User's Manual

Fastrack
Peripheral Setup Guide

Editware
Grass Valley, California
Edit Control Solutions - System Applications

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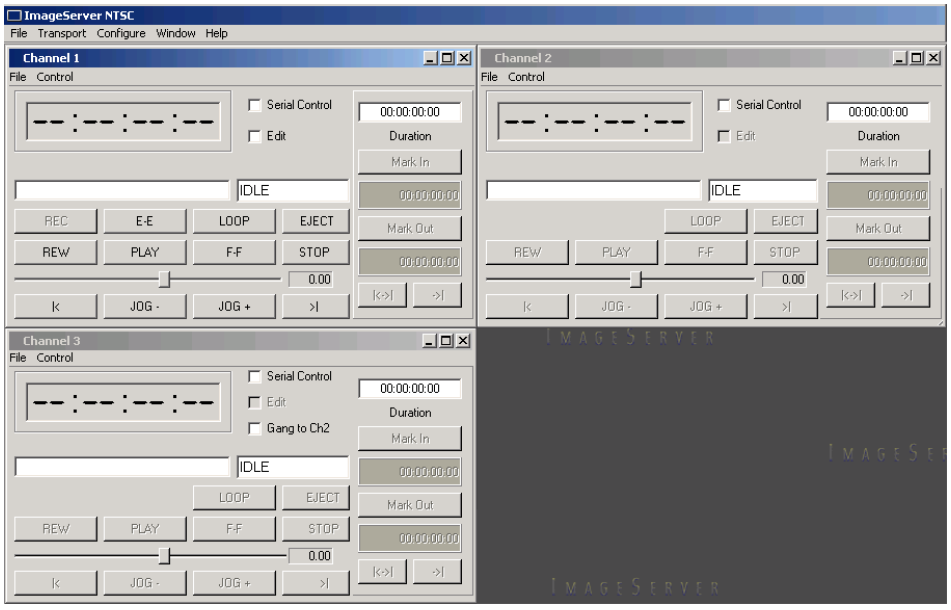
1. 360 Systems Image Server 2000

1.1. Server & Fastrack cable connections

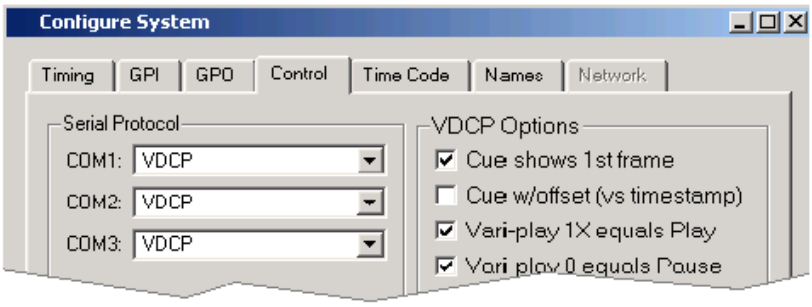
1. Connect RS422 cables from Channel 1, Channel 2, and/or Channel 3 on the rear of the server chassis to available ports on the Fastrack Port Expansion Panel(s). Server Channel 1 is Record **or** Play, and Channels 2 and 3 are Play only.
2. Connect a **Composite Sync** reference to the server **Genlock Input** BNC.
3. Connect Audio and Video IN and OUT as required.

1.2. Image Server 2000 SETUP

1. Run the 360 Systems Image Server 2000 application.
2. From the applications Menu Bar select **Transport** / **Channel 1-3) / Clip …** and open the control windows for the desired channels.

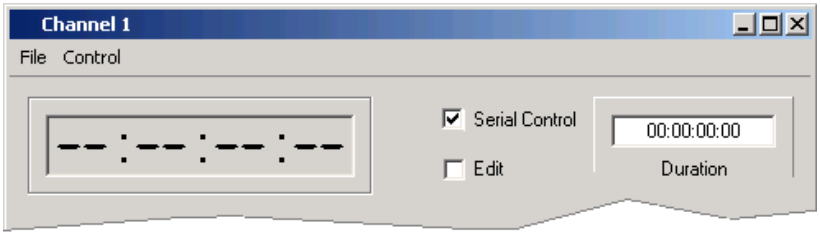


3 From the Menu Bar select **Configure / System … / Control Tab** and select **VDCP** as the Serial Protocol for the channels connected to the Fastrack



4 Setup the Video as desired. From the Menu Bar select **Configure / Channel 1-3**.

5 Enable the Editor by checking the ☑ **Serial Control** check box on each Channel to be controlled by the Fastrack.



1.3. Fastrack Setup

1 On the Fastrack K6 keyboard, press **[SHIFT][ASIGN]** and setup the Image Server 2000 channels as shown in the example below on Tracks 3, 4, and 5:

Track	On	Device Name	Class	Device	Auto	Port	Pool
1	☒	BARS	XPNT		☐		
2	☒	CG-1	XPNT		☐		
3	☒	1-Record	VDCP_D	360_2K	☐	P7	360
4	☒	2-P1	VDCP_D	360_2K	☐	P2	360
5	☒	3-P2	VDCP_D	360_2K	☐	P3	360
6	☒	VTR-1	SONY	DVW500A	☐	P6	VTR
7	☒	VTR-2	SONY	AJ-D750	☐	P5	VTR
8	☒	BLACK	XPNT		☐		

2 Enter a **Device Name** – The first number encountered in the Device Name must contain the number of the server channel, i.e., **1** for Port 1, **2** for Port 2 and **3** for Port 3.

3 Select the **Class** – Select **VDCP_D**

4 Select the **Device** – Select **360-2K**

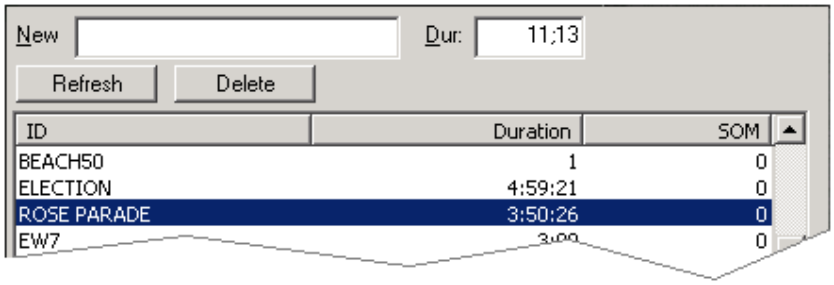
5 Select the **Port** – Select the Fastrack port number connected to the defined 360 channels.

6 Select **On** – Enable communication to the server.

1.4. Loading an Image Server 2000 Clip On a Fastrack Track

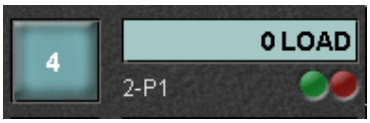
Once communication is established between the Fastrack and the Image Server 2000, Clips resident on the server can be mounted onto their assigned Tracks.

1 Select a Track with a **PB** channel assigned to it. Press **[ASIGN]** on the K6 keyboard to open the Image Server Directory Dialog. The Clip list will be displayed.



2 **[Double Click]** on the Clip to be loaded, or use the UP and DOWN Arrow keys to select the Clip and press **[ENTER]**. The Clip will be mounted in its entirety as an Event at the CTI on the Current Track.

While the Clip is loading, the Status Area for this Track should display the following status sequence: **IDLE, LOAD, BUSY** and **STOP.** If after loading a Clip it does not play, return to the Fastrack Assignment Page and disable & re-enable the Track.



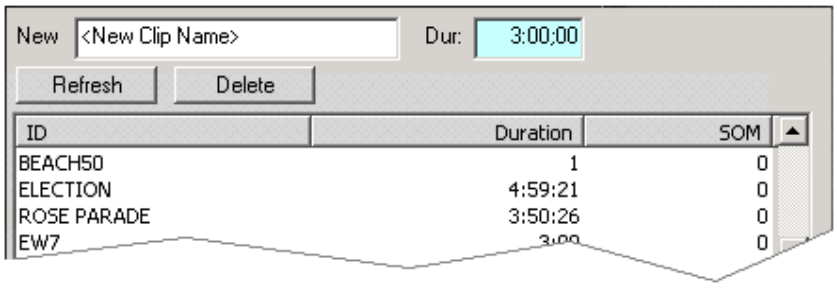
3 Once loaded, **[PREVIEW]** the Event and assure that the **CPI** is properly centered.

4 If not, change the **Play Delay** setting in the **360_2K.dev file**. **Do not** use "Frames Offset" in the INIT Dialog if timing adjustment is required.

1.5. Creating an Image Server 2000 Record Event on the Fastrack

To create a Record Event for the Image Server:

1 Select the Track with the Image Server **Record** channel assigned to it. Press **[ASIGN]** on the K6 keyboard to open the Image Server Directory Dialog. The Clip list will be displayed.



2 In the "**New**" text field, enter the name for the new Clip.

3 In the "**Dur**:" text field, enter the duration for the new Clip. Press **[ENTER]** or select the **[F-key]** labeled **New**. The Record Event will be Automatically mounted on the current Track.

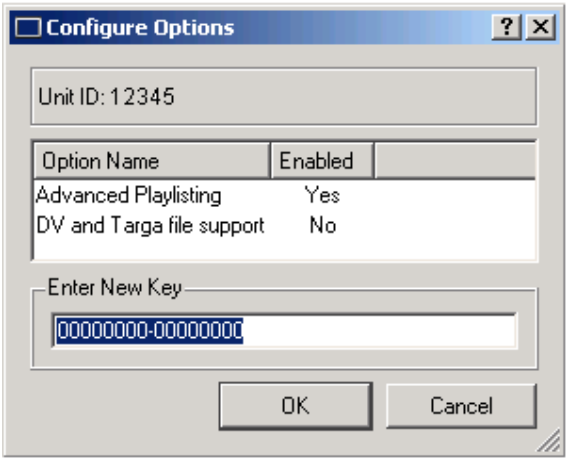
Note: You can define the starting timecode on the Record Event by setting-In a number into the Record Event prior to recording.

Note: At the end of a recording, you currently must remove the Record Event from the Track and reload the new Clip in order to play it. Do not use [ALT][EVENT] to change a Server 2000 Record Event to a Play Event.

1.6. Installing the Image Server 2000 Remote GUI

To install and connect the Image Server 2000 Remote GUI software option:

1 On the server Menu Bar, select **Configure / Options … / Enter New Key** and enter the key numbers for the Remote GUI (The Key is provided by 360 Systems with the Remote GUI software).



2 Connect an Ethernet cable from the rear of the Server 2000 to your network.

3 Connect an Ethernet cable from the rear of the Fastrack to your network.

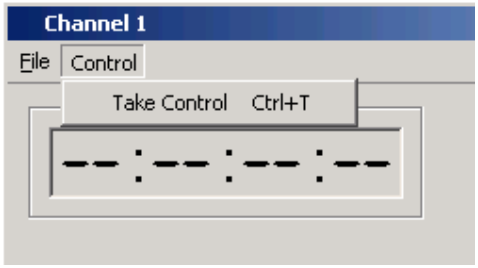
4 On the Server 2000, setup the network according to your local requirements.

5 On the server Menu Bar, select **Configure / System … / Network Tab**. For example, in our tests we set the IP address to a fixed unused address:

IP Address – 192.168.1.195
Mask – 255.255.255.0
Default Router – 192.168.1.1

6 Install the Remote GUI software on the Fastrack. When prompted, enter the IP address that you assigned to the Server 2000. In the above example it would be 192.168.1.195.

7 The Remote GUI on the Fastrack should display the same as the local GUI on the Server 2000. You can take control of a specific Server 2000 channel by selecting **Control / Take Control** on the channel Menu Bar.



2. Abekas 8100/8150 Switchers

2.1. Connection

1. Connect an RS422 cable from the designated switcher port on the editor to one of the Serial ports on the switcher.
2. Set up the selected port on the switcher as follows:
3. In the Engineering Menu select “Communications” then set the communications parameters as follows:

Protocol	Baud	Parity
GVG	**38400**	**Odd**

2.2. Crosspoint Selection

Crosspoint selections are made as described in the Operator’s Guide. In the Abekas switcher, Black is normally crosspoint 1, and crosspoint 2 is input 1.

2.3. Aux Bus Previewing

Aux bus previews can be accomplished on the Abekas switchers. See the Fastrack Operations Manual for more information on setting up Aux Bus previews.

On theswitcher, select “Communications” from the ENGINEERING MENU, and set “Preview Cmds Routed From” Aux bus 5.

2.4. PEGS Commands - Auto Trans.

Some of the buttons on the switcher panel are assigned numeric values. Table 1 and Table 2 below show these values. The hundreds digit indicates either the PGM/PST buses (0 or 2) or M/E 1 (1). In all cases, the Auto Trans. function is started when the PEGS function is executed.

To select these functions on the Abekas switchers, select PEGS on the Fastrack keyboard.

A table of SE PEGS command codes for PGM/PST is shown below.

Code	Function
050	Auto Trans, Mix mode
051	DSK, Mix mode & Auto Trans
052	N/A.
053	N/A.
054	PGM/PST, Mix mode & Auto Trans
055	DSK, PGM/PST, Mix mode & Auto Trans
056	N/A
057	N/A.
058	FTB Toggle
059	N/A
060	Auto Trans, Wipe mode
061	DSK, Wipe mode & Auto Trans
062	N/A.
063	N/A.
064	PGM/PST, Wipe mode & Auto Trans
065	DSK, PGM/PST, Wipe mode & Auto Trans
066	N/A
067	N/A.
068	FTB Toggle
069	N/A.

A table of SE PEGS command codes for PGM/PST is shown below.

Code	Function
150	Auto Trans, Mix mode
151	Key1, Mix mode & Auto Trans
152	Key2, Mix mode & Auto Trans
153	Key1, Key2, Mix mode & Auto Trans
154	Bkgd, Mix mode & Auto Trans
155	Key1, Bkgd, Mix mode & Auto Trans
156	Bkgd, Key2, Mix mode & Auto Trans
157	Key1, Key2, Bkgd, Mix mode & Auto Trans
158	N/A
159	N/A
160	Auto Trans, Wipe mode
161	Key1, Wipe mode & Auto Trans
162	Key2, Wipe mode & Auto Trans
163	Key1, Key2, Wipe mode & Auto Trans
164	Bkgd, Wipe mode & Auto Trans
165	Key1, Bkgd, Wipe mode & Auto Trans
166	Bkgd, Key2, Wipe mode & Auto Trans
167	Key1, Key2, Bkgd, Wipe mode & Auto Trans

2.5. Timeline Control

In addition to normal switcher type control, Fastrackj can control the Timeline effects on the Abekas switcher similar to the way it controls a VTR. Connect the cable as described below and assign the timeline to a port just as you would a VTR. Pressing the Play, Stop, Rewind, Fast Forward keys and the jogger now controls the timeline just like a VTR. Select the timeline source for an edit, or slave it to other VTR sources for automatic control.

1. Connect an RS422 cable from any machine control port on the editor to one of the Serial ports on the switcher.
2. Set up that serial port on the switcher as follows: In the Engineering Menu select "Communications" then set the communications parameters as follows:

Protocol	Baud	Parity
SMPTE	**38400**	**Odd**

3. Chyron INFINIT!

3.1. Chyron Set-up

***WARNING*: Before any connection is made from the Fastrack to the Chyron, assure that the following two items are completed.**

1 At the Chyron, the 9 Pin Serial **Port 4** needs to be set to RS-422. To do this, remove the CPU Transition Board from the rear of the Chyron chassis. Adjust the jumpers **JP17 through JP21** to be across pins **2-3**. If the board does not show which pins are 1, 2 and 3, a diagram is available in the Chyron manual. For additional instructions, refer to page 3-7 of the Chyron operations manual. **Do not connect to the Fastrack yet!** Continue with item #2 below.

2 The Chyron needs a special male-to-male cable for RS-422 communication. This cable will need to be built before connecting the Chyron to the Fastrack.

***WARNING*: The Chyron manual warns that it is possible to destroy their port if the cable is not wired correctly.**

Fastrack Pins **1 and 9**:	to Chyron Pins **1 and 9** (Ground)
Fastrack Pin **2**:	to Chyron Pin **3**
Fastrack Pin **3**:	to Chyron Pin **8**
Fastrack Pin **4**:	to Chyron Pin **4**
Fastrack Pin **5**:	**NOT CONNECTED**
NOT CONNECTED	to Chyron Pin **5**
Fastrack Pin **6**:	to Chyron Pin **6**
Fastrack Pin **7**:	to Chyron Pin **2**
Fastrack Pin **8**:	to Chyron Pin **7**

3 You may now attach the special RS-422 cable between the Chyron Port 4 and a port on the Fastrack Serial Port Panel.

4 From the **Program loader page** on the INFINIT!

A. Press "**Setup**" on the Chyron keyboard
B. Press "**C**" for Set Com (Serial Communications Setup)
C. If necessary modify Port 4 to be:

a) Baud Rate: **19200**

b) Data Bits: **8**

c) Parity: **None**

d) Stop Bits: **1**

D. Press "**Q**" to Quit

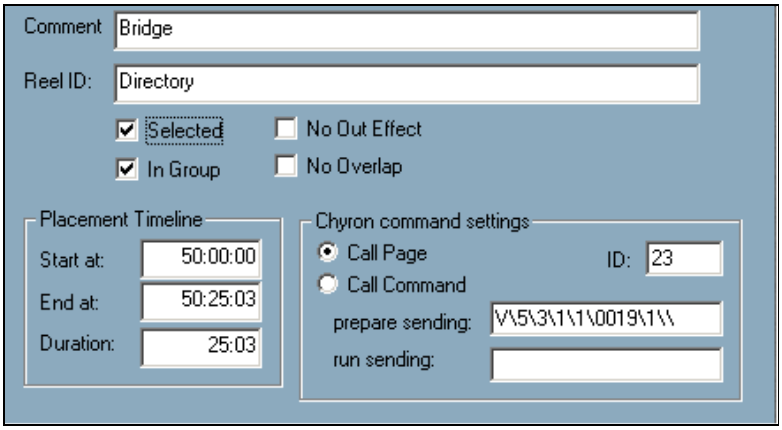
3.2. Fastrack Set-up

1. Press **[SHIFT][ASSIGN]** to access the Fastrack Assignment page.
2. In the **Media / Name** field of the Track you will use for the Chyron, enter a device name. Example: Chyron
3. Under the **Class** pull-down menu, select: **CHYRON**.
4. Under the **Device** pull-down menu, select: **any**.
5. Under the **Port** pull-down menu, select the Port, **P1 through P24**, which matches the input from the Chyron. Do not use Com1 or Com2.
6. In the **Pool** field, enter a pool name. Example: **CG**
7. In the **Video** field, enter the video **cross point** for the Chyron.
8. Check **ON**.

3.3. Recall a Chyron Page

On the Chyron, assure that the directory you wish to have the Fastrack work with is called up.

1. At the Fastrack, select the Chyron Track. Press **[MARK IN]** to create a Chyron Event.
2. Press **[EVENT]**. The Chyron Dialog will open.



3. To call up a recorded page on the Chyron, check to see that the "**Call Page**" radio button is selected under the "**Chyron command settings**" in the Chyron dialog.
4. In the "**ID:**" field, enter the number of the page you wish to recall. *Example: 23*. It is not necessary to enter leading zeros.

Note 1: The Fastrack will call up only valid pages that are in the selected Chyron directory.

Note 2: If you wish the Chyron to be a full page rather than a key, turn **OFF** the Keys(s) in the Fastrack Effects Dialog.

Note 3: It is recommended that the Fastrack not be assigned to the Chyron while the Chyron operator is building material, as communications interference from the Fastrack may cause errors on the Chyron.

3.4. Send a Chyron Command

To send a Command string to the Chyron, check to see that the "**Call Command**" radio button is selected under the "**Chyron command settings**" in the Chyron dialog.

1. If you wish to send the command to the Chyron at the Fastrack "cue" point, place a command in the "**prepare sending**" field.
2. If you wish to send the command to the Chyron at the Fastrack "edit" point, place a command in the "**run sending**" field.

Example: A typical Chyron command to call up page **2011** looks like: **V\5\3\1\1\2011\1\\.**

There are a large number of commands that can be sent to Chyron from these lines, and they can be found in the Chyron Intelligent Interface Option Handbook.

3.5. Engineering Communications Test

If you are unsure if the Fastrack and the Chyron are communicating properly, check the following:

1. Attach the special RS-422 cable from the Chyron to an available "P1 through P24" port on the Fastrack.
2. With the Fastrack application CLOSED, start **HyperTerminal**, found under Start / Programs / Accessories / Communications / HyperTerminal.
3. A window called **Connection Description** will open. Enter the **Name: Chyron**. Select the red "**telephone**" icon. Press **OK**.
4. A window called **Connect To** will open. At the **Connect Using:** prompt, enter the Com Port corresponding to the connected P1-P24 port on the Fastrack. Note that to other applications, the Fastrack, "P" ports are extensions of the two Comm ports on the rear of the Fastrack chassis. So P1 is Comm 3, P2 is Comm 4, P3 is Comm 5, and so forth. Press **OK**.
5. A window called **Comm Properties** will open. Set the following:

Bits per second:	**19200**
Data bits:	**8**
Parity:	**None**
Stop bits:	**1**
Flow control:	**None**

6. Press **OK**.

7 A window called **Chyron - HyperTerminal** will open. Press **[Enter]** on the FT keyboard. The error code: **00004190** will appear if the communications are set properly between the Fastrack and the Chyron.

Note: Using HyperTerminal, it is possible to send commands directly to the Chyron. See the Chyron Intelligent Interface Handbook for a description of these commands.

D/ESAM 230 (Graham-Patten)

This document covers the Fastrack features and parameters pertaining to the Graham-Patten D/ESAM 230 Audio Mixer using the D/ESAM 4 protocol. Note that the Isis Group, Grass Valley, CA, now supports this and other Graham-Patten mixers.

3.6. Mixer-To-Editor Connections

The Fastrack controls the D/ESAM 230 Mixer through a serial RS422 cable with a 9-pin D connector from any serial port on the Fastrack serial breakout interface. The Mixer should be set to the editor's default settings of 38.4 KBaud, 8 bits, 1 stop bit and ODD parity.

The Mixer's "**Edit I/F**" button on the lower right front panel should be illuminated.

3.7. Virtual to Logical machine mapping

The D/ESAM 230 mixer consists of Physical Inputs (1-24) on the rear of the D/ESAM 230 that are assigned to Virtual Machines (VTR1-4, VTR5-8, VTR9-12, etc). Virtual Machines are in turn assigned to Logical Devices (A, B, C, etc). Inputs are numbered and are either Analog or Digital. Virtual Machines are numbered 1 through 255 with 0 being reserved for Silent. Logical Devices are those accessed on the front panel of the mixer and are labeled "R", "A", "B"… "AUX."

Logical Devices are assigned to the individual tracks of Fastrack. Selecting a single track and playing a clip on that track will result in that track's Logical Device being monitored via the D/ESAM 230 mixer. Previews and Records will monitor the Program Out of the D/ESAM 230 mixer so that you'll hear the mixed output of the mixer.

Fastrack and ESAM-4

Fastrack's new implementation of the DESAM230.MIX protocol uses unique ESAM IV protocol features. The audio crosspoint entries (**[SHIFT][ASGN]** page) represent both the Logical Devices and Virtual Machines used in the D/ESAM 230 Mixer. The A1 column represents the "Logical Device" used on each track (1=A, 2=B, 3=C, 4=D, etc). The A2 column represents the "Virtual Machine" on the D/ESAM 230 (the virtual machine numbers are listed in the following table).

For example: If the A1 column for Track 1 is set to 1 and A2 set to 7, the Fastrack source key "T1" will monitor Mixer Logical Machine "A" with the Virtual Machine identified in the audio crosspoint field (A2 column = 11 for Virtual Machine V9-10 since it is the eleventh machine listed in the D/ESAM 230's internal Machine Assignment dialog (Menu / Mach, select device "A" {label reads "A Rate 1"} on the keypad, turn the knob to select V9-10 and then press [Enter] on the keypad section of the D/ESAM 230).

D/ESAM 230 Virtual Machines

Use numbers 1 through 48 for A2 crosspoints on the Assignment page **[SHIFT][ASGN]**).

Example below: Fastrack's A2 audio crosspoint 7 selects virtual machine 7 using just two physical inputs (1 and 2).

A2 Crosspoint	Virtual Machine	A2 Crosspoint	Virtual Machine	A2 Crosspoint	Virtual Machine
1	V1-4	17	V21-22	33	V15
2	V5-8	18	V23-24	34	V16
3	V9-12	19	V1	35	V17
4	V13-16	20	V2	36	V18
5	V17-20	21	V3	37	V19
6	V21-24	22	V4	38	V20
7	V1-2	23	V5	39	V21
8	V3-4	24	V6	40	V22
9	V5-6	25	V7	41	V23
10	V7-8	26	V8	42	V24
11	V9-10	27	V9	43	RTN1
12	V11-12	28	V10	44	RTN2
13	V13-14	28	V11	45	RTN3
14	V15-16	30	V12	46	RTN4
15	V17-18	31	V13	47	RTN5
16	V19-20	32	V14	48	RTN6

3.8. Crosspoint Mapping

Fastrack can "map" the Virtual to Logical Machines of the D/ESAM 230 by pressing **[SHIFT][ASGN]** to open the ASSIGN dialog and selecting the "**Send Assignment**" button.

The Virtual to Logical map is sent to the Mixer after a "Send Assignment" and after each press of **[SHIFT][RESET].**

4. Doremi V1 MP2 Video Server

Fastrack hybrid editors control the Doremi V1 MP2 server as source and record devices simultaneously, load and trim Clips directly on the editor, and play them back-to-back on a single channel.

This driver was developed using a DOREMI V1 MP2 with 4.42z system and 1.16 front panel firmware, and a R2/P2 configuration.

4.1. Connection

1. For simultaneous PB and RECORD capability on the Doremi, connect RS-422 9-pin D connector machine control cables from available ports (P1-P24) on the Fastrack RS-422 panels to the RS422-1 and RS422-2 connectors on the rear of the Doremi chassis.
2. Feed the same sync source to the Doremi as to the Fastrack.

4.2. Configuring the Doremi V1 MP2

Menu
Menu 1 / Control / **Remote**
Menu 2 / Time Mode / **A Time**
Menu 4 / Chase Mode / **Off**

Option Menu
Option Menu 1 / TRANSPORT / DiskAcc / **PL-RE**
Option Menu 1 / TRANSPORT / FrameMod / **Off**
Option Menu 1 / TRANSPORT / StopMod / **Still for PB** channel, **EE for Record** channel
Option Menu 1 / TRANSPORT / FastMod / **Normal**
Option Menu 1 / TRANSPORT / PL1Field<% / **0**
Option Menu 1 / TRANSPORT / Emulate / **VDCP**
Option Menu 1 / TRANSPORT / Record at: / **Cur P.**

4.3. Configuring the Fastrack

1. In the Assignment Page ([SHIFT][ASGN]) of the Fastrack, assign the following for the PLAY Track. Note that the Player Device Name must contain the channel number as part of the name (Track 1 in the example below).

Device Name: *name***1**
Class: **VDCP**
Device: **Doremi**
Auto: ☐ de-selected
Port: **P1-P24**
Pool: **DRM**

Track	On	Device Name	Class	Device	Auto	Port	Pool	V-Switcher	AudioMixer	
								Video	Start	Count
1	☒	DRM PB1	VDCP	Doremi	☐	P4	DRM	4	9	2
2	☒	REC 129	VDCP	Doremi	☐	P5	DRM		11	2

2 The Record Track assignment must contain the numbers **129** in the Device Name (Track 2 in the example above.

4.4. Adding Timecode to a Fastrack Record Event for the Doremi Record Channel

When we create a Record Event on the Doremi, the default timecode In-point for that Event is “0”.

If a specific or different timecode start point is desired:

1 Mount the Record Event

2 Press **[SET IN].**

3 Type the desired TC number.

4 Press **[ENTER].**

The Record Event TC display will update to this TC if the Doremi is in A-Time Mode (Menu 2 / Time Mode / **A Time)**.

5. Evertz 9625DSK / HD9625DSK DSK

This preliminary documentation covers features currently implemented between the Evertz 9625DSK and the Fastrack in Fastrack software versions 2.4.14 and higher. This driver currently controls:

- Crosspoint selection (cuts) between A and B inputs (specify crosspoint 1 and 2 respectively on Fastrack.
- Dissolve between A and B inputs in both preview and edit modes
- Fade from and to black if the **BlackPgmBlack** mode is selected in the Fastrack Assignment Page
- Selection of a discrete “black” cross point by specifying crosspoint **4**
- Wipes between A and B inputs.

5.1. Connection

In order for the Fastrack to communicate with the Evertz 9625DSK, you must first set the "**Serial Port C**" jumpers in the Evertz 9625DSK to “**RS422 control**”. There are 4 positions for serial jumpers on the board, with no jumper in the 3rd position. The jumper to set is the one in the position closest to the center of the board. See the Evertz 9625DSK documentation for additional information on these settings.

5.2. Special RS422 Communication Cable

The Evertz 9625DSK requires a special serial control cable. Both ends of the cable are 9-pin D-Male connectors. The pin-outs are as follows:

Fastrack Pin **1**: Ground	to Evertz Pin **1**: Ground
Fastrack Pin **2**: RX - (A)	to Evertz Pin **2**: TX -
Fastrack Pin **3**: TX + (B)	to Evertz Pin **7**: RX+
Fastrack Pin **4**: Ground	to Evertz Pin **4**: Ground
Fastrack Pin **5**: **Not connected**	to Evertz Pin **5**: **Not connected**
Fastrack Pin **6**: Ground	to Evertz Pin **6**: Ground
Fastrack Pin **7**: RX + (B)	to Evertz Pin **8**: TX +
Fastrack Pin **8**: TX – (A)	to Evertz Pin **3**: RX -
Fastrack Pin **9**: Ground	to Evertz Pin **9**: Ground

5.3. Setup the HD9625 Keyer For M2100 Emulation

In order to control the 9625DSK serially from the Fastrack, the keyer must be first set to emulate a Grass Valley M2100 switcher. In the SETUP menu on the front panel of the 9625DSK,

1. Scroll to **GENERAL**, press **Select**
2. Scroll to **Serial Control**, press **Select**
3. Scroll to **M2100_AUTO,** press **Select**

Note: The front panel of the Evertz keyer has pushbuttons to select crosspoints on a preset and program bus. The preset bus has a pushbutton for black, but the Program bus does not. You can manually select the black crosspoint on the program bus by first selecting it on the preset bus, and then pressing the transition button.

6. EVS Video Server

6.1. Server & Fastrack Cable Connections

1. For each EVS server channel to be controlled, connect a separate RS422 cable from any port, P1 through P6, on the rear of the server chassis, to any available port on the Fastrack Port Expansion Panel(s).
2. Connect audio, video, and sync reference as required per EVS documentation.

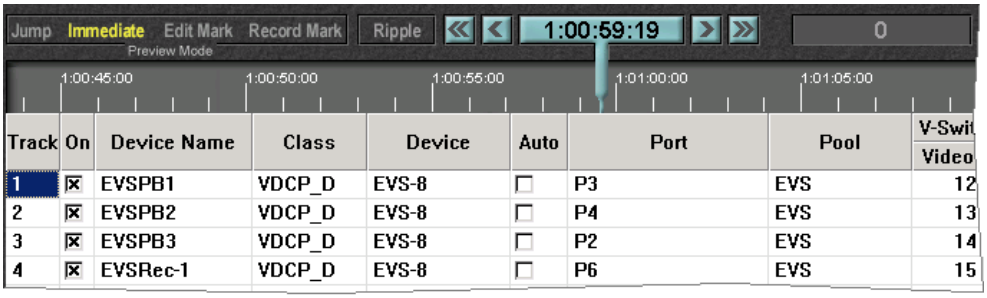
6.2. EVS Server Setup

1. After the EVS has finished booting, press **[F9]** on the EVS keyboard to display the **Maintenance** menu. Select **Channel (P)arameters**. Press **[Enter]**. The **Applications** menu opens.
2. Select an **Application**. Press **[Enter]**. The **Channels Config** menu opens.
3. Press **[F3]** to select the **Ctrl** settings. Set the **Ctrl** option to **VDCP** for all channels to be controlled by Fastrack. Note which video and audio Outputs are assigned to each channel.
4. Press **[Alt][Q]** to continue.
5. From the **Applications** menu select your Application. Press **[Enter]** to load the Application.
6. From the running Application, press **[Shift][F2]** to display the **Setup Configuration**. Tab to the last entry **RS422 Protocols** and select **ID LSM** or **UmID**.

6.3. Fastrack Setup

On the Fastrack keyboard, press **[SHIFT][ASIGN]** and setup the EVS Server channels as shown in the examples below.

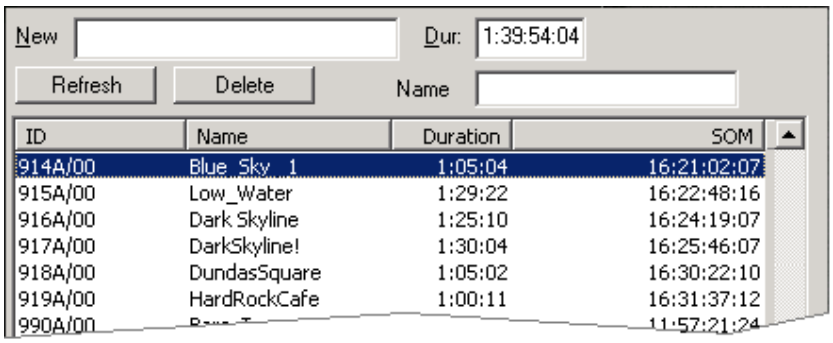
- **Device Name –** The first number encountered in the Device Name for a **PB** channel must be the number of the server channel, i.e., **1** for Server Output **1**, **2** for Server Output **2**, etc. Record channels must have a minus sign (**-**) preceding the channel number, for example, **EvsRec-1** for the first record channel.
- **Class –** Select **VDCP_D**
- **Device –** Select **EVS-8**
- **Port** – Select the Fastrack **port number** connected to the specified EVS server channel.
- **On** – **Enable communication** to the specified server channel.



6.4. Loading an EVS Server PB Clip Onto a Track

Once communication is established between the Fastrack and the EVS Server, clips resident on the server can be mounted onto their assigned Fastrack Tracks.

1 Select a Track with a server **PB** channel assigned to it. Press **[ASIGN]** on the K6 keyboard to open the **Server Directory Dialog**. The clip list will be displayed. The example below is ID LSM.



- **ID –** The ID column displays the EVS file ID in the EVS selected format, ID LSM or UmID (see EVS SERVER SETUP, item # 8 above).
- **Name** – The **Name** column displays the name of the file as entered in the EVS or into the Name field of the Server Directory Dialog when creating a new Record Event (see CREATING AN EVS SERVER RECORD EVENT ON THE FASTRACK later in this document).
- **Duration** – The **Duration** column displays the duration of the entire selected clip.
- **SOM** – The **SOM** column (**S**tart **O**f **M**essage) displays the timecode associated with the start of the selected clip.

  If the Duration column displays all durations as "**0**", this indicates that the clip information coming from the EVS is still refreshing. Please be patient.

2 **[Double Click]** on the Clip to be loaded, or use the UP and DOWN Arrow keys to select the Clip and then press **[ENTER]**. The Clip will be mounted in its entirety as an Event, at the CTI, on the Current Track.

While the Clip is loading, the Status Area for this Track should display the following status sequence: **IDLE, LOAD, BUSY** and **STOP.**

If after loading a Clip it does not play, return to the Fastrack Assignment Page and disable & re-enable the Track.

3 Once loaded, **[PREVIEW]** the Event and assure that the CPI is properly centered. If not, change the **Play Delay** setting in the **EVS-8.dev file**. **Do not** use "Frames Offset" in the INIT Dialog if timing adjustment is required. Once set, this procedure should not need to be repeated.

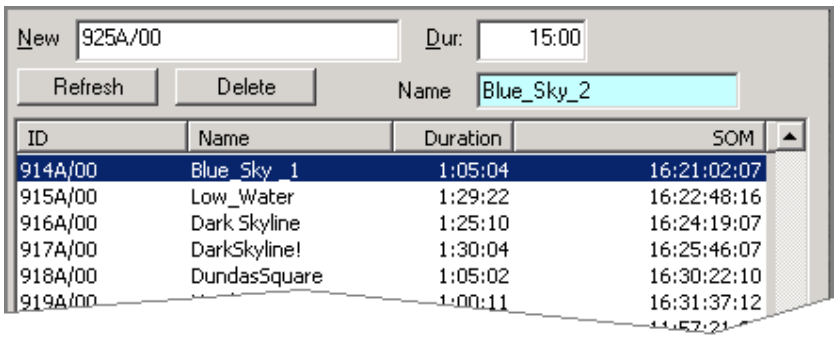
6.5. Creating an EVS Record Event

1 Select the Track with the Server **Record** channel assigned to it. Press **[ASIGN]** on the K6 keyboard to open the Server Directory Dialog. The Clip list will be displayed.

2 In the **New** text field, enter the name for the new Clip in the format selected at the EVS.

3 In the **Dur**: text field, enter the duration for the new Clip. Press **[ENTER]** or select the **[F-key]** labeled **New**. The Record Event will be Automatically mounted on the current Track.

4 In the **Name** text field, enter a descriptive name.



6.6. Presetting Timecode for a New Record Event

To define the starting timecode on the New Record Event, **[SET IN]** a number into the Record Event prior to recording.

7. FOR-A Hanabi HVS-1000 Switcher

7.1. Connection

Connect an RS422 serial 9-pin cable between any available Fastrack serial port to the "**Editor"** serial port on the rear of the switcher electronics frame.

7.2. Switcher Setup

1. On the top-left section of the switcher panel, press **EDITOR**.
2. In the Setup section of the switcher Display Window set the following parameters…

Required Settings		**Additional Recommended Settings**	
Type:	**BVS3K**	Delay:	**On**
Enable:	**On**	Xpt Ctr:	**See discussion below**
Baud:	**38,400**	Patt SE:	**On**
Parity:	**Odd**		

The Hanabi switcher allows you to assign physical inputs to buttons on the control panel. E.g., input number 5 might be assigned to button number 9. The setting for Xpt Ctr in the Hanabi Editor Setup section determines whether Editor commands that specify a particular crosspoint refer to the physical input or to the button.

- When **Xpt Ctr** is set to **Input**, the Fastrack Video Xpt selects the physical input on the switcher for the source Input # and its assigned button.
- When **Xpt Ctr** is set to **Button**, the Fastrack Video Xpt selects the button #.

7.3. Fastrack Assignment Page

The **Fastrack Assignment Page** is accessed by pressing **[SHIFT][ASGN]** on the Fastrack **K6** keyboard.

7.3.1. Assign Video Crosspoints

Once the Fastrack Assignment Page is open, assign the Video crosspoints for each switcher source. Note that the selection criteria for the Fastrack video crosspoints are affected by the **Xpt Ctr** setting in the Hanabi switcher Setup discussed earlier in this document.

With **Button** selected

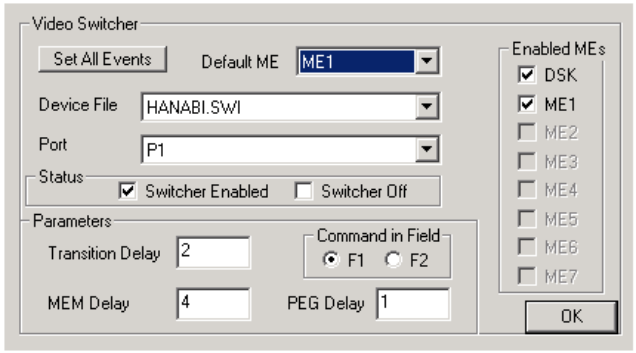
Fastrack Crosspoint #	Hanabi Button number
0	BLACK
1-8	1-8
9-16	9-16 (SHIFT plus 1 to 8)
17-18	MATT 1-2
19	WHITE (SHIFT plus BLACK)

With **Input** selected

Fastrack Crosspoint #	Hanabi Input Signal
0	BLACK
1-16	IN 01- IN 16
17	UTILITY IN
27	COLOR BARS
28	WHITE
29-32	STILL 1-4
33-34	MATT 1-2

7.3.2. Select Switcher Type

In the **Video Switcher** Dialog of the Assignment Page, press **[SETTINGS].** The **Video Switcher** Dialog will open.



Device File - From the pull-down menu, select **HANABI.SWI** as the switcher driver to use.

Enable M/Es - Select the sections of the switcher that you wish to control. No commands from the editor will be sent to any section not selected here.
Default ME - From the pull-down menu, select ME1 as the Default M/E.

Assign Port b - From the pull-down menu, assign the Port number connected to the switcher (P1-P8, P9-16, P17-24).

Enable Switcher - Ensure that the Enabled check box is checked in the Status area in order to have control of the video switcher. This setting is duplicated on the Short Cut area of Fastrack with the VSWR On/Off toggle (yellow indicates selected, meaning Switcher OFF).

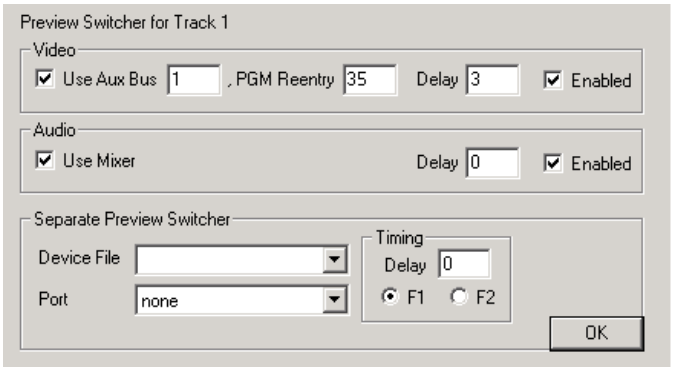
A press of **[SHIFT][RESET]** is recommended after any serial device assignment or changes. This sends a break command (wake up call) to all serial devices.

See your Fastrack manual or Help files for additional information on switcher control.

7.3.3. Aux Bus Preview

Setting up Aux Bus Previewing

In the **Audio/Video Preview Switcher Dialog** of the Assignment Page, press **[SETTINGS].** The **Preview Switcher** Dialog will open.



Use Aux Bus - To use an Aux Bus as your Preview Switcher, check this box and enter the number of the Aux Bus 1-4 to be used.

Program Reentry - The Aux Bus to be used for previewing should have Program as the re-entry crosspoint. The re-entry crosspoint number for Program is 35.

Enabled - Check this box to enable use of the Aux Bus as a Preview Switcher.

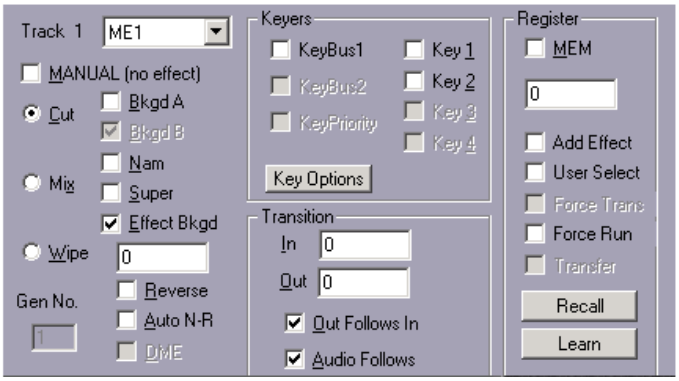
See your Fastrack manual for additional information on Aux Bus Preview Switching.

See your FOR-A manual for additional information on Aux Bus operation and functionality.

7.3.4. Video Effects

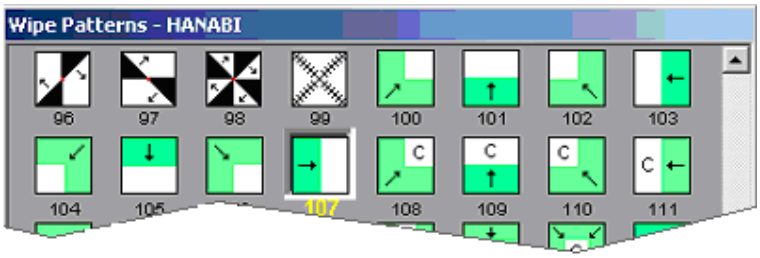
Cut, Dissolve, Wipe and Keys are all accessible by **[right-clicking]** on a Fastrack Event and selecting "**Video Effects**" or by pressing either the **[CUT], [DISS], [WIPE]** or **[KEY]** keys. Once the Video Effects Dialog is open, you can select any of the available video effects.

Note: Keyers are an option on this model switcher. Confirm that your switcher has this feature if you intend to use key effects.



Dissolves - Dissolves are a "MIX" with the Transition being the length of the dissolve. The Dissolve Dialog and icon stay with an Event wherever and whenever it is moved, so that it always remains the "TO" source in a dissolve.

Wipes - Pressing the [WIPES] key will bring up bit-map icons representing the various wipes available on this switcher. Switcher wipes are displayed in black and white. DVE wipes are displayed in color. Click on the desired wipe pattern icon or enter the Wipe or DVE pattern number into the dialog field.



The red points that appear on the edges of specific wipe patterns are “pivot markers” that have been added to more quickly identify the pivot point of a specific Wipe or DVE move.

7.3.5. DVE Effects

The internal DVE is controlled as wipes through the Wipe dialog (see **Wipes**), or via Inserts into the switcher timeline (Sequences).

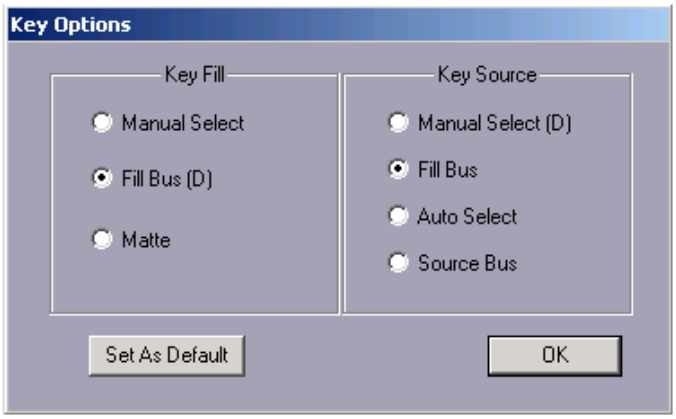
To define an Event as the “backgound” (Effect BG) for a DVE effect, select Effect Bkgd in the Fastrack Effects Dialog.

7.3.6. Keys

Video Keys are accessed by pressing **[SHIFT][WIPE],** or by **[right clicking]** Video Effects. The Effects Dialog will open.

Under **Keyers**, select Key 1, Key 2 or both. This will select the “Default Key” combination for both Source and Fill.

To select a new Key Fill / Key Source for the current key, or to change the Default values, press **Key Options**. The Key Options Dialog will open.



Select a "**Key Fill**" radio button to define where the Key Fill will come from.

Select a "**Key Source**" radio button to define what will be used to cut the Key.

Select "**Set As Default**" to set the current selections in this Dialog as the "Default" key settings. A **(D)** will appear after the item set as a default.

Key Fill

☉ **Manual Select** – With this item selected, no changes will be made to the current selection for the Key Fill.

☉ **Fill Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the M/E Fill Bus.

☉ **Matte** – With this item selected, no changes will be made to the current selection for the Key Fill, and **MATTE** will be selected as the **KEY FILL** for this Keyer.

Key Source

☉ **Manual Select** – With this item selected, no changes will be made to the current selection for the Key Source.

☉ **Fill Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the Fill Bus, and **FILL BUS** will be selected as the **KEY SOURCE**.

☉ **Auto Select** – With this item selected, the Key Source selection will come from the settings for this Keyer in the Top Menu display of the switcher

☉ **Source Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the M/E Source Bus, and **SOURCE BUS** will be selected as the **KEY FILL** for this Keyer in the Top Menu display of the switcher.

DSK

1 Select **DSK** from the ME pull-down menu.

2 Select **Key 1** under "Keyers".

3 In the “Key Options” menu, select **Fill Bus** for the Key Fill.

4 In the “Key Options” menu, select **Fill Bus** for the Key Source. The Key Source is automatically selected for DSK on the Key bus.

Note that pressing [PREVIEW] or [RECORD] immediately turns Off all Enabled keyers on M/Es Enabled in the Switcher Dialog.

Note that if you wish to have the key "over" background video, ensure that the "**Bkgd A**" check box in the Fastrack Effects Dialog is **OFF**. If ON, the key image will be taken full.

7.4. PEGS

The following is a list of Super Edit PEG commands from that can be entered into the Fastrack PEGS Dialog using the **SE** Command. Add a **1** to the beginning of each entry for **M/E1**. Add a **0** to the beginning of each entry for the **DSK**.

Mix	Wipe	Function(s)
50*****	60	Auto Trans Only
51*****	61	Key **1**
52	62	Key **2**
53	63	Key **1** **&** Key **2**
54	64	Background
55	65	Background **&** Key **1**
56	66	Background **&** Key **2**
57	67	Background **&** Key **1** **&** Key **2**
58*****	N/A	DSK / FTB

For example, an Auto Trans on the DSK would be 050. An Auto Trans on M/E 1 would be 150. Only items with an asterisk are valid for the DSK portion of the switcher.

See your Fastrack manual or Help files for additional information on PEGS.

7.5. Learn & Recall Memory

Press **[CUT], [DISS], WIPE],** or **[KEY]** to open the Video Effects Dialog.

7.5.1. Learn an effect into memory

Set up switcher M/E 1 as desired. Check **MEM** ☑ and enter any valid Memory number into the MEM text field and then select "**Learn**". The M/Es current setting will be stored in the switcher.

The Current Event will have an “**M**” Icon displayed to let you know that a MEM has been associated with this Event. This MEM will always be selected at the beginning of the

Event.

7.5.2. Recall an effect from memory

Check **MEM** ☑ and enter any valid Memory number into the MEM text field and then select "**Recall**." Fastrack Transitions may be performed simultaneously by selecting "**Add Effect**" and defining a dissolve, wipe or key in the dialog. If **Add Effect** is not selected, any programmed effect on the Event will be ignored.

"User Select" – Not implemented at this time.

7.5.3. Recall a Memory from switcher memory

To recall switcher Memory 0-99, in the PEGS dialog select the **MEM** command. Following the MEM entry, add the Memory number to be recalled. Example MEM**12**.

See your Fastrack manual or Help files for additional information on PEGS and MEMs.

See your FOR-A manual for additional information on Learning and Recalling Effects and Snapshots.

7.6. STILL STORE 1-4

Manual Recording of a Still from the Fastrack Keyboard

To manually record the switcher output to Still memory 1-4 in the switcher, on the Fastrack keyboard:

1. Press **[1]-[4]** corresponding to Still 1-4 in the switcher. The number will appear in the numeric entry field of the K6.
2. Press **[CTRL][CUT].** The current switcher output will be recorded to switcher memory.

Programmed Recording of a Still from PEGS

To program the recording of the switcher output to Still memory 1-4:

1. Program a PEG to occur at the Timeline location (TL PEG) or at a timecode position (Event PEG) that you wish to capture.
2. In the Command pull-down menu, select **Still Rec**.
3. At the Still command, enter **[1]-[4]** for the desired Still register. Example: **Still Rec1**.
4. **[PREVIEW]** or **[RECORD]**. Fastrack will send the defined “Still record” command at the time or position defined in PEGS.

8. FOR-A MightyMix Digital Switcher

8.1. Connection

Connect the RS-422 cable from the designated port on the Fastrack to the "**EDIT**" port on the rear of the MightyMix switcher.

8.2. Switcher Setup

On the MightyMix panel:

3 Press **MENU** then press **EDIT.**

4 Press **F1** – Set to **ON**.

5 Press **F2** (SET) – Set to **38400** BAUD, **1** SB, **ODD** PAR.

6 Press **LAST MENU.**

7 Press **F3** (OPT) – Set **WIPE TABLE OFF**
Set **HANDSHAKE** to **NORM**
Set **PROTOCOL** to **GVG** or **SONY**

8.3. Fastrack Setup

On the Fastrack:

1 Press **[SHIFT][ASSIGN]** to open the Assignment Page

2 In the Switcher Model pull-down Menu, select **MIGHTYSONY.SWI** or **MIGHTYGVG.SWI**

3 In the Port Selection pull-down Menu, select the corresponding **Port (1-24)**

4 Check the Enabled box ☑

5 In the ME Select pull-down Menu, select **ME1**

8.3.1. Crosspoint Assignment

Cross-point assignments are made as described in the Fastrack Operator's Guide.

8.3.2. AUX Bus Previewing

Aux Bus previewing is not available on this switcher.

8.3.3. MightySony.swi Protocol

When using the **MIGHTYSONY.SWI** driver, and with the MightyMix protocol set to SONY, entering wipe patterns 400 through 509 on the editor and selecting DME ☑ will automatically select DVE patterns 000 through 109 on the MightyMixer.

The wipe pattern selections (00 - 64) will be dependent upon the setting of the 'Wipe Table' menu item. It is located in the same MightyMix Editor Menu as the 'Hand Shake' menu item.

- When the 'Wipe Table' is **OFF**, all of the MightyMix wipe patterns are directly selectable from pattern '00' to pattern '64' as described in the MightyMix manual and displayed in the Fastrack WIPES menu.
- When the 'Wipe Table' is **ON**, then the MightyMix patterns are mapped to Sony protocol wipe pattern numbers.

8.3.4. MightryGVG.swi Protocol

When using the **MIGHTYGVG.SWI** driver, and with the MightyMix protocol set to GVG, entering wipe pattern 65 on the editor and selecting DME ☑ will automatically select and run the currently selected DVE pattern on the MightyMixer.

The wipe pattern selections (00 - 64) will be dependent upon the setting of the 'Wipe Table' menu item. It is located in the same MightyMix Editor Menu as the 'Hand Shake' menu item.

- When the 'Wipe Table' is **OFF**, all of the MightyMix wipe patterns are directly selectable from pattern '00' to pattern '64' as described in the MightyMix manual and displayed in the Fastrack WIPES menu.
- When the 'Wipe Table' is **ON**, then the MightyMix patterns are mapped to GVG protocol wipe pattern numbers.

9. GeeVS Video Server

This documentation covers features currently implemented between the GeeVS Video Server and the Fastrack, in Fastrack software versions 2.4.14 and higher, and version 3.0.

9.1. Connection

To attach the GeeVS to the Fastrack, it is necessary to use the RS422 Crossover adaptor cables available from GeeVS. Attach one connector cable to each of the RS422 connector cables at the back of the GeeVS. The connectors are labeled **P0** through **P3** for channels **CH1** through **CH4**. Attach the other end of these connectors to available Ports on the Fastrack Expansion Panel.

9.2. GeeVS Setup

1. On the GeeVS, make sure that the Dongle is installed in the parallel port before powering up the unit.
2. Apply power to the GeeVS server. The GeeVS server will automatically load with the GeeVS_Administrator and GeeVS_Server_Console running. If these do not come up automatically, consult your GeeVS manual.

Note: If you wish to **record** on the GeeVS with a 3-channel system, only two channels may be enabled at the same time.

3. To enable or disable channels, go to the **GeeVS Administrator** which should be running on the desktop. [Click] on **Administrator** then **Preferences** then **Channel config**. If you are asked for a password, the default password is "**geevs**".
4. In **Channel config**, you have three options:

   Option 1…To have **Channel 1 = record or play**, and **Channels 2 & 3 to be play only**, set:

   Codec 0 On
   Codec 1 Off
   Codec 2 On
   Codec 3 On

   Option 2…To have **Channel 3 = record or play**, and **Channels 1 & 2 to be play only**, set:

   Codec 0 On
   Codec 1 On
   Codec 2 On
   Codec 3 Off

Option 3…To have **Channels 1 & 2 &3 & 4 to be play only**, set:

Codec 0 On
Codec 1 On
Codec 2 On
Codec 3 On

Assure that the channel name on this page matches the **Media/Name** on the Assignment Page of the Fastrack. The Media/Name must contain the VDCP channel number in the name, and it **must be** the **first** number encountered. Recommended names are Geevs**1**, Geevs**2** etc., depending on the number of Channels.

5 It is necessary to [Click] on the Automation Channels to make them active each time the server is re-started. The Channels are located at the bottom left on the GeeVS screen, and are labeled **Automation CH1**, **Automation CH2,** etc. Once active, they will also be displayed at the bottom of the GeeVS monitor, on the right, near the clock.

Using **Channel config Option 1**, with a three-channel system, one being a recorder, enable **Automation CH1** and **Automation CH2**. **Automation CH3** should **not** be enabled, and should display an error message if there is an attempt to enable it. With a **four-channel system**, **Automation CH3** may be enabled, but **Automation CH4** may **not**.

9.3. Audio/Video Connections

Using **Channel config Option 1**, the audio and video for **Automation CH1** will come from the **top** connector **Channel A out**. The audio and video for **Automation CH2** will come from the **bottom** connector **Channel A out**. The audio and video for **Automation CH3** will come from the bottom connector **Channel B out** when a **four-channel** system is used.

9.4. Fastrack Setup

1 On the Fastrack, assign the GeeVS **NAME** in the Assignment page. The recommended names are Geevs1, Geevs2 etc., depending on the number of Channels. See step # 4 above.

2 Under **CLASS**, choose **VDCP**.

3 Under **DEVICE**, choose **GeeVS.**

4 Under **POOL**, use the name **geevs,** so that Fastrack will know which pool type the GeeVS belongs to.

5 Choose the **PORTS** that you connected the GeeVS to.

The Fastrack will not recognize the GeeVS channels if they have not been enabled. See step # 5 above.

6 In the Fastrack INIT Page, **Ask before Record Over VDCP** must be set to **Yes.** If you wish to record over a Clip, you will be asked if you wish to "delete", "rename" or "abort edit".

- The GeeVS is not capable of speed changes with the current Codec.
- With Fastrack you can simulate an insert edit on a GeeVS record channel. With an existing Clip mounted on a record/play Track, you can [MARK IN] and [MARK OUT] within the boundaries of that Clip. Press [Alt] [Event] to change the newly defined Event to be a Record Event. You then enter a new name. Fastrack will then have three Clips on the Track; the original Clip as existed up to the new IN-point, the new Clip, and the original Clip as existed up to the new OUT-point.
- Back to back Clips can be as short as15 frames.
- There may be times when a new Clip is assigned but does not load properly. Press [SRCH] or [PVW] on the Fastrack to remedy this situation.

10. GV KayakDD-1 Digital Video Switcher

This document describes the interface between Fastrack and the KayakDD-1 Digital Production Switcher using KayakDD protocol.

10.1. Connection

Fastrack control of the KayakDD-1 is accomplished via a standard RS-422 control cable to one of the six available ports on the rear of the switcher chassis (E-Box), labeled Port 1-Port 6. Connect a standard RS-422 control cable from the E-Box Port to an available port on the Fastrack port expander.

10.2. Switcher Setup

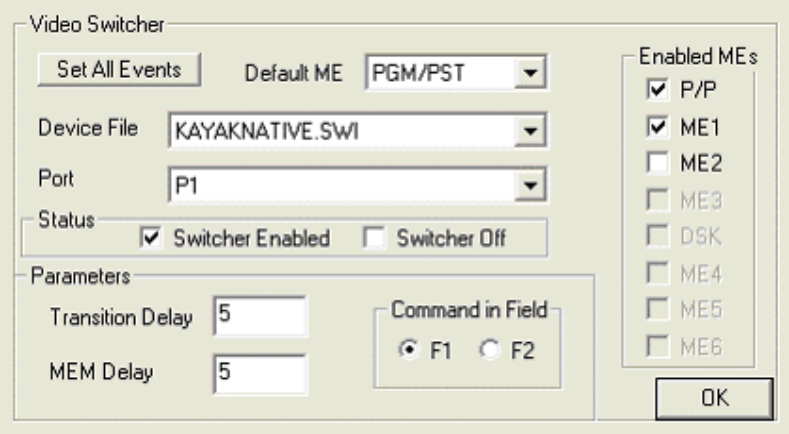
On the KayakDD-1 control panel:

1. Press the **[HOME]** button.
2. In the Graphical Display, select **Install** / **E-Box** / **Editor**.
3. Under **Editor 1** select **Port**. Select the **Port 1-6** used to connect to the editor.
4. Under **Editor 1** select **Type**. Select **dd35**. Press **OK**.
5. Press the **[HOME]** button.
6. In the Graphical Display, select **Config / E-Box / Misc**. Confirm that **Edit Enable** is selected.

10.3. Fastrack Setup

10.3.1. Switcher Assignment

Select the Video Switcher Dialog ([SHIFT][ASSIGN]) and select the **KayakNative** protocol. Select the desired **Default ME** and **Enabled ME**, and check the **Switcher Enabled** checkbox.



10.3.2. Crosspoint Selection

Crosspoints are assigned to Source keys as described in the Fastrack Operator's Guide. The following are the default crosspoint numbers for the KayakDD-1:

CROSSPOINT #	SWITCHER SOURCE	
0	Black	
1 through 16	Video Inputs 1 through 16	
144	Color Background 1	(Col 1)
145	Color Background 2	(Col 2)
146	Color Background 3	(Col 3)
137	Still Store 1	(St 1)
138	Still Store 2	(St 2)
139	Still Store 3	(St 3)
140	Still Store 4	(St 4)
160	Aux Bus PGM/PST Re-entry	
161	Aux Bus M/E Re-entry	

10.3.3. AUX Bus Preview

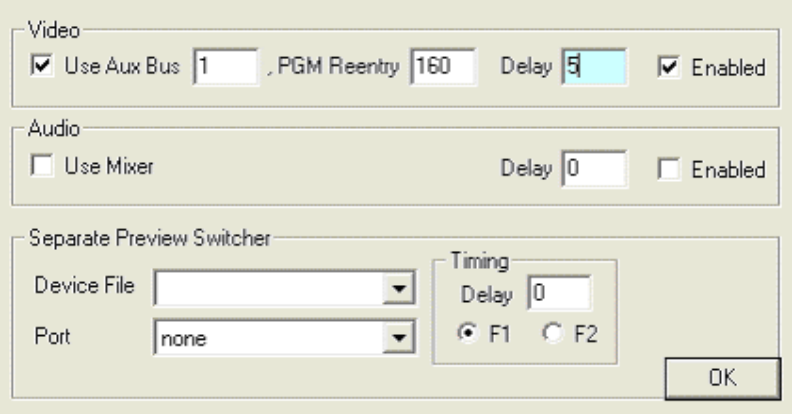
When Aux Bus Previews are enabled in Fastrack, previewing video on the AUX Bus of the KayakDD-1 replaces the Fastrack E-E or Preview Switcher type of previewing. AUX Bus previews are supported on any of the 10 AUX Busses of

the KayakDD-1. See the Fastrack Operator's Guide for additional Preview information.

To enable Aux Bus previewing on the KayakDD-1:

1 Press **[SHIFT][ASSIGN]** on the Fastrack keyboard to open the Assignment Dialog then Click on the "**A/V Preview Switching** – Setting" button.

2 Enter the Aux Bus number, 160 for the PGM Re-Entry (or 161 for ME1 if available), the delay, if any, in frames, and both checkboxes –"**Use Aux Bus**" and "**Enabled**".



KayakDD-1	160	PGM Out (PGM/PST Bus)

KayakDD-2	160	PGM Out (PGM/PST Bus)
	161	M/E Out

NOTE: Commands sent to the switcher Aux Bus can be advanced or delayed as needed to assure frame accurate preview switching. Make this adjustment in the Delay box.

NOTE: When using Aux Bus Preview, make sure that you have assigned the R-VTR a switcher crosspoint in the Fastrack Assignment Page.

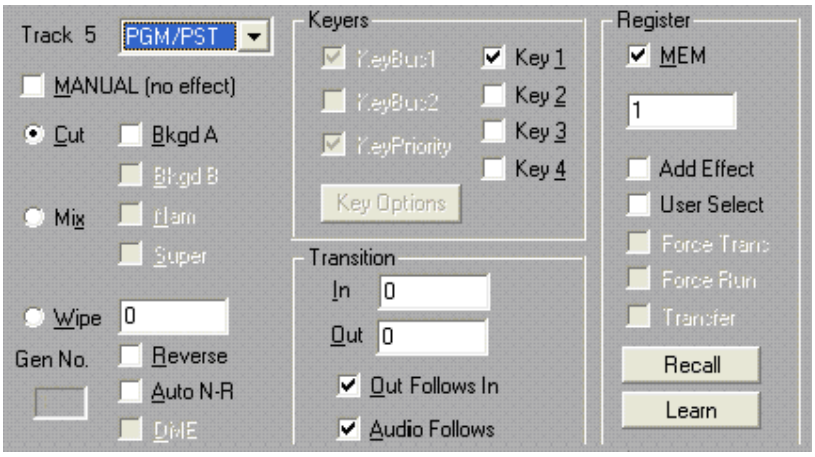
10.4. EMEM / TiM/E-Memo interface

EMEMs can either be Snapshots or Timelines. A Snapshot is a single switcher state. A Timeline can contain a number of Snapshots along with duration, transition, and DPM information.

From the editor user perspective, recalling and triggering of EMEMs is similar, regardless of whether they are Snapshots or Timelines. The switcher can have up to 100 Snapshots or Timelines (0-99) saved in any combination.

10.4.1. Learn Memory

To learn a memory register from the editor keyboard, press **[CUT]**, **[WIPE]**, or **[DISS]** to display the Effects dialog. Check the **MEM** check box, enter the register number (0 through 99) and click on the **Learn** button.

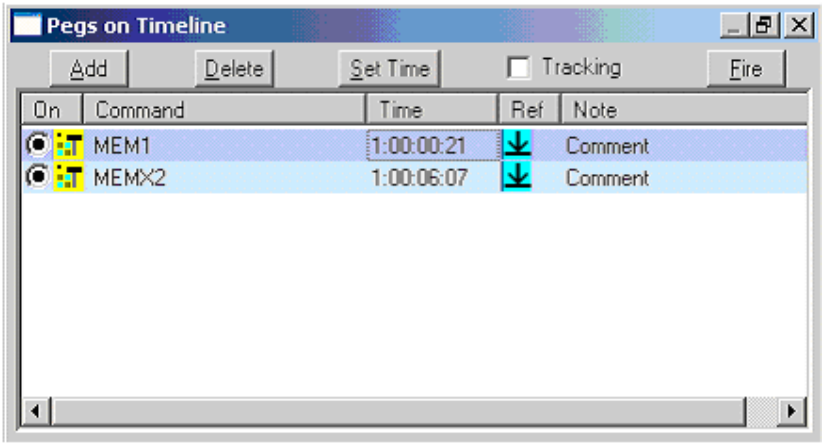


10.4.2. Recall and Trigger Memory

You can manually recall the EMEM by clicking on the **Recall** button. By selecting an event and entering the EMEM number and checking the MEM checkbox, the EMEM will be recalled automatically at the beginning of that clip in Preview or Edit.

10.4.3. Recall Memory with PEGS

You can also recall an EMEM using the PEGS dialog.



EMEMs, either Snapshots or Timelines, can be recalled and triggered using the PEGS dialog. Use MEM to recall but not run the EMEM. Use MEMX to recall and run.

10.4.4. Controlling the KayakDD-1 Timeline (TiM/E-Memo)

You can control the KayakDD-1 Timeline with the same basic control capabilities of a VTR; Play, Rewind, Fast- forward, Jog, Search, and Match.

Fastrack control of the switcher Timeline is accomplished via a standard RS-422 control cable to one of the six available ports on the rear of the switcher chassis (E-Box) labeled Port 1-Port 6. Connect the control cable from the E-Box port to an available Port on the Fastrack port expansion chassis.

On the KayakDD-1 control panel (perform these functions in the order listed)**:**

1 Press the **[HOME]** button.

2 In the Graphical Display, select **Install** / **E-Box** / **VTR Emulat**. Select a VTR Emu **1-5**.

3 Select **Type**. Select **bvw75_Vnnn** (where nnn is the current Version number). Press **OK**.

4 Select **Port**. Select Port **1-6**.

5 Select **Device**. Select **PPMemo**. Press **OK**.

In the Fastrack Assignment Page:

6 Select the Source to be used to control the switcher Timeline (Track 1 in the example below) –

7 Press **[SHIFT][ASSIGN]** on the Fastrack keyboard to display the Assignment Dialog. Select **SONY** as the Class and **KayakVTR** as the Device. Assign the port (P1-P8) that is to be used, and the video crosspoint. Click the '**On**" checkbox to enable this connection.

Track	On	Device Name	Class	Device	Auto	Port	Pool	V-Switcher	
								Video	S
1	☒	Timeline	SONY	KayakVTR	☐	P2	g	4	
2	☒	Ram Rec	SONY	KayakRam	☐	P3	g	2	
3	☐	profile3	PROFILE	PDR	☐		g	3	
4	☐	profile4	PROFILE	PDR	☐		g	4	

About the KayakDD Timeline control:

- The Timeline is created on the KayakDD, using the switcher's tools.
- When inserting a DPM effect into a Timeline, the currently displayed DPM effect is used. Multiple DPM effects can be inserted into the same Timeline, but they must be the currently displayed effect when inserted.
- You need not enter an In-time for the Timeline source in the Fastrack Event. A "blank" In-time defines the beginning of the current Timeline.
- You may use the entire Timeline, as Fastrack will perform a "phantom" pre-roll of the Timeline.

- You may enter any existing In-time for the Timeline source. The Timeline will be "matched" at the edit IN.

10.5. X-PEGS Commands

The Key1, Key2, Key3, Key4, Background, Preset Black, Key Priority and DSK FTB buttons on the KayakDD-1 panel are assigned numeric values by Fastrack. These values are used in combinations with the PEGS dialog to define which functions to include when programming Auto-Transitions via PEGS.

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

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 numeric values are sum additive, and the corresponding values and areas are as follows:

M/E CODE #	DESCRIPTION
0	PGM/PST Bus
1	M/E (If available)

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

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

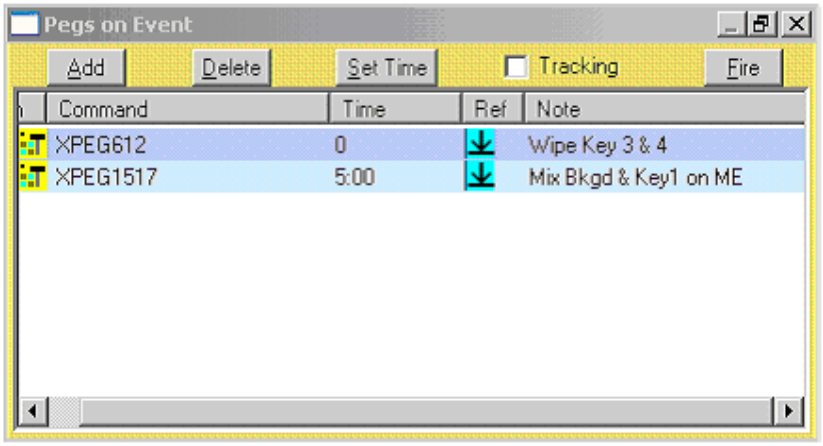
TRANS CODE #	DESCRIPTION
400	AUTO TRANS ONLY
500	MIX
600	WIPE GEN 1
700	WIPE GEN 2

KayakDD PEGS Code – 3rd and 4th Digit

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

KEY CODE #	DESCRIPTION
0**1**	KEY 1
0**2**	KEY 2
0**4**	KEY 3
0**8**	KEY 4
16	BKGD A
32	PST BLK
64	KEY PRIORITY

Example: If you want to do a Wipe on PGM/PST with keys 3 and 4, you would enter an XPEG of 612. If you want to do a Mix on the M/E with both Background and Key 1, you would enter an XPEG of 1517.



A table of the PEGS command codes for the KayakDD-1 is shown below:

PGM Mix	PGM Wipe	M/E Mix	M/E Wipe	Function
	1.1.1.1.1.		1.1.1.1.1.	
500	600	1500	1600	Auto Trans Only
501	601	1501	1601	Key **1**
503	603	1503	1603	Key **1**, Key **2**
505	605	1505	1605	Key **1**, Key **3**
507	607	1507	1607	Key **1**, Key **2**, Key **3**
509	609	1509	1609	Key **1**, Key **4**
511	611	1511	1611	Key **1**, Key **2**, Key **4**
513	613	1513	1613	Key **1**, Key **3**, Key **4**
515	615	1515	1615	Key **1**, Key **2**, Key **3**, Key **4**
502	602	1502	1602	Key **2**
506	606	1506	1606	Key **2**, Key **3**
510	610	1510	1610	Key **2**, Key **4**
504	604	1504	1604	Key **3**
512	612	1512	1612	Key **3**, Key **4**
508	608	1508	1608	Key **4**
516	616	1516	1616	**B**kgd
517	617	1517	1617	**B**kgd, Key **1**
519	619	1519	1619	**B**kgd, Key **1**, Key **2**
521	621	1521	1621	**B**kgd, Key **1**, Key **3**
523	623	1523	1623	**B**kgd, Key **1**, Key **2**, Key **3**
525	625	1525	1625	**B**kgd, Key **1**, Key **4**
527	627	1527	1627	**B**kgd, Key **1**, Key **2**, Key **4**
529	629	1529	1629	**B**kgd, Key **1**, Key **3**, Key **4**
531	631	1531	1631	**B**kgd, Key **1**, Key **2**, Key **3**, Key **4**
518	618	1518	1618	**B**kgd, Key **2**
522	622	1522	1622	**B**kgd, Key **2**, Key **3**
526	626	1526	1626	**B**kgd, Key **2**, Key **4**
520	620	1520	1620	**B**kgd, Key **3**
528	628	1528	1628	**B**kgd, Key **3**, Key **4**
524	624	1524	1624	**B**kgd, Key **4**
558	N/A	1558	N/A	**DSK/FTB**

10.6. Controlling the KayakDD-1 RAM Recorder(s) as a VTR type device

You can control the KayakDD-1 RAM Recorder(s) with the same basic control capabilities of a VTR; Play, Rewind, Fast- forward, Jog, Search, Match, Fill and Variable speeds.

Control of the RAM Recorder(s) is accomplished via a standard RS-422 control cable to one of the six available ports on the rear of the switcher chassis (E-Box) labeled Port 1-Port 6. Connect the RS-422 control cable from the E-Box Port to an available Port on the Fastrack port expansion chassis.

On the KayakDD control panel (perform these functions **in the order listed**)**:**

1. Press the **[HOME]** button.
2. In the Graphical Display, select **Install** / **E-Box** / **VTR Emulat**. Select **VTR Emu 1-5.**
3. Select **Type**. Select **bvw75_Vnnn** (where nnn is the current Version number). Press **OK**.
4. Select **Port**. Select Port **1-6**.
5. Select **Device**. Select **RamRec 1-4**. Press **OK**.

In the Fastrack Assignment Page:

6. Select the Source to be used to control the switcher Ram Recorder (Track 2 in the example below) –
7. Press **[SHIFT][ASSIGN]** on the Fastrack keyboard to display the Assignment Dialog. Select **SONY** as the Class and **KayakRAM** as the Device. Assign the port (P1-P8) that is to be used, and the video crosspoint. Click the '**On**" checkbox to enable this connection.

Track	On	Device Name	Class	Device	Auto	Port	Pool	V-Switcher Video	S
1	☒	Timeline	SONY	KayakVTR	☐	P2	g	4	
2	☒	Ram Rec	SONY	KayakRam	☐	P3	g	2	
3	☐	profile3	PROFILE	PDR	☐		g	3	
4	☐	profile4	PROFILE	PDR	☐		g	4	

About the KayakDD RAM Recorder control:

- You can attach either a Still or a Clip to a RamRecorder channel, and they are created on the KayakDD, using the switcher's tools.
- A special driver called **TIMELN** comes with the KayakDD-1 protocol for control of

the RamRecorder.

- There are no ballistics associated with the RamRecorder when in variable speeds, so frame accuracy can only be guaranteed when at PLAY speed.
- You need not enter an In-time for the RamRecorder in the Fastrack Event. A “blank” In-time defines the beginning of the current Event.
- You may use the entire Event, as Fastrack will perform a “phantom” pre-roll of the RamRecorder.
- You may enter any existing In-time for the RamRecorder source. The RamRecorder will be “matched” at the edit IN.

10.7. Video Effects

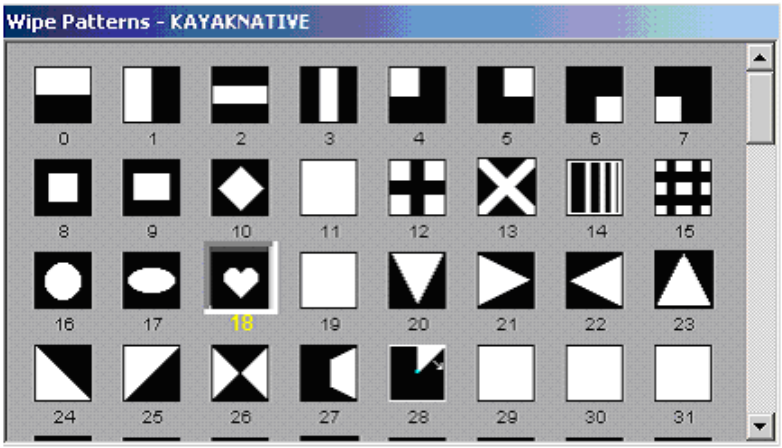
Cut, Dissolve, Wipe and Keys are all accessible by **[right-clicking]** on an Event and selecting "**Video Effects**" or by pressing either the **[CUT], [DISS], [WIPE]** or **[KEY]** keys. Once the Video Effects Dialog is open, you can select any of the available video effects.

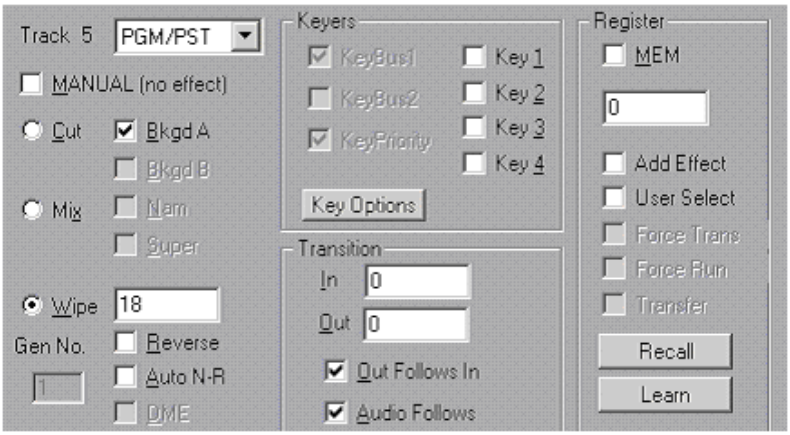
10.7.1. Dissolves

Dissolves are a "MIX" with the Transition being the length of the dissolve. The Dissolve Dialog and icon stay with an Event wherever and whenever it is moved, so that it always remains the "TO" source in a dissolve.

10.7.2. Wipes

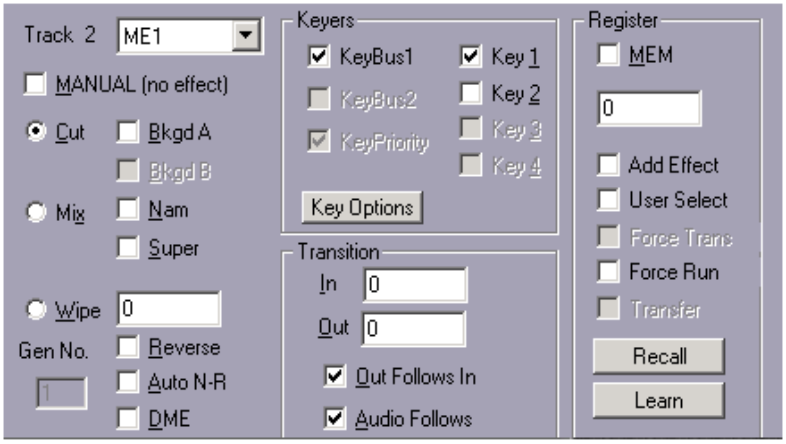
Pressing the **[WIPES]** key will bring up bit-map icons representing the various wipes available on this switcher. Simply click on the desired wipe pattern icon or enter the wipe pattern number into the dialog field.



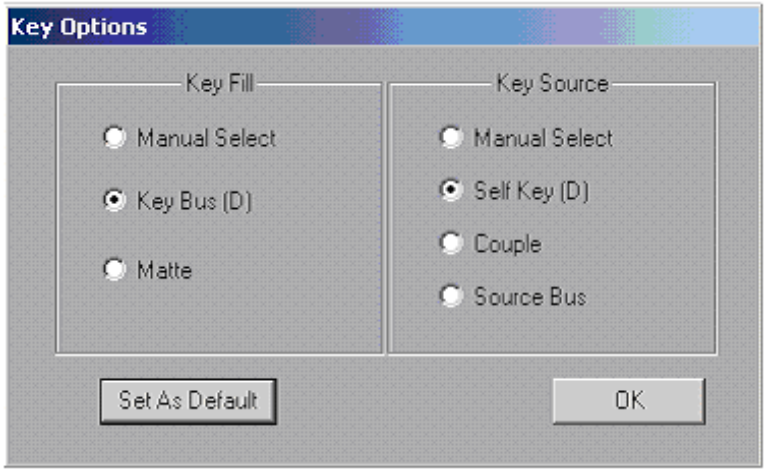


10.7.3. Keys

Video Keys are accessed by pressing **[SHIFT][WIPE],** or by **[right clicking]** Video Effects. The Effects Dialog will open.



Under **Keyers**, select Key 1, Key 2 or both. This will select the "Default Key" combination for both Source and Fill. To select a new Key Fill / Key Source for the current key, or to change the Default values, press **Key Options**. The Key Options Dialog will open.



Select a “**Key Fill**” radio button to define where the Key Fill will come from.

Select a “**Key Source**” radio button to define what will be used to cut the Key.

Select “**Set As Default**” to set the current selections in this Dialog as the “Default” key settings. A **(D)** will appear after the item set as a default.

Key Fill

☉ **Manual Select** – With this item selected, no changes will be made to the current selection for the Key Fill.

☉ **Key Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the Key Bus.

☉ **Matte** – With this item selected, no changes will be made to the current selection for the Key Fill, and **MATTE FILL** will be selected on the switcher.

Key Source

☉ **Manual Select** – With this item selected, no changes will be made to the current selection for the Key Source.

☉ **Self Key** – With this item selected, the currently assigned crosspoint for this Track will be selected on the Key Bus and **SELF KEY** is selected on the switcher.

☉ **Couple** – With this item selected, the Key Source selection will come from the **Key Couple** source that has been set up on the switcher. (To setup Key Couple on the switcher select Home/Config/EBox/Key Couple.) Both **SELF KEY** and **KEY SPLIT** are selected on the switcher.

☉ **Source Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected as the Key source. **Key Split** is selected on the switcher.

Note: Pressing [PREVIEW] or [RECORD] turns Off all Enabled keyers on M/Es Enabled in the Switcher Dialog.

Note: If you wish to have the key "over" background video, ensure that the "Bkgd A" check box is **OFF**. If ON, the key image will be taken full.

10.8. Re-establishing communications with the KayakDD

To re-establishing communications with the switcher, or to remove any active Keys on the currently controlled M/E, press **[SHIFT][RESET].** This will also clear an active DSK/FTB.

10.9. Enabling/Disabling Switcher Control in Fastrack

You can disable crosspoint control of the KayakDD-1 by pressing **[ALT][SPLIT]** or click on the **VSwr Off** softkey at the bottom of the main display**. Vswr-Off** is highlighted when the switcher is disabled. In this mode, only **PEGS and EMEM** commands are allowed to pass through to the switcher, and pressing **[SHIFT][RESET]** will not reset the switcher or any active Keys.

11. GV K2 Server - VDCP Control Driver

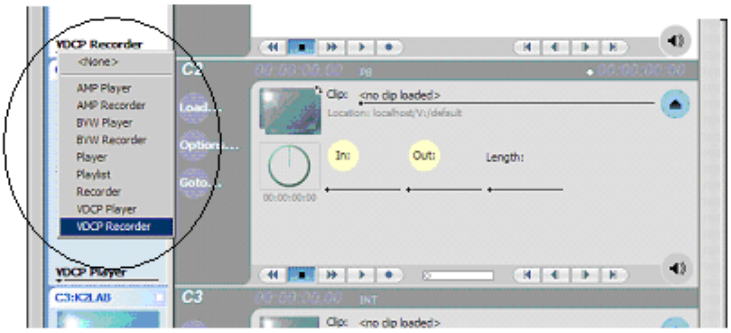
This driver works with Fastrack software versions 4.3x15 and higher.

11.1. Connection

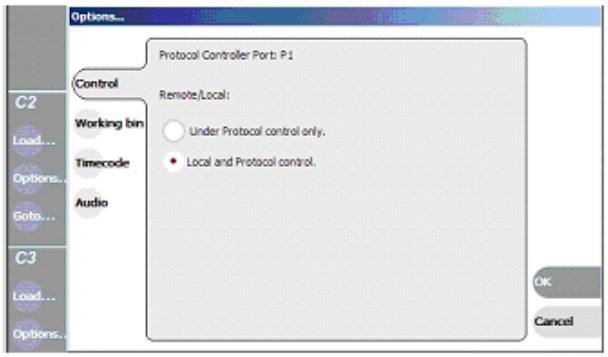
Physical connection between Fastrack and the K2 is via RS-422 machine control cables. Connect an RS-422 cable between Fastrack and the K2 for each device.

11.2. K2 Server setup

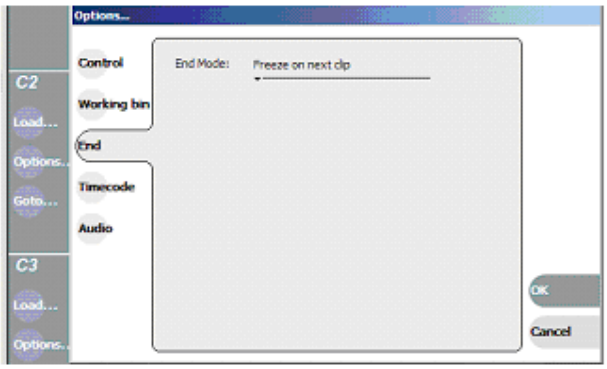
1. Connect sync reference to the K2.
2. Select VDCP control on the K2 for each device you wish to control with the Fastrack. Click on the dropdown menu for each server channel and select **VDCP Recorder** or **VDCP Player.**



3. Select **Options** / **Control** and note which **Protocol Controller Port** is assigned to that device.



4. Select **Options** / **End** / **Freeze on next clip** so Fastrack will switch between clips. Press **OK** to exit.



5 Setup Audio and Video to and from the K2 as needed for your operation. Be sure to select the Video Input source for your Record channel.

11.3. Fastrack Setup

1 On Fastrack, press **[SHIFT][ASSIGN]** to open the Fastrack Assignment Page.

2 Select **VDCP_D** for the **Class**.

3 Select **K2** as the **Device**.

4 Enter the Fastrack port numbers in the Port column. Any physical port on the back of the Fastrack can be used for any device.

On Fastrack, the **Device Name** of K2 **Players** must contain the Protocol Control Port digit, and the Device Name of K2 **Recorders** must contain the Protocol Control Port preceded by a minus (**-**) sign. For example:

Track	On	Device Name	Class	Device	Auto	Port	Pool	V-Switcher	
								Video	S
1	☒	K-1	VDCP_D	K2	☐	P4	Servers		
2	☒	K2	VDCP_D	K2	☐	P3	Servers	9	
3	☒	K3	VDCP_D	K2	☐	P6	Severs	12	
			PROFILE	XP	☐	GV011250:vtr2		15	

In the example above, the Device Name assigned to Track 1 is **K-1**. The (**-**) minus defines this channel as a Recorder channel, and the "**1"** defines this channel as Protocol Control Port **1**. The name can be replaced by any descriptive name that does not contain a (-) minus or a number.

In the example above, the Device Name assigned to Track 3 is **K3**. The absence of a minus sign defines this channel as a Player channel, and the "**3**" defines this channel as Protocol Control Port **3**. The name can be replaced by any descriptive name that does not contain a (-) minus or a number.

IMPORTANT: Do not use a dash '-' in the Device Name as it will be interpreted as a Minus sign.

12. GV M-Series - VDCP Control Driver

12.1. Connection

Physical connection between Fastrack and the M-Series is via RS-422 machine control cables.

Connect an RS-422 cable between Fastrack and the M-Series for each device. Ports 1-4 on the rear of the M-Series chassis are dedicated, and must be assigned in the following manner:

Physical RS-422 Port 1 is for connection to Recorder 1 on software P1
Physical RS-422 Port 2 is for connection to Player 1 on software P2
Physical RS-422 Port 3 is for connection to Recorder 2 on software P3
Physical RS-422 Port 4 is for connection to Player 2 on software P4

Enter the Fastrack port numbers in the **Port** column of the Assign dialog. Any physical port on the back of the Fastrack can be used for any device.

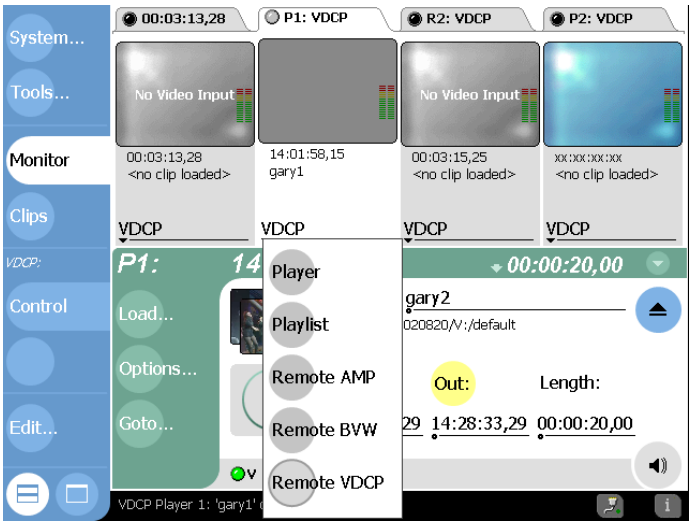
12.2. M-Series Setup

1 Select **VDCP** control on the M-Series for each device you wish to control.

a Select **Monitor**

b Select the **Split Screen icon** (bottom left).

c From the drop-down menu select **Remote VDCP**.

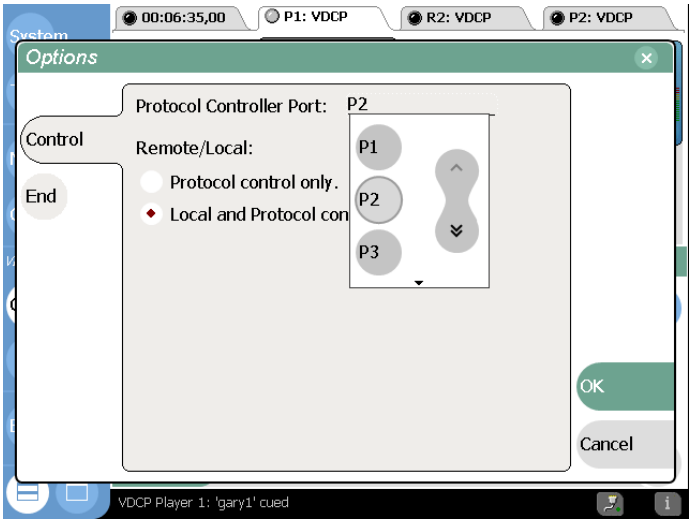


2 Select a **Protocol Controller Port** for each VDCP controlled device.

CAUTION: Do not confuse this with the 4 RS-422 control ports on the rear of the M-Series chassis.

a Select **Options ..., Control** - then select a Protocol Controller Port **P1** through **P4**.

b Click **OK**.

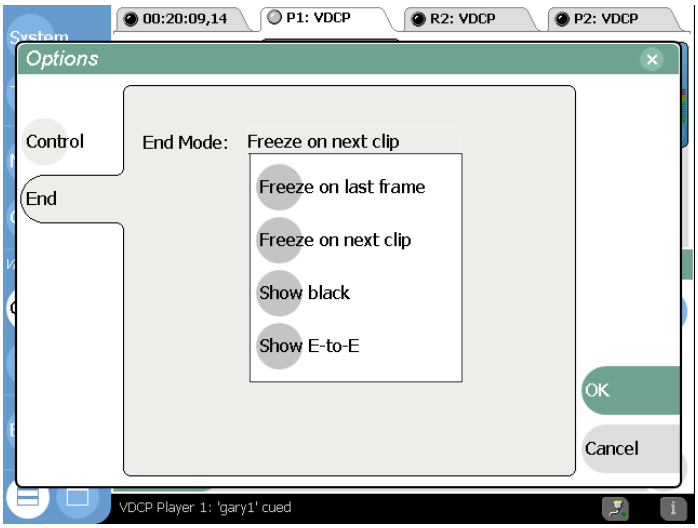


3 Select **Freeze** on next clip option so Fastrack will switch between clips.

a Select **OPTIONS**

b Select **END**

c Select **Freeze on next clip**.



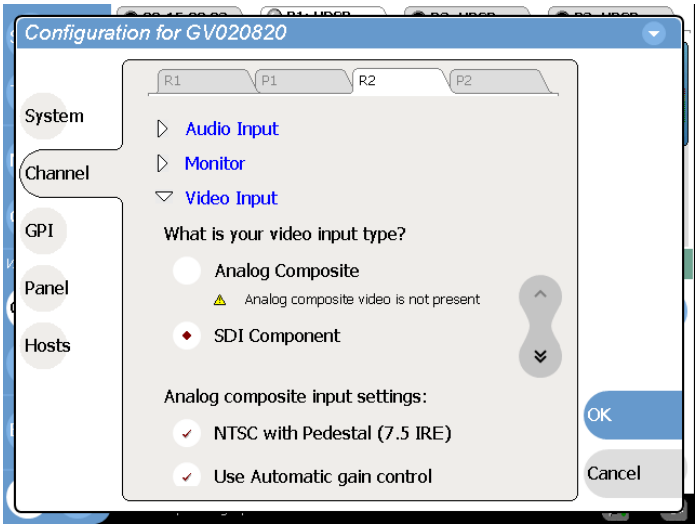
4 Connect sync reference to the M-Series. Setup Audio and Video as desired for your operation. Be sure to select the Video Input source for your Record channel.

a Select **System**

b Select **Config**

c Select **Channel**

d Select **Video Input**



12.3. Fastrack Setup

1 On Fastrack, setup the assignments to control the M-Series.

a Press **[SHIFT][ASSIGN]** to open the Fastrack Assignment Page.

b Select **VDCP_D** for the Class.

c Select **M-SERIES** as the Device.

On Fastrack, the **Device Name** of M-Series **Players** must contain the Protocol Control Port digit, and the Device Name of M-Series **Recorders** must contain the Protocol Control Port preceded by a minus (**-**) sign. For example:

Track	On	Device Name	Class	Device	Auto	Port	Pool	V-Switcher	AudioMixer	
								Video	Start	Count
1	☒	Recorder-1	VDCP_D	M-Series	☐	P4	Servers			
2	☒	PlayOne2	VDCP_D	M-Series	☐	P3	Servers	9		
3	☐		VDCP_D	M-Series	☐	P6	Severs	12		
			PROFILE	XP	☐	GV011250:vtr2		15	5	2

In the example above, the Device Name assigned to Track 1 is **Recorder-1**. The (-) minus defines this channel as a Recorder channel, and the "**1"** defines this channel as Protocol Control Port **1**. The name "Recorder" can be replaced by any descriptive name that does not contain a (-) minus or the numbers 1 through 4.

In the example above, the Device Name assigned to Track 2 is PlayOne2. The absence of a minus sign defines this channel as a Player channel, and the “2” defines this channel as Protocol Control Port 2. The name “PlayOne” can be replaced by any descriptive name that does not contain a (-) minus or the numbers 1 through 4.

REMEMBER: Do not use a dash ‘-‘ in the Device Name as it will be interpreted as a Minus sign.

13. GV Profile PDR / XP Servers

In order to use the Profile PDR or XP series video servers with the Fastrack in the Profile Native mode, several conditions must first be met. The following instructions will guide you through installing and/or running various software programs on the Fastrack and on the Profile.

13.1. Loading the SNMP (Simple Network Management Protocol)

If your Profile is an 1100 Series XP, it must have Version 5.0.7.4 software or later installed in order to work with the Windows 2000 OS of the Fastrack. If this is the case, the Fastrack must also have the SNMP installed. If your Profile is not an 1100 Series XP, and it is a PDR or a 1000 Series XP, please proceed to **Copying Profile System Software to the Fastrack.**

2 At the Fastrack editor, and with the Fastrack booted to the Desktop, click on and open "**My Network Places**".

3 Select "**Properties**".

4 On the left side of the newly opened dialog window, select the hypertext "**Add Network Components**".

5 "**Management and Monitoring Tools**" should be hi-lited. If not, do so.

6 If the box is checked ☑, press "Cancel" and continue with Copying Profile System Software to the Fastrack.

7 If the box is **not** checked, **do so** and select "**Next>**"

8 The "Insert Disk" dialog will open and ask you to either insert a CD or to find the **i386** directory. Select "**OK**"

9 The "Files Needed" dialog will open. At the "Copy files from" prompt, type in **D:\win2000\i386** and select "**OK**". Close all windows.

13.2. Copying Profile System Software to the Fastrack

1 Connect the Fastrack to the same HUB or Network as the Profile, or directly to the Profile via a CAT 5 crossover Ethernet cable.

2 If the Profile is an **XP**, open and run the **PortServer** on the Profile.

3 If the Profile is a **PDR**, open and run the **PortServer** and the **HtsSvc** on the Profile.

4 At the Fastrack editor, and with the Fastrack booted to the Desktop, select and open "**My Network Places**".

5 Select "**Computers Near Me**" or the location where Profile resides on the Network.

6 Double-click on the Profile name you wish to connect to. Example: B021390.

7 Within the selected Profile's directory, find the folder that contains the Profile's System Software.

8 Within the Profile's System Software folder, find the "**Setup**" **Application**, and run it.

9 Once through the opening amenities, choose the "**Destination Folder**". It is recommended you choose the defaulted destination. Select "**Next>"**

10 **If your Profile is a PDR**, you will be asked to confirm that you are not a GVG or Tektronix Storage product. You are **NOT**. Click on **YES**.

11 **If your Profile is an XP**, select "**PC Software Installation**". Click "**Install**". When done select "**Finish**".

13.3. Connecting to the Profile

1 On the Fastrack Desktop, run the "**Media Manager**" icon. The Profile Media Manager will run on the Fastrack.

2 Select "**File**" then select "**Add**" then select "**Remove Machine…**". Select "**Add**".

3 In the "**Add Network Host**" dialog, enter the EXACT Profile name. Example B021390. Select "**OK**". Note that the Profile name has been added to the "**Network Host List**". Select "**OK**".

4 The Profile and its Media Directory along with their existing Clips are now displayed in the Media Manager. Close the Media Manager.

13.4. Setting the PDR Host Files on the Fastrack

1 On the Fastrack Desktop, **RIGHT CLICK** on the Fastrack icon, and select "**Properties**". Make note of the current **Target Directory**. Example: **D:\ftruntime**

2 On the Fastrack Desktop, open "**Windows Explorer**". Select the directory found in the last step. Example: D:\ftruntime

3 Double click on the file "**PdrHosts**". If prompted, use "Notepad" or "Editor" to open the file.

4 In the **[PdrHosts]** section, replace the existing Profile name with the name of the Profile you are using, followed by a colon, followed by the channel number. These entries comprise the list of available definitions in the drop down list of ports in the Fastrack VS **ASSIGN** dialog. You can make as many definitons as you want, and give them sensible names after the colon. Here we are using 1,2,3,4... for the PDR.

5 Since the **PDR** series has no database with sets of configurations, the resources have to be allocated by the remote system in a single manner. This is accomplished in extra sections which have the identical name from one of entries in the [PdrHosts] section, but with brackets such as **[B021390:1]**

6 When connecting to the **XP** or **PVS** series of Profile, allocation is done using a database on the Profile. There in the Config Manager you can name the

configurations like VTR1, Edit231, xp1 etc. Each entry in the PdrHosts section will be listed in the Fastrack VS ASSIGN dialog drop down box under “Port”. Since the configuration settings are on the Profile itself, there is no need (and no use) for input or output settings in the section. Still the section has to be made for the Delay settings. (See below).

7 The **[AquireStyle]** is normally set to SingleConnectionHandle=**0** forcing the system to use one socket for each channel. For example:

[AquireStyle]

SingleConnectionHandle=**0**

8 Replace the existing Profile name at [PdrHosts] and at the head of each of the sections.

PDR Example:

[PdrHosts]
Host= B021390:1
Host= B021390:2
Host= B021390:3
Host= B021390:4

9 Possible CodecTypes are:

- **MPEG** with EnCoderNumber and/or DeCoderNumber
- **JPEG**
- **DVCPRO_50**
- **DVCPRO_25** with a CodecNumber.

It is important that you use these exact names.

Remember: All resources in the Profile are zero based. The first one is number 0.

No double allocation of outputs or codecs on channels are ever used at the same time.

[B021390:1]
CodecType=**MPEG**
EnCoderNumber=**0** // if you want this channel to be an **ENCODER**
DeCoderNumber= // leave it blank if you don´t want a **DECODER** on the channel
VideoIn=0
VideoOut=0
VideoMonOut=
AudioStart=0
AudioChannelCount=4
TcInput=**0** // **LTC input**
TcOutput=**0** // **LTC output**
PlayDelay=2
RecDelay=1

[B021390:2]
CodecType=**JPEG**
CodecNumber=**0** // **always a coder/decoder**
VideoIn=0
VideoOut=0

VideoMonOut=
AudioStart=0
AudioChannelCount=4
TcInput=0 // **LTC input**
TcOutput=0 // **LTC output**
PlayDelay=2
RecDelay=1

XP Example:

[PdrHosts]
Host= B021390:xp1 (where "xp1" is the name of the configuration file for that channel)
Host= B021390:xp2
Host= B021390:xp3
Host= B021390:xp4

[B021390:xp1]
PlayDelay=**8**
RecDelay=**8**

[B021390:xp2]
PlayDelay=**8**
RecDelay=**8**

[B021390:xp3]
PlayDelay=**8**
RecDelay=**8**

[B021390:xp4]
PlayDelay=**8**
RecDelay=**8**

10 Select "**File**". Select "**Save**". Close the PdrHost dialog. Close the Windows Explorer. **Execute** the Fastrack icon.

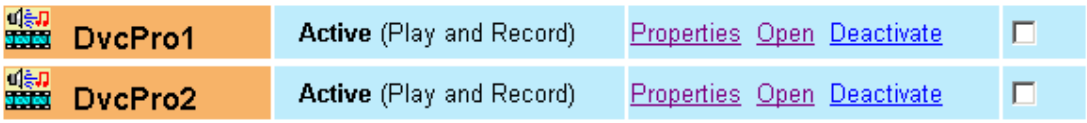
14. Omneon - Native API Control

Omneon can be controlled by Fastrack using VDCP protocol with RS-422 communication, or over a network using its Native Network API. Software versions installed at the time this document was created were Omneon V4.0 and Fastrack V4.3.

14.1. Using the Omneon Native API

Before you start …

Each channel in the Omneon system is associated with a "Player" which is set up on the Omneon system using the Omneon's setup application running on the "Manager PC". The player name is used in the Fastrack assignment page to associate a Track with an Omneon channel. You can find the player name on the Omneon by searching the configuration application on the Manager PC. Find and retain this information for later use. These assigned names are case sensitive. In our example below we are using Players named DvcPro1 and DvcPro2.



14.1.1. Connecting the MANAGER PC to your network

1. When the Omneon is configured to work as a stand-alone device, a crossover cable is connected between the Manager PC and the Omneon Director. ***If this cable is connected, remove it at this time.***
2. Connect the **Manager PC** to your network by an Ethernet cable attached to your network switch.
3. On the computer Task Bar, go to **Start / Settings / Network and Dial-up Connections / Make a New Connection**. This will create a **Local Area Connection**.
4. Right-click on **Local Area Connection**.
5. Left-click on **Properties**.
6. Highlight **Internet Protocol (TCP/IP)**.
7. Left-click on **Properties**.
8. Left-click the Radio button **Use the following IP address**.

9 Enter an address that is within range for your DHCP server. For example 192-168-1-**101**. Assure that the last number (101 in our example above) is beyond the range that your DHCP server may automatically assign. The Subnet Mask will likely assign itself automatically as 255-255-255-0. If not, enter these numbers manually.

10 Left-click on **OK**. Close all open Windows and dialogs.

14.1.2. Connecting the Director to your network

1 Connect the Omneon **Director** to your network by an Ethernet cable attached to your network switch.

2 On the Manager PC start **Windows Explorer**.

3 On the **D:** drive, expand the **Omneon** folder, and right-click on the **bin** folder.

4 Double click on **monitor.exe** to start the monitor application.

5 Under the **View** drop-down menu, left-click on **Serial Number List**.

6 In the **Omneon Director List**, right-click on the serial number of the Manager that you just connected to your network.

7 Left-click on **set IP address**.

8 Uncheck ☐ **Use DHCP**.

9 Enter an **IP address** that corresponds to your DHCP server. For example 192-168-1-102. The Subnet Mask will likely assign itself automatically as 255-255-255-0. If not then enter these numbers manually.

10 Left-click on **OK**. Close all open Windows and dialogs.

14.1.3. Setting the Fastrack IP Address

On the computer Task Bar, go to **Start** / **Settings** / **Network and Dial-up Connections / Make a New Connection**. This will create a **Local Area Connection**. Unless there is a need to change the IP address or services, this will connect the Fastrack computer to the network.

14.1.4. Modifying the FTconfig.ini file in Fastrack

1 On the Fastrack computer start **Windows Explorer**.

2 Expand **My Computer**

3 Expand **Local Disk (C:)**

4 Expand the **fastrack** folder

5 Left-click on **Ftruntime**

6 In the adjacent panel, double-click on **FTConfig.ini**. The Ftconfig.ini file will open in Notepad.

7 In the file, locate the following: **[1]**

8 Insert the following text immediately **preceding** (before, earlier than, above) the "[1]" exactly as it appears below:

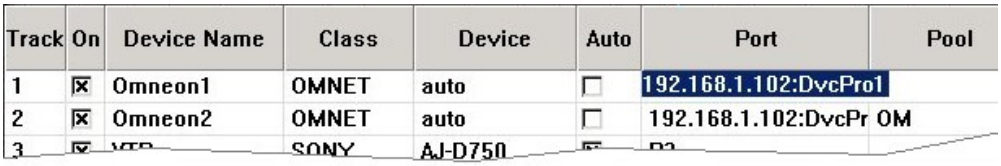
[Om-NetDirs]
EW

9 Assure that the file is not "Read Only", and **SAVE** the modified file.

14.1.5. Assigning the Omneon in Fastrack

1 Start the Fastrack application.

2 Press **[Shift] [ASGN]** to open the Fastrack **Assignment Dialog**.



Track	On	Device Name	Class	Device	Auto	Port	Pool
1	☒	Omneon1	OMNET	auto	☐	192.168.1.102:DvcPro1	
2	☒	Omneon2	OMNET	auto	☐	192.168.1.102:DvcPr	OM
3	☒	VTR	SONY	AJ-D750	☐	P3	

3 Under **Device Name** enter a reel ID or name to identify the Omneon channel you will be working with. In our example above we used **Omneon1**.

4 In the **Class** pull-down menu choose **OMNET**.

5 In the **Device** pull-down menu, your only choice is **auto**.

6 For the **Port**, enter the **IP address** that you gave the Omneon Manager, followed by a colon "**:**", then the name given to the Omneon Player; in our case it was **DvcPro1** (See **Before you start…**). As a result your Port assignment should look like **192.168.1.28:DvcPro1**.

7 Under **Pool** enter the same Pool name for all OMNET Tracks. In our example we used **OM**.

8 Click **On** ☒ and the Fastrack will now be communicating with the Omneon over the network.

9 Press **[Esc]** to exit.

15. Omneon - VDCP Control Driver

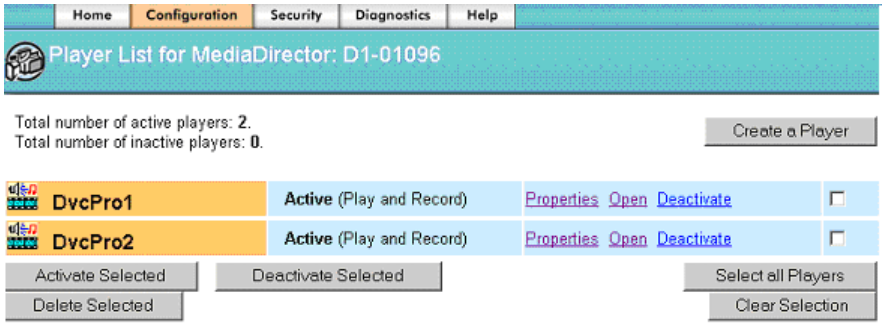
Omneon can be controlled by Fastrack using VDCP protocol with RS-422 communication, or over a network using its Native Network API. Software versions installed at the time this document was created were Omneon V4.0 and Fastrack V4.3.

15.1. Configuring the Omneon for VDCP Control

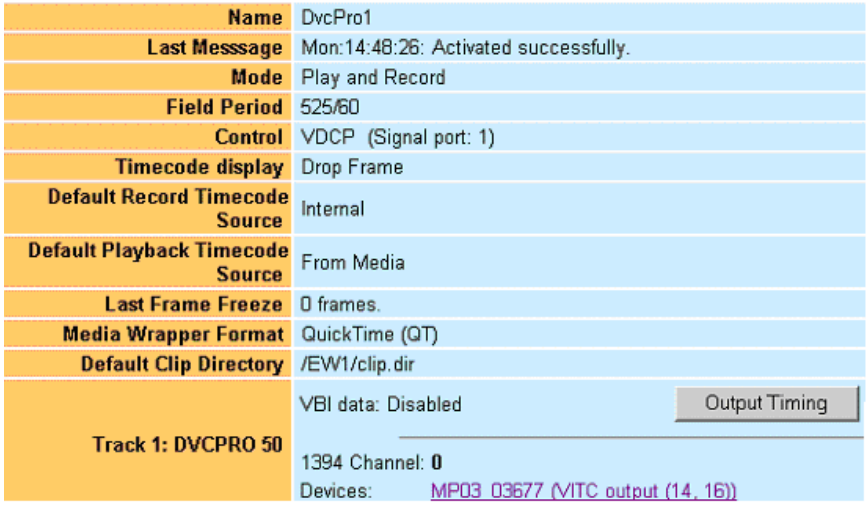
It is assumed that the connections between the Omneon units are as recommended by Omneon, including the Crossover cable between the Omneon Director and the Manager PC.

It is also assumed that the Omneon has its Players configured as per the Omneon documentation.

For the Omneon VDCP configuration set-up, we will begin in the **Player List for MediaDirector:MediaDirectorName.** Your Omneon screen should look similar to the graphic below:



Click on **Properties** of the first Player. In our example above it is **DvcPro1.** The Properties Dialog should look similar to the graphic below:



The following fields must be set as follows for Omneon VDCP configuration:

Name: This name must be unique for each player, and it is best if it ends with the numeric character reflecting the Player number.

Mode: Play, Record or Play and Record, depending on your choice.

Control: Set VDCP (Signal Port 1) for the first Player, VDCP (Signal Port 2) for the second, etc.

Default Clip Directory: This is the directory where Omneon will store its data, and the directory that will be accessed by the Fastrack.

If any of these are not correct, Deactivate the Player, say OK to the warning, and make the necessary changes before re-activating the Player. Repeat with all necessary Players.

15.2. Configuring the Fastrack

Before you start …

Assure that the RS422 serial connections between the Fastrack Serial Break-out Panel (shown below) and each individual Omneon Player are correct.

1. Start the Fastrack application.
2. Press **[Shift] [ASGN]** to open the Fastrack **Assignment Dialog**.

Track	On	Name	Class	Device	Auto	Port	Pool
1	☒	Omneon1	VDCP	Omneon	☒	P4	Omn
2	☒	Omneon2	VDCP	Omneon	☒	P5	Omn
3	☒	Omneon3	VDCP	Omneon	☒	P6	Omn

3. In the **Class** pull-down menu, choose **VDCP**.
4. In the **Device** pull-down menu, choose **Omneon**.
5. For the **Port**, select the appropriate serial port corresponding to the physical cable connected to the Omneon numbered “Signal Port”.
6. In t6he example above we have used Fastrack Ports **P4, P5 and P6**
7. Assign the Omneon a **Pool** name. In our example above we have used **Omn**. Remember that all similar devices must have the same pool name
8. Enter the Omneon **Name**. Like most VDCP devices, the name, and especially the number that follows, is very important. For 3 channels of Omneon which are

controlled via RS-422 cables and connected to Omneon signal Ports 1, 2 and 3, use names like **Omneon1... Omneon2... and Omneon3.** There must be NO space between the word Omneon and the number, and using only one numeric character is recommended.

9 Turn the Track on by clicking the **On** checkbox.

16. Ross CDK-111 Video Switcher

The Ross CDK-111 Video switcher is a card that plugs into a slot in the Ross **DFR-8110A-C** Frame.

16.1. Serial Interface Cable

The CDK-111 requires a special RS-422 to BNC connecter cable. It is necessary to either purchase the Ross Part number **1111C-301**, or build this special cable. Reference the Ross Operations manual at page 7-7 "**Serial Interface Cable Assembly**" for instructions and pin-outs for this cable.

We **do not** recommend using the COMM1 port on the Fastrack and connecting to the CDK 111 via a 232 port as per some documentation.

16.2. Set Jumpers

Before you can interface the Ross CDK-111 and the Fastrack, it is necessary to do the following:

1. Remove the CDK-111 board and make sure that there is a jumper across pins **2 & 4 of J1**. This will terminate the input signal (See page 2-7 of the CDK111 Owners Guide).
2. Reinstall the CDK-111 board in the frame.

16.3. Connection

1. On the back of the DFR-8110A-C Frame, connect a **composite black** reference to the **REF** input of the chassis.
2. Connect digital video inputs to **IN** (input 1) and **1** (input 2)
3. If using the Key function, connect the **Key** fill to **7** and the **Key Alpha** to **8**.
4. Monitor the Secondary Out ("**6**").

16.4. The CDK-111 Menu System Setup

Note: It is necessary for the CDK-111 board to have valid inputs prior to Menu set-up.

1. While monitoring the preview output (BNC 6), turn the Menu selector knob on the card edge to "**F**" (Bnc Listings). Confirm that **BNC 3 is Comm: RX** and **BNC 4 is Comm: TX**.
2. Turn the Menu selector knob on the card edge to "**D**" (Card setup). Confirm that the "**Keyer Type**" is set to "**EDIT BAY KEYER**", and that "**PROTOCOL**" is set to "**GVG 100**"
3. Turn the Menu selector knob on the card edge to "**C**" (SECONDARY CARD SETUP). Confirm that the "**BOARD ADDRESS**" is "**30H**"
4. Turn the Menu selector knob on the card edge to "**9**" (INPUT OUTPUT DELAYS). Confirm the correct "**VIDEO FORMAT**" (NTSC or PAL) and the "**REFERENCE SOURCE SELECT**" is set to "**AUTO DETECT**"
5. Turn the Menu selector knob on the card edge to "**2**" (KEY 1 SETUP). This is where you can control the Key 1 parameters; Fastrack will turn the key ON and OFF, but will not control such things as clip and gain, which can be adjusted here.
6. Turn the Menu selector knob on the card edge to "**1**" (RUNTIME PARAMETERS). Confirm that **AUTO** and **FTB** Trans rates match your video format (**30 for NTSC**, 25 for PAL). Confirm that the "**KEY BUTTON CONTROLS**" is set to **KEY 1**.
7. Turn the Menu selector knob on the card edge back to "**0**". Make sure the Board ID switch (below) is set to "**0**".
8. On the Fastrack Assignment Page, set the switcher to **Ross111.swi**. Note that if another type of switcher was assigned while the CDK111 was connected, it may be necessary to restart the card before it will communicate with the Fastrack.

17. SeaChange - VDCP Control Driver

Fastrack software Version 4.1R02 or later is required to properly control the SeaChange server. This document was created with SeaChange extended software version 3.0.033.

17.1. Special Cable

1 For a new system, when cabling the various components of the SeaChange server, be sure to connect **both** Ethernet cables from the MCL and BML to the switch.

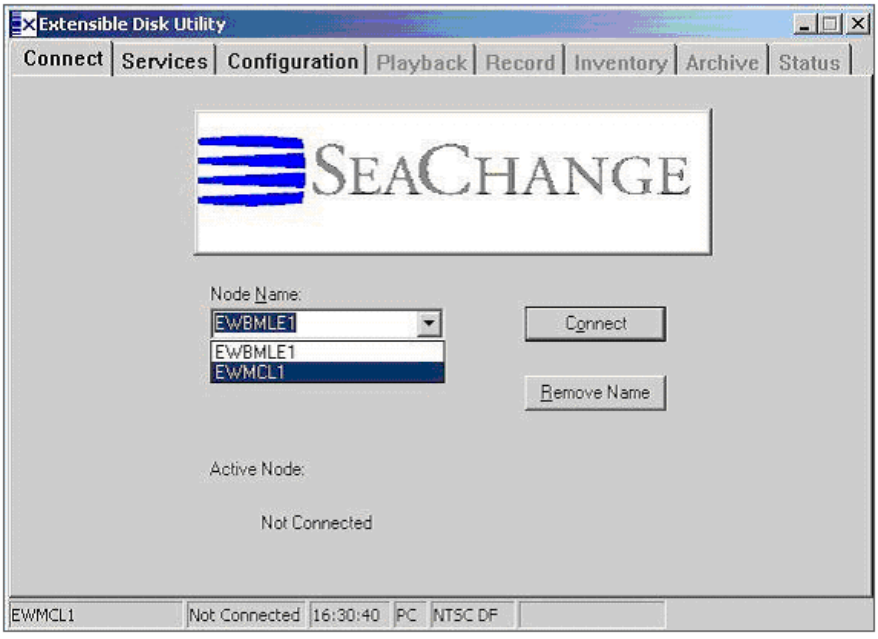
2 Connect SPECIAL CABLES from the Fastrack I/O ports to the SeaChange ports. Set up ports as described below.

Fastrack			SeaChange
(R-)	2	7	(Tx-)
(R+)	7	2	(Tx+)
(Tx+)	3	4	(Rx+)
(Tx-)	8	8	(Rx-)

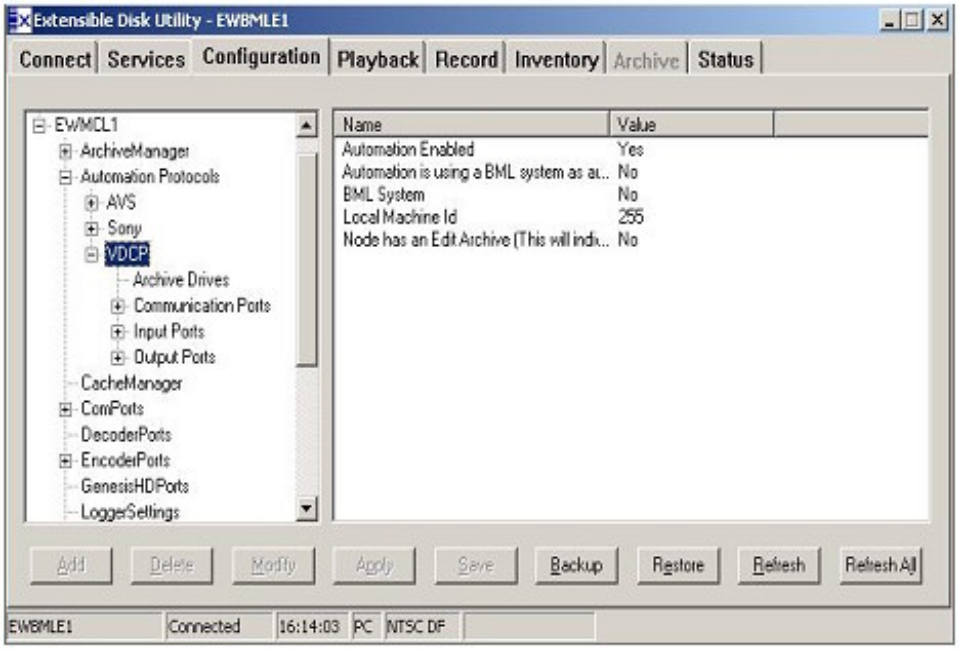
17.2. SeaChange Setup

There are certain key setups that are required for VDCP control…check that the following are set correctly.

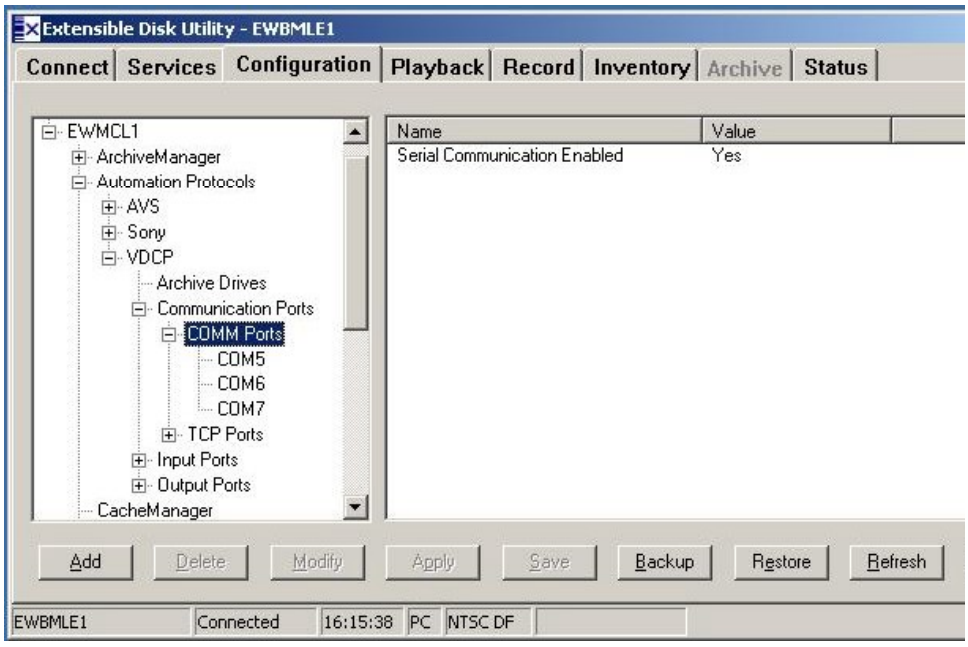
1 Double click the **ExdUtil** icon on the PC window. Connect to either Service.



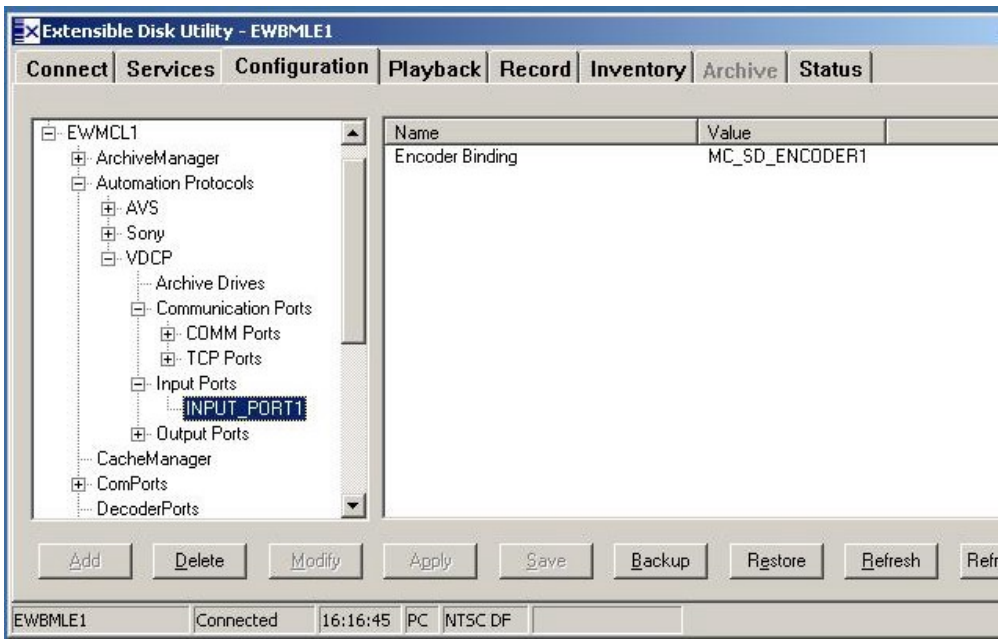
2 Select the MCL and the Configuration Tab and enable the VDCP Automation Protocol…



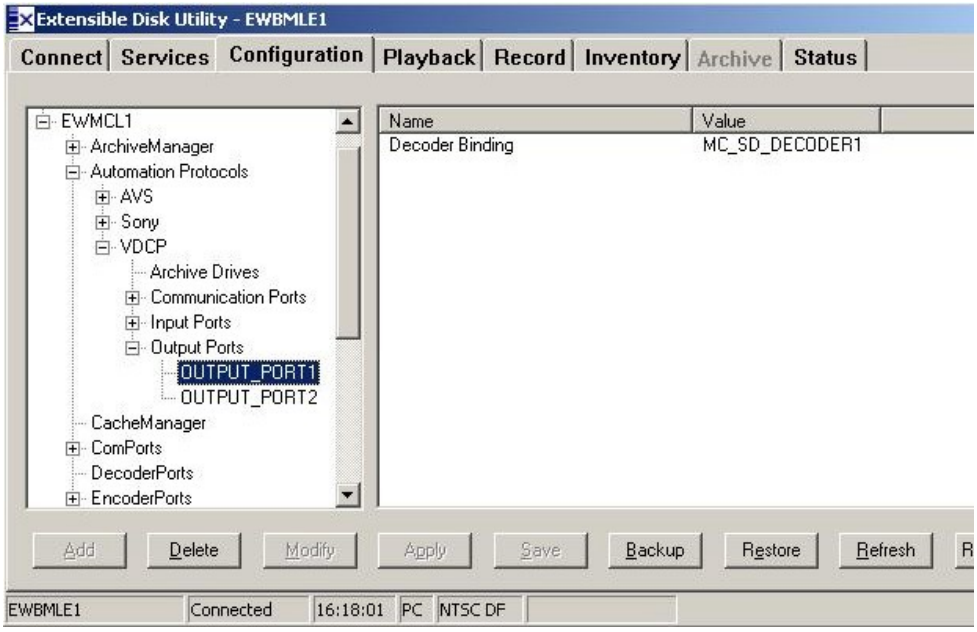
3 Select the VDCP Communication Ports that are to be used. (Ex: COM5, COM6,COM7) and enable Serial Communication.



4 Select the VDCP Input Ports and Encoder binding…

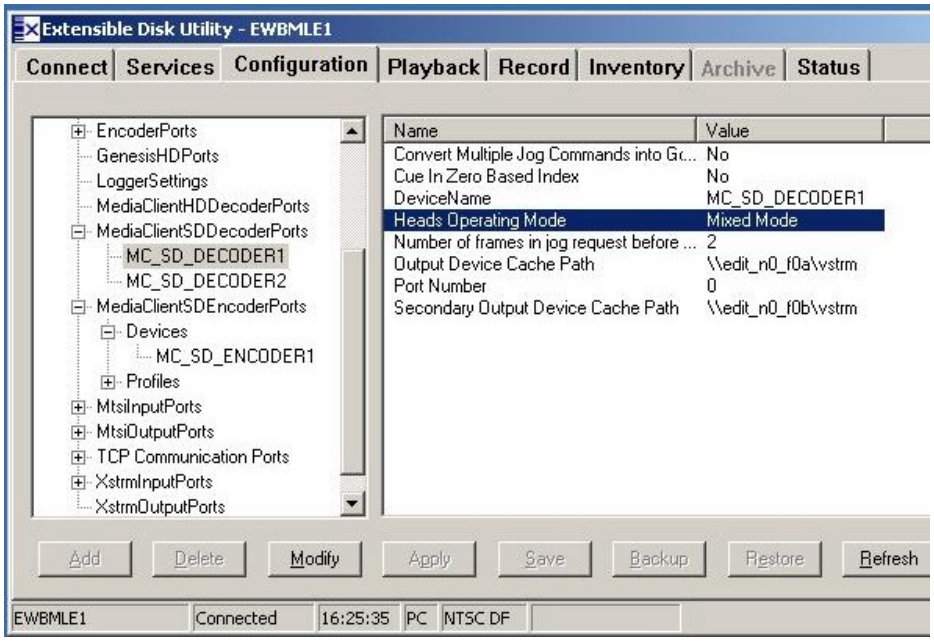


5 Next select the VDCP Output ports and Decoder bindings…

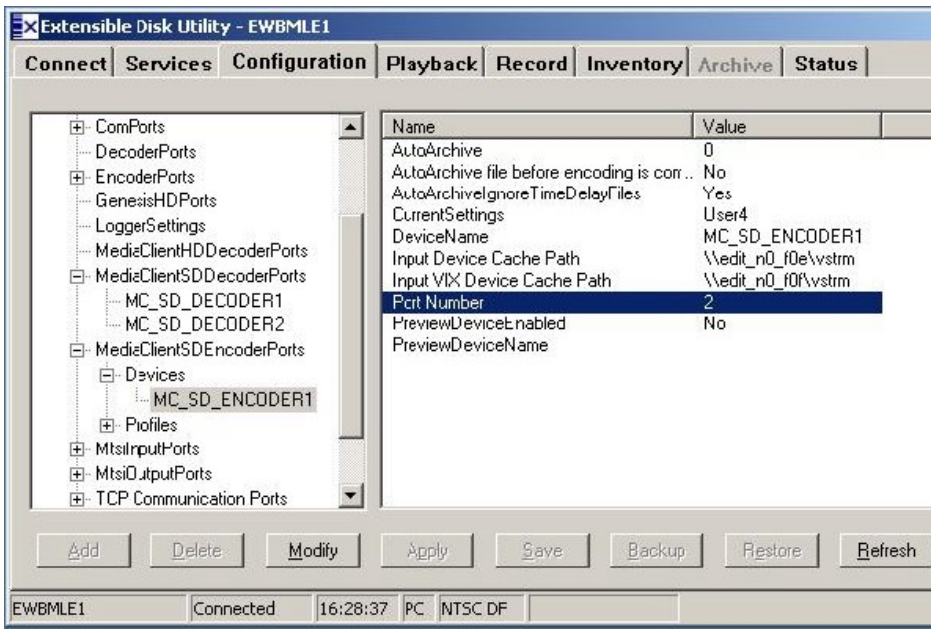


6 Then select the MediaClientSDDecoder Ports and set the Heads Operating Mode to Mixed Mode.

NOTE: THIS IS VERY IMPORTANT! If you don't set this to the correct mode, controlling clips from Fastrack will not work correctly. For instance, you can Play and Stop clips, but not wind them if this is set wrong. You were warned!!!!



Finally, set the port for the MediaClientSDEncoder Ports



17.3. Fastrack Setup

1. On Fastrack, press **[SHIFT][ASGN]**
2. Assign **Class = VDCP_D**
3. Assign **Device = Seachange**.
4. Assign the **Device Name** as shown below.

The Device Name must contain the digit corresponding to the VDCP port to be controlled. For ports that are Encoders (Recorder) the number must have a minus sign..ie “SChange Rec-1”.

Track	On	Device Name	Class	Device	Auto	Port	Pool	V-Switcher	
								Video	Sta
1	☒	SChange Rec-1	VDCP_D	SeaChange	☒	P1	dd	1	
2	☒	SChange1	VDCP_D	SeaChange	☒	P2	dd	2	
3	☒	SChange2	VDCP_D	SeaChange	☒	P3	dd	3	
4	☒	Profile A	PROFILE	XP	☒	GV011250:vtr2	dd	4	
5	☒	Deko	CHARGEN	Deko	☒	none	dd	5	

If the Seachange stops responding, first try rebooting the MCL.

18. Sony DVS-6000 Video Switcher

18.1. Connection

Connect an RS422 serial 9-pin cable between any available serial port on a Fastrack Serial Break-out Panel to the "**Editor "A"** serial port on the switcher electronics frame.

18.2. Switcher Setup

To remote the switcher for editor control:

- In the switcher section **TOP MENU** press **[ENBL]**
- In the switcher **Display Window**, toggle **EDITOR ON**
- On the editor keyboard press **[SHIFT][RESET]**

18.3. Fastrack Setup

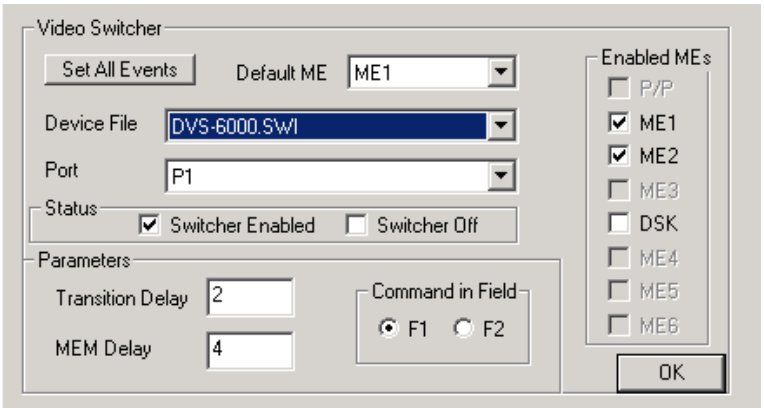
The **Fastrack Assignment Page** is accessed by pressing **[SHIFT] [ASGN]** on the **K7** keyboard.

18.3.1. Assign Video Crosspoints

Once the Fastrack Assignment Page is open, assign the Video crosspoints for each switcher source. Note that Black is crosspoint "0" on this switcher.

18.3.2. Select Switcher Type

In the **Video Switcher Dialog** of the Assignment Page, press **[SETTINGS].** The **Video Switcher** Dialog will open.



18.3.3. Enable MEs

Select the sections of the switcher that you wish to have control of. No commands from the editor will be sent to any section not selected here.

18.3.4. Default ME

From the pull-down menu, select the ME you will be controlling as the primary M/E.

18.3.5. Device File

From the pull-down menu, select DVS-6000.SWI as the switcher driver to use.

18.3.6. Assign Port

From the pull-down menu, assign the Port number that corresponds to the port number on the Serial Breakout Panel (P1-P8, P9-16, P17-24).

18.3.7. Enable Switcher

Ensure that the **Enabled** check box is checked in the Status area in order to have control of the video switcher. This setting is duplicated on the Short Cut area of Fastrack with the VSWR On/Off toggle (yellow indicates selected, meaning Switcher OFF).

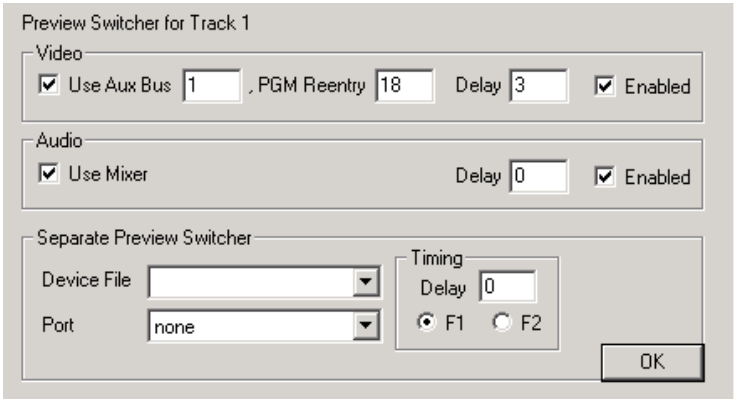
A press of **[SHIFT][RESET]** is recommended after any serial device assignment or changes. This sends a break command (wake up call) to all serial devices.

See your Fastrack manual or Help files for additional information on switcher control.

18.4. Aux Bus Preview

18.4.1. Setting up Aux Bus Previewing

In the Audio/Video Preview Switcher Dialog of the Assignment Page, select **[SETTINGS].** The Preview Switcher Dialog will open.



18.4.2. Use Aux Bus

To use an Aux Bus as your Preview Switcher, check this box and enter the number of the Aux Bus to be used.

18.4.3. Program Reentry

The Aux Bus to be used for previewing should have the controlled M/E (M/E1 or M/E2) as a re-entry crosspoint. The re-entry crosspoint number for **M/E1** is **18**, and the re-entry crosspoint number for **M/E2** is **19**.

18.4.4. Enabled

Check this box to enable use of the Aux Bus as a Preview Switcher.

See your Fastrack manual or Help files for additional information on Aux Bus Preview Switching.

See your Sony manual for additional information on Aux Bus operation and functionality.

18.5. Video Effects

Cut, Dissolve, Wipe and Keys are all accessible by **[right-clicking]** on an Event and selecting "**Video Effects**" or by pressing either the **[CUT], [DISS], [WIPE]** or **[KEY]** keys. Once the Video Effects Dialog is open, you can select any of the available video effects.

18.5.1. Dissolves

Dissolves are a "MIX" with the Transition being the length of the dissolve. The Dissolve Dialog and icon stay with an Event wherever and whenever it is moved, so that it always remains the "TO" source in a dissolve.

18.5.2. Wipes

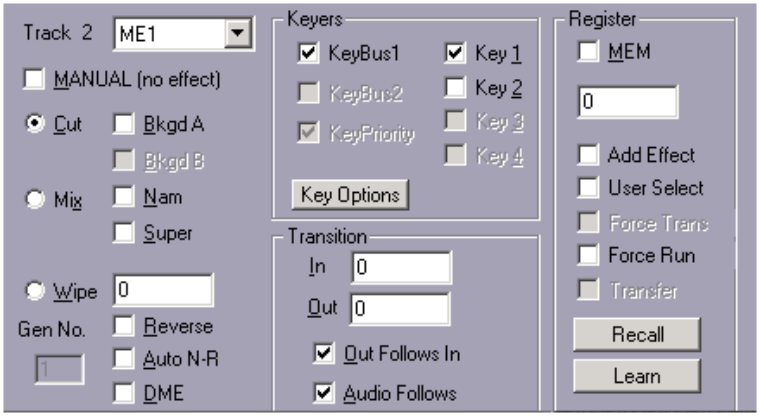
Pressing the **[WIPES]** key will bring up bit-map icons representing the various wipes available on this switcher. Simply click on the desired wipe pattern icon or enter the wipe pattern number into the dialog field.

18.5.3. DME Effects

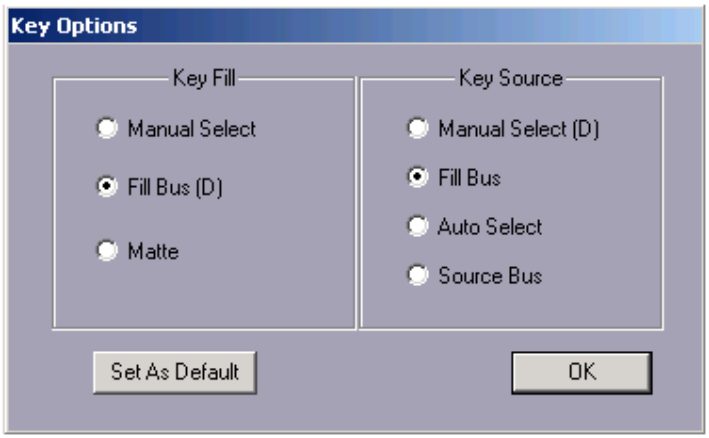
The internal DME is controlled via Inserts into the switcher timeline (Effects).

18.5.4. Keys

Video Keys are accessed by pressing **[SHIFT][WIPE],** or by **[right clicking]** Video Effects. The Effects Dialog will open.



Under **Keyers**, select Key 1, Key 2 or both. This will select the "Default Key" combination for both Source and Fill. To select a new Key Fill / Key Source for the current key, or to change the Default values, press **Key Options**. The Key Options Dialog will open.



Select a "**Key Fill**" radio button to define where the Key Fill will come from.

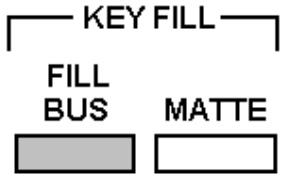
Select a "**Key Source**" radio button to define what will be used to cut the Key.

Select "**Set As Default**" to set the current selections in this Dialog as the "Default" key settings. A **(D)** will appear after the item set as a default.

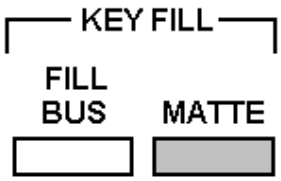
18.5.5. Key Fill

☉ **Manual Select** – With this item selected, no changes will be made to the current selection for the Key Fill.

☉ **Fill Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the M/E Fill Bus, and **FILL BUS** will be selected as the **KEY FILL** for this Keyer in the Top Menu display of the switcher



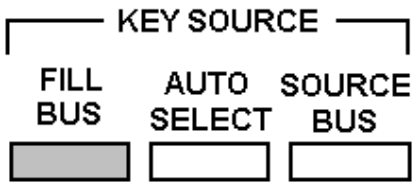
☉ **Matte** – With this item selected, no changes will be made to the current selection for the Key Fill, and **MATTE** will be selected as the **KEY FILL** for this Keyer in the Top Menu display of the switcher.



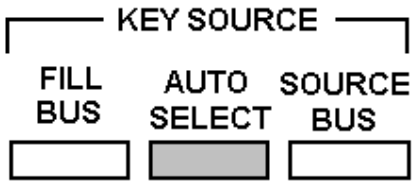
18.5.6. Key Source

☉ **Manual Select** – With this item selected, no changes will be made to the current selection for the Key Source.

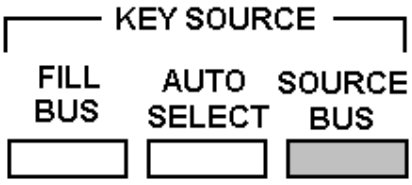
☉ **Fill Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the Fill Bus, and **FILL BUS** will be selected as the **KEY SOURCE** for this Keyer in the Top Menu display of the switcher.



☉ **Auto Select** – With this item selected, the Key Source selection will come from the **AUTO SELECT** settings for this Keyer in the Top Menu display of the switcher



☉ **Source Bus** – With this item selected, the currently assigned crosspoint for this Track will be selected on the M/E Source Bus, and **SOURCE BUS** will be selected as the **KEY FILL** for this Keyer in the Top Menu display of the switcher.



Note that pressing [PREVIEW] or [RECORD] turns Off all Enabled keyers on M/Es Enabled in the Switcher Dialog.

Note that if you wish to have the key "over" background video, ensure that the "Bkgd A" check box is **OFF**. If ON, the key image will be taken full.

18.6. PEGS

The following is a list of PEG commands from Super Edit that can be entered into the PEGS Dialog using the **SE** Command. Add a **1** to the beginning of each entry for **M/E1**, add a **2** for **M/E2**.

For example, an Auto Trans on the DSK would be 50. An Auto Trans on M/E 1 would be 150. A Key 2 wipe on M/E2 would be 262.

Items with an asterisk are valid for the DSK portion of the switcher.

MIX	WIPE	FUNCTION(S)
50*	N/A	Auto Trans Only
51*	61	Key **1**
52	62	Key **2**
53	63	Key **1** & Key **2**
54*	64	Background
55*	65	Background **&** Key **1**
56	66	Background **&** Key **2**
57	67	Background **&** Key **1** **&** Key **2**
58*	N/A	FTB

See your Fastrack manual or Help files for additional information on PEGS.

18.7. Learn & Recall Memory

18.7.1. Using the PEGS MEM Functions

Open the **[PEGS] Dialog**.

Recall a Snapshot from switcher memory

To recall Snapshot 0-99, in the PEGS dialog select the **MEM** command. Following the MEM entry, add the Snapshot number to be recalled. Example MEM**12**.

Recall and Run an Effect (Timeline) from switcher memory

To recall and run Effect 0-99, in the PEGS dialog select the **MEMX** command. Following the MEMX entry, add the Effect number to be recalled. Example MEMX**4**.

18.7.2. Using the Effects Dialog MEM Control

Open the **Video Effects Dialog**.

Learn an effect into memory

Set up the switcher M/E you are controlling as desired. Check **MEM** ☑ and enter any valid Memory number into the MEM text field and then select "**Learn**". The M/Es current setting will have a 'snap shot' stored.

The Current Event will have an “M” Icon displayed to let you know that a MEM has been associated with this Event. This MEM will always be affected at the beginning of the Event.

Recall an effect from memory

Check **MEM** ☑ and enter any valid Memory number into the MEM text field and then select "**Recall**." The MEM is assigned to Events with an "**M**" on the Event dialog line representing a memory recall.

Transitions may be recalled simultaneously by selecting "**Add Transition**" and defining a dissolve wipe or key in the dialog. If Add Transition is not selected, any programmed effect on the Event will be ignored.

- **User Select** - when this item is checked, MEM settings for both M/E1 and

M/E2 will be recalled . If not selected, then only the MEM from the primary M/E or P/P will be recalled.

See your Fastrack manual or Help files for additional information on PEGS and MEMs.

See your Sony manual for additional information on Learning and Recalling Effects and Snapshots.

19. Type Deko CG

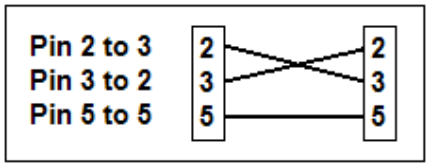
19.1. Cable Connections

The Deko has two (2) RS232 Com ports labeled **COM 1** and **COM 2.** It is possible to connect to the Fastrack using one of following two methods:

METHOD 1

Connect from the Deko COM 1 or COM 2 to the Fastrack chassis COMM 1 or COMM 2 using a RS- 232 Null Modem Crossover Cable.

RS-232 Null Modem Crossover Cable

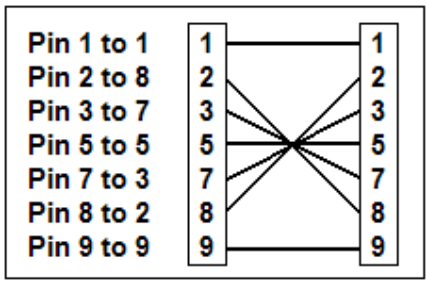


METHOD 2

Connect from the Deko Com 1 or Com 2 to the Fastrack RS-422 Breakout Panel using a RS-232 to RS-422 converter such as the Model 422LP9R from B&B Electronics.

Connect the RS-232 end to the Deko and the RS-422 end to a RS-422 Crossover Cable.

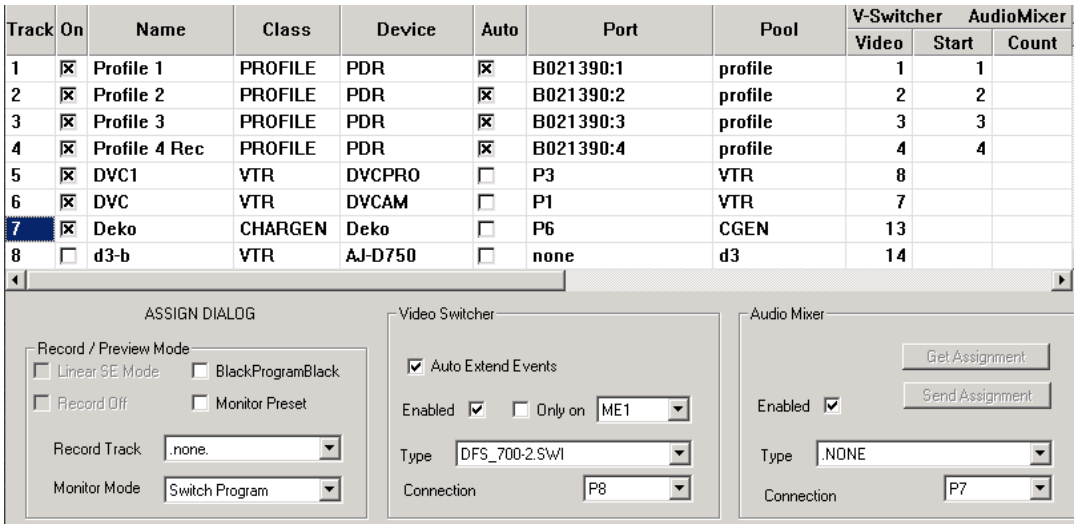
RS-422 Crossover Cable.



Connect the other end of the RS-422 Crossover Cable to the Fastrack RS-422 Breakout Panel at an available port.

19.2. Fastrack Setup

In the Assignment Page choose the Track where you wish the Deko to appear.



1. Choose a **name** e.g. **Deko.**
2. Under **Class** Choose **CHARGEN.**
3. Under **Device** Choose **Deko.**
4. Under **Port** select the Port you connected to in either Method 1 or Method 2.
5. Under **Pool** choose a Pool name such as CharGen, CGEN, CG, etc.
6. Choose a **Video** Crosspoint.
7. Click "**On**" to attach the Deko.

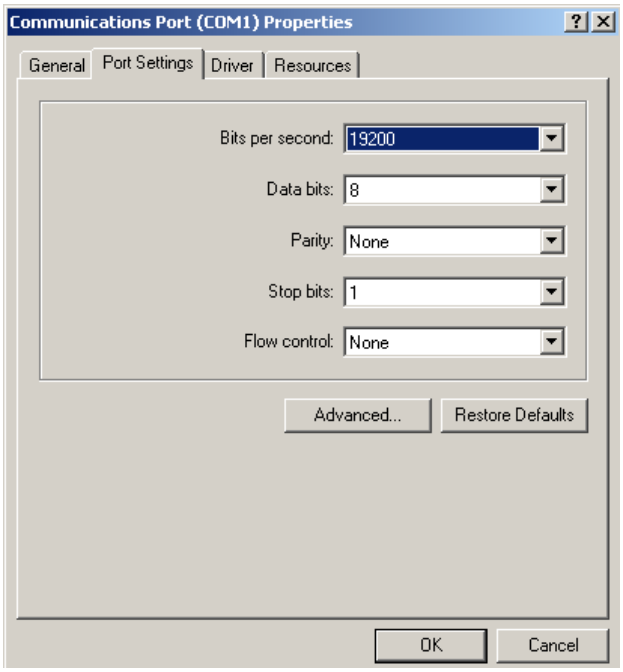
Note that even if the Deko is not physically connected, the Fastrack will still highlight the Track and Name.

19.3. Deko Setup

It is necessary for the Deko port you are using to be set to a Baud Rate of 19200. (Note that some Deko documentation tells you to set a baud rate of 9600. Ignore this.). To do this you must change the rate and settings under Windows, since the Deko application has no utility for this.

Close the Deko application. From Windows, select "**Start**" … **Settings** ... **Control Panel**.... **System**.... **Hardware**.... **Device Manager,** then select (double-click) **Ports (COM & LPT).**

Select (double-click) **Communications Port COM1** or **COM2** depending on the port you chose earlier, and change the Port Settings to read as shown in Diagram



After changing the Windows settings and clicking on **OK,** you may go back to the Deko Desktop and Start the Deko application.

For the Deko to receive commands from the Fastrack, it is necessary to open the **Automation Box**. This can be found under the Deko menu

The automation settings should be changed to look like the example below.

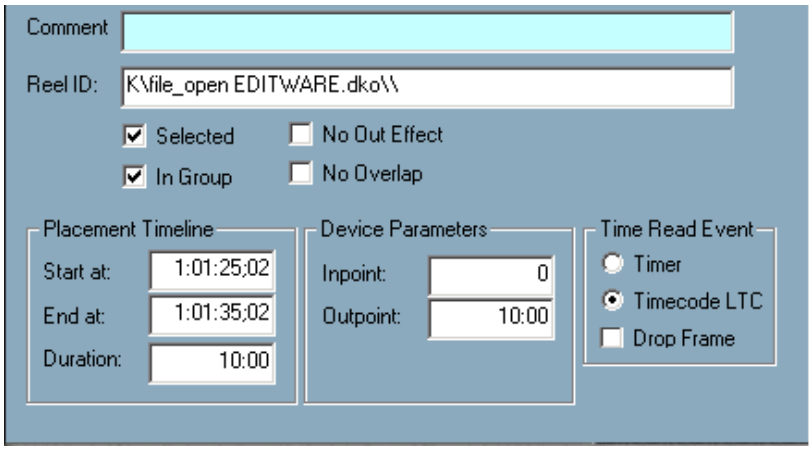
Once you click on **Automation Enabled**, you will see that it says **Connection established**. However, this only means that it is talking with it's COM port and not necessarily with the Fastrack. It is still possible to have a wiring problem or an incorrect setting on the Fastrack and still get the "Connection established" prompt.

19.4. Communication

The Fastrack will send a command to the Deko using the Reel ID field in the EVENT DIALOG.

To send a command to the Deko, pick the Track you have the Deko on, press **ASGN**, and then click on **Create**. This will Create a 10 second event on the timeline. (The time can be changed using the mouse or Trim + or Trim -)

With the event Hot press "**EVENT**" on the Fastrack keyboard. The following Dialog will open



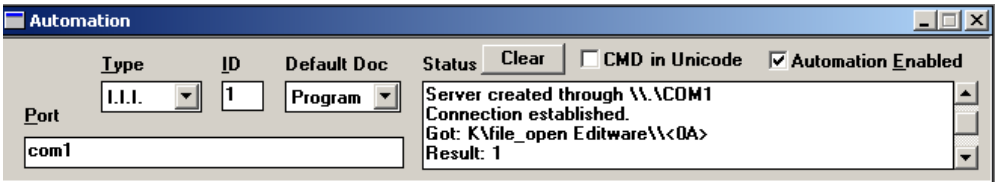
In the Reel ID field, enter the following data, with MYFILE being replaced by the file name. In the example above, the file "EDITWARE" has been entered. This command will load the file EDITWARE if it is found in the currently assigned Deko directory.

K\file_open MYFILE.dko

Some rules to remember:

- The "**K**" MUST be a **UPPER CASE**.
- The **\file_open** are necessary and should be **lower case**.

- **MYFILE** should be replaced by a file that is in the assigned directory on the Deko.
- The **.dko** does not seem to be necessary, but all Deko documentation show it.
- The **** at the end represents a **CR LF** and are necessary.
- On the Deko it is possible to have the active page be Windows, the Preview Channel, or the Output channel. IT IS NECESSARY FOR THE CORRECT PAGE TO BE ACTIVE FOR THE DEKO TO ACCEPT COMMANDS FROM THE FASTRACK OR ANY AUTOMATION DEVICE.

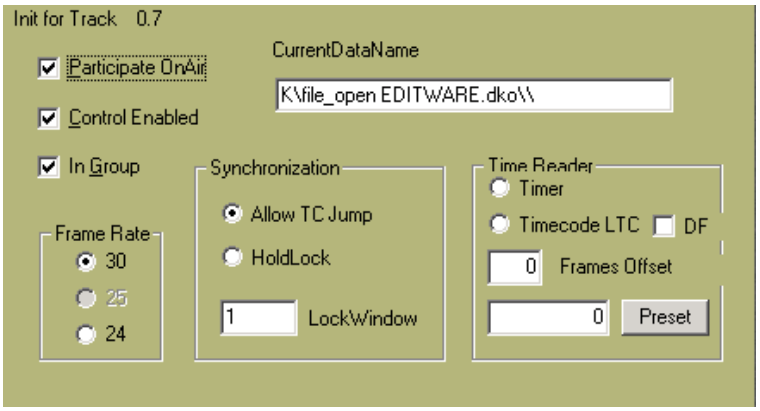


When you have successfully communicated with the Deko, the automation box will show that it received the command from the Fastrack.

Final Notes

There are several commands that the Deko can receive from automation; at this time Editware has only implemented the **K\file_open** commands. Since the command language that the Deko uses is quite extensive, Editware cannot guarantee that any of the other commands will have the desired effect.

The delay in which the Deko calls up the page is not consistent, and depends upon the complexity of the page. The **Frames Offset** box in the **INIT Dialog** for the Deko's Track may be adjusted to compensate for the delay.



For more information on the "K" and other commands go to the Deko website at www.pinnaclesys.com. Then go through "On Air", "Support", "FXDeko II" and "Check out Automation Manuals".

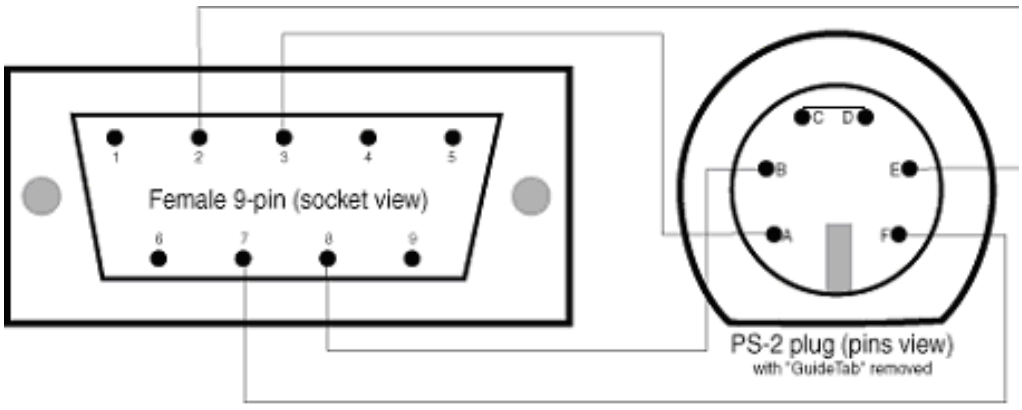
20. Yamaha 03D Serial Audio Mixer

The Fastrack hybrid editing system interfaces to the 03D Serial Audio Mixer with a 6-pin DIN to 9-pin RS-422 serial control cable and Yamaha 03D midi-host serial protocol. Direct control of each individual fader and the learning of manual adjustments are possible.

20.1. Interconnect Cable

An interconnect cable can be constructed using a PS-2 mouse/keyboard plug and wire and a Serial RS-422 female connector. This cable connects between the HOST port on the Yamaha O3D and a serial (male-male) cable attached to the Fastrack serial breakout (or use a male connector if your cable is long enough to reach the Fastrack serial breakout).

Since the numbering on PS-2 connectors varies or is frequently missing, please refer to the letter positions noted here for the PS-2 plug (the 9-pin conforms to standards). Both 9-pin connector and PS-2 plug are viewed from the "front."

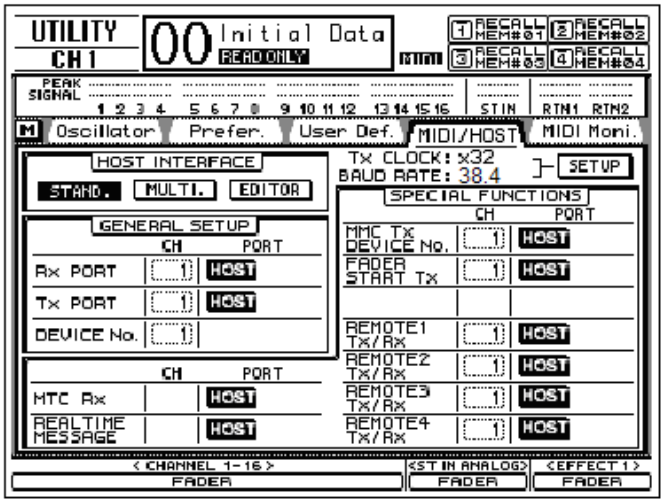


Serial 9-Pin	PS-2 Plug
2	E
7	F
3	A
8	B
C & D JUMPERED	

Note: The jumper between the top two pins on the PS-2 plug is essential for status reporting from the 03D mixer to Fastrack so it can "learn" manual changes to fader levels.

20.2. Mixer Setup

1. Connect the serial control cable from a Fastrack VS "COM" or "P#" port to the 6-pin "**TO HOST**" serial port on the rear of the 03D console.
2. At the 03D control panel "**SETUP**" section (top, left of the mixer), press the **[UTILITY]** button until the "**MIDI / HOST**" tab is selected.
3. At the "**MIDI / HOST"** tab, use the cursor buttons (under the PARAMETER wheel) to select, and then press the **[ENTER]** button, to accept the following:



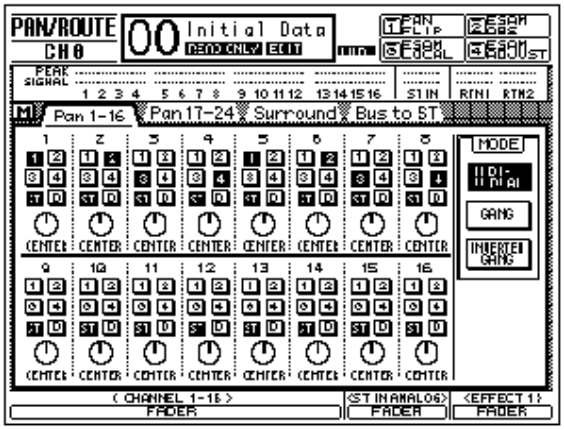
20.2.1. Monitoring

- Monitoring to amplifier and speakers is from the MONITOR OUT (1/4" TRS) connections
- Program Out is from the ST OUT (XLR) connections

- Analog inputs 1-8 use balanced XLR connections
- Analog inputs 9-16 use 1/4" TRS (tip/ring/sleeve) connections.
- Monitor outs uses 1/4" TRS connections.
- Bus outs use 1/4" TRS connections.
- ST Out uses XLR and is the PROGRAM OUT to any/all record channels.

The 03D has a monitoring bus that can be remotely controlled as a preview bus; therefore, all audio previews should be done utilizing this preview switcher in the 03D.

Set each source's BUS Out and monitoring in the [PAN/ROUTE] section as below for four channels per source:



The BUS Outputs (1-4) are fed to the RECORD device for recording (or AES Out if the YGADI option is installed) and the MONITOR OUT connected to amplifier and speakers. The ST OUT is the signal that is monitored on the MONITOR OUT (when set in **[Bus to ST]** to OFF {not highlighted}), allowing preview monitoring to be controlled via the 03D mixer. The MONITOR OUT has a volume control knob for convenient speaker volume adjustment.

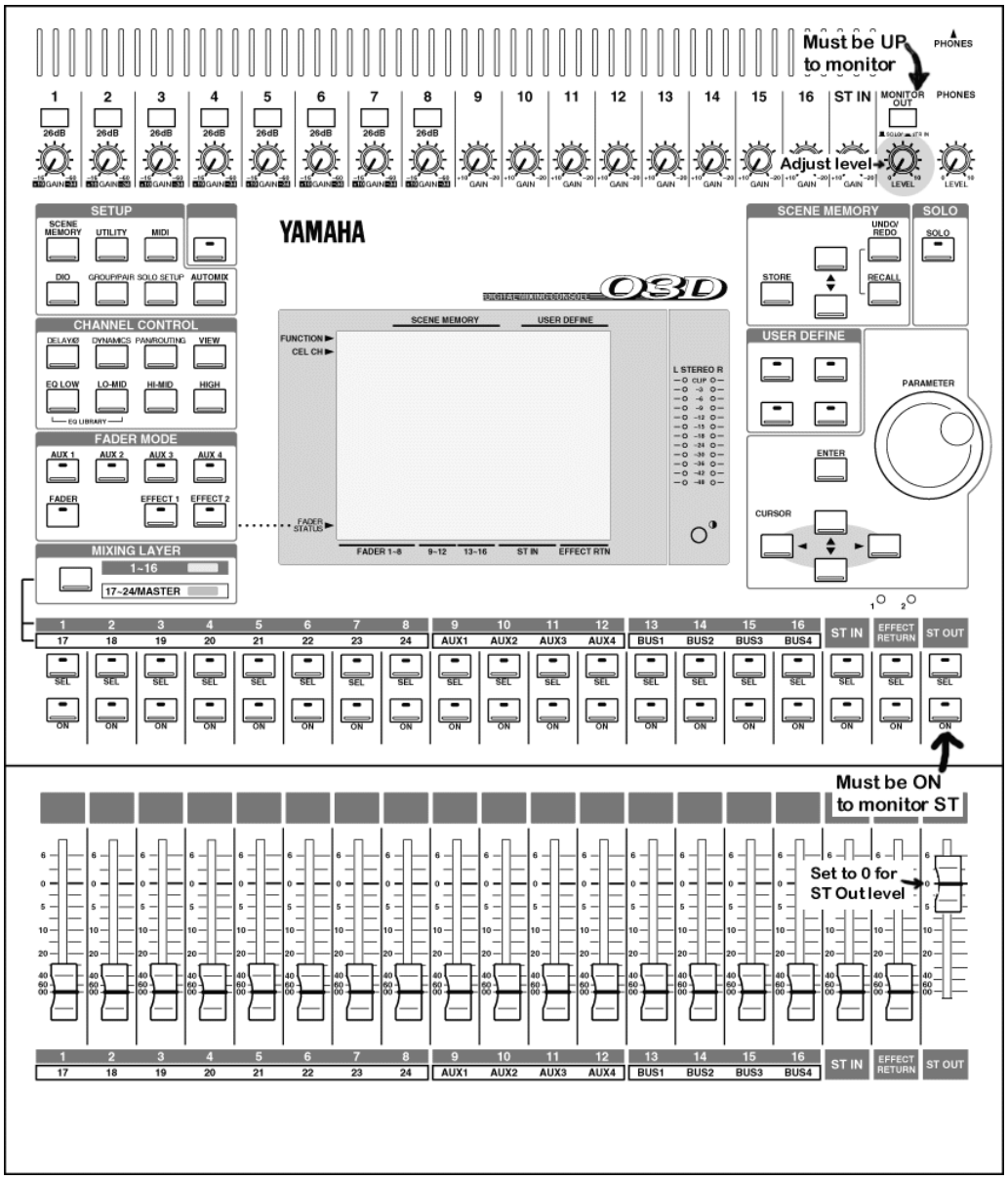
20.3. Fastrack Setup

Assign the following audio Start and Count values in the Source Assignment page **[SHIFT][ASGN]** in Fastrack for the 03D.

Under **Audio Mixer** (upper right), the two columns represent the **Start number** for the first fader of each source, and the count for each source (1=mono, 2=stereo, 4, etc).

Note: Notice the different TYPE of audio mixer selected. 03D_2CH.MIX for stereo, 03D_4CH.MIX for four channels of audio. The Events on each Fastrack track will have only two channels with the 2CH file, and four channels with the 4CH file.

20.4. Yamaha 03D Mixer Control Panel



Note: The 03D ST OUT is used for monitoring (VU meters active) and Program Output. Ensure the ST fader is up to 0 level, the ST ON lamp is illuminated, and the MONITOR OUT button is in the UP position.

21. Yamaha DM-1000 Digital Mixer

The DM1000 Digital Production Console is designed especially for commercial production needs such as post-production, audio for video, and broadcast. The DM1000 has 48 channels of transparent, super-dynamic 24-bit/96 kHz audio. The DM1000 is equipped with 20 analog inputs with XLR connectors, 16 of which have mic preamps, and 12 analog outputs with XLR connectors. It also provides two I/O slots each capable of 16 channels of I/O, which you can configure to your needs using Mini-YGDAI digital and analog I/O cards.

One of the advantages of working with digital is that it allows maximum power and flexibility to be packed into minimum space. On the DM1000, seventeen precision 100-millimeter motorized channel faders can be instantly layer-switched to control any of 48 channels, plus auxiliary, bus, and remote channels. All available inputs, outputs, effects, and channel inserts can be assigned to any of the console's channels or outputs via the DM1000's remarkably versatile, easy-to-use digital patching system. The eight auxiliary buses can also be patched to anywhere in the system, and patch setups you might want to use again can be stored in the patch library for instant recall at any time.

21.1. Connections

A standard Type A to Type B USB cable connects between the **TO HOST (USB)** port on the Yamaha DM-1000 and any USB port (Type A) on the Fastrack.

To enable USB control of the DM1000, you must **first** install the USB driver included on the CD with the Yamaha Studio Manager software, or download the USB driver from the following URL:

http://www.yamaha.com/yamahavgn/ProductMedia/Drivers/USB_XP_2000.exe

This zipped file will uncompress and install into the proper folder on Fastrack (Windows 2000). The folder will be labeled **USBdrv2k**. In the Settings, Control Panels will now be a Midi-US Driver. Opening this driver allows setting of the Device Name for the DM1000. The default is **1**.

21.2. DM1000 Setup

1 Connect the USB cable between any available Fastrack Type A USB port to the Type B "**TO HOST**" USB port on the rear of the DM1000 console.

2 On the DM1000, press "**SETUP**" repeatedly until the "**MIDI / HOST**" tab is selected. At the "**MIDI / HOST"** tab, for General/RX Port and TX Port enter **USB port 2**. In **Special Functions**, set Studio Manager to **USB Port 1** and ID **to 1**.

3 On the DM1000, press "**MIDI**" repeatedly until the "**SETUP**" tab is selected. Set the Control Change on the **TX** column to **ON** and all four boxes under **RX** to **ON** (Program Change, Control Change, Parameter Change and Bulk).

4 Set **Fader Resolution** to **HIGH**.

IMPORTANT NOTE!! Once you have established communications between the Fastrack and the DM-1000, **DO NOT** disconnect the USB cable from either end without first unloading the USB device. Doing so can result in the Fastrack application shutting down or an OS core dump.

21.3. Monitoring

The DM1000 has 12 "OMNI" OUTs, that can be "digitally patched" to be Auxiliary, Bus, Stereo or Control Room (CR monitoring) outputs; therefore, all audio previews can be done utilizing the preview monitoring in the DM1000. Typically the DM1000 defaults are OMNI outputs 1-8 using Aux bus 1-8, OMNI outputs 9-10 are Stereo L-R, and OMNI outputs 11-12 are CR-L and CR-R. To use these defaults, connect an audio amp and monitor speakers to OMNI OUT 11-12 and connect the Stereo L-R outputs thru OMNI OUT 9-10 (constant Program out levels) to the inputs of the record VTRs or servers. Additional OMNI OUTs can be configured to be Program Out (Stereo L-R), sending the signal to multiple recorders.

The MONITOR OUT has a volume control knob for convenient speaker volume adjustment.

21.4. Fastrack Setup

In the Fastrack Assignment Page ([SHIFT][ASGN]), assign audio Start and Count values in the Audio Mixer section for the DM1000 mixer. The Start is the first fader in the group that represents each device's audio signal. A stereo device with inputs 1 and 2 into the DM1000 would be set to Start with 1 and have a Count of 2. The next source, a four-channel device for example, would have a Start of 3 and a Count of 4.

To utilize the DM1000 as the audio preview monitor, the A/V Preview Switching should be globally enabled in the FASTRACK assignment dialog. The second section (after Aux Bus for video) is for Audio Mixer. Select the check box for USE and also ENABLE in the Audio Mixer section of the A/V Preview Switching dialog; all three check boxes are necessary to get proper audio preview monitoring.