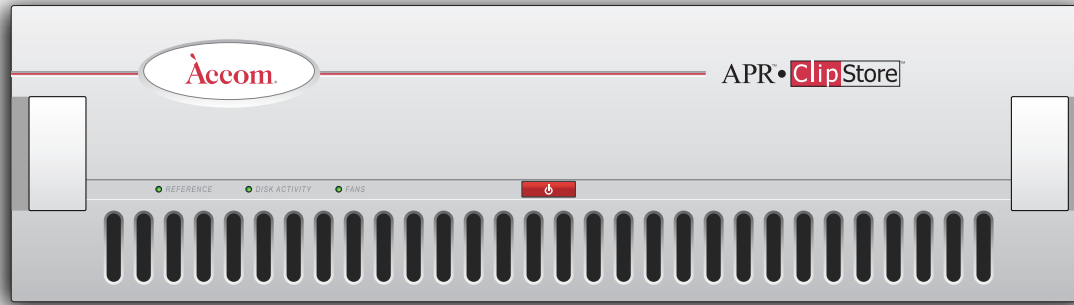


# Video+Key+Audio Storage & Playback. Removable Media Disks. Uncompressed 10-Bit Quality. Tantalizing Low Price!



**Accom, the company that invented the desktop digital video disk recorder over 16 years ago, is proud to present its latest offering in the product line — APR™/ClipStore™ Standard-Definition Digital Disk Recorder.**

The APR/ClipStore disk recorder features built-in removable disk storage and provides the most robust feature set of any professional digital disk recorder (DDR) on the market today — with an extremely attractive price! The ClipStore disk recorder includes video and key recording capability as a standard feature, providing capture and storage of pristine, uncompressed 10-bit digital video+key content in standard definition (SD). AES/EBU digital audio recording is an optional feature. ClipStore provides real-time playback for captured and rendered material, and is operationally plug-and-play — so there's no steep learning curve, and there's no need to add boards or partition a drive. Since the ClipStore disk recorder features "movie-based" storage and the same graphical user interface as its big brother DDR, the WSD/HDi, a simple click of the mouse allows users to immediately organize, load and play movies. It's that easy and it's that flexible! So, whether you're working on SD capture, rendering, or live on-air playout projects, the ClipStore disk recorder is the perfect uncompressed real-time video+key+audio I/O and storage solution.

**If you work in any of the following environments:**

- **Live-to-Air Broadcast Playback**
- **Editing / Post Production**
- **Animation**
- **Graphics / Special Effects**
- **Large Venue Presentation**
- **Media Encoding**
- **Scientific Visualization**
- **Telecine**
- **Video Compression Research**

**...the APR/ClipStore disk recorder is a marvelous machine to own!**

## **ENTICING FEATURE SET**

Don't let the extremely low cost of the APR/ClipStore disk recorder fool you — this machine has a feature set that will satisfy even the most demanding applications. For example, the Import/Export utility easily interfaces ClipStore with a network of graphics rendering computers without concern for proprietary file formats. This eliminates the need for complex transfer scripting or specialized programming skills. The Import utility can monitor up to five user-defined directories for the arrival of single-frame image files. As soon as the first image file arrives, the Import utility goes to work by automatically creating a movie having the same name as the image file, and inserts the frame into that movie. The remaining frames arriving in the import directory are then automatically inserted into the same movie. This import process typically runs faster than the rendering operation that's creating the image files, thus providing a ready-to-play movie immediately after rendering is finished.

On the export side of the equation, while the ClipStore disk recorder is busy recording real-time input video into a stored movie, the Export utility can transfer individual frames from that movie (or from any other stored movie) to any computer, disk drive or film printer on the local computer network. For both import and export, all popular image file formats are supported, such as DPX, SGI, RGB, TGA, TIF and PSD — just to name a few.

## **ENCODE TO YOUR HEART'S CONTENT**

ClipStore disk recorder also features built-in Windows® Media Encoder 9 Series™ capability. This allows recorded footage to be conveniently encoded for remote delivery, for a variety of needs. For example, digital dailies can be created, DVD content can be authored, or web video streams can be produced directly from ClipStore. Customizable encoding profiles allow movies to be delivered in a range of file sizes — from compact VHS-quality to uncompressed for superior production review, web trailers or DVD content.

## **DUAL FORMAT / MULTIPLE APPLICATIONS**

ClipStore records video+key in both 525 and 625 line standards with flawless 10-bit uncompressed quality. Whether creating or presenting animations and special effects for live broadcast, editing for television, or recording and playing movies in post production, ClipStore sets the standard for reliable, high-quality performance. By a wide margin, ClipStore provides the perfect uncompressed recording solution for SD VTR replacement in a variety of applications.

## **VTR — DDR TRANSFERS**

The ClipStore disk recorder features two RS422 serial control ports with Sony protocol, one master port for frame-accurate control of an external VTR, and one slave port to control ClipStore from an external edit controller. The convenient built-in Auto Edit feature allows you to capture media from videotape into the disk recorder for editing tasks, graphics work, effects work and media encoding — or Auto Edit can be used to transfer finished computer graphics and effects work to videotape for archiving or client distribution.

## **ETHERNET API**

The ClipStore disk recorder features an application programming interface (API) available through the standard Gigabit Ethernet port. This API provides the ability to control all attributes of ClipStore via remote shell (rsh) and remote login (rlogin) commands, and provides image transfer capabilities via remote copy (rcp) commands. ClipStore users and third-party vendors with programming skills can create user-defined applications to control all aspects of ClipStore, including image transfer with external computer graphics equipment. This Ethernet API is built upon the API used in an earlier

Accom DDR product, WSD/2Xtreme — so applications designed for this predecessor product will seamlessly operate on the features common to the WSD/2Xtreme as well as the ClipStore disk recorder.

## NETPANEL CONTROL

Graphics and effects work for live broadcast & television editing and post-production require complex interactions with a multi-user collaborative workflow. The ClipStore disk recorder has been designed specifically for today's highly networked production environment, providing access to all users with control through the unique, browser-based NetPanel™ user interface. NetPanel is an OS-independent HTML/Java2 applet that runs from Microsoft® Internet Explorer or Netscape® browsers on any Windows, Macintosh, Irix or Linux networked computer (Java2 plug-in required). You can mix Windows, Irix, Macintosh and Linux workstations on the same network as the ClipStore disk recorder, with control over the disk recorder from any of these remote workstations. NetPanel provides simple and easy machine control, movie filing & management, and system setup & configuration. NetPanel can also run on the ClipStore platform itself for stand-alone operation (user-supplied VGA monitor required).

## STANDARD FEATURES

- Uncompressed Standard-Definition Digital Disk Recorder Platform
- SDTV 10-Bit YUV 4:2:2 SDI Video I/O (525/625)
- JBOD Video, Key & optional Audio Storage (>1 Hour Storage time)
- Windows-XP OS and NT File System (NTSF)
- QuickTime™ Compliant Movie-Based Storage
- HTML/Java2 Graphical NetPanel User Interface
- (2) Sony protocol RS422 ports for VTR Control and Edit
- 10-T / 100-T / 1000-T (Gigabit) Ethernet
- Application Programming Interface (API) including rcp, rsh and rlogin
- Import / Export Utility for automatic import of image files and export to popular image files including RGB, TIF, TGA, SGI, YUV, PNG, JPG, PSD, etc.
- Windows Media Series 9 Encoding with user-defined profiles
- Normal, Looping and Ping Pong play repeat Modes
- Auto Edit for frame-accurate VTR loading and archiving
- Vertical Interpolator for Smooth Slow Motion Playback
- Variable Play Mode with Field/Frame Access
- CineAdd 3:2 Pulldown playback
- Timecode Offset stored with each movie
- Poster Image stored with each movie
- Segment List Play
- Analog Reference for SDTV (525/625)
- Built-in Video Test Patterns and Audio Tones
- Windows Keyboard and Mouse on PS/2
- ShuttlePRO™ Hardware Controller from Contour Design

## OPTIONAL FEATURES

- Larger capacity storage times
- Digital Audio Option
  - 4 Individual Audio Tracks (2 stereo pairs)
  - AES/EBU, 24-Bit Resolution with 48kHz Sampling
  - Handles AC-3 and Dolby-E Bit Streams
  - Analog Monitoring: Balanced, line-level on (4) XLR connectors
  - Independent record/edit of each audio track
- LTC Timecode In/Out



**Accom, Inc.**  
1490 O'Brien Drive  
Menlo Park, Ca 94025 USA  
Tel 650.328.3818  
Fax 650.327.2511

[www.accom.com](http://www.accom.com)

## SPECIFICATIONS: STANDARD FEATURES

### DIGITAL VIDEO INPUT

Standard Definition:

- SDI SMPTE 259M (10-bit at 270 Mb/s) (1) F BNC

### DIGITAL VIDEO OUTPUT

Standard Definition:

- SDI SMPTE 259M (10-bit at 270 Mb/s) (1) F BNC

### DIGITAL KEY INPUT

Standard Definition:

- SDI SMPTE 259M (10-bit at 270 Mb/s) (1) F BNC

### DIGITAL KEY OUTPUT

Standard Definition:

- SDI SMPTE 259M (10-bit at 270 Mb/s) (1) F BNC

### SUPPORTED VIDEO FORMATS

Uncompressed with 10-Bit Resolution

Standard Definition 4:2:2:4 YUV

- 720x486 (525): /59.94i (ITU-R/BT.601-4)
- 720x576 (625): /50i (ITU-R/BT.601-4)

### ANALOG REFERENCE INPUT (TERMINATING)

- Composite Analog SD 525/625 (1) F BNC

### DATA / CONTROL

- RS422 Serial Control, Sony Protocol
  - Master Port (1) F 9D
  - Slave Port (1) F 9D
- VGA (1) F 15D
- 10-T / 100-T / 1000-T (Gigabit) Ethernet (1) F RJ45
- USB 2.0 Hi-Speed "Series A" Receptacle (4) F USB-A
- QWERTY Keyboard (1) F PS/2
- Mouse (1) F PS/2

### MAIN CHASSIS PHYSICAL & ELECTRICAL

- Rack-Mount Configuration Dimensions:
  - W = 19.0 in / H = 5.25 in / D = 16.0 in
  - W = 48.3 cm / H = 13.3 cm / D = 40.6 cm
- Maximum Weight, Video+Key: 32.4 lbs. (14.7 kg)
- Maximum Weight, Video+Key+Audio: 34.2 lbs. (15.5 kg)
- Power: <300 Watts / 100-240 VAC / 50-60Hz / 6.3A (Auto-sensing power input)

### SAFETY & EMISSIONS

- CE, TUV
- FCC Class A, EN55103

## SPECIFICATIONS: OPTIONAL FEATURES

### DIGITAL AUDIO INPUT

- AES/EBU 48kHz at 24-bit resolution  
4-Tracks (2 stereo pairs) (2) F BNC

### DIGITAL AUDIO OUTPUT

- AES/EBU 48kHz at 24-bit resolution  
4-Tracks (2 stereo pairs) (2) F BNC

### ANALOG AUDIO OUTPUT

- Balanced, line-level  
4-Tracks (2 stereo pairs) (4) M XLR

### LTC TIMECODE

- LTC Input, balanced (1) F XLR
- LTC Output, balanced (1) M XLR