

# miroVIDEO DC1000

## Hardware

- DC1000 PCI card
- Breakout box
- Optional: DV interface

## Software

- Adobe Premiere 5.1 RT
- Minerva Impression CD pro
- Pinnacle TitleDeko
- Pixelan Video Spice Rack Effects
- Adobe PhotoShop 4.0 LE
- SmartGOP™ MPEG-2 IP Editing
- miroINSTANT Video™ for real-time 2D effects, intelligent 3D and layered effects rendering and efficient hard disk usage

## DV I/O Upgrade

- IEEE-1394 I/O daughter card (field upgradeable)
- Requires one back plate for I/O connectors

## System Requirements

- PC system
- Pentium II® or faster compatible processor
- 1 x 32-bit PCI 2.1 slot
- 128 Mbyte RAM (256 MB recommended)
- 500 Mbyte hard disk capacity
- 4 Gbyte SCSI video hard disk (9 GB recommended)
- 16-bit display adapter with DirectDraw drivers
- CD-ROM drive
- Sound board
- External video monitor
- Windows® NT 4.0 (Windows® 95/98 will be shipped later)



## Technical Data

### Hardware:

32-bit PCI bus mastering expansion card

### Data rate:

Up to 50 Mbit per second in dual stream mode, 25 Mbit per stream

### Frame rate:

25/30 frames per second; 50/60 fields per second (PAL/NTSC)

### Digitization and playback:

In real time. Resolution up to 720 x 576 (PAL/SECAM) or 720 x 480 (NTSC) in studio quality 4:2:2 YUV, True Color

### Video inputs:

1 x composite video (CVBS), RCA (cinch) jack, high-quality PAL comb filter, 1 x S-Video (Y/C), mini-DIN, IEEE1394/DV optional

### Video outputs:

1 x composite video (CVBS), RCA (cinch) jack, 1 x S-Video (Y/C), mini-DIN, IEEE1394/DV optional

### Video standard:

PAL, NTSC (US Version NTSC only)

### Video systems:

Betacam, DV, Digital 8, S-VHS, Hi8, VHS, Video8

### Adjustable parameters:

Brightness, contrast, saturation, colour value, bit rate

### Real-time effects:

2-channel mixer with real-time bit manipulation

### Video overlay:

Video overlay chip for real-time monitoring on computer screen

### Audio inputs/outputs:

Stereo, 2 x RCA (cinch) jack/Stereo, 2 x RCA (cinch) jack

### Audio input level:

0 dB, -20 dB, selectable

### Audio recording and playback:

In real time, directly to/from hard disk in full CD/DAT stereo audio quality.

### Selectable sampling formats:

16-bit stereo 44.1kHz, 16-bit stereo 48kHz, 12-bit stereo 32kHz (DV).

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The next generation of digital video editing technology is here.

## NEXT GENERATION MPEG-2 DIGITAL VIDEO EDITING

The Pinnacle Systems DC1000 is a dual stream digital video editing card that plays effects, titles, and filters from the editing timeline with no rendering. By using state-of-the-art MPEG-2 IP technology, DC1000 can capture and frame-accurately edit full bandwidth 4:2:2 YUV broadcast quality digital video at data rates up to 50% lower than systems using M-JPEG.

miroVIDEO DC1000

# DC1000

## miroVIDEO

DC1000 is a complete digital content creation system for corporate, event, and professional digital video artists. It includes Adobe® Premiere® RT5.1 real time video editing software, and Pinnacle Systems TitleDeko™ character generator plug-in for Premiere. DC1000 includes a high-quality breakout box for convenient connection to your camcorder, VTR, or audio devices. An optional IEEE-1394 DV (FireWire) I/O option is available, providing real time DV/MPEG-2 transcoding for use with DV camcorders.

Whether you need to deliver your productions on videotape, video CD, DVD, or on the Internet, DC1000 is the tool for you.

### The Power of MPEG-2

The next generation of video is digital and MPEG-2 is the world-wide digital standard in digital video editing and delivery. Used for broadcast video delivery and DVD authoring, MPEG-2 provides incredible quality. This same quality is now available to everyone on the Pinnacle Systems DC1000. The unique, highly efficient delta frame processing format of MPEG-2 allows it to deliver superior video quality at much lower data bandwidths and storage requirements than other formats. MPEG-2 is the standard adopted by the video industry, and was designed specifically for moving video, offering universal acceptance and robustness for the most demanding digital video editing and video delivery applications.

### Advantages of MPEG-2

The major advantage of the MPEG-2 digital video compression is that, unlike M-JPEG, MPEG-2 does not store a full frame of digital video for every frame of video supplied to the DC1000. By using groups of pictures (GOP), DC1000 saves one frame of video and then only the changes from that frame for the next three frames (IPPP). The resulting quality is equal to or superior to that of M-JPEG, while the amount of data saved to the hard disk is only a fraction of what M-JPEG requires. After you finish editing your video project, you can print it to an analogue or digital tape, or save your movie in the MP@ML DVD MPEG-2 format.

### SmartGOP™

For the first time, this technology makes it possible to edit compressed MPEG-2 groups of pictures frame-by-frame without a loss in quality. The SmartGOP™ software manages the compressed groups of pictures belonging to a video and permits direct access to individual frames.

SmartGOP™ is the prerequisite for the ability to use MPEG-2 videos with delta frame encoding and low data rates for non-linear video editing.

### Real-time Processing

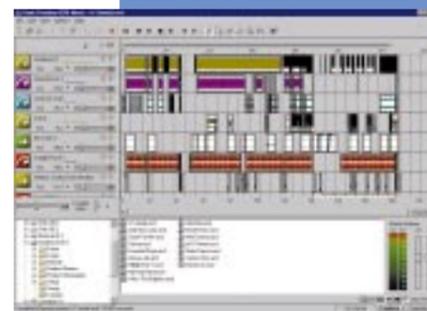
The miroVIDEO DC1000 is equipped with a real-time mixer, making it possible to mix and output, according to the specifications of an effect, two videos that are simultaneously being played back from the hard disk. This method is especially useful for crossfades and dissolves, since these consist of two chronologically overlapping videos. Real-time playback occurs via either the analogue or digital ports of the card.

miroVIDEO DC1000 can reproduce more than 200 effects in real-time. miroVIDEO DC1000 can even superimpose colour titles and other graphics over a video without prior rendering.

DC1000, installed in an off-the-shelf computer, can deliver the quality and results previously achievable only with special high-end workstation-based NLE systems.



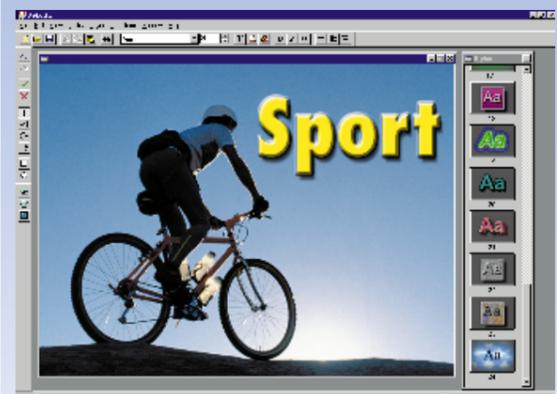
DC1000 with Adobe Premiere RT delivers fast results! Hundreds of digital video effects, video filters and titles can be played back without having to render, making the editing process easy and interactive!



Sonic Foundry's ACID Music makes it easy to create custom license free music for your productions.



Mit Impression CD pro erstellen Sie fantastische Multimedia Produktionen auf CD



Pinnacle Systems TitleDeko adds amazing creativity and impact with Hollywood-quality titles. Hundreds of styles including rolls, crawls, shapes, neon, metallic, and soft edges are all user adjustable and can be applied to any fonts.



### Key Features/Benefits

- 50 Mbit Dual stream playback (25Mbit per stream)
- Real time video transitions, titles and filters 4:2:2P@ML MPEG-2 format provides broadcast quality ITU-R BT 601 standard video
- IP compression method delivers broadcast-quality video at 50% lower data storage requirements than M-PEG
- Full resolution video 720x576 25 fps (PAL), 720x480 29.97fps (NTSC), with high-quality VGA overlay
- Lip-sync CD/DAT quality stereo audio up to 48kHz 16bit
- miroINSTANT Video for intelligent rendering of non-real time segments
- Pinnacle Systems TitleDeko character generator plug-in for Premiere®
- Sonic Foundry ACID Music loop-based music track creation software
- More than 300 Pixelan SpiceRack real time transitions
- Full AVI compatibility for easy use with existing applications (Adobe® After Effects, Kinetix 3D Studio MAX, etc.)
- External breakout box for convenient A/V connections
- DV IEEE-1394 I/O upgrade for use with DV camcorders

### MPEG-2 Advantages

- Widely accepted format for broadcast and digital video delivery
- Broadcast quality 4:2:2 YUV video at low data rates
- 50% more efficient than M-JPEG
- State-of-the-art technology
- Flexible hard disk compatibility and low storage requirements
- Ideal for DVD, video CDs, and Internet delivery
- Frame accurate editing with 4:2:2P@ML IP format

### Coming soon: DVD Authoring with miroVIDEO DVD1000.

DVD is quickly becoming the digital video distribution format of choice. Pinnacle Systems provides also the miroVIDEO DVD1000 system to easily create your own DVDs with all the quality and interactivity you find on today's studio titles. Your DVDs can be played then in home DVD players, as well as computer-based DVD-ROM drives.