grass valley

KAYENNE

VIDEO PRODUCTION CENTER

Release Notes

Software Version 2.0

www.grassvalley.com

071868702
OCTOBER 2010

Affiliate with the N.V. KEMA in The Netherlands

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Nevada City, CA 95959
United States

15655 SW Greystone Ct.
Beaverton, OR 97006
United States

10 Presidential Way
Suite 300
Woburn, MA 01801
United States

Kapittelweg 10
4827 HG Breda
The Nederlands

7140 Baymeadows Way
Ste 101
Jacksonville, FL 32256
United States

2300 So. Decker Lake Blvd.
Salt Lake City, UT 84119
United States

Rue du Clos Courtel
CS 31719
35517 Cesson-Sevigné Cedex
France

1 rue de l'Hautil
Z.I. des Boutries BP 150
78702 Conflans-Sainte
Honorine Cedex
France

Technopole Brest-Iroise
Site de la Pointe du Diable
CS 73808
29238 Brest Cedex 3
France

40 Rue de Bray
2 Rue des Landelles
35510 Cesson Sevigné
France

Spinnereistrasse 5
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D-64331 Weiterstadt
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Carl-Benz-Strasse 6-8
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Ph: (215)997-4519
Fax: (215)997-3809

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Contacting Grass Valley

International Support Centers	**France 24 x 7**	+800 8080 2020 or +33 1 48 25 20 20	**United States/Canada 24 x 7**	+1 800 547 8949 or +1 530 478 4148
Local Support Centers (available during normal business hours)	**Asia**	**Hong Kong, Taiwan, Korea, Macau:** +852 2531 3058 **Indian Subcontinent:** +91 22 24933476 **Southeast Asia/Malaysia:** +603 7805 3884 **Southeast Asia/Singapore:** +65 6379 1313 **China:** +861 0660 159 450 **Japan:** +81 3 5484 6868		
	Australia and New Zealand: +61 1300 721 495		**Central/South America:** +55 11 5509 3443	
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	Europe	**Belarus, Russia, Tadzikistan, Ukraine, Uzbekistan:** +7 095 2580924 225 **Switzerland:** +41 1 487 80 02 **S. Europe/Italy-Roma:** +39 06 87 20 35 28 **-Milan:** +39 02 48 41 46 58 **S. Europe/Spain:** +34 91 512 03 50 **Benelux/Belgium:** +32 (0) 2 334 90 30 **Benelux/Netherlands:** +31 (0) 35 62 38 42 1 **N. Europe:** +45 45 96 88 70 **Germany, Austria, Eastern Europe:** +49 6150 104 444 **UK, Ireland, Israel:** +44 118 923 0499		

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Online User Documentation — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

FAQ Database — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

Software Downloads — Download software updates, drivers, and patches.

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END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.

For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.thomsongrassvalley.com/environment

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Contents

Version 2.0

OCTOBER 2010

Kayenne Release Notes

Introduction

This document describes installation and other information specific to Kayenne Video Production Center Release 2.0 software. See page 114 for Kayenne system update instructions.

Changes in Release 2.0

New in Release 2.0

- ClipStore (see page 12)
- Key Chaining (see page 52)
- Multiple Bus Linking (see page 57)
- Corner Pinning (see page 65)
- Copy Swap Menus (see page 84)
  - Timeline Copy (see page 94)
- Bank Buttons on Local and Master E-MEM Modules (see page 83)
- Source OLED Enhancements (see page 83)
  - Outline mode
  - Line wrapping is now supported
- Panel Saver Timer (see page 83)
- Kayenne Menu on PC can be resized (click and drag from corner)

Improved in Release 2.0

- eDPM Enhancements (see page 74)
- Device Control Module Enhancements (see page 77)
- Control Panel Enhancements (see page 83)
- SetDef MatchDef (see page 97)
  - E-MEM Control of SetDef MatchDef (see page 100)
- E-MEM of Key Priority Transitions (see page 104)
- Key Store Enhancements and Operations (see page 104)
- Macro Attachments (see page 106)
- Satellite Panel Installation Instructions (see page 106)

Limitations in Release 2.0

This Kayenne software release does not support the following features:

- Editor Interface control of a 5th ME, Keyers 5/6, and E-MEM registers above 100.

2.0 Upgrade Effects Existing E-MEMs: Bus Linking and eDPM Timelines

Some E-MEM effects created using software versions earlier than Kayenne 2.0 will need to be modified as a result of the upgrade:

Bus Linking and E-MEM Effects

In earlier versions of Kayenne software, bus linking was a configuration setting. In version 2.0, bus linking is now keyframable which provides greater flexibility and the capability to change links dynamically during a show. Due to this change, bus links created in older versions of software are no longer valid in version 2.0 and should be recreated and learned into E-MEM registers.

eDPM Effects

The following changes will effect the operation of current shows when upgraded.

Timeline Modifications

In Kayenne 2.0, eDPM levels of Master E-MEM have their own keyframes and no longer project the timeline from the eDPM registers. Timelines imported from version 1.5 software are converted to have a single Keyframe on the eDPM level of Master E-MEM, which will recall the correct eDPM effect register that corresponds to your existing E-MEM. The following are the steps to modify the timeline on the eDPM level to run the effect from the Master E-MEM:

1. Recall the E-MEM register.
2. Go to E-MEM edit mode and select the end.
3. Disable all Master E-MEM levels except eDPM.
4. Press **Modify** (this will add a Keyframe to the DPM level at the point of the run cursor position).

Note The timeline just modified by the above process will be the length of the overall run time of the selected Master E-MEM level. The actual Master E-MEM timeline for the eDPM level only needs to be as long as the total runtime of the eDPM effect (it can be longer, but not less). If the timeline on the eDPM level needs to be longer than the Master E-MEM effect duration, position the run cursor on the first keyframe of the eDPM level (disabling all levels but eDPM) and modify the Keyframe Duration to accommodate the maximum runtime of the eDPM effect.

Partition Modifications

The eDPM partition sub-level has moved from Master E-MEM PART to the eDPM Primary level. Some eDPM effects will have to be modified if they need partitions:

1. Recall the eDPM effect that has Picture Combiner or partition information included.
2. In the eDPM mode, Picture, Combiner menu, select the correct eDPM settings and modify the effect for eDPM Primary.

ClipStore (Image Store Clips)

The *ClipStore* is being introduced with Kayenne 2.0. By seamlessly integrating the K2 Summit/Solo technology into Image Store, you can now record and play clips with audio. The Summit provides four Video/Key channels while the Solo provides two.

- The ClipStore is supplied to record and playback with AVC-Intra 100 compression format. Clips imported in DVCPRO HD, DVCPRO 25/50, DV, and MPEG-2 will play natively.
- The ClipStore supports embedded audio only. The AES inputs and outputs are not used.

The ClipStore is completely configured and controlled from the Kayenne menu and control panel. There is no need to use the built-in AppCenter Elite software. In fact, if changes are made to the ClipStore using AppCenter, they will be overwritten by the switcher the next time it sends a configuration to the ClipStore.

This highly integrated solution provides several powerful features, including:

- Fast access to clips and folders,
- Large storage capacity,
- Non-volatile memory—no loss of images due to power failure,
- Clip control from the Kayenne Menu Panel and clip stack control from the Kayenne Control Panel,
- ClipStore device controls (including macros and cues) are E-MEMable, and
- Make sub-clips from clips and build composite clips with audio.

Summit/Solo Software Version

Version 7.2.7.1403 is the current version of the AppCenter Elite software for the ClipStore server, as of the release of this manual. The latest version of the server software is available on the Kayenne Software Download site.

CAUTION Do not use AppCenter Elite software for ClipStore from the Summit/Solo server website as it may not be compatible.

For more information about installing and updating AppCenter Elite software, see the Summit/Solo manuals.

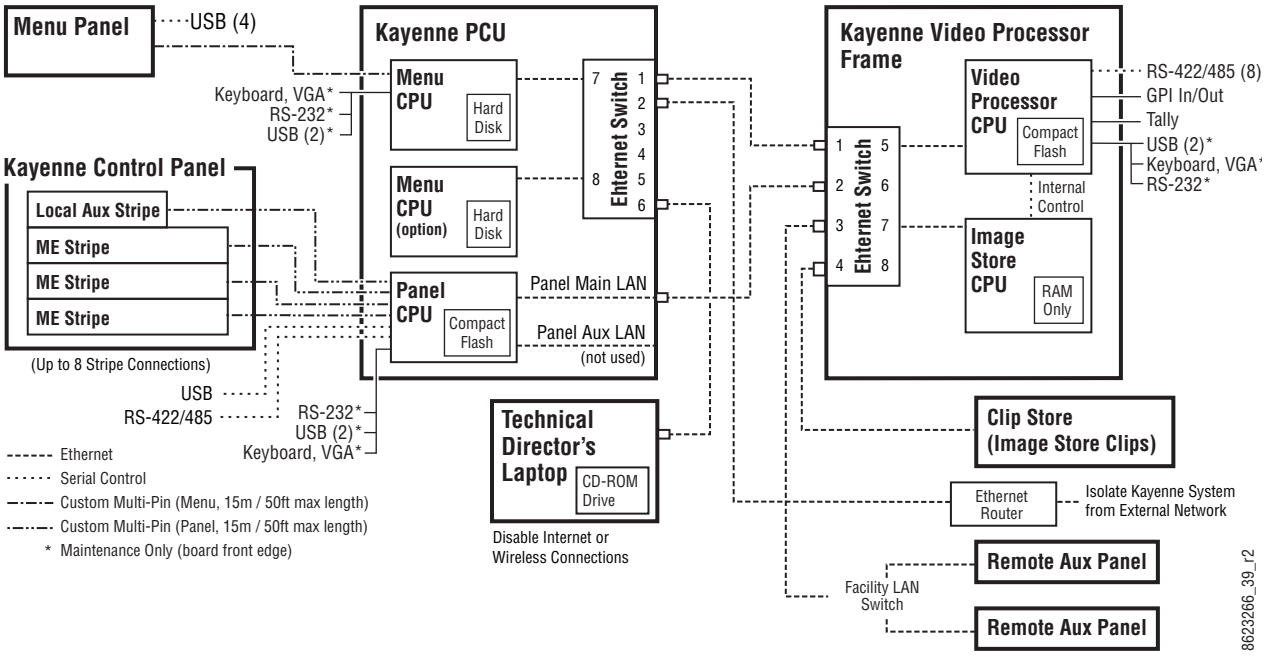
System Cabling

Overview

The Kayenne system uses an Ethernet connection for communications with ClipStore (K2 Summit/Solo, Figure 1). Connect an Ethernet cable from the Kayenne Frame to the bottom left (of the four) 100BT/1000BT Ethernet ports on the Summit/Solo backplane.

Note For a detailed cabling description, see the K2 Summit/Solo manuals included in the packaging.

Figure 1. Kayenne System Communications Overview



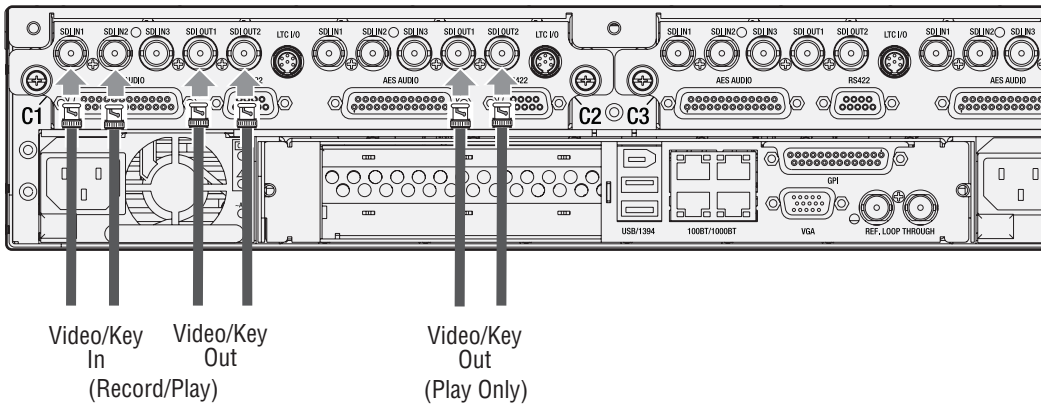
Video Cabling

The ClipStore channels on the server backplane are labeled C1-C4 (Channel 1 through Channel 4 on the Summit) from left to right (Figure 2). The Solo backplane is not labeled, Channel 1 is on the left and Channel 2 is on the right when facing the backplane.

ClipStore requires SDI connections for both video and key— two connections In/Out per channel (C1 in Figure 2) for recording and playback. For

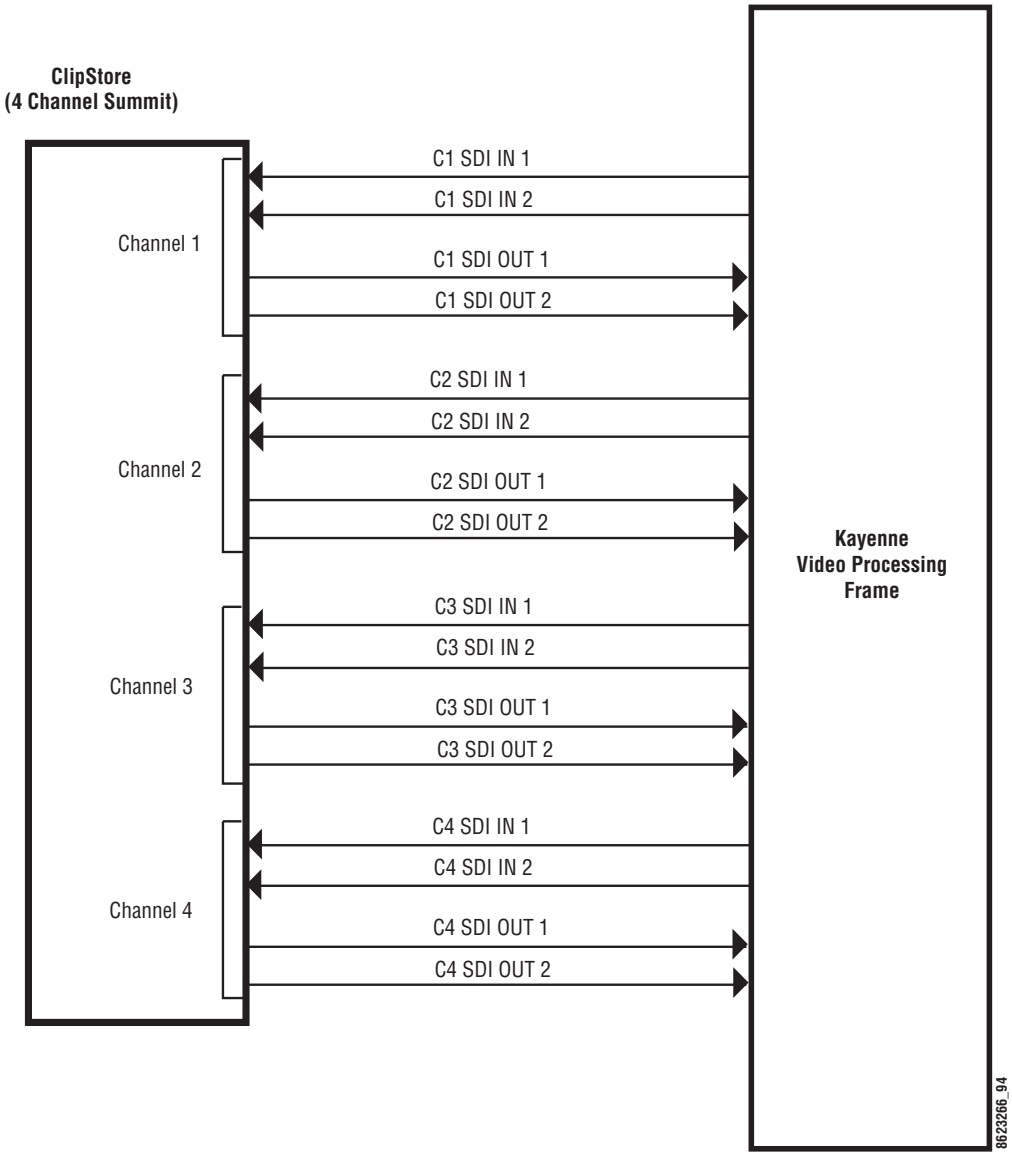
playback only, two SDI connections to Out 1 and Out 2 are all that is required per channel (C2 in Figure 2).

Figure 2. ClipStore Backplane Connections



The ClipStore server (4-channel Summit/2-Channel Solo) can be connected directly to the frame (Figure 3). It is also possible to connect to the ClipStore directly from a router and not use any switcher outputs.

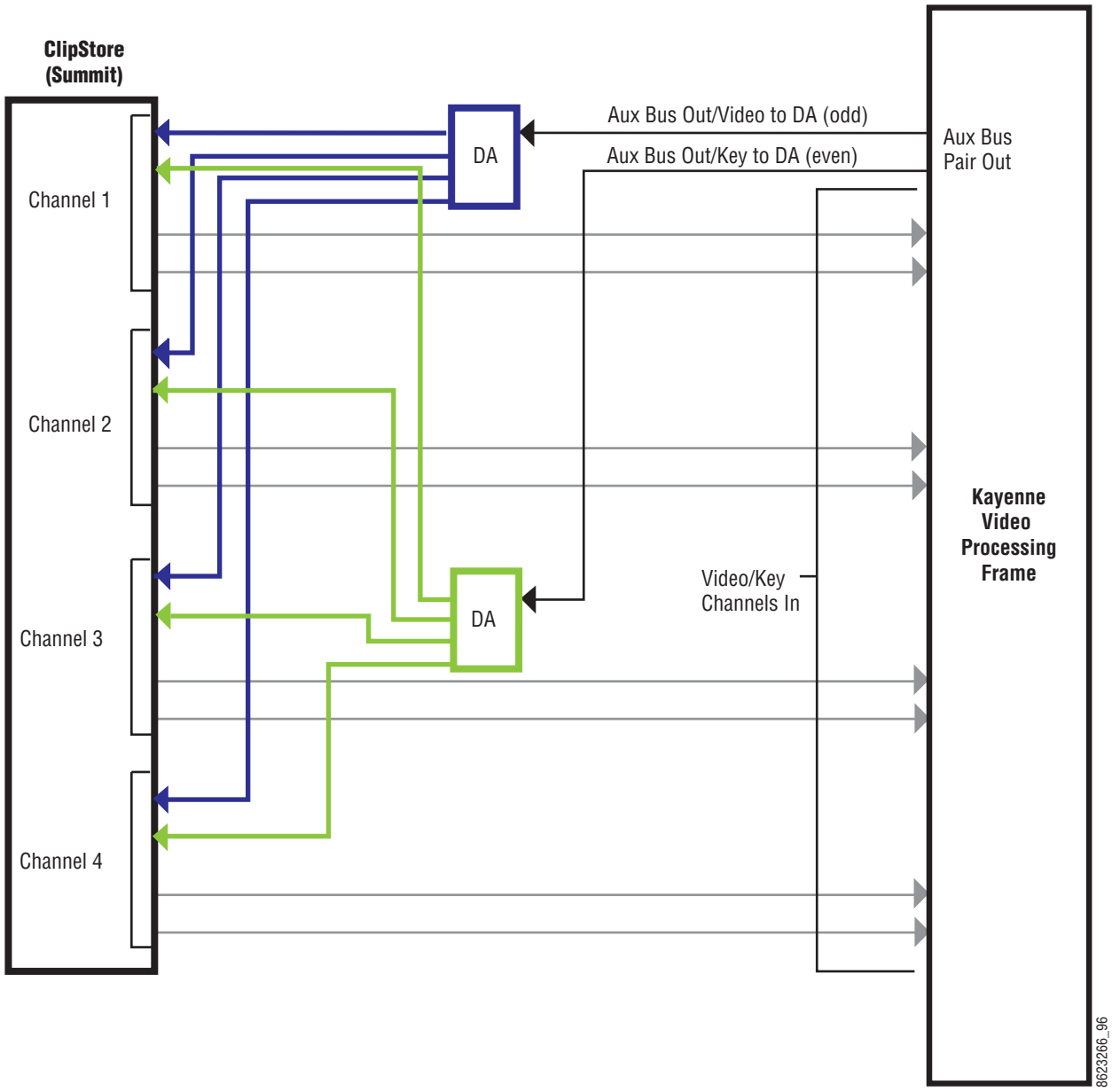
Figure 3. ClipStore Direct Connection



Odd numbered outputs are used for fill and even are used for cut. The first output assigned to a ClipStore channel must be an odd numbered output.

Also, DAs (Distribution Amplifiers) can be used to distribute Kayenne Aux Bus output. The example in Figure 4 shows DAs being used for both the Video and Key Aux Bus outputs from the frame.

Figure 4. ClipStore Connection Using Distribution Amplifiers



Basic Configuration

ClipStore basic configuration includes preparing the Summit/Solo and Kayenne systems through licensing, IP addressing, software installation, cabling, and Kayenne menu configurations.

Summit Preparation

Setting the IP Address

The ClipStore Summit/Solo server is shipped with the following defaults:

- IP Address: 192.168.0.180
- Mask: 255.255.255.0
- Gateway: 192.168.0.1
- WINS: disabled (0.0.0.0)
- DNS: disabled (0.0.0.0)

You can temporarily change the default settings using Netconfig (see the *NetConfig Network Configuration Application Instruction Manual* at www.grassvalley.com).

To set a new IP Address at the ClipStore (Summit/Solo) server, see *Setting the Summit/Solo IP Address* *on page 109*.

The NetConfig Network Configuration Tool is installed as part of the Kayenne software.

Note Make note of the ClipStore IP Address, it will be used later to enable ClipStores as external devices later in the Kayenne configuration process.

Kayenne System Preparation

Install Kayenne Software Version 2.0 or Later

Verify that the Kayenne software is version 2.0 or later. For information about upgrading Kayenne software, see *Kayenne Software Update* *on page 114*.

Install the ClipStore license (Figure 5). The following are the Kayenne ClipStore options (see the *Kayenne Installation and Service Manual* for more about licensing):

- KAYN-CLPS-2CH-PAK (2-Channel Solo Server Platform)
- KAYN-CLPS-4CH-PAK (4-Channel Summit Server Platform)

Figure 5. ClipStore License

Kayenne Configuration

Configuring ClipStore as a Node

ClipStore must be configured as a node in the Eng Setup, Node Settings menu before the Kayenne system can communicate with the Summit/Solo ClipStore server.

1. Verify there is a valid network connection.
2. Go to the Node Settings menu by touching **Eng Setup**, **Node Settings**, **Frame Suite Nodes & ID** (Figure 6).
3. Input a valid IP address for the ClipStore server by touching the **ClipStore IP Address** data pad, typing the address, and touching **Enter** (Figure 6).
4. Touch the **Enable** button (Figure 6).

   The Enable button allows communication between the Kayenne and the ClipStore server and highlights green indicating a proper connection. Red will show no connection and yellow shows that some channels are connected. For both red and yellow indications, ensure that channels are in AMP mode and available for remote control. Other troubleshooting may be required.

Figure 6. ClipStore Node Settings

Configuring Source Definitions

To configure source definitions for ClipStore return outputs, choose a source, a source type, an input, and in the case of a key, an Engineering Name for the source if desired.

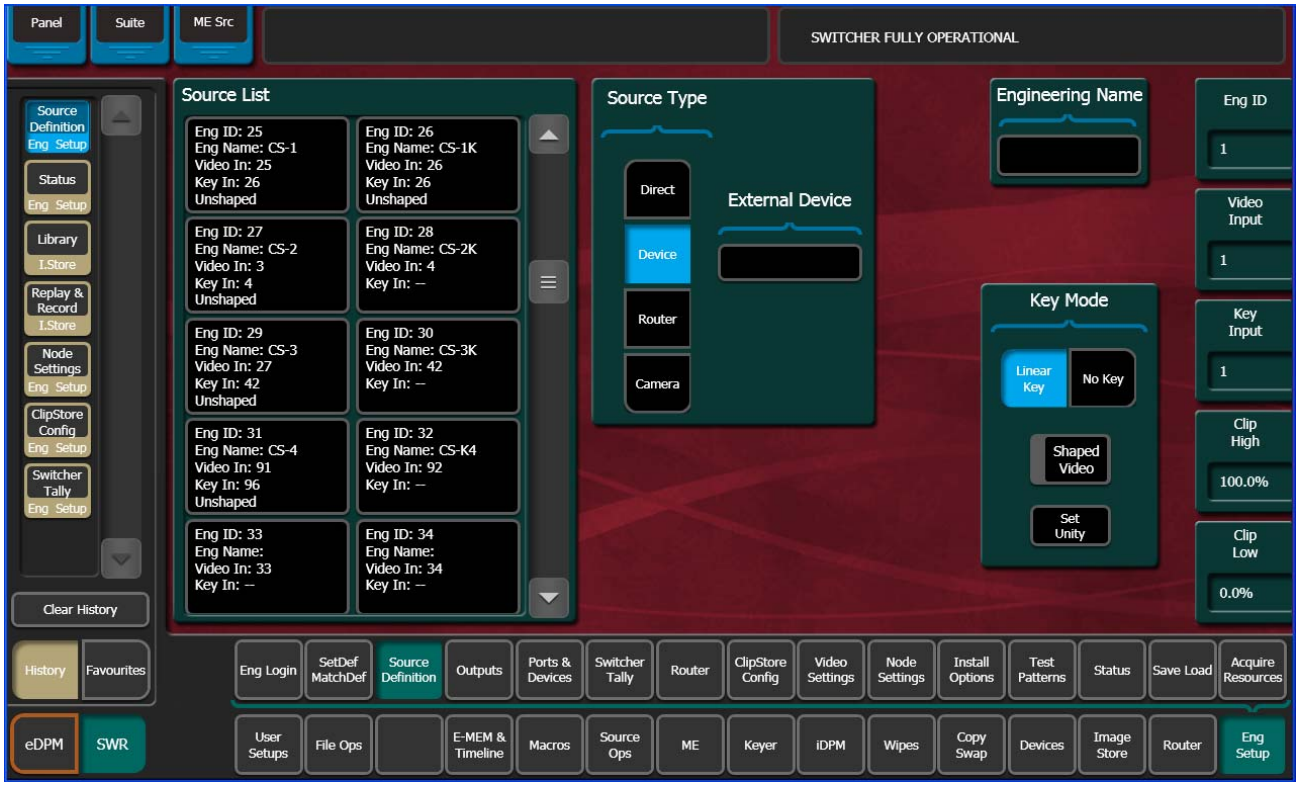
The following example demonstrates the configuration of a Summit with four ClipStore channels. In this example the physical BNC connections from the ClipStore to the Kayenne Frame are Inputs 25-32.

ClipStore can record Video only, Key only, or Video/Key clips. To do this, both a video and a key for the video must be configured for each ClipStore channel.

To configure a source for as a ClipStore Video input:

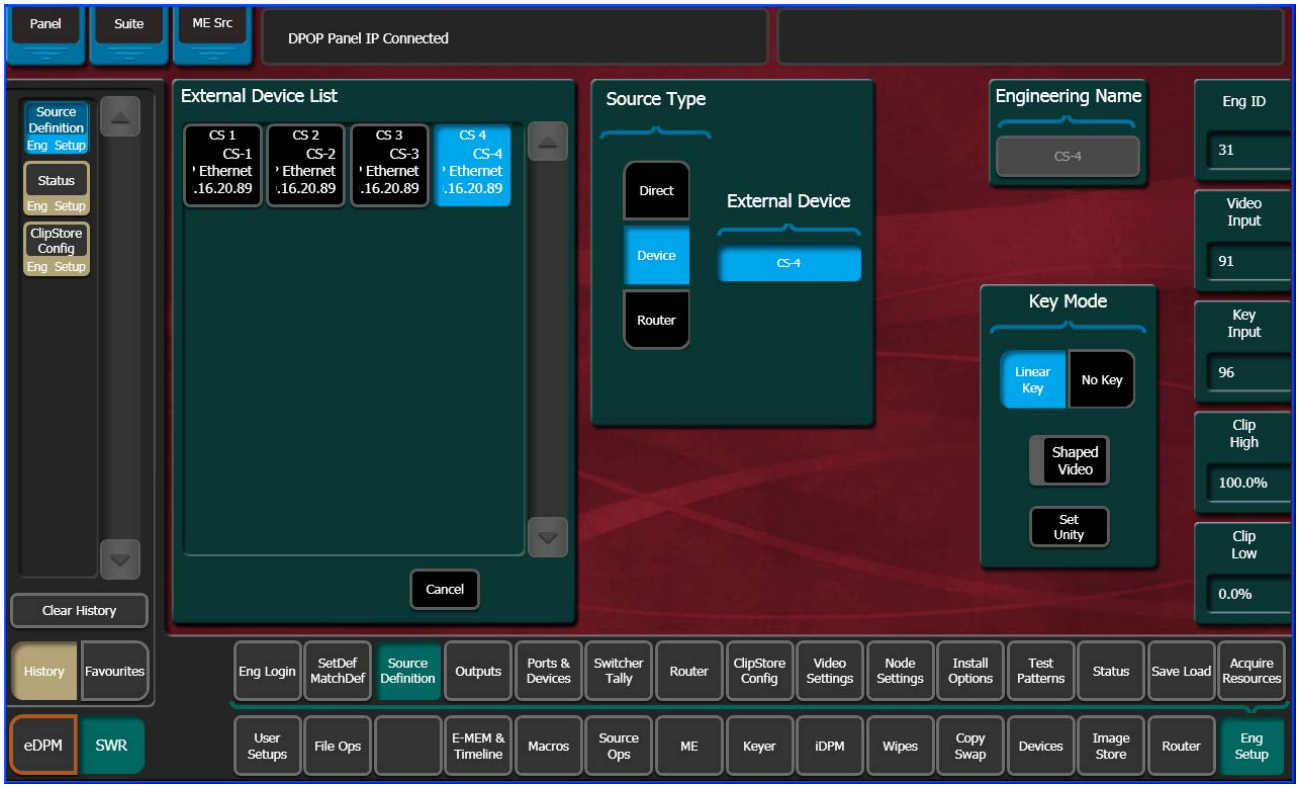
1. Go to the Eng Setup, Source Definition menu (Figure 7).

Figure 7. ClipStore Source Definition



2. From the Source List, touch a source (Figure 7).
3. Use the default video input (Video In:) or change it using the **Video Input** data pad.
4. Touch the Linear Key button to select it.
5. Use the **Key Input** data pad (or soft knob) to select the source number of the Key source you will use for the ClipStore channel.
6. Configure the Source Type:
   a. Touch the **Device** mode button in the Source Type pane (Figure 8).
   b. Touch the **External Device** data pad, the External Device List is displayed (Figure 8).

Figure 8. ClipStore External Device List



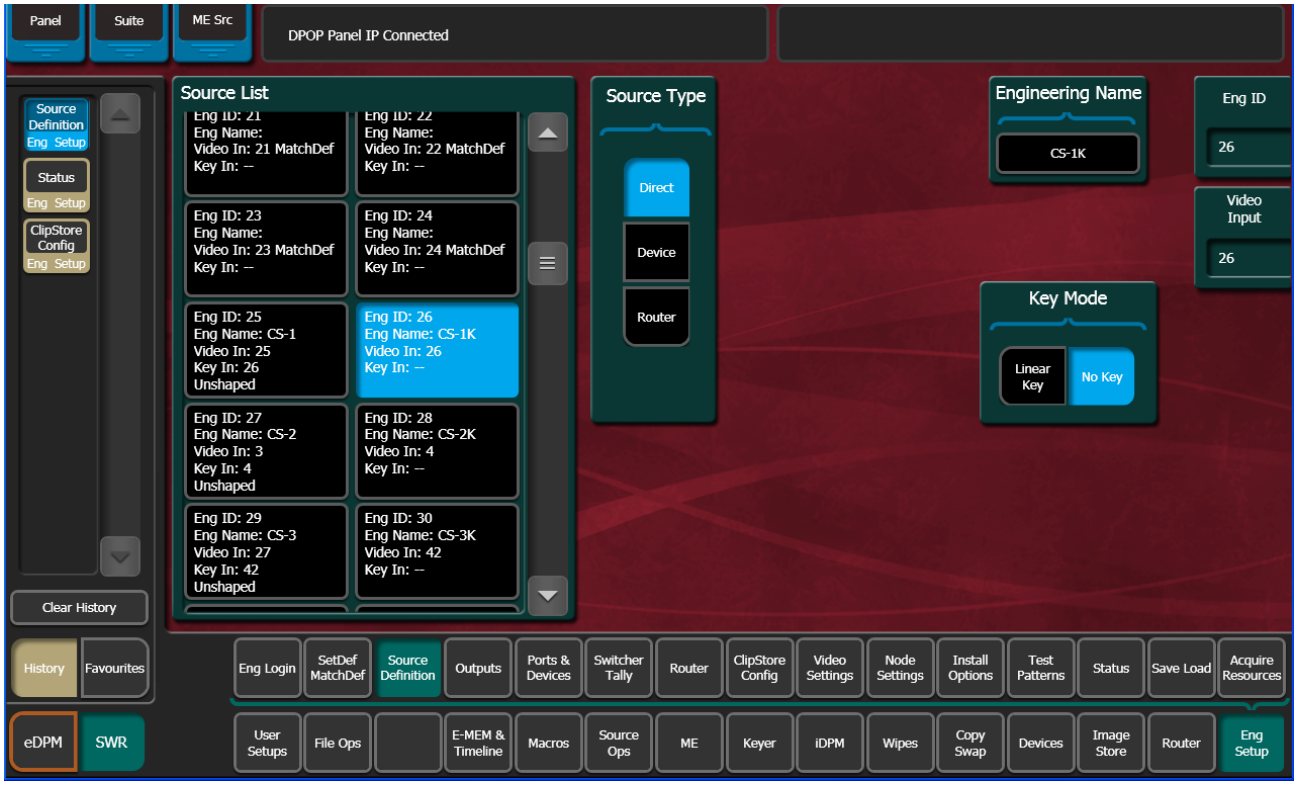
c. Touch a CS channel to select it (Figure 8).

The External Device List closes and the Engineering Name is filled in with the ClipStore External Device name automatically.

To configure a source as a ClipStore Key input (Key input to the ClipStore Video input created earlier):

1. From the Source List, touch a source (Figure 9).
2. Touch the **No Key** button in the Key Mode pane to select it (if not selected).
3. Use the default video input (Video In:) or change it using the **Video Input** data pad.
4. Touch the **Direct** mode button in the Source Type pane to select it.
5. Give the ClipStore key input an Engineering Name if desired (CS-1K, Figure 9), by touching the **Engineering Name** data pad and entering the name in the pop-up keyboard.

Figure 9. ClipStore Key Input Source



You now have device control over this ClipStore resource, and it can be mapped. Repeat the preceding steps for each ClipStore channel.

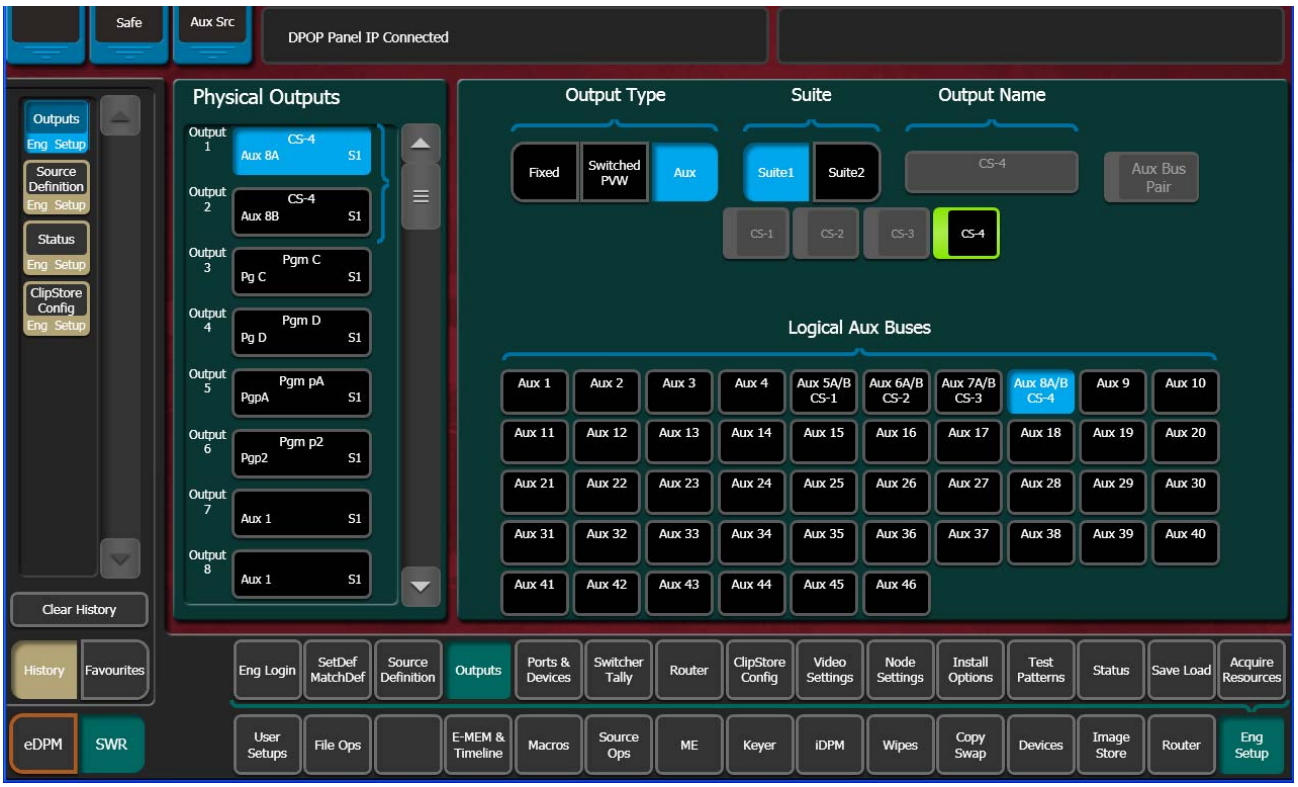
Configuring Outputs

Set the switcher outputs that are feeding into ClipStore. By selecting an Aux bus then touching one of the CS-1 through CS-4 enable buttons, those Aux bus outputs will be paired. In other words, if you select the output, then

Aux 5, Aux 5a and Aux 5b will be paired as a ClipStore Video/Key pair when the ClipStore button is enabled.

1. Go to the Outputs menu (Figure 10) by touching **Eng Setup**, **Outputs**.

Figure 10. ClipStore Output Configuration



2. Select the odd numbered output (first Aux bus output assigned for a video/key pair must be odd/fill) that you wish to use as the input to ClipStore (Figure 10). Then select Aux as the Output Type and the desired logical Aux bus.
3. Touch one of the ClipStore buttons (Figure 10).
4. Repeat the preceding steps for each channel of ClipStore.

Note You only need to configure all channels as video/key if you wish to record on all channels.

The Engineering Names for each ClipStore channel will appear in the Kayenne Local Aux Module and/or can be button mapped as desired.

When acquiring CS channels in another suite, before reassigning CS channels:

1. In the Outputs menu, deselect the CS channels to be acquired (Figure 10).

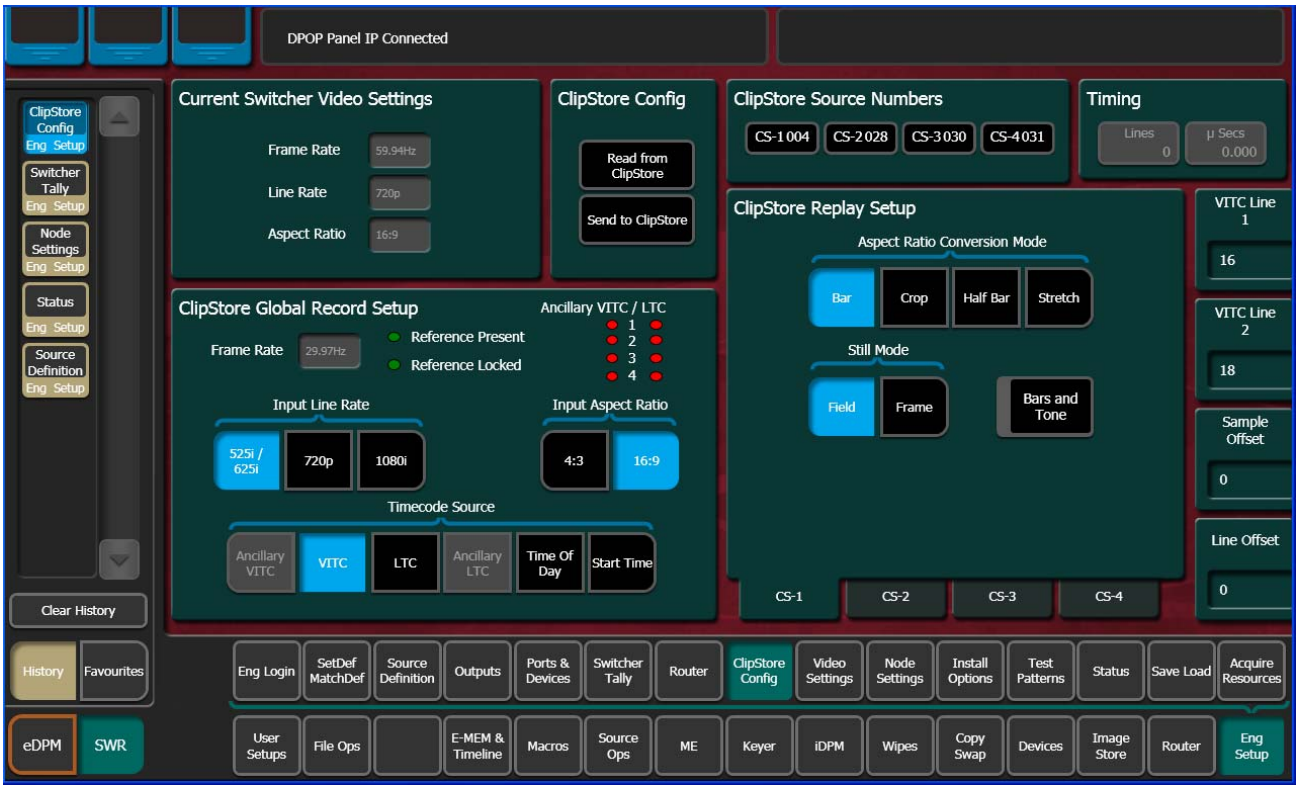
2. Touch the **Suite 1** or **Suite 2** button (Figure 10) to change suite delegation.
3. Re-acquire the CS outputs by touching the CS buttons (CS-1, CS-2, etc.).

It is recommended at this point that you save a new Eng Setup file that includes these changes.

ClipStore Config Menu

The ClipStore Config menu is used to configure the ClipStore input/output parameters and read those input/output parameters from, or send them to, the ClipStore server (Figure 11).

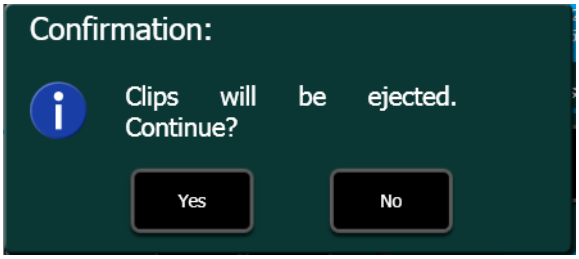
Figure 11. ClipStore Configuration Menu



Read from ClipStore button—Updates the Eng Setup, ClipStore Config menu with the current parameter settings for the configured ClipStore server channels (Figure 11).

Send to ClipStore button—Sends all parameter and system settings required by ClipStore to record, edit, and control clips to the server. Any changes to the Record Setup or Replay Setup parameter settings will also be sent to the ClipStore server (Figure 11). A dialog is displayed when this button is pressed (Figure 12), stating that all clips will be ejected as part of this operation; keep this in mind if considering this operation during a broadcast.

Figure 12. Send to ClipStore Confirmation Dialog



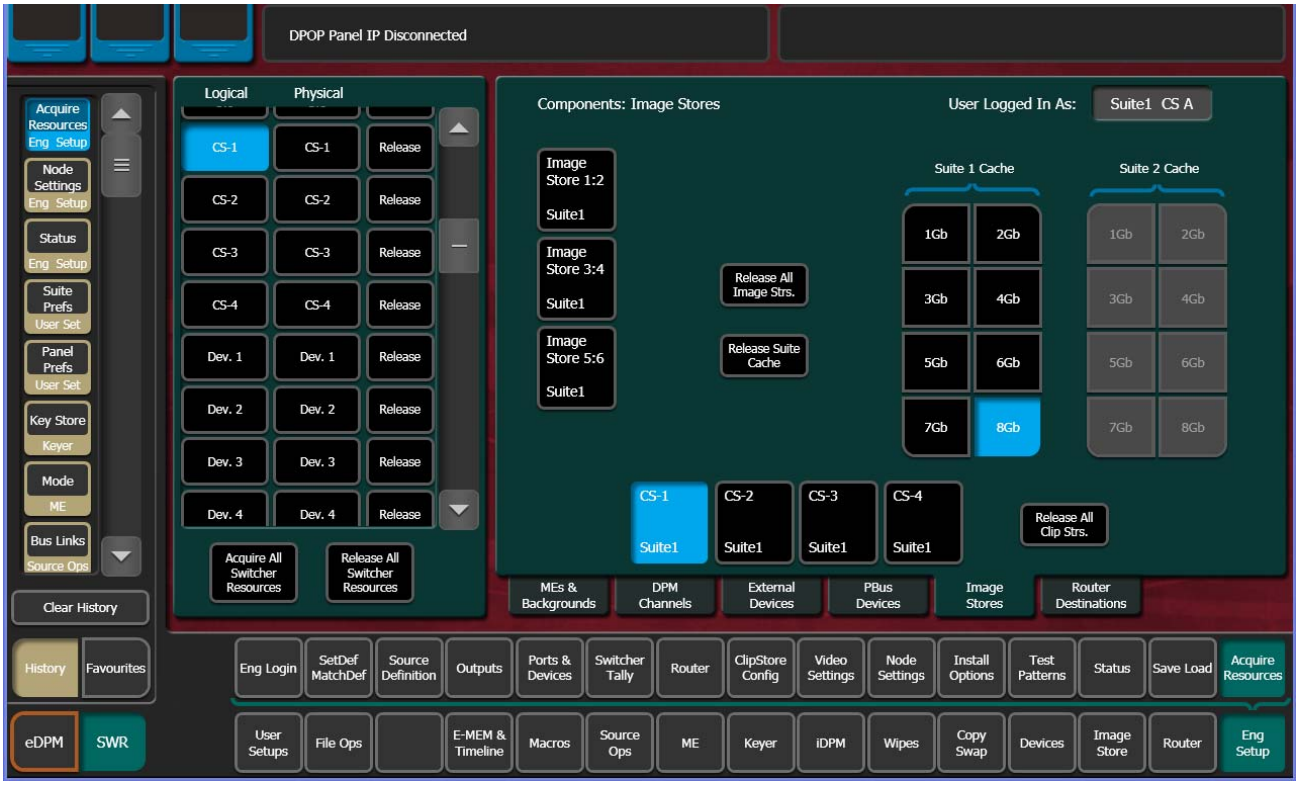
The ClipStore Source Numbers Pane (read-only), provides channel and source information, for example CS-1025 means ClipStore Channel1 (CS-1), Eng Source ID 25 (025).

Bars and Tone button—Turning this button on (highlighted green) then touching the **Send to ClipStore** button, loads color bars (and updates the configuration) and sends a tone to the selected ClipStore channel for testing.

Assigning ClipStore Channel Resources to a Suite

ClipStore resources can be acquired in suites. ClipStore suite assignment buttons have been added to the Eng Setup, Acquire Resources, Image Stores menu (Figure 13). For information about acquiring suite resources, see the *Kayenne Installation and Service manual*.

Figure 13. ClipStore Acquire Resources



ClipStore as an External Device

Note ClipStores 1-4 as devices can only be enabled in the Eng Setup, Devices, Node Settings menu in the Frame Suite Nodes & ID menu tab.

ClipStores 1-4 will appear as the first four external devices in the Device Enables scrolling list (Figure 14), in the Devices, Enables menu (and other Devices menus). External Device 1 will now be in the 5th position in the Device Enables list (Figure 14). Enable/Disable buttons in the Devices menu do not function for ClipStore.

Note For a two-channel K2 Solo, only ClipStores 1 and 2 are reserved and External Device 1 will be in the 3rd position.

ClipStore can be used in a gang like any other external device. For more information about ganging devices, see the *Kayenne User Manual*.

Figure 14. ClipStore in Device Menu

Kayenne Control Panel Operation

As with other external devices, device control is possible through the MFM (Multi-Function Module), the optional DCM (Device Control Module), and the System Bar. Engineering names (CS-1, CS-2, etc.) appear

in the control panel displays and all motion controls provided from the server are available.

ClipStore motion controls can be learned as part of an E-MEM.

ClipStore Menu Operations

Clip Replay

The ClipStore output channels appear in the same columnar style as in the Stills menu (Figure 15). Also like the Stills menu, the selected output channel will be outlined in blue or red if on-air.

Note ClipStore channel represents a permanent Video/Key pair.

Clip replay is performed in the Image Store, Replay & Record, Clips (and Clip Record and Edit) menu (Figure 15).

Figure 15. Clips Menu

Folder Selection

Touch the **Current Folder** data pad located just above the scrolling clip list (Figure 15) to change the current folder. The Folders/Clips menu is displayed (Figure 16).

Touch the folder you wish to be the current folder and either select a clip on the right or press the **Cancel** button (bottom right of menu, Figure 16) to close and return to the Clips menu (if the **Cancel** button is touched, the folder will still be changed but it will not result in a clip load).

Figure 16. Folders/Clips Menu Selection

Menu Clip Selection

Clips can be selected in three ways in the menu:

- Touching a clip in the scrolling clip list (Figure 15),
- Touching the **Scroll Image List** data pad (Figure 15), and entering the Image ID for the clip (ascending numeric value in the current folder).
- Touching the Current Folders data pad and then touching a clip in the Current Clip scrolling list (Figure 16).

With the **Auto Load** button selected (highlighted green), the clip will be loaded into the selected ClipStore channel.

Clip Loading

As with Stills, to load a clip (Figure 15):

1. Turn on Auto Load by touching the **Auto Load** button.

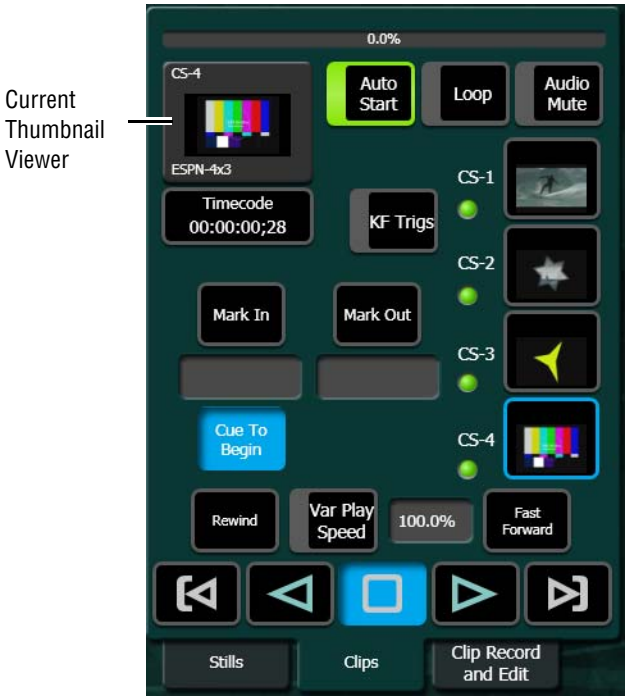
Note Auto Load must be on to load a clip.

2. Touch a ClipStore channel.
3. Touch a clip in the scrolling clip list.

The clip loads to the selected channel.

The Current Thumbnail Viewer (Figure 17) displays the currently loaded clip in the selected channel.

Figure 17. Current Thumbnail Viewer



Note When a ClipStore channel is selected and a clip is loaded, that clip will be highlighted in *blue* in the scrolling clip list (Figure 15) and the list will automatically scroll to display the selected clip.

Clip Search

You can search for clips using the **Search Clip** button (Figure 15). Touching the button displays the Search Clip keyboard. Type letters and/or numbers (minimum 1 character) and touch **Enter** to execute the search. The found clips will be listed in the scrolling clip list.

If Auto Load is on, the first clip in the resulting list will be loaded into the selected channel. If Auto Load is off, or the search finds no clips, then no clips will be loaded.

Playback

The Playback pane in the Image Store, Replay & Record, Clips menu provides playback and playback parameter controls for clips (Figure 18).

You can play a clip by loading it into a ClipStore channel and touching the Play button, or by turning on the **Auto Start** button and taking the channel on-air (Figure 18). For example, if you take the CS-1 channel on-air, either as a background or keyer, the clip loaded into the CS-1 channel will play automatically when the **Auto Start** button is on.

You can loop a clip by touching the **Loop** button (highlights green) or mute the audio of each channel individually with the **Audio Mute** button (Figure 18).

Other controls include (Figure 18):

- **Timecode** data pad—Touch the **Timecode** data pad to enter a timecode.
- **Mark In**/**Mark Out** buttons and data pads—Touch the **Mark In**/**Mark Out** buttons to set the mark-in/mark-out to the current clip position, touch the data pads to enter a Mark In or Mark Out point on a numeric keypad.
- **Cue to In** button data pad—Touch the **Cue to In** data pad and enter the value.
- **Var Play Speed** button and data pad—**Var Play Speed** button on, enables variable speed play. Touch the data pad to enter the playback speed value.

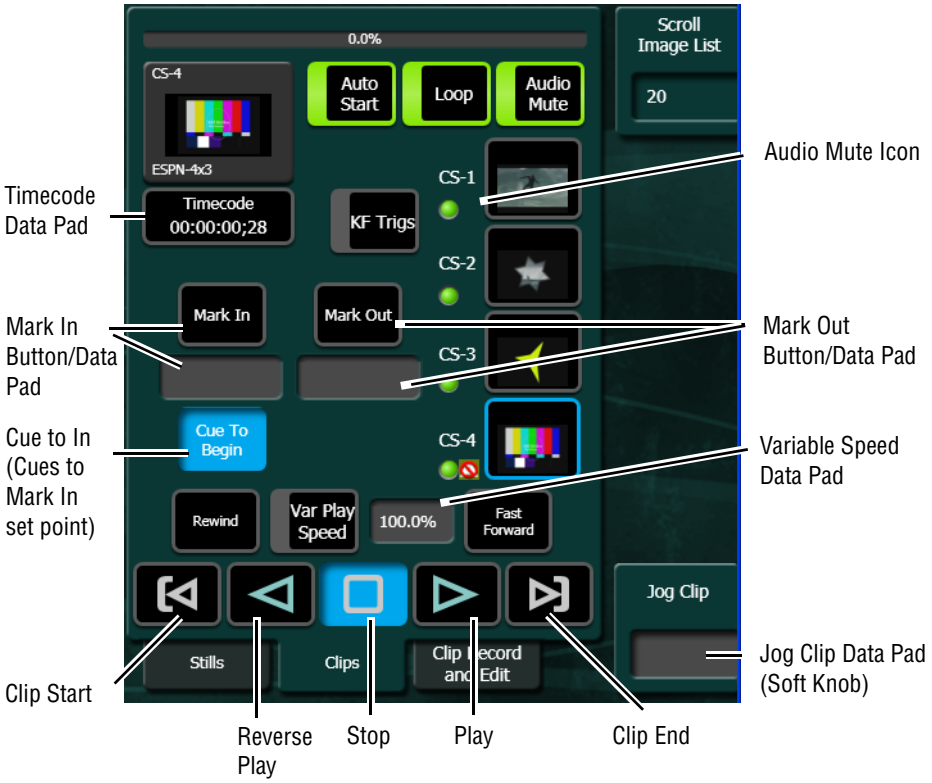
Device control buttons:

- **Rewind**
- **Fast Forward**
- **Start of Clip**
- **Reverse Play**
- **Stop**
- **Play**
- **End of Clip**

(The **KF Trigs** button is described in *Replay with E-MEMs*.)

Note All the functions listed above can be controlled by macros.

Figure 18. Playback Controls



Replay with E-MEMs

ClipStore replay can be controlled with E-MEMs. Keyframe triggers that are E-MEMable are:

- Load (Clip),
- Loop Enable/Disable,
- Cue (to in), and
- All Motion Controls including Variable Speed Play (**Var Play Speed** button).

Note The Master E-MEM has CS-1, CS-2, CS-3, and CS-4 assigned by default to MISC 1-4.

To create an E-MEM trigger, touch the **KF Trigs** button in the Image Store, Clips menu (Figure 19). The motion control buttons become jeweled toggle buttons, and **Loop Enable**, **Loop Disable** and **Cue** buttons are displayed (Figure 19). When a **Loop Enable**, **Loop Disable**, **Cue**, or motion control button is

touched, that operation will be learned by E-MEM. For more information about E-MEMs, see the *Kayenne User Manual*.

Figure 19. Clip Replay with E-MEM Control

Recording Clips

Clips are recorded with embedded audio in the Image Store, Replay & Record, Clip Record and Edit menus (Figure 20). The **Record** and **Edit** mode buttons (Figure 20) are positioned at the top right of the menu. To record, the **Record** mode button must be selected (highlighted light blue, Figure 20).

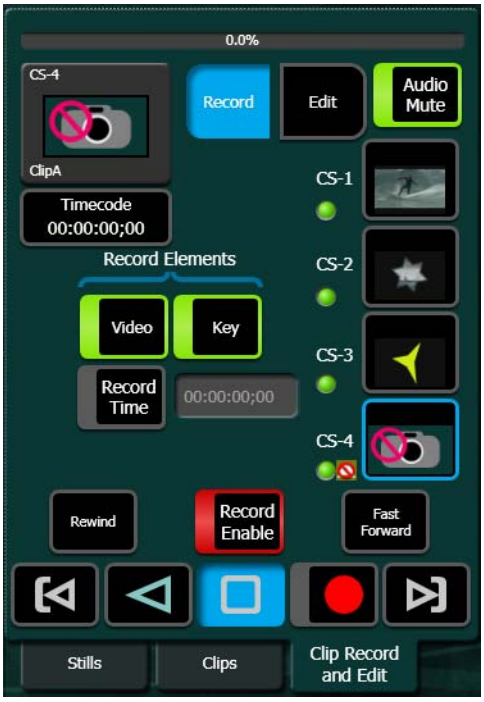
Figure 20. Record Mode

When the **Record Enable** button is touched, ClipStore ejects the clip from the selected channel, places the ClipStore channels in E/E mode, and displays a pop-up keyboard. Type in the name of the new clip. Once the name is typed, **Enter** is pressed, and the keyboard closes, the **Record Enable** button is highlighted red and the menu has changed to display recording controls and parameters in readiness for recording (Figure 21). The **Play** device control button is replaced by a **Record** button.

Clips can be overwritten by entering an existing clip name into the pop-up keyboard or by touching the **Cancel** button in the pop-up keyboard and touching a clip (or folder then clip) in the Folders/Clips menu (Figure 16). Once either operation is completed, you are returned to the Record mode menu and the **Record** button is present and highlighted in red.

Note Thumbnails do not display in the Current Thumbnail Viewer in Record Enable mode except when overwriting an existing clip.

Figure 21. Record Button Enabled



The **Video** and **Key** Record Elements buttons allow you to route the Aux Bus selections:

- Video Only—Video + Full Raster White,
- Key Only—Key + Key, and
- Video/Key—Video + Key.
- Set a Record Time using the Record Time button.

Note If an Aux Bus is not configured for the ClipStore output, the **Video** and **Key** buttons will always be on.

These elements are also very useful for editing when you want to *build* or *join* clips (see *Editing Clips* *on page 35*). To set a record time, touch the **Record Time** button and a pop-up keypad will appear to enter the desired value. Touch **Enter** when finished.

To record a clip:

1. Touch to select the ClipStore channel for recording.
2. Touch the **Record** mode button.
3. Define the Record Elements you wish to apply to the clip to be recorded.
4. Touch the **Record Enable** button.

5. Enter a new clip name or an existing clip name if you wish to overwrite that clip.
6. Touch **Enter**.
7. Touch the **Record** device control button.
8. Touch the **Stop** device control button when the desired length of the clip is reached.

Editing Clips

Clips can be edited in the Image Store, Clip Record and Edit menu. There are three types of clip editing provided:

- Cut Edit,
- Build Edit, and
- Join Edit.

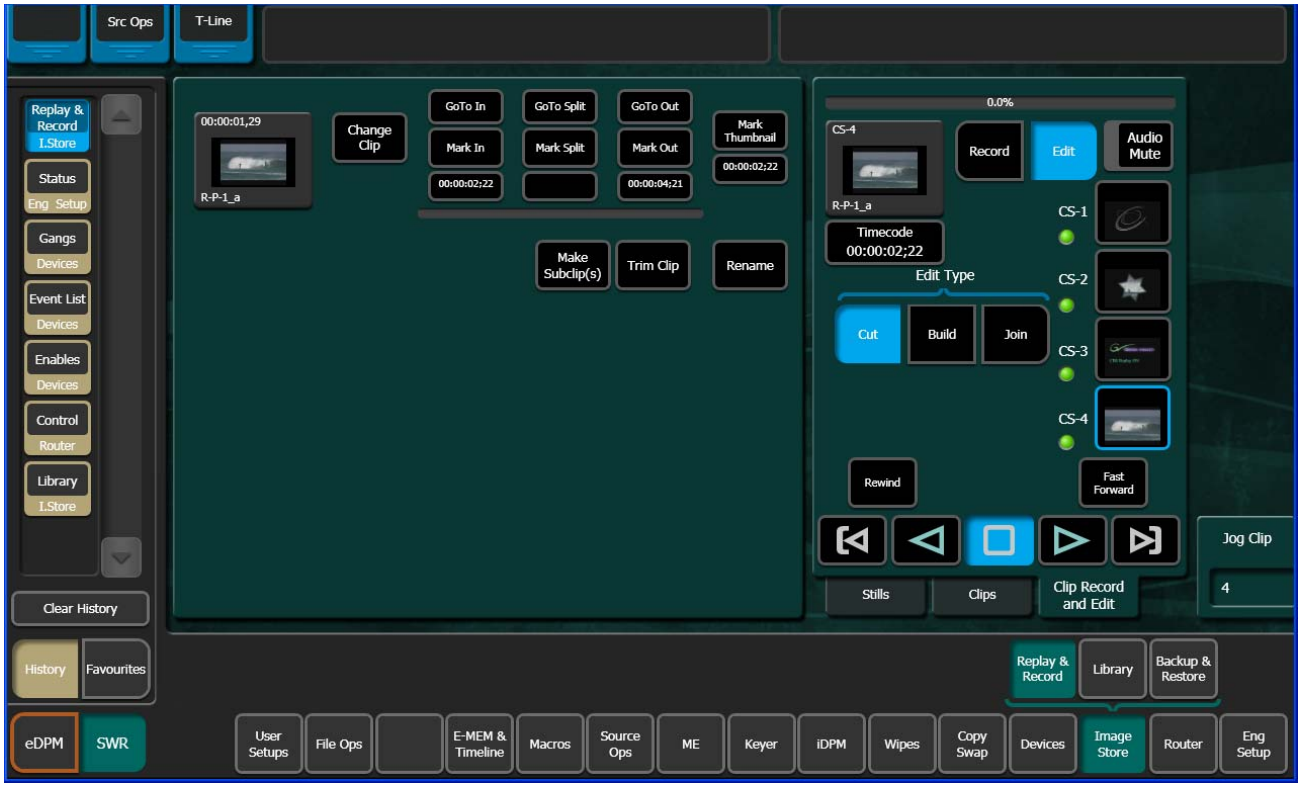
Cut Edit

Cut Editing allows you to edit a clip in the following ways:

- Rename Clips (use the **Rename** button).
- Mark a thumbnail, see *Cut Edit* *on page 35*),
- Trim and remove from the head of the clip to the Mark In point (*Trim and Remove* *on page 37*),
- Trim and remove from Mark Out point to the end of the clip (*Trim and Remove* *on page 37*),
- Make sub-clips (including splitting one clip into two) from the current clip (*Make Sub-clips from the Current Clip* *on page 38*), and
- Cut Edit while recording a clip (*Cut Editing while Recording* *on page 39*).

For Cut Edit, touch **Image Store**, **Replay & Record**, **Clip Record and Edit** and touch the **Cut** button in the Edit Type mode group (Figure 25).

Figure 22. Cut Edit Mode



Mark a thumbnail

The Cut Edit menu displays the currently loaded clip in the thumbnail view. If you wish to change the clip, touch the **Change Clip** button before editing (Figure 23).

Figure 23. Mark Thumbnail Point

1. Touch the **Change Clip** button to select a clip to edit (unless previously loaded, Figure 23).
2. Either jog, shuttle, or play to the desired frame and touch the **Mark Thumbnail** button or,
3. Touch the **Mark Thumbnail** data pad and enter the mark point in the pop-up Mark Thumbnail Point keypad (Figure 23), and touch **Enter**.
4. Touch the **Mark Thumbnail** button (Figure 23).

The new thumbnail replaces the old in all views.

Trim and Remove

Material can be removed from the head of a clip to a mark-in point and from a mark-out point to the end of a clip. Both operations can be performed on a single clip.

Trim Clip operations include:

- Setting only the mark-in point, and touching the **Trim Clip** button—the clip will be trimmed from the beginning of the clip to the mark-in point.
- Setting only the mark-out point, and touching the **Trim Clip** button—the clip will be trimmed from the mark-out point to the end of the clip.
- Setting both a mark-in and mark-out point, and touching the **Trim Clip** button—the clip will be trimmed on both ends (beginning of clip to mark-in and mark-out to end of clip).

To enter the mark-in/mark out points, either jog, shuttle, or play to the desired frame and touch the **Mark In/Out** button or touch the **Mark In/Out** data pad and enter the mark-in/out point in the pop-up keypad, and touch **Enter**.

Note Trim Clip to mark-in, trims up to the mark point in the clip so the marked frame is the first frame of the new sub-clip.

CAUTION Trim Clip from the mark-out point, trims (removes) the marked frame and trims to the end of the clip so the frame at the mark point will *not* be part of the new sub-clip.

Make Sub-clips from the Current Clip

A sub-clip can be created from the current clip with mark-in and mark-out values (or without and the clip length will be the same as the original) or split into two sub-clips.

1. To enter the mark-in/mark out points, either jog, shuttle, or play to the desired frame and touch the **Mark In/Out** button or touch the **Mark In/Out** data pad and enter the mark-in/out point in the pop-up keypad, and touch **Enter**.
2. Touch the **Make Subclip(s)** button.
3. Enter a clip name or accept the provided name (appends _a) and touch **Enter**.

   A new sub-clip with the trimmed length is created.

When making a split clip, the first clip is created from the current clip head to the split mark point, the second from the split point to the clip end.

To split one clip into two sub-clips:

1. Either jog, shuttle, or play to the point in the clip where you want to split the clip and touch the **Mark Split** button (Figure 24), or
2. Touch the **Mark Split** data pad (below **Mark Split** button) and enter the value for the split point in the Mark Split Point pop-up keypad, and touch **Enter** (Figure 24).

Figure 24. Mark Split (One Clip Split into Two)

3. Touch the **Make Subclip(s)** button.

   The Name First sub-clip pop-up keyboard is displayed.

4. Enter a name or accept the default name for the *first* sub-clip in the Name First sub-clip pop-up keyboard (for the default, _a is appended to the clip name).

5. Touch **Enter**.

6. Enter a name or accept the default name for the *second* sub-clip in the Name Second sub-clip pop-up keyboard (for the default, _b is appended to the clip name).

7. Touch **Enter**.

The two new sub-clips are created.

Cut Editing while Recording

A key advantage to using a ClipStore server is you can record and replay simultaneously. This allows you to create sub-clips from the currently recording clip.

The following rules apply to performing a Cut Edit operation during recording:

- Making sub-clips is the only available operation.
- Only the Cut Edit type will be available.
- Changing the clip will not be possible from the menu during this operation.

Once recording has begun, you can touch the **Edit** mode button, set mark-in/mark-out points, and create a sub-clip (see *Make Sub-clips from the Current Clip* *on page 38*).

A currently recording clip can also be loaded into another channel of Clip-Store. From the other channel, sub-clips can be made from any part of the recording without interrupting the record.

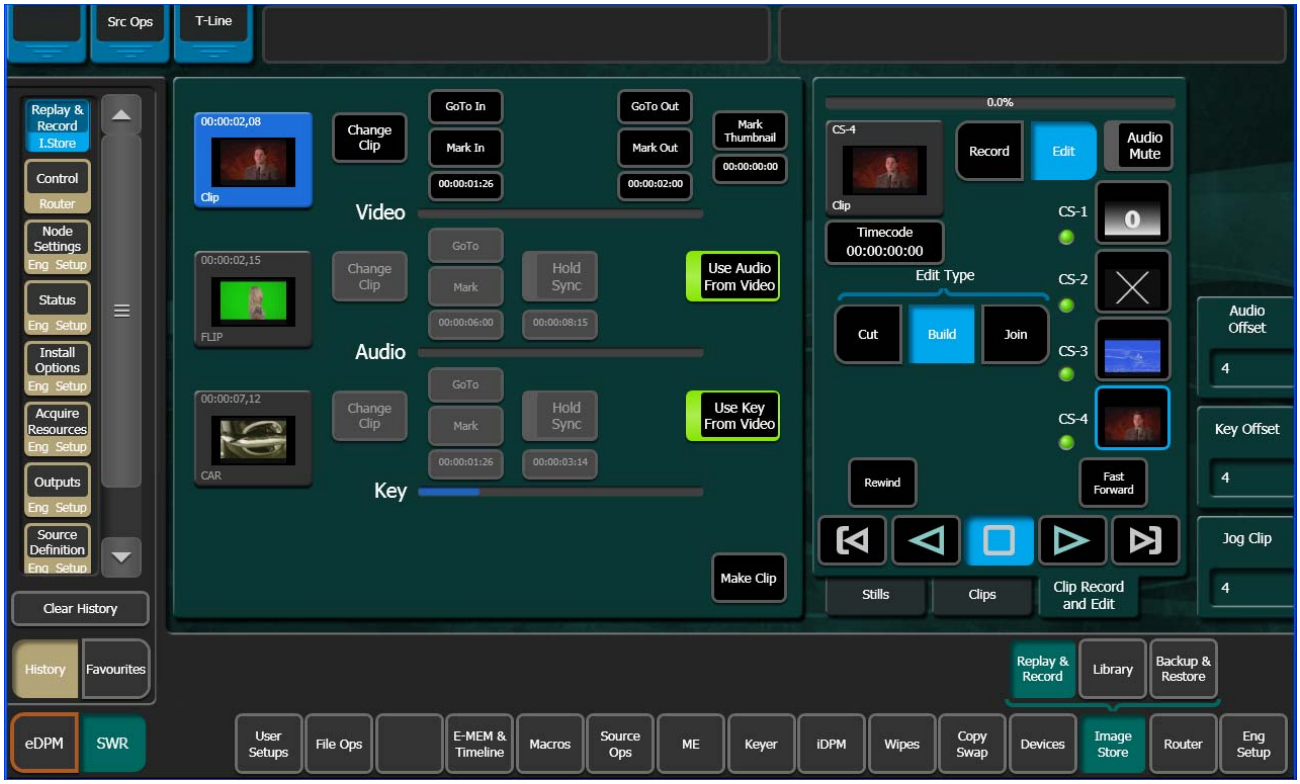
Build Editing

Build Editing (Figure 25) allows you to take elements from one long clip or from multiple clips and make a sub-clip, including:

- Video and Audio (audio from a clip or .WAV file),
- Video (with embedded audio) and Key, or
- Video, Audio (audio from a clip or .WAV file), and Key.

CAUTION Audio files must be 48kHz/.WAV file format, other file types will not be recognized by ClipStore.

Figure 25. Build Edit Mode



The clip created with the Make Clip operation will be a sub-clip that has its head to tail length defined by the mark-in and mark-out points of the Video track. (if there are no marks, the sub-clip created will be the same length as the original). Both Audio and Key tracks of the new clip will only exist inside the Video track's marks.

Video is the controlling track in the scratch clip, i.e. the Audio, Key, and motion control is slave to the Video track when selected.

Audio Offset, **Key Offset**, and **Jog** soft knobs are provided for editing (1/4 turn equals 1 frame).

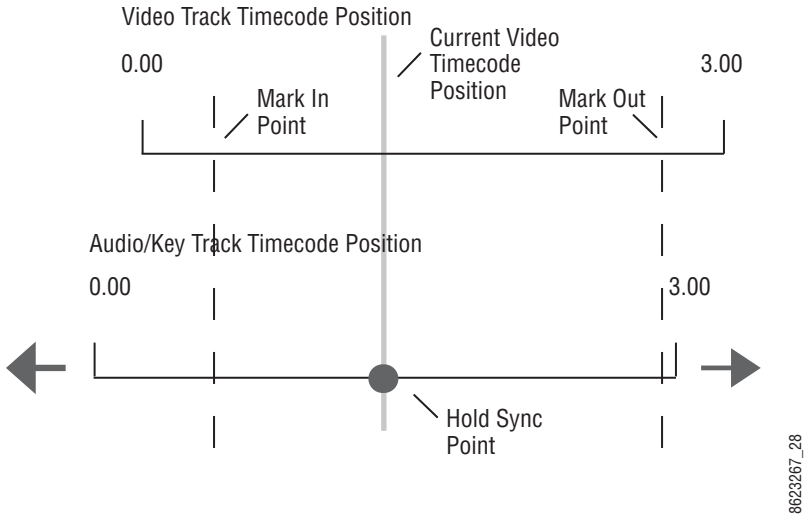
Hold Sync—Hold Sync sets the position of the Audio/Key track in relation to the Video track's current timecode position (Figure 26). The Audio/Key track's timecode can be offset in relation to the video track timecode by changing the Hold Sync Mark Point (using the **Hold Sync** data pad pop-up keypad or the **Audio/Key Offset** soft knobs). In this way, the Audio/Key tracks can be synchronized with the Video track. Different Hold Sync Points can be set for the Audio and Key tracks in relation to the Video.

Note If a key track from another clip is used, and starts past the mark-in point of the video track, full raster white will be used for the key until the key timecode begins when the composite clip is played. If an audio element from another clip is used, and starts past the mark-in point of the video track, there will be no audio until the start of the audio timecode when the composite clip is played.

Once the **Hold Sync** button is touched for either the Audio or Key, the Hold Sync point will be set and their positions in relation to the current video track timecode position become part of the scratch clip, and subsequently the new sub-clip when the **Make Clip** button is touched.

Note You can still change any of the current timecode values, including the video timecode by changing the mark-in/mark-out points and the Audio/Key timecode using the **Hold Sync** data pad or **Audio/Key Offset** soft knobs, before the **Make Clip** button is touched. Each change updates the scratch clip.

Figure 26. Hold Sync Point



The following provides examples and procedures of how to combine elements of Video, Audio, and Key. These composited elements become part of the new sub-clip.

These procedures can also be used to make a composite clip of elements on one long clip, for example if both Video and Key track are recorded on one

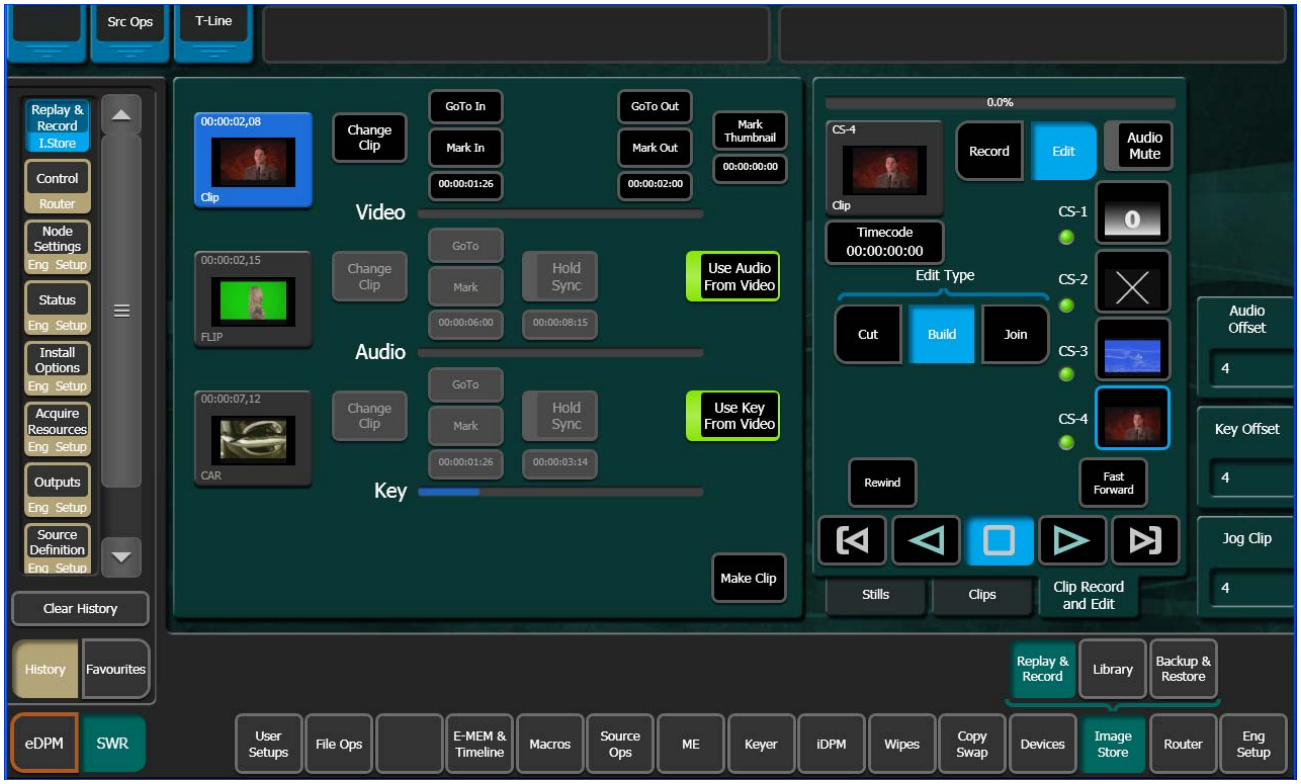
clip, the clip can be loaded as the Video track and then as the Key track, synchronized, and then a sub-clip made of the composite elements.

As with other ClipStore editing operations, if you enter the name of an existing clip, that clip will be overwritten when creating a sub-clip using the Make Clip operation.

Editing a Video Clip with Build Edit—The following example is of how to mark-in, mark-out, mark a thumbnail, and make a sub-clip. The **Use Audio From Video** and **Use Key From Video** buttons are enabled (highlighted green) which means only the video track will be edited and a new clip made with those changes:

Touch **Image Store**, **Replay & Record**, **Clip Record and Edit** and touch the **Build** button in the Edit Type mode button group (Figure 27).

Figure 27. Build Edit Mode—Video Only Edit



1. Unless the desired clip is loaded, touch the **Video Thumbnail Viewer** (Figure 27).
2. Touch the **Change Clip** button for the Video and touch the desired clip (Figure 27).

3. Determine where you want a mark-in point for the Video track by either playing/jogging to the mark while viewing the clip on a monitor and touching the **Mark In** button (Figure 27) or if you know the timecode, touch the **Mark In** data pad and enter the timecode into the pop-up keypad, and touch **Enter**.
4. Determine the mark-out point for the Video track and enter it as described for Mark In.

Mark a Thumbnail

1. Jog, shuttle, or play to where you want to mark thumbnail and touch the **Mark Thumbnail** data pad, or
2. Touch the **Mark Thumbnail** data pad and enter the mark-thumbnail point in the pop-up keypad, and touch **Enter**.

With the Video Thumbnail Viewer selected, you can test the composite elements using the motion control buttons.

Make the Sub-clip

1. Touch the **Make Clip** button.
2. Enter the name of the new clip and touch **Enter**.

The new clip is created and appears in the clip lists in the ClipStore menus.

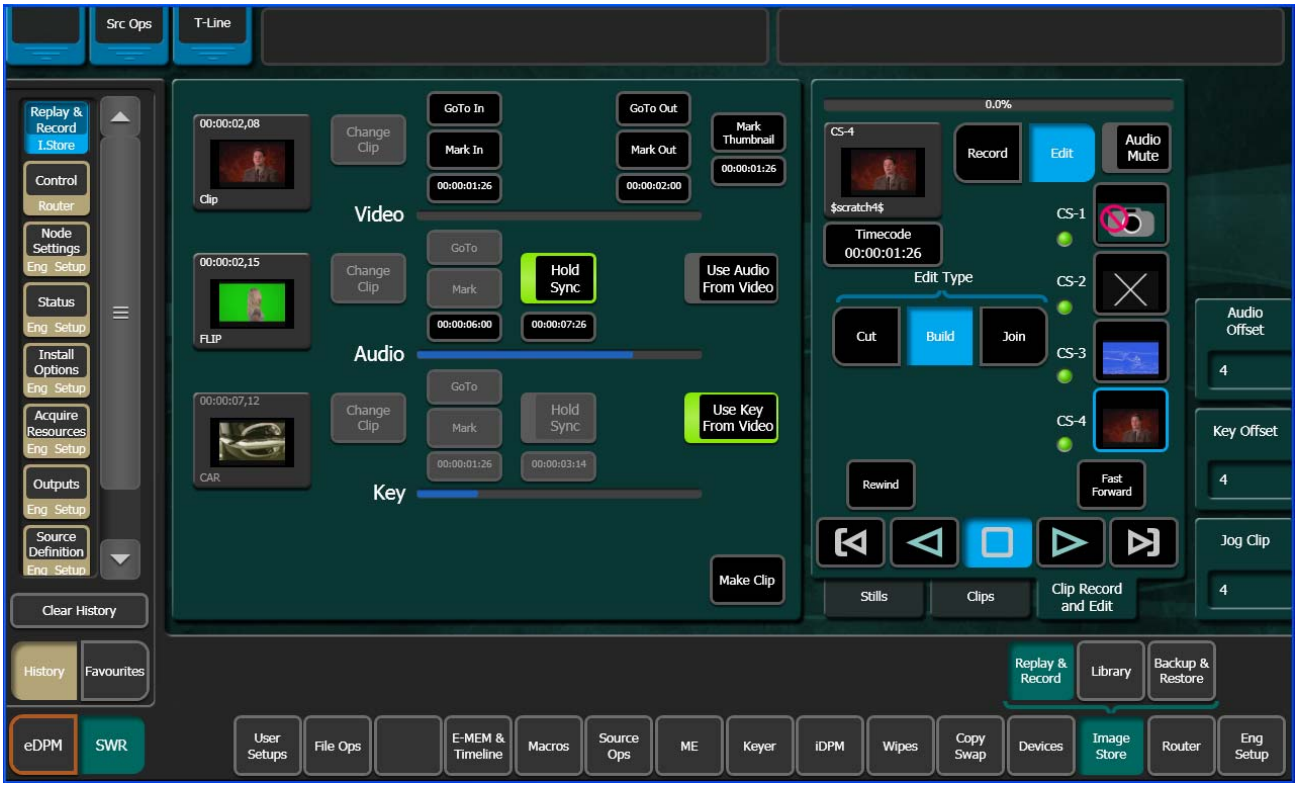
Note If Multiple sub-clips are desired from a built clip, use Build Edit to make the whole clip and then use the Cut Edit to make multiple sub-clips.

Adding a New Audio Element with Build Edit—If you require audio before or after video, a video track (for example of black) is needed so a mark can be made (this can be added with Join Edit, see *Join Edit on page 47*).

In this case, you want to use the Video and Key of the loaded Video track but add/replace the Audio track and make a sub-clip. The **Use Key From Video** button is enabled (highlighted green):

1. Unless the desired clip is loaded, touch the **Video Thumbnail Viewer** (Figure 28).

Figure 28. Build Edit Mode—Audio Track Edit



2. Touch the **Change Clip** button for the Video and touch the desired clip (Figure 28).
3. Determine where you want a mark-in point for the Video track by either playing/jogging to the mark while viewing the clip on a monitor and touching the **Mark In** button (Figure 28) or if you know the timecode, touch the **Mark In** data pad and enter the timecode into the pop-up keypad, and touch **Enter**.
4. Determine the mark-out point for the Video track and enter it as described for Mark In.
5. Turn off the **Use Audio From Video** button (Audio section) by touching it (Figure 28).
6. Touch the **Audio Thumbnail Viewer**.
7. Touch the **Change Clip** button and touch the desired clip/.WAV file with the desired Audio track.
8. Synchronize the Audio track in relation to the current video track timecode position, if needed, using the **Hold Sync** data pad or the **Audio Offset** soft knob (see page 42 for more about Hold Sync).

With the **Video Thumbnail Viewer** selected, you can test the composite elements using the motion control buttons.

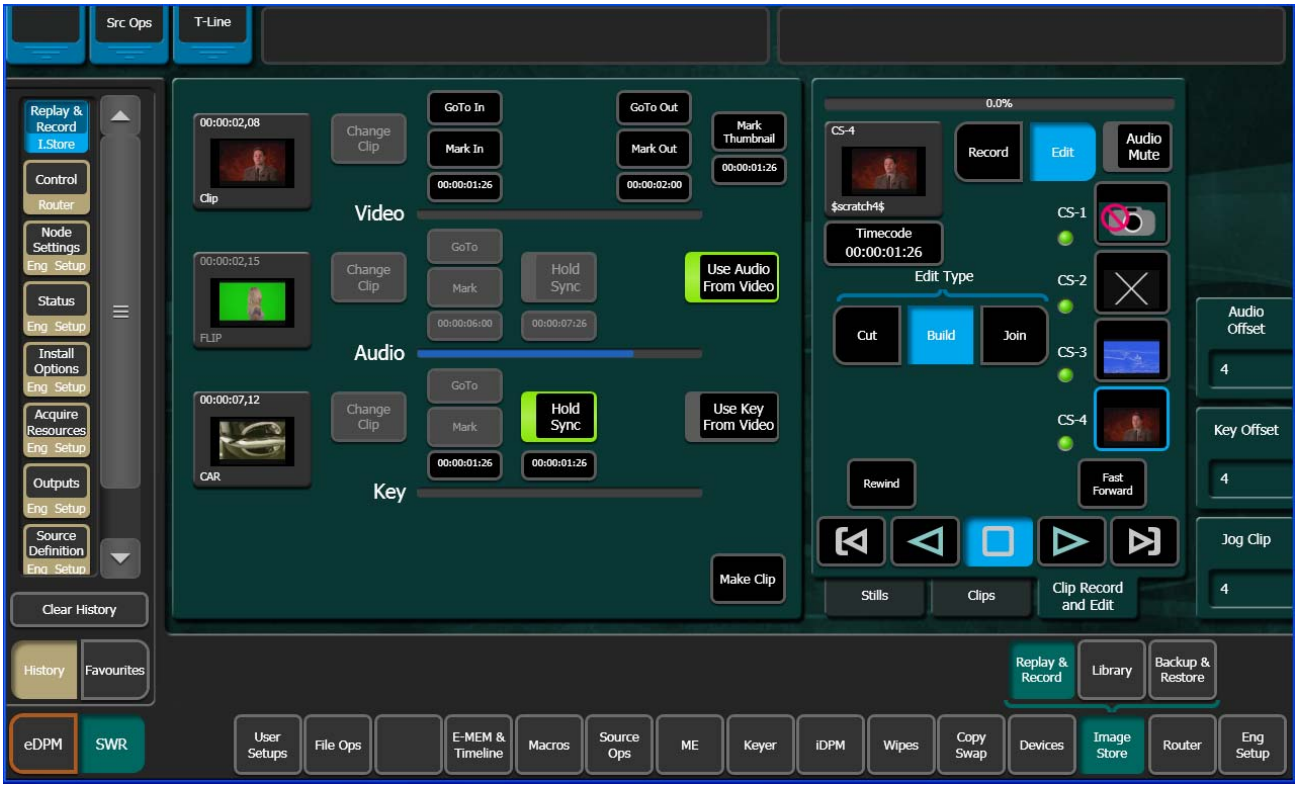
Make the Sub-clip

1. Touch the **Make Clip** button.
2. Enter the name of the new clip and touch **Enter**.

Add/Replace a Key Element with Build Edit—In this case, you want to use the video and audio of the loaded video element but add/replace the key track and make a sub-clip. The **Use Audio From Video** button is enabled (highlighted green):

1. Unless the desired clip is loaded, touch the **Video** thumbnail viewer (Figure 29).

Figure 29. Build Edit Mode—Key Track Edit



2. Touch the **Change Clip** button for the Video and touch the desired clip (Figure 29).
3. Determine where you want a mark-in point for the Video track by either playing/jogging to the mark while viewing the clip on a monitor and touching the **Mark In** button (Figure 29) or if you know the timecode, touch the **Mark In** data pad and enter the timecode into the pop-up keypad, and touch **Enter**.

4. Determine the mark-out point for the Video track and enter it as described for Mark In.
5. Synchronize the Key track in relation to the current video track timecode position, if needed, using the **Hold Sync** data pad or the **Key Offset** soft knob (see page 42 for more about Hold Sync).

With the Video Thumbnail Viewer selected, you can test the composite elements using the motion control buttons.

Make the sub-clip

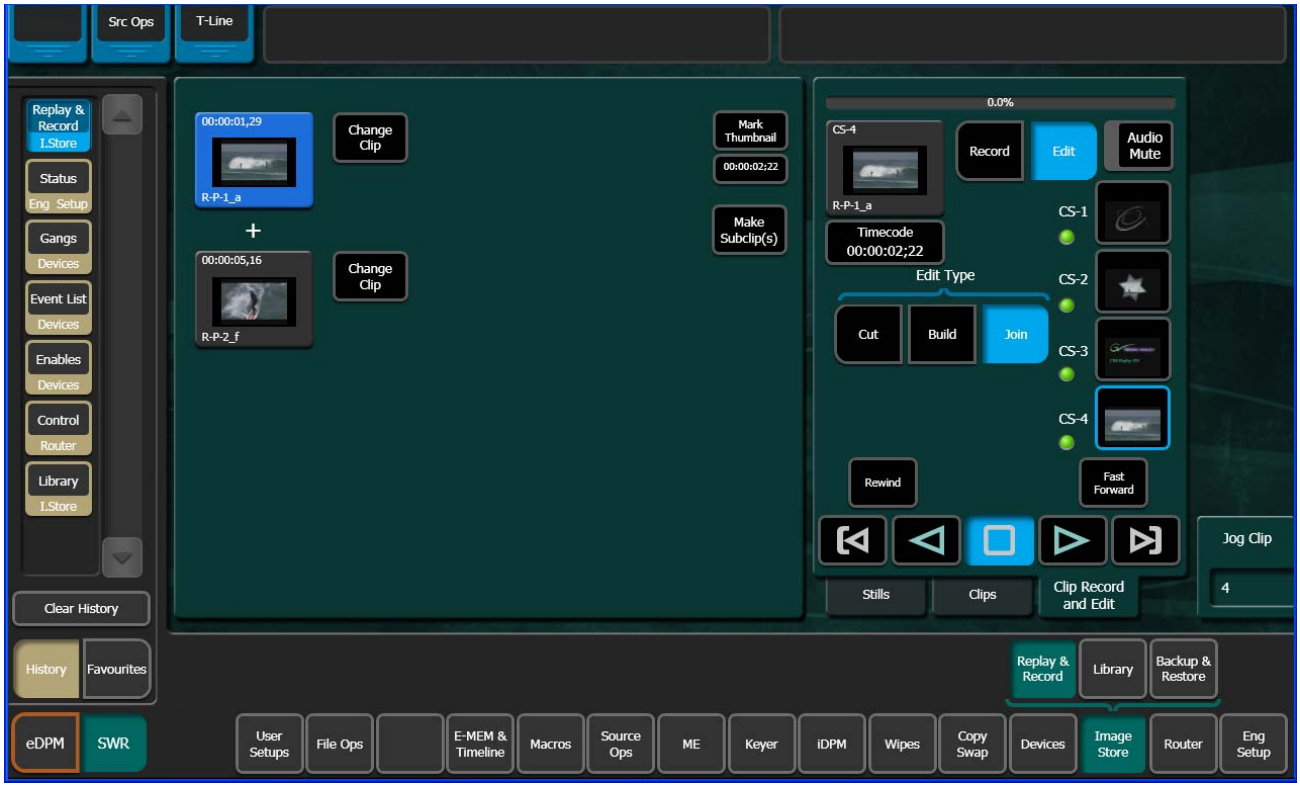
1. Touch the **Make Clip** button.
2. Enter the name of the new clip and touch **Enter**.

Join Edit

Join Edit allows you to append one clip to another, and mark a thumbnail if desired.

To go to the Join Edit mode menu, touch **Image Store**, **Replay & Record**, **Clip Record & Edit** and touch the **Join** button in the Edit Type mode group (Figure 30).

Figure 30. Join Edit Mode



1. Touch the **Change Clip** button for the first clip (top thumbnail) and touch the desired clip.
2. Touch the **Change Clip** button for the second clip (bottom thumbnail) to be appended to the tail end of the first, and touch the desired clip.
3. Mark a thumbnail if desired (optional).
   a. Determine where you want to mark thumbnail and touch the **Mark Thumbnail** data pad, or
   b. Enter the mark-thumbnail point in the pop-up keypad and touch **Enter**.
4. Touch the **Make Subclip(s)** button.

The new clip is created and appears in the clip lists in the ClipStore menus.

File Operations

ClipStore file transfers are performed in the ClipStore Library menu. Touch **Image Store**, **Library**. Files can be imported or exported using the **Copy**/**Paste** (or **Cut**/**Paste** in the case of ClipStore to ClipStore folder transfers) buttons in the To and From ClipStore and Disk/Folder menu tabs (Figure 31).

Note File renaming is not supported in the ClipStore Library menus.

File transfers can be performed from/to the following locations from the Kayenne Menu Panel:

- ClipStore Server,
- Image folder on the Kayenne Menu Panel,
- USB Storage Devices (seen as Removable Disks) and
- External USB Disk Drives (seen as Hard Disk Drives).

USB storage devices can be inserted into the USB ports on both the ClipStore server and on the Kayenne Menu Panel. Memory Sticks will be seen as Removable Disks and will be displayed in the From Disk/Folders and To Disk/Folders menu tabs. External USB Disk Drives will also be seen in the From and To Disk/Folders menu tabs however first a shared folder is needed on the device (see *Creating a Shared Folder for External USB Disk Drives* *on page 50*).

Figure 31. ClipStore Library Menu—File Transfer

Both files and folders containing files can be copied from disk to the ClipStore server. However, folders can only be copied to the top directory of the ClipStore server, “nested” folders are not permitted.

Files can be exported in multiple formats, by touching the mode buttons in the **Export Format** modes pane (Figure 31). This operation is only supported when the files selected for export are in the From ClipStore pane. *Files in Video/Key format can only be exported in GXF format.*

Note If a folder is selected for export, all files within the folder will be exported with the same format.

Creating a Shared Folder for External USB Disk Drives

To exchange files with an external USB disk drive, you will need to create a shared folder in the device, in Windows:

1. Insert the USB connector for the external USB drive in the Menu Panel.
2. Minimize the Kayenne menu.
3. Open **My Computer** from the Desktop.
4. Open the disk drive from the Hard Disk Drives list.
5. Create a new folder using the File menu, name the folder (for example "Kayenne Clips").
6. Right-Click on the folder, and choose **Sharing and Security** from the pull-down menu.
7. In the **Sharing** tab, select the **Share this folder** radio button.
8. Press the **Permissions** button.
9. Allow full control for Everyone.
10. Click **Apply**.

    The folder is now shared. The new folder will be available in the Image Store, Library, From/To Disk Folders menu tabs.

Changes to the Stills Menu

The Image Store Stills menu has been changed with Kayenne 2.0. Changes include (Figure 32):

- Capture Still menu tab removed, replaced with menu when **Capture Still** button is pressed.
- **Reserve Space** button removed.
- **Change Description** button added (displays pop-up keyboard to change image description).

Figure 32. Image Store Still Menu Changes

Key Chaining

New with Kayenne 2.0, Key Chaining allows you to chain keys to coordinate their keyer states (on and off) on a single ME or from one ME to another. There are 15 Key Chains available in a Kayenne System. All keys in a chain transition on and off together. Key Chaining is performed in the User Setup, Suite Prefs, Key Chaining menu (Figure 33).

Some uses for Key Chaining are:

- Keyers within an ME for language or Ident separations of clean feeds,
- Aspect ratio-specific graphics across more than one ME, or
- Advertising graphics on bus-linked MEs which already substitute background pictures.

In the Key Chaining menu, you can configure which keyers are chained together in each chain. The following rules apply:

- Each keyer may not be in more than one Key Chain.
- All keyers in a Key Chain will be equal in command priority.

Key Chaining is part of the Kayenne configuration and saved as part of File Ops, Suite Prefs. A layer of load granularity (**Key Chaining** button) has been added to this menu.

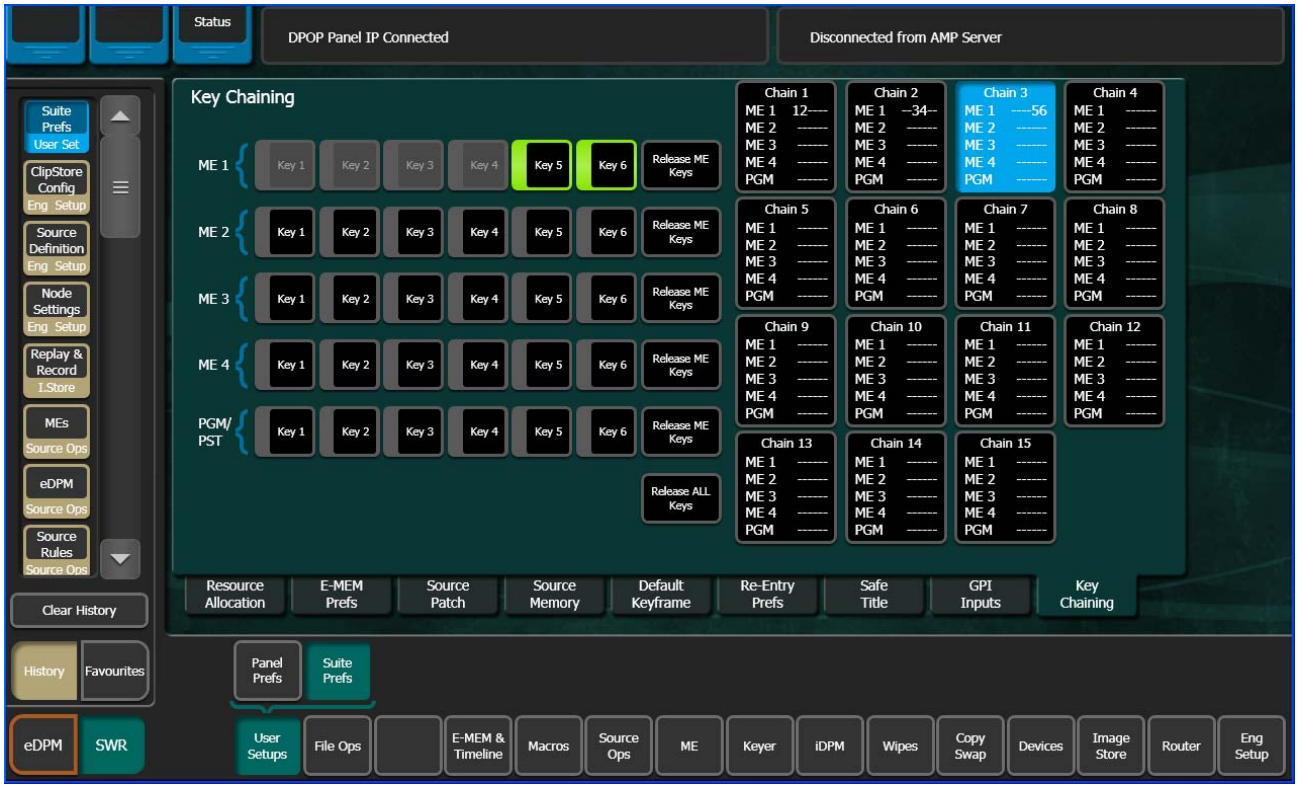
Keyers are controlled from the Transition Module on the Kayenne Control Panel. They can be cut on/off or transitioned on/off using the dedicated Key Cut and Auto buttons. Key chaining allows for a single button push to transition all the keys in the chain. A single keyer selection in the Next-Transition area of the Module will similarly cause the other keys in the chain to be selected. Then a single push of the Auto button or movement of the Lever Arm will cause all of the keys in the chain to transition on one or more MEs simultaneously.

Creating Chains

To create a Key Chain or chains in a single ME, simply touch a Chain parameter data pad (Chain 1, Chain 2, etc., Figure 33) to select it (turns blue), and touch the keys you wish to add to the chain. Touch another Chain parameter data pad and repeat the process (for the same ME in this case).

The Chain parameter data pads display each ME and either dashes (if empty) or Keys 1-6 if keys are enabled for that ME in the chain (Figure 33).

Figure 33. Key Chaining Menu



Once a keyer is enabled as part of a chain, the button is grayed out as each key can only be part of one chain.

The **Release ME Keys** and **Release All Keys** buttons are provided to help manage Key Chain configuration.

Using Key Cut/Auto Buttons

Pressing any of the **K1 Cut - K6 Cut** or **K1 Auto - K6 Auto** buttons in the Transition Module of an ME, with those keyers as part of a chain, will result in the following:

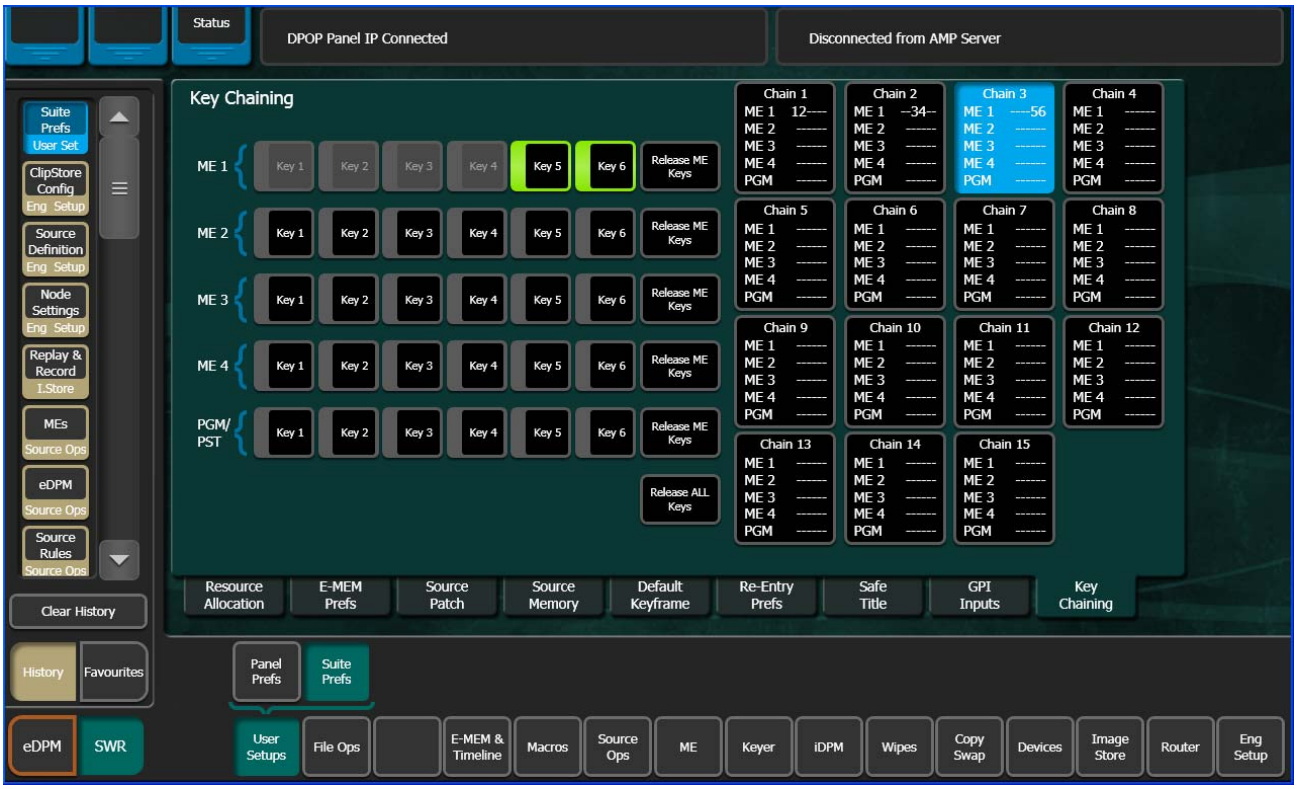
- Chained keyers on the same or different MEs all transition simultaneously,
- The transition rate of the button that is pressed (controlling keyer) is applied to all the other (controlled) keyers in the chain.

Key Chaining on a Single ME

As shown in Figure 34 (in blue), in the Chain parameter data pads, the following three key chains have been created for ME 1:

- Chain 1—Keys 1 and 2,
- Chain 2—Keys 3 and 4, and
- Chain 3—Keys 5 and 6.

Figure 34. Key Chaining Menu—Single ME Key Chaining



Selecting keyers in the Next-Transition section of the Control Panel will make those keyers initiators for the transition. Key Chaining causes the chained (controlled) keyers to be selected as well. These chained keyers will flash to indicate they are in the chain. The keys which do not flash are the initiators. When the Lever Arm is moved, or the **Auto** button is pressed, the keys transition together.

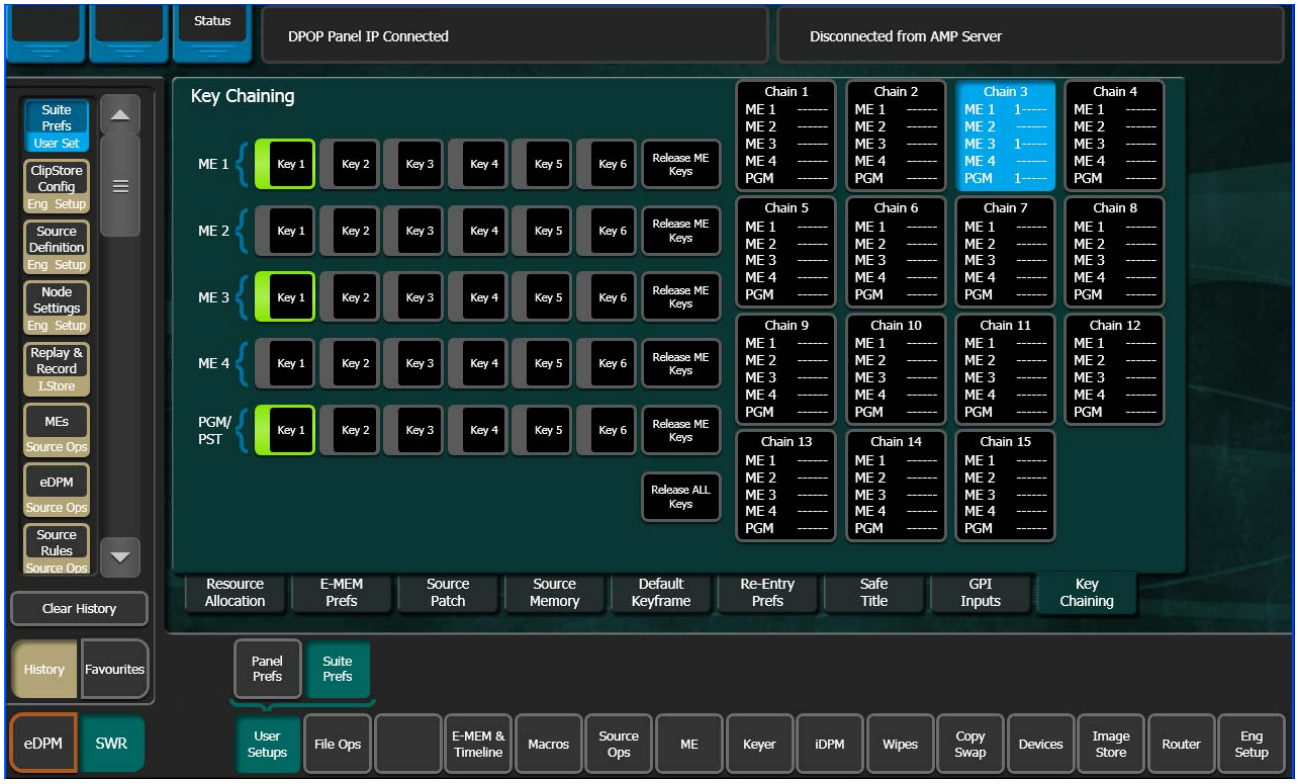
If a selection is made for a keyer in the primary partition, and the chained controlled key is in the secondary partition, the controlled keyers will transition simultaneously with the keys in the primary partition, irrespective of the delegation of the **SEC** button (Source Select Module). The same is true for selections made in the secondary partition with controlled keys in the primary; they always delegate whether or not the **PRI** button (Source Select Module) is delegated. This behavior corresponds to the tally of the next-transition buttons. The blinking tally indicates that the keys will transition.

Key Chaining Across MEs

As shown in Figure 35 (in blue), in the Chain 1 parameter data pad, the following multiple ME key chain has been created:

- PGM/PST, Key 1,
- ME3 Key 1, and
- ME1 Key1

Figure 35. Key Chaining Menu—Multiple ME Key Chaining



Selecting a keyer in the Next-Transition section of the Control Panel will make that keyer the initiator. On the MEs with keyers in the chain, their next-transition selections will be erased and the keyers in the chain selected. These keyers will flash to indicate that they are in the chain. The key which is not flashing is the initiator.

You can also use the Cut/Auto keys as described in *Using Key Cut/Auto Buttons* *on page 53*. If a Cut button is pressed on the initiating ME, then all the MEs with chained keyers, cut. If an Auto button is pressed, then similarly, all MEs with chained keyers shall perform the same transition at the same rate.

Other non-chained keys or other transition elements can be added to the next-transition at this time.

Key chains can be established with keys both in the same and different MEs.

Multiple Bus Linking

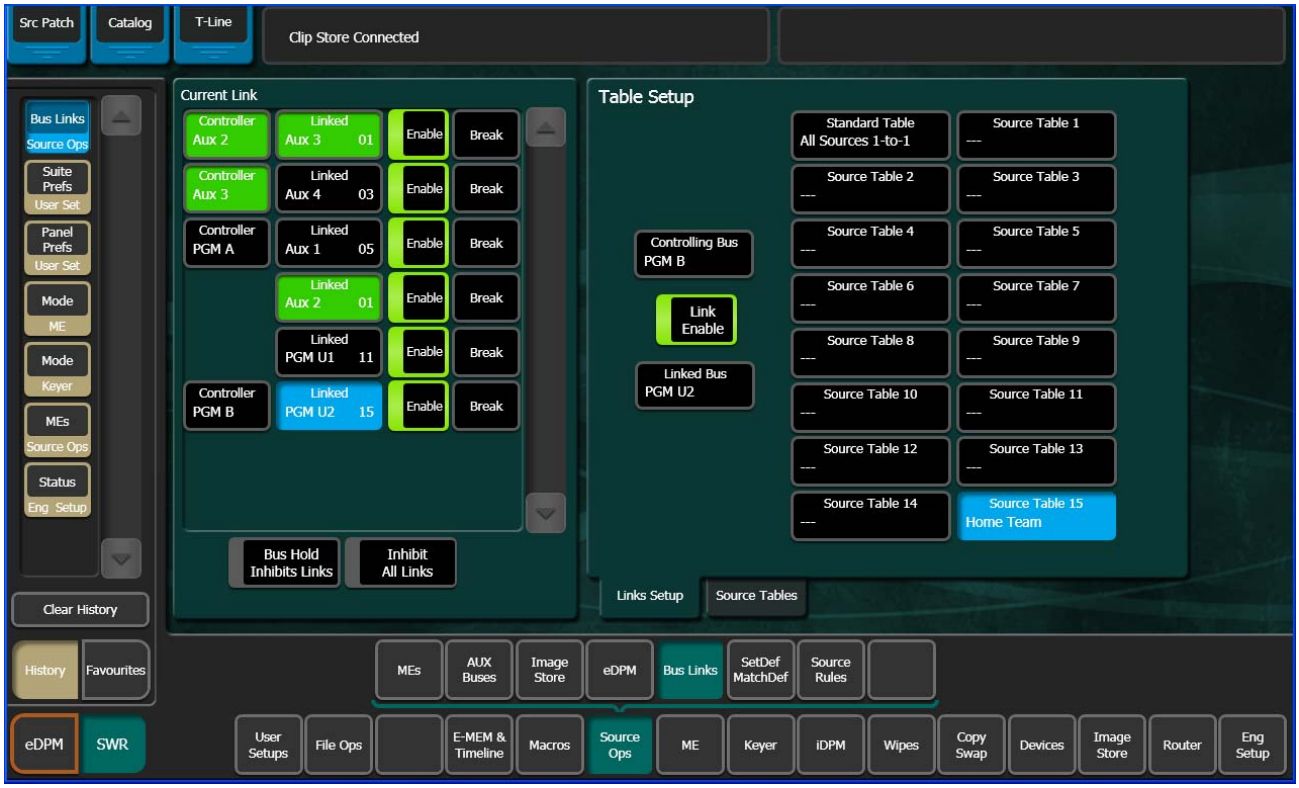
New with Kayenne 2.0, you can now create multiple bus links (Figure 36); referred to as *Parallel* and *Cascading* Links. Also, you can define and associate one of the 15 new definable Source Substitution Tables to a bus (each controlling and linked bus can be associated with any Source Table), and save Bus Links as part of an E-MEM. Bus Links are now Keyframeable.

Note Bus Links created and E-MEMs learned using earlier versions of Kayenne software must be rebuilt after upgrading to Kayenne 2.0.

Bus Link is now an E-MEM sub-level in the User Setups, Suite Prefs, E-MEM Prefs menu and therefore all the features and controls of a Kayenne switcher sub-level now apply.

One-to-one, one-to-many (Parallel), and one-to-one-to one (Cascading) links can exist simultaneously in the Bus Links, Links Setup menu (Figure 36).

Figure 36. Multiple Bus Links



Selected Controller and Linked bus buttons turn blue when selected in the Current Link pane. In the example in Figure 36, the Linked bus button PGM U2 is the selected button.

For information about the **Bus Hold Inhibits Links** and **All Links buttons**, see the *Kayenne User Manual*.

Configuring Source Substitution Tables

Source Tables have been added as part of the Bus Link enhancements with Kayenne 2.0. There are now 15 additional configurable Source Tables. Each can be assigned to one, many, or all Bus Links once configured in the Source Tables menu (Figure 37).

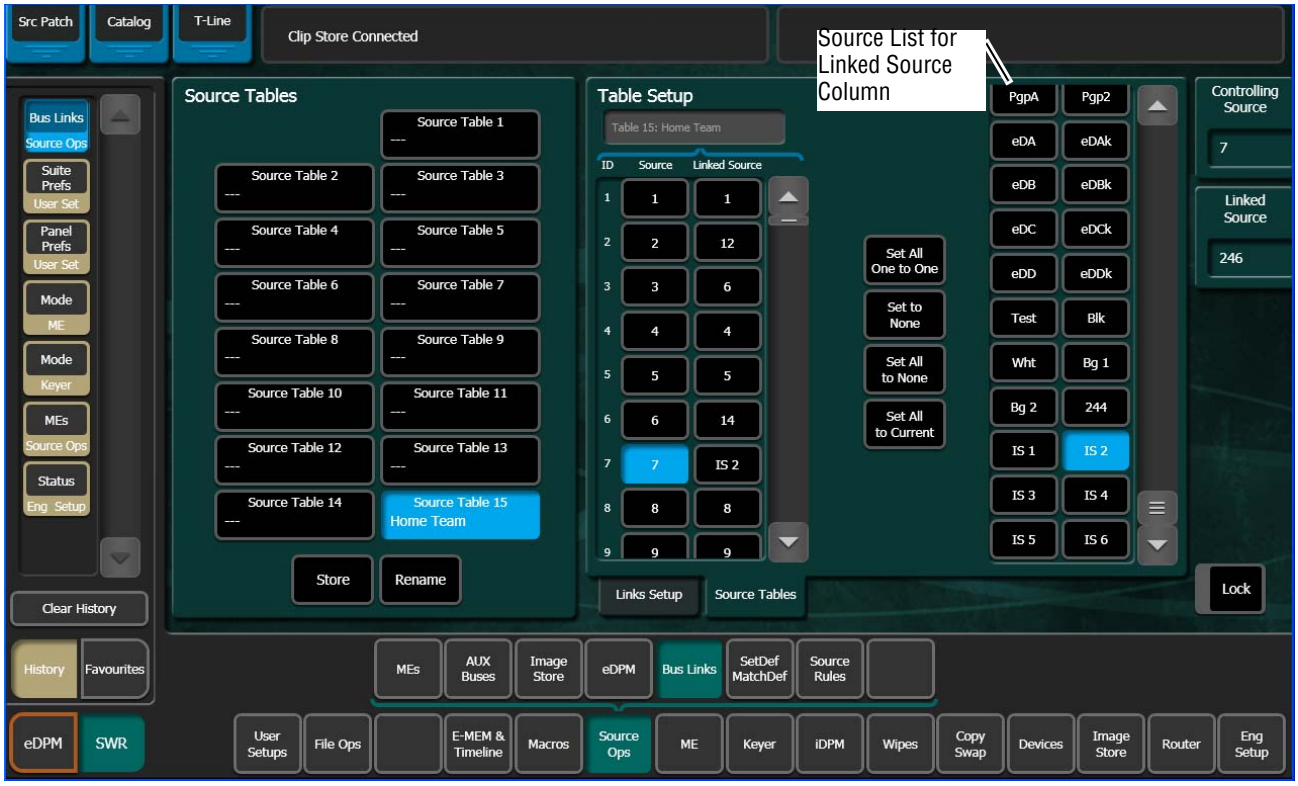
In earlier versions of Kayenne, source substitutions could be made on each linked bus but each was treated separately so resources were consumed for every source selection action. Now, instead, a Source Table (or lookup table) can be configured and applied to every Controller/Link bus which frees up resources and allows a faster more efficient way of applying the same source substitutions to multiple links. Also, you are now able to create named relationships between the Source Table and the links to which they are assigned.

Standard Table All Sources 1-to-1 Source Table is the default until one of the 15 configurable Source Tables is assigned.

In the example in Figure 37, Source Table 15 (Engineering Name) has been configured with source substitutions using the Source Tables menu and renamed “Home Team”. This Source Table can now be easily identified and

assigned to one or many Controlling or Linked busses in the Bus Links, Links Setup menu (Figure 36).

Figure 37. Source Tables



To give a Source Table a descriptive name, touch the **Rename** button and enter the name into the pop-up keyboard, and touch **Enter**.

Table Setup, Linked Source buttons:

Set All One to One—Sets all sources one-to-one.

Set to None—Sets selected source's Linked Source to none (blank).

Set All to None—Sets all Linked Sources to none (blank).

Set All to Current—Sets all Linked Sources to the currently selected Source (including none if defined).

Store button—Allows the current source table to be copied to another source table.

Note The **Store** button stores (or copies) the currently selected source table assignments to another source table.

To configure a Source Table with source substitutions, use the Table Setup pane (Figure 37). The default is one-to-one, i.e. Source 1, Linked Source 1, Source 2, Linked Source 2, etc. You can substitute the current Link Source

with any source from the scrolling Source List (Figure 37, far right of menu):

1. Rename the Source Table if desired.
2. Touch to select a source in the Source column of the Source/Link Source scrolling list.
3. Touch the source in the scrolling Source List (Figure 37), far right of menu) you wish to substitute for the current Link Source; the Linked Source changes to reflect your selection.
4. Repeat the first two steps for all source substitutions.

   The Source Table will be updated in the Bus Links, Links Setup menu with the new name (Figure 36) and can be assigned to links.

Source Table File Operations

Source Tables now are part of Kayenne file operations; File Ops, Source Tables menu. You can perform all the same file operations: copy, paste, save, load, etc., as with other File Ops menus. For more about File Operations, see the *Kayenne User Manual*.

Linking Multiple Busses

Multiple bus linking is divided into two categories: *Parallel Links* and *Cascading Links*.

Source Tables can be setup for both Parallel and Cascading Links, however the default will be “Standard Table All Sources 1-to-1”, or 00 as seen in the Current Link, Linked Bus data pads.

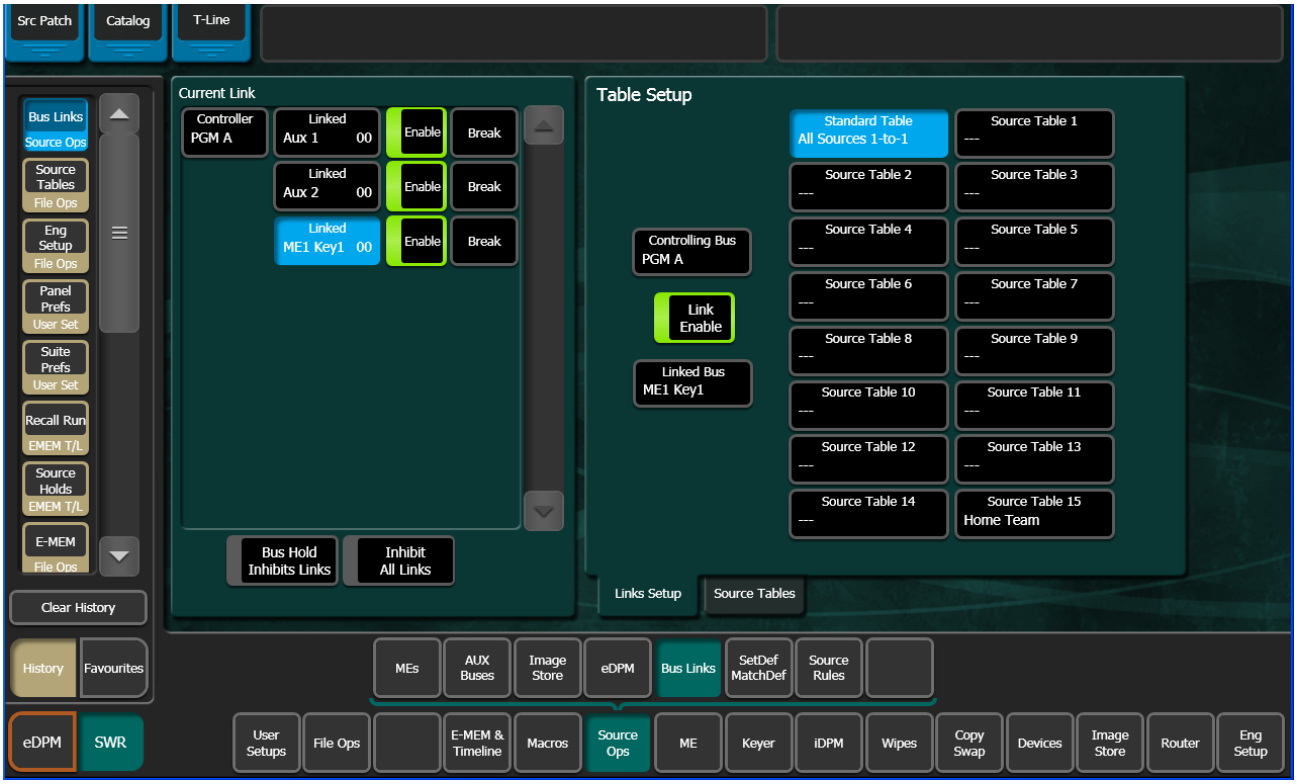
Touching the **Controlling Bus** or **Linked Bus** data pads in the Bus Links, Links Setup menu displays the Bus Picker pop-up menu for each, from which to choose linked busses (Figure 38).

Figure 38. Bus Picker Pop-up

Parallel Links

Parallel Links allow the controlling bus to control more than one linked bus. In the example in Figure 39, PGM A is the controlling bus and Aux 1, Aux 2, and ME1 Key1, are all linked in parallel to PGM A.

Figure 39. Parallel Links



To create parallel links:

1. Touch the **Controlling Bus** data pad in the Table Setup pane; the Controlling Bus selection menu is displayed.
2. Touch the **ME busses**, **Aux Busses**, or **eDPM Inputs** tab and touch the desired bus. The menu closes and returns to the Bus Links menu. The selected bus is displayed in the **Controlling Bus** data pad (in the example in Figure 39, the selected bus is PGM A).
3. Touch the **Linked** Bus data pad in the Table Setup pane; the Linked Bus selection menu is displayed.
4. Touch the **ME busses**, **Aux Busses**, or **eDPM Inputs** tab and touch the desired bus. The menu closes and returns to the Bus Links menu. The selected bus is displayed in the **Linked Bus** data pad.

5. Touch the **Linked Bus** data pad again and touch the next bus you wish to link to the controlling bus. The Bus Links menu now displays in the Current Link pane, the controlling bus and two linked busses that are linked to the controlling bus (in the example in Figure 39, **Controller PGM A** and **Linked Aux 1** and **LInked Aux 2**).
6. If desired, assign a different Source Table to the Linked Bus:
   a. Touch a Linked Bus data pad in the Current Link pane.
   b. Touch a Source Table in the Table Setup pane.

Note Source Tables can only be assigned to Linked busses.

Cascading Bus Links

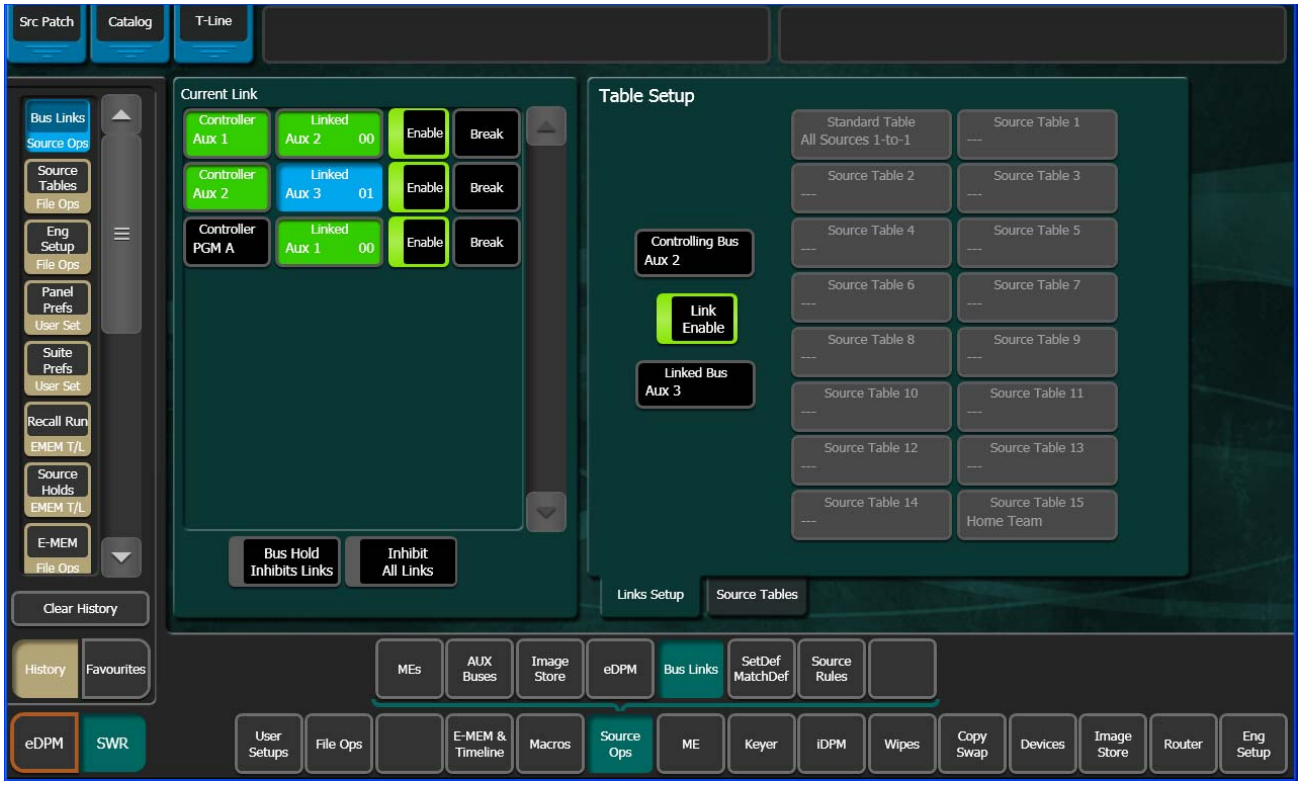
In Cascading Links, a controlling bus (A) has a linked bus (B) which in turn acts as the controlling bus for another linked bus (C), and so on. Changing a source on the controlling bus (A) will cause a change on both linked busses (B and C).

In the example in Figure 40, Controller PGM A controls Linked Aux 1, Linked Aux 1 is the controller for Linked Aux 2, and Linked Aux 2 is the controller for Linked Aux 3.

Button Color Definitions—The following applies for Cascading Links in the Current Link pane, as seen in the example in Figure 40:

- Black—Controller but not controlled: PGM A Bus is a controller but is not controlled so it is black in color.
- Green—Controlled and controls: Aux 1 Bus and Aux 2 Bus although controllers, are also controlled so they are green in color.
- Blue—Aux 3 Bus is controlled but is not a controller therefore it is blue.

Figure 40. Cascading Bus Links



To create cascading links:

1. Touch the **Controlling Bus** data pad in the Table Setup pane; the Controlling Bus selection menu is displayed.
2. Touch the **ME busses**, **Aux Busses**, or **eDPM Inputs** tab and touch the desired bus. The menu closes and returns to the Bus Links menu. The selected bus is displayed in the **Controlling Bus** data pad (in the example in Figure 40, the selected bus is PGM A).
3. Touch the **Linked Bus** data pad in the Table Setup pane; the Linked Bus selection menu is displayed.
4. Touch the **ME busses**, **Aux Busses**, or **eDPM Inputs** tab and touch the desired bus. The menu closes and returns to the Bus Links menu. The selected bus is displayed in the **Linked Bus** data pad.
5. Touch the **Controlling Bus** data pad again, in the Table Setup pane; the Controlling Bus selection menu is displayed. Touch the same bus as is currently displayed in the **Linked Bus** data pad (your previous selection).

   The linked bus is now also a controlling bus.
6. Touch the **Linked Bus** data pad again in the Table Setup pane and select another linked bus.

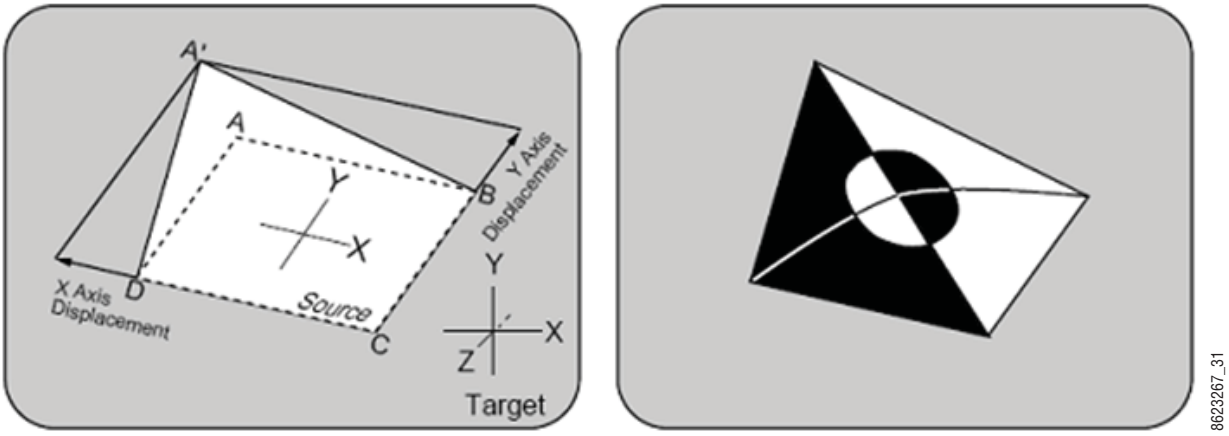
   Repeat this process for each controlling and linked bus you wish to add to the cascading links.

Corner Pinning

Corner Pinning allows you to move the corners of a source image relative to the background. Corner Pinning is keyframeable, with all standard path control functions. The new corner locations do not need to form a rectangle.

Corner Pinning is accomplished by distorting the source to fit into its newly defined corners. The modified image remains in its original source plane, and is not "bent" along the Z axis. Corner Pinning does not change the location of the axis of rotation or spin of the source image.

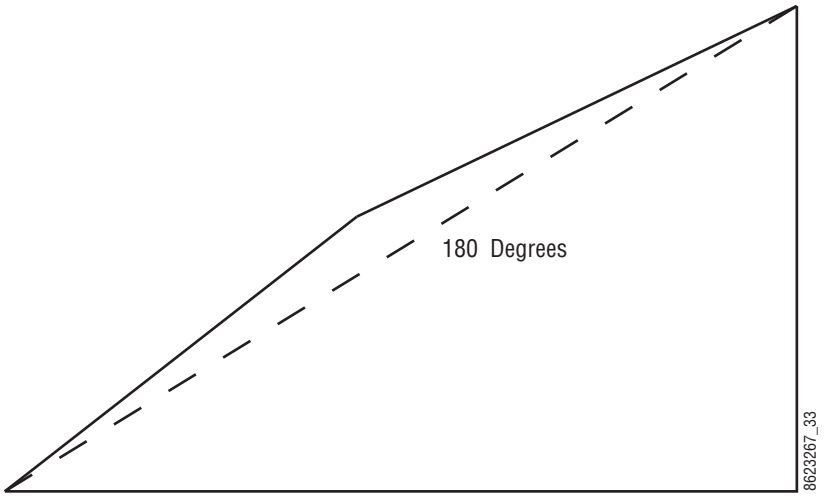
Figure 41. Corner Pinned Object



Corner Adjust Limits—Corner Pinning works for convex quadrilaterals but not for concave quadrilaterals. A convex quadrilateral is defined as a four-sided shape with all angles less than 180 degrees (Figure 42), all vertices point outwards and all diagonals lie entirely inside the quadrilateral.

Results from adjusting a corner beyond the limits are undefined.

Figure 42. Convex Quadrilateral—Corner Adjust Limits



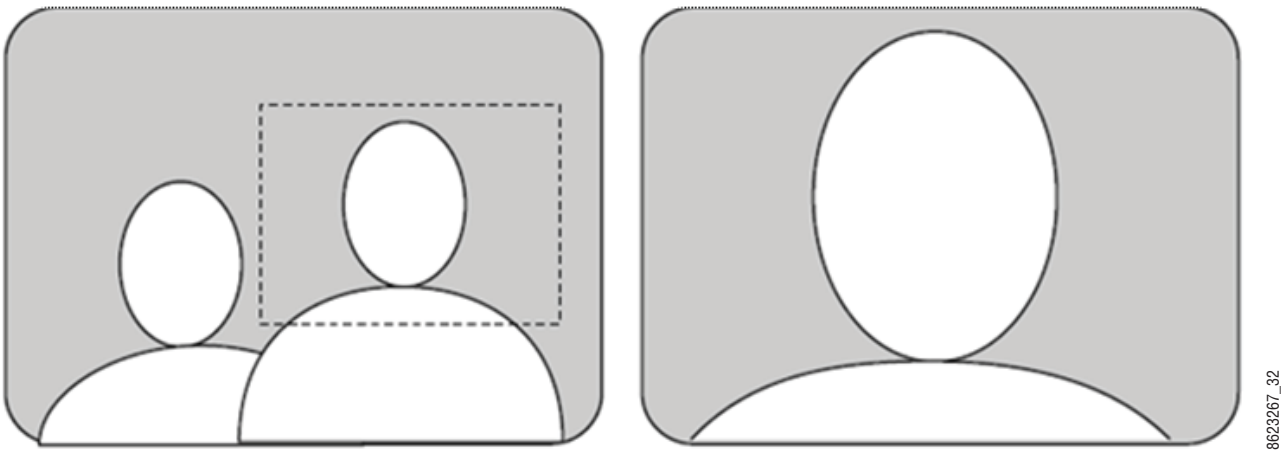
To allow fine adjustment of an image when using Corner Pinning, the View Through (View Thru Enable) feature allows you to temporarily (for editing purposes only) reduce the opacity of an iDPM channel to let you “look through” the image to align the corners precisely with the background.

Corner Pinning and Cropping

Corner Pinning is designed to work in conjuction with cropping. After pinning the corners of an image you can crop it to select the exact portion of the source video to display in the corner pinned area.

For example, your source video could contain two people, but you may want to fly the image of only one person (Figure 43). In this case, you could build an effect, turn on Corner Pinning, use crop mode, and leave the corners at the defaults. If you now move the crops maintaining the original aspect ratio (4x3 or 16x9) you can position these crops so that only the desired person is shown. If the person or the camera moves, you can adjust the user crops to keep the person centered between the edges of the crops. This will result in the person being centered in the video and the effect can be flown around the screen.

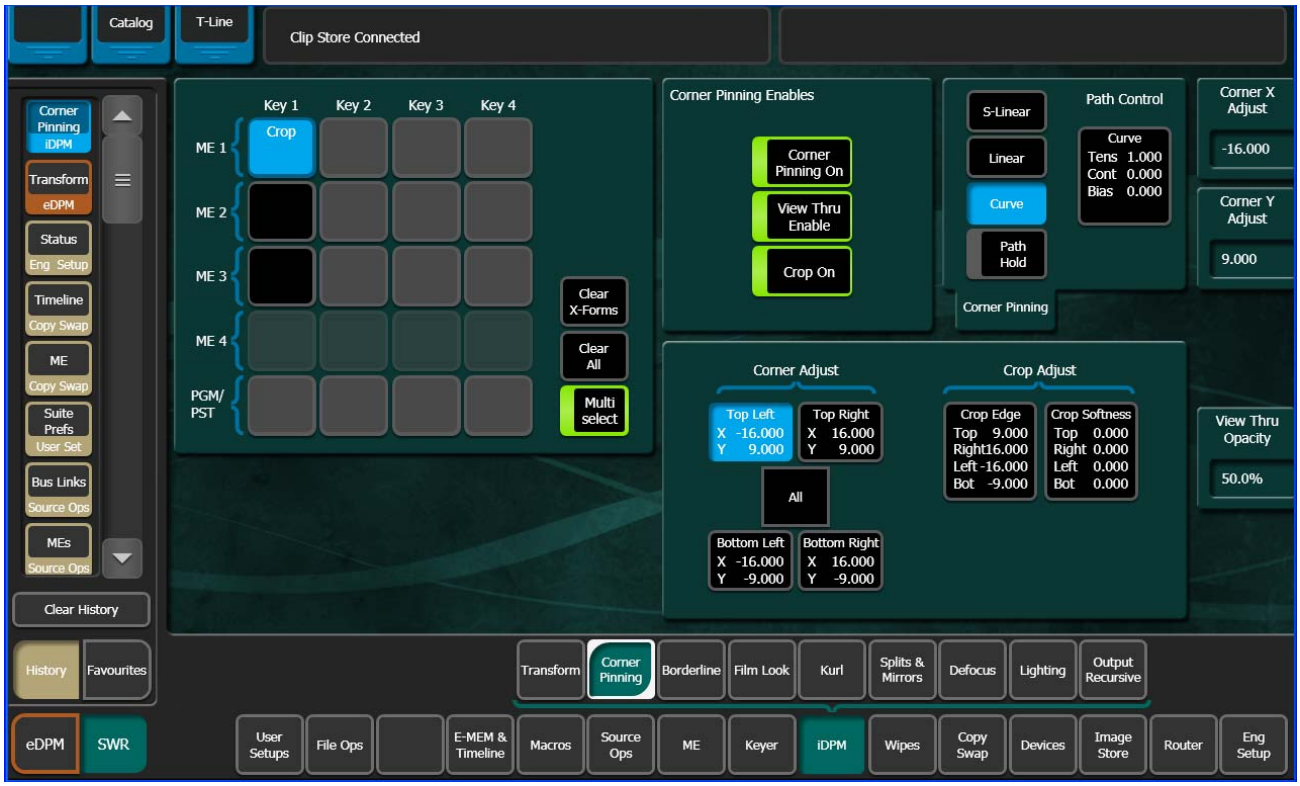
Figure 43. Corner Pinned Cropped Object



Corner Pinning Menu

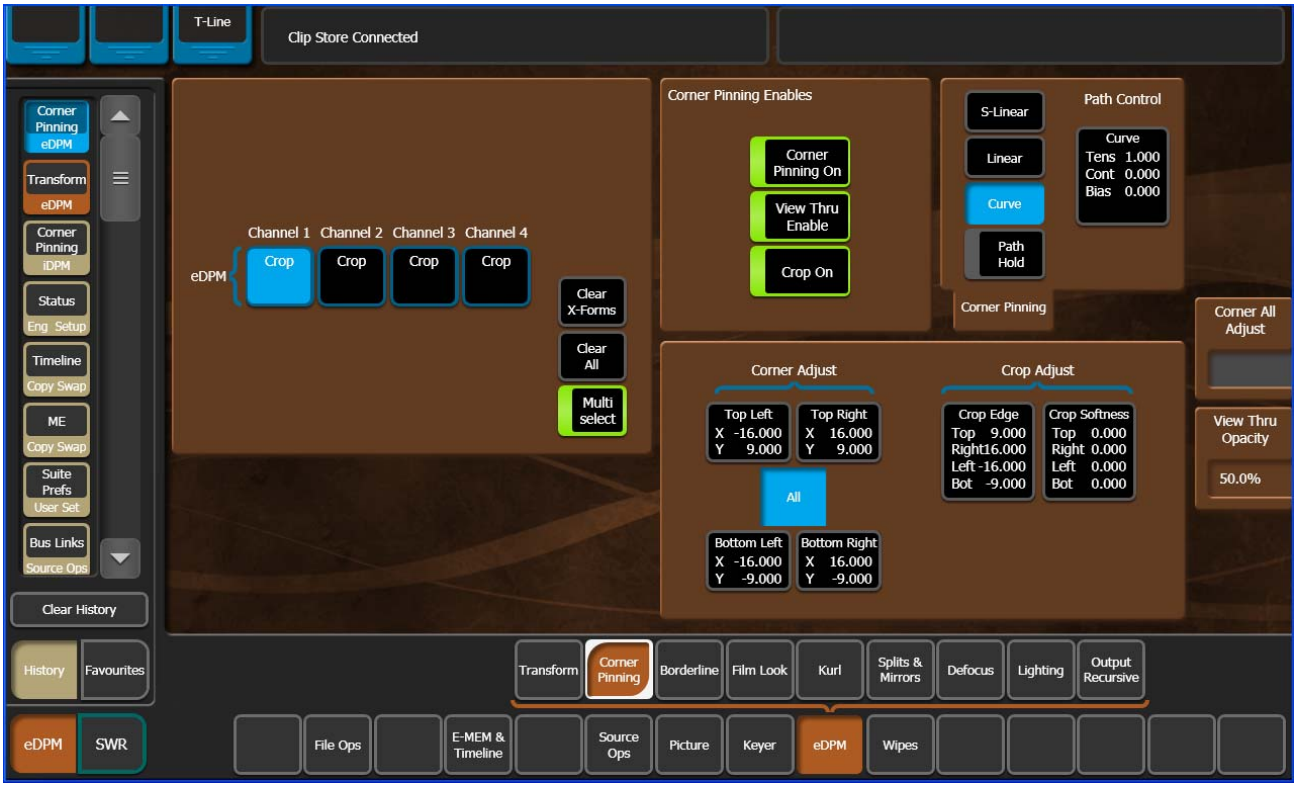
The Corner Pinning menu (Figure 44) is available in both the SWR (Switcher) (iDPM, Corner Pinning) and the eDPM (option) mode (eDPM, Corner Pinning). The menus function identically.

Figure 44. iDPM, Corner Pinning Menu



Touch the **eDPM** mode button (lower left), **eDPM, Corner Pinning (**Figure 45).

Figure 45. eDPM, Corner Pinning Menu



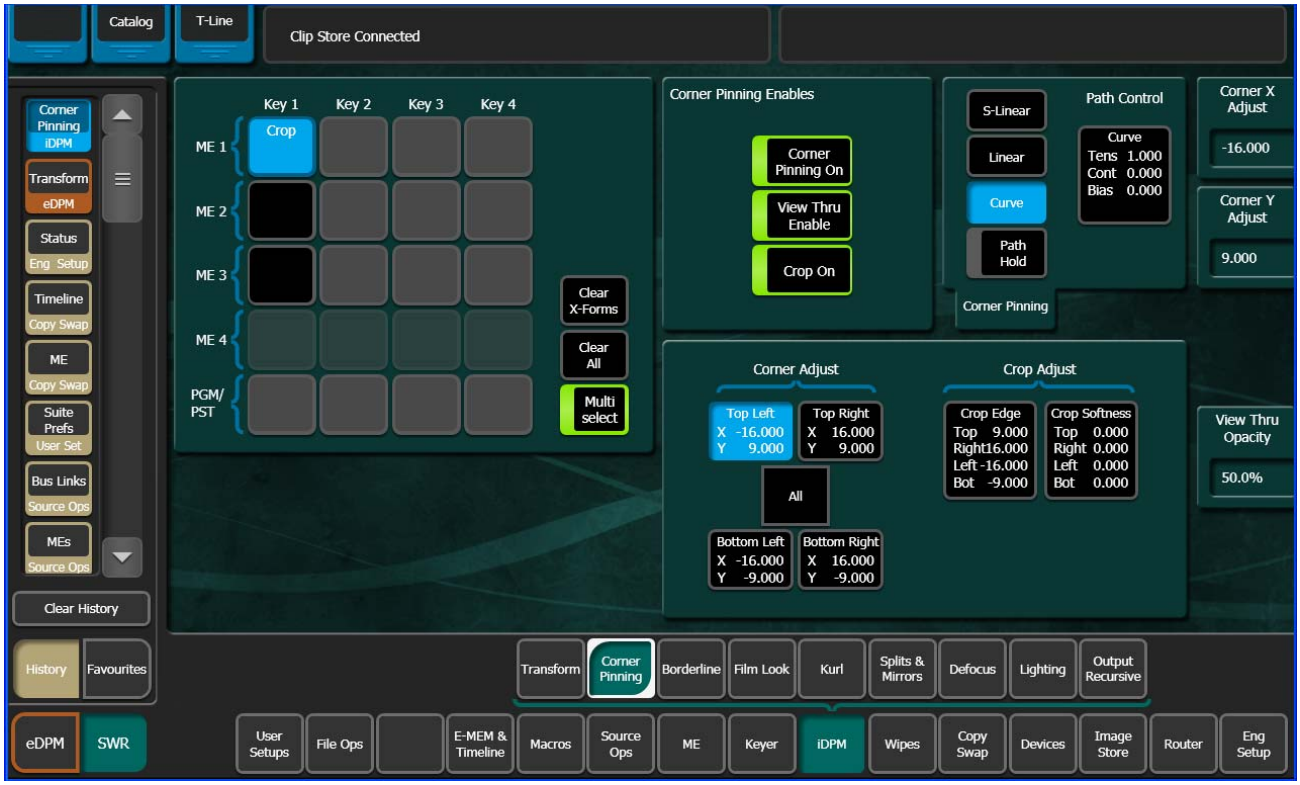
An example of how Corner Pinning would be valuable is that during a sporting event, a camera points at a shot clock. The DPM uses Corner Pinning to build a box to contain the clock and crop adjustments place the clock exactly in the box but the camera is accidentally moved and the content of the box no longer shows the entire shot clock. Using Pan and Scan, you can move the camera content to be shown correctly without moving the edges of the box.

Note Crop enables/disables and crop edge parameter changes are global. For example, if crops are enabled in the iDPM, Transform menu, and the top crop edge parameter was changed, the effect would be mirrored in the Corner Pinning menu and vice versa in the iDPM, Corner Pinning menu.

1. Select a background source.
2. Select a source for a keyer, and cut on the key over the background.
3. Go to the iDPM, Transform menu and touch the **Crop On** button to turn it on (highlights green).
4. Touch the **Crop Edge** data pad (turns light blue), the Crop Edge soft knobs will be displayed.

5. Adjust the crop edges to include the portion of the video you want in the key.
6. Go to the iDPM, Corner Pinning menu (Figure 46).

Figure 46. Corner Pinning On



7. Touch the **Corner Pinning On** button to turn it on (highlights green).

   The image will fill the screen—each corner of the key is now pinned to the corners of the monitor.

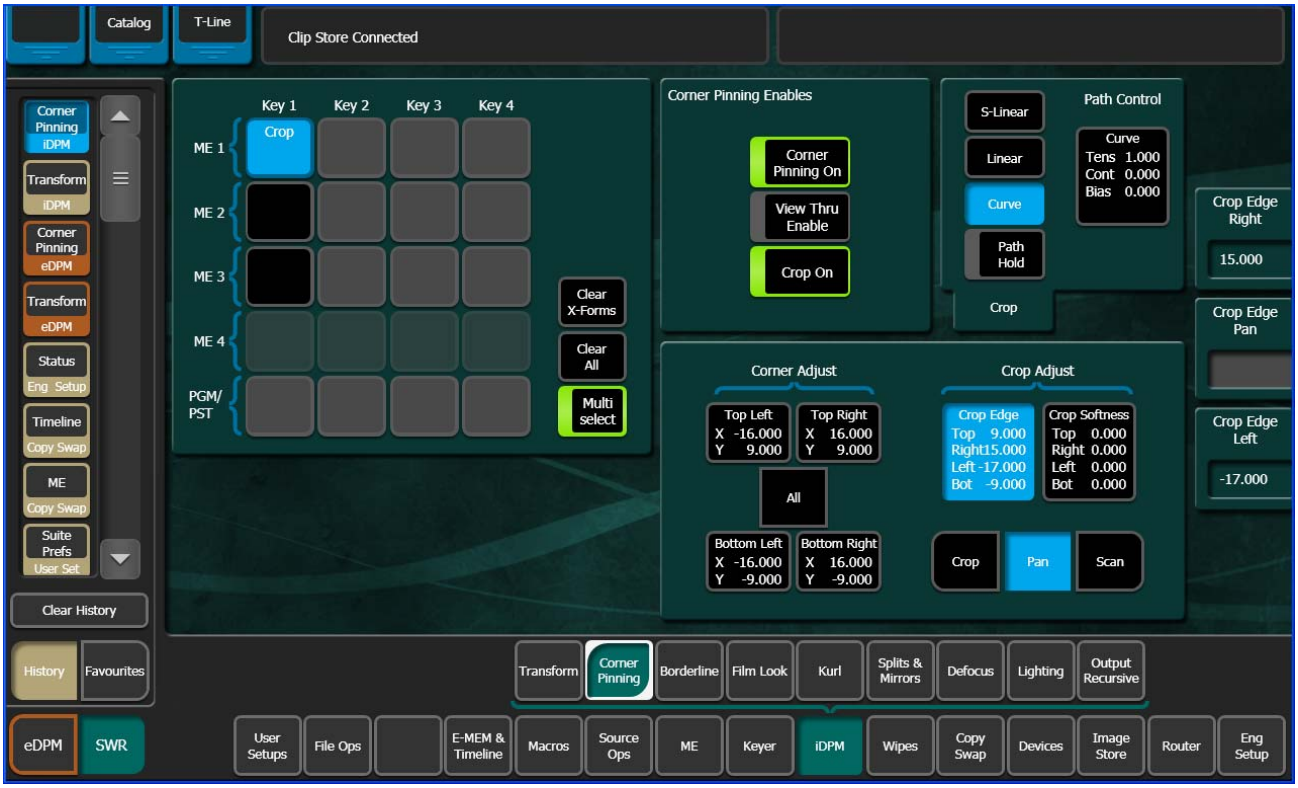
8. Touch the **All** button in the Corner Adjust area of the Corner Adjust/ Crop Adjust pane. Adjusting the iDPM with the Corner Pinning **All** button enabled, acts similar to a zoom. Use the **Corner All** soft knob to adjust the size of the key; in this case to the approximate size of the shot clock.
9. Turn off All Corner Adjust.
10. Touch the **View Thru Enable** button to turn it on. This will set the opacity of the video in the key to 50% so you can see the shot clock through the video which will help you align the corners of the image to the background video (the shot clock). The opacity can be changed using the **View Thru Opacity** data pad or soft knob.

11. Touch a Corner Adjust button—**Top Left**, **Top Right**, **Bottom Left**, or **Bottom Right**, and use the **Corner Adjust X** and **Corner Adjust Y** soft knobs to pin the corner to the corner of the shot clock in the background video. This will allow you very precise adjustment. Repeat for each corner.

12. Turn off the View Thru Enable feature.

If the background video changes, you can re-center the image (shot clock in the example) using the **Pan** and **Scan** crop buttons. You 'Pan' the crop; move the crop sideways which simultaneously trims the value of the Left Crop and Right Crop, or 'Scan' the crop; move the crop up and down, which simultaneously trims the Top Crop and Bottom Crop values (Figure 47).

Figure 47. Crop Pan and Scan



1. Touch the **Crop Edge** data pad.

2. Touch the **Pan** or **Scan** button.

3. Use the **Crop Edge Pan** or **Crop Edge Scan** soft knob to pan or scan until the image is re-centered.

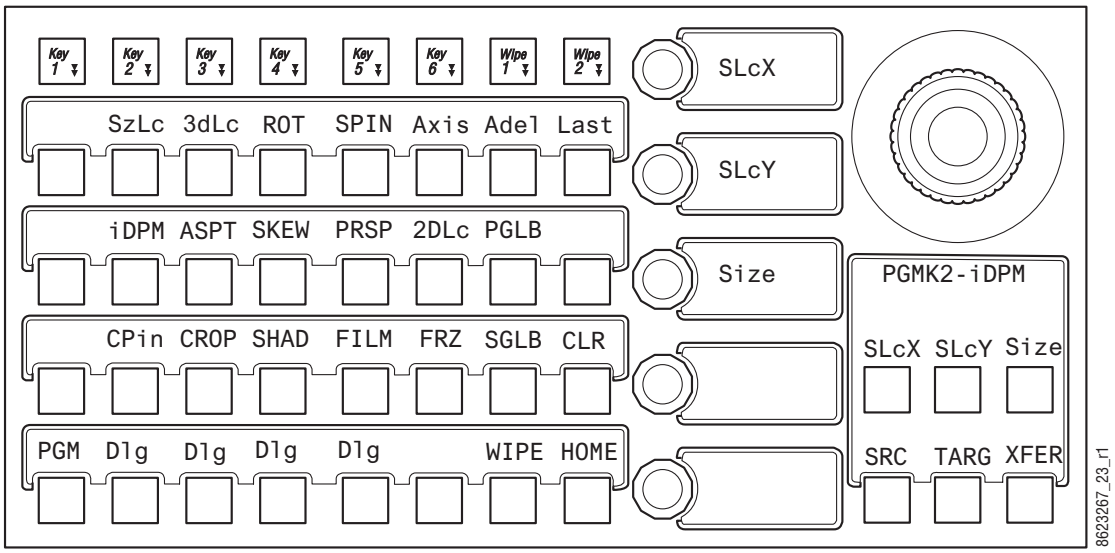
Note Panning scanning beyond (+ 16:9 for example) can have unexpected results, i.e. the picture may begin to stretch.

Corner Pinning with the Multi-Function Module

Corner Pinning can be performed from the MFM (Multi-Function Module), in the iDPM (and identically the eDPM), CPin menu.

The CPin (Corner Pinning) button has been added to the iDPM menu (Figure 48) in the MFM.

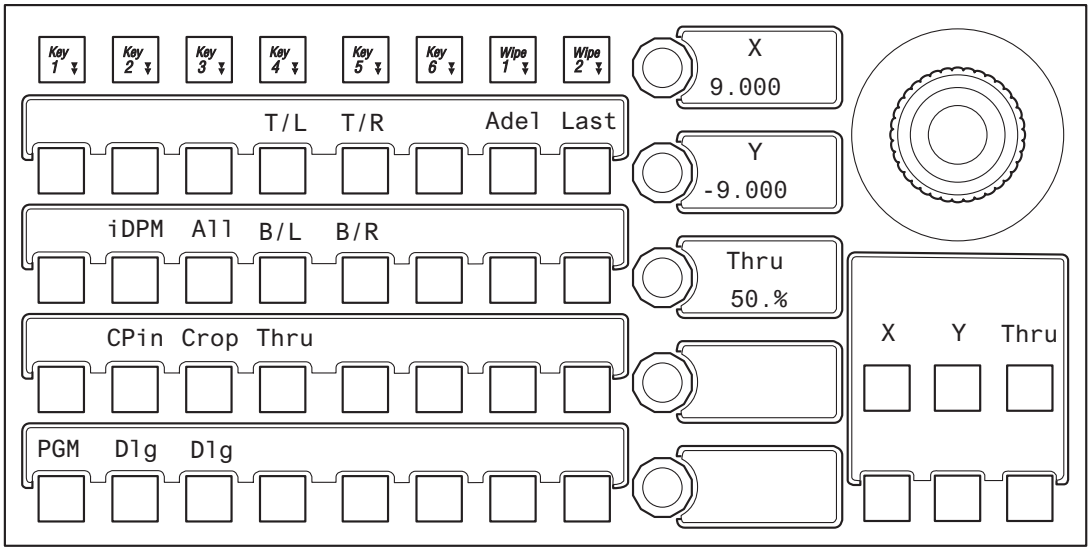
Figure 48. MFM—iDPM



Corner Pinning (Figure 49) and Crop (Figure 50) controls have been added in the CPin MFM menu. Press the **CPin** button to enable/disable Corner Pinning, press the **Dlg** button directly below to turn on Corner pinning and adjust the Corner Pinning parameters using the soft knobs.

Note Corner Pinning and Crops have their own path controls, however each corner and each crop edge share the same path. See the *Kayenne User Manual* for more information about paths.

Figure 49. MFM—iDPM, CPin (Corner Pinning)



The use of the **All** and corner buttons:

T/L—Top Left,

T/R—Top Right,

B/L—Bottom Left, and

B/R—Bottom Right,

are the same as in the Corner Pinning menu (see *Corner Pinning Menu on page 67*). The MFM soft knobs are used for adjusting the corners when selected.

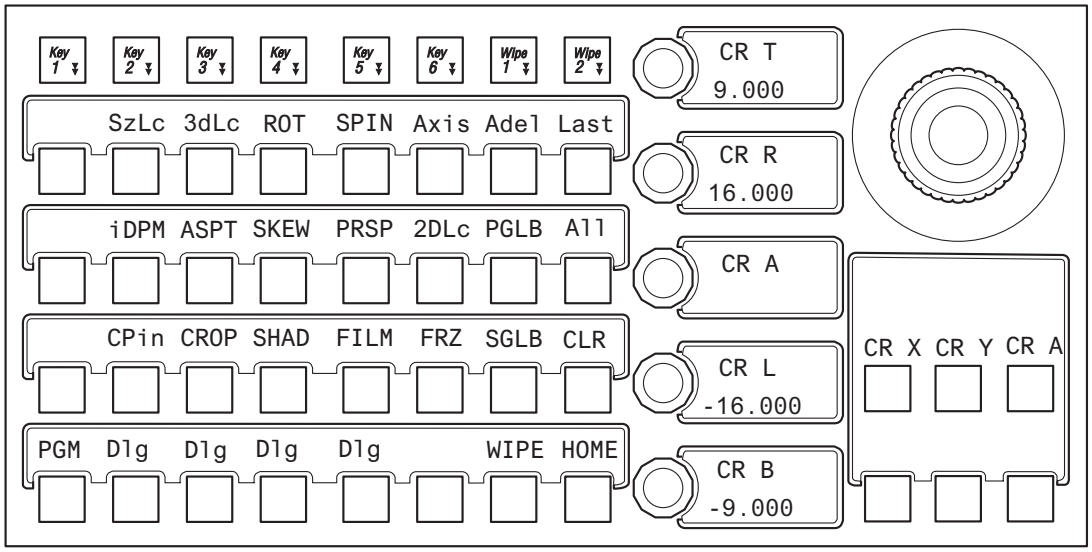
The **Thru** button performs the same function as the **View Thru Enable** button in the menu but is momentary (opacity setting is only visible when the button is held down). The opacity is adjusted with the **Thru** soft knob (Figure 49).

Crop is available in the CPin menu. When Corner Pinning is enabled, and the **Crop** button is pressed, the **All** button will be added to the Crop menu. The **All** button is a toggle that includes **All**, **Pan**, and **Scan**. Each work as in the menu. Z operation of the joystick operates the All crop adjustment (works similar to zoom), X and Y operates as Pan and Scan (Figure 50).

Crop All and Crop Edges can be adjusted using the soft knobs (Figure 50).

Note Crop Softness controls are not available for crops when Corner Pinning is enabled in the MFM, however Crop Softness controls are available in the Menu Panel.

Figure 50. MFM—Crop (Corner Pinning, Crop Menu)



eDPM Enhancements

The eDPM is now completely separate from the rest of the Switcher Master E-MEM so you can recall and run effects from the eDPM independently, or, you can use the Master E-MEM timeline to recall and run the eDPM. This allows you to control the eDPM exactly as you would with an external DPM. Also, you can have multiple E-MEM registers recalling the same eDPM effect.

The switcher timeline and the eDPM timeline can now be different registers and have different lengths. If you run the timeline from the eDPM Timeline, it will run the effect as created in the eDPM or if you run it from the Master E-MEM timeline (Switcher mode), it will run until the Master E-MEM timeline is complete.

If your E-MEM effect in the Master E-MEM only has one keyframe, you must insert an additional keyframe to run the entire eDPM effect timeline.

Note For E-MEMs learned using versions earlier than 2.0 to work properly, you must reconstruct a timeline for the proxy sublevels to run. The proxy sublevel register has been created but is limited to a single keyframe.

Recalling and editing eDPM timelines from the Master E-MEM timeline is truly independent and does not effect the keyframes in the eDPM. Inserting keyframes in the Master E-MEM's eDPM sub-level timeline creates a keyframe which is a 'proxy' to drive the eDPM's timeline.

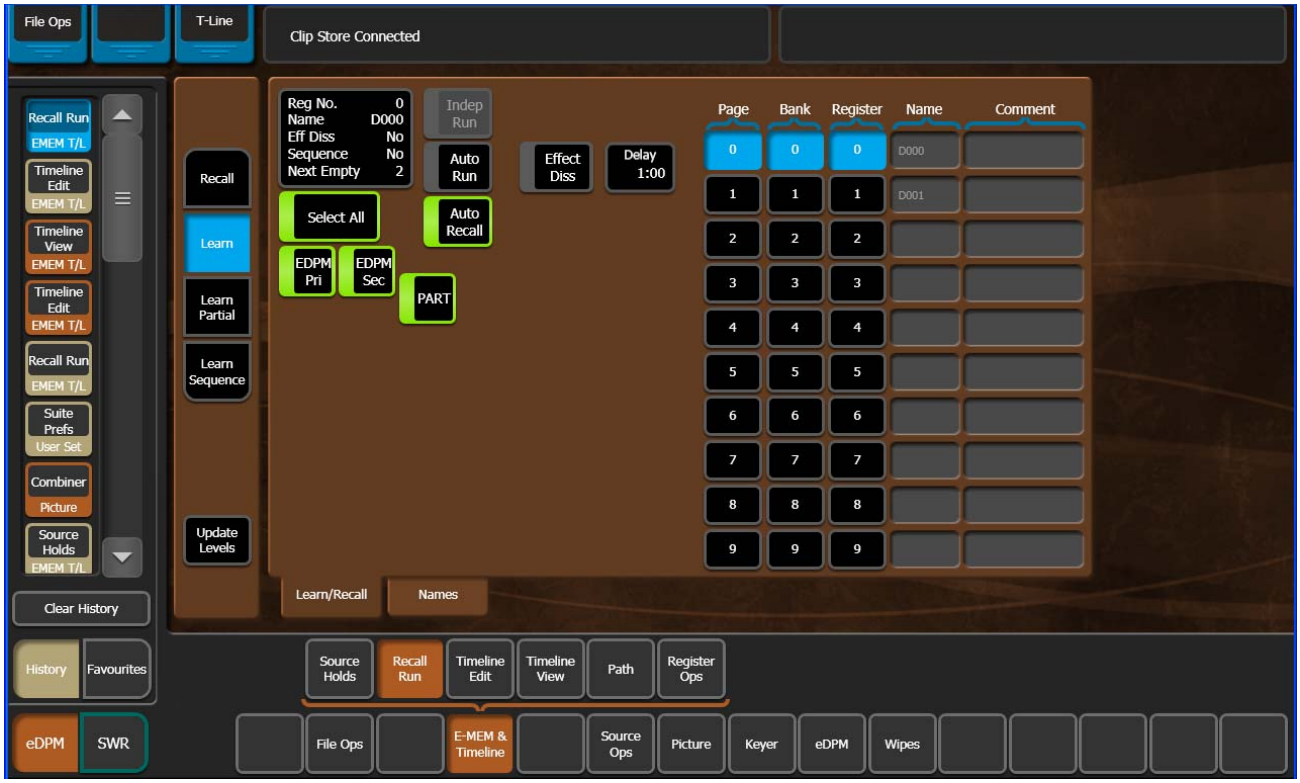
- When running an eDPM timeline from the Master E-MEM timeline, pauses on the eDPM side are ignored.
- Start delays on the Master (Switcher) side are executed before eDPM timeline.

eDPM Partitioning

The eDPM partition boundary is now a sub-level in the eDPM Primary partition. Figure 51 shows the **Select All**, **EDPM Pri** and **EDPM Sec**, and **PART** buttons. These buttons are used to enable/disable the partition settings and control the Channel settings in the Picture, Combiner menu.

Note Unlike Master E-MEM Part level, the PART in eDPM is a sub-level of eDPM Primary and cannot be enabled unless eDPM Primary is also enabled.

Figure 51. eDPM Partitions



In the Control Panel, the eDPM Primary and Secondary partitions are available in the eDPM menu of the Master E-MEM Module (removed from the Multi-Function Module with Kayenne 2.0). Also, the **PART** button has been added in the eDPM menu delegation, so the eDPM Master E-MEM partition can be enabled/disabled.

eDPM Definable Sub-levels

The Master E-MEM eDPM sub-levels (eDPM Pri and eDPM Sec) can now be configured as Definable (controlled) or Not Assigned in the User Setups, Suite Prefs, E-MEM Prefs, eDPM menu (see the *Kayenne User Manual* for information about defining/assigning E-MEM sub-levels). The example in Figure 52 shows the two defined eDPM sub-levels in the Master E-MEM Timeline for ME 3.

Figure 52. eDPM Sub-levels in the E-MEM Master Timeline

Using definable sub-Levels allows for the recall of eDPM effects from Local E-MEM. For example, effects created for ME 1 can have the eDPM definable sub-levels and will then run eDPM effects.

Device Control Module Enhancements

In Kayenne 2.0, Q-MEM and ganging have been improved in the DCM. Creation of cues and gangs is made easier with the addition of quick methods to create gangs and cues with more than one device. Overall status and user feedback is improved on the DCM as well as overall responsiveness and tactile feel of jog, var speed play, and shuttle.

Q-MEM

Q-MEM can be used to assign a device to a letter button on the DCM (Figure 53), load a named clip on that device and cue to its mark-in point, and optionally play or loop the clip. Multiple devices can also be loaded and cued using the "Link Cue" feature.

Each suite has 1000 cue memory registers (Q-MEMs).

Each cue has:

- Up to 38 devices with associated device state data (device state),
- Up to 6 device associations with device control buttons **A - F**,
- Selection of radio buttons **A - F** (or none) (device selection), and
- One play flag.

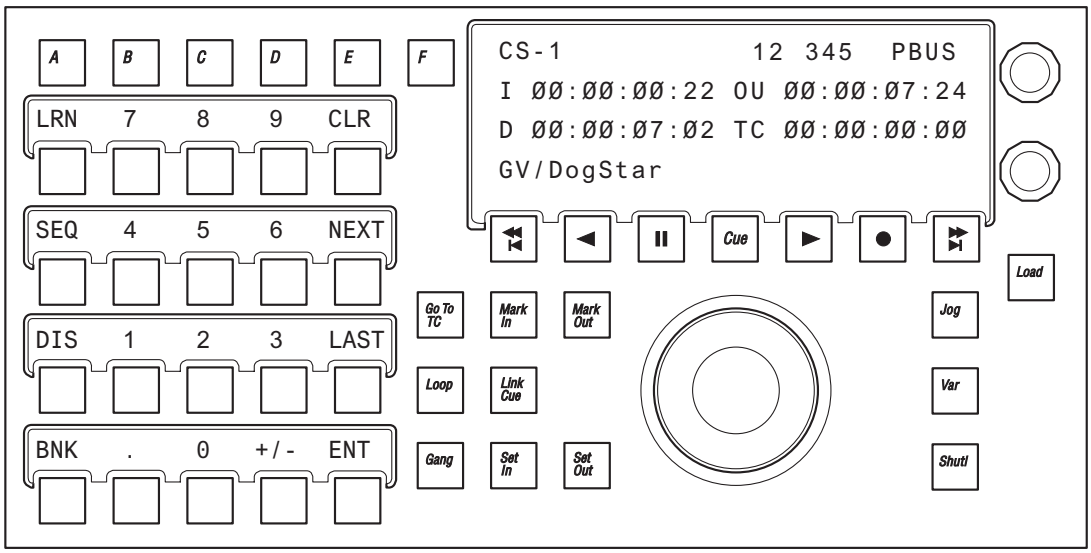
For each device, the following device state data is learned into the cue:

- Clip name,
- Mark-In point for clip,
- Mark-out point (may be empty),
- Loop flag,
- Gang flag, and
- A list of ganged devices.

Recalling a cue register can be used to:

- Associate devices with the lettered buttons only, so you can set up your DCM for manual use,
- Recall and cue devices without affecting the current letter button selections, and
- Both associate the devices with letter buttons and load, cue, and play them.

Figure 53. DCM—Q-MEMs



Learning a Q-MEM Register with a Single Device

To learn a simple cue with one device (see Figure 53):

1. Select a device by pressing a control button, **A - F**.
2. Select a clip on that device using the bottom soft knob and press the **Load** button to load the clip. You can then set the mark-in/mark-out points (**Mark In**/**Mark Out** buttons) and optionally turn on the **Loop** button (tallies blue).
3. Press the **LRN** button.
   a. Optionally, press the **Play** button (flashes green) to add a play command (so when the cue register is recalled, the clip will load *and* play).
4. Press the desired Cue register number button (use the **Page** and **Bank** buttons for the higher numbered registers). The selected Cue register button high tallies red.

Learning a Q-MEM Register with Multiple Devices

Learning Devices with Letter Buttons

Lettered button (**A - F)** links can be learned as part of a Cue register for later recall:

1. Press and hold down the letter buttons for the devices to be linked (for example A, B, and D).

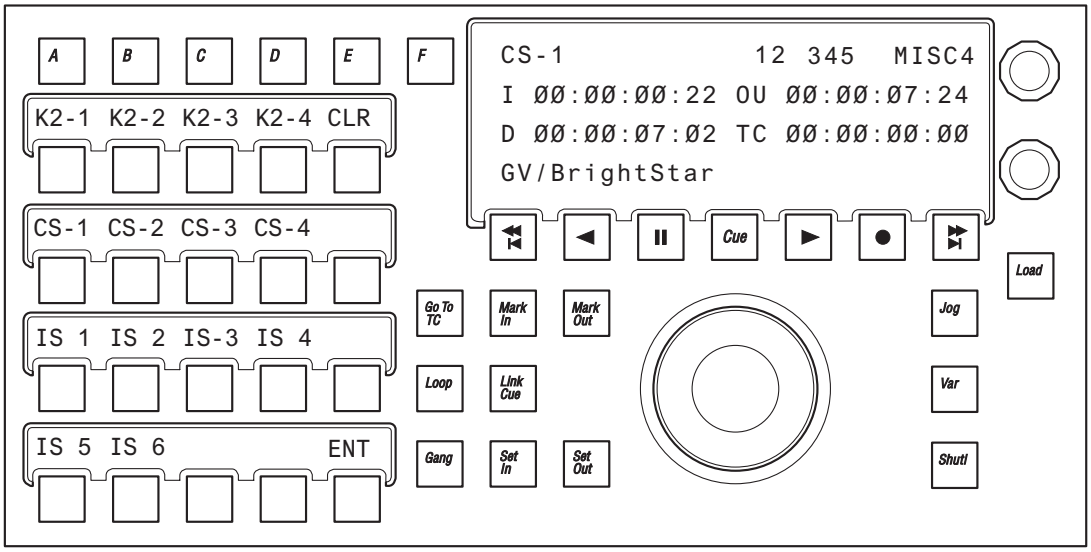
2. Press the **Link Cue** button (high tallies blue).
3. Learn the Q-MEM register.
4. Press the **LRN** button.
   a. Optionally, press the **Play** button (flashes green) to add a play command (so when the cue register is recalled, the clip will load *and* play).
5. Press the Cue Register button to recall the cue.

Note To see the link cue status, press the lettered button then the **Link Cue** button.

Learning Additional Devices

You can link multiple devices in addition to the devices associated with the lettered buttons using the Cue Device Selection menu (Figure 54). Each clip will need to be setup with mark-in/out points etc. prior to creating the link.

Figure 54. DCM—Cue Links



Hold down a lettered button (**A - F)** and press the **Link Cue** button (high tallies blue), the Cue Device Selection menu is displayed (Figure 54). Press the device buttons to add (or remove) devices as part of the cue then press the **ENT** (or **Link Cue**) button. All device buttons added to the cue will tally blue.

Pressing the **CLR** button clears all devices from the cue.

Note Both loop cue status and link status are always learned into the cue; if the **Loop** button is high tally, then a loop is learned and if **Link Cue** button is high tally blue, then the multiple devices are linked into the cue.

When recalled, a clip will load and cue for each device linked into the Q-MEM register. (There is one Play command per register so if learned as part of a Cue register, all devices will play when the register is recalled.)

Learning Only Device Associations into a Register

Cues can be used to associate devices to lettered buttons only, without learning clip and mark information. So on recall, the devices are assigned to the lettered buttons but nothing is done to the current status of the devices. The Cue Device Selection menu is used to configure these associations.

To associate a devices to lettered buttons only:

1. Hold down a lettered button, and press the **Link Cue** button. Both the letter button and the button for the device high tally.
2. Turn on any other letter buttons, but turn off the device buttons. If the letter button is on and the device button is off, then only the device association will be learned into the register.
3. Press **ENT** to end the device selection and then learn a cue.

Only the association of the device to the lettered button is learned.

Learning Clips for Devices without Affecting Letter Button Associations

To learn a cue that recalls only device states for the clip, cue to mark, loop, and play but does not affect the association of the devices with the DCM:

1. Hold down a lettered button, and press the **Link Cue** button. The letter button and the button for the device are both high tally.
2. Add devices to be linked into the register, but turn off any lettered buttons associated with the device.

   Without the letter buttons being learned, a recall of the register will control the specified devices but not affect what is currently happening on the DCM.
3. Press **ENT** to end the device selection and learn a cue.

Cues and Gangs

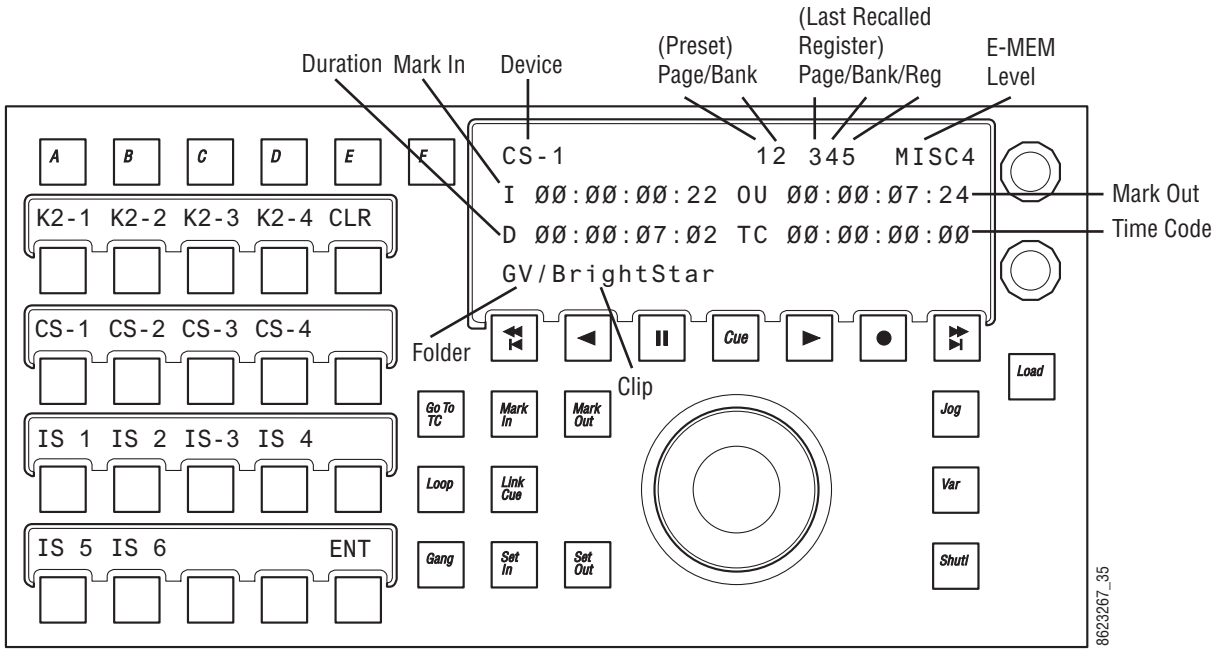
If a device which is learned into a cue is ganged to another device, then that gang association will be learned into the register too. So that when the register is recalled, the devices will be ganged.

Status Display

For a selected device, the display will show (Figure 55):

- Device name,
- Preset or current Page/Bank,
- Last recalled page, bank, and register,
- E-MEM level name,
- Timecode,
- Mark-in/out timecode,
- Calculated duration between mark in and mark out, and
- Clip folder and clip name (folder only displayed if supported by the device, e.g. ClipStore supports folder display but K2 does not).

Figure 55. DCM—Cue Links



Gangs

When devices are ganged, motion control commands are applied to all the devices in the gang. Play, Stop, Cue to Mark-In, etc. are performed simultaneously for all devices in the gang. Loading clips, which is not motion control, is not included in a gang. To load more than one device at the same time, use a Q-MEM linked cue.

Ganging Devices Associated with Lettered Buttons

To gang devices associated with the **A - F** lettered buttons on the DCM, press and hold down the letter buttons and press the **Gang** button (the ganged buttons tally green). For example, hold down **A** and **B** buttons (or any combinations of **A - F** with devices associated) and press the **Gang** button on the DCM. The devices associated with **A** and **B** are ganged. Pressing the **CLR** button during device gang selection clears all devices from the gang.

Ganging Additional Devices

Hold down a single lettered button (**A - F)** and press the **Gang** button (Gang Device Selection appears on the status display). A menu of devices is displayed that you can add (or remove) in association with the lettered button. You can page through and press the device buttons to make your selections. Once you've made your selections as part of the gang, press the **ENT** (or **Gang**) button to gang the devices.

The DCM supports multiple gangs, so there may be a gang associated with the device on the **A** button, and another gang on the device associated with the **B** button, and so on.

When the Gang button is high-tallied green, then there is an active gang associated with the selected letter button. To temporarily disable the gang, press the **Gang** button; it will low tally green, then make an adjustment. Pressing **Gang** again, will re-enable the gang. For example, this can be used where one device is video and the other key. By pressing the **Gang** button you can turn off the gang temporarily, jog the key channel to more precisely align it with the fill, and then re-enable the gang.

Control Panel Enhancements

The following enhancements have been introduced in Kayenne 2.0 for the Control Panel:

- **Bank Buttons added to Local/Master E-MEM Modules**—Bank buttons **BNK 0** - **BNK 3** have been added to the Local and Master E-MEM Modules (right side of keypad) to provide faster access to banks.

  A single press of the button delegates to the bank indicated, a DPOP of the button takes you to the bank indicated + 4, e.g. one press for Bank 0, DPOP for Bank 4. The highest bank available is Bank 7 (DPOP of **BNK 3** button). The buttons will be unlit for Banks 8 and 9. A DPOPed selection high tallies cyan (blue) color.

- **OLED display changes**:

  - **Outlines added to the OLED displays**—For the Source Select Modules and Local Aux Panels, outlines have been added to border the display text; this is now the default. Outlines can be toggled off/on in the MFM: from Home, press the **Panl**, **Bri**, buttons then toggle the **OUTL** (under Joystick) button.

  - **Local Aux Panel OLEDs display three values (was four)**—To allow a larger font, the Local Aux Panel OLED no longer displays the Aux delegate Eng ID and Eng Name but the ID *or* Name (if configured), only.

Note If a name is configured, the Eng ID can still be seen in the Menu Panel.

  - **Inserting a space wraps OLED text**—For the Source Select Modules, inserting a space wraps the text to the second line. For example typing **CAM** then a space then the number **3** would wrap '3' to the next line of the OLED button display.

- **Panel Saver delay time now user-controlled**—The Panel Saver or "Sleep" mode for the Control Panel can now be set to 10, 20, 30, or 60 Minutes (default is 10 minutes), in the MFM by pressing from Home, **Panl**, **Bri**, and turning the bottom soft knob labeled Panel Saver Delay, Minutes.

Note Panel Saver default of 10 minutes will be restored when the Control Panel is rebooted.

- **Colored buttons added to Local Aux Panel**—The following: eDPM=Blue, IS (Image Store Channel)=Orange, and Preview Primary=Yellow, will now tally those button colors in the Local Aux Panel to more easily identify those special sources.

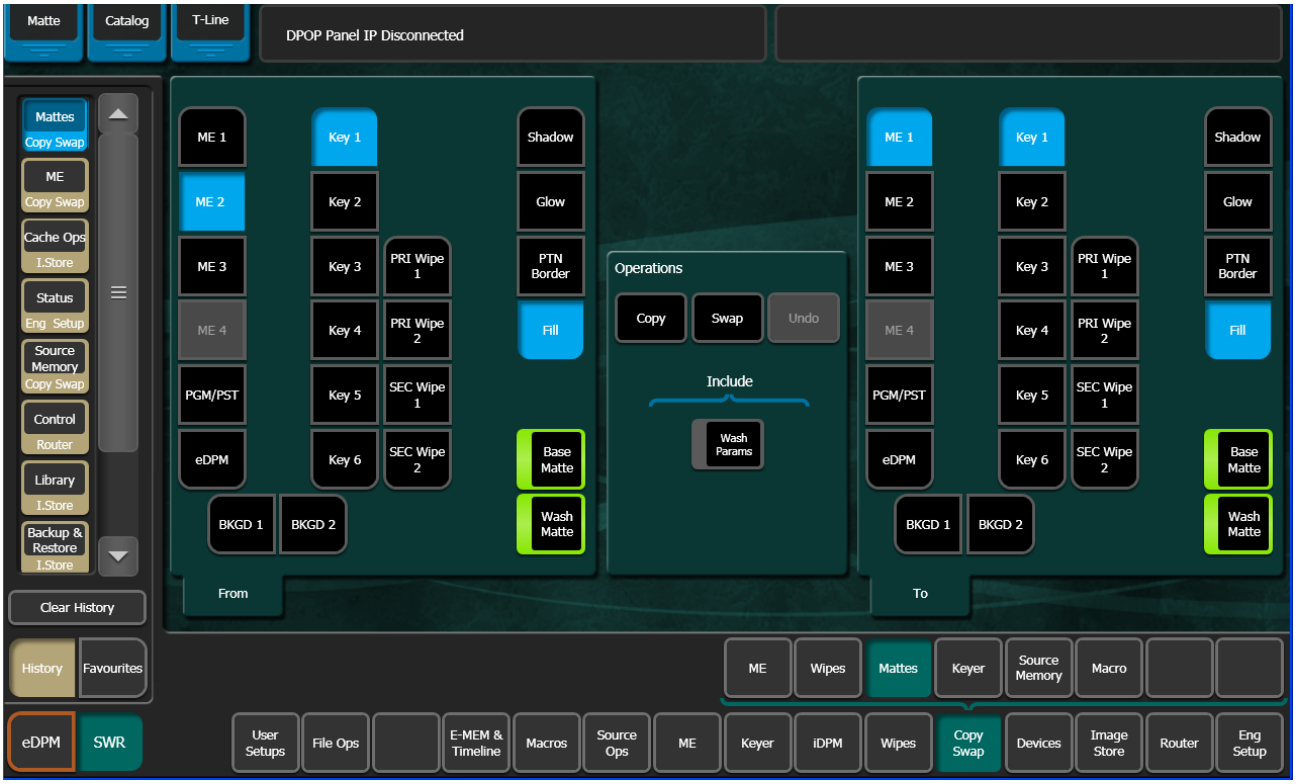
- **Joystick Calibration from the MFM**—A Joystick Calibration menu has been added to the MFM: from Home, press **Panl**, **Cali**.

Copy Swap Menus

The Copy Swap menus are used for copying setups from one part of the system to another. For example, if a chroma key was set up on ME 1, but the operator needs the key while ME 1 is in use, he can copy the keyer's setup to ME 2 and place the chroma key on air there.

The set of menus for Copy and Swap use a common layout. The Copy Swap Mattes menu, shown in Figure 56, typifies the layout shared by the others. Choose a source in the From pane, choose a destination in the To pane, and an action in the Operations pane. After performing a Copy or Swap, one level of Undo is available until another button on the menu is touched.

Figure 56. Copy Swap Menu



Copy Swap ME Menu

The Copy Swap, ME menu is used to copy an entire setup from one ME to another (Figure 57).

Figure 57. Copy Swap ME Menu

Copy Swap Wipes Menu

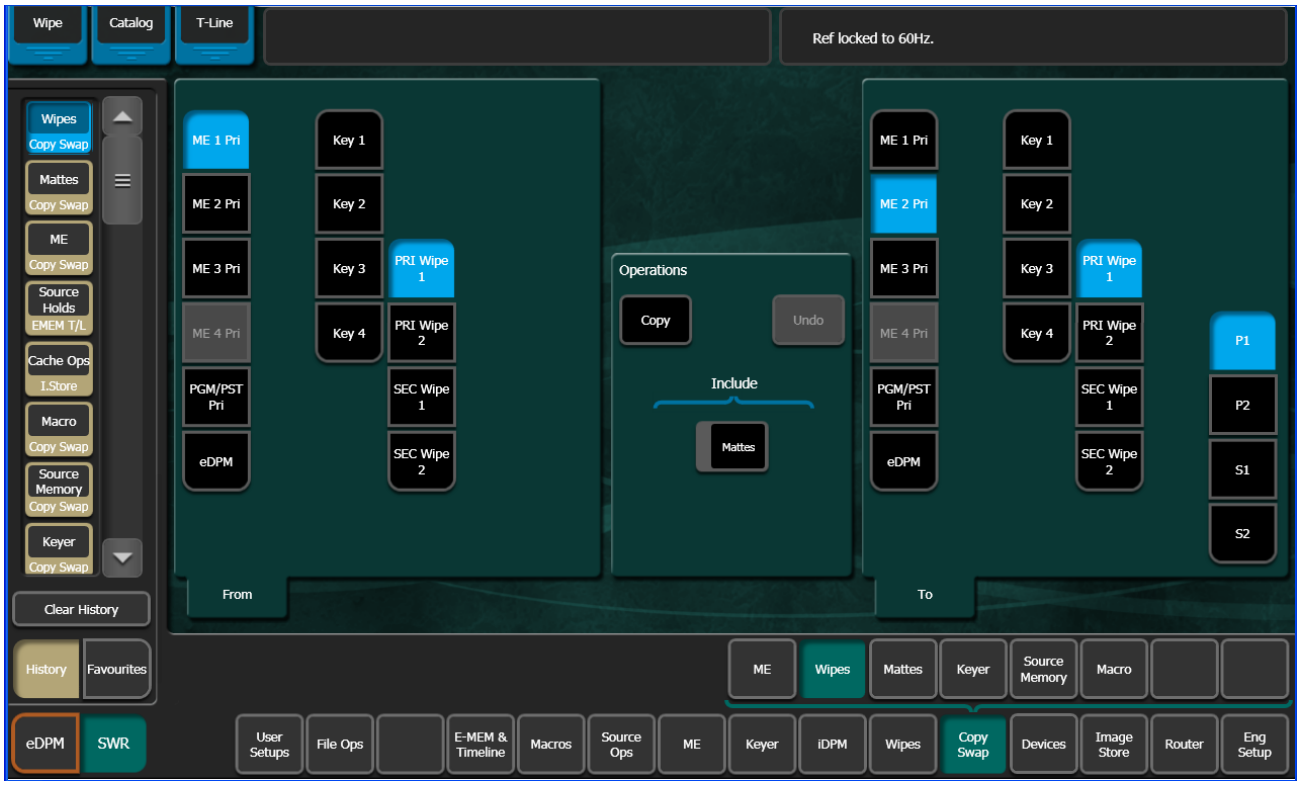
Wipe parameters can be copied from one wipe to another. This can be done on the same ME (or eDPM) or from one ME (or eDPM) to another.

Transition or complex wipes can be copied to Transition Wipes and Keyer Wipes can be copied to keyer wipes directly. Transition Wipes can be copied to Keyer wipes and vice versa.

Mattes can be included or excluded when copying wipes.

The Copy Swap, Wipes menu is used to copy wipe settings from one location to another (Figure 58).

Figure 58. Copy Swap Wipes Menu

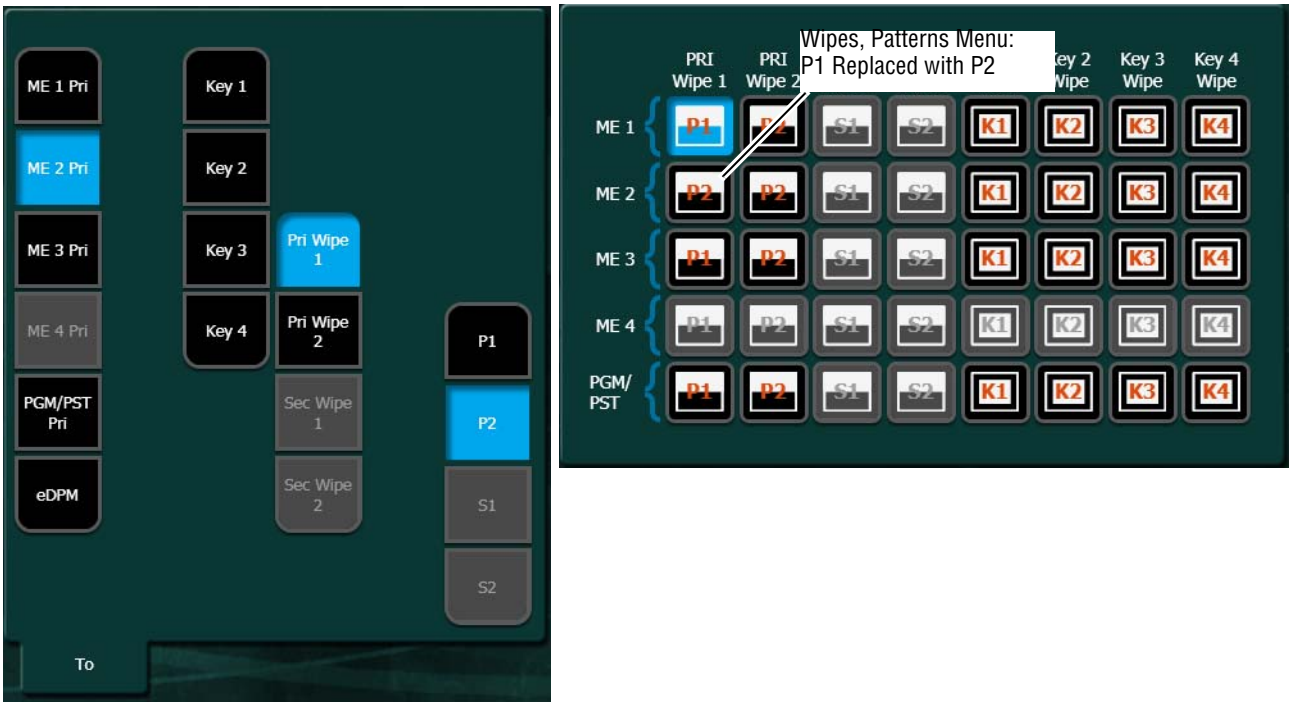


Wipe Generator Buttons in the To Pane

When one of the **P1**, **P2**, **S1** or **S2** Wipe Generator buttons is selected in the To pane (Figure 59), and **Copy** is touched, the Primary Wipe or Keyer Wipe selected in the To pane will have that complex generator copied to it. For example, if ME 2, Pri Wipe 1 is selected in the To pane, and **P2** is touched,

when **Copy** is touched P2 replaces the ME 2, Primary Wipe 1-P1 wipe generator as seen in the Wipes, Patterns menu (Figure 59).

Figure 59. Copy Primary Generator



Copying Transition and Keyer Wipes Directly

Transition Wipes

To copy a Transition wipe to a Transition wipe:

1. Touch the ME and Primary (**Pri Wipe 1** or **Pri Wipe 2**) or Secondary (**Sec Wipe 1** or **Sec Wipe 2**) wipe button in the From panel.
2. Turn on or off the **Mattes** button: On highlights green.
3. Touch an ME and Primary Wipe button in the To pane.
4. Touch the **Copy** button.

Key Wipes

To copy a Key wipe to a Key wipe:

1. Touch the ME and Key Wipe (**Key 1** - **Key 4**) button in the From panel.
2. Turn on or off the **Mattes** button: On highlights green.
3. Touch an ME and Key Wipe button in the To pane, and if desired, choose a **Preset Patt**, **Inhibit Mask**, or **Force Mask** button to copy parameters from/to.

4. Touch the **Copy** button.

Copying Between Transition and Key Wipes

If the keyer (to) is using a complex generator, you can choose which complex wipe will be the destination. The complex wipe generator will be copied and the keyer will be assigned to that generator. The generator is also assigned to the transition wipe (in most cases) and the generator for that transition wipe is also changed. If the Keyer is assigned to a keyer wipe, only a subset of the complex wipe parameters will be assigned.

To copy a Transition Wipe to a Keyer Wipe:

1. Touch the ME and Primary (**Pri Wipe 1** or **Pri Wipe 2**) or Secondary (**Sec Wipe 1** or **Sec Wipe 2**) wipe button in the From panel.
2. Turn on or off the **Mattes** button: On highlights green.
3. Touch an ME and Key Wipe (**Key 1** - **Key 4**) button in the To pane, and if desired, choose a **Preset Pattern**, **Inhibit Mask**, or **Force Mask** button to copy parameters from/to.
4. Touch the **Copy** button.

Copying from a Key Wipe to a Transition Wipe works the same, however Keyer wipe values will be copied to the Transition Wipe, not the Wipe Generator.

Copying with eDPM

eDPM Channels can be copied from one to another and between Transition and Key Wipes. eDPM Wipes are simple wipes, similar to the Key Wipes.

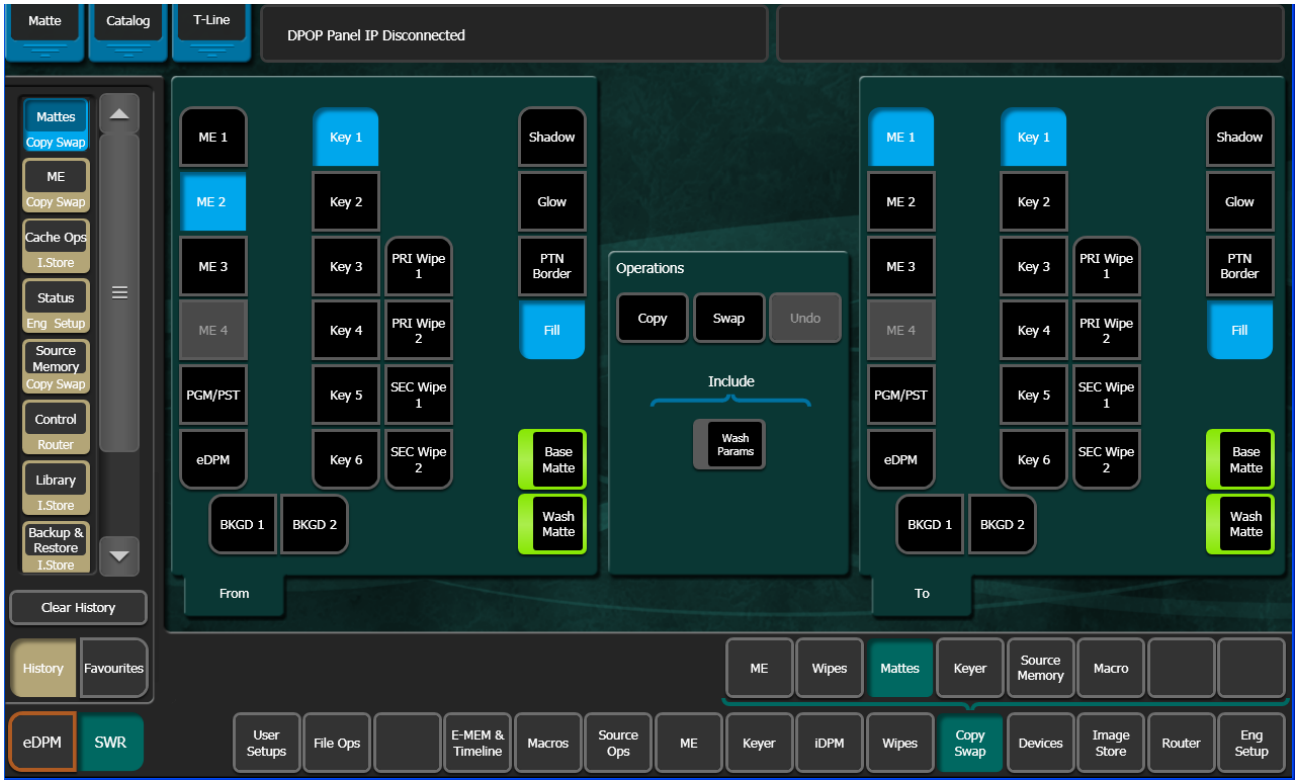
To copy an eDPM Wipe to another wipe:

1. Touch the **eDPM** button in the From or To pane.
2. Touch a channel button (**CH 1** - **CH 4**) with the parameters you wish to copy from or to, and if desired, choose a **Preset Patt**, **Inhibit Mask**, or **Force Mask** button to copy parameters from/to.
3. Touch the **Copy** button.

Copy Swap Mattes Menu

Touch **Copy Swap**, **Mattes** to access the Copy Swap Matte menu (Figure 60).

Figure 60. Copy Swap Mattes Menu

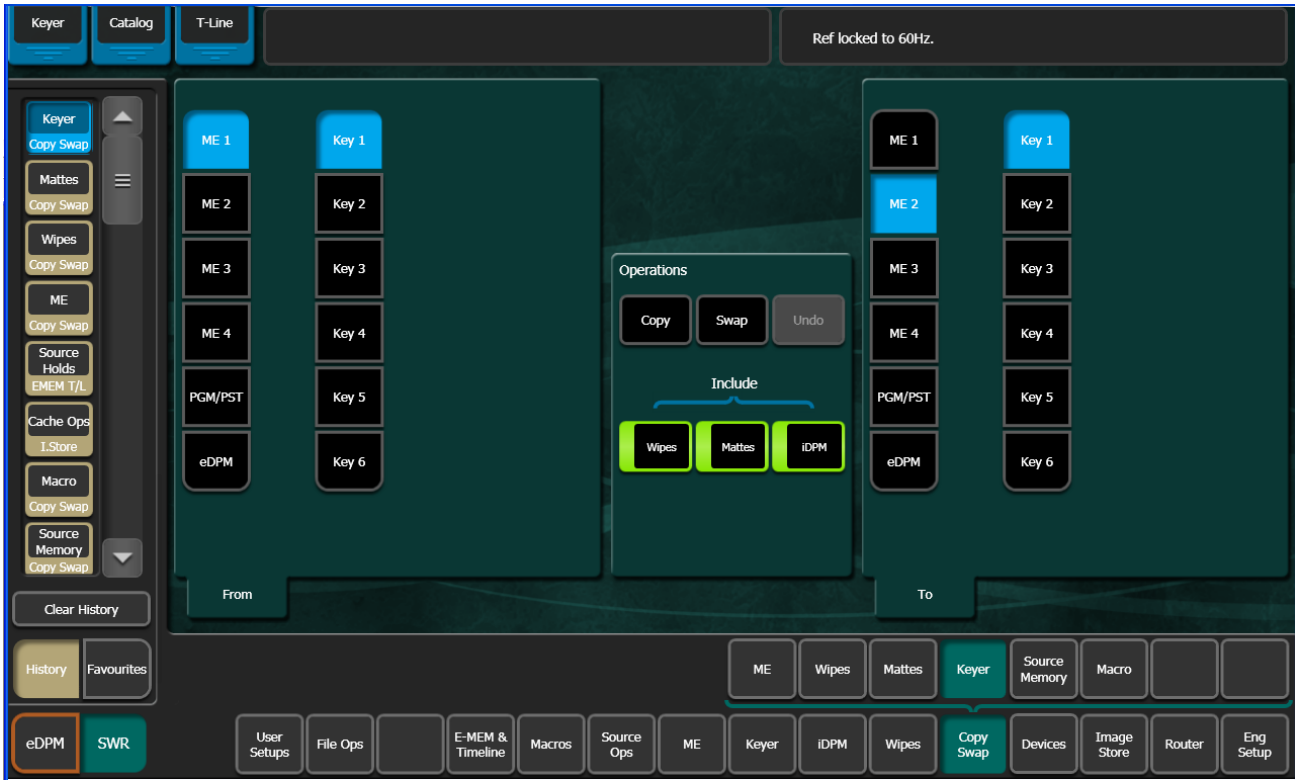


Some combinations of ME level, Key level, and matte generator level do not exist. For example, in Figure 60, the destination matte is ME 1's Trans Wipe. Pst Ptn Border, and Fill are grayed out because they only apply to keyer mattes. Similarly, if Bkgd 1 had been chosen, no further delegation would be needed, so all of the keyer related selections would be grayed out.

Copy Swap Keyer Menu

Touch **Copy Swap**, **Keyer** to access the Copy Swap Keyer menu (Figure 61).

Figure 61. Copy Swap Keyer Menu



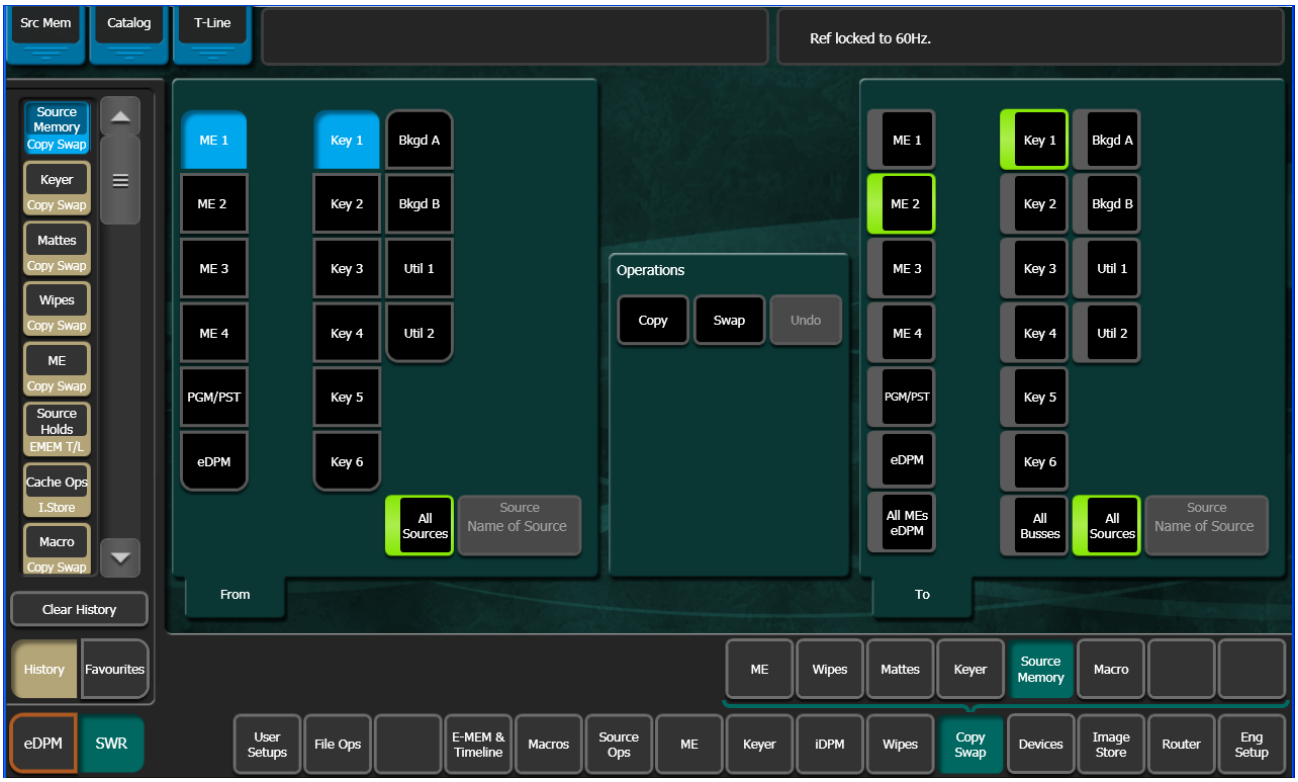
The menu enables the copying and swapping of entire keyers, including the mapping of key cutter and key fill sources. It is a direct copy of what is currently in the chosen From keyer, including key type, key split condition, and all parameters describing the key's behavior.

Wipes, Mattes, and iDPM resources can be included/excluded using the buttons in the *Include* section of the Operations pane (Figure 61).

Copy Swap Source Memory Menu

Touch **Copy Swap**, **Source Memory** to access the Copy Swap Source Memory menu (Figure 62).

Figure 62. Copy Swap Source Memory Menu



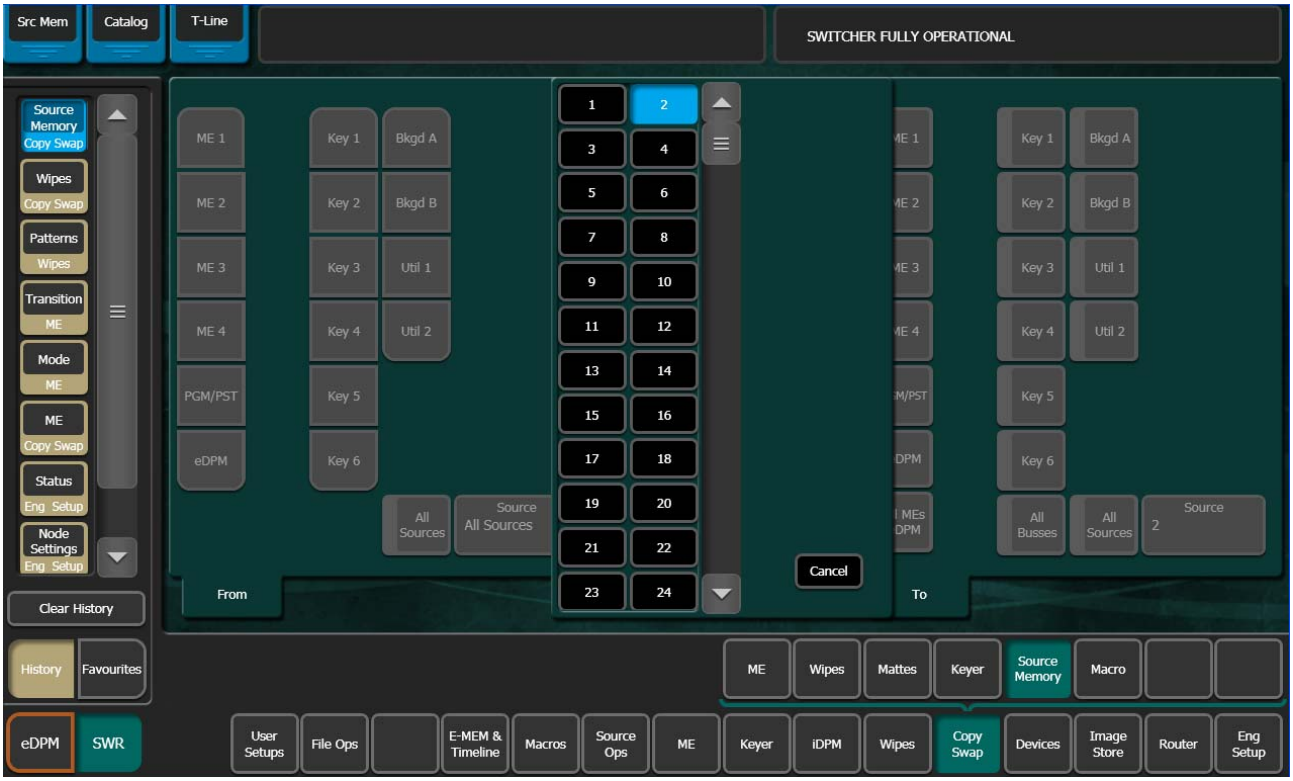
The user delegates the ME/eDPM level, the keyer within the ME/eDPM, and the numbered input source to the keyer. Each source on each keyer has its own source memory, which is a collection of keyer settings specific to that particular intersection (point of use) of the keyer and its input.

The Source is automatically updated to the working buffer's setting for the selected ME/eDPM and keyer.

The user can choose to copy all the sources by touching the **All Sources** button (Figure 62). When selected, the words "All Sources" appear in the Source text box. When **All Sources** is chosen in the From pane, All Sources is automatically put into the To pane. However, if a single source is chosen in the From pane, it is permissible for it to copy into a single source or to All Sources in the To pane. If **All Sources** is chosen in either pane but not both, the **Swap** Action button grays out.

When the **All Sources** button is off, the user can select a single source by touching the Source text box. This pops up the Source Picker menu arranged in numerical order, see Figure 63.

Figure 63. Copy Swap Source Picker Menu



Copying or swapping of keyer parameters applies only to like types of keying.

The key type buttons are simple on/off buttons (not radio buttons), meaning the user may copy/swap any or all of the parameters for multiple key types in a single operation. When the user selects a different ME (or eDPM) or keyer, the key type buttons automatically default to the setting in the working buffer. Since the working buffer will only have a single keying type selected, then the default key type configuration displayed on this menu will always be a single keyer level on. However, the user may turn on additional key types and override the default.

In the To pane there is a **Default** button. If this button is selected, the From key selectors and source selector, gray out, because the source for copying is the set of defaults written in the engineering setup rather than specific bus, keyer, and input source memory. The **Swap** button grays out. The transfer of default parameters go only one direction, from default storage to source memory.

Several defaults can be transferred in a single operation. The To pane's selectors change to on/off LED buttons. The user can choose any combina-

tion of default. The following scenarios might exist allowing the user to copy:

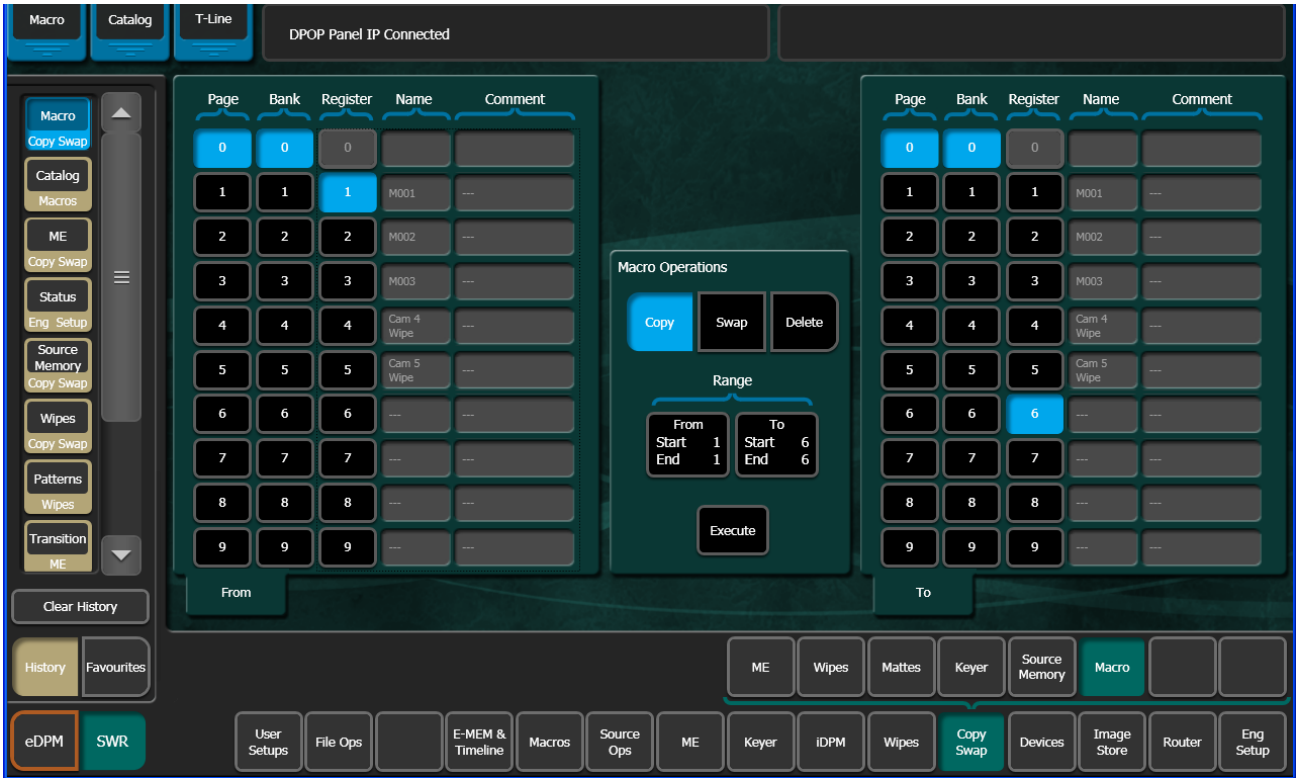
- A specific default source and a specific bus,
- A specific source to all buses,
- All sources on a specific bus,
- All sources on an ME, or
- All sources to all buses on all MEs.

Copy Swap Macro Menu

The Copy Swap Macro menu (Figure 64) is accessed by touching **Copy Swap**, **Macro**.

Note The functionality of this menu is duplicated in the Macros, Macro Ops menu for convenience.

Figure 64. Copy Swap Macro Menu



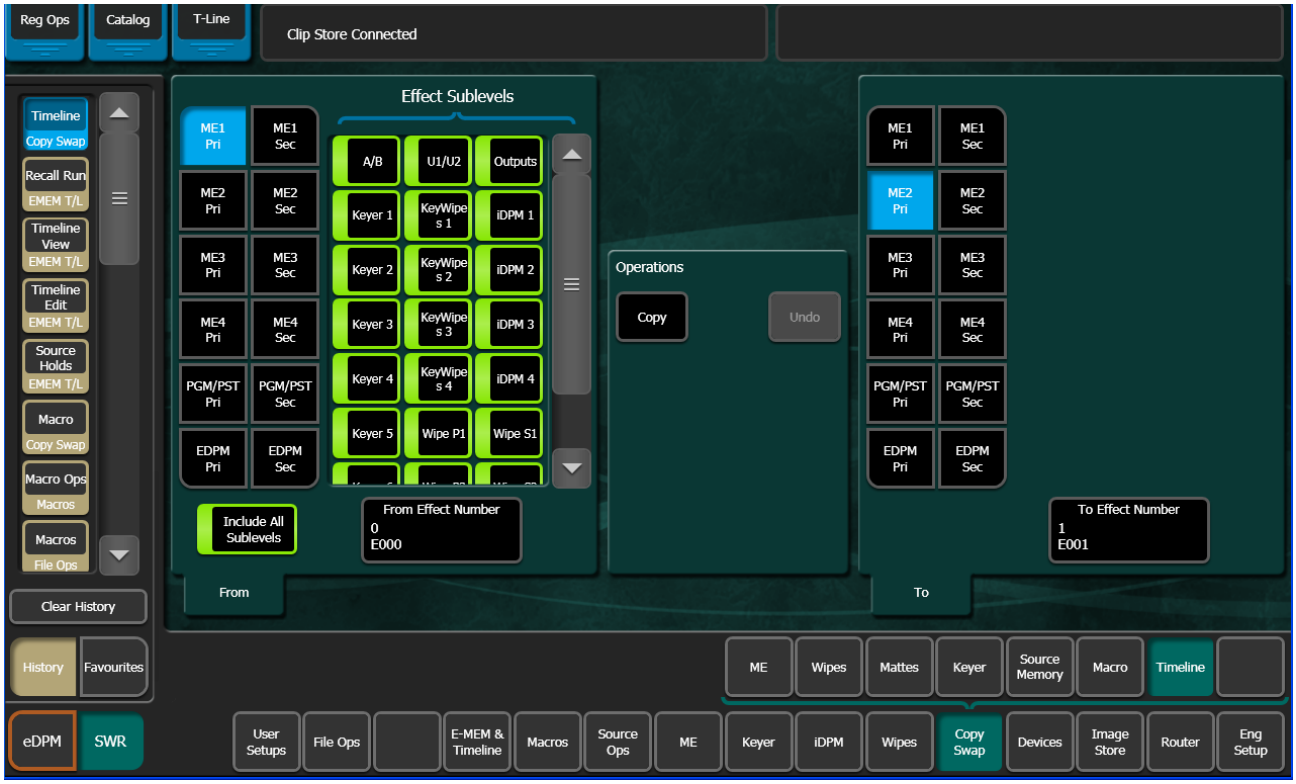
Macro register information can be moved from one register to another with this menu by selecting the registers in the From and To scrolling panes, then touching the **Copy** or **Swap** buttons in the Macro Operations pane (Figure 64).

The soft knobs and data pads on the upper right can be used to quickly select specific register numbers in each pane.

Copy Swap Timeline Menu

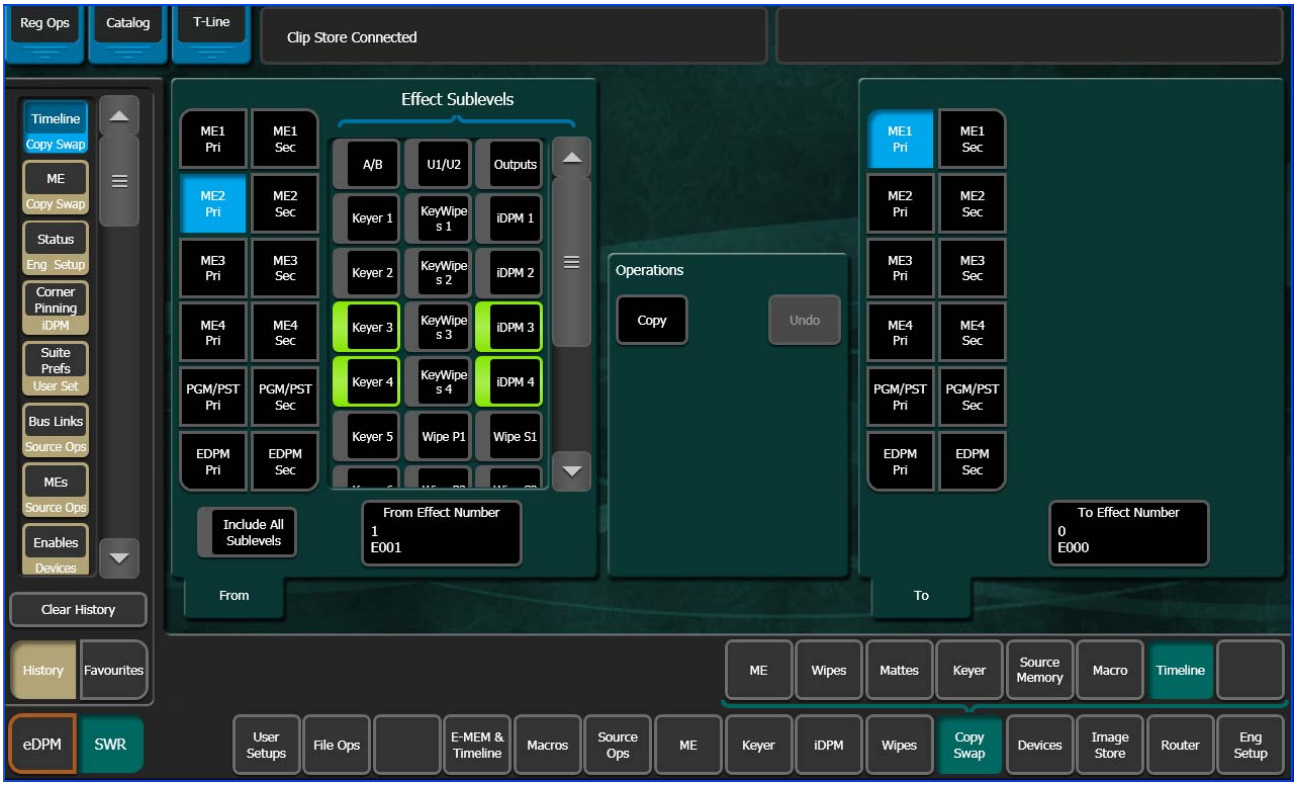
The Copy Swap Timeline menu (Figure 65) is accessed by touching **Copy Swap**, **Timeline**.

Figure 65. Copy Swap Timeline



Complete E-MEM timelines containing multiple keyframes can be copied from one ME to another ME or the eDPM and vice versa. All sub-level information can be included using the **Include All Sublevels** button (Figure 65) or with this button off, sub-levels can be excluded from being copied by touching the sub-level's enable button (Figure 66).

Figure 66. Copy Swap Timeline sub-level Selection



For example, ME2 Pri, Effect Register 1, has two keyers with iDPM parameter settings you want as part of an effect (Figure 66) but you want to use those sub-levels with the parameter settings in Effect Register 0, on ME1 Pri. One way to accomplish this is to copy the Keyer/iDPM sub-level information of Effect ME2 Pri, Effect Register 1, to Register 0, on ME1 Pri:

1. Touch the **From Effect Number** data pad (Figure 66) and enter the effect register number you want to copy 'from' in the Enter Source Register pop-up keypad.
2. Touch the **To Effect Number** data pad (Figure 66) and enter the effect register number you want to copy 'to' in the Enter Destination Register pop-up keypad.
3. With the **Include All Sublevels** button off, touch the **Keyer 3**, **Keyer 4**, **iDPM 3** and **iDPM 4** sub-level buttons to turn them on (alternatively, you can turn on Include All sub-levels and individually touch each sub-level to disable them).
4. Touch the **Copy** button.
5. Recall the destination register to see the result (touching the Copy button does not trigger a recall).

The result is that only Keyer 3, Keyer 4, iDPM 3, and iDPM 4 are copied to Register 0, on ME1 Pri. All other effect parameter settings are the same.

Definable sub-levels can also be part of the copied register.

Copy Swap and the Multi-Function Module

Also new with Kayenne 2.0, the **Wipe**, **Matt**, and **DPM** buttons can be turned on and off (default is on) in the MFM. With an ME and keyer selected in either Copy or Swap menu delegations, the buttons will be available.

SetDef MatchDef

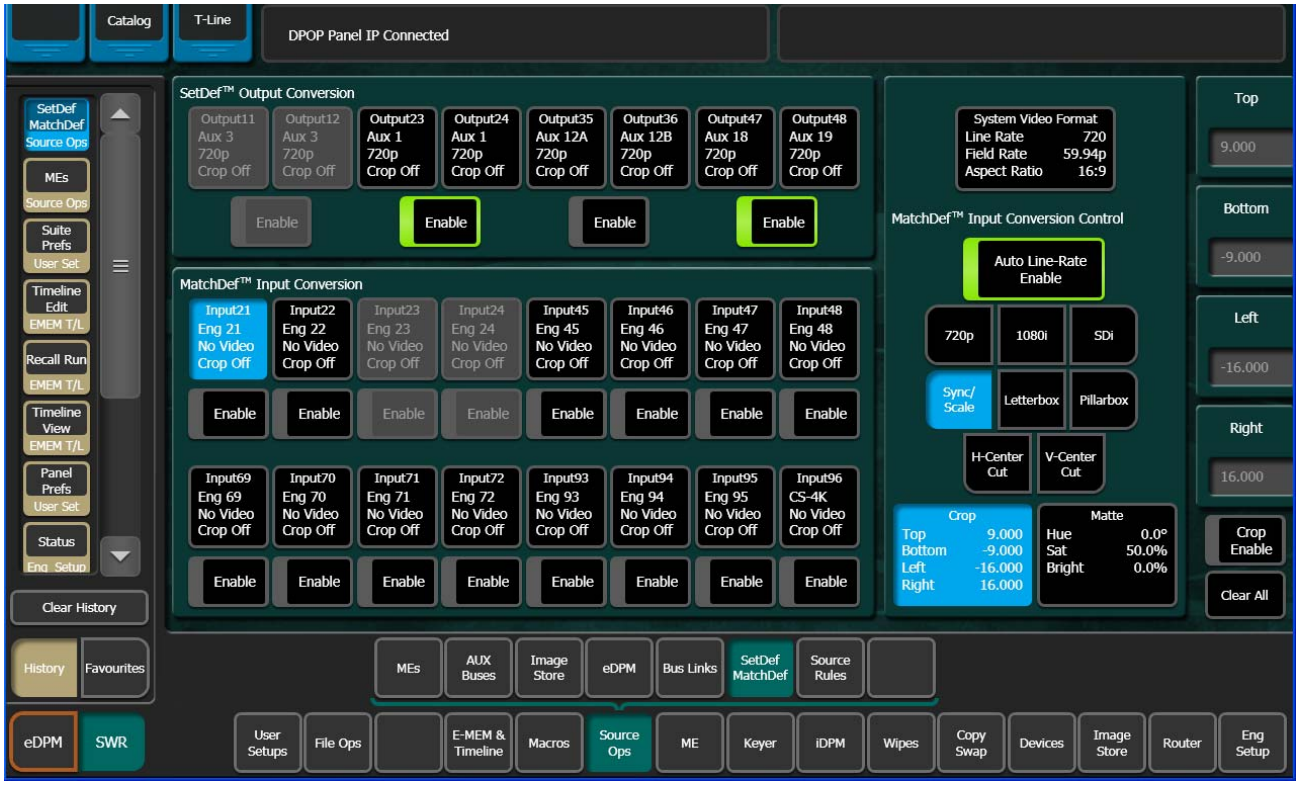
Source Ops, SetDef MatchDef Menu

The SetDef and MatchDef options permit line rate signal format conversion of selected Kayenne system outputs and inputs. SetDef output and MatchDef input conversion is licensed in connector pairs. Conversion is active when the associated Video Processor Frame ME board is present and the license is enabled. Selecting an output or input button automatically brings up controls for that conversion.

Note SetDef and MatchDef may be configured as part of engineering setup using the Eng Setup, SetDef MatchDef menu. If SetDef or MatchDef has been configured as part of engineering setup, this takes precedence over the TD being able to change these settings, and these items are grayed out in the Source Ops, SetDef MatchDef menu.

The default for the Source Ops, SetDef MatchDef menu is Auto Line-Rate enabled. To access the Source Ops, SetDef MatchDef menu, touch **Source Ops**, **SetDef MatchDef** (Figure 67).

Figure 67. SetDef MatchDef Menu, SetDef Selected



SetDef Output Conversion

Each of the eight SetDef buttons report the current source, format, and crop status for that output.

Note A SetDef output can only be controlled from the Source Ops, SetDef MatchDef menu when the SetDef output is assigned to the same suite as the menu (a caution dialog will display if you attempt to change the suite with SetDef outputs assigned). Output suite assignment can be performed in the Eng Setup, Outputs menu.

The four **Enable** buttons activate and deactivate conversion for the pairs of output connector buttons immediately above.

The currently operating Kayenne video standard is shown in the **System Video Format** status display on the upper right portion of the menu.

The **SetDef Timing** button, when selected, displays Horizontal and Vertical Offset data pads, allowing changes to the timing of that output relative the the Kayenne system video reference.

The conversion format for the selected output is chosen from the labeled buttons in the right pane (**720p**, **1080i**, **Std Def 4:3**, **Std Def 16:9**). This format is applied to both output pairs.

Controls for Scale, Letterbox, Pillarbox, H-Center Cut and V-Center Cut are displayed, depending on the format selected.

Scale - Scales the image to fill the full raster of the screen. If mismatched formats are involved, the image may distort and appear wider or narrower that its original state.

Letterbox - Used to convert 16:9 to 4:3 by adding bars above and below the image.

Pillarbox - Used to convert 4:3 to 16:9 by adding bars to the left and right sides of the image.

H-Center Cut - Fills the screen with the center portion of the image, cutting off some of the left and right sides.

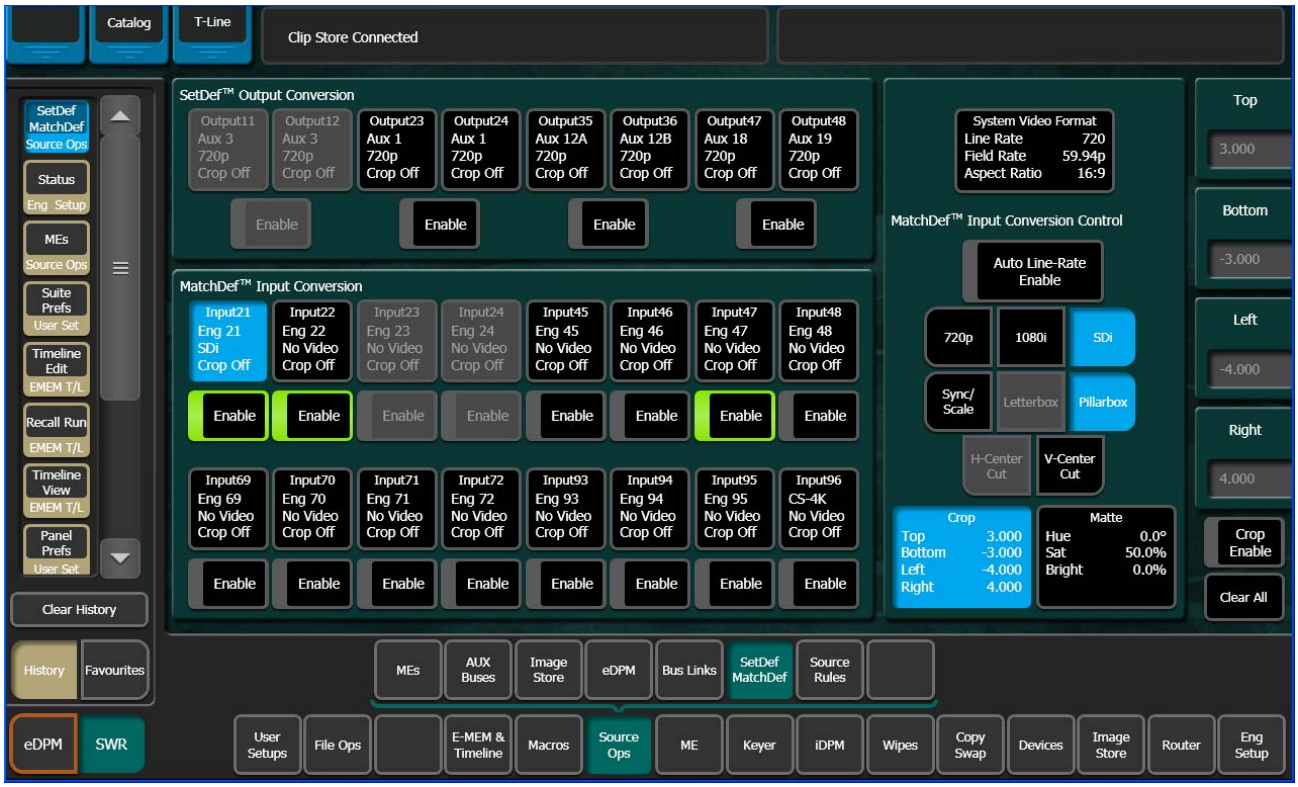
V-Center Cut - Fills the screen with the center portion of the image, cutting off some of the top and bottom.

The **Crop** button, when selected, displays Top, Bottom, Left, and Right crop data pads. Crop values can be entered and activated by touching the **Crop Enable** button.

When Crop, Letterbox, or Pillarbox is active, the **Matte** button can be selected, which displays Hue, Saturation, and Brightness data pads. The color values entered are applied to the non-image portion of the raster.

MatchDef Input Conversion

Figure 68. SetDef MatchDef Menu, MatchDef Selected



Each of the 16 Match Def buttons report the current source, format, and crop status for that input.

The **Enable** buttons activate and deactivate conversion for the individual input connector button located immediately above.

The currently operating Kayenne video standard is shown in the **System Video Format** status display on the upper right portion of the menu.

Auto Line-Rate Enable – When on, the Kayenne system detects the input video format and automatically chooses the appropriate line rate for the selected input. One frame of video is required for detection. If the incoming video signal format changes, one incorrect frame of video will be displayed. When Auto Line-Rate Enable is on, the 720p, 1080i, and SDi buttons below are inactive.

Note If the incoming source is has a noisy signal, choosing the correct frame rate manually may provide better performance.

When Auto-Line Rate Enable is off, the conversion format for the currently selected input can be chosen from the labeled buttons in the right pane (**720p**, **1080i**, **SDi**).

Controls for Scale/Sync, Letterbox, Pillarbox, H-Center Cut and V-Center Cut are displayed, depending on the format selected. These controls are identical to those used for SetDef. The **Sync/Scale** button behaves the same as the SetDef **Scale** button, but also employs frame sync circuitry.

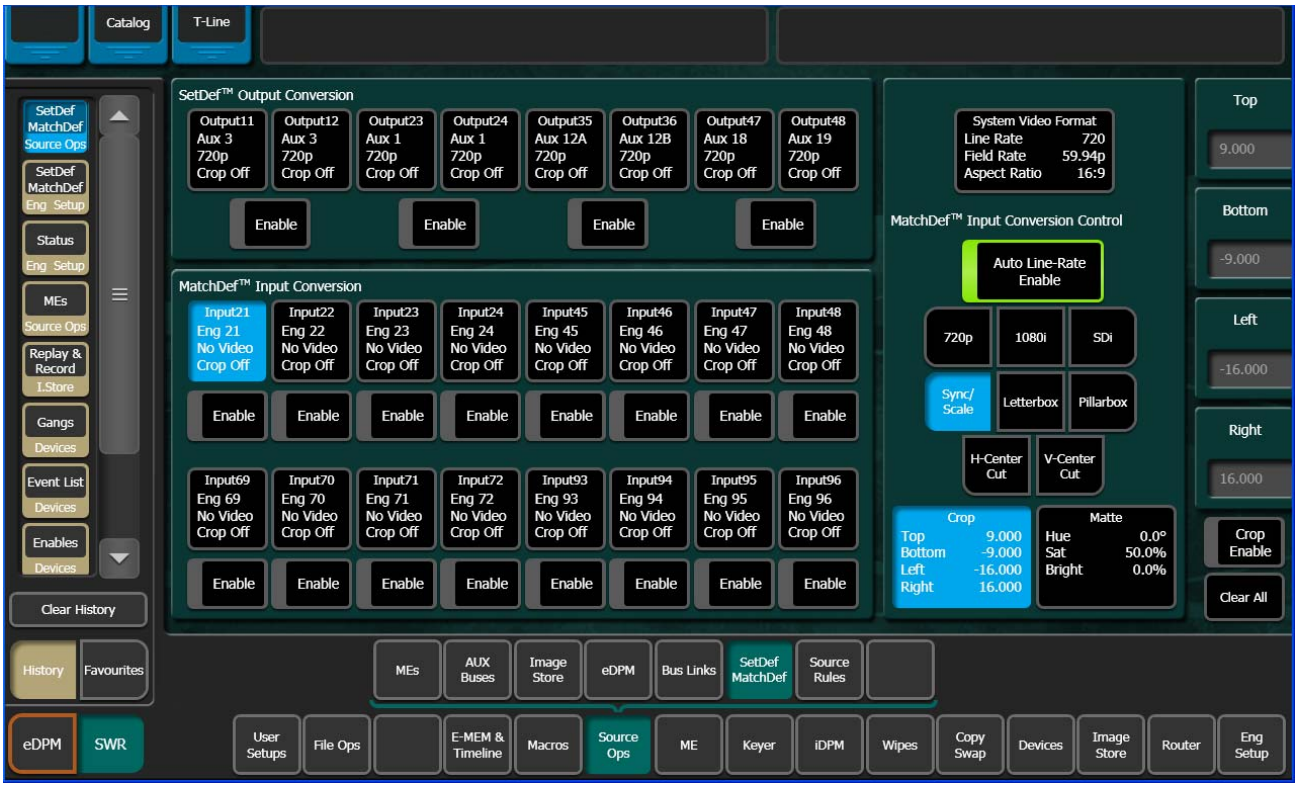
Crop and **Matte** controls are also available, which operate the same as for SetDef (see page 98).

E-MEM Control of SetDef MatchDef

New with Kayenne version 2.0, SetDef and MatchDef parameters can now be learned and recalled using E-MEM. An E-MEM learned with the SetDef and/or MatchDef sub-levels assigned means that the parameters set in the Source Ops, SetDef MatchDef menu will be recalled as part of that E-MEM (Figure 69).

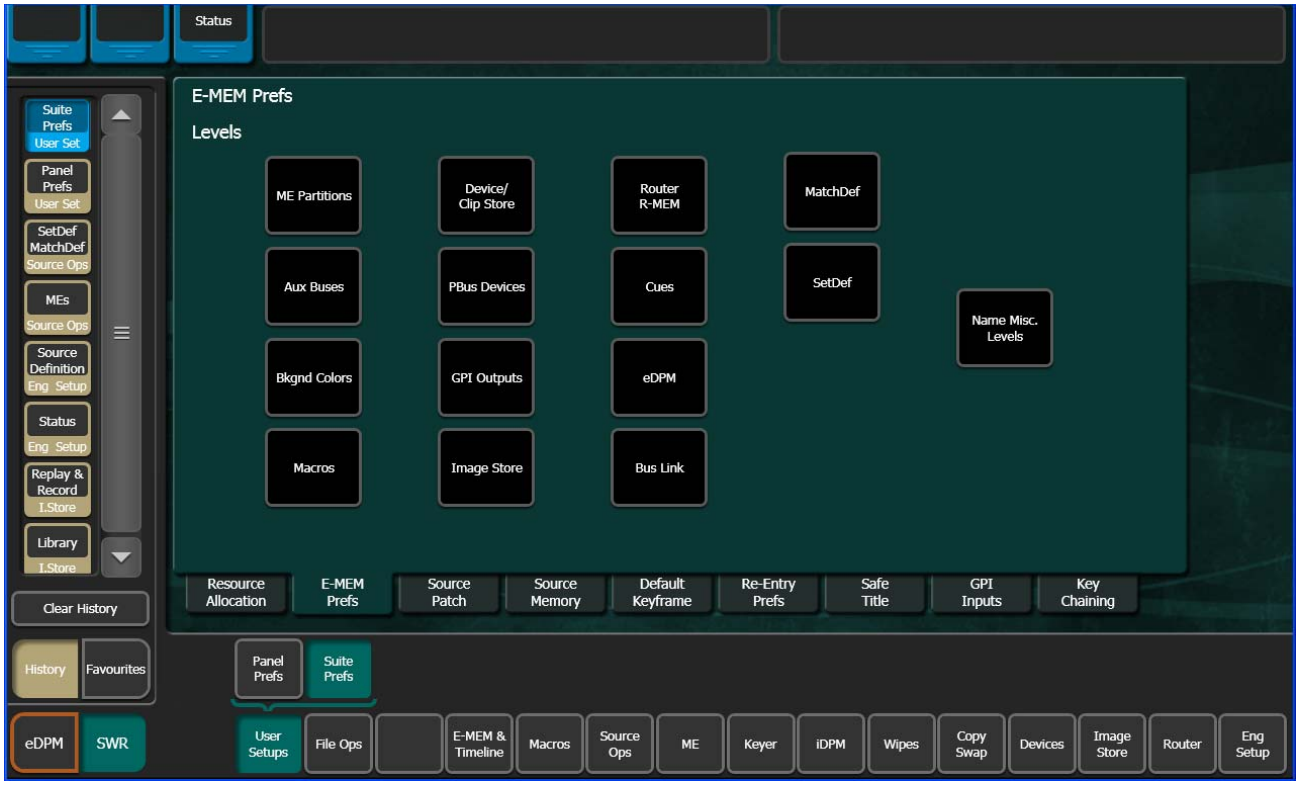
SetDef and MatchDef are E-MEMable but not keyframeable, therefore each will only be recalled on the first keyframe.

Figure 69. Source Ops, SetDef MatchDef Menu



SetDef and MatchDef sub-levels are selected from the User Setups, Suite Prefs, E-MEM Prefs menu (Figure 70).

Figure 70. E-MEM Prefs Menu



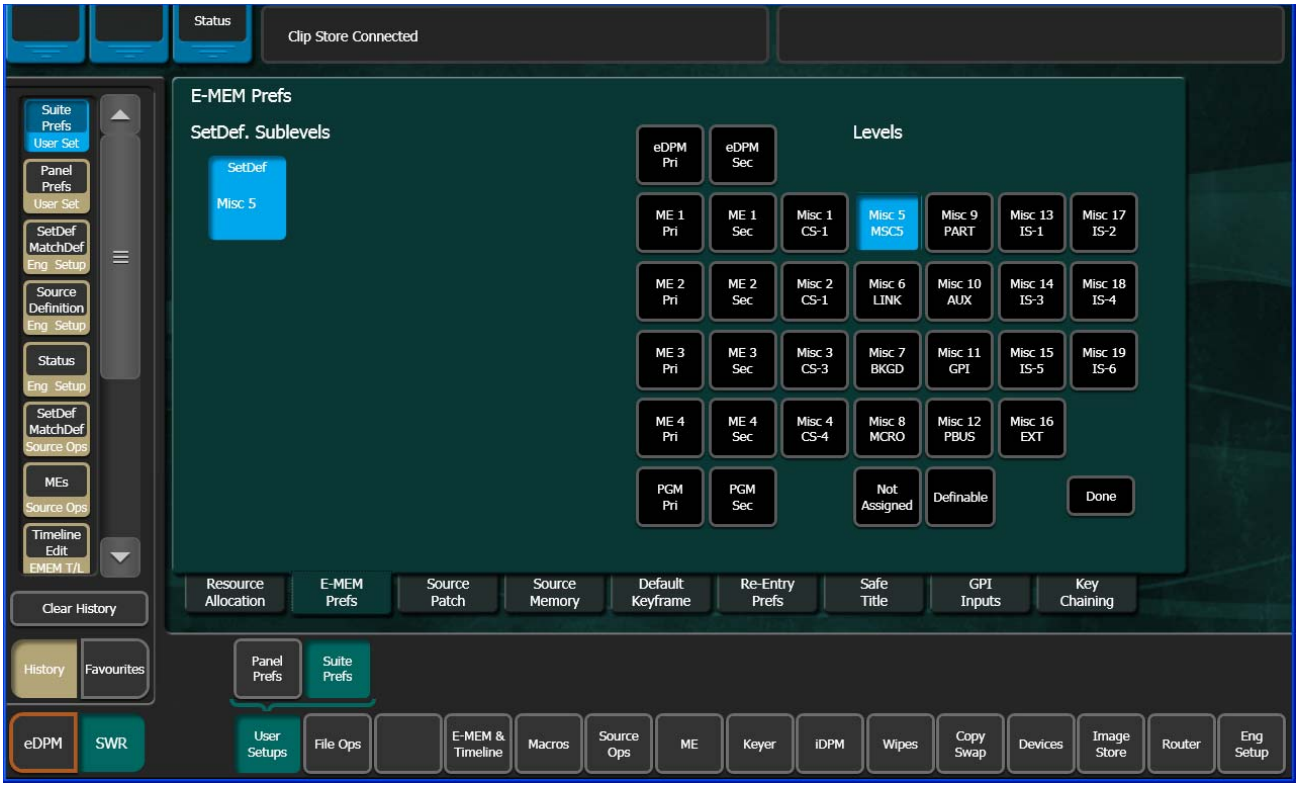
SetDef

There is one SetDef sub-level for Suite 1 and one for Suite 2; SetDef sub-levels can be assigned to any level. Parameters set and an E-MEM learned in Suite 1 will only recall the parameters set in Suite 1.

To assign the SetDef sub-level, touch the **SetDef** Level button (Figure 70).

The SetDef sub-level menu is displayed.

Figure 71. SetDef sub-level Menu



Touch the desired level to assign the SetDef sub-level or the **Definable** or **Not Assigned** buttons. Touch the Done button when finished.

For more information about assigning E-MEM sub-levels, see the *Kayenne User Manual*.

MatchDef

E-MEM learns all of the parameters for the MatchDef input conversion in the Source Ops, SetDef MatchDef menu. E-MEM control of MatchDef is limited to Suite 1 only.

1. To assign the MatchDef sub-level, touch the **MatchDef** Level button (Figure 70).

The MatchDef sub-level menu is displayed.

Figure 72. MatchDef Sub-level Menu

2. Touch the desired level to assign the MatchDef sub-level or the **Definable** or **Not Assigned** buttons. Touch the Done button when finished.

For more information about assigning E-MEM sub-levels, see the *Kayenne User Manual*.

E-MEM of Key Priority Transitions

New with Kayenne 2.0, Key Priority Transitions interpolate wipes and mixes as part of an E-MEM. For more information about Key Priority Transitions, see the *Kayenne User Manual*.

When creating a priority transition that will interpolate as part of an E-MEM, it will only transition correctly if the 'Next' Priority Stack on the initial keyframe is set to match the 'Current' Priority Stack of the subsequent keyframe.

Key Store Enhancements

For Kayenne 2.0, the following enhancements have been added to Key Store:

- Source Memory is always on.
- Source Memory for each Key Store—Keyer mode and settings for the last use of the Key Store will be recalled.
- Key is black upon reset—If there is not a Key Store loaded, it will not be placed on-air.

Key Store Operations

Each full keyer can store two frames of memory; each frame containing both Keyer Video (fill) and Key (cut), that together create the Key Store.

Each Key Store can save the use of other switcher resources. For example instead of using an Image Store channel or another keyer, you could store a station ID or a replay graphic (still) for a sports show in a Key Store and switch the image within the keyer.

In the Keyer, Key Store menu (Figure 73), each Store has two frames, Frame Store 1 and Frame Store 2. Each can 'Grab', 'Store', and 'Use' a still image for a key source. So in addition to Live video, you now have up to two fill/cut images that can be interchanged on any full keyer source.

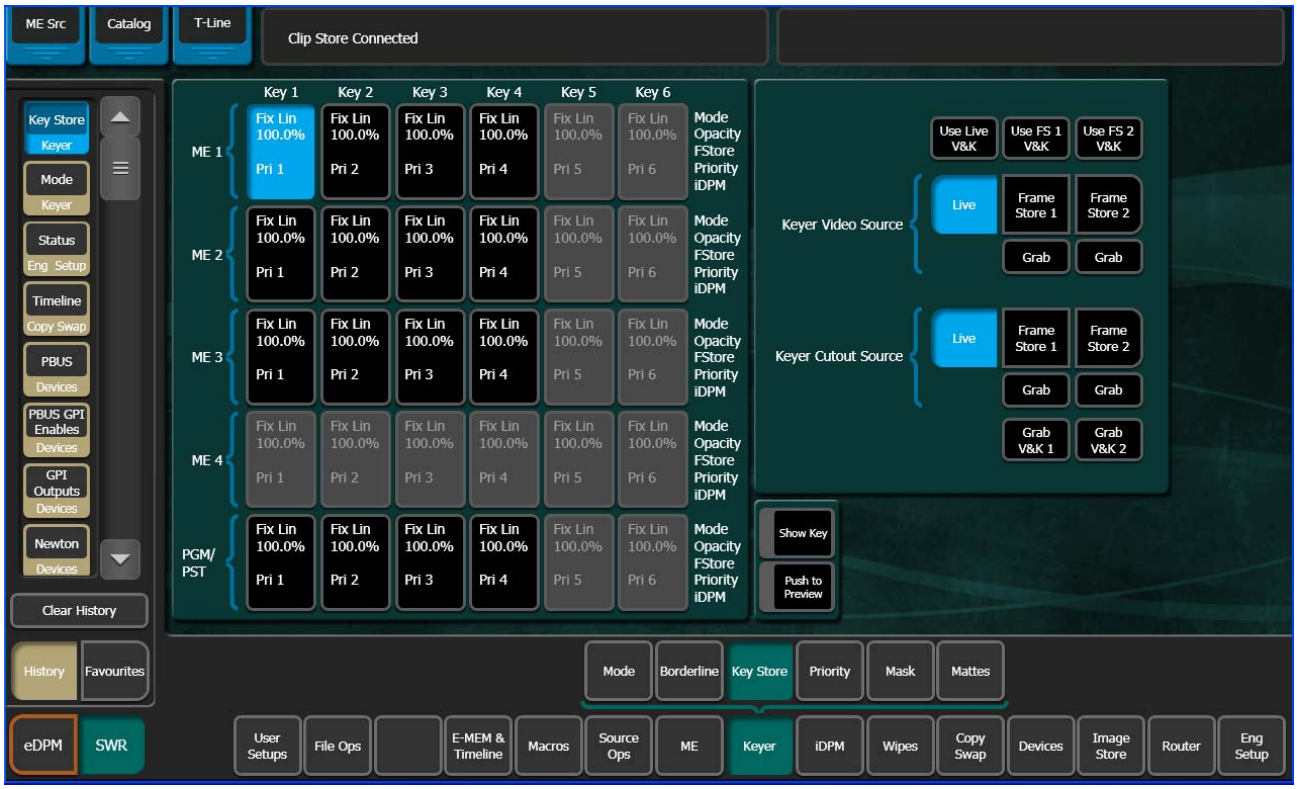
The fill and cut from Live, and Frame Store 1 and Frame Store 2 pages can be used in any combination, for example you can use the fill from Keyer Video Source, Frame Store 1 with the cut from Keyer Cutout Source, Frame Store 2. You can even use the Live video from the Keyer Video Source and the cut from Keyer Cutout Source, Frame Store 1.

Each Key Store has source memory in addition to the source memory settings in Suite Prefs.

On power cycle or reboot, Key Stores will have to be reloaded with the correct video. They default to black keyed with black which will not show up on a monitor.

Key Store is E-MEMable and keyframeable.

Figure 73. Key Store Menu



Grabbing and Using a Key Store Image

The keyer settings are defined in the Eng Setup, Source Definition menu (see the *Kayenne User Manual* for more information). For example, setting the key to Linear and Shaped Video. You will need this information when creating a Key Store.

Note If not defined, the key will be full raster white.

You can 'Grab' both a video and key frame simultaneously by touching either the **Grab V&K 1** or **Grab V&K 2** button, located below each Frame Store page, or you can touch a **Grab** button for any of the four Video/Cutout Frame Stores (Figure 73).

Once you have grabbed fill and key images in Key Store, you can 'use' them for the selected key source:

1. Touch the full keyer with which you want to use Key Store (Figure 73, left).
2. Touch either the **Use Live V&K**, **Use FS 1 V&K**, or **Use FS2 V&K** to select the Video and Key source image (Figure 73), or
   a. Touch the Keyer Video Source you want as fill.
   b. Touch the Keyer Cutout Source you want as the key cut.

Show Key button—Shows the cut signal for the selected Key Store source.

Push to Preview button—Shows the current Key Store image on Preview.

Macros Attached to Buttons without Colors

Macro attachments to buttons without colors, do not appear to flash when Pre-/Post-Attached macros are attached. To verify that a macro is or is not attached, see the Macros, Attach menu.

Satellite Panel Installation

Two Satellite Panel enclosures are available, into which standard Kayenne Control Panel modules can be inserted.

Kayenne Satellite Panels can operate with standard full size modules (Transition, Device Control, Master EMEM, and Multi-Function Modules). Satellite Panels do not support Local EMEM, Source Select, Local Aux, or System Bar Modules

Single Module Satellite Panel

Figure 74. Single Module Satellite Panel Installation Dimensions

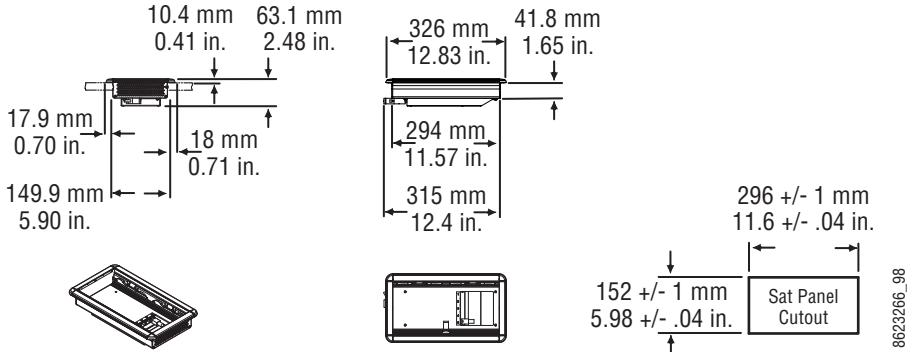
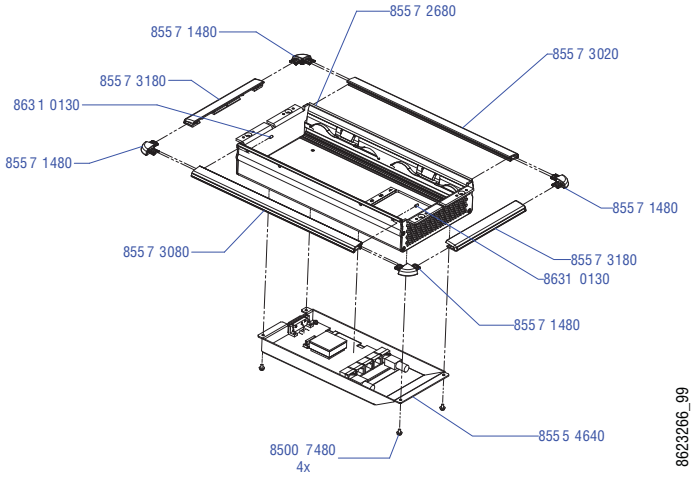


Figure 75. Single Module Satellite Panel Tray and Trim



Double Module Satellite Panel

Figure 76. Double Module Satellite Panel Installation Dimensions

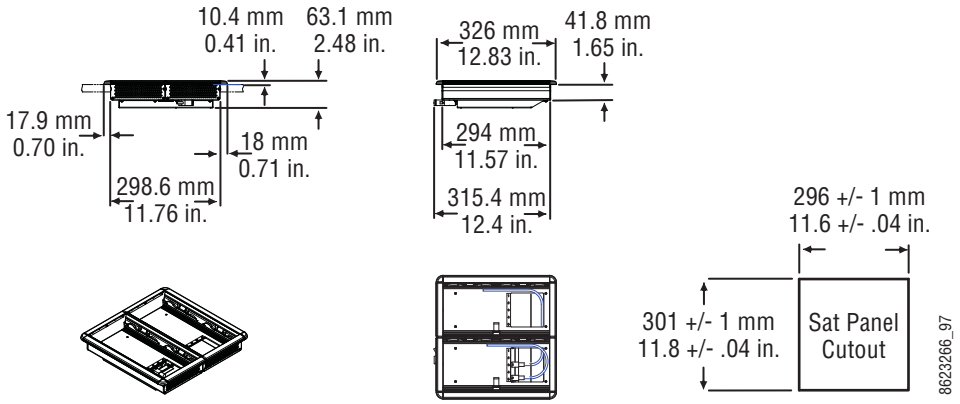
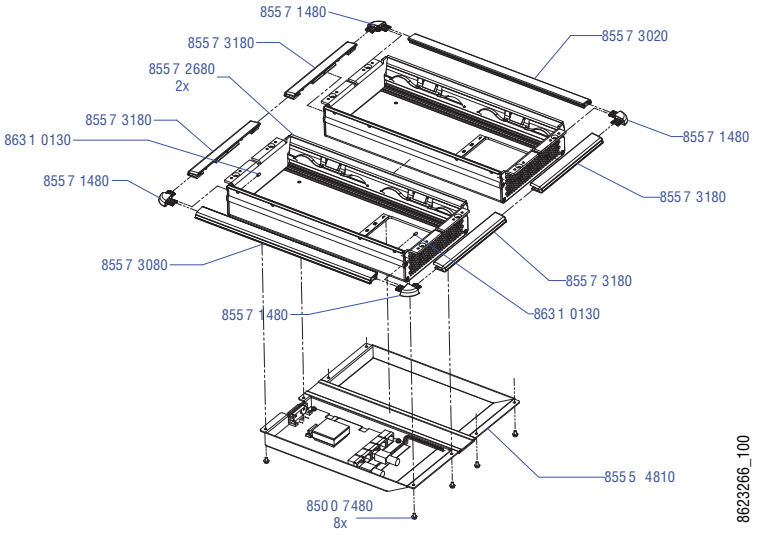


Figure 77. Double Module Satellite Panel Tray and Trim



Satellite Panel Cabling

PCU Cabling

CAUTION Do not connect or disconnect multi-pin PCU cables while the PCU is powered up. Damage to the Kayenne equipment can result.

Each Satellite Panel has a standard multi-pin cable for connection to the PCU. Modules independent of a particular Stripe (for example Device Control or Master E-MEM modules) can use any available PCU connector.

Modules to be associated with a particular Stripe (like a Transition Module) must be connected to the next higher PCU port for that Stripe. For example, if you wish to use a Transition Module with ME 4 that uses PCU Port 4, plug the Satellite Panel into PCU Port 5, and move the Local Aux Stripe connector (if used) to PCU Port 6.

Internal Cabling

CAUTION The RJ-45 connectors inside the Satellite Panel trays are used for proprietary communications only. Ethernet devices may be damaged if plugged into these connectors.

The Single Module Satellite Panel has internal module cabling the same as the other Stripes. Simply plug the module into a port using the provided cable.

The Double Module Satellite Panel has a similar internal cabling arrangement, but one cable passes through a hole to the other tray.

Setting the Summit/Solo IP Address

For more information, see the Summit/Solo manuals packaged with the system.

Remote Desktop Connection

To create a Remote Desktop Connection with the Summit/Solo, perform the following:

1. Minimize the Kayenne Menu on the Menu Panel (or PC).
2. Beginning with the Start button in Windows XP, touch **Start**, **Programs**, **Accessories**, **Remote Desktop Connection**.
3. Enter the current IP Address for the Summit/Solo server. (default IP Address: 192.168.0.180) in the Remote Desktop Connection dialog.
4. Touch **Connect**.
5. Enter the following in the Log On to Windows dialog:

- Login: **administration**
- Password: **adminK2**, touch enter.

The Elite AppCenter application window is displayed.

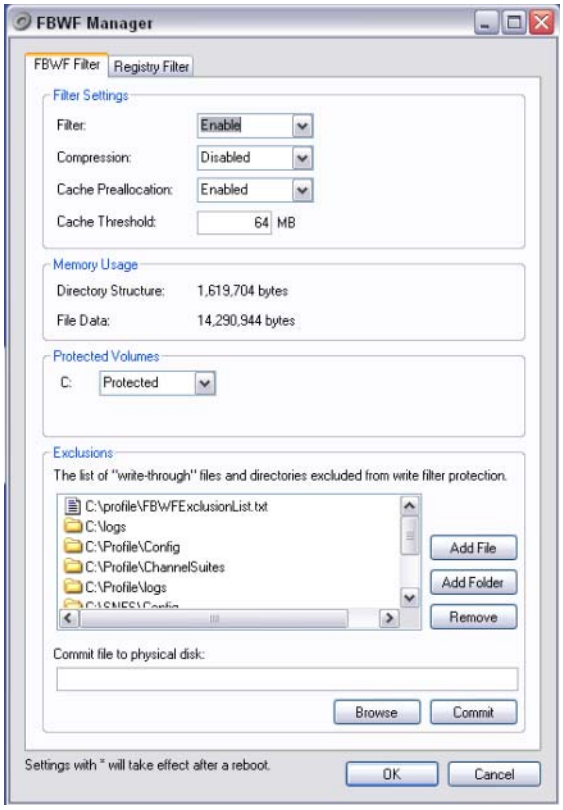
Changing the Summit/Solo IP Address

To change the Summit IP Address, perform the following:

1. Disable the FBWF (File Based Write Filter)
   a. Click on the **Start** menu and navigate to **All Programs**, **Grass Valley**.
   b. Click on **Write Filter Utility** (top of list).

   The FBWF Manager is displayed (Figure 78).

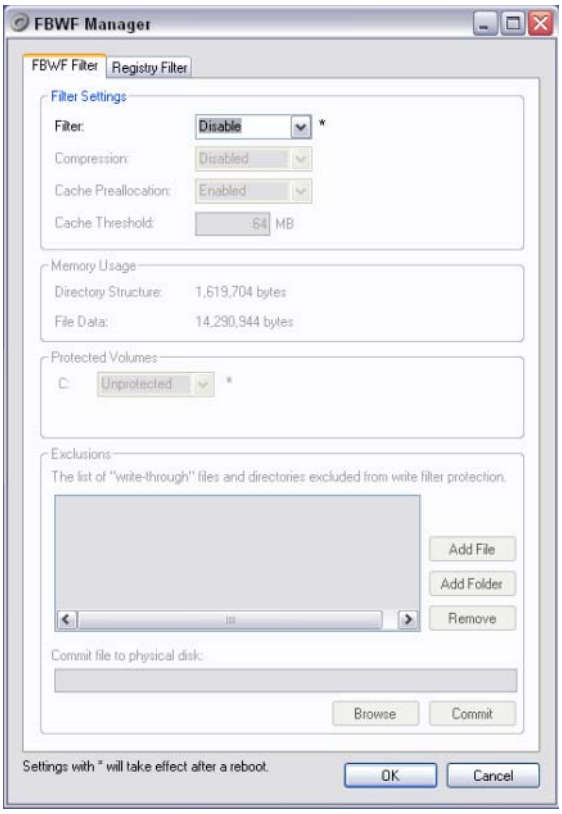
Figure 78. FBWF Manager



c. Under Filter Settings (Figure 79) click on the **Filter:** pull-down menu and click **Disable** (Enabled is the default).

An asterisk (*) will appear next to 'Disable' that indicates the system must be rebooted to implement the configuration change (Figure 79).

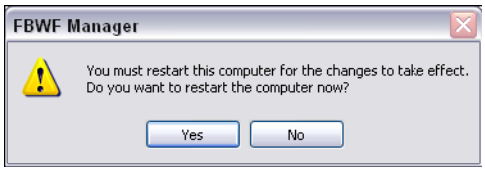
Figure 79. Disable/Enable Filter Settings



d. Click **OK**.

e. At the reboot prompt, click **Yes** (Figure 80).

Figure 80. Reboot Prompt



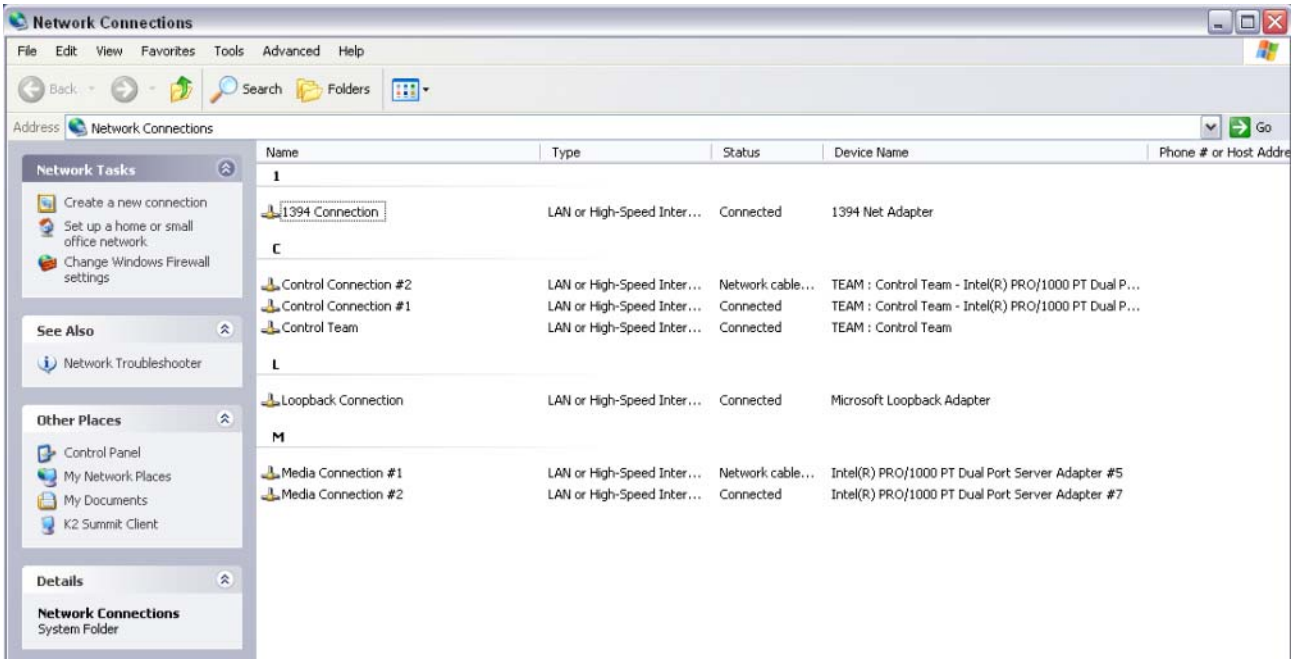
2. Once the server has rebooted, enter your login and password.

3. Right-click on **Network Places**.

4. Click **Properties**.

5. Right-click on **Control Team** (Figure 81).

Figure 81. Network Connections—Control Team



6. Click **Properties**.

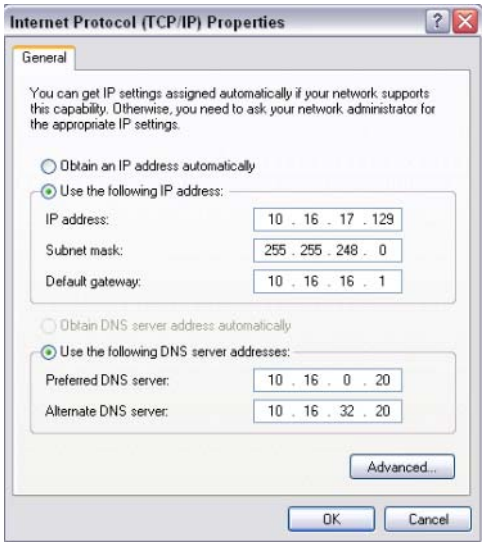
7. Scroll down to "Internet Protocol (TCP/IP)" and click to highlight it (Figure 82).

Figure 82. Control Team Properties—TCP/IP Disable/Enable Filter Settings

8. Click **Properties**.

   The TCP/IP Properties Dialog is displayed (Figure 83).

Figure 83. TCP/IP—Enter IP Address



9. Enter the desired IP Address (Figure 83), and click **OK**.

   The Subnet mask will be filled in automatically.

10. Click **OK**.

Enable the FBWF

1. Enable the FBWF (File Based Write Filter), see *Setting the IP Address* *on page 17*, Step 1.
2. Reboot the ClipStore Summit/Solo server.

Kayenne Software Update

Introduction

Kayenne systems are shipped with the current software version installed. Updates to Kayenne system software are available for download from the Grass Valley website. Software installation tools are provided with each update package.

The Kayenne Deployment Tool extracts and copies Kayenne system files to a Kayenne Menu Panel or PC. These files include the Kayenne Installer Program.

The Kayenne Installer Program is used to install the extracted software to Kayenne Video Processor Frame(s) and Kayenne Control Panel(s) over the network. The Kayenne Installer Program also launches other installation tools (wizards). One wizard installs the Kayenne Menu application directly on the Menu Panel or PC running the installer program. If multiple Kayenne Menu Panels (or PCs running the Kayenne Menu application) exist, each must be updated individually. Other wizards can be launched for the Macro Editor and NetConfig features.

Note When updating the Kayenne Control Panel from a version earlier than 1.5.2, the software must be installed twice to completely update the system.

Materials Required

You will need the following materials for this update:

- Kayenne version 2.0 Software (which can be downloaded from the Grass Valley Customer Support website and copied to a USB stick),
- Backup media for configuration and effects files,
- USB mouse and keyboard, and
- Kayenne Menu Panel, or user PC, properly configured on the Kayenne system network.

Software Update Procedure

This software update procedure assumes your Kayenne system is fully operational with all network communications properly configured. Refer to the *Kayenne Installation and Service Manual* for configuration instructions.

Backup 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 *Kayenne Installation and Service Manual* for file operations instructions.

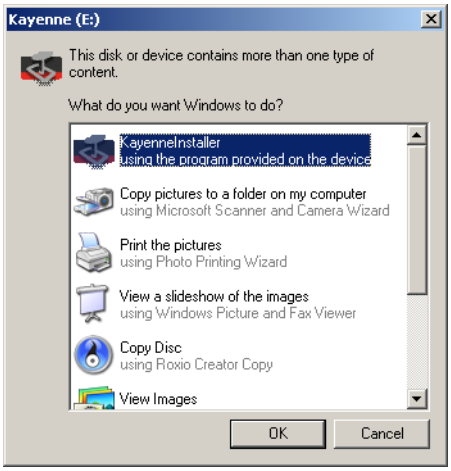
Note A convenient location to save these backup files is on the USB stick of the software version that created the files (the older Kayenne software being updated). Create a new folder on that older Kayenne software USB stick for the file and name the Show file with the current date.

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 Kayenne Update Package Files and Installer

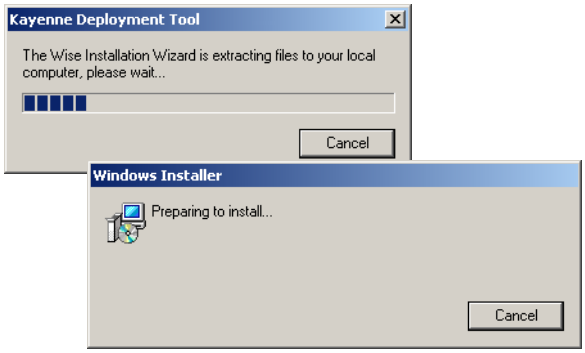
1. Exit the Kayenne Menu application and any other applications, that may be running on the Kayenne Menu Panel or PC.
2. Disable any virus protection, Windows firewall, and any other firewall protections that may have been installed on the Kayenne Menu Panel or PC. Firewalls must be inactive to allow Kayenne system software installation over the network.
3. Insert the Kayenne Software USB stick into an available port on the Kayenne Menu Panel or PC. A pane will open (Figure 84).

Figure 84. Inserted USB Stick Message



4. Choose **KayenneInstaller** and click **OK**. Screens will appear as the files are extracted and the Kayenne Deployment Tool is installed (Figure 85).

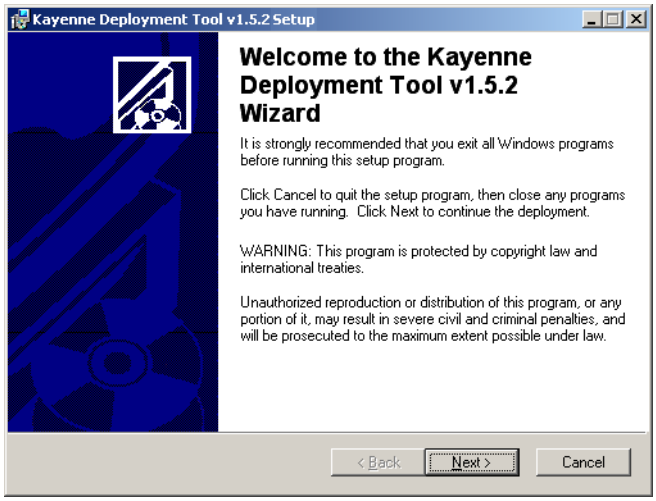
Figure 85. File Extraction Screens



Note If the same Kayenne Deployment Tool version files are detected, a Repair/Remove screen is displayed, allowing re-installation or removal of the Deployment files.

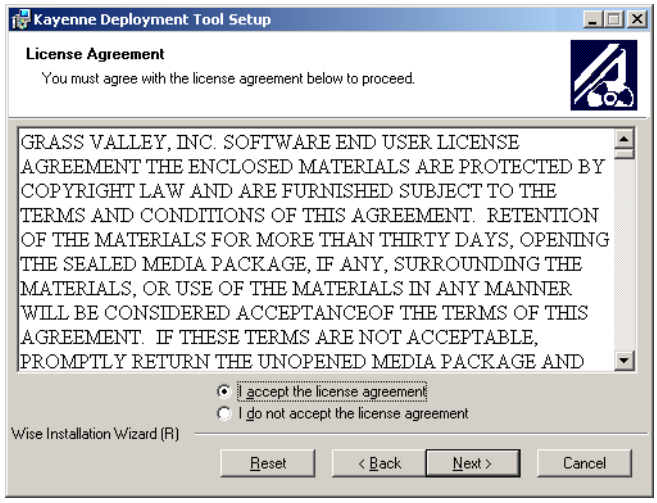
5. The Kayenne Deployment Tool will then launch (Figure 86).

Figure 86. Kayenne Deployment Tool Initial Screen



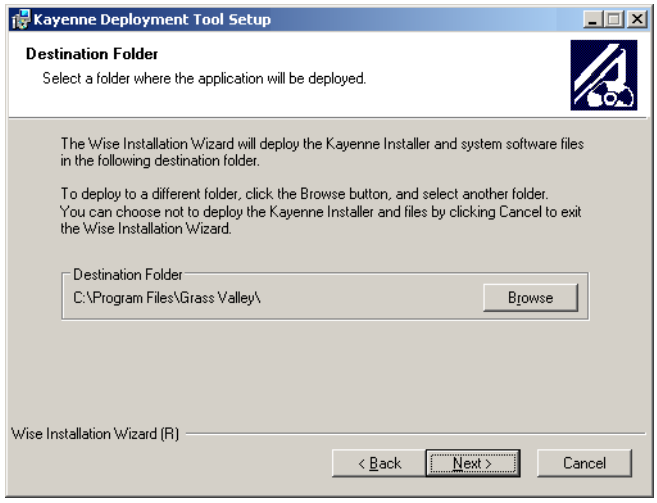
6. Click **Next**. The License Agreement screen appears (Figure 87).

Figure 87. Kayenne License Agreement



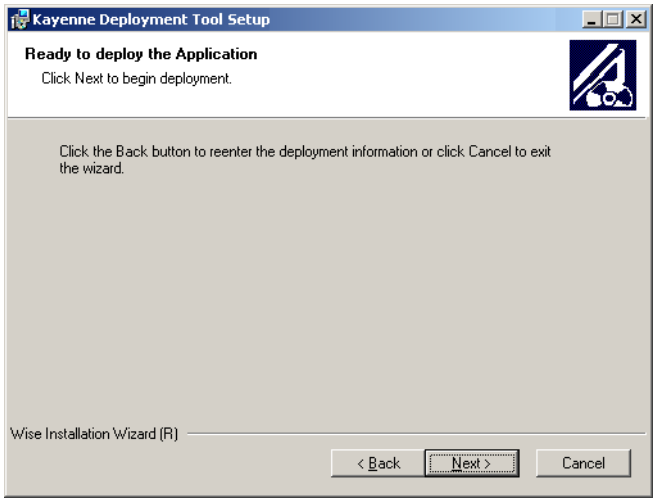
7. Accept the license and click **Next**. The Destination Folder screen appears (Figure 88).

Figure 88. Kayenne Deployment Destination Folder



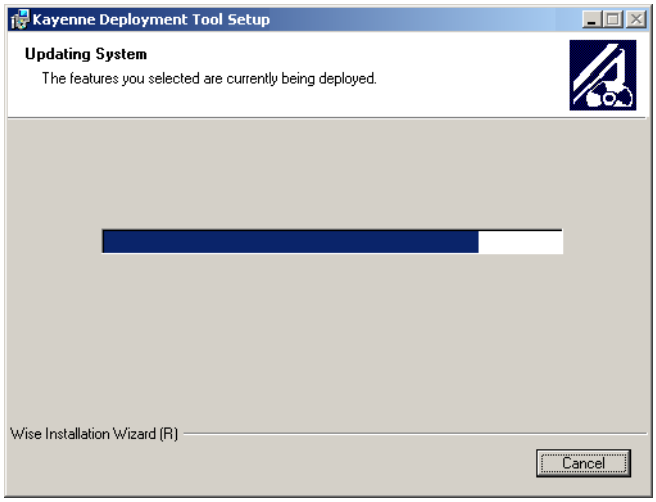
8. Click **Next** to accept the default deploy location. Alternatively, you can Browse to a different location to deploy the files to. The Ready to Deploy Screen appears next (Figure 89).

Figure 89. Ready to Deploy Screen



9. Click **Next** to deploy the files. A progress bar will be displayed (Figure 90).

Figure 90. Kayenne Deployment Update Status Screen



10. When the deployment completes the Kayenne Installer program will launch automatically (Figure 92).

After the Kayenne files have been deployed, the Kayenne Installer Program can be launched at any time by clicking on its desktop icon (Figure 91).

Figure 91. Installer Icon

Kayenne Installer Program Description

Figure 92. Kayenne Installer Program Initial Screen

The Kayenne Installer Program initial screen has buttons on the left used to select various installers (**System**, **Menu**, **Macro Editor**, **NetConfig**).

The **Exit** button at the bottom left closes the Kayenne Installer Program.

When **System** is selected, a screen appears with a central hierarchy display, information on the upper right, and function buttons on the lower right (Figure 93 on page 120). The hierarchy starts with the name of the Kayenne system, and groups that system's Video Processor Frame with the PCU (Control Panels) configured with that Frame. The Kayenne system name is taken from the Video Processor Frame name. This hierarchy allows easy identification of each Kayenne system when multiple systems reside on the same network.

The Kayenne System Installer application has the following other features, accessed by clicking on its labeled button:

Rescan - Re-scans the network for Kayenne 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 Kayenne Installer version.

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

Set Server - (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.

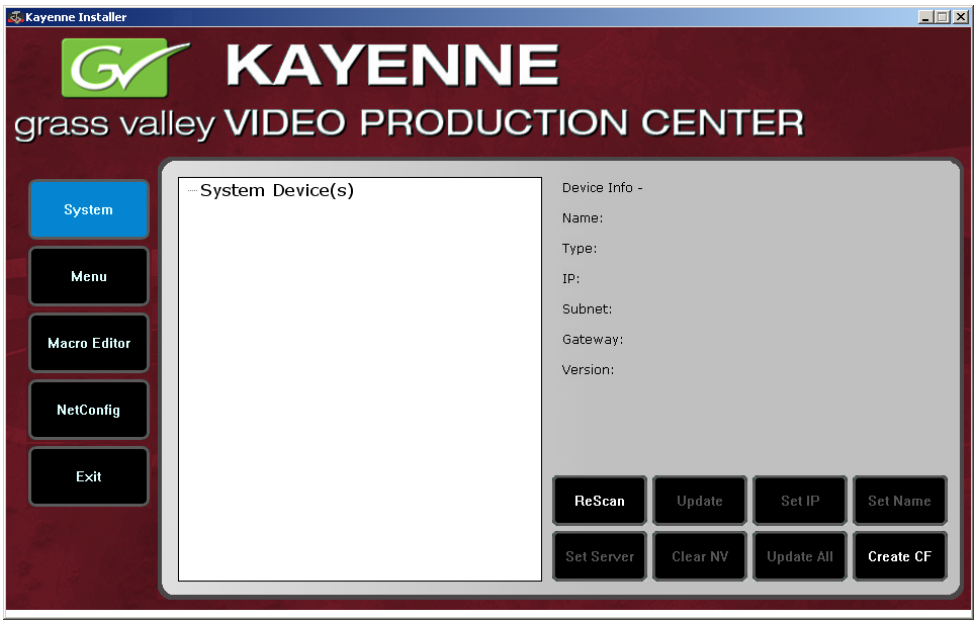
Create CF - Allows the duplication of a Frame or Control Panel Compact Flash Card onto another CF Card.

System Update (Video Processor Frame & Control Panels)

Note Kayenne 1.5.2 Control Panel software must be installed twice to completely update the system. This one-time-only extra install is required to support new Control Panel FPGA code.

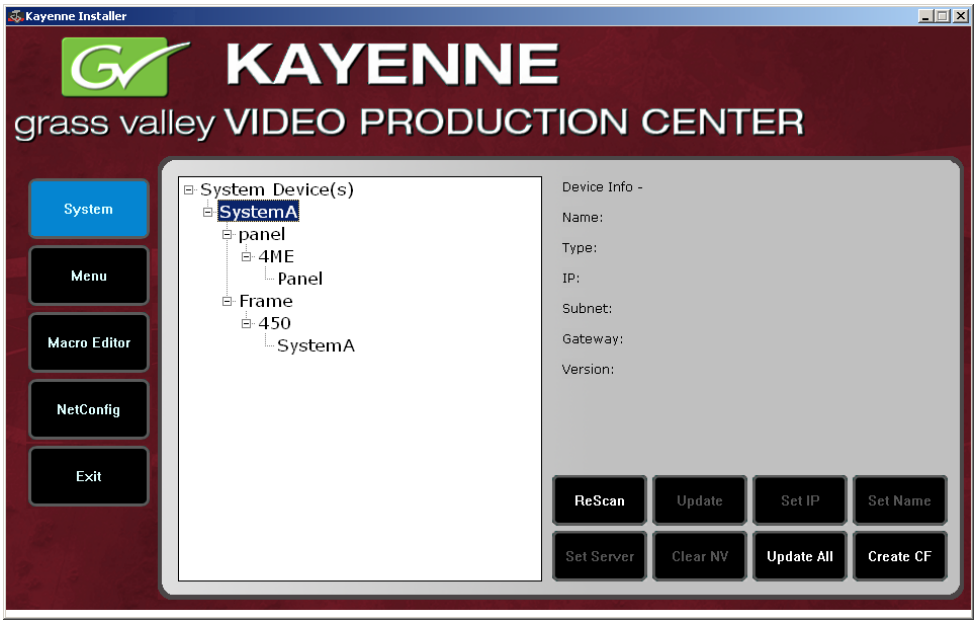
1. With the Kayenne Installer Program launched, click on the **System** button. A screen appears with a central hierarchy display, information on the upper right, and function buttons on the lower right (Figure 93).

Figure 93. Kayenne Installer, System Button Selected



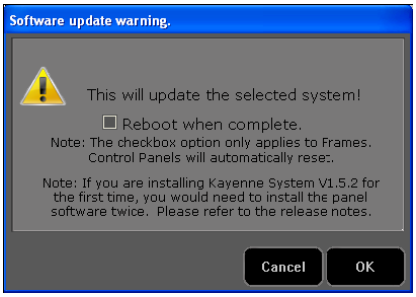
2. Each Kayenne system consists of a Video Processor Frame and associated PCU(s) (Control Panels). Use the mouse to navigate to the desired system (not an individual Frame or Panel). When a system has been selected the **Update All** button becomes active (Figure 94).

Figure 94. Kayenne Installer, Kayenne System Chosen



3. Click **Update All**. The following reboot message appears (Figure 95).

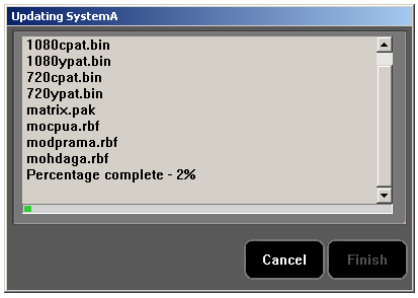
Figure 95. Kayenne Installer, Reboot Screen



4. If the **Reboot when complete** box is filled, the Video Processor Frame and all associated Control Panels will automatically reboot after the software update. If the box is not filled, you will need to manually reboot the Video Processor Frame after the software files have finished being transferred to them. Control Panels are always rebooted after a software update.

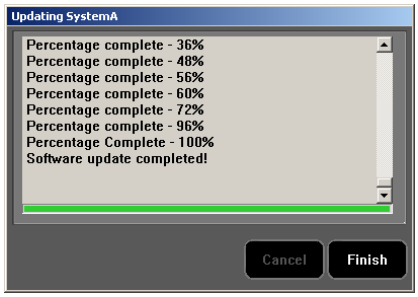
5. Click **OK**. The screen will report the progress of the update (Figure 96).

Figure 96. Kayenne Installer, Update Progress



6. When the update completes, and the Kayenne components reboot, a Finish screen appears (Figure 97). The Kayenne Control Panel and Video Processor Frame will be operational with the new software.

Figure 97. Kayenne Installer, Update Finished



7. Click **Finish** to exit the screen.

Kayenne Menu Panel Application Installation/Update

The Kayenne Deployment Tool must be run on each Menu Panel or PC onto which you will be installing the Kayenne Menu Panel application. See *Deploy Kayenne Update Package Files and Installer* *on page 115*.

CAUTION For Menu on PC, you must be logged on as administrator or the installation will fail.

Figure 98. Installer Icon

1. Click on the Kayenne Installer desktop icon (Figure 98), if necessary, to launch the Kayenne Installer Program (Figure 99).

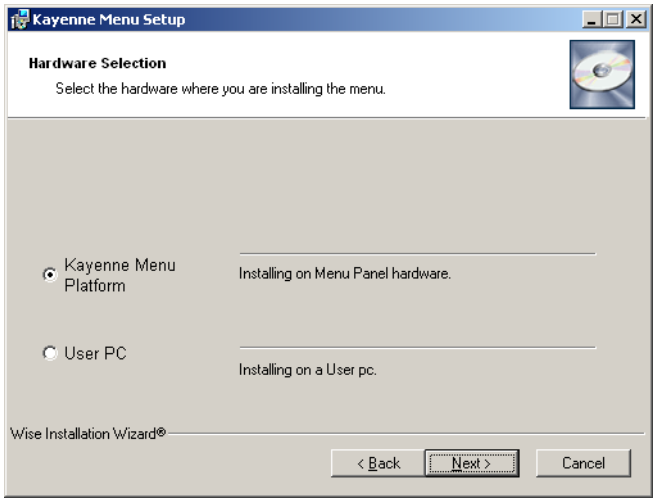
Figure 99. Kayenne Installer Program Initial Screen

2. Click the **Menu** button. The Kayenne Menu Installation Wizard installation tool will launch (Figure 100).

Figure 100. Kayenne Menu Installer

3. Click **Next**. The Hardware Selection screen appears (Figure 101).

Figure 101. Kayenne Menu Installer, Hardware Selection

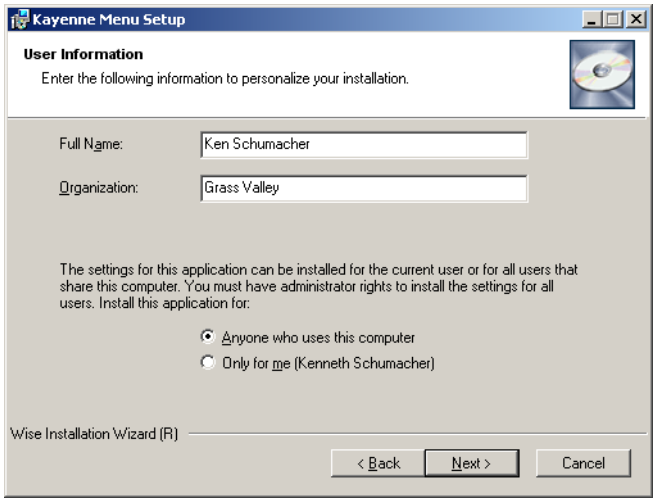


4. Choose either **Kayenne Menu Platform** (the Kayenne Touch Screen Menu Panel), or **User PC**, as appropriate, and click **Next**.

Note The first-time installation of the Kayenne Menu application onto a user PC may require installing Windows .NET Framework software. See *First Time Kayenne Menu on PC Installation* *on page 128* for more information.

5. The User Information screen appears next (Figure 102).

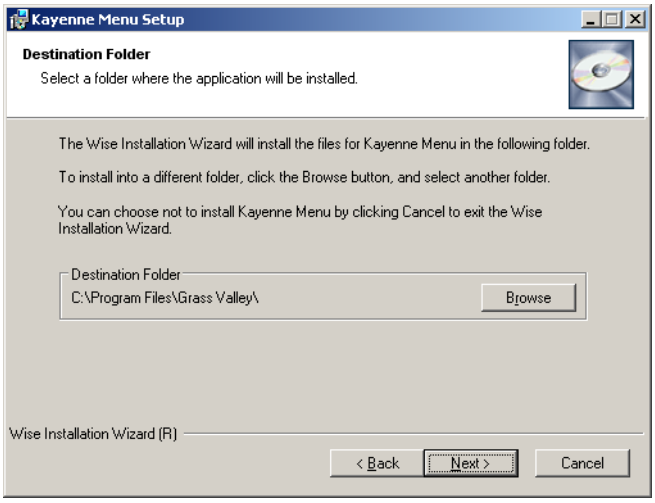
Figure 102. Kayenne Menu Installer, User Information



6. Enter a name and organization, leave the **Anyone who uses this computer** setting selected, and click **Next**. The Destination Folder screen appears next (Figure 103).

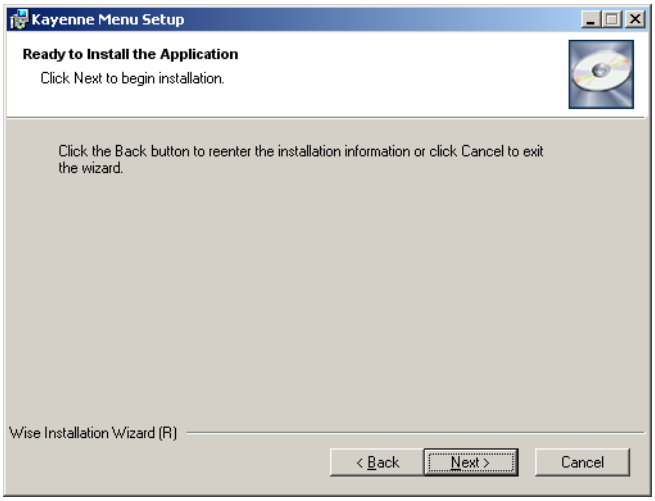
Note Selecting **Only for me** limits some settings to the currently logged in user. This may be appropriate if the Kayenne Menu application is installed onto a PC shared by several users. However, this is not a fool-proof security method and should not be relied on for mission-critical applications.

Figure 103. Kayenne Menu Installer, Destination Folder



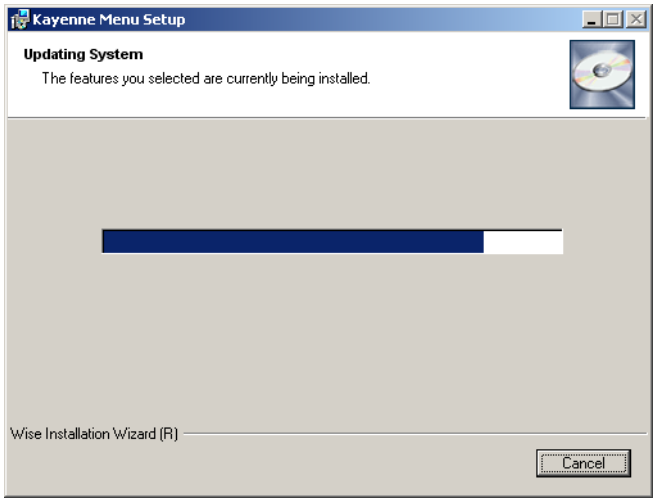
7. Click **Next** to accept the default installation location. Alternatively, you can Browse to a different location to install the application. The Ready to Install Screen appears next (Figure 104).

Figure 104. Kayenne Menu Installer, Ready to Install



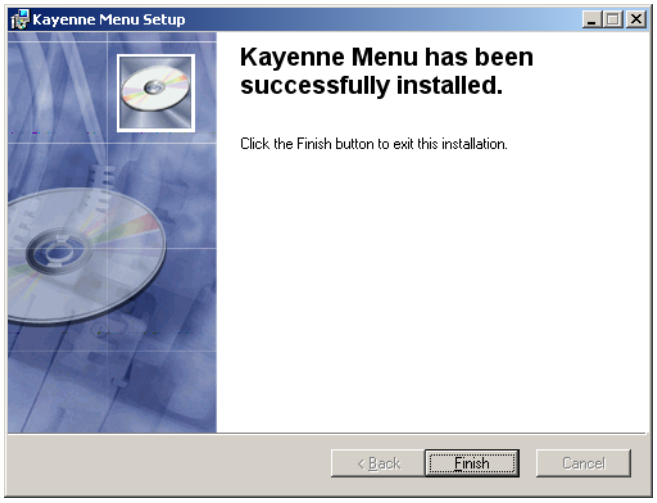
8. Click **Next** to install the application. A progress bar will be displayed (Figure 105).

Figure 105. Kayenne Menu Installer, Update Status Screen



9. When done, the Menu Successfully Installed screen appears (Figure 106).

Figure 106. Kayenne Menu Installer Success



10. Click **Finish** to exit the Kayenne Menu Installer tool.

11. Click **Exit** and answer **Yes** to the prompt to exit the Kayenne Installer.

Figure 107. Kayenne Menu Icon

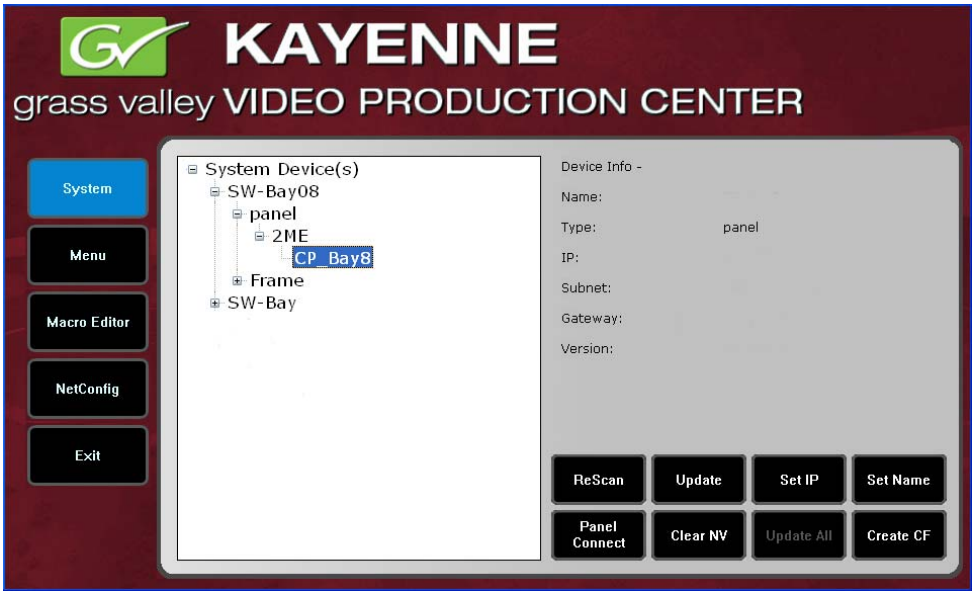
Clicking on the Kayenne Menu icon (Figure 107) now launches the new version of the Kayenne Menu Panel application.

Clear NV RAM for Control Panel and Frame

It is recommended that the NV RAM for the Kayenne Control Panel and Frame be cleared after a software update.

From the Kayenne Installer menu, touch the **System** button and touch the device to be cleared. Touch the **Clear NV** button (Figure 108). Repeat for Control Panel and Frame.

Figure 108. Kayenne Installer Program Clear NV



Calibrate the Lever Arm and Joystick

It is recommended that the Lever Arm (for each Transition Module) and Joystick be calibrated after a software update.

Lever Arm Calibration (Transition Modules)

To calibrate a Lever Arm, press and hold down the two left (**Exchange ME**/**Ptn Limit**) and two right (**EMEM Run**/**Trans Rate**) buttons located just above the Lever Arm. Follow the instructions on the Transition Module status display.

JoyStick Calibration (Multi-Function Module)

To calibrate the Joystick on the Multi-Function Module, from Home, press **Panl**, **Cali** and follow the instructions on the status display.

Update Additional Kayenne Menu Panels or PCs

Follow the procedure above on every Kayenne Menu Panel and PC running the Kayenne Menu Panel application that operates with the updated Kayenne Video Processor Frame.

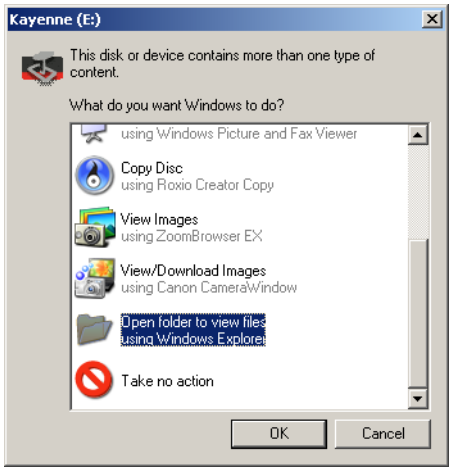
Note A new Kayenne Menu Panel or PC that has not been used with the Kayenne system will need to be configured as a Kayenne Node before it can operate with a Kayenne system. See the *Kayenne Installation and Service Manual* for specific instructions.

First Time Kayenne Menu on PC Installation

The Windows .NET Framework software is required for Kayenne Menu application operation. If the correct version of this software is not present on the PC, a message will be displayed indicating it must be installed. This framework software is included on the Kayenne Software USB stick, and in the Complete download version available on the Grass Valley website.

1. Insert the Kayenne Software USB stick into the PC's USB port.
2. Select **Open folder to view files** and click **OK**.

Figure 109. Inserted USB Stick Message



3. Open the **DotNet** folder, and run the dotnet.exe file. Files will be extracted to your PC and then the .NET Framework Setup application will run. Accept the license agreement and click **Install**.
4. When done, the message **Download complete. You can now disconnect from the Internet** will be displayed. Exit the .NET installer application and relaunch the Kayenne Installer Program.
5. You will now be able to install the Kayenne Menu application onto the PC (see *Kayenne Menu Panel Application Installation/Update* *on page 122*).

NetConfig and Newton Configurator Installation

Clicking on the **NetConfig** button launches an individual installer similar to the Kayenne Menu Panel installer. Both NetConfig and the Newton Configurator plug-in will be installed. Follow the directions displayed to install these applications onto that Kayenne Menu Panel or PC.

Note The Kayenne Installer Application and the separate NetConfig application cannot run simultaneously on the same Menu Panel or PC.

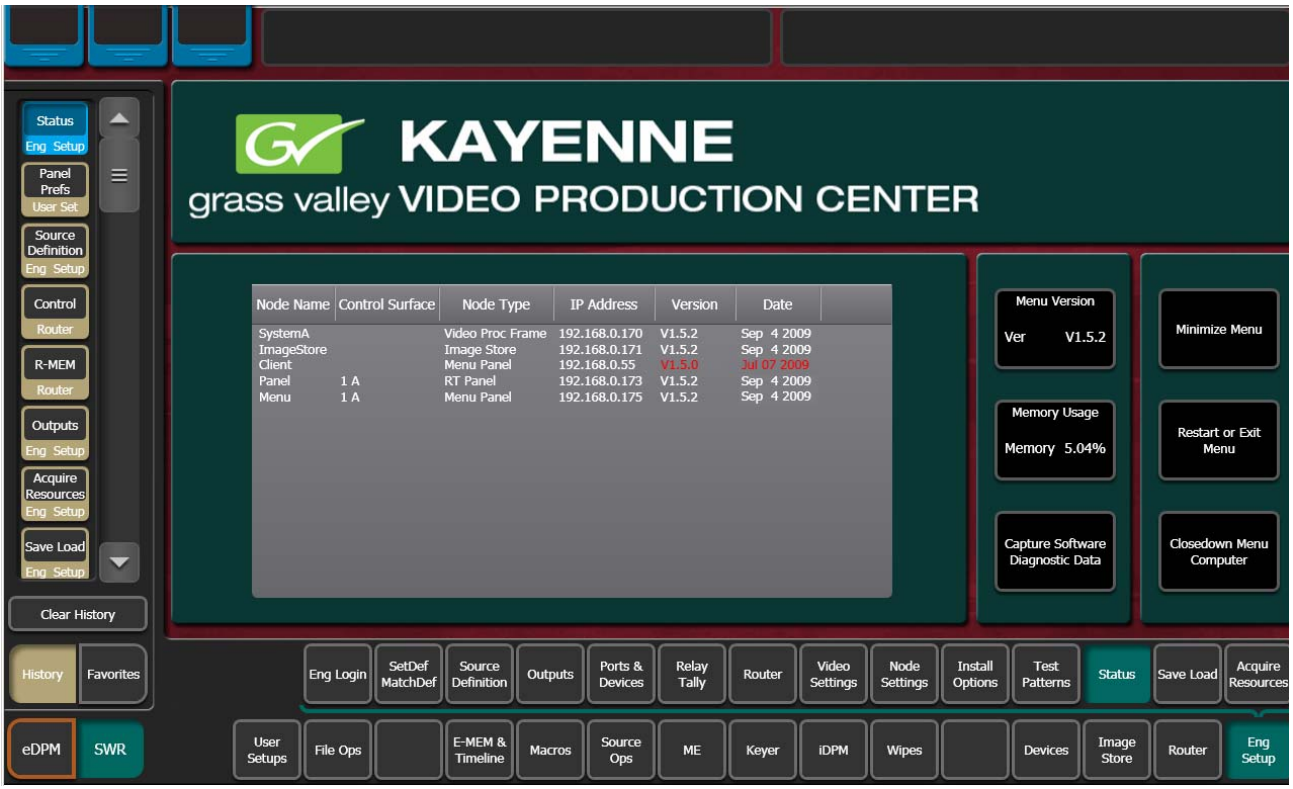
Macro Editor Installation

Clicking on the **Macro Editor** button launches an installer similar to the Kayenne Menu Panel installer. Follow the directions displayed to install this optional feature onto that Kayenne Menu Panel or PC.

Check Software Versions

Launch the Kayenne Menu application. The Status Menu will list the Kayenne system devices. Ensure all the components are running the same software version. Mismatched versions will be reported with red text (Figure 110).

Figure 110. Mismatched Software Versions



Confirm System Operation

1. Check that all the installed MEs are operational. Select different crosspoints on the Control Panel and fly a key with an iDPM.
2. Check 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.
4. Reload the Macros and check that they operate correctly.
5. Load some Image Store images and confirm they display correctly.

Backup 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 Kayenne 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 Kayenne system software update procedure.

Other Kayenne Systems Software Update

More than one Kayenne 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 Kayenne systems are updated using the same procedure described before.

1. Select the other Kayenne system on the Kayenne Installer Program System hierarchy screen, and choose **Update All**.
2. Insert the Kayenne System Software USB stick into each Kayenne Menu Panel or PC associated with that Kayenne system and choose the **Menu** software update button.

Individual Kayenne System Component Update

Individual components can be selected for update (just the Video Processor Frame, or just one Control Panel). However, all components of a Kayenne system must run the same software version. If updating components indi-

vidually, make sure they all are at the same version before resuming Kayenne system operation.

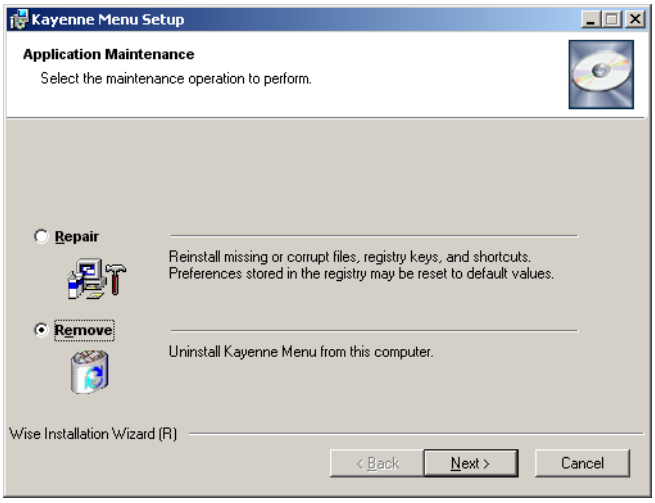
CAUTION Allow the Video Processor Frame to completely finish rebooting before attempting to install Control Panel software. The Control Panel update process requires the Frame to be operational.

Removing Kayenne Software

Kayenne Menu Panel Application Removal

Running the Kayenne Installer and clicking on the Menu button when that same version of Menu Panel software is already installed opens a Repair/Remove screen (Figure 111). Selecting **Remove** uninstalls the application from the Menu Panel or PC.

Figure 111. Kayenne Menu Panel Application Removal

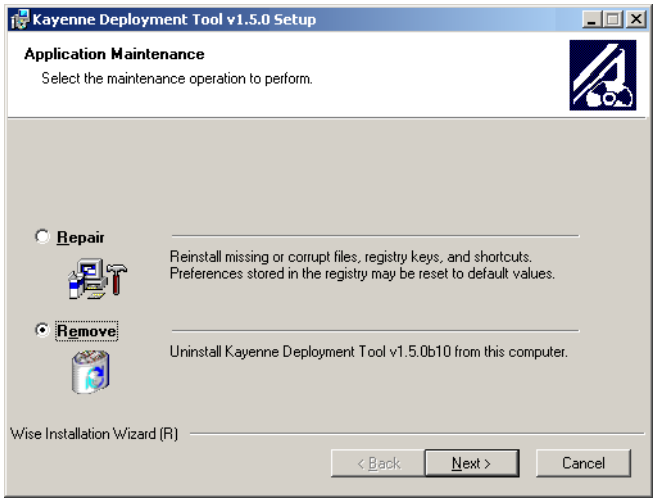


Kayenne Deployment Tool Files Removal

The Kayenne Deployment Tool package can be removed from the Menu Panel or PC by inserting a Kayenne Software USB stick containing the same

version package. A Repair/Remove menu appears, allowing reinstallation (repair) or removal of the deployment files (Figure 112).

Figure 112. Deployment Tool Removal



Deployment Archive Files

When new software versions are installed with the Kayenne Deployment tool, older version deployment files are not automatically removed. Each Kayenne 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 (default destination C:ProgramFiles/Grass Valley/Kayenne/KayenneSystem_Vx.x.x). Running the KayenneInstaller.exe file in any version's folder will permit installation of that version's Kayenne files.

CAUTION Before installing an older version of the Kayenne Menu Panel application, you must first un-install the newer, currently installed Kayenne Menu Panel version, either using that newer version's Kayenne Deploy Tool or Windows Add/Remove Programs. This also applies to Macro Editor installations.

Note All the components of a Kayenne 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 Kayenne Video Processor Frame, all Kayenne Control Panels, and all Kayenne Menu Panel applications used with that Kayenne system.

Removing Using the Windows OS

Kayenne Deployment Tool versions and Menu Panel programs can also be removed using standard Windows techniques (Setup/Add or Remove Programs).

Kayenne System IP Addresses

Default IP Addresses

Kayenne systems are shipped with default IP addresses (Table 1). These default addresses can be used if the Kayenne 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,

Table 1. Kayenne System Default IP Addresses

Device	IP Address
Video Processor Frame CPU	192.168.0.170
Image Store CPU	192.168.0.171
Control Panel Surface 1A	192.168.0.173
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
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 Kayenne 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 Kayenne network.
Video Processor Frame Gigabit Ethernet	**192.168.0.172**
PCU Panel Reserved LAN Port	**192.168.0.174**

New Single Control Surface Kayenne Systems

A new Kayenne 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 Kayenne system into an existing network, wish to use gateway communications, or wish to add more Kayenne control surface components, IP addresses may need to be changed.

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 Installation and Service Manual* for specific information about network configuration.