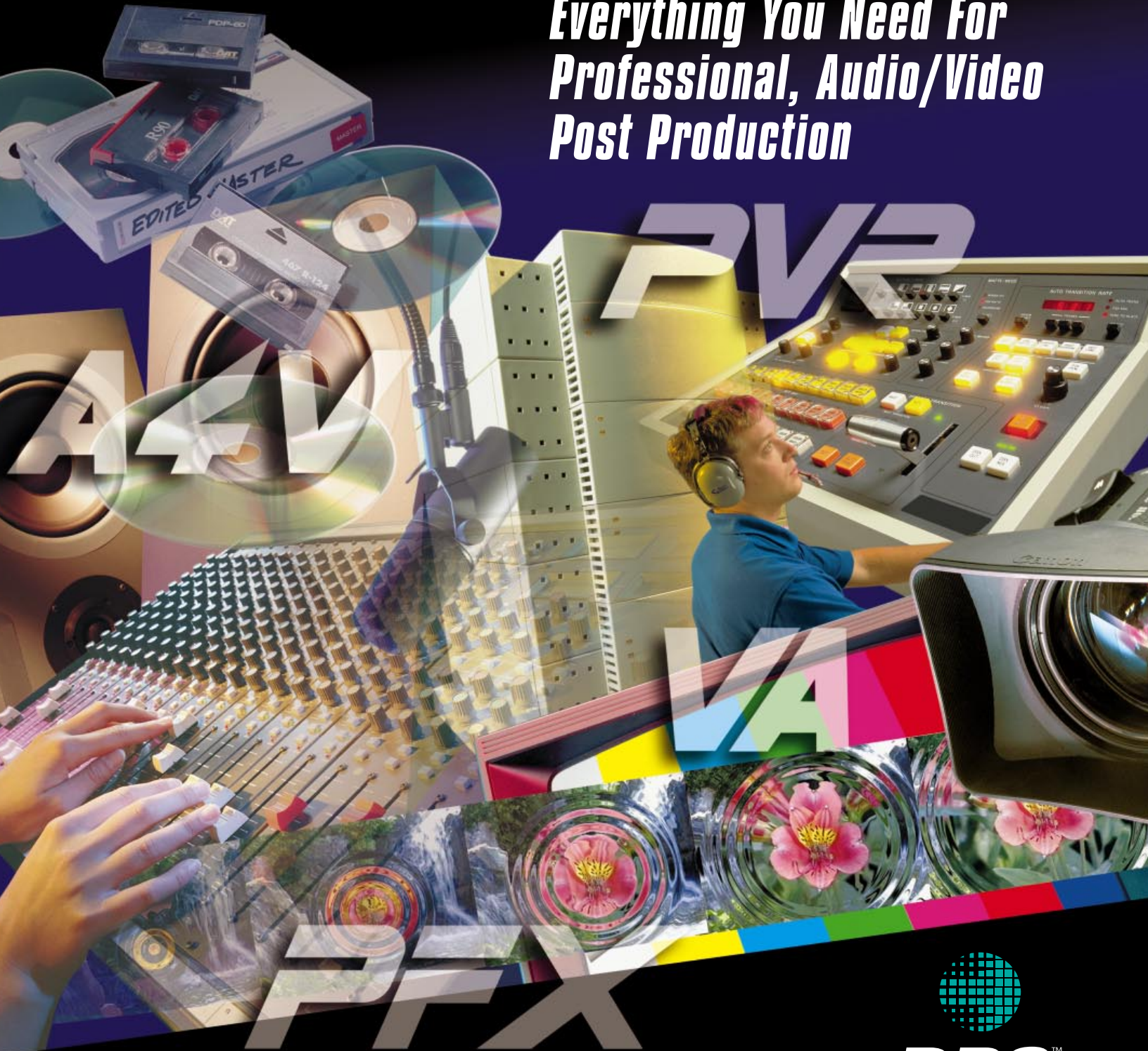


**DPS**

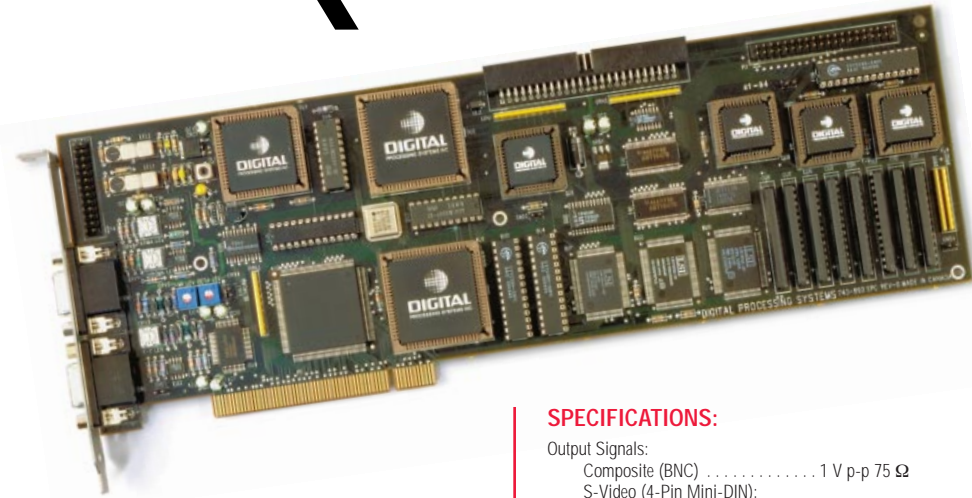
# PERCEPTION™

*Everything You Need For  
Professional, Audio/Video  
Post Production*



**DPS™**

*Video Recorder • Editor • Audio • Effects*



## Video Recorder

- 10 Bit, 2X Oversampled Video Encoding.
- Integrated FAST SCSI-2 Hard Drive Controller.
- PCI Bus Card.
- Includes DPS Virtual File System for Windows NT™.
- Component, Composite and S-Video Outputs.
- Live Video Capture Option.
- Optional Serial Digital I/O card.

Ideal for video animation and non-linear editing, the DPS Perception Video Recorder (PVR) integrates completely and seamlessly with all popular animation and graphics packages. The unique DPS Virtual File System™ provides local and networked users with instantaneous access to individual PVR video frames via the Windows NT™ file system. The DPS VFS supports PVD, BMP, IFF, PIC, SGI, TGA, and TIF images. Additional formats, such as PCD, JPG, GIF, PCX and PCT can be imported and exported using the PVR Player Application.

An optional real time video capture daughtercard adds composite, component and Y/C inputs to the PVR, turning it into a broadcast quality digital disk recorder. An SDI I/O card is also available. Real time, time-lapse and stop motion recording modes are supported. Captured video can easily be exported as a series of sequential RGB files for rotoscoping and compositing or edited using the standard PVR cuts-only playlist editor. For more sophisticated requirements, DPS Video Action PVR or other compatible third party non-linear editing packages are available. PVR control of a source deck for batch digitizing and Sony protocol VCR emulation are standard features. An optional PVR-422 adapter provides RS-232 to RS-422 conversion and adds two GPI ports.

### SPECIFICATIONS:

Output Signals:	
Composite (BNC)	1 V p-p 75 Ω
S-Video (4-Pin Mini-DIN):	
Y Signal	1 V p-p 75 Ω
C Signal	286 mV (NTSC), 300 mV (PAL) p-p 75Ω
Component Betacam (BNCs):	
Y Signal	714 mV (NTSC), 1 V (PAL) p-p 75 Ω
R-Y, B-Y (Pr, Pb)	700 mV (NTSC,PAL) p-p 75 Ω
Component MII (BNCs):	
Y Signal	700 mV (NTSC) p-p 75 Ω
R-Y, B-Y (Pr, Pb)	486 mV (NTSC) p-p 75 Ω
Genlock Input (BNC):	
Composite Video	1 V p-p (Loop or 75 Ω)
Digital I/O:	
DPS CVE-2™ Bus (40 pin internal header)	For AD2500/3500 Real Time Capture Card
GPI Trigger:	
(RCA x 2 on optional PVR-422 adapter)	Negative Edge TTL or Contact Closure
Hard Drive I/F:	
(Internal 50 pin header)	FAST SCSI-2
Raster Size:	720 X 480 (NTSC), 720 X 576 (PAL)
Video Performance:	
Frequency Response	0 - 5.0 MHz (±0.25 dB) 5.0 - 5.5 MHz (-1.5 dB)
K-Factor (2T)	<1%
Differential Phase	<1°
Differential Gain	<1%
Signal/Noise (Luma Weighted)	>68 dB (Playback Mode), >60 dB (All Modes)
Power Consumption:	
+5V	1.6 Amps
+12V	240 mA
-12V	50 mA
Total	11.5 Watts

### Optional AD-2500/3500 Component Video Capture Daughtercard:

Composite Video In (BNC)	1 V p-p 75 Ω
S-Video In (4-Pin Mini-DIN):	
Y Signal	1 V p-p 75 Ω
C Signal	286 mV (NTSC), 300 mV (PAL) p-p 75 Ω
Component Betacam In (BNCs):	
Y Signal	714 mV (NTSC), 1 V (PAL) p-p 75 Ω
R-Y, B-Y (Pr, Pb)	700 mV (NTSC), (PAL) p-p 75 Ω
Component MII In (BNCs):	
Y Signal	700 mV (NTSC) p-p 75 Ω
R-Y, B-Y (Pr, Pb)	486 mV (NTSC) p-p 75 Ω

### Optional SD-2500/3500 Serial Digital Video I/O Card:

Can be used in conjunction with or in lieu of AD-2500/3500 video capture daughtercard.

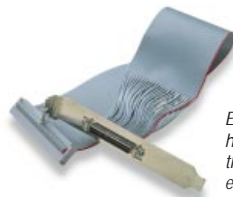
Direct Color Wideband Composite Video In (BNC)	1 V p-p 75 Ω
SDI (SMPT 259M) In (BNC)	75 Ω, Auto EQ to 300M
SDI (SMPT 259M) Out (BNC x 2)	75 Ω

### Host System Requirements:

- Intel Pentium or DEC ALPHA processor.
- 32 MB RAM (minimum)
- Windows NT™ (version 4.0 or higher).
- PCI Bus, SVGA (Accelerated Graphics Card Recommended), CD ROM drive and Mouse.

### Ordering Information:

PVR-2500	DPS Perception Video Recorder (NTSC)
PVR/AD-2500B	DPS Perception Video Recorder/ Video Capture Bundle (NTSC)
AD-2500	Optional Live Component Video Capture Daughtercard (NTSC)
SD-2500	Optional SDI Live Video I/O Card (NTSC)
PVR-3500	DPS Perception Video Recorder (PAL)
PVR/AD-3500B	DPS Perception Video Recorder/ Video Capture Bundle (PAL)
AD-3500	Optional Live Video Capture Daughtercard (PAL)
SD-3500	Optional SDI Live Video I/O Card (PAL)
774-540	Optional External High Density SCSI Adapter Kit
774-557	Optional 50 Pin to 68 Pin SCSI adapters permit use of wide drives
804-997	Optional PCI Extender Kit
PVR-422	Optional RS-422 pro VCR adapter for batch digitizing and VCR emulation



External Fast SCSI-2 hard drives connect to the PVR via the 774-540 external adapter.



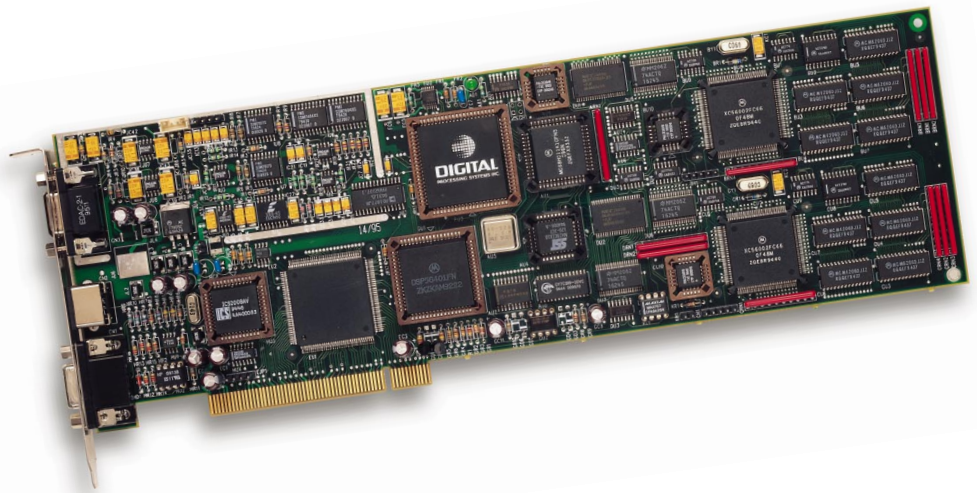
Breakout cables provide composite, S-Video and component (Betacam/MII) video outputs and a genlock input.

## Digital Audio For Video Recorder

- Perfect video/audio synchronization when used with the DPS Perception and Hollywood Video Recorders.
- True audio scrub.
- Non-linear, non-destructive audio editing. No waiting for edits to compile.
- Simultaneous record and playback. Up to four stereo tracks can be played while recording one stereo track.
- Real time 4-band Parametric EQ for each channel (assignable by stereo pair).
- Mix four stereo source tracks down to two output channels in real time.
- Real time reverb and compressor/limiter.
- Built-in LTC and VITC time code reader/generator/inserter. Easily create "window dubs" with TC info superimposed over composite or S-Video signal.
- Windows NT™ WAV device driver for compatibility with third party software.

The DPS Perception Audio for Video (A4V) board provides comprehensive audio post-production capabilities in a single add-in board. Used with the DPS Perception and Hollywood video recorders, it forms a complete audio/video finishing suite on the desktop.

The A4V board is a full length PCI bus card with input and output connections via supplied breakout cables. Digital audio is stored on a system hard drive. The A4V real time mixing functions are directly controlled by DPS Video Action PVR™ non-linear editing software. The card can also be used with third party video editing applications such as in:sync Speed Razor™ and Adobe Premiere® 4.2. To ensure compatibility with other popular audio applications, the DPS A4V records and plays standard uncompressed WAV files.



### SPECIFICATIONS:

Number of Tracks	8 (Grouped as 4 Stereo Pairs)
Quantization	16 bits
Sampling Rates:	
Online Quality	44.1/48KHz
Offline Quality	11/22.05 KHz
DSP	Dual 24-bit/66 MIPS
A/D converters	16-bit, 64 oversampled Sigma-Delta
D/A converters	18 bit res., 128x oversampled Sigma-Delta 1-bit converters
Frequency Response	20 Hz to 20 KHz, ±0.5 dB
Pitch Control	±6%
Dynamic Range	>87 dB (typ., A-weighted)
Total Harmonic Distortion	0.006%
Channel Separation	-90 dB @ 1 KHz
Digital I/O (RCA x 2)	S/PDIF Serial Digital In/Out
Analog Monaural Mic Input (3.5mm connector)	Unbalanced: -54 dBV @ 1 MΩ
Analog Audio Line Input	
Balanced (XLR-F x 2)	+4 dBm @ 600Ω (Nominal with 15 dB headroom)
Unbalanced (RCA x 2)	-10 dBV @ 100KΩ (Nominal with 15 dB headroom)
Analog Audio Line Output	
Balanced (XLR-M x 2)	+4 dBm @ 600Ω (Nominal with 15 dB headroom)
Unbalanced (RCA x 2)	-10 dBV @ 100 KΩ (Nominal with 15 dB headroom)

LTC Audio Input (RCA)	0.1 V - 5.0 p-p
LTC Audio Output (RCA)	1.0 V p-p (typ.)
Video I/O for VITC and LTC Window Dub	
Composite Video (BNC x 2)	1 V p-p 75Ω
S-Video (4-Pin Mini-DIN x 2)	
Y Signal	1 V p-p 75Ω
C Signal	286 mV p-p 75Ω
Power Consumption (Max.)	15 Watts

### Hard Drive Data Storage Requirements:

48 KHz	5.8 MB per minute per track
44.1 KHz	5.3 MB per minute per track
22.05 KHz	2.6 MB per minute per track

### Host System Requirements:

- Intel Pentium or higher CPU.
- 32 MB RAM (minimum).
- Windows NT™ (version 4.0 or higher).
- High performance SCSI hard drive with PCI SCSI host adapter or IDE drive using PCI Bus Master IDE driver.

### Ordering Information:

DAR-2500B	Perception A4V Audio For Video Recorder (NTSC Video I/O for time code reader/generator/insertor)
DAR-3500B	Perception A4V Audio For Video Recorder (PAL Video I/O for time code reader/generator/insertor)

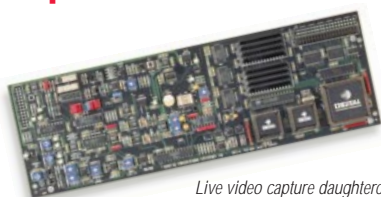


Standard audio cables support both balanced and unbalanced analog inputs and outputs plus S/PDIF digital I/O.

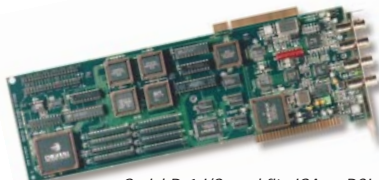


Composite and S-Video I/O cables for VITC time code reader/generator/insertor are included.

## Options



Live video capture daughtercard adds composite, component and Y/C inputs to PVR.



Serial D-1 I/O card fits ISA or PCI expansion slots. Adds SMPTE 259M I/O plus wideband composite video input.



The PVR-422 RS-422 adapter enables professional video decks to be directly controlled by the PVR during batch digitization. Can also be used to facilitate PVR VCR emulation.

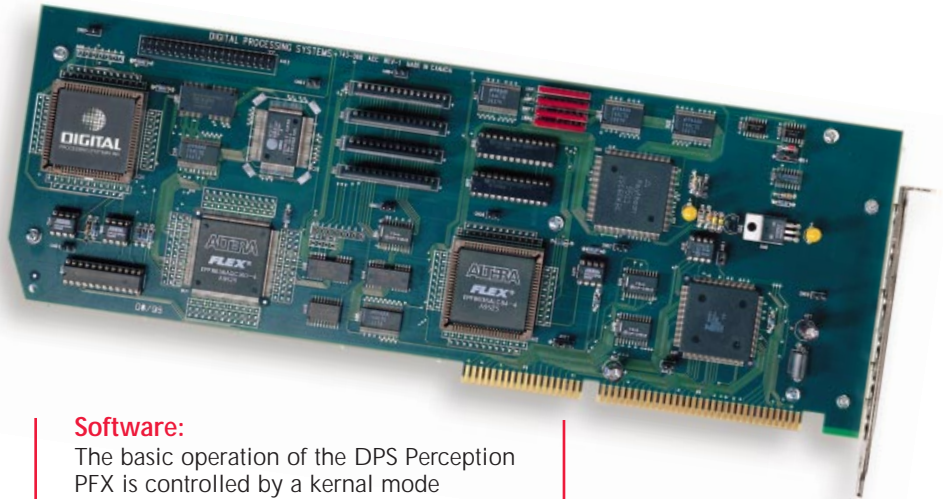
## Transition Accelerator

The DPS Perception PFX is an optional accessory for the DPS Perception Video Recorder which significantly reduces the time required to render complex non-linear editing transitions. Although the PFX does not provide real time transitions, it can improve the productivity of DPS Video Action PVR and other non-linear editing systems by dramatically speeding up the rendering of many transitions and effects.

A standard DPS Perception Video Recorder provides real time cuts between video clips. For other transitions, such as dissolves and wipes, a substantial delay can occur while the host CPU processes source frames on a pixel-by-pixel basis. A 30 frame dissolve can take minutes to render, even when using a fast CPU. The Perception PFX reduces this time to less than 10 seconds.

The Perception PFX is a full length plug-and-play ISA card which connects to the PVR CVE-2 bus via a supplied ribbon cable. It contains two channels of video memory, key channel memory, a key processor, image scaling hardware and a linear video mixer. Acceleration is accomplished by sending the PVR's native YUV digital video data directly to the PFX card's dedicated video processing hardware via a high speed digital link.

- All transitions and effects are processed in dedicated high-speed digital hardware rather than by using the host's CPU.
- The DPS CVE-2 "overhead bus" virtually eliminates delays in transferring PVR video frames to and from host memory via the PCI bus.
- Like the PVR, Perception PFX operates entirely in the YUV domain. This eliminates the need to perform time consuming RGB color space conversions.



### Software:

The basic operation of the DPS Perception PFX is controlled by a kernel mode Windows NT™ driver. The implementation of most PFX features is dependent on external application software. DPS Video Action PVR editing software provides native PFX support. A PFX plug-in for Adobe Premiere™ 4.2 is included as well. Plug-ins for other popular non-linear editing programs such as in:sync Speed Razor™ are also available.

### Effects:

- Accelerated rendering of transitions including cross fades to/from black or a specific color, dissolves, wipes and bordered wipes (with definable color and width).
- Instant cropping of video.
- Fast title (fixed color) superimpose with/without drop shadow plus roll and crawl.
- Graphics superimpose with alpha channel.
- Graphics superimpose with chroma key.
- Picture-in-a-picture superimpose with 2-dimensional anti-alias filtering.
- Instant horizontal and/or vertical flipping.

### Host System Requirements:

- Intel Pentium or higher CPU
- Available full length ISA bus expansion slot.
- 32 MB RAM (minimum).
- Windows NT™ (version 4.0 or later).
- DPS Video Action PVR or compatible third party editing software.
- DPS Perception Video Recorder with approved FAST SCSI-2 drive.

### Ordering Information:

FX-2500 . . . . . Perception Effects Accelerator (NTSC)  
 FX-3500 . . . . . Perception Effects Accelerator (PAL)



774-557 wide (68-pin) to narrow (50-pin) SCSI adapter allows use of wide SCSI drives with the PVR.



804-997 PCI Riser Kit is only needed when CPU fans or other motherboard obstructions prevent a PVR card from fitting into a particular PCI slot.



DPS Signal Agent provides a convenient hub for audio, video and time frame code connection. Desktop, floor and rack mount hardware included.

# DPS VideoAction PVR™

## DPS Video Action™ PVR Editing Software

DPS Video Action PVR is the ideal choice for digital video editing with the Perception Video Recorder. Video Action has taken digital video production to the next level, with over 1000 transitions, including dramatic effects such as realistic 3D page flips and natural water ripples.

Compositing, video trails, lens reflections, titles, flying video objects and more than 60 special effect filters are also available at your fingertips. This powerful set of custom editing tools is contained in an easy to use interface allowing you to free your creativity. Integrated with the PVR, PFX and A4V, Video Action PVR is the professional's choice in digital video editing.

### Easy to Use:

- Uncluttered interface with as-you-need-it feedback and options.
- Intuitive timeline editor with drag and drop functionality.
- Over 20 tools to ease your editing tasks
- A/V monitor feedback provides full quality audio and video feedback for accurate, precise editing.
- Dependable operations and auto-save reliably get the job done quickly and professionally.
- Instant cuts-only movie making with real time audio mix.
- Unlimited Undo/Redo retains rendered information, frees creativity, saves time.

### Special FX:

- Video Action includes a high-end digital video editor, advanced filters, dramatic transitions, video animation, title generation and sophisticated compositing.
- Over 60 customizable video processing filters can be combined to create unique effects and transitions.
  - 200+ dramatic transitions including page effects, water drops, wipes, dissolves, video cubes, balls, etc.
  - Over 40 transitions can be accelerated with the PFX accelerator.
  - 1000 pre-made 2D and 3D bonus transitions categorized for easy location and use.
  - Deluxe 3D FX Package for creating custom video explosions, advanced video screen animations and more.
  - Video Screen Animation with 2D and 3D flying video objects with motion control
  - 8 styles of compositing for accurate superimposition.
  - Key frames provide total control over all special effect parameters.
  - Preview effects show directly on video monitor.



Streamlined audio/video effects, timeline and clip gallery maximize productivity.

### Fully Integrated DPS Hardware Support: PVR

- Capture Perception video from within Video Action, video files are placed directly into gallery.
- Uses originally captured video in the final output, without generation loss.
- Selective Rendering renders only what is needed.

### PFX:

- Has the highest level of PFX support with over 40 accelerated effects.
- Picture-in-Picture filter acceleration includes moving PIP image with animated color borders and shadows.
- Freeze Frame and Color Frame filter acceleration.
- Horizontal, Vertical and Static titles... all accelerated.
- Automatically composite 32-bit Targa stills and sequences with acceleration.

### A4V:

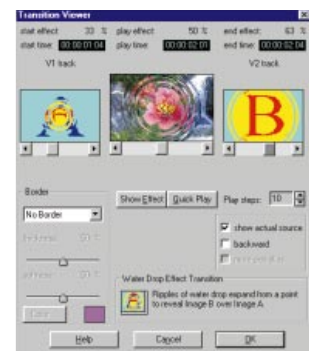
- Playback and record with perfect audio synchronization.
- Real time 4 track stereo preview.
- Mix up to 4 stereo tracks in real time.

### Host System Requirements:

- Intel Pentium or faster processor.
- 32 MB RAM (Minimum)
- Windows NT™ (version 4.0 or later).
- DPS Perception Video Recorder.

### Ordering Information:

VA-PVR . . . . . Video Action PVR



If more than 1,000 supplied transitions aren't enough, DPS Video Action makes it easy to create your own.



PFX accelerated transitions are outlined in red.

# DPS PERCEPTION™

WITH THE *Executive Producer®*

**This DPS Special Value Package Includes Everything You Need For Professional, Non-Linear Audio/Video Post Production\***



- Perception PVR Video Recorder.
- Perception AD Live Video Capture Daughtercard.
- Perception A4V Digital Audio For Video Recorder.
- Perception PFX Transition Accelerator.
- DPS Video Action PVR Editing Software.
- All necessary cables.
- The Executive Producer® LE logging software from Imagine Products

\* You supply the computer, hard drives and talent. Everything else is included in the Perception Special Value package.

Together, for the first time, at a very special price, are all the individual elements that comprise the award-winning DPS Perception line. The addition of our acclaimed DPS Video Action PVR editing software maximizes the full capabilities of the DPS hardware creating a genuine post production powerhouse. This complete editing system provides all the tools necessary to achieve a level of professional quality previously unattainable at this price.

**Host System Requirements:**

- PCI bus computer with two unobstructed full length PCI slots and one ISA slot.
- Pentium or faster processor.
- 32 MB RAM (minimum).
- Windows NT™ (version 4.0 or later).
- Accelerated SVGA graphics.
- Mouse, CD ROM drive, SCSI or IDE bus master system drive and a dedicated AV type SCSI-2 hard drive for PVR video.

**Ordering Information:**

PEP-2500 . . . . . Perception Post Production Package(NTSC)  
 PEP-3500 . . . . . Perception Post Production Package (PAL)

Please check DPS web site for current list of compatible hard drives.



www.dps.com

**HEADQUARTERS**  
 70 Valleywood Drive,  
 Markham, Ontario  
 L3R 4T5 Canada  
 905-944-4000  
 Fax: 905-944-4200  
 sales-ca@dps.com

**USA**  
 11 Spiral Drive,  
 Florence, KY 41042  
 859-371-5533  
 800-775-3314  
 Fax: 859-371-3729  
 sales-us@dps.com

**EUROPE**  
 Romans Business Park, Unit 9  
 East Street, Farnham,  
 Surrey, GU9 7SX U.K.  
 1252-718300  
 Fax: 1252-718400  
 sales-uk@dps.com

**ASIA-PACIFIC**  
 858 King Georges Road  
 South Hurstville NSW 2221  
 Sydney, Australia  
 61-2-9547-0088  
 Fax: 61-2-9547-0988  
 sales-au@dps.com

Unless otherwise noted, all I/O connections are via supplied breakout cables. CAV levels referenced to 75% NTSC color bars (100% PAL color bars). AD-2500/3500 frequency response greater than 5.5 MHz except composite input limited to 2.5 MHz. DPS Video Action, Perception PVR, A4V, & PFX, are trademarks of Digital Processing Systems, Inc. All other trademarks property of their respective holders. Specifications are subject to change without notice. The Executive Producer® is a registered trade mark of Imagine Products, Inc., and is used under license.