Section 4 – K-Frame Advanced Config

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Section 4 – K-Frame Advanced Config

- Engineering Setup Menus:
  - Router Configuration
  - Camera Control
  - Ports & Devices
  - Test Patterns
  - Tally
- User Setup
  - Panel Prefs
  - Suite Prefs
- File Ops
- Exercise

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Section 4 – Objectives

Section Objectives

- Know how to add a Routing switcher to be controlled from a Kayenne
- Know how to configure an LCK Camera to be controlled from a Kayenne
- Know how to install a Serial or Parallel Device for control from a Kayenne
- Know how to configure a Pbus II device
- Know how to configure GPI Outputs
- Know how to configure Tally and assign Tally Relays
- Understand the how to set Color Schemes and other Panel Preferences
- Know how to verify Sources using Source Patch
- Know how to assign Resources for Aux bus transitions
- Understand how to set up the ME View and Multi Viewer outputs
- Know how to Save and Update a Show File

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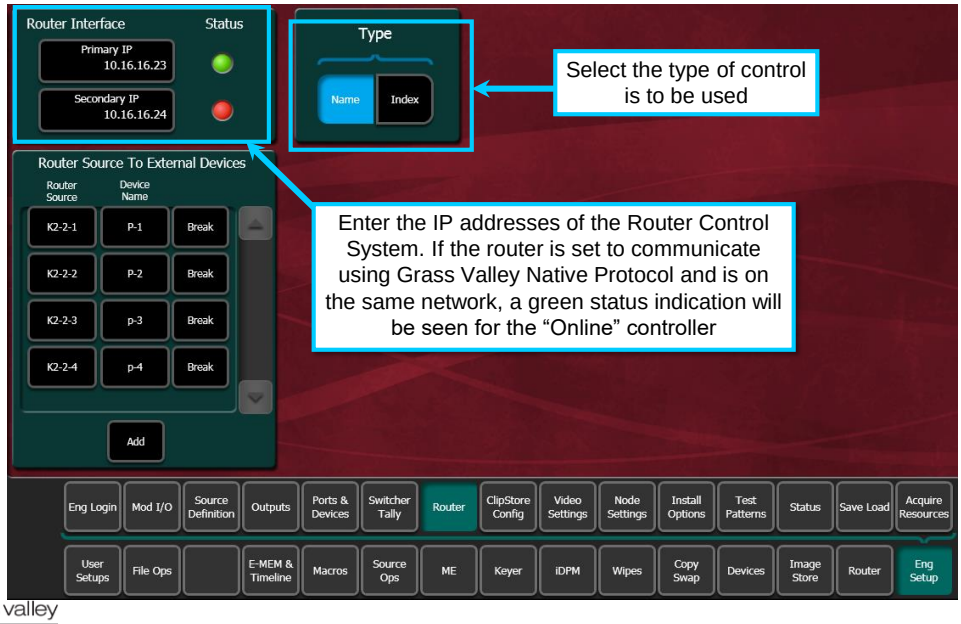
4-3

The Kayenne and Karrera systems use the 3 GB compliant “K-Frame” or K-Frame Sport. The same hardware can be used with Karrera and Kayenne Panels and Menus.

Older Kayenne systems will not be covered.

This course is intended to cover all K-Frame products and covers the differences between hardware and software as needed. When specifics are not called out, assume that they are the same for all frames.

Eng Setup – Router Control (1)



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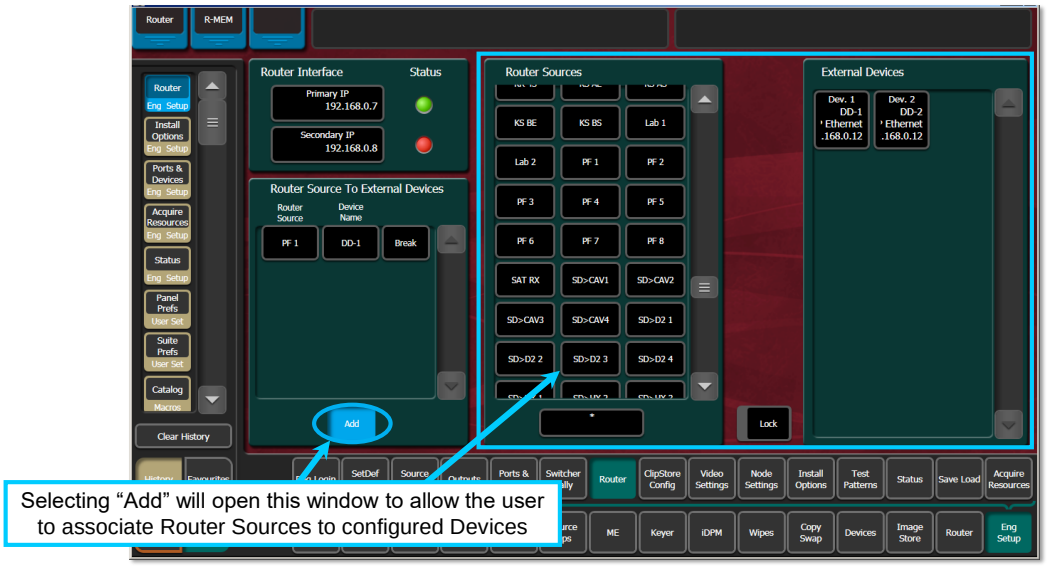
Router Control (2)



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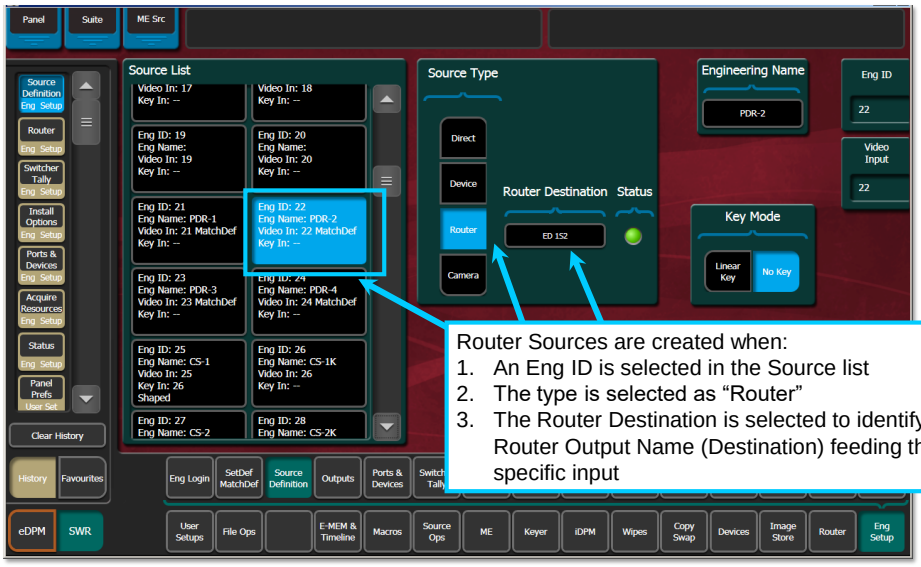
4-5

Routable machines can be linked to each other with the EngSetup / Router menu.

This allows the control panel machine control feature to be automatically routed to the correct machine when that machine is selected as a source on the router.

Router Control (3)



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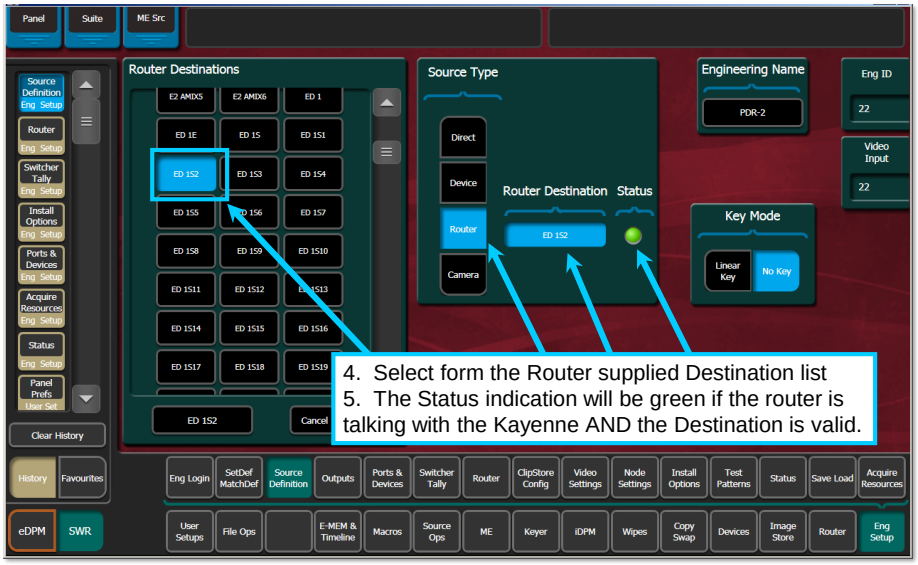
Router Control (4)



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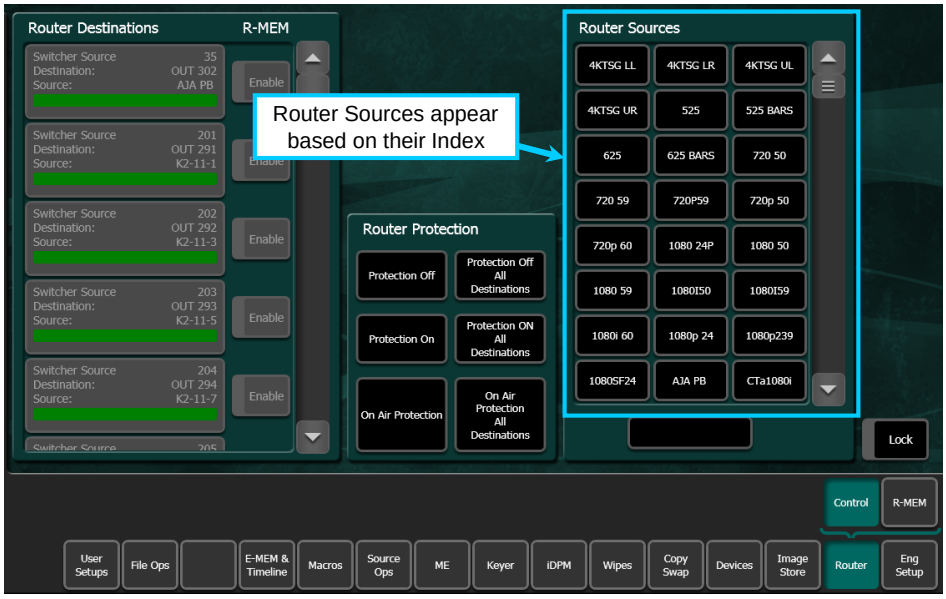
Router Control (5)



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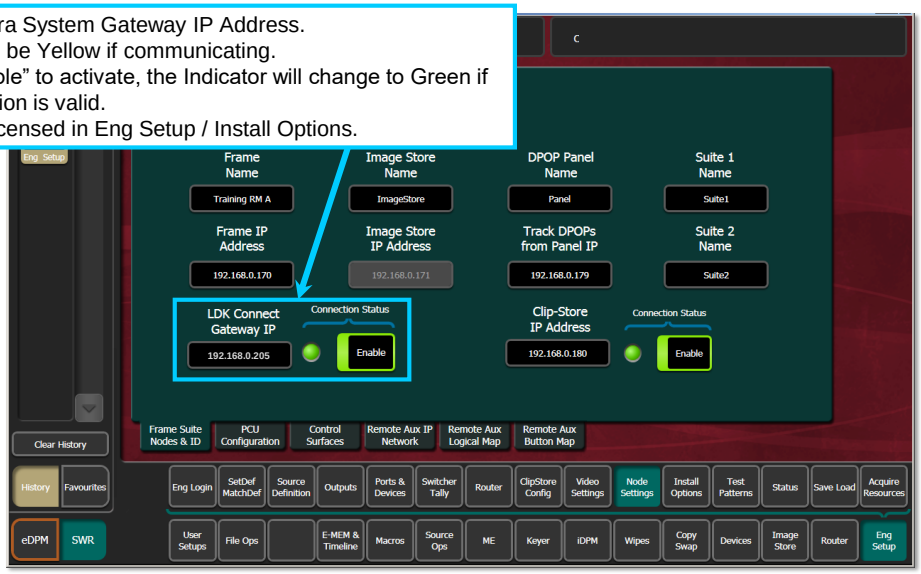
Eng Setup - Camera Control (1)

1. Enter Camera System Gateway IP Address.
2. Indicator will be Yellow if communicating.
3. Select “Enable” to activate, the Indicator will change to Green if communication is valid.

Note: Must be licensed in Eng Setup / Install Options.



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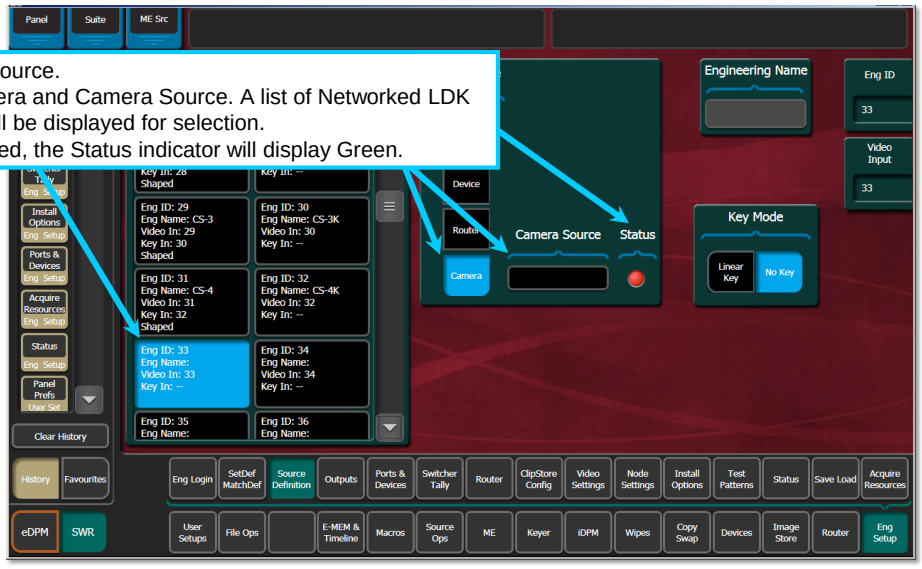
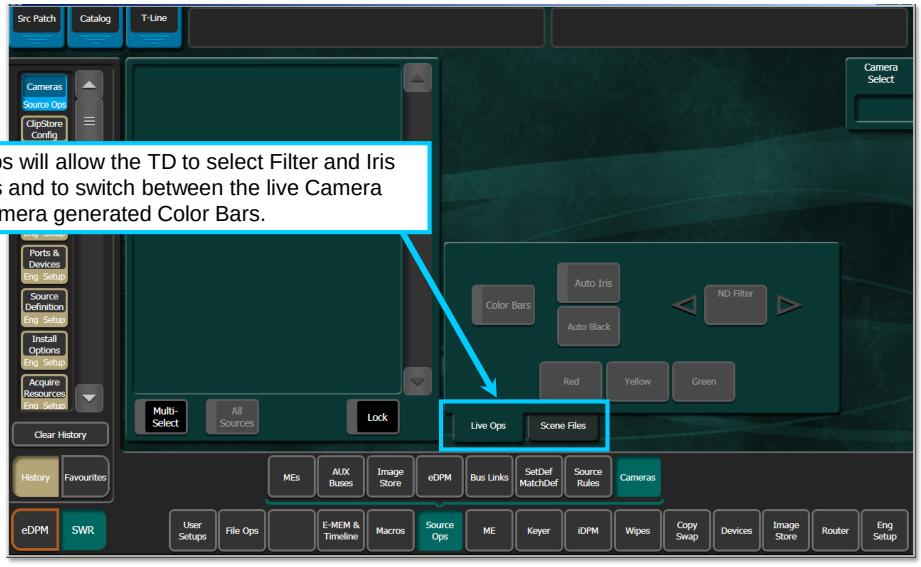
Camera Control (2)

1. Select the Source.
2. Select Camera and Camera Source. A list of Networked LDK Cameras will be displayed for selection.
3. Once selected, the Status indicator will display Green.



Camera Control (3)



Live Ops will allow the TD to select Filter and Iris settings and to switch between the live Camera and Camera generated Color Bars.

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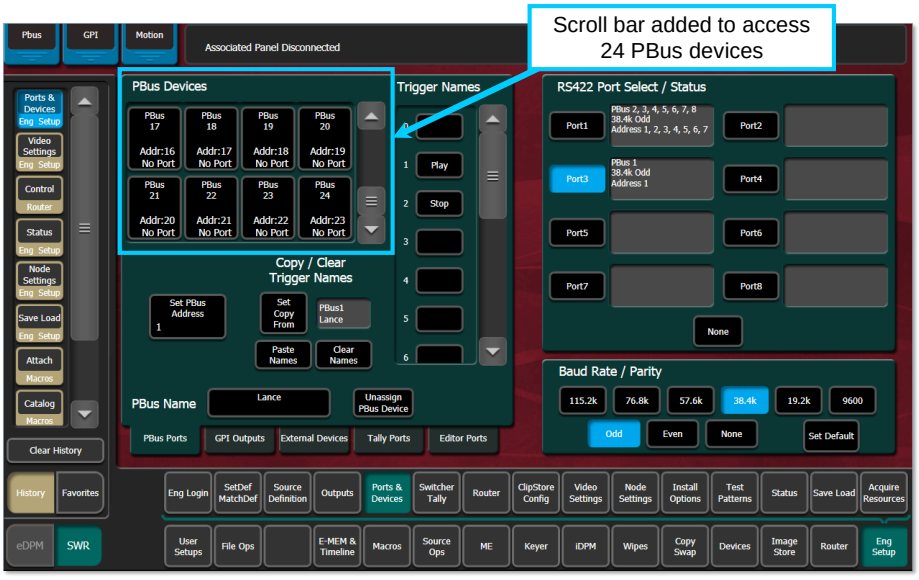
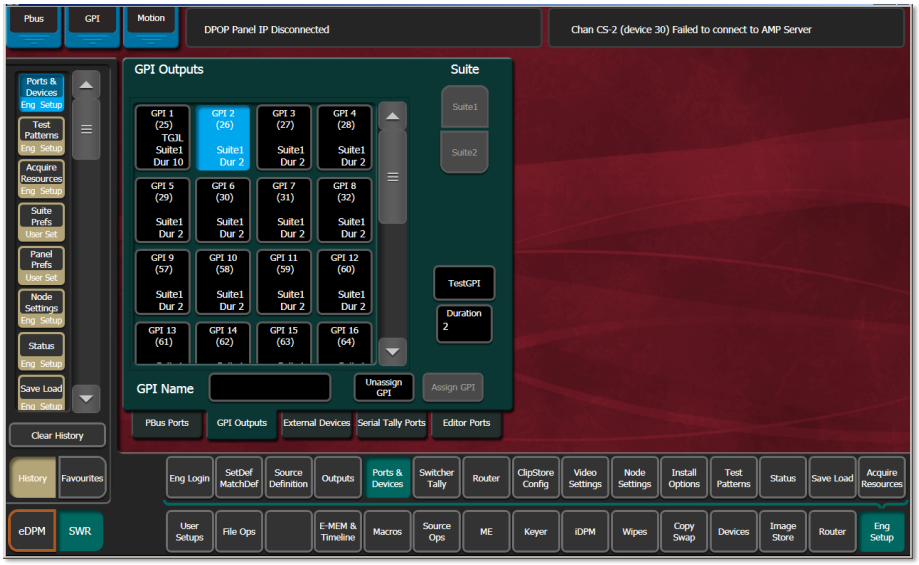
Eng Setup – Ports and Devices – PBus v6.0+



Software version 6.0 increases the number of controllable PBus Devices to 24.

With the K-frame the Serial Tally is replaced by Ethernet Tally (Option)

Eng Setup - Ports & Devices - GPI



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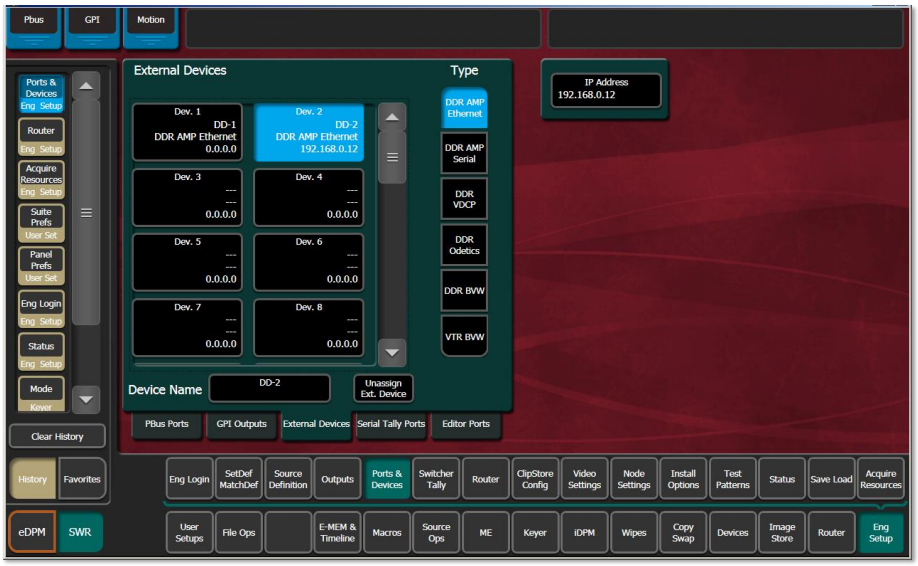
4-13

This menu allows the GPI Output triggers to be named and their duration set.

They can also be assigned to either Suite. There are 40 GPI relays in a K-frame but limited to 32 max in any one Suite

Eng Setup - Ports & Devices – External Devices



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4-14

32 Devices are configurable and controllable by Karrera and Kayenne.

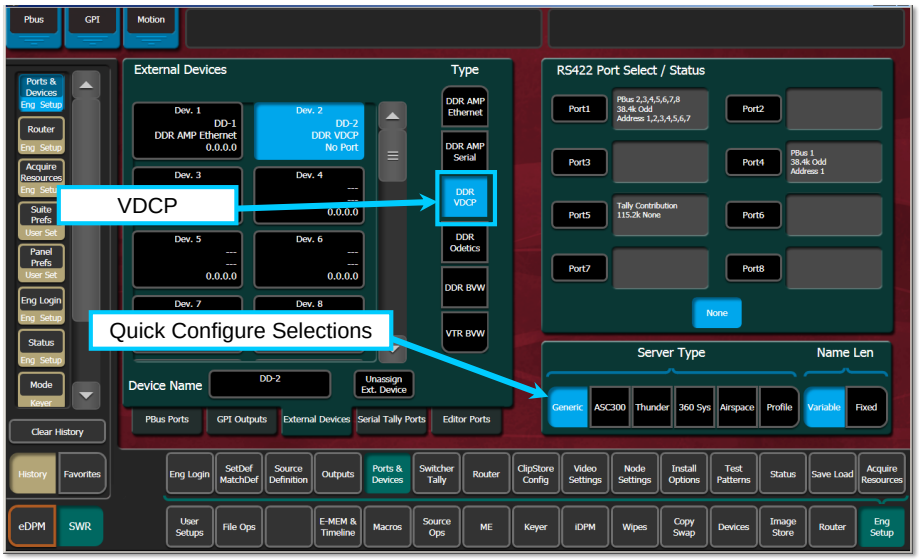
When a licensed ClipStore is used, it will occupy the last 2 (Solo) or 4 (Summit) devices in the list of 32. Version 4 software assumes this and automatically reserves these last 4 making only 28 other configurable devices available.

Devices may be controlled by the Optional Kayenne DCM (Device Control Module).

Devices may be controlled from the Menu and System Bars of both Kayenne and Karrera.

When naming devices in this screen, the device may have any logical name. The name needs to be appended with a dash (no spaces) and then a channel number. i.e . as above: DD-1 & DD-2. This is essential for the machine to be controlled.

Eng Setup - Ports & Devices - Serial Connection



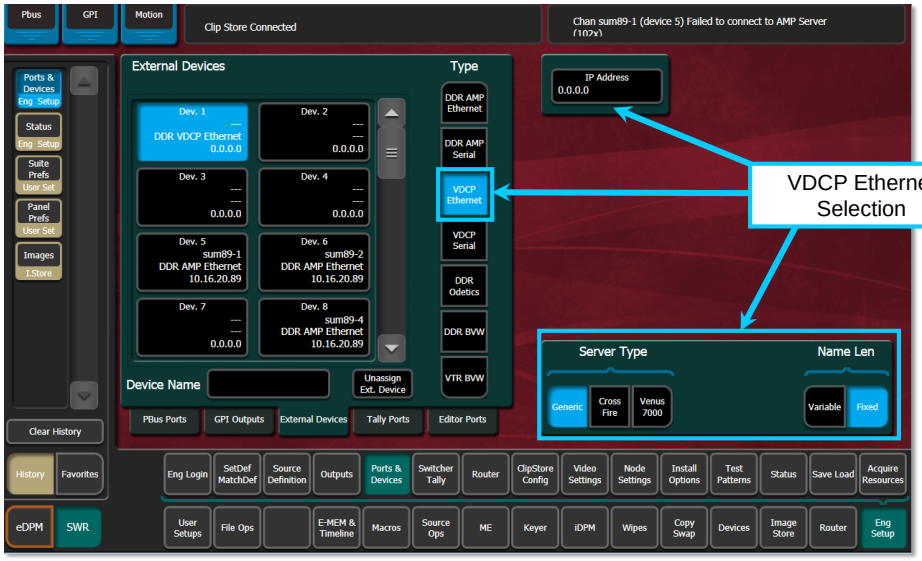
4-15

VDCP Protocol is a Serial Protocol that uses a serial cable for control of a device such as a Grass Valley K2 or Summit video Server.

When naming devices in this screen, the device may have any logical name. The name should be appended with a dash (no spaces) and then a channel number. To indicate the channel being controlled . i.e. example above: DD-1 & DD-2.

When in VDCP mode, “Fixed” will allow for 8 Character maximum name length. Variable will allow for up to 32 characters.

Eng Setup - Ports & Devices - Ethernet Connections



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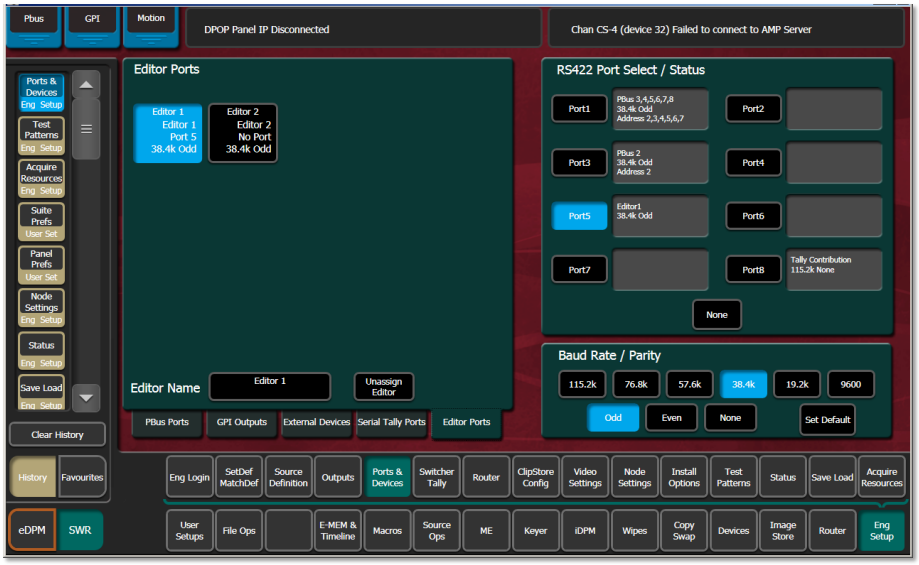
4-16

In version 6.0 VDCP (Louth) Protocol Ethernet was added to the choices available.

A choice of Generic or two popular Server control variations are provided.

Fixed or variable Name length is also available.

Eng Setup - Ports & Devices - Editor



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4-17

This menu allows one of the 8 external Serial control ports to be configured as an Editor control port for each Suite.

This uses the standard GV Editor protocol. (Refer to GV web site for details)

The V-series frame has only 4 serial ports.

Ports & Devices – Ethernet Tally

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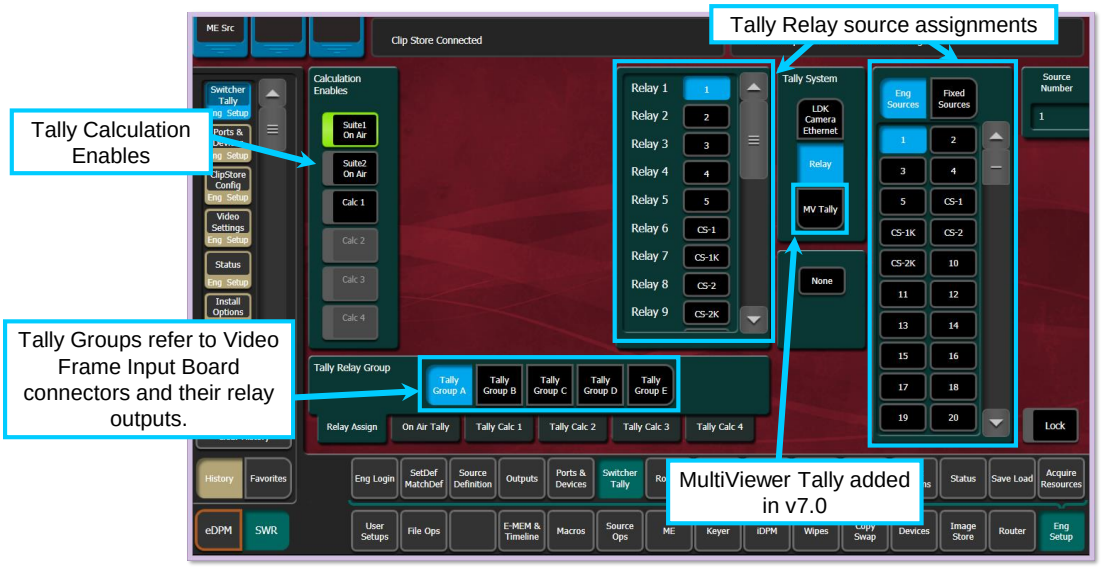
4-18

In the K-Frame systems serial Tally is replaced with the Ethernet Tally as an option.

Ethernet tally provides the ability to interface directly with external Tally information systems.

Source Name Control allows Source information to be downloaded from an external location.

Tally Relay Assignment



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4-19

Tally Relays are connected to the frame through multipin connectors.

Each connector supports 24 tally relays. There are 4 groups of 24, for 96 relays, on the 1.5G frame and 5 groups of 24, for 120 relays, on the 3G frame.

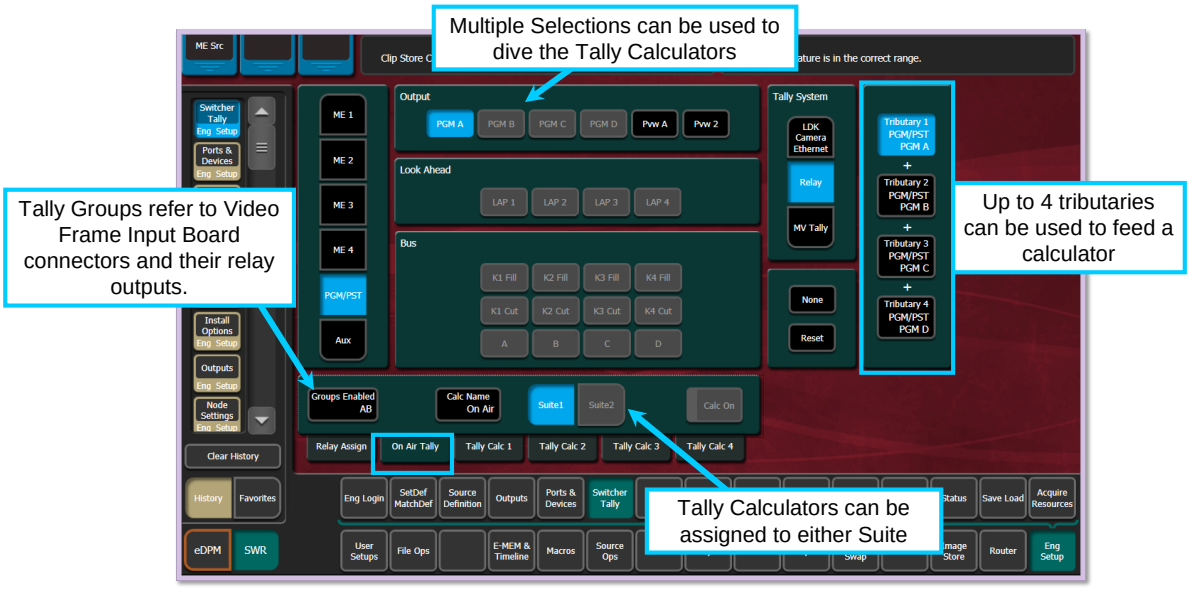
Tally groups can be assigned to different Suites.

Each Group can be controlled from the On Air Tally or 1 of 4 Tally Calculators as programmed.

Default Tally is a one to one mapping but any relay can be changed to tally any source.

The 3G K-Frame allows tally to be assigned to any source or any internal signal.

Tally On Air Assignment



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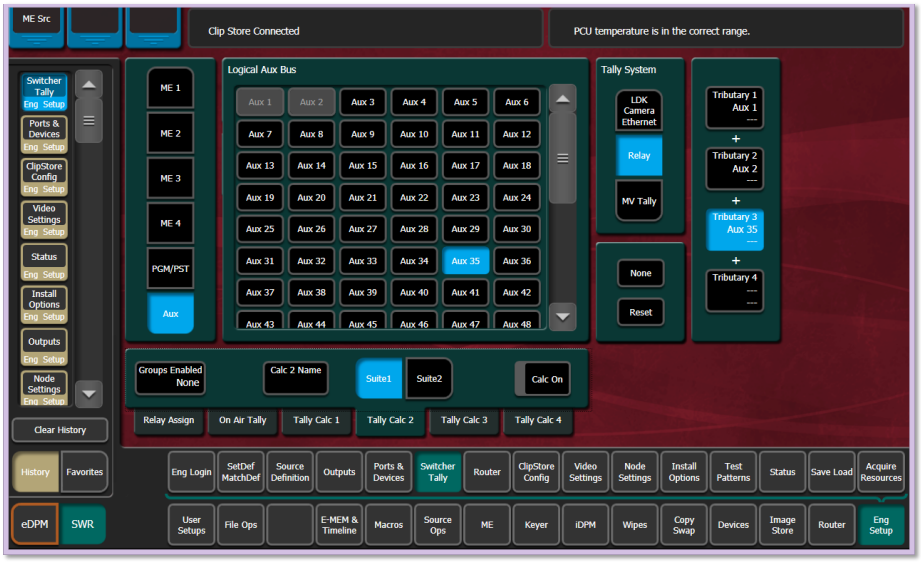
4-20

The default On Air tally is Suite 1. Any or All of the main PGM outputs can be tallied using the 4 Tributary windows.

Tally Calculators can be configured to Tally key busses or Preview outputs.

Look Ahead or Preview Tally can also be assigned.

Tally Aux Bus assignement



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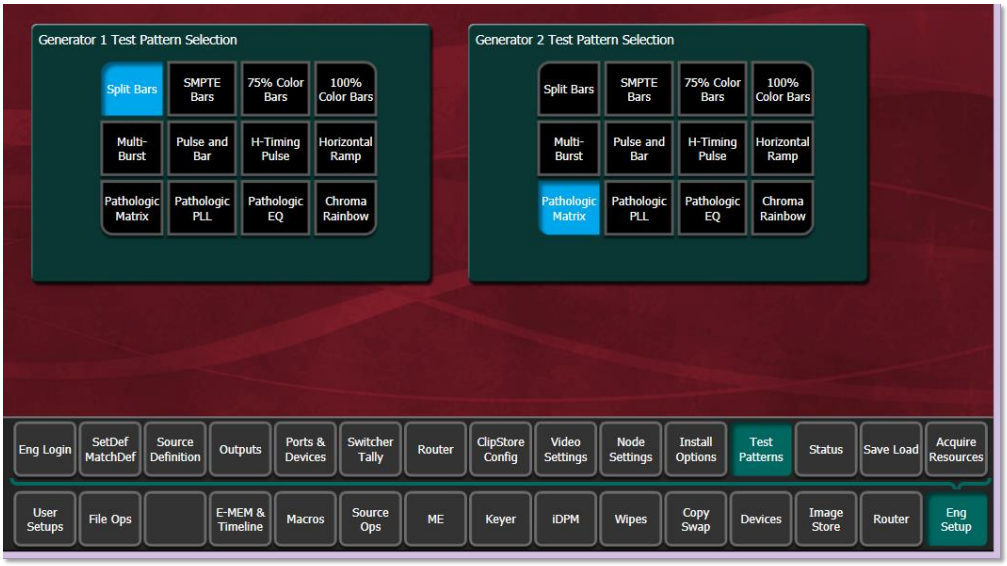
4-21

Aux busses can also be tallied as needed either to separate relays or in combination with an ME or Program outputs.

Test Patterns



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4-22

K Frame has 2 sets of Test Signals with some additional test patterns.

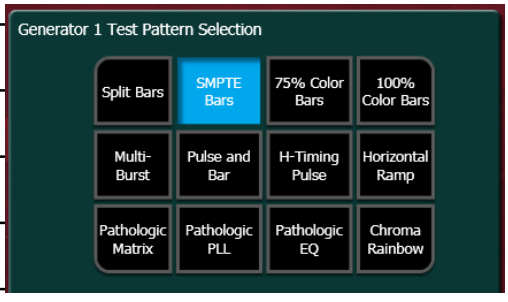
Any one of 8 internally generated Test Signals be selected as a source. This signal may be mapped anywhere like any other source, internal or external.

The Pathologic Test Signal (Matrix) is a 2 section signal that represents one of the hardest scrambled serial data streams for equipment to deal with.

One half of the field is a series of 20 data zeros followed by a single data one followed by 20 zeros during the active picture area. This ends up looking a lot like a square wave signal that is approximately 1/20 of the serial transport frequency. For SD, this would look like 13.5 MHz to the reclocking circuit that is running at 270 MB/s.

The other half of the field stresses input equalizers. This signal looks like 19 zeros followed by 2 ones and repeating. After a run of cable, this signal looks a lot like D.C.

K frame provides 2 independent Test Pattern generators with more selections.



User Setups - Panel Prefs Menu Tree

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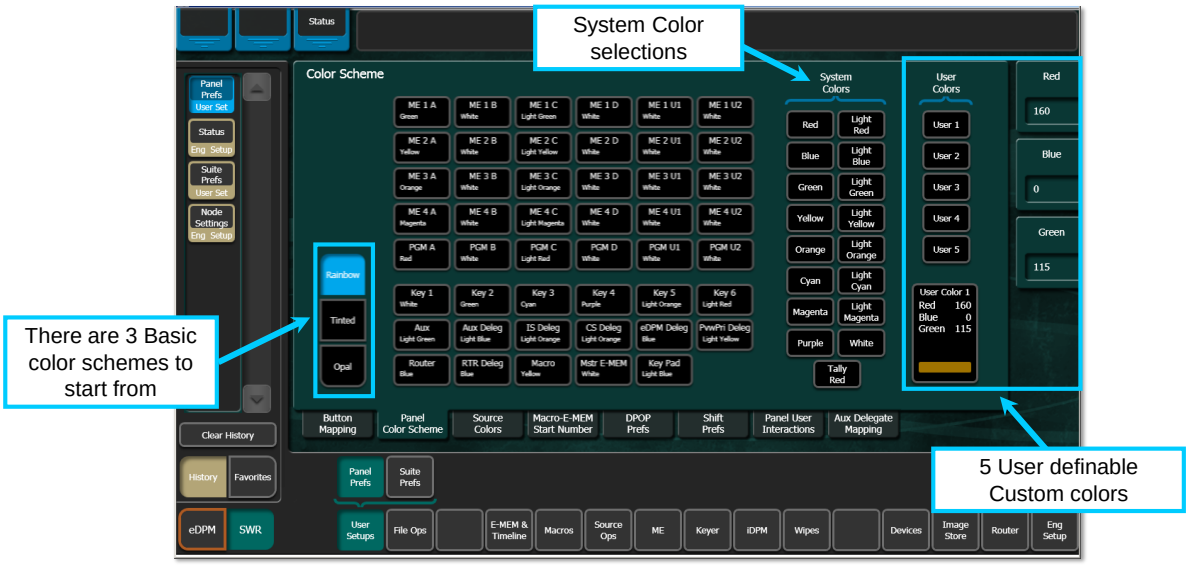
4-23

Names assigned to the Crosspoint button displays or OLEDs (Organic Light Emitting Diodes) will be Engineering (Source) Names, until other names are created in the Source Patch menu. An Eng ID number will be displayed if an Engineering Name is not created.

Any Source Crosspoint Button may have up to 4 different Sources assigned. Each button may have the normal position source name displayed but when the 2nd, 3rd or 4th shifts are selected, the button display and source will change to a different mapping.

Panel Prefs - Panel Color Scheme



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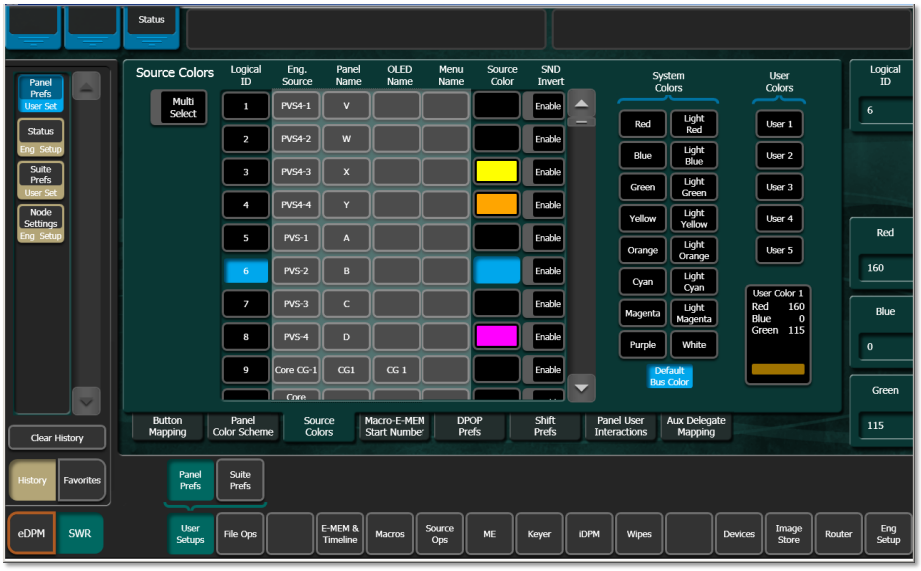
4-24

3 main color schemes are available: Opal (White Buttons), Tinted (Keys color coded) or Rainbow.

All busses can be changed to suit individual requirements regardless of the basic scheme selected.

The K Frame includes additional selectors for the C and D busses.

Panel Prefs - Source Colors



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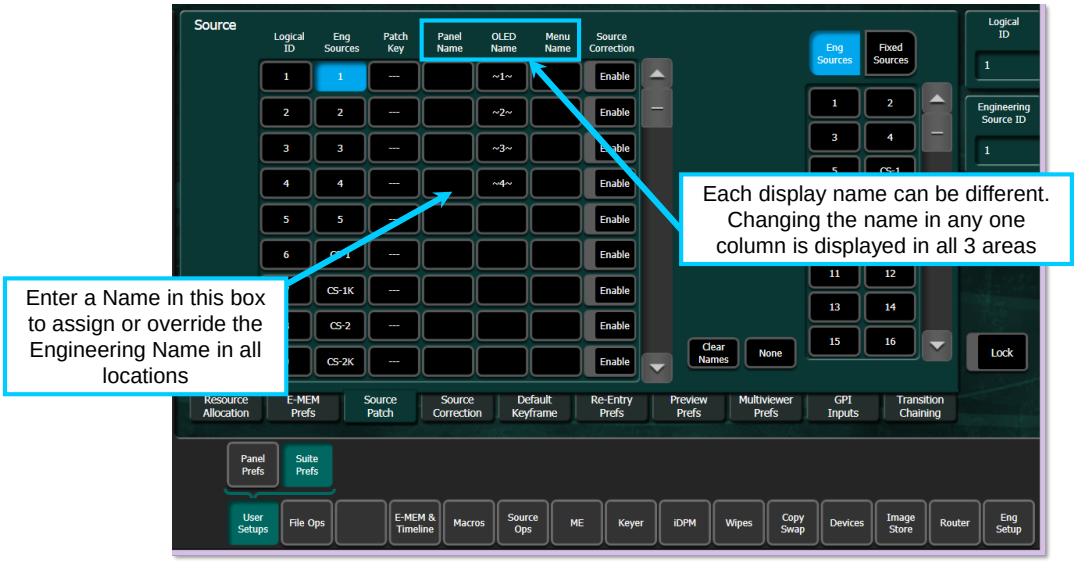
4-25

Individual Source color assignments override the default bus colors..

5 User colors are available for customization.

Suite Prefs - Source Patch



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4-26

Source Patch provides 2 functions:

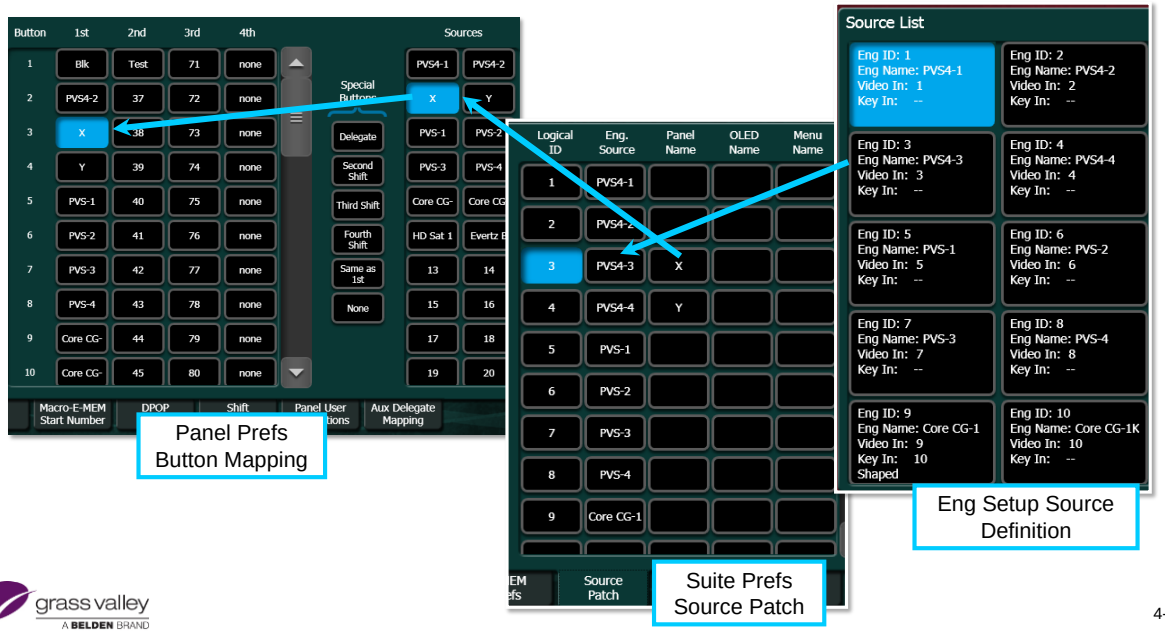
1. A method for overriding Engineering names in the panel and Menu.

2. The ability to patch engineering sources into the logical ID positions.

The Left had column (Panel Name) has priority – A new name entered here will be used for the OLED and Menu Name locations.

The Menu name is also used for the MultiViewer displays.

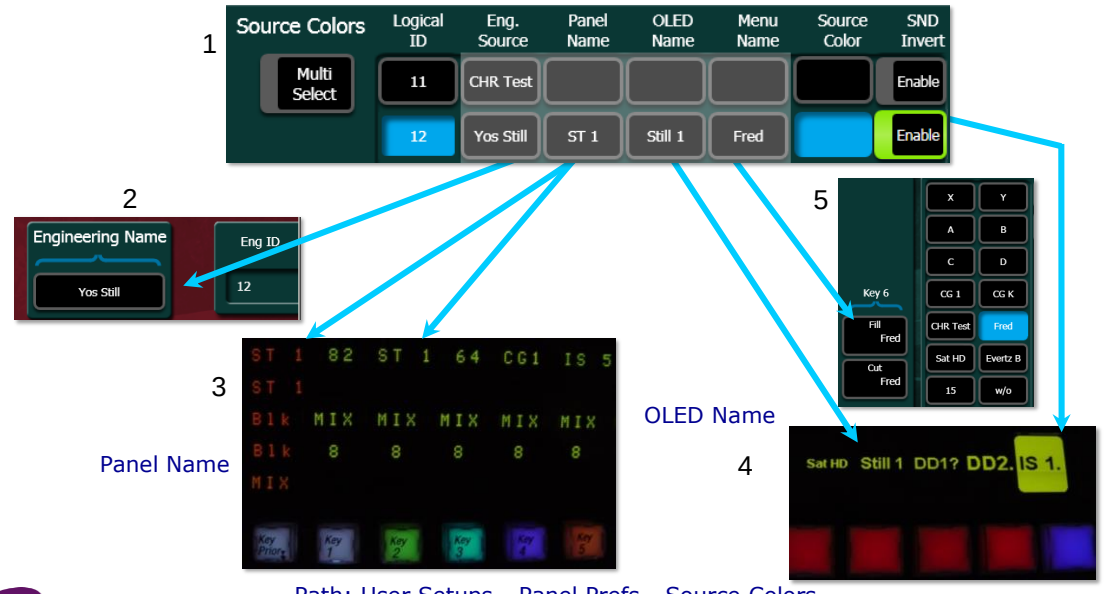
Source to Button Mapping



Mapping Sources to Buttons involves 3 steps

1. Define the Source information in the Eng Setup, Source Definition menu
2. Decide on any name override to be used in the panel in User Setup, Suite Prefs, Source Patch menu.
3. Map the Source to a button in the User Setup, Panel Prefs, Button Mapping menu.
4. E-Mems remember the Logical Identification number and Not the Engineering ID. This is what allows for doing the soft-patch of sources to allow “your” E-Mem to match the new switcher’s sources.

Panel Prefs - Source Colors - Displays



Path: User Setups - Panel Prefs - Source Colors

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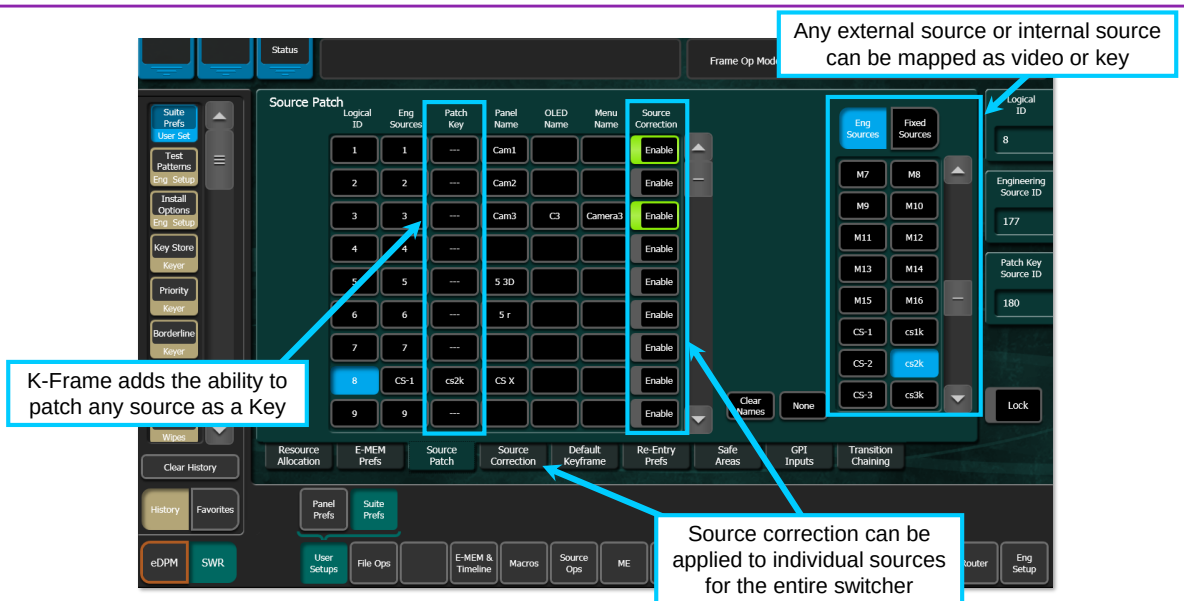
1. User Setups / Panel Prefs / Source Colors (User Setups / Suite Prefs / Source Patch).
2. Eng Setup / Source Definition.
3. Transition Module Status Display (Panel Display), 4 characters maximum.
4. Source Select Module Display (OLED Display).
5. Source Ops / MEs (or any of the Source Ops menus). This also changes the name on the MultiViewer displays.

If a menu name is left blank it defaults to the name to the left.

Suite Prefs - Source Patch - K-Frame



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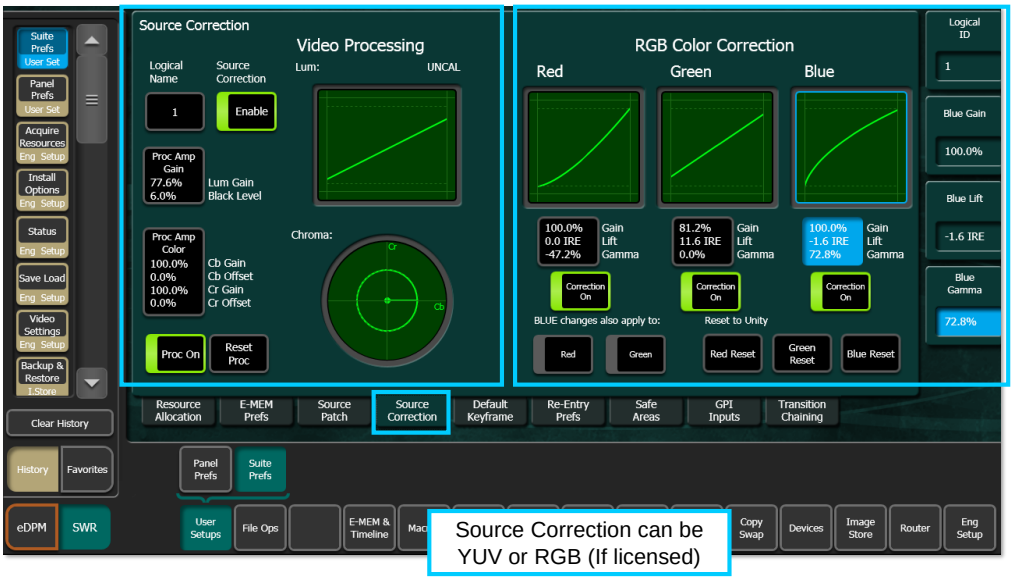
4-29

In K Frame Source Patch has 2 additional functions:

1. The ability to patch a Key signal into any source
2. The ability to turn on Source Color Correction for any source

Suite Prefs - Source Correction - K-Frame



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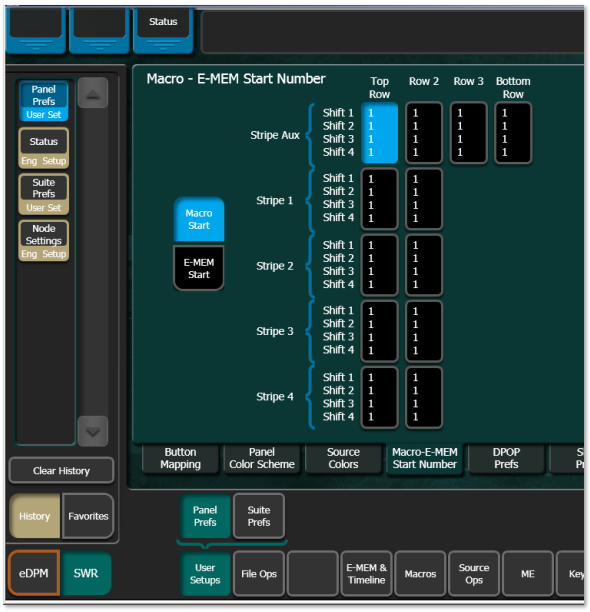
Source Correction allows Video processing or RGB Color Correction (option) to be applied to the selected source for the entire switcher.

Kayenne Panel Prefs - Macro / E-MEM Start Numbers

- This Menu sets the start number for the busses on each stripe
- Each Shifted row can have a different start number
- E-MEM and Macro selections have different settings

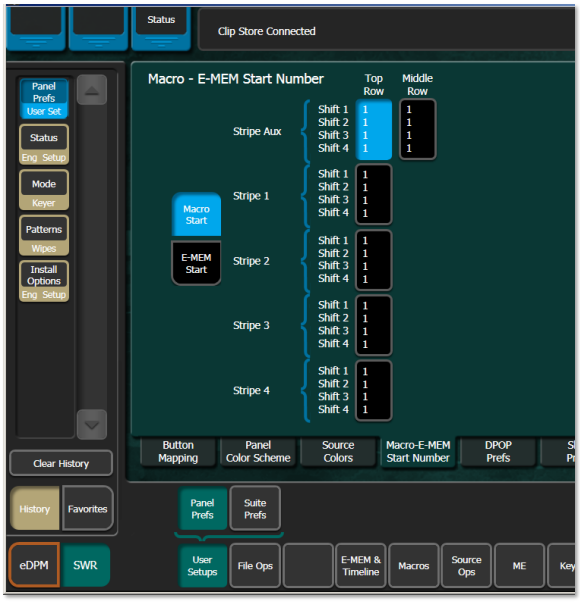


4-31

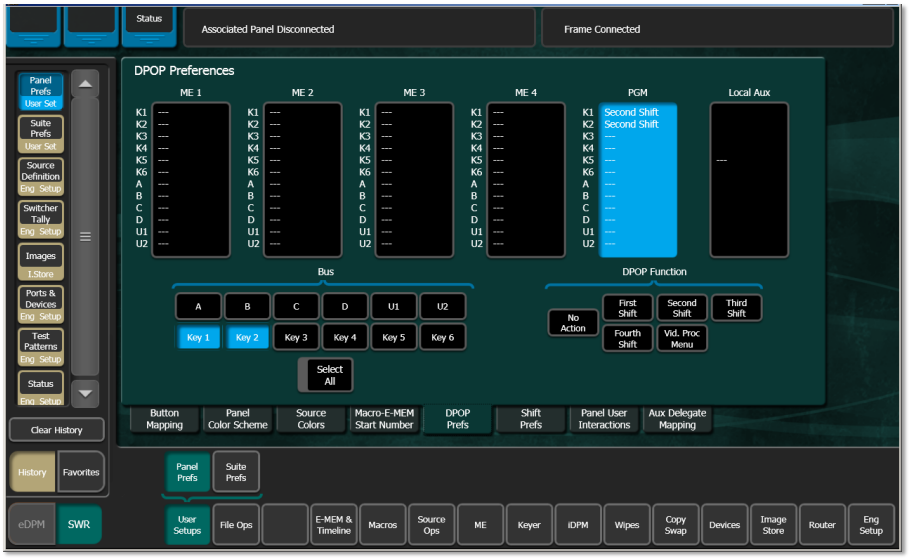
When used for Macros or E-MEMs the operator can set the start number of each bus row to be different.

Karrera Panel Prefs - Macro / E-MEM Start Numbers

- This Menu sets the start number for the busses on each stripe
- Each Shifted row can have a different start number
- E-MEM and Macro selections have different settings



Panel Prefs - DPOP Prefs



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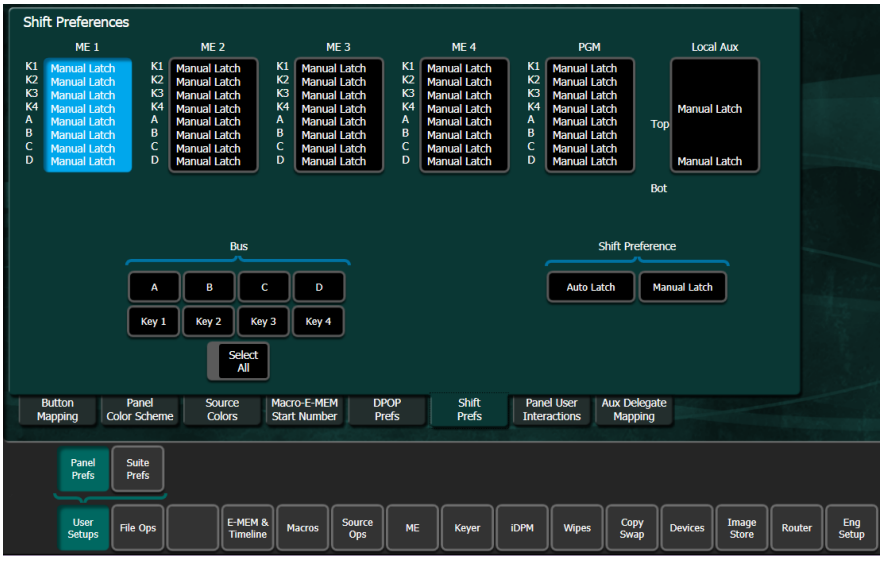
DPOP Prefs enables the DPOP (Double Press) function of each of the bus' rows to be set.

Functions can be different for each bus.

This shows the K-Frame (3G) selections.

Panel Prefs - Shift Prefs



S-series Frame Shown

4-34

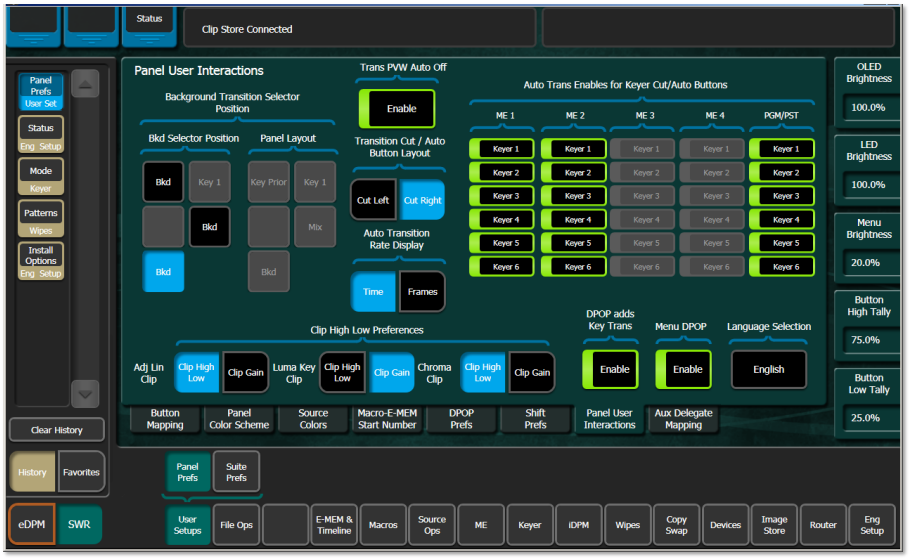
Manual latch leaves the bus in the selected shift row after a selection is made.

Double press to set the shifted row to 2nd Shift, 3rd Shift or 4th Shift (both buttons lit).

Auto Latch stays in the shifted row of the current source.

The K- Frame has the Utility 1 and 2 busses, the S-series does not.

Panel Prefs - Panel User Interactions



Karrera Menu Shown

4-35

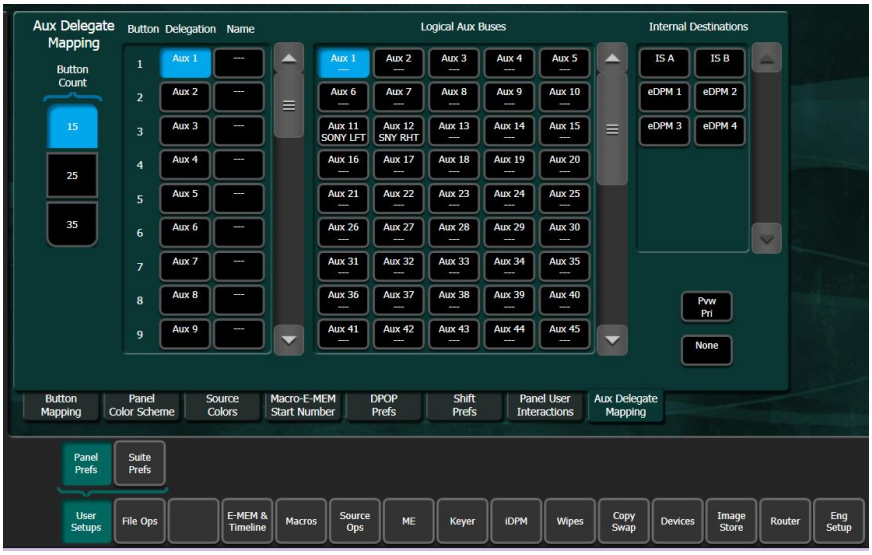
Panel User interactions allows for customized panel control and display features.

There are 3 choices for the position of the Background Button. These allow operators to customize the button to be similar to a 3/4000 or Kalypso switcher.

This shows the Karrera Panel version. The main difference is in the selection of Mix or Cut for the dedicated Keyer buttons on the panel.

On the Kayenne these are replaced with machine control selections for the MFM Dev ice Control ‘Multi’ mode

Panel Prefs - Aux Delegate Mapping



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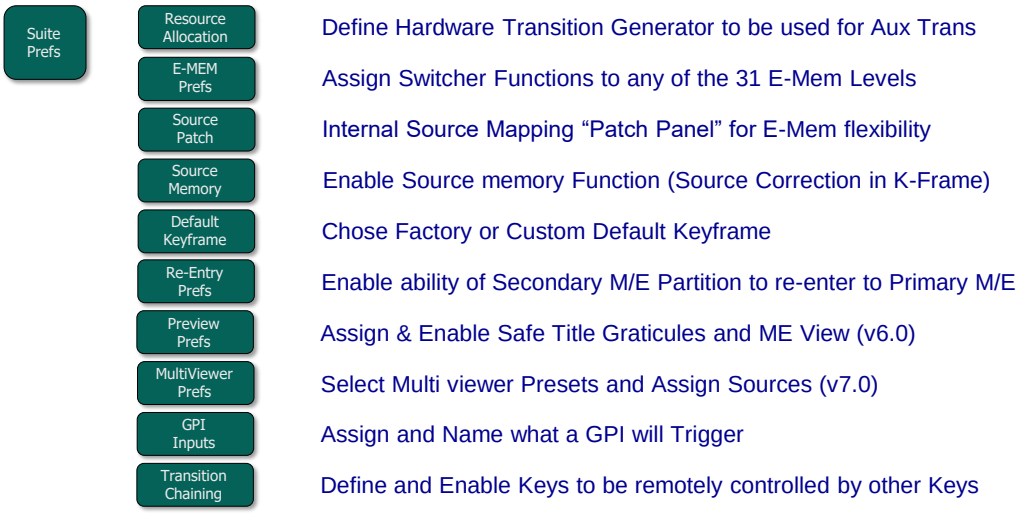
4-36

Aux Delegate mapping enables the Aux bus selections to be either Aux Busses, Image Store inputs, eDPM inputs or Preview Primary selection.

The K-Frame has 96 Aux busses and only 2 IS channels and 2 eDPM channels that can be mapped.

User Setups - Suite Prefs Menu Tree



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4-37

The ME View feature was added as an option in v6.0

The MultiViewer Option was added in v7.0

Suite Prefs - Resource Allocation

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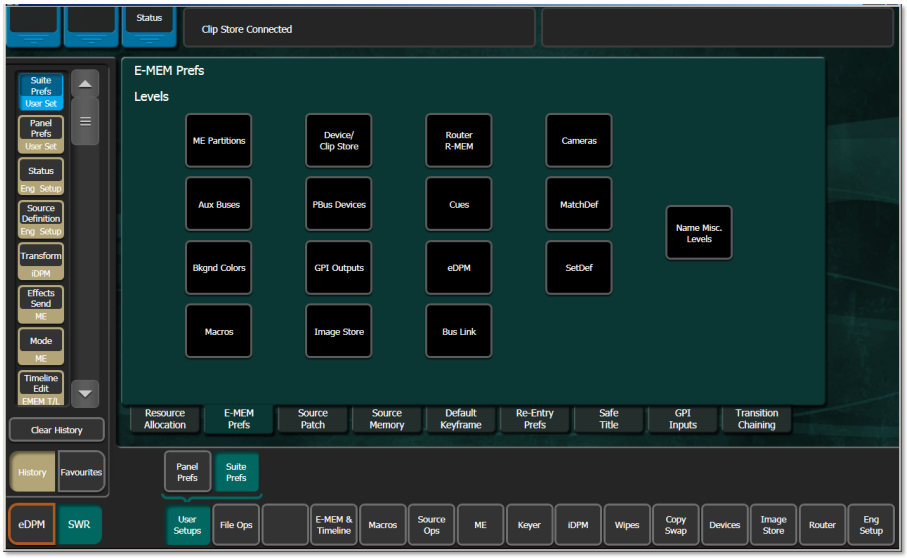
4-38

Resource allocation shows the status of the acquired M/E resources.

Allocation of a resource to Aux transition changes the M/E mode to Split and overrides the ME mode selection menu.

Suite Prefs - E-MEM Prefs



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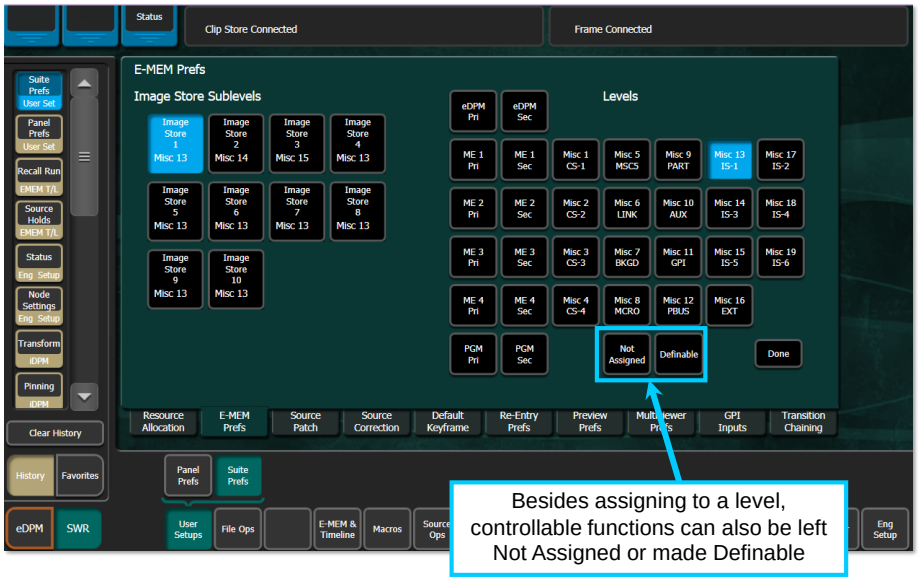
4-39

E-MEM Prefs allows the different switcher areas to be assigned to te E-MEM levels.

Each level can be named.

The K-Frame does not provide E-MEM control of the Set Def and Match Def options.

Suite Prefs - E-MEM Prefs – Image Store Example



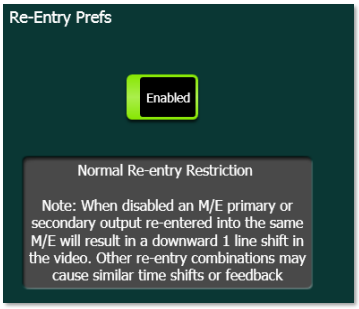
E-MEM control can be assigned to any Level button, left ‘Not Assigned’ to an E-MEM level or made Definable.

Definable allows the control to be defined in the E-MEM Timeline menu.

The K-Frame has 10 channels of Image Store that can be assigned to E-MEM level buttons.

Suite Prefs - Default KF and Re-Entry

- The Default Keyframe can be either the Factory Default or any setup that is Learned.
  - The Default keyframe is recalled from the Master E-MEM module or menu when the Clear Working Buffer (CWB) button is pressed.
  - The CWB operation is determined by the Master E-MEM levels enabled.
- Re-Entry of one ME into another ME is normally restricted to prevent circular re-entries (i.e. ME1 into ME2 into ME1) but can be disabled for certain operations



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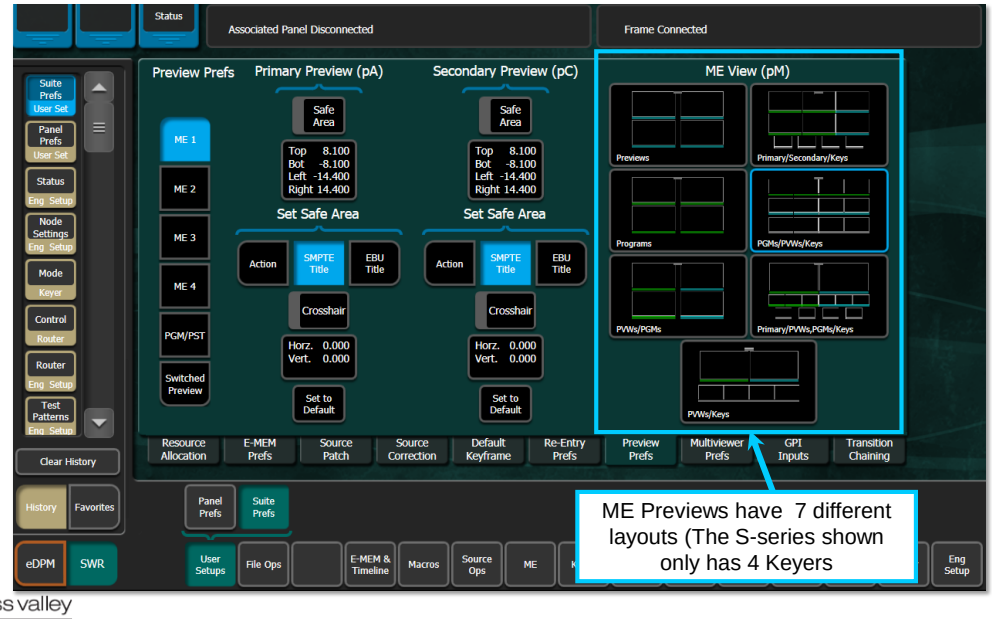
4-41

The Source Memory tab is replaced by the Source Correction tab in a K-Frame (3G) system.

Source Memory is implemented differently in K-Frame systems.

User Setup – ME View v6.0+



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4-42

In Software version v6.0 the ME Viewer option was added. In v7.0 the name was changed to ME View to help reduce confusion with the Multi Viewer.

This adds control of the pM output from all of the MEs.

This selectable output is available as a signal to be selected to any Switcher output.,

6 User selectable Preset choices of layout are provided

ME Preview is slightly different for the S-series as there are only 4 Keyers to display.

One new selection has been added to show Previews and Keys.

There is no ME View in the V-series frame.

ME Viewer Output (3) ME Pri/Sec - Pgm/Pvw

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ME Viewer Output (5) ME Pgms, Pvws and Keys

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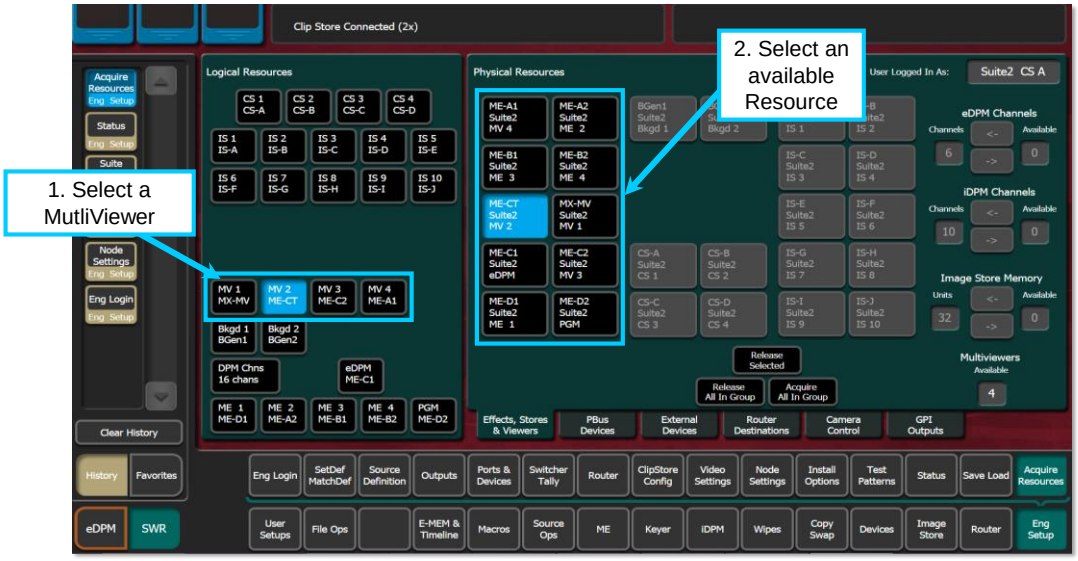
User Setup – MultiViewer v7.0



The MultiViewer has to be assigned an ME resource and be licensed before it can be used. Only available on K-Frame.

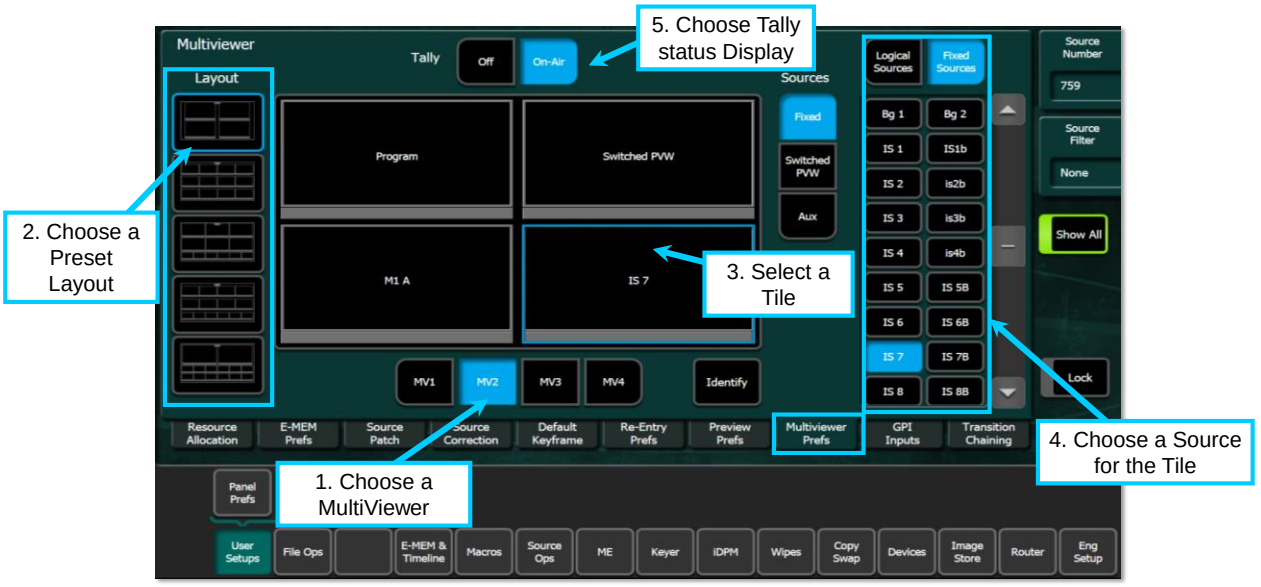
The MultiViewer hardware MX-MV is located on the Large K-Frame only and can only be used as a MultiViewer.

Any ME can be used as a MultiViewer as long as there are licenses and hardware available.

Hint if you need 2 MultiViewers in the large frame use the Controller ME as the second one as it does not have iDPM capability.

The S-series and V-series has 2 dedicated MultiViewers. The MEs in the S-series and V-series cannot be used as MultiViewers.

User Setup – MultiViewer v7.0+



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4-46

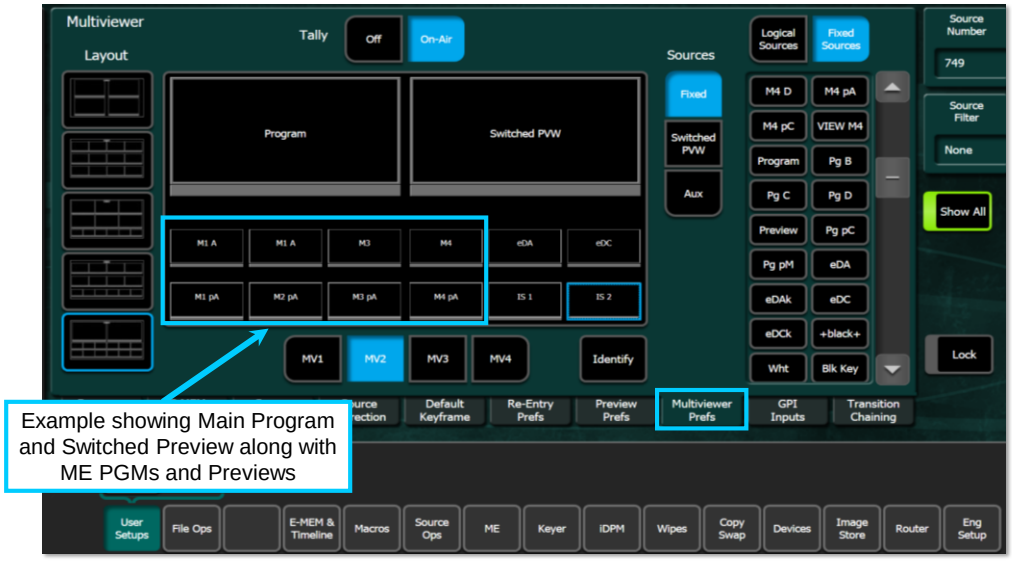
In Software v7.0 the Multi Viewer Option was added.

This requires an ME to be assigned to be used as the MultiViewer and a License to enable it.

A layout is first chosen from the preset selections available and then the sources to be displayed are selected from the logical or fixed list for the individual screen sections.

The Display Tally indications can also be disabled if needed.

User Setup – MultiViewer v7.0



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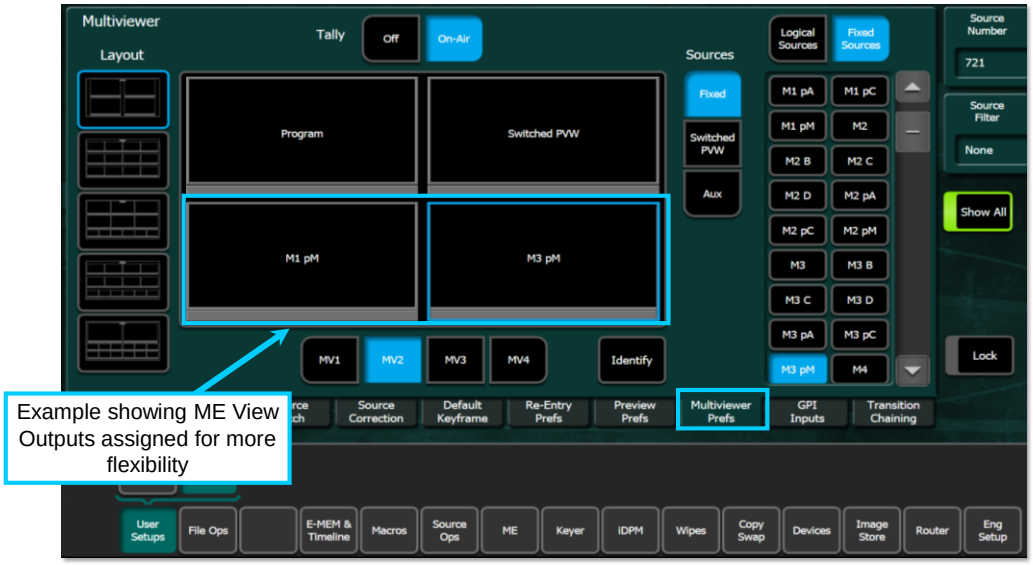
4-47

A typical example showing ME PGM and Preview outputs assigned to the tiles to give the TD access to the most often needed images.

User Setup – MultiViewer v7.0+



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The ME View outputs can also be mapped to any tile increasing the flexibility of the signals available for the MultiViewer tiles.

MultiViewer Output

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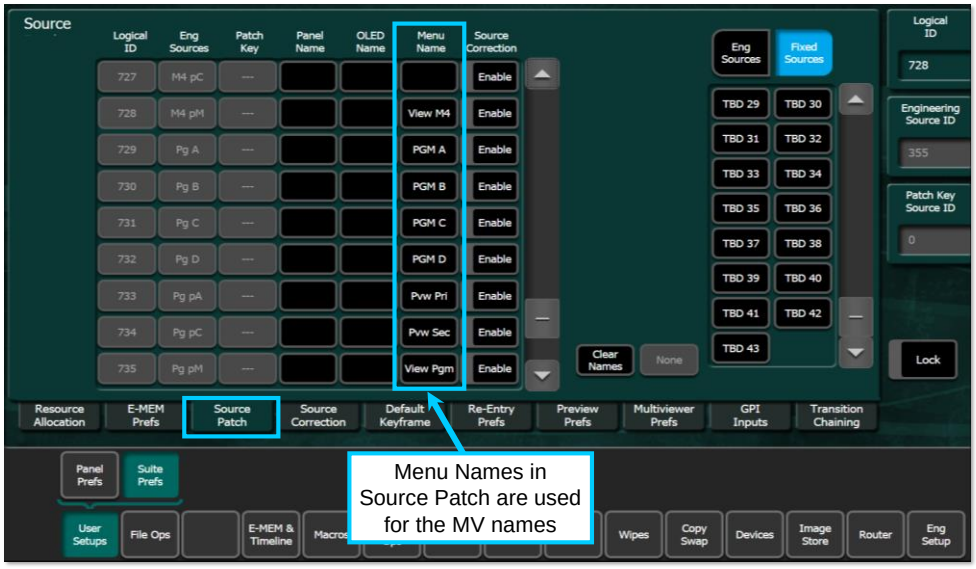
This shows an example of the MultiViewer Output.

MultiViewer – Menu Names



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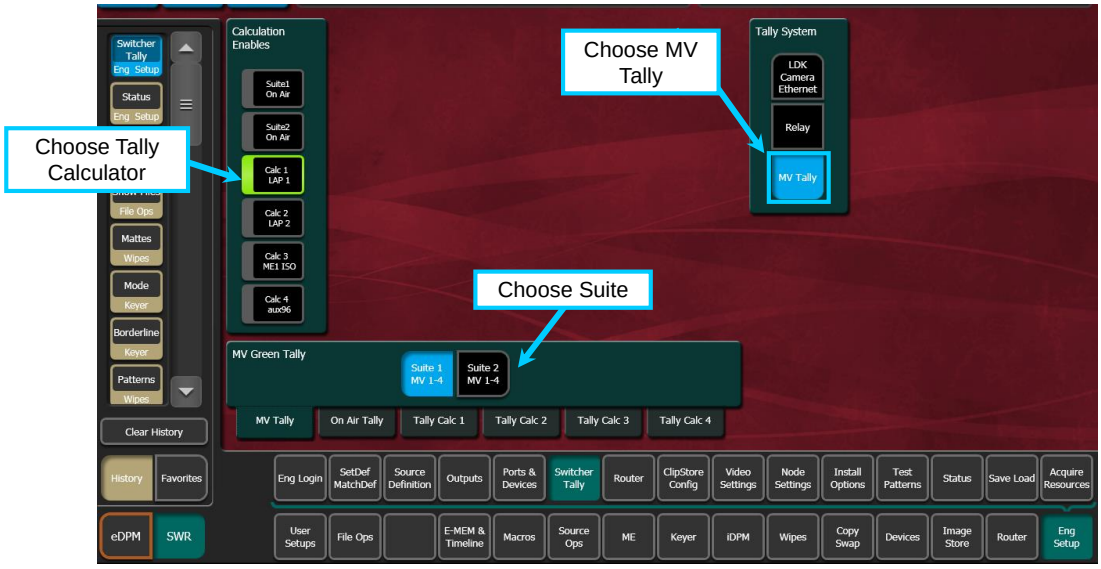
4-50

The Menu names in the Source Patch menu are used for the MultiViewer Displays. This allows the user to rename the default names in the displays.

MultiViewer – Tally



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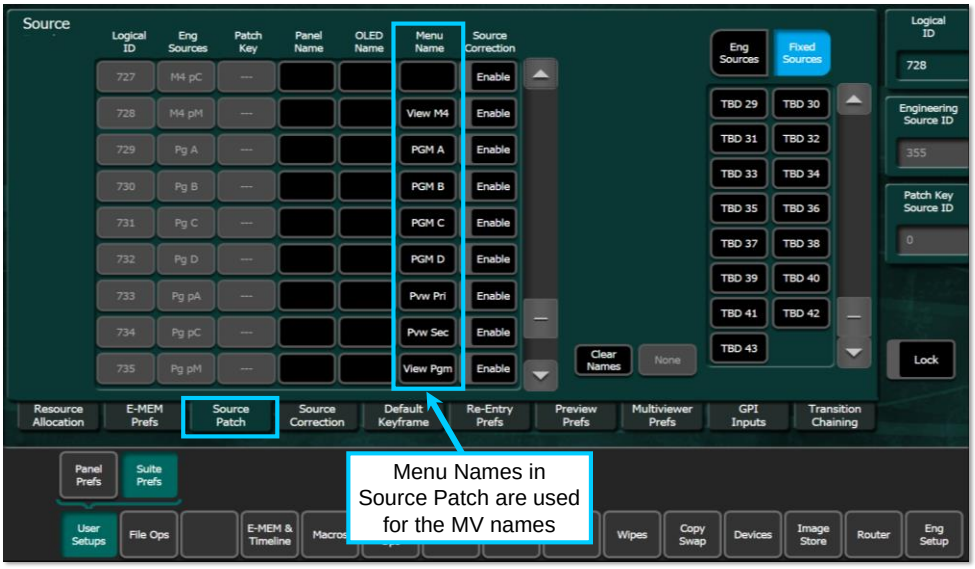
Green Tally can be used for Suite 2 Tally or any Calculator that is assigned.

User Setup – MultiViewer v7.0+



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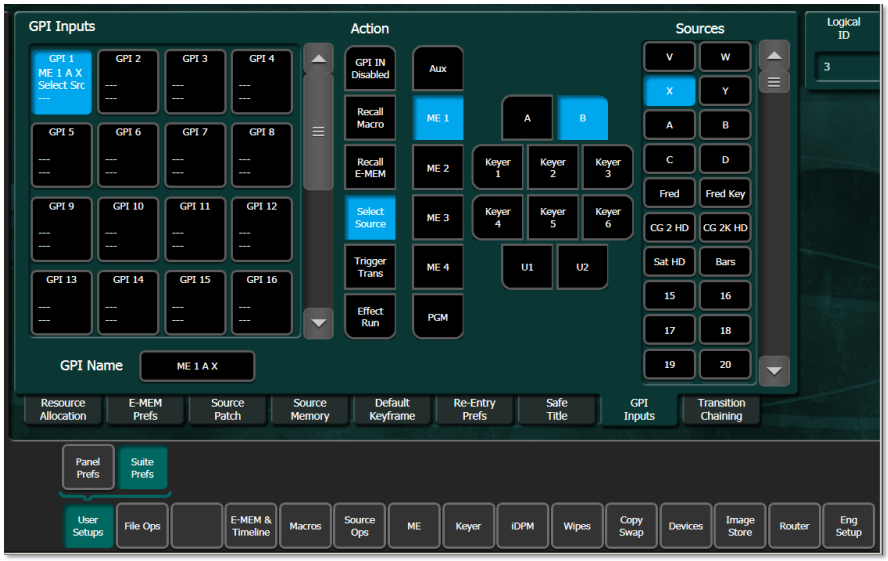
4-52

The Menu names in the Source Patch menu are used for the MultiViewer Displays. This allows the user to rename the default names in the displays.

Suite Prefs - GPI Inputs



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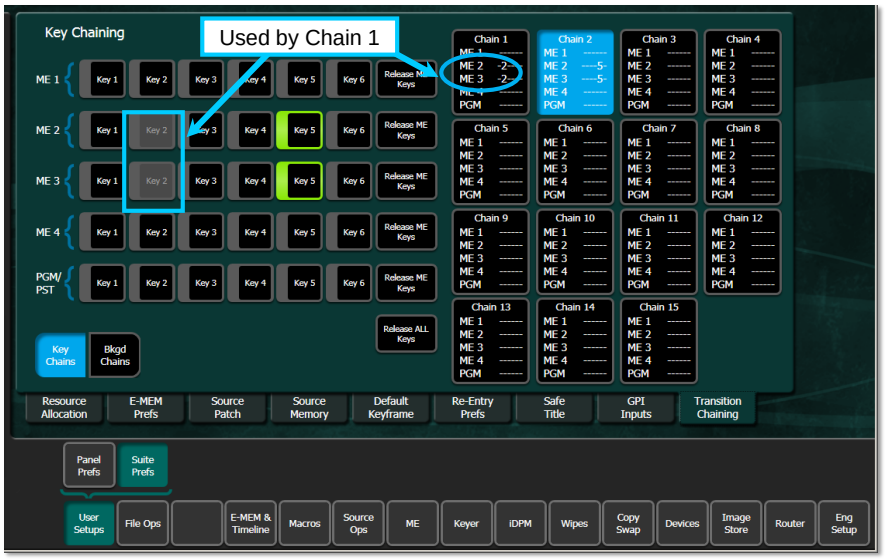
4-53

GPI inputs can be set to control Macros, Recall E-MEMs, Select Sources, Trigger Transitions or Run the current effect.

Each Action type will change the right half of the menu for correct selection. The above display shows a GPI trigger that will Take the Source “X” to the B Bus of M/E 1.

The normal Action state is “GPI IN Disabled”.

Suite Prefs – Transition Chaining – Key Chains



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4-54

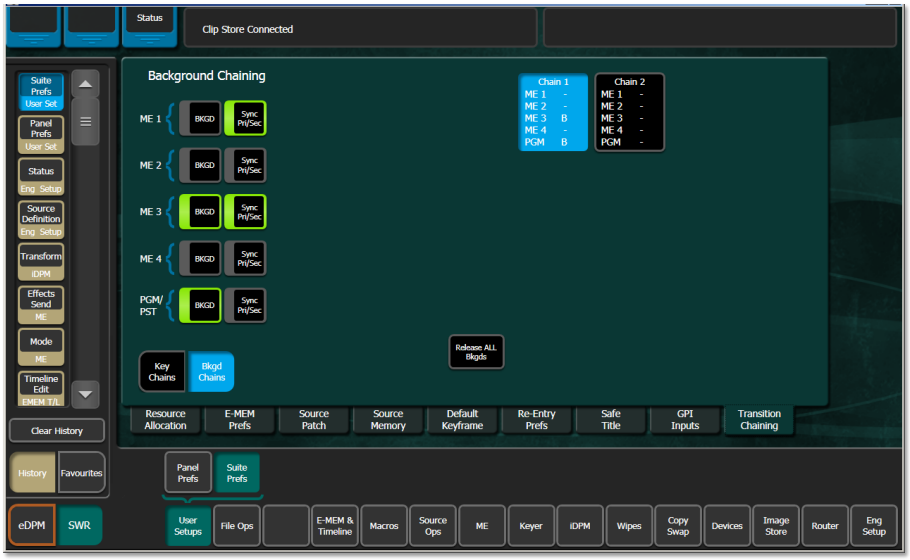
Select the Chain Number you wish to create. There are 15 chains available.

Select Keys to be linked within that chain.

"Release All Keys" is a very important function to remember when working with your show files!

Key 5 and 6 will not be active on K-Frame Sport systems.

Suite Prefs - Transition Chaining - Background Chains



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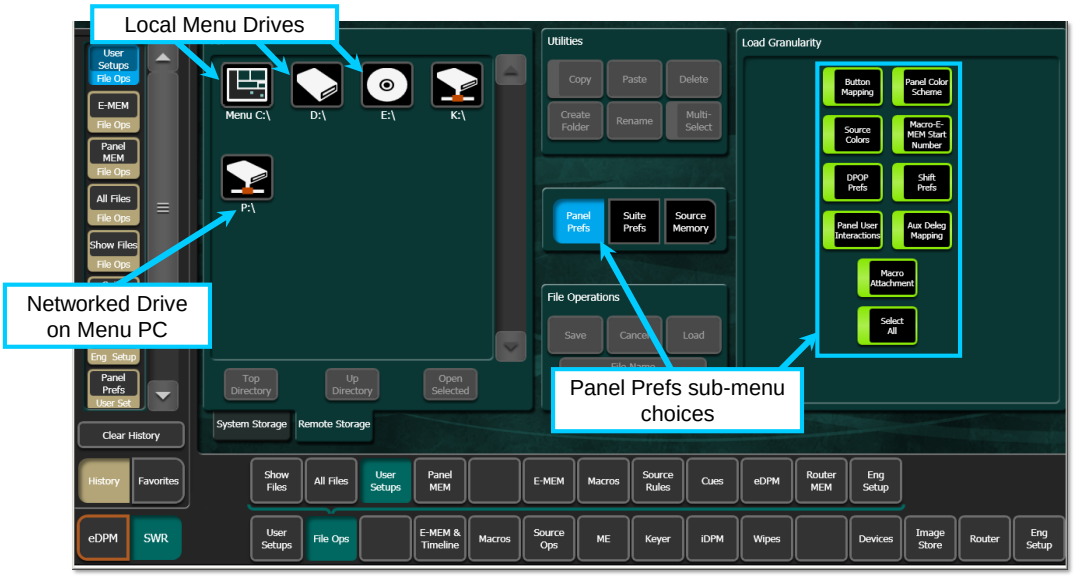
4-55

Select the Chain Number you wish to create. There are 2 chains available.

Select an M/E background to link to another.

Primary and Secondary Partition Backgrounds may also be synchronized. This may be done with or without a link to another M/E.

"Release All Bkgds" is a very important function to remember when working with your show files! This will NOT remove the Partition Synchronization.



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4-56

User Setups allows for storing individual group settings within the User Setups. The Panel, Suite and Source Memory groups are divided based on the individual sub menus in each group.