



K-FRAME

VIDEO PRODUCTION CENTER

Release Notes

VERSION 12.0

071896501-AD

2018-03-14

www.grassvalley.com

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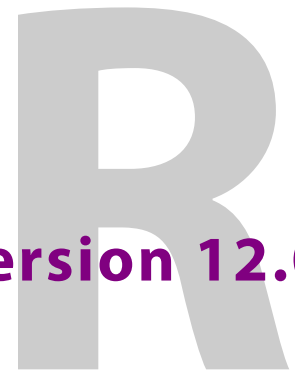
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K-Frame Release Notes, Version 12.0



About this Manual

This document describes the new features and other information specific to the K-Frame Video Production Center, Version 12.0 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 and on the USB thumb drive provided with your system.

New in Release 12.0

- 4K 2 SI support for the S-series and V-series Video Production Centers [page 4](#)
- Support for the *GV K-Frame X* Video Production Center
 - Supported Frame Rates [page 4](#)
 - IP I/O Port Configuration [page 4](#)
 - IP I/O Port Bulk Configuration [page 9](#)
 - Media Port Configuration [page 15](#)

HAD FPGA Update

Each CPU, Image Store, Controller, M/E, and for GV K-Frame X, Video I/O IP and PTP Mezzanine boards have 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 updates for these endpoint HADs (see the *Kayenne/Karrera/GV Korona Installation & Service Manual*).

HAD Board updates in Version 12.0:

Controller

PTP Mezzanine

Video IP I/O (16x8 and 8x4)

Modular IP I/O

Board Software Upgrade

With Version 12.0.0, a board software upgrade is required for the ARM processor on the Video IP I/O and PTP Mezzanine boards for the GV K-Frame X.

IMPORTANT: Board software upgrades are to be performed by qualified personnel only.

Each board must be manually upgraded. The upgrade process takes approximately *twelve minutes* per board.

The following procedure describes the process for updating each 16x8 Video I/O IP board. The same process is used to upgrade the 8x4 Modular I/O and PTP Mezzanine boards.

- 1 Update or verify that the board FPGA HADs are up to date, see the *Maintenance* section of the *V12.0 Kayenne/Karrera/GV Korona Installation & Service Manual*.
- 2 The Frame should have been power cycled at the end of the HAD update, however if it was not, power cycle it now to complete the HAD update.
- 3 Start a Telnet session.
- 4 In the consoleMenu, enter the number five [5] for the Vid 16x8 IO menu, at the prompt: --> 5

```
[1] Status                [2] Controller           [3] ME
[4] PTP Mezz              [5] Vid 16x8 IO         [6] Mod 8x4 IO
[7] Image Store          [8] Spare               [9] Debug
[10] Software Options     [11] Fan Controller     [P] Power Supply
[H] Boot Sw Help        [Z] Test Diagnostics   [D] DisableAllUpdates
[M] DisableAllMonitoring [X] Exit to shell
```

- 5 Enter the number for the 16x8 IO IP board at the prompt:

Example: 2 = [2] 16x8 IO IP 2

```
> 5
[1] 16x8 IO SDI 1         [2] 16x8 IO IP 2       [3] 16x8 IO -- 3
[4] 16x8 IO IP 4         [5] 16x8 IO -- 5       [6] 16x8 IO -- 6
[7] 16x8 IO -- 7         [8] 16x8 IO IP 8       [9] 16x8 IO -- 9
[10] 16x8 IO IP 10      [X] Exit
```

- 6 Enter the letter "u" for Upgrade ARM SW at the prompt to begin the upgrade process for the selected board.

CAUTION: The system will go through two reboots so do not interrupt the upgrade process.

```
[1] Peek                  [2] Poke                 [3] BlockPeek
[4] LongPeek             [5] LongPoke            [6] LongBlockPeek
[7] LoadFPGAs           [8] HAD                 [9] IO IP ArmComm
[10] IO IP FPGA 1       [11] IO IP FPGA 2      [T] Temp Monitor
[B] Board ID            [14] List FPGA files   [D] DisableBoardUpdates
[16] Set up Rx IP       [17] Set up Tx IP      [18] Set input redundancy
[19] Set Local SFP      [20] Transfer Apps     [U] Upgrade ARM SW
[22] MAC Addresses      [23] Get Log File      [V] Get SD Image Version
[25] Get IP Stats       [X] Exit
```

The process is only completed after *two* reboots and a statement similar to the following is displayed:

```
bytes transferred = 45000000
bytes transferred = 45779631
Received Start Transfer ack
Set to FIRST_REBOOT from REIMAGE, boardID 154 slot 7
Set to RESTART from SECOND_REBOOT, boardID 154 slot 7
Set to RUN from WAIT_FOR_RUN_AFTER_RESET, boardID 154 slot 7
```

- 7 Enter the letter "x" to return to the Vid 16x8 IO menu and select another board and repeat steps 4 through 6.
- 8 For board software upgrades on other boards, enter "x" twice to return to the top level of the consoleMenu and enter:
 - [6] Mod 8x4 IO or
 - [4] PTP Mezz
- 9 Repeat steps 4 through 6 to complete the upgrade.

TIP: The PTP Mezz upgrade completion statement is different than that of the Video I/O or Mod I/O

```
Update: Success
Sent command sync
```

```
Response:
```

```
*****
```

```
*****
```

```
Transfer complete.
```

```
Waiting for the board to complete updating (about 5 min).
```

```
Do not power off...
```

```
0123456789101112131415161718192021222324252627282930313233343536373839404
1424344454647484950515253545556575859606162636465666
```

```
Update complete.
```

Supported in an Upcoming Release

GV K-Frame X Video Processing Frame

- SNMP
- PTP (Precision Time Protocol) Reference
- Mod I/O Conversion board

Video I/O, IP I/O Config menu buttons and tabs:

The following *GV K-Frame X* and *V-series* menus and buttons are present (some are grayed out), however they will be supported in a future release.

- Audio streaming type (button)
- Ancillary streaming type (button)
- SFP (button in pop-up menu pane, currently a fixed value)
- Auto Detect (button - Stream Format pop-up button pane and Bulk Configuration menus)
- IGMPv3 SSM (button)
- Mod I/O Conversion (menu)

Video Settings menu buttons and tabs:

- PTP Reference (button/menu)

4K 2SI Supported for S-series and V-series

4K 2SI (2 Sample Interleave) Frame mode is supported with the S-series and V-series Video Production Centers. Placing the system in 4K 2SI Frame mode configures up to three 4K MEs with two 4K keyers each. It requires two physical MEs or VPEs to make each logical 4K 2SI ME (see *Kayenne/Karrera/GV Korona Installation & Service Manual*).

About the GV K-Frame X Video Processing Center

The GV K-Frame X from Grass Valley, a Belden Brand, offers an all IP, all SDI, or a hybrid IP/SDI I/O board set-up:

- Video 16x8 I/O IP
- Video 16x8 I/O SDI
- Mod 8x4 I/O IP
- Mod 8x4 I/O SDI

Supported Frame Rates

Video I/O, IP Video Frame Rates (Hz)

720p	50	59.94	60
1080i	25	29.97	30
1080sf	25	29.97	30
1080p-Level A	50	59.94	60

Video I/O, SDI Video Frame Rates (Hz)

525i	29.97				
625i	25				
720p	50	59.94	60		
1080i	25	29.97	30		
1080sf	23.98	24	25	29.97	30
1080p-Level A	50	59.94	60		
1080p-Level B	50	59.94	60		

Video I/O IP Configuration

GV K-Frame X Video Production Center uses SFPs (Small Form-factor Pluggable) for 10Gb Ethernet network communication. There are two inputs and one output provided per SFP, on the IP I/O boards:

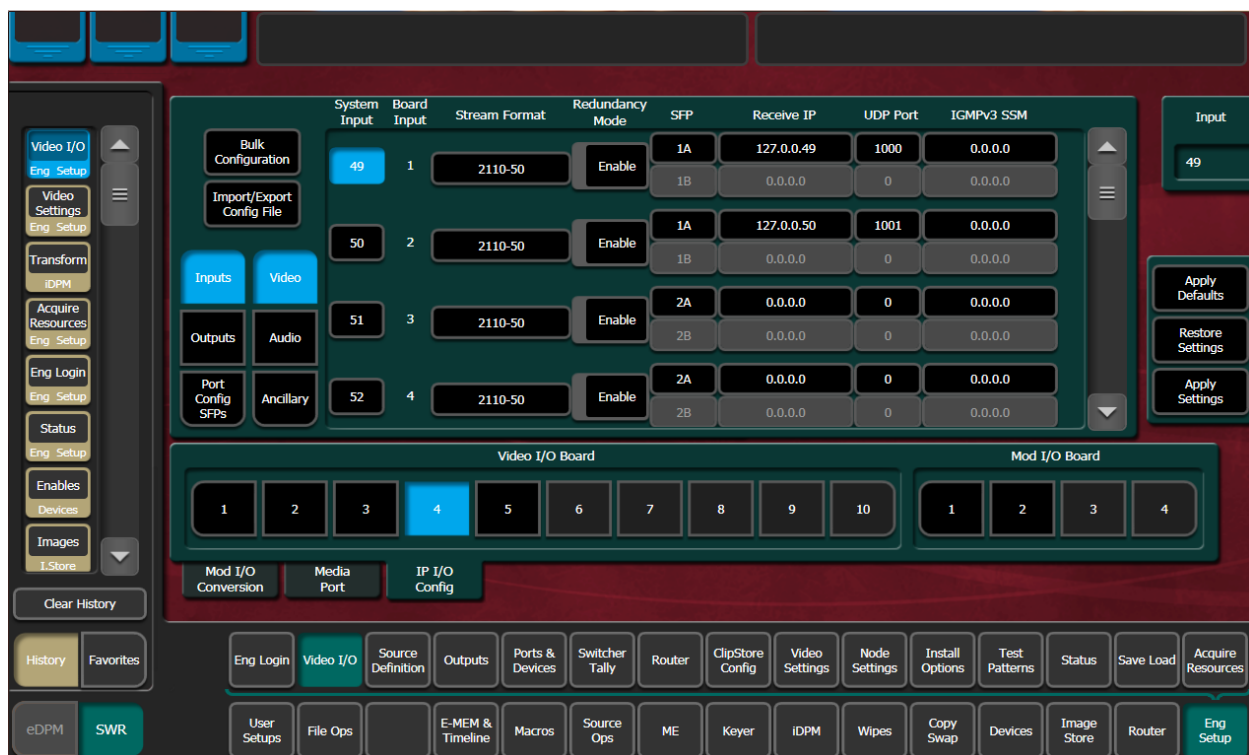
- Video I/O boards have 16 SFPs—eight “A” SFPs providing 16 primary inputs and eight primary outputs and the same number of “B” SFPs for redundancy, per board.

- Mod I/O boards have eight SFPs:—four “A” SFPs providing eight primary inputs four primary outputs and the same number of “B” SFPs for redundancy, per board.

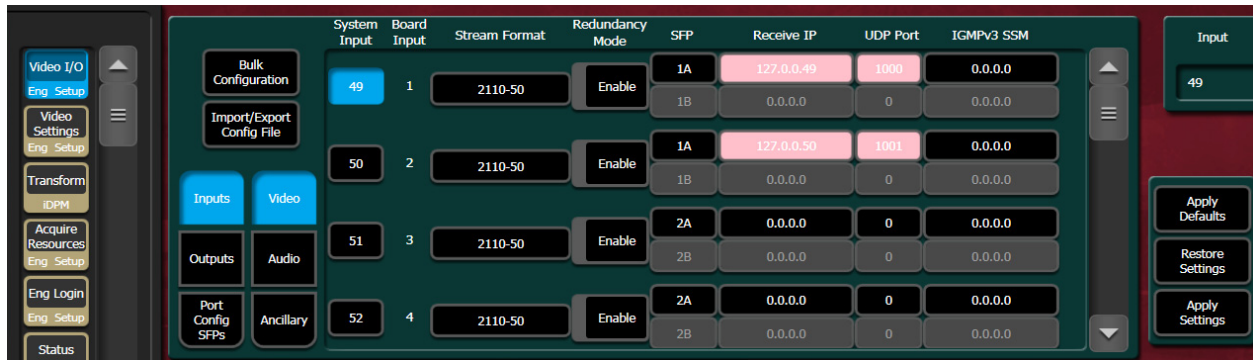
The IP Config menu control is delegated with the port type buttons.

(
: **IMPORTANT:** Perform the Port Config SFP configuration first, in the IP I/O Config menu (see [Port Config System SFPs Configuration Menu Buttons](#) and [Configure the Port Config SFPs](#)).

- Input,
- Output, or
- Port Config SFP.



Multiple parameters can be set, then applied. New parameter settings are highlighted in pink, indicating the menu settings have not been sent to the Frame. Once the Apply Settings button is selected, the settings are sent to the Frame and the new settings are displayed in the menu. Buttons and data pads return to white text over a black background.



Common Configuration Buttons

Some IP I/O Config menu buttons are common to all menu delegations (Inputs, Outputs, and Port Config SFPs).

GV K-Frame X IP I/O Common Config Menu Buttons

Button	Description
Bulk Configuration	Bulk Configuration menu
Import/Export Config File	Import/Exports IP Config File menu
Inputs	Inputs menu
Outputs	Outputs menu
Port Config SFPs	Port Config SFPs menu
Video	Video stream delegation
Audio (future release)	Audio stream delegation (AES Audio)
Ancillary (future release)	Ancillary stream delegation (Closed captioning, subtitles, etc.)
Restore Defaults	Restores IP system defaults
Restore Settings	Restores the IP settings last applied
Apply Settings	Applies new settings made to the menu parameters, e.g. streaming format, IP Addresses, UDP Port numbers, etc.
Video I/O Board	Select the physical Video I/O Board (Buttons 1-10)
Mod I/O Board	Select the physical Mod I/O Board (Buttons 1-4)

Port Config System SFPs Configuration Menu Buttons

In the Eng Setup, IP I/O Config menu with the Port Config SFPs delegation button selected.

:

IMPORTANT: Perform the Port Config SFP configuration first.

Port Config SFPs Menu Buttons and Data Pads

Menu	Button/Label	Description
Port Config SFPs	System SFP	Select from up to 96 total SFPs across the system
	Board SFP (label)	SFP number on the physical board (example: System SFP 9, is Board SFP 1, on Board 2)
	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 Port Config SFPs

Perform this procedure before configuring the inputs and outputs:

- 1 Select Eng Setup, Video I/O, IP I/O Config in the menu.
- 2 Select the **Port Configs SFP** button to delegate the menu.
- 3 Navigate to a System SFP by selecting a Video I/O or Mod I/O Board button (bottom) and using the scroll bar or select the SFP data pad (top right) and scroll with the Menu Panel soft knob or a mouse wheel.
- 4 Enter a Local IP Address by selecting the **Local IP** data pad and entering the IP Address in the pop-up keypad, select **Enter**.
- 5 Enter a Subnet Mask Address by selecting the Subnet Mask data pad.
- 6 Enter a Gateway Address by selecting the Gateway data pad.

System Input Configuration Buttons

In the Eng Setup, IP I/O Config menu with the Inputs delegation button selected.

IP I/O Input Menu Buttons and Data Pads

Button/Data pad/Label	Description
System Input	System Inputs with Engineering IDs, select from 1 to 192
Board Input	Input number on the physical board
Stream Format	Selects the type of IP Stream Format Video Standard (default is 2110-50): <ul style="list-style-type: none"> • Auto Detect (future release) • 2110-20 • 2110-50 • 4K TICO 2110-50
Enable	Enable/Disable Redundancy Mode
SFP	Upcoming feature for SFP selection (currently a fixed value)

IP I/O Input Menu Buttons and Data Pads

Button/Data pad/Label	Description
Receive IP	IP Address for the input
UDP Port	UDP Port number to receive data (default 1000)
IGMPv3 SSM (future release)	IGMPv3 SSM IP Address (default 0.0.0.0)
Input	Scroll through or directly select an input (values reflected in Video I/O and Mod I/O Board buttons)

System Output Configuration Buttons

In the Eng Setup, IP I/O Config menu with the Outputs delegation button selected.

Output Menu Buttons and Data Pads

Button/Data pad/Label	Description
System Output	System Outputs from 1 to 96
Board Output	Output number on the physical board
Stream Format	Selects the type of IP Stream Format Video Standard (default is 2110-50): <ul style="list-style-type: none">• Auto Detect (future release)• 2110-20• 2110-50• 4K TICO 2110-50
Enable	Enable/Disable Redundancy Mode
Transmit IP	Output video to the Transmit IP (default 0.0.0.0)
UDP Port	UDP Port number to transmit data
Output	Scroll through or directly select an output (values reflected in Video I/O and Mod I/O Board buttons)

About 4K TICO Compression Formats in the IP I/O Config Menu

Inputs

The 4K TICO input stream uses four grouped inputs when a 4K TICO compression format is selected in the menu. For example, if the 4K TICO 2110-50 format is selected for System Input 6, System Inputs 5, 7, and 8 will also be streaming 4K TICO (groups of inputs are fixed, e.g. 1-4, 5-8, 9-12, etc.).

For System Input groups, the first input in the group streams the video signal routed to deliver the 4K signal.

Outputs

The 4K TICO output stream uses four grouped outputs when a 4K TICO compression format is selected in the menu. For example if the 4K TICO 2110-50 format is selected for System Output 35, outputs 33, 34, and 36 will be set to stream 4K TICO (groups of outputs are fixed, e.g. 1-4, 5-8, 9-12, etc.).

For System Output groups, the first output in the group streams the video signal routed to deliver the 4K signal. The second output is a 1080p output of a sub-image that can be routed to a monitor.

Note: Changing any one 4K input/output to a non-4K streaming format (2110-20, 2110-50), results in all the inputs/outputs in the group being changed to the selected format.

Configure System Inputs/Outputs

- 1 Select Eng Setup, Video I/O, IP I/O Config in the menu.
- 2 Select the **Inputs** or **Outputs** button to delegate the menu.
- 3 Navigate to a System Input/Output SFP by selecting a Video I/O or Mod I/O Board button (bottom) and using the scroll bar or select the SFP data pad (top right) and scroll with the Menu Panel soft knob or a mouse wheel.
- 4 Select the **Stream Format** data pad to select a format (**2110-20**, **2110-50**, **4K TICO 2110-50**).
- 5 Select the **Enable** button for Redundancy.
- 6 Enter the SFP by selecting the **SFP** data pad, choosing an SFP from the pop-out menu, and selecting **Done**.
- 7 Select the **Receive IP** data pad, enter the Receive IP Address in the pop-up keypad, and select **Enter**.
 - a If Redundancy Mode is enabled, configure the Receive IP Address for SFP B also.
- 8 Select the **UDP Port** data pad, enter a port number.
- 9 Select **Enter**.

About the IP I/O Config Bulk Configuration

Accessed by selecting the Bulk Configuration button in the IP I/O Config menu, you can configure multiple System Input, Output, or SFP parameters with the Bulk Configuration menus. Also, bulk configuration can be done by exporting, editing, and importing an Excel spreadsheet offline, using the Import/Export Config File button see [About Import/Export Config File \(Bulk Configuration\)](#), on page 13.

IP I/O Config Bulk Configuration Menu

The Input, Output, and Port Config SFP Video Bulk Configuration menus are divided into the SFP A and SFP B menu panes. The SFP B pane is for the Redundancy Mode and follows the System Start and System End values entered for SFP A. Other parameters can be set and enabled/disabled independently for each SFP.

Input Video/Audio/Ancillary Bulk Configuration Menu Buttons

Button Group	Button/Data pad	Description
SFP A/B System SFP Range	System Start	First System SFP in the range
	System End	Last System SFP in the range

Input Video/Audio/Ancillary Bulk Configuration Menu Buttons

Button Group	Button/Data pad	Description
SFP A: Receive IP	Receive IP	Include/exclude the Receive IP settings
	Starting Address	IP Address for first SFP Input in the range
	Octet	Select the 1st, 2nd, 3rd, or 4th octet (default 4th) to increment the IP Address from the first IP Address in the range
	Inc	Enter the number to increment/decrement the IP Addresses in the range
SFP A: UDP Port	UDP Port	Include/exclude the UDP Port settings
	Port	Enter the UDP Port number for the range (default 1000)
	Inc	Enter the number to increment/decrement the UDP Port number in the range (default 0)
SFP A: IGMPv3 SSM (Video type System Inputs only)	IGMPv3 SSM	Include/exclude the IGMPv3 SSM (Source Specific Multicast) settings (default 0.0.0.0)
	Starting Address	First IGMPv3 SSM IP Address on the SFP Input in the range (default 0.0.0.0)
	Octet	Select the 1st, 2nd, 3rd, or 4th octet (default 4th) to increment the IGMPv3 SSM IP Address from the first in the range
	Inc	Enter the number to increment/decrement the IGMPv3 SSM IP Addresses in the range (default 1)
SFP B: Redundancy Mode	Redundancy Mode	Include/exclude the Redundancy Mode settings
	Enable	Enable/Disable Redundancy Mode (default is Disabled)
SFP B: Receive IP, UDP Port, IGMPv3 SSM	All	Same as SFP A above
Stream Format	Stream Format	Include/exclude the Stream Format settings
	2110-20	Video standard
	2110-50	Video standard
	4K TICO ST 2110-50	Video standard
Enter	Enter	Apply bulk configuration
Cancel	Cancel	Cancel settings, return to IP I/O Config menu

Output Video/Audio/Ancillary Bulk Configuration Menu Buttons

Button Group	Button/Data pad	Description
SFP A/B System SFP Range	System Start	First System SFP in the range (default 0.0.0.0)
	System End	Last System SFP in the range (default 0.0.0.0)

Output Video/Audio/Ancillary Bulk Configuration Menu Buttons

Button Group	Button/Data pad	Description
SFP A: Transmit IP	Transmit IP	Include/exclude the Transmit IP settings
	Starting Address	IP Address for first SFP Output in the range (default 0.0.0.0)
	Octet	Select the 1st, 2nd, 3rd, or 4th octet (default 4th) to increment the IP Address from the first in the range
	Inc	Enter the number to increment/decrement the IP Addresses in the range
SFP A: UDP Port	UDP Port	Include/exclude the UDP Port settings
	Port	Enter the UDP Port number for the range (default 1000)
	Inc	Enter the number to increment/decrement the UDP Port number in the range (default 1)
SFP B: Redundancy Mode	Redundancy Mode	Include/exclude the Redundancy Mode settings
	Enable	Enable/Disable Redundancy Mode settings (default is Disable)
Stream Format	Stream Format	Include/exclude the Stream Format settings
	2110-20	IP Video
	2110-50	IP Video
	4K TICO ST 2022-6	IP Video standard
Enter	Enter	Apply bulk configuration
Cancel	Cancel	Cancel settings, return to IP I/O Config menu

Port Config SFP Bulk Configuration Menu Buttons

Button Group	Button/Data pad	Description
SFP A/B System SFP Range	System Start	First System SFP in the range
	System End	Last System SFP in the range
SFP A: Local IP	Local IP	Include/exclude the Local IP settings
	Starting Address	Local IP Address for first SFP Input in the range (default 0.0.0.0)
	Octet	Select the 1st, 2nd, 3rd, or 4th octet to increment the Local IP Address from the first in the range
	Inc	Enter the number to increment/decrement the Local IP Addresses in the range
SFP A: Subnet Mask	Subnet Mask	Include/exclude the Subnet Mask settings
	Starting Address	Subnet Mask Address for first SFP Input in the range
	Octet	Select the 1st, 2nd, 3rd, or 4th octet to increment the Subnet Mask Address from the first in the range
	Inc	Enter the number to increment the Subnet Mask Address in the range

Port Config SFP Bulk Configuration Menu Buttons

Button Group	Button/Data pad	Description
SFP A: Gateway	Gateway	Include/exclude the Gateway settings
	Starting Address	Gateway Address for first SFP Input in the range
	Octet	Select the 1st, 2nd, 3rd, or 4th octet to increment the Gateway Address from the first Gateway Address in the range
	Inc	Enter the number to increment the Gateway Address in the range
SFP B: Local IP, Subnet Mask, Gateway	All	Same as SFP A above
Enter	Enter	Apply bulk configuration
Cancel	Cancel	Cancel settings, return to IP I/O Config menu

Configure System Input or Output SFPs in Bulk from the Menu

- 1 In the Video I/O, IP I/O Config menu, select **Inputs** or **Outputs** from the menu delegation buttons.
- 2 Select **Video**, **Audio**, or **Ancillary** from the stream type delegation buttons.
- 3 Select the **Bulk Configuration** button in the IP I/O Config menu.
- 4 Enter a range of SFP Inputs or Outputs for Video, Audio, or Ancillary in the Video Bulk Configuration menu:
 - a Select the **System Start** data pad, enter a System Input/Output number in the pop-up keypad, and select **Enter**.
 - b Select the **System End** data pad, enter a System Input/Output number.
- 5 With the **Transmit IP** or **Receive IP** button on, select the **Starting Address** data pad and enter the Transmit IP/Receive IP Address.
- 6 Optionally:
 - a Select the **Octet** data pad and select the octet to increment when configuring the IP Addresses, and/or,
 - b Select the **Inc** data pad and enter a positive or negative incremental value.
- 7 With the **UDP Port** button on, select the **Port** data pad and enter a port number (1000 is the default).
- 8 For *Video Bulk Configuration only*:
 - a With the **IGMPv3** button on, select the **Starting Address** data pad and enter the Transmit IP/Receive IP.
 - b Optionally, select the **Octet** data pad and select the octet to increment when configuring the IP Addresses, and/or,
 - c Select the **Inc** data pad and enter an incremental value.

About Import/Export Config File (Bulk Configuration)

Accessed by selecting the Import/Export Config File button in the IP I/O Config menu, you can configure all of the IP I/O Config menu settings within an offline Excel spreadsheet and then import the file and apply the configuration. (For Bulk Configuration from the menu, see [About the IP I/O Config Bulk Configuration](#), on page 9.)

When exported, a .ipe configuration file is created in Remote Storage (remote from the switcher, it is not recommended to install a third-party spreadsheet application on the switcher system).

The IP Config settings are exported as a Microsoft Excel file. Pull-down menus are provided for cells that have selectable settings in the Video I/O, IP I/O Config menu. The Inputs, Outputs, and SFPs tabs (bottom) are provided to access those menu delegations. In addition, the far right column is for notes. All Excel functionality is supported, including incrementing the IP Addresses in a column.

	A	B	C	D	E	F	G
1	System Input	Board Number	Board Input	Stream Format	Redundancy Mode	SFP Number	Video A Re
2	1	1	1	2110-50	Off	1	0.0.0
3	2	1	2	Auto Detect	Off	1	0.0.0
4	3	1	3	2110-50	Off	2	0.0.0
5	4	1	4	2110-20	Off	2	0.0.0
6	5	1	5	4K TICO 2110-50	Off	2	0.0.0
7	6	1	6	2110-50	Off	3	0.0.0
8	7	1	7	2110-50	Off	4	0.0.0
9	8	1	8	2110-50	Off	4	0.0.0
10	9	1	9	2110-50	Off	5	0.0.0
11	10	1	10	2110-50	Off	5	0.0.0
12	11	1	11	2110-50	Off	6	0.0.0
13	12	1	12	2110-50	Off	6	0.0.0
14	13	1	13	2110-50	Off	7	0.0.0
15	14	1	14	2110-50	Off	7	0.0.0

Note: Importing the bulk config file with alterations to the System Input, Board Number, or Board Input cells can result in reported errors, however this will not prevent other valid settings from being imported.

About the “Type” Column

The IP Config file Type column (scroll to the far right) in the spreadsheet provides a list of the IP I/O and SDI I/O boards installed in the system, as of the last export. SDI board types can be configured for IP so if an IP board were to be installed in that slot later, the imported IP Config file settings would be applied.

Note: Pre-configured IP I/O settings in the SDI Type cells are informational only, until a physical IP I/O board is installed in the Frame.

Spreadsheet Formatting Tip

To make the spreadsheet much easier to read and edit, format the alignment of the heading cells to vertical (90 degrees). This will reduce the width of the spreadsheet significantly.

Bulk Configure SFPs Using a Spreadsheet

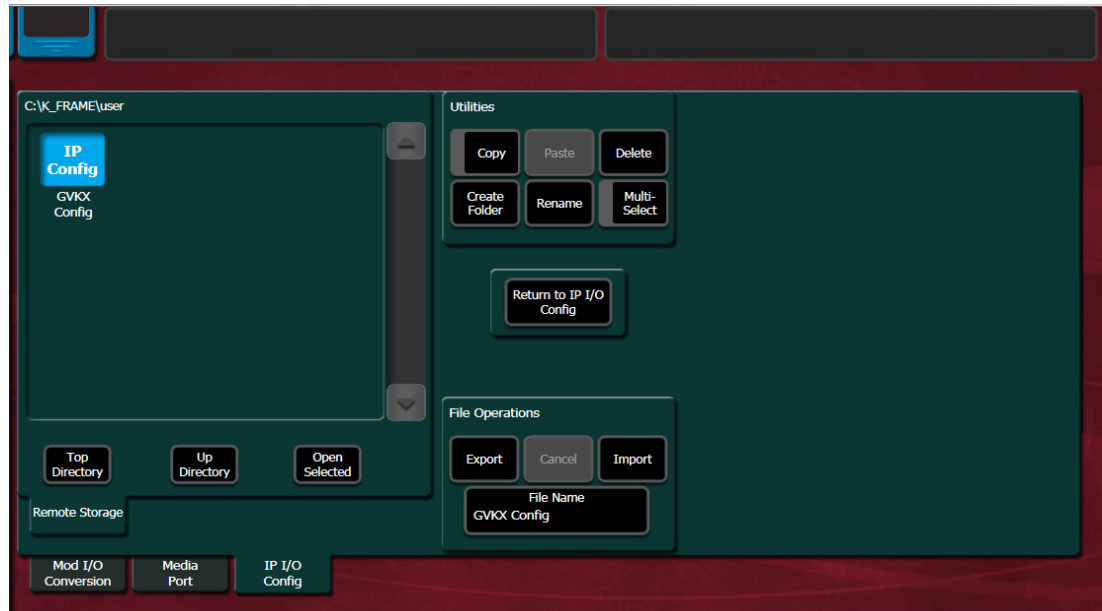
- 1 In the Video I/O, IP I/O Config menu, select the **Import/Export Config File** button.
- 2 Navigate to the location you wish to save the GV K-Frame X config file, (C:\K_Frame\User).



- 3 Select the **File Name** button in the File Operations pane and enter a name in the pop-up keypad, select **Enter**.
- 4 Select **Export**.
- 5 Open the **Config.ipe** folder (C:\K_FRAME\user\GVKX Config.ipe).
- 6 Open and edit the Excel Workbook Config file.

IMPORTANT: For button descriptions corresponding to the cells, see the tables in [IP I/O Config Bulk Configuration Menu](#), on page 9.

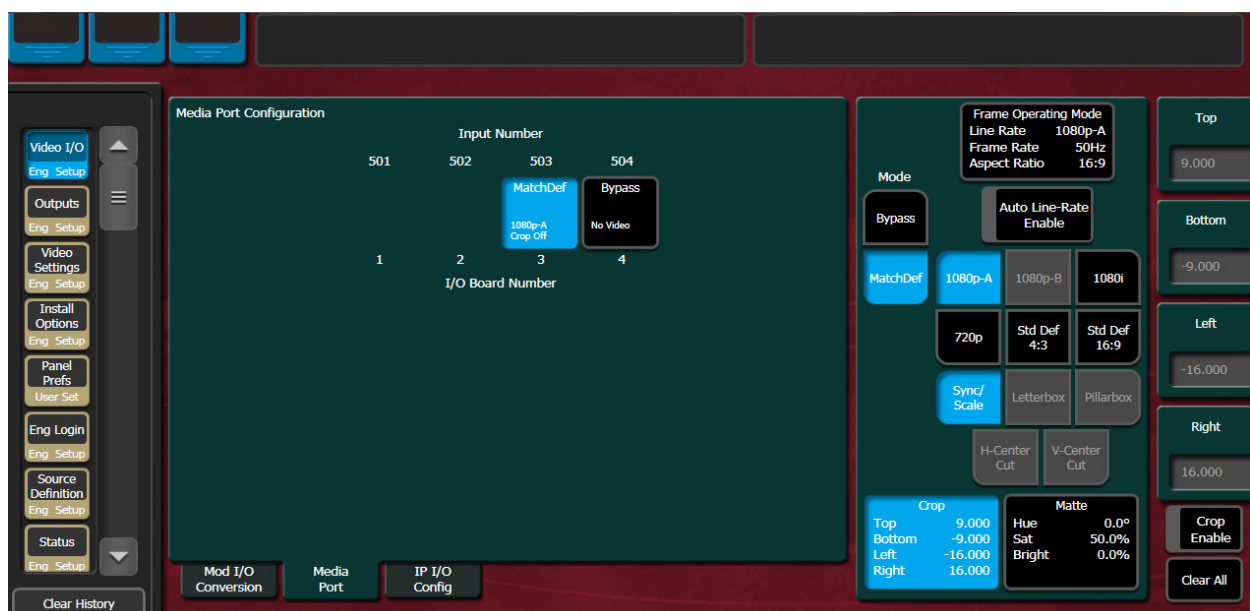
- 7 Save the file in Excel.
- 8 Navigate to and select the **IP Config** folder in the IP I/O Config menu you named and select **Import**.



About Media Port Configuration

There is one Media Port input per Mod I/O SDI board, for a maximum of four. MatchDef input conversion is provided for each. Media Port configuration is performed in the Eng Setup, Video I/O, Media Port menu tab. Line rate, Crops, and Mattes can be configured. See the *Kayenne/Karrera/GV Korona Installation & Service Manual* for more information.

Note: 1080p Level B is not currently supported for Media Port inputs.



Media Port inputs must be assigned to an Engineering ID in the Source Definition menu to become an available source to the switcher. For MatchDef configuration and Source Definition information, see the *Basic Configuration* section of the *Kayenne/Karrera/GV Korona Installation & Service Manual*.

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.

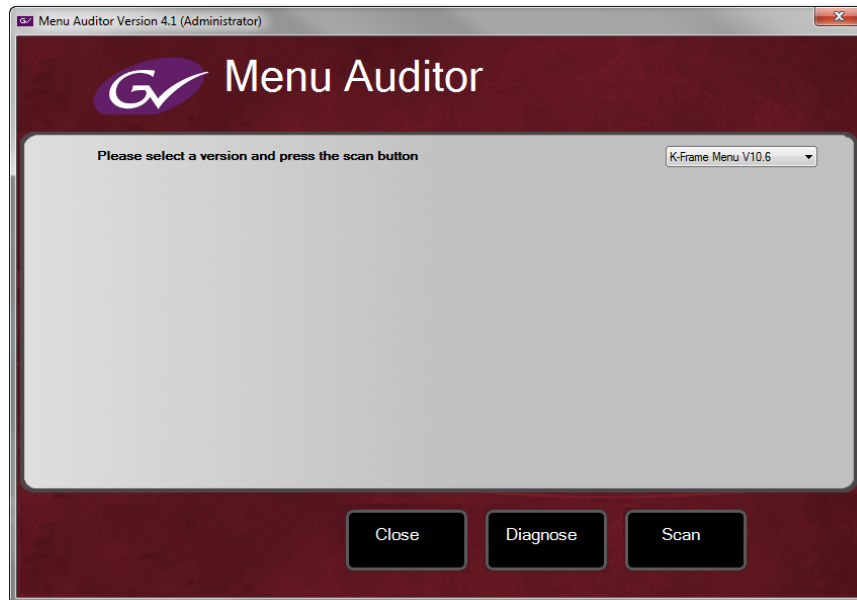
Run the Menu Auditor for Third Party Updates

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.

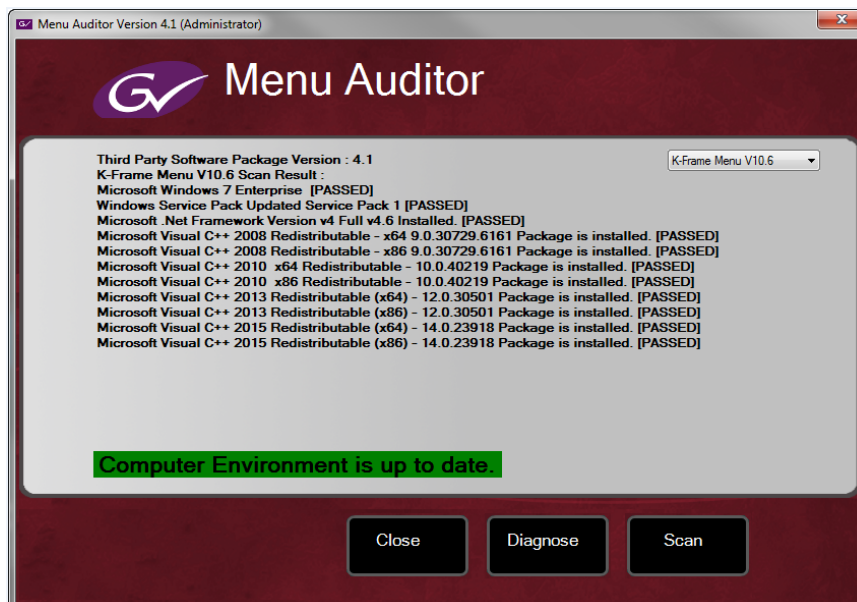
CAUTION: Out of date third-party software can cause the menu to become unstable or stop working.

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.

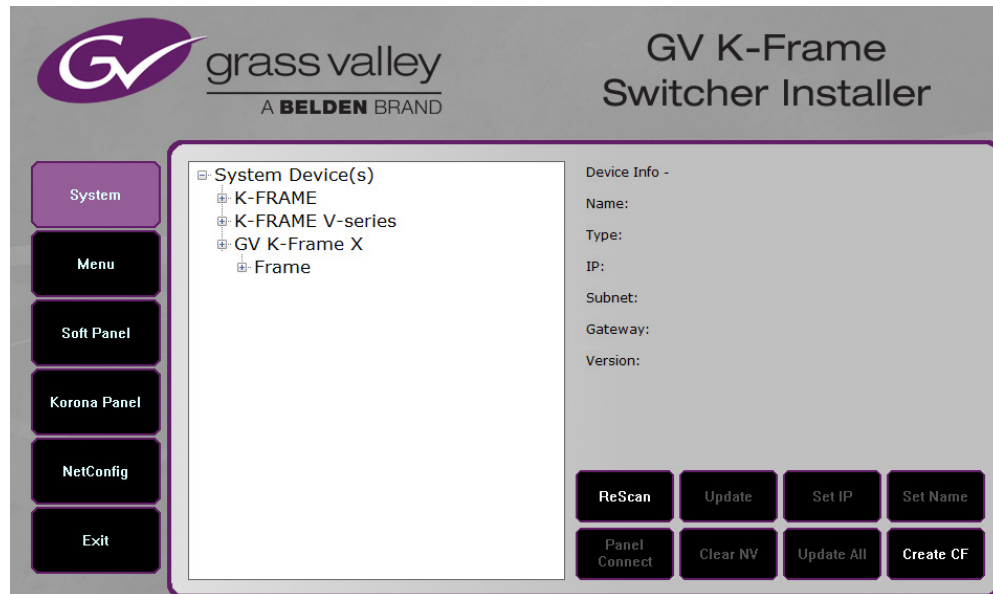
K-Frame Installer Program Description

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 - Re-scans 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.

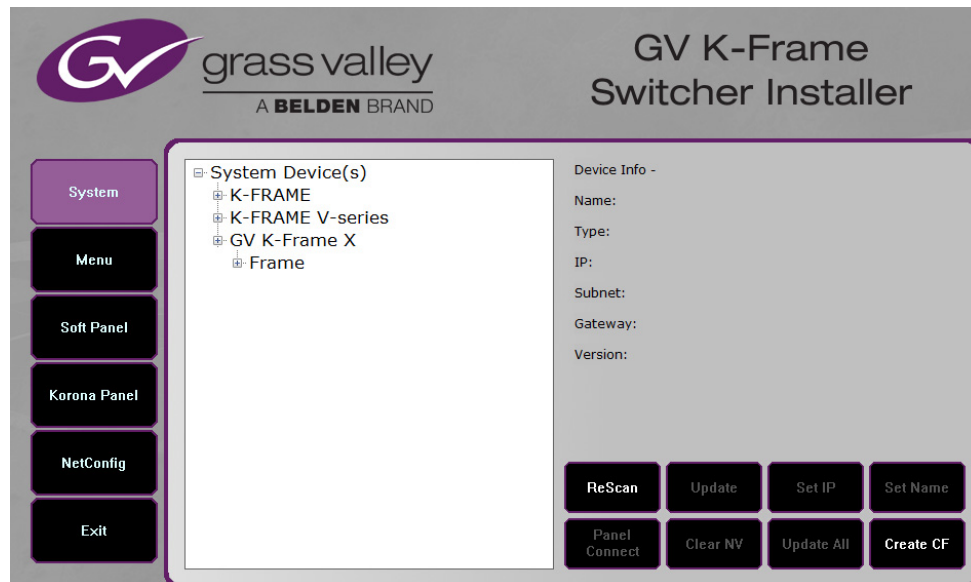
Create CF - Allows the creation of a Control Panel Compact Flash Card onto another CF Card.

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

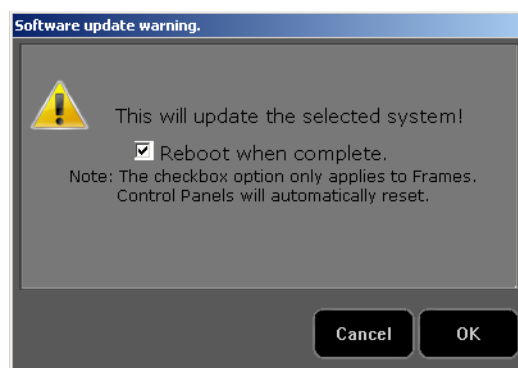
Update the K-Frame System Software

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, see [Update the GV Korona Control Panel Software](#), on page 22.

- 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 and the **Finish** button in the Reboot dialog are 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.

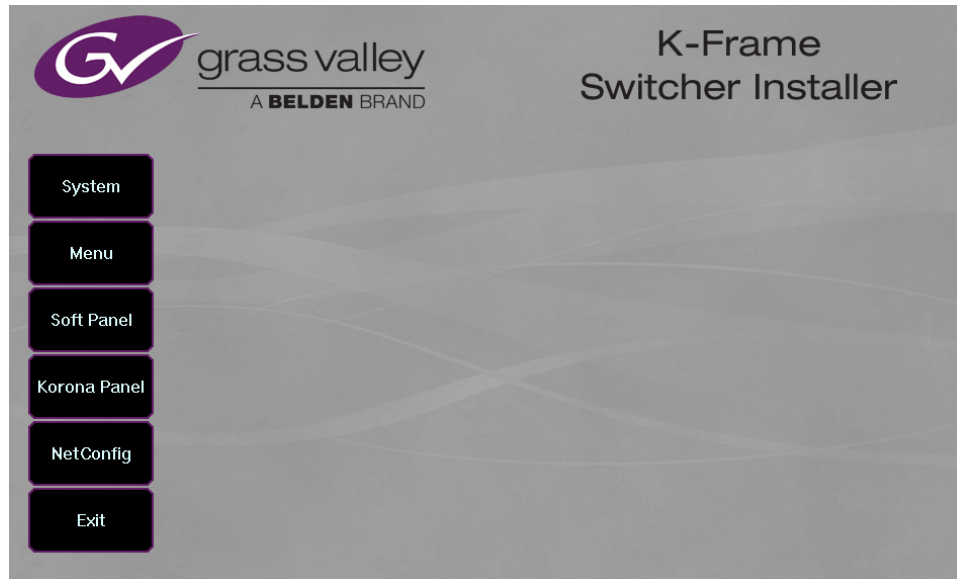
Install the Menu Panel Application Update

The first-time installation of the Menu application onto a user PC may require installing Windows .NET Framework software. See Install .NET for First Time Menu on PC Installation on page 21 for more information.

The K-Frame Deployment Tool must be run on each Menu Panel or PC onto which you will be installing the Menu Panel application. See Deploy Switcher Update Package Files and Installer on page 12.

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.



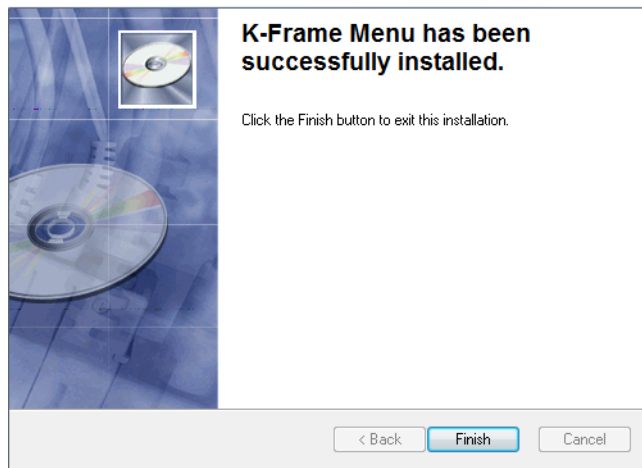
- 2 Select the **Menu** button. The K-Frame Menu Installation tool will launch.



- 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 fool-proof 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 (see [Install the Menu Panel Application Update](#), on page 22. 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 (see [Run the Menu Auditor for Third Party Updates](#), on page 16)
- Microsoft Visual Studio 2010 redistributable is installed—the file is named `vcredist_x86.exe` and is included in the Third-party Updates\VisualStudio2010 folder

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 Updating the Host Address Decoder (HAD) FPGA

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 FPGA. Software updates can include firmware updates for these endpoint HADs.

For HAD FPGA update instructions, see the maintenance information in the *Kayenne/Karrera/GV Korona Installation & Service Manual*.

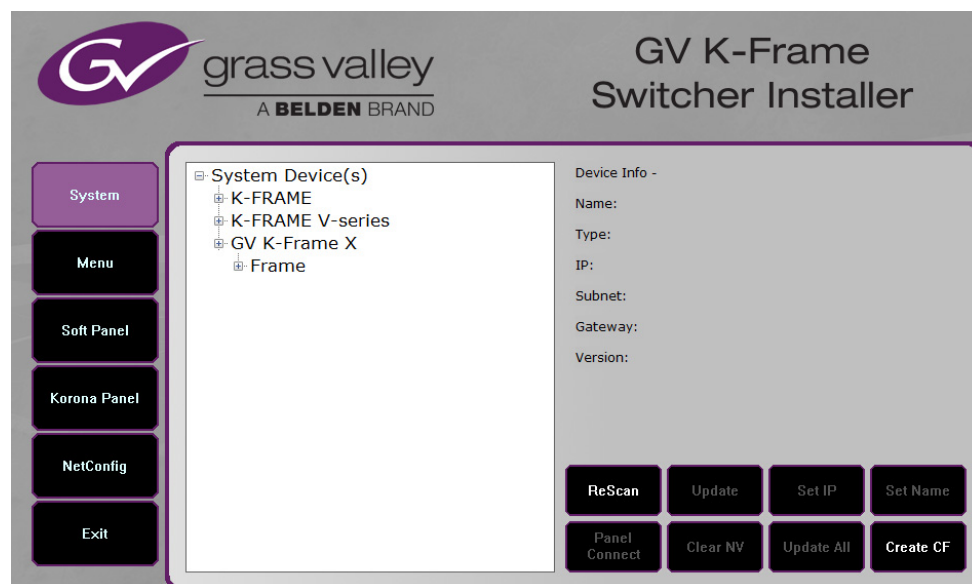
CAUTION: It is recommended that HAD (Host Address Decoder) FPGA (Field Programmable Gate Array) updates are performed by qualified personnel only, for example an EIC (Engineer In Charge).

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 keys 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 directions displayed 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.

The screenshot displays the 'KAYENNE K-FRAME VIDEO PRODUCTION CENTER' interface. A central table lists system components and their software versions. The 'KRR 2ME Menu' component is highlighted in red, indicating a version mismatch.

Node Name	Control Surface	Node Type	IP Address	Version	Date
Kayenne Frame		Video Proc Frame	192.168.0.170	V12.0.0	Mar 7 2018
ImageStore		Image Store	192.168.0.171	V12.0.0	Mar 7 2018
Kayenne	1A	Kayenne Panel	192.168.0.173	V12.0.0	Mar 7 2018
KYN 4ME Menu	1A	Menu Panel	192.168.0.175	V12.0.0	Mar 7 2018
Karrera	2A	Karrera Panel	192.168.0.177	V12.0.0	Mar 7 2018
KRR 2ME Menu	2A	Menu Panel	192.168.0.176	V10.0.1	Apr 13 2016
Clip Store		Clip Store	192.168.0.180	V12.0.0	Mar 7 2018

Additional interface elements include a left sidebar with navigation options (Status, Eng Setup, Library, ClipStore, Backup & Restore), a top navigation bar with 'Status' selected, and a bottom toolbar with various system control buttons.

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 64-bit
- C:\Program Files\ Grass Valley \ GV Switcher \ K_Frame_Switcher_VX.X for 32-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/Remove Programs.

Calibrate the Lever Arm and Joystick

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

K-Frame System Default IP Addresses

K-Frame systems are shipped with default IP addresses. 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, and so your system may not be using these defaults.

K-Frame System Default IP Addresses

Device	IP Address
Touch Screen Menu Panel 1	192.168.0.175
Touch Screen Menu Panel 2	192.168.0.176
Control Panel Surface 1B	192.168.0.177
Control Panel Surface 2A	192.168.0.178
Control Panel Surface 2B	192.168.0.179
ClipStore Server	192.168.0.180

K-Frame System Default IP Addresses

Device	IP Address
32-Crosspoint Remote Aux Panels V1.6.5 and higher software: (hard reset with the front panel buttons)	IP Address: 192.168.1.2 Frame IP: 192.168.1.1 Gateway IP: 192.168.1.1 Subnet Mask 255.255.255.0 Note: 32-Crosspoint Remote Aux Panel default settings must be changed to operate with a Karrera system whose other components are configured with their default IP addresses.
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.
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.



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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