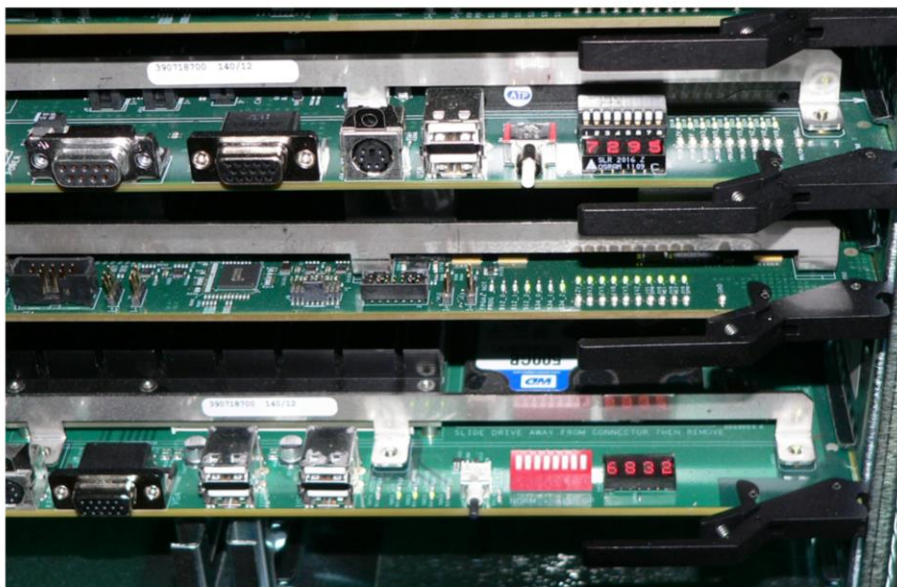


Section 6B - Karrera & Kayenne - K-Frame



6B - 1

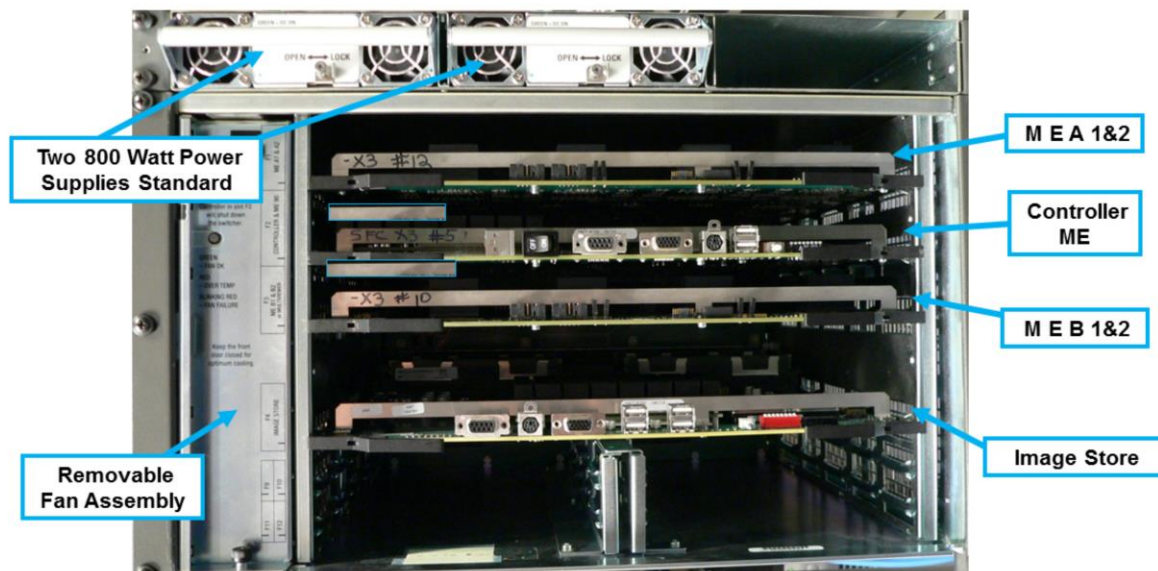
Karrera & Kayenne 3G K-Frame

- Frames
 - 6 RU & 13RU - 3G - K-Frame
 - External Power Supplies
 - Boards
- Troubleshooting / Diagnostics
 - Frame Diagnostics Methods:
 - Web Browser
 - Telnet
 - Logs
 - Diagnostic Data
 - NV files



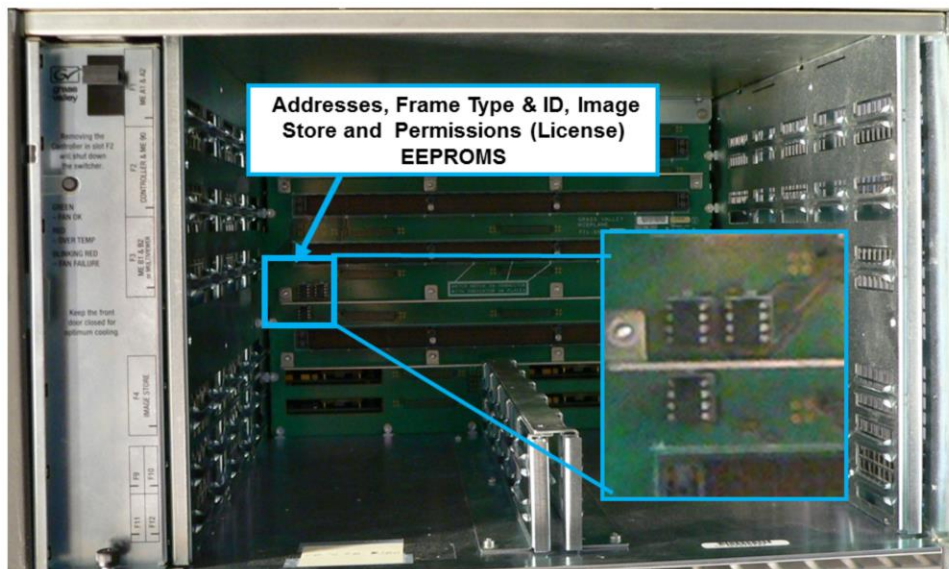
6B - 2

3G 5-M/E (6 RU) K-Frame



6B - 3

K-Frame IP Address Location



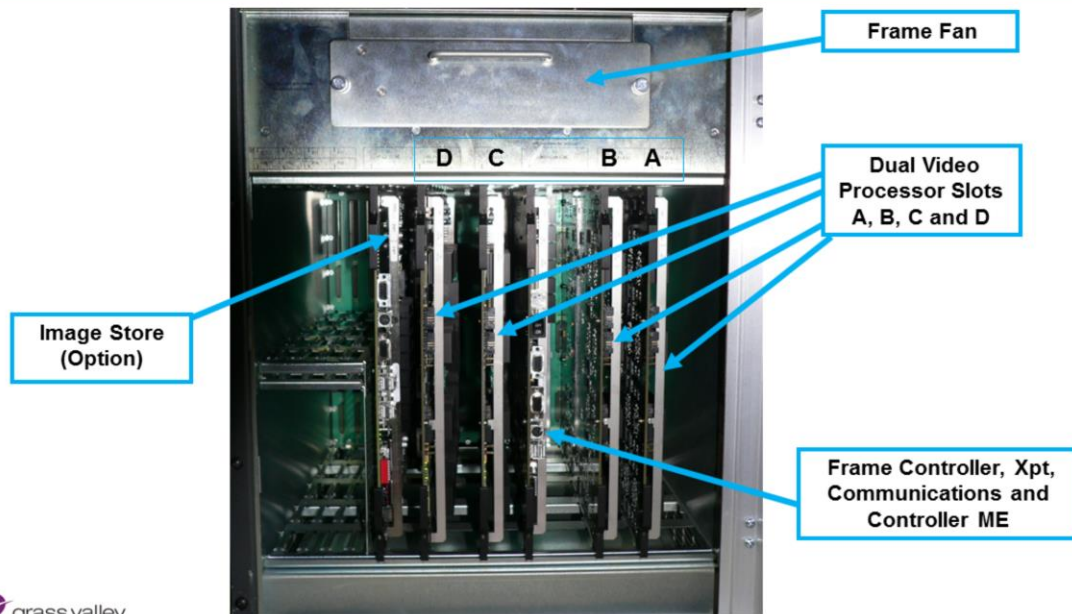
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6B - 4

Backplane Hardware

- The IP address of the Frame Processor and Image Store, the system permissions (or software license options), last Operating Video Format are stored on 3 socketed EEPROMS on the Mid Plane board, above the M/E B slot connector.
- The System Name, Type (K-Frame) and Serial Number are also stored on these EEPROMs. This is also the registered customer ID number.
- When replacing the frame or the Mid Plane Board, the licenses must be upgraded to the new frame. Either work with Customer Service to get a new license to install OR install the old programmed EEPROMS from the old frame into the newer frame with care.

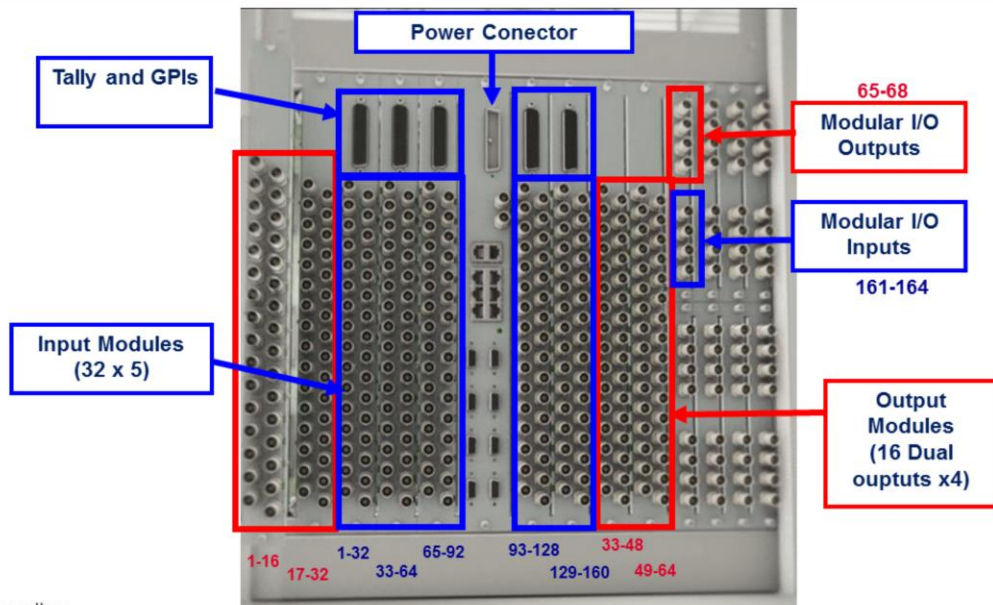
3G 9-ME (13 RU) K-Frame



6B - 5

- The main modules are inserted from the front.
- There are 3 types of boards in the 3G frame. Up to 4 Video Processors (Dual ME) boards, 1 Controller Board and the Image Store.
- Video Processor boards are labeled from the right starting with A.

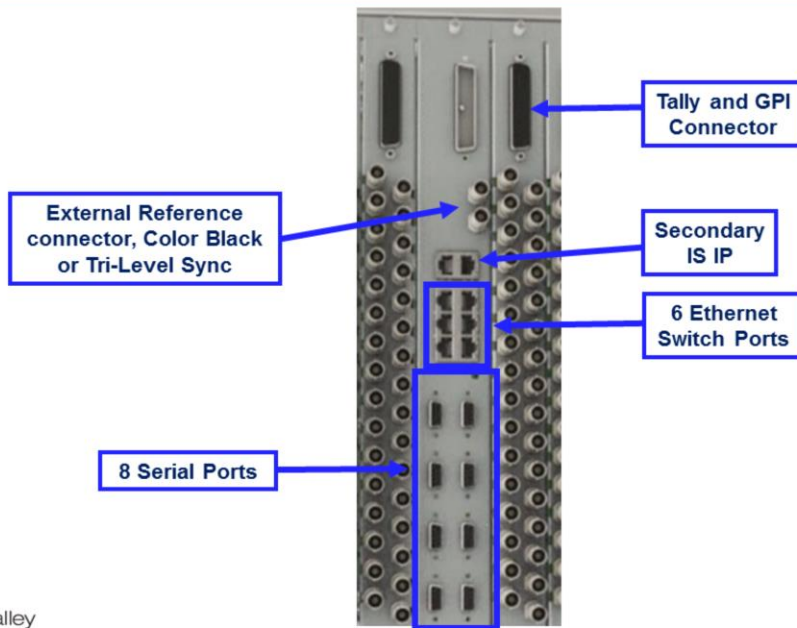
3G 9-M/E (13 RU) K-Frame - Rear (1)



6B - 6

All rear modules are held in place with 2 screws.
 Output boards have 2 BNCs for each output signal.
 Each modular I/O board has 4 Inputs and 4 Outputs.

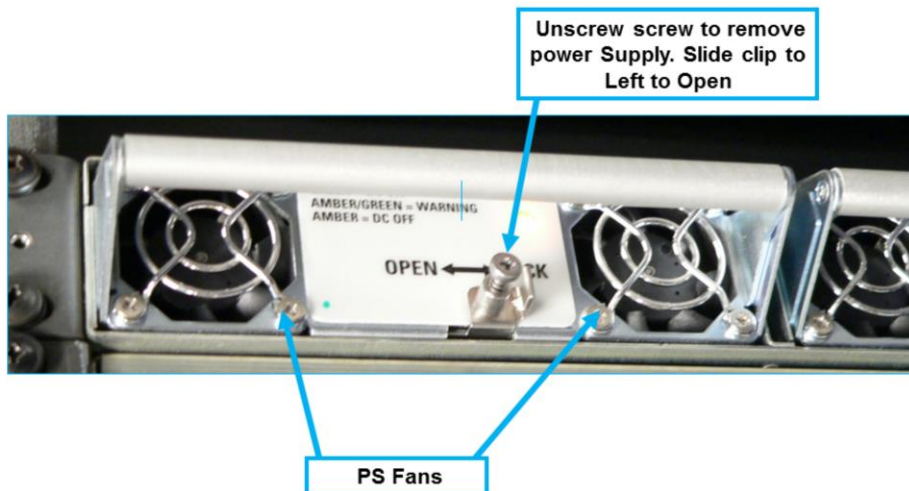
3G 9-M/E (13 RU) K-Frame - Rear



6B - 7

The rear Communications module provides connections for 8 Serial ports, 6 ports of the internal 8 port Ethernet switch, an additional port for the Image Store, the loop-through External Reference and the Frame Power Supply.

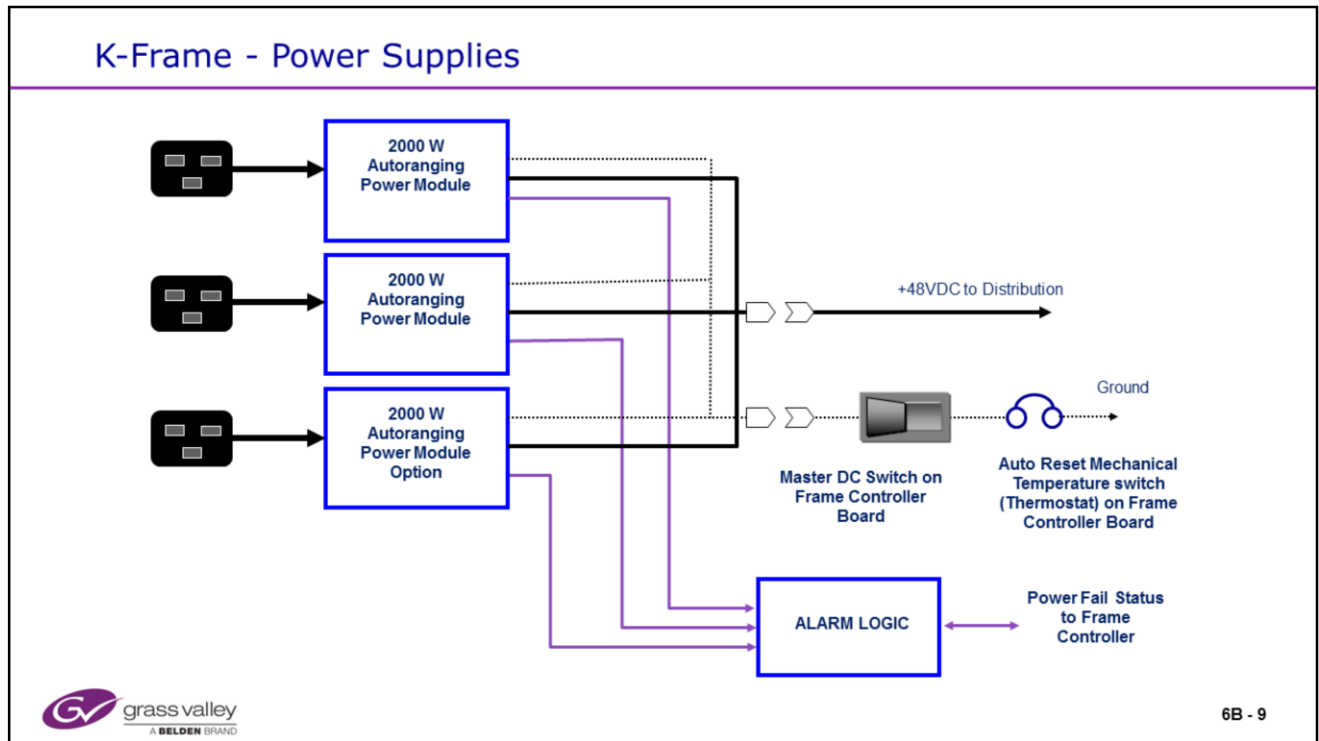
K-Frame - Power Supplies (1)



6B - 8

Video Frame Power Supplies

- All power supplies are auto ranging and will operate from 85 to 264 Volts, 47 to 63 Hertz.
- Each Power Supply has its own IEC power connection on the back of the frame.
- Each power supply provides 48 Volts D.C. and is capable of sourcing 16.7 Amps (800 Watts).
- The PS frame contains spaces for 3 supplies (2 standard).
- Each power supply has internal temperature sensors.
- PS LED shows Green for good, Green/Amber for warning, and solid Amber for DC Off (AC Present)



Power Supply Module

The same power supply tray is used for both the 6RU and the 13 RU frames.

The master DC switch is located on the Controller board.

One power supply is standard with the 6 RU switcher and the second is an option.

Two power supplies are standard with the 13 RU switcher and the third is an option.

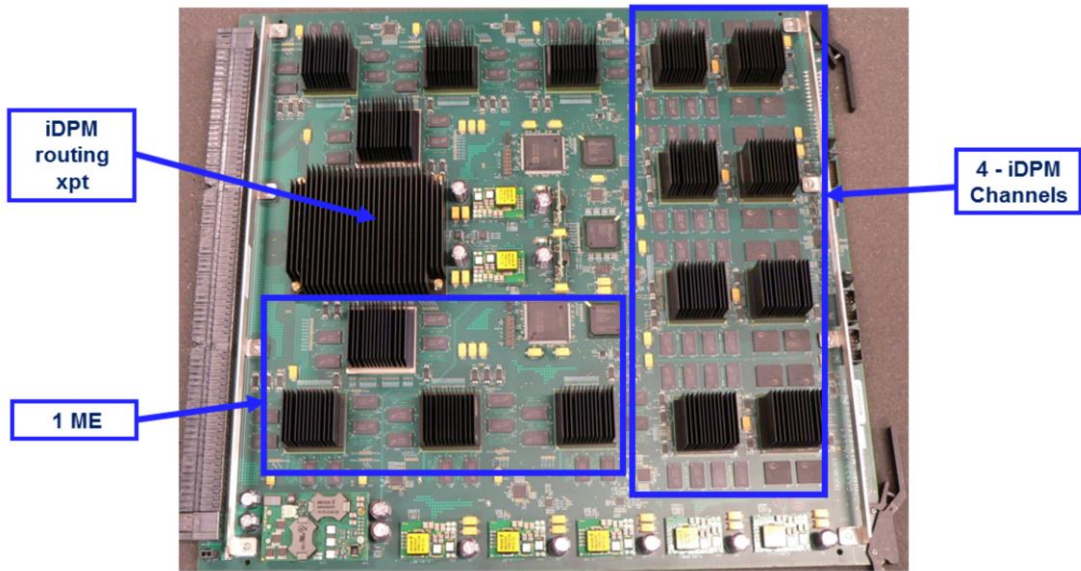
All power supplies are hot swappable and true load sharing.

The power supplies will run on anything from 85 to 264 Volts A.C. at 47 to 63 Hertz.

The power supplies are controlled by a series D.C. ground circuit. The switch and mechanical thermostat on the Frame Controller board are in the circuit.

The Thermostat will shut the power supplies down when the temperature reaches 75 degrees C (167 F). This device will close the circuit when the temperature drops 5 to 8 degrees C.

K-Frame Video Processing Board - Dual Mix Effects

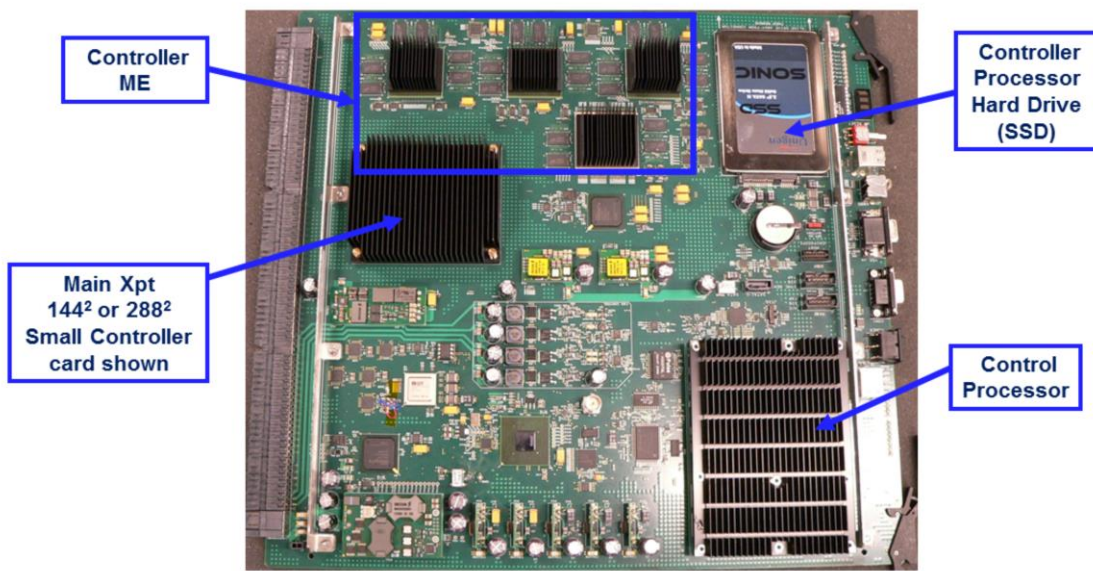


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6B - 10

- The Video Processor Dual M E board has no field replaceable parts.
- The board has 2 complete M Es (Keys, Wipes, Mixer, 2D-DPMs, ME View) 4 channels of iDPM, and an iDPM routing xpt.

K-Frame - Controller Board



Small Controller Board Shown

6B - 11

The Controller board carries the Controller ME. The Main video routing xpt, The Controller Processor and its hard drive (SSD). It also supports the Serial ports, Ethernet Switch, Sync circuitry and 2 Test Signal and 2 Background generators.

The physical Xpt Chip is different on the 2 versions of the board. The Controller for the large frame also has an additional MultiViewer chip (MX-MV)

K-Frame - Rear I/O Boards

Video Output
Board Shown

Video Input
Board is similar



Modular Input
Output Board



6B - 12

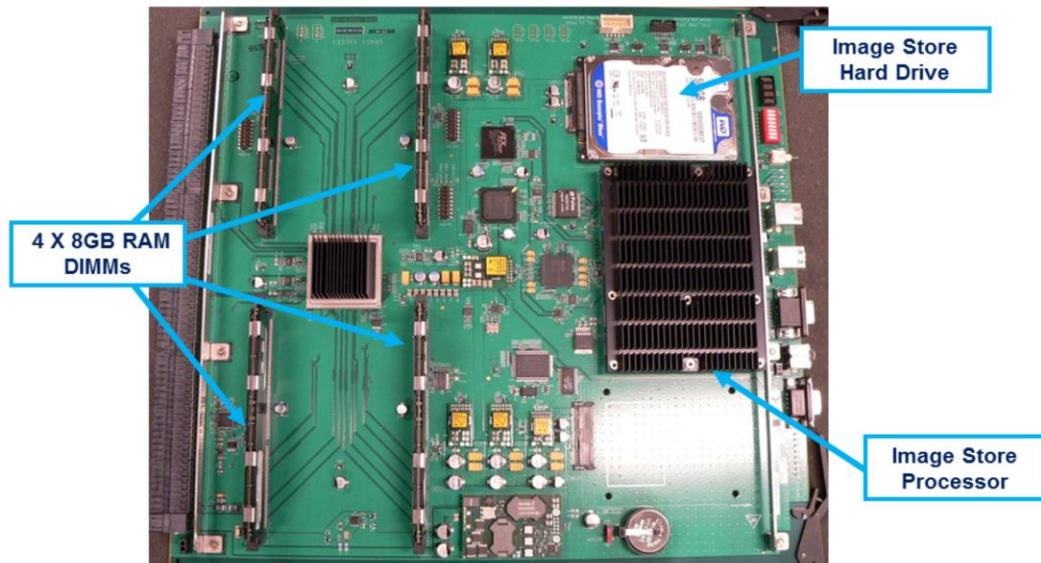
The main input and output boards look very similar.

The Output board (shown here) has 16 pairs of output BNCs

The Input board (Not shown) has 32 individual inputs.

The Modular I/O board is used for Set Def , Match Def or Bypass modes. In bypass it can be used as additional inputs and outputs. Note that if one input is set for Match def the corresponding Out put is set to Bypass. If the Output is set to Set Def the corresponding Input will be in Bypass.

K-Frame - Image Store Board



6B - 13

The Image Store board operates independently of the main Controller. It has it's own Processor, Hard drive for Image storage and up to 32GB of Memory.

All boards are shipped with 32 GB of memory installed. Licensing determines how much is available for use.

K-Frame Diagnostics - Web Browser (1)

Enter Frame IP Address

Select Desired Section

Cell Number	Cell Name	Present	Power	PCIe Link Up	Temp State
A3	Controller	Yes	OK	OK	Warm
A1	Mix Effects A	Yes	OK	OK	Warm
A2	Mix Effects B	Yes	OK	OK	Warm
A4	Mix Effects C	Yes	OK	OK	Warm
A5	Mix Effects D	Yes	OK	OK	Warm
A3	Mix Effects Ctrl	Yes	OK	OK	Cold

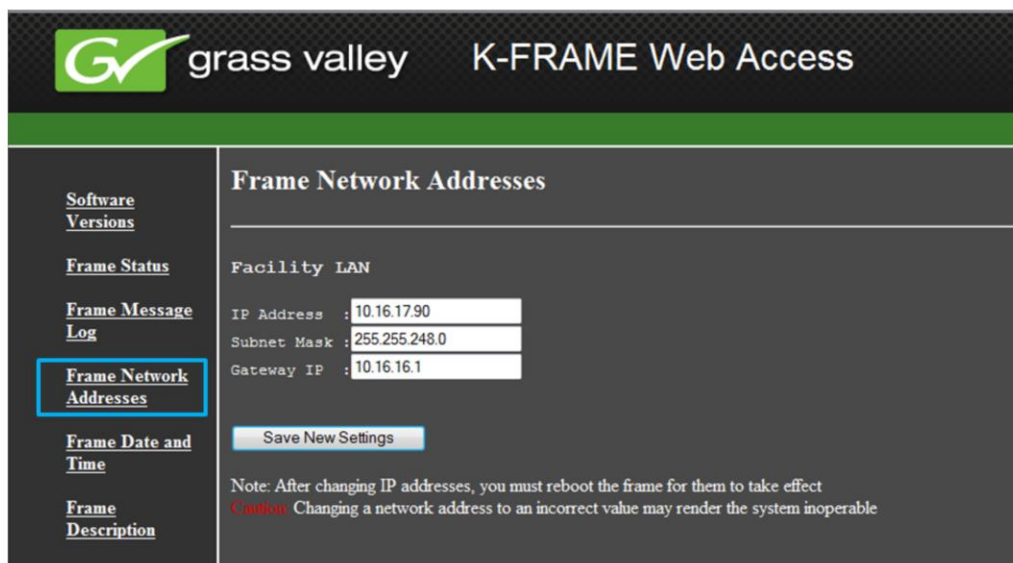


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6B - 14

- Web Browser access to the K-Frame processor showing Status page. This provides a quick way to verify the system operating condition.

K-Frame Diagnostics - Web Browser (6)



The screenshot displays the 'K-FRAME Web Access' interface. At the top, there is a header with the 'grass valley' logo and the title 'K-FRAME Web Access'. Below the header, a sidebar on the left contains several menu items: 'Software Versions', 'Frame Status', 'Frame Message Log', 'Frame Network Addresses' (which is highlighted with a red box), 'Frame Date and Time', and 'Frame Description'. The main content area is titled 'Frame Network Addresses' and contains a section for 'Facility LAN'. This section includes three input fields: 'IP Address' with the value '10.16.17.90', 'Subnet Mask' with the value '255.255.248.0', and 'Gateway IP' with the value '10.16.16.1'. Below these fields is a 'Save New Settings' button. A note at the bottom of the main area states: 'Note: After changing IP addresses, you must reboot the frame for them to take effect' and 'Caution: Changing a network address to an incorrect value may render the system inoperable'.

grass valley K-FRAME Web Access

Software Versions

Frame Status

Frame Message Log

Frame Network Addresses

Frame Date and Time

Frame Description

Frame Network Addresses

Facility LAN

IP Address : 10.16.17.90

Subnet Mask : 255.255.248.0

Gateway IP : 10.16.16.1

Save New Settings

Note: After changing IP addresses, you must reboot the frame for them to take effect


Caution: Changing a network address to an incorrect value may render the system inoperable



6B - 15

- The 'Frame and Network Addresses' page enables the frame IP, Subnet Mask and Gateway IP to be set. A reboot is required to activate the Saved addresses.

K-Frame Diagnostics - Web Browser (3)



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K-FRAME Web Access

Software Versions

Frame Status


Frame Message Log

Frame Assembly Time

Frame Description

Scrolling down will show the status of all module slots


Board Name	Assembly Number	Assembly Rev	Serial Number	Manufacture ID
Controller	771-0527-00	X2	BH12030169	BH
Control I/O	771-0518-00	X2	BHxxxxxxx	BH
Power Supply Dist				
Mix Effects A	771-0523-00	X3	BH12280110	BH
Mix Effects B	771-0523-00	X3	BH12280112	BH
Mix Effects C	771-0523-00	X3	BH12280113	BH
Mix Effects D	771-0532-00	X2	BH12210006	BEH
Video Input 1-32 Base Board	771-0514-00	X2	BH11480140	BH
Video Input 1-32 Mezzanine	771-0515-00	X2	BH11480172	BH
Video Input 33-64 Base Board	771-0514-00	X2	BH11480132	BH

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6B - 16

- ‘Frame Status’ shows the state of all Front and Rear frame boards.

K-Frame Diagnostics - Web Browser (2)


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K-FRAME Web Access

[Software Versions](#)
[Frame Status](#)
[Frame Message Log](#)
[Frame Network Addresses](#)
[Frame Date and Time](#)
[Frame Description](#)

Scrolling down will show the status of all module slots

B3	Video Input 1-32	Yes	OK	OK	Normal
B4	Video Input 33-64	Yes	OK	OK	Normal
B5	Video Input 65-96	Yes	OK	OK	Normal
B7	Video Input 97-128	Yes	OK	OK	Normal
B8	Video Input 129-160	Yes	OK	OK	Normal
B1	Video Output 1-16	Yes	OK	OK	Normal
B2	Video Output 17-32	Yes	OK	OK	Normal
B9	Video Output 33-48	Yes	OK	OK	Normal
B10	Video Output 49-64	Yes	OK	OK	Normal
B11	Modular I/O 1	Yes	OK	OK	Normal
B12	Modular I/O 2	Yes	OK	OK	Normal
B13	Modular I/O 3	Yes	OK	OK	Normal
B14	Modular I/O 4	Yes	OK	OK	Normal
B15	Modular I/O 5	Yes	OK	OK	Normal

- 'Frame Status' shows the state of all Front and Rear frame boards.

K-Frame Diagnostics - Web Browser (4)

grass valley K-FRAME Web Access

Enchilada Frame Message Log: /ahci00:2/boot1/logs/log21.txt

Previous Current Next

These selections will shift between 40 Log Files held in a circular buffer.

Frame Message Log

```

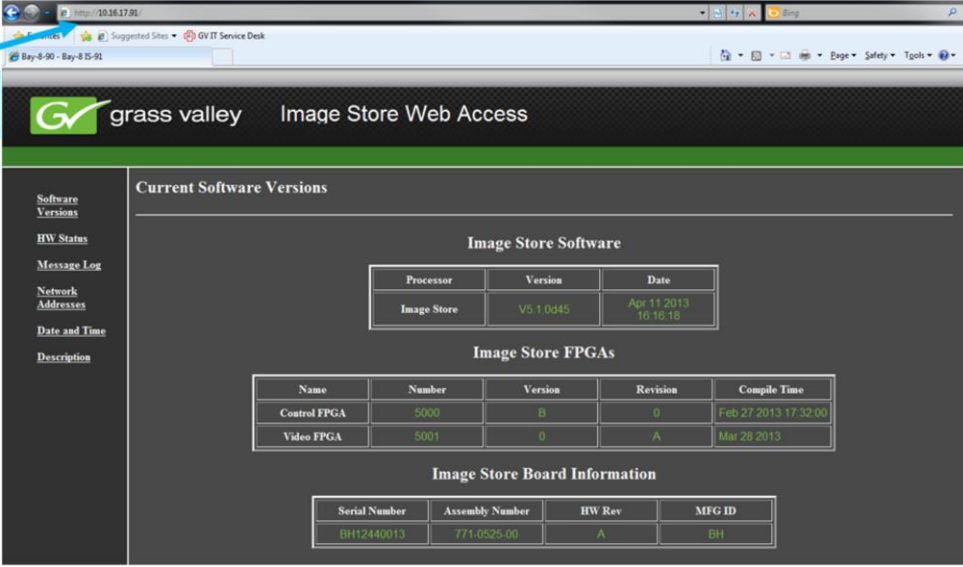
- 12 Apr 2013 13:23:08 (0) = main.map offset = 0xea08120
I 12 Apr 2013 13:23:08 (0) =====
I 12 Apr 2013 13:23:08 (0) K-FRAME
I 12 Apr 2013 13:23:08 (0) Copyright Grass Valley.
I 12 Apr 2013 13:23:08 (0) All Rights Reserved.
I 12 Apr 2013 13:23:08 (0) Version V5.1.0d45, built Apr 11 2013 16:22:26
I 12 Apr 2013 13:23:08 (0)
- 12 Apr 2013 13:23:08 (0) HAD E0800000: M/E Board 0, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E0C00000: M/E Board 1, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E1000000: M/E Board 2, Num.Ver.Rev 3000.c.0, TimeStamp 10/30/2012 16:54, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E1400000: M/E Board 3, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E0400000: M/E Board 6, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E2400000: Input Board 0, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 12 Apr 2013 13:23:08 (0) HAD E2800000: Input Board 1, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 12 Apr 2013 13:23:08 (0) HAD E2C00000: Input Board 2, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 12 Apr 2013 13:23:08 (0) HAD E3000000: Input Board 3, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 12 Apr 2013 13:23:08 (0) HAD E3400000: Input Board 4, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 12 Apr 2013 13:23:08 (0) HAD E1C00000: Output Board 0, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E2000000: Output Board 1, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E3800000: Output Board 2, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E3C00000: Output Board 3, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E4000000: Modular I/O 0, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E4400000: Modular I/O 1, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E4800000: Modular I/O 2, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E4C00000: Modular I/O 3, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 12 Apr 2013 13:23:08 (0) HAD E5000000: Modular I/O 4, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
  
```



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- The 'Frame Message Log' shows the contents of a 40 page circular buffer.
- This information is saved with the 'Capture Diagnostic Data'.

K-Frame Diagnostics - Image Store - Web Browser



Enter Image Store IP Address

grass valley Image Store Web Access

Current Software Versions

Image Store Software

Processor	Version	Date
Image Store	V5.1.0945	Apr 11 2013 16:16:18

Image Store FPGAs

Name	Number	Version	Revision	Compile Time
Control FPGA	5000	B	0	Feb 27 2013 17:32:00
Video FPGA	5001	0	A	Mar 28 2013

Image Store Board Information

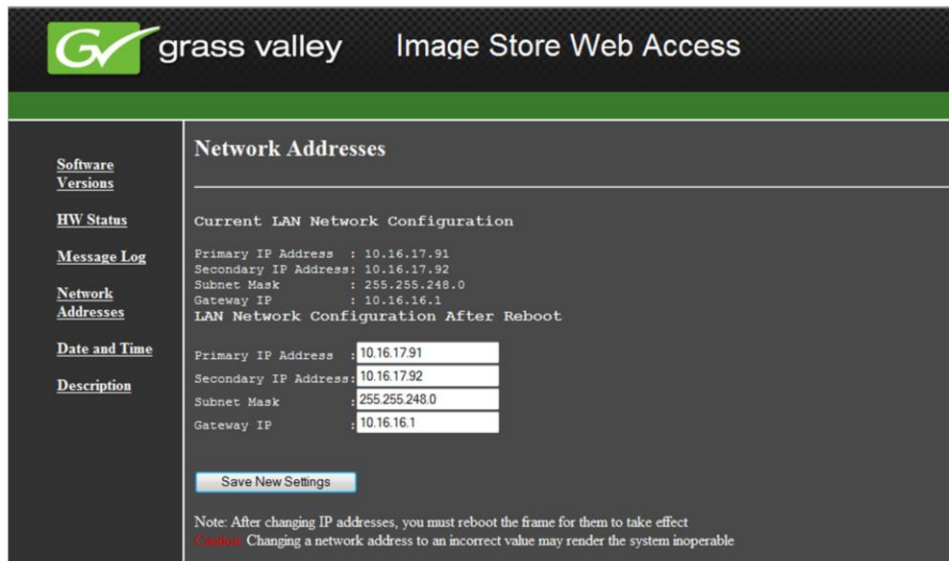
Serial Number	Assembly Number	HW Rev	MFG ID
BH12440013	771-0525-00	A	BH

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6B - 19

- The Images store has it's own Web information. The pages are very similar to the frame processor pages.

K-Frame Diagnostics - Image Store - Web Browser



grass valley Image Store Web Access

[Software Versions](#)
[HW Status](#)
[Message Log](#)
[Network Addresses](#)
[Date and Time](#)
[Description](#)

Network Addresses

Current LAN Network Configuration

Primary IP Address : 10.16.17.91
 Secondary IP Address: 10.16.17.92
 Subnet Mask : 255.255.248.0
 Gateway IP : 10.16.16.1

LAN Network Configuration After Reboot

Primary IP Address :
 Secondary IP Address:
 Subnet Mask :
 Gateway IP :

Note: After changing IP addresses, you must reboot the frame for them to take effect
 Caution: Changing a network address to an incorrect value may render the system inoperable



6B - 20

- There are 2 IP addresses for the Image Store. The frame normally communicates to IP address frame IP address +1.
- In this example the frame is at 10.16.17.90.
- The second IP address connects to a dedicated Ethernet port on the rear of the frame.

K-Frame Capture System Diagnostics - Menu

Selecting Capture Diagnostic Data will enable all data from the Frame, Menu and Panel Processors to be saved

Node Name	Control Surface	Node Type	IP Address	Version	Date
Bay-8-90		Video Proc Frame	10.16.17.90	V5.1.0042	Apr 2 2013
Bay-8-4ME Pnl	2 A	Kayenne Panel	10.16.17.123	V5.1.0042	Apr 2 2013
Kayenne Panel		Kayenne Panel	10.16.17.124	V5.1.0042	Apr 2 2013
Bay-8-2ME Pnl	1 A	Kayenne Panel	10.16.17.93	V5.1.0042	Apr 2 2013
Image Store		Image Store	10.16.17.91	V5.1.0042	Apr 2 2013
Bay-8-4ME Menu	2 A	Menu Panel	10.16.17.125	V5.1.0042	Apr 2 2013
Clip Store		Clip Store Summit	10.16.17.206	V8.1.11.181	

Menu Version: Ver d42 VS.1.0

Memory Usage: Memory 18%

Buttons: Minimize Menu, Restart or Exit Menu, Close Down Menu Computer, Capture Software Diagnostic Data

Bottom Bar: Eng Login, SetDef MatchDef, Source Definition, Outputs, Ports & Devices, Switcher Tally, Router, ClipStore Config, Video Settings, Node Settings, Install Options, Test Patterns, Status, Save Load, Acquire Resources, User Setups, File Ops, E-MEM & Timeline, Macros, Source Ops, ME, Keyer, IDPM, Wipes, Copy Swap, Devices, Image Store, Router, Eng Setup

- Saving Diagnostic data takes about 15-30 minutes.
- The menu will be inoperable during this time. The switcher will still be operational but may not operate as normal.

K-Frame Diagnostics - Telnet (1)

```

CA Telnet 10.16.17.90
> consoleMenu
[1] Status           [2] Controller       [3] ME
[4] Input            [5] Output           [6] ModIO
[7] Image Store      [8] Multi Viewer     [9] Debug
[10] Software Options [11] Fan Controller  [P] Power Supply
[12] Boot Sw Help    [Z] Test Diagnostics [D] DisableAllUpdates
[1] Prod Test Setup  [M] DisableAllMonitoring [X] Exit to shell

> 1
Cell
Number Cell Name      Present Power  PCIe  Temperature
Link Up State
F1  Mix Effects A      yes  yes  yes  Warn
F2  Mix Effects B      yes  yes  yes  Warn
F3  Controller          yes  yes  yes  Warn
F4  Mix Effects C      yes  yes  yes  Warn
F5  Mix Effects D      yes  yes  yes  Warn
R6  Image Store         yes  yes  yes  Normal
R1  Video Output 1-16   yes  yes  yes  Normal
R2  Video Output 17-32 yes  yes  yes  Normal
R3  Video Input 1-32   yes  yes  yes  Normal
R4  Video Input 33-64  yes  yes  yes  Normal
R5  Video Input 65-96  yes  yes  yes  Normal
R6  Control I/O        yes  yes  yes  n/a
R7  Video Input 97-128 yes  yes  yes  Normal
R8  Video Input 129-160 yes  yes  yes  Normal
R9  Video Output 33-48 yes  yes  yes  Normal
R10 Video Output 49-64  yes  yes  yes  Normal
R11 Modular I/O 1      yes  yes  yes  Normal
R12 Modular I/O 2      yes  yes  yes  Normal
R13 Modular I/O 3      yes  yes  yes  Normal
R14 Modular I/O 4      yes  yes  yes  Normal
R15 Modular I/O 5      yes  yes  yes  Normal
R16 Modular I/O 6      yes  yes  yes  Normal
R17 Modular I/O 7      yes  yes  yes  Normal
R18 Modular I/O 8      yes  yes  yes  Normal
F3  Mix Effects Ctrl   yes  yes  yes  Cold

Board Name      Assenby Number  Rev  Serial Number  Mfg
Id

```

To Telnet into the frame type 'consoleMenu' at the > prompt



- Take extreme care when communicating to the frame in this way as some commands can render the system inoperable.

K-Frame Diagnostics - Telnet (2)

```

Telnet 10.16.17.90
> consoleMenu
[1] Status           [2] Controller       [3] ME
[4] Input            [5] Output           [6] ModIO
[7] Image Store      [8] Multi Viewer     [9] Debug
[10] Software Options [11] Fan Controller  [P] Power Supply
[11] Boot Su Help    [12] Test Diagnostics [D] DisableAllUpdates
[1] Prod Test Setup  [M] DisableAllMonitoring [X] Exit to shell

> 9
[1] GPI              [2] Tally            [3] MessageControl
[4] TimeThreads      [5] Router Control   [6] RDP/CPL Tests
[7] Show image info  [8] Show DMA info    [9] Feature Tests
[10] Transition       [11] Switch Image DMA [12] Temp Show All
[13] Temp Adjust Params [14] Dump HAD Info  [15] Flash HADs
[16] NP Aux Control  [17] Field Timing   [18] CPL Msg Timing
[19] Display Re-entries [20] DebugNetwork   [21] DebugStillStore
[22] Debug Event Control [X] Exit

Debug> 12

```

Id	Sensor Name (Location)	Temp(C)	State	Cold2Norm	Norm2Warn	Warn2Hot	Hot2TooHot
0	Cntl Board Near Front	49.5	Warn	20.0	50.0	60.0	80.0
1	Cntl Board Near Rear	54.0	Warn	40.0	55.0	70.0	80.0
2	Cntl Board Cntl SBC	63.0	Normal	60.0	75.0	90.0	100.0
3	Cntl DC/DC 12.0U	50.0	Normal	40.0	65.0	100.0	110.0
4	Cntl DC/DC 1.5U	58.5	Normal	40.0	65.0	100.0	110.0
5	Cntl DC/DC 0.9U	73.3	Warn	40.0	65.0	100.0	110.0
6	Cntl Large Frame Xpt	45.0	Normal	40.0	65.0	85.0	95.0
7	IO Board	29.5	Normal	20.0	40.0	60.0	80.0
8	PS Left Inlet	27.0	Cold	30.0	40.0	50.0	60.0
9	PS Left Hot Spot	40.0	Normal	30.0	50.0	70.0	90.0
10	PS Middle Inlet	29.0	Cold	30.0	40.0	50.0	60.0
11	PS Middle Hot Spot	40.0	Normal	30.0	50.0	70.0	90.0
12	PS Right Inlet	29.0	Normal	30.0	40.0	50.0	60.0
13	PS Right Hot Spot	40.0	Normal	30.0	50.0	70.0	90.0
14	MEA Board	60.5	Warn	40.0	55.0	70.0	80.0
15	MEA DC/DC 12.0U	75.0	Warn	40.0	65.0	100.0	110.0
16	MEA DC/DC 2.5U	85.6	Warn	40.0	65.0	100.0	110.0
17	MEA DC/DC 1.8U	66.3	Warn	40.0	65.0	100.0	110.0
18	MEA DC/DC 1.5U	73.0	Warn	40.0	65.0	100.0	110.0

The Debug (9) command and TempShow (12) command can provide useful information



- Take extreme care when communicating to the frame in this way as some commands can render the system inoperable.

K-Frame Logs

```
- 01 Apr 2013 15:15:53 (0) = main.map_offset = 0xea08120
I 01 Apr 2013 15:15:53 (0) =====
I 01 Apr 2013 15:15:53 (0) K-FRAME
I 01 Apr 2013 15:15:53 (0) Copyright Grass Valley.
I 01 Apr 2013 15:15:53 (0) All Rights Reserved.
I 01 Apr 2013 15:15:53 (0) Version V5.1.0d41, built Mar 28 2013 10:41:45
I 01 Apr 2013 15:15:53 (0) =====
- 01 Apr 2013 15:15:53 (0) HAD E0800000: M/E Board 0, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E0C00000: M/E Board 1, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E1000000: M/E Board 2, Num.Ver.Rev 3000.c.0, TimeStamp 10/30/2012 16:54, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E1400000: M/E Board 3, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E0400000: M/E Board 6, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E2400000: Input Board 0, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E2800000: Input Board 1, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E2C00000: Input Board 2, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E3000000: Input Board 3, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E3400000: Input Board 4, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E1C00000: Output Board 0, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E2000000: Output Board 1, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E3800000: Output Board 2, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E3C00000: Output Board 3, Num.Ver.Rev 1800.b.0, TimeStamp 08/22/2012 11:03, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E4000000: Modular I/O 0, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E4400000: Modular I/O 1, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E4800000: Modular I/O 2, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E4C00000: Modular I/O 3, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E5000000: Modular I/O 4, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E5400000: Modular I/O 5, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E5800000: Modular I/O 6, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E5C00000: Modular I/O 7, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) IDT PCIe switch in DMA mode (config 0x0000016E)
- 01 Apr 2013 15:15:53 (0) DMA transfer subsystem ENABLED
- 01 Apr 2013 15:15:53 (0) ED6R Crash Dumps Enabled
- 01 Apr 2013 15:15:53 (0) ED6R Crash Dump directory set to: /ahc100:2/boot1/DUMP/DUMP_4-1-2013
- 01 Apr 2013 15:15:53 (0) Core Dump directory set to: /ahc100:2/boot1/DUMP/DUMP_4-1-2013
- 01 Apr 2013 15:15:53 (0)
- 01 Apr 2013 15:15:53 (0) *** Console to Log STD_OUT restored. ***
- 01 Apr 2013 15:15:53 (0) add net 0.0.0.0: netmask 0.0.0.0: gateway 10.16.16.1
- 01 Apr 2013 15:15:53 (0) Controller FPGA Files FPGA FileNames() Num:2
```

A reboot will always start a new page with the header information



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K-Frame Diagnostic Data

The screenshot shows a file explorer window titled 'DIAGS 2013-4-1'. The left pane shows a tree view of folders: 'Frame', 'boot1', 'DUMP', 'LOGS', 'NV', 'srcmem', 'suite1', 'cues', 'edpms', 'emems', 'macros', 'rmems', 'srcmem', 'suite2', 'cues', 'edpms', 'emems', 'macros', 'rmems', 'srcmem', 'boot2', 'Image Store', 'boot1', 'boot2', 'Menu', 'K-Frame Menu', 'Bitmaps', 'Data', and 'Drivers'. The 'NV' folder is highlighted with a blue box. The right pane shows a list of files and folders with columns for Name, Size, Type, and Date Modified. The files listed are: 'srcmem' (File Folder, 4/4/2013 1:24 PM), 'suite1' (File Folder, 4/4/2013 1:24 PM), 'suite2' (File Folder, 4/4/2013 1:24 PM), 'Nodes' (NVA File, 2 KB, 4/1/2013 4:37 PM), 'PanelPrf' (NVA File, 116 KB, 4/1/2013 4:37 PM), 'Panel3Prf' (NVA File, 120 KB, 4/1/2013 4:37 PM), 'RemAux' (NVA File, 192 KB, 4/1/2013 4:37 PM), 'SrcRls' (NVA File, 529 KB, 4/1/2013 4:37 PM), 'SrcRls2' (NVA File, 529 KB, 4/1/2013 4:37 PM), 'Sut2Prf' (NVA File, 327 KB, 4/1/2013 4:37 PM), 'SuitePrf' (NVA File, 323 KB, 4/1/2013 4:37 PM), and 'SysConfig' (NVA File, 224 KB, 4/1/2013 4:37 PM). Two blue arrows point from the 'Nodes' and 'SysConfig' files in the right pane to a text box that says: 'Saving Diagnostic data will capture all the information from the Frame, Image Store, Menu and Panel processors'.

Name	Size	Type	Date Modified
srcmem		File Folder	4/4/2013 1:24 PM
suite1		File Folder	4/4/2013 1:24 PM
suite2		File Folder	4/4/2013 1:24 PM
Nodes	2 KB	NVA File	4/1/2013 4:37 PM
PanelPrf	116 KB	NVA File	4/1/2013 4:37 PM
Panel3Prf	120 KB	NVA File	4/1/2013 4:37 PM
RemAux	192 KB	NVA File	4/1/2013 4:37 PM
SrcRls	529 KB	NVA File	4/1/2013 4:37 PM
SrcRls2	529 KB	NVA File	4/1/2013 4:37 PM
Sut2Prf	327 KB	NVA File	4/1/2013 4:37 PM
SuitePrf	323 KB	NVA File	4/1/2013 4:37 PM
SysConfig	224 KB	NVA File	4/1/2013 4:37 PM



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- The NV files can be examined in the Diagnostic Data.
- The Nodes list shows all of the IP information for the panels and Menus.
- The System Configuration will show all of the Engineering information.

K-Frame Diagnostics - NV files - Sys Config

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="yes">
<SystemConfig xmlns="urn:grassvalley.com:ENCHILADA:nv:V5.1.0d41">
<SystemCfg ID="42000000" nType="obj">
<param name="ImageStoreName" datatype="String">Image_Store</param>
<param name="C2ipGatewayAddress" datatype="UInt32">303304714</param>
<PeriSetup ID="1" nType="obj">
<RouterIF ID="1" nType="obj">
<param name="RouterTypeRouterIPAddress" datatype="String">10.16.16.23</param>
<param name="RouterTypeRouterIPAddressSec" datatype="String">10.16.16.24</param>
</RouterIF>
<RemAuxIF ID="0" nType="obj">
<param name="RemAuxConfigured" datatype="Bool">true</param>
<param name="CtrlSurfaceNumber" datatype="UInt16">1</param>
<param name="RemAuxPanelName" datatype="String">116</param>
<param name="RemAuxPanelID" datatype="State">1</param>
<param name="RemDestinationType" datatype="State">1</param>
<param name="RemAuxIPAddr" datatype="String">10.16.20.126</param>
</RemAuxIF>
<EditorIF ID="0" nType="obj">
<param name="DeviceName" datatype="String">Editor 1</param>
</EditorIF>
<EditorIF ID="1" nType="obj">
<param name="DeviceName" datatype="String">Editor 2</param>
</EditorIF>
<SrcMachineIF ID="1" nType="obj">
<param name="DeviceName" datatype="String">SG3-1</param>
<param name="MachineControl" datatype="State">3</param>
<param name="VtrIfProtocol" datatype="State">5</param>
<param name="SerialPortNum" datatype="Int16">4</param>
</SrcMachineIF>
<SrcMachineIF ID="2" nType="obj">
<param name="DeviceName" datatype="String">SK2-1</param>
<param name="MachineControl" datatype="State">3</param>
<param name="VtrIfProtocol" datatype="State">5</param>
<param name="SerialPortNum" datatype="Int16">5</param>
</SrcMachineIF>
<SrcMachineIF ID="6" nType="obj">
<param name="DeviceName" datatype="String">K2-2</param>
<param name="VtrIfType" datatype="State">1</param>
<param name="MachineControl" datatype="State">3</param>
<param name="VtrIfProtocol" datatype="State">6</param>
<param name="OmnibusDeviceIPAddress" datatype="UInt32">940838922</param>
</SrcMachineIF>
```

This page displays part of a
Sys Config XML file



- An example of a Sys Config file from captured Diagnostic Data NV file.

K-Frame Diagnostics - Node list

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="yes"?>
<PersistentNodes xmlns="urn:grassvalley.com:ENCHILADA:nv:V5.1.0d40">
<SystemCfg ID="62000000" nType="obj">
<Nodes ID="1" nType="obj">
<Node ID="1" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">1611730954</param>
<param name="Name" datatype="String">Bay-8 2ME Menu</param>
</Node>
<Node ID="2" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">1561399306</param>
<param name="Name" datatype="String">Bay-8 2ME Pnl</param>
</Node>
<Node ID="3" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">2098270218</param>
<param name="Name" datatype="String">Bay-8 4ME Menu</param>
<param name="SuiteNumber" datatype="UInt16">1</param>
</Node>
<Node ID="4" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">2064715786</param>
<param name="Name" datatype="String">Bay-8 4ME Pnl</param>
<param name="SuiteNumber" datatype="UInt16">1</param>
</Node>
<Node ID="5" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">2148601866</param>
<param name="Name" datatype="String">Bay-8 KSP</param>
<param name="SuiteNumber" datatype="UInt16">1</param>
</Node>
<Node ID="6" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">2483163146</param>
<param name="Name" datatype="String">Cliff-PC</param>
</Node>
<Node ID="15" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">1845628938</param>
<param name="Name" datatype="String">KRIN PC</param>
</Node>
<Node ID="16" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">437915658</param>
<param name="Name" datatype="String">andreus</param>
<param name="SuiteNumber" datatype="UInt16">1</param>
</Node>
</Nodes>
</SystemCfg>
</PersistentNodes>
```

This page displays an entire
XML file for a Node list.



- An example of a K-Frame Node List file from captured Diagnostic Data NV file.

K-Frame Logs

```
- 01 Apr 2013 15:15:53 (0) = main.map offset = 0xea08120
I 01 Apr 2013 15:15:53 (0) =====
I 01 Apr 2013 15:15:53 (0) K-FRAME
I 01 Apr 2013 15:15:53 (0) Copyright Grass Valley.
I 01 Apr 2013 15:15:53 (0) All Rights Reserved.
I 01 Apr 2013 15:15:53 (0) Version V5.1.0d41, built Mar 28 2013 10:41:45
I 01 Apr 2013 15:15:53 (0) =====
- 01 Apr 2013 15:15:53 (0) HAD E0800000: N/E Board 0, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E0C00000: N/E Board 1, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E1000000: N/E Board 2, Num.Ver.Rev 3000.c.0, TimeStamp 10/30/2012 16:54, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E1400000: N/E Board 3, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E0400000: N/E Board 6, Num.Ver.Rev 3000.c.0, TimeStamp 08/06/2012 11:41, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E2400000: Input Board 0, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E2800000: Input Board 1, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E2C00000: Input Board 2, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
- 01 Apr 2013 15:15:53 (0) HAD E3000000: Input Board 3, Num.Ver.Rev 1000.b.0, TimeStamp 08/20/2012 15:18, DMA:N/A
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- 01 Apr 2013 15:15:53 (0) HAD E5000000: Modular I/O 4, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E5400000: Modular I/O 5, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
- 01 Apr 2013 15:15:53 (0) HAD E5800000: Modular I/O 6, Num.Ver.Rev 4000.b.0, TimeStamp 08/22/2012 14:12, DMA:Yes
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- 01 Apr 2013 15:15:53 (0) DMA transfer subsystem ENABLED
- 01 Apr 2013 15:15:53 (0) ED4R Crash Dumps Enabled
- 01 Apr 2013 15:15:53 (0) ED4R Crash Dump directory set to: /ahci00:2/boot1/DUMP/DUMP_4-1-2013
- 01 Apr 2013 15:15:53 (0) Core Dump directory set to: /ahci00:2/boot1/DUMP/DUMP_4-1-2013
- 01 Apr 2013 15:15:53 (0)
- 01 Apr 2013 15:15:53 (0) *** Console to Log STD_OUT restored. ***
- 01 Apr 2013 15:15:53 (0) add net 0.0.0.0: netmask 0.0.0.0: gateway 10.16.16.1
- 01 Apr 2013 15:15:53 (0) Controller FPGA Files FPGA FileNames() Num:2
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