

iControl

VERSION 7.41

Release Notes

M446-2203-371

2018-12-18

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www.grassvalley.com

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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

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Key Things to Consider Before Installing iControl on page 7

Installing iControl on an Application Server on page 10

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Configuration Guidelines on page 20

Tips to Improve Performance on page 22

System Requirements

Client Platform

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.

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	
Operating System	Windows 10, Windows 8, or Windows 7	
Graphics Card	phics Card Optimized for nVidia or ATI GeForce or Radeon family with 1 GHz clock speed or faster, and minim 128 MB memory	

Notes

 Client PCs running iControl version 7.40 must have Windows 10, Windows 8, or Windows 7 installed. Windows XP is no longer supported.

Notes (Continued)

• 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 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)

Supported Servers

iControl versions 6.00 and later are **ONLY** supported on the following Application Servers: Dell PowerEdge R200, R210, R310, R320, and R330.

iControl versions 6.00 and later **ARE NOT** supported on the Dell PowerEdge 750, 850, and 860 models.

For optimal performance, Grass Valley recommends that your Application Servers meet the following system requirements:

Application Server platform requirements

Typical Usage of Application Server	Memory	
General usage such as the hosting of small iC Web sites, streaming support and an overall limited number of services	2 GB RAM	
Large configurations (e.g., 8 ports used for multiple Densité frames, RCP-200 control panels, Router Control, and extensive iC Web sites)	8 GB RAM	

Notes

- The Dell PowerEdge R200 is limited to 4 GB RAM.
- The Dell PowerEdge R210, and R310 ship with 4 GB RAM, which can be upgraded to 8 GB.
- The Dell PowerEdge R320, and R330 ship with 8 GB RAM.
- Some Application Server models notably the PowerEdge R310, R320, and R330 — do not have physical labels identifying their respective models. In these cases, in order to identify the model of Application Server you have, see Determining the Model Type of your Application Server on page 6.

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.

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 Contact Us on page 54).

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 Installation on a Virtual Machine 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 or laptop, 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 or laptop. 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 Version 6.00

As of iControl 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 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 services
- 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 Version 6.03

As of iControl 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 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-3×01/ADX-3981)

If you are upgrading from iControl version 5.00 to version 6.00 or later, and your Application Server monitors any of the following Densité cards, then, after the server 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 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 version 7.40:

- 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 36

- 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 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 Contact Us on page 54), as well.
 - If you must install iControl version 5.00 on a Dell PowerEdge R330 application server, please contact Grass Valley Technical Support (see Contact Us on page 54).
 - 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 Contact Us on page 54), on all non-R330 application servers in the Redundancy Group.
- If you had added *iControl admin* user profiles in iControl 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 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 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.

Installing iControl on an Application Server

IMPORTANT:

- If you intend to upgrade your Application Server to version 7.41 from a version prior to iControl 5, please contact Grass Valley Technical Support. For details, see Contact Us on page 54.
- 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 version 7.40, from an iControl client application with a version *older than* 7.40, may result in an error message.
- Before you install version 7.40 onto an Application Server that has an older version of iControl, make sure to review the latest hardware requirements (System Requirements on page 5). Contact Grass Valley Technical Support to request an upgrade package (see Contact Us on page 54).

To install iControl version 7.40, perform one of the following two procedures, according to the version of iControl *currently* installed on your system:

If you are updating iControl version 5, it is highly recommended to update to version 6.04 first. Then, follow the procedure to update iControl from version 6.04 to 7.40.

- see Installing iControl Version 7.40 (Current Version is 6.04 or Later) on page 10
- see Installing iControl Version 7.40 (Current Version is 5) on page 16

Installing iControl Version 7.40 (Current Version is 6.04 or Later)

REQUIREMENTS

- Your Application Server meets the minimum hardware requirements (See System Requirements on page 5).
- Your Application Server is one of the following hardware models: Dell PowerEdge R200, R210, R310, R320, or R330.
- At the beginning of this procedure, your Application Server has iControl version 6.00 or later.
- 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).

REQUIREMENTS(Continued)

- You have the iControl version 7.40 upgrade package (see Contact Us on page 54).
- 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 10.
- You have read the key considerations and system behaviors regarding iControl software installation (See Key Things to Consider Before Installing iControl on page 7)

Installing iControl version 7.40 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 resides.
- 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, the word Complete appears in the progress bar.



10. Click Log Out.

The Startup Page of the new iControl App Server appears.



Installing iControl Version 7.40 (Current Version is 5)

REQUIREMENTS

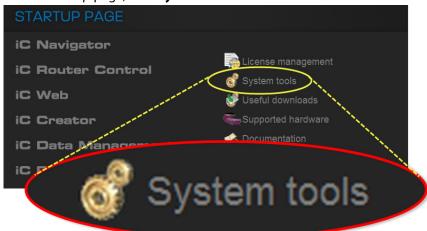
Make sure you meet the following conditions before beginning this procedure:

- Your Application Server meets the minimum hardware requirements (See System Requirements on page 5).
- Your Application Server is one of the following hardware models: Dell PowerEdge R200, R210, R310, R320, or R330.
- At the beginning of this procedure, your Application Server has iControl 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 version 7.40 upgrade package (see Contact Us on page 54).
- · 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 10.
- You have read the key considerations and system behaviors regarding iControl software installation (See Key Things to Consider Before Installing iControl on page 7)

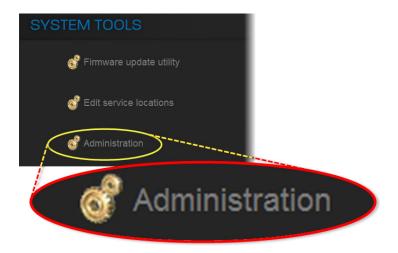
Note: If you are upgrading to iControl 7.40 from version 5.0 or earlier, it is highly recommended to upgrade to version 6.04 first.

Installing iControl version 6.04 on your Application Server

- 1. Launch iControl 6.04.
- 2. On the Startup page, click System tools.



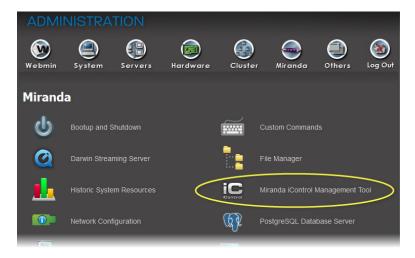
3. Click Administration.



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



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 substeps:
 - 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 substeps:
 - a) In the **iControl Upgrade Form** area, next to the **From an Uploaded File** field, click **Browse**.



- b) 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.



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 7.40 you will not be allowed to downgrade to a version earlier than 6, and prompts you to confirm your intention.

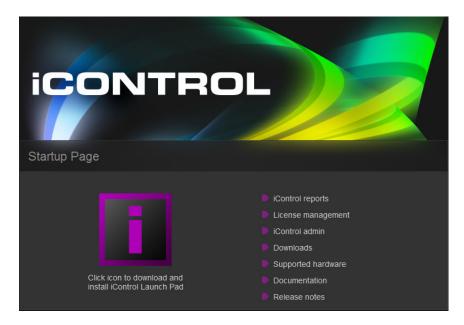
- 11. Click **Continue** to go forward with the installation.

 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.



Documentation

User documentation for iControl version 7.40 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

- The maximum number of Densité cards (with no streaming capabilities) that can be controlled by a single Application Server is approximately 400, provided sufficient physical memory is available (1 GB RAM or more depending on other services).
- 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

For more information, see the iControl documentation for details on how to close or temporarily deactivate those connections.

Grass Valley Imaging Frames (Symphonie or Quartet)

- A maximum of four frames should be connected per RS-422 communication port.
- When critical on-air equipment is controlled (e.g. incoming feeds), proc amp adjustments use a maximum of two frames per RS-422 communication port.
- When using Symphonie frames that are fully loaded with XVP-801/811 and/or DAP-781, use a maximum of one frame per RS-422 communication port.
- Do not mix Symphonie and Quartet 1 frames on the same RS-422 daisy chain. It is possible
 to mix Symphonie and Quartet 2 frames on the same RS-422 daisy chain. The Quartet 2 will
 introduce a delay.
- The maximum number of Imaging cards that can be controlled by an Application Server is 200, provided sufficient physical memory is available (1 GB RAM or more depending on other services). If more cards are to be controlled, they must be distributed on multiple Application Servers.

 Connecting Symphonie frames live to the Imaging communicator will require the communicator to be restarted. Failing to do so will cause cards associated to the frames to appear incorrectly.

Tips to Improve Performance

- The number of health monitoring plug-ins monitoring any given Application Server should not exceed two.
- The streaming video decoder library used in iC 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.
- 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.
- 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.
- When a Kaleido-K2 is on the same subnet as an Application Server, the lookup server on the Kaleido-K2 must be stopped, and the one on the Application Server must be used instead. Refer to the Kaleido-K2 documentation for instructions on how to stop a Kaleido-K2 lookup service.
- 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.



iControl version 7.41 is a major release. This section lists new features, bug fixes (see page 29), known issues and limitations, along with peripheral devices supported in the current release.

Summary

New Features, Enhancements, and Bugs Fixed on page 23 Access Control on page 29 Cards and Devices Supported in this Release on page 47

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 (\star) symbol indicates a new feature, enhancement, or fixed bug for iControl version 7.41.

iControl Software Version 7.41

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 version:** after upgrading iControl, Densité
 Manager configurations such as card label changes and previously created groups may be
- ★ [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

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 plugin.
- **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

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 Contact Us on page 54). 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.DensiteServiceFriendlyActivity
Logger=INFO, DensiteFriendlyActivity

DensiteFriendlyActivity Logger

log4j.appender.DensiteFriendlyActivity=org.apache.log4j.RollingFileAppender
log4j.appender.DensiteFriendlyActivity.File=/usr/local/iControl/bin/log/Den
siteServicesFriendlyActivity.log

log4j.appender.DensiteFriendlyActivity.MaxFileSize=5MB

log4j.appender.DensiteFriendlyActivity.MaxBackupIndex=5log4j.appender.Densi
teFriendlyActivity.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)
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). Refer to the Densité/GeckoFlex REST
 API Reference Guide (available from the Documentation Library section of Grass Valley's
 website), for more information.
- 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 Contact Us on page 54).
- 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.

iControl Software Version 7.20

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 for Grass Valley Imagestore 750 via the Oxtel protocol.
- 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 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 version 7.41.

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.
- [Ref. #12422] In certain circumstances, having invalid Lookup Services (LUS) registered on
 an Application Server may prevent users from logging in to some iControl applications.
 Specifically, if 10 or more invalid LUS addresses are specified (refer to Specifying JINI Lookup
 Locations in the iControl User Guide), with security enabled, the message "Cannot
 communicate with LDAP server. This application will be closed." may appear.

Workaround: Temporarily remove the unreachable servers' IP addresses from the set of lookup locations.

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.

Data Management

• [Ref. #21507] Attempting to export a spreadsheet from the Data Management tool to an iControl Application Server while a spreadsheet with the same name is already open on the server will result in the Data Management tool displaying an error message, followed with other messages stating that the export was completed with success.

Workaround: Ignore the false success reports and export the spreadsheet again, after making sure that the corresponding spreadsheet is not open on the server.

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-16226] If a system contains Application Servers running a combination of iControl 4.XX and iControl 5.00, opening any iControl application (e.g. iC Navigator, iC Web, iC Creator) may result in a subsequent inability to open service panels. Specifically, if the Application Server hosting the iControl application you are running is version 5.00 and the Application Server hosting the Densité Manager is version 4.XX, you may be unable to open the desired Densité card service panel. The same behavior has also been observed in the reverse situation, where the server hosting the application is version 4.XX and the server hosting the Densité Manager is version 5.00.

Workaround: In systems which mix Application Servers running the aforementioned version sets, make sure you open iControl applications from the Application Server hosting the Densité Manager for the desired Densité card.

Note: Grass Valley recommends upgrading all servers in a system to the same version.

- [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.

- [Ref. #29836] **IRD-3811**: If your video output is SD and your reference is HD, the audio may not process correctly when either of the following conditions are true:
 - You have analog audio synchronized on an SDI output.
 - Your audio is de-embedded by a de-embedder with the same reference as the IRD card
- [Ref. #29503] If your Densité cards have firmware enabling support for fingerprint configuration, the control panels for these cards within iControl will show fingerprint controls, even if the version of iControl you are using does not support it. In this case, even if there are incoming lipsync and reference signals, iControl is unable to detect, compare, nor analyze them.
- [Ref. #ICONTROL-11120] **HMP-1801**: Profiles are not implemented yet on this control panel.
- [Ref. # 23578] In iControl Navigator, after you disable audio in the player and then re-enable it, or when you change the size parameter, the card no longer produces sound.

Workaround: Close then reopen the card's control panel.

- [Ref. #23034/24793] Streaming from Densité cards may stop if more than one iControl Application Server (or a pre-version 3.41 iControl Solo client) are connected to the same Densité frame.
- [Ref. #17030] RALM (Remote Audio Level Meter) streams on Densité cards are sometimes lost if the Application Server's host name is modified.

Device Profile Manager

• [Ref. #21245] In the Device Profile Manager's Import tab, if you choose to import card profiles from a file, the **Physical** view remains empty.

Workaround: Use the Logical view or the Flat view to select the source devices whose profile you wish to import.

Event/Incident 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 Contact Us on page 54).

- [Ref. #28658] In both the Event Log Viewer and Incident Log Viewer, after you select **Auto-update mode**, subsequent changes to search criteria are not always propagated to auto-updated log results.
- [Ref. #28189] In the Incident Log Viewer, if you populate the **Duration of at least** field in the **History** area with an existing result's duration (using the **Add to search criteria** option in the results table's shortcut menu), the subsequent search may convert the duration criterion into seconds and yield no result.

Workaround: Take note of the duration from the result table row you would like to add to the search criteria, manually input this value into the **Duration of at least** field, select the desired unit of time in the drop-down list, and then click **Search**.

• [Ref. #22187] When the Event Log Viewer should display the full 10,000 events at a time, it may display only several hundred.

Workaround: Close the Event Log Viewer, point iControl Navigator to a specific location, then re-open the Event Log Viewer for the single GSM.

 [Ref. #21735] When the Create an incident for each alarm automatically option is not enabled, and the Resolved filter is set to No, the Incident Log Viewer may still show resolved incidents.

Workaround: Assuming the **Clear** filter is also set to **No**, manually clear the unwanted incidents.

- [Ref. #21720] Some router drivers (e.g. Emulator, SW-P-02, ETL, HRS-1801, VikinX Modular, NV9000, Pesa, Pesa USP, RC2000) publish crosspoint status updates to the Event Log even when there is no change on the matrix.
- [Ref. #21255] When you perform a filtered search while the Log Viewer's auto-update mode is active, rows that do not match the specified criteria may eventually appear among the filtered search results.

Workaround: Disable the auto-update mode, or click the **Search** button to remove unwanted results from the view.

- [Ref. #21197] When you perform a filtered search based on a duration, rows that do not match the specified duration may appear among the search results.
- [Ref. #18445] After a GSM restart, it could happen that the **Event and Incident Log Configuration** window does not open when you click **Log properties** on the Incident Viewer's **File** menu.

Workaround: Close and reopen the Incident Viewer.

- [Ref. #17340] If the system clock on the client PC with iC Navigator is behind compared to
 the Application Server's, incidents shorter than the difference between the two clocks will
 appear with a duration of zero in the Incident Viewer. Likewise, an incident duration may
 briefly stall at zero before starting to increment, depending on the time difference
 between client and server.
- [Ref. #17032] Log entries are timestamped using the client PC's internal clock rather than the Application Server's. This can cause some correlation issues when viewing log entries, including acknowledgements being ignored on some client PCs.

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.
- [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. #26605] When you rename a virtual alarm after configuring one or more of its plug-ins (for example e-mail or scripted actions), the plug-in information may not survive.
- [Ref. #26143] If you try to add the same alarm more than once as a sub-alarm to a virtual alarm, only one of them is retained. This behavior persists when creating a virtual alarm via the graphical user interface, scripts or by virtual alarm template.
- [Ref. #25112] If you downgrade an Application Server from one version of iControl to an older version during a scheduled event (that is, after the event has begun and before it ends), the event may continue beyond its scheduled duration.
- [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).
- [Ref. #5721/2411] When exporting log files to CSV and opening them in Excel, the timestamp column data is displayed incorrectly. For example, "2006-02-01 16:20:35.938" would be displayed as "20:35.9". The problem is that Excel is attempting to guess the data type and fails.
 - Workaround: Specify a format explicitly by selecting the column, then **Format** > **Cells** (or **Ctrl+1**), and specify a custom format like "yyyy-mm-dd hh:mm:ss.000" (to obtain the same result as described above).
- [Ref. #2712] The GSM plug-ins for SNMP devices do not prevent duplicate instances for the same device. Be careful not to create multiple instances of the same device and IP address,

since this could result in conflicting statuses. In the case of a duplicate plug-in, remove the plug-in and then open the Alarm Browser again to see if a duplicate plug-in appears. You can find and delete duplicate instances from the Alarm Browser's **Admin** tab.

iC Core

• [Ref. #29858] The Kaleido-K2 is unable to fetch router labels from Application Servers running iControl version 4.00 and later.

iC Creator

• [Ref. #32081] When using scripting to modify the logical path of a card service, the *Logical* path attribute data may not be successfully re-imported.

Workaround: Manually change the Logical path attribute to include the prefix Logical view!@#\$, followed by the logical path (replacing any slashes with !@#\$), followed by !@#\$. For example, if the logical path is test/data, then you should change the string to Logical view!@#\$test!@#\$data!@#\$.

• [Ref. #28297] In iC Creator, a dynamic player assignment with a video label may not succeed if the player has no default video label.

Workaround: Specify a default label (even a space character will work).

 [Ref. #2616] In Windows, it is not possible to create new folders directly in the My Documents directory, directly from the **Open** and **Save** windows.

Workaround: Create the folders using Windows Explorer and then open them in iC Creator.

• [Ref. # 24292] In iC Creator, if you create a page where the page name contains the word "Widgets" (exact case, plural), the page will not load properly.

Workaround: Rename the page.

- [Ref. #18864] Local changes done to composite widgets nested inside other composite widgets cannot be saved successfully.
- [Ref. #16000] It is not possible to save grouped components (e.g. video player + alarm panel) to a library.

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.
- [Ref. #22767] Intermittently, the overall status of one or more cards below a selected row in the list is not updated. Clicking on a card to select it updates its status. This behavior occurs in both **Logical** and **Physical** views and on all types of cards.

Note: This behavior does not occur in the GSM Alarm Browser.

• [Ref. #DA 2009-00152/22480] If more than one person is working in iC Navigator's **Logical** view on the same Application Server and one is editing device names when another causes the list to re-sort, the first person will be editing a different device's name. If you do not notice it happening, you may change the wrong device's name.

Note: This problem does not happen in Physical view.

 [Ref. #14090] Changing the Application Server's internal clock may have an impact on some scripted tasks (e.g. polling an alarm status). If you must change the internal clock, you should restart iControl.

Note: This does not apply to changes in time displayed on web pages, such as those that occur when switching between Daylight Savings Time and Standard Time.

- [Ref. #12605] Up to 50 Composite Service Panels (created in Virtual Service Manager) are supported per Application Server.
- [Ref. #4231/11234] Empty folders in iC Navigator are automatically removed. A folder must contain at least one card to remain in iC Navigator.
- It could take up to one minute for iC Navigator to know that services are no longer available.

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.

• [Ref. #4871] It is not possible to replace the current home page with a new home page that differs only in character case (say, http://host/mysite/aPage.mpf and http://host/mysite/apage.mpf). Workarounds include clearing the home page

before setting the new one, or setting an intermediate home page before setting the new one.

• [Ref. #2588] It is not possible to embed multiple iC Navigator instances in an iC Web page.

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.

Imagestore

• [Ref. #35435] On the control panel for an Imagestore device, when you click one of the Video GPI or Audio GPI buttons on the **Control** tab, the system activates a different virtual GPI than was indicated.

Workaround: Map the Video GPI and Audio GPI buttons of the Imagestore control panel to the corresponding activated GPI using the following matrix:

GPI buttons on control panel	Mapped Virtual GPI
Video	
1	2
2	3
3	4
4	5
Audio	
1	10
2	11
3	12
4	13

• [Ref. #17022] The **Bypass** button in the iControl service panel for an Imagestore only allows you to enable a bypass, not to remove it.

Imaging Series

Using a Quartet 1 frame to house AAP-711, ADL-701, AAP-712 and AAP-702 cards could
cause iControl to mismatch slot numbers. If a card in the reference configuration is
removed, another type of card inserted and removed in the slot, and then the first card is

put back, it can re-appear in slot 2. The same cards could also cause iControl to misbehave. Sometimes, two of the cards can disappear from iC Navigator and return after a while. These cards consume a lot of power and the Quartet frame could encounter some problems from time to time; it is recommended to use a Symphonie frame with this set of cards.

• It can take up to 45 seconds to discover a Quartet 1 frame. Discovery of the Quartet 2 frame is much faster.

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.

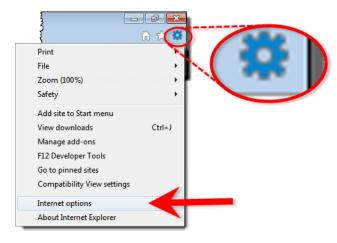
Workaround: Update all Application Servers in your network to iControl version 6.20 (or later).

• [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:

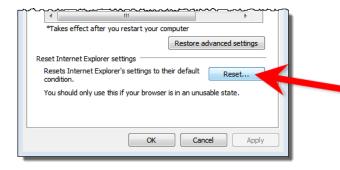
1. In Internet Explorer 10, click the cog icon in the upper, right corner, and then click **Internet options**.



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:

- 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**.

• [Ref. #37262] If the Loudness Logger is active while you switch inputs to the Kaleido-Solo (KS910), the Logger may not recover (restart logging) automatically. In such a case, on the Loudness Logger configuration page, the corresponding KS910 would display NO DATA.

Workaround:

To recover logging capability:

- 1. Open the Densité Manager.
- 2. Select the problematic Kaleido Solo.
- **3.** Put the Kaleido Solo in *Standby* mode.
- 4. Put the Kaleido Solo in Online mode.

Grass Valley Interface Updater

• [Ref. #21974/25234] A Densité card upgrade may fail when another application—in addition to Grass Valley Interface Updater—is already connected to the CPU-ETH2 controller of this card's frame.

As of iControl version 3.40, 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, from 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

For more information about how to upgrade firmware on a Densité card, see the "Upgrading Firmware on a Densité card" section in the "Configuring Devices & Services" chapter of the *iControl User Guide*.

Grass Valley Media Player

• [Ref. #28668] On an iC Web page that has several players, when you switch from NTSC to PAL format, one or more players may no longer function properly.

Workaround: Make sure you select the appropriate video format check box (525 or 625) in the device's control panel.

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 Contact Us on page 54).
- [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 Contact Us on page 54). There is a way to recover the user settings after a system rename.
- [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 (i.e. either **BOTH** 32-bit CentOS or **BOTH** 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. #ICONTROL-15831] Application Servers of the Dell R200 model use a Linux kernel that does not support 4GB of RAM. This decreases the amount of usable memory in such systems to 3.3GB.
- [Ref. #21437] When a system takeover is performed, the redundant unit will be missing the Data Management Tool tables, if any, from the main system. The DMT tables are also missing when a system is restored from backup.

Workaround: If you have exported data from DMT, you can restore the DMT tables by importing the data into DMT once the system takeover or restore is complete.

- [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.
- [Ref. #9059] It is impossible to tell whether a TSL controller is actually connected to the Application Server over RS-422, so the service may reflect a normal status even though the device has been disconnected.
- If the Application Server swaps heavily, the iControl home page could become unresponsive, which may indicate that more memory is required. Review iControl admin's System statistics page, to verify available memory and whether memory swapping is occurring. Restart Tomcat on the Application Server or simply reboot to remedy this problem. A memory upgrade may be required if the problem persists.
- If a software upgrade of iControl fails during the first attempt, additional attempts to upgrade the software can result in loss of data. Recovery may consist of removing the folders /usr/local/iControl and /usr/local/iControl-Old from the Application Server and reinstalling the new build. Make sure a backup of the Application Server is performed before doing this so that the configuration can be restored after a clean install.
- 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 nonstandard 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. #27148] If a failover occurs and a scheduled action is already in progress, the scheduled action continues indefinitely regardless of the configured duration period.
 - Workaround: After a failover occurs, verify the configured time frames of scheduled events to ensure the command to end an action was not scheduled to happen while the Application Server was offline.
- [Ref. #25510] After performing the following steps, the Main IP address may be unknown according to the Redundancy page of the Backup Application Server, and the Reverse button may not be present:

Steps:

- 1. Perform a takeover of a Main Application Server running CentOS by the Backup Application Server.
- 2. Reverse the takeover.
- Perform a takeover of another Main running Red Hat Linux 9 by the Backup Application Server.

Recommendation: It is strongly suggested to use the same operating system version on all platforms within the same cluster (that is, Option 1 is to use the Dell PowerEdge R200 and R210 together, Option 2 is to use the Dell PowerEdge 750, 850, and 860 together).

Workaround:

- 1. Access the Application Server that has Red Hat Linux 9 by using PuTTY (available from the **Useful downloads** link on iControl's Startup page).
- **2.** Create a temporary directory (for example, /root/tmp)
- **3.** Copy these files from the *CentOS* host machine to the tmp directory of the Red Hat Linux 9 host machine using SCP (also available from the **Useful downloads** link on iControl's Startup page):

```
/etc/ssh/ssh_host_rsa_key
/etc/ssh/ssh_host_rsa_key.pub
/root/.ssh/id_rsa
/root/.ssh/id_rsa.pub
```

- **4.** Remove the cluster.conf files from all hosts.
- **5.** Remove these files from all hosts:

```
/root/.ssh/known_hosts
/root/.ssh/authorized_keys
```

6. On the Red Hat Linux 9 host, copy the files by typing the following commands:

cp ssh_host_rsa_key ssh_host_rsa_key.pub /etc/ssh
cp id rsa id rsa.pub /root/.ssh

- **7.** Restart *sshd* by typing the following commands: service sshd restart
- 8. Reconfigure the Redundancy Groups.
- [Ref. #24597] If an Application Server (whose iControl services are initially online) is added to an existing redundancy group in the role of *Backup*, the iControl services of this new Backup Application Server continue to run after the server has been added to the group.

Workaround: Before adding an Application Server to a redundancy group as a Backup, make sure you stop iControl services first.

- [Ref. #24199] Connection to a Backup Application Server may be lost if either of the following is true:
 - The configured IP address, in the Redundancy Configuration Form's **Extra IP** field, is outside the group's subnet.

OR,

 There is no configured IP address in the Redundancy Configuration Form's Extra IP field, and the factory default IP address is outside the group's subnet.

Workaround: Disconnect and then reconnect the Backup from the network.

- [Ref. #23834] When a user connects a device to the network with the same IP address as one of the Main Application Servers in Auto-failover mode, the Main could become Yellow/Unknown and a failover could be triggered.
- [Ref. #23639] Backup Application Server keeps Main's host name after a reverse takeover if not taking Main's IP address.

Workaround: Change host name on Backup Application Server back to Backup host name.

 [Ref. #23624] Cluster synchronization problem when replacing a Main Application Server after a failover without taking the Main's IP address.

Workaround: The documented procedure (Replacing an Application Server in a Redundancy Group) in the iControl User's Guide outlines the appropriate steps you should take depending on whether you have chosen to have the Backup take the Main's IP address or not.

 [Ref. #23470] After a failover, the backup files listed on the iControl Backup page of the Application Server that is now online are the backup files of the configured Backup and not the configured Main. The backup files on the newly online Application Server should be from the configured Main.

Workaround: Perform a Reverse Takeover. After a Reverse Takeover, the Main's backup files are available on the Main Application Server and the Backup Application Server's backup files are on the Backup Application Server.

• [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.
- [Ref. #28342] When there are multiple routers on a network with the same router name, Matrix and Single Bus views in iC Router Control may open with disabled Level buttons, a lack of status, and, in the case of the Matrix view, a 16 × 16 matrix size not matching the actual device's configuration.

Workaround: Make sure you choose unique router names.

• [Ref. #24675] When configuring a logical router in Router Manager Configurator, the **Auto update labels** check box on both the **Source mapping** and **Destination mapping** tabs may not be visible. This happens if you leave the Router Manager Configurator window in

its default size, and there is no indication that part of the user interface is hidden beyond view.

Workaround: Resize the window until it is wide enough to show the check box.

• [Ref. #23585] When an NV9000 system controller is controlling a multiviewer's KX Router logical router and the multiviewer is controlling the NV9000, the NV9000 may indicate that the multiviewer is offline.

Workaround: Change the timeout period on the NV9000 system controller. The recommended timeout value is 2000 milliseconds.

• [Ref. #22107] If a third-party router controller sends a command (using the VikinX Modular protocol) to Level 1 of a router connected to an iControl Application server, the command is sent to Level 0 instead. This is due to the particular way in which the VikinX Modular protocol is handled by the NDC component of iControl.

Workaround: On the third-party router controller, increment the target Level (or Frame ID) by one. For example, to change a crosspoint on Level 1, send the instruction to Level 2.

- [Ref. #21721] Physical labels from an SW-P-08 router are not visible in the associated Logical redundancy router.
- [Ref. #20029] After a router configuration change is made in Router Manager Configurator, current Matrix views will be reloaded, but may not reflect the actual level selection state.

Workaround: Restart the Matrix application, or press the level buttons to refresh the view.

- [Ref. #5762] Direct router panel access from iC Navigator does not work if there is an underscore character (_) in the Application Server host name (e.g. *qc_appserver*). To access the Router Manager Configurator, the actual router manager name must be specified in the URL address.
- [Ref. #76/1495] 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
 iC Navigator.

Note: This and other issues can be avoided by observing proper syntax when creating host names. Please refer to *Restrictions on valid host names* at http://en.wikipedia.org/wiki/Hostname.

SNMP Drivers

 [Ref. #31469] 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 remote multiviewer GSM logging functionality on the Kaleido-X.

SNMP Driver Creator

• [Ref. #29447] In a system involving traps but no polling, the Device communication alarm status may persist in a *Pending* state.

Streaming Infrastructure

• [Ref. #24503] It is possible to lose a stream (audio or video, ALMS or thumbnail from any card that can stream) if a frame is moved from one Densité Manager to another on the same Application Server.

Workaround: Restart the Darwin Streaming Server.

Third Party Devices

• [Ref. #26991] The values of the two text alarms related to the ETL 2745 LNB power supply (Firmware Revision, Polling Interval) are not properly updated.

Workaround: Change these text alarms' GSM contribution from Disabled to Passthrough.

• [Ref. #25278] When connecting an Application Server to more than one ETL 2745 LNB power supply, the first ETL 2745 device you connect to is accepted, but subsequent ETL devices are refused. The error message is as follows:

The service on <IP address of the Application Server> is already running.

Workaround: Connect no more than one ETL 2745 power supply to any one Application Server. For example, if you require three ETL 2745 devices, connect each of them to their own, separate Application Server.

- [Ref. #21877] iControl supports the Tektronix MTM400 firmware version 3.0 and earlier. It is *NOT* compatible with firmware version 3.1.
- [Ref. #13242] If one transport stream frequency is wrong, the MTM400 service panel shows no data on any transport stream.
- [Ref. #12976] Support for the various input formats (QAM, QPSK, GigE) of the Tektronix MTM400 is strongly tied to the Tektronix firmware version. For example, support for QPSK input in iControl version 3.10 and later requires firmware version 2.6 on the MTM400.
 Please contact Grass Valley Technical Support for more information (see Contact Us on page 54).

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 7.41 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	Network Compact (serial)	VikinX Compact
Electronics)	Network Modular (Ethernet)	VikinX Modular
Grass Valley	Densité	HRS-1801
	Densité	HCO-1801
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 Contact Us on page 54)
	NVEP Router (NP0016)	Compact router series
	NVISION Serial Router Control protocol	NVISION routers
PESA	CPU Link Protocol No.1 (serial)	Cheetah, Tiger TDM3000, Jaguar, Cougar,
	USP (Unsolicited Status Protocol)	Ocelot, Bobcat, PERC2000 system controller
Quintech	XRM/SRM/MRF/MRM Series Protocol (serial)	SRM 2150 Matrix Switching Systems
Grass Valley	General Switcher Protocol (SW-P-02)	
(SAM/Snell/Pro-Bel)		

Router protocols supported by iControl Router Manager(Continued)

Company	Protocol	Typically used with
Sony	GVG-NP Emulation	Sony routers (requires HKSPC card); GVG routers (Ethernet)
Thomson/Grass Valley	GVG 7000 Native Protocol (serial)	Concerto-series routers, Encore-series control panels
Thomson/Grass Valley	Jupiter VM-3000 ASCII Protocol	Venus-series and Trinix-series routers
(Philips)	ES-Switch Protocol (serial)	Jupiter VM 3000 and CM 4000 system controllers
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
	VBC VideoBRIDGE Controller
Cisco (Scientific Atlanta)	9660 (serial control)
	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

Manufacturer	Device
Ensemble Designs	Avenue
Evertz	500FC
	3000 MVP
	7700 Series Modular Video and Audio Interfaces (IC-SNMP- 002)
	7867VIPA-DUO
	3405 Card
Grass Valley	Kaleido-Alto/Quad/Quad-Dual
(Miranda/NVISION)	Kaleido-K2
	Kaleido-X
	NVISION N9000 system controllers
	Imagestore 750 (via Oxtel protocol)
Grass Valley (Thomson)	Jupiter VM-3000
	SMS-7000
	Granite Sentinel Remote MPEG-2 QoS Monitor
	Triton
Harmonic	MaxLINK HOA 8030 (IC-SNMP-029)
	NMX
	Proview 7000
Harris	See Imagine Communications
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

Manufacturer	Device
Logic Innovations	RS-1100
	IPE-4000-5
Manzanita	LAdI (Local Add Inserter)
Microsoft	Microsoft IPG (IC-SNMP-106)
	Windows® SNMP Agent
Miranda	See Grass Valley
Miteq	NSU1 Switchover
	U9853-6-1K Modulator
Modulus	ME1000 (refer to Motorola SE-4000)
	ME6000 (refer to Motorola SE-5000)
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	See Grass Valley
Mystic	M-15x0 transcoders
Omneon	Omneon Server (IC-SNMP-026)
PBT	PBT ContactAgent 1

Manufacturer	Device
PESA Switching Systems (QuStream Group)	SNM 35V3 (Cheetah, Tiger, Jaguar, Cougar, Ocelot, Bobcat, and TDM3000)
Pinnacle	DS130(IC-SNMP-003)
Pro-Bel	See Grass Valley (SAM)
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
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	See Grass Valley (SAM)
Softel	Vflex
SpectraLogic	BOA T380 Tape Library
Sumavision	EMR D8020
Tandberg	nCompass
	RX1290
	TT1260/1280 (IC-SNMP-005)
	TT4130

Manufacturer	Device
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
Met One Instruments	50.5 Wind Sensor (serial control)
Motorola	HDD-1100 (serial control)
	Lifenet C6BD
Sencore	IRD 3384 (serial control)
Sony	9-pin VTR Control (serial control)
Tandberg	Alteia
Terayon	CP7585 (serial control)
Thales/Thomson	Granite Sentinel
TSL	SC -11 (serial control)
Wegener	Unity 4422 Broadcast Receiver (serial control)
	DTV720 Transport Stream Multiplexer
	Unity 4600 Professional Media Receiver (serial control)



Grass Valley Technical Support

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +15304784148.

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

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

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