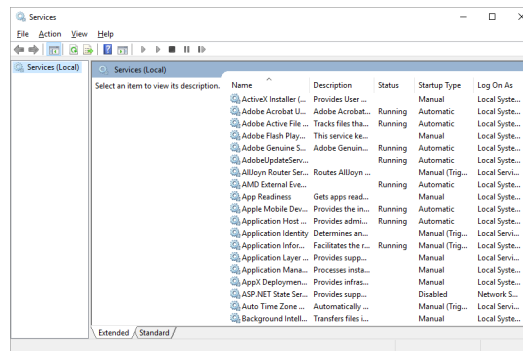


14. In the **Open** box, type the following application name:

```
services.msc
```

15. Click **OK**.

The **Services** window opens.



16. In the **Services** list, locate and select the **OverDrive ProjectServer** service.

17. Click **Restart** for the **OverDrive ProjectServer** service.

18. Use the **File** menu to select **Exit**.

The **Services** dialog box closes.

License Your OverDrive ProjectServer Software

Ross Video uses a product key to control access to the OverDrive ProjectServer. You can use your OverDrive ProjectServer product key with the following licensing servers to license your OverDrive ProjectServer software:

- **Ross Activation Licensing Server** — the OverDrive ProjectServer must have access to the internet to use the Ross Activation licensing server.
- **Ross Platform Manager** — use this licensing server when your OverDrive ProjectServer does not have access to the internet. The Ross Platform Manager must be installed on a computer in your local network that the OverDrive ProjectServer can access. For information on setting up the Ross Platform Manager, refer to the section “**Ross Platform Manager Setup**” on page 4–17 of the *OverDrive Installation and Configuration Guide*.

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

For More Information on...

- contacting Ross Video Technical Support, refer to the section “**Contacting Technical Support**” on page 1–2.

Ross Activation Licensing Server

When your OverDrive ProjectServer has access to the internet, you can use the Ross Activation licensing server to activate your OverDrive ProjectServer product key. You can obtain an OverDrive ProjectServer product key from Ross Video Technical Support.

- ★ When you activate an OverDrive ProjectServer product key, your OverDrive ProjectServer computer must contact the Ross Activation licensing server through the internet.

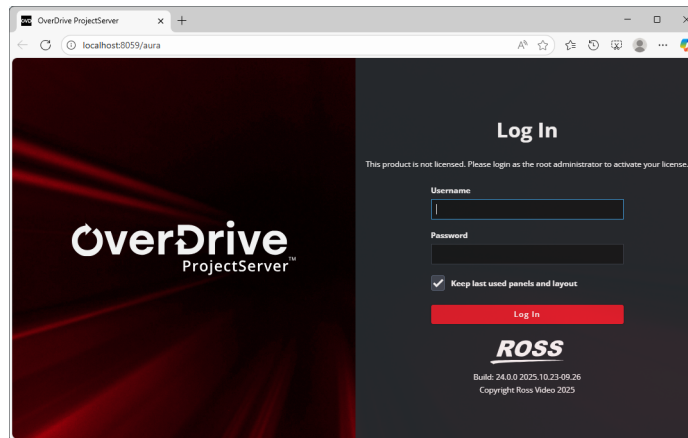
To use the Ross Activation Licensing Server to activate product keys

1. Verify that the **OverDrive ProjectServer** computer can connect to the Internet.
2. Use one of the following methods to open the **OverDrive ProjectServer** web page:
 - On the desktop of your **OverDrive ProjectServer** computer, double-click the **Ross OverDrive ProjectServer** icon.
 - On your **OverDrive ProjectServer** computer, use the **Start** menu to select **Ross OverDrive ProjectServer** > **Ross OverDrive ProjectServer**.
 - On a computer connected to the same subnetwork as your **OverDrive ProjectServer** computer, use a supported web browser to open the following URL:

`http://<OverDrive_ProjectServer>:8059/`

In the URL, <OverDrive_ProjectServer> is the hostname or IP address of the OverDrive ProjectServer in your OverDrive system.

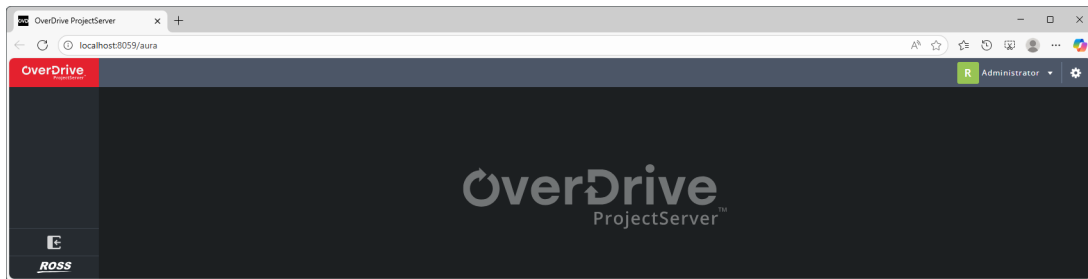
The **Log In** web page opens.



- ★ If a message displays indicating that the system is in **maintenance** mode, the OverDrive ProjectServer cannot communication with the database. Please contact Ross Video support.
3. In the **Log In** section, enter the login credentials of an OverDrive user with administrator privileges in the **Username** and **Password** boxes.

4. Click **Log In**.

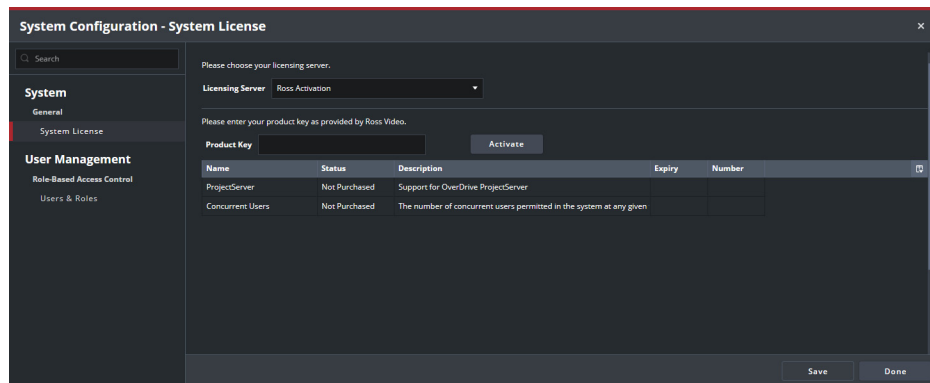
The **OverDrive ProjectServer** opens.



★ For your security, the OverDrive ProjectServer automatically logs you out after 30 minutes of inactivity.

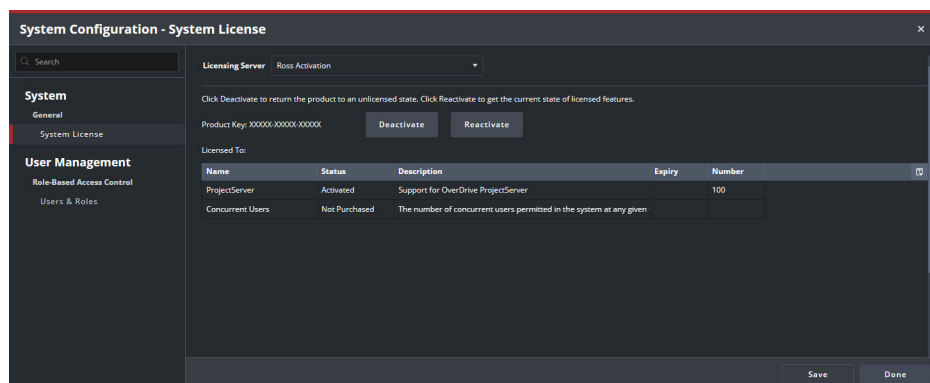
5. On the main toolbar, click the  **System Configuration** icon.

The **System Configuration** window opens displaying the **System License** panel.



6. Obtain an OverDrive ProjectServer product key from Ross Video Technical Support.
7. Use the **Licensing Server** list to select **Ross Activation**.
8. In the **Product Key** box, enter the product key obtained from Ross Video Technical Support.
9. Click **Activate**.

The **System License** panel updates to display the feature licenses associated with the activated product key.



The **Status** column displays one of the following states:

- **Activated** — feature is active and available to OverDrive ProjectServer users.
- **Expires in # days** — feature availability for OverDrive ProjectServer users expires in the displayed number of days.
- **Expired** — feature has expired and is no longer available to OverDrive ProjectServer users.
- **Invalid MAC** — feature license key is invalid for the active network interface card of the OverDrive ProjectServer computer.
- **Not Purchased** — feature is not accessible to OverDrive ProjectServer users, but it is available for purchase.

10. Click **Done**.

The **System License** panel closes.

Ross Platform Manager

When your OverDrive ProjectServer does not have access to the internet, use the Ross Platform Manager licensing server to activate your OverDrive ProjectServer product key. You can obtain an OverDrive ProjectServer product key from Ross Video Technical Support.

To use the Ross Platform Manager licensing server to activate product keys

1. Verify that the **Ross Platform Manager** is installed on a computer in your network to which your **OverDrive ProjectServer** computer can connect.

For information on installing and configuring the Ross Platform Manager, refer to the section “**Ross Platform Manager Setup**” on page 4–17 of the *OverDrive Installation and Configuration Guide*.

2. Activate your **OverDrive ProjectServer** product key on the **Ross Platform Manager** in your system.

For information on using the Ross Platform Manager to active product keys, refer to the section “**Activate OverDrive Product Keys**” on page 4–21 of the *OverDrive Installation and Configuration Guide*.

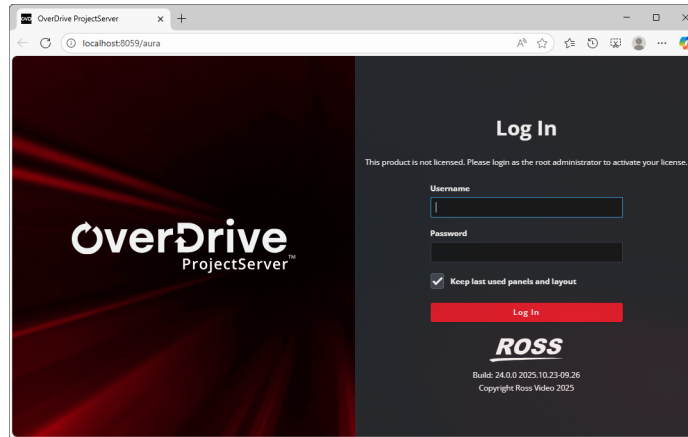
3. Use one of the following methods to open the **OverDrive ProjectServer** web page:

- On the desktop of your **OverDrive ProjectServer** computer, double-click the **Ross OverDrive ProjectServer** icon.
- On your **OverDrive ProjectServer** computer, use the **Start** menu to select **Ross OverDrive ProjectServer > Ross OverDrive ProjectServer**.
- On a computer connected to the same subnetwork as your **OverDrive ProjectServer** computer, use a supported web browser to open the following URL:

```
http://<OverDrive_ProjectServer>:8059/
```

In the URL, <OverDrive_ProjectServer> is the hostname or IP address of the OverDrive ProjectServer in your OverDrive system.

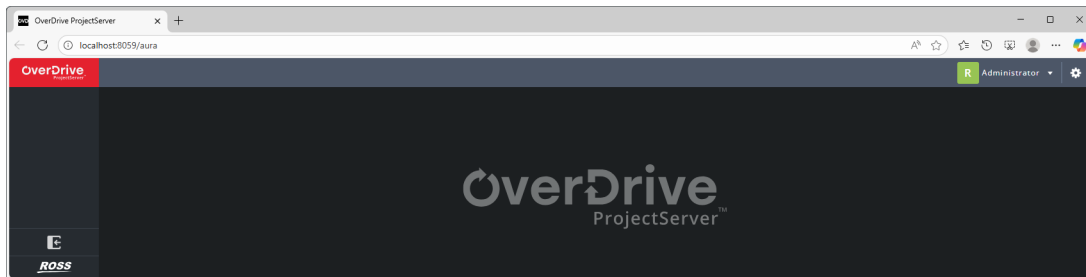
The **Log In** web page opens.



★ If a message displays indicating that the system is in **maintenance** mode, the OverDrive ProjectServer cannot communication with the database. Please contact Ross Video support.

4. In the **Log In** section, enter the login credentials of an OverDrive user with administrator privileges in the **Username** and **Password** boxes.
5. Click **Log In**.

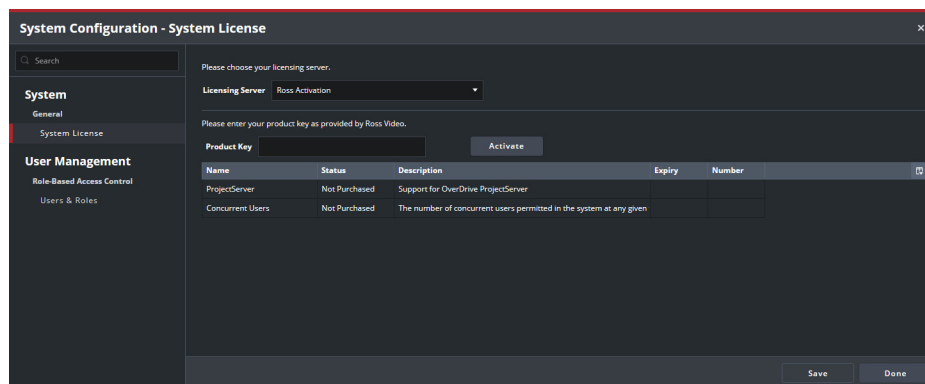
The **OverDrive ProjectServer** opens.



★ For your security, the OverDrive ProjectServer automatically logs you out after 30 minutes of inactivity.

6. On the main toolbar, click the  **System Configuration** icon.

The **System Configuration** window opens displaying the **System License** panel.



7. Obtain an OverDrive ProjectServer product key from Ross Video Technical Support.
8. Use the **Licensing Server** list to select **Ross Platform Manager**.
9. In the **Host** box, enter the IP address or hostname of your **Ross Platform Manager Server** computer.

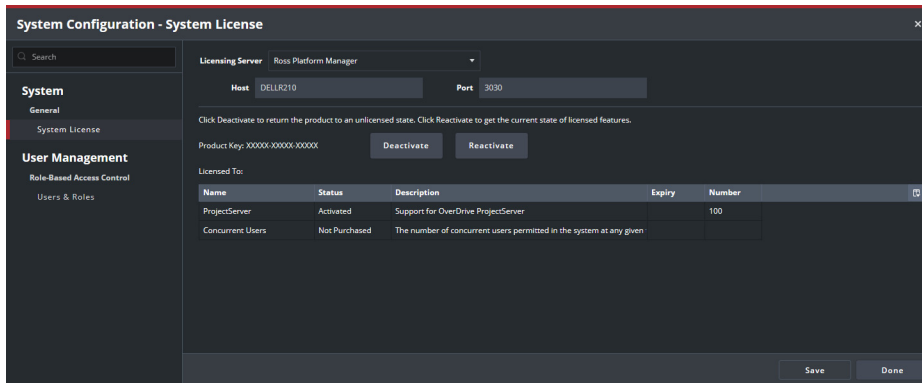
10. In the **Port** box, enter the network port number of your **Ross Platform Manager Server**.

Ross Platform Manager Servers in an OverDrive system use port 3030 as the network port for unsecure HTTP connections. **Ross Platform Manager Servers** use port 443 for secure HTTPS connections.

11. In the **Product Key** box, enter the product key obtained from Ross Video Technical Support.

12. Click **Activate**.

The **System License** panel updates to display the feature licenses associated with the activated product key.



The **Status** column displays one of the following states:

- **Activated** — feature is active and available to OverDrive ProjectServer users.
- **Expires in # days** — feature availability for OverDrive ProjectServer users expires in the displayed number of days.
- **Expired** — feature has expired and is no longer available to OverDrive ProjectServer users.
- **Invalid MAC** — feature license key is invalid for the active network interface card of the OverDrive ProjectServer computer.
- **Not Purchased** — feature is not accessible to OverDrive ProjectServer users, but it is available for purchase.

13. Click **Done**.

The **System License** panel closes.

Reactivate a Product Key

After purchasing new features for an OverDrive ProjectServer, the OverDrive ProjectServer product key requires reactivation to make the purchased features available to OverDrive ProjectServer users.

To reactivate an OverDrive ProjectServer product key

1. Log into OverDrive ProjectServer as an **Administrator**.

2. On the main toolbar, click the  **System Configuration** icon.

The **Configuration** window opens.

3. In the **System** section of the side navigation, click **System License**.

The **System License** panel opens

4. Click **Reactivate**.

The **System License** pop-up messages reports the status of your product key reactivation.


5. Click **Done**.

The **System License** panel closes.

Deactivate a Product Key

When you want to move OverDrive ProjectServer software on another computer, you must first deactivate the OverDrive ProjectServer product key on the current OverDrive ProjectServer computer.

To deactivate an OverDrive ProjectServer product key

1. Log into OverDrive ProjectServer as an **Administrator**.
2. On the main toolbar, click the  **System Configuration** icon.
The **Configuration** window opens.
3. In the **System** section of the side navigation, click **System License**.
The **System License** panel opens
4. Click **Deactivate**.
The **Deactivate** dialog box opens.
5. Click **Deactivate**.
The **Deactivate** dialog box closes, and the product key displayed in the **Product Key** box deactivates. You can now use the deactivated product key to activate OverDrive ProjectServer software on another computer.
Deactivating a product key unlicenses and removes OverDrive ProjectServer user access to all the OverDrive ProjectServer features associated with the product key.
6. Click **Done**.
The **System License** panel closes.

Communication Configuration

The OverDrive ProjectServer communicates with the OverDrive Server to enable show and global system configurations to be published and deployed between the two servers. An API key generated on the OverDrive ProjectServer ensures a secure connection between it and the OverDrive Server. The OverDrive ProjectServer Configuration web page on the OverDrive Server contains the settings to configure the OverDrive Server to communicate with the OverDrive ProjectServer.

OverDrive ProjectServer API Key Generation

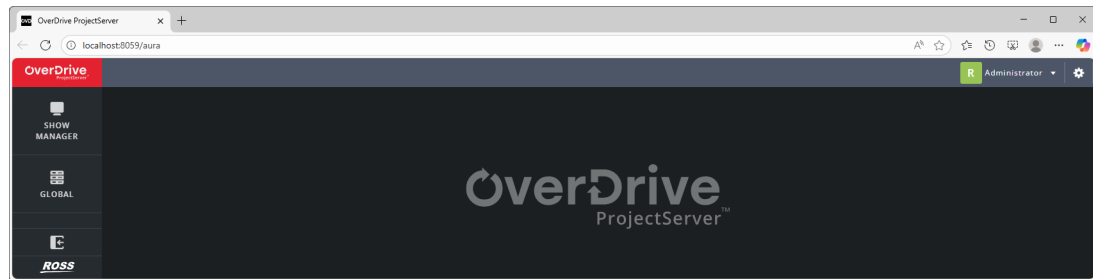
Before you can configure an OverDrive Server to communicate with an OverDrive ProjectServer, you must generate an API key on the OverDrive ProjectServer. The OverDrive Server will use the generated API key to securely connect with the OverDrive ProjectServer.

To generate an OverDrive ProjectServer API key

1. Use one of the following methods to open the **OverDrive ProjectServer** web page:
 - On the desktop, double-click the **Ross OverDrive ProjectServer** icon.
 - Use the **Start** menu to select **Ross OverDrive ProjectServer > Ross OverDrive ProjectServer**.
 - On a computer connected to the same subnetwork as your OverDrive ProjectServer computer, use a supported web browser to open `http://<OverDrive ProjectServer>:8059/`. In the URL, `<OverDrive ProjectServer>` is the hostname or IP address of the OverDrive ProjectServer in your OverDrive Redundant Server System.
The **Log In** web page opens.
2. In the **Log In** section, enter the login credentials of an OverDrive user with administrator privileges in the **Username** and **Password** boxes.

3. Click **Log In**.

The **OverDrive ProjectServer** opens.



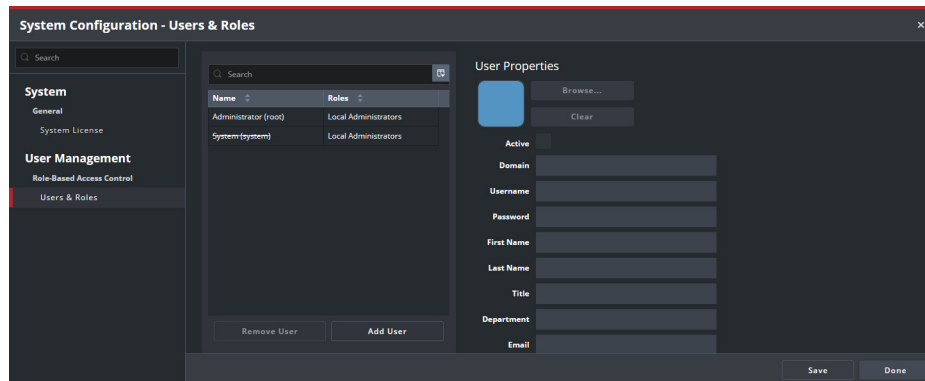
★ For your security, the OverDrive ProjectServer automatically logs you out after 30 minutes of inactivity.

4. On the main toolbar, click the  **System Configuration** icon.

The **System Configuration** window opens.

5. In the **User Management** section of the side navigation, click **Users & Roles**.

The **Users & Roles** panel opens



6. At the bottom of the **Name** list, click **Add User**.
7. In the **Name** list, click **New User**.
8. In the **User Properties** section, select the **Active** check box to make the user operational.
9. In the **Username** box, enter `overdrive`.
10. In the **Password** box, enter a password for the overdrive user that satisfies the password policy of your organization.
11. In the **First Name** box, enter `OverDrive`.
12. In the **Last Name** box, enter `User`.
13. Select the **Enable API** check box.
14. Directly below the **API Key** field, click **Save**.

The **API Key** field displays the generated API Key for the OverDrive user.

15. Record the generated API key in a safe place.

You will need the generated API key to configure OverDrive ProjectServer communication settings on your OverDrive Server.

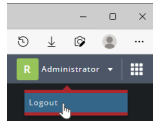
- ★ This is your only opportunity to view the API key generated for your OverDrive ProjectServer. After the current web page closes you can no longer view the OverDrive ProjectServer API key. If you lose the API key for an OverDrive ProjectServer must generate a new API key for the server.

16. Click Done.

The **System Configuration** window closes.

To close the OverDrive ProjectServer

- On the main toolbar, use the **User** menu to select **Logout**.



OverDrive Server Communication Settings

After generating an OverDrive ProjectServer API key, you are ready to configure an OverDrive Server to communicate with the OverDrive ProjectServer.

To configure an OverDrive Server to communicate with an OverDrive ProjectServer

1. Use one of the following methods to open the **OverDrive Server Web Administration** web page:
 - On the desktop of your **OverDrive ProjectServer** computer, double-click the **OverDrive Server** icon.
 - On your **OverDrive ProjectServer** computer, use the **Start** menu to select **All Programs > OverDrive > OverDrive Server**.
 - On a computer connected to the same subnetwork as your **OverDrive ProjectServer** computer, use a supported web browser to open the following URL:

`http://<OverDrive_Server_ProjectServer>/`

In the URL, <OverDrive_Server_ProjectServer> is the hostname or IP address of the OverDrive Server installed on the OverDrive ProjectServer computer in your OverDrive system.

The **OverDrive Server Web Administration** web page opens in a web browser window.

2. Enter the following user name and password in the provided boxes:
 - **Username** — `overdrive`
 - **Password** — `<your_password>`

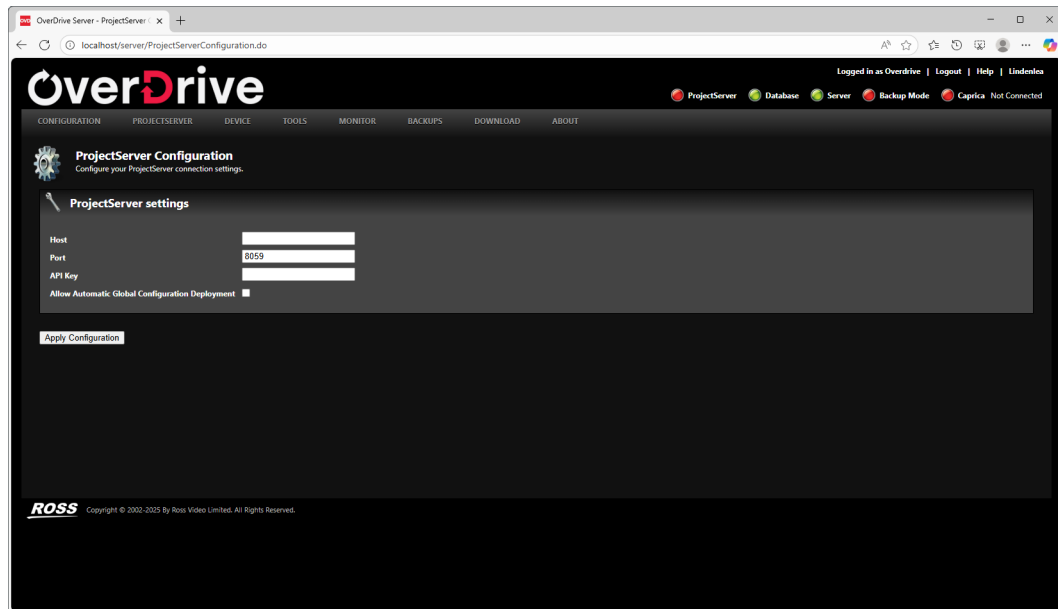
Usernames are not case sensitive. The overdrive user password was set during the OverDrive software install.

3. Click **Login**.

The **OverDrive Server - Main menu** web page opens.

4. Use the **PROJECTSERVER** menu to select **Configuration**.



The **ProjectServer Configuration** web page opens.



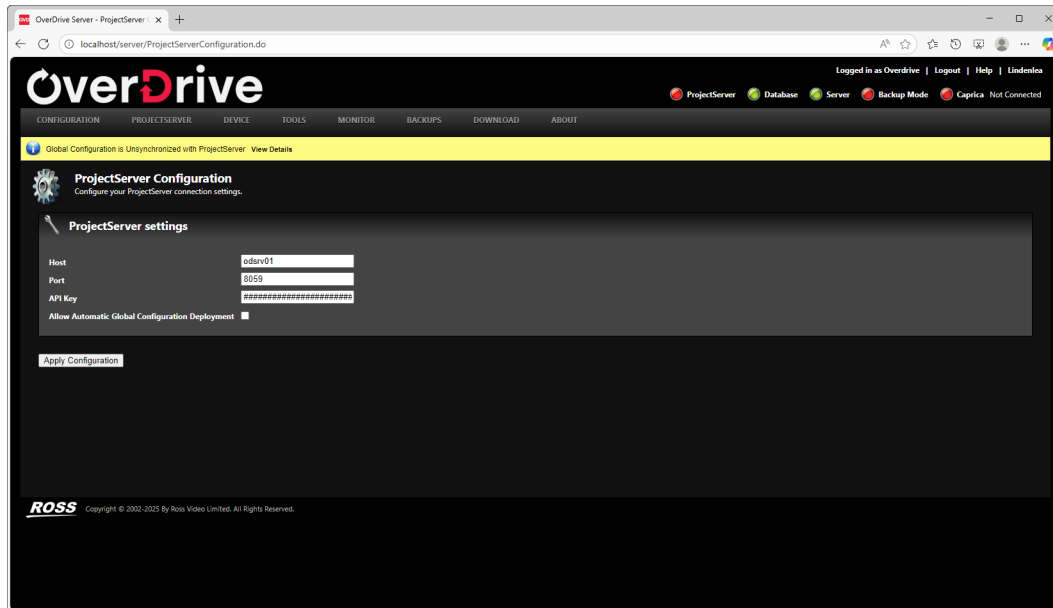
5. In the **Host** box, enter the hostname or IP address of the OverDrive ProjectServer.
6. In the **Port** box, enter the port number that your OverDrive Server uses to communicate with your OverDrive ProjectServer.
Port 8059 is the default port used by the OverDrive ProjectServer to communicate with other applications.
7. In the **API Key** box, enter the API key you generated for the OverDrive ProjectServer.
The OverDrive ProjectServer API Key was recorded in step 15 on page 4-42.
8. Select the **Allow Automatic Global Configuration Deployment** check box to automatically publish global system configuration settings made in an OverDrive client to the OverDrive ProjectServer and deploy the new settings to all other OverDrive clients in your OverDrive system. Clear this check box to manually deploy the global system configuration settings in the currently active **global system configuration** to the OverDrive Server.
9. Click **Apply Configuration**.

OverDrive updates the OverDrive ProjectServer configuration with the entered settings and connects to the OverDrive ProjectServer using the entered settings.

The OverDrive ProjectServer LED icon in the top right-hand corner of the OverDrive Server Web Administration web page indicates the connection state between the OverDrive Server Web Administration web page and the OverDrive ProjectServer. This icon reports the following states:

-  The OverDrive Server Web Administration web page is connected to the OverDrive ProjectServer.
-  The OverDrive Server Web Administration web page is not currently connected to the OverDrive ProjectServer. Check that the following:
 - The entered communication settings are correct for the OverDrive ProjectServer.
 - The OverDrive ProjectServer is running.
 - The entered API key on the OverDrive Server matches the API key of the OverDrive ProjectServer.

When you connect to an OverDrive ProjectServer that does not have any global system configurations saved for the OverDrive Server, the following **Alert** banner displays at the top of all **OverDrive Server Web Administration** web pages:



In the **Alert** banner, click **View Details** to open the **Global System Configurations** web page to publish the current global system configuration of the OverDrive Server to the OverDrive ProjectServer. For more information on publishing global system configurations, refer to the section “**Publish the Global System Configuration from an OverDrive Server**” on page 8–10 in the *OverDrive User Guide*.

OverDrive ProjectServer Backup Automation

The ProjectServer run_backup.cmd Windows batch script enables the quick and easy back up of the OverDrive ProjectServer database, folders, and files. OverDrive ProjectServer backups can be used to restore an OverDrive ProjectServer if a system failure were to occur. The following sections instruct how to configure, automatically run, and restore OverDrive ProjectServer backups:

- Add Database Client Tools to the System Path on page 4–44
- Configure Backup Script Settings on page 4–45
- Automate Backups on page 4–46
- Restore on page 4–48

Add Database Client Tools to the System Path

The run_backup.cmd Windows batch script uses database client commands to backup your OverDrive ProjectServer database. The folder that contains the database client commands must be added to the system Path environment variable to enable the backup script to run the commands on the OverDrive ProjectServer computer.

To add database client commands to the system Path environment variable

1. Log in to the **OverDrive ProjectServer** computer as a user with administrator privileges.
2. In the **Windows Search Bar**, enter `Advanced System Settings`.
3. In the search results list, click **View advanced system settings**.
The **Advanced** tab of the **System Properties** dialog box opens.
4. In the **Advanced** tab, click **Environment Variables**.
The **Environment Variables** dialog box opens.

5. In the **System variables** list, select **Path**.
6. Click **Edit**.
The **Edit environment** variable dialog box opens.
7. Click **New**.
8. Depending on the database software used by your OverDrive ProjectServer, enter the path to the **bin** folder as follows:
 - **PostgreSQL** — enter the following path:
C:\Program Files\PostgreSQL\15\bin\
 - **MariaDB** — enter the following path:
C:\Program Files\MariaDB 11.4\bin
9. Click **OK**.
The new folder path is added to the **Path** environment variable and the **Edit environment variable** dialog box closes.
10. In the **Environment Variables** dialog box, click **OK**.
The updated **Path** environment variable is saved and the **Environment Variables** dialog box closes.
11. In the **System Properties** dialog box, click **OK**.
12. The updated system properties are saved and the **System Properties** dialog box closes.

Configure Backup Script Settings

Before you can use the run_backup.cmd Windows batch script, you must edit the config-overdrive.cmd file to configure the script to work on your OverDrive ProjectServer computer.

To edit the config-overdrive.cmd file for your OverDrive ProjectServer computer

1. Navigate to the following folder:
C:\Program Files\Ross Video\Overdrive Project Server\utilities\database-backup-scripts\Configs
2. Open the **config-overdrive.cmd** file in a text editor.
3. Based on the type of database used by your OverDrive ProjectServer, set values for the database variables as follows:

Variable	PostgreSQL Value	MariaDB Value
DATABASE	postgresql	mariadb
DATABASE_HOST	Your ProjectServer computer hostname	Your ProjectServer computer hostname
DATABASE_PORT	5432	3306
DATABASE_NAME	overdriveprojectserver	overdriveprojectserver
DATABASE_USER	postgres	root

The following is an example of database variable settings for an OverDrive ProjectServer using a PostgreSQL database:

```
set "DATABASE=postgresql"
set "DATABASE_HOST=ODPS_CENTRAL"
set "DATABASE_PORT=5432"
set "DATABASE_NAME=overdriveprojectserver"
set "DATABASE_USER=postgres"
```

4. By default, the following folders are backed up along with the OverDrive ProjectServer database:

- **Media** — show data.
- **Config** — database and license .ini files.
- **Logs** — application logs.

If you want to add additional folders or files to your OverDrive ProjectServer backup, complete the following steps:

a. For each additional folder or file to backup, add the following variables to the **config-overdrive.cmd** file:

Variable	Value
FILE_#	A name for the folder or file to backup. Increment the variable name by 1.
FILE_LOC_#	Full path to the folder or file to backup. Increment the variable name by 1.

The following example adds an additional folder and file to an OverDrive ProjectServer backup:

```
REM The 'Resources' folder, stores OverDrive ProjectServer backgrounds and icons
set "FILE_4=Resources"
set "FILE_LOC_4=C:\Program Files\Ross Video\Overdrive Project Server\resources

REM The 'License.rtf' file, software licensing information
set "FILE_5=http.conf"
set "FILE_LOC_5=C:\Program Files\Ross Video\Overdrive Project
Server\License.rtf
```

b. Edit the value of the **FILE_COUNT** variable to include the additional folders and files you added to your OverDrive ProjectServer backup.

The following example **FILE_COUNT** variable setting includes the additional folder and file added to the OverDrive ProjectServer backup in the previous example:

```
set "FILE_COUNT=5"
```

c. If you want to keep OverDrive ProjectServer backups for more or less time than the default seven days, edit the value of the **DAYS** variable.

The following example **DAYS** variable setting keeps OverDrive ProjectServer backups for twelve days:

```
set "DAYS=12"
```

d. Save the updated **config-overdrive.cmd** file and exit the text editor.

Automate Backups

After configuring the `run_backup.cmd` Windows batch script for your OverDrive ProjectServer, you can use the Windows Task Scheduler to automatically backup your OverDrive ProjectServer every set number of days.

To configure the `run_backup.cmd` Windows batch script for your OverDrive ProjectServer

1. In the **Windows Search Bar**, enter `Task Scheduler`.
2. In the search results list, click **Task Scheduler**.
The **Task Scheduler** window opens.
3. Use the **Action** menu to select **Create Task**.
The **Create Task** dialog box opens.
4. In the **Name** box, enter `OverDrive ProjectServer Backup`.
You can also enter your own custom name for the task.

5. In the **Security options** section, click **Change User or Group**.

The **Select User or Group** dialog box opens.

6. Click **Advanced**.

The **Advanced Select User or Group** dialog box opens.

7. Verify that the **From this location** box displays the name of your **OverDrive ProjectServer computer**.

8. Click **Find Now**.

The **Search results** section lists the users on your OverDrive ProjectServer computer.

9. In the **Search results** section, select **Administrators**.

10. Click **OK**.

The **Advanced Select User or Group** dialog box closes.

11. In the **Select User or Group** dialog box, click **OK**.

The **Select User or Group** dialog box closes.

12. In the **Create Task** dialog box, click the **Triggers** tab.

The **Triggers** tab opens.

13. Click **New**.

The **New Trigger** dialog box opens.

14. Use the options in the **Settings** section to set the interval and time of day to backup your OverDrive ProjectServer database.

For example, you could backup up your OverDrive ProjectServer database **Daily** at **3:00:00 AM**.

15. Select the **Enabled** check box.

16. Click **OK**.

The **New Trigger** dialog box closes and the **Triggers** tab in **Create Task** dialog box displays your new task.

17. In the **Create Task** dialog box, click the **Actions** tab.

The **Actions** tab opens.

18. Click **New**.

The **New Action** dialog box opens.

19. To the right of the **Program/script** box, click **Browse**.

The **Open** dialog box opens.

20. Navigate to the **OverDrive ProjectServer scripts** folder.

`C:\Program Files\Ross Video\Overdrive Project Server\utilities\database-backup-scripts`

21. Select the **run_backup.cmd** file.

22. Click **Open**.

The **Open** dialog box closes and the **Program/script** box in the **New Action** dialog box displays the path to the **run_backup.cmd** file.

23. In the **Add arguments** box, enter your **database password** and the relative path to the **config-overdrive.cmd** file as follows:

`<db_password> Configs\config-overdrive.cmd`

Where `<db_password>` is the password for you OverDrive ProjectServer database.

24. In the **Start in** box, enter the path to the **database-backup-scripts** folder as follows:

```
C:\Program Files\Ross Video\Overdrive Project Server\utilities\database-backup-scripts\
```

25. Click **OK**.

The **New Action** dialog box closes and the **Actions** tab in **Create Task** dialog box displays your new action.

26. Click the **Conditions** tab to specify conditions that, along with the trigger, determine whether the task should run. The task will only run if all specified conditions are met.

27. Click the **Settings** tab.

The **Settings** tab opens.

28. Select the **Run task as soon as possible after a scheduled start is missed** check box.

29. Click **OK**.

The **Create Task** dialog box closes.

30. In the **Task Scheduler** window, use the **File** menu to select **Exit**.

The **Task Scheduler** window closes. The Task Scheduler will follow the schedule that you set to automatically backup your OverDrive ProjectServer.

Restore

OverDrive ProjectServer backups can be used to restore an OverDrive ProjectServer. After you restore your OverDrive ProjectServer database, remember to also restore the folders and files that you chose to backup along with the database.

To restore your OverDrive ProjectServer from a backup

1. On the OverDrive ProjectServer computer, stop the **OverDrive ProjectServer** service as follows:

- a. In the **Windows Search Bar**, enter *Services*.
- b. In the search results list, click **Services**.
The **Services** window opens.
- c. In the **Services** list, locate the **OverDrive ProjectServer** service.
- d. Click **Stop** for the **OverDrive ProjectServer** service.

2. Use the client application for your database to manually restore your OverDrive ProjectServer from a backup in your set backup folder.

- **PostgreSQL** — pgAdmin 4.
- **MariaDB** — HeidiSQL.

The `C:\ProgramData\Ross Video\OverDrive\Backups` folder is the default storage location for OverDrive ProjectServer backups.

3. Manually restore the default folders included in the backup.

- **Media** — show data.
- **Config** — database and license .ini files.
- **Logs** — application logs.

4. If you added folders or files to the backup, manually restore those folders and files.

5. Start the **OverDrive ProjectServer** service as follows:
 - a. In the **Windows Search Bar**, enter `Services`.
 - b. In the search results list, click **Services**.
The **Services** window opens.
 - c. In the **Services** list, locate the **OverDrive ProjectServer** service.
 - d. Click **Start** for the **OverDrive ProjectServer** service.

Caprica Communication Configuration

This chapter provides instructions to configure OverDrive to communicate with the system switcher and other devices through a Caprica Server. You can chose to communicate using the Transmission Control Protocol (TCP) or a WebSocket.

The following topics are discussed in this chapter:

- Transmission Control Protocol Connection
- WebSocket Connection

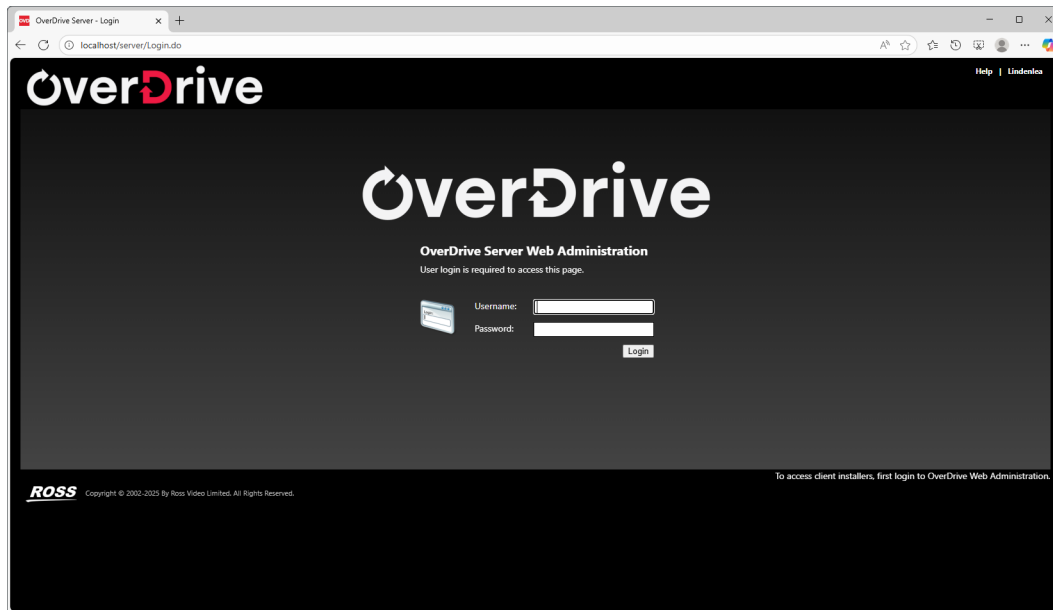
Transmission Control Protocol Connection

Use the default TCP connection when the OverDrive Server and Caprica Server in your OverDrive system are protected by a firewall. In this type of configuration the OverDrive Server connects to the Caprica Server.

To configure OverDrive to use TCP to communicate with the Caprica Server

1. Use one of the following methods to open the **OverDrive Server Web Administration** web page:
 - On the desktop, double-click the **OverDrive Server** icon.
 - Use the **Start** menu to select **All Programs > OverDrive > OverDrive Server**.
 - On a computer connected to the same subnetwork as your OverDrive Server computer, use a supported web browser to open `http://<OverDrive Server>/server`. In the URL, `<OverDrive Server>` is the hostname or IP address of the OverDrive Primary or OverDrive Redundant system in your OverDrive Redundant Server System.

The **OverDrive Server Web Administration** web page opens in a web browser window.

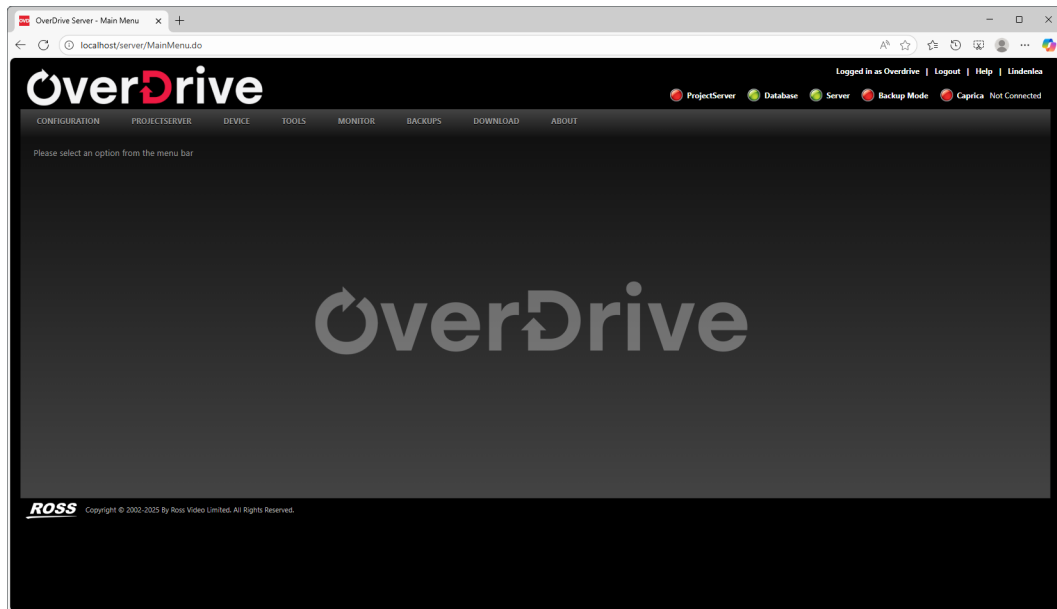


2. Enter the following user name and password in the provided boxes:
 - **Username** — `overdrive`
 - **Password** — `<your_password>`

Usernames are not case sensitive. The overdrive user password was set during the OverDrive software install.

3. Click **Login**.

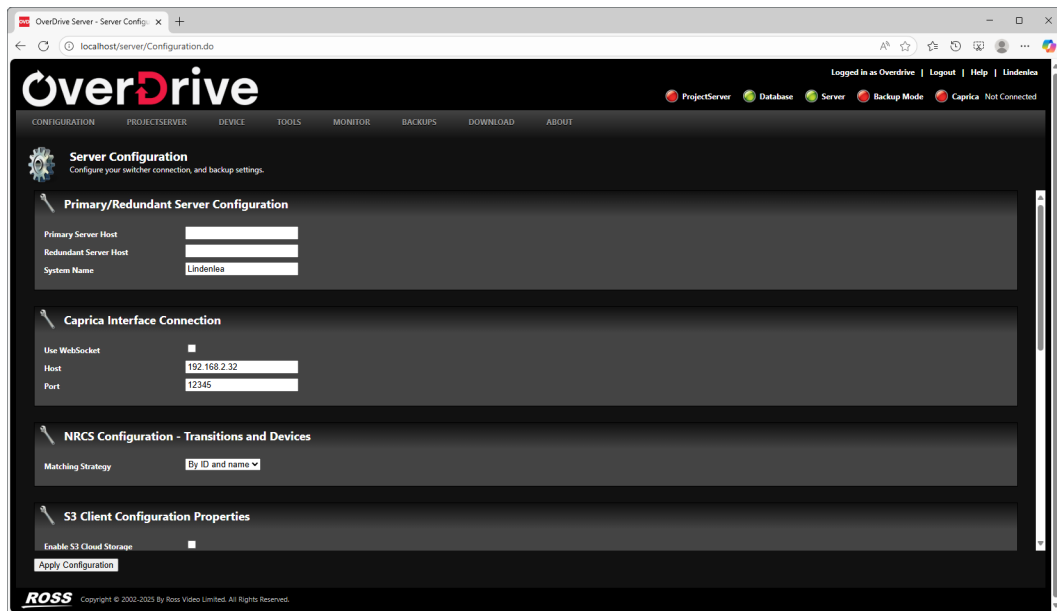
The **OverDrive Server - Main** web page opens.



- ★ After 30 minutes of inactivity on any of the OverDrive Server web pages, OverDrive automatically logs you out and returns you to the **OverDrive Server Web Administration** web page.

4. In the **OverDrive Server** web page, use the **CONFIGURATION** menu to select **Server**.

The **Server Configuration** web page opens.



5. In the **Caprica Interface Connection** section, enter the IP address of the Caprica Server or Caprica Server Cluster in the **Host** box.

To view the IP address of the Caprica Server, hover your mouse over the **Caprica Server** node in the **DashBoard Tree View**.

- ★ The default port number 12345 in the **Network Port** box should not be changed. If you need to change the network port number, please contact Ross Video Technical Support. Refer to the section “**Contacting Technical Support**” on page 1–2 for contact details.
6. Click **Apply Configuration** to save and apply the Caprica interface connection settings.
 7. Restart the OverDrive Server.

For More Information on...

- restarting the OverDrive Server, refer to the *OverDrive User Guide*.

WebSocket Connection

Use a WebSocket connection when using SSL certificates to configure secure connection between the OverDrive Server and Caprica Server in your OverDrive system. In this type of configuration the OverDrive Server acts as a WebSocket server for Caprica.

- ★ Customers must supply their own SSL certificates. For more information about setting up SSL certificates in your OverDrive system, refer to the chapter “**Cockpit HTTPS Connection**” on page 4–1 in the *Caprica User Guide*.

A WebSocket connection between your OverDrive Server and the Caprica Server requires the following configurations:

- OverDrive Server WebSocket Configuration
- API Key Generation
- Caprica Server WebSocket Configuration

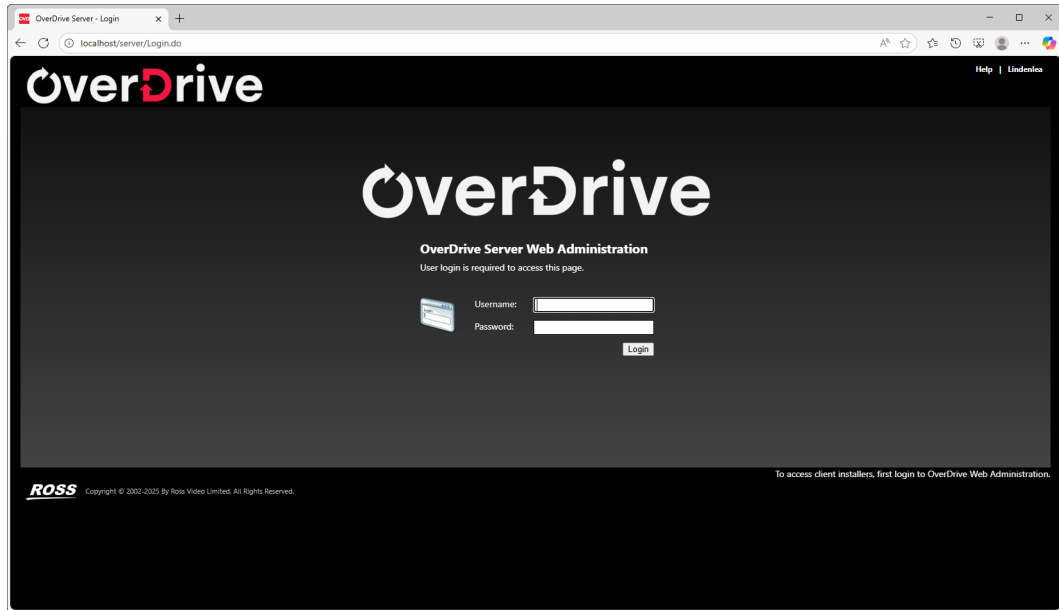
OverDrive Server WebSocket Configuration

WebSocket configuration starts by selecting the Use WebSocket option for your OverDrive Server.

To configure OverDrive to use WebSockets to communicate with the Caprica Server

1. Use one of the following methods to open the **OverDrive Server Web Administration** web page:
 - On the desktop, double-click the **OverDrive Server** icon.
 - Use the **Start** menu to select **All Programs > OverDrive > OverDrive Server**.
 - On a computer connected to the same subnetwork as your OverDrive Server computer, use a supported web browser to open `http://<OverDrive Server>/server`. In the URL, <OverDrive Server> is the hostname or IP address of the OverDrive Primary or OverDrive Redundant system in your OverDrive Redundant Server System.

The **OverDrive Server Web Administration** web page opens in a web browser window.



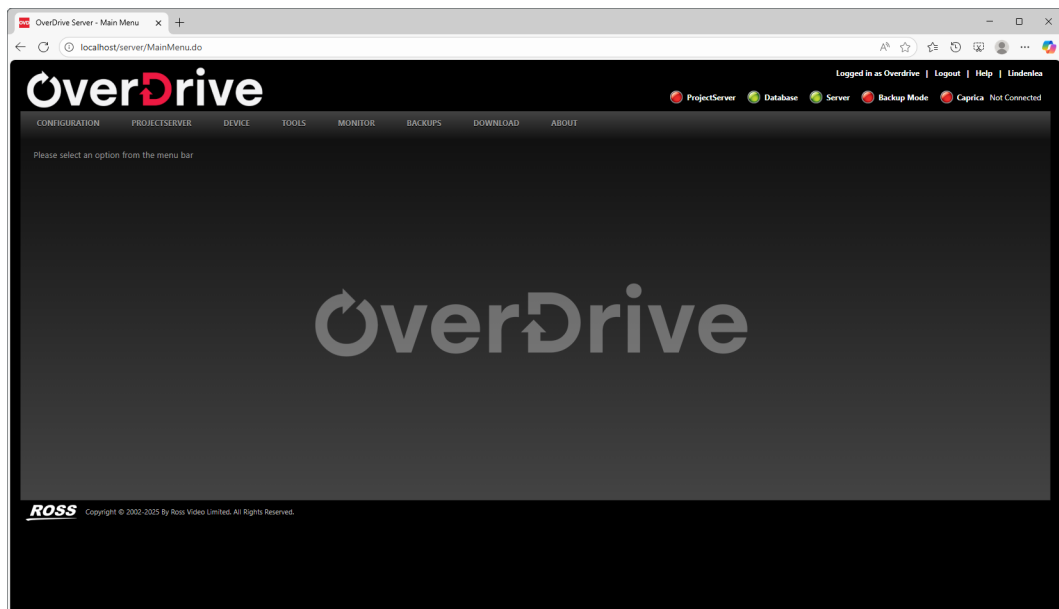
2. Enter the following user name and password in the provided boxes:

- **Username** — overdrive
- **Password** — <your_password>

Usernames are not case sensitive. The overdrive user password was set during the OverDrive software install.

3. Click **Login**.

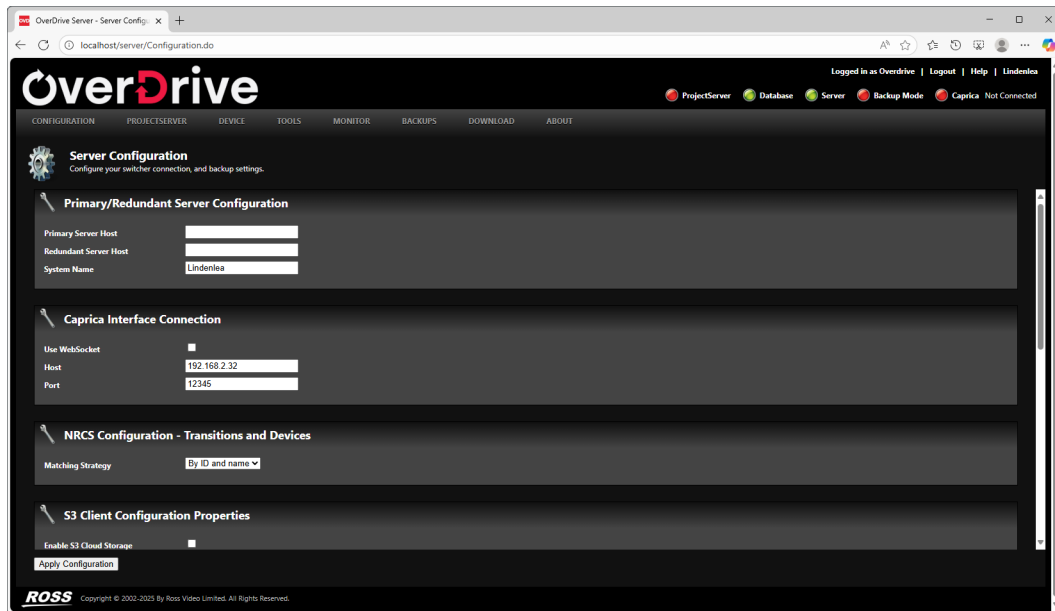
The **OverDrive Server - Main** web page opens.



★ After 30 minutes of inactivity on any of the OverDrive Server web pages, OverDrive automatically logs you out and returns you to the **OverDrive Server Web Administration** web page.

4. In the **OverDrive Server** web page, use the **CONFIGURATION** menu to select **Server**.

The **Server Configuration** web page opens.



5. In the **Caprica Interface Connection** section, select the **Use WebSocket** check box.
6. In the **Caprica System ID** box, enter a name for the Caprica Server.
7. In the **WebSocket port** box, enter the port number that Caprica Server uses to communicate through a WebSocket with the OverDrive Server.

All the devices configured on a Caprica Server will use the set **WebSocket port** to communicate with the OverDrive Server.

8. Select the **Use SSL** check box to use a WebSocket Secure (WSS) connection between the Caprica Server and OverDrive Server.
- ★ When you select the **Use SSL** check you also require a valid SSL server certificate.
9. Click **Apply Configuration** to save and apply the Caprica interface connection settings.
10. Restart the OverDrive Server.

For More Information on...

- restarting the OverDrive Server, refer to the *OverDrive User Guide*.

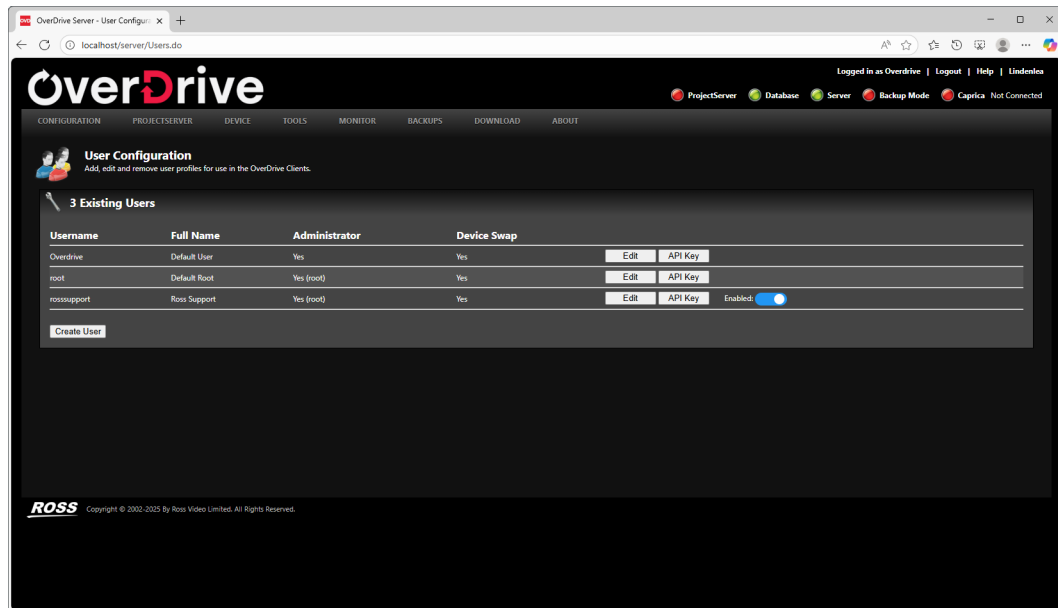
API Key Generation

Before you can configure your Caprica Server to use WebSocket communication, you must generate an API key from on the OverDrive Server for your Caprica Server configuration. On the OverDrive Server you can generate an API key for an OverDrive user.

To generate an API key for the Caprica OverDrive user

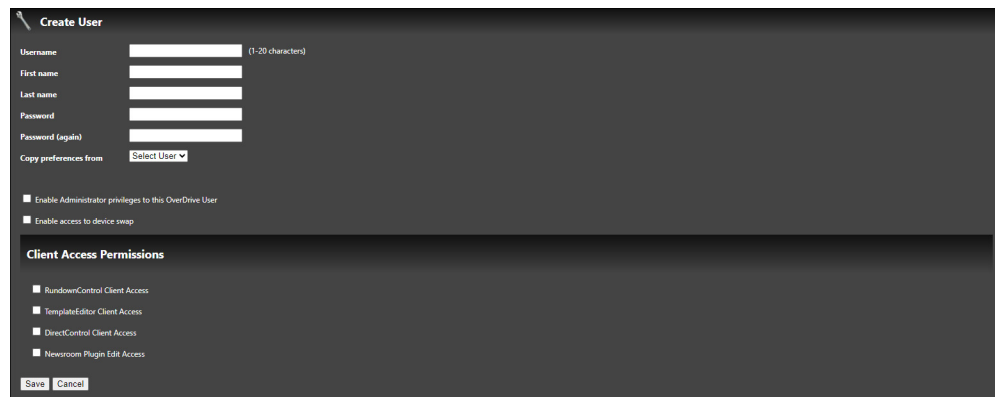
1. In the **OverDrive Server** web page, use the **CONFIGURATION** menu to select **Users**.

The **Manager Users** web page opens.



2. Click **Create User**.

The **Create User** section opens.

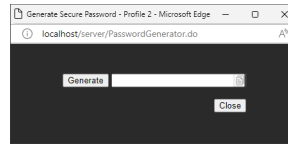
A screenshot of the 'Create User' form. The form includes fields for 'Username' (with a character count of 1-20), 'First name', 'Last name', and 'Password (again)'. There is a 'Copy preferences from' dropdown menu set to 'Select User'. Below these fields are two checkboxes: 'Enable Administrator privileges to this OverDrive User' and 'Enable access to device swap'. A section titled 'Client Access Permissions' contains four checkboxes: 'RundownControl Client Access', 'TemplateEditor Client Access', 'DirectControl Client Access', and 'Newroom Plugin Edit Access'. At the bottom of the form are 'Save' and 'Cancel' buttons.

3. In the **Username** box, enter **Caprica**.
4. In the **First Name** box, enter **WebSockets**.
5. In the **Last Name** box, enter **User**.
6. In the **Password** box, enter a password for the Caprica user that satisfies the password policy of your organization.

To generate a secure password, complete the following steps:

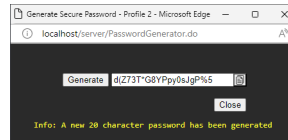
- a. use the **TOOLS** menu to select **Password Generator**.


The **Generate Secure Password** dialog box opens.



- b. Click **Generate**.

The **Password** box displays a generated secure password.



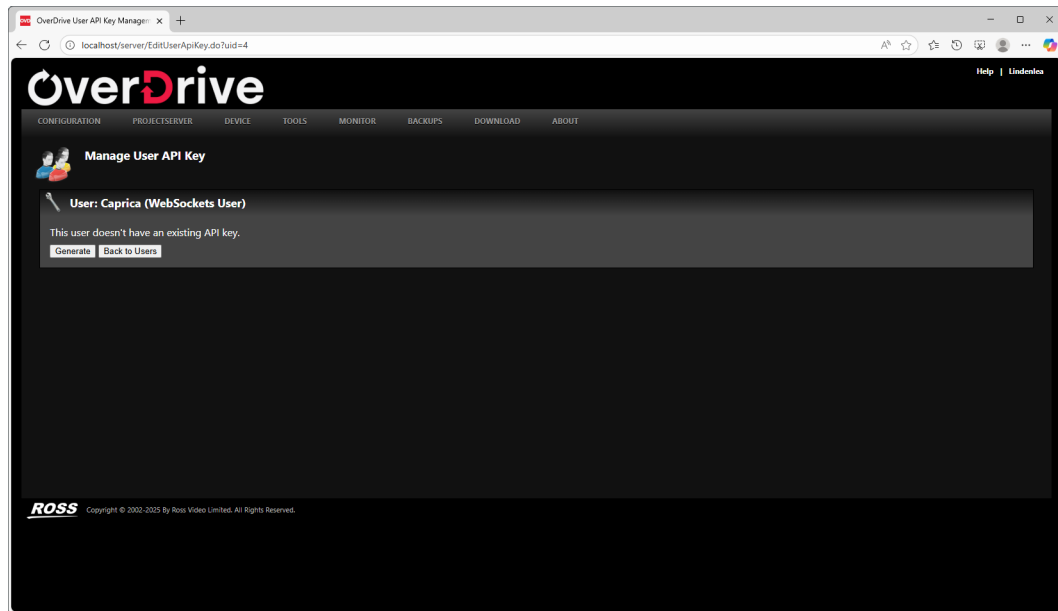
- c. Click the  **Copy** icon to copy the generated password.
 - d. Click **Close**.
- The **Generate Secure Password** dialog box closes.
- e. Paste the copied password into the **Password** and **Password (again)** boxes.
 - f. Skip to step step **8**.
7. In the **Password (again)** box, enter the same password as entered in the **Password** box.
 8. Click **Save**.

OverDrive adds the Caprica user to the **Existing Users** list.

Username	Full Name	Administrator	Device Swap			
Caprica	WebSockets Account	No	No	Edit	API Key	Delete
Overdrive	Default User	Yes	Yes	Edit	API Key	
root	Default Root	Yes (root)	Yes	Edit	API Key	
rossupport	Ross Support	Yes (root)	Yes	Edit	API Key	Enabled <input checked="" type="checkbox"/>

Create User

- In the **Existing Users** list, locate the **Caprica** user and click **API Key** to the right of the username. The **Manager User API Key** web page opens for the Caprica user.

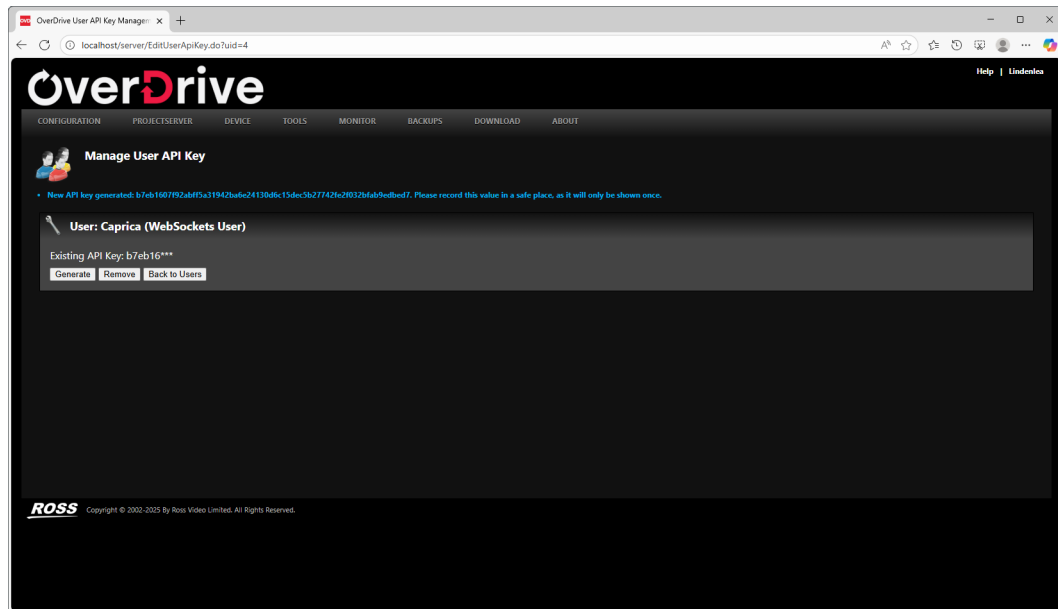


- Click **Generate**.

An **Alert** dialog box opens.

- Click **OK**.

The **Manager User API Key** web page displays the generated API Key for the Caprica user in **blue** text.



- Record the generated **API key** in a safe place.

You will need the generated API key to configure WebSocket communication on your Caprica Server.

- ★ This is your only opportunity to view the API key that OverDrive generated for the Caprica user. After the current web page closes you can no longer view the Caprica user API key. If you lose the API key for a user you must generate a new API key for the user.

Caprica Server WebSocket Configuration

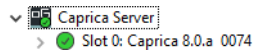
After configuring WebSocket settings and generating an API key on your OverDrive server you are ready to complete the WebSocket configuration on your Caprica Server.

To configure Caprica to use WebSockets to communicate with the OverDrive Server

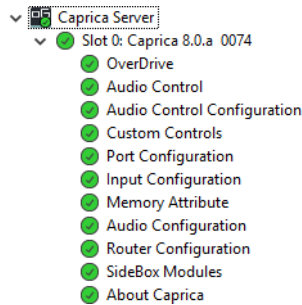
1. Verify that a **Caprica Server** is connected to your internal network as part of your OverDrive system.
2. On a Client computer, verify that the following conditions are true:
 - The Client computer uses the current version of **DashBoard** software.
 - The Client computer can access a running Caprica Server on the network.
3. 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.

4. In the **DashBoard Tree View**, expand the **Caprica Server** node.
The **Caprica Server** node displays the available Caprica Servers.



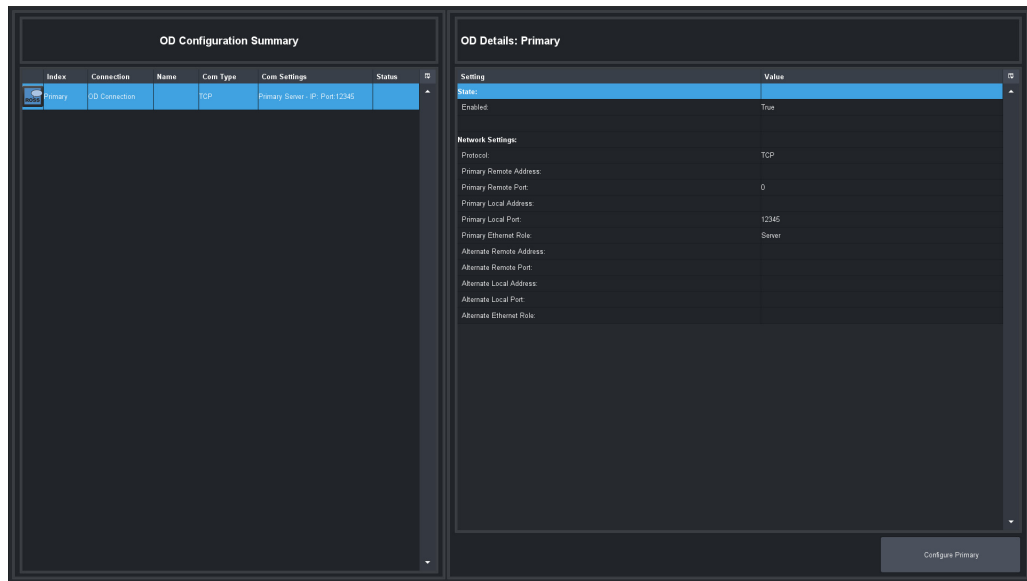
5. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
The **Slot 0: Caprica** node displays the available Caprica Server clients.



6. Double-click the **OverDrive** node.
The **OverDrive** client opens in the **Device View**.

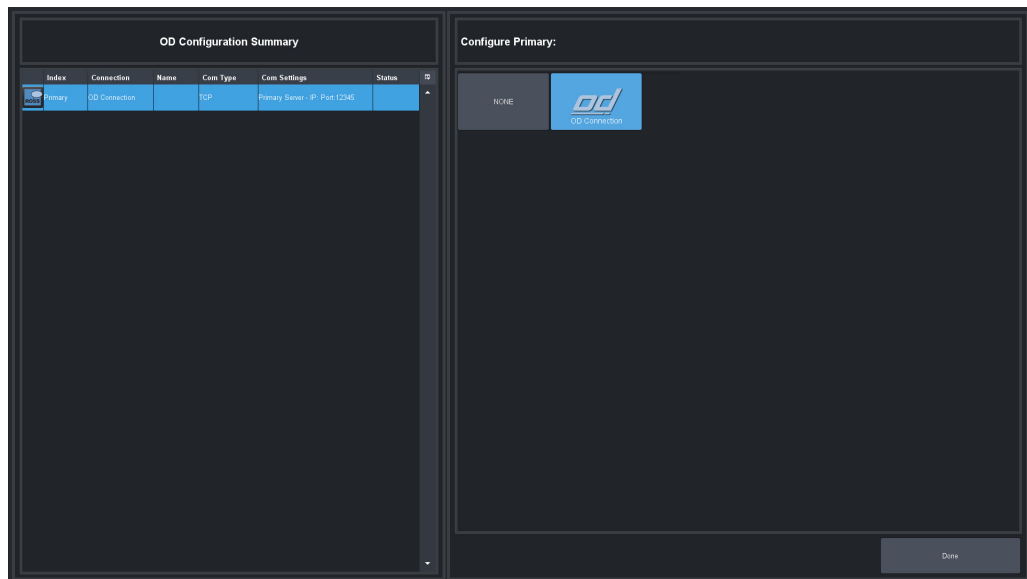
7. Use the **Window** menu to select **Full Screen**.

The **OverDrive** client expands to full screen view.



8. In the **Index** column of the **OD Configuration Summary** table, double-click the **Primary** OverDrive connection.

The **Configure Primary** panel opens.

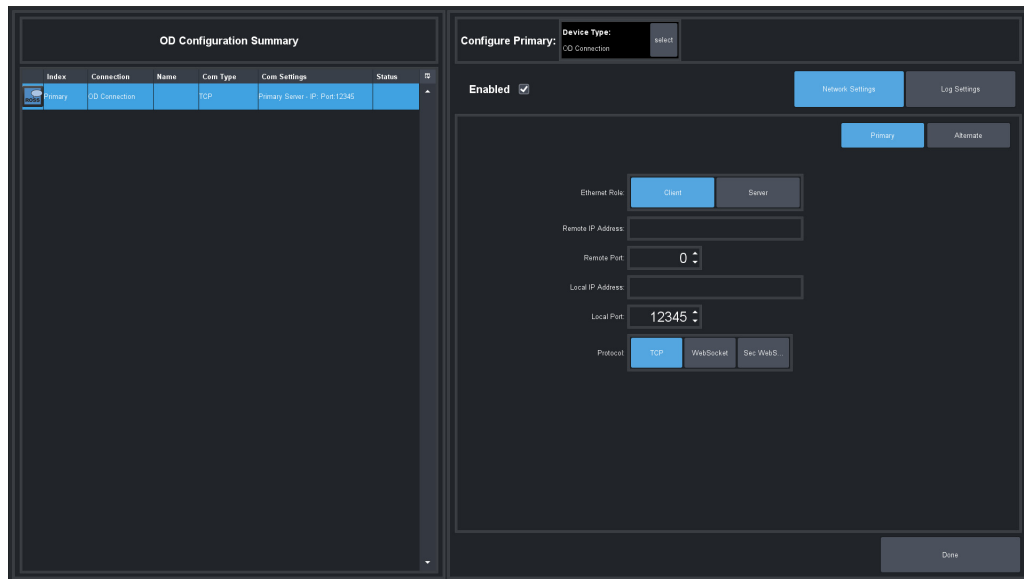


9. In the **Configure Primary** panel, click **OD Connection**.

The **Configure Primary** panel displays the available settings.

10. Click **Network Settings**.

The **Configure Primary** panel displays the **Network Settings** for the **Primary OD Connection**.



11. In the **Configure Primary** panel, select the **Enable** check box to enable Caprica Server to OverDrive Server communication by WebSocket.
12. Use the following settings to configure the **Network Settings** for the **Primary OD Connection**:

- **Ethernet Role** — click **Client**.
- **Remote IP Address** — enter in this box the **IP address** or **hostname** of your **OverDrive Server**. For a **Redundant OverDrive Server system**, enter the **IP address** or **hostname** of your **Primary OverDrive Server**.
- **Remote Port** — enter in this box the port number that your OverDrive Server uses to communicate with your Caprica Server as set in the OverDrive Server **WebSocket port** setting.

The OverDrive Server **WebSocket port** is set in step 7 of the “**To configure OverDrive to use WebSockets to communicate with the Caprica Server**” on page 5–4 procedure.

- **Local IP Address** — enter 0.0.0.0 in this box.
- **Local Port** — enter 0 in this box.
- **Protocol** — select one of the following protocols:
 - › **WebSocket** — unencrypted connection. Select this protocol when you cleared the **Use SSL** check box for your OverDrive Server WebSocket configuration.
 - › **Sec WebSocket** — secure encrypted connection. Select this protocol when you selected the **Use SSL** check box for your OverDrive Server WebSocket configuration.

★ When you select the **Sec WebSocket** protocol you also require a valid SSL server certificate.

- **System Id** — enter in this box a name for the OverDrive connection.
- **API Key** — enter in this box the API key you generated for the OverDrive Caprica user.

The API key for the OverDrive Caprica user is generated in step 12 of the procedure “**To generate an API key for the Caprica OverDrive user**” on page 5–7.

13. Click **Apply Changes** to save the OD Connection device settings.
14. When setting up a Redundant OverDrive Server system that uses a WebSocket connection between your OverDrive Servers and the Caprica Server, complete the procedure “**To configure alternate Caprica WebSocket communication settings**” on page 5–13 configure alternate network settings for the Caprica OverDrive Connection.

For More Information on...

- Caprica Server configuration, refer to the *Caprica User Guide*.
- Caprica switcher device configuration, refer to the *Caprica User Guide*.

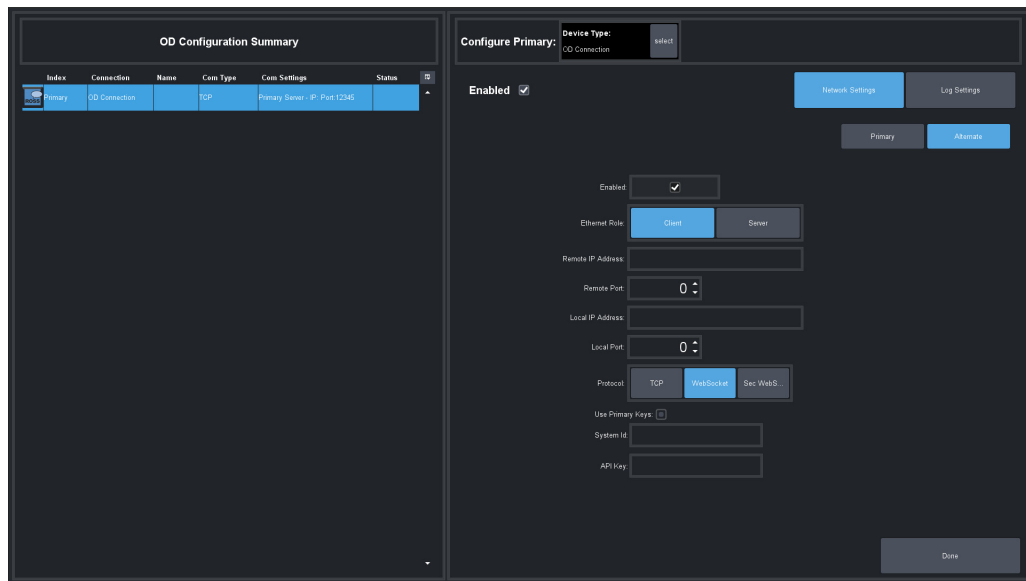
Alternate Network settings

When setting up a Redundant OverDrive Server system that uses a WebSocket connection between your OverDrive Servers and the Caprica Server, you must configure alternate network settings for the connection.

To configure alternate Caprica WebSocket communication settings

1. In the **Configure Primary** panel, click **Alternate**.
The **Alternate** panel opens.
2. In the **Alternate** panel, select the **Enable** check box to enable the **Alternate** Caprica WebSocket communication settings.

The **Alternate** panel displays the **Network Settings** for the **Alternate OD Connection**.



3. Use the following settings to configure the **Network Settings** for the **Alternate OD Connection**:
 - **Ethernet Role** — click **Client**.
 - **Remote IP Address** — enter in this box the **IP address** or **hostname** of your **Redundant OverDrive Server**.
 - **Remote Port** — enter in this box the port number that your OverDrive Server uses to communicate with your Caprica Server as set in the OverDrive Server **WebSocket port** setting.

The OverDrive Server **WebSocket port** is set in step 7 of the “**To configure OverDrive to use WebSockets to communicate with the Caprica Server**” on page 5–4 procedure.

- **Local IP Address** — enter 0.0.0.0 in this box.
- **Local Port** — enter 0 in this box.
- **Protocol** — select one of the following protocols:
 - › **WebSocket** — unencrypted connection. Select this protocol when you cleared the **Use SSL** check box for your OverDrive Server WebSocket configuration.
 - › **Sec WebSocket** — secure encrypted connection. Select this protocol when you selected the **Use SSL** check box for your OverDrive Server WebSocket configuration.

After selecting a **Protocol**, the **Use Primary Keys** check box displays.

- ★ When you select the **Sec WebSocket** protocol you also require a valid SSL server certificate.

4. Select the **Use Primary Keys** check box to use the same **API key** that you set for the you **Primary OD Connection**.

Clear the **Use Primary Keys** check box to use a different **API key** for the **Alternate OD Connection**. After clearing the check box, configure the following settings that display below the check box:

- **System Id** — enter in this box a name for the OverDrive connection.
 - **API Key** — enter in this box the API key you generated for the OverDrive Caprica user.
5. Click **Apply Changes** to save the OD Connection device settings.

User Settings

This chapter provides instructions for Network Administrators when configuring new domain user settings on an OverDrive system.

The following topics are discussed in this chapter:

- User Settings in OverDrive
- Power Options
- Network Connection Adapters
- Windows Firewall Exceptions

User Settings in OverDrive

User settings in OverDrive are set when the system is manufactured. However, when a new domain user is added to an OverDrive computer, some of the default user settings may not be adopted by the new user.

Ross Video recommends that all domain user settings be configured by qualified Network Administrators. To configure settings for a new domain user on the OverDrive system, you must log in using the domain account for the new user.

These settings must be adjusted for OverDrive to operate properly when a user is logged in and using OverDrive. The user settings that must be configured are:

- Power Options
- Network Connection Adapters
- Windows Firewall Exceptions

For More Information on...

- configuring domain user settings on the OverDrive systems, contact Ross Video Technical Support.

Power Options

Power options in Microsoft Windows™ enable you to adjust how your computer operates with long periods of inactivity. These settings enable you to set how long the monitors or system waits before going into standby, and when to turn hard disks off.

★ These power settings, if configured incorrectly, could cause the system to enter standby mode or hibernate when the system is being used.

To configure the power settings on your OverDrive system for a new domain user

1. From the **Start** menu, select **Control Panel**.
The **Control Panel** window opens.
2. Double-click the **Power Options** icon in the **Control Panel** window.
The **Power Options** dialog box opens.
3. Click the **Power Schemes** tab.
The **Power Schemes** tab opens.
4. Use **Power Schemes** list to select **IBM** as the power scheme.
5. Use the **Turn Off Monitor** list to select **Never** as the time to turn off the computer monitor.
You can also set the monitor to turn off after a certain amount of time of inactivity, which will not affect OverDrive operation.
6. Use the **System Standby** list to select **Never** as the time to place the computer in standby mode.
7. Click the **Advanced** tab.
The **Advanced** tab opens.
8. Use the list in the Power Buttons section to select **Shut down** as the action for the computer power button.
9. Click the **Hibernate** tab.
The **Hibernate** tab opens.
10. Clear the **Enable Hibernate** check box.
11. Click **OK** to save changes and close the **Power Options** dialog box.

Network Connection Adapters

Microsoft Windows™ allows network adapters to turn off when inactive to save power. This setting could cause interruption when the system must be active and should be disabled.

To disable power management of each network adapter for a new domain user

1. From the **Start** menu, select **Control Panel**.
2. In the **Control Panel** window, double-click **Network Connections**.
The **Network Connections** window opens.
3. Right-click a network connection and select **Properties** from the **Shortcut** menu.
The **Connection Properties** dialog box opens.
4. Click **Configure**.
5. Click the **Power Management** tab.
6. Clear the **Allow the Computer to Turn Off this Device** check box.
7. Click **OK** to save you changes and close the **Connection Properties** dialog box.
8. Repeat step **3** to step **7** for each network connection listed in the **Network Connections** window.

Windows Firewall Exceptions

The Microsoft Windows firewall protects your system from harmful programs such as viruses and spy ware, which can damage your system.

Some of the applications required for OverDrive to run properly must be added to the Exceptions list in the Windows Firewall dialog box. OverDrive will not operate properly If these applications are blocked.

To verify programs in the Exceptions list for a new domain user

1. From the **Start** menu, select **Control Panel**.
2. In the **Control Panel** window, double-click **Windows Firewall**.
The **Windows Firewall** dialog box opens.
3. Click the **Exceptions** tab.
4. Verify that the following programs are present in the **Exceptions** list:
 - javaw.exe
 - apache.exe
 - NRCS executable program file if an NRCS is installed on the OverDrive system.
5. Enable the check box to the left of each required program.
6. Click **OK** to save your changes and close the **Windows Firewall** dialog box.

To add required files to the Exceptions list

1. From the **Start** menu, select **Control Panel**.
The **Control Panel** window opens.
2. Double-click the **Windows Firewall** icon in the **Control Panel** window.
The **Windows Firewall** dialog box opens.
3. Click the **Exceptions** tab.
The **Exceptions** tab opens.

4. Click **Add Program**.

The **Add a Program** dialog box opens.

5. Click **Browse**.

The **Browse** dialog box opens.

6. Use the following paths to locate and select the programs required by OverDrive:

- **javaw.exe** — C:\WINDOWS\system32\
javaw.exe
- **apache.exe** — C:\program files\apache group\apache2\bin\apache.exe
- **NRCS** — for ENPS, iNEWS, or QNews, navigate to the respective installation folder to access the executable files.

7. Click **Open** to choose the program and close the **Browse** dialog box.

8. Click **OK** to add the program to the **Exceptions** list and close the **Add a Program** dialog box.

9. In the **Programs and Services** list, select the check boxes to the left of the new programs that were added to the list.

10. Click **OK** to save changes and close the **Windows Firewall** dialog box.

For More Information on...

- how to work with a specific NRCS, refer to the NRCS documentation.

Preparing Templates

This chapter provides a description of OverDrive templates and provides brief instructions for listing template requirements. Worksheet tables are included to help map out the templates required for each show.

The following topics are discussed in this chapter:

- Before You Begin
- How Templates are Used in OverDrive
- Master Templates
- Transition Templates

Before You Begin

Before preparing a new OverDrive system, it is recommended that the following basic OverDrive concepts are understood:

- Device templates
- Transition templates
- Custom controls
- Master templates

To ensure a flawless production, it is strongly recommended that care is taken to properly prepare templates and that the production is thoroughly rehearsed before it is taken to air.

For More Information on...

- how templates are created and used to prepare and run a show, refer to the section “**How Templates are Used in OverDrive**” on page 7–2 and the *OverDrive User Guide*.

How Templates are Used in OverDrive

Templates are used to define what is needed to create a shot in a rundown. Templates provide the OverDrive system with information such as the crosspoint and connection properties for external devices, transitions, and custom controls used in each shot.

Before preparing and running a show, specific OverDrive templates must be created for each device and transition used to create a show. Templates can be re-used every time a show is prepared and run.

Since Master templates use Device and Transition template information, create templates in the following order:

1. Create a Device template for each external device used under control by OverDrive.
 - ★ External devices must be set up on the switcher before Device templates can be created in OverDrive.
2. Create a Transition template for each type of transition used in a show. For example, each type of Wipe used in a show requires a separate template.
3. Create a Master template to specify the template type, transition type, devices, custom controls, and audio channels used in a shot.

It is recommended to view and confirm all custom controls saved on the switcher are configured correctly before you begin assigning them to Master templates in OverDrive.

For More Information on...

- creating OverDrive templates, refer to the *OverDrive User Guide*.

Master Templates

Master templates are used to define the look of a shot and can be assigned to QuickRecall buttons. Master templates are also used to specify the transition type, devices used, type of template, number of MLEs, and any custom controls you want to use in the shot.

Each ME used by a template provides the following buses: Background, Preset, and Key 1 to Key N.

The provided worksheet is intended to help list Master template requirements. Device and Transition templates are created in OverDrive before Master templates.

Master Templates Worksheet

Use the provided worksheet (**Table 7.1**) to list the Master templates required for each shot in a show.

Table 7.1 Master templates Worksheet

Template Name	Memory Number	Template Number

Transition Templates

A transition template must be created for each type of transition used in a show. Dissolves and wipes are examples of transitions that will require a template. For ease of use, transition templates can be assigned to a button in RundownControl or added into a Master template.

★ Since OverDrive may use any ME at any one time, each ME must be fitted with identical options, including Squeeze & Tease (S&T 2D or 3D) DVE and Warp engines.

Transition Templates Worksheet

Use the provided worksheet (**Table 7.2**) to list the switcher transitions used in a show.

Table 7.2 Transition Templates Worksheet

Transition Name	Transition Type	Wipe Number (on the switcher)	Duration

SideStick™

The SideStick module (**Figure 8.1**) is an optional companion control panel for users who prefer a dedicated control surface to control cameras. SideStick modules contain thirteen physical mnemonic buttons and a joystick. You can connect one or many SideStick modules to your Acuity switcher to control robotic cameras.



Figure 8.1 SideStick Module

The following topics are discussed in this chapter:

- Cable a SideStick Module
- Connect to the Network
- Set Up Acuity Communications
- Map a SideStick Module to Acuity
- Configure a SideStick Module
- SideStick Module Camera Control

Cable a SideStick Module

A SideStick module connects to an Acuity switcher through your local area network. You can connect a maximum of 15 SideBox modules to an Acuity switcher. SideBox modules include SideShot, SideSlide, and SideStick modules.

Each SideStick 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.

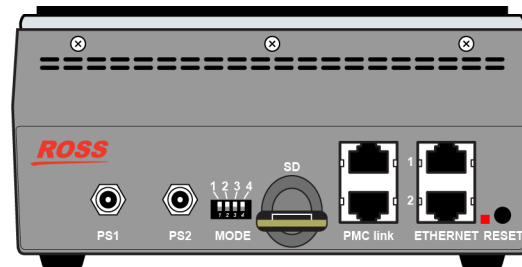


Figure 8.2 SideStick Module Cable Connections

To cable a SideStick module

1. Connect and secure one of the supplied 12V DC power supplies to the **PS 1** connector on the back of the SideStick module before connecting the power supply to the AC mains power.
- ★ Connecting the power supply to the AC mains power before connecting to the SideStick module could damage the module.
2. Connect the power supply to the AC mains power.
3. Use an **Ethernet** cable to connect the SideStick module **ETHERNET 1** port to your local area network.

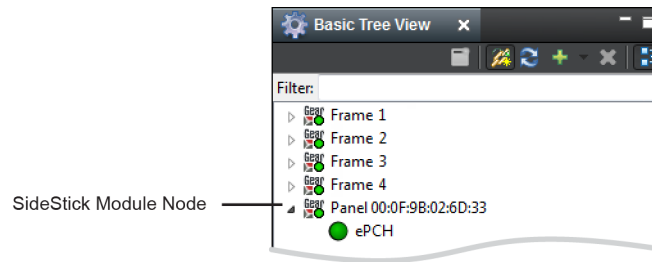
Connect to the Network

After you physically connect a SideStick module to your local area network, you must configure the network connection between the SideStick module and your local area network.

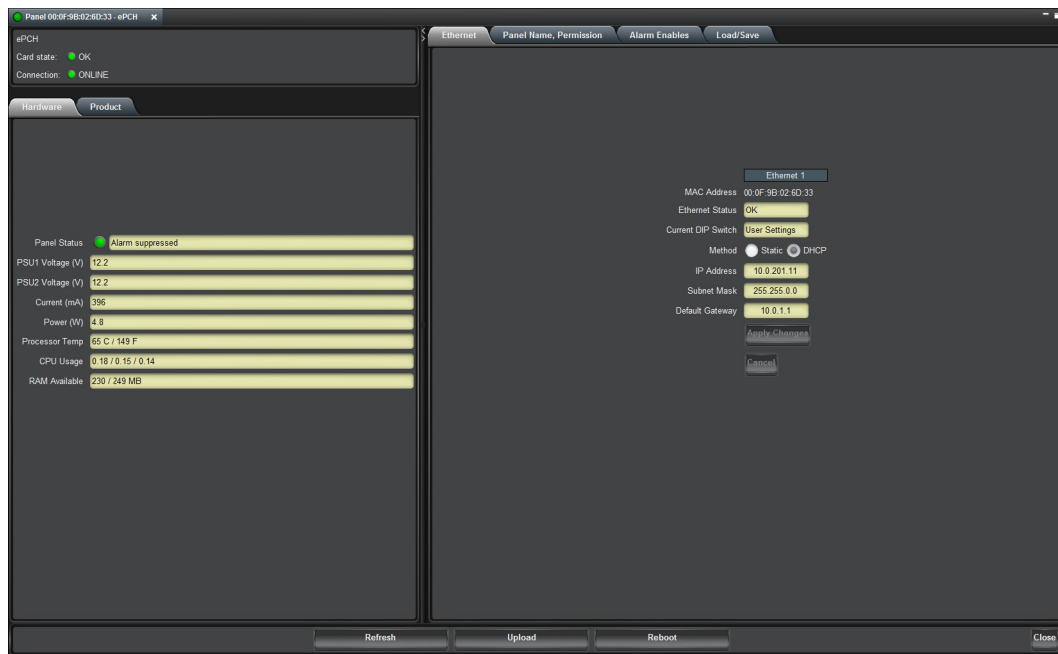
To configure the network connection for a SideStick module

1. On a computer connected to the same subnetwork as your SideStick 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**.
2. 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.

- In the Dashboard **Tree View**, expand the node named **Panel <MAC Address>** where **<MAC Address>** is the MAC address of your SideStick module.



- In the expanded node, double-click the **ePCH** node.
Settings for the selected SideStick module open in the **Device View**.



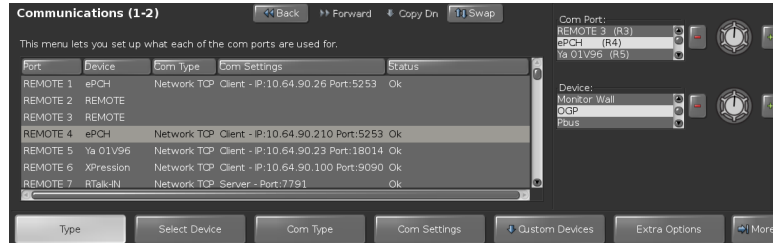
- In the **Device View**, click the **Ethernet** tab.
The **Ethernet** tab opens. When a SideStick module initially connects to a local area network, it connects to the DHCP server on the network to set an IP address, subnet mask, and a default gateway address.
- To configure the SideStick module to always use the same IP address, select the **Static** option for the **Method** setting.
- In the **IP Address** box, enter a static IP address for your SideStick module.
- In the **Subnet Mask** box, enter the subnet mask for your SideStick module.
- In the **Default Gateway** box, enter IP address of the default gateway for your SideStick module.
- Click **Apply Changes**.
The ePCH node status LED turns red while Dashboard updates the SideStick module with your changes. The status LED turns green after the updates complete and the SideStick module is ready to use.
- Click the **Panel Name, Permission** tab.
The **Panel Name, Permission** tab opens.
- In **Panel Name** box, enter a name for your SideStick module and then press **Enter**.
The name of your SideStick module updates in the Dashboard **Tree View**.

Set Up Acuity Communications

To enable a SideStick module to communicate with your Acuity switcher, you must setup your SideStick module as an external module to your Acuity switcher.

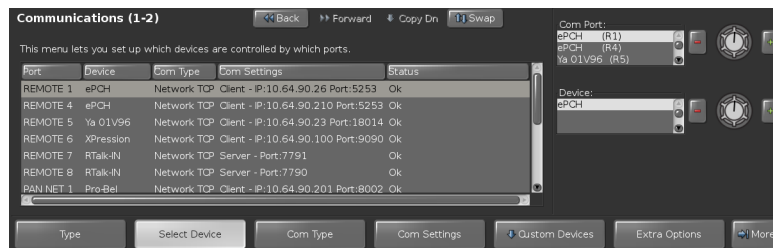
To set up external SideStick module communication

1. In the Acuity menu system, press **HOME** > **Setup** > **Installation** > **Com Setup** > **Type**.
The **Type** menu opens.



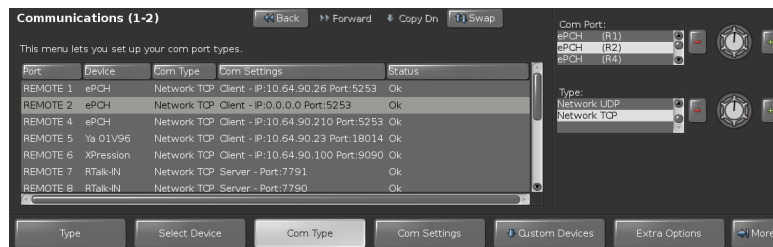
2. Use the **Com Port** knob to select the switcher **REMOTE #** port to connect the SideStick module to the switcher.
3. Use the **Device** knob to select **OGP**.
4. Press **Select Device**.

The **Select Device** menu opens.



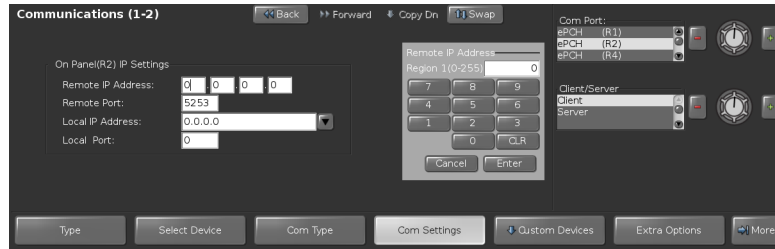
5. Use the **Device** knob to select **ePCH**.
6. Press **Com Type**.

The **Com Type** menu opens.



7. Use the **Device** knob to select **Network TCP**.
8. Press **Com Settings**.

The **Com Settings** menu opens.



9. In the **Remote IP Address** boxes, enter the IP address that you assigned to the SideStick module in step 7 of the previous procedure.
10. In the **Remote Port** box, enter 5253.
11. Use the **Client/Server** knob to select **Client**.
12. Press **HOME > Confirm**.

Map a SideStick Module to Acuity

Before you can assign functionality to the mnemonic buttons of a SideStick module, you must map your SideStick module to an internal control panel row.

To map a SideStick module to an internal control panel row

1. In the Acuity menu system, press **HOME > Setup > More > Panel Modules**.
2. Press **Yes**.
3. Press a button on the SideStick module that you want to assign to a row.
The **Link/Node** knob automatically selects the SideStick module on which you pressed a button.
4. Use the **Panel Row** knob to select a unique panel row to which to assign the SideStick module.
5. Press **HOME > Confirm**.

Calibrate the Joystick Limits

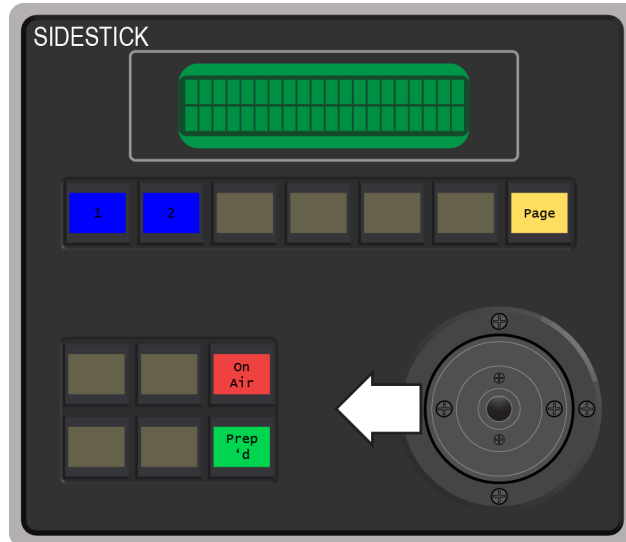
The range of motion for the joystick on each SideStick module is unique. Through calibration, an Acuity switcher can record the range of motion for your joystick.

To calibrate the joystick on your SideStick module

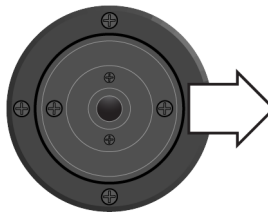
1. In the Acuity menu system, press **HOME** > **Setup** > **More** > **Calibration** > **ADC Calibration**.

The **ADC Calibration** menu opens.

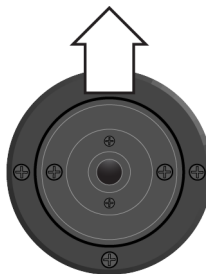
2. On the **Side Stick** module, move the **joystick** to the **Left** until it stops and then release the joystick.



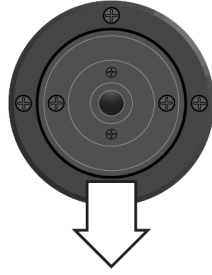
3. Move the **joystick** to the **Right** until it stops and then release the joystick.



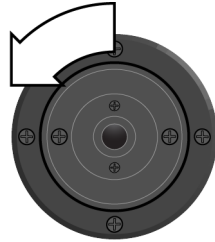
4. Move the **joystick** to the **Top** until it stops and then release the joystick.



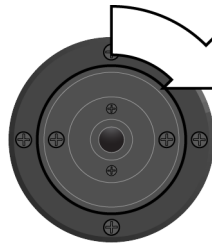
5. Move the **joystick** to the **Bottom** until it stops and then release the joystick.



6. Twist the top of the **joystick** to the **Left** until it stops and then release the joystick.



7. Twist the top of the **joystick** to the **Right** until it stops and then release the joystick.



8. Press **End**.

Configure a SideStick Module

After you have connected your SideStick module to your Acuity switcher, you can configure SideStick module settings.

Global SideStick Setup

The Global SideStick Setup menu enables you to set the level for enhanced and dimmed brightness levels for the mnemonics on all the SideStick modules connected to an Acuity switcher.

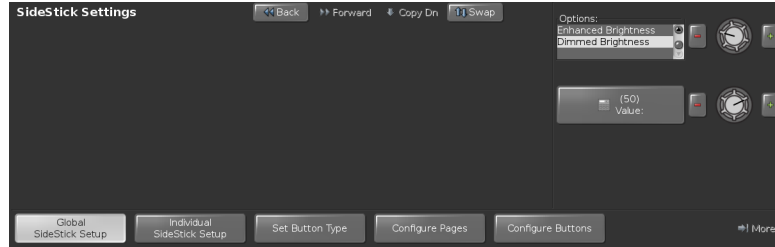
To set the mnemonics enhanced and dimmed brightness levels

1. In the Acuity menu system, press **HOME** > **Setup** > **Personality** > **More** > **SideStick Settings**.

The **SideStick Setting** menu opens.

2. Press **Global SideStick Setup**.

The **Global SideStick Setup** menu opens.



3. Set the enhanced brightness level for SideStick module mnemonic buttons as follows:
 - a. Use the **Options** knob to select **Enhanced Brightness**.
 - b. Use the **Value** knob to select brightness level for enhanced brightness.
4. Set the dimmed brightness level for SideStick module mnemonic buttons as follows:
 - a. Use the **Options** knob to select **Dimmed Brightness**.
 - b. Use the **Value** knob to select brightness level for dimmed brightness.

Individual SideStick Setup

The Individual SideStick Setup menu enables you to set sensitivity and control options for the joystick on an individual SideStick module.

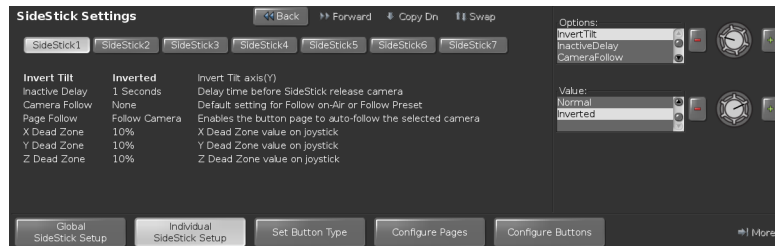
To configure joystick options for a SideStick module

1. In the Acuity menu system, press **HOME** > **Setup** > **Personality** > **More** > **SideStick Settings**.

The **SideStick Setting** menu opens.

2. Press **Individual SideStick Setup**.

The **Individual SideStick Setup** menu opens.



3. Select the SideStick to configure from the buttons (**SideStick #**) along the top of the screen.
4. Set the **Invert Tilt** mode as follows:
 - a. Use the **Options** knob to select **InvertTilt**.
 - b. Use the **Value** knob to select the direction to tilt a camera. The available tilt modes are as follows:
 - **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.
5. Set the **Inactive Delay** time as follows:
 - a. Use the **Options** knob to select **InactiveDelay**.
 - b. Use the **Value** knob to select the number of seconds to wait after the joystick stops moving before switching cameras.

6. Set the **Camera Follow** option as follows:
 - a. Use the **Options** knob to select **CameraFollow**.
 - b. Use the **Value** knob 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, the SideStick module automatically starts controlling the new camera.
7. Set the **Page Follow** option as follows:
 - a. Use the **Options** knob to select **PageFollow**.
 - b. Use the **Value** knob to select the pages to load on the SideStick module for a camera. The available page options 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 module starts controlling a camera.
8. Set the **X DeadZone** option as follows:
 - a. Use the **Options** knob to select **X DeadZone**.
 - b. Use the **Value** knob to set the percent of joystick travel 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.
9. Set the **Y DeadZone** option as follows:
 - a. Use the **Options** knob to select **Y DeadZone**.
 - b. Use the **Value** knob to set the percent of joystick travel that the joystick must move up or down from the center before it starts to move a camera. This setting stops up and down camera movement when the joystick returns to center.
10. Set the **Z DeadZone** option as follows:
 - a. Use the **Options** knob to select **Z DeadZone**.
 - b. Use the **Value** knob to set the percent of joystick travel that the joystick 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.

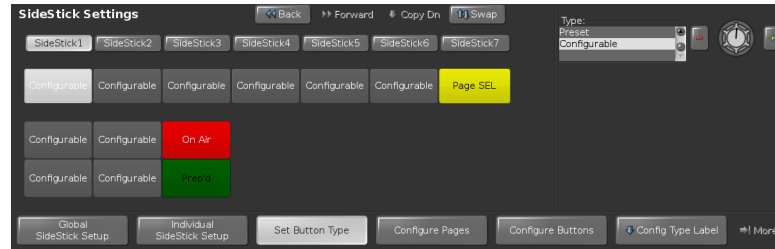
Set Button Type

A SideStick module contains 13 mnemonic buttons. Depending on the type set for a mnemonic button, the button functionality can change or remain the same on each of the ten SideStick module pages. The Button Type menu enables you to set a type for each mnemonic button on a SideStick module.

To set a type for mnemonic buttons

1. In the Acuity menu system, press **HOME > Setup > Personality > More > SideStick Settings**.
The **SideStick Setting** menu opens.
2. Press **Set Button Type**.

The **Set Button Type** menu opens.



3. Press **SideStick #** to select the SideStick module to configure.
4. Press the **button** to configure.
5. Use the **Type** knob to set the type for the selected **button**. The available types are as follows:
 - **None** — remove functionality from the button on all pages
 - **Page Select** — display the page access buttons, displays on all pages.
 - **On Air** — control the camera in the on-air shot, displays on all pages.
 - **Preset** — control the camera in the prepared shot, displays on all pages.
 - **Configurable** — set custom functionality for the button on each page.

The button image on **Set Button Type** menu updates to show the set type for the selected button. You can use the **Config Button Label** menu to customize button label text and background color.

6. For each button to configure, repeat step 4 and step 5.

Configure Pages

When you press the Page SEL button on a SideStick module, the Page buttons replace the current buttons. You can use Page buttons to access SideStick module pages or connect to cameras. The Configure Pages menu enables you to set the functionality for each Page button on a SideStick module.

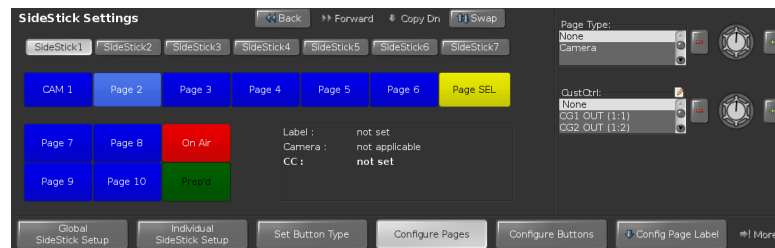
To set Page button functionality

1. In the Acuity menu system, press **HOME > Setup > Personality > More > SideStick Settings**.

The **SideStick Setting** menu opens.

2. Press **Configure Pages**.

The **Configure Pages** menu opens.



3. Press **SideStick #** to select the SideStick module to configure.
4. Press the **Page** button for which to set the type.

- Use the **Page Type** knob to set the page type for the selected **Page** button. The available types are as follows:
 - None** — switch to a SideStick module page.
 - Camera** — select a camera to control.

The button image in **Configure Pages** menu updates to display the set type for the selected button. You can use the **Config Button Label** menu to customize button label text and background color.

- To trigger a custom control when a user presses the selected Page button, use the **CustCtrl** knob to select the custom control to trigger. Select **None** to not trigger a custom control.

The **Configure Pages** menu updates to display the **Label**, **Camera**, and **CC** set for the selected button.

Configure Buttons

When you press and hold the Page SEL button on a SideStick module, the mnemonic buttons change to Page Number or Camera buttons. Press a Page Number button to change the functionality of the SideStick module mnemonic buttons. On each page you can set different functionality for the Configurable button on the page. You cannot change the functionality of Page SEL, On Air, Prep'd, and disabled buttons on a page. The Configure Buttons menu enables you to set the functionality for the Configurable buttons on a page.

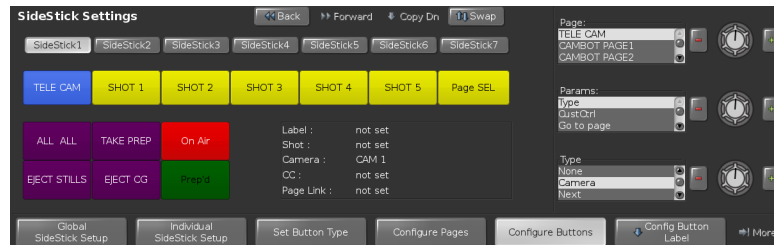
To set the functionality of a Configurable button on a page

- In the Acuity menu system, press **HOME > Setup > Personality > More > SideStick Settings**.

The **SideStick Setting** menu opens.

- Press **Configure Buttons**.

The **Configure Buttons** menu opens.



- Press **SideStick #** to select the SideStick module to configure.
- Use the **Page Type** knob to select the **Page #** that contains the buttons to configure.
- Press the **button** for to configure.
- Use the **Params** knob to select the parameter to configure for the selected button. The available parameters are as follows:
 - Type** — set the button functionality, refer to the section “**Type**” on page 8–12.
 - CustCtrl** — trigger a custom control, refer to the section “**Custom Control**” on page 8–12.
 - Go to page** — go to a selected page, refer to the section “**Go to Page**” on page 8–12.
 - Camera** — control a camera, refer to the section “**Camera**” on page 8–12.
 - Mode** — select the camera control mode, refer to the section “**Mode**” on page 8–12.
 - Shot** — position a camera for a shot, refer to the section “**Shot**” on page 8–12.
 - Duration** — set the number of seconds to move a camera to a shot, refer to the section “**Duration**” on page 8–12. Cameras that do not support duration ignore the value set for this parameter.

Type

Use the **Type** knob to select the functionality for the selected button. The available options are as follows:

- **None** — switch to a SideStick module page. For this option you can configure the SideStick module 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 module 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.

Custom Control

Use the **CustCtrl** knob to select the custom control to trigger when a user presses the selected button. Select **None** to not trigger a custom control.

Go to Page

Use the **Go to page** knob to select a page to go to when a user presses the selected button.

Camera

Use the **Camera** knob to select the camera to control.

Mode

Use the **Mode** knob to select how to use the SideShot module to control a selected camera. The available options are as follows:

- **No Control** — do not use the SideStick module to control camera pan, tilt, and zoom.
- **Pa/Ti/Zo** — use the SideStick module to control camera pan, tilt, and zoom.
- **pX/pY/pZ** — use the SideStick module to control camera pedestal motion.

Shot

Use the **Shot** knob to select a shot pre-set to position the camera when a user selects the camera from the SideStick module.

Duration

Use the **Duration** knob to select the duration in seconds to move the selected camera to the selected **Shot**. Cameras that do not support duration ignore the value set for this parameter.

Configure Global Button Labels

For each of the thirteen physical mnemonic buttons on a SideStick module you can configure the button label, text style, and color. The available button text styles are as follows:

Table 8.1 SideStick Module Mnemonic Button Text Styles

Standard	Small	Small Invert	Medium	Medium Invert	Large	Large Invert	None

★ The **Inv Shift/Unshift**, **Inv Unshift/Shift**, **Shift/Inv Unshift**, and **Unshift/Inv Shift** fonts are not applicable to the SideStick module.

The available button colors are as follows:

Table 8.2 SideStick Module Mnemonic Button Background Colors

Standard	Green	Red	Blue	Yellow	Orange	None

To configure the style of mnemonic buttons on a SideStick module

1. In the Acuity menu system, press **HOME** > **Setup** > **Personality** > **More** > **SideStick Settings**.

The **SideStick Setting** menu opens.

2. Press **Config Button Label**.

The **SideStick Button Labels** menu opens.



3. Press **SideStick #** to select the SideStick module to configure.
4. Use the **Button** knob, third from the top, to select the SideStick module mnemonic button to configure.
5. In the **New Name** box, enter the label to display on the selected mnemonic button.
The **Mnemonic** image updates to display the entered label.
6. Use the **Font** knob to select the font in which to display the entered label on the selected mnemonic button.
The **Mnemonic** image updates to display the entered label in the selected font.
7. Use the **Color** knob to select the background color with which to light the selected mnemonic button.
The **Mnemonic** image updates to display the entered label in the selected font with the selected background color.
8. Press **Accept New Name**.
9. For each mnemonic button to configure, repeat step 4 and step 8.

SideStick Module Camera Control

The SideStick module is an optional companion control panel for users who prefer a dedicated control surface to control cameras. SideStick modules contain thirteen physical mnemonic buttons and a joystick. You can connect one or many SideStick modules to your Acuity switcher to control robotic cameras.

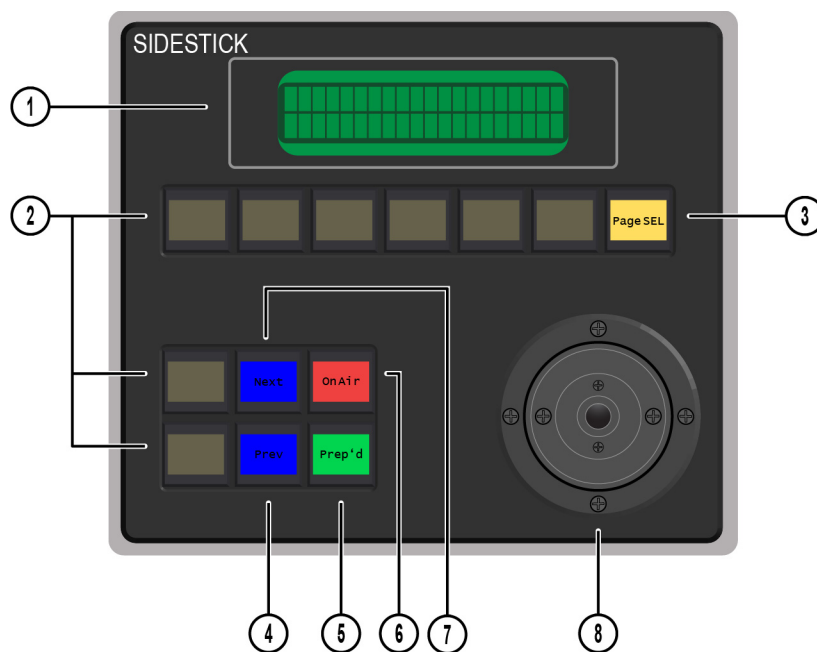


Figure 8.3 SideStick Module

1) Information Screen	2) Mnemonic Buttons	3) Page Button	4) Previous Camera Button
5) Prepared Camera Button	6) On Air Camera Button	7) Next Camera Button	8) Joystick

1. Information Screen

The information screen displays the status of the SideStick module: camera name, follow mode, and axis control mode.

2. Mnemonic Buttons

Mnemonic buttons display the name of a camera to select or the custom control to run when you press the button. The functionality of all mnemonic buttons is customizable.

3. Page SEL Button

Press and hold the Page SEL button to display the buttons to access the various pages configured for the SideStick module. Each page customizes the functionality of the SideStick module mnemonic buttons.

4. Previous Button

Press this button to select the previous camera in the camera list. A camera must be selected before you can use this button. The top left corner of the information screen displays the text **Cam** when the SideStick module has selected a camera.

When locked to the On-Air camera, the Previous button selects the previous on-air camera. When locked to the Preset camera, the Previous button selects the previous prepared camera.

5. Next Button

Press this button to select the next camera in the camera list. A camera must be selected before you can use this button. The top left corner of the information screen displays the text **Cam** when the SideStick module has selected a camera.

When locked to the On-Air camera, the Next button selects the next on-air camera. When locked to the Preset camera, the Next button selects the next prepared camera.

6. On Air Button

Press this button to select the first on-air camera. A camera must be selected before you can use this button. The top left corner of the information screen displays the name of the camera that the SideStick module controls, for example: **C:TELE CAM**.

Double press the **On Air** button to lock and follow the on-air camera. The text label on the right-side changes to **F:on-Air**. When locked to the on-air camera, double press the **On Air** button to release the lock.

7. Prepared Button

Press this button to select the prepared camera. A camera must be selected before you can use this button. The top left corner of the information screen displays the name of the camera that the SideStick module controls, for example: **C:TELE CAM**.

Double press the **Prepared** button to lock and follow the on-air camera. The text label on the right-side changes to **F:Prep'd**. When locked to the prepared camera, double press the **Prepared** button to release the lock.

8. Joystick

When you select a camera, you can use the joystick to control pan/tilt/zoom, focus, or iris. Press the button on the top of the joystick to cycle through the different modes.

Appendix A. Operation Guidelines

Use the guidelines in the following sections to help ensure the seamless operation of your OverDrive shows:

- Operational Guidelines
- IT Department Guidelines

Operational Guidelines

Use the following guidelines to help keep your OverDrive system up and running smoothly:

1. Restart the RundownControl client each day. Settings such as keyboard hotkeys are saved to the OverDrive database when you close and OverDrive client application. If an error occurs, setting changes are lost.

Refer to the section **Starting RundownControl** in the *OverDrive User Guide*.

2. On RundownControl computers, only install the following OverDrive client and support applications:
 - RundownControl
 - DirectControl
 - TemplateEditor
 - RapidRestore
 - TeamViewer

Do not install additional software applications on RundownControl computers, such as:

- Videoconferencing, VoIP, or Instant Messaging
- Photo or Video Editing
- Games

3. Restart the OverDrive Server computer each week.

Refer to the section **OverDrive Server Startup** in the *OverDrive User Guide*.

4. Restart the OverDrive Server computer after completing any of the following changes to your OverDrive system:

- Upgrade the OverDrive Server software to a new version.
- Change the configuration of OverDrive client applications.
- Connect a new device to your OverDrive system.
- Change the configuration of a device.
- Change the configuration of the switcher in the OverDrive system.

Restarting the OverDrive Server computer after a switcher configuration change updates crosspoint list and audio faders names.

5. Disable the Microsoft Internet Explorer® cache on any computers that use the Ross Video OverDrive NRCS plugin.

Disabling the Internet Explorer cache stops the display of false shots and template data in your NRCS.

6. The DirectControl client user interface works best on a 16:9 monitor.
7. To enable Hot Swap functionality with the Ross Video OverDrive NRCS plugin, assign MOS IDs as follows:
 - Assign the ActiveX plugin a MOS ID that does not coincide with the MOS ID assigned to the Redundant OverDrive Server.
 - Assign the ActiveX plugin a MOS ID that does coincide with the MOS ID assigned to the Primary OverDrive Server.

Refer the chapter **Primary and Redundant OverDrive Systems** in the *OverDrive User Guide* for more information about the OverDrive Hot Swap procedure.

IT Department Guidelines

Your IT department can help you with the following guidelines to keep your OverDrive system up and running smoothly:

1. Do not run real-time or on access file scanning programs on the OverDrive Server or client computers.
 - Ross Video does not support any type of real-time or on access file scanning programs running on any computers in an OverDrive system. Real-time or on access file scanning can cause lagging, disconnects, and timeouts between the OverDrive Server and clients.
2. For users accessing the OverDrive web page or performing RapidRestore operations, it is important that domain (and not locally) defined accounts be defined. In addition, these user accounts should all have access to the servers used for the primary and redundant servers as well as any machines supporting a MOS Gateway service. If your environment does not support domain accounts, then please contact the OverDrive field services team to discuss how best to setup the user accounts.
3. Schedule network security functions when your OverDrive system is off air. For example:
 - Antivirus file update downloads
 - File scans
4. Reconfigure Windows after applying a Microsoft update to the OverDrive Server as some updates restore default settings.
 - ★ You must reset exclusion lists and other Windows firewall settings required by the OverDrive Server.
5. Configure network switches to not block the ports required by the OverDrive Server, switcher, and third-party devices in your OverDrive system.
 - **NRCS Ports** — refer to the setup chapter for your NRCS in the *OverDrive Installation and Configuration Guide*.
 - **Switcher Ports** — refer to the setup chapter for your switcher in the *OverDrive Installation and Configuration Guide*.
 - **QuickTurn Ports** — refer to the section **Configuring QuickTurn Devices** in the *OverDrive User Guide*.
 - **Device Ports** — refer the OverDrive Device Setup Sheet for your third-party device.
6. Place live production on the same subnet as the OverDrive Server. Ensure proper routing and non-blocking routes between VLANs or subnets between the OverDrive Server and OverDrive client applications.
7. Never use the second network port on the OverDrive Server as a second network interface. Only use the second network port on the OverDrive server as a teamed NIC.

Appendix B. NIC Teaming

On OverDrive Server computers that contains multiple Network Interface Controller (NIC) cards, you can team the NIC cards for the following purposes:

- Prevent connectivity loss in the event of a network component failure
- Aggregate bandwidth


The following topic is discussed in this appendix:

- Configure NIC Teaming on an OverDrive Server

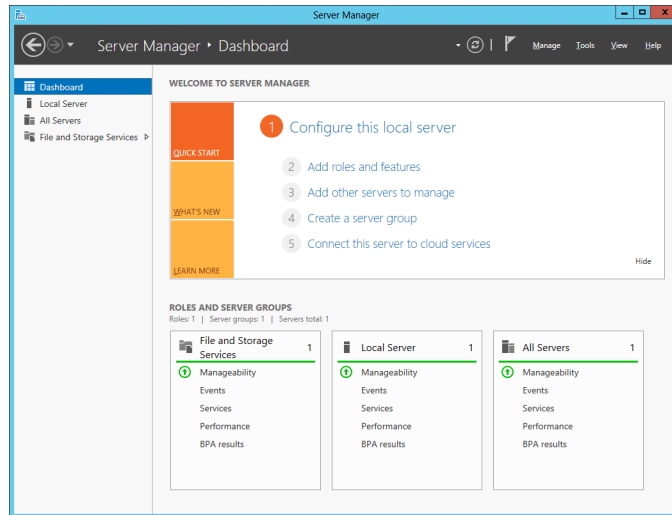
Configure NIC Teaming on an OverDrive Server

For OverDrive systems that use a Dell R320 or a Dell R330 computer as the OverDrive Server, you can team the NIC cards to prevent connectivity loss and aggregate bandwidth. NIC card teaming on an OverDrive Server computer is configured through Windows Server 2012.

To team OverDrive Server computer NIC cards

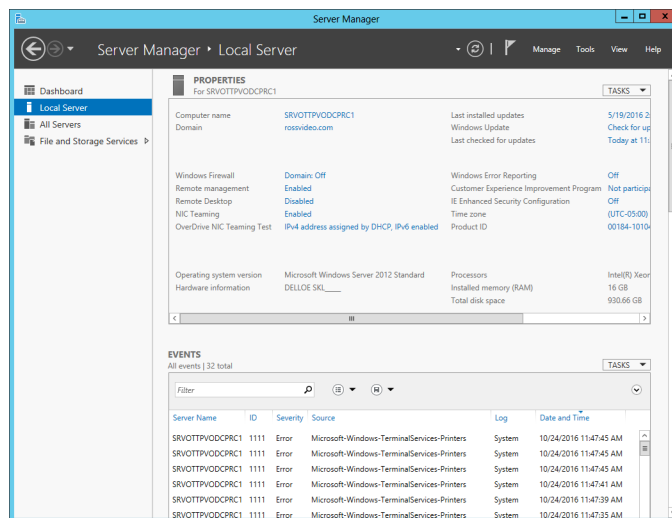
1. In the Windows taskbar, click the  **Server Manager** icon.

The **Server Manager** window opens.



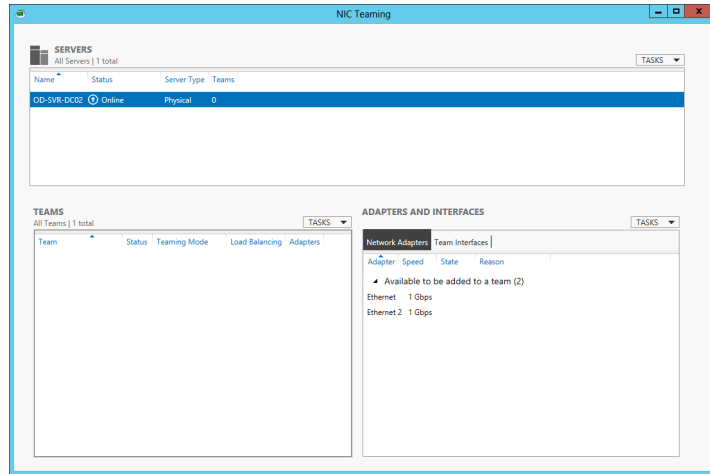
2. In the tree view, click **Local Server**.

The **Properties** panel opens for the local server.

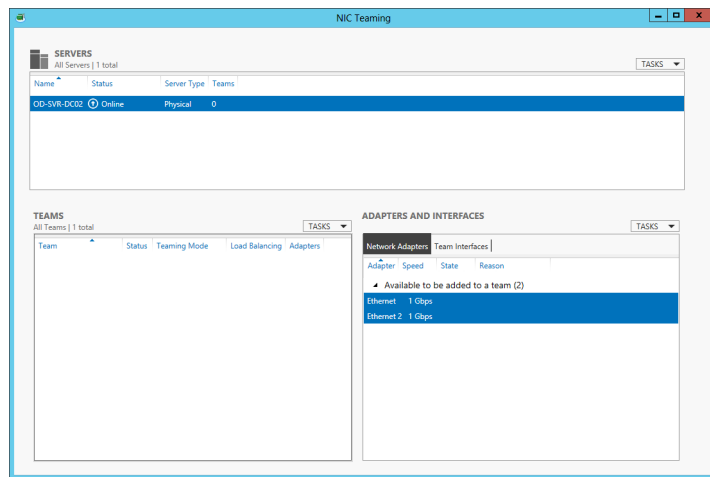


- To the right of the **NIC Teaming** property, click **Disabled**.

The **NIC Teaming** window opens.

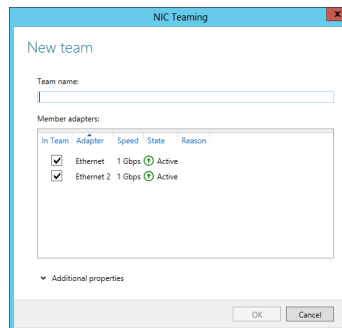


- In the **ADAPTERS AND INTERFACES** section, select the **Network Adapters** tab.
- In the **Network Adapters** tab, select the **Network Adapters** to include in the NIC team.



- Use the **TASKS** list to select **Add to New Team**.

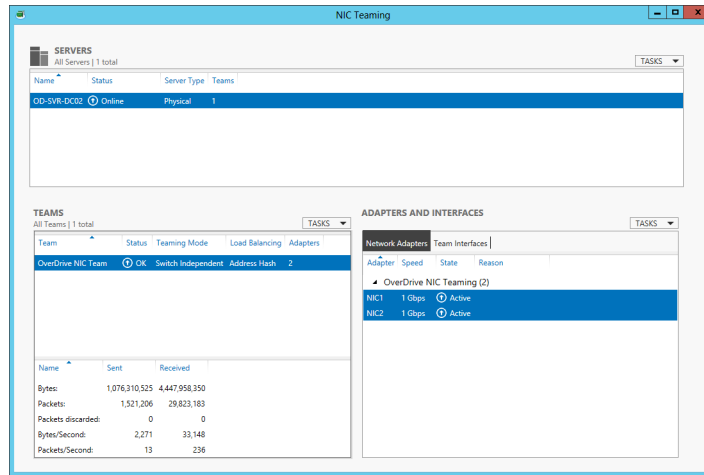
The **New team** dialog box opens with the selected NICs.



- In the **Team name** box, enter a name for the new NIC team.

8. Click **OK**.

The **New team** dialog box closes and the **NIC Teaming** window displays the new NIC team in the **TEAMS** section.



9. Close the **Server Manager**.

Appendix C. PostgreSQL Upgrade

Before you can use the OverDrive installer to install the latest version of OverDrive, the PostgreSQL database software installed on your OverDrive system must be v15.X. Other PostgreSQL versions are not compatible with the OverDrive installer.

The following topics are discussed in this appendix:

- Fresh OverDrive Installation on a New Computer
- Upgrade of an OverDrive System that has an Incompatible Major Version of PostgreSQL
- Upgrade of an OverDrive System that has an Incompatible Minor Version of PostgreSQL

Fresh OverDrive Installation on a New Computer

When installing OverDrive on a new computer, follow the procedure “**To install OverDrive Server software**” on page 4–3.

Upgrade of an OverDrive System that has an Incompatible Major Version of PostgreSQL

When using the OverDrive installer to update an OverDrive system that has an incompatible major version of PostgreSQL:

- The OverDrive installer will warn you about the PostgreSQL version incompatibility.
- The installer will not be able to proceed if the installed PostgreSQL major version does not match v15.
- You must manually uninstall an incompatible PostgreSQL version.

To upgrade an OverDrive system that has an incompatible major version of PostgreSQL

1. Backup the `pg_hba.conf` and `postgresql.conf` files contained in the `C:\Program Files\PostgreSQL\##.#` folder where `##.#` is the PostgreSQL version.
2. Use **Add/Remove Programs** control panel to remove any existing versions of the following software from the OverDrive system:
 - OverDrive Server
 - OverDrive ProjectServer
 - PostgreSQL
 - pgAdmin III
3. Delete the **PostgreSQL** data folder `C:\Program Files\PostgreSQL\##.#` where `##.#` is the PostgreSQL version.
4. Delete the **pgAdmin** roaming data folder `C:\Users\overdrive\AppData\Roaming\pgadmin`.
5. Reboot the **OverDrive Server** computer.
6. Follow the procedure “**To install OverDrive Server software**” on page 4–3 to install OverDrive.
7. If you want to reuse your old PostgreSQL data, copy the `pg_hba.conf` and `postgresql.conf` files that you backed up in step **1** into the `C:\Program Files\PostgreSQL\##.#` folder where `##.#` is the PostgreSQL version.

If you do not want to use your old PostgreSQL data, follow the procedure “**To tune database settings in the `postgresql.conf` file**” on page 4–7 to re-tune your PostgreSQL database.

8. Restart the **PostgreSQL** service.
9. Restart all of the **OverDrive** services.

Upgrade of an OverDrive System that has an Incompatible Minor Version of PostgreSQL

When using the OverDrive installer to update an OverDrive system that has an incompatible minor version of PostgreSQL:

- The OverDrive installer will warn you about the PostgreSQL version incompatibility.
- You can continue the OverDrive installation by clicking **Next**.
- The installer will automatically download and install the required version of PostgreSQL.

To upgrade an OverDrive system that has an incompatible minor version of PostgreSQL

1. Run the OverDrive installer.

The installer warns you that there is an incompatibility with the minor version of the installed PostgreSQL.

2. Click **Next**.

The installer downloads the required version of PostgreSQL.

3. Follow the installer wizard to complete the OverDrive installation.
4. Reboot the OverDrive Server.

Appendix D. Software Licenses

Your Ross Video product uses software covered by one or more of the licenses described in this document.

★ As required by the GNU General Public License, and the Lesser GNU Public License (LGPL), source code can be obtained from Ross Video for at least 3 years. Contact Ross Video Technical Support for more information.

The following licenses are contained in this appendix:

- End User Software License Agreement
- OverDrive Software License Grant
- GNU GENERAL PUBLIC LICENSE
- GNU GENERAL PUBLIC LICENSE WITH THE CLASSPATH EXCEPTION
- GNU LESSER GENERAL PUBLIC LICENSE
- BSD License
- Apache License
- Eclipse Public License - v 1.0
- Expat License
- IMLIB2
- Jiffy
- Fedora 14 - License Agreement
- PSF LICENSE AGREEMENT FOR PYTHON 2.7.3
- Jetty
- Apache ActiveMQ
- NewTek NDI Software Development Kit (SDK) License Agreement
- Synthing

End User Software License Agreement

This End User Software License Agreement is a legal agreement between you (the “**Licensee**”) and Ross Video Limited (“**Ross Video**”) specifying the terms and conditions of your installation and use of the Software and all Documentation (as those terms are defined herein).

IMPORTANT:

BY DOWNLOADING, ACCESSING, INSTALLING OR USING THE SOFTWARE AND/OR DOCUMENTATION LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT AND THE LICENSE GRANTED HEREUNDER SHALL BE EFFECTIVE AS OF AND FROM SUCH DATE. IF YOU DO NOT WISH TO ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT DOWNLOAD, ACCESS, INSTALL, REFER TO OR OTHERWISE USE THE SOFTWARE AND/OR DOCUMENTATION.

1. **INTERPRETATION.** In this Agreement, (a) words signifying the singular number include the plural and vice versa, and words signifying gender include all genders; (b) every use of the words “herein”, “hereof”, “hereto” “hereunder” and similar words shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof; (c) reference to any agreement or other document herein will be construed as referring to such agreement or other document as from time to time amended, modified or supplemented (subject to any restrictions on such amendment, modification or supplement set forth therein); (d) every use of the words “including” or “includes” is to be construed as meaning “including, without limitation” or “includes, without limitation”, respectively; and (e) references to an Article or a Section are to be construed as references to an Article or Section of or to this Agreement unless otherwise specified.

2. **DEFINITIONS.** In this Agreement, in addition to the terms defined elsewhere in this Agreement, the following terms have the meanings set out below:

“**Affiliate**” means, with respect to any Person, any other Person who directly or indirectly controls, is controlled by, or is under direct or indirect common control with, such Person. A Person shall be deemed to control a Person if such Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise; and the term “controlled” and “controlling” shall have a similar meaning.

“**Agreement**” means this End User Software License Agreement including the recitals hereto, as the same may be amended from time to time in accordance with the provisions hereof.

“**Backup System**” means the secondary piece of Designated Equipment upon which the Software is installed and mirrored for the sole purpose of replacing a Primary System in the event such Primary System is not available or functioning properly for any reason.

“**Change of Control**” means (a) the direct or indirect sale, transfer or exchange by the shareholders of a Party of more than fifty percent (50%) of the voting securities of such Party, (b) a merger or amalgamation or reorganization or other transaction to which a Party is party after which the shareholders of such Party immediately prior to such transaction hold less than fifty percent (50%) of the voting securities of the surviving entity, (c) the sale, exchange, or transfer of all or substantially all of the assets of a Party.

“**Confidential Information**” means all data and information relating to the business and management of either Party, including the Software, trade secrets and other technology to which access is obtained or granted hereunder by the other Party, and any materials provided by Ross Video to Licensee; provided, however, that Confidential Information shall not include any data or information which:

- a. is or becomes publicly available through no fault of the other Party;
- b. is already in the rightful possession of the other Party prior to its receipt from the other Party;
- c. is already known to the receiving Party at the time of its disclosure to the receiving Party by the disclosing Party and is not the subject of an obligation of confidence of any kind;
- d. is independently developed by the other Party;
- e. is rightfully obtained by the other Party from a third party; or
- f. is disclosed with the written consent of the Party whose information it is.

“Designated Equipment” shall mean (a) the hardware products sold by Ross Video to Licensee on which the Software is installed and licensed for use, as the same may be replaced from time to time by Ross Video; or (b) in the case of Software sold on a stand-alone basis, the equipment of Licensee on which the Software is to be installed and meets the minimum specifications set out in the Documentation.

“Documentation” shall mean manuals, instruction guides, user documentation and other related materials of any kind pertaining to the Software (whether in electronic, hard-copy or other media format) that are furnished to Licensee by or on behalf of Ross Video in relation to the Software.

“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

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org.eclipse.jetty.toolchain:jetty-schemas

Assorted

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