KAYENNE/KARRERA/ GV KORONA

K-FRAME

Version 15.3.1 – Draft Copy

Release Notes – Draft Copy

071896501-AQ

2021-07-09

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Title	Kayenne/Karrera/GV Korona Release Notes
Part Number	071896501-AQ
Revision	2021-07-09 Draft

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K-Frame Version 15.3.1 Release Notes

About this Manual

This document describes the new features and other information specific to the K-Frame XP Video Production Center, Version 15.3.1 switcher software for the Kayenne, Karrera, and GV Korona systems.

IMPORTANT: V15.3.1 is only supported by the GV K-Frame XP Compact Video Production Center.

For More Information

For information about installing, configuring, and operating K-Frame systems, see the K-Frame Video Production Center Documentation Libraries found on the Grass Valley website at grassvalley.com and on the USB thumb drive provided with your system.

New in the V15.3.1 release

- Audio on the Image Store

NOTE: Image Store Import: Occasionally, the menu may hang during the import of movies or stills. It this happens reboot the computer the menu is running on, restart the menu and the import functionality will be restored

New in the V15.3.0 release – For K-Frame XP Only

- iDPM and eDPM (Initial Feature Set)
- Format Conversion Board
- UltraMatch Specialized Format Conversion for
    - 8x4 and 16x8 IP I/O Boards
    - GearBox I/O Board
- NMOS IS-04/IS-05 Improvements including unicast DNS-SD
- IGMPv3 SSM
- Configuration of 2110-30 Audio Channel Count
- Frame Operating Mode – Film Rates
- SNMP

iDPM and eDPM

The V15.3.0 software release introduces the first set of features for the DPM channels on the K-Frame XP.

The iDPMs on the K-Frame XP are capable of full raster 2160p image manipulation. The DPMs are located on one or two optional DPM boards. The software licensing enables the appropriate number of DPM channels.
The DPM Channels can be used as either iDPM channels or eDPM channels.

This first release for the DPM Channels implement the channels and keys themselves:

- Transform Menu Controls including:
    - Local Source and Target Transforms
    - Global Source and Target Transforms
    - Corner Pinning
- Borders
- Freeze and Film Look.
- Effects Send
- Defocus
- Borderline - Glow

The Borderline - Shadow, Kurl, Splits & Mirrors, Lighting and Output Recursive features will be part of a later software release.

The operation of this feature is described in the GV K-Frame XP User Manual V15.0.

Format Conversion Board

This software release supports a new version of the Format Conversion Board which has all of the capabilities of the previous version of the Format Conversion Board, it supports conversion to (MatchDef) and conversion from (SetDef) the 2160p Frame Operating Modes. These I/I Board act as SDI I/I boards when installed and require software a software license to enable their Format Conversion functionality.

The operation of this feature is described in the GV K-Frame XP Installation & Service Manual V15.0.

UltraMatch and GearBox on IP I/O and Gearbox Boards

The GV K-Frame XP Video Processing Frame introduces a new feature – "UltraMatch®" specifically developed to assist users in addressing mixed formats within a 4K/HD mixed mode production. A specialized mini-format converter has been enabled on SDI or IP 16x8 I/O boards (K-FRM-IO-FULL-X-GB and K-FRM-IO-FULL-X-I) and the IP 8x4 I/O board (K-FRM-IO-X-I) to convert incoming 2160p and 1080p video to either 2160p or 1080p video to match the selected HD or 4K Frame Operating Mode.

When the Input Mode is set to "Bypass/UltraMatch", the individual input detects the incoming source's video format and automatically performs the correct conversion. Alternatively, the Input Mode may be set to "GearBox" and the Input Format can be set manually to 2160p or either of the Quad Link Formats: 4K 2SI or 4K SDQS. Inputs which are 1080i can also be converted, some occasional motion artifacts may occur due to interlace and the audio will not be valid.

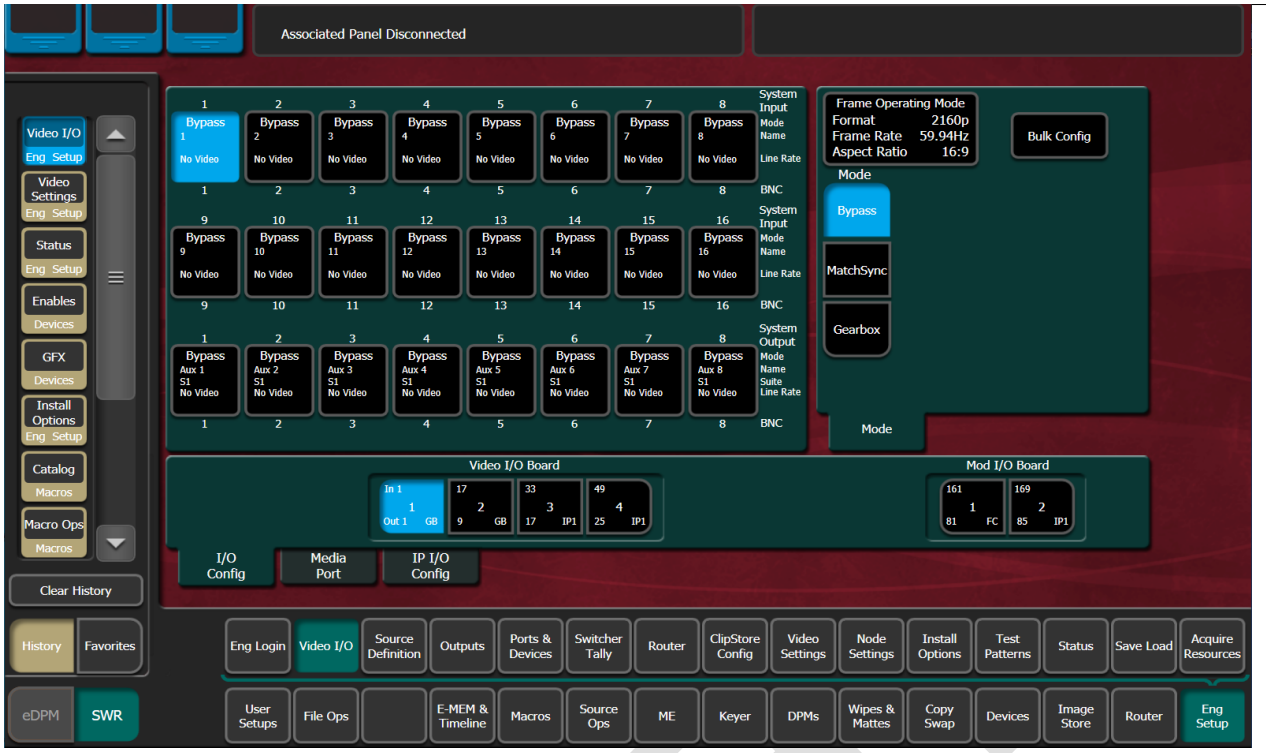
For the outputs, the GearBox mode allows the operator to individually select single stream 2160p, 1080p or Quad-Link 4K 2SI streams on each output when the Frame Operating Mode is 2160p or 1080p.

UltraMatch and GearBox Controls	2160p	4K 2SI	4K SDQS	1080p
Input Mode – Bypass/UltraMatch	Passes			Yes
Output Mode – Bypass/UltraMatch	Passes			
Input Mode - GearBox	Passes	Yes	Yes *	
Output Mode - GearBox	Passes	Yes		Yes

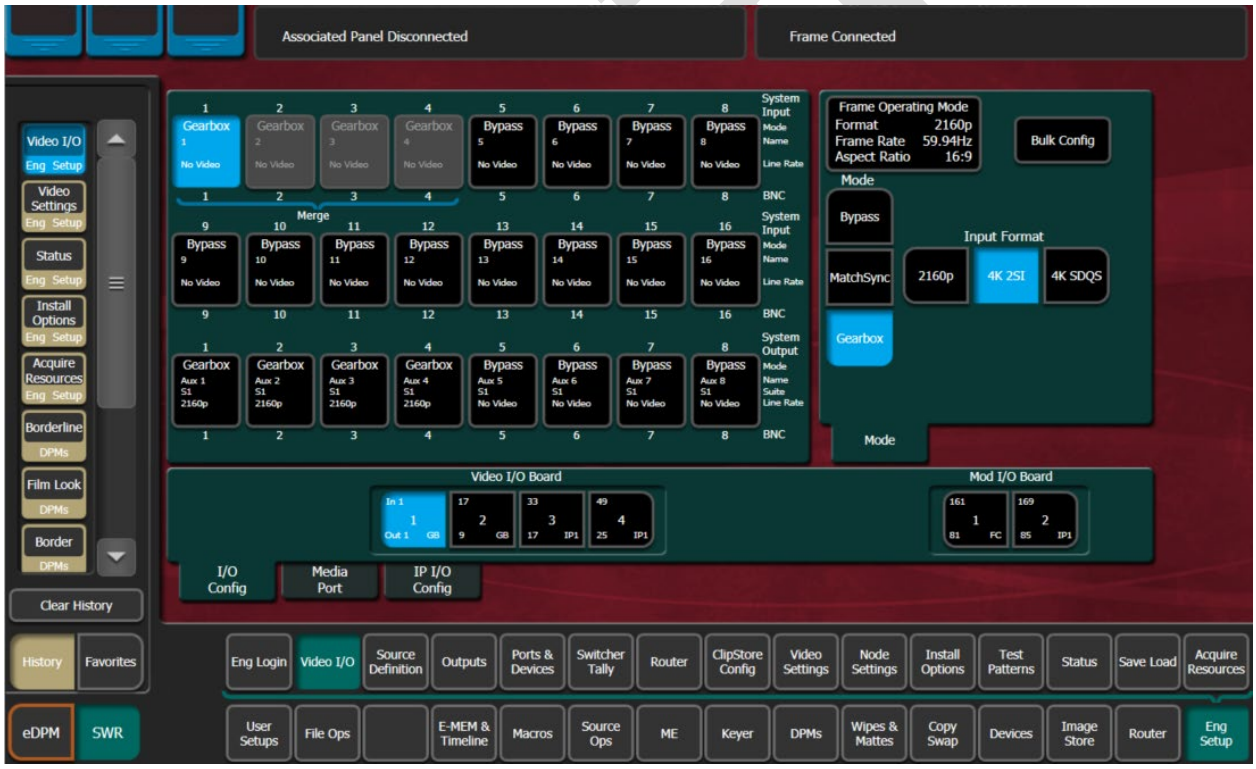
* Supported on the SDI GearBox Board only

These specialized mini-format convertors are specifically designed for converting between 2160p and 1080p formats. In most situations, it will be difficult for the eye to detect the difference between a conversion done on the K-Frame's 8x4 SDI conversion board (K-FRM-IO-CONV-XP) and one accomplished by the UltraMatch® mini-format convertor or GearBox hardware on the SDI GearBox and IP I/O boards. If your production requirement calls for conversion to/from 720p video or Standard Definition Video, then the K-FRM-IO-CONV-XP board (SDI) or an external conversion box should be utilized.

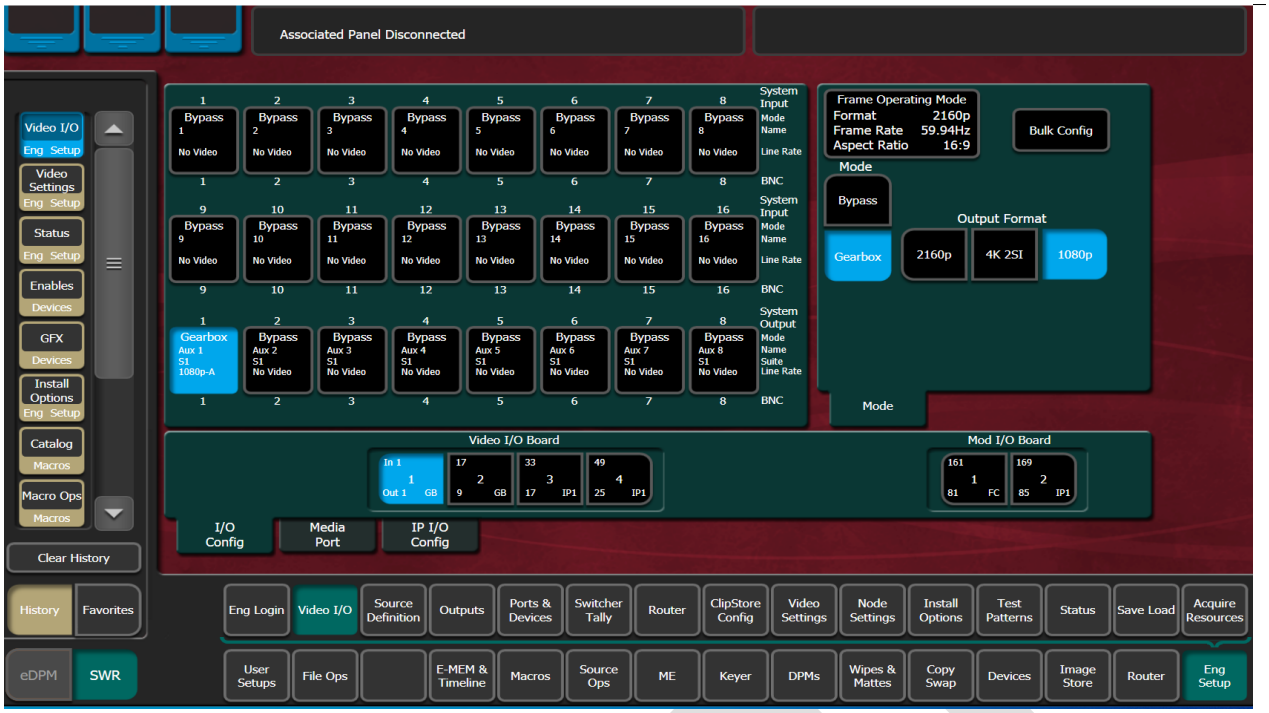
The following menus show the controls for configuring the I/O Boards.



16 x 8 SDI GearBox Board – Input Mode set to Bypass/UltraMatch



16 x 8 SDI Gearbox I/O Board – Input Mode is set to GearBox, Input Format set to Quad Link 4K 2SI



16 x 8 SDI GearBox IO Board – Output Mode set to GearBox, Output Format set to 1080p

NMOS Improvements

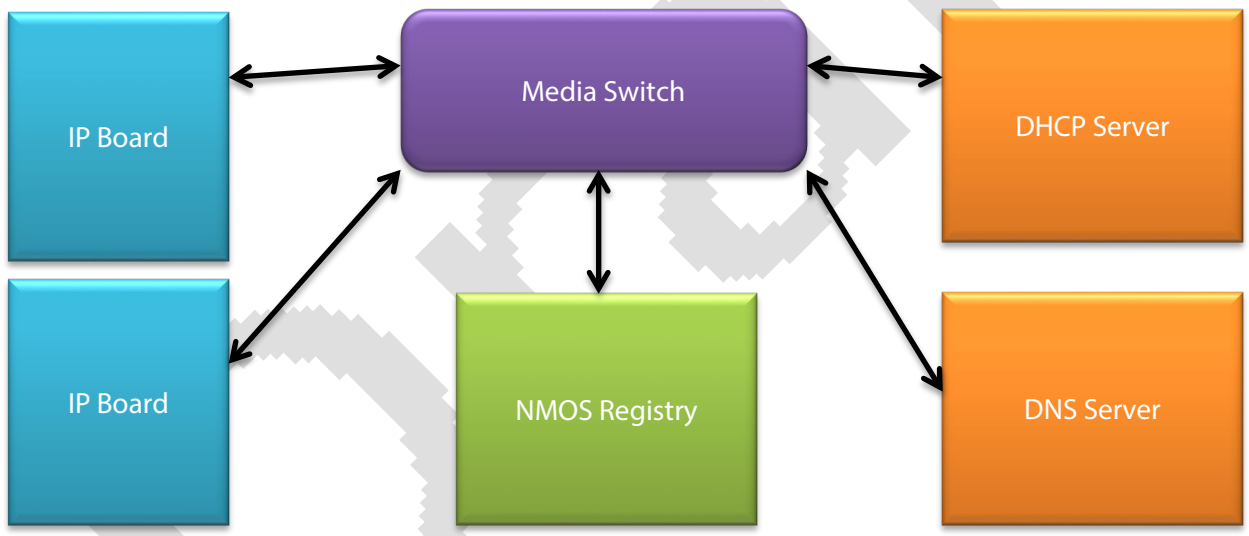
Unicast DNS-SD

The V15.3.0 software adds Unicast DNS-SD in addition the mDNS already supported. By default NMOS discovery will attempt both mDNS and Unicast-SD to discover a registry on the network.

Entering an IP address other than 0.0.0.0 for the Global Registry in the menu Eng Setup > Node Settings >NMOS Configuration > Global Registry IP Address and Port, will disable mDNS and Unicast-SD and the Frame will only attempt to connect to the given IP address. Redundancy not possible in this mode.

Requirements for In-band Unicast-SD

1. DHCP Server on the Media Network
2. DNS on the Media Network
3. Configuration file for the DHCP server which provides domain-name-servers AND domain-name
4. DNS configuration file which contains the NMOS services (_nmos-register, _nmos-query, …) which refer to the NMOS registry(s)
5. IP Board needs to be visible to the DHCP Server and DNS (ping test)



Unicast-SD sequence of events

1. IP Board issues a DHCP Request for option 6 (DNS IP) and option 15 (Domain Name)
2. DHCP Server responds with a DHCP Inform providing info for option 6 and 15
3. IP Board issues a DHCP ACK
4. IP Board takes the given DNS IP provided by the DHCP Server and issues a DNS query for the various NMOS services (_nmos-register, _nmos-query)
5. DNS responds with the NMOS services information
6. IP Board registers with the highest priority NMOS Registry provided by the DNS

Example DHCP Configuration file for Linux dhcpd

```
authoritative;
subnet 192.168.10.0 netmask 255.255.255.0 {
range 192.168.10.40 192.168.10.250;
option domain-name-servers 192.168.10.10;
option domain-name "gvswitcherlab.com";
option host-name "GVC.gvswitcherlab.com";
option subnet-mask 255.255.255.0;
option routers 192.168.10.255;
option broadcast-address 192.168.10.255;
default-lease-time 600;
max-lease-time 7200;
option dhcp-lease-time 3600;
option dhcp-rebinding-time 3600;
option dhcp-renewal-time 3600;
}
```

Required fields

- domain-name-servers
- domain-name

Static Routes for the Primary and Secondary Control Systems

Static Route capabilities allow the IP I/O Boards to communicate with NMOS control systems such as GV Orbit (GVO). In the V15.3.0 software, the static routes are configured via the Console Menu. Because of network security issues, in version V15.0.0 and higher, the Console Menu is accessed via Secure Shell (SSH). Telnet is no longer supported.

In the top menu of the Console Menu enter 5 for "Vid 16x8 IO" or 6 for "Mod 8x4 IO". Next choose the # for the board you are interested in (for example 1 for "16x8 IO IP 1"). Next, choose A (for ARM) and then S (for Static Routes). From here you can either choose 1 to enter a new route, 2 to view existing routes, or 3 to clear/delete a static route.

To enter a new route you would choose 1 "Set Static Route". Next, choose 1 for the Primary Interface or 2 for the Secondary (Redundant) Interface. Next, enter the destination IP, which is the IP for the network you are trying to reach. For example, you might enter an address such as 172.0.0.0. Next enter the gateway associated with the interface for this route. Note, for Primary this should be the gateway associated with SFP 1A as shown on the Port Config SFPs menu, and for Secondary this will be the gateway associated with SFP 1B. For example, you might enter a gateway such as 172.21.12.1. Finally, enter the appropriate Genmask (aka subnet mask) for the network you are trying to reach. Following along with the previous example this might be something such as 255.192.0.0. Now your route has been entered.

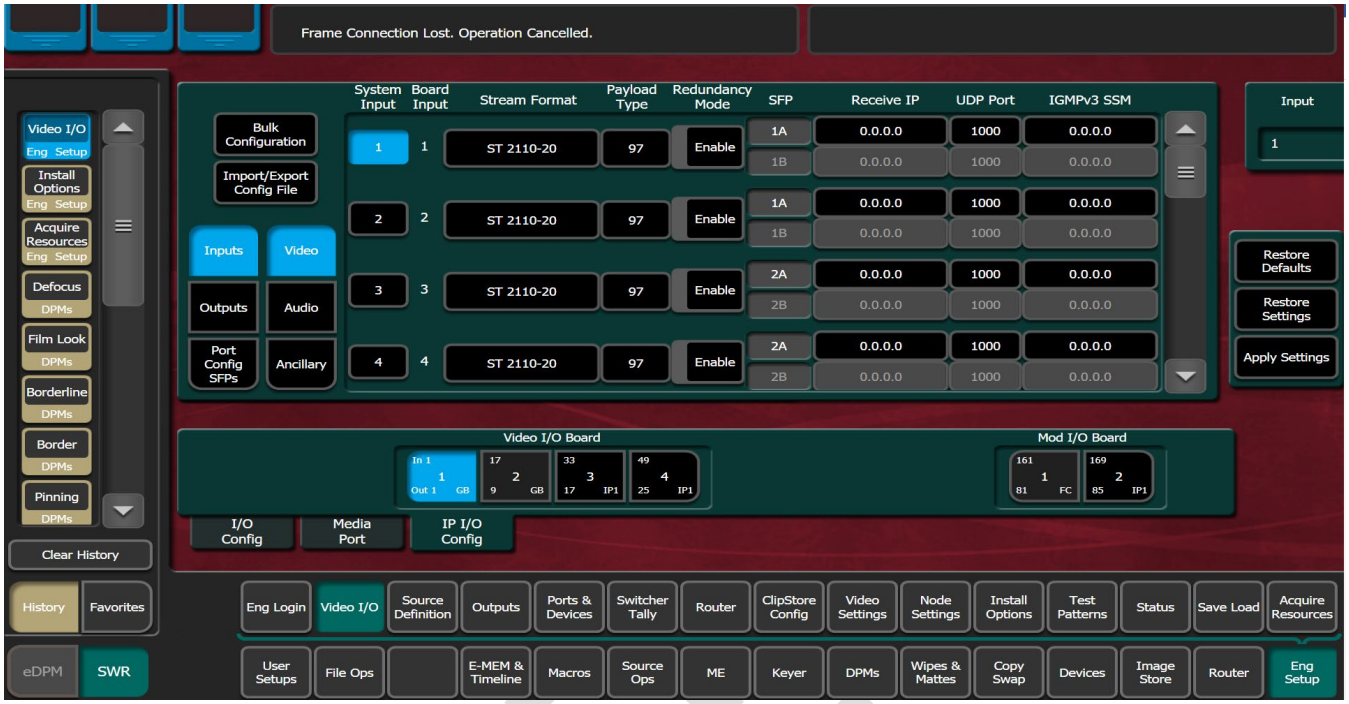
To view the route, choose 2 "View Static Routes". This should allow you to see the route(s) you entered.

To delete a route, choose 3 "Clear Static Route". Then choose 1 for Primary or 2 for Secondary depending

upon which route you'd like to delete.

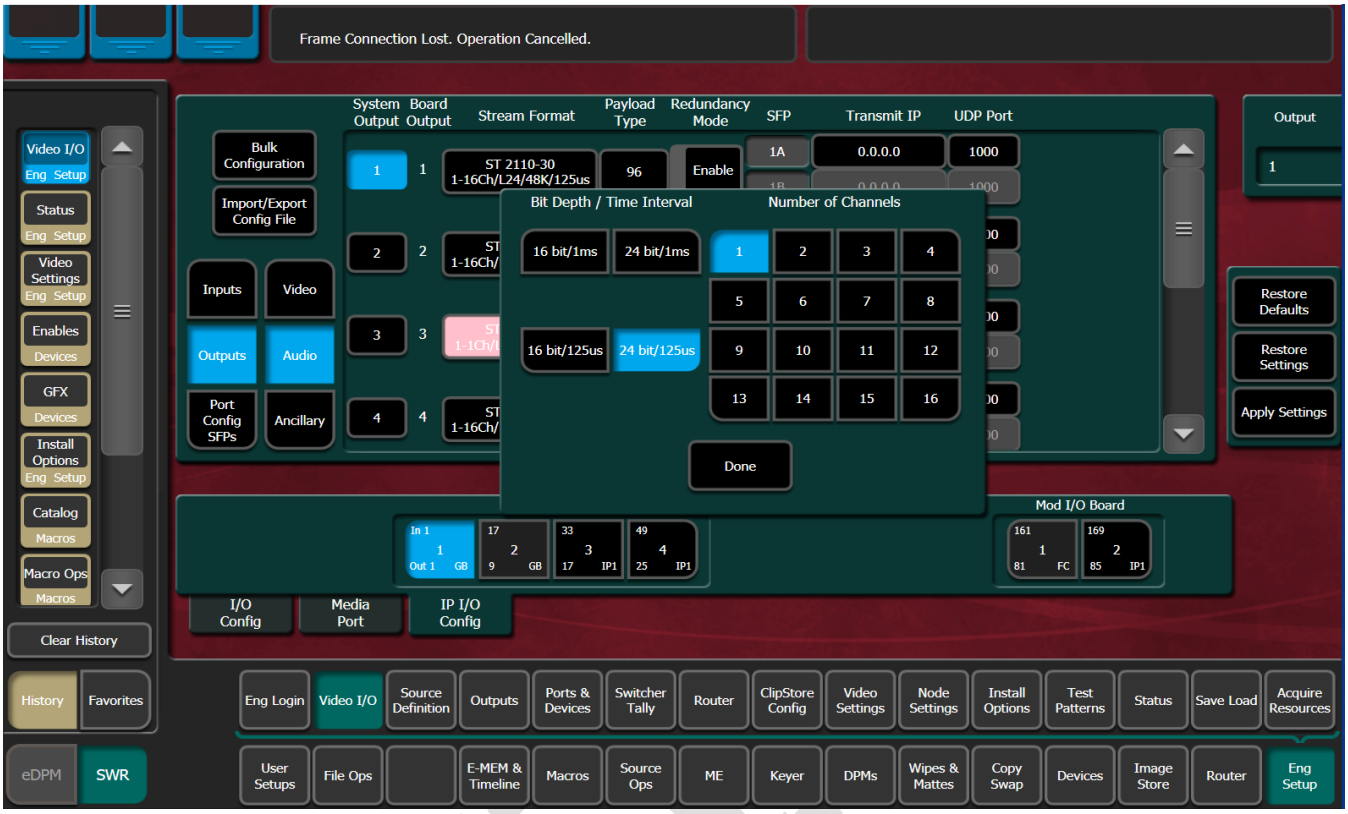
IGMPv3 SSM

This release supports IGMPv3 SSM (Internet Group Management version 3 - Source-Specific Multicasting). This allows the multicast clients to specify the unicast source address and from where it will receive multicast traffic.



IGMPv3 SSM is configured in the menu Eng Setup > Video I/O > IP I/O Config.
IGMPv3 SSM is disabled when the IP address is set to 0.0.0.0.

Configuration of 2110-30 Audio Channel Count



The K-Frame IP I/O Cards can be configured to send or receive in a bit depth of either 16 or 24 bits and a Time Interval of 1ms or 125 microseconds. The K-Frame switcher does not make conversons of the Bit Depth or Time Interval as the audio passes through the I/O Cards and the switcher. Therefore the audio format on input to the switcher must match the audio format at of the output of the switcher.

Frame Operating Mode – Adding Film Rates

Bandwidth	Resolution	Frame Rate	SDI GearBox	SDI Format Conversion	IP I/O
1.5G	720p	50Hz	Y	Y	Y
	720p	59.94Hz	Y	Y	Y
	720p	60Hz	Y	Y	
	1080i	25Hz	Y	Y	Y
	1080i	29.97Hz	Y	Y	Y
	1080i	30Hz	Y	Y	
	1080p	23.98Hz	Y	Y	Y
	1080p	24Hz	Y	Y	
	1080p	25Hz	Y	Y	
	1080p	29.97Hz	Y	Y	Y
	1080p	30Hz	Y	Y	
3G	1080p-A	50Hz	Y	Y	Y
	1080p-A	59.94Hz	Y	Y	Y
	1080p-A	60Hz	Y	Y	
6G	2160p	23.98Hz	Y	Y	Y
	2160p	24Hz	Y	Y	
	2160p	25Hz	Y	Y	
	2160p	29.97Hz	Y	Y	Y
	2160p	30Hz	Y	Y	
12G	2160p	50Hz	Y	Y	Y
	2160p	59.94Hz	Y	Y	Y
	2160p	60Hz	Y	Y	

SNMP

Simple Network Management Protocol (SNMP) is an industry standard mechanism for monitoring devices over a network, primarily intended to support service and maintenance activity. With SNMP, devices can be interrogated about the current status of specific device components (reported as values), and devices can report without prompting (traps) certain conditions that may require immediate attention.

An SNMP system consists of one or more Managed Devices, each of which has an Agent (software running as a daemon on that device), and a Network Management System (NMS). The NMS is a software application running on a computer that communicates with the Agents over the network. The information exchanged is determined by a Management Information Base (MIB) database file. The MIB defines the structure and content of the variables that are available as data for monitoring and reporting. A Community Name is also used as a rudimentary security measure, acting as a password to enable communications with the Agent.

For example, a Managed Device may have a cooling fan and thermocouple. The MIB may define a variable for the thermocouple readout, and a request for this data can be sent from the NMS to the Agent, which will reply (if the community name matches) with the current temperature value. The MIB may also define a Trap that reports a fan failure. Should the device's fan stop working, the Agent sends an unprompted message to the NMS. The NMS can be configured to respond to that Trap message, and may have the capability to alert maintenance staff of the problem, via an automatic email message or by triggering a warning alarm.

SNMP is an optional feature for Grass Valley switchers, and requires the purchase and entry of a license key.

SNMP is an industry standard, however, any third party NMS can be used. For third party NMS installation & configuration, please contact your SNMP NMS software vendor.

SNMP Standards supported by Grass Valley K-Frame Family of Video Switchers:

RFC 1155	Structure and Identification Management for TCP/IP-based Internet
RFC 1157	SNMP v1
RFC 1901-1907	SNMP v2c
RFC 1213	MIBII
RFC 1215	Convention for defining traps for use with the SNMP

The Grass Valley switcher MIBs are available from Grass Valley Customer Support. Load the MIBs for the Video Processor Frame and Control Panel.

Grass Valley Proprietary MIBs

MIB	Description	Video Processor Frame	Control Panel
gvg-reg	last updated "200402190000Z"	X	X
gvg-element	last updated "200503230000Z"	X	X
gvg-gcp	last updated "200503240000Z"	X	X
gvg-vsm	last updated "201304260000Z"	X	

Grass Valley Switcher Device Monitoring by SNMP

Grass Valley K-Frame Family of switchers support monitoring of the devices and device components shown in the following tables. SNMP provides reporting for each board of the same type, for example M/E, Modular I/O input, Modular I/O output, etc.

Note: Only the capabilities described in this document are supported. For detailed information about each supported item, please refer to the MIBs

Supported K-Frame Video Processor SNMP Monitoring

System Information	High level information regarding the Video Processor Frame including operating system, name, location, serial number, software revision and high level frame state.
Module	Each plug in board slot in the Frame is a module (Controller, M/E or eDPM). Information is provided regarding the board plugged into the slot and the current state of the slot.
Power Supply (Up to 3)	Reports power failure if a power supply fails or is not present.
Thermal	High level temperature and fan status for the entire system. If a failure is reported here then look at Fans or Temperature Sensor categories for details
Fans	Detailed speed and status for each fan in the frame. Five fans are on the compact frame and one fan in the standard frame. Typically inspected if Thermal category is reporting a cooling problem.
Temperature Sensors	Detailed information from each monitored temperature sensor on the Frame. Typically inspected if Thermal category is reporting a cooling problem.
Video Sync	Status of external video reference signal and what type of signal is present.
Network Configuration Data	IP address, Gateway and Netmask settings for external facing network interfaces.

Supported K-Frame Control Panel SNMP Monitoring

Fan	Kayenne: PCU has three fans Karrera: 2-M/E Control Panel has one fan, 3-M/E has two fans. Korona: One Fan
Power Supply	Will report power failure if a power supply is not present or not plugged in.
Temperature	Kayenne: One ambient temperature, one on CPU. Karrera: One ambient temperature, one on the Panel Processor FPGA, one on CPU. Korona: One ambient temperature, one on the Panel.
Modules	Status change traps are sent when a module is connected or disconnected.

GV Korona Control Panel

GV Korona can be monitored separately, using the standard built-in Windows SNMP capabilities and a third-party NMS. No unique Grass Valley MIB entries or traps are available.

Menu Panel Processor

The Menu Panel Processor (the PC running the Menu application) can be monitored separately, using the standard built-in Windows SNMP capabilities and a third-party NMS. No unique Grass Valley MIB entries or traps are available.

SNMP Installation

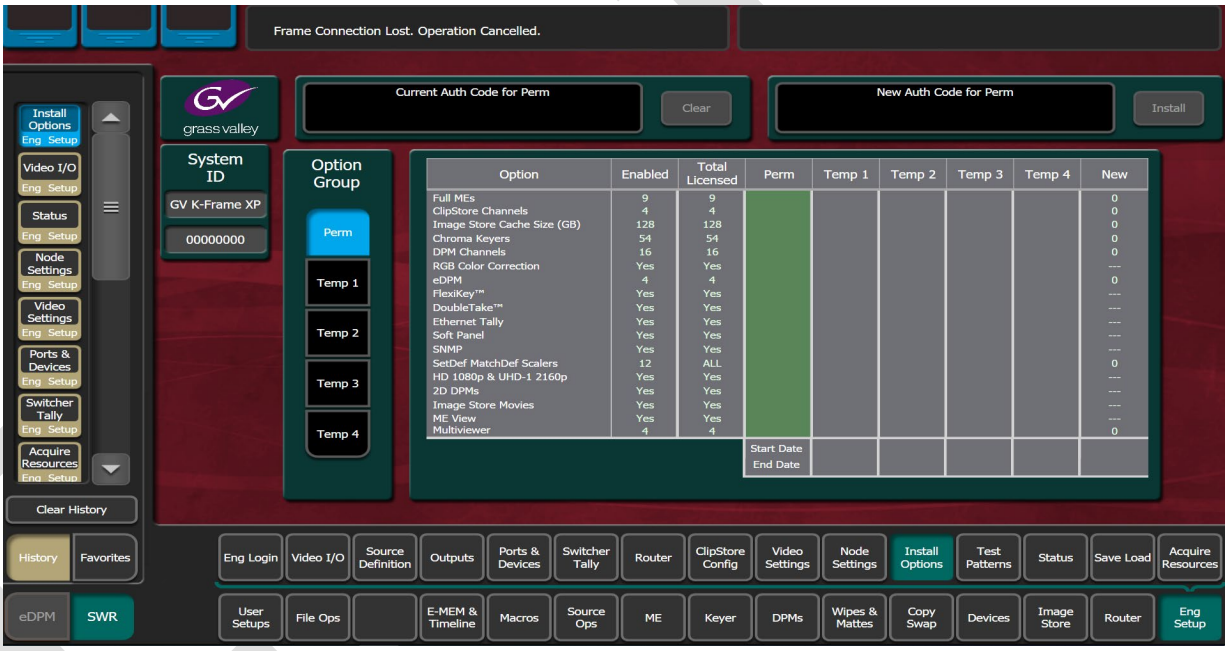
Grass Valley K-Frame switchers system devices have SNMP Agent software already installed. No user installation is required.

Separate NMS software (third party package) will need to be installed onto a PC that resides on the switcher network. Refer to the documentation provided with the NMS for installation instructions.

SNMP Licensing

Grass Valley switcher system SNMP licensing is based on the Video Processor Frame, and is tied to that Frame's unique System ID number. All Control Panels associated with a Frame will use that same SNMP license.

The Frame's System ID is shown on the Menu Eng Setup > Install Options. This menu reports the current licensing status of that Frame for all of the software options. The SNMP is Licensed when the Enabled and Total Licensed row says "Yes".



An SNMP license is purchased from Grass Valley Customer Support. You need to provide the Frame's System ID with your payment, and you will then be given a license key. Enter that license key in the Install Options screen to license the SNMP feature for that entire K-Frame system.

Licensing Definitions

SNMP Licensed - SNMP is capable of running with all documented features available. See SNMP enable/disabled for additional operational implications.

SNMP Unlicensed - SNMP runs minimal functionality provided by the operating system vendor (VxWorks on K-Frames, Linux on K-Frame Control Panels) and is always enabled.

SNMP Enabled - (licensed only) all SNMP variable requests are processed and SNMP traps are sent.

SNMP Disabled - (licensed only) all SNMP variable requests are ignored and SNMP traps are not sent.

SNMP Power Up License Processing

Frames and Control Panels power up with SNMP Unlicensed capabilities. If a SNMP license is detected on the Frame then the Frame and Control Panel initialize SNMP licensed capabilities. SNMP Licensed Configuration must be done to properly configure some of the licensed capabilities.

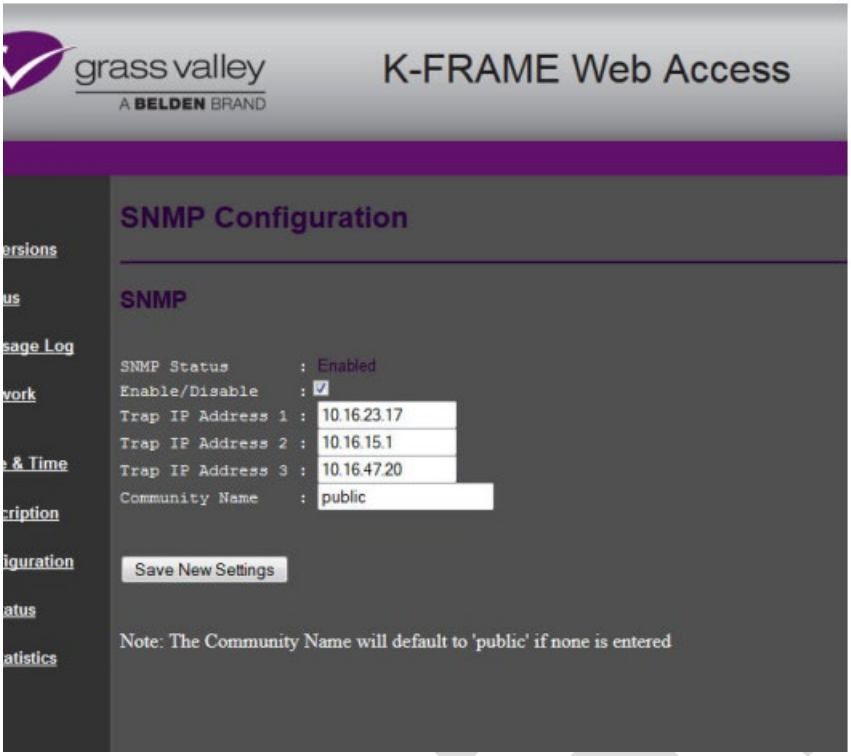
SNMP Licensed Configuration

SNMP Licensed capabilities require additional configuration though the web interface as noted in this document. The Video Processor Frame and Control Panel have separate web interfaces that are accessed by specifying the correct IP address in the URL (example: **http://192.168.1.170**). An example of the K-Frame Web page.

Configuration steps consist of:

- Enable/Disable SNMP
- Configure Trap Destination IP addresses
- Configure Community Name

Configuration of the NMS software itself will also be required to make full use of the SNMP feature.



Switcher Device SNMP Configuration Procedure

1. Check the Enable/Disable box to activate SNMP for that device.
2. SNMP configuration fields are inoperable (grayed out) if a valid license is not accessible.
3. Enter the IP address of the PC running a NMS where you want trap messages to be sent. Up to three IPs can be entered.
4. If you are not using the public community, enter the name of the community to be used.
5. Select Save New Settings.

SNMP Trap Messages

The SNMP trap messages listed below are available for various switcher system components.

> Note: Only the capabilities described in this document are supported. For detailed information about each supported item, please refer to the MIBs.

Supported SNMP Frame Traps

Name	Type	Description	Severity[a]
vsmPowerSupplyStatusChange	status	If the current status is different than the last, a trap is sent. A power supply OK message is only sent if all power supplies are OK after one or more power supplies have failed or were removed. At boot time, the first running status generates an informational message. After that, a transition to the running status generates a normal message.	comm error = alarm fault = alarm power supply removed = warning power supply OK = normal
vsmFanStatusChange	status	If the fan board is not present or if all fans have stopped working, a trap is sent. This trap is sent every 12 seconds until the condition is corrected. If any of the fans are not working properly, a trap is sent. The trap is sent every 20 seconds until the condition is corrected. When the system runs normally or returns from an abnormal condition to normal operation, a trap is sent.	fan board not present = alarm all fans not working = alarm fan not working = warning normal operation = informational (start up), normal (returning from a warning or alarm condition)
vsmTempStatusChange	status	If temperature crosses the warm threshold in any direction a trap is sent.	hot = alarm normal = normal
vsmModuleStatusChange	powerOK	If the current power status is different than the last power status, a trap is sent.	power OK = normal power Fault = alarm
vsmModuleStatusChange	status	If the current status is different than the last status, a trap is sent.	operational = normal failed = alarm not inserted = warning

Supported SNMP Frame Traps

Name	Type	Description	Severity[a]
vsmReferenceStatusChange	status	When the video reference transitions between locked and not locked, in either direction, a trap is sent.	not locked = warning locked = normal
gvgElStateChange	status	When the switcher starts the boot process and the trap status is "initializing", a trap is sent. Another trap is sent when the switcher becomes fully operational and the trap status is "running".	initializing = warning running = normal

a. Severity Levels: EGvgAlarm = 6, EGvgWarning = 5, EGvgNormal = 4

Supported SNMP Frame Traps

Name	Type	Description	Severity[a]
vsmPowerSupplyStatusChange	status	If the current status is different than the last, a trap is sent. A power supply OK message is only sent if all power supplies are OK after one or more power supplies have failed or were removed. At boot time, the first running status generates an informational message. After that, a transition to the running status generates a normal message.	comm error = alarm fault = alarm power supply removed = warning power supply OK = normal
vsmFanStatusChange	status	If the fan board is not present or if all fans have stopped working, a trap is sent. This trap is sent every 12 seconds until the condition is corrected. If any of the fans are not working properly, a trap is sent. The trap is sent every 20 seconds until the condition is corrected. When the system runs normally or returns from an abnormal condition to normal operation, a trap is sent.	fan board not present = alarm all fans not working = alarm fan not working = warning normal operation = informational (start up), normal (returning from a warning or alarm condition)
vsmTempStatusChange	status	If temperature crosses the warm threshold in any direction a trap is sent.	hot = alarm normal = normal
vsmModuleStatusChange	powerOK	If the current power status is different than the last power status, a trap is sent.	power OK = normal power Fault = alarm

Supported SNMP Frame Traps

Name	Type	Description	Severity[a]
vsmModuleStatusChange	status	If the current status is different than the last status, a trap is sent.	operational = normal failed = alarm not inserted = warning
vsmReferenceStatusChange	status	When the video reference transitions between locked and not locked, in either direction, a trap is sent.	not locked = warning locked = normal
gvgElStateChange	status	When the switcher starts the boot process and the trap status is "initializing", a trap is sent. Another trap is sent when the switcher becomes fully operational and the trap status is "running".	initializing = warning running = normal

a. Severity Levels: EGvgAlarm = 6, EGvgWarning = 5, EGvgNormal = 4

About the K-Frame Software Update

GV K-Frame XP systems are shipped with the current software version installed on the Frame and Control Surface. Updates to GV Switcher system software are available for download from the Grass Valley website. Software installation tools are provided with each update package.

The GV K-Frame XP Deployment Tool extracts and copies Grass Valley switcher system files to a Menu Panel or PC. These files include the K-Frame Installer Program.

The K-Frame Installer Program is used to install the extracted software to Grass Valley Video Processor Frame(s) and Control Panel(s) over the network. The program also launches other installation tools (wizards). One wizard installs the Menu application directly on the Menu Panel or PC running the installer program. If multiple Menu Panels (or PCs running the Menu application) exist, each must be updated individually. Installation wizards can also be launched for the KSP and NetConfig features.

Update the K-Frame Software

This software update procedure assumes your Grass Valley switcher system is fully operational with all network communications properly configured. Refer to the *Kayenne/Karrera/GV Korona Installation & Service Manual* for configuration instructions.

Back up Current Configuration and Effects Files:

1 Save your system configuration files (Eng Setup, User Setups), and your operational registers (EMEM, Macros, etc.) and other settings. You can create a Show file that contains all this information. See the K-Frame Kayenne/Karrera/GV Korona User Manual for file operations instructions.

Note: A thumb drive that includes the current Grass Valley switcher software version is a convenient location to back up these files.

2 Store the backup media in a safe place. You may want to use these files if you decide to back down to that earlier software version.

Deploy the Switcher Update Package Files and Installer:

1 Exit the Menu application and any other applications that may be running on the Menu Panel or PC.

2 Disable any virus protection, Windows firewall, and any other firewall protections that may have been installed on the Menu Panel or PC. Firewalls must be inactive to allow switcher system software installation over the network.

3 Run the K-Frame Setup application, either:

a Insert the K-Frame Software USB stick into an available port on the Menu Panel or PC. Locate the removable disk in My Computer, open **K-FrameSetup.exe**, and select **OK**,

- or -

b Download the K-FrameSetup.exe file from the Grass Valley download site, open the file, and select **OK**.

Note: If the same K-Frame Deployment Tool version files are detected, a Repair/Remove screen is displayed, allowing re-installation or removal of the Deployment files

4 Select **Next** in the K-Frame Deployment Tool window.

5 Accept the license agreement and select **Next**.

6 Select **Next** to accept the default deployment location. Alternatively, you can Browse to a different location to deploy the files. The "Ready to Install the Application" screen appears next.

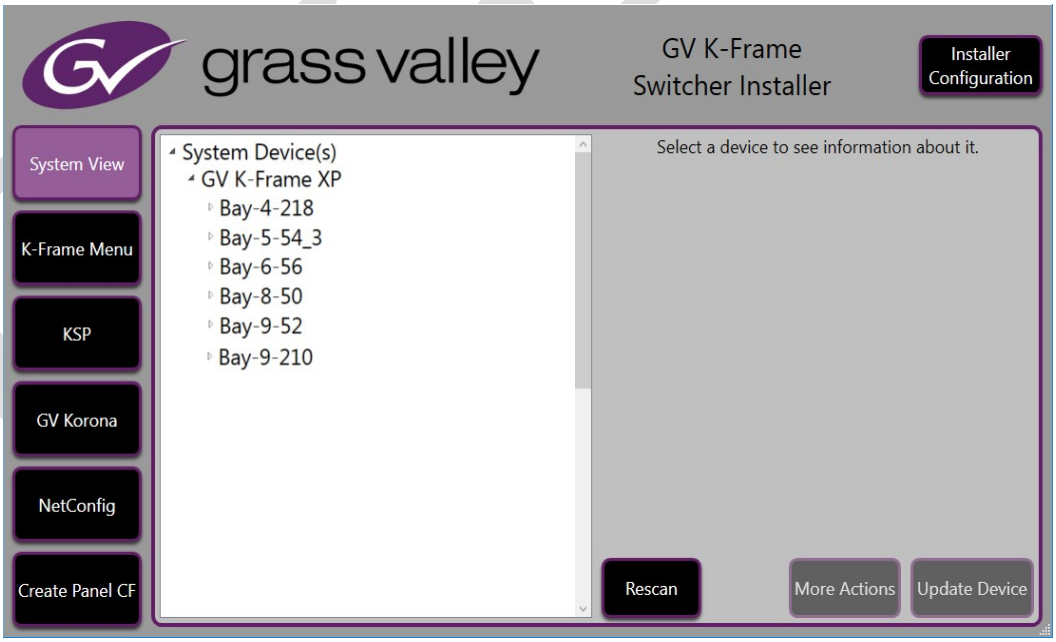
7 Select **Next** to deploy the files.

Result: When the deployment completes, the K-Frame Installer Program will launch automatically. After the switcher files have been deployed, the K-Frame Installer Program can be launched at any time by opening the **K-Frame Installer** from the desktop icon.

K-Frame Installer Program Description

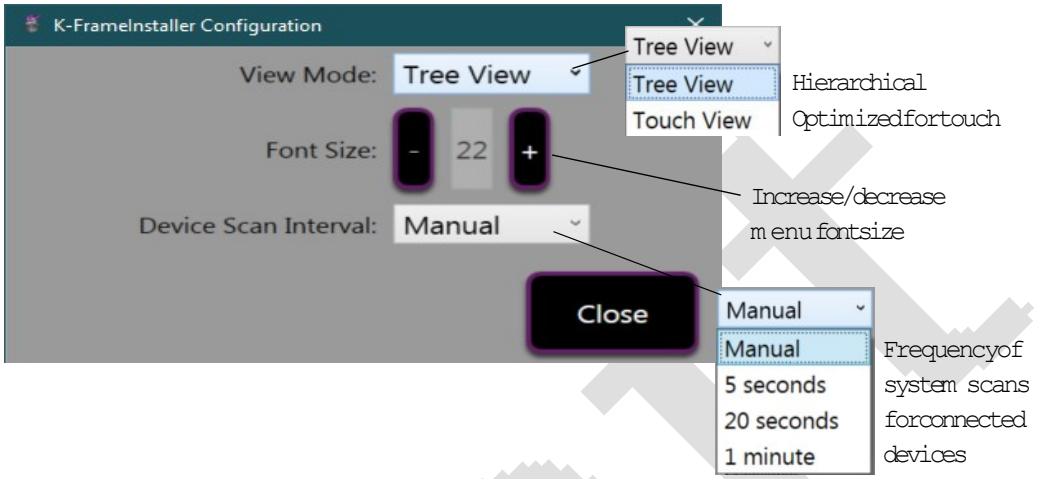
The K-Frame Installer Program menu has buttons on the left used to select various installers. Selecting the System button displays a hierarchy (Tree View) of connected devices.

Note: If a Video Processor Frame is started or rebooted, **Rescan** must be pressed to view the additional system.

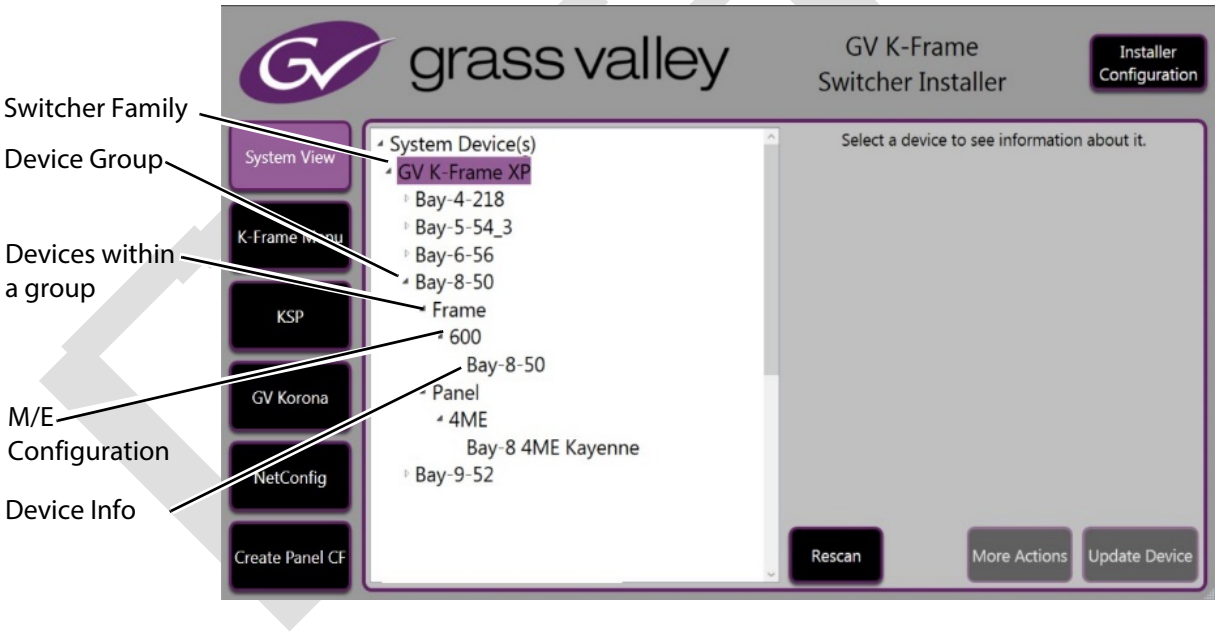


Configuring the Installer Menu

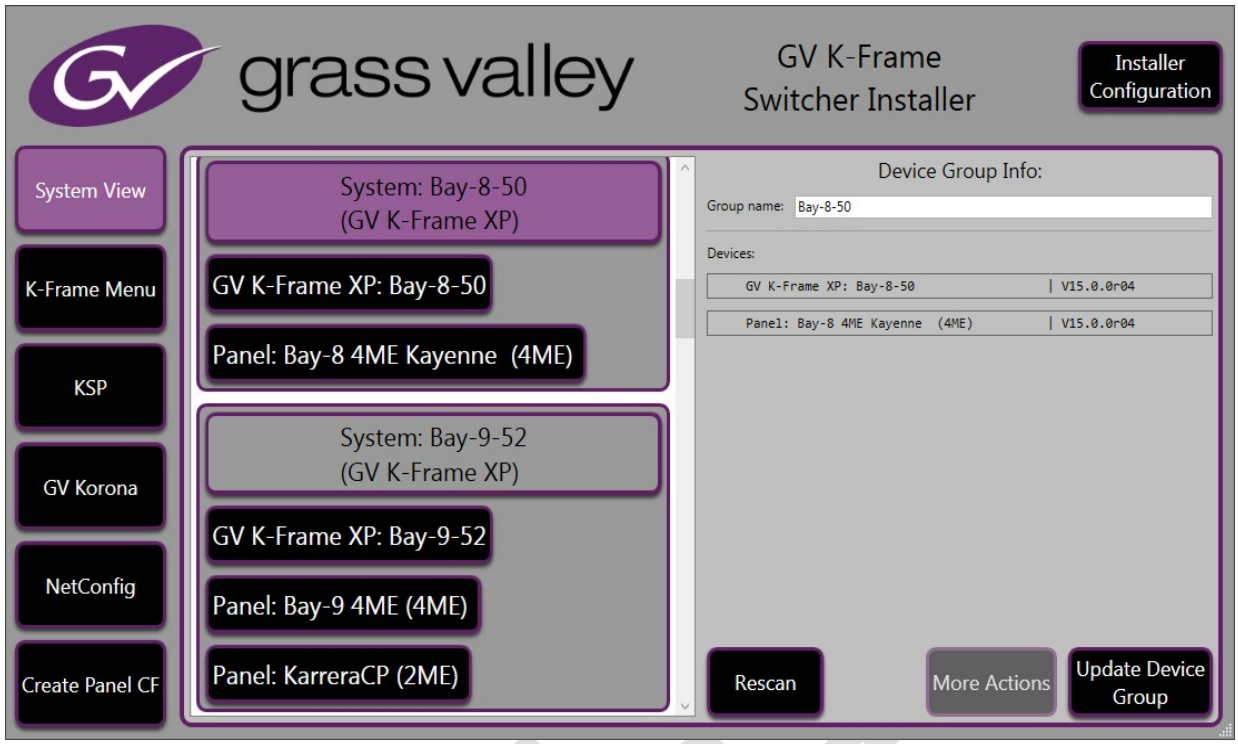
The **Installer Configuration** button (top right) is always available and provides customization of the installer menu.



When **System** is selected, a hierarchy (Tree View) or list of buttons (Touch View) is displayed showing the systems, their groups of devices on the network, and other information.



Touch View is organized by the Device Group.



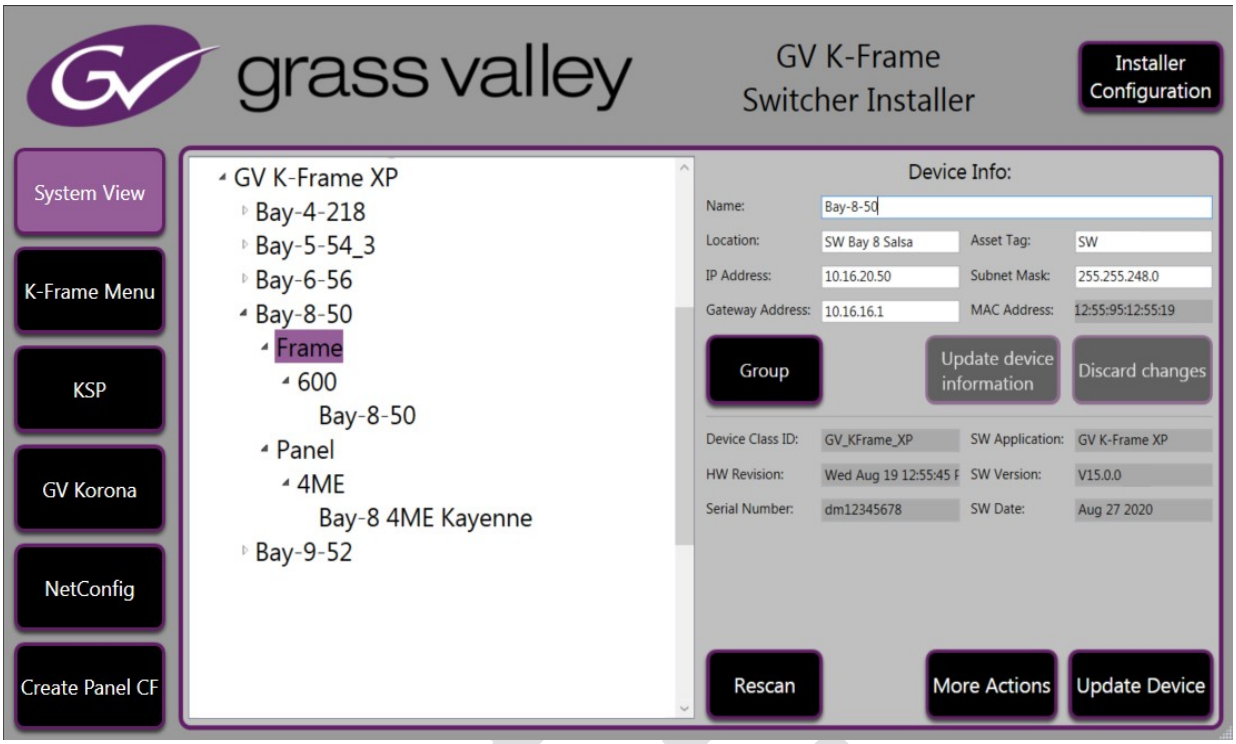
Selecting a Device Group or Device displays the Device Group/Device Info: menu (right) with configuration buttons:

Rescan—Rescan the system devices (refreshes the menu).

Update:

- **Update Device Group**—Update software for all devices in the group.
- **Update Device**—Update device software.

A group or device can be selected either in the tree/button list in the Group/Devices: list in the Device Group Info: menu (right). The Device Info: menu will be displayed (right).



Device Info can be edited in this menu. White Device info fields can be edited (gray fields cannot be edited but the text can be copied). Changes can be discarded or saved using the following buttons:

Discard changes—Deletes changes and reverts to previous configurations.

Update device information—Saves the updated device information to the Frame.

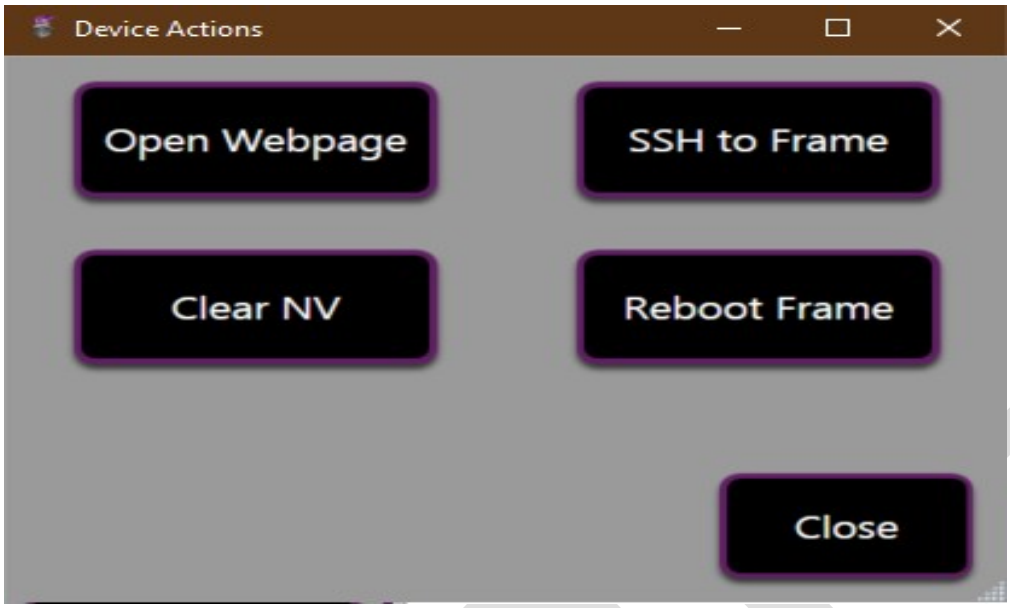
Group—Navigates to the Device Group Info: menu.

Rescan—Scans the network for devices and refreshes the menu to show the currently connected components and any modified system names.

Update Device—Update the device software.

More Actions—Provides context sensitive configuration for the selected device type:

Frame Device Actions



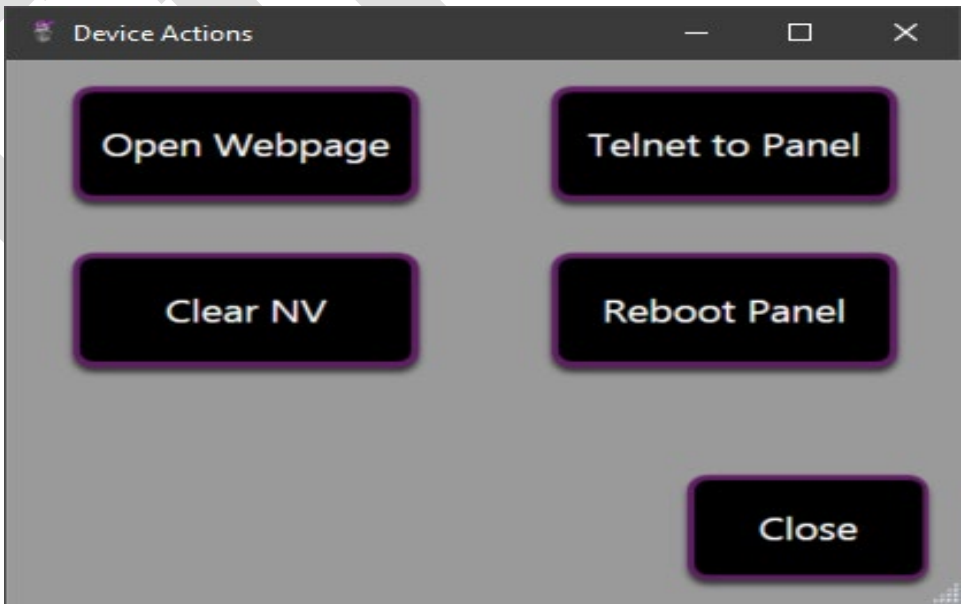
Open Webpage—Opens the device's web page using the IP Address (see the *Kayenne/Karrera/GV Korona Installation & Service Manual*).

SSH to Frame—Starts an SSH session with the Frame device (see the *Kayenne/Karrera/GV Korona Installation & Service Manual*).

Clear NV—Clears NV Memory.

Reboot Frame—Reboots the Frame.

Control Panel Device Actions



Open Webpage—Opens the device's web page using the IP Address.

Telnet to Panel—Starts a Telnet session for a Control Panel (see the *Kayenne/Karrera/GV Korona Installation & Service Manual*).

Clear NV—Clears NV Memory.

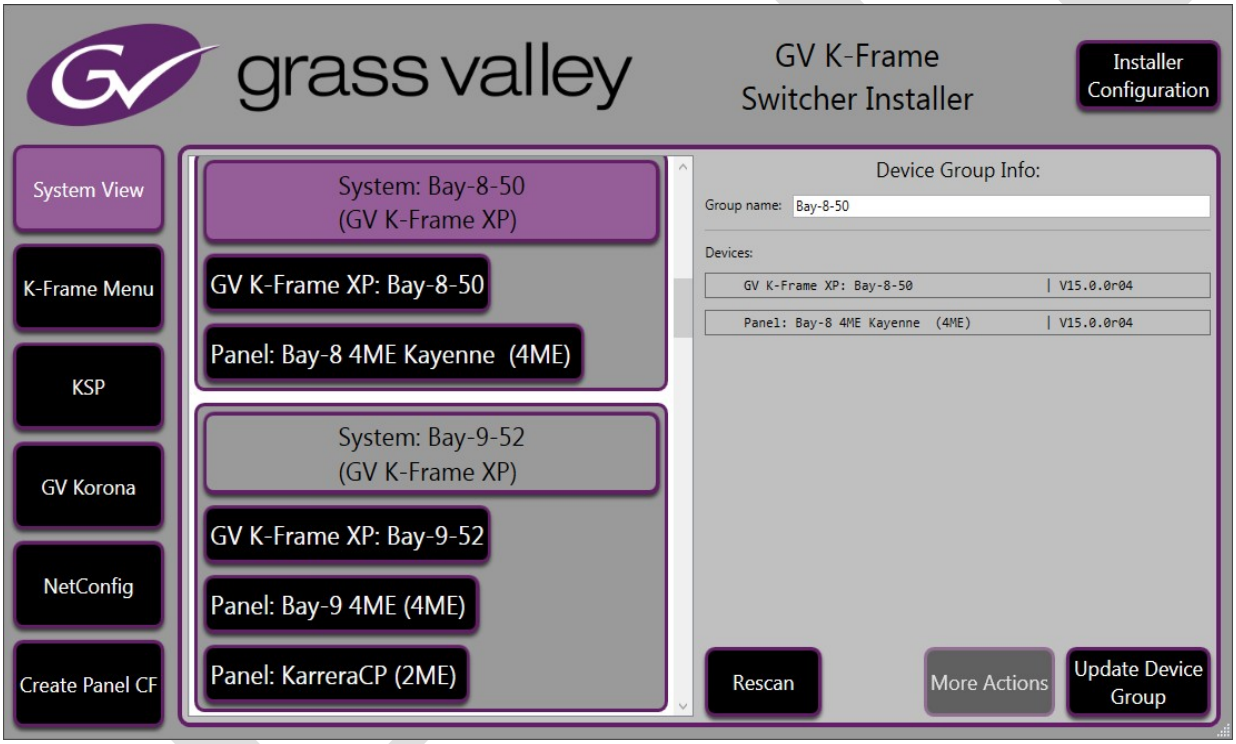
Reboot Panel—Reboots the Control Panel.

Update the K-Frame System Software

For Kayenne and Karrera, the K-Frame system's Video Processor Frame and Control Panels can be updated in one operation. The GV Korona Control Panel is updated separately from the Frame (Update the GV Korona Control Panel Software, on page 11).

1 With the K-Frame Switcher Installer Program launched, select the **System** button.

2 Select a group (or device). The **Update Device Group** button becomes active.



3 Select **Update Device Group**.

4 Select **Yes, update this device** if you agree.

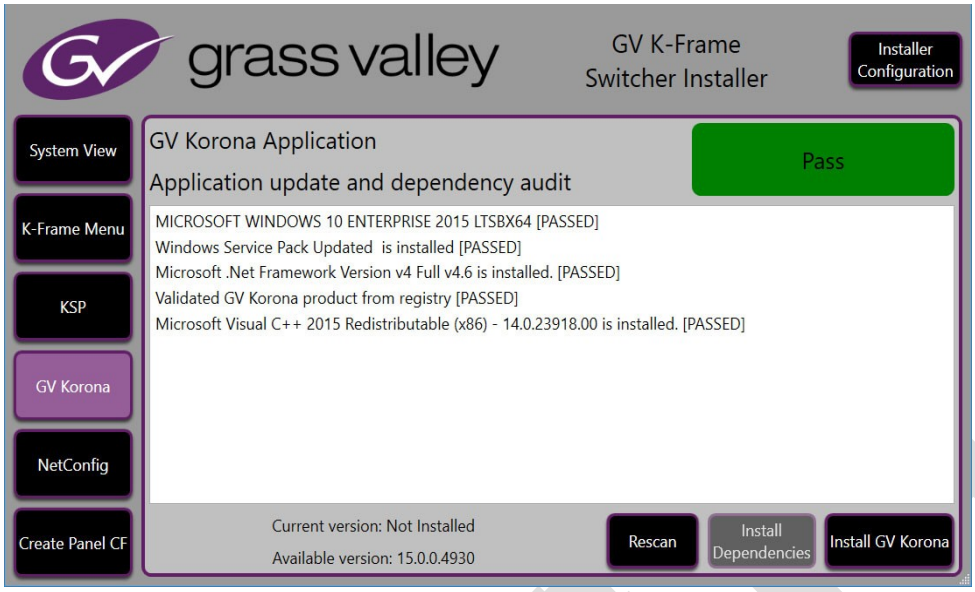
The system will reboot after the device update has been completed.

Update the GV Korona Control Panel Software

In addition to updating the GV Korona Control Panel software, third party software can be audited and dependencies updated in the GV Korona Application menu.

The **Rescan** button repeats the application dependency audit.

1 Select **GV Korona** in the GV K-Frame Switcher Installer.



2 Verify that the third-party applications have passed the audit.

3 If not, the **Install Dependencies** button will be active, select it to update the applications.

> **Note:** If there is not a GV Korona Control Panel connected to the Device Group, the **Install Dependencies** button will not be available even if the other dependencies have passed the audit.

4 Select **Install GV Korona**.

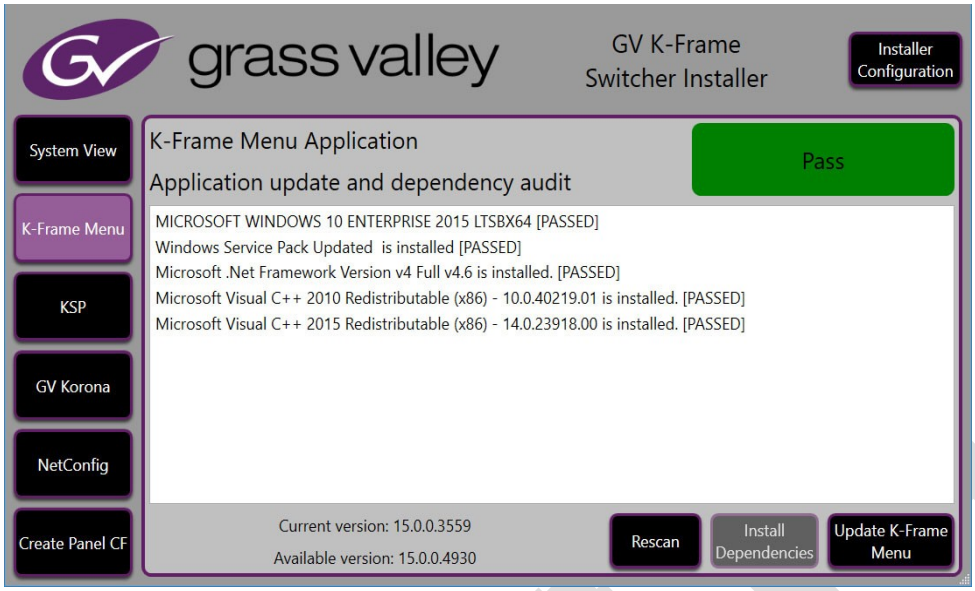
5 Select **Yes, update this device** if you agree.

Update the K-Frame Menu Software

In addition to updating the K-Frame menu software, third party software can be audited and dependencies updated in the K-Frame Soft Panel Application menu.

The **Rescan** button repeats the application dependency audit.

1 Select **K-Frame Menu** in the GV K-Frame Switcher Installer.



2 Verify that the third-party applications have passed the audit.

3 If not, the **Install Dependencies** button will be active, select it to update the applications.

4 Select **Install K-frame Menu**.

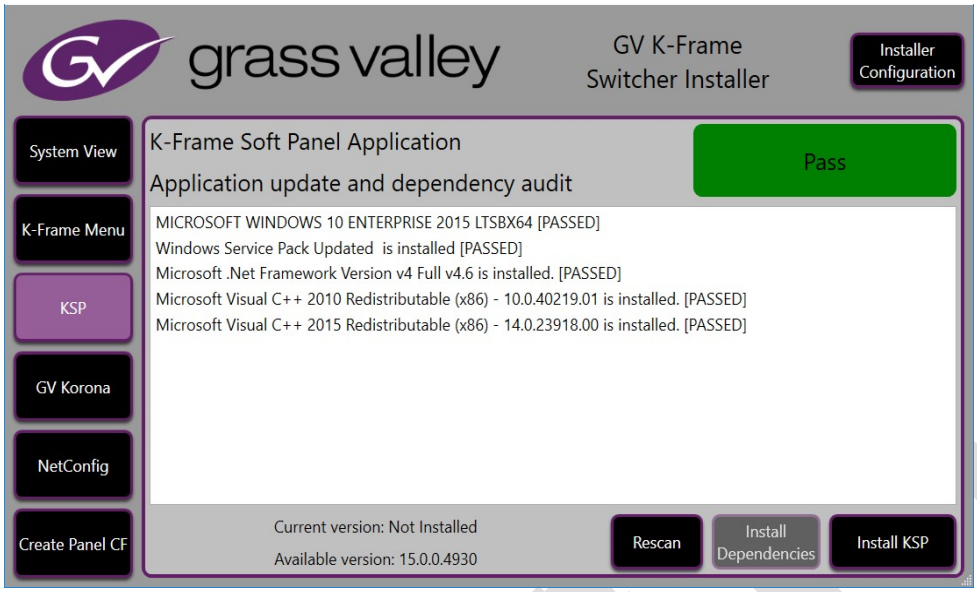
5 Select **Yes, update this device** if you agree.

Update the KSP (K-Frame Soft Panel) Software

In addition to updating the KSP software, third party software can be audited and dependencies updated in the K-Frame Soft Panel Application menu.

The **Rescan** button repeats the application dependency audit.

1 Select **KSP** in the GV K-Frame Switcher Installer.



2 Verify that the third-party applications have passed the audit.

3 If not, the **Install Dependencies** button will be active, select it to update the applications.

4 Select **Install KSP**.

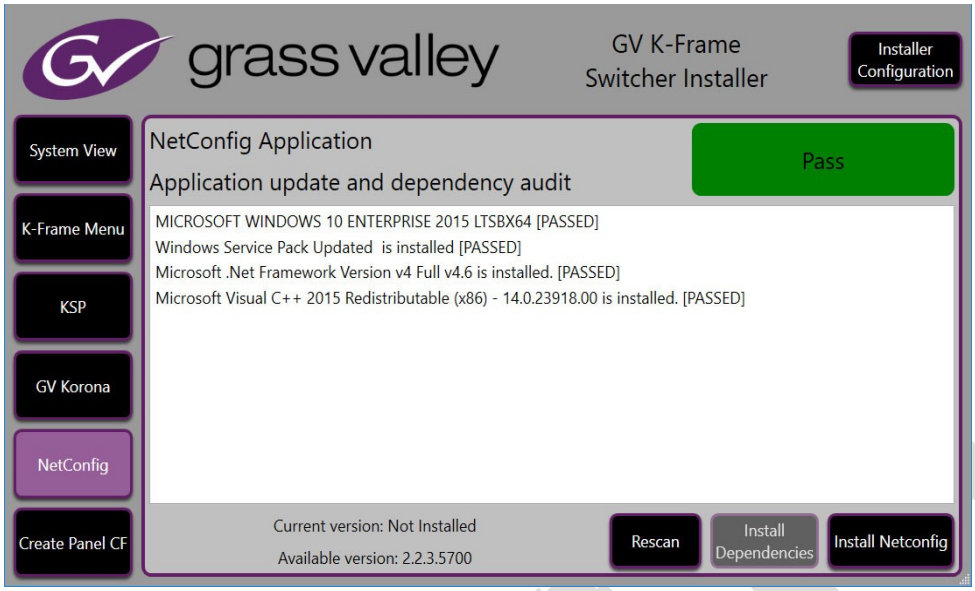
5 Select **Yes, update this device** if you agree.

Update the NetConfig Software

In addition to updating the NetConfig software, third party software can be audited and dependencies updated for the NetConfig Application menu.

The **Rescan** button repeats the application dependency audit.

1 Select **NetConfig** in the GV K-Frame Switcher Installer.



2 Verify that the third-party applications have passed the audit.

3 If not, the **Install Dependencies** button will be active, select it to update the applications.

4 Select **Install NetConfig**.

5 Select **Yes, update this device** if you agree.

Create a Control Panel Compact Flash Card

See the *Kayenne/Karrera/GV Korona Installation & Service Manual, Maintenance* section.

About Updating Spare Kayenne Control Panel Modules

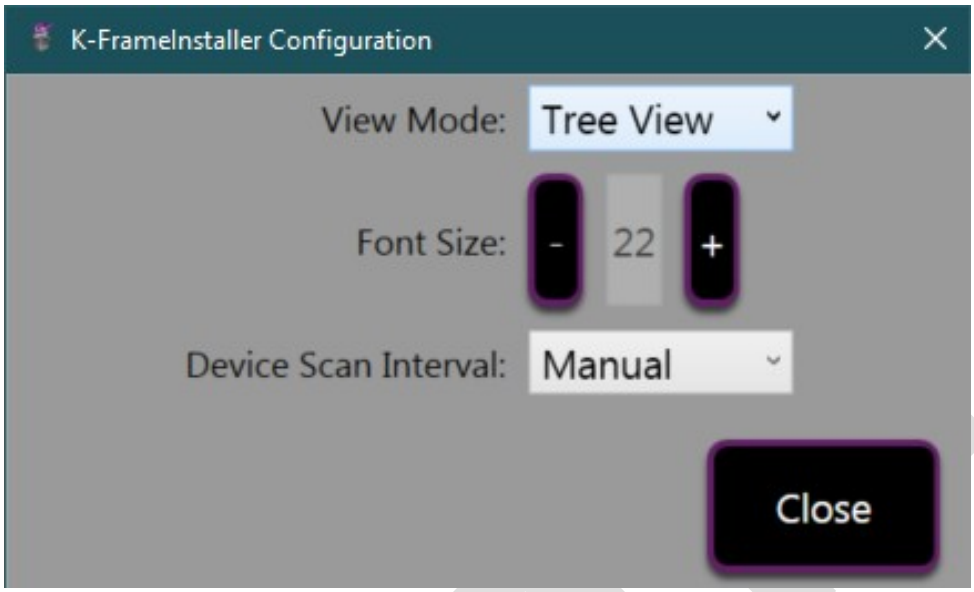
The Kayenne K-Frame Control Panel FPGAs will automatically be updated with software installation. However, spare Kayenne Control Panel Modules must be connected to the Control Panel after initial software installation and the Control Panel software re-installed so all modules are loaded with the current FPGAs and ready for use when needed.

CAUTION: Do not interrupt power to GV switcher systems during software installation; the FPGAs will revert to an older version. If power is lost during software installation, install the software once the power has been restored.

Install the Menu Panel Application Update

CAUTION: For Menu on PC, you must be logged on as administrator or the installation will fail.

1 Select the K-Frame Switcher Installer desktop icon, if necessary, to launch the K-Frame Switcher Installer Program.



2 Select the **Menu** button. The K-Frame Menu Installation tool will launch.

3 Select **Next**.

4 In either the Karrera, Kayenne, or GV Korona Control Panel area, choose either the Menu Platform (the Touch Screen Menu Panel) or User PC, and select **Next**.

5 Enter a name and organization in the User Information screen, leave the Anyone who uses this computer setting selected, and select **Next**.

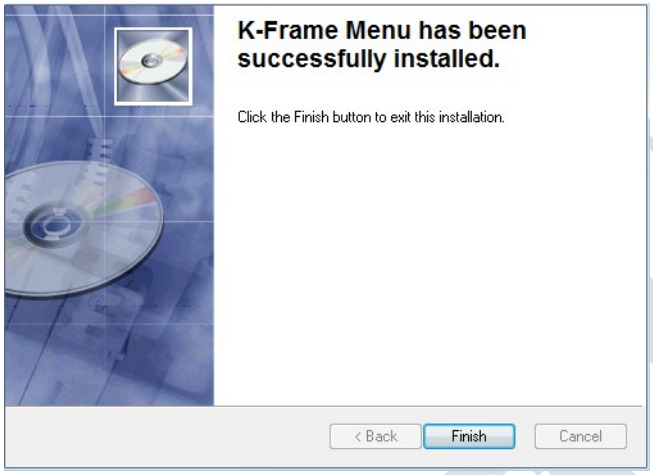
Note: Selecting Only for me limits some settings to the currently logged in user. This may be appropriate if the Menu application is installed onto a PC shared by several users. However, this is not a foolproof security method and should not be relied on for mission critical applications.

6 Select **Next** to accept the default installation location. Alternatively, you can browse to a different location to install the application.

7 In the Ready to Install the Application menu, select **Next**.

8 When done, the Menu Successfully Installed screen appears, select **Finish**.

If you installed onto Menu hardware you will be prompted to reboot the computer.



9 Select **Exit** and answer **Yes** at the prompt to exit the K-Frame Installer.

Selecting the K-Frame Menu icon launches the new version of the Menu Panel application.

Touch Screen PC Installation for KSP

The KSP (K-Frame Soft Panel) installer is intended for a customer provided touch screen PC.

Soft Panel requirements:

- The installed menu software matches the K-Frame system.
- 1920 x1080 display resolution.
- Microsoft .NET Framework 4.5 Windows 7/Windows 10.
- Microsoft Visual Studio 2010 redistributable is installed.

Prepare the Touch Screen PC for KSP

The KSP option is activated with a purchased license key.

1 Install the menu and follow the prompts (see Update the KSP (K-Frame Soft Panel) Software, on page 13).

2 Add the PC's Name and IP Address to the KSP software in the node list, in the Eng Setup, Control Surfaces menu (see *Kayenne/Karrera/GV Korona Installation & Service Manual*).

3 See the *KSP Switcher Soft Panel Graphical User Interface Instruction Manual* to configure and operate the KSP, available at www.grassvalley.com.

FPGA and Board ARM Software Upgrades

CAUTION: It is recommended that HAD FPGA Board ARM Software upgrades are performed by qualified personnel only, for example an EIC (Engineer In Charge).

About Host Address Decoder FPGA Upgrades

Each CPU or Image Store board installed in a Grass Valley K-Frame Video Processing Frame has a PCI Express endpoint for communication with the host processor. These PCI endpoints are governed by the HAD (Host Address Decoder) FPGA (Field Programmable Gate Array). Software updates can include firmware upgrades for endpoint HADs. Upgrading the HADs is recommended.

Any out of date HADs will be reported by the menu, however the HAD version match can be checked with the checkHADs command in the Console menu (*Kayenne/Karrera/GV Korona Installation & Service Manual, Maintenance)*.

About the IP I/O Board ARM Software

For GV K-Frame X and V-series Frames, each 16x8 and 8x4 Video IP I/O (8x4 only for V-series) and PTP Mezzanine board (GV K-Frame X only) require a board ARM software upgrade as part of the software installation. In most cases, the Board ARM software upgrades are automatic but there are exceptions, see the *Kayenne/Karrera/GV Korona Installation & Service Manual, Maintenance section*.

Sample Files and DPM Effects

Sample files or other elements and instructions for use are provided with an installer from the Grass Valley website. The K-Frame Sample Installer, available on the Software USB thumb drive that came with your system and from the Grass Valley website, can be used to place the K-Frame samples in the C:\K_Frame\user\Samples directory on the GV Switcher system.

> IMPORTANT: When upgrading, install the samples after the initial software upgrade.

During installation, you can choose to install all (the default) sample effects or select specific effects, reducing installation times.

Sample DPM Effects

Starting with switcher software version 11.0, sample DPM effects are provided with the K-Frame Sample Installer. It is important to read the accompanying instructions on how to load and run the sample DPM effects.

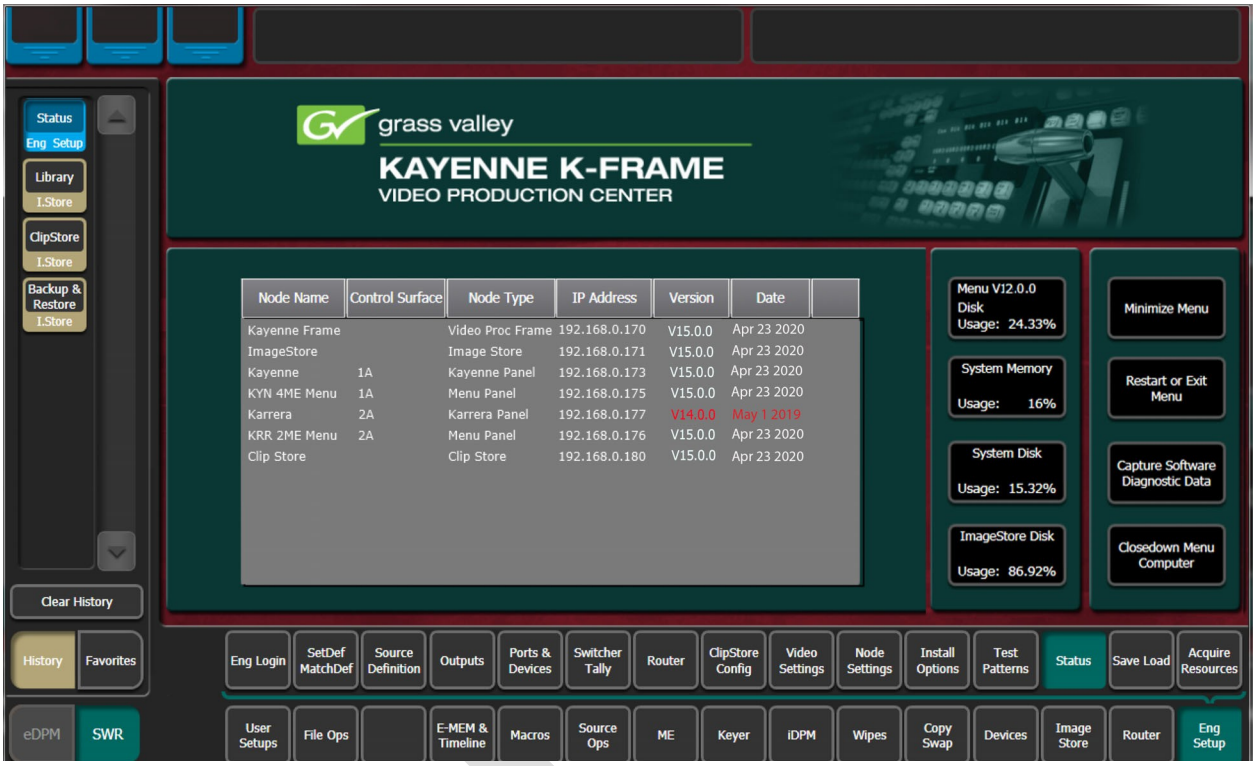
> **Note:** The C:/Images folder must be a shared folder on the network to use sample Image Store stills with sample DPM Effects.

About K-Frame V-series and S-series Samples and Effects

For K-Frame S-series and V-series Frames, samples that are built using more than four keyers will need some customization before incorporating those elements into a production.

Check Software Versions

Launch the Menu application. The Status menu lists the switcher system devices. Ensure all the components are running the same software version. Mismatched versions will be reported with red text.



Confirm System Operation

1 Verify that all the installed MEs are operational. Select different crosspoints on the Control Panel and fly a key with an iDPM.

2 Ensure that any software enabled options operate correctly. Existing authorization codes should work with the new software.

3 Check that EMEMs run properly:

- Older effects should work with the new software. If there are differences, however,you will need to edit or rebuild the effect with the new software version.
- If older effects use iDPMs, it may require that you load, update, and save the show (see the *K-Frame User Manual* for more information).

4 Reload the Macros and check that they operate correctly.

5 Load some Image Store images and confirm they display correctly.

Back up New Configuration and Effects Files

1. When you are satisfied with system operation, save the new configuration files and effects as a Show file to a folder you've created on that version's K-Frame Software USB stick.
2. Label the media with the version and date and store it in a safe place.
3. Reactivate any virus protection on the Menu panel that may have been disabled at the start of this procedure.

This completes the standard switcher system software update procedure.

Update Other Grass Valley Switcher Systems Software

More than one switcher system (multiple Video Processor Frames) may reside on your network. Each system can operate simultaneously with different software versions, as long as all the components in each system run the same software version.

Additional switcher systems are updated using the same procedure as described.

1. Select the other switcher system on the K-Frame Installer Program System hierarchy screen, and choose Update All.
2. Insert the K-Frame Software USB stick into each Menu Panel or PC associated with that switcher system and choose the Menu software update button.

Individual Switcher System Component Update

Individual components can be selected for update (just the Video Processor Frame, optional Image Store, or just one Control Panel). However, all components of a switcher system must run the same software version. If updating components individually, make sure they all are at the same version before resuming K-Frame system operation.

CAUTION: Allow the Video Processor Frame and optional Image Store to completely finish rebooting before attempting to install Control Panel software. The Control Panel update process requires the Frame to be operational.

K-Frame Software Removal With Windows OS

K-Frame Deployment Tool versions and Menu Panel programs can be removed using standard Windows techniques (Setup/Add or Remove Programs/Uninstall or Change Programs, etc.).

Deployment Archive Files

When new software versions are installed with the K-Frame Deployment tool, older version deployment files are not automatically removed. Each K-Frame deployment creates its own software version folder. If the default installation location, or the same alternative destination, is always chosen, all the version folders will be listed together.

Note: All the components of a switcher system must run the same software version. If you want to return to an earlier version of software, you should back-down the software on the Video Processor Frame, all Control Panels, and all Menu Panel applications used with that switcher system.

Default destinations:

- C:\Program Files (x86)\Grass Valley\GV Switcher\ K_Frame_Switcher_VX.X for 32-bit
- C:\Program Files\Grass Valley\GV Switcher\ K_Frame_Switcher_VX.X for 64-bit systems.

Running the K_FrameInstaller.exe file in any version's folder will permit installation of that version's files.

CAUTION: Before installing an older version of the Menu Panel application, you must first remove the newer, currently installed Menu Panel version, either using that newer version's K-Frame Deploy Tool or Windows Add or remove programs.

Calibrate the Lever Arm and Joystick

See the Maintenance section of the *Kayenne/Karrera/GV Korona Installation & Service Manual*.

K-Frame System Suggested IP Addresses

K-Frame systems are shipped with default IP addresses, and it is suggested that you reserve several IP Address in sequence to configure Control Panel suites and additional devices. These default addresses can be used if the K-Frame system is operating on a dedicated network with no other devices present.

Note that these addresses can be changed during installation so your system may not be using these defaults.

K-Frame System Default IP Addresses

Device	IP Address
Video Processor Frame	192.168.0.170
Image Store	192.168.0.171
Control Panel Suite 1A	192.168.0.173
Touch Screen Menu Panel 1	192.168.0.175
ClipStore	192.168.0.180
All Subnet Masks)	255.255.255.0
All Gateways (except V1.6.5 software Remote Aux panel)	192.168.0.1
Reserved For Future Use	CAUTION: Do not connect any devices configured with the following IP addresses to a Karrera network.

K-Frame System Default IP Addresses

Device	IP Address
Video Processor Frame Gigabit Ethernet	192.168.0.172
PCU Panel (Kayenne) Reserved LAN Port	192.168.0.174

Note: Customer orders with multiple Control Panels will be pre-configured to the listed IP addresses. However, if one of these additional Control Panels is reset to factory defaults, it will be given the standard 1A default 192.168.0.173 address.

IP Addresses and Single Control Surface Systems

A new Grass Valley system will operate on an isolated network with the default IP addresses configured at the factory (except for 32 Crosspoint Remote Aux panels). However, if you wish to integrate the system into an existing network, wish to use gateway communications, or wish to add more control surface components, then the IP addresses may need to be changed.

IP Addresses and Multiple Control Surfaces and Suites

If you plan to use multiple control surfaces (for example, more than one Control Panel or more than one Menu Panel) with the same Video Processor frame, you must make sure the IP addresses of the additional items are unique before connecting them to the network. Using default IP addresses will cause network conflicts and unpredictable system operation. See the *Kayenne/Karrera/GV Korona Installation & Service Manual* for network configuration information.

Contact Us

Grass Valley Technical Support

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

To obtain a local phone number for the support center nearest you, 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.

Corporate Head Office

Grass Valley
3499 Douglas-B.-Floreani
St-Laurent, Quebec H4S 2C6
Canada
Telephone: +1 514 333 1772
Fax: +1 514 333 9828
www.grassvalley.com