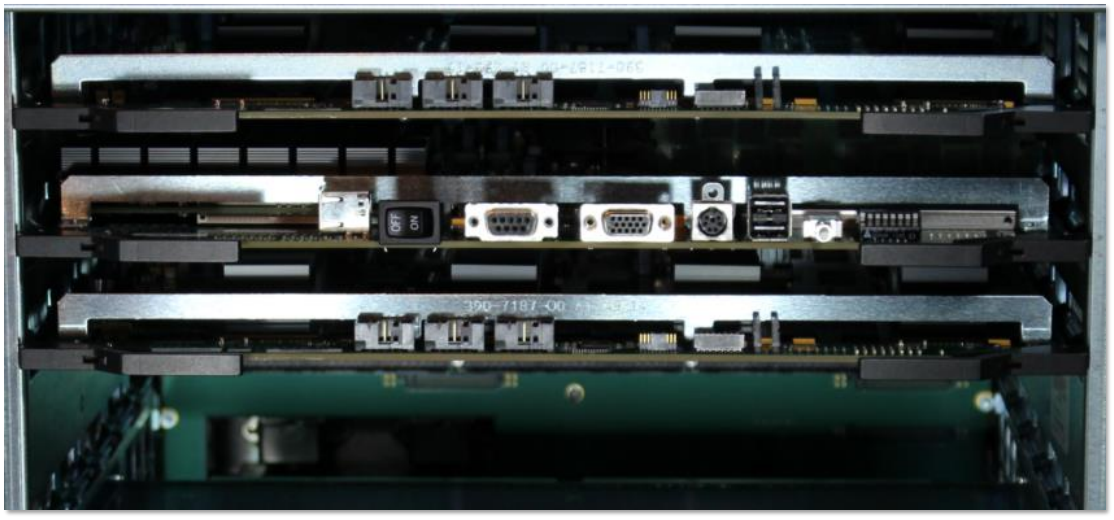
Section 6B - K-Frame S-series



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K-Frame S-series

- Frames
  - 6 RU - S-series Frame
  - Internal Power Supplies
  - Controller Board with Multi Viewer and Image Store
  - Uses either Dual ME or Triple ME Boards
- Troubleshooting / Diagnostics
  - Frame Diagnostics Methods:
    - Web Browser
    - Telnet
    - Logs
    - Diagnostic Data

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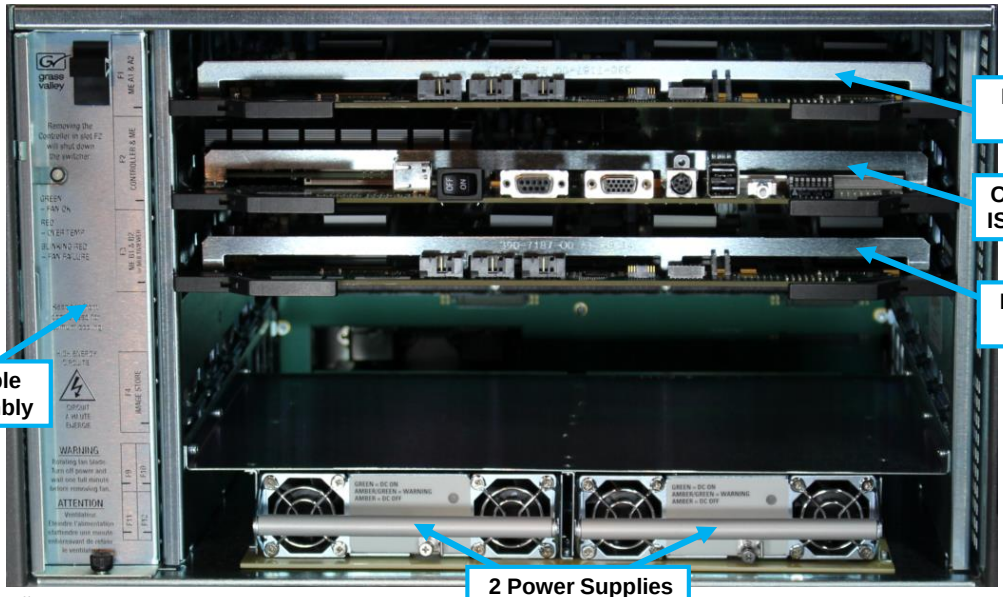
5-ME (6 RU) S-series Frame



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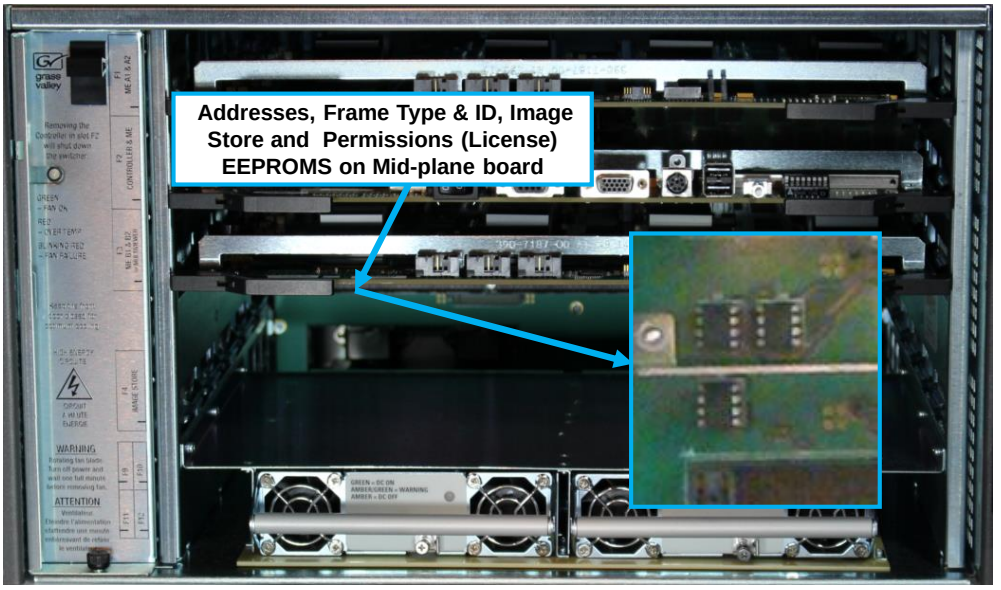
This shows the S-series frame with Triple ME boards and New controller card with on board Image Store.

The Image Store slot is not used in this configuration.

S-series IP Address Location



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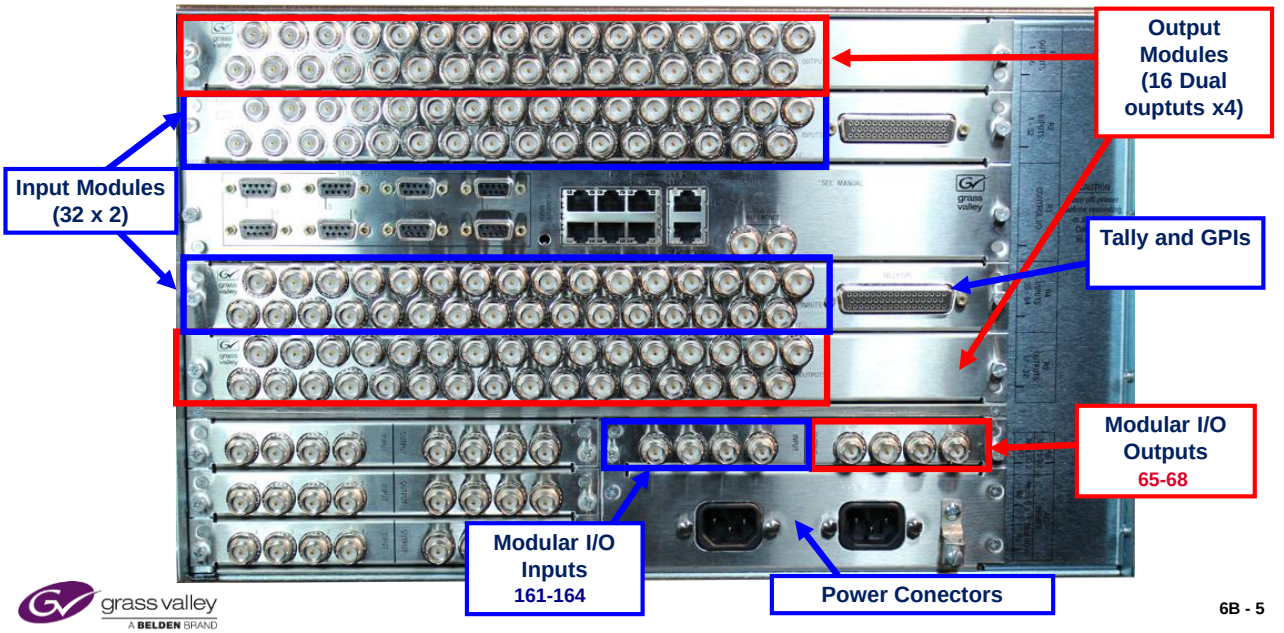
Backplane Hardware

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.

6-ME (6 RU) S-series Rear (1)

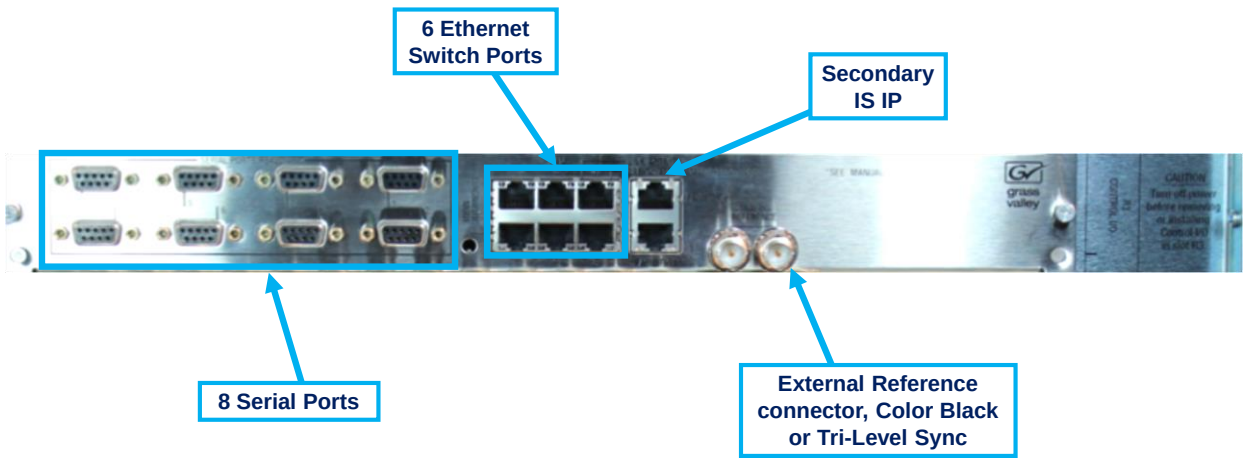


All rear modules are held in place with 2 screws.

Output boards have 2 BNCs for each output signal.

Each modular I/O board has 4 Inputs and 4 Outputs.

S-series – Rear Communication module



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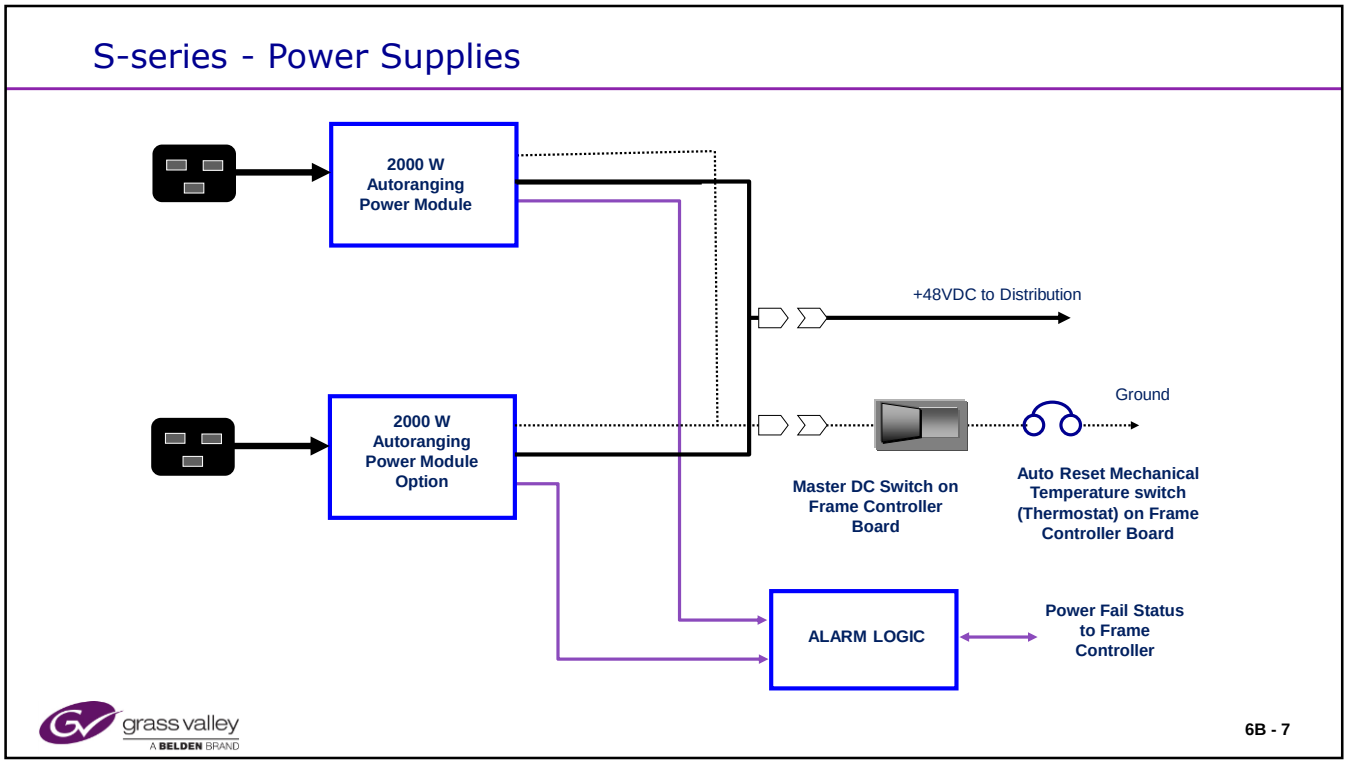
The rear Communications module provides connections for 8 Serial ports, 6 ports of the internal 8 port Ethernet switch, an additional port for the Image Store, the loop-through External Reference and the Frame Power Supply.



Power Supply Module

The same power supplies are used in the S-series but mounted inside the chassis/

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..

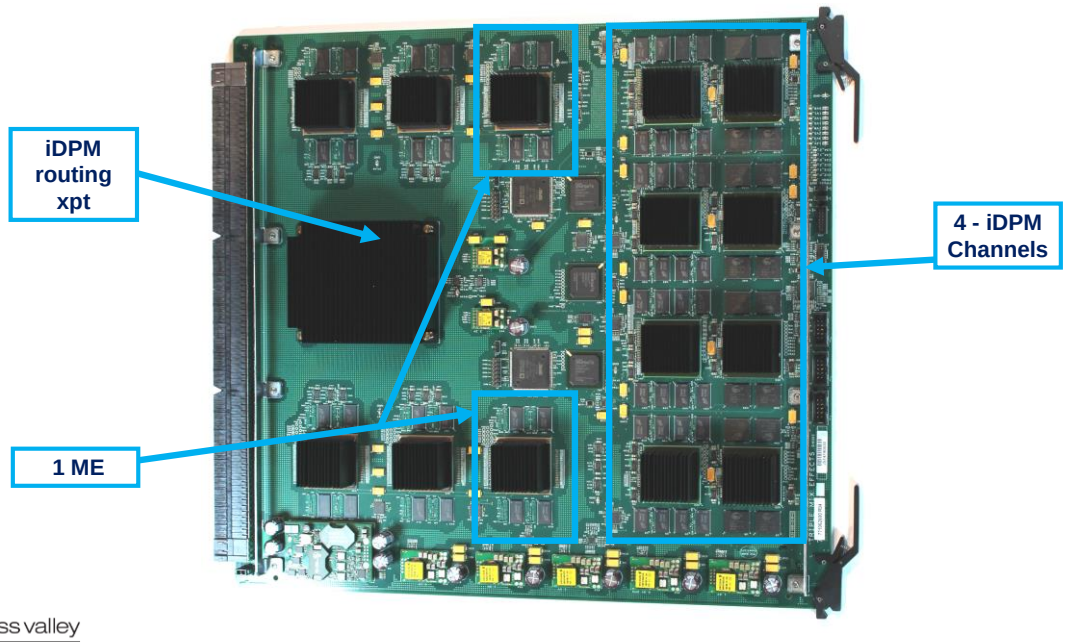
All power supplies are hot swappable and true load sharing.

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.

S-series Video Processing Board – Triple Mix Effects



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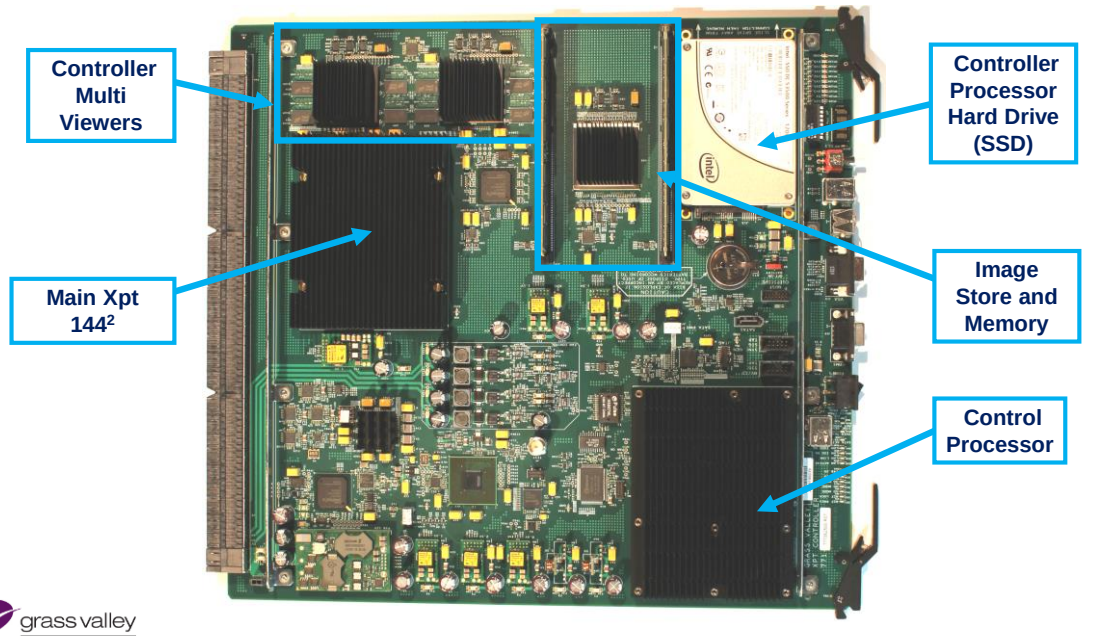
The Video Processor Dual M E board has no field replaceable parts.

The board has 2 complete M Es (Keys, Wipes, Mixer, 2D-DPMs, ME View) 4 channels of iDPM, and an iDPM routing xpt.

S-series - Controller Board



The Controller board carries the Controller ME, the Main video routing Xpt, the ImageStore and it's 32GB of Memory, 2 MultiVirewers, the Controller Processor and its 120GB hard drive (SSD).

It also supports the Serial ports, Ethernet Switch, Sync circuitry and 2 Test Signal and 2 Background generators.

S-series - Rear I/O Boards

Video Output Board Shown

Video Input Board is similar

Modular Input Output Board

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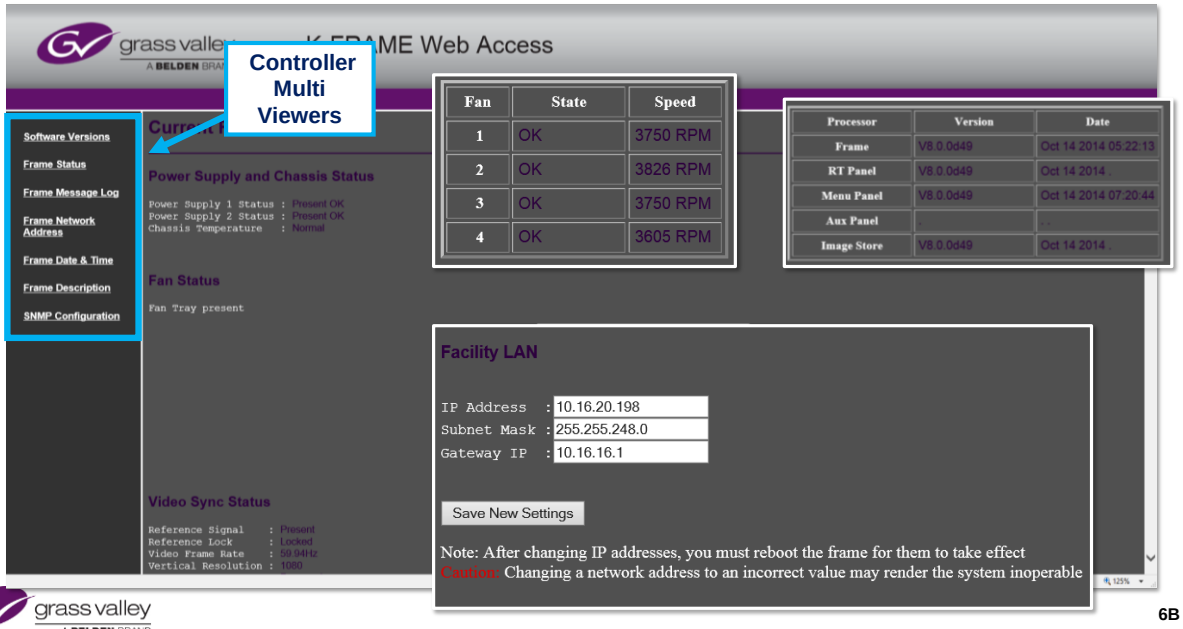
The main input and output boards look very similar.

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.

S-series - Web Browser (1)



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Web Browser access to the K–Frame processor showing Fame Status, Network Addresses and Software Versions.

This provides a quick way to verify the system operating condition.

S-series - Web Browser (2)

Slot Number	Slot Name	Present	Power	PCIe Link Up	Temp State
F2	Controller	Yes	OK	OK	Normal
F1	Mix Effects A	Yes	OK	OK	Normal
F3	Mix Effects B	Yes	OK	OK	Normal
F2	MvIseXpt	Yes	OK	OK	Cold
R2	Video Input 1-32	Yes	OK	OK	Cold
R4	Video Input 33-64	Yes	OK	OK	Cold
R1	Video Output 1-16	Yes	OK	OK	Cold
R5	Video Output 17-32	Yes	OK	OK	Cold
R6	Modular I/O 1	Yes	OK	OK	Normal
R7	Modular I/O 2	Yes	OK	OK	Normal
R8	Modular I/O 3	Yes	OK	OK	Normal

Board Name	Assembly Number	Assembly Rev	Serial Number	Manufacture ID
Controller	771-0625-00	X1	JS14060010	JS
Control I/O	771-0518-50	X1	JG14120564	JG
Power Supply Dist	771-0623-00	X2	JS14180005	JS
Mix Effects A	771-0626-00	X2	JS14190026	JS
Mix Effects B	771-0626-00	X1	JS14130004	JS
Video Input 1-32 Base Board	771-0514-01	X1	JS13420006	JS
Video Input 1-32 Mezzanine	771-0515-01	X1	JS13420009	JS
Video Input 1-32 Assembly				
Video Input 33-64 Base Board	771-0514-01	A1	JS14220006	JS

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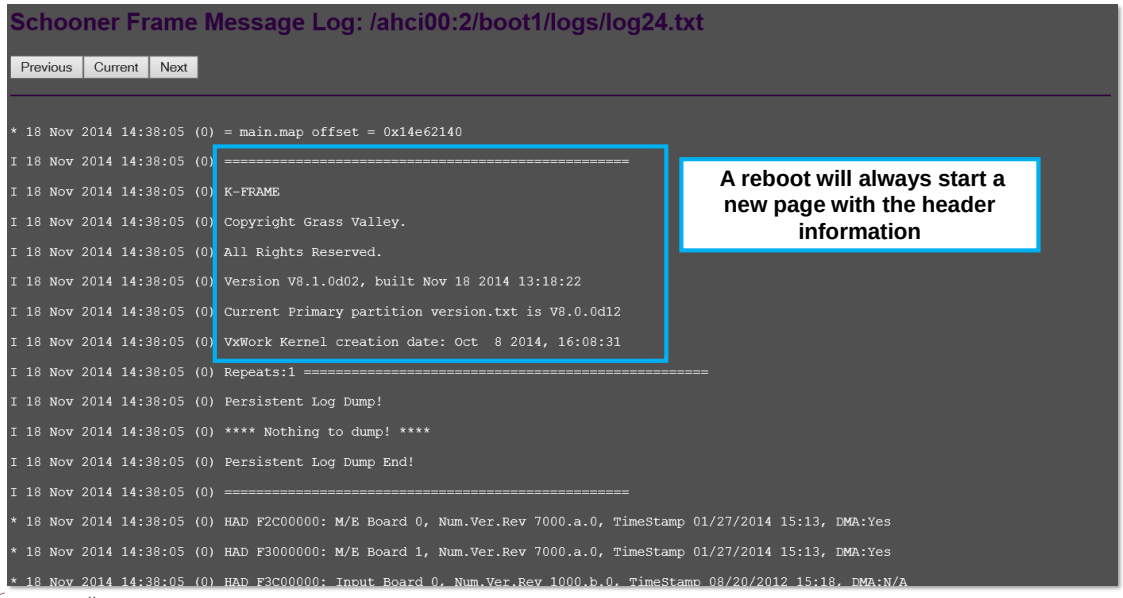
‘Frame Status’ also shows the state of all Front and Rear frame boards.

S-series - Logs

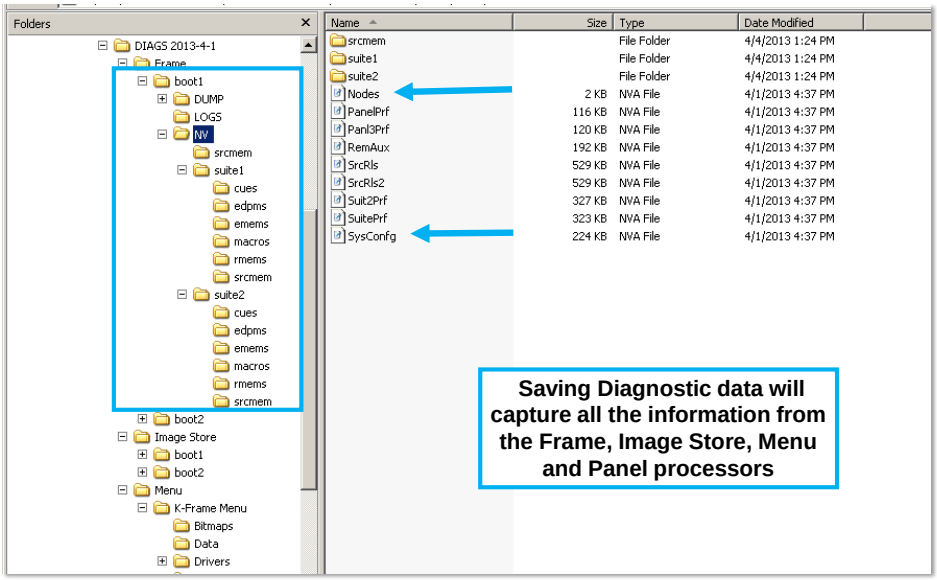


The K frame logs can be viewed in the web browser or from any captured Diagnostic data file.

Current shows the most current page in the web browser.

A reboot will always appear at the top of the page.

K-Frame Diagnostic Data



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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="62000000" 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">126</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

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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">KRIM PC</param>
</Node>
<Node ID="16" nType="obj">
<param name="NodeIPAddress" datatype="UInt32">437915658</param>
<param name="Name" datatype="String">andrew</param>
<param name="SuiteNumber" datatype="UInt16">1</param>
</Node>
</Nodes>
</SystemCfg>
</PersistentNodes>
```


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

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