Kalypso

VIDEO PRODUCTION CENTER

Release Notes

SOFTWARE VERSION 12.0

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NOVEMBER 2005

the most watched worldwide

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Grass Valley Web Site

The www.thomsongrassvalley.com web site offers the following:

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 — Software updates, drivers, and patches can be downloaded.

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CAUTION The recommended Kalypso software update procedure has been changed. Kalypso system files must be saved, authorization code notated, NV Memory cleared, and the system files then must be reloaded. Carefully read the installation instructions and follow the procedures precisely.

Introduction

This document describes installation and other information specific to Kalypso Video Production Center Release 12.0 software. See page 57 for Kalypso system update instructions.

New Features in Release 12.0

- Timeline Recall/Run Menu (see page 9)
- Menu Register Operations (see page 11)
- Effect Duration (see page 15)
- Keyer Mask Menu (see page 20)
- File Operations Enhancements (see page 24)
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- Device Control for Routed Sources (page 49)
- AMP Ethernet Machine Control and Clip Directory (Option) (page 54)
- Transform Engine Path Controls are now available for Lighting.

Changes in Release 12.0

- On Kalypso HD systems, the single **Force SF** button on the Eng Setup Sync Timing menu has been replaced with two buttons, **Live SF** and **Non SF**. Selecting **Live SF** is the same as having the earlier **Force SF** button ON, and selecting **Non SF** is equivalent to having the **Force SF** button OFF.

- The NV Memory file name suffixes for Macro files have been changed from .gvg to .nva. This does not affect the Macro user files that are saved or loaded by the operator, which retain their .gvg suffix. This change may cause the loss of access to Macro files if the Kalypso system is backed down to a software version earlier than 12.0 if the user failed to save his Macro user files in either software version. Always save your system and user files before updating to new or backing down to earlier Kalypso system software.

Timeline - Recall/Run Menu

The Timeline - Recall Run menu brings E-MEM functions previously available only on the Main panel to the Menu panel. Recall, Run, Learn, Clear, and other related functions are accessible.

Figure 1. Timeline Menu - Recall Run

Register Status

The upper left pane shows the status of the current register. The number of the current register is shown, and whether the register is Locked or involved in an Effects Dissolve or Sequence.

Mode

The Mode pane selects which function will be performed with the other buttons on the menu (Recall, Learn, Learn Sequence).

Enable Groups

Like the Enable buttons on the Master E-MEM subpanel, the buttons in the Enable Groups pane determine what levels will be affected by the function activated (Get, Put, etc.).

Select All selects the remaining unselected buttons or deselects all the Enable buttons in the pane.

Bank and Register Selection

The Bank and Register buttons act similar to the Master E-MEM keypad, permitting the immediate selection of any of the 100 E-MEM registers. Press a Bank button, if necessary, to change the bank, then press the Register number button to select that register.

Effects Run Controls

The **Stop Next**, **Rev**, **Rew**, and **Run** buttons perform the same effect run functions as the similarly labeled buttons on the Effects Run subpanel.

Other E-MEM Buttons and Knobs

The **Auto Recall**, **Auto Run**, and **Effect Dissolve** buttons on the Timeline - Recall Run menu perform the same functions as the similarly labeled buttons on the Master E-MEM subpanel.

The **Seq** button on this menu is only used to recall a sequence. The **Learn Seq** button is used to learn a sequence. This is different from the single **Seq** button on the Main panel's Master E-MEM Subpanel, which can be used for both functions.

The **Go to KF** and **Jog Effect** knobs are used to navigate through the effect, same as the **Go to KF** button and the Run Lever Arm on the Main panel.

Access to Other Menus

The **Source Select** and **Register Ops** buttons take you immediately to these other menus, and are included here for convenience. After accessing these menus, pressing the Last Menu button will return you to the Timeline - Recall Run menu.

Menu Register Operations

The E-MEM Register Ops menu provides register operations and E-MEM level enabling from the menu.

E-MEM - Register Ops Menu

The Register Ops Menu has a status pane on the upper left, a Function pane on the left, an Enable Group pane center left, and a Number Keypad on the right(Figure 2).

Figure 2. E-MEM Register Operations Menu, Get Selected

An Input Mode pane also appears for some functions (Figure 3 on page 13)

Note   E-MEMs created in SD mode have slightly different mattes if loaded in HD mode.

Register Status

The upper left pane shows the status of the current register. The current register number and next available register are shown, and whether the register is Locked or involved in an Effects Dissolve or Sequence is reported.

Function Pane

The buttons in the Function pane select which actions are enacted with the keypad. These functions are the same as those available on the Main panel.

The **Get** button copies the contents of the enabled levels of the specified register to the current effect register.

The **Put** button copies the contents of the enabled levels of the current effect register to the specified register.

The **Lock** button locks the enabled levels of the specified register(s) or bank(s) of registers, preventing them from being changed unless the lock is removed.

The **Unlock** button unlocks the enabled levels of the specified register(s) or bank(s) of registers.

The **Clear** button clears the data from the enabled levels of the specified register(s) or bank(s).

The **Clear Seq** button clears the sequence link from the specified register(s) or bank(s).

Input Mode Pane

When a **Lock**, **Unlock**, **Clear**, or **Clear Seq** button is selected, the Input Mode Pane is displayed (Figure 3).

Figure 3. E-MEM Register Operations Menu, Lock Selected

The Input Mode pane is used to specify the scope of the action to be performed.

All - The action will be applied to all registers.

Bank(s) – The action will be applied to the bank or range of banks entered.

Reg(s) - The action will be applied to the register or range of registers entered.

Enable Groups

Like the Enable buttons on the Master E-MEM subpanel, the buttons in the Enable Groups pane determines what levels will be affected by the function activated (Get, Put, etc.).

Select All selects or deselects all the Enable buttons in the pane.

Number Keypad

The number keypad is used to enter register or bank numbers for an action, which is completed by touching the **Enter** button. Specific instructions are displayed at the top of the keypad. The dot (.) character is used to clear the current register, specify a range of registers or banks, or specify the next available register when doing a Put operation.

Effect Duration

The Effect Duration feature allows you to change the duration of a multi-keyframe E-MEM effect without having to individually change the durations of each keyframe.

When an effect is first created it has a "natural duration", which is the time indicated by the last keyframe. With Effect Duration you can make the overall length of the effect longer or shorter with a single command. Each keyframe duration in the effect will be increased or decreased proportionately to match the new duration. You can also restore the effect to its original, natural duration if desired.

Master E-MEM Sub Panel

The Eff Dur button is located on the Master E-MEM subpanel (Figure 4)

Figure 4. Master E-MEM Subpanel, Effect Duration Button
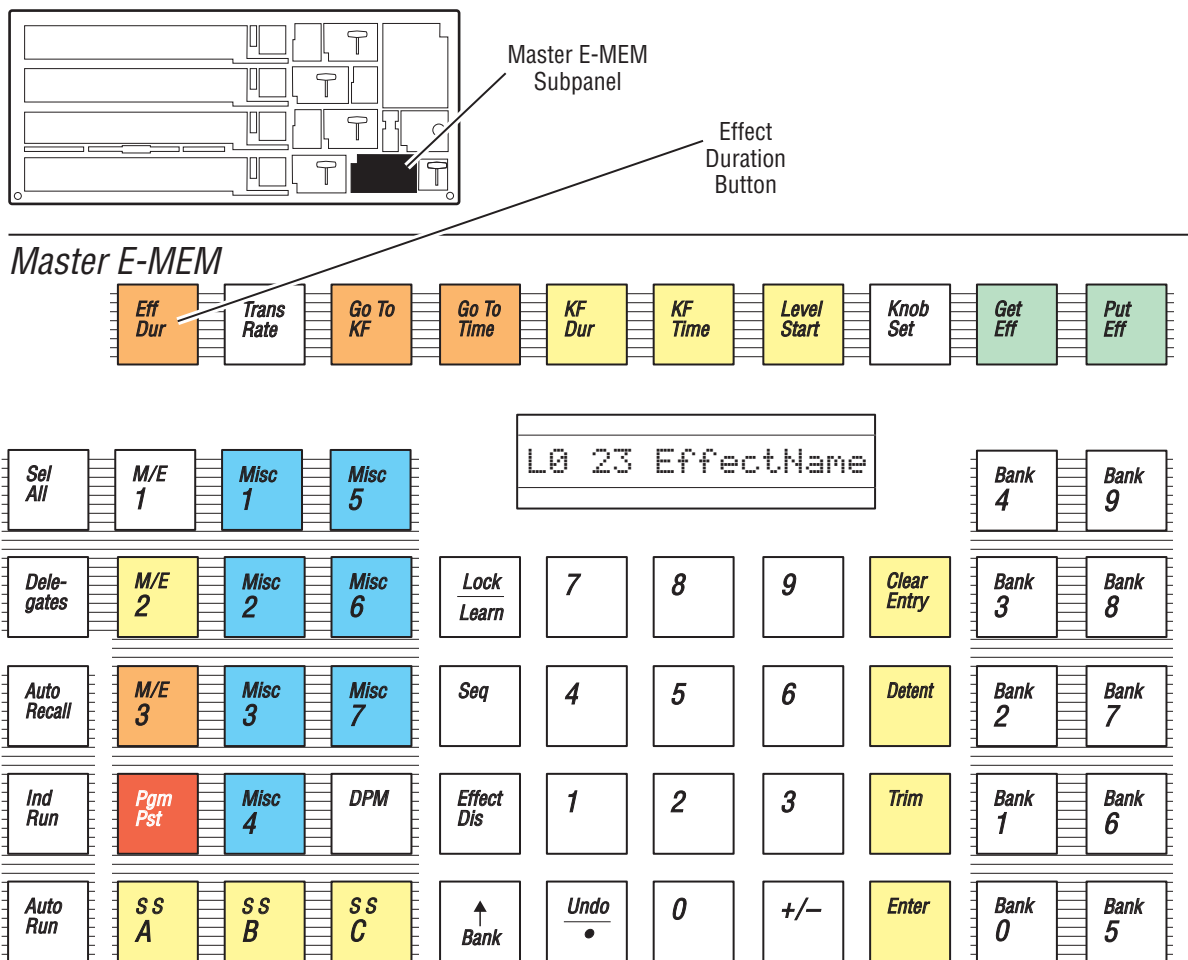
Changing Effect Duration from the Main Panel

1. Select the effect whose duration you wish to change.

2. Touch the **Effect Dur** button on the Master E-MEM subpanel.

3. Type a new duration in Seconds • Frames • Field format and touch **Enter**. Entering a single value defaults to frames, and the third Field value is optional. Entering a **1** for the Field value specifies odd field. For example, **1.0.1** indicates 1 second, 0 frames, 1 field.

    •   Entering only a • restores the natural duration of the effect.

4. Touch the **Effect Dur** button again to turn off the function.

Timeline - Time Adjust Menu

The **Effect Dur** button resides at the lower left corner of the Timeline - Time Adjust menu (Figure 5).

Figure 5. Timeline - Time Adjust Menu

Touching this button opens a numeric keypad you use to enter the new duration of the effect (Figure 6).

Figure 6. Effect Duration Numeric Keypad
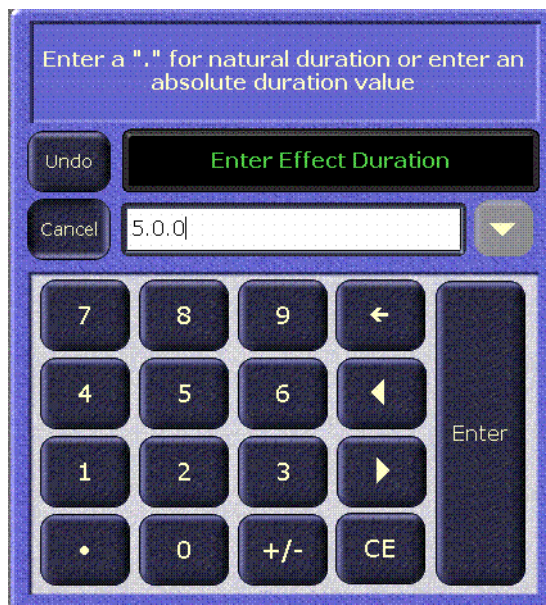
Changing Effect Duration from the Menu Panel

1. Select the effect whose duration you wish to change.

2. Go to the Timeline - Time Adjust menu and touch the **Effect Dur** button

3. Type a new duration in Seconds • Frames • Field format and touch **Enter**. (See example on).

   • Entering only a • restores the natural duration of the effect.

Figure 7. Timeline - Time Adjust Menu, Forced Duration

The new Forced Duration of the event is showing the white box at the upper right-hand corner of the menu screen. (Figure 7).

It is possible to apply Forced Duration to individual levels by selecting only those levels for modification.

Figure 8. Timeline - Time Adjust Menu, Forced Duration of Individual Levels

In the example shown here (Figure 8) the first three levels have been set to a Forced Duration of 5 seconds and the other levels remain at the Natural Duration of 4 seconds. The Natural and Forced Duration values are reported in the menu on the right-hand side of the screen. The Natural Duration values are indicated with the letter "N" to the right of the time display.

Masking from the Keyer Menu

Keyer Mask Menu

Touching the **Keyer** button on the Home menu, then touching the **Mask** sub-category button takes you to the Keyer Mask Point of Use menu. The Mask menu allows selection and control of the keyer mask(s). Key masking defines areas that are protected from keying (Inhibit) or always key (Force). The shape of the mask can originate from a wipe pattern generator or by a selected mask signal (typically a key fill signal delivered via the Utility bus).

The M/E and keyer delegation is made at the top left of the screen. Once a keyer has been delegated, choose the type of mask (**Force** or **Inhibit,** or both) from the data pad in the lower left corner. The example in Figure 9 shows a Box Inhibit mask on M/E 1 Key 1.

Figure 9. Keyer Mask Point of Use Menu
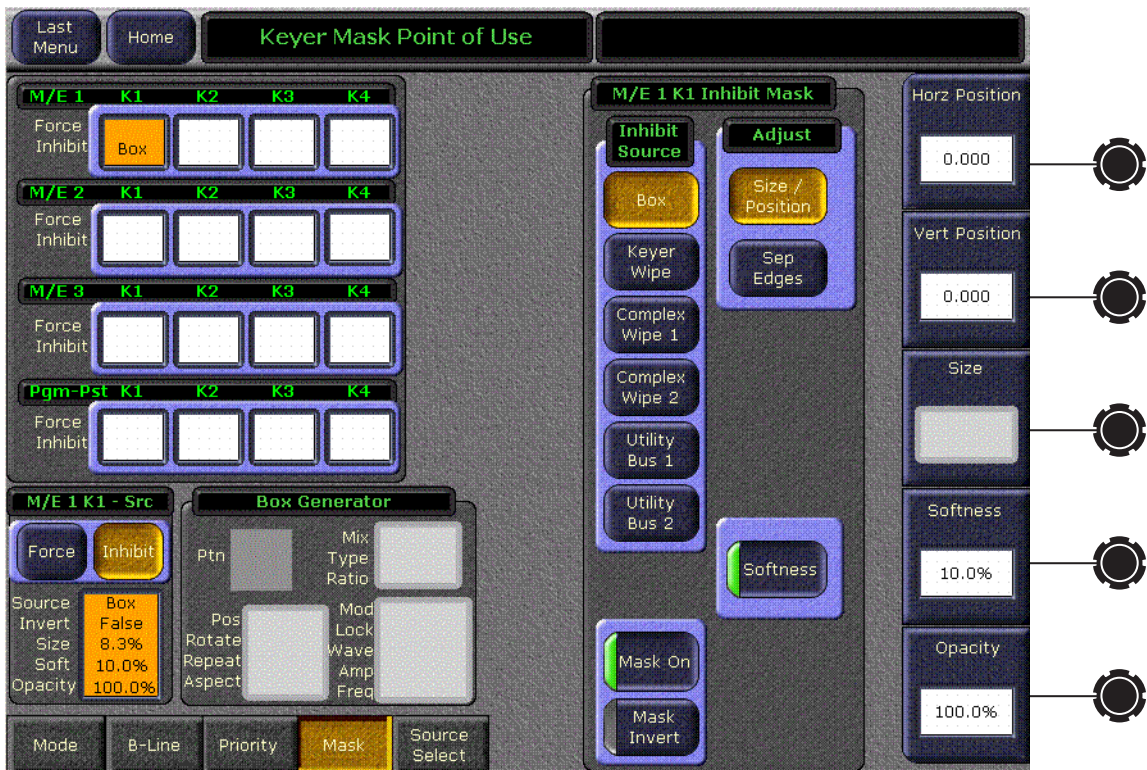
Mask Sources

For either type of selected mask (Force or Inhibit) six different mask sources are available and will appear in the data pad on the right of the screen. Only one mask source can be selected at a time.

- **Box** – When **Box** is selected as the mask source, the **Adjust** pane will appear with two selections: **Size/Position** or **Sep Edges** as shown in Figure 9.

- **Size/Position** – Allows adjustment of the position of the mask with the **Horiz Position** and **Vert Position** soft knobs. The size of the mask can be adjusted with the **Size** knob. An **Opacity** knob is also available, and when Softness is on the **Softness** knob adjusts edge softness.

- **Softness** – Softness is turned Off by default. The Mask Softness knob works only when the Softness button is turned On.

- **Sep Edges** – Allows independent adjustment of the **Top**, **Right**, **Left**, and **Bottom** edges of the mask with the labeled soft knobs. The **Size** knob is also available, which adjusts all four edges simultaneously.

Keyer Wipe – A Keyer Wipe mask source allows selection of a wipe pattern from the dedicated pattern generator for the keyer. Touch the **Ptn** data pad in the Keyer Generator pane to bring up the wipe pattern selections available (Figure 10). Select a pattern from the display. The selected pattern will appear in the **Ptn** data pad window.

Figure 10. Keyer Wipe Mask
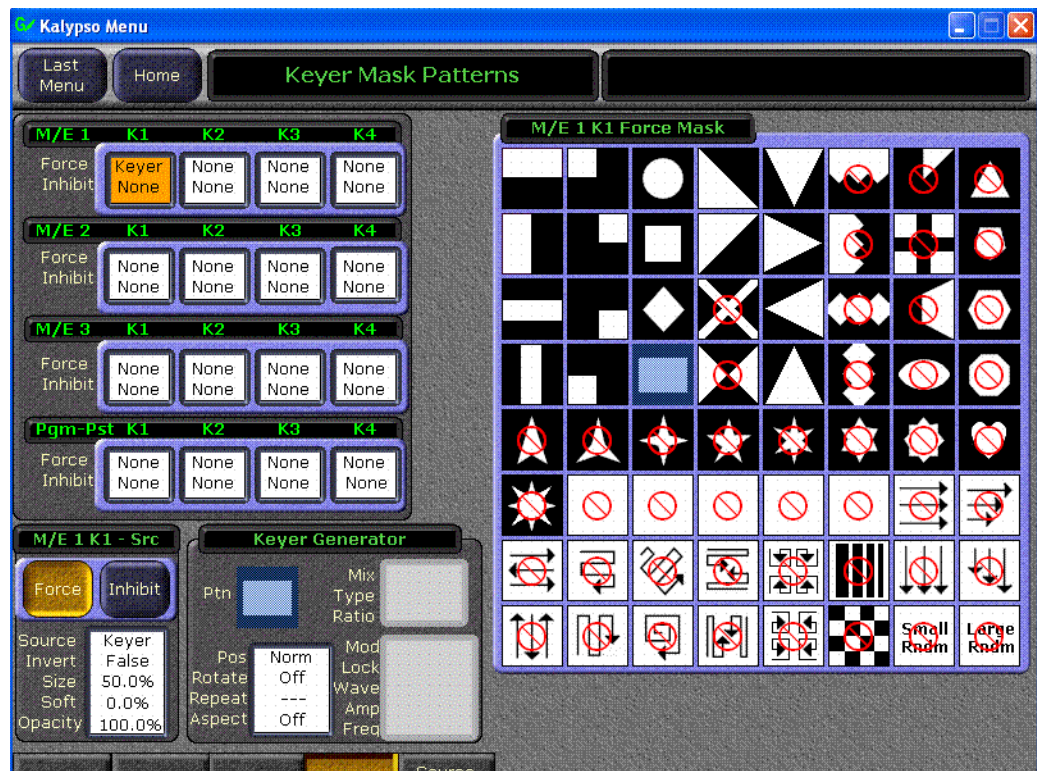
- Select the **Pos**, **Rotate**, **Repeat**, **Aspect** data pad below the **Ptn** data pad to bring up the pattern modifiers available for the keyer wipes. These include pattern positioner, rotate, H and V multiply, and aspect controls, similar to the controls in the separate Wipe Menu. Modifiers are controlled by the soft knobs on the right of the screen.

Note   Keyer and complex wipe masks must share the wipe generators with other functions with wipe capability in the switcher. This resource sharing must be considered when delegating one of the wipe generators to a mask.

Complex Wipe 1 and 2 – A mask can be generated from a complex wipe source. There are two complex wipe generators available, **Complex Wipe 1** and **2**. The pattern for the complex wipe is chosen in the same manner as the keyer wipe mask. Complex Wipes have additional patterns available.

- The complex mask wipe can also be modified for position, rotation, H and V multiplication and aspect. In addition, wipes can be mixed and modulated. These additional controls become available by touching the data pads in the lower center of the screen. For example, Figure 11 shows the modulation controls available.

Figure 11. Keyer Mask Modulation Menu
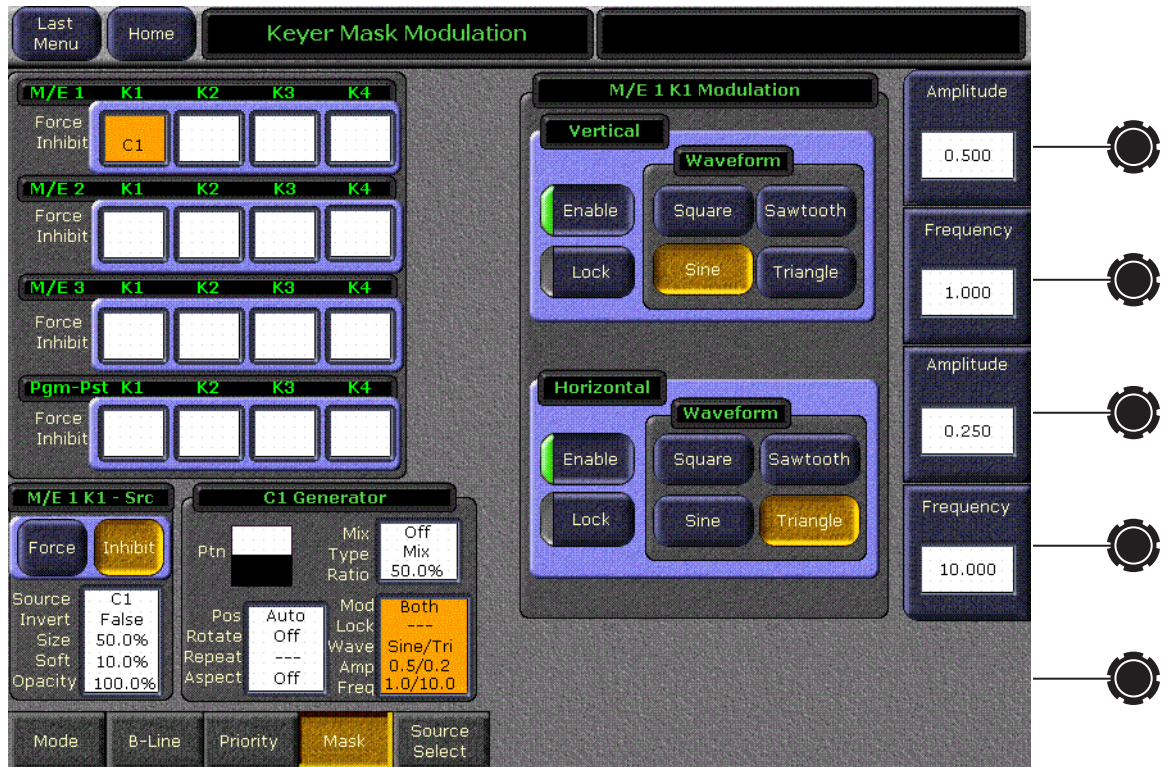
Utility Bus – The Utility Bus mask sources originate from the utility bus in the chosen M/E. Typically these are used to bring in garbage masks from a Still Store or some external device. **Clip** and **Gain** controls are available with this type of mask.

Mask On Button

The Mask may be turned on or off by selecting the **Mask On** button.

Mask Invert Button

The Mask Invert button inverts the sense of the delegated mask. When on, areas formerly masked will be visible, and previously visible areas will be masked. Masks are normally active on the outside of the pattern. An inverted mask is active on the inside of the pattern.

File Operations Menu

The Kalypso File Operations menu system has been enhanced for ease of use, and now includes a Show feature that permits the convenient saving and loading of a collection of files for a specific show.

The existing Save Load menus for Daily Setup, Eng Setup, Macros, R-MEM, and E-MEM remain available from their separate menu locations. These menus are now also accessible via subcategory buttons on the File Ops menu.

Still Store files are not included in a Show, and their file operations are handled separately. Save and Load times for Still Store files (especially animations) can potentially be very long, and are best handled independently. Still Store files can be copied to and from the Still Store using the Still Store/File Ops menu, or the File Ops/All Files menu.

All Files Menu

The File Operations All Files menu provides access to all Kalypso files (Figure 12).

Figure 12. File Operations All Files Menu

Dest Pane Button

Pressing the **Dest Pane** button opens a destination pane for Paste operations. The lower **Up**, **Top**, and **Open** buttons are used to navigate through the file hierarchy for this destination directory (Figure 13).

Figure 13. File Operations Source and Destination Panes

Set Directories Button

Pressing the **Set Directories on all File Op Menus** button sets the currently selected source and destination directories (shown when the Copy or Dest Pane buttons are active) for all the other File Operations sub-menus. The destination directory is set even if both panes are not visible.

Show Menu

The File Ops Show menu is used to create, save, and load Shows. A Show is a special collection of Kalypso files that can be managed as a group. The standard navigation, copy, and other file and folder controls are located at the upper right of this menu. Show related controls are located on the lower right in the Show Load and Save pane (Figure 14).

Figure 14. File Operations Show Menu
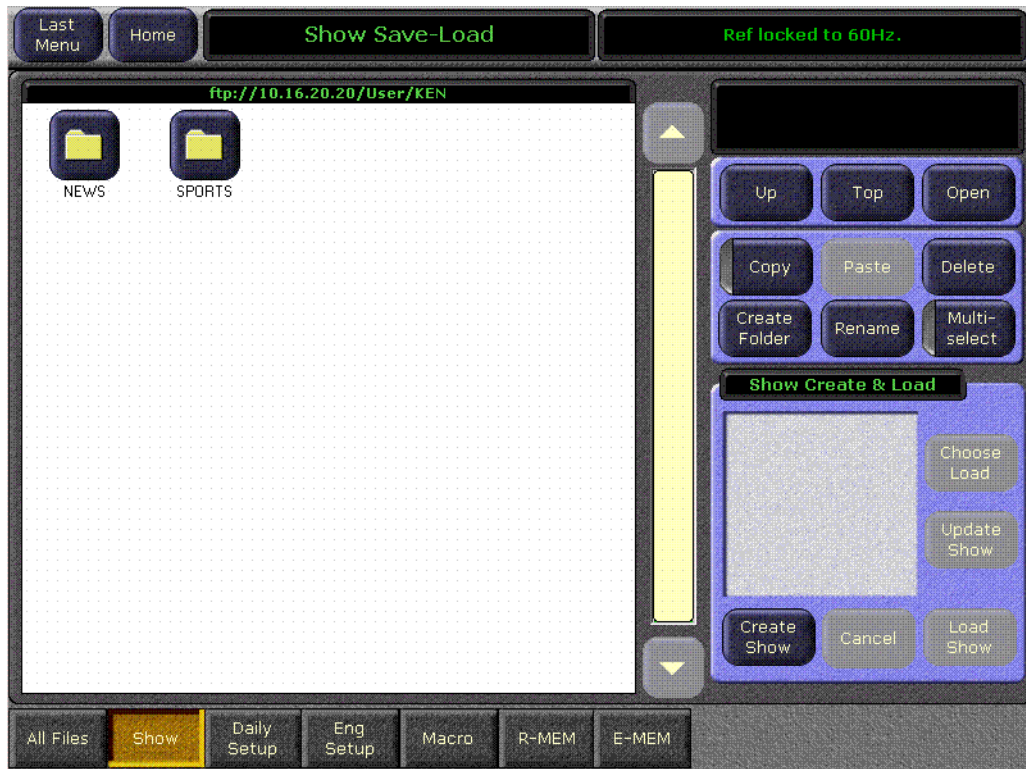
Create Show

Pressing the **Create Show** button opens a create show pane (Figure 15).

Figure 15. File Operations Show Create Menu

In this pane you enter the name of the Show (touch the Show Name data pad) and you can select which file types and which range of files will be included in the Show.

The **Select All** and **Deselect Al**l buttons select or deselect all the available file types. Touching on a file type button selects or deselects that individual type of file for loading. Touching on a lower data pad allows you to enter a range of files of that type to include in the show.

Pressing **Create** saves the show into the currently selected directory. The status of the operations are reported as they progress.

Load Show

Pressing the **Load Show** button immediately loads all the files in the currently selected show into the Kalypso system. This operation will overwrite the existing settings that are currently being used. While the current work buffer and video outputs will not be affected, other aspects of system operation (source mapping, source name displays, available effects, etc.) will change depending on what files are being loaded.

> **CAUTION**   Be sure the Show contains appropriate files before you load a Show, espe-
> cially if the system is currently on-air. Choose Load can be used to inspect
> the Show and select files before loading.

Choose Load

Pressing **Choose Load** brings up a pane that allows you to see what files are
contained in the Show, and select which files to load. Buttons for files not
present are grayed out. By default all the files in the Show are selected for
load.

Figure 16. File Operations Choose Load Menu

The controls in this pane operate the same as the Create Show, except the
Load button replaces the Create button.

Specify the file types and ranges of files you wish to load, then touch the
Load button.

Access to Other File Ops Menus

Touching the labeled category selection buttons on the bottom of the File Ops menus takes you to the existing menus for that file type. Only files of that type can be accessed for saving or loading from these individual menus, as before.

Once you select one of the Macro, R-MEM, and E-MEM menus there are three entry modes available for each menu (Figure 17):

- All

- Enter Reg(s)

- Select Reg(s)

Figure 17. File Operations E-MEM Entry Modes Menu

All Button

Selecting the **All** button (as shown in Figure 17):

- Disables the Multiselect function (if enabled)

- Disables the **Register(s)** text entry box and by default displays the entire range of registers (0-99 for EMEM and RMEM, 1-100 for Macro)

- Disables and turns off the Start Reg Button (below the Register(s) text entry box)

- Enables the Save and Load buttons

Clicking Save or Load after selecting **All** saves or loads all registers displayed in the Register(s) text box to the **Target Location** specified (either the Current Directory or the selected Folder or Show).

Enter Reg(s) Button

Selecting the **Enter Reg(s)** button (Figure 18):

- Disables the Multiselect function (if enabled).

- Retains the current state of the **Start Reg** button.

- Enables the **Register(s)** text entry box.

- Enables the **Load** button if a range is specified in the Register(s) text entry box.

- Enables the **Save** button if the **Start Reg** button is off.

Clicking Save or Load after selecting **Enter Reg(s)** saves or loads the range entered in the Register(s) text entry box to the **Target Location** specified (either the Current Directory or the selected Folder or Show).

Note   Changing directories does not clear the range entered in the Register(s) text entry box.

Figure 18. File Operations E-MEM Enter Reg(s) Button

Clicking on the **Register(s)** text entry box displays the Register Entry window as shown in Figure 19.

Figure 19. File Operations Register Entry Window

In the lower left part of the Register Entry window is an Entry Mode panel with **Register** and **Bank** selection buttons. In Figure 19 clicking on the Enter key enters Registers 1-3,9. If the **Bank** button were selected clicking on the Enter key enters Registers 10-39, 90-99.

Select Reg(s) Button

Selecting the **Select Reg(s)** button (Figure 20):

•   Retains the current state of the **Start Reg** button.

•   Disables and clears the **Register(s)** text entry box.

•   Enables the **Load** button if a range is specified in the Register(s) text entry box.

•   Enables the **Save** button if the **Start Reg** button is off.

To enter a range you must select a file or a set of files. The Select Reg(s) function does not allow you to select a folder or a Show. Selecting a proper file or set of files enables both the **Save** and **Load** buttons.

Clicking Save or Load after selecting **Select Reg(s)** saves or loads the range entered in the Register(s) text entry box to the Target Location which is always the Current Directory.

Note   Changing directories or turning Multiselect off clears the range entered in the Register(s) text entry box.

Figure 20. File Operations E-MEM Select Reg(s) Button

Start Reg Button

Selecting the **Start Reg** button (Figure 21):

- Disables the **Save** button. (**Save** is not available with the **Start Reg** option.)

- Displays the **Register(s)** and **Load To** text entry boxes. The **Load To** box is enabled for text entry.

Figure 21. File Operations E-MEM Start Reg Button

Clicking in the **Load To** text entry box displays the Load To window as shown in Figure 22. Enter the number for a single register to which you would like to begin loading registers.

Figure 22. File Operations Load To Window

The system takes the Registers you enter and inserts them starting at the Register number specified in the **Load To** text entry box.

In Figure 23 clicking **Load** would load E-MEM files 1-3,9 into Registers 60-62, 68. Because the **Load To** box is set to 60, the system takes the original E-MEM files and loads them to the new location, restarting the numbering from "60." The first three files are numbered 60, 61, and 62. The system

then skips the same number of digits between the number "3" and the number "9" (6 digits) to number the next Register at 68 (skipping 6 digits ahead from the last Register of "62").

Figure 23. File Operations Register(s) and Load To Text Entry Boxes

CAUTION You cannot use a number that would cause the system to try and write to a number beyond the boundary of the last Register. For example, if you specify a register range of 1-10 and use 99 as a Load To register the system displays an error because 99 is the last Register. Likewise, if you try to write Registers 1-50 with a Load To number of 52, the system would return an error because the combination of Register numbers would exceed 99.

Multiselect Button

The **Multiselect** button (Figure 24) is useful for copying, pasting, loading, or saving multiple files from within the **Select Reg(s)** mode. When you select the **Multiselect** mode:

• The double-click function is disabled.

• You cannot change directories until you deselect the **Multiselect** button.

If you are not in Multiselect mode, selecting a single file causes the button to be selected. This means you can simply click to select a file and then click the **Load** button to load it.

Figure 24. Multiselect Button Allows Selection of Multiple Files

Access to Configuration Files Saved as Profiles

The Profiles menu is not available in Kalypso Release 12.0. Configuration files that were previously saved using the Profiles menu are still accessible, however. Simply navigate to the Profiles directory from the Daily Setups Save-Load menu.

Re-Entry Preferences

The Kalypso system normally restricts the re-entry of the primary or secondary outputs of an M/E back into the same M/E. This prevents the timing related one line downward shift of the video, and also prevents video feedback. However, this restricts some useful modes of operation. It is now possible to remove this restriction, by touching **Daily Setups**, **Suite Prefs**, **Re-Entry Prefs**, then turning off the **Enabled** button.

Figure 25. Re-entry Prefs Menu

With this restriction removed, a secondary output can be selected on a keyer in the same M/E, and the operator can easily mix or wipe within the key on the re-entered half of the M/E.

Note   An M/E primary or secondary output re-entered into the same M/E will result in a downward 1 line shift in the video. Other re-entry combinations may cause similar timing shifts or feedback."

If a re-entry is active when the restriction is imposed, the current re-entry path remains, but will not be permitted if deselected and then reselected.

If you want to key a lower third over an incoming video and then use an Internal DPM to position it over the shoulder of a newscaster, you can now perform all of this in a single M/E.

Using Split M/E mode, assign Keyer 4 to the Secondary Partition. Select the incoming video for the over the shoulder on the utility bus for the Secondary Partition, select the lower third for the over the shoulder as the source for Key 4.

Now on Keyer 1 select the secondary partition as the source and put it on-air. Note that the video to be used as the over the shoulder has dropped a line. Now enable the Internal DPM. Use the Internal DPM controls to position it to be over the shoulder of the newscaster that is on the background video for the M/E.

In this instance, the line that was lost re-entering the Secondary into the Primary doesn't matter since the image is being repositioned and resized by the Internal DPM. You still have keyers 2 and 3 available for a final lower third on the whole image and another key left over all on a single M/E.

Still Store Enhancements

Thumbnails

Low resolution thumbnail views of Still Store images can be displayed on the Still Store menu (Figure 26). For animations, you can choose which frame to use as the Thumbnail image for that clip.

Figure 26. Still Store Menu, Thumbnails View

To Activate Thumbnail View:

1.   Go to either the Still Store Playback or Create Edit menu.

2.   Touch the **Legend and Options** button.

3. Touch the **Thumbnail** View Style button (Figure 27).

Figure 27. Still Store Legends and Options Menu
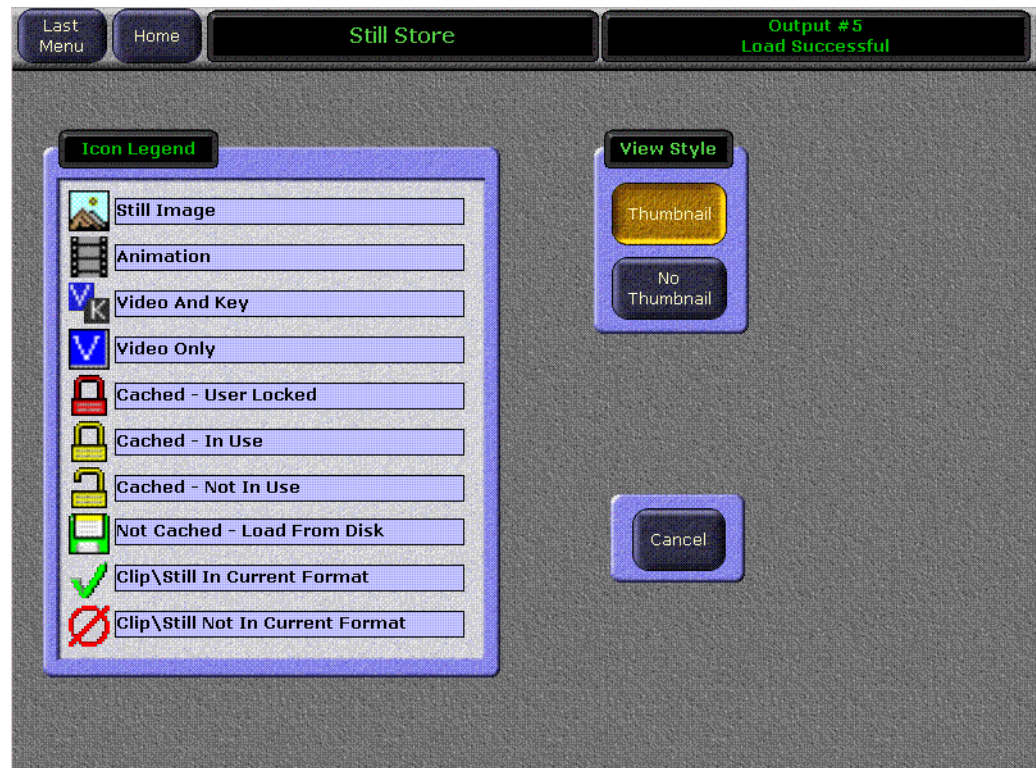
4. After selecting a view style you are returned to your last Still Store operating menu (either Playback or Create Edit).

To Select a Thumbnail Image for a Clip:

1. Go to the Still Store Create Edit menu.

2. Load a clip to an output.

3. Select **Show Details**.

4. Play or jog the clip to the desired frame.

5. Touch **Mark Thumb**. A red line on the Still Store menu timeline graph indicates the location of the current thumbnail frame (Figure 28).

Figure 28. Still Store Menu, Clip Thumbnail Frame Selected

Go To Item Number

Stills and clips can be quickly accessed by their number.

1. Touch the **Go To** button on the Playback or Create Edit Still Store menu. A numeric keypad will be displayed.

2. Type in the number of the desired item and touch **Enter**. Leading zeros may be omitted.

3. If an item with that number exists, the selection pane will scroll to display that item on the top line. If that item number does not exist, the item with the next higher number will be brought to the top line.

4. With the item visible on the screen, you can now select it by touching its icon.

Change Directory Restriction

While a Still Store file is being saved you cannot change the Still Store directory from the menu, or by using an E-MEM or Macro. This restriction prevents the possibility of corrupting a file during a save. We recommend you save stills and animations of different formats in different directories.

Newton Modular Control Menu

Introduction

The Newton modular control system provides comprehensive and consolidated real-time control of Grass Valley modular products. Some Newton functionality has been incorporated into the Kalypso Menu application. This makes it possible to control Grass Valley Gecko and Kameleon frame modular products from a Kalypso Menu panel or Menu on PC. The modular frames must reside on the same subnet as the Kalypso system (Figure 29).

Figure 29. Newton Modular Control Diagram
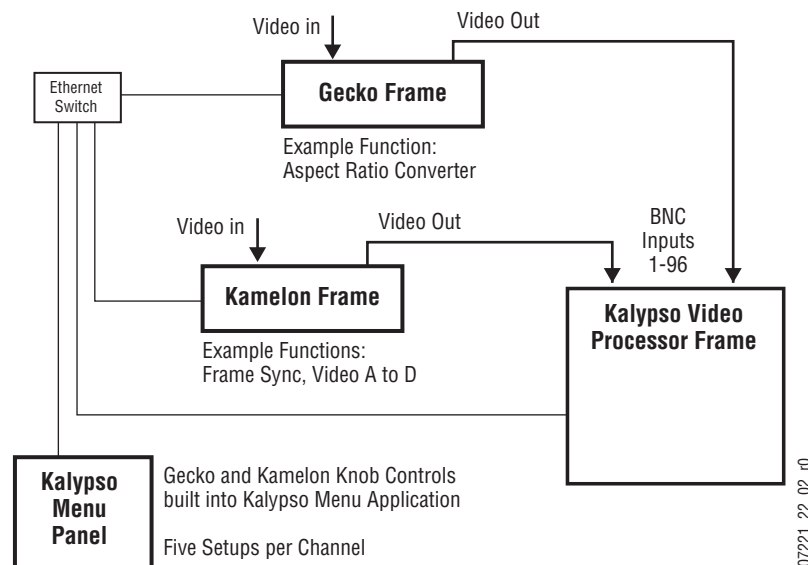
Installation on Kalypso

Kalypso's Newton interface is installed during the standard Kalypso installation procedure. The Newton menu (Figure 31 on page 44) is available on all Kalypso systems running 12.0 or newer software. However, a Newton system must be available on the Kalypso network, and configuration steps will be required before this menu becomes functional.

Newton Controls Configuration

Newton functionality within Kalypso can be configured with any PC on the Kalypso network. You use the Kalypso Software CD to install the necessary configuration tools by selecting the **NetConfig with Newton Configurator** option (see page 64).

During this process, the NetConfig network configuration application and a Newton Configurator plug-in are installed. The tool is accessed by launching NetConfig and touching the Newton tab on the top menu bar (Figure 30).

Figure 30. NetConfig Newton Configurator Plug-in
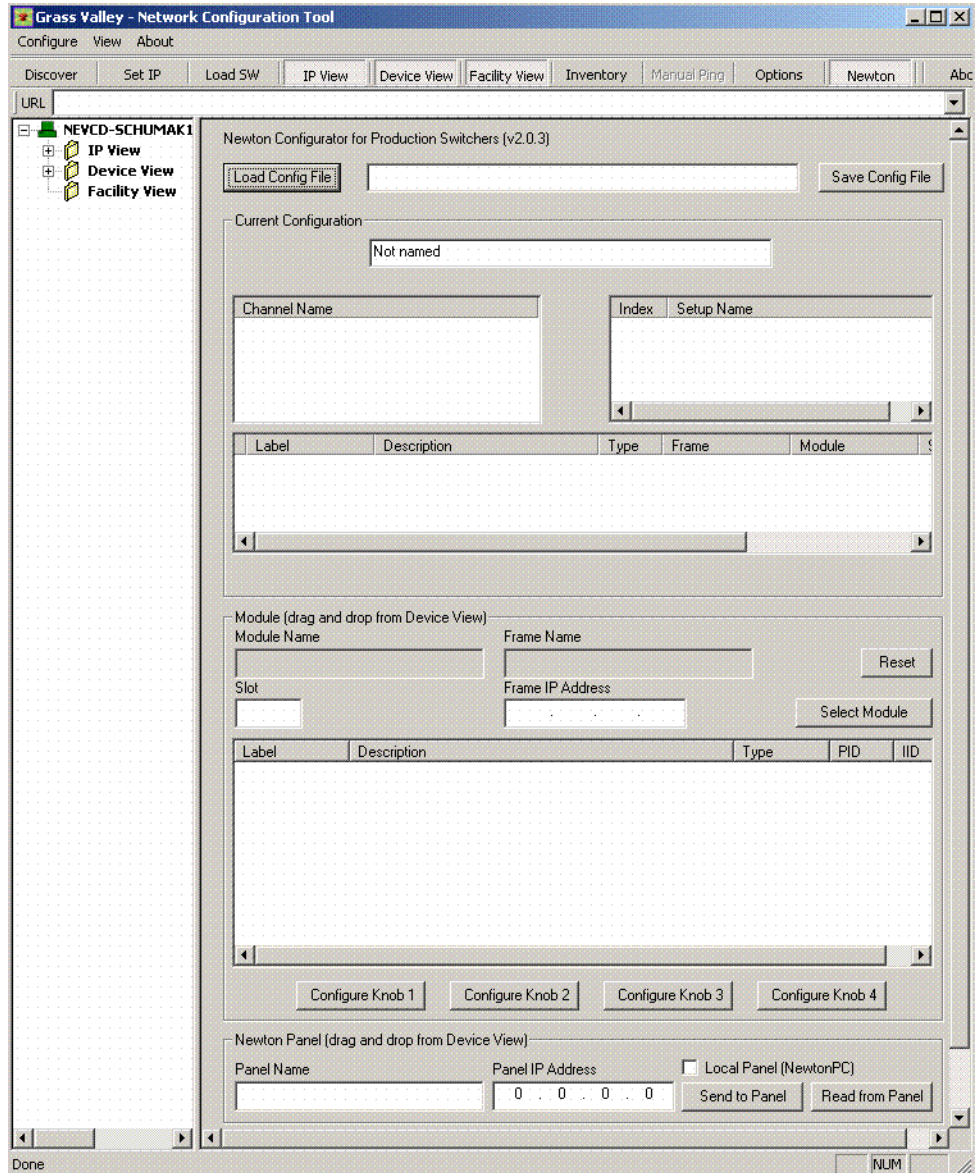
The Configurator tool is used to define the functionality of Newton controls by creating a Newton configuration file. The Newton configuration establishes a one-to-one relationship of Newton channels to Kalypso physical inputs (BNC connectors on the Video Processor frame). Each Kalypso input/Newton channel can have up to five different setups defined. A default Newton configuration file with 96 channels (inputs) is provided with five empty setups for each channel. Using the configurator, control-

lable parameters in modules which are in the video path for each switcher input can be assigned to Kalypso Menu panel knobs. The user is then able to control those modules directly from the Kalypso system.

Refer to the separate *Newton Instruction Manual* and *NetConfig Instruction Manual* for specific information about how to configure the Newton controls. These manuals are included on the Kalypso Documentation CD, and are available for download from the Thomson Grass Valley website.

External Device Newton Menu Description

Once configured, module parameters can be adjusted on the Kalypso External Device Newton menu, which is accessed by touching **Extern Device**, **Newton** (Figure 31).

Figure 31. External Device Newton Menu

Selection of a module parameter to control is mediated though the Kalypso source selection mechanism. By selecting a source on the currently delegated Preview bus of the Kalypso's Main panel, the source's physical input, and that input's associated Newton channel controls are activated on the Kalypso's External Device menu.

Delegation Pvw Bus

The Delegation Pvw Bus pane is used to select which Preview bus will be used to select the Newton channel to be controlled.

Input Selector

When a video/key source is selected, you choose to control either the video input or the key input with the **Video** and **Key** buttons.

Setup Selector

The Setup buttons are used to select the desired set of controls from the setups defined for that channel. The menu displays asterisks for setups that have no parameters assigned.

Newton Channel Information

Channel – The number of the Kalypso input BNC used to select the current Newton channel is displayed.

Setup Name – The currently selected setup (1-5) is displayed in this pane.

Additional information identifying the currently selected channel module's name, frame, etc. is displayed below.

If multiple modules are daisy chained together in a Newton channel, the information displayed will be for the module with a parameter assigned to the top knob.

Newton Controls

On the right side of the menu the active control functions are identified. Direct knob control and datapad numeric entry are available. The menu displays asterisks for unconfigured controls. The status of the function for each control is also reported, with green indicating a connection exists and the data is valid, and red indicating no connection.

Accelerate Knobs – Selecting this button accelerates knob adjustments by a factor of 10, providing coarse and fine knob control.

Refer to the separate *Newton Instruction Manual* for specific information about Newton controls.

Split Layered Mode

Lamina™ Video Compositing, or Layered Mode, is a feature that allows the operator to composite up to four keys together to create a single video/key pair. This key can be re-entered into the switcher on another keyer to create more key layers on a different M/E. This compositing of keys can be done on either or both of the primary and secondary outputs.

This mode can be particularly useful. For instance, you can split M/E 1 and assign keyer 1 to the primary side and the other three keyers to the secondary side. On M/E 4 keyer 4, you can select M/E 1 secondary as the source for the keyer. You now have the six keys on M/E 4, (M/E 4 – Key 1, 2 and 3 and M/E 1 – Key 2, 3 and 4 show up on M/E 4 Keyer 4.)

Layering is enabled on an M/E-by-M/E basis in the M/E Mode Menu (Figure 32). When enabled for the primary output, the A output has black selected as the background source and the C output acts as the key cut signal for the keyers selected for the primary output. Similarly, for the secondary output the B output has black selected as the background source and the D output acts as the key cut signal for the keyers selected. Priority of the layers is set using normal keyer priority controls.

Figure 32. M/E Mode, Split Layered

M/E Mode Menu Controls

In the M/E Mode menu, the Layered pane below the Mode pane is enabled only when the **Split** button is selected in the Mode pane. Just like the Secondary Assign button panel, the Layered pane is grayed out until the Split button is selected. The Layered pane has Primary (**Pri**) and Secondary (**Sec**) buttons.

Layered Mode

Selecting the **Split** button, then selecting one or both of the buttons in the Layered pane, turns on the Layered mode which separates any assigned key signal into discrete Cut and Fill signals. This allows the two signals to be routed in parallel to provide a much cleaner key than would normally be possible.

Selecting the Primary (**Pri**) button allows you to set the Primary partition to Layered mode. Likewise, selecting the Secondary (**Sec**) button sets the Secondary partition to Layered mode.

The **Pri** and **Sec** Main Panel buttons behave the same as they do in Split mode, with the exception that background bus selections are not used for the partition that is in Layered mode. The keyer source selections are allowed in Layered mode for the keyers that are assigned to the primary or the secondary partition delegated.

A/B bus selections do not feed backgrounds for a primary partition that is in Layered mode.

U1/U2 bus selections do not feed backgrounds for a secondary partition that is in Layered mode, but they can be used for key masks, video in borders, wipe pattern source, etc.

Strobe

The Strobe feature (available with the Transform Engine option on Kalypso HD and Duo systems) provides the ability to freeze a frame of video for a specified number of fields or frames (fields for interlace format, frames for progressive format). This feature also permits freezing a frame for x number of fields or frames, unfreezing the video for y number of fields or frames, and so on with a freeze/unfreeze cycle.

Figure 33. Transform Engine Picture Menu, Strobe
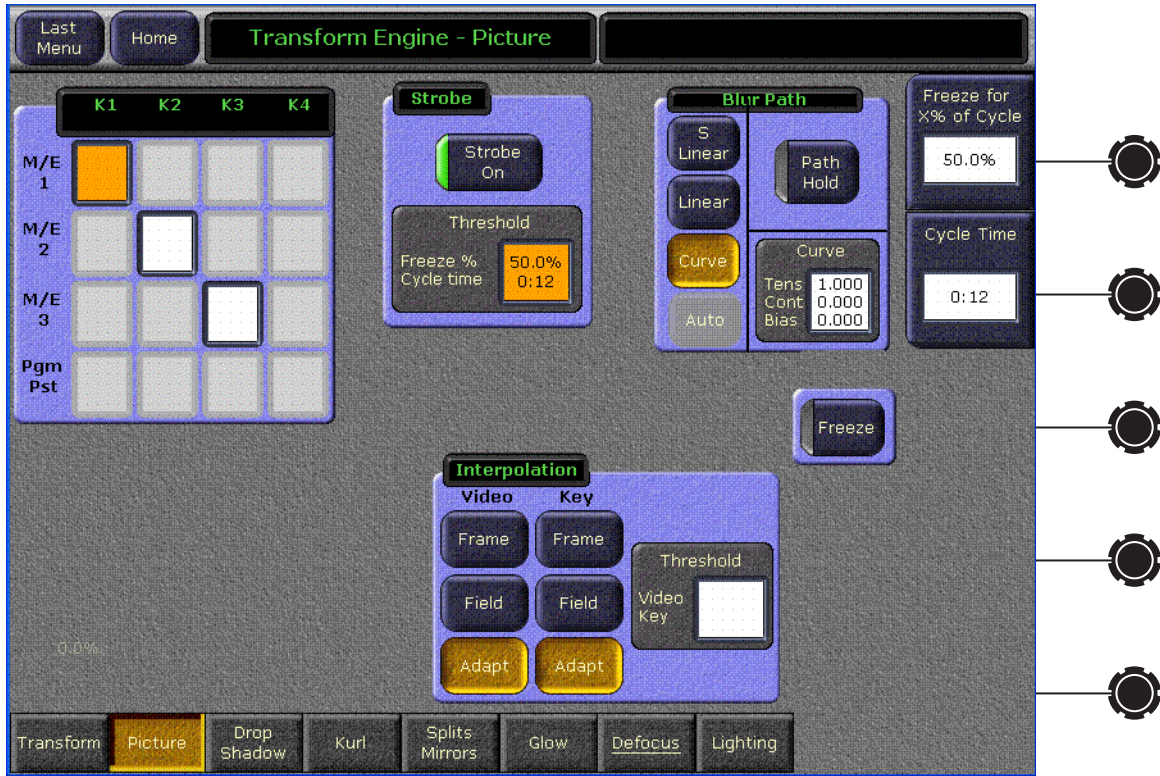
For example, 12 frames of frozen video with a 100% frozen duty cycle can be specified. The Transform Engine would then grab a frame and freeze it for 12 frames, and grab a new frozen video image every 12 frames. With a 50% frozen duty cycle using the same setting for 12 frames of frozen video, a still-frame would be displayed for 6 frames of video, followed by 6 frames of motion video. Then the cycle would repeat.

Note that if the number of frames is divided in such a way that it produces an odd number (1, 3, 5, etc.) the software rounds that number up to the next frame or field. So if 7 frames is specified with a 50% frozen duty cycle, the result would be 3.5 frames which would be rounded up to 4 frames.

For interlaced formats, you will also be able to specify frame or field freezes, so that motion artifacts can be eliminated from the frozen video with an interpolated field frozen into a frame for the interlaced formats.

Device Control for Routed Sources

Introduction

The Kalypso system has machine control capabilities that permit, for example, cueing and playing DDRs and VTRs. The Kalypso system can also be configured with an external routing system. By connecting router destinations (router output signals) to Kalypso source inputs (called routed switcher sources), different router sources (router inputs) can be directed to these Kalypso inputs. The Kalypso operator can send take commands to the router from the Kalypso user interface to switch router sources that feed the Kalypso source inputs. The Kalypso system also receives the names of router sources and destinations from the external routing system for display on the Kalypso user interface.

Kalypso machine control and external routing capabilities can now be combined to permit Kalypso control of external devices that feed routed Kalypso sources. When a router source associated with an external device feeds a Kalypso routed source, that device can be controlled directly from the Kalypso system. Existing machine control and router control Kalypso system capabilities also remain available separately (Figure 34).

Figure 34. Combined Machine Control and Router Control
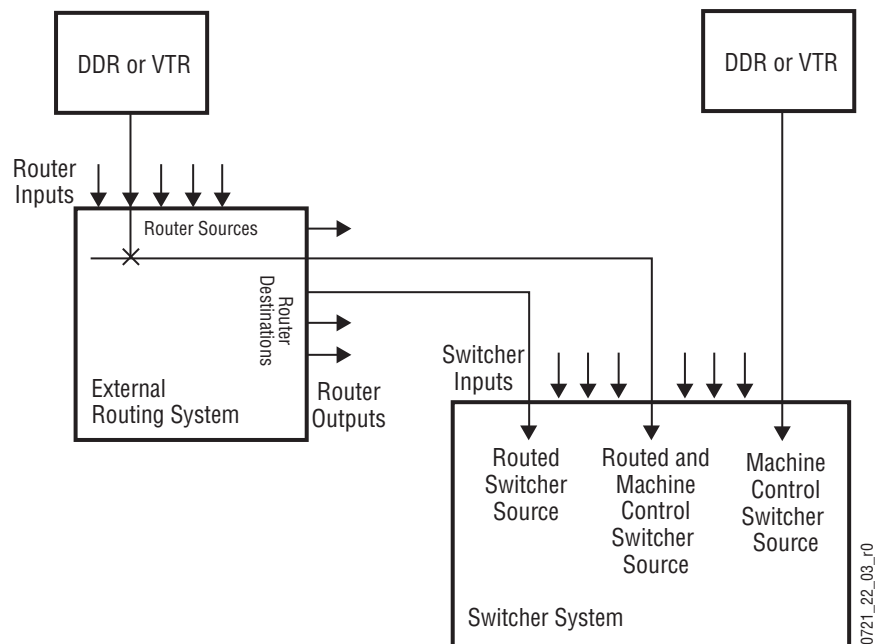
The combination of these features has one limitation. The Kalypso system can perform ganged or linked operations on external devices connected as routed sources, but it is important to understand that the ganging is based on *devices* rather than sources. When a router source linked to an external

device is changed, the ganging for that source no longer works. If you change the router source, the rules for ganging no longer apply, and the ganging no longer works.

Configuration Overview

To make these features work together, in addition to the configuration required for their independent operation, the external devices configured for control by the Kalypso system must be mapped to the router sources they are connected to. This information is stored in mapping table that is saved and loaded with the Engineering Setup files.

Kalypso system machine control and external router configuration procedures are explained in the separate *Kalypso Installation and Service Manual*, and for Encore control the *Machine Control Interfaces Installation Instruction Manual*. Refer to these manuals for detailed instructions.

In summary, the entire configuration process involves the following steps:

1. Configure machine control by creating, naming, and setting up devices via the Kalypso Eng Setup, Ports & Devices menu.

2. Establish communications between the Kalypso system and the external router, via the Eng Setup, Router menu, and by configuring the router itself to allow external control of it by the Kalypso system.

3. Identify the routed Kalypso sources by selecting **Router** for each of these source inputs in the Eng Setup, Source Definition menu.

4. Map each Router Source to each Device. This new step ties the two features together. The menu used for this is described below. and can be accessed from the Router Interface Setup screen in the Eng Setup, Router menu.

5. You will now be able to change router sources using the Kalypso R-MEM menus and control a device that is mapped to that router source.

As you can see, several different menus are used to combine router and machine control. Each sets up a specific link in the chain. Should one link not be configured correctly combined capabilities will not be realized, but portions of the chain that are configured correctly will continue to operate.

Router Interface Setup Menu

The Router Interface Setup menu is accessed via **Eng Setup**, **Router** (Figure 35).

Figure 35. Router Interface Setup Menu
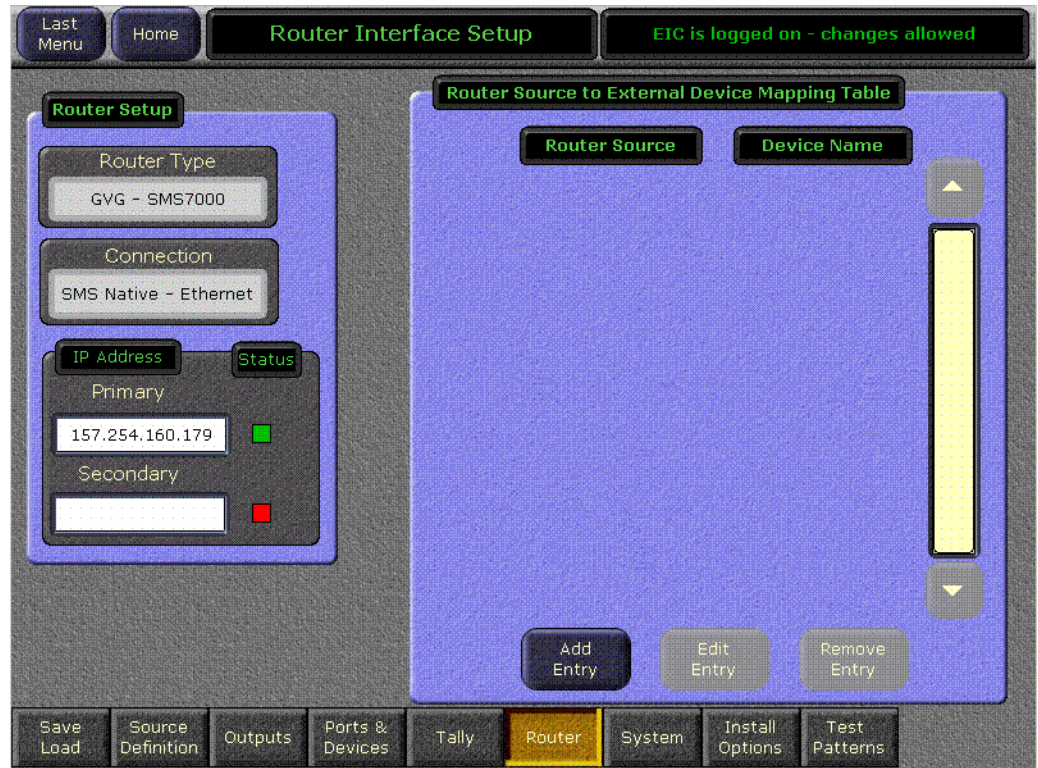
The IP address of the router is entered in the pane on the lower left. When communications is established the status indicator will be green.

Touching the **Add Entry** button opens a menu with two selection panes. The left pane displays the names of router sources if the router is connected and properly configured to operate with the Kalypso system. Currently configured external devices are displayed in the pane on the right (Figure 36).

Figure 36. Router Source and External Device Mapping Menu
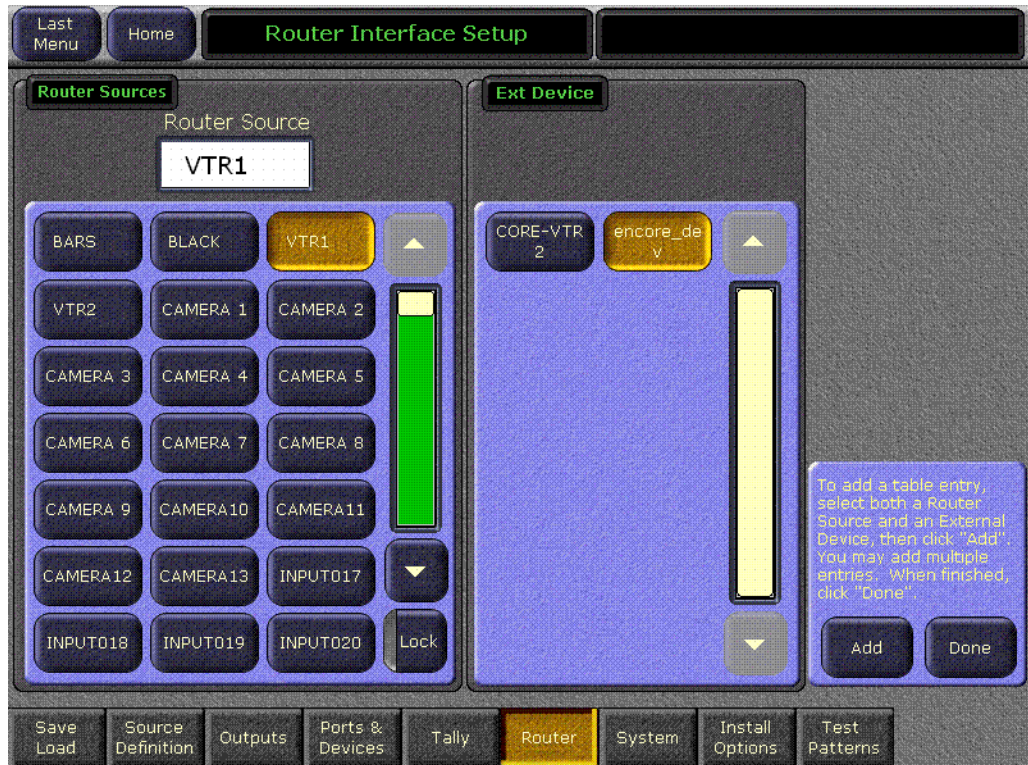
Select a router source from the scrolling list on the left and a device in the list on the right and touch **Add** to map them together. You can select additional router source/external device pairs and map each of them by pressing the **Add** button. When finished with the mapping, touch the **Done** button. You are returned to the previous menu and the current mappings will be displayed (Figure 37).

Figure 37. Router Interface Setup Menu
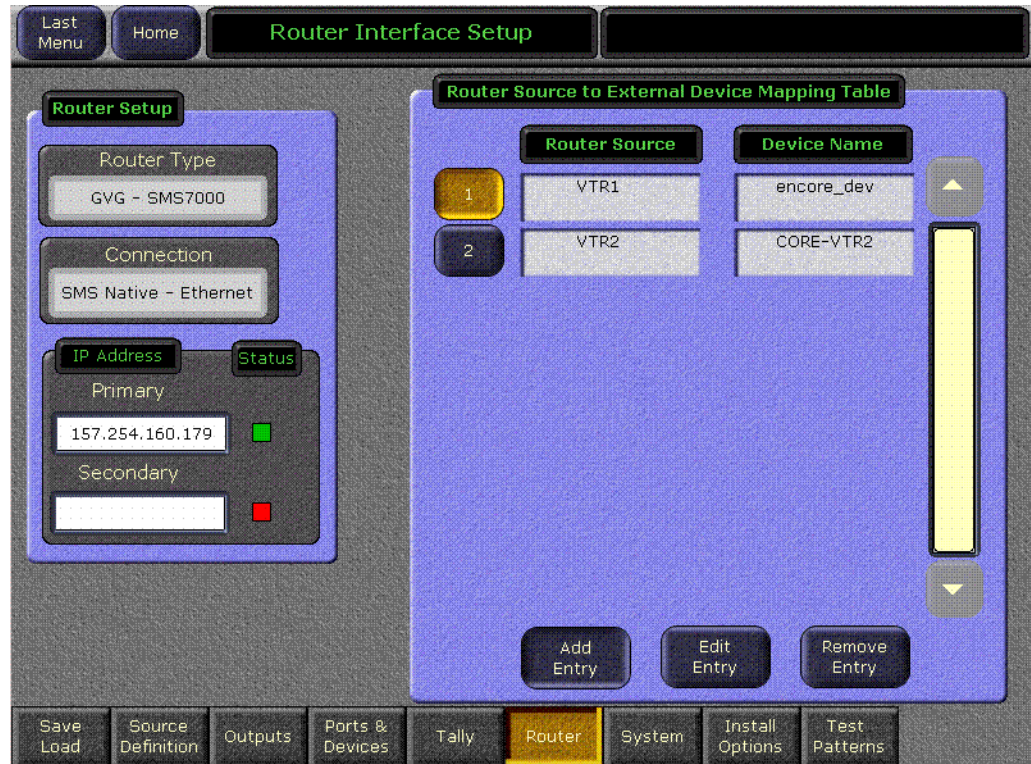
Entries can be edited by selecting the numbered button and touching the **Edit Entry** button. You can then remap that relationship.

Touching the **Remove Entry** button removes the selected mapped pair from the mapping table.

With the mappings established, you will now be able to change router sources with the Kalypso R-MEM menus, and if that router source is an external device (a correctly configured DDR, for example), you will be able to cue and play that device from the Kalypso Machine Control menu and subpanel.

AMP Ethernet Protocol Support

AMP protocol machine control is available for some model DDRs. This protocol supports multiple clip directories and clip file names of up to 80 characters. The BVW protocol does not support clips, and the Odetics protocol supports only the default folder and DOS style eight character plus extension file names. AMP protocol is a software enabled option. AMP Serial support was introduced in Kalypso 11.0. AMP Ethernet protocol support is available in Kalypso 12.0.

Profile Model Support

Profile XP PVS 1000, 2000 and 3000 series devices, M series devices, Turbo devices, and K2 devices support control via the AMP protocol. Older PDR series Profile models do not support AMP protocol.

Profile Amp Ethernet Configuration

Some configuration may be required on your Profile DDR to make Amp Ethernet control from the Kalypso system operate.

- For Profile XP PVS models, you will need to start AMP Ethernet Server manually, which is an executable called AMPEthernetServer.exe.

- For Turbo, M-Series, K2 models, the AMP Ethernet Server is a service and will start automatically on reboot. To verify, go to **Start** > **Settings** > **Control Panel** and select **Administrative Tools** > **Services** and confirm that a Grass Valley AMP TCP Service exists.

- For all models, the switcher IP address must be listed as an authorized client to establish communication. The client protocol must also be set to Remote AMP for remote access.

Refer to the separate *Profile System Guide* and/or *Profile User Manual* of the Profile model you will be controlling for more detailed device specific configuration instructions.

Kalypso AMP Ethernet Configuration

On the Kalypso system you use the **AMP Ethernet** button on the Port & Devices menu to create this type of Kalypso external device (Figure 38).

Note For AMP Ethernet: If the Profile is reset after the Frame has booted up, the connection to the Frame is not automatically re-established. To establish the connection go to the **Extern Devices: Enable** menu, disable the device, and then re-enable it to establish communication.

Figure 38. Eng Setup Port & Device Menu, Amp Ethernet
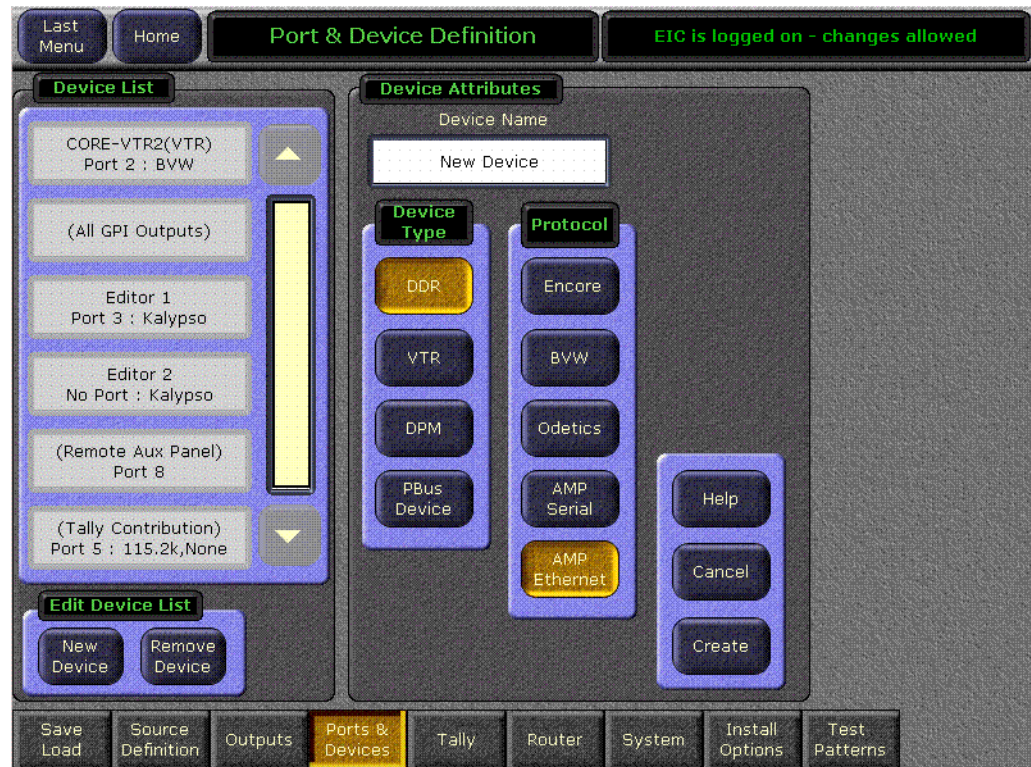
Touching the **Create** button brings up a menu where you enter the name of the external device and its IP address.

Clip Directory

On the External Device Control menu (Figure 39), touching a **Preset Clip** or **Program Clip** data pad brings up a menu from which you can select the desired folder and then choose a clip in that folder to load for playback (Figure 40). A similar menu is used with the Clip Browser on the External Device Event List menu, and for loading clips in the Timeline Events menu.

The Kalypso Machine Control subpanel always shows the clip list of the last selected folder. If you change a clip locally on the Profile DDR, that clip name will be updated on the Kalypso External Device menus. If the folder list or clip list are incomplete, re-enabling the device will fetch the entire folder and clip list.

Note   Do not create file or folder names that have the pound character (#) along with either the dash (-) or underscore (_) character, and avoid blank spaces (for example, use "DeadEnd" not "Dead End". This can inhibit clip access.

Note   A maximum of 20 folders is recommended along with a maximum of 20 clips per folder.

Figure 39. External Device Control Menu

Figure 40. Folder and Clip Selection Menu

Kalypso 12.0 Software Update

CAUTION The recommended Kalypso software update procedure has been changed for increased reliability. Kalypso system files must be saved, NV Memory cleared, and the system files then must be reloaded. Carefully read the installation instructions and follow the procedures precisely.

Kalypso System Update Checklist

The following checklist is an overview of the steps involved in updating a system running recent Kalypso software to version 12.0. These actions should be performed in the listed order. Updating from some earlier software versions will require additional steps (see Table 1 on page 60).

Detailed instructions for all the procedures are provided later in this document. Cross references for individual steps are included in the checklist for quick reference.

❑ **REQUIRED** – Backup Eng Setups, Suite Prefs, User Prefs, Source Memory, Macros, E-MEM, and R- MEM files (see page 62).

Note You will need these backup files to restore system data after the update, and if you reinstall older software.

❑ Save the character string of your Kalypso system authorization code and keep it with the back up configuration files. On Kalypso HD/Duo systems you will need this if you update your system with new features and then decide to back down to an earlier software version (see page 62).

❑ Perform NEW Kalypso Application Software installation from CD (see page 63).

- Exit the Kalypso Menu application and any other running applications.

- Disable virus protection software on the Menu panel (if installed).

- (OPTIONAL) If installing on a Kalypso Classic system running 9.0 or earlier software, unseat the Classic M/E and Transform Engine modules to delay reflash until after Frame boots.

Note Kalypso HD/Duo systems do not have flash memory, so their modules should not be unseated. No flash update occurs when upgrading a Kalypso Classic system from 9.1 or later software to 12.0, so there is no reason to unseat modules on Kalypso systems running those software versions.

- Insert the Kalypso Release Software CD into the system's CD-ROM drive.

- Agree to the license notice, select the **Kalypso Application Software** menu item, and select **Install New Software**.

- Select the checkboxes for the principle Kalypso system components (Frame, Still Store, Menu Panel, Main Panel, Local Aux Panel).

- Ping to verify system IP addresses.

- Start the update.

- Kernel updates (if required) occur here. Follow on-screen instructions carefully.

❑ When prompted, manually reset the Video Processor frame and the control surface components that were updated and then click **OK**. The Menu panel will reboot automatically.

Note   (Kalypso Classic upgrades from 9.1 or earlier only.) If M/Es and Transform Engine modules were not unseated above, wait for them to reflash and system to finish booting. A NO FRAME COMM message is expected until boot-time reflash is complete.

❑ Confirm the software versions just installed are correct (see page 70). If you have multiple control surfaces they will report earlier software versions at this time. They will be updated later.

❑ **REQUIRED**– Clear NV Memory (see page 70):

- Close the Kalypso Menu application and any other running programs.

- Set the Video Processor frame boot dial switch to **1**.

- Reset the frame and wait at least 30 seconds for reboot.

- Run the Kalypso Install program and select Clear NV Memory

- Set the Video Processor frame boot dial switch back to zero (0) and reboot the frame.

❑ Perform a preliminary system check after clearing NV Memory (see page 72).

❑ Load the files from the backup created at the start of this procedure in the following order: Eng Prefs, Suite Prefs, User Prefs, E-MEMs, R-MEMs, Macros, and Source Memory checking at each step (see page 72).

❑ Confirm Kalypso system operation (see page 72).

❑ If you have multiple control surfaces, perform NEW install for each additional control surfaces (see page 77).

❑ Save the current Eng Setups, Suite Prefs, User Prefs, Source Memory, Macros, E-MEM, and R-MEM files to a NEW backup (see page 73).

❑ If your system uses 32-Crosspoint Remote Aux panels and they have not been updated, install the software on all these remote panels using the update tools supplied separately.

❑ If your system has the KAL-IF-PROFILE or KAL-IF-VTR options and they were not updated with a 10.2 release, update the Machine Control Support software (see page 78).

❑ (Kalypso HD/Duo only) If you use NetCentral and want it to report all installed options, reinstall the **NetCentral Agent Configuration Tool** onto the Kalypso HD/Duo Menu panel where the Agent was originally installed. Install only the Agent. You do NOT need to reinstall the NetCentral support files (see page 64).

❑ Calibrate the Menu panel Lever Arms and Joystick (see page 73).

❑ Check Kalypso system component date and time values and set them if they are not correct (see page 75).

❑ Consult Release Notes for new features and config changes.

Kalypso Software Versions and the 12.0 Update

It is recommended to have the Kalypso system be running version 7.6 or higher software before updating it to 12.0. Hardware, firmware, and software changes were required for version 7.6. Starting with a properly running 7.6 Kalypso system will help ensure the update goes smoothly, and also permits you to back down from 12.0 software easily. While it is possible to install directly from an earlier version, all these changes will still need to be done in the proper sequence or system failure could result. Refer to Table 1 if you wish to upgrade directly from an earlier software version and carefully follow all the cross referenced instructions.

Table 1. Software Upgrade Matrix

Current Software	Steps Required for Upgrade to Version 12.0	Notes and Cross References
11.0.X 10.2.X	Install 12.0 software on the Kalypso system components (Video Processor frame, Main panel(s), Menu panel(s), and Local Aux panel.	See page 61
10.1.X	Update the software on any 32-Crosspoint Remote Aux panels used with your Kalypso System. The Remote Aux Panel software and update tools are not included on the Kalypso 12.0 Software CD, but are available for download from the Thomson Grass Valley website. This update is recommended but is not required.	Refer to the Remote Aux Panel Upgrade Instructions provided with the Remote Aux software.
	Install 12.0 software.	See page 61
	If your system has the KAL-IF-PROFILE or KAL-IF-VTR options, update the Machine Control Support software.	See page 64
9.1.X	Update the software on any 32-Crosspoint Remote Aux panels used with your Kalypso System.	See note above.
	Install 12.0 software.	See page 61
	Re-install Still Store Loader, if you were using that utility program with the Kalypso Still Store option. You should replace all occurrences of the older program, including any loaded onto PCs.	See page 64
	Enter authorization codes for any software enabled options	See page 85
	If your system has the KAL-IF-PROFILE or KAL-IF-VTR options, update the Machine Control Support software.	See page 64
9.0.0 8.0.0 7.6.X	Update the software on any 32-Crosspoint Remote Aux panels used with your Kalypso System.	See note above.
	On Kalypso Classic systems, install the Additional Control Processor RAM Upgrade on the Video Processor frame Control Processor module.	See page 86.
	On all Kalypso system panels, install the Control Panel Button Update.	See page 88
	Install 12.0 software.	See page 61 Flash upgrade on Classic systems, allow an additional 30 minutes.
	If your system has the KAL-IF-PROFILE or KAL-IF-VTR options, update the Machine Control Support software.	See page 64
7.2 and earlier	Software and hardware upgrade procedure not described in this document.	Contact Grass Valley Customer Service.

Kalypso Software on Newly Purchased Kalypso Systems

New Kalypso systems ship with the latest hardware and software installed. If Release 12.0 software is already installed, there is no need to update the system. You can see the current version of Kalypso software by touching the **Status & Diags** Home menu button to access the Versions menu.

IP Address Considerations

New Single Control Surface Kalypso Systems

A new Kalypso 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 Kalypso system into an existing network, wish to use gateway communications, or wish to add more Kalypso control surface components, IP addresses may need to be changed. See *Kalypso System IP Addresses* on page 81 for specific information.

Multiple Control Surfaces and Suites

If you plan to use multiple control surfaces (for example, more than one Main panel or more than one Menu panel) on the same Kalypso Video Processor frame, you must make sure the IP addresses of the additional panels are unique before connecting them to the network. Using default IP addresses of multiple panels will cause network conflicts and unpredictable system operation. See *Kalypso System IP Addresses* on page 81 for specific information.

Kalypso 12.0 Components

The Kalypso 12.0 Software Release includes the following:

- Kalypso 12.0 Software CD,
- Kalypso 12.0 Documentation CD,
- Kalypso 12.0 Release Notes, and
- Kalypso 12.0 Release Notes Addendum.

The software packages (and documentation) can be downloaded from the Grass Valley website. See *Kalypso Software Downloads* on page 83 for specific instructions.

Kalypso 12.0 Detailed Software Update Procedure

Note   If you are updating a Kalypso Classic system running software earlier than 7.6, additional steps are required. Contact Grass Valley Customer Service for specific instructions.

Time Required

Kalypso Classic Systems

On a Kalypso Classic system running version 7.6 through 9.0 software, updating to 12.0 should take about 45 minutes, because a 30 minute flash memory update will occur. A Kalypso Classic system running 9.1 or later software can be updated quicker because there is no flash memory update.

Kalypso HD/Duo Systems

Kalypso HD/Duo systems do not have flash memory, and so will never have a 30 minute update.

Note   Software download time and CD burn estimates are not estimated because the time required for these varies depending on the connection speed and applications used.

Materials Required

You will need the following materials for this update:

*   Kalypso 12.0 Software CD,

*   Two Zip disks or other backup media for configuration and effects files, and

*   P/S 2 keyboard and mouse (if you need to change IP addresses or are installing the Kalypso menu application on a PC).

Backup Current Configuration and Effects Files

1.   Save your system configuration files (Eng Setup, Suite Prefs, User Prefs, Source Memory), and your E-MEM registers, Macros, and R-MEM registers to removable media (Zip disk). Saving the multiple file sets (E-MEM, Macros, R-MEM) into separate folders can save time when you restore these files.

2.   Label the disk with the version and date and store it in a safe place. You will use these files to restore your Kalypso system data after its NV Memory is cleared, and will want these files if you decide to back down to that earlier software version.

Save Authorization Code

Existing Kalypso authorization codes will work with 11.0 and later software. However, on Kalypso HD/Duo systems new authorization codes created for new features will not work with previous software versions. This may result in loss of system functionality should you decide to back

down to earlier software. Should this occur, entering the previous authori-
zation code will restore HD/Duo system operation with the options
enabled by that earlier authorization code.

3. Go to the **Eng Setup**, **Install Options** menu.

4. Select **Perm** and save the Current Auth Code displayed. Writing it on
the label of the Zip disk is a convenient way to do this. If you store the
code elsewhere, indicate what Kalypso software version the code is
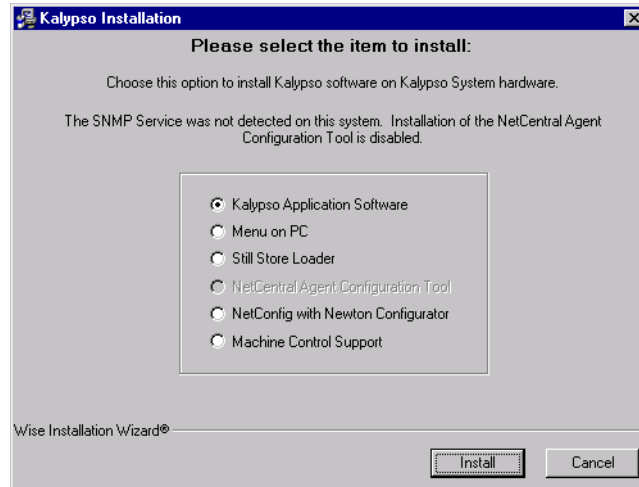used for.

Install Basic 12.0 Software on a Kalypso System

5. Exit the Kalypso Menu application and any other applications that may
be running.

6. Disable any virus protection that may have been installed on the
Kalypso Menu panel.

7. (OPTIONAL, Kalypso Classic systems) If you are updating a Kalypso
Classic system running 9.0 or earlier software, Video Processor frame
flash memory will need to be updated which can take up to 30 minutes.
Unseating Video Processor frame modules before installing the
software lets you confirm later in this procedure that the software has
been loaded without having to wait for the flash memory update. This
does NOT apply to Kalypso HD/Duo systems, which do not use flash
memory.

    • Open the front door of the Kalypso Classic Video Processor frame
    and unseat all the M/E modules (slots A11 - A14), and Transform
    Engine modules (slots A15-A16, if present). Do not completely
    remove the modules, just pull them out approximately one inch to
    disconnect them from the backplane.

8. Insert the Kalypso Release 12.0 Software CD into the Kalypso system
CD-ROM drive. The Kalypso Installation program will run and a
license agreement screen will appear. Agree to the terms and touch
Next >.

Select Type of Installation

9. After accepting the license agreement the following menu appears (Figure 41).

Figure 41. Installer Selection

This menu permits you to select from a variety of installations. Each option actually launches a different installer program appropriate to the item selected:

- Kalypso Application Software — Used for installing software on actual Kalypso system hardware. The Install Tool and all new software components are copied to the Menu panel C: drive with this option, even if all the components are not selected for installation. This permits loading current and previous versions of software to the various Kalypso components without the CD.

- Menu on PC — Installs only the Kalypso Menu application on a PC or an additional Menu panel, which when networked with the Kalypso system provides an additional control point.

- Still Store Loader — Installs the Still Store Loader utility program on the system where the CD is currently mounted, either a PC or a Kalypso Menu panel.

- NetCentral Agent Configuration Tool — Used to install the NetCentral Agent, required for the NetCentral option, on a Kalypso system. Available only when SNMP is configured.

- NetConfig with Newton Configurator — Installs NetConfig, a network configuration tool originally created for Grass Valley Modular products. Newton Configurator is a NetConfig software plug-in that allows the user to configure the Newton controls in the Kalypso Menu application.

- Machine Control support — Installs basic Machine Control software used with the KAL-IF-PROFILE and KAL-IF-VTR options.

10. To install the basic Kalypso software on a Kalypso system (not a PC or additional Menu panel), select **Kalypso Application Software** and then touch **Install**.

Note   If a Menu panel running Windows NT posts one or more .DLL file messages, you can select either Ignore or Reboot to continue with the installation.

Select Type of Software Update

11. The 12.0 Kalypso Install Tool will be copied to the C: drive and that application will launch, displaying the following menu (Figure 42).

Figure 42.   Software Version Selection
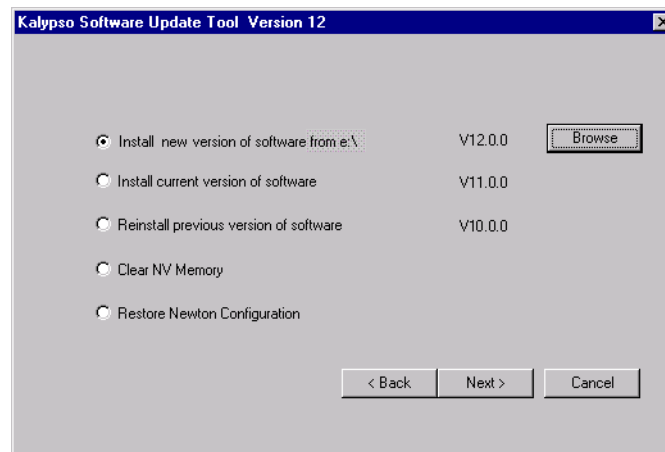
These options are available:

- **Install new version of software** — Select this option if you are updating your system software. It installs new software from the inserted CD. The **Browse** button is intended for software installation over the network, if the CD disk is not available.

- **Install current version of software** — Re-installs the currently loaded version of software. This is generally used to install the current software on new Kalypso hardware attached to the system. The CD disk is not required for this option.

- **Reinstall previous version of software** — Installs the previously loaded software from a Kalypso system backup directory. This option is included for safety, and generally should not be necessary. The CD disk is not required for this option.

Note   A Kalypso HD system running v 10.1 software must be set to HD operation before a 9.1 or earlier previous software version can be installed using the Previous option, because earlier software did not support SD mode.

- **Clear NV Memory** — Used to drain Kalypso system non-volatile memory.

- **Restore Newton Configuration** — Used to set Newton configuration information back to factory defaults.

12. To install the new Kalypso software from the CD, select **Install new version of software** and touch **Next >**.

Select Components to Update

13. A menu appears listing Kalypso system components, IP addresses, and Ping/Test buttons (Figure 43).

Figure 43. Kalypso System Components Selection Menu)
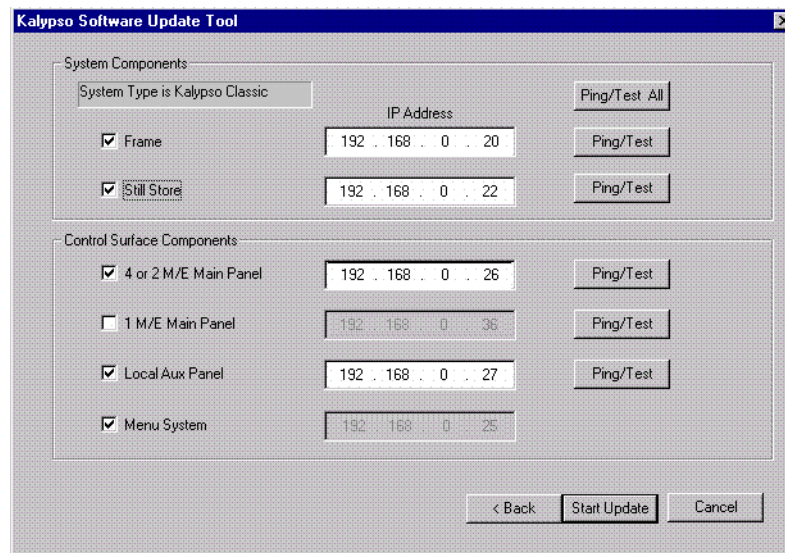
14. The installer automatically polls the IP address indicated for the frame and reports the system type (Kalypso Classic or HD/Duo). If that target address responds but is not a frame, UNKNOWN will be reported. A communications failure to that IP address will also be reported.

15. Valid IP addresses are required. The default or previously used IP addresses are displayed. After checking the boxes of all the devices you wish to install, touch the **Ping/Test All** button on the upper right.

- If communications succeeds, an **All selected targets Pinged ok** message will appear.

- If a device fails to respond, that device will be identified with a **No reply to Ping** message. The device might be disconnected from the network, be unpowered, or the IP address may be incorrect. If necessary, change the IP addresses on the screen using a standard computer keyboard and mouse connected to the ports on the rear of the Main panel. You can test whether a single device is communicating with its individual **Ping** button.

Note All selected devices must Ping successfully before proceeding. If Ping for any selected device fails, continuing installation will make the Update Tool exit.

Download Software Files to the Selected Components

16. When the installation option selections and IP addresses are correct, touch the **Start Update** button. Ping is run automatically, then a progress bar is displayed and the components being loaded are identified. Systems running recent software will have updated kernel software and the process skips to Step 20 on page 68.

Kernel Version Test (Older Software Versions Only)

17. If any older kernel software is detected, messages will be posted indicating which devices need to updated and reset (see *Kernel Update Process* on page 84).

18. When all the kernels are current, the installer returns to the Kalypso System Components menu (Figure 44).

Figure 44. Kalypso System Components Selection Menu)
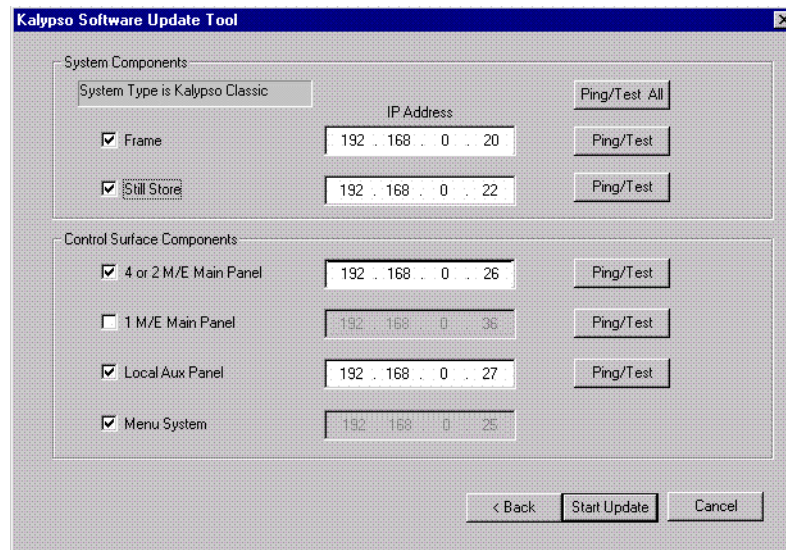
19. With all the appropriate components checked, press **Start Update** again to download the Kalypso software to the selected components.

Reset Kalypso System Components

20. When the file transfers complete a menu similar to one of those shown in Figure 45 appears.
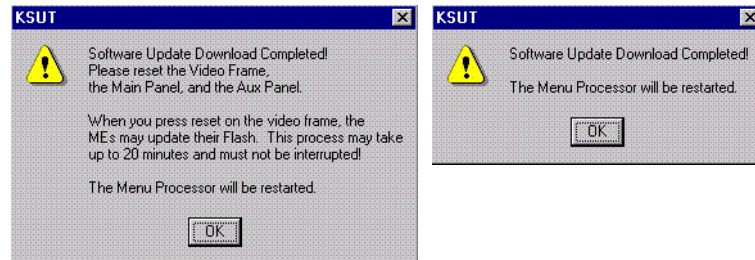
Figure 45. Kalypso Install Reset Prompt

21. You must manually reset all the hardware components (Video Processor frame, Local Aux panel, Main panel) that were updated (see the *Kalypso Installation and Service Manual* for reset instructions).

CAUTION If Kalypso Classic Video Processor M/E and Transform Engine (if present) Frame modules are not unseated on a system running 9.0 or earlier software, when the Frame is reset the modules will automatically update their flash memory, which will take up to 30 minutes. The Kalypso Classic system must not be disturbed during this process. During the flash memory update LEDs on each M/E module display a unique counting sequence. Status messages (**Erasing**, **Programming**) are also reported on the Menu panel.

22. When all the components other than the Menu panel have been reset, Touch **OK**. The Menu panel resets itself automatically.

23. If running Windows 2000, a log on prompt may appear. Enhanced Menu panels are set at the factory to log on using the default user name displayed and no password. Simply touch **OK** to log on without entering any password.

24. When Menu panel initialization completes the Kalypso Menu application will run and display its startup screen (Figure 46).

Figure 46. Kalypso Startup Screen
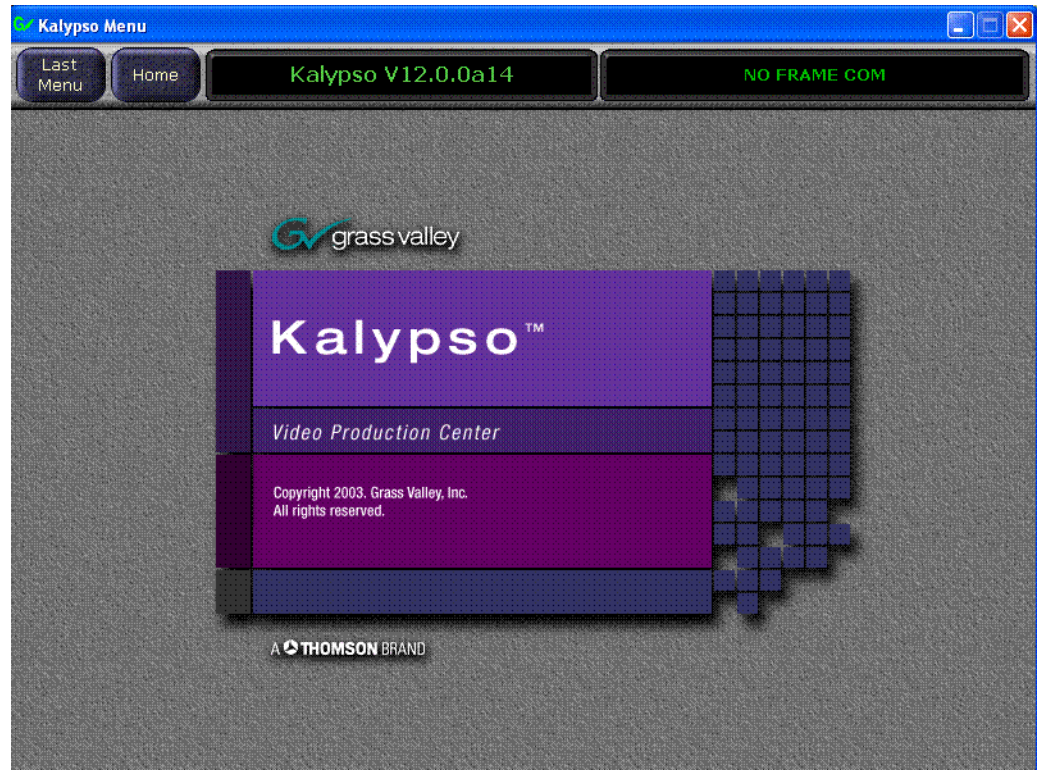
Confirm Software Versions

25. Touch **Home**, **Status & Diags** and check that the updated devices report the correct software version (Figure 47).

Figure 47. Kalypso System Software Versions, One Suite

	Last Menu	Home	Status - Versions	

Software Versions

Node Name	Control Surface	Node Type	IP Address	Software Version & Date
Frame		Video Proc Frame	192.168.0.20	V12.0	Aug 29 2005
StillStore		Still Store	192.168.0.22	V12.0	Aug 29 2005
Menu	1 A	Menu Panel	192.168.0.25	V12.0	Aug 29 2005
PANEL	1 A	4 M/E Main Panel	192.168.0.26	V12.0	Aug 29 2005
Aux Panel	1 A	Local Aux Panel	192.168.0.28	V12.0	Aug 29 2005

Memory Usage   9%

Grab SW Diag Data

Note   Components with older software display the version and date in red. If you are updating a Multi-Suite Kalypso system some components will report older software at this time, which is normal. See *Software Installation on Multiple Control Surface Kalypso Systems* on page 77 for more information.

Clear NV Memory

Kalypso system non-volatile memory (NV Memory) contains Engineering, Suite, and User configuration data, and also has data for all the effects registers. This data is stored as files on the Video Processor frame hard disk and is loaded on bootup. The Video Processor frame boot dial must be set to **1** and the frame rebooted before you can clear NV Memory.

Note   You need backup copies of your configuration and data files so they can be restored after the NV Memory is cleared.

26. Set the Video Processor frame boot dial to **1**. On Kalypso HD/Duo systems there is one boot dial on the Control module in slot 1, and another on the Still Store nodule, if present. Only the Control module boot dial needs to be set to 1. On Kalypso Classic systems there are two boot dials on the Control Module in slot 1. Only the lower dial, labeled **COM**, needs to be set to 1.

27. Press the Video Processor frame **Reset** button and allow at least 30 seconds for the system to reboot.

CAUTION If you do not wait at least 30 seconds for the frame to reboot the NV memory may not clear. You will need to repeat the procedure and wait the 30 seconds.

28. Close the Kalypso Menu Application and any other running programs, then run the Kalypso Install program from the desktop (if it has been installed) or from the Kalypso Software CD.

29. Select the **Clear NV Memory** box, then touch **Next**. The following screen will appear (Figure 48).

Figure 48. Clear NV Memory Categories Menu
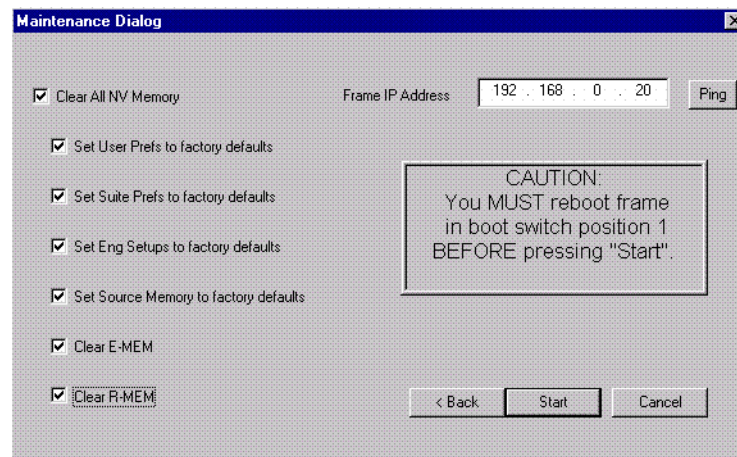
30. Ensure the IP address is correct and **Ping** to confirm the connection.

31. Check the boxes of the items you wish to clear. The **Clear All NV Memory** box toggles all the check boxes on or off.

32. Touch **Start** and confirm the dialog box by touching **OK**.

33. A progress bar will be displayed. When done, you will be prompted to reset the frame. Touch **OK**.

34. Reset the Video Processor frame using the zero boot dial setting.

   a. Turn the Video Processor frame boot dial switch to position **0**.

   b. Press the **Reset** button and allow at least 30 seconds for the system to reboot.

35. (OPTIONAL, Kalypso Classic systems running 9.0 or earlier software only) If you unseated modules at the start of the update, reseat the modules in the Video Processor frame. The modules will automatically update their flash memory, if necessary.

Preliminary System Check

36. Go to the Status Versions menu and check that the Memory Usage meter is at 0%. This confirms the memory has been cleared.

37. Check that an M/E can do a mix or wipe between two sources. This confirms basic system functionality. Note that because the memory was cleared factory default source names will be displayed.

38. Remove the Kalypso Software CD from the drive and store it in a safe place.

Restore Kalypso Configuration Files

39. Restore your backup files in the following order:

a. Reload your backup Eng Setup file and make sure it is correct by, for example, checking that the proper source names appear in the Eng Setups Sources menu. Older settings should be the same as before. Settings for new features will be set to defaults.

b. Load a Suite Profile, and check that the Suite Preferences settings are correct.

c. Load a User Profile and check that the User Preferences settings (Button Mapping for example) are correct.

40. If there are any problems with any of the restored files, they may have become corrupted and need to be deleted and rebuilt. If a problem file locks the system, you may need to drain NV Memory again to restore system operation, but you will know what file is responsible. Contact Grass Valley Customer Service if you need troubleshooting assistance.

Confirm System Operation

41. Check that all the installed M/Es and Transform Engines are operational. Select different crosspoints on the M/Es and fly a key with the Transform Engine. If an M/E or Transform Engine is not operational, its flash memory update might not have succeeded. See

42. Check that any software enabled options operate correctly, Existing authorization codes should work with the new software, but there are potential backward compatibility issues with these codes

43. Reload the E-MEM files and check that the effects 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.

44. Reload the Macros and check that they operate correctly.

45. Load some Still Store images and confirm they display correctly.

Backup New Configuration and Effects Files

46. When you are satisfied with the new configuration, save the new configuration file and effects to a new Zip disk.

   CAUTION Do not overwrite the files previously saved from the old software. Newer software files do not work with older software.

47. Label the disk with the version and date and store it in a safe place.

48. Reactivate any virus protection on the Menu panel that may have been disabled at the start of this procedure.

Single Suite Procedure Completed

The Kalypso system update for a single suite, single control surface Kalypso system is now complete. System time checks and hardware calibration should be done next.

If you have a multi-suite Kalypso system, additional steps are required (see *Software Installation on Multiple Control Surface Kalypso Systems* on page 77).

Calibrate Main Panel Lever Arms and Joystick

The Main panel lever arms and joystick can be calibrated from the Main panel.

1. If necessary, press and hold down the **Unshift**, **Shift**, **Near Side**, and **Far Side** buttons on any M/E for five seconds to bring up the Top Menu on the PGM PST source name display. The source buttons labeled **IP Config**, **Disply Ad**j, **Calibrate**, and **EXIT** will illuminate.

2. Press **Calibrate** to enter calibration mode. Lighted PGM PST Source buttons are labeled with all the lever arms and the joystick.

3. To calibrate a lever arm, press the labeled button of the desired lever. Calibration values display and a button labeled **Calibrate** flashes.

4. Press the flashing **Calibrate** button. Directions for the procedure are displayed. Move the lever to its lower limit, press a lighted button labeled **Press**, then move the lever to its upper limit, again pressing the button labeled **Press**. The values of each limit are displayed.

5. To calibrate the joystick, press the **Joystick** button. Calibration values are displayed and a button labeled **Calibrate** flashes.

6. Press the flashing **Calibrate** button. Directions for the procedure are displayed. Move the joystick up, down, left, right, clockwise, and counterclockwise. After all the direction limits have been reached, press the labeled **Press** button. Release the joystick to allow it to find its neutral position and press the labeled **Press** button.

7. Press **Save/Exit** to save the new calibration values.

Note   Pressing **Exit Only** will exit the calibration mode without updating to the new values.

8. Press **Exit** to exit the Top Menu. After a few seconds the Main panel will automatically reboot and then return to normal operation.

## Verify or Set Date and Time of Kalypso System Components

After software installation is complete and switcher operation has been verified, verify that your Kalypso system components are all set to the correct date and time. Incorrect date and time settings can interfere with the use of Temporary Authorization codes issued for enabling switcher options, and can make interpreting error log files difficult.

Note   These procedures use a keyboard and mouse connected to the Menu panel.

Verify or Set Menu Panel Date and Time

1. Minimize the Kalypso Menu panel application by selecting the **Home** button, then the **Minimize Menu** button in the Home menu to view the Windows 2000 desktop.

2. Under the Windows **Start** button, select **Settings/Control Panel/Date/Time**.

3. This will bring up the Date/Time Properties screen (Figure 49). In the Date & Time tab verify or set the correct time and date.

Figure 49. Verify or Set Windows 2000 Date and Time
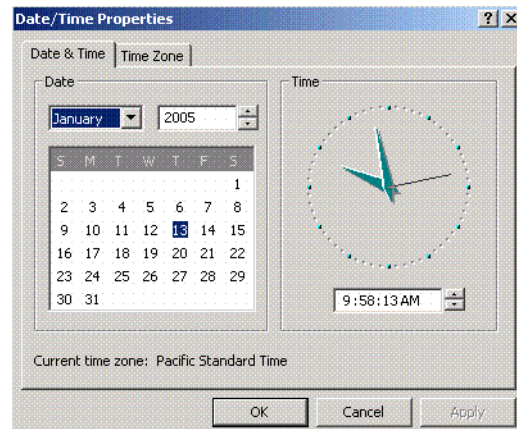
4. Under the Time Zone tab, verify or set the correct time zone.

5. Select **OK** and close the window.

Verify or Set Video Processor Date and Time

1. With the Kalypso Menu panel application minimized, open Windows Internet Explorer on the Menu panel.

2. Type the Video Processor's frame IP address on the web browser. This brings up the main Kalypso Frame Web Access screen (not shown).

3. Select the link on the left labeled **Frame Date and Time**.

4. In the Frame Date and Time screen (Figure 50), enter the current date and time to match that of the Menu panel

Figure 50. Video Frame Date and Time Screen

5. When finished, select the **Save New Settings** button.

Verify or Set Still Store, RT Panel, and Aux Panel Date and Time

To verify or set the date and time on the remaining Kalypso system components, do the following:

1. With the Frame Web Access page displayed, select the **Stillstore**, **RT Panel**, or **Aux Panel** link.

Note Kalypso System Component Web Access screens for the Still Store, Main Panel, and Local Aux Panel may also be reached by entering the IP address of the device in the address line of the web browser.

2. Access the Date and Time page, change the settings for that component if necessary, and touch the **Save New Settings** button.

3. Repeat for each component.

Software Installation on Multiple Control Surface Kalypso Systems

The Kalypso Resource Sharing feature permits coordinated operation of multiple control surfaces on the same Video Processor frame, using suites. The same version of software must be installed on all Kalypso system components. How this software is installed depends on the configuration of your facility. You will need to know the IP addresses of each component being updated.

Note   A Kalypso Menu panel retains the last set of IP addresses used, and the components selected for update, and these settings are used by default the next time that Menu panel is used for a software update. Setting all the Menu panels with appropriate defaults can help ensure the software of all the components of a multi-suite Kalypso system are updated correctly.

Guidelines

In general, the following software update guidelines apply:

- Each Menu panel (or PC running the Kalypso menu application) is updated locally, using the Kalypso Software CD inserted into that devices local drive.

- The components of each control surface are best updated using a Menu panel or PC operating in that control surface. If there is more than one Menu panel in a control surface, the EIC may wish to set the defaults of one panel for software updates of the control surface components, and set the defaults for the other panel to only update its own software.

- The Video Processor frame and Still Store option can be updated with a Menu panel in any control surface, but it is recommended this update occur once rather than be repeated with every component software update. The EIC may wish to assign one Menu panel (or a PC that has the Kalypso installer program installed) for updating the frame, and set the defaults so the frame is not installed from any other location.

- It is possible to update the software in the second suite while Kalypso Classic frame modules are updating their flash. However, the Frame should have completely rebooted and established communications with the other system components before you begin the second suite software installation. Frame communications can be confirmed by pressing an acquired M/Es source buttons and have the button tallies change accordingly. Though actual video will not change if the modules are removed, the tally changes indicate communication is present.

- When a Menu panel is used for a software update, it retains a backup version of the previously loaded software locally, permitting a return to that earlier software without need for the software CD. If multiple Menu panels are used for software update, there may be different backup versions of software resident on different Menu panels. Use care when backing down to earlier software versions, to avoid having different software versions running at the same time

Update Procedure

1. Disable virus protection software on the additional Menu panel (if installed) and close any other running applications, including the Kalypso Menu application.

2. Verify IP addresses by selecting and Pinging the control panels of one surface only.

3. Perform the software update on that control surface's components, without selecting the Frame or Still Store.

4. Repeat for any additional control surfaces.

5. Confirm all the installed software versions are correct by going to the Status Versions menu (Figure 51).

Figure 51. Kalypso System Software Versions, Two Suites

Note   Components with older software display the version and date in red.

Machine Control Interface Installation and Configuration

Machine Control Interface software (formerly called OmniBus), used for external Profile VDR and

VTR machine control via the Kalypso system Machine Control subpanel, is included on the Kalypso Software CD.

You need to decide whether installing Machine Control Support is appropriate.

- If you do not have the KAL-IF-PROFILE or KAL-IF-VTR options, Machine Control does not need to be installed. Your software installation is complete.

- If you updated your Machine Control (OmniBus) software when you installed Kalypso Release 10.2 or later software you do not have to update the software. The Machine Control software has not changed from that version.

- If you have installed Machine Control (OmniBus) software prior to Release 10.2, or plan to begin using the KAL-IF-PROFILE and/or KAL-IF-VTR options to control Profiles VDRs or VTRs you need to install Machine Control Support software.

Refer to the separate *Machine Control Interfaces Installation Manual* for specific information.

File Transfer Tests and Installation Failure Notices

Note   Notification messages are displayed if problems are detected during Kalypso software installation. Read any popup messages carefully.

The Kalypso system tests the FTP connection used during software installation. If a problem with the FTP connection is encountered, a popup notification is displayed and the installer program exits. The message may offer suggestions on what to do to continue with the installation. In earlier software versions, if an FTP failure occurred the installer automatically proceeded to the next software component without notification.

The installer now also performs a confidence check of copied file sizes. If a copied file size does not match, the system will retry the file copy up to two times. Repeated failures post a popup notification and the installer will exit.

See *Software Installation Troubleshooting* on page 95 for more information.

Electronic Documentation

Documentation for Release 12.0

A complete set of product documentation in .pdf format is included on the *Kalypso Documentation CD*. This electronic documentation can be viewed on screen, printed out, or installed onto a computer.

Kalypso 12.0 documentation is also available in .pdf format either directly from the Grass Valley downloads web page, or via a link on that page to the Grass Valley documentation web page. The documentation page can be accessed directly via **www.thomsongrassvalley.com/docs**.

Note Hardcopy versions of these manuals are available for purchase from Grass Valley Customer Service.

Acrobat Reader

Adobe Acrobat Reader 3.0 or later is required to view the provided .pdf files. A version of Acrobat Reader plus Search that can be installed on Windows 98, ME, NT, 4.0, 2000, and XP computers is included on the documentation CD. The README_PDF.txt file on the CD describes how to install Adobe Acrobat. This version of Adobe Acrobat supports the cross document Search feature. Information about this feature is included in the HowToSearchv2.pdf file included on the CD.

.PDF File Names

The first part of the .pdf file name identifies the product. The software version is identified with a V and two or three numbers, though some files do not have a software version. The type of manual is identified (for example RN for Release Notes) followed by the last six numbers of that manual's part number.

To Browse the Documentation on the CD

1. Insert the CD into the computer.

2. Open the Kalypso_Documentation folder and double click on the desired file.

To Install the Documentation on a Computer

1. Insert the CD into the computer.

2. Copy the entire Kalypso_Documentation folder to your computer's hard disk.

Copying the entire folder includes the .pdf index file used for the Adobe Acrobat Reader cross documentation Search feature.

You can also copy individual files by selecting and copying only the ones you want. You will be able to use the find function to search these files individually but the cross document search feature will not work.

Uninstalling Older Documentation

If you previously installed Kalypso documentation using a Release 7.6 or earlier CD, it should be uninstalled to avoid confusion that may result from the obsolete information. Earlier documentation installations created a Grass Valley Group location accessible from the Windows Start menu for that documentation.

To uninstall older documentation:

1. From the Windows desktop select **Start**, **Settings**, **Control Panel**.

2. Double click **Add/Remove Programs**.

3. Select **Kalypso Documentation**, click **Add/Remove** and then follow the instructions on the screen.

This will remove the older .pdf documentation files. The Kalypso Documentation location in the Start menu may remain, but it should be empty. The new documentation is accessed from the Kalypso_Documentation directory on the CD or wherever you installed the .pdf files on your computer.

Additional Kalypso System Update Information

Kalypso System IP Addresses

The Kalypso Video Production Center is shipped with default IP addresses (Table 1). These default addresses can be used if the Kalypso 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 the defaults:

Table 1. Default IP Addresses

Device	IP Address
Video Processor frame	192.168.0.20 (Facility LAN)
	192.168.1.21 (Panel LAN, which exists on Kalypso Classic but is not used, and is not present on Kalypso HD/Duo)
	192.168.0.22 (Still Store)
Main panel (4-M/E and 2-M/E)	192.168.0.26
Main panel (1-M/E)	192.168.0.36
Menu panel	192.168.0.25
Additional Touch Screen Display	(undefined)

Table 1. Default IP Addresses

Device	IP Address
Local Aux panel	192.168.0.27
32 Crosspoint Remote Aux panels (when hard reset with the front panel buttons)	V0.0.2a SW: 192.168.0.250, Subnet Mask 255.0.0.0, Frame 192.168.0.251, Gateway 192.168.0.1
	V1.6.5 SW: 192.168.1.2, Subnet Mask 255.255.255.0, Frame 192.168.1.1, Gateway 192.168.1.1
All Subnet Masks (except Remote Aux panel)	255.255.255.0
All Gateways (except Remote Aux panel)	192.168.0.1

Note On Kalypso Classic systems, though the Panel LAN is not used the frame still requires a Panel LAN IP address that is different from the Facility LAN. The Panel LAN must also have the same subnet mask as the Video Processor frame or the Facility LAN will not work.

Changing IP Addresses

CAUTION If other devices are present on the network (including a different Kalypso system) make sure every device has a unique IP address before it is connected to the network.

If you change the IP address of a Kalypso device, the IP address settings stored in the other devices must also be changed so they match. See the *Kalypso Installation and Service Manual* for specific procedures for changing IP addresses.

Machine Control IP Addresses

If you install the machine control (Encore) database file to use the Profile interface (KAL-IF-PROFILE), a default Profile VDR IP address (192.168.0.10) and **Profile 1** name are configured automatically when the machine control software is loaded. The Profile VDR used with the Kalypso system needs to be configured with this default address. Otherwise, the OmniBus system configuration needs to be changed. OmniBus configuration procedures are outside the scope of this document, but information is available in the separate *Machine Control Interfaces Installation* manual included on the Kalypso documentation CD.

The VTR interface option (KAL-IF-VTR) also requires an IP address on its serial engine. Serial engines shipped from Grass Valley may be pre-configured with a default IP address of 192.168.0.15 (255.255.255.0 subnet mask) and named **VTR Control 1**, which will work on a Kalypso system using default IP addresses. Serial engines shipped direct may not be configured with a default address or name, however. These systems will need to be set by the installation engineer to an IP address that is compatible with the Kalypso and Encore system components. Refer to the separate *Machine Control Interfaces Installation* manual included on the Kalypso documentation CD for specific instructions.

Kalypso Software Downloads

Kalypso system software is available from the Grass Valley website. You will need a PC with a high speed connection to the internet, an Unzip utility, and a CD burner to download these files for use with a Kalypso system.

1. Using a web browser, go to **www.thomsongrassvalley.com/downloads**, select **Switchers and Effects**, and then go to the desired software version.

2. Download the Kalypso 12.0 Software package using the same method as previous releases.

3. Unzip the downloaded archive, burn the entire downloaded package onto a CD, and label the CD with the software version.

Backing Down to an Earlier Software Version

WARNING **Kalypso 12.0 software requires an SBC1000 Frame Processor upgrade for optimum system performance. The SBC1000 is fully compatible with 7.2.1 and higher software versions. You must install compatible software BEFORE you install the SBC1000. Once installed, if you wish to back down to 7.1 or earlier software you will need to reinstall the earlier Frame processor before you load the older software. If the processor is not replaced beforehand, unrecoverable Kalypso system failure will occur, requiring hard disk or disk-on-chip hardware replacement.**

Note A Kalypso HD system running v 10.1 or later software must be set to HD operation before a 9.1 or earlier software version can be installed using the Previous option, because earlier software did not support SD mode.

Note On Kalypso HD/Duo systems, authorization codes that enable 11.0 and later features cannot be used with earlier software versions. You will need to enter the authorization code for that earlier version of software to regain full system functionality (see page 86).

Once Kalypso Release 12.0 software has been installed, if you need to back down to earlier software use the Kalypso Install program loaded onto the system by the 12.0 software update. A shortcut to this program resides on the Kalypso Menu panel desktop.

Using the 12.0 Desktop Kalypso Install Program

1. Exit the currently running Kalypso Menu.

2. Double touch the **Kalypso Install** shortcut icon on the desktop.

3. Select **Reinstall previous version of software** and touch **Next >**.

CAUTION Be sure the older version of software selected is compatible with your Kalypso system hardware configuration.

4. Choose all the components that exist in your system, run **Ping** to ensure communications, then select **Start Update**.

5. Follow the rest of the standard installation procedure. The previously loaded version of software will be installed.

Kernel Update Process

Software kernel versions are checked first during the Kalypso software installation process. Kernels reside on the following devices:

- Video Processor frame Control Processor hard drive

- Still Store option hard drive

- Local Aux panel DOC (Disk on Chip)

- Main panel DOC or hard drive

Depending on the devices involved and the versions discovered, different kernel update messages will be posted. In general, a message identifying the older kernels detected is displayed asking if you wish to continue. Continuing downloads kernel code to the device(s), and then another message is posted identifying the number of resets required to complete the kernel update for a particular device. When this is done, the reset message for the next device (if any) is displayed.

Note   You need to carefully read the all menus and respond to each kernel update message in turn to completely update the system.

To Update Kernel Software:

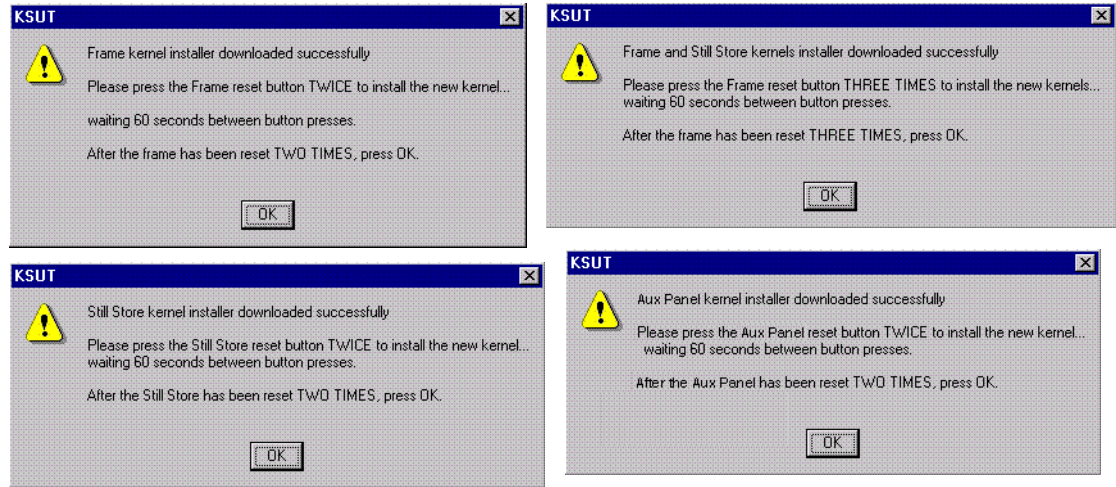1. Examples of messages identifying older kernels are shown in (Figure 52).

Figure 52. Older Kernel Detected Messages
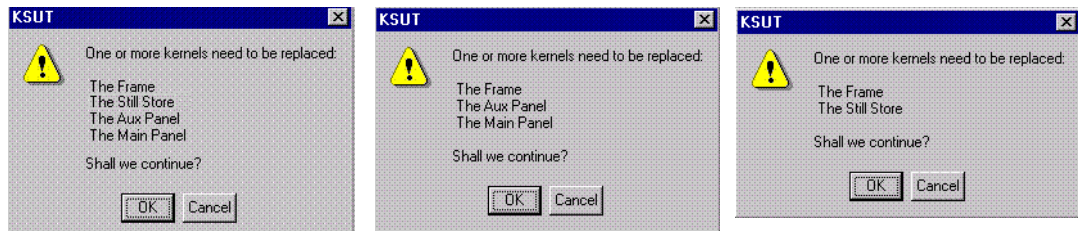
2. Touch **OK** to download the kernel(s) to the device(s).

3. Examples of messages identifying the number of resets required are shown in Figure 53.

Figure 53. Kernel Update Reset Messages

4. Reset that device the number of times indicated, being sure to wait the specified time (60 seconds) between resets (see the *Kalypso Installation and Service Manual* for specific reset instructions). When done touch **OK**.

Note   Typically each device needs to be reset twice, with a one minute wait between resets. However, if the Still Store option is installed the Frame needs to be reset three times.

5. Read each subsequent message and follow the reset procedure stated for every device that was updated with the new kernel.

6. After the kernels are updated the installer returns to the Kalypso System Components menu. At this point only kernel software has been installed, so you need to continue the process to install the actual Kalypso software.

Software Authorization

New Kalypso systems ship with all purchased options already enabled, so authorization by the user is not required on these systems.

Customers who have purchased options should have received an authorization code for those options. This code needs to be entered on the specific Kalypso system for which the code was generated in order to enable the options.

1. Authorizations can be checked by touching **Eng Setup**, **Install Options**.

2. To enter a new authorization code, touch the New Authorization data field and type in the number using the popup keypad.

> **Note** You must login as the EIC before you can enter an authorization code.

3. After you have entered the authorization code, confirm that the options operate. In particular, check that the correct number of Chroma Keys are enabled. Contact Grass Valley Customer Service if you have any problems with your authorization code.

Authorization Code Compatibility

Authorization codes used with earlier Kalypso software versions should work with later software releases. These authorization codes, after being used on a newer release, should also continue work if the Kalypso system software is backed down to an earlier version. However, for Kalypso HD/Duo systems, the format of authorization codes has been changed to support Kalypso 11.0 features. If you install an 11.0 software option (for example, Advanced TE Effects) on a Kalypso HD/Duo system, that authorization code will not work if you back that system down to an earlier software version. In some cases this can severely affect Kalypso system operation. For example, a valid authorization code for a Kalypso HD system is required for HD operation, even though it is a standard feature. For this reason, it is important that Kalypso HD/Duo customers save the authorization code for Kalypso versions earlier than 11.0 should you later decide to load an earlier software version onto that system.

Additional Kalypso Classic Control Processor RAM

Kalypso Classic systems running 9.1 and higher software need additional RAM for optimum system operation. A system will operate without added RAM, but the total number of E-MEM keyframes will be limited. With the added RAM the system supports 40% more keyframes as before.

> **CAUTION** This RAM upgrade is for SBC1000 processors only. Do not attempt to upgrade the RAM of earlier control processors.

To install the additional RAM:

1. Power down the Kalypso Video Processor frame.

2. Remove the Control Processor module from slot A1.

3. Using anti-static practices, insert the supplied DIMM into the vacant slot on the SBC1000 processor and lock the tabs (Figure 54).

Figure 54. Video Processor Frame Control Processor RAM Upgrade
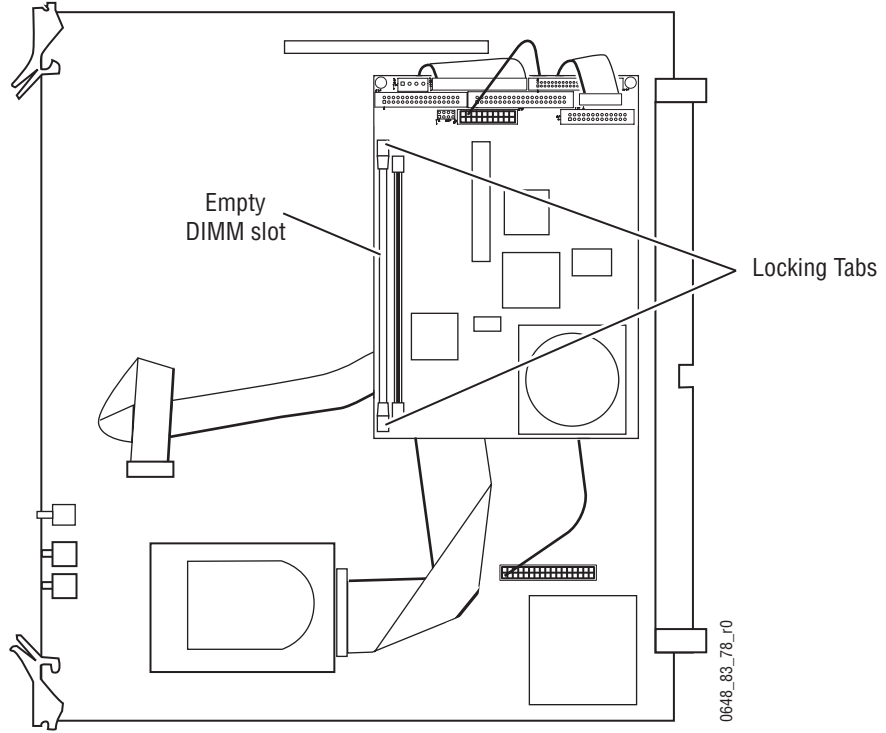
4. Reinsert the Control Processor module and power up the frame.

Kalypso Control Panel Button Update

Purpose

Buttons on the Kalypso 4-M/E, 2-M/E, and 1 M/E Main panels were changed to support the Macros feature (introduced with Kalypso version 9.0 software), improve the visibility of the shift buttons, and other corrections.

Parts List

A single button replacement set accommodates all three Main panel types. Also included in this kit are two buttons for the original Menu panel, which are not used on the newer Enhanced Menu panel. Some of the other buttons in the kit also may not be needed, depending on your particular Kalypso system components. Refer to the instructions for the specific type of Kalypso panel being updated.

4-M/E Main Panel Update Instructions
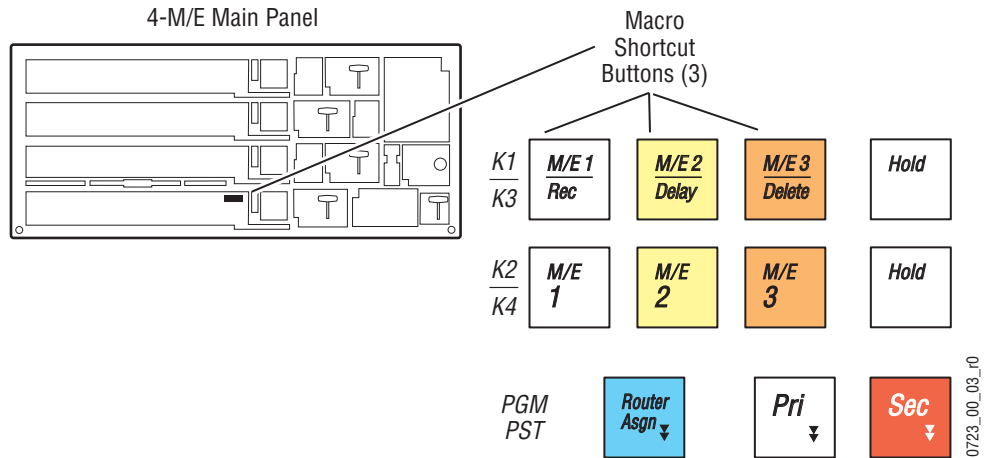
4-M/E Macro Subpanel Buttons

Figure 55. 4-M/E Macro Subpanel Buttons
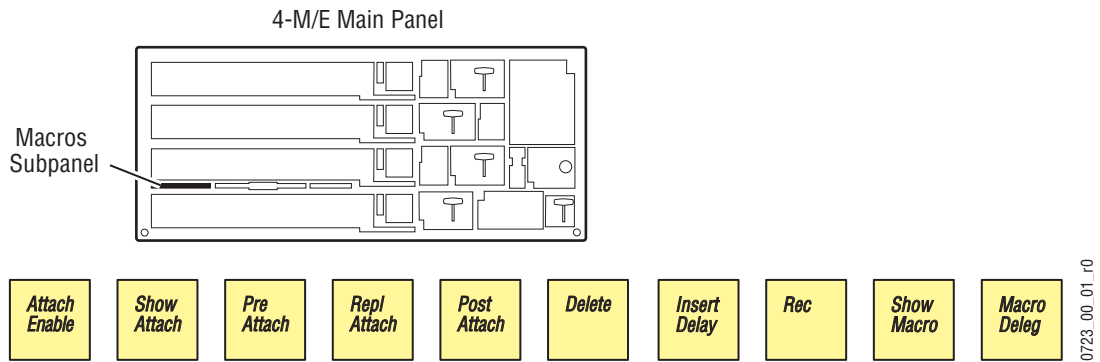
1. Remove the **Macro 1** - **Macro 10** on the lower left. Make sure to remove the entire button, which can have several parts.

2. Insert Macro buttons from the kit in the order shown in Figure 55

4-M/E Macro Alternate Buttons

*Figure 56. PGM PST Macro Alternate Buttons*

1. Remove the **M/E 1**, **M/E 2**, and **M/E 3** reentry buttons from the PGM PST K1/K3 button row.

2. Insert the Macro alternate buttons from the kit in the order shown in Figure 56.

4-M/E Shift Buttons

The Source Select Modifier **Shift** buttons are being re-arranged, and one is being replaced, so they will be colored differently and so be easier to locate (Figure 57).

Figure 57. Source Select Modifier Shift Button
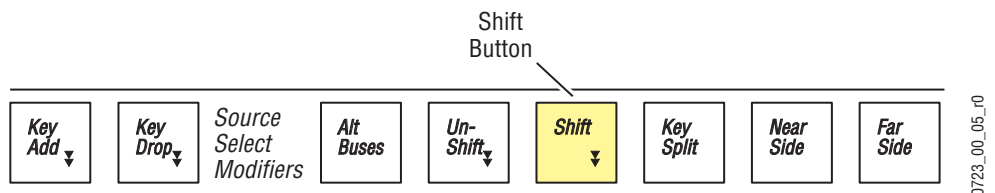
1. Remove the white **Shift** button from the M/E 1 bank, remove the yellow **Shift** button from M/E 2 bank, and swap their positions.

2. Remove the orange and white **Shift** buttons from M/E 3 and PGM PST.

3. Insert the white **Shift** button just removed into the M/E 3 bank.

4. Insert a yellow **Shift** button from the update kit into the PGM PST bank.

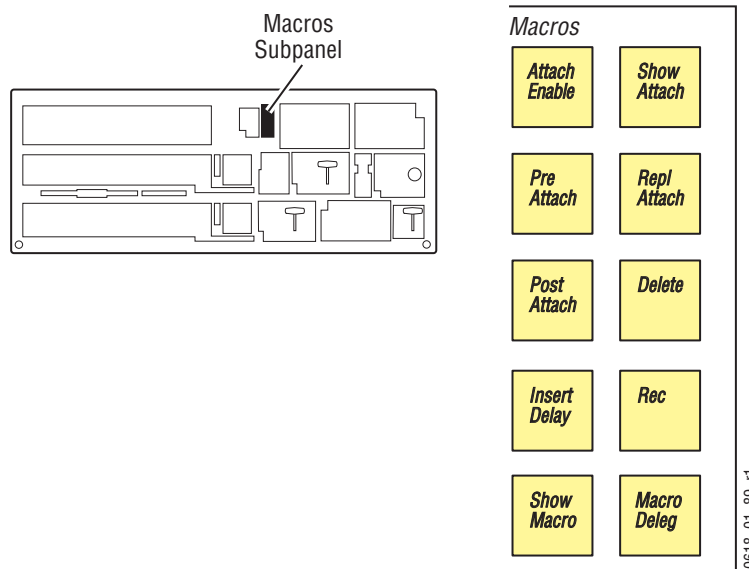Table 2 lists the colors of the newly arranged buttons.

Table 2. Rearranged 4-M/E Shift Buttons

Bank	Shift Button Color
M/E 1	Yellow
M/E 2	White
M/E 3	White
PGM PST	Yellow

2-M/E Main Panel Update Instructions
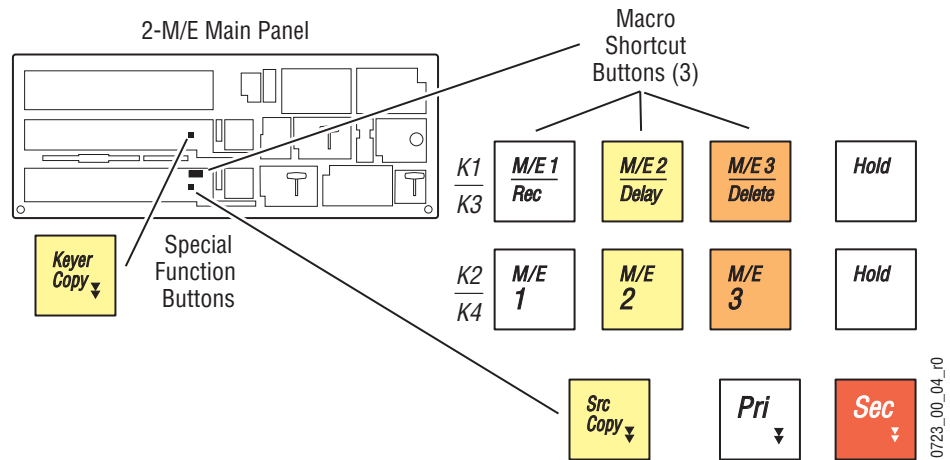
2-M/E Macro Subpanel Buttons

Figure 58. 2-M/E Macros Subpanel

1. Remove the **Macro 1** - **Macro 10** on the upper right. Make sure to remove the entire button, which can have several parts.

2. Insert the Macro buttons from the kit in the order shown in Figure 58

2-M/E Macro Alternate Buttons

Figure 59. PGM PST Macro Alternate Buttons

1. Remove the **M/E 1**, **M/E 2**, and **M/E 3** reentry buttons from the PGM PST K1/K3 button row.

2. Insert the Macro alternate buttons from the kit in the order shown in Figure 59.

Older 2-M/E Special Function Button

Some older 2-M/E Main panels were assembled with incorrect special function buttons. These buttons should be **Keyer Copy** and **Src Copy**.

Note   Do not change any special function buttons on a 4-M/E panel.

1. If your 2-M/E Main Panel has the incorrect special function buttons, remove them and replace it with the **Keyer Copy** and **Src Copy** buttons from the update kit (Figure 59).

2-M/E Shift Buttons

The Source Select Modifier **Shift** buttons are being re-arranged, and one is being replaced, so they will be colored differently and so be easier to locate (Figure 60).

Figure 60. Source Select Modifier Shift Button
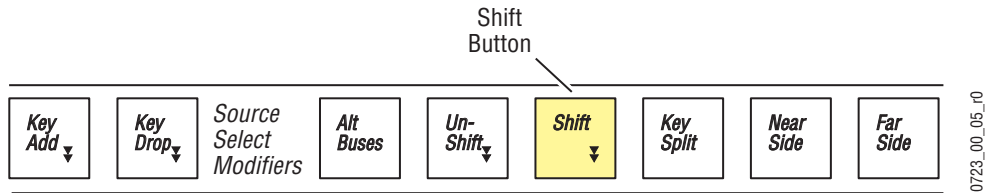
1. Remove the orange and white **Shift** buttons from the M/E and PGM PST banks.

2. Insert the white **Shift** button just removed into the M/E bank.

3. Insert a yellow **Shift** button from the update kit into the PGM PST bank.
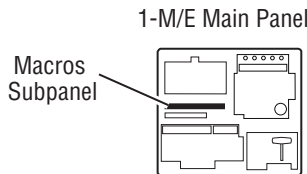
Table 3 lists the colors of the newly arranged buttons.

Table 3. Rearranged 2-M/E Shift Buttons

Bank	Shift Button Color
M/E	White
PGM PST	Yellow

1-M/E Main Panel Update Instructions
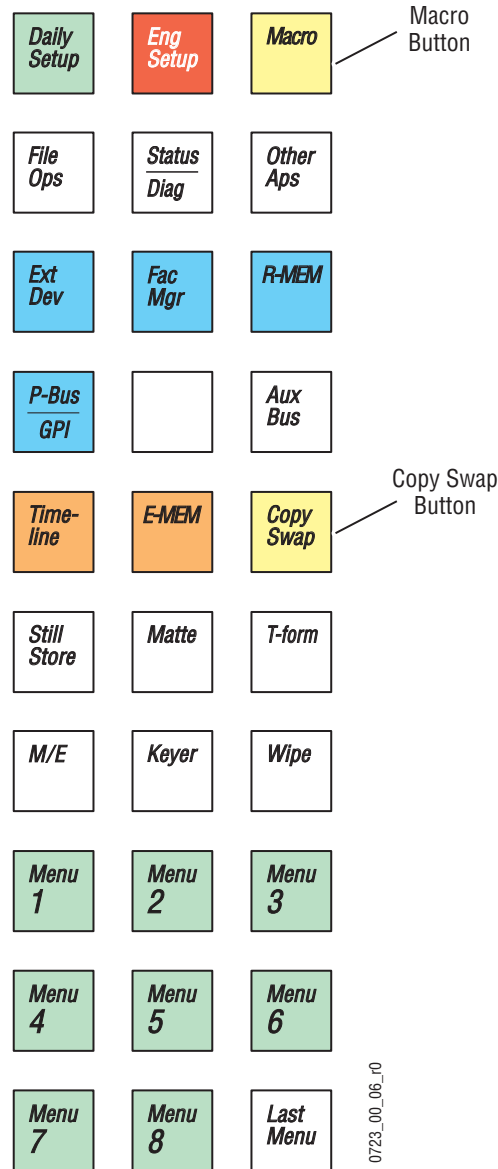
Figure 61. 1-M/E Macro Subpanel Buttons

1. Remove all the **Macro** subpanel buttons on the center left.

2. Insert Macro buttons from the kit in the order shown in Figure 61

No other buttons need to be changed on the 1-M/E Main panel.

Original Menu Panel Update Instructions

Figure 62. Original Menu Panel Buttons

1. Remove the **Help** button and replace with the yellow **Macro** button from the update kit.

2. Remove blank button below Aux Bus and replace with the yellow **Copy Swap** button from the update kit.

The Kalypso Enhanced Menu panel does not have any buttons to be replaced.

Kalypso Menu Uninstall From PC

You can uninstall a Kalypso Menu application that has been loaded onto a PC with the Windows Add Remove Programs utility. Choosing **Automatic** when prompted will remove the Kalypso Menu application. If multiple versions of the Kalypso menu were installed a Rollback screen will appear. Choose the default **No** setting to remove the Kalypso Menu application.

If you wish to remove all the files associated with the Kalypso Menu application (including any backup files) you can also delete the Kalypso Menu folder located in C:/Program Files.

Kalypso Installer Uninstall From PC

The Kalypso Installer program is automatically installed on the C: drive of that computer when the **Kalypso Application Software** selection is chosen during installation. This does not occur when the **Menu on PC** selection is chosen. The Kalypso installer program cannot be removed with the Windows Add Remove Programs utility.
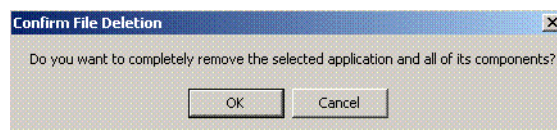
To remove the Kalypso Installer program from the computer:

1. Insert the Kalypso software CD, which will autorun and show the licensing agreement. After agreeing to the terms the Kalypso Installer Selection screen will be displayed.

2. Choose **Cancel** and **Exit Setup** to exit the Kalypso Installer program.

3. With the CD still in the drive, run the Setup.EXE uninstaller program located at:

    [CD Drive]:/MenuPanel/Install Uninstall/Setup.EXE.

    The prompt message shown in Figure 63 will be displayed.

Figure 63. Kalypso Installation Program Uninstall Prompt

4. Select **OK**. The Kalypso installer program and its desktop shortcut will be removed.

Kalypso Backup Components Uninstall From PC

When the **Kalypso Application Software** selection is chosen during installation, an Install folder containing several sets of backup folders is created on that computer's C: drive. These folders hold the current and previous versions

of Kalypso software. Uninstalling the Kalypso Menu application and/or
the Kalypso Installer programs will not automatically remove these other
folders and files, which can occupy 75 MB or more of disk space.

CAUTION Do not delete the Install folder from an actual Kalypso Menu panel used with
a Kalypso system, as this will make it impossible to re-install the current or
previous versions of software without the Kalypso Software CD.

To completely remove all Kalypso files from a PC, after uninstalling the
Kalypso Menu and the Kalypso Installer delete the C:\Install folder.

Software Installation Troubleshooting

The installation process consists of four major steps. A failure in one of
these steps must be corrected before installation can continue.

When installing from CD, the installer first copies the necessary files to a
directory on the hard drive where the installation is performed. These
copies allow reinstallation or backing down to the previous version
without the installation CD. Failure to copy files could be due to a CD read
failure or a file system problem on the menu/PC running the install.

- Try cleaning the CD and attempting install again.

- Try running checkdisk on the CD. If errors are found, re-burn the CD
  or contact Customer Service for a new copy

- Try removing c:\Install\...\NEW folders and their contents and
  attempt install again

- Ensure that the C: drive is not full.

- Try running checkdisk on the hard drive

Next, the installer uses FTP to transfer files to the frame, still store and all
panels. The installer transfers files to those IP addresses listed and enabled.
FTP failures could be due to excessive network traffic or intermittent
network connections, or due to file system problems on the destination.
These file transfers replace the executables and FPGA images for the video
hardware on the component's hard drive or disk on chip. The new files are
used during the next boot up.

- If the transfer fails an executable may be deleted. Rebooting the compo-
  nent could render it nonoperational. Boot position 0 and 1 run different
  applications, so even in the event of an FTP failure, one of the executa-
  bles should be intact.

- If the FTP transfer fails, try running the installation process again
  BEFORE rebooting the components.

- If it becomes necessary to reboot a component after an FTP failure and
  the component is nonresponsive after the reboot, try booting in boot
  position 1. This should allow installation to continue.

Note The Kalypso Still Store cannot have its software updated in frame boot position 1 or 2. If a Kalypso HD/Duo frame software update is required in either of these boot positions, uncheck the Still Store box, update the frame software, reboot the frame in position 0, run the installer, check only the Still Store box, and then install its software (the "install current" option can be used to save time). This does not apply to Kalypso Classic systems.

- In either boot position 0 or 1, FTP can be used to inspect the file system of the component.

- If the file system appears to be full, FTP can be used to remove log files, etc. Contact Customer Service before/while performing this cleanup operation to avoid deleting critical files.

After all files have been FTPed to the components, the components are reset. New executables and FPGA files are used during this boot operation.

A special process is used if an operating system Kernel needs to be replaced. The kernel needs to reside as the first entry in the hard disk/disk on chip directory so the file can't be installed reliably using FTP. Instead, the normal executable is replaced with a Kernel installer. A frame reset executes this kernel installer which manipulates the hard drive/disk on chip in such a way that the new kernel file is in the proper directory location. Depending on the work that needs to be performed, it may be necessary to reset the component additional times during this process. After the kernel has been replaced, the new application is FTPed to the component. A failure during the kernel replacement process could result in a non operational component requiring hard drive or disk on chip replacement. It is essential that the instructions are followed closely. There is no indication of progress during this procedure. Carefully measure the wait times between resets to insure each step completes before proceeding.

FPGA files are used in two different ways. For most modules, FPGA images are transferred to the modules during system boot. For Classic M/E and TE boards however, FPGA images are stored in flash on the module themselves. A processor on these modules transfers the image from flash to FPGAs when the board is reset. The frame processor tests a version code on each M/E and TE module at boot time and updates the flash if the version doesn't match what's expected. Flash during boot occurs before the system has fully initialized and holds off panel comms. The system also checks M/E and TE frame slots periodically for newly inserted modules and attempts to update them on the fly. Since flash updates are time consuming, some customers prefer to reboot the frame with modules unseated and allow the frame to initialize and establish panel comms, then insert M/E and TE modules so the "on the fly" update can proceed in the background.

Flash failures are rare unless the process is interrupted. If a failure does occur, a message is written to the frame log, but the board version is updated any way. This prevents the system from getting stuck at boot time

should a flash memory part fail permanently. A manual process to force reflashing the M/E or TE board is provided in the separate *Kalypso Classic Installation and Service Manua*l.

M/E status LEDs indicate flash update progress, boot progress and normal operation. A red LED lights to indicate module boot/FPGA load or FPGA flashing. The green LEDs count up or down during these processes. If all goes well, the red LEDs will go out and the bottom most green LED will glow dimly indicating the module's processor is operating normally. The next green LED up displays a frame comms heartbeat. If this LED does not blink the frame is not communicating with the M/E but it is otherwise healthy.

Note   On Kalypso Classic systems, newly discovered M/E modules do not receive a heartbeat if any module is reflashing. Wait until all modules have reflashed before checking for heartbeats, unseating modules or resetting the frame. If a module is unseated during flash update, it may be necessary to manually force a flash update.

• If the module is functional but does not receive a heartbeat, reseat the board and/or reset the frame processor.

• If an FPGA fails to load on boot or a flash fails to program properly, one of the red LEDs will remain lit and the green LEDs will stop counting. The LED pattern provides an indication of which specific part failed to load/program. What's important to a customer is that the M/E has a hard failure and must be replaced.

The menu application is updated using a standard windows install process. This process must run on the processor hosting the menu application. No FTP is used in this process. The application is installed directly from the hard drive of that processor.

Note   From time to time, the installer application itself is updated. While a copy of the installer is placed on the hard drive it may not be compatible with the new software being installed. Always run the installer from the CD when installing new software.

When the frame boots, previous configuration (eng setups, suite prefs, user prefs) and effects are loaded from nonvolatile storage (from the frame's hard drive). If the frame fails to boot after a software update, there is a slight possibility that a corrupted file exists in NV storage. Clearing NV storage can allow the system to boot, then files can be loaded individually from backups one at a time to identify where the corruption exists. If the frame crash was due to corrupt NV files, loading the file manually will probably crash the frame. Reset the frame and rebuild the file from scratch or from a previous version that does load properly.