



grass valley

A **BELDEN** BRAND

iCONTROL

VERSION 8.00

Release Notes

M446-2203-374

2019-02-07

www.grassvalley.com

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Title	iControl Version 8.00 Release Notes
Part Number	M446-2203-374
Revision Date	2019-02-07, 15:53

toc

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Installation and Requirements

This section details the requirements that must be met prior to installing or upgrading a system with the current version of iControl. It also provides upgrading and configuration guidelines, as well as tips to improve performance.

Summary

[System Requirements](#), on page 6

[Key Things to Consider Before Installing iControl](#), on page 9

[Installing iControl on an Application Server](#), on page 14

[Documentation](#), on page 31

[Configuration Guidelines](#), on page 31

[Tips to Improve Performance](#), on page 33

System Requirements

Client Platform

Grass Valley recommends the client platform meet the following system specifications for optimal performance:

Client platform requirements

Memory	8 GB RAM
Processor	Intel Core i7 or better, 64-bit capable or equivalent
Operating System	Microsoft Windows 10, Windows 8, or Windows 7, 64-bit version ^a
Graphics Card	Optimized for nVidia or ATI GeForce or Radeon family with 1 GHz clock speed or faster, and minimum 128 MB memory

a. As of iControl v8.00 or higher, 32-bit operating systems are no longer supported.

Notes

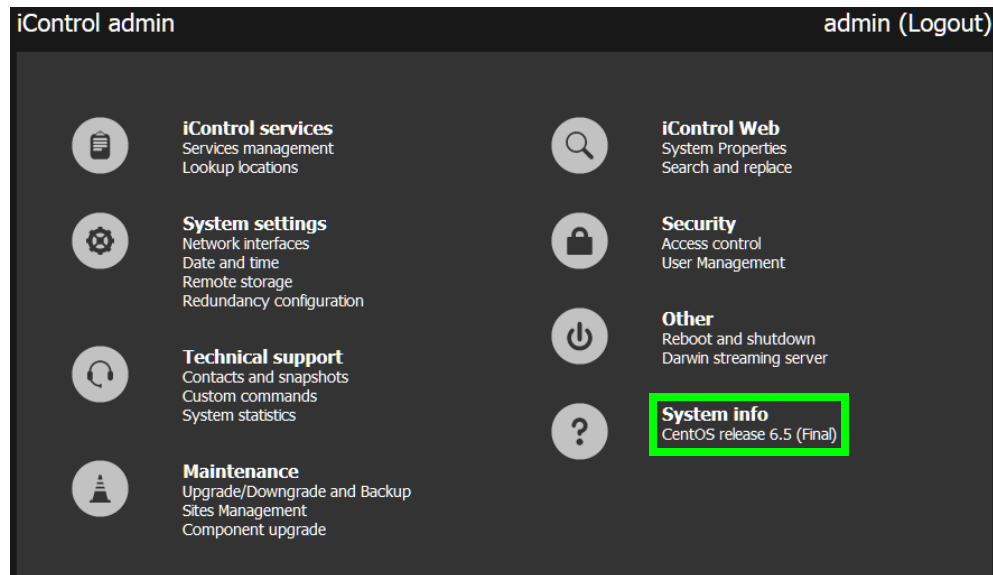
- Client PCs running iControl software version 8.00 *must have 64-bit Microsoft Windows 10, Windows 8, or Windows 7 installed*. Windows XP is no longer supported.
- iControl no longer requires that Java JRE is installed on your client PC for iControl to function properly. If you have a Java JRE installed already, there is no impact on iControl's ability to function, nor any degradation of performance. However, if you must downgrade to iControl software version 5 or earlier, then you will need the Java Runtime Environment (JRE) version 6.0 update 20 on your machine (see the "Installing Java" section of the "Getting Started" chapter in the iControl Quick Start Guide that was published with the version of iControl you are downgrading to)

IMPORTANT: For optimal video-decoding performance

The streaming video decoder library used in iControl Navigator and iC Web is optimized for the Intel CPU Core, Core2 and iCore architectures. For optimal video decoding performance, use a client PC equipped with an Intel CPU.

Supported Application Servers

iControl software versions 8.00 and higher is **ONLY** supported on Dell PowerEdge R330 or better running CentOS software version 6.5 or higher. The current Application Server's CentOS version can be found in the iControl Admin main page under System info.



Grass Valley recommends the server platform meet the following system specifications for optimal performance:

Server platform requirements

Memory	16 GB RAM
Operating System	Microsoft Windows 10, Windows 8, or Windows 7, 64-bit version ^a
CentOS Software Version	6.5 or higher

a. As of iControl v8.00 or higher, 32-bit operating systems are no longer supported.

Determining the Model Type of your Application Server

To determine an Application Server's model

- 1 If the model is not visibly labeled, look for the *Service Tag* on a label located either on the back panel of the server or else the side.
If both the back and side are obscured from view, you can retrieve the Service Tag from the information tag located on the front panel. The information tag is a slide-out label panel which allows you to record system information such as Service Tag, NIC, MAC address, etc., as needed.
- 2 In your web browser, navigate to the *Product support* section of Dell's website (www.dell.com).

Note: The above address is the URL for the US Dell website. For the Dell website supporting another country, go to the URL above, and then use the locale selector to switch to the version of the website that matches your country and language.

- 3 Type the *Service Tag* code you identified in [step 1](#), and then click **Submit**.

If your Application Server model does not appear, either you have typed the Service Tag incorrectly or your hardware warranty has expired. If you confirm the Service Tag is correct, contact *Grass Valley Technical Support* (see [Grass Valley Technical Support](#), on page 58).

iControl Virtual Machine

iControl VM is a complete version of iControl Base Edition packaged as a virtual image (OVA file). iControl VM does not require a dedicated application server. Instead, a single server can run multiple instances of the iControl VM software, as well as other virtual image software. Please refer to the *iControl VM Quick Start Guide* (available from the Documentation Library section of Grass Valley's website), for detailed system requirements.

Network

You can access the iControl Application Server from a client PC, using a standard Web browser (Google Chrome, Microsoft Internet Explorer, or Mozilla Firefox). Once you are connected to an Application Server, you can download iControl client applications to your client PC. These client applications will communicate with distributed network applications that may reside on the Application Server where the initial connection was made, or on other Application Servers on your network.

Grass Valley recommends that the iControl Application Server (as well as the associated equipment it controls) be installed on a dedicated LAN, using the existing security infrastructure. A qualified system administrator should verify that the setup follows your organization's security standards.

Key Things to Consider Before Installing iControl

Changes to Licensing Model as of iControl software version 6.00

As of iControl software version 6.00, an important change was made to the licensing model that affects:

- new systems that ship with iControl software factory-installed
- systems you manually install iControl on

Either upon installation of iControl software version 6.00 (or later) on an existing system, or after first powering up a new Application Server that ships with version 6.00 (or later), the trial clocks for all currently unlicensed options will begin their 30-day countdown. The change as of version 6.00, is that there is now a new licensed option (order code: IC-BASE-SOFTWARE) that licenses the use of the following basic iControl functionality:

- General Status Manager (GSM)
- Virtual services¹
- Image Store
- iC Navigator
- Densité

If you do not license the IC-BASE-SOFTWARE option within the 30-day trial period, you will lose access to the basic iControl functionality described above.

Changes to Licensing Model as of iControl software version 6.03

As of iControl software version 6.03, a change was made to the licensing model that affects:

- new systems that ship with iControl software factory-installed
- systems you manually install iControl on

Either upon installation of iControl software version 6.03 (or later) on an existing system, or after first powering up a new Application Server that ships with version 6.03 (or later), the trial clocks for the following previously unlicensed options will begin their 30-day countdown. The change as of version 6.03, is that there are now licensed options that enable the following iControl features:

- GSM Remote connector plug-in (order code: IC-GSM-HTTP)
- iControl Services Gateway (order code: IC-GATEWAY)

If you do not license these options within the 30-day trial period, you will lose access to the features listed above.

Requirement to Upgrade Firmware of Some Densité Cards

iC 5.00 to iC 6.00 or Later (FRS-3901/AMX-3981/EAP-3x01/ADX-3981)

If you are upgrading from iControl software version 5.00 to version 6.00 or later, and your Application Server monitors any of the following Densité cards, then, after the server

1. This service has been since removed from iControl software version 8.00 and higher.

upgrade, you **must** then upgrade the firmware/software packages of these Densité cards with Upgrade Package 3.0.1-RC1 or later.

The Densité cards in question are:

- FRS-3901
- AMX-3981
- EAP-3101, and EAP-3901
- ADX-3981

iC 5.00 to iC 6.00 or Later (HLP-1801)

If you are upgrading from iControl software version 5.00 to version 6.00 or later, and your Application Server monitors one or more HLP-1801 Densité cards, then, after the server upgrade, you **must** then upgrade the firmware/software packages of these cards with Upgrade Package 2.0.1-RC1 or later.

Software Component Compatibility

Grass Valley recommends you use the following software components and the stated versions for optimal performance and compatibility with iControl software version 8.00:

- RCP-200 Remote Control Panel version 1.7 or later
- Kaleido-X version 7.60 or later

Note: The *KX Control Panel* widget (available from the WidgetLibrary site, in iC Creator), is not yet compatible with Kaleido-X version 8.20 and later. See [\[Ref. #ICONTROL-19950\]](#), on page 45.

- Densité 3+ frame controller (CPU-ETH3) version 1.0.3 or later
- GV Node frame controller (CPU-ETH3) version 1.0.3 or later
- Densité CPU-ETH2 version 2.0.4 or later
- EdgeVision version 1.21 or later
- NV9000 version 6.3.0 build 1873 or later
- SEUtilities version 6.3.0 build 136 or later

Upgrade Compatibility Issues

- The **Dell PowerEdge R330** application server supports iControl software versions 5.00 and later.
 - Should you wish to install — or reinstall — a version of iControl between 6.00 and 7.20 on a Dell PowerEdge R330 application server, you must apply the R330 Compatibility component upgrade R330-compatibility.zip, available from Grass Valley Technical Support (see [Grass Valley Technical Support](#), on page 58), as well.
 - If you must install iControl software version 5.00 on a Dell PowerEdge R330 application server, please contact Grass Valley Technical Support (see [Grass Valley Technical Support](#), on page 58).
 - If you wish to add a Dell PowerEdge R330 application server to an existing Redundancy Group, you must install component upgrade ICONTROL-19711.zip, available from Grass Valley Technical Support (see [Grass Valley](#)

[Technical Support](#), on page 58), on all non-R330 application servers in the Redundancy Group.

- If you had added *iControl admin* user profiles in iControl software version 7.20 or earlier, make sure to export them to a CSV file *before* upgrading. After the upgrade, you can import them back via the *Access control* page of iControl admin.

Note: As of iControl software version 7.30, when you import user profiles from a CSV file, the passwords must be MD5-hashed.

- After you upgrade an Application Server, *from iControl software version 6.01 or earlier*, to 6.02 or later, *iControl Admin* user-modified passwords are lost.
- As of version 6.00, iControl no longer supports the Rollback function.

Known Upgrade Incompatibility with iControl Software Version 8.00 or Higher

When migrating to iControl software version 8.00 or higher, you must take into account the following upgrade issues. As of iControl software version 8.00, the software is a 64-bit application that can take full advantage of modern server technology. This change breaks compatibility with certain specific features that will no longer be supported and certain requirements have changed.

New System Requirements

See [System Requirements](#), on page 6 for more specific information. As of iControl software version 8.00 or higher, the following system requirements apply.

- ★ It will not be possible to install iControl 8.00 on a 32-bit operating system.
- ★ Older servers running 32-bit Operating Systems are no longer supported by iControl version 8.00 and higher. This includes Dell R310 and lower, and some models of Dell R320.
 - Only IC-BASE-EDITION-V3 or IC-BASE-EDITION-ENT-V3 will support iControl version 8.00 and higher.
 - All previous VM servers are 64-bit and will support iControl version 8.00.

iControl Software Version 8.00 or Higher Compatibility Breaks

Certain features are no longer supported when iControl is upgraded. If you upgrade any iControl server from version 7.5X or lower to version 8.00 or higher, it will have the following impact.

- ★ Support for GeckoFlex device are no longer supported. As such the GeckoFlex Manager service is no longer available as of iControl v8.00.
- ★ Control of any device through the server's serial port is no longer supported. As a result:
 - Imaging Connection Manager has been removed.

- Imaging Frames (Symphonie or Quartet) are no longer supported.
- Tandberg Alteia is no longer supported.
- VTR Control module has been removed.
- VTR Schedule Service has been removed.
- In Router Manager, serial connection will no longer be an available connection option.
 - As a result, serial control of any router model is no longer supported.
- Support for ImageStore has been removed.
- ★ In the Application Launcher, Data Manager is no longer supported, but there is an option to enable it for legacy users. Contact Technical Support for more information. See [Grass Valley Technical Support](#), on page 58.
- ★ Line scope option for thumbnail player in IC Web and Creator will no longer be supported (currently used by ENC-1103 and DEC-1003 cards).
- ★ Bridgetech VBC service has been removed.
- ★ CDMP is no longer supported.
- ★ ETL274 is no longer supported.
- ★ Harmonic NMX is no longer supported.
- ★ IRD service has been removed.
- ★ METEO Service has been removed.
- ★ Virtual Service has been removed.
- ★ See the *iControl Supported Device Reference Guide* to verify if any device you want to use is supported.

Operating Legacy Equipment that is not Compatible with iControl Software Version 8.00 or Higher

Should any above feature be required, use a server running iControl version 7.5X to control this legacy equipment on the same network that a separate iControl version 8.00 and higher server is running on.

Other Changes

As of iControl software version 8.00 or higher, these following changes apply.

- ★ Documentation is now being made available online and no longer included with the application server. Users clicking on the Documentation link will be provided a URL to the GV support site to download the documentation.
- ★ Only one installer is now used for both for physical and virtual servers.
- ★ Updated graphics and fonts to more closely match with GV Convergent.
- ★ Only one Densité Manager service will need to run. The option to run up to three Densité Managers is still available.
- ★ One-Time Installation of a New Upgrade Manager for iControl Software Version 8: iControl software version 8.00 and higher uses a new upgrade manager. When upgrading from iControl software versions 7.XX to software version 8.00 or higher, you must first install the Maintenance Component Upgrade on your Application Server before installing iControl software version 8.00 on your Application Server. Once this

upgrade manager has been installed on the Application Server, the Application Server can then be upgraded to iControl software version 8.00 and higher. See [Installing the iControl Maintenance Component Upgrade on your Application Server](#), on page 16.

This step must be done only once when upgrading iControl software versions 7.XX to software version 8.00 or higher. This does not need to be repeated for subsequent upgrades once software version 8.00 or higher has been installed.

Installing iControl on an Application Server

IMPORTANT

- When you upgrade an Application Server, Grass Valley strongly recommends that you upgrade all other Application Servers in your network to the same version, as well. Opening a service panel hosted on an Application Server with iControl software version 8.00, from an iControl client application with a version *older than* 8.00, may result in an error message.
 - Before you install version 8.00 onto an Application Server that has an older version of iControl, make sure to review the latest hardware requirements (see [System Requirements](#), on page 6). Contact *Grass Valley Technical Support* to request an upgrade package (see [Grass Valley Technical Support](#), on page 58).
-

To install iControl software version 8.00, perform one of the following procedures, according to the version of iControl *currently* installed on your system:

To upgrade from iControl version (current installed version)	Description	See
4.44 or lower	Special upgrade procedures are necessary.	Grass Valley Technical Support , on page 58
5.XX	1 Upgrade to version 6.04 2 Upgrade to version 7.5X 3 Install the Maintenance Component Upgrade 4 Upgrade to version 8.00.	See Installing iControl software version 8.00 (Current Version is 5.00) on page 27
6.XX	1 Upgrade to version 7.5X 2 Install the Maintenance Component Upgrade 3 Upgrade to version 8.00.	See Installing iControl software version 8.00 (Current Version is 6.XX) on page 21
7.XX	1 Install the Maintenance Component Upgrade 2 Upgrade to version 8.00.	See Installing iControl software version 8.00 and higher (Current Version is 7.00 to 7.5X) on page 15

Installing iControl software version 8.00 and higher (Current Version is 7.00 to 7.5X)

IMPORTANT

Once an Application Server has been upgraded to iControl software version 8.00 and higher, it cannot be downgraded to version 7.XX or lower. iControl software version 8.00 and higher makes changes to the operating system that are incompatible with previous software versions that are made through the software installer process.

- **Before upgrading to iControl software version 8.00 and higher, you must image each Application Server's hard disk(s) or take a snapshot with VM in case you need to go back to the previous software version.**

iControl software version 8.00 and higher uses a new upgrade manager as compared to versions 7.5X and lower. This has the following consequences:

- When upgrading to iControl software version 8.00 and higher from versions 7.5X and lower, you must first install the Maintenance Component Upgrade on your Application Server before installing iControl software version 8.00 and higher on your Application Server before upgrading to version 8.00 and higher. Proceed as follows:
 - a Image each Application Server's hard disk(s) or take a snapshot with VM. This is required should you need to go back to the previous software version.
 - b Install the Maintenance Component Upgrade on your Application Server. See [Installing the iControl Maintenance Component Upgrade on your Application Server](#), on page 16.
 - c The Application Server can now be upgraded to iControl software version 8.00 and higher. See [Installing iControl software version 8.00 on your Application Server](#), on page 18.
- If you are currently running iControl software version 8.00 and higher on your Application Server, the new upgrade manager has been already installed. Proceed as follows:
 - Upgrade the Application Server to iControl software version 8.00 and higher. See [Installing iControl software version 8.00 on your Application Server](#), on page 18.

REQUIREMENTS

Make sure you meet the following conditions before beginning this procedure:

- Your Application Server meets the minimum hardware requirements (See [System Requirements](#), on page 6).
 - Your Application Server is one of the following hardware models:
 - Dell PowerEdge R330.
 - At the beginning of this procedure, your Application Server has iControl software version 7.XX.
-

REQUIREMENTS(Continued)

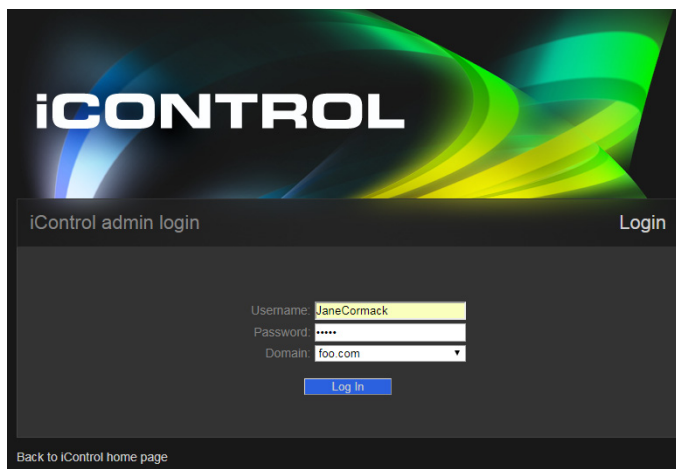
- You have made a backup of your Application Server's configuration data (see the "Backing Up an Application Server" section of the "Backup and Redundancy" chapter of the iControl User Guide).
 - You have disabled the Autofailover function (recommended).
 - You have the iControl software version 8.00 upgrade package (see [Grass Valley Technical Support](#), on page 58).
 - You have logged on to the Application Server's iControl page.
 - You have read the IMPORTANT notes listed under [Installing iControl on an Application Server](#), on page 14.
 - You have read the key considerations and system behaviors regarding iControl software installation (See [Key Things to Consider Before Installing iControl](#), on page 9)
-

Installing the iControl Maintenance Component Upgrade on your Application Server

The Maintenance Component Upgrade changes the way upgrades are installed on iControl software versions 7.XX. This prepares iControl to be upgraded to software version 8.00 or higher.

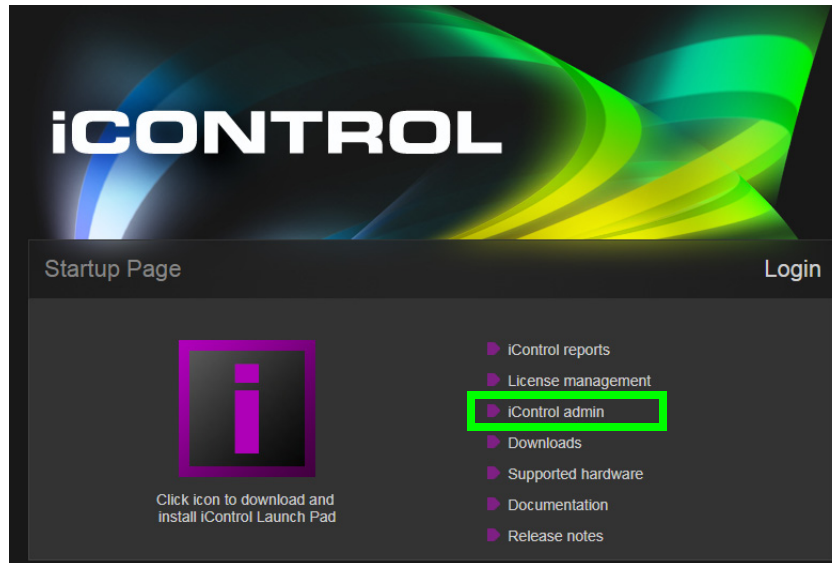
This step must be done only once when upgrading iControl software version 7.XX to software version 8.00 or higher. This does not need to be repeated for subsequent upgrades once software version 8.00 or higher has been installed.

- 1 Download the iControl Maintenance Component Upgrade file (named **ICONTROL-PRE8.0-UPGRADE**) from Grass Valley to your local PC.
- 2 Launch the iControl *Startup* page and open iControl Admin. The Login screen appears.

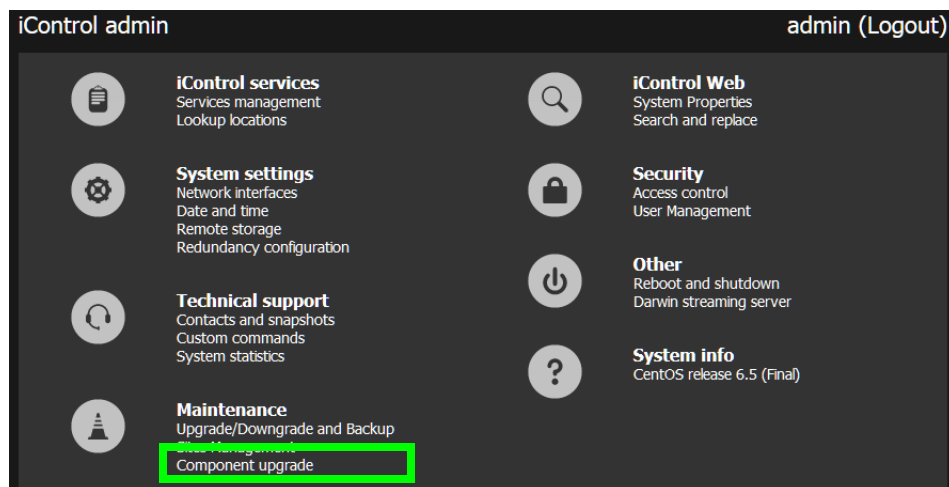


- 3 Enter your username, password, and domain in the text boxes. The iControl admin page appears.

- 4 Select iControl admin.

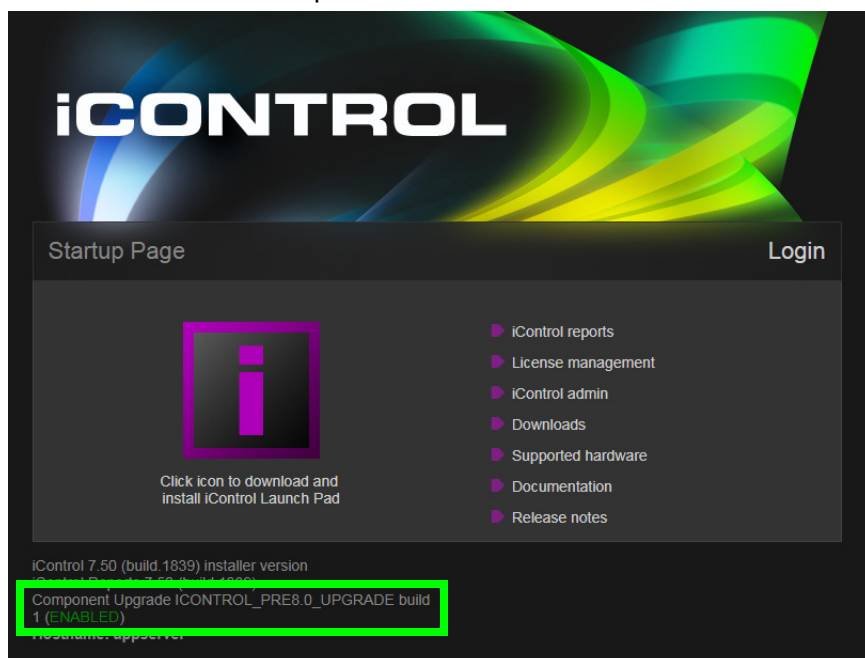


- 5 Select **Component upgrade** under **Maintenance**.
The Component upgrade page appears.

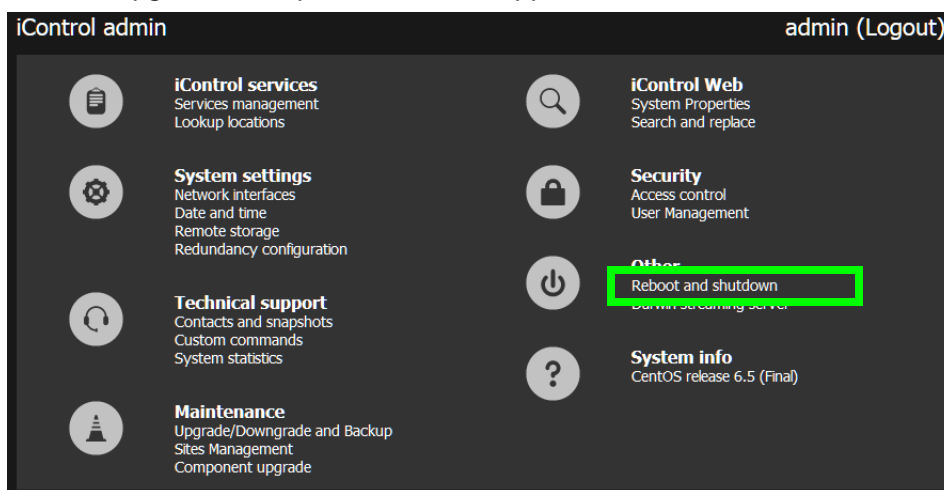


- 6 Click **Browse** next to **From an Uploaded File** and navigate to the network folder where your iControl Maintenance Component Upgrade file is located.
- 7 Click **Go!**

Once the iControl Maintenance Component Upgrade has been successfully installed, the status for this component is shown as **ENABLED**.



8 Once the upgrade is complete, reboot the Application Server.

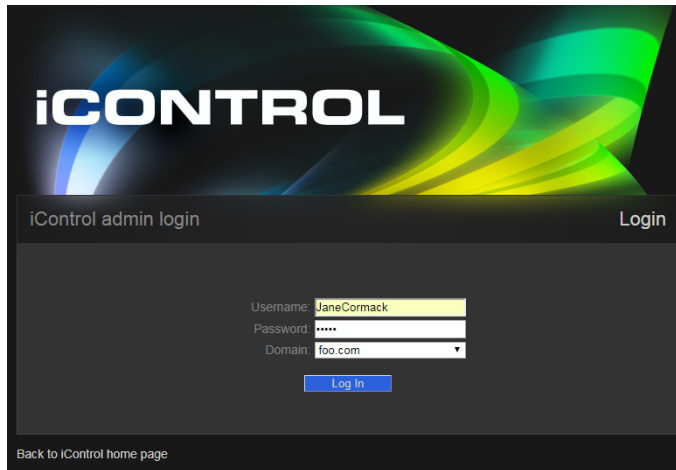


9 Now install iControl software version 8.00 on your Application Server. See below.

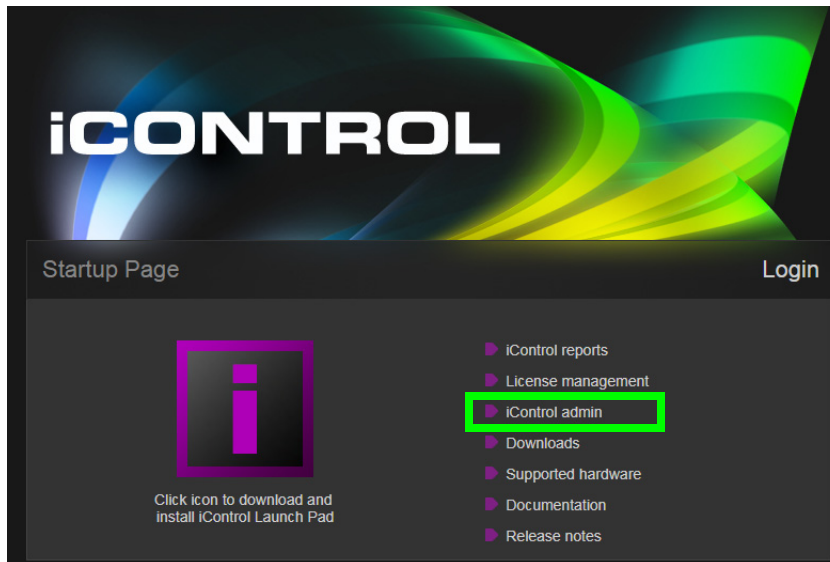
Installing iControl software version 8.00 on your Application Server

1 Download the iControl software version 8.00 upgrade file from Grass Valley to your local PC.

- 2 Launch the iControl *Startup* page and open iControl Admin. The Login screen appears.

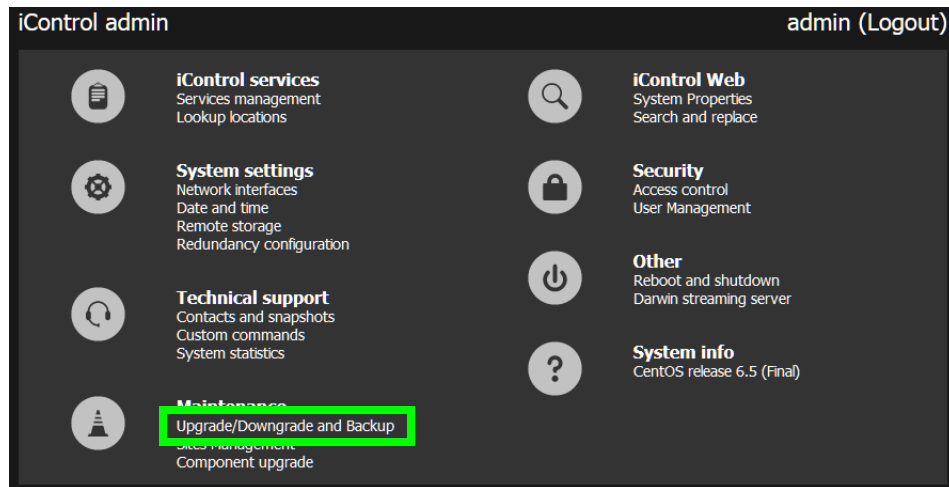


- 3 Enter your username, password, and domain in the text boxes. The iControl admin page appears.
- 4 Select iControl admin.



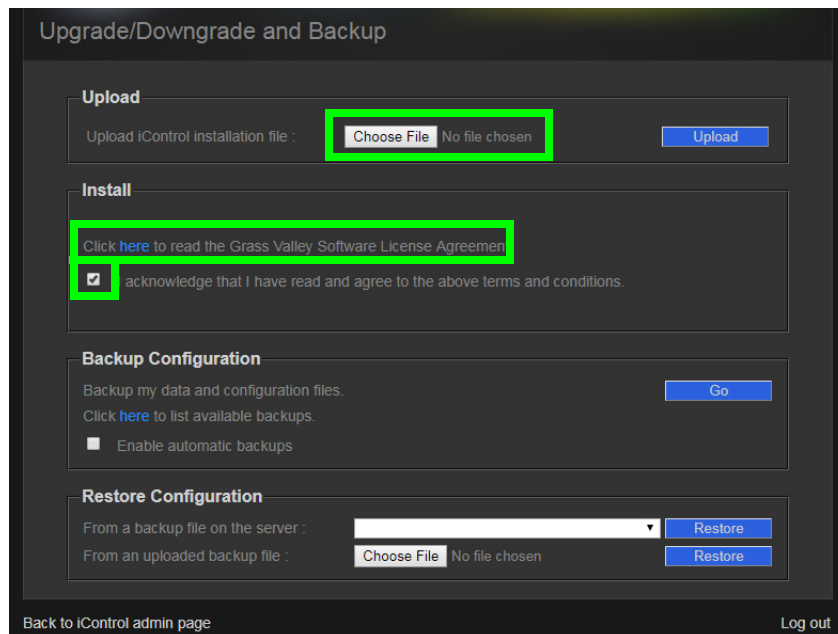
- 5 Select **Upgrade/Downgrade and Backup** under **Maintenance**.

The Upgrade/Downgrade and Backup page appears.



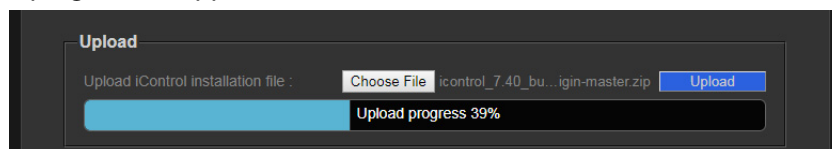
The first step is to upload the installation file from your network to the iControl server.

- 6 Click **Browse** and navigate to the network folder where your iControl installation file is located.



- 7 Click **Upload**.

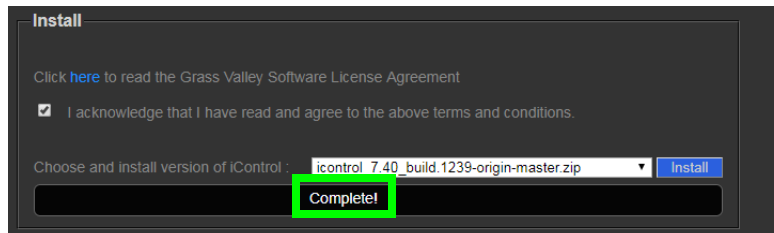
A progress bar appears.



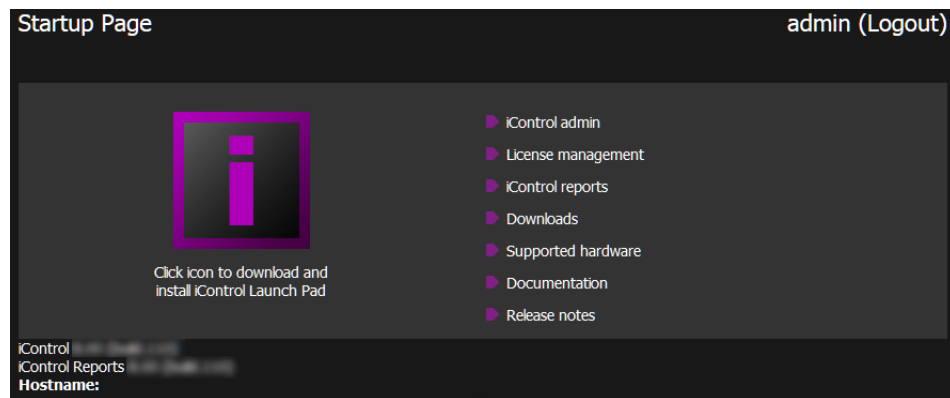
- 8 When the upload is complete the **Install** button appears.
- 9 Click the link to the Grass Valley Software License Agreement and read the license agreement.

- 10 Select the check box to acknowledge you have read and agree to the terms of the license.
A prompt appears stating that the installation procedure stops the current version of iControl, installs the new iControl software, and reboots the server.

- 11 Click **Install**.
When iControl is completely installed, the word **Complete** appears in the progress bar.



- 12 Click **Log Out**.
The Startup Page of the new iControl App Server appears.



Installing iControl software version 8.00 (Current Version is 6.XX)

To upgrade to iControl 8.00 from an iControl version 6.XX, you must upgrade to iControl version 7.5X first.

REQUIREMENTS

Make sure you meet the following conditions before beginning this procedure:

- Your Application Server meets the minimum hardware requirements (See [System Requirements](#), on page 6).
- Your Application Server is one of the following hardware models:
 - Dell PowerEdge R330.
- At the beginning of this procedure, your Application Server has iControl software version 6.00 to 6.20.
- You have made a backup of your Application Server's configuration data (see the "Backing Up an Application Server" section of the "Backup and Redundancy" chapter of the *iControl User Guide*).

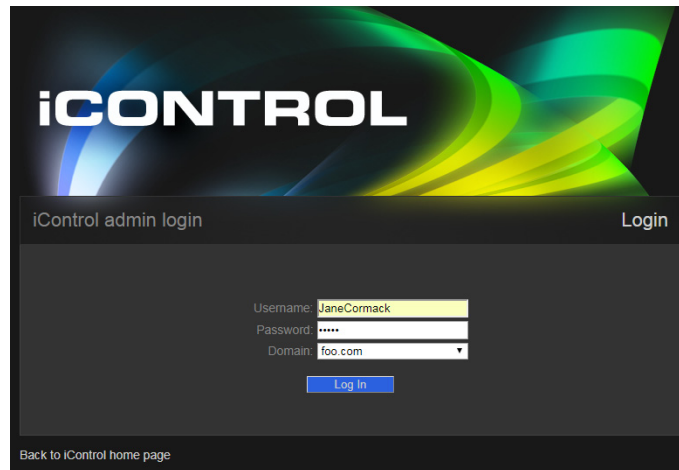
REQUIREMENTS (Continued)

Make sure you meet the following conditions before beginning this procedure:

- You have disabled the *Autofailover* function (recommended).
 - You have the iControl software version 7.5X upgrade package (see [Grass Valley Technical Support](#), on page 58).
 - You have the iControl software version 8.00 upgrade package (see [Grass Valley Technical Support](#), on page 58).
 - You have logged onto the Application Server's iControl page.
 - You have read the **IMPORTANT** notes listed under [Installing iControl on an Application Server](#), on page 14.
 - You have read the key considerations and system behaviors regarding iControl software installation (See [Key Things to Consider Before Installing iControl](#), on page 9)
-

Installing iControl version 7.5X on your Application Server

- 1 Launch the iControl *Startup* page and open iControl Admin. The Login screen appears.



- 2 Enter your username, password, and domain in the text boxes. The iControl admin page appears.



- 3 Select Upgrade/Downgrade and Backup under **Maintenance**.
The Upgrade/Downgrade and Backup page appears.



- The first step is to upload the installation file from your network to the iControl server.
- 4 Click **Choose File** and navigate to the network folder where your iControl installation file is located.

- 5 Click Upload on the Upgrade/Downgrade and Backup page.
A progress bar appears.

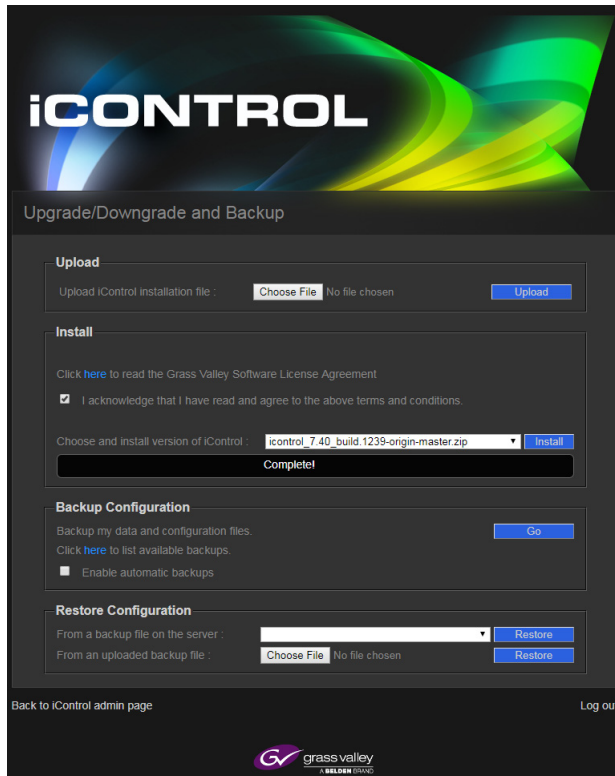


When the upload is complete the Install button appears.

- 6 Click **here** under **Install** to open the link to the Grass Valley Software License Agreement.
- 7 Select the check box to acknowledge you have read and agree to the terms of the license.
A prompt appears stating that the installation procedure: stops the current version of iControl, installs the new iControl software, and reboots the server.
- 8 Click **OK** to continue installing iControl.

9 Click **Install**.

When iControl is completely installed, **Complete** appears in the progress bar.



10 Click **Log Out**.

The Startup Page of the new iControl App Server appears.



11 Now upgrade the server to iControl version 8.00. See [See Installing iControl software version 8.00 and higher \(Current Version is 7.00 to 7.5X\)](#) on page 15.

Installing iControl software version 8.00 (Current Version is 5.00)

To upgrade to iControl 8.00 from an iControl version 5.00, you must upgrade to iControl version 6.04, then to version 7.5X, and then finally to version 8.00.

REQUIREMENTS

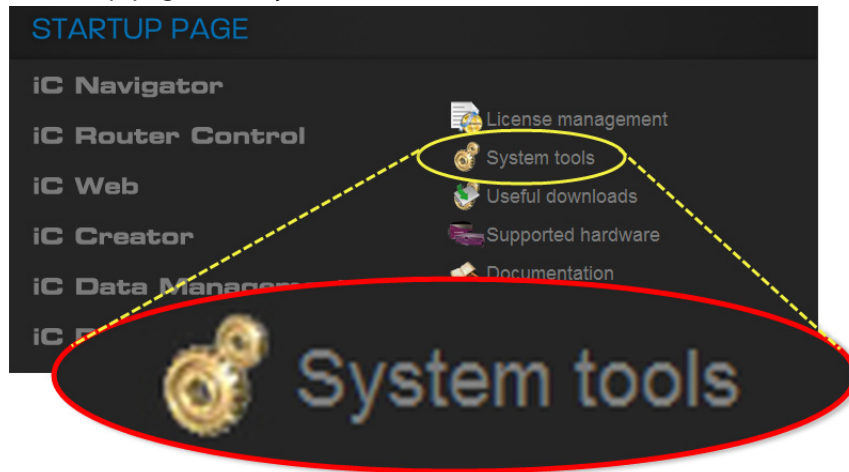
Make sure you meet the following conditions before beginning this procedure:

- Your Application Server meets the minimum hardware requirements (See [System Requirements](#), on page 6).
 - Your Application Server is one of the following hardware models:
 - Dell PowerEdge R330.
 - At the beginning of this procedure, your Application Server has iControl software version 5, or earlier.
 - You have made a backup of your Application Server's configuration data (see the "Backing Up an Application Server" section of the "Backup and Redundancy" chapter of the *iControl User Guide*).
 - You have disabled the *Autofailover* function (recommended).
 - You have the iControl software version 6.04 upgrade package (see [Grass Valley Technical Support](#), on page 58).
 - You have the iControl software version 7.5X upgrade package (see [Grass Valley Technical Support](#), on page 58).
 - You have the iControl software version 8.00 upgrade package (see [Grass Valley Technical Support](#), on page 58).
 - You have logged onto the Application Server's iControl page.
 - You have read the **IMPORTANT** notes listed under [Installing iControl on an Application Server](#), on page 14.
 - You have read the key considerations and system behaviors regarding iControl software installation (See [Key Things to Consider Before Installing iControl](#), on page 9)
-

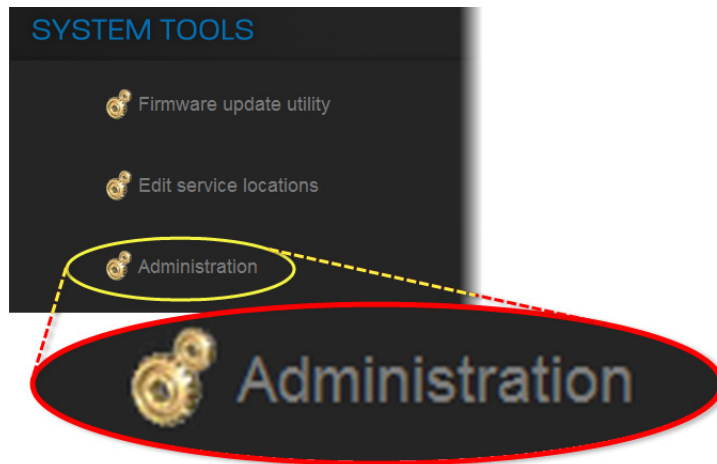
Installing iControl version 6.04 on your Application Server

- 1 Launch iControl 6.04.

2 On the *Startup* page, click **System tools**.



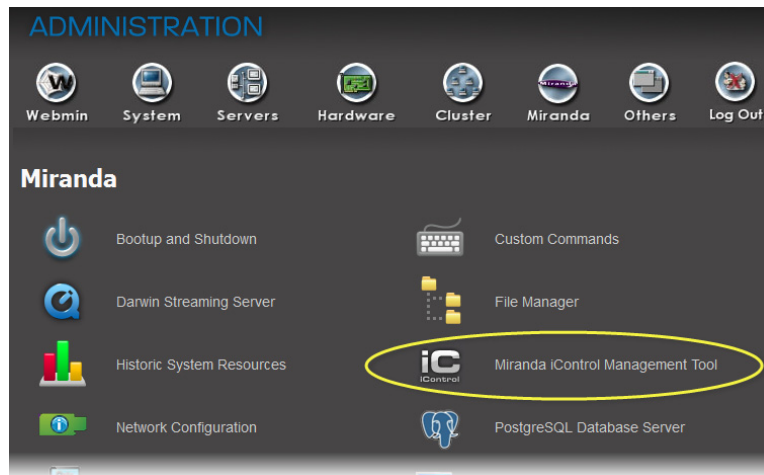
3 Click **Administration**.



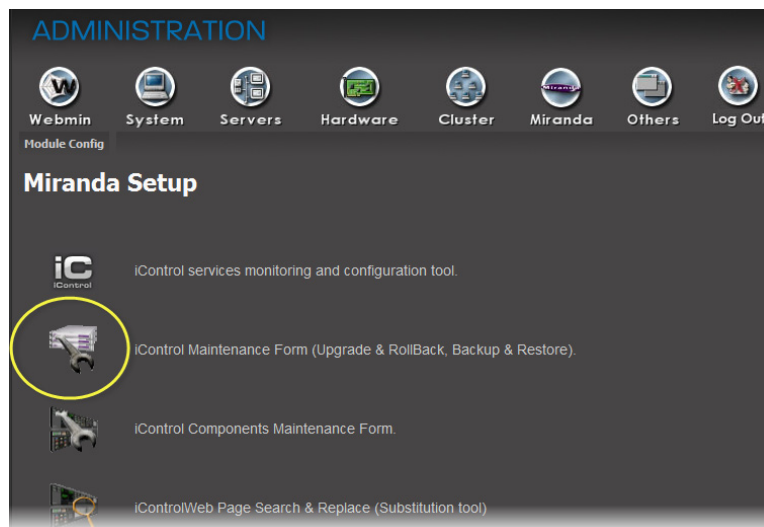
4 On the *Login to Webmin* page, enter your credentials.

The image shows a 'Login to Webmin' form. At the top, it says 'You must enter a username and password to login to the Webmin server on 10.6.0.75.' Below this are two input fields: 'Username' with the value 'miranda' and 'Password' which is empty. There are 'Login' and 'Clear' buttons. At the bottom, there is a checkbox labeled 'Remember login permanently?' which is currently unchecked.

5 Click **Miranda iControl Management Tool**.

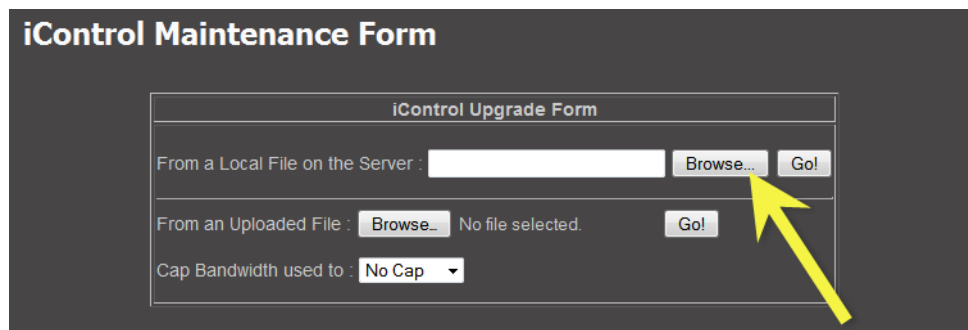


6 Click the icon beside **iControl Maintenance Form**.



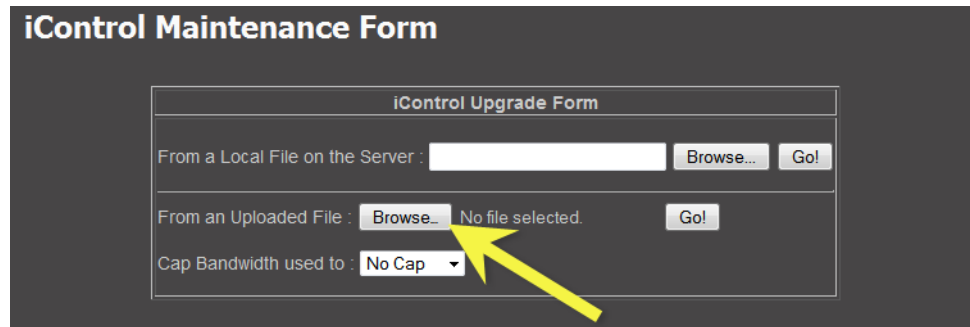
7 If your iControl upgrade package is on the Application Server, perform the following sub-steps:

a In the **iControl Upgrade Form** area, next to the **From a Local File on the Server** field, click **Browse**.



b Navigate to the desired upgrade package, select it, and then click **OK**.

- 8 If your iControl upgrade package is on your local file system, perform the following sub-steps:
- In the **iControl Upgrade Form** area, next to the **From an Uploaded File** field, click **Browse**.



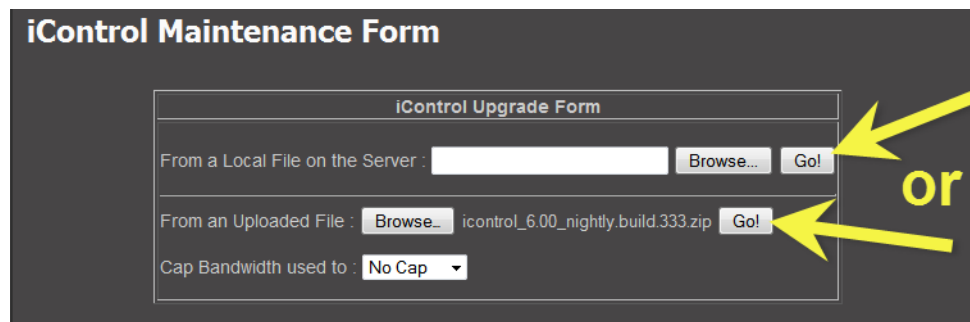
The screenshot shows the 'iControl Upgrade Form' with the following fields:

- From a Local File on the Server :** [Text Input] [Browse...] [Go!]
- From an Uploaded File :** [Browse...] No file selected. [Go!]
- Cap Bandwidth used to :** [No Cap] (dropdown)

A yellow arrow points to the 'Browse...' button in the 'From an Uploaded File' section.

- Navigate to and select the desired upgrade package in the **File Upload** window, and then click **Open**.
- 9 Once the upgrade package is selected, click **Go**.

Note: If you selected an upgrade package on your Application Server, click **Go** next to the **From a Local File on the Server** field. If you selected an upgrade package on your local file system (e.g. on your PC), click **Go** next to the **From an Uploaded File** field.



The screenshot shows the 'iControl Upgrade Form' with the following fields:

- From a Local File on the Server :** [Text Input] [Browse...] [Go!]
- From an Uploaded File :** [Browse...] icontrol_6.00_nightly build.333.zip [Go!]
- Cap Bandwidth used to :** [No Cap] (dropdown)

Yellow arrows point to the 'Go!' buttons in both the 'From a Local File on the Server' and 'From an Uploaded File' sections. A yellow arrow labeled 'or' points to both 'Go!' buttons.

SYSTEM RESPONSE: If you selected an upgrade package on your local file system, a progress window appears, indicating the status of the upload.

- 10 Click **Proceed with the installation now**.
- SYSTEM RESPONSE:* A message warns you that after upgrading to iControl version 8.00 you will not be allowed to downgrade to a version earlier than 6.0, and prompts you to confirm your intention.
- 11 Click **Continue** to go forward with the installation.
- SYSTEM RESPONSE:* After the installation is complete, the system warns you that it must reboot.
- 12 Click the link to reboot.

Note: Your browser will not automatically refresh the page.

- 13 Click the *iControl* logo at the top of the page to refresh.

SYSTEM RESPONSE: The Startup page of your newly updated Application Server appears.



- 14 Now upgrade the server to iControl version 7.5X. See [See Installing iControl software version 8.00 \(Current Version is 6.XX\)](#) on page 21.

Documentation

User documentation for iControl software version 8.00 is available from the **Documentation** link on the Application Server's Startup page. In addition, you can obtain the latest version of the Release Notes and all manuals from the Documentation Library section of Grass Valley's website.

Configuration Guidelines

Kaleido Multiviewers

- When iControl is connected to a large Kaleido system, using the Kaleido-X SNMP plug-in to retrieve alarms may cause system performance issues as well as an *Out of Memory* error.
Workaround: When attempting to retrieve multiviewer alarms, you should use the multiviewer's own GSM logging functionality. Refer to the Kaleido-X User's Manual, for more information.

Multiple Router Manager Services

- If multiple Router Manager services must run on multiple Application Servers within the same subnet, make sure all Router Manager service names are different. To change a Router Manager service name, open the associated control panel from iControl Navigator.

Grass Valley Densité Frames

- A single Application Server with 16GB RAM can support up to 60 Densité frames (with no streaming capabilities).
- Up to three Densité Managers per Application Server can be configured to support up to 150 streams each. One thumbnail, one ALM, one waveform/vector scope and the CC count as four separate streams. When using probes with streaming capabilities, no more than 150 cards should be allocated to one Application Server.
- Overall and GSM contribution alarms are disabled by default for all Densité services. Make sure all alarms and levels are configured as required.
- A Densité card upgrade may fail when another application—in addition to Grass Valley Interface Updater (MIU)—is already connected to that Densité card's CPU-ETH2 controller.

Grass Valley Interface Updater displays a message listing all applications or services already connected to the same Densité frame. Such connections can come from the iControl Densité Manager, but also from other Application Servers, computers running iControl Solo, or from iControl Router Manager (if the Densité frame contains cards with router capabilities, such as the HRS-1801, HCO-18x1, DCO-17x1, MSB-1121).

Note: The message lists the IP addresses associated with connections made to the Densité controller. From the IP addresses your system administrator will be able to identify the associated application or service.

See also

the iControl documentation for details on how to close or temporarily deactivate those connections.

Grass Valley Imaging Frames (Symphonie or Quartet)

iControl version 8.00 and higher do not support serial devices. As such, the Symphonie and Quartet Imaging Frames are no longer supported.

If you need to control Symphonie and Quartet Imaging Frames, use a server running iControl version 7.5X to control them on the same network that a separate iControl version 8.00 and higher server is running on.

See also See [iControl Software Version 8.00 or Higher Compatibility Breaks](#) on page 11.

Tips to Improve Performance

Here are some guidelines for optimizing performance and balancing the load on an iControl system:

- The streaming video decoder library used in iC Navigator and iC Web is optimized for the Intel CPUs. For optimal video decoding performance, use a client PC equipped with an Intel CPU.
- Do not start services on the iControl Application Server that are not required. By default, the Densité Manager, the RMI Daemon with lookup service and the GSM service are configured to start at boot time. All other services are stopped.
- Where a large number of devices are being monitored, consider setting up multiple GSMs (one per Application Server).
- Assign a maximum total of 60 Densité or GV Node frames to a Densité Manager (where the Application Server has 16GB RAM).
- Large systems require a proper system configuration and load balancing. Typically one Densité Manager is assigned no more than 150 streams. Thumbnail, ALM, scope or CC are all separate streams. If one card provides a thumbnail and one ALM, then one Densité Manager can handle 75 cards. Up to three Densité Managers can be configured for load balancing.
- The lookup service should preferably not be running on heavily loaded Application Servers.
- When there are more than two Application Servers within the same subnet, keep a maximum of two lookup services running.
- If a network device does not exist (e.g. router, DNS, WINS) in the network environment, it is vital to remove its settings from the client PC's network configuration, and from the Application Server. Failure to do so will introduce unnecessary network time-out delays.
- The presence of a DNS in the network environment is preferable to speed up reverse host name lookup, used by part of the iControl infrastructure. If this is not possible, then specify the host name of the Application Server in the PC client Windows host file (C:\Windows\system32\etc\drivers\hosts). The Application Server can also play the role of a DNS server or forwarder.
- Ensure that the port settings on switches are set correctly for optimal performance. The Application Server's Ethernet ports **eth0** and **eth1** are configured to auto-negotiate. Negotiation with the switch must be 100 Mbits full duplex, or 1000 Mbits full duplex, for optimal performance.

2 Release Notes

iControl software version 8.00 is a major release. This section lists new features, along with peripheral devices supported in the current release.

Summary

[New Features, Enhancements, and Bugs Fixed](#), on page 35

[Known Issues and Limitations](#), on page 42

[Cards and Devices Supported in this Release](#), on page 50

New Features, Enhancements, and Bugs Fixed

The following is a complete list of features, enhancements, and fixed bugs introduced over the course of the latest three major versions of the iControl Software. The star (★) symbol indicates a new feature, enhancement, or fixed bug for iControl version 8.00.

iControl Software Version 8.00

This release adds the following enhancement(s) and corrects the following issue(s). See also [Known Upgrade Incompatibility with iControl Software Version 8.00 or Higher](#), on page 11 as iControl version 8.00 has new hardware requirements.

New Features and Enhancements

- ★ iControl software is now a 64-bit application that can take full advantage of all available memory on the server. This change breaks compatibility with certain specific features that will no longer be supported. See also [Known Upgrade Incompatibility with iControl Software Version 8.00 or Higher](#), on page 11.
- ★ All iControl processes now run on its own user account, rather than as the root user.

Bugs Fixed

- ★ [Ref. #ICONTROL-20719] **Event log viewer is vulnerable to SQL injection:** input filtering has been added where any input not conforming to the expected pattern is rejected without being processed.
- ★ [Ref. #ICONTROL-20723] **Unauthenticated file control on app server:** changes have been made to ensure strict routed file paths are enforced. For example, any user input is sanitized to ensure that it does not contain characters that may be used to traverse directories.

iControl Software Version 7.50

This release adds the following enhancement(s).

New Features and Enhancements

- ★ **Update Densité platform to support new software-reprogrammable modular cards such as the new XIP-3901 agile processing platform:** update the Densité Upgrade Manager to add the new Densité Application Manager which allows the XIP-3901 to be reconfigured with different applications.

iControl Software Version 7.41

This release corrects the following issue(s).

Bugs Fixed

- [Ref. #ICONTROL-20441] **iControl eth1 address conflict on failover:** eth1 address on main server not changing to spare address.
- [Ref. #ICONTROL-19531] **Upgrading iControl will not preserve Densité Manager's configuration created in a previous iControl software version:** after upgrading iControl, Densité Manager configurations such as card label changes and previously created groups may be lost.
- [Ref. #ICONTROL-20562] **Memory leak in IC Web:** A memory leak was found in iControl Web which caused the application to run out of memory after a period of time.

iControl Software Version 7.40

This release adds the following enhancement(s) and corrects the following issue(s).

New Features and Enhancements

- **Integration with GV Node Manager 2.2:** GV Node Manager 2.2 is integrated into iControl 7.40.
- **Support for 12 GV Nodes:** iControl 7.40 supports 12 GV Nodes.
- **Automatic creation of logical audio levels for hybrid routers:** When you create a logical hybrid router, iRouter creates 16 logical audio levels automatically.

- **Access permissions to the iControl Admin page:** You can now restrict access to the iControl admin page completely for some users and partially for others.

Super users have access to all options at all times. Administrators, who are granted access to the iControl admin page, have access to all options. Users, such as operators, can be granted access to all options, with the exception of System Settings and Security. They cannot be granted access to these options. Other users, such as guests, can be denied the right to access any options on the iControl admin page.

Rights to the iControl admin page are controlled through the **iControl Navigator > Tools > Access Control > Role Definition > Access iControl Admin**.

Rights to the iControl Navigator Access Control tool are controlled through the **iControl Navigator > Tools > Access Control > Role Definition > Manage Privileges**.

- **New lock destination alarm for Routers in GSM:** A new General Status Manager (GSM) alarm indicating router destination lock status is now available with the GSM router plug-in.
- **GSM REST API license:** The IC-GSM-HTTP license is required to enable the GSM REST API.
- **Cisco Nexus 9K Series Network Switch support:** A new SNMP plugin for monitoring Cisco Nexus 9K series network switches is available. This includes monitoring the health of the unit and interface status.
- **Backup and restore scheduled GSM events:** GSM event schedules can now be backed up or exported as text files. They can be modified offline then restored on the server.
- **Enabling and disabling scheduled GSM events:** It is now possible to disable scheduled GSM events so they do not run when scheduled.
- **Mandatory clustering extra IP for redundancy:** On the iControl admin > Redundancy configuration page, the Extra IP is now required in order to see the cluster information. Even if a cluster is defined with servers, the section displaying main and backup is not visible as long as an extra IP is not defined.
- **Audio shuffling with a NVision router:** iControl 7.40 now supports audio shuffling with NVision routers.
- **Mapping hybrid routers automatically:** The auto-map feature in iRouter has been modified to support hybrid router mapping automatically.
- **Support for Splunk log forwarding agent:** iControl 7.40 now supports Splunk Universal Forwarder agent on the iControl application server to allow for forwarding of text log files to a central Splunk server for aggregation and analysis.

The following components are required for Splunk:

- The splunk enterprise server, where the data are indexed:
https://www.splunk.com/en_us/download/splunk-enterprise.html
- The Splunk universal forwarder, the lightweight agent installed on the target node:
https://www.splunk.com/en_us/download/universal-forwarder.html

Supported Devices

See also

For more information about requesting licenses and activating support (in the case of iControl options) for any below-mentioned devices, see the “License Management” chapter of the *iControl User Guide*.

- Support for **Cisco SNMP health monitoring driver** for Nexus 9xxx, N9K-C92160YC, and N9K-C93180YC.
- Support for **GV Convergent monitoring driver**.

Bugs Fixed

- [Ref. #ICONTROL-20363] **ATD errors:** iControl is no longer being flooded with ATD errors.
- [Ref. #ICONTROL-20298] **The thread leak on PostgreSQL database was fixed:** When a large and complex query was executed in the database, the queries, already running in the database, would be blocked. Eventually, they would become unblocked and would be executed. However, they, in turn, could block other queries.
- [Ref. #ICONTROL-20277] **The service panel of some KMX-4911 cards are not displayed after they are rebooted due to a timeout:** To prevent the timeout with KMX4911, you must change the default value of “services.max.retry.on.nack.busy.count” from 30 to 100.
- [Ref. #ICONTROL-20254] **Missing IP Node Gateway config file properties have been restored:** The IP Node Gateway properties, which were missing from the configuration file, were blocking communication. The service could not get the status of the IFM2T cards. This issue is fixed.
- [Ref. #ICONTROL-20243] **The logical router size issue was resolved:** Previously, logical routers were functional only if the input size of both the logical and physical routers were the same. Now, you can partition logical routers as required.
- [Ref. #ICONTROL-20242] **Subalarm statuses were not shown in the virtual alarm:** The issue occurred when alarms were in inverted mode. This has been resolved.
- [Ref. #ICONTROL-20228] **The Frame Fan 2 status was missing:** The ETH2 Service showed only one fan when used in a Densité 3 + FR1 configuration. This has been resolved.
- [Ref. #ICONTROL-20143] **The iControl Snapshot feature was stalling:** The Snapshot feature did not always progress to the point of completing the message after capturing the necessary information. This has been resolved.
- [Ref. #ICONTROL-20039] **The IP address of the failover server is now required:** Now, the IP address of the failover server must be added to the configuration. This prevents the main server from defaulting back to the default value.
- [Ref. #ICONTROL-19491] **Frames were not persistent in the Densité Manager list:** Following an upgrade, the list of devices previously registered with your Densité managers in iControl Solo may have been empty. This has been resolved.
- [Ref. #ICONTROL-18767] **The health monitoring alarms of the NVision Ethernet protocol compact router would appear and disappear in the General Status Manager (GSM):** The issue with the physical router file appearing in and disappearing from the GSM alarm browser has been resolved.

iControl Software Version 7.30

This release adds the following enhancement(s) and corrects the following issue(s).

New Features and Enhancements

- **iControl hardware:** iControl version 7.30 introduces support for the Dell PowerEdge R330 server in the role of Application Server.
- **Access control:** Support for the Active Directory single sign-on (SSO) infrastructure.

Note: As of iControl version 7.30, if you wish to import user profiles from a CSV file, the passwords must be MD5-hashed.

- **Densité card comparison:** In iControl Navigator, **Device Profile Manager** now allows comparison of two or more cards, of the same type and firmware version, and identifies differences in configured parameters, between the selected cards. You can export the comparison results to a CSV file.
- **Densité card configuration change logs:** Ability to enable logging of card configuration changes. Contact Grass Valley Technical Support for more information (see [Grass Valley Technical Support](#), on page 712). The card configuration changes are then logged in a user-friendly format, to a separate file, which you can download from iControl admin's **Custom commands** page, by clicking **Create ZIP file of logs**.

To enable logging of card configuration changes do the following: (1) In a secure shell (SSH), log on to your Application Server, (2) navigate to `usr/local/iControl/bin/conf/`, (3) open the file `log4j_densite.properties` with a text editor, (4) add the following lines, and then save your changes.

```
log4j.logger.com.miranda.densite.core.common.DensiteServiceFriendlyActivityLogger=INFO, DensiteFriendlyActivity
# DensiteFriendlyActivity Logger
log4j.appender.DensiteFriendlyActivity=org.apache.log4j.RollingFileAppender
log4j.appender.DensiteFriendlyActivity.File=/usr/local/iControl/bin/log/DensiteServicesFriendlyActivity.log
log4j.appender.DensiteFriendlyActivity.MaxFileSize=5MB
log4j.appender.DensiteFriendlyActivity.MaxBackupIndex=5log4j.appender.DensiteFriendlyActivity.layout=org.apache.log4j.PatternLayout
log4j.appender.DensiteFriendlyActivity.layout.ConversionPattern=%d [%t] %-5p %x - %m%n
```

- **SNMP Manager:** Ability to publish a new SNMP driver to GSMs from the **SNMP Manager** window.
- **Router control:** NVISION router protocol names have been updated.

New protocol name	Old protocol name
NVEP Router (NP0016)	NVISION Ethernet Protocol - Compact Router
NVEP NV9000 - Device Takes (NP0017)	NVISION Ethernet Protocol - Enterprise Router (Device ID based)

New protocol name	Old protocol name
NVEP NV9000 - Port Takes (NP0017)	NVISION Ethernet Protocol - Enterprise Router (Physical)
NVEP NV9000 - Deprecated (NP0017)	NVISION Ethernet Protocol - Enterprise Router (Logical)

- **Router control:** A system property file is available to prevent an iControl user from unlocking destinations that were previously locked from an NVISION control panel that uses the NVEP NV9000 – Device Takes (NP0017) protocol. In `java_router.properties`, you can set the release policy, as well as a user name.
- **Densité/GeckoFlex remote control:** Support for remote control of GeckoFlex, Densité and GV Node cards by external management systems via a REST API (requires the *iControl Services Gateway* license—order code: IC-GATEWAY)¹.
- **GSM remote control:** Support for accessing alarms managed by iControl’s General Status Manager, via a REST API. Contact Grass Valley Technical Support for more information (see [Grass Valley Technical Support](#), on page 712).
- **VMWare’s VMotion Support:** iControl servers on a virtual machine now support VMWare’s VMotion feature which allows the virtual server to be moved from one physical VM server to another with no noticeable downtime or disruption to iControl operations.

Supported Devices

See also

For more information about requesting licenses and activating support (in the case of iControl options) for any below-mentioned devices, see the “License Management” chapter of the *iControl User Guide*.

- Support for the NTT Electronics **HVD6100** professional 4:2:2 integrated receiver decoder (IRD).
- Support for the NTT Electronics **HVD9100** H.264 high 4:2:2 profile HDTV/SDTV decoder.
- Support for monitoring and control of the NovelSat **NS2000 Satellite Demodulator**.

Bugs Fixed

- [Ref. #ICONTROL-19300] **NV9000 system controllers:** A logical router, based on a physical router configured in iControl Router to use the *NVEP NV9000 – Device Takes (NP0017)* protocol, could lose communication with the associated NV9000 system controller.
- [Ref. #ICONTROL-18768] **Router health monitoring:** A space in the name of a router configured with the *NVEP Router (NP0016)* protocol resulted in missing alarm folders under Health monitoring | Routers, in the GSM alarm browser.
- [Ref. #ICONTROL-19290] **License Management:** In the License Management page, it was not possible to obtain a license request file, if you *only* selected the Audio Loudness Logger iControl option.

1. This service has been since removed from iControl software version 8.00 and higher.

iControl Software Version 7.20

This release adds the following enhancement(s).

New Features and Enhancements

- Initial support for the **GV Node CPU-ETH3** frame controller card, **GV Node Manager** control panel, and **GV Node** frame.
- **Windows 10 support:** As of version 7.20, iControl supports Windows 10, in addition to Windows 8 and Windows 7, on the client PC.

Supported Devices

See also

For more information about requesting licenses and activating support (in the case of iControl options) for any below-mentioned devices, see the “License Management” chapter of the *iControl User Guide*.

- Support for the Axon DAW30 audio watermarks embedders.
- Support the Imagine Communications Panacea clean/quiet switch.
- Support for the Image Video RDU-1510 series of under monitor displays.

Bugs Fixed

- [Ref. #ICONTROL-19405] **Security Infrastructure:** Buffer overflow vulnerability CVE-2015-7547.
- [Ref. #ICONTROL-19432] **Security Infrastructure: TLS SSLv2 cross-protocol attack (DROWN) vulnerability CVE-2016-0800.**
- [Ref. #ICONTROL-19374] **Router control:** The application server responded with NAK, instead of ACK, under the following conditions: an external controller, using the Grass Valley (SAM/Snell/Pro-Bel) SW-P-08 protocol for controlling logical routers configured in iControl, sent a request message and the message was not supported in Grass Valley’s implementation of the SW-P-08 protocol. Also, the application server did not respond — instead of replying with NAK — to messages with incorrect packaging (e.g., incorrect format, incorrect byte count, incorrect checksum). This eventually resulted in a loss of communication between the controller and iControl (some controllers deliberately send messages that have an invalid checksum, as a keep-alive mechanism).

Note: As of iControl software version 7.20, the application server responds with ACK, and sends no other responses to unsupported commands, and it responds with NAK to messages that have incorrect packaging.

- [Ref. #ICONTROL-19310] **Router control:** When a server that had become unresponsive restarted, existing router configurations could revert to a default configuration.

Known Issues and Limitations

The following is a list of known issues and limitations. The star (★) symbol indicates a new known issue or limitation found in iControl software version 8.00.

Access Control

- [Ref. #ICONTROL-17024] **Following an Application Server failover and subsequent reverse-takeover, if there is no ensuing replication, the next failover operation may not be successful.** Workaround: Either increase the replication frequency by reducing the amount of time between replication operations, or—if it is preferable not to permanently increase the frequency—set the replication to occur five minutes following a reversal, wait for the replication process to complete, and then reset the frequency to once every six hours.

Alarm Management

- [Ref. #ICONTROL-17705] **KX Router alarms:** If your system is connected to a Kaleido multiviewer, you may see KX Router health monitoring alarms published to the iControl GSM. These alarms are not relevant and should be ignored.

Densité Services

- [Ref. #ICONTROL-19114] **HMP-1801:** With iControl version 6.20 and later, the *Media Manager* from the iControl HMP-1801 control panel may fail to open.
Workaround:
 - 1 On your client PC, install Java 8.
 - 2 Add the HMP-1801 IP address to the list of trusted sites in your PC's Java configuration.
 - 3 Restart the HMP-1801 control panel and its *Media Manager*.
- [Ref. #ICONTROL-18127] If you are upgrading your Application Server from iControl version 5.00 to version 6.00 or later, and your Application Server monitors any of the following cards, then, after the upgrade, you may find firmware upgrades for those cards (through **Densité Upgrade Manager**) may produce a Software Installation Error message. The affected Densité cards are the following:
 - FRS-3901
 - HLP-1801
 - AMX-3981
 - EAP-3101
 - EAP-3901
 - ADX-3981*Workaround:*
 - 1 Upgrade iControl on the Application Server.
 - 2 Upgrade all cards listed above (*except* the HLP-1801 Densité card) to Upgrade Package 3.0.1-RC1 or later.
 - 3 Upgrade the HLP-1801 Densité card to Upgrade Package 2.0.1-RC1 or later.

- [Ref. #ICONTROL-16307] **Axino**: The Axino Densité service in iControl version 6.04 does not support versions of Axino below version 2.00.
- [Ref. #ICONTROL-16189] **Densité 3 Frame**: In iControl version 4.00 and later, in iC Navigator, a *Densité 3+* frame appears, in the **Physical View**, to have 21 slots. This is incorrect because the *Densité 3+* frame supports only four (4) cards. **This does not impact performance in any way.**
- [Ref. #ICONTROL-16023] **XVP-3901**: If the XVP-3901 card is logging loudness data and you enable then disable loudness monitoring, the loudness logging activity may be interrupted, that is, the log file will close while a new one is created. The overall effect is a loss of logged loudness data.
- [Ref. #ICONTROL-12902] **Axino, Kaleido Solo-900/910**: When attempting to rename either an Axino service or Kaleido Solo-900/910 service in iC Navigator, these services may disappear from iC Navigator's view.
Workaround: Restart iC Navigator.
- [Ref. #ICONTROL-12901] **Lumo Controller Service**: When attempting to rename the Lumo controller service in iC Navigator, the controller may disappear from iC Navigator's view.
Workaround: Restart iC Navigator.
- [Ref. #ICONTROL-12724] **HCO-3901**: When the refresh rate of an HCO-3901 card is set to 10 seconds, after you power up the card, thumbnails do not display on the thumbnail panel.
Workaround: Toggle the refresh rate to FAST and then back to 10 seconds.

Event/Incident Log

- ★ There is a recommended limit of no more than 10 GSMs (this includes GSMs running on Kaleido and EdgeVision) which can log to the same event log.
- [Ref. #ICONTROL-18051] After upgrading from a version of iControl earlier than 6.00 to version 6.00 or later, an error message may appear when opening the **Event Log Viewer** or **Incident Log Viewer** of a Kaleido multiviewer logging to the Application Server.
Workaround: Remove the *Log* plug-in, and add it again, or else restart the Kaleido multiviewer.
- [Ref. #ICONTROL-15922] If you have a network of Application Servers arranged as a Redundancy Group in which the configured *Main* server runs on CentOS while the *Backup(s)* run on RedHat 9, takeovers may not properly or completely transfer licensing schemes over to a *Backup*.
Workaround: Contact Grass Valley Technical Support to manage the manual transfer of licenses from *Main* to *Backup* in networks using more than one operating system (see [Grass Valley Technical Support](#), on page 712).

Fingerprint Analysis

- [Ref. #ICONTROL-16048] When selecting *Video* as a Fingerprint Analysis Mode, there should not be audio channel selectors visible (or selectable) since the only thing being analyzed is video. Currently, the audio channel selectors are visible and selectable.
- [Ref. #ICONTROL-16860] If an EdgeVision device's **Use name resolution** setting is enabled, iControl's fingerprint functionality may not start or function properly.

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- [Ref. #ICONTROL-11739] In iControl installations, the following parameters and limitations currently apply:
 - If you have a Dell PowerEdge R200 Application Server, iControl supports a maximum of 40 audio fingerprint comparisons.
 - If you have a Dell PowerEdge R210 Application Server, iControl supports a maximum of 60 audio fingerprint comparisons.
 - If you have a Dell PowerEdge R310 Application Server, iControl supports a maximum of 120 audio fingerprint comparisons.
 - If you have a Dell PowerEdge R320, or R330 Application Server, iControl supports a maximum of 200 fingerprint comparisons.
 - A group is composed of a reference source and 1 or more probe sources. For the purposes of counting comparisons, the reference source is not counted.
 - Application Servers used for comparison should be dedicated (i.e. they should not run other resource-intensive services).

General Status Manager

- [Ref. #ICONTROL-18956] In iControl versions 6.04 and later, after setting up a multiviewer's *KX Router* logical router in iC Router Manager (using the Compact Router protocol), your GSM may begin to log and publish health alarms for the multiviewer and then stop. Also, you may suffer a significant slow-down on your iC Web pages.
Workaround:
 - 1 In a secure shell (SSH), log on to your Application Server.
 - 2 Open, with a text editor, the `java.router.properties` file at the following location:
`/usr/local/iControl/bin/conf`
 - 3 Edit the following property to appear as it is shown, here:
`com.miranda.icontrol.routers.np0016.enableIOX=false`
 - 4 Restart the *Router Manager* service.
- [Ref. #ICONTROL-16731] If the GSM of an Application Server running iControl version 4.40 or later is configured to monitor (through the Appserver Health & Monitoring plug-in) an Application Server running iControl version 4.30 or earlier, statuses may erroneously be displayed as grey in color and the communication alarm may erroneously display as red in color.
- [Ref. #ICONTROL-18569] If you set up an SNMP agent on a GSM and perform an SNMP request across a firewall, you will not get a response if the server port is not the same for both the transmit and receive of the SNMP command.
Workaround: Override the response port by performing the following steps:
 - 1 Modify the following file on the Application Server where the GSM is running:
`/usr/local/iControl/bin/conf/java_gsm.properties`
 - 2 Add the following property:
`icontrol.snmpagent.responsePortOverride=6565`
 - 3 Restart the GSM.
 - 4 Perform an `snmp-get` operation.
 - 5 Make sure the response is sent using port 6565 (the overriding port).

iC Navigator

- [Ref. #ICONTROL-10005] **Access Control:** When configuring Access Control, the use of special characters (e.g. #@+; "\, <>/) in the **User ID** and **Phone number** boxes causes errors.

iC Web

- [Ref. #ICONTROL-19950] **Kaleido multiviewers:** The *KX Control Panel* widget (available from the WidgetLibrary site, in iC Creator), is not yet compatible with Kaleido-X version 8.20 and later. The widget does not support layouts created or modified in XEdit version 8.20 or later.
- [Ref. #ICONTROL-18547] An embedded Web browser configured without a toolbar also lacks a status bar, which prevents it from reporting download progress.
Workaround: When adding the zone meant to contain this Web browser, make sure to configure the Web browser with a—basic, or extended—toolbar.
- [Ref. #ICONTROL-18883] In iC Web—starting from version 6.04—an NV9647R panel embedded in a zone does not function properly.

Note: The NV9647R panel on an RCP-200 continues to function as designed in all versions.

- [Ref. #ICONTROL-13742] On client systems, you may not be able to load a Web browser in an iC Web zone.
Workaround: Disable the *User Access Control (UAC)* in Windows.

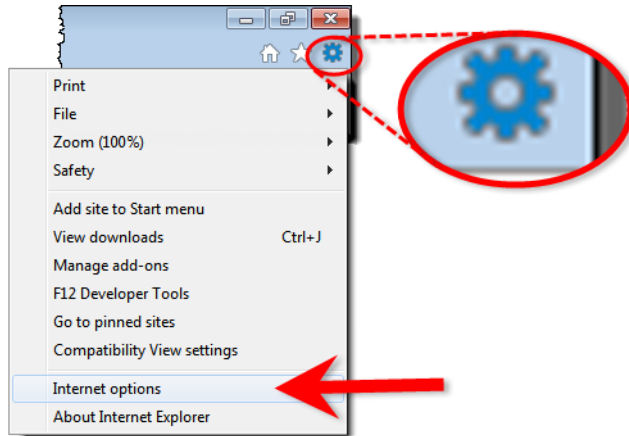
iControl Web Interface

- [Ref. #ICONTROL-17872] After a brand new installation of an iControl Application Server running iControl version 6.04, when you navigate to the *System statistics* page, you might not see the expected hour, day, week, and month tabs.
This behavior will rectify itself (tabs will become visible, one-by-one) when the scheduled statistics are eventually received and can populate the respective graphs.

Installation and Deployment

- [Ref. #ICONTROL-18759] If you are running an iControl client from an Application Server with software older than version 6.20, any attempt by that client to launch a service from a *different* Application Server that is running iControl version 6.20 (or later) will fail.
Workaround: Update all Application Servers in your network to iControl software version 6.20 (or later).
- [Ref. #ICONTROL-18003] When attempting to open **iControl Launch Pad** from the *Startup* page using Microsoft Internet Explorer 10 as a browser, on rare occasions, **iControl Launch Pad** may fail to open. Similarly, if you attempt to download this executable file to your PC using Internet Explorer 10, you may find that the download operation fails.
When Internet Explorer 10 attempts to launch or download a file with periods (.) in the file name, it substitutes underscores in the place of periods. Perform the following steps as a workaround procedure:
Workaround:

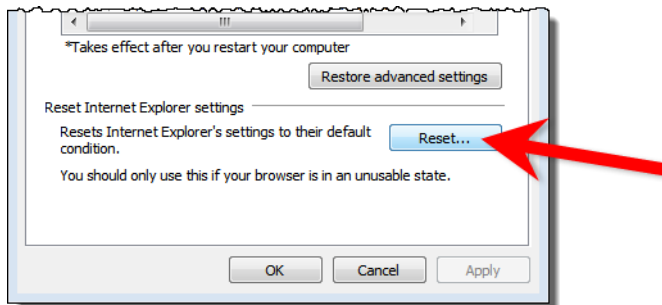
- 1 In Internet Explorer 10, click the cog icon in the upper, right corner, and then click **Internet options**.



- 2 Click on the **Advanced** tab.



- 3 Click **Reset**.



- 4 Reboot your system.
- 5 When opening Internet Explorer for the first time, select the recommended security settings.

Loudness Logger/Analyzer

- [Ref. #ICONTROL-18764] After powering down the NAS and waiting several minutes for the *Loudness Logger* interface to enter disabled mode, restarting the NAS and the *Loudness Logger* interface may not successfully restart the log streams from one or more source cards. The cards that fail to send loudness data will display *Waiting for data* or *No data* messages.
Workaround: Cards that fail to send loudness data in this situation must be restarted manually in order to restart loudness data streaming.
- [Ref. #ICONTROL-16025] If you have an active loudness data source and you attempt to remove the Kaleido-Solo in the Densité Manager, you may receive an error message indicating the device is unavailable.
Workaround:
 - 1 Remove the Kaleido-Solo from the Densité Manager while the source is still active. In Loudness Logger, the Kaleido-Solo should still be visible but will display as unavailable.
 - 2 In the Loudness Logger list, right-click the Kaleido-Solo and stop the service. Although an error message appears, the service will stop.
- [Ref. #ICONTROL-15959] If you have an XVP-3901 card whose *Loudness* option is not enabled, and you attempt to start logging from and then subsequently enable the card's *Loudness* option, the **Loudness Logger** status for that card remains *<card> waiting for data*.
Workaround: In **Loudness Logger**, once the option is enabled, right-click the service, toggle the log to **OFF**, and then toggle the log back to **ON**.

Platform and Support

- [Ref. #ICONTROL-19081] When upgrading a Dell PowerEdge **R200** Application Server, the system may report that the upgrade process is taking too long, after which the server does not automatically restart.
Workaround: Manually restart the Application Server.
- [Ref. #ICONTROL-19279] The Application Server Ethernet port **eth1** does not support a default gateway.
- [Ref. #ICONTROL-9257] Once your iControl system is configured, **changing a Densité frame's host name**, results in the loss of any attributes (e.g., labels, comments, etc.) you might have previously configured for cards housed in the renamed frame. Contact Grass Valley Technical Support if this is required (see [Grass Valley Technical Support](#), on page 712).
- [Ref. #ICONTROL-7466] After the system is configured, **changing the Application Server host name** will require that all devices be renamed in iC Navigator, and all assignments be re-done in iC Web after the change. **Changing IP addresses** has a much smaller impact limited to re-assigning streams in iC Web. Also, "Reference Configuration" must be removed after changing the Application Server name. Otherwise, devices will still keep attributes based on previous host name. Contact Grass Valley Technical Support if this is required (see [Grass Valley Technical Support](#), on page 712). There is a way to recover the user settings after a system rename.

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- [Ref. #ICONTROL-18774] When a configured Redundancy Group of Application Servers mixes virtual machines and physical Application Servers—such that virtual machines are in the role of *Backup* for a physical machine or vice versa—the *Backup* server may continue to restart, in a loop, following a failover scenario.

Additionally, when a configured Redundancy Group involves only virtual machines in **BOTH** the roles of *Main* and *Backup*, the same restart-loop behavior seen in the scenario above occurs if the *Main* and *Backup* are not both running underlying Linux platforms at the same bit-processing level (that is, **BOTH** use 64-bit CentOS).

Workaround: When configuring the Redundancy Group and the overall redundancy topology, make sure virtual machines are not mixed with physical machines. Furthermore, if both *Main* and *Backup* devices are virtual machines, ensure they are running operating systems at the same bit-processing level.

- [Ref. #18748] An unexpected power disruption, such as might occur during a power failure, can damage the file system on an iControl Application Server. It is strongly recommended that all Application Servers be connected to a standby power source, such as a UPS (Uninterruptible Power Supply), as a preventive measure.
- Ensure that the port settings on switches are set correctly for optimal performance. The Application Server Ethernet ports **eth0** and **eth1** are both configured to auto-negotiate.
- To administer security for a given domain, it is important to launch the administration application from an Application Server in that domain.
- You should not use the super user account to perform day-to-day operations as it may not work for all operations. The super user account exists primarily to allow configuring access control for all other accounts. For all other operations, use a real account with administrator or operator privileges.
- iControl primarily supports English language characters. In some cases, the use of non-standard characters may not be recognized when used in labeling devices, channels and parameters in iC Navigator, iC Web and iControl Router.

Redundancy / Failover

- [Ref. #ICONTROL-17024] After an Application Server failover and subsequent reverse-takeover both occur, if there is no ensuing replication before the next failover, this second failover operation may not be successful.
Workaround: Either increase the replication frequency by reducing the amount of time between replication operations, or—if it is preferable *not* to permanently increase the frequency—set the replication to occur five minutes following a reversal, wait for the replication process to complete, and then reset the frequency to once every six hours.
- [Ref. #ICONTROL-16859] If an EdgeVision device's **Use name resolution** setting is enabled and a connected Application Server undergoes a reverse failover operation, the GSM of that server may not successfully detect routers (although Router Manager and iC Navigator will) without restarting the GSM service in iControl.
Workaround: Restart the GSM service in iControl.
- [Ref. #ICONTROL-17465] The *Redundancy Configuration* page may not auto-refresh, even when the **Refresh the Auto-failover page** check box is selected.

- [Ref. #ICONTROL-17138] After a failover or takeover operation, some iControl services may not restart on their own.
Workaround: Restart the GSM if you discover, after a failover or manual takeover, that some services remain *blue* in iC Navigator.
- [Ref. #ICONTROL-10911] After a reverse takeover, a cluster goes into Manual mode and does not automatically re-enable the Autofailover function.
Workaround: Log on to the configured Backup Application Server, navigate to the Redundancy Configuration page, manually re-enable the Autofailover function for all Main Application Servers, and then click **Apply**.
- [Ref. #ICONTROL-10848] When a *Backup* Application Server takes over a *Main*, permissions on iControl Web Pages will no longer work if both of the following conditions are true:
 - the LDAP server is enabled on the Main
 - the Autofailover function is **NOT** configured to take over the Main's IP address

Note: If the Backup is configured to reuse the Main's IP address, this issue does not occur.

Workaround: Reset the permissions on the iControl Web Pages of the Backup Application Server. You can change the permissions in iC Creator. Also, you must reconfigure the LDAP referrals if they exist on the Access control page (see *Configuring LDAP on an Application Server* in the *Access Control* chapter of the *iControl User Guide*).

Router Control

- [Ref. #ICONTROL-20289] ES-Switch Serial Protocol for Jupiter VM 3000 and CM 4000 system controllers is not supported.
- [Ref. #ICONTROL-15929] If your router is an NV9000 running software version 5.2.4 or earlier, your controller and overall router control may stop functioning.

Workaround:

- 1 Log into the Application Server via secure shell (SSH).
- 2 In a text editor, open the `rtr_serv` file, found at the following location:
`/usr/local/iControl/bin/rtr_serv`
- 3 Edit the line `DEF_OPTIONS=${DEF_OPTIONS}` by adding the following to the end of this line:
-
`Dcom.miranda.icontrol.routers.common.device.thread.sleep.enabled=false -Dcom.miranda.icontrol.routers.nv9000.max_alias_set=0 -Dcom.miranda.icontrol.routers.nv9000.max_number_categories=0"`

Note: This is a single line of code.

- 4 Restart the router service.

Cards and Devices Supported in this Release

Densité Series Cards

Starting with version 5.00, iControl supports all Densité card types, including cards that do not yet exist, via *Densité Upgrade Manager*, an iControl utility allowing you to manage the firmware and software versions of individual cards. iControl version 8.00 is compatible with Densité Ethernet Controllers (CPU-ETH2 and CPU-ETH3). Use Densité Upgrade Manager to upgrade your Densité cards' firmware and services, as needed. Refer to the Release Notes included with a card's upgrade package, for compatibility information. Refer to *Working with Densité Upgrade Manager*, in the iControl User Guide, for more information.

Routers

The following table lists the router protocols supported by iControl Router Manager. The individual drivers are available as options. Contact your sales representative for details.

Router protocols supported by iControl Router Manager

Company	Protocol	Typically used with
Datatek	D-2815 Control Module Protocol	
Digipath	Digipath series communications protocol	Sahara
ETL	ETL Matrix	ETL Matrix
Evertz	Quartz Type 1 ASCII Protocol	EQX
Imagine Communications (Harris/Leitch)	Harris XY Passthrough Protocol	Platinum, Xplus, Integrator, Via-32, Panacea, Xpress
Lantronix	(Lightwave) Matrix-Hub Protocol	Matrix-Hub 1000
Nevion (Network Electronics)	Network Modular (Ethernet)	VikinX Modular
Grass Valley	Densité	HRS-1801
	Densité	HCO-1801

Router protocols supported by iControl Router Manager(Continued)

Company	Protocol	Typically used with
Grass Valley (NVISION)	NVEP NV9000 – Deprecated (NP0017)	NV9000 system controllers: To be used with legacy configurations only
	NVEP NV9000 – Port Takes (NP0017)	NV9000 system controllers: To be used in most cases; supports native locks, and aliases from router (provided system controller has NV9000 router control system version 6.0.6 or later)
	NVEP NV9000 – Device Takes (NP0017)	NV9000 system controllers: To be used in very specific scenarios involving physical router interconnects with tie lines, or with hybrid router configurations; contact Technical Support for more information (see Grass Valley Technical Support , on page 712)
	NVEP Router (NP0016)	Compact router series
PESA	USP (Unsolicited Status Protocol)	Cheetah, Tiger TDM3000, Jaguar, Cougar, Ocelot, Bobcat, PERC2000 system controller
Grass Valley (SAM/Snell/Pro-Bel)	General Switcher Protocol (SW-P-02)	
Sony	GVG-NP Emulation	Sony routers (requires HKSPC card); GVG routers (Ethernet)
Thomson/Grass Valley (Philips)	Jupiter VM-3000 ASCII Protocol	Venus-series and Trinix-series routers
Utah Scientific	PL-160/PL-320	AVS-1B
	RCP-1	SC-1, SC-2, SC-3 series
	RCP-3	SC-4 (Ethernet only)

SNMP Devices

The following table lists the SNMP devices supported in iControl. SNMP drivers are available for each device. Contact your Grass Valley sales representative for details.

Devices supported by iControl through SNMP

Manufacturer	Device
Alpermann + Velte	Rubidium Universal Video Data Processor
APC	AP7900 Switched 19-inch Rack-mountable Power Distribution Unit
Axon	DAW30 audio watermarks embedders
Bridge Technologies	VB-Series
Cisco (Scientific Atlanta)	D9228 Multiple Decryption Receiver (IC-SNMP-032)
	D9828 Multiple Decryption Receiver
	D9850 Program Receiver (IC-SNMP-024)
	D9900 Digital Content Manager MPEG Processor
	PowerVu Network Center
	D9140 Multiplexer
	D9190 PCAM
Communications & Power Industries	TL22CI TWT Compact High Power Amplifier
CrystalVision	CrystalVision 2000 (IC-SNMP-021)
Davicom	Mac Plus (IC-SNMP-001)
DVBControl	DVBMosaic
Ensemble Designs	Avenue
Evertz	500FC
	3000 MVP
	7700 Series Modular Video and Audio Interfaces (IC-SNMP- 002)
	7867VIPA-DUO
	3405 Card
Grass Valley (Miranda/NVISION)	Kaleido-Alto/Quad/Quad-Dual
	Kaleido-X
	NVISION N9000 system controllers
Grass Valley (Thomson)	SMS-7000
	Granite Sentinel Remote MPEG-2 QoS Monitor
	Triton
Harmonic	MaxLINK HOA 8030 (IC-SNMP-029)
	Proview 7000
Harris	<i>See Imagine Communications</i>

Devices supported by iControl through SNMP (Continued)

Manufacturer	Device
IETF	HOST-RESOURCES MIB
	Internet Control Message Protocol (ICMP)
	MIB-II (RFC 1213)
	RMON (RFC 2819)
ILC (Datapath)	MaxView
Image Video	RDU-1510 series of under monitor displays
Imagine Communications	Panacea clean/quiet switch
	Selenio X85
	Selenio X100
Ineoquest	Singulus G1-T
JDSU	VSA API v2
Lawo	Nova 73 HD
Logic Innovations	RS-1100
	IPE-4000-5
Manzanita	LAdI (Local Add Inserter)
Microsoft	Microsoft IPG (IC-SNMP-106)
	Windows® SNMP Agent
Miranda	<i>See Grass Valley</i>
Miteq	NSU1 Switchover
	U9853-6-1K Modulator
Modulus	ME1000 (refer to Motorola SE-4000)
	ME6000 (refer to Motorola SE-5000)

Devices supported by iControl through SNMP (Continued)

Manufacturer	Device
Motorola	DM-6400 CherryPicker (Terayon)
	DSR-4410, DSR-4500X (IC-SNMP-022), DSR-4520X (IC-SNMP-017/IC-SNMP-041)
	DSR-4440
	HDD-1100
	Lifenet C6BD (IC-SNMP-025)
	Lifenet C8M
	MBT5000 (IC-SNMP-008)
	OM-1000 (IC-SNMP-103/IC-SNMP-043)
	SE-2000 (IC-SNMP-006)
	SE-4000/4010
	SE-1010/2000/2000IP
	SE-5000/5010
	SE-6000
	SmartStream Encryptor/Modulator SEM (IC-SNMP-009)
SmartStream Transport Multiplexer TMX 2010 (IC-SNMP-007)	
NovelSat	NS2000 Satellite Demodulator
NTT Electronics	HVD6100
	HVD9100
NVISION	<i>See Grass Valley</i>
Mystic	M-15x0 transcoders
Omneon	Omneon Server (IC-SNMP-026)
PBT	PBT ContactAgent 1
PESA Switching Systems (QuStream Group)	SNM 35V3 (Cheetah, Tiger, Jaguar, Cougar, Ocelot, Bobcat, and TDM3000)
Pinnacle	DS130(IC-SNMP-003)
Pro-Bel	<i>See Grass Valley (SAM)</i>
Pro Broadband, Inc.	DCH4000P Receiver
Quartz (Evertz Microsystems Ltd.)	Xenon
Quest Controls Inc.	TELSEC 2000A Controller (IC-SNMP-104)
Radyne	DM240XR
Research Concepts	RC2000A
RGB Networks	SEP 48
Riedel	Artist

Devices supported by iControl through SNMP (Continued)

Manufacturer	Device
RMON	RMON (IC-SNMP-002)
Grass Valley (SAM/Snell/Pro-Bel)	see Routers (IC-SNMP-027)
Grass Valley (SAM/Snell & Wilcox)	IQ and RollCall (IC-SNMP-028)
Scopus Video Networks	CODICO CID 3100 (IC-SNMP-105) IRD-2900 Series
SeaChange	SeaChange (IC-SNMP-011.1/IC-SNMP-012.2) SeaChange Broadcast MediaLibrary SeaChange MediaClient
Sencore	MRD 3187A
SkyStream (Tandberg)	iPlex Mediaplex-20
Snell	<i>See Grass Valley (SAM)</i>
Softel	Vflex
SpectraLogic	BOA T380 Tape Library
Sumavision	EMR D8020
Tandberg	nCompass RX1290 TT1260/1280 (IC-SNMP-005) TT4130
Tektronix	MTM-400 WVR 611A WVR7100
Terayon (Motorola)	CP 7585 Dual 8VSB to ASI Demodulator CP 7600 Multichannel Integrated Decoder (MID) (IC-SNMP-102/IC-SNMP-036) DM6400 (CherryPicker)
TSL (Television Systems Ltd.)	Mains Distribution Unit (MDU) SC-11 Under Monitor Display System Controller
VideoFrame	VF0037 GPI VNODE (IC-GPI-001)

Non-SNMP Devices

The following table contains a list of non-SNMP devices for which iControl drivers are available. Contact your Grass Valley sales representative for details.

Devices supported by iControl through means other than SNMP

Manufacturer	Device Name
Global Caché	GC-100
Motorola	Lifenet C6BD
Thales/Thomson	Granite Sentinel
Wegener	DTV720 Transport Stream Multiplexer



Grass Valley Technical Support

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1-530-478-4148.

To obtain a local phone number for the support center nearest you, consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

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

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