

# Interfaces

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## In This Chapter

The “feature list” of editing systems varies among manufacturers, as does implementation level of GPS ESAM II protocol. The tables in this chapter provide a *basic* feature list for most major editors, along with lists of ESAM II capabilities. Use these tables as a reference to your system’s capabilities with D/ESAM.

Each table is divided into two sections. The top lists basic interface information:

- **Model Editor(s) Interfaced** — Which specific editing system(s) from the manufacturer interface to D/ESAM 820.
- **Type of Control** — Is the interface serial or GPI.
- **Type of Protocol** — Is the interface protocol ESAM I or ESAM II
- **Dedicated Audio Mixer Port** — Does the system have a dedicated port for audio mixer control or is there a programmable port.
- **Device Assignment Menu** — Does the editing system have a specific menu on which to assign D/ESAM 820. How is it accessed.
- **Crosspoint Assignment Menu** — Does the system have a specific menu on which to assign VTR crosspoints. How is it accessed.

The bottom section lists ESAM II capabilities specific to D/ESAM 820:

- **2-Bus / 4-Bus Control** — Can system control 2 or 4 D/ESAM buses.
- **Control Preview Bus** — Can system control D/ESAM Preview bus.
- **Select Sources** — Can edit system select sources on D/ESAM.
- **Initiate Transitions** — Can system initiate D/ESAM transitions.
- **Select Transition Rates** — Can edit system enter transition rates.
- **Control Levels** — Can edit system control source audio levels.
- **Separate A1 - A4 Tran Starts** — Can edit system control separate transition starts.
- **Separate A1 - A2 Tran Rates** — Can edit system control separate transition rates.
- **Note** — Are there important notes relevant to operations.

## Abekas

### *Abekas - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	A-34 Solo
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Yes
Device Assignment Menu	Press <b>SHIFT + EDITOR</b> to access Audio Mixer Menu
Crosspoint Assignment Menu	Press <b>SHIFT + EDITOR</b> to access Audio Mixer Menu

### *Abekas - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	2-Bus
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	Yes
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	Yes

# Ampex

## *Ampex - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	ACE Standard, Micro, 200, DCT-500e, 700e
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Uses available ILC port
Device Assignment Menu	Press <b>SYS CTRL</b> , then (softkey) ILC Channels.
Crosspoint Assignment Menu	Press <b>SYS CTRL</b> , then (softkey) Transports

## *Ampex - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	2-Bus
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	Yes

## Calaway

### *Calaway - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	CE 100, 110, 150, 200, 210, 400
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Yes
Device Assignment Menu	No. Specify hardware at time of purchase.
Crosspoint Assignment Menu	Yes

### *Calaway - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	2-Bus
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	No

# CMX

## CMX - Basic Interface Information

Item	Description
Model Editor(s) Interfaced	CMX-340, 3400, 3600, 300, 330A, 3100B, OMNI-500, 1000, 1000E
Type of Control	Serial
Type of Protocol	ESAM II protocol is optional software
Dedicated Audio Mixer Port	Yes
Device Assignment Menu	No. Hardware specific
Crosspoint Assignment Menu	Depends on the CMX model

## CMX - D/ESAM 820 Specifics

Item	Description
2-Bus / 4-Bus Control	Depends on the CMX model
Control Preview Bus	Yes
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	
Separate A1, 2, 3, 4 Tran Starts	Yes *
Separate A1, 2, 3, 4 Tran Rates	Yes *

### Notes:

- \* Separate A1, A2, A3 and A4 Trans rate and start requires GPI trigger

## Editing Technologies Corporation

### *Editing Technologies Corporation - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	Ensemble 3.0, Ensemble 5.0
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Yes
Device Assignment Menu	Ensemble Plus
Crosspoint Assignment Menu	Same as device assignment

### *Editing Technologies Corporation - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	2-bus
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	
Separate A1, 2, 3, 4 Tran Rates	

**Notes:**

System issues "reset" after previews

# GVG

## GVG - Basic Interface Information

Item	Description
Model Editor(s) Interfaced	System 41, 41m, 51, 51E, 51Em, VPE-131, 141, 141L, 151, 241L, 251, Sabre
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	41, 51: available VTR port. VPE-141, 151: dedicated audio port
Device Assignment Menu	Yes, Hardware assignment
Crosspoint Assignment Menu	Press <b>SHIFT + ASSN</b> on all models except 151. Press <b>VTR ASSN</b> on 151. <b>RETURN</b> to access <b>ASSIGN AUDIO XPTS</b> .

## GVG - D/ESAM 820 Specifics

Item	Description
2-Bus / 4-Bus Control	4-bus
Control Preview Bus	Yes
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	No

**Notes:**

System issues "reset" after previews

## M & R Data Services

### *M & R - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	Ensemble Plus, Symphony IV, VI
Type of Control	Ensemble Plus, Symphony IV, VI: Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Yes
Device Assignment Menu	Ensemble Plus, Symphony IV, VI: Utility page
Crosspoint Assignment Menu	Same as device assignment

### *M & R - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	2-bus
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	
Separate A1, 2, 3, 4 Tran Rates	

**Notes:**

System issues “reset” after previews

# Paltex

## *Paltex - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	E series, Elite, Elan, ESD, Esprit+, Europa, Abner (GPI only)
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Peripheral I/O board. configured by customer
Device Assignment Menu	Via hardware, PROM-based, specify at purchase
Crosspoint Assignment Menu	Operator can modify pre-set crosspoint mode

## *Paltex - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	2-bus
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	Yes

# Sony

## *Sony - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	Sony 9100, Sony 2000
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	Uses dedicated port
Device Assignment Menu	Setup IDC (Intelligent Device Controller)
Crosspoint Assignment Menu	

## *Sony - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	4-Bus
Control Preview Bus	Yes
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	
Separate A1, 2, 3, 4 Tran Rates	

## United Media

### *United Media - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	MT 30, 60, 90, UMI-500, 600
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	UMI-500, 600: Dedicated port. MT 30, 60, 90: via switcher control
Device Assignment Menu	Normally AFV through switcher
Crosspoint Assignment Menu	Yes

### *United Media - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	4-bus
Control Preview Bus	Yes
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	No
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	Yes

## Videomedia

### *Videomedia - Basic Interface Information*

<b>Item</b>	<b>Description</b>
Model Editor(s) Interfaced	VLC-32
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	ESAM II / LAN module
Device Assignment Menu	Via Hardware
Crosspoint Assignment Menu	Via main edit menu, LAN node to assign crosspoints

### *Videomedia - D/ESAM 820 Specifics*

<b>Item</b>	<b>Description</b>
2-Bus / 4-Bus Control	
Control Preview Bus	No
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	
Separate A1, 2, 3, 4 Tran Starts	
Separate A1, 2, 3, 4 Tran Rates	

# Axial

## *Axial - Basic Interface Information*

Item	Description
Model Editor(s) Interfaced	Axial 2010, 2020
Type of Control	Serial
Type of Protocol	ESAM II
Dedicated Audio Mixer Port	All serial ports assignable
Device Assignment Menu	Via Device Configuration Window (press <b>ASIGN</b> )
Crosspoint Assignment Menu	Via Device Configuration Window (press <b>ASIGN</b> )

## *Axial - D/ESAM 820 Specifics*

Item	Description
2-Bus / 4-Bus Control	4-Bus
Control Preview Bus	Yes
Select Sources	Yes
Initiate Transitions	Yes
Select Transition Rates	Yes
Control Levels	Yes
Separate A1, 2, 3, 4 Tran Starts	Yes
Separate A1, 2, 3, 4 Tran Rates	Yes
Recall D/MEM registers	Yes

### ***Notes:***

Ensure that parity on both the Axial and the D/ESAM 820 are set to "odd." The Axial default "spec file" value for the D/ESAM 820 is "odd." In Chapter 5, refer to the "**Editor Communications - Menu 3.1**" section for details on setting D/ESAM parity.

# ESAM II Manufacturer Comparison Chart

The following chart shows the level of implementation that various editing system manufacturers have provided for the extended ESAM II protocol.

*ESAM II Extended Commands - Usage List*

Command	Abekas	Ampex	Axial	Calaway
All Stop	Used	Not Used	Used	Used
Configuration	Not Used	Not Used	Used	Not Used*
Crossfade Limits	Not Used	Not Used	Used	Not Used*
Crosspoint Assignment	Not Used	Not Used	Used	Not Used
Delay Execution	Not Used	Not Used	Used	Not Used*
Fader Level	Used	Not Used	Used	Not Used*
Fader Ramp	Not Used	Not Used	Used	Not Used*
FROM Machine	Not Used*	Not Used	Used	Used
FROM Source	Used	Used	Used	Used
FROM Sources (Multi-channel)	Not Used*	Not Used	Used	Not Used*
Initialize Changes	Not Used	Not Used	Used	Not Used*
Lamp Control	Not Used	Not Used	Used	Not Used*
Monitor Machine	Not Used*	Not Used	Used	Not Used*
Monitor Mode	Not Used	Not Used	Used	Not Used*
Monitor Mute				
Monitor Source	Used	Not Used	Used	Not Used*
Monitor Sources (Multi-Channel)	Not Used*	Not Used	Used	Not Used*
Recall Mixer	Not Used	Not Used	Used	Not Used*
Report Changes	Not Used	Not Used	Used	Not Used*
Restore FROM Edit	Used	Not Used	Used	Not Used*
Save Mixer	Not Used	Not Used	Used	Not Used*
Status	Not Used	Not Used	Used	Not Used*
Swap Machine	Not Used	Not Used	Used	Not Used
TO Machine	Not Used*	Not Used	Used	Used
TO Source	Used	Used	Used	Used
TO Sources (Multi-Channel)	Not Used*	Not Used	Used	Not Used*
Transfer Register	Not Used	Not Used	Used	Not Used*
Trans Duration (Multi-Channel)	Not Used*	Not Used	Used	Not Used*
Transition Duration	Used	Used	Used	Used
Transition Start	Used	Used	Used	Used

**Notes:**

Manufacturer has indicated future use.

ESAM II Extended Commands - Usage List (continued)

Command	CMX	Edit Tech†	GVG	M&R Data
All Stop	Used	Not Used	Used	Not Used
Configuration	N.U. 3600 Used Omni	Not Used	Not Used	
Crossfade Limits	Not Used	Not Used	Not Used	
Crosspoint Assignment	Used Omni	Not Used *	Not Used	Not Used
Delay Execution	Not Used	Not Used	Not Used	
Fader Level	N.U. 3600 N.U. Omni *	Not Used *	Not Used	
Fader Ramp	N.U. 3600 N.U. Omni *	Not Used	Not Used	
FROM Machine	Used	Used	Used	Used
FROM Source	Not Used	Used	Not Used	Used
FROM Sources (Multi-channel)	Used 3600 N.U. Omni*	Used	Not Used	Used
Initialize Changes	Not Used	Not Used	Not Used	
Lamp Control	Not Used	Not Used	Not Used	
Monitor Machine	N.U. 3600 Used Omni	Not Used	Used	
Monitor Mode	Used	Not Used	Used	Not Used
Monitor Mute				
Monitor Source	Not Used	Not Used	Not Used	Not Used
Monitor Sources (Multi-Channel)	Used 3600 N.U. Omni*	Not Used	Not Used	
Recall Mixer	N.U. 3600 Used Omni	Not Used *	Used	Used
Report Changes	Not Used	Not Used	Not Used	
Restore FROM Edit	Not Used	Not Used	Not Used	
Save Mixer	N.U. 3600 Used Omni	Not Used *	Used	Used **
Status	Not Used	Not Used	Not Used	
Swap Machine	Used Omni	Not Used	Used	Not Used
TO Machine	Used	Used	Used	Used
TO Source	Not Used	Used	Not Used	Used
TO Sources (Multi-Channel)	Used 3600 N.U. Omni*	Used	Not Used	Used
Transfer Register	N.U. 3600 Used Omni	Not Used	Not Used	
Trans Duration (Multi-Channel)	Used 3600 Used Omni	Used	Not Used	
Transition Duration	Used	Used	Used	Used
Transition Start	Used	Used	Used	Used

**Notes:**

\* Manufacturer has indicated future use.

\*\* Symphony 4 and 6 only

† Editing Technologies Corporation

ESAM II Extended Commands - Usage List (continued)

Command	Paltex	Sony	Videomedia	
All Stop	Not Used	Used	Used	
Configuration	Not Used	Not Used	Not Used	
Crossfade Limits	Used	Not Used	Not Used	
Crosspoint Assignment	Not Used	Not Used	Not Used	
Delay Execution	Not Used	Not Used	Not Used	
Fader Level	Used	Not Used	Not Used	
Fader Ramp	Used	Not Used	Not Used	
FROM Machine	Used	Used	Used	
FROM Source	Used	Used	Not Used	
FROM Sources (Multi-channel)	Not Used*	Used	Not Used	
Initialize Changes	Not Used	Not Used	Not Used	
Lamp Control	Not Used	Not Used	Not Used	
Monitor Machine	Used	Used	Not Used*	
Monitor Mode	Used	Used	Not Used	
Monitor Mute				
Monitor Source	Used	Used	Not Used	
Monitor Sources (Multi-Channel)	Not Used *	Used	Not Used	
Recall Mixer	Used	Not Used	Used	
Report Changes	Not Used	Not Used	Not Used	
Restore FROM Edit	Not Used	Not Used	Not Used	
Save Mixer	Used	Not Used	Not Used *	
Status	Not Used	Not Used	Not Used	
Swap Machine	Not Used	Not Used	Not Used	
TO Machine	Used	Used	Used	
TO Source	Used	Used	Not Used	
TO Sources (Multi-Channel)	Not Used*	Used	Not Used	
Transfer Register	Used	Not Used	Not Used	
Trans Duration (Multi-Channel)	Not Used*	Used	Not Used	
Transition Duration	Used	Used	Used	
Transition Start	Used	Used	Used	

**Notes:**

\* Manufacturer has indicated future use.