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KAYENNE/KARRERA/ GV KORONA

K-FRAME VIDEO PRODUCTION CENTER

Release Notes

VERSION 14.4

071896501-AM

2019-06-13

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K-Frame 14.4 Release Notes

About this Manual

This document describes the new features and other information specific to the K-Frame Video Production Center, Version 14.4 switcher software for the Kayenne, Karrera, and GV Korona systems.

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.

GV K-Frame X/V-series Downgrade Instructions

Contact Customer Support for assistance before downgrading GV Krame X or V-series systems from software version 14.4 (Grass Valley Technical Support, on page 39).

New in this Release

- 25G SFP support—Dual use 10Gb/s/25G SFPs: 10GbE/25GbE IP I/O Boards, on page 2
- IP Board stream configuration—Board configuration for 2/1, 4/2, and 8/4 inputs and outputs plus bulk configuration and export/import bulk configuration spreadsheet support: IP Board Streaming Configurations, on page 2
- Multiple Macros—run up to 5 macros simultaneously from each player group: About Multiple Macros, on page 11
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10GbE/25GbE IP I/O Boards

Compatible with the GV K-Frame X and V-series systems, IP boards equipped with the dual-use 10GbE/25GbE SFPs allow for more bandwidth through fewer SFPs and fiber connections.

> IMPORTANT: Each IP board with Dual-use SFPs must be configured as either all 10GbE or all 25GbE, however the boards can be mixed within the Frame.

Supported SFP Module Types

The following SFP modules are supported for the GV K-Frame X and V-series Video IP I/O boards, available from Grass Valley, A Belden Brand:

- SFP-ETH10G-RT-M85-LC
- K-FRM-IO-SFP10-25G

Hot Swappable IP I/O Boards and SFPs

IP I/O boards are hot swappable. SFPs are hot swappable on each board, provided the SFP modules are all of the same (supported) type. Swapping an SFP module on a board requires that the new module be identical to the one being replaced.

IP Board Streaming Configurations

IP Board Configuration has been added to the *GV K-Frame X* and *V-series* Video Production systems. Each dual-use SFP can be configured to stream video signals in three input/output modes: 2/1, 4/2, or 8/4, depending on video format and the IP board SFP configuration as 10GbE or 25GbE.

Format Streaming Speeds

Speeds are approximate:

- 720p ST 2110-20: 1.3Gb/s
- 1080i/1080sf ST 2110-20: 1.3Gb/s
- 1080i/1080sf ST 2022-6: 1.5Gb/s
- 1080p-A ST 2110-20: 2.6Gb/s
- 1080p-A ST 2022-6: 3.1Gb/s
- TICO Compressed 4K ST 2022-6: 3.1Gb/s

SFP Input/Output Mode Configuration

Determine the minimum SFP board speed and supported input/output mode options:

- 2 inputs/1 output—SFP in each port
- 4 inputs/2 outputs—SFP in every other port, or
- 8 inputs/4 outputs—SFP for every four ports.

IP Board SFP Speed and Input/Output Calculation Examples

Image Format	SMPTE	Format Speed Gb/s	Board SFP Speed (Gb/s)		Band-width used Gb/s
			10GbE	25GbE	
720p 59.94Hz 1080i 29.97Hz 1080sf 29.97Hz	ST 2110-20 ST 2022-6	1.3 1.5	2 inputs/1 output	2 inputs/1 output	2.6/3.1
			4 inputs/2 outputs	4 inputs/2 outputs	5.2/6.2
			N/A	8 inputs/4 outputs	10.4/12.4
1080p 59.94Hz	ST 2110-20	2.6	2 input/1 outputs	2 input/1 outputs	5.2
			N/A	4 inputs/2 outputs	10.4
			N/A	8 inputs/4 outputs	20.8
1080p 59.94Hz	ST 2022-6	3.1	2 input/1 outputs	2 input/1 outputs	6.2
			N/A	4 inputs/2 outputs	12.4
			N/A	N/A	N/A
4K 59.94Hz	ST 2022-6 TICO[a] Compressed	3.1	2 input/1 outputs	2 input/1 outputs	3.1
			4 inputs/2 outputs	4 inputs/2 outputs	3.1
			8 inputs/4 outputs	8 inputs/4 outputs	6.2

a. TICO is a compressed stream format that expands to four uncompressed streams internally. Therefore, only one out of the four inputs is used while the other three are ignored.

Troubleshooting

When the Frame IP Address is entered into a browser, the IP SFP Statistics web page provides useful data for determining if the bandwidth for an SFP has been exceeded in relation to the image format speed (Gb/s), Board SFP Speed (Gb/s), and Streams/SFPs mode selected (e.g. 4 inputs/2 outputs, 8 inputs, 2 outputs).

> CAUTION: Exceeding the SFP bandwidth will result in a signal loss for the associated SFP ports.

Additionally, it can be determined if an SFP is passing video; if an SFP is configured and the Gb/s throughput column displays a number lower than the configured SFP speed, there may be an issue with the SFP module or the bandwidth has been exceeded.

Open the GV K-Frame Web Access pages by entering the Frame IP Address into a browser on the system network and selecting **IP SFP Statistics** on the left.

In the example, the SFP Stream mode type is 8 inputs/4 outputs and the Rx Throughput is over 10Gb/s, requiring a 25Gb/s SFP IP board configuration. The image format speed coupled with the 8/4 mode selection requires 25Gb/s of bandwidth. The Link Speed (Gb/s) column (second from the right) shows that the IP board SFPs are configured as 25Gb/s.

> **Note:** The Phy Link/Lock Status column has been added (far right) to the SFP Statistics Web Access page. If the status is "Up", the Ethernet link is up and locked, the speed is matched between the switcher and the external device, and it is working properly. If the status is "Down", there is either an issue with the link connection or a mis-match of Ethernet link speed.

GV K-Frame X Web Access

Software Versions
Frame Status
Frame Message Log
Frame Network Address
Frame Date & Time
Frame Description
SNMP Configuration
IP SFP Statistics
IP Video Input
IP Video Output
IP Audio Input
IP Audio Output
IP Ancillary Input
IP Ancillary Output
PTP Mezz

Board
16x8 IO IP 7
Reset Packet Counts
Refresh Page

SFP	MAC Address	Rx Throughput (Gb/s)	Rx PacketCount	Rx ErrorCount	Tx Throughput (Gb/s)	Tx PacketCount	Tx ErrorCount	Link Speed (Gb/s)	Phy Link/Lock Status
8B	00:50:1e:05:83:d2	0.000000	0	0	2.632212	872062508	0	25	DOWN

SFP	MAC Address	Rx Throughput (Gb/s)	Rx PacketCount	Rx ErrorCount	Tx Throughput (Gb/s)	Tx PacketCount	Tx ErrorCount	Link Speed (Gb/s)	Phy Link/Lock Status
1A	00:50:1e:05:84:43	5.260740	2599744532	0	2.628824	1300323794	0	10	UP
1B	00:50:1e:05:84:44	0.000000	0	0	0.000000	0	0	10	DOWN
2A	00:50:1e:05:84:45	5.284256	2669951375	0	2.629657	1300424818	0	10	UP
2B	00:50:1e:05:84:46	0.000000	0	0	0.000000	0	0	10	DOWN
3A	00:50:1e:05:84:47	5.262852	2600894330	0	2.629889	1300404677	0	10	UP
3B	00:50:1e:05:84:48	0.000000	0	0	0.000000	0	0	10	DOWN
4A	00:50:1e:05:84:49	5.283578	2670432109	0	2.629325	1300415462	0	10	UP
4B	00:50:1e:05:84:4a	0.000000	0	0	0.000000	0	0	10	DOWN
5A	00:50:1e:05:84:4b	5.261707	2600936655	0	2.629319	1300425785	0	10	UP
5B	00:50:1e:05:84:4c	0.000000	0	0	0.000000	0	0	10	DOWN
6A	00:50:1e:05:84:4d	5.283172	2670472106	0	2.629114	1300433735	0	10	UP
6B	00:50:1e:05:84:4e	0.000000	0	0	0.000000	0	0	10	DOWN
7A	00:50:1e:05:84:4f	5.261334	2601030196	0	2.629126	1300475893	0	10	UP
7B	00:50:1e:05:84:50	0.000000	0	0	0.000000	0	0	10	DOWN
8A	00:50:1e:05:84:51	5.283193	2671058798	0	2.629128	1300479970	0	10	UP
8B	00:50:1e:05:84:52	0.000000	0	0	0.000000	1	0	10	DOWN

SFP	MAC Address	Rx Throughput (Gb/s)	Rx PacketCount	Rx ErrorCount	Tx Throughput (Gb/s)	Tx PacketCount	Tx ErrorCount	Link Speed (Gb/s)	Phy Link/Lock Status

IP/IO Config Menu

SFPs are configured in the Eng Setup, Video I/O, IP I/O Config menu.
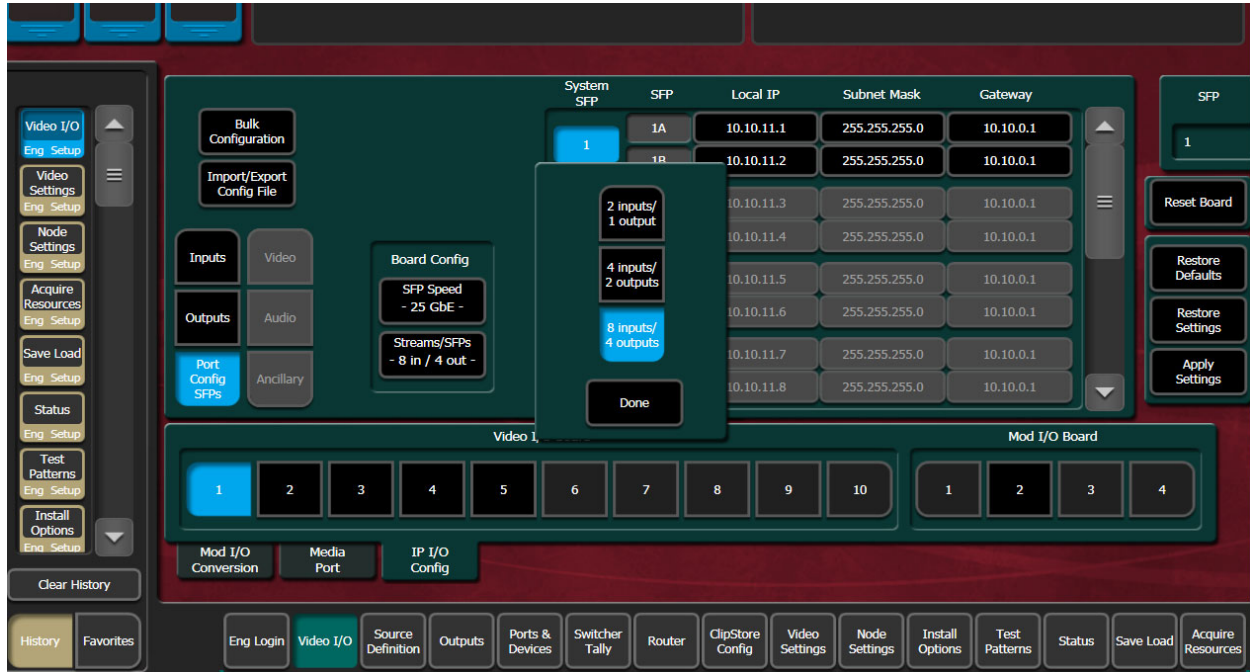
Button descriptions are added to the Port Config SFPs Menu Buttons and Data Pads table.

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Port Config SFPs Menu Buttons and Data Pads

Menu	Button/Label	Description
Port Config SFPs	SFP Speed	Select configured dual-use SFP speed of selected board: 10GbE or 25GbE
	Streams/SFP	Select to choose input/output configuration buttons: • 2 inputs/1 output, • 4 inputs/2 outputs, or • 8 inputs/4 outputs
	System SFP	Displays the SFP selection/search result
	SFP (label)	Physical SFP, the "B" SFP is used for I/O Redundancy Mode
	Local IP	IP Address for the Frame to transmit/receive external device data over the network
	Subnet mask	Facility Subnet Mask Address
	Gateway	Facility Gateway Address

Configure the IP Board SFPs

> IMPORTANT: Each IP board with Dual-use SFPs must be configured as either all 10GbE or all 25GbE streaming speed, however the boards can be mixed within the Frame.

1 Select **Eng Setup**, **Video I/O**, **IP I/O Config** in the switcher menu.
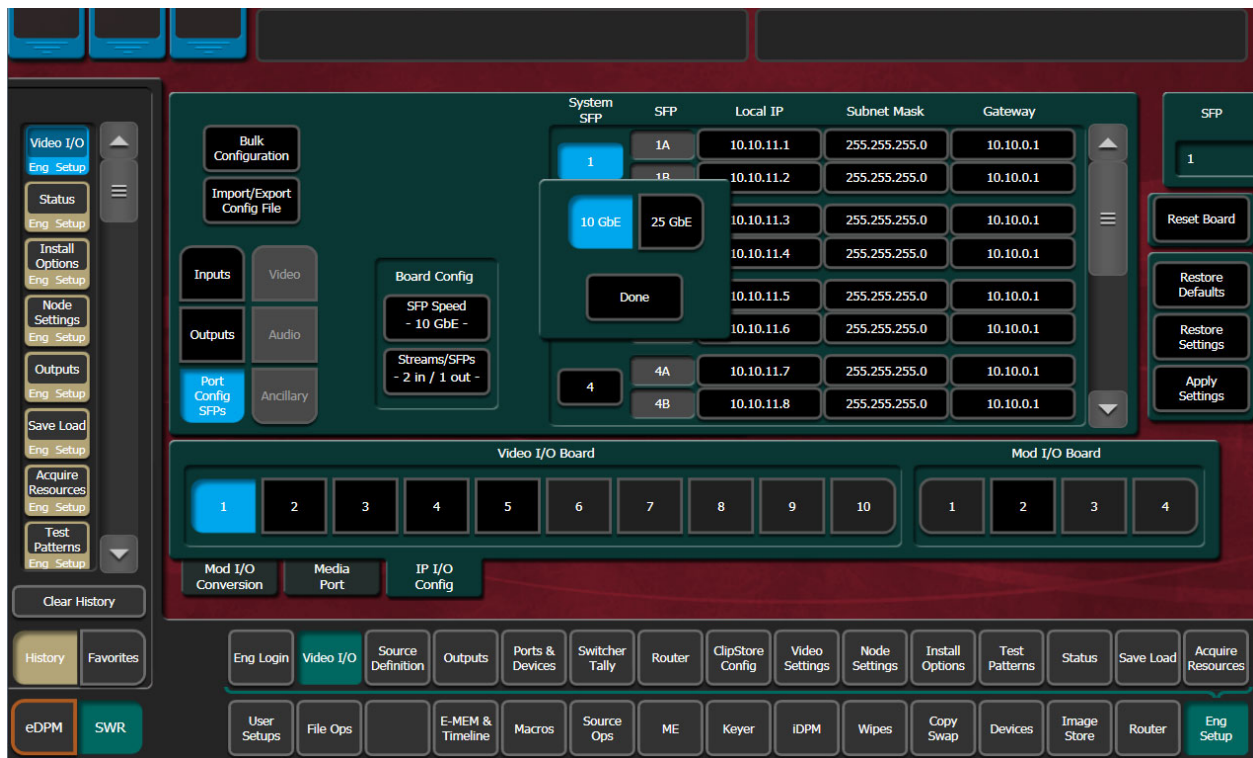
2 Select the **Port Config SFPs** button (below Inputs and Outputs).

3 Select a board from the Video I/O Board or Mod I/O Board (GV K-Frame X) or Video I/O Board (V-series) button row.

4 In the Board Config button pane, select the **SFP Speed** button, choose the configured SFP speed for the IP board **10GbE** or **25GbE**, and select **Done**.

5 Select the **Streams/SFPs in/out** button and make a selection (SFP Input/Output Mode Configuration), select **Done**.

6 Select **Apply Settings**.

> Note: When the Apply Settings button is selected in the Port Config SFPs menu, the settings for Inputs, Outputs, and SFPs (Video, Audio, and Ancillary) are applied. Only the changes are sent to the Frame.

If you are attempting to set the IP board to 25GbE and you have 10Gb/s only SFPs, the system will report an error but still attempt to run at the 25Gb/s speed.

Board Bulk Configuration

Bulk Configuration has been updated to include Board Bulk Configuration.
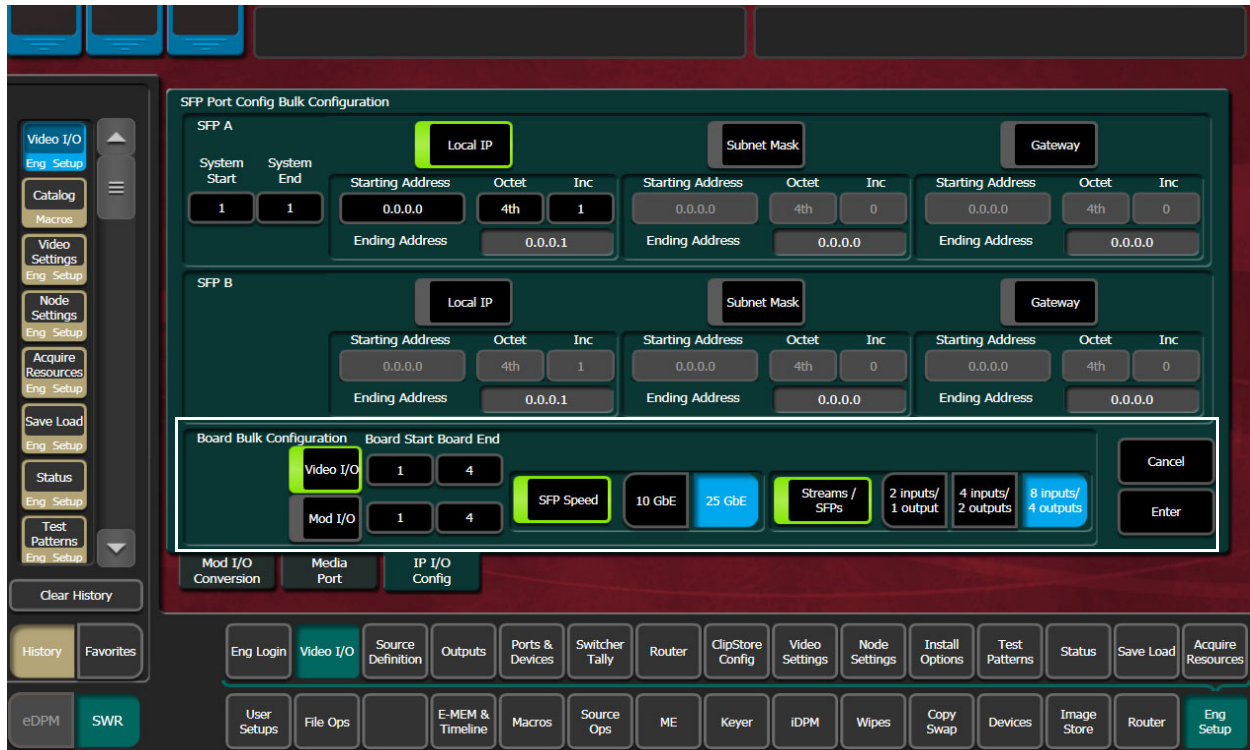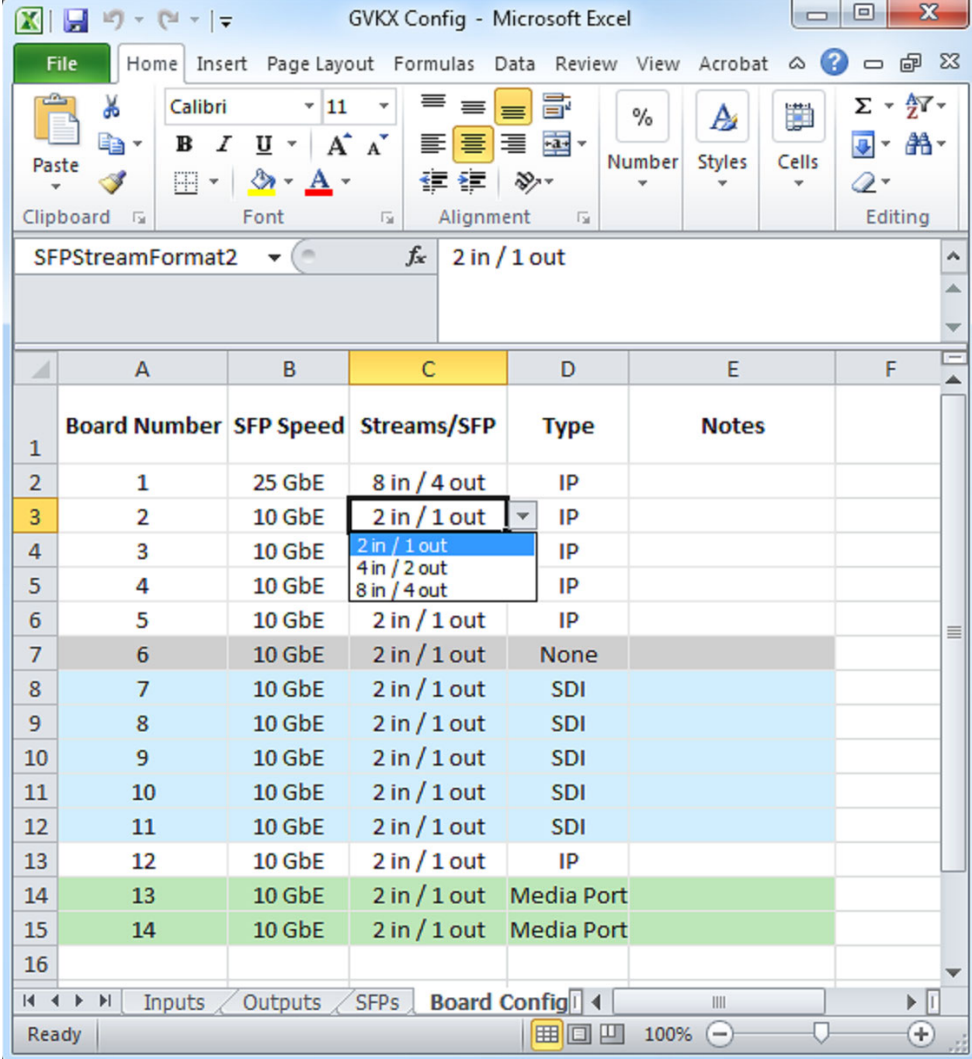
Configure Boards in Bulk

1 Select **Eng Setup**, **Video I/O**, **IP I/O Config.**

2 Select **Port Config SFPs**, **Bulk Configuration** to display the SFP Port Config Bulk Configuration menu.

3 In the Board Bulk Configuration menu, enable the **Video I/O** or **Mod I/O** button (GV K-Frame X only).

4 Select the **Board Start**/**Board End** button and enter the board in the **Video I/O Board Start**/**Video I/O Board End** pop-up keypad.

5 Based on the configured throughput speed of the SFPs installed, enable the **SFP Speed** button and select **10GbE** or **25GbE**.

6 Enable the **Streams/SFPs** button and select: (SFP Input/Output Mode Configuration)

   • **2 inputs/1 output**,

   • **4 inputs/2 outputs**, or

   • **8 inputs/4 outputs**.

7 Select **Enter**.

About Board Bulk Configuration and the Import/Export Config File

The Board Config tab has been added to the Import/Export Config File generated spreadsheet (see the *Kayenne/Karrera/GV Korona Installation & Service Manual* for configuration information).

Drop down lists are provided to make selections in each cell for the SFP Speed, Streams/SFP, and Type columns. Row color will reflect the changes. The Input and Output tabs will be updated accordingly.

In the Inputs and Outputs tabs, the SFP Number column will reflect the Streams/SFP configuration in the Board Config tab. For example, with a board configured as 8 inputs/4 outputs, then board inputs 1-8 will be on SFP Number 1 and board inputs 9-16 will be on SFP Number 5.

Timing Window Status

IP and SDI video signal Timing Window status is provided in the Eng Setup, Video Settings, Timing menu:

- Left Red—Outside the *minimum* timing window
- Center Green—Within the timing window
- Right Red—Outside the *maximum* timing window

See the *Kayenne/Karrera/GV Korona Installation & Service Manual* for K-Frame System Timing specifications, Configuration, and Troubleshooting sections.

About Multiple Macros

Macro Player Groups

The Multiple Macro feature allows you to run up to five macros at once, in each of four macro groups, per suite. The four macro player groups are:

- GPI,
- E-MEM,
- CS B (Control Surface B), and
- CS A (Control Surface A).

Macro User Pause

A User Pause can be recorded into a macro similar to a delay. Paused macros require a user action to resume the macro (Resuming a Paused Macro, Learn a Run From Pause E-MEM Command, and Macro Control Menu).

GPIs

GPIs are configured to run macros in the User Setups, Suite Prefs, GPIs menu. GPIs can run, stop, or resume up to five macros per suite (Macro Control Menu).

> **Note:** Unlike Control Surfaces A and B and E-MEM macro player groups, GPIs only run or resume paused macros associated with the GPI Input.

E-MEM

Up to five macros can be run from E-MEM simultaneously, per suite (Macro Control Menu). Macro in E-MEM is configured in the Macros, Catalog menu. There are two E-MEM functions: *Run From Pause* and *Select*. A "Run From Pause" command (Learn a Run From Pause E-MEM Command) can be added to an E-MEM to resume a User Pause in a macro. The Select feature starts the macro from the beginning, regardless if it is paused or stopped.

Multiple Macro Operations

The Control Panel and Menu are part of the Control Surface. Run, pause (User Pause), resume, or stop up to five macros from each player group from the Control Surface.

Macro User Pauses can be inserted from the Control Panel or menu.

Control Panel

The Control Panel will show status for macros that are either running or paused. Buttons delegated to macros or macro attachments will tally the defined macro color when stopped, orange when running, or purple when the macro is paused. See the *Kayenne/Karrera/GV Korona User Manual* for operations information.

Control Surfaces

There are two Control Surfaces in a suite; CS A (Control Surface A) and CS B (Control Surface B). Up to five macros can be run concurrently from each control surface macro player group. Pressing a button with a macro register delegated or attached:

- Plays a stopped macro,
- Stops a running macro, or
- Resumes a paused macro.

Macros run from one control surface can also be controlled from the other, for example:

- A macro run from CS A can be stopped by pressing a macro button with the same macro register delegated or attached on CS B, and vice versa.
- A macro run from CS B with a User Pause can be resumed by pressing a button with the same macro register delegated or attached on CS A, and vice versa.

Attached Macros

Attached macros each run one macro at a time, even with multiple attachments (pre-attached, attached, post-attached). Macro attachments are queued and play in order (*this is the only instance when macros are queued*).

Insert a Macro User Pause from the Control Panel

The Macro User Pause is part of the Insert Delay feature. A press of the USER button in the Source Select Module inserts the User Pause during the macro recording process. When the macro is run, it will pause and must be manually resumed (the macro is considered running when paused, not stopped).
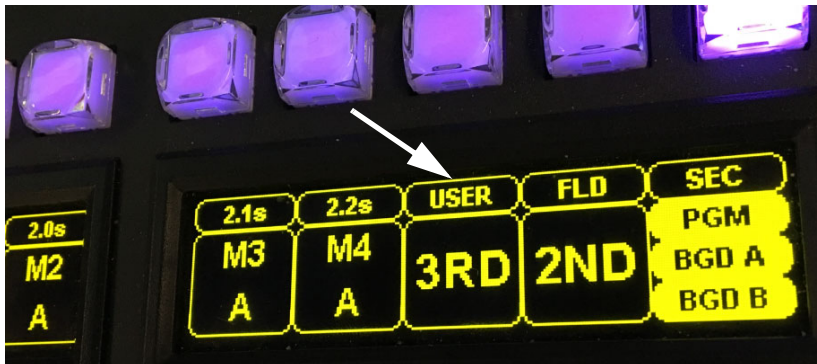
Control Panel Macro USER Button in Macro Delegation

Kayenne Control Panel

1 Press the **Rec** button.

2 Press the **Macro** button on the right side of the Source Select module to delegate the module.

3 Press a macro delegated button to start recording.

4 Perform any actions to be recorded as part of the macro before inserting the User Pause.

5 Press **Insert Delay**.

Result: **USER** is displayed in the source select OLED, third button from the right.

6   Press **USER** to insert a User Pause.

7   If desired, perform any additional actions to be recorded.

8   Press the **Rec** button again to stop the recording.

9   Run the macro.

Result: Any Control Panel button associated with the running macro will tally purple indicating the User Pause.

10   Press any purple tallied button to resume.

Result: Once completed, the macro button high tallies the macro color.

Karrera Control Panel

1   Press the **Macro Ctrl** button in the Delegation button row above of the Source Select module.

2   Press the **Rec** button.

3   Press the **Macro** button on the right side of the Source Select module to delegate the module.

4   Press a macro delegated button to start recording.

5   Perform any actions to be recorded as part of the macro before inserting the User Pause.

6   Press **Insert Delay**.

Result: **USER** is displayed in the source select OLED, third button from the right.

7   Press **USER**, and if desired, perform any additional actions to be recorded.

8   Press the **Rec** button again to stop the recording.

9   Run the macro.

Result: Any Control Panel button associated with the running macro will tally purple indicating the User Pause.

10   Press any purple tallied button associated with the macro to resume.

Result: Once completed, the macro button high tallies the macro color (yellow is the default).

GV Korona Control Panel

1   Touch the **MAC** button in the Transition area status display.

2   Touch **Record**.

3   Press the **Macro** button on the right side of the Source Select module to delegate the module.

4   Press a macro delegated button to start recording.

5   Perform any actions to be recorded as part of the macro before inserting the User Pause.

6   Touch **Insert Delay** in the status display.

Result: **USER** is displayed in the source select button OLED, third button from the right.

7   Press the **USER** button, and if desired, perform any additional actions to be recorded.

8   Touch **Record Stop**.

9 Run the macro.

Result: Any Control Panel button associated with the running macro will tally purple indicating the User Pause.

10 Press any purple tallied button associated with the macro to resume.

Result: Once completed, the macro button high tallies the macro color (yellow is the default).

Resuming a Paused Macro

Buttons delegated to macros or with macros attached in a paused state, tally purple. Press the purple tallied button to resume the macro.

> **Note:** Stopped macros tally the macro color, running macros tally orange. Pressing a button with a running macro delegated or attached, stops the macro (pressing it again starts the macro from the beginning).

Insert a Macro User Pause from the Catalog Menu

1 Select the **Macros**, **Catalog** menu.
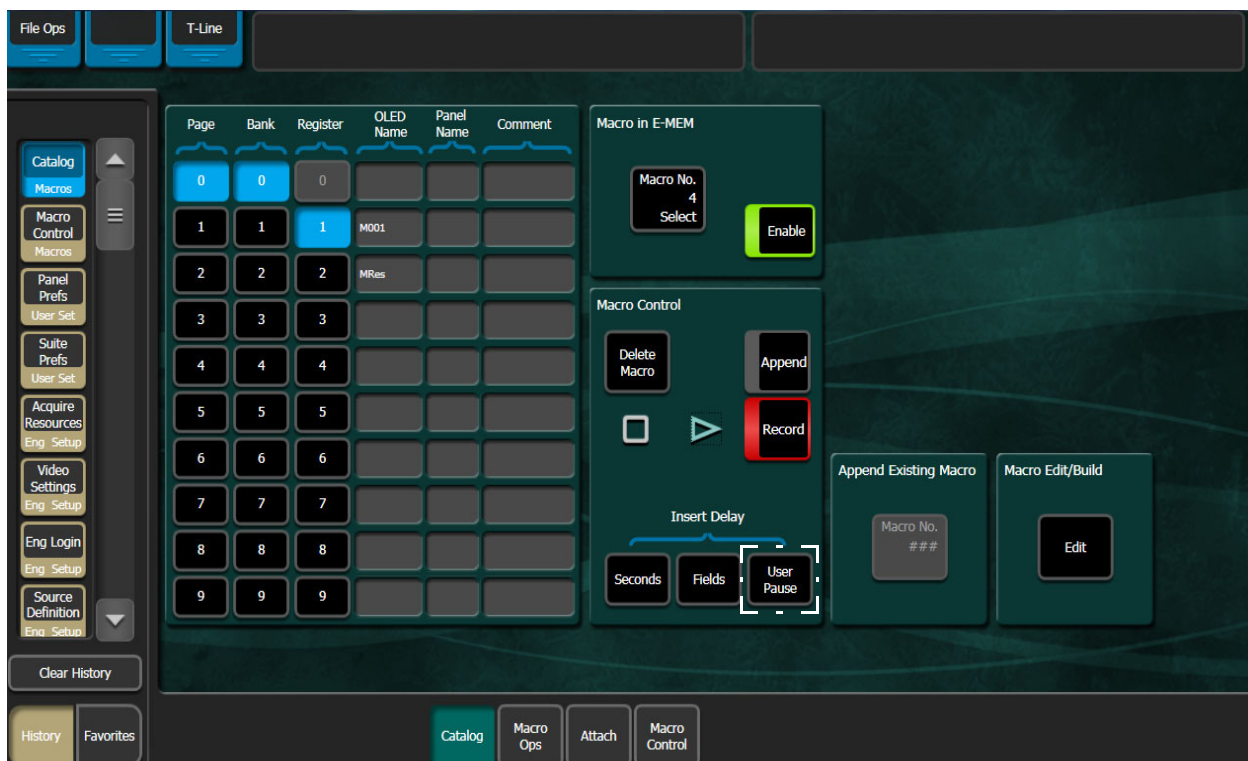
2 Enable the **Record** button and press the **Right Arrow** button to begin recording.

3 Select the **User Pause** button in the Insert Delay button group.

Insert a Macro User Pause from the Macro Editor

A macro User Pause can be inserted and edited with Macro Editor. See the *Kayenne/Karrera/GV Korona User Manual* for Macro Editor operations.

1 Select **Macros**, **Catalog**.

2 In the Macro Edit/Build pane, select **Edit**.

3 Select **Insert Delay.**

4 In the Enter Delay pop-up menu, select **User Pause**, **OK**.
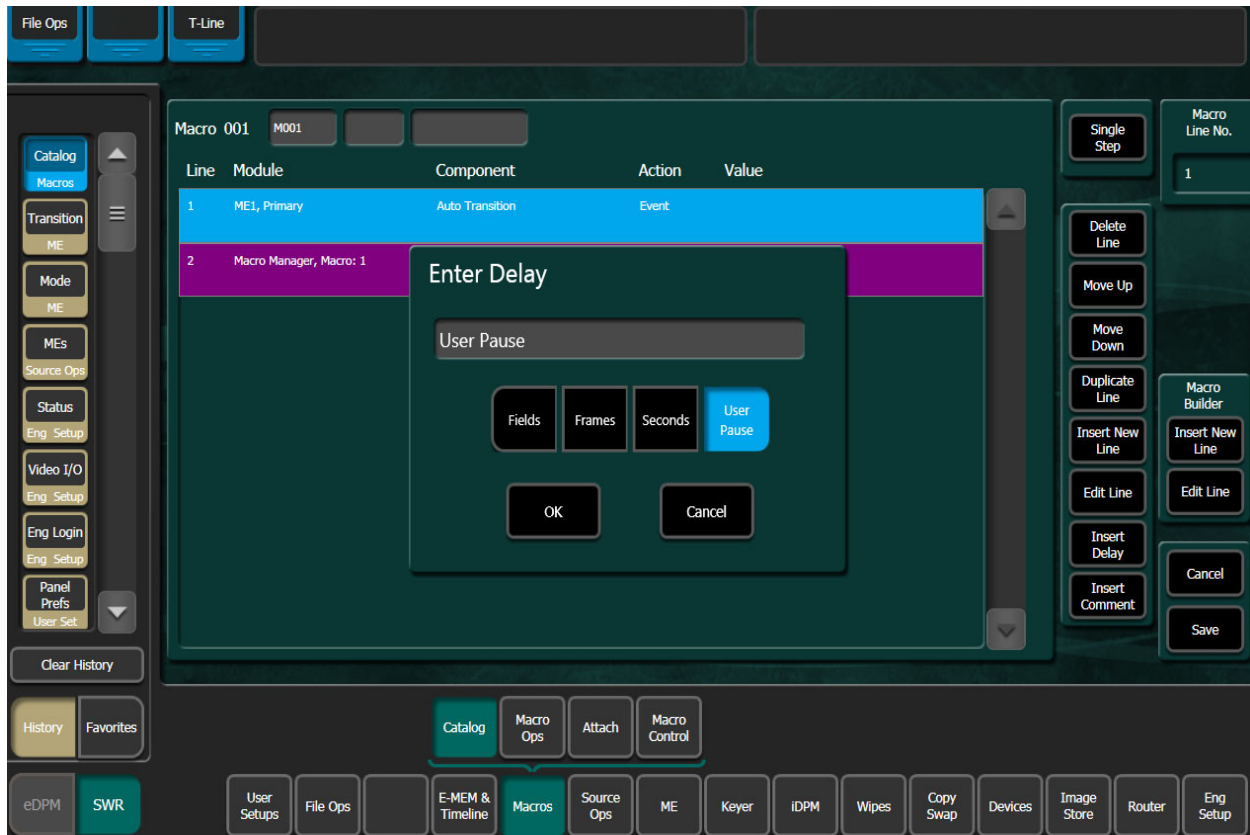
Learn a Run From Pause E-MEM Command

The *Run From Pause* command resumes a paused macro from E-MEM.

Note: Without a Run From Pause command learned, running an E-MEM with a paused macro associated will start the macro from the beginning.

1 Select **Macro**, **Catalog**, **Macro No.** in the Macro in E-MEM button pane.

2 Select the macro then **Run From Pause**.

Learn a Select E-MEM Command

The *Select* command stops a running macro and starts it at the beginning using E-MEM.

1 Select **Macro**, **Catalog**, **Macro No.** in the Macro in E-MEM button pane.

2 Select the macro then **Select**.

Macro Control Menu

The Macro Control Menu and Control Panel are part of the *Control Surface*. There are four macro player control surface groups displayed in the Control Menu: GPI, E-MEM, CS B and CS A with five macro players each, for a total of 20 macros displayed. The Macro Control menu displays the status of the five players in each group. From the Macro Control menu, you can stop or resume a paused macro from any group. For information about playing macros, see (About Playing a Macro from the Control Menu (Important)).
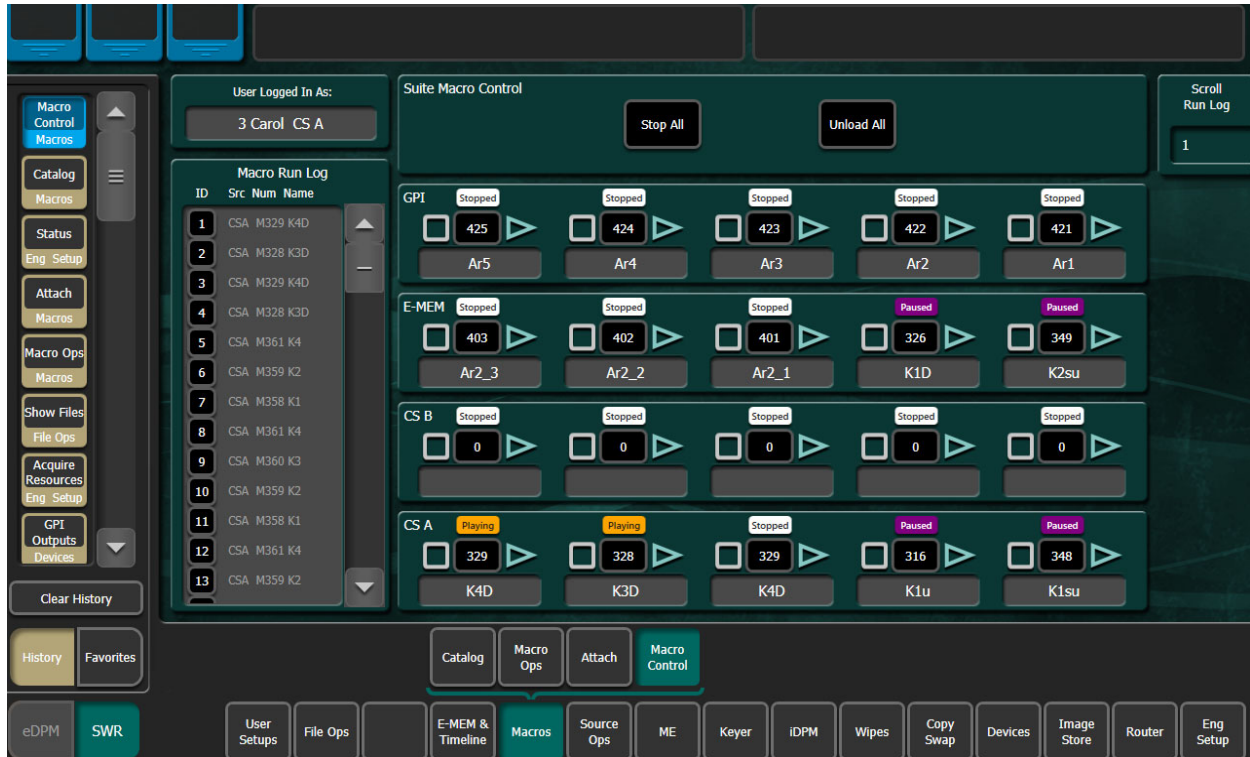
For all groups:

- The latest macro played from the menu will be displayed in the far left player of the control surface you are logged into and
- Previously run macros will shift to the right when the latest macro is run so only the last five macros are displayed.

Macro Control Menu Buttons and Data Pads

Menu Pane	Button/Label	Description
User Logged In As:	User Logged In As:	Suite, Suite Name, and Control Surface logged into in the Eng Login menu
Macro Run Log	Macro Run Log	Scrolling list of the last 99 macros played
	ID	1-99 of the last played macros, last played first
	Src	Macro player group: GPI, E-MEM, CS B, CS A
	Num	Macro register number
	Name	Macro name

Macro Control Menu Buttons and Data Pads

Menu Pane	Button/Label	Description
Suite Macro Control	Stop All	Stop all macro players
	Unload All	Unloads all macros from players (clears macro number)
Player Groups	GPI	• Status labels: Stopped (white), Playing (orange), Paused (purple)
	E-MEM	• Stop button (square)
	CS B	• Macro number
	CS A	• Play (right arrow) plays a macro or resumes a paused macro
Scroll Run Log	Scroll Run Log	Use Menu Panel soft knob to scroll or,
		Select data pad and enter 1-99 in Macro Run Log pop-up keypad

About Playing a Macro from the Control Menu (Important)

It is important to understand that because the menu is part of the control surface, when a macro is played from the Macro Control menu, it is actually played from the control surface you are logged into (CS A or CS B). Selecting a Play button (right arrow) runs the macro from the control surface, not the macro player group in the menu (the right arrow will resume a paused macro from any player group).

For example, if you are logged in as Suite 1 CS A, selecting an E-MEM Player right arrow button for a "stopped" macro does not simulate a macro run from an E-MEM, it runs the macro using the CS A player. This is demonstrated by taking note of the macro number in the E-MEM player, then selecting an E-MEM Play arrow. The selected macro number from the E-MEM player will display in the first CS A player from the left.

EZ 4K in All Suites

Placing the switcher in an EZ 4K (Quad Link) 1080sf (Segmented Frame) operating mode automatically acquires and configures physical M/E resources as 4K, in *any suite*, provided M/Es have been allocated to that suite. Each logical 4K M/E is configured from two physical M/Es, referred to as VPEs (Video Processing Engines). Each sub-image is one fourth of a 4K image that is routed through the switcher.
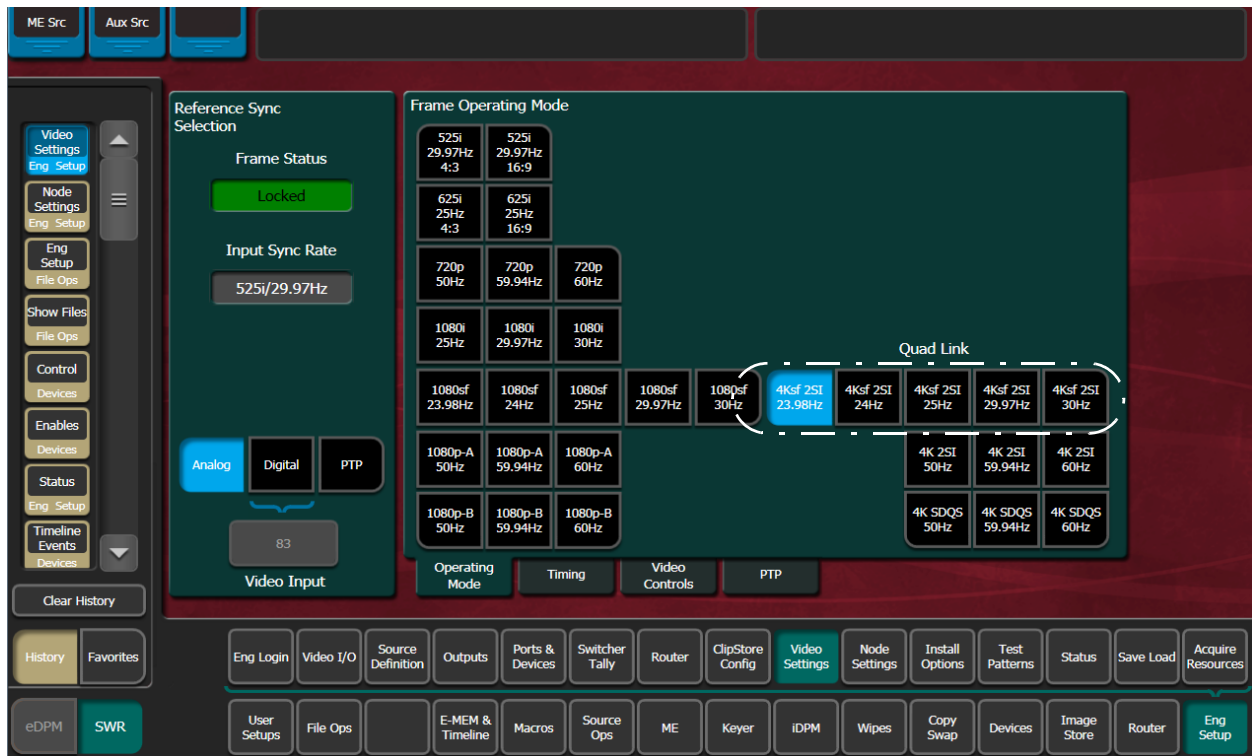
M/E Acquisition Enhancement (HD/4K Button Group)

The HD/4K button group in the Eng Setup, Acquire resources menu allows the operator to acquire available M/E resources as HD or 4K (must be in a 4K Frame Operating Mode) in any suite. This allows for Multi-suite EZ 4K.

For example:

- If the system is in a 4K Frame Operating Mode, selecting the HD button then ME-A1 will acquire ME-A1 as an HD resource. Or, if HD is selected and both ME-A1 and ME-A2 are selected, both are acquired as HD M/Es.
- If the 4K button is pressed and ME-A1 is selected, both ME-A1and ME-A2 will be acquired as one 4K M/E resource. If ME-A2 is not available, the pair of M/Es cannot be acquired as 4K.
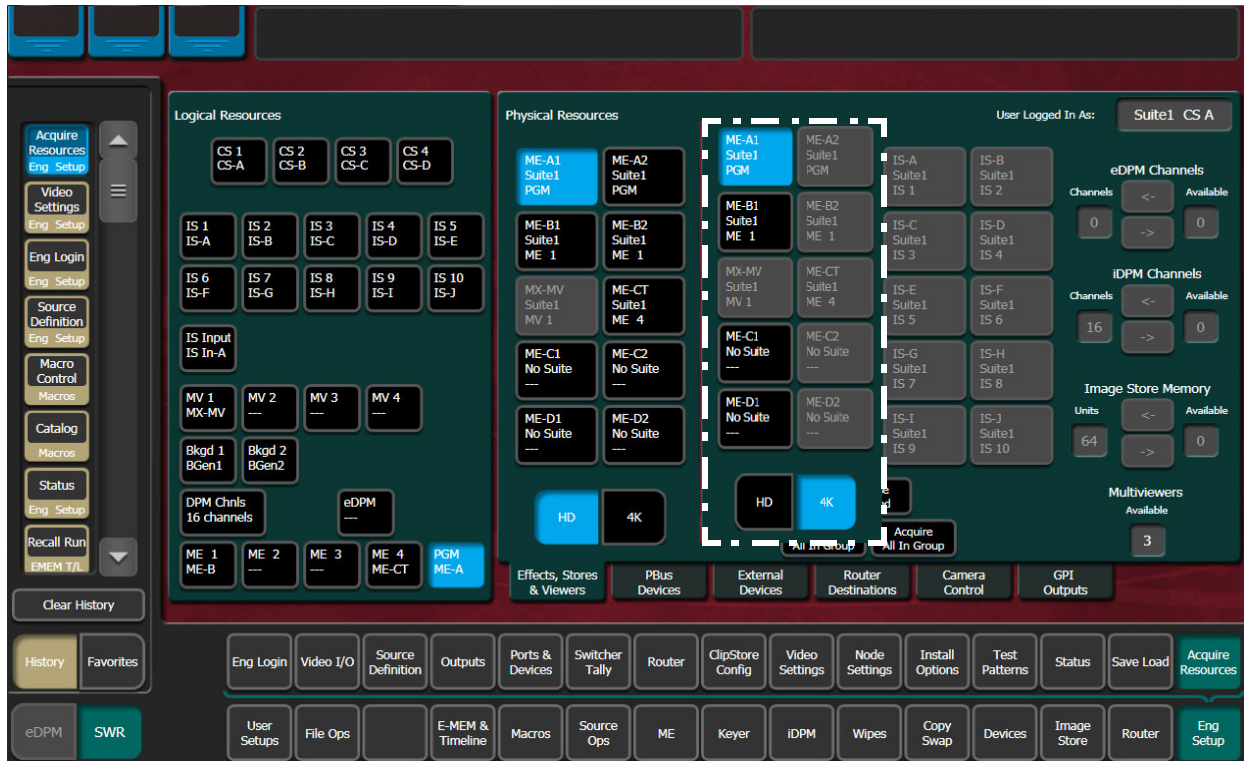
Match Sync

Match Sync delays incoming video the minimum amount of time and will synchronize incoming SDI signals to the system timing. Crop and Matt controls are provided (*Kayenne/Karrera/GV Korona User Manual*).

Match Sync is enabled in the Eng Setup, Video I/O, Mod I/O Conversion menu.
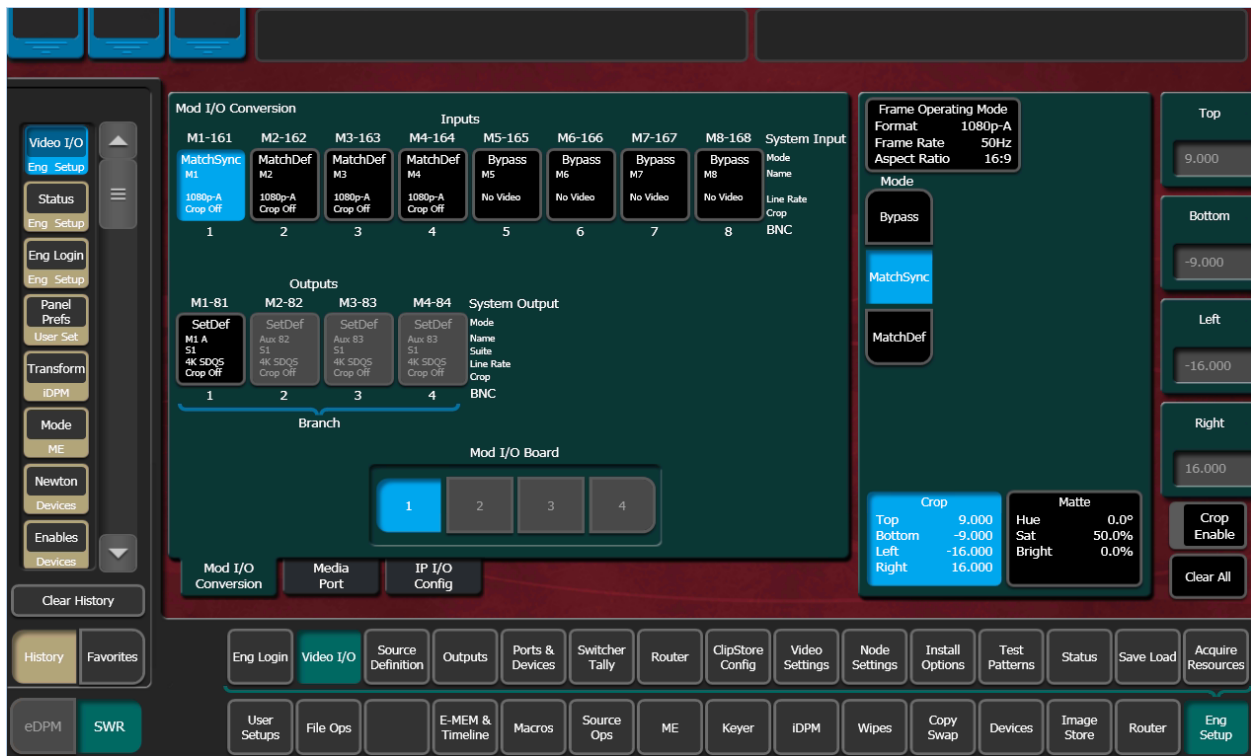
About the K-Frame Software Update

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

The K-Frame 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 K-Frame Installer 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.

Run the Menu Auditor for Third Party Updates

The Menu Auditor Program is included on the USB Stick provided with your system and available from the grassvalley.com support menu. The Menu Auditor is run to verify that the required Third Party Updates are installed, including Microsoft .NET. The Menu Auditor will indicate which updates need to be installed to ensure an up-to-date system.

> CAUTION: Out of date third-party software can cause the menu to become unstable or stop working.

To check for third party updates on a Menu Panel or Menu on PC:

1 Run the Menu Auditor Program.
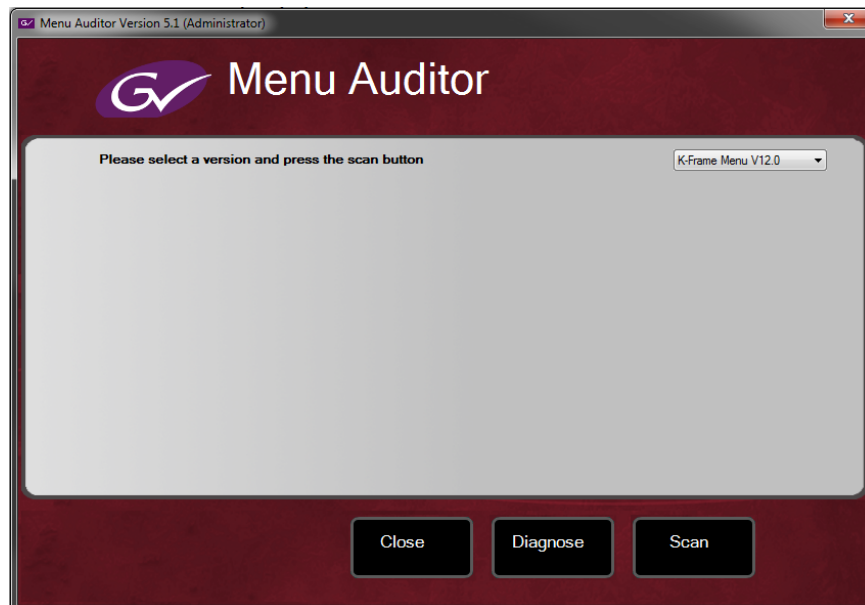
2 Select **Scan**. The Auditor will check each relevant installation and indicate the state of the computer environment.

3 Select the **Install** buttons of any files that are not of the correct version.

4 Select the **Diagnose** button to run the scan and put the windows machine data into a file for diagnostic purposes.

Materials Required

You will need the following materials for this update:

- K-FrameSetup.exe, which can be downloaded from the Grass Valley Customer Support website along with the latest ClipStore/Summit software, Release Notes, and Release Notes Addendum, and copied to a USB stick,

- Backup media for configuration and effects files,

- USB mouse and keyboard, and

- a Menu Panel, or user PC, properly configured on the switcher system network.

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 *K-Frame 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 initial screen has buttons on the left used to select various installers.
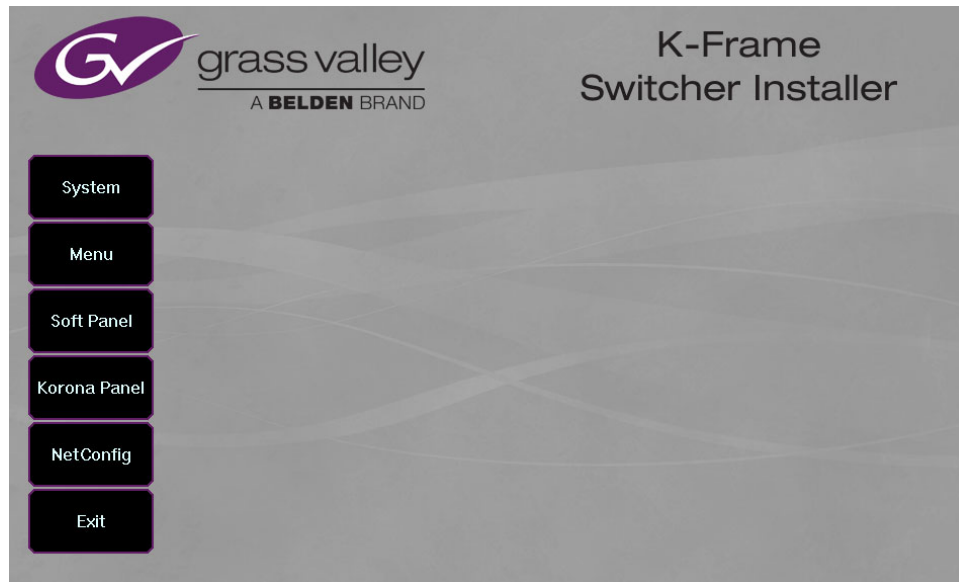
When **System** is selected, a screen appears with an expandable central hierarchy window, information on the upper right, and function buttons on the lower right.

Navigate to the Frame or Control Panel device in the hierarchy to display information for that device or install software.

Selecting **System Device(s)**, at the top of the hierarchy window displays the types of switcher devices residing on the network. Selecting a switcher device displays the system names present on the network of that switcher. Each system name is taken from the Video Processor Frame name. Selecting a system name reveals Frame, Panel, and optional Image Store items for that system, which when opened, allows selection of the individual devices making up that system. When a specific device is selected, information for it is displayed on

the right. This hierarchy allows easy identification of each switcher system's components when multiple switchers reside on the same network.

The K-Frame Installer program has the following other features, accessed by selecting its labeled button:

Rescan - Rescans the network for devices. This refreshes the screen to show the currently connected components and any modified system names.

Update - Updates the software on the selected device using the software deployed with this K-Frame Installer version.

Set Name - Opens a window allowing you to change the name of the selected device.

Set IP - (Control Panel selected in hierarchy window) - Opens a window allowing you to enter the IP address the Control Panel will use to communicate with the Video Processor Frame.

Clear NV - (Frame or Control Panel selected) Clears NV Memory.

Update All - (System selected) Updates software to all devices for the selected system, excluding Menus.

Create CF - Allows the creation of a Control Panel Compact Flash Card onto another CF Card.

> CAUTION: : The Create CF process wipes and formats the CF card.

## Update the K-Frame System Software

For Kayenne and Karrera, the K-Frame system's Video Processor Frame, Control Panels, and optional Image Stores can be updated in one operation. The GV Korona Control Panel is updated separately from the Frame and Image Store (Update the GV Korona Control Panel Software, on page 28).

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

2 In the System menu, each K-Frame Switcher system consists of a Video Processor Frame, associated Control Panels; and PCU(s) for Kayenne, and optional Image Store. Use the mouse to navigate to the desired system (not an individual system device). When a system has been selected the **Update All** button becomes active.

3 Select **Update All**. The Software update warning dialog is displayed.
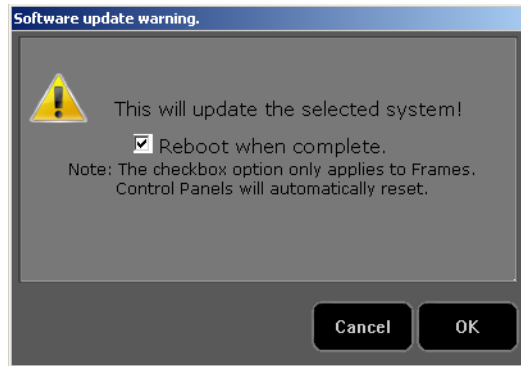
If the Reboot when complete box is checked, the Video Processor Frame, optional Image Store, and all associated Control Panels will reboot after the **OK** button in the Software update warning dialog is selected. If the box is not checked, you will need to manually reboot the Video Processor Frame and optional Image Store hardware after the software files have finished installing. Control Panels are always rebooted after a software update.

4 Select **OK**.

5 Select **Finish** when complete.

Update the GV Korona Control Panel Software

The GV Korona Control Panel software is updated separately from the Video Processor Frame.

1 With the K-Frame Switcher Installer Program launched, select **Korona Panel**.

2 Accept the License Agreement, select **Next**, and follow the prompts.

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.

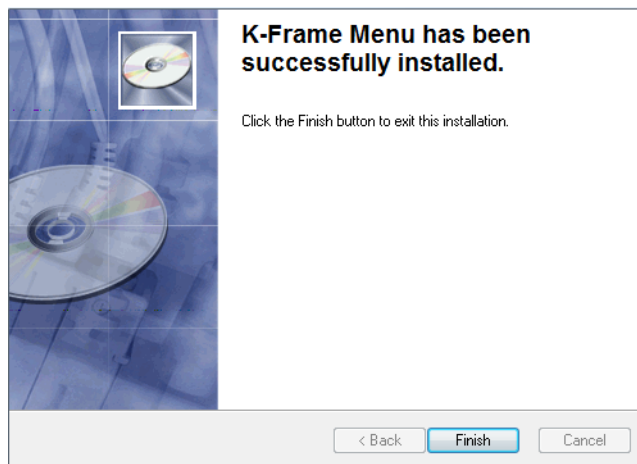2 Select the **Menu** button. The K-Frame Menu Installation tool will launch.

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.

Soft Panel Installation

Selecting the Soft Panel button launches an individual installer for the KSP option. The Soft Panel installer is intended for a customer provided PC and the process is identical to the Menu on PC (Install the Menu Panel Application Update, on page 29. Install the menu and follow the prompts. See the *KSP Switcher Soft Panel Graphical User Interface Instruction Manual* for more information.

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 (Run the Menu Auditor for Third Party Updates, on page 23)
- Microsoft Visual Studio 2010 redistributable is installed—(Run the Menu Auditor for Third Party Updates, on page 23)

Add the PC's Name and IP Address with the KSP software to the node list in the Eng Setup, Control Surfaces menu.

The KSP option is activated with a purchased license key.

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*).

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

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 (*Kayenne/Karrera/GV Korona Installation & Service Manual, Maintenance*).

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

Clear NV RAM for Control Panel and Frame

Use the following procedure on the Menu Panel or Menu on PC running the Menu Panel application that operates with the updated Video Processor Frame.

> **Note:** A new Menu Panel or PC that has not been used with the switcher system will need to be configured as a Control Surface Node before it can operate with a switcher system. See the *K-Frame Installation & Service Manual* for specific instructions.

1   From the K-Frame Installer menu, select the **System** button.
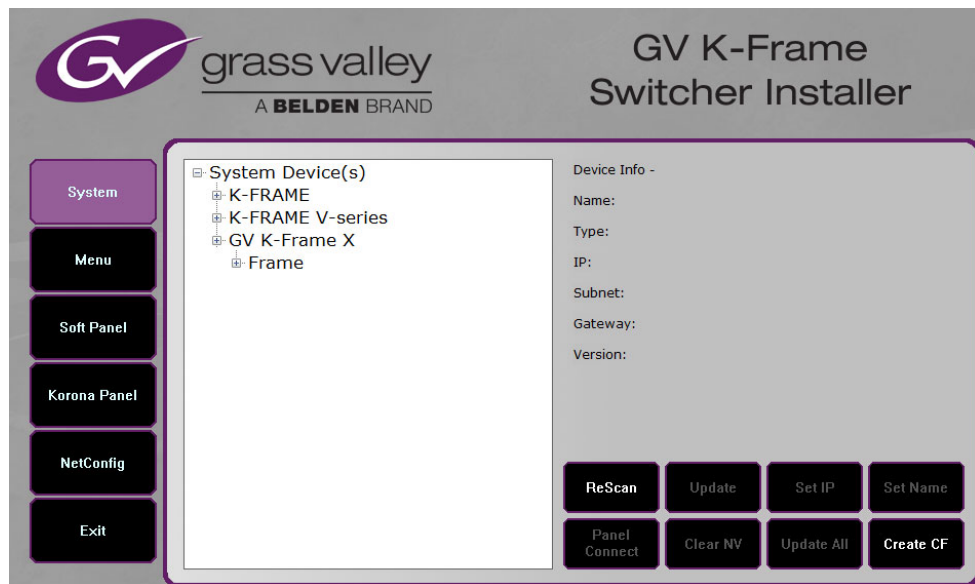
2   Select the device to be cleared.
3   Select the **Clear NV** button. Repeat for Control Panel and Frame.

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.

Install NetConfig and Newton Configurator (Optional)

Select the **NetConfig** button to launch the K-Frame NetConfig installer (similar to the Menu Panel installer). Both NetConfig and the Newton Configurator plug-in will be installed. Follow the menu prompts to install these applications onto that Menu Panel or PC.
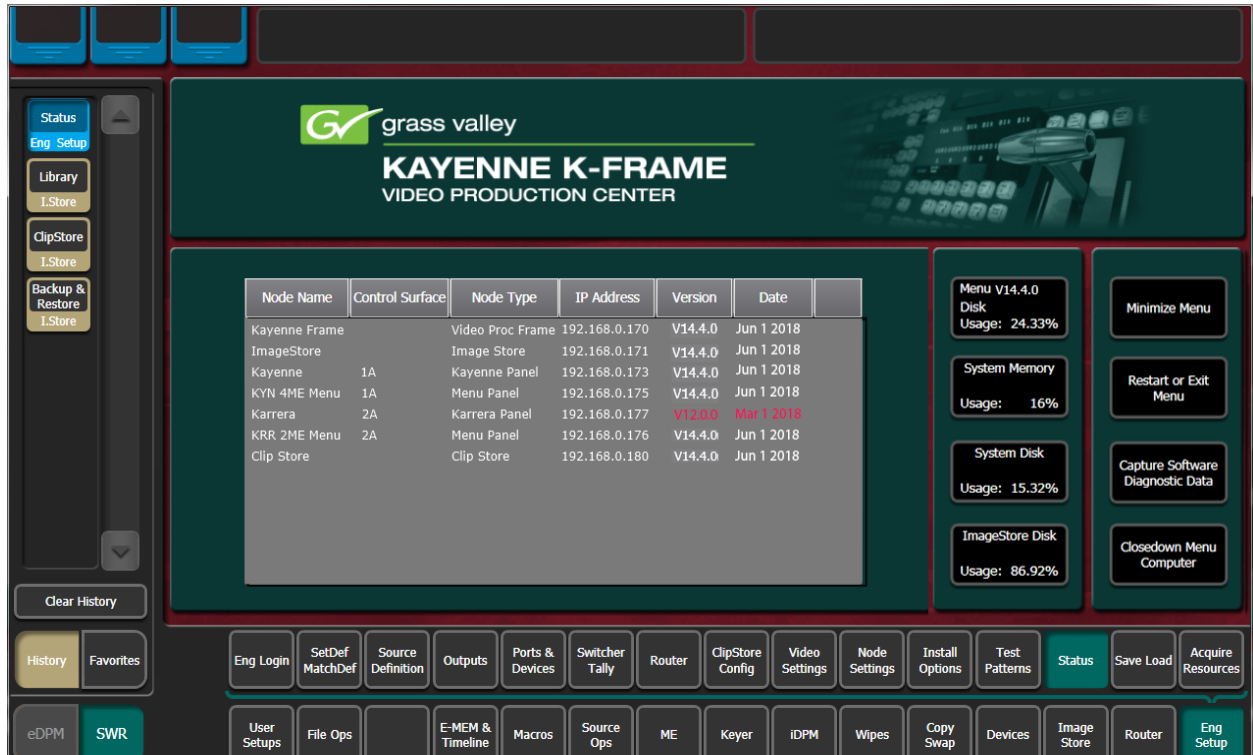
> Note: The K-Frame Installer Application and the separate NetConfig application cannot run simultaneously on the same Menu Panel or PC.

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.

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