editware
GRASS VALLEY, CALIFORNIA

Super Edit™ TECH NOTE
DPE Version 2.2A and later

GVG KALYPSO Switcher

INTRODUCTION

The Kalypso Native protocol is available for DPE-500 Series editors in Versions 2.2AB and above. VPE Series editors must use the GVG-4000 protocol, and must have Version 8 software.

SWITCHER-TO-EDITOR CONNECTIONS AND SETUP

The Editor controls the Switcher through a standard Editware RS-422 machine control cable with a 9-pin D connector attached to the Editor Serial port, J11, on the back of the Kalypso electronics frame. The switcher's editor port settings are hard coded in the switcher to 38.4K baud, odd parity, which is compatible with all Editware editors. There is no further setup required for communication between the editor and the switcher. Pressing **[SHIFT] [RESET]** on the editor will establish communication with the Kalypso switcher. If Super Edit does not indicate "**Switcher Off Line**", communication has been established.

CROSSPOINT MAPPING

Crosspoint mapping assigns each crosspoint to receive the signal from a particular input jack. Assignment is from the Main Menu on the Control Panel as follows:

1. Press the **[CONFIG]** pushbutton (left of the display). The Configuration menu appears.
2. Press **[INPUTS]**. The Inputs Selection menu appears.
3. Press **[MAP INPUTS]**. A box appears in the center of the screen showing the currently selected XPT. To change the selection, press the desired XPT on the Preset Bus.
4. Using the top three (3) knobs to the right of the display, adjust the Video Input, Key Input, and Chroma Key Input values associated with the selected XPT.

The Kalypso takes assignments immediately; resetting the Switcher is not necessary.

Switcher internal Black is Source #74. This internal Black is used for BVB and VBV previews as well as the Black key.

EDITOR SETUP REQUIREMENTS

Editor setup requirements, discussed next, consist of crosspoint assignments and transition delay adjustments.

CROSSPOINT ASSIGNMENT

Crosspoint assignments are made the same as with other Grass Valley Group Switchers. Note again that the Kalypso begins crosspoint assignments with one (1) instead of zero (0).

TRANSITION DELAY ADJUSTMENTS

These adjustments are made in the Initialization Pages dialog INIT item #72. Default is -5 frames.

Additionally, the default values for two (2) other delay adjustments have been changed. The defaults, listed below, are for E-MEM™ triggers and transition start times for dissolves and wipes.

	WAS	IS
E-MEM TRIGGER	-2	-4
DISS / WIPES	-2	-5

SHIFT/RESET - ALLSTOP SEQUENCE

The ALLSTOP Sequence is a string of commands sent to wake up the Kalypso and/or put it into a fixed known state. This occurs by pressing **[SHIFT][RESET]** at the editor keyboard, anytime **[SPACE BAR]** (ALLSTOP) is pressed at the end of an edit, and after completion of data initialization through the Init Pages or Configuration dialogs. Depending on previous conditions, the result of sending this string of commands is one of the following:

- Select the current M/E re-entry pushbutton on the PGM bus.
- On the M/E, select the crosspoint assigned to the currently selected VTR on the Edit Screen.
- On the M/E, select background as the transition mode and the Mx push button as the transition type.
- Any titles on-air are taken off-air (M/E only).

CROSSPOINT SELECTION

Either M/E can be selected in the normal way. Super Edit will not currently select the M/E 2 crosspoint on M/E 1 or the M/E 1 crosspoint on M/E 2. On the Assignment page, enter into the Video XPT column any of these three items:

101	=	M/E 1
102	=	M/E 2
103	=	M/E 3

Subsequent selection of a Green key with one of these numbers assigned as the Video XPT will select the associated reentry XPT on the current switcher bank. Crosspoints are automatically selected for edits and previews.

KEY PRIORITY

A new feature has been added to the Kalypso Switcher interface. The Key Priority button is now available through the X-PEGS dialog. The PEGS numbers **X564** (Mix) or **X664** (Wipe), where **X** indicates either M/E, will now select the **[KEY PRIORITY]** button with an Autotrans.

AUX BUS PREVIEWING

When enabled, previewing video on the AUX Bus of the Kalypso replaces the Super Edit E-E or Preview Switcher type of previewing. Audio previewing continues to take place at the Audio Mixer through the interface built into the program (e.g., AMX-170, Graham-Patten, Zaxcom, etc.)

To enable Aux Bus previewing on the Kalypso, set the editor INIT# 73 PVW **AUX BUS = 000** to the corresponding Aux Bus to be used on the switcher. Entering **0** disables previewing on the switcher, and subsequent previews would be handled by whichever method is built into the program. Super Edit with E-E previewing and Preview Switcher Previewing is discussed below.

To define the PGM source for Aux Bus previews, enter one of the following values into the editor INIT# 74 **AUX M/E XPT = 000:**

> M/E 1 = 49
>
> M/E 2 = 50
>
> M/E 3 = 51
>
> M/E 4 / M/E 0 / PGM PST = 52

SUPER EDIT & E-E PREVIEWING

E-E previewing is disabled when previewing on the AUX Bus. Thus, the output of   the   R-VTR remains locked to its off-tape video during green key (source) selection on the Editor.

When AUX Bus previewing is disabled, green key selection forces the R-VTR into the E-E preview mode and the output of the Kalypso can be seen on the monitor. When AUX Bus previewing is enabled, the user must select Audio Mixer preview   in the Init Page dialog (INIT# 44) to hear the audio switch during preview.

SUPER EDIT & PREVIEW SWITCHER PREVIEWING

This type of previewing remains unchanged. But the user must connect the Editor to the Preview Switcher instead of to the Kalypso. Not doing so prevents the **[SHIFT] [RESET]** sequence from communicating with the Kalypso.

TIMELINE CONTROL OF GVG KALYPSO SWITCHERS

INTRODUCTION

In addition to normal switcher type control, Super Edit controls the Master Timeline on the Kalypso the way it controls a VTR.

Assign the Timeline to a port just as you would a VTR. Press the Play, Stop, All Stop, Rewind, Fast Forward, Slow, Search, Shift/Search keys and the Jogger to control the Timeline.

Select the Timeline source for an edit or slave it to other sources for automatic control. Variable speed (programmed motion) is controlled via PEGS.

Note: The video switcher comes from Editware assigned to port 9. Port 9 cannot be shared. If you are going to also assign the Timeline to a port, and the Timeline must share a port with the switcher, you must change the switcher port to a port other than 8, 9, or 10.

To change the switcher port assignment, open the assignment dialog, arrown down to the Video Switcher line, and press **[ALL STOP].**

HOW TO ENABLE/DISABLE THE TIMELINE

To enable the Timeline, assign it in the same way you would a VTR. Press **[SHIFT] [ASGN](K6)** or **[VTR ASGN](K5)**, then **[ENTER]:**

Reel	Any 6 character Reel ID (i.e. TIMELN)
Port	Same Port as the switcher (other than port 9)
Model	TIMELINE
QC	3
VIDX	Press **[NO]**
AUDX	Press **[NO]**
PSLX	Press **[NO]**

You may then select the Effects levels that are to be controlled using INIT #101. (See INIT Section for details.)

To disable the Timeline, de-assign it by pressing the **[NO]** key when prompted for the **Port** number.

Note that timecode is reported erroneousely through Kalypso Version 6.

MANUAL TIMELINE CONTROL

After you assign the Timeline control to a Green Key and enable the Effects levels using INIT #101, Super Edit will control the Timeline as follows:

[PLAY] - Runs the selected Timeline(s) at normal play speed. If the Timeline is positioned at the end, it will automatically rewind and begin playing from the beginning of the Timeline.

[STOP] - Stops the selected Timeline(s) at the current position.

[ALL STOP] - Stops and resets the selected Timeline(s).

[REW] - Positions the selected Timeline(s) at the beginning.

[FF] - Positions the selected Timeline(s) at the end. (The Timeline display on the switcher will display a larger time-code well past the end of the Timeline, but the video will be the end of the Timeline).

[SLOW](K6) or [SLO1](K5) or [SLO2](K5) - Plays the selected Timeline(s) at the speed that has been previously assigned.

[SRCH] - Positions the selected Timeline(s) to the time that has been entered as the IN time in the Super Edit Mark Table.

[SHIFT] [SRCH] - Positions the selected Timeline(s) to the time that has been entered as the IN time in the Super Edit Mark Table, minus the Pre-roll time.

JOGGER CONTROL

Jog - In the jog mode, turning the jog knob clockwise will jog the Timeline forward and turning the jog knob counterclockwise will jog the Timeline in reverse. The jog control may be either Linear Jog or Step Jog as selected in INIT #31.

Variable - In the variable mode, turning the jog knob clockwise plays the Timeline at increasing speeds and turning the jog knob counterclockwise plays the Timeline at decreasing speeds.

Shuttle - Shuttle is the same as variable in Timeline control.

PROGRAMMED VARIABLE SPEED (PEGS)

Programmed Motion speeds between -200% and +200% can be programmed into PEGS for Timeline control. Operation is as follows:

REGISTER #?	Enter any PEGS register, 1 through 16, then press **[ENTER]**.
FUNCTION =?	Press the Green Key assigned to the Timeline then press **[ENTER]**.
COMMAND =?	Enter the desired speed between -200% and +200% then press **[ENTER]**.
TIME =	Enter the offset from the RECORD IN point, then press **[ENTER]**.

AUTOMATIC CONTROL

As a Source. Playback of the Timeline can be automated by selecting the Timeline as a source in the edit. The Timeline may be started at time 0 or any other time by entering a time in the IN time of the Mark Table. (An IN time of 0 is valid, but will be displayed as blank)

As a Slave Source. Assign the Timeline as a member of a slave group just as you would a VTR. Select Slave Assign, then select the Timeline's green key, along with the other VTRs to be slaved together.

PEGS. The Timeline can be run from PEGS instead of selecting it as a source. The speed of the Timeline can also be controlled via PEGS entries.

For example, to start the Timeline at the Record IN time at normal play speed using PEGS register 1, enter the following:

[PEGS]	Selects the PEGS table.
REGISTER #?	Press **[1]**, **[ENTER]**. (Selects PEGS register #1)
FUNCTION = ?	Press the Green Key assigned to the Timeline then press **[ENTER]**.
COMMAND = ?	Press **[1] [0] [0]**, **[ENTER]**. (Enters 100% play speed)
TIME =	Press **[0]**, **[ENTER]**. (Selects the Record in time)

LEARNING AN EMEM

To learn an EMEM:

1. Configure the Switcher as desired (refer to the Switcher Operator's Guide).

2. Press **[SHIFT] [L]**. The system prompts:

   LEARN EFF DISS?   Answer **YES** if Effects Dissolve desired, **NO** to continue

   LEARN EMEM nnn ?   (Where nnn is the last selection made)

3. Enter the EMEM number you wish to assign to the current switcher configuration (or enter the register you wish to relearn) and press **[ENTER]**. The system echoes your selection.

4. Press **[ENTER]** to verify the selection.

PROGRAMMING AN EFFECT

To specify other than EMEM transitions on the Kalypso, specify **FUNCTION = X** instead of FUNCTION = V (as on some other Grass Valley Video Switchers.)

The buttons on the Kalypso M/E and Downstream Keyer panels are assigned numeric values. These values are used in combinations at the **COMMAND =?** prompt of the PEGS dialog to select areas and/or functions of the Video Switcher when programming an Auto-Transition via PEGS.

The first digit of the 4-digit PEGS command code designates the area of the Video Switcher that is to be used in the Auto-Transition. The values and corresponding areas are listed in the table below:

Kalypso PEGS Code - 1st Digit (1000's digit)

CODE NO.	DESCRIPTION
0	M/E 4 (PGM/PST Bus)
1	M/E 1
2	M/E 2
3	M/E 3
4	M/E 4 (PGM/PST Bus)

The second digit selects the type of Auto-Transition. The values and corresponding types listed in the table below:

Kalypso PEGS Code – 2nd Digit (100's digit)

CODE NO.	DESCRIPTION
400	AUTO TRANS ONLY
500	MIX
600	WIPE (M/Es)
700	SECONDARY WIPE

The third digit selects the source(s) of the transition (Key, Bkgd, etc.). The values and corresponding sources are listed in the table below:

M/E CODE NO.	DESCRIPTION
01	KEY 1
02	KEY 2
04	KEY 3
08	KEY 4
16	BKGD A
32	PST BLK
64	KEY PRIOR

Example: If you want to do a Wipe on M/E 2 with keys 3 and 4, you would enter a PEG of 2612. If you want to do a Mix on M/E 3 with PST BLK, enter 3532.

PROGRAMMING EMEM TRIGGERS VIA PEGS

To specify EMEM triggers, press **[VIDEO] [ENTER]** at the **FUNCTION =?** prompt. At the **COMMAND =?** prompt, specify the EMEM register. These registers are identified according to the area of the Video Switcher (similar to Auto-Transitions).

The first two digits of the 4-digit PEGS command identify the area of the Video Switcher. The third and fourth digits specify the register (00 through 99).

VALUES & CORRESPONDING AREAS OF THE VIDEO SWITCHER

0	=	PGM/PST Bus	9	=	MISC 6
1	=	M/E 1	10	=	MISC 7
2	=	M/E 2	11	=	DPM
3	=	M/E 3	12	=	SSTORE A
4	=	MISC 1	13	=	SSTORE B
5	=	MISC 2	14	=	SSTORE C
6	=	MISC 3	15	=	All Enabled Levels
7	=	MISC 4			
8	=	MISC 5			

Note that "Auto Recall" on the front panel must be **OFF** to be able to recal "All Enabled Levels". Enabled Levels are those levels that are selected on the front panel when "Auto Recall" is OFF.

EXAMPLES OF PEGS COMMAND CODES FOR EMEM TRIGGERS:

105 - triggers the M/E 1 portion of EMEM 05 (Bank 0 register 5)
210 - triggers the M/E 2 portion of EMEM 10 (Bank 1 register 0)
1503 - triggers all enabled effects levels, register 3

Enabled effects levels are those that have been enabled in Super Edit INIT #101