



*Profile NL Application Notes
Super Edit V8.2 A B and later*

Preliminary Documentation

Overview

The *Profile*TM NL protocol provides for Non-Linear control of the *Profile* from Super Edit.

This document covers Super Edit features that pertain to the *Profile* NL application. Please consult the Super Edit operations manual for more detailed information on Super Edit functions and the Tektronix *Profile* PDR manual for more detailed information on the *Profile*.

This document will attempt to take you through all the necessary steps to configure the *Profile* and the VPE for use in the NL mode. Although you may have already done some or all of these procedures, please read through this entire document.

STEP 1 - Control Interconnect

Physically connect two (2), three (3), or four (4) standard RS422 9-pin machine control cables from the VTR ports on the rear of the VPE chassis to the *Profile* RS-422 Connector Panel. Any active VPE VTR port can be connected to any of the 8 *Profile* ports. An example follows:

<u>VPE</u>		<u>Profile</u>	
VTR Port 1	-	RS422 port P1	
VTR Port 2	-	RS422 port P2	
VTR Port 3	-	RS422 port P3	(optional)
VTR Port 4	-	RS422 port P4	(optional)

STEP 2 – *Profile* Audio/Video Outputs

The Video and Audio outputs from *Profile* are associated with the VPE's R-VTR, A-VTR, B-VTR and C-VTR as indicated below and should be routed as appropriate in your facility. An example follows:

	<u>Video</u>	<u>Audio 1</u>	<u>Audio 2</u>	<u>Audio 3</u>	<u>Audio 4</u>
R-VTR	Vid1 Out	Aud 1 Out	Aud 2 Out	Aud 3 Out	Aud 4 Out
A-VTR	Vid2 Out	Aud 5 Out	Aud 6 Out	Aud 7 Out	Aud 8 Out
B-VTR	Vid3 Out	Aud 9 Out	Aud 10 Out	Aud 11 Out	Aud12 Out
C-VTR	Vid4 Out	Aud 13 Out	Aud 14 Out	Aud 15 Out	Aud16 Out

STEP 3 - Profile Configuration Setup

The next step is to configure the *Profile* inputs and outputs, and to select which codecs and video quality to use. Each channel has a default configuration file:

Channel 1 = VTR1. CFG
Channel 2 = VTR2. CFG
Channel 3 = VTR3. CFG
Channel 4 = VTR4. CFG

A utility program called **PRCCFG.EXE** is supplied (on 3.5" floppy disk) to modify these configuration files and enable use of NL and NLE applications.

1. If this is the first time you are performing this procedure, copy the **RESOURCE MANAGER** from the floppy disk supplied by Editware to the **PDR APPLICATIONS** folder found in the **PROGRAM MANAGER**.
2. Double click on the '**PRCCFG**' icon. If ProLink is running, the following prompt will appear:

'Your change will take effect the next time you start ProLink'

Click **OK!** The Resource Manager window will open.

3. Select the first Tab, Channel 1.
4. Click on the '**Video**' icon. Assign the appropriate Video Input, Video Output, Video Codec and Video Quality for this channel.
5. Click on the '**Audio**' icon. Assign the appropriate Audio Channel(s).
6. Click on the '**Timecode**' icon. Select Timecode Codec "**Codec 1**"

If Logging (digitizing) using timecode from videotape, select **VITC or LTC**. If Logging using a timecode generator, select **Internal (Generator)**. Select **<NONE>** for the Timecode Outputs. For more information on these settings, see “Digitizing source material to the Profile using the Super Edit Logger” later in this document.

7. Repeat above items **4, 5, and 6** for Tabs (Channels 2, 3 and 4) for **Video** and **Audio**.

For **Tab 2** (Channel 2) Timecode, select:

Timecode Codec: **Codec 3**
Timecode Input: **<NONE>**
Timecode Output: **<NONE>**

For **Tab 3** (Channel 3) Timecode, select:

Timecode Codec: **Codec 5**
Timecode Input: **<NONE>**
Timecode Output: **<NONE>**

For **Tab 4** (Channel 4) Timecode, select:

Timecode Codec: **Codec 7**
Timecode Input: **<NONE>**
Timecode Output: **<NONE>**

STEP 4 - Enable Native Protocol Ports

To enable the Native Protocol Interface in *Profile*:

1. Double click on the ‘**ProLink**’ icon found in the **PDR APPLICATIONS** folder in the **PROGRAM MANAGER**, or on the Windows Desktop.
2. Select Port **P1** and **OK** (this will be used as the record Timeline.) When the P1 window opens, **MINIMIZE** it.
3. Repeat for port **P2**, and for P3 and P4 if desired. Selected Ports should correspond to the physical Ports connected to the VPE via the RS-422 machine control cables.

IMPORTANT NOTE...

If for any reason you must re-start or re-boot your editor while in the **NON-LINEAR** mode, ProLink should be closed and then re-opened once the editor is back on-line.

STEP 5 - Super Edit Software Installation

In the VPE, **INSTALL** or **UPDATE** the Super Edit software using the enclosed installation floppy disks. (See ‘Super Edit Software Installation instructions’). Note your port and cross-point information, as Configuration Files created from earlier non-NL versions of Super Edit will no longer be usable.

STEP 6 - Setup VTR Assignment Table

Run the Super Edit program and select NATIVE protocol for ports **1 and 2**, and 3 and/or 4 if desired. Set the Video and Audio cross-points as appropriate for your installation. Other non-*Profile* sources may be assigned to any other unused ports you may have. An example follows:

LABEL	REEL	PORT	MODEL	QC	VIDX	AUDX
R-VTR	001	01	NATIVE	3	< ANY >	<ANY>
A-VTR	002	02	NATIVE	3	< ANY >	<ANY>
B-VTR	003	03	NATIVE	3	< ANY >	<ANY>
C-VTR	004	04	NATIVE	3	< ANY >	<ANY>
D-VTR	WILD01	05	BRD-85	3	< ANY >	<ANY>

Some ASSIGNMENT rules to remember:

- Any available VTR port on the VPE may be assigned to any available port on the *Profile*.
- Profile NATIVE protocol can only be assigned to R-VTR, A-VTR, B-VTR, and/or C-VTR.
- In the NON-LINEAR mode, the R-VTR must always be assigned as NATIVE.

STEP 7 - Setup Initialization Page Options

There are three Initialization Options in Super Edit that must be defined before you can edit in the NON-LINEAR mode; **Non-Linear Control ON/OFF**, **VTR.CFG assignment**, and **Profile Directory** selection. Other Initialization options are required for the Logger operation, and are explained later. Most NON-LINEAR options are on Initialization Page #6. This page is not displayed until INIT 100 is turned on. However, you can go directly INIT Page #6 by selecting INIT #120 - NLE INIT PG. INIT #156 is discussed below in the Manual Control Functions section.

1. INIT #100 - **NON LINEAR MODE ON/OFF** - Note that the default is OFF. To enable the non-linear mode, toggle this function to ON. When you exit the INIT Page, **NON-LINEAR** will be displayed in the status line of Super Edit. When Non Linear mode is ON, INIT page # 6 will always appear first, allowing you to directly access the *Profile* related INIT items.
2. Assign the 4 VTR.CFG files to the R-VTR, A-VTR, B-VTR, and/or C-VTR. This is done through INIT #s 152-155. An example follows:

```
152          RVTR CFG = VTR1
153          AVTR CFG = VTR2
154          BVTR CFG = VTR3
155          CVTR CFG = VTR4
```

3. INIT #151 - On a **PDR 100**, **DIR = INT:/DEFAULT/**
On a **PDR 200**, **DIR = INT1:/DEFAULT/**

This is usually the default name of the directory on the *Profile* that will contain the source clips.

To change this directory select **INIT #151**. Super Edit prompts:

PROFILE DIRECTORY =

You may type in any directory name that already exists on *Profile* as long as the complete directory name is less than 32 characters long. If you define a directory name that does not yet exist, it will be created automatically when the system attempts to output to that directory.

The format of the directory name is very important and must be followed exactly. The format must be a drive identifier followed by a colon (:), and a forward slash (/). Subsequent directory and sub directories must also be followed by a forward slash. The name must end with a forward slash. (If you do not add the trailing forward slash, Super Edit will do it for you automatically. The directory that you specify will apply to all further operations.)

Examples: INT:/DEFAULT/GOOD1S/
INT1:/MYCLIPS/
INT1:/MYCLIPS/MEDIOCRE/
EXT:/WILDSHOT/TOWN/BEST/

Note that the directory name is not saved with the EDL. Each time you load a new EDL you must specify the correct directory.

STEP 8 - Digitizing source material to the *Profile* using the Super Edit Logger

1. Turn on the **LOGGER MODE (INIT #160)** on the VPE. **'EDIT LOG'** appears on the status line of the VPE screen. This function is only used for digitizing, and should be turned OFF during editing.
2. Specify a default CLIP NAME in **INIT #161 'CLIP NAME='**. (See 6.a below)
3. Define desired head and tail handles for the clips in **INIT #162 "HEAD HANDLE = nnn FRAMES"** and **#163, "TAIL HANDLE = nnn FRAMES"**. This is extra material that will be added to the beginning and end of the selected video for possible use later. You may specify handles of up to 999 frames.
4. Connect a source VTR to any or all unused ports on the VPE (the R-VTR must be left assigned to the *Profile* and in the NATIVE mode).
5. Assign Reel IDs to the loaded source(s). This Reel ID is appended to the CLIP NAME for later use should you wish to conform (auto-assemble) your edit from original material.

6. Play a source VTR, Mark or Set an IN and OUT and press **[RECORD]**. The prompt ‘**NAME =**’ appears. Perform ‘a’ or ‘b’ below.
 - a. Press **[RECORD]** again to use the default CLIP NAME (specified in INIT# 161). For each CLIP, Super Edit will append an incremental numeric ID (i.e. 01, 02, etc.).
 - b. Enter the name you wish to give the clip on *Profile*, and press **[RECORD]** again.

The CLIP goes in the EDL, and will appear as:

```
0001 SUPE01  A12V  C  01:02:18:12          01:02:28:12  01:00:00:00  01:00:10:00
*CLIP: SUPERIOR_SHOT_OF_FOREST=WILD01
```

7. When all your clips have been selected, press **[AUTO ASSEMBLE] [A]** and the clips in the EDL will be digitized to the *Profile* into a directory that you have selected in **INIT #151** (e.g., “**DIR = INT1:/DIRECTORY NAME/**”). To avoid having to change reels, up to 6 source VTRs can be loaded and auto-assembled at one time.
8. **Clip Join Time (INIT #164)** - For improved performance, clips that are closer together than the Clip Join Time entered (1 through 999 frames) will be digitized without stopping and re-cueing the source VTR. To disable this feature, enter 0.
9. Select the source for the Timecode to be recorded with the clips by selecting **INIT #165** - either “**TC from Tape**” to record the time code from the source tape or “**TC from Gen**” to select the internal time code generator in *Profile*. If “**TC from Gen**” is selected, the Generator is automatically set to the clip’s Mark In time when the clip is digitized.
10. Turn **OFF** the **LOGGER MODE (INIT #160)** on the VPE. Super Edit will prompt “**EDL LOG WILL BE CLEARED, SAVE IT FIRST?**”. To save the list, answer **[YES]**. To proceed without saving the EDL, answer **[NO]**. If you press **[RESET]**, Super Edit stays in the Logger mode and no action is taken.

Digitizing Clips On-the-Fly

Start Digitizing - Select a non-*Profile* source and press **[ALT][RECORD]^{K2}** to immediately start digitizing that source using the next default clip name (Please note that on a **K5** keyboard, **[U4]** replaces the **[ALT]** key). If **INIT #159** has been set to **USE HANDLES** instead of **NO HANDLES**, and the source is a VTR (or equivalent) it will be cued, and the clip will be digitized with the Head Handle specified in **INIT #162**.

Stop Digitizing - Digitizing can be stopped by pressing **[ALT][RECORD]^{K2}** again, **[PLAY]**, **[STOP]**, or **[ALL STOP]**. Digitizing will continue for the duration of the Tail Handle if **USE HANDLES** is set. After the clip has been processed, Super Edit asks if you wish to assign the new clip. If you press a Green Key assigned as **NATIVE**, the clip will be automatically assigned to that key.

Clip Naming Convention

Clip names can be up to 32 characters long. Upper and lower case are allowed but are not recognized as being different by *Profile*. Most symbols may be used, but do not use spaces, backslash (\), front-slash (/), or periods (.) in the clip name.

A unique feature of Super Edit is the ability to automatically create an Edit Decision List that can be used to auto-assemble from the original tape footage using the linear editing capability of Super Edit. The only requirement is that the clip name on *Profile* contains the 6 character Reel ID of the original footage. The clip name must be in the format:

CLIPNAME=REEL ID

For example, clip name “ISO_SHOT_SCENE2=REEL3” indicates that the original footage is on a reel of tape named REEL3. Refer to section “Conforming Reels” below.

Displaying the List (directory) of *Profile* Clips on Super Edit

To display a list of clips, select a source in the MARK TABLE assigned to NATIVE, and press [ALT][ASGN]^{K2}. Super Edit will retrieve the list of clips from *Profile* and display them on the edit screen. The following is a typical display.

	CLIP	LONG CLIP NAME	REEL I.D.
001	I_DONT	I_DONT_THINK_WE'RE_STILL_IN_KANSAS	EXT-01
002	HELP_M	HELP_ME_I_AM_LOST	EXT-02
003	SUPE01	SUPERIOR_SHOT_OF_FOREST	WOODS
004	SUPE02	SUPER_EDIT_SECOND_CUT	CUTO2
005	BOB_MA	BOB_MADE_ME_SAY_THAT	BOBSAY

SPACE BAR FOR NEXT PAGE

FILE 010?

Notice (under CLIP) that only the first 6 characters from the LONG CLIP NAME are used for the clip name in Super Edit. This is the name that is used as the “Reel ID” in the Mark Table and in the EDL. If more than one LONG CLIP NAME contain the same first six characters, then the clip name will only use the first four characters and append to them an incrementing numeric ID (i.e. 01, 02, etc.). The Long Clip Name (the clip as named in the *Profile*) is used by Super Edit when communicating with *Profile*.

STEP 9 - Assigning Clips to Green Keys

With the *Profile* NL interface, you assign clips to the Green Keys and then control them just as you would a VTR (only faster). Note that only the clips that are in the *Profile* directory specified in INIT # 151 can be assigned to the Green keys.

To assign a clip as a source:

1. First select the Green Key (A-VTR, B-VTR, C-VTR)
1. Press [ASGN] to see the list of clips or press [ALT][ASGN]^{K2} to refresh the list of clips from *Profile* and display them on the VPE.
1. At the "FILE nnn ?" prompt enter the corresponding number and press [ENTER].

The selected clip is assigned to the Green Key you have selected and appears in the Mark Table. If you press [RESET], no clip is selected and the display returns to the Super Edit screen. Note that you cannot assign a Clip to the R-VTR or a non NATIVE source.

Manual Control Functions

The direct *Profile* control functions - PLAY, STOP, REW, FF, etc. work in a similar way to the way they work with a VTR. INIT #156 controls how the REW and FF functions work.

Profile NL Functions

[PLAY] - Plays the clip from its current position.

[STOP] - Stops the clip and displays a still frame.

[ALT][FRM]^{K2} [SHIFT][FR]^{K5} - Field/Frame still selection

[REW] - INIT #156 CUE REW - Instantly goes to the beginning of the clip.

[REW] - INIT #156 CUE SHUTTLE - Simulates VTR Rewind to beginning of clip.

[FF] - INIT #156 CUE REW - Instantly goes to the end of the clip.

[FF] - INIT #156 CUE SHUTTLE - Simulates VTR Fast Forward to the end of the clip.

[SRCH] - Instantly goes to the MARK IN point on the clip.

[SHIFT][SEARCH] - Instantly goes to the MARK IN point minus the pre-roll time.

[ALT][SEARCH]^{K2} - Instantly goes to the MARK OUT point on the clip.

[U5]^{K5} - Instantly goes to the MARK OUT point on the clip.

[ALT][<]^{K2} - Step increments the selected clip or timeline in the reverse direction.

[ALT][>]^{K2} - Step increments the selected clip or timeline in the forward direction.

[SHIFT][REV]^{K5} - Step increments the selected clip or timeline in the reverse direction.

[SHIFT][FWD]^{K5} - Step increments the selected clip or timeline in the forward direction.

Entering Edit Times

You enter edit times for a clip the same way you would for a VTR, using the MARK IN, MARK OUT, SET IN, SET OUT, TRIM IN, TRIM OUT and SET DUR keys.

Cuts-Only Editing

Profile NL allows fast random access to source material and non-linear cuts only type editing. Unlike linear editing on a VTR, the clips are not actually re-recorded. Instead, they are automatically placed on the *Profile* Timeline beginning at the location you select as the Record In point.

Beginning to edit

After you have assigned the desired clip(s) to one or more of your Green keys, you may begin to edit. Set In or Mark In an IN time on a source clip and on the Timeline (the R-VTR). Set the duration of the edit (MARK OUT, SET OUT, DUR, etc.).

Press **[RECORD]**.

The 'edit' is processed immediately. There is no time lost in pre-rolling and playing the clips or the Timeline. The actual time that is required to place the clip on the timeline is a function of the *Profile*.

The Mark Table is updated and the event goes into the EDL. The Long Clip Name is displayed as a special Note. For example:

```
0001 SUPE01 A12V C 01:02:18:12 01:02:28:12 01:00:00:00 01:00:10:00
*CLIP: SUPERIOR_SHOT_OF_FOREST=WOODS
```

If you now press **[REW]** the Timeline will go to the beginning of the movie.

Video-Only, Audio-Only, A/V Edits - *Profile* NL allows Video only and Audio only edits in addition to A/V edits. A/V selection is the same as for linear editing.

Add-on (sequential) Edits - Edits made at the end of the Timeline are appended to the Timeline without any further action on the users part.

Overlapping Edits - If you make an edit that has an Edit IN time earlier than the end of the timeline, the new clip will replace the material that was previously put on the timeline at that position.

Insert Event - In normal linear editing, Inserting an Event by pressing **[INSRT]** just puts an edit event into the EDL. This is always placed after the event at the Record In time. Super Edit asks whether the event is to be inserted with or without Ripple. In the NON-LINEAR mode, the event will also be put on the Timeline following the event with the latest preceding Record IN time.

If ripple is selected, all following events will be shifted to a later point on the Timeline.

If ripple is not selected, the new clip will replace the material that was previously at that position on the timeline.

Deleting Events - Events that are deleted without ripple will be replaced by black video and/or audio silence on the Timeline. Events deleted with ripple will be removed from the timeline and all following events will be moved earlier on the timeline. Pressing **[DEL]** deletes the event selected in the EDL and pressing **[SHIFT][DEL]** asks for a range of event FROM/THRU to be deleted.

Recall - If the clip being recalled to the Mark Table is not assigned, Super Edit asks where to assign the clip. If you select a Green Key, Super Edit assigns the clip to that Green Key and automatically puts it on the Profile output.

Replacing Events - Replace events operation is similar to Insert Events. In NON-LINEAR mode, the modified clip is replaced on the timeline. In this mode, it is only required that some portion of the replaced clip be within the location of the original clip on the timeline.

Move Clips - A range of clips can be moved from one location on the timeline to another by pressing **[SHIFT][MOVE]**. Answer the normal question, MOVE FROM?, THRU?, AFTER?, AND RIPPLE?

If ripple is selected, all following clips on the timeline are moved up to fill in the hole and then all clips at the new location are moved down to allow the clips to be inserted on the timeline.

If ripple is not selected, the move will have no effect on the timeline.

Copy Clips - A range of clips can be copied from one location on the timeline to another by pressing **[ALT][MOVE]^{K2}**. Answer the normal questions, COPY FROM?, THRU?, AFTER?, AND RIPPLE?

If ripple is selected, all clips at the new location are moved down to allow the clips to be inserted at the new location on the timeline.

If ripple is not selected, the copy will have no effect on the timeline.

Auto Assembly - When Auto Assemble is selected, Super Edit asks for the range of events to be assembled "From / Through". The events in this range are sequentially inserted on the Time Line. The Auto Assembly operation continues without stopping to 'cue the timeline' or the sources.

The sources do not have to be assigned to green keys, but the clip names must be in the EDL and the clips must exist in the specified *Profile* directory.

Save Timeline - All or any sequence of clips on the Timeline can be saved as a clip, which can then be assigned to a green key as a source.

Press **[ALT][OUTPT EDL]**^{K2}. Super Edit first asks “Movie Name = “, that is; the name it will be called on Profile. Next, Super Edit asks for the From / Through range of events to be saved. All shortcut keys operate at they do for other functions. Lastly, Super Edit ask to **SELECT SAVE MODE** and displays a pop up menu for selection of 3 ways to save the Timeline:

- 1 - **SAVE TL AS CLIP** - Saves the pointers to the Audio and Video clips that have been used in the current timeline.
- 2 - **RENDER TL AS CLIP** – Creates a Movie of the saved timeline. This is re-digitized, and does not affect the original material on *Profile*.
- 3 - **SAVE ALL AS CLIP** - Saves the pointers to the Audio and Video clips that have been used in the current timeline, and makes another copy of the original clips used to create that timeline.

Conform Reels

A unique feature of Super Edit is the ability to automatically create an Edit Decision List that can be used to auto-assemble from the original tape footage using the linear editing capability of super Edit. Clip names must contain the Reel ID of the original source tape preceded by an equal sign i.e. =REEL1.

To generate an EDL with the original Reels assigned, press **[OUTPUT EDL]**. Following the normal FROM/THRU questions, Super Edit will ask “CONFORM REELS?” Answer YES and the resulting EDL will have the correct Reel IDs for auto-assembling the original source reels. To auto-assemble the original sources, in INIT # 100 take Super Edit out of the NON-LINEAR mode, reload the conformed list and edit as usual. The EDL may also be taken to any other linear on-line system that accepts the standard Grass Valley EDL.

Still Field/Frames Selection

Pressing **[ALT][FRAMES]**^{K2} toggles a still video between Still Frame and Still Field.