Editware
VPE AND SUPER EDIT ENGINEERING

Super Edit™ Major Software Release --- Version 8.0A Release Notes

SE- V8.0A.1

Features contained in the Version 8.0A software release include the following changes and enhancements made since release V7.1D.

1. Super Edit™ now supports Time Line control of the Grass Valley Model 3000/4000/2200 switchers. (See Note 1 discussion)

2. EMEM™ storage in the EDL has been enhanced. Super Edit now stores EMEM data on disk and inserts a corresponding note in the memory based EDL, thereby significantly increasing EDL storage capacity. (See Note 2 discussion)

3. Super Edit now supports EMEM storage for the Grass Valley Model 3000/4000/2200 switchers, which can generate large amounts of EMEM data especially when using keyframes. This feature is also available for some non-Grass Valley switchers. (See Note 3 discussion)

4. Super edit now supports Learn and Recall EMEM for the Grass Valley Model 3000/4000/2200 switchers. EMEMs are learned and recalled according to the currently enabled Effects Levels on the switcher. (See Note 3 discussion)

5. Super Edit now supports control of the enabled Effects Levels on the Grass Valley Model 3000/4000/2200 switchers. (See Note 3 discussion)

6. Super Edit now provides the ability to control whether Effects Dissolve is included in an EMEM for the Grass Valley Model 3000/4000/2200 switchers. (See Note 3 discussion)

7. Auto-Run and Auto-Recall are now controllable from the editor for the Grass Valley Model 3000/4000/2200 switchers. (See Note 3 discussion)

8. Super Edit now supports EMEM Learn from the editor for the Grass Valley Model 200 switcher. (See Note 8 discussion)

9. AUX bus previewing is now supported on the Grass Valley Model 200 switcher. (See Note 8 discussion)

10. The Grass Valley Model 1000/1200 switchers EMEM storage has been enhanced to provide a single EDL note for each EMEM rather than three as previously implemented. (See Note 10 discussion)

11. VPE editors now provide direct, automatic support for 1.44MB High Density floppy disks. The floppy disk size is automatically detected by both the operating system and Super Edit. This feature is only available for systems that contain a High Density compatible disk drive. (See Note 11 discussion)

12. VPE editing systems containing the new SBC-4 hardware now support increased hard disk capacity. Four hard disk partitions are now available, DH0, DH1, DH2 and DH3. They each have at least 25 MB of capacity. All VPE-300 series editors currently have this ability automatically and all earlier VPE editors can be upgraded to provide it. (See Note 12 discussion)

13. PEGS registers can now be saved and restored using 10 separate PEGS storage Bins. (See Note 13 discussion)

14. The Super Edit Source Advance feature has been enhanced to allow Source Advance for all switcher types and is now adjustable on a frame basis on the INIT page. (See Note 14 discussion)

15. On multiple Bin systems each Bin may now have a separate configuration file associated with it. The individual default configurations are loaded automatically when changing Bins and are user selectable. (See Note 15 discussion)

16. A fourth INIT page has been added to allow easy access to current and future configuration settings. (See Note 16 discussion)

17. GPI triggers now have an adjustable pulse width. In addition, they can be set to remain on until the edit-out point. (See Note 17 discussion)

18. Pre-Read has been enhanced to allow transitioning TO/FROM the R-VTR using the Mark Table in the conventional manner. Pre-Read is automatically detected and turned on as necessary. (See Note 18 discussion)

19. SEARCH has been enhanced to provide a "Search To Out" feature. This is implemented as [ALT][SEARCH] on the K2/K3 keyboards and as [U5] on the K5 keyboard. (See Note 19 discussion)

20. The MULTI function has been completely re-engineered. You may now use MULTI for all manual device control commands. MULTI-SET and MULTI-TRIM will become available in the very next minor release. (See Note 20 discussion)

21. Support has been added to allow the user to reset all learned machine ballistics to the factory default in the currently loaded configuration file. (See Note 21 discussion)

22. Super Edit now allows you to assign a switcher EMEM register as a green-key source. This feature is available for the Grass Valley Model 100, 200, 300, 1000, 1200, 2200, 3000 and 4000 switchers, the Abekas A8100/8150, and the Ampex Vista switcher. (See Note 22 discussion)

23. Keyboard REPEAT has been enabled for EDL SCROLL UP and DOWN and the TITLE and NOTE dialogs on K2 keyboards. (See Note 23 discussion)

24. EMEM, AMEM and PMEM entries in the EDL can now be ENABLED and DISABLED individually. When DISABLED they are not recalled with the event. (See Note 24 discussion)

25. Learn Audio AMEM has been moved from [SHIFT][CUT] to [SHIFT][U2] on the K5 keyboard. (See note 18 discussion)

NOTE 1 - Time Line Control of the Model 3000/4000/2200 Switchers

Introduction

In addition to normal switcher type control, Super Edit now controls the Timeline Effects on the Model 3000/4000/2200 switchers similar to 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 just like a VTR. Select the timeline source for an edit or slave it to other VTR sources for automatic control. Variable speed (programmed motion) is controlled via PEGS.

How to Enable/Disable

To enable the timeline, assign it in the same way as a VTR ([SHIFT][ASGN] on the K2/K3 keyboards, [VTR ASGN] on the K5), then enter:

REEL	Any 6 character Reel ID (i.e., TIMELN)
PORT	Same port as the switcher
MODEL	TIMELN
QC	3
VIDX	--- Press [NO]
AUDX	--- Press [NO]
PSLX	--- Press [NO]

You then select the Effects levels that are to be controlled using Super Edit INIT #101. (See Note 3 below for details).

To disable the timeline, de-assign it by pressing the [NO] key when prompted for the port number.

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] (Space bar) - 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 timecode well past the end of the timeline, but the video will be the end of the timeline.

[SLOW] - Plays the selected timeline(s) at the speed that has been previously assigned to the slow key.

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

[SHIFT] [SEARCH] - 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. (Note: If this causes the timeline to go to a negative number, the timeline display on the switcher will display the negative time and the video will remain at the beginning of the timeline.)

Jogger Control

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

Variable - In the variable mode, turning the jog knob clockwise, plays the timeline at increasing speeds and turning the jog knob counter clockwise plays the timeline at decreasing speeds. Speeds as slow as +/- 2% and as fast as about +/- 168% can be controlled in this mode.

Shuttle - Shuttle is the same as variable for timeline control.

Programmed Variable Speed (PEGS)

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

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 in the Mark Table 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 VTRs that are to be slaved together.

If the Timeline and VTRs are GANGED together, when you jog one the Timeline
and VTRs will jog together. If Super Edit Init #32, "Lock Jog" is enabled the
Timeline and VTRs will jog together synchronously.

PEGS: The timeline can be run from PEGS instead of selecting it as a source.
The speed of the timeline can also be contolled 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 Spd)

        TIME=?   Press [0]. Selects the Record IN time

NOTE 2 - Disk-Based EMEM Storage

Introduction

Super Edit now allows you to store all EMEM data on the hard disk rather than in the memory based EDL Bin. This significantly increases EDL Bin capacity and allows complete compatibility with all video switchers including those with large EMEMs. EMEM file management is totally transparent to the user and is fully compatible with all current versions of GV Edit Decision Lists.

How to Enable/Disable

This feature can be enabled or disabled via INIT #91 on the fourth INIT page. When disabled, EMEM data will be stored in the EDL as in previous versions of Super Edit. When enabled, every EMEM from that point on will be stored as a disk file on the default EMEM disk and a special note will be stored in the EDL. Both disk based EMEMs and EDL based EMEMs can coexist in the same EDL and the feature may be turned ON or OFF at will.

What is a Disk-Based EMEM?

A disk-based EMEM is the same EMEM data that would have been stored in the EDL with previous versions of Super Edit, but instead is stored in a file on the default EMEM disk. Super Edit marks disk based EMEMs in the EDL by adding an asterisk (*) after the EMEM part of the note. EDL based EMEMs do not have this "*". In addition, a disk based EMEM note contains the actual file name encoded in the note. It specifies the file name and what drive it is located on. This information may be ignored as it is only useful to the Super Edit EMEM file management system. An example of a disk based EMEM note would be:

EMEM* 001 DH1A10001MEM

Which means the EMEM data for an EMEM in Bin 1 is stored in a file named A10001.MEM on DH1:.

What is the default EMEM disk?

The default EMEM disk is set at the factory depending upon your type of system. Due to memory constraints the VPE-131, VPE-141 and IPS-100 cannot run V8.0, so there is no default disk.

For the VPE-141L, VPE-241, VPE-241L and IPS-2 the default disk is the floppy disk DF0:. Operation of this feature on these systems will be quite slow and it is

not recommended that it be used unless necessary. It is only necessary to use this feature if you wish to save large EMEMs from a digital switcher such as the Grass Valley Model 3000. Users of these systems should definitely take advantage of the 1.44MB High Density floppy support of V8.0. In addition, these systems can easily be upgraded to the VPE-300 series to take full advantage of this feature.

For the VPE-151 and VPE-251 the default EMEM disk is DH1:. It is the only disk available for EMEM storage, and may become full if many large EMEMs are stored. There is 10 MB of space available. These systems can also be upgraded to the VPE-300 series to take full advantage of this feature.

For the VPE-300 series, the 331, 341 and 351 the default EMEM disk is DH1:. All of these systems contain a PCMCIA disk with at least 100 MB of storage which is ideal for this feature. If DH1: gets full, Super Edit will automatically switch the EMEM disk to DH2:, and likewise to DH3: when it gets full. This automatic switching continues in an endless loop until all disks are completely full. At this time it will be necessary for the user to clean things up a bit. An error message will be displayed to alert the user if this happens.

Move, Copy and Delete

Disk-based EMEMs are associated with events just like regular EMEMs have been in the past. When you delete an event all the disk based EMEM files associated with that event are also deleted (Well, not really. Since that event still lives in the UNDO Bin it must keep its EMEM files for awhile longer. As soon as that event no longer resides in the UNDO Bin all of its EMEM files will be deleted for real). When you copy an event the disk based EMEM files are copied too, but they are given new file names. No two events can reference the same EMEM file name. When you move an event the disk based EMEM files are not really moved since it does not matter where they currently live. The event will still point to them.

When you clear a whole Bin all of the disk based EMEM files referenced in that Bin are deleted also (Again, not really, until they no longer live in the UNDO Bin!). When you clear ALL Bins all of the disk based EMEM files are deleted. THIS TIME FOR REAL! There is NO UNDO from a CLEAR ALL BINS!

Import/Export of EDL files

When an EDL is imported into Super Edit all EMEM data is automatically split out of the EDL into disk based EMEM files. Conversely, when an EDL is exported (saved) to disk, all disk based EMEM files are converted back to EMEM data and stored inside the EDL as in previous versions of Super Edit. This ensures complete backward compatibility and retains full compatibility with most EDL translator software and other editing systems.

Storage Capacity

This feature works best with the HD-4P option on VPE 300 series editors due to its increased use of disk space. It also works well with VPE 151 and VPE 251 editors. It is not recommended that it be used with VPE editors that do not have a hard disk, though it is certainly possible to do so. Capacity and speed are compromised when used without a hard disk. VPE 300 series editors with the HD-4P option have four 25MB partitions which provides Super Edit with plenty of room to store lots of large EMEM files. (See: **Note 12 - Increased Disk Drive Capacity for VPE-300 series Editors**) And, Super Edit takes care of automatically switching to another disk partition when one gets full. No action is necessary on the part of the user. All VPE systems can be easily upgraded to the VPE-300 series to take full advantage of this feature.

Speed

When used with a hard disk EMEM store and recall is essentially transparent to the user, taking no more time to execute than the original memory based method. The bottleneck in speed is the 38.4K Baud transfer rate on the serial line between the switcher and the editor. When used with a switcher that has large EMEM files such as a Grass Valley Model 3000, the transfer time can seem a little long, especially when multiple keyframes are stored or recalled.

A difference between V7 and V8 may be noticed, however, when copying an EDL from one Bin to another, depending upon the number of EMEMs and their size. This is because copying data from memory to memory (V7) is always faster than from disk to disk (V8). However, the advantages of disk based EMEM storage may outweigh the small additional time it takes for these operations to complete.

Special Notes

Do not confuse the EDL drive with the EMEM drive. The EDL drive is user selectable on the INIT page, while the EMEM drive is managed by Super Edit without user intervention. You do not have to worry about where the EMEMs are being stored with one exception. On systems that use the floppy drive for EMEM storage, you MUST leave a disk in the floppy drive. Your EDL Bins must have access to the EMEM files on the floppy at all times. Once you start with a disk in DF0:, you cannot change disks until after you clear all Bins! If you have two floppy disk drives it is strongly suggested that you set your EDL drive to DF1:, and leave DF0: for EMEM storage.

It should be noted that you can no longer copy an EDL from Bin to Bin using the UNDO function. You must now use the standard copy function. This was necessary to allow the UNDO function to keep track of the disk-based EMEM files. The UNDO Bin is strictly an UNDO for the current Bin and is in no way associated with any other Bin.

From time to time it may be possible for your disk to become filled with old EMEM files. Even though Super Edit will still move around the disk partitions looking for space to store new EMEM files, it is best to periodically clean your disk. This is especially important for those systems that do not have hard disks (VPE-141L/241/241L and IPS-2) and those with only 20 MB hard disks (VPE-151/251).

To accomplish this:

1. Save all of your EDL Bins to disk. It is also recommended that you save all of your EDL files on your hard disk to floppy at this time too. This is a non-destructive function, but if something did go wrong while it is being performed, such as a power hit or loss of power, you could lose valuable data.

2. While in Super Edit perform the CLEAR ALL BINS function, which can be accomplished by answering NO, then YES to INIT #29.

3. Exit Super Edit and return to the MAIN MENU. Backspace out of the Menu to the RT> prompt. For all of the following commands, when asked "Are You Sure" check to make sure you typed the commands correctly. Then answer [YES] or [Y].

4. For VPE 141L / 241 / 241L / IPS-2:   Type "SQUEEZE DF0: [ENTER]"
   For VPE 151 / 251 / VPE-300 series: Type "SQUEEZE DH1: [ENTER]"

   If you have installed the HD-4P option on your VPE-300 series editor:

   Also for VPE-300 series: Type "SQUEEZE DH2: [ENTER]"
   Also for VPE-300 series: Type "SQUEEZE DH3: [ENTER]"

5. When finished and the RT> prompt returns type "MENU" or "MM" to return to the main menu, or type "RETURN" to return to Super Edit.

This performs a utility that will scan your disk to remove all disk based EMEM files and squeeze your disk partitions for maximum storage space.

NOTE 3 - Enhanced Grass Valley 3000/4000/2200 Switcher Support

V8.0A contains a number of improvements that enhance the control of this line of digital switchers. You can now manipulate the switcher Time Line as though it were a VTR type device using the jogger and manual keyboard commands such as Play, Stop, and Rewind. Since these switchers have multiple Effects Levels support has also been added to control which of these levels are affected by editor operations. Super Edit now also supports Learn, Recall, and transfer of EMEM data using any combination of Effects Levels from the editor. In addition, you now have control over which EMEMs will be recalled with an event, and consequently sent to the switcher. (See **Note 24 - Individual EMEM, AMEM, PMEM Enable / Disable**)

The scope of this discussion is limited to those features that are enhanced for V8.0. For detailed information about VPE editor control of these switchers please refer to the latest issue of the Peripheral Setup Guide.

Control of the Time Line

See Note 1 for a detailed discussion of this feature.

Store and Recall of EMEM Data

Support is now provided to allow automatic storage and recall of EMEM data generated by these switchers. This was previously impossible due to the large amount of data contained in a digital switcher EMEM, especially when keyframes were involved.

This feature operates in the conventional manner as with other Grass Valley switchers. EMEMs can be stored in the EDL either manually or by using the Auto-EMEM feature. The data is transferred over the serial line between the switcher and the editor at the conventional rate of 38.4K baud. Similarly, an EMEM can be recalled from the EDL and sent to the switcher by recalling an edit from the EDL.

Store and recall are implemented in the conventional manner via PEGS commands. However, to take advantage of the multiple Effects Levels available on these switchers a method was provided to control which of these levels are stored and recalled in an individual EMEM register. The PEGS commands to control a single Effects Level are entered in the conventional manner. The thousandth and hundredth digits specify which Effects Level is to be affected (0 through 10). The tenth and ones digits specify the register number (0-99). However, this only addresses a single Effects Level per PEGS command.

To enhance control of the Effects Levels Super Edit provides two additional PEGS commands. The first one deals with "All **Learned** Effects Levels" and the second one deals with "All **Enabled** Effects Levels".

All Learned Effects Levels

This command specifies that EMEM commands operate on All Learned Effects Levels. For the specified EMEM register, data for all levels that were learned into this register is transferred to the Editor. And if recalled from the editor, those same levels will be restored to that register. This is very useful, but keep in mind that it pays no attention to what Effects Levels are currently enabled. This command is entered in a PEG by using an Effects Level of eleven (11).

For example:

PEGS Command 1103   Will Save/Recall the EMEM Into/From register #3
PEGS Command 1115   Will Save/Recall the EMEM Into/From register #15

All Enabled Effects Levels

This command specifies that EMEM commands operate on the Currently Enabled Effects Levels. For the specified EMEM register, data for all levels that are currently enabled BY SUPER EDIT will be transferred to the Editor. And when recalled from the Editor, ONLY those same levels will be restored. This gives you more control over which effects levels you want to save into the EDL, and then restore to the switcher. This command is entered in a PEG by using an Effects Level of twelve (12). This is the most common way to control the switchers.

For example:

PEGS Command 1203   Will Save/Recall the EMEM Into/From register #3
PEGS Command 1215   Will Save/Recall the EMEM Into/From register #15

The Currently Enabled Effects Levels are controlled from Super Edit. Super Edit has a table of enabled effects levels that you can control. This table may or may not represent what is enabled on the switcher panel. (See note on **Controlling Enabled Effects Levels**, which includes a list of valid Effects Levels.)

To control which EMEMs are recalled back to the switcher see: **Note 24 - Individual EMEM, AMEM, PMEM Enable / Disable.** This feature allows you to disable individual EMEM levels directly in the EDL, which provides you with complete control over what gets recalled to the switcher.

Learn EMEM and Learn Effects Dissolve Commands

Super Edit now supports "Learn EMEM" for these switchers. To learn an EMEM press [SHIFT][L]. The editor will ask two questions.

LEARN EFF DISS?   Answer [YES] if you want Effects Dissolve learned
                               with the EMEM

LEARN EMEM 001   Enter the register number where you want the data
                               to go.

After these questions are answered the switcher will learn the present state of the switcher into the specified EMEM register according to the enabled Effects Levels on the Switcher Control Panel.

Controlling Enabled Effects Levels, Auto Recall and Auto Run

Super Edit now allows the user to directly control which Effects Levels are enabled on the switcher panel. This feature only works properly with Grass Valley Model 3000/4000/2200 switcher software Version 5.2 plus. If your software is older than that, contact Tektronix, Grass Valley Products for an update. At the time of this writing it was unclear exactly what version of switcher software would contain the necessary features to work correctly with Super Edit V8.0A.

This feature is accessed via INIT #101, or as a shortcut, [SHIFT][VIDEO] on the K2 keyboard and [SHIFT][U4] on the K5 keyboard.

When activated, a menu is displayed that shows the choices of Effects Levels and their current state: either ON or OFF. Choosing one of these will toggle its state and the action will be immediately reflected on the switcher control panel. As a shortcut there two additional choices that allow the user to turn ALL Effects Levels ON or OFF at the same time.

There are two more choices, Auto Recall and Auto Run, which can also be turned ON or OFF at will. For more information on how the Enabled Effects Levels affect EMEM operations please refer to the appropriate Grass Valley switcher documentation.

Note that the commands to turn the Effects Levels ON and OFF are sent to the switcher during the time the menu is displayed and whenever a [SHIFT][RESET] is performed. They are not sent during or before an edit command. This enables the user to over-ride them manually if desired, but it must be remembered that if the buttons are changed manually on the control panel, Super Edit will not over-

ride them unless a [SHIFT][RESET] is performed first. Also note that Super Edit will only ask for EMEM data according to its own record of Enabled Effects Levels, regardless of what is enabled on the switcher panel.

If your switcher does not have three mix effects levels, choice #3 in the menu will have no effect and may be ignored.

```
This is the menu that is displayed for INIT #101:

00      PGM/PST     OFF
01      M/E 1       OFF
02      M/E 2       OFF
03      M/E 3       OFF
04      DSK         OFF
05      BKGD        OFF
06      MISC        OFF
07      DPM 1       OFF
08      DPM 2       OFF
09      DPM 3       OFF
10      DPM 4       OFF
11      AUTO RUN    OFF
12      AUTO RCL    OFF
13       ENABLE     ALL
14       DISABLE    ALL
```

In order for this feature to work properly, you must enter a PEG with an Effects Level of 12, such as 1201 for register 1.

NOTE 8 - Enhanced Grass Valley Model 200 Switcher Support

Super Edit now supports Learn EMEM and AUX BUS previewing on this switcher.

Learn EMEM

You can now learn an EMEM into the switcher by pressing [SHIFT][L] on the keyboard in the same manner as with other Grass Valley switchers. After pressing [SHIFT][L] the editor will ask which register to learn it into. The switcher will only learn the data for the currently selected M/E, which can be set via INIT #39.

AUX BUS Previewing and Preselector

Introduction: Super Edit now supports AUX BUS previewing on the Model 200 switcher. When Aux bus Previewing is enabled, the selected Aux bus behaves as a video only preview switcher, switching between the R-VTR crosspoint and the PGM OUT crosspoint.

The SWAP VTR feature of Super Edit will interact with the Aux bus as a preview preselector. The R-VTR crosspoint assignment on the Aux bus will follow any changes made with the SWAP function.

Detailed operational instructions for Super Edit are given in the Super Edit Operator's Guide. The GV200 Switcher Operations Manual provides excellent information for the switcher. This note discusses only the new Aux bus Preview/PreSelector features.

To Enable This Feature:

In Super Edit, to enable Aux bus previewing, access Initialization Page #3

INIT #73. PVW AUX BUS :

1 through 4 -   enables previewing on the selected Aux bus.

0 - disables previewing on the Aux bus. Previewing will be done on the alternate preview device (E-E, 8466, Performer, etc. depending on the Super Edit software configuration). This is the default setting.

<u>INIT #74. PGM OUT XPT</u>:

Init page item #74 on Super Edit allows the user to enter a PGM OUT crosspoint selection. Set this to the Aux bus crosspoint number assigned to Program Out. The default crosspoint is 24.

In the switcher ensure that the required options are installed for the Aux bus selected.

Note 10 - Enhanced Grass Valley Model 1000/1200 Switcher Support

Previously the Grass Valley Model 1000/1200 switchers stored their EMEM data as three separate notes in the EDL and, in fact, the data itself was contained in 3 separate EMEMs. This has been changed and Super Edit now stores all 3 EMEM data blocks from these switchers in one EMEM with one note in the EDL (or on disk as the case may be). This allows the user to view more events on the screen since there are fewer notes in the EDL.

Note 11 - Support for High Density Floppy Disks

The RT-11 operating system (under which Super Edit executes) and Super Edit itself now support Double Sided, High Density floppy disks (1.44MB). Super Edit and RT-11 both auto-detect the floppy size and will read and write without any intervention from the user. This provides the user with double the capacity for EDL storage, which will be useful with lists that contain large amounts of EMEM data.

Be advised of two notes: First, the DS HD disks are NOT bootable. In other words, you cannot make one into a bootable disk. You must still boot to DS DD disks as in the past.

Secondly, the RT-11 operating system and the EPROM based diagnostics do not support formatting of the DS HD diskettes. However, since RT-11 uses the same FORMAT as DOS, you can use any DOS or IBM formatted diskette with RT-11. You must, however, INITIALIZE it under RT-11 prior to using it with RT-11 or Super Edit.

Note 12 - Increased Disk Drive Capacity for VPE-300 series Editors

VPE-300 series editors, and earlier models that have been upgraded with SBC-4 hardware, can now have increased hard disk capacity. This is useful when storing large EMEM files from digital switchers such as the Grass Valley Model 3000/4000/2200 into the EDL. It increases EMEM storage capacity from 10MB to 75MB using a total of four disk partitions, DH0:, DH1:, DH2: and DH3:. Enabling this feature requires new EPROM firmware, new software, and complete re-formatting of the hard disk. For this reason it has been made optional. You do not have to enable this feature for V8.0A if you do not wish to re-format your hard disk and install new firmware. Unless you are using a digital switcher and storing large EMEMS in the EDL, you may choose to skip this installation procedure. Without it you will still have 10Mb of disk space for EMEM storage. No action is necessary on the users part to NOT enable this feature.

Those wishing to take advantage of this feature must request option HD-4P from Editware, which is free of charge for a limited time. You may order it at the same time you order V8.0A or you may order it anytime within 90 days. After 90 days you may still order option HD-4P, but there will be a nominal charge.

If you want to increase your hard disk capacity, but are uncomfortable with installing new hardware chips and formatting your hard disk, it may be possible for Editware to do the upgrade for you. Please call Editware for more information, at 916-477-4300.

Note 13 - PEGS Save Feature

The PEGS registers can now be saved and restored to 10 separate PEGS storage Bins. All 16 PEGS registers are saved and restored as a group. Also, when PEGS are cleared they are automatically saved to PEGS Bin #0. The operation is similar to Save Marks.

To Save the PEGS Registers:

   Press [SAVE MARKS] [PEGS] [<PEGS Bin number 1 through 9>].

To Restore the PEGS Registers:

   Press [RST MARKS] [PEGS] [<PEGS Bin number 1 through 9>].

For example, to save all 16 PEGS registers into PEGS Bin # 1, press: [SAVE MARKS] [PEGS] [1]. To later recall those PEGS into the active PEGS registers, press: [RST MARKS] [PEGS] [1].

Note 14 - Source Advance Feature

The Source Advance feature has been extended to work with all switcher types and is now adjustable.

Choose INIT #41, Source Advance. It will allow you to enter a number. The number you enter is the number of frames all sources are advanced to match the delay in your video path. It usually defaults to 0 which is the same as being disabled, unless the factory has determined a better default for your particular switcher, such as a Grass Valley Kadenza switcher, which defaults to 1. If set to 0, there will be no source advance applied.

Note 15 - Configurations Tied to Bins

Super Edit now allows the user to associate a separate configuration file with each Bin. This is obviously only available on multiple Bin systems. It is NOT available on the VPE-131, VPE-331, VPE-141, VPE-141L and IPS-100, though each of these editors can be upgraded by Editware to provide multiple Bins.

This feature is very useful for working on different shows at the same time, different versions of the same show, or when multiple editors are working on the same VPE system.

A Little Background on Configuration Files

Configuration files contain all the data necessary to remember all your important switch settings and preferences, including reel names, device assignments, crosspoints, etc. They make it easy to set the editor up just like you left it during a previous session.

When you first run Super Edit the active configuration is the factory default that came with your software. You can create your own configuration files by

pressing [CTRL][B] (K2 keyboards) or [SHIFT][INIT] (K5 keyboards). You are then asked to enter a TITLE for your configuration, which can be any alpha-numeric up to 72 characters in total. Then you are asked to name your configuration FILE, which may be alpha-numeric and 6 characters in total (no spaces). If you just press [ENTER] or [RETURN] at the FILE prompt, the file will be named with the same name as your super edit and will become your default configuration. A default configuration is automatically loaded whenever you run Super Edit. You can always load a different configuration file later using [CTRL][B] or [SHIFT][INIT] and you may change your default configuration file at any time.

(See **Note 21 - Resetting All Learned Ballistics** for a discussion on resetting only your learned machine ballistics after loading a configuration file.)

With all Super Edit versions after V5.0 and previous to V8.0A the currently loaded configuration remains the same as long as you do not load a new one. And, this is the way V8.0A works unless you enable the Config Tied to Bins feature. This feature comes disabled as the default.

Enabling Config Tied To Bins

To enable **Config Tied To Bins** chose INIT #98 on the fourth INIT page. A status message that says "CONFIG" will then show on the Status Line to remind you that it is turned on.

What Happens When Config Tied To Bins is Turned ON?

Once turned on nothing changes right away and you will be operating with the same configuration file you had before you turned it on. However, if you were to now save your current configuration and name it, Super Edit will remember that this configuration is now the default for THIS BIN ONLY.

If you were to now switch to another Bin, Super Edit will look to see if you had previously saved a configuration file for that Bin. If not, then it just keeps the same configuration you had before you switched Bins. If it does find that you have saved a configuration file for this Bin, it is automatically loaded, and you are asked if you want to also load the macros associated with that configuration. Switching back to your previous Bin would then load the default configuration for that Bin, if there was one.

In order to take full advantage of this feature you may want to go to each Bin you plan to use, set up your configuration as you like it, and then save it. Be sure this feature is turned ON during the config save. If it is OFF it will not remember your configurations.

Of course, with this flexibility comes the possibility of confusion. You must remember that the simple act of switching to another Bin could cause your configuration settings to change.

What Happens When Config Tied To Bins is Turned OFF?

When you turn this feature OFF whatever configuration you happen to have loaded at the time you turned it OFF becomes the active configuration for all Bins. This will not change unless you load a new configuration, whereupon that configuration will become the active configuration for all Bins. If you save any configurations they are not remembered or tagged to any Bin. In other words, it operates just like previous versions of Super Edit.

Special Notes

Super Edit automatically learns your machine ballistics during an edit session. The ballistics are saved in your configuration files. While you are editing in a particular Bin, Super Edit is carefully learning and saving all of these ballistics for you. If you have **Config Tied To Bins** On, and you switch Bins, you may not be editing with the same machine ballistics you had in your previous Bin. If some of your devices begin to abort more often after switching to a new Bin, this is normal, and it may take Super Edit time to re-learn them.

For this reason, **it is recommended** that you edit in a single Bin while Super Edit learns your machine ballistics. Once this is accomplished, you should save the resulting configuration and use it as the starting point for the rest of your Bins.

Note 16 - The Fourth INIT Page

Another INIT page has been added to allow easy access to current and future configuration settings. All of the questions previously located under the CTRL-B option, except Load/Save Configurations, have been moved to the new fourth INIT PAGE. Since it takes 4 keystrokes for you to reach this INIT page, it is worth noting that you do not have to be displaying a particular INIT page to select a function from it. You can enter any INIT number from any page at any time. Super Edit will perform your requested INIT function and then automatically switch to the INIT page where that function was located. The following illustration of the current Fourth INIT page shows the default settings.

```
┌─────────────────────────────────────────────────────────────────────┐
│  INITIALIZATION PAGE  # 4                            2001 EDIT LINES  │
├───────────────────────────────────┬─────────────────────────────────┤
│ 91   STORE EMEMS TO DISK = OFF     │ 106  GPI PULSE WIDTH = 000       │
│ 92                                 │ 107  PRE-READ REEL = PRE-RD      │
│ 93                                 │ 108                              │
│ 94                                 │ 109                              │
│ 95                                 │ 110                              │
├───────────────────────────────────┼─────────────────────────────────┤
│ 96   RVTR XPNT SEL = OFF           │ 111                              │
│ 97   SLAVE A/V SAME AS RVTR = OFF  │ 112                              │
│ 98   TIE CONFIG TO BIN = OFF       │ 113                              │
│ 99   RESET ALL LEARNED BALLISTICS  │ 114                              │
│ 100                                │ 115                              │
├───────────────────────────────────┼─────────────────────────────────┤
│ 101  ENBL/DIS EFFECTS LEVELS       │ 116                              │
│ 102                                │ 117                              │
│ 103                                │ 118                              │
│ 104                                │ 119                              │
│ 105                                │ 120                              │
├───────────────────────────────────┴─────────────────────────────────┤
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

Note 17 - GPI Pulse Width Adjustment

GPI triggers now have an adjustable pulse width, ranging from 1 to 100 frames in length. It is user selectable on the INIT page. In addition, setting the pulse width to a -1 causes the GPI to remain on until the edit Out Point.

Select INIT #106. Enter the number of frames desired for the pulse width. Valid values are 1 to 100 frames. The default value is 6 frames (200ms). Entering a -1 will cause the GPI pulse to remain on until the edit Out Point.

Note that this adjustment affects ALL GPI outputs. There is currently no provision for setting the pulse width for individual GPI outputs.

Note 18 - Pre-Read Enhancements

Pre-read is now even easier to use with Super Edit. Super Edit now allows you to CUT to the R-VTR and also to enter the R-VTR as the FROM or TO source in the Mark Table. Super Edit detects these conditions and automatically sends Pre-Read instructions to the Recorder. This frees you from having to turn Pre-Read on manually and saves using another source in the Mark Table for the R-VTR crosspoint. You are also given the ability to name the Pre-Read reel, which helps identify Pre-Read edits in the EDL. In addition, Super Edit will now warn you if the Recorder is off-line when the Pre-Read commands should have been sent.

INIT #107 shows you the default Pre-Read reel name. This name is saved in the configuration files and is used as the reel name for Pre-Read edits in the EDL when transitioning FROM or TO the R-VTR. The factory default is: PRE-READ REEL = PRE-RD. To change it to any other six digit alpha-numeric name choose INIT #107 and enter the new name. Remember, loading a new configuration file may rename your Pre-Read reel name. If you know you will be using your EDL in a third party EDL utility, be sure the Pre-Read reel name you choose is compatible with what it expects. However, you can always use the Edit Reel ID feature to change it after the fact.

To enter a CUT TO R-VTR press [SHIFT][CUT]. The Mark Table will display a CUT to R-VTR. To enter a DISSOLVE, WIPE or KEY with the R-VTR as the FROM or TO source, press the R-VTR green key at the appropriate time in the dialog for the desired transition, just as you would for any other source. Entering any edit into the Mark Table that involves the R-VTR will immediately turn on Pre-Read, assuming the Recorder has Pre-Read ability. Super Edit does check, and will issue an error if the device you have assigned as the Recorder cannot do Pre-Read. In addition, Super Edit will check to make sure the Recorder is ON-LINE before sending the Pre-Read command, displaying a warning if it is not.

Whenever an edit involves the R-VTR Super Edit will use the crosspoint assigned to the R-VTR on the assignment page rather than BLK.

When an event is placed into the EDL the current Pre-Read reel name will be substituted for the R-VTR reel name. The RVTR=?????? note in the EDL will still reflect the actual record reel name and remains the sole indicator of what record reel is currently being used.

When recalling a Pre-Read event into the Mark Table, Super Edit will ask you to assign the Pre-Read reel to a source. You should press the [R-VTR] key, which will automatically assign that name to the Pre-Read reel.

NOTE: On the K5 dedicated keyboard, to allow [SHIFT][CUT] to cut to the R-VTR, LEARN AUDIO AMEM has been moved to [SHIFT][U2].

Note 19 - Search To Outpoint

An additional Search function has been added. By pressing [ALT][SEARCH] on the K2 keyboard, or [U5] on the K5 keyboard, the selected device will search to the outpoint currently entered in the Mark Table. To prevent run-away devices, if there is no outpoint in the Mark Table for the selected device, or if it is zero, the device will not search. This feature is also available using the new MULTI function.

Note 20 - New MULTI Function

The MULTI function has been completely re-engineered. The MULTI function is a 2 step process. First you must chose a group of devices to operate on, then you must chose the function to apply to this group of devices.

How It Works The First Time

Pressing the [MULTI] key will begin a dialog that allows you to choose a group of devices by pressing the Green Keys. Pressing a Green Key adds the device assigned to that key to the multi group. Pressing the same Green Key an additional time will remove that device from the group. The command line at the bottom of the screen will always show you what devices are currently in the multi group. You can add and subtract devices at will until you have the group you desire. They will be listed in the command line in the order that you have entered them.

When you are finished choosing the multi group of devices the next keystroke must be the FUNCTION you want to be applied to this group. Only certain functions are valid multi functions, and they are listed below.

How It Works The Next Time

MULTI will remember the last multi group of devices you used. This provides a shortcut for additional actions on this same group. To do so press [MULTI] then the FUNCTION you desire. MULTI will re-use the last multi group of devices until you enter a new one.

To Change The MULTI Group

To enter a new group of devices press [MULTI] to display the current multi group on the command line. If you next press a Green Key instead of a FUNCTION MULTI will erase the current multi group and allow you to start over with a new group.

Functions Currently Available With MULTI

SLOW 1	SLOW 2
PLAY	PLAY 2X
REW	FFWD
FWD	REV
STOP	CUE (shift search)
SEARCH	SEARCH OUT (alt search)
MARK IN	MARK OUT

Functions that Will Be Available in the Next Maintenance Release

SET IN	SET OUT
TRIM IN	TRIM OUT
SET DURATION	

Selected Notes

If MULTI is accessed during an edit it will not affect any sources that are involved in the edit.

In an effort to not be annoying MULTI will NOT switch the crosspoints of your switcher during the MULTI operation.

After a MULTI operation it will return to your previously selected source, NOT the last source in the multi group.

Note 21 - Resetting All Learned Ballistics

There is now an INIT page selection that allows you to reset all of the Learned Machine Ballistics inside Super Edit. Selecting this function will return the ballistics for all devices to the factory defaults for that Super Edit.

Some background on Learned Ballistics

Super Edit is a dynamic editing system that automatically learns how to better synchronize your devices while you edit. This process is a continually evolving one that happens over a period of time. Super Edit makes continuous, small, incremental changes in how it synchronizes a particular type of device to help account for normal wear and tear and inherent differences in individual device ballistics. When these ballistics are remembered and when they are reset may cause some confusion.

There is one default ballistic set for each different device protocol included in your Super Edit software. Super Edit modifies these values if necessary during the editing process. These modified values are saved on a PORT basis. In other words, each of your assigned ports have a learned set of ballistics. If you change a devices port assignment the learned ballistics for that port are reset to the factory defaults. This can cause a device that was synchronizing fine to begin to abort for no apparent reason. Unfortunately, it means the default ballistics for that machine are no longer valid and Super Edit will need to learn them again.

The ballistics are remembered and saved in configuration files. When you load a new configuration file the currently learned ballistics are forgotten and the ones that were saved with that configuration file will be loaded. This can also cause some confusion.

If you have a device that is not synchronizing well Super Edit will still attempt to learn how to synchronize that device. This could cause the learned ballistics for that device to be very different from what the factory had determined is a good starting point. After a time this device may appear to be working fine, even though its ballistics may be way off from other devices of that same type. When you load an old configuration file or update to a newer version of software, you may be changing your learned ballistics and some of your devices may not synchronize as well as they used to. The solution to this is to let Super Edit re-learn the device by performing a number of edits or previews using that machine. As Super Edit learns the ballistics you should begin to see fewer and fewer aborts. Another common problem occurs when new software is received from the factory that contains different device protocols compared to the software you saved the configuration file from. Even if the software version is the same, it is possible that

the learned ballistics in your old configuration files will not be compatible with your new device protocol mix. When you load your old favorite configuration files you wipe out the brand new default ballistic settings.

Editware is continually making improvements in device control, and each new software release contains the latest ballistics values determined by Editware to be the best starting point for controlling each device. But if you load an old configuration file these new and improved ballistics are completely lost.

What To Do?

The **Reset All Learned Ballistics** feature allows you to load your old configuration files as you have before, but if you want to, or need to, you can reset all the ballistics to the factory defaults.

To return to the factory default ballistics select INIT #99 on INIT page #4. The editor will prompt "Are You Sure?" If you answer "Y" or "YES" the ballistic values will be reset. It is STRONGLY advised that you save a configuration file before doing this in case you decide things went from bad to worse and you want to return to your old settings.

Note 22 - Assigning an EMEM as a Green Key Source

Super Edit now allows you to assign a switcher setup or EMEM to a Green key. Whenever that source is referenced in an edit or that Green key is pressed the assigned EMEM register is recalled on the switcher. This feature is available for the Grass Valley Model 100, 200, 300, 1000, 1200, 2200, 3000 and 4000 switchers, the Abekas A8100/8150 and the Ampex Vista switcher.

To activate this feature call up the Assignment page and enter the desired command code as the Video Crosspoint for the chosen Green key. Note that in order to maintain backwards compatibility only certain command codes are allowed for various switchers. The command code is very similar to the PEGS code used in the PEGS registers to recall an EMEM register. The hundredth digit represents the Effects bank, and the tens and ones digit represents the EMEM register. You cannot enter a code of less than 100 as this is the value that signals

Super Edit to treat it as a crosspoint number instead of a PEGS code. Valid codes for each switcher are specified below.

Grass Valley Switchers

Model 100
Enter a crosspoint number between 101 and 115. For example, 101 corresponds to a recall of register 1 and 115 recalls register 15.

Model 200
Enter a crosspoint number between 101 and 650. Follow the standard rules for PEGS entry found in the Model 200 protocol document. The rules are the same. For example, an entry of 201 will recall M/E 2 register 1.

Model 300
Enter a crosspoint number between 101 and 621. Follow the standard rules for PEGS entry found in the Model 300 protocol document. The rules are the same. For example, an entry of 301 will recall M/E 3 register 1

Model 1000/1200
Enter a crosspoint number between 101 and 115. For example, 101 corresponds to a recall of register 1 and 115 recalls register 15.

Model 3000/4000/2200
Enter a crosspoint number between 101 and 199. On these switchers, Effects levels recalled with an EMEM depend upon the Enable Effects Levels on the switcher panel. (See Note 3, **Controlling Enabled Effects Levels)** This means the tens and ones digit corresponds to the EMEM register, and the hundredths digit is ignored. For example, a value of 110 will recall EMEM register 10.

Abekas A8100/8150
Enter a crosspoint number between 101 and 650. Follow the standard rules for PEGS entry found in the Abekas A8100/8150 protocol document. The rules are the same. For example, 101 corresponds to a recall of register 1.

Ampex Vista
Enter a crosspoint number between 101 and 424. Follow the standard rules for PEGS entry found in the Ampex Vista protocol document. The rules are the same. For example, 101 corresponds to a recall of register 1.

Note 23 - Keyboard Repeat Enabled for K2 Keyboard

Keyboard REPEAT has been enabled for EDL SCROLL UP and DOWN and for
TITLE and NOTE dialogs on K2 keyboards. When scrolling the EDL if you keep
the UP and DN arrow keys depressed for longer than 1 second the keys will begin
to repeat. Similarly, during the TITLE and NOTE dialogs all key strokes will
repeat if depressed for more than 1 second.

Note 24 - Individual EMEM, AMEM, PMEM Enable / Disable

Super Edit has been enhanced to allow enabling and disabling of individual
EMEM, AMEM and PMEM events in the EDL. This provides enhanced control
over what gets recalled to the switcher from the EDL, especially during an auto-
assembly. NOTE: This feature only displays correctly for systems using a color
monitor. In the following discussion reference is made to an EMEM, but it also
applies to AMEM and PMEM type events.

To Disable an EMEM

Use the EDL scrolling keys to point to the individual line that you want to disable.
Then press the [-] MINUS key on the numerical keypad. That event line will be
dimmed to MAGENTA and the note itself will be changed to "EMem" instead of
"EMEM". This EDL line will remain MAGENTA until you re-enable the line.
While disabled it will not be recalled with the event, and therefore, will not be sent
to the switcher.

To Enable an EMEM

Point to the EDL line to enable and press the [-] MINUS key on the numeric
keypad. That event line will be returned to the normal color, which will be
WHITE while the pointer is on it, YELLOW when it is not. While enabled it will
be recalled along with the event just like in previous versions of software.