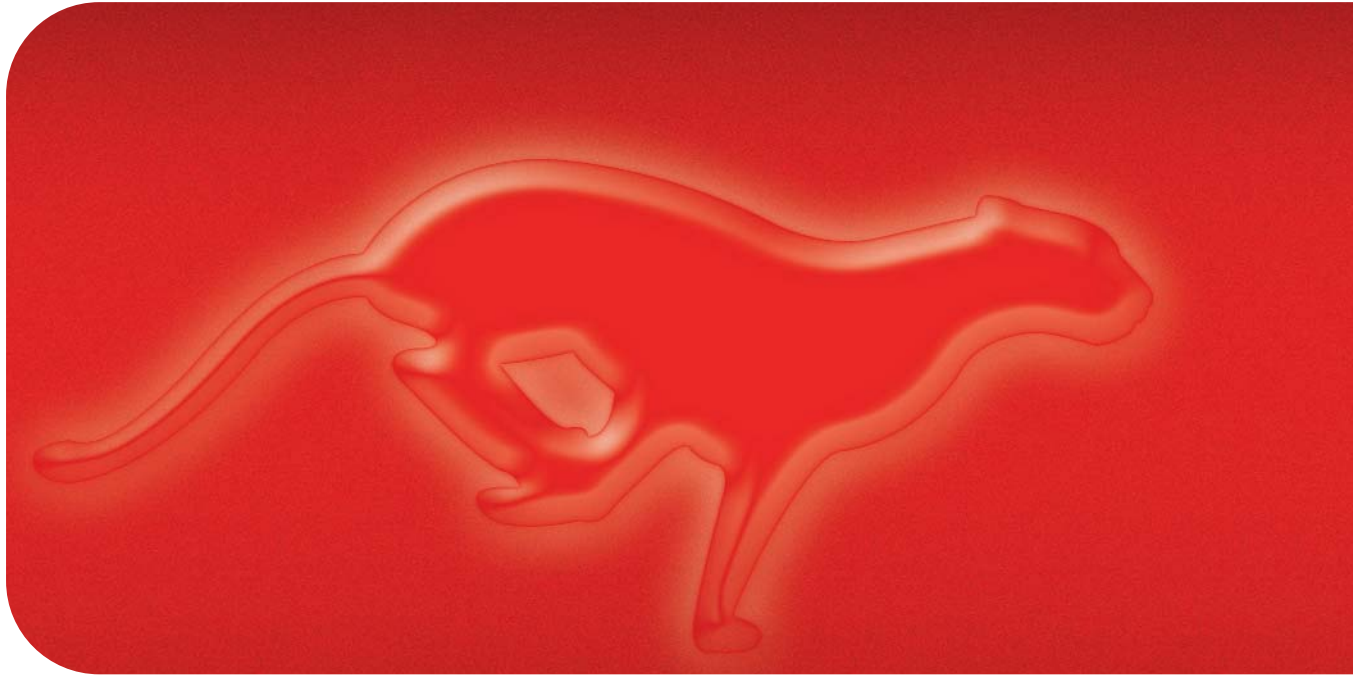# Editing Solutions for MAC
CinéWave™ Family

LIVE
PRODUCTION

EDITING

CONTENT
DELIVERY

NEWS
PRODUCTION

SPORTS
ANALYSIS

OEM
DEVELOPER

connecting
creativity

 PINNACLE
SYSTEMS
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CinéWave 4.6

Image Courtesy of Colossalvision

Why CinéWave?

Pinnacle's CinéWave quickly and easily transforms your Mac® OS X-equipped Power Mac® into a top-of-the-line production house.

The TARGA® Ciné Engine furnishes more than 40 real-time SD and HD uncompressed effects alone, and you get hundreds more CPU-driven effects using Apple's RT Extreme. The TARGA Ciné Engine also supports mixed formats.

CinéWave's all-new DupliCiné enables you to view all or part of your desktop on a NTSC/PAL or HD monitor. Whether you're using Apple Shake® or Adobe Photoshop®, now you can see what you're creating with real-time SD and HD simultaneous video output.

CinéAcquire™, CinéWave's deck-and-device control application, lets you grab frames, batch capture, or record to tape directly from inside Adobe After Effects® and Pinnacle Commotion Pro™, or as a stand-alone application.

At any time, you can start editing uncompressed HD. CinéWave has the flexibility and scalability to capture, edit, and simultaneously output into all popular professional SD and HD formats. All of this, with industry leading 8- and 16-bit codecs, a comprehensive array of online and offline formats, and complete QuickTime® compatibility.

Image Courtesy of Today Video, Inc.

Image Courtesy of Perception

CinéWave 4.6
REDEFINING BROADCAST AND POST-PRODUCTION

Get Real with DV100
- Comprehensive HD support for DV100 (Panasonic DVCPRO/HD) editing in all popular formats
- Capture and compress in real-time to DV100 from all popular HD formats, frame rates and legacy HD decks and devices through HD-SDI. Seamlessly transcode popular formats and frame rates in real-time (e.g. 1080/24PsF to 720/24p)
- Complete support for all frame rates including overcrank and undercrank video with Panasonic's VariCam progressive scan variable frame rate HD camcorder
- Full support for native FireWire® capture of DV100 directly from the all new Panasonic AJ-HD1200A deck
- True real-time multi-stream HD DV100 editing and effects with simultaneous monitoring of video on SD and HD monitors

Best of All Worlds
- Now equips your CPU to process up to seven uncompressed SD streams in real-time with video out using Apple's RT Extreme
- No matter what your CPU, the built-in TARGA Ciné Engine gives you the power to support mixed formats*, 16-bit video, embedded moving alpha*, simultaneous standard definition (SD) and high definition (HD) outputs

Get Down with High Definition
- Full quality, real-time keyframeable uncompressed HD image control filters with simultaneous SD downconvert and Pan & Scan capabilities* in all popular HD formats
- Keyframeable uncompressed HD video controls: phase for color adjustment, setup for adjusting black range, video levels for adjusting brightness and chroma level for adjusting saturation

Turn It Up a Bit
- Full hardware support for multi-track 24-bit audio

Play It Straight... to Your Monitor
- The all-new DupliCiné™ supports desktop mirroring for absolutely any application, including Apple Shake® and Adobe Photoshop®, while complementing the existing RAM-preview capacity of applications like Adobe After Effects®, Pinnacle Commotion Pro™, and combustion®

Get On the Fast Track
- PCI-X compatibility and a screaming fast 66 MHz bus interface

*Requires CinéWave RT Pro Software

Images Courtesy of KUAT-TV

CinéWave HD Gives a Voice to PBS
THE DESERT SPEAKS

KUAT-TV in Tucson, AZ, uses CinéWave HD to produce "The Desert Speaks", which is distributed in high and standard definition to over 100 PBS stations nationwide.

Every grain of sand and spiny plant is captured in HD 1080i at 29.97 fps and downconverted to Beta SP. An offline is completed on Media 100®, which provides the list that KUAT uses to export an EDL into Final Cut Pro®. Then KUAT's editors conform the HD materials, uncompressed, using CinéWave. They do all their tweaks and the final packaging with CinéWave and then print it back to tape.

KUAT bought the CinéWave HD system after seeing it in action at the NAB show. "What impressed us was that it was uncompressed, and it was a working demo at NAB," says director/editor Dan Duncan. "Others were talking about it and saying their product could do it, but it was either freezing up the systems or they weren't able to give us a hands-on demo at all.

"We were impressed with the system, but you never know for sure how it will work until you crank out a couple of them," says Duncan. "We are extremely happy and satisfied. There were almost none, if any, hiccups."

CinéWave 4.6

Essential CinéWave

Image Courtesy of Today Video, Inc.

Image Courtesy of Perception

Faith Hill
Image Courtesy of Today Video, Inc.

Image Courtesy of Perception

Image Courtesy of Today Video, Inc.

All CinéWave products feature groundbreaking new real-time capabilities, full 24-bit audio support, desktop mirroring for any program, and full support for Apple's RT Extreme with video out. CinéWave is bundled with a screaming fast 66 MHz bus interface with PCI-X compatibility for transfer speeds that will blow your mind.

CinéWave provides unrivaled real-time support powered by both the CPU and the TARGA Ciné Engine. The supercharged TARGA Ciné Engine drives real-time processing of mixed formats, 16-bit video, embedded moving alpha, simultaneous standard definition (SD) and high definition (HD) output, and many more features. CinéWave also supports Apple's RT Extreme, processing up to seven uncompressed SD streams in real-time with video out.

For lightning quick HD I/O, CinéWave comes bundled with a PCI-X compatible, 66 MHz bus interface. It also includes full hardware support for mastering 24-bit audio with SD and HD I/O, with Steinberg's Nuendo™, the audio tool for professional mixing.

CinéWave 4.6 Classic RT

CinéWave 4.6 Classic RT is uniquely suited for broadcast designers or editors that already have Final Cut Pro and/or Commotion Pro. It is ideal for creating graphic intensive intros, outros, IDs, and promos and features over 20 real-time uncompressed effects in addition to full support for Apple RT Extreme with video out when used with Apple's Final Cut Pro.

CinéWave's all-new DupliCiné enables you to see all or part of your desktop on your NTSC/PAL and/or HD monitor. Now you can see what you're creating in real-time SD and HD, whether you're using Apple Shake or Adobe Photoshop, as well as all RAM preview programs. CinéWave also comes bundled with CinéAcquire™, which lets broadcast designers grab frames, batch capture or record to tape directly from inside of Adobe After Effects and Pinnacle Commotion Pro, or as a stand-alone application. CinéAcquire supports PhotoJPEG, DV25, DV50, uncompressed NTSC, PAL and HD formats including 720p with complete FireWire® and RS-422 deck and device control.

CinéWave 4.6 Classic RT offers the same, clean, 8- or 16-bit, uncompressed quality as all CinéWave products. It integrates seamlessly with any QuickTime® native application and provides video-out support for NTSC/PAL and most popular HD formats.

CinéWave 4.6 RT

CinéWave 4.6 RT combines CinéWave's robust hardware (TARGA Ciné Engine) with an unbeatable software package, including: Final Cut Pro, Apple's Emmy® award-winning video editing program; Commotion Pro, Pinnacle's leading effects editor; Knoll Light Factory, the industry's most widely used lighting effects tool; and CinéAcquire, which provides direct, frame accurate, machine control for video capture and record-to-tape.

The infinite layering, awesome effects, advanced real-time non-linear editing combined with the fastest and most accurate motion tracker, paint, and compositing tools will change your life.

Image Courtesy of Today Video, Inc.

Supercharged CinéWave

CinéWave 4.6 RT Pro

CinéWave 4.6 RT Pro offers over 40 high quality, real-time effects—the most comprehensive, CPU-independent RT effects set of any Final Cut Pro-based solution. With CinéWave 4.6 RT Pro, you can composite up to five real-time tracks (3 video and 2 graphics with alpha channel) and conduct real-time playback of Apple LiveType and the Animation codec. It also includes real-time effects support for DV25/DV50, PhotoJPEG, 8-, 10- and 16-bit uncompressed sources separately or mixed in the same timeline while maintaining video out. Plus, CinéWave RT Pro's real-time effects and transitions can be mastered to tape without rendering. Of course, CinéWave RT Pro also fully supports Apple's RT Extreme with video out.

Other features include real-time, keyframeable Time Remap with field blending, embedded moving alpha, support for real-time effects in 24 (or 23.976) FPS and real-time, keyframeable HD (16:9) Pan & Scan downconvert to uncompressed SD (4:3) with simultaneous live SD and HD outputs.

CinéWave 4.6 RT Pro is an easily installed software upgrade with no new learning curve. The Final Cut Pro interface remains exactly the same.

CinéWave 4.6 HD

Absolutely every CinéWave system can edit true HD. With the addition of an HD breakout box, you now have HD I/O. CinéWave flawlessly handles uncompressed 1080i/30, 1080i/25, 1080p/24, and even 1080p/23.98 fps for true 23.976 editing support in Final Cut Pro and downconvert for offlines.

CinéWave HD supports true 24-frame film editing from acquisition to distribution. Editing at 24 fps means there is no need for error prone, time consuming, frame rate conversions. In fact, now with PhotoJPEG, DV25/DV50 and CinéOffline in 4:3 or 16:9, you can even maintain 24 fps in the offline mode. Of course, if you prefer to edit in 29.97 fps, CinéWave is ready.

CinéWave Advantage

The Real-Time King
- Only mixed format real-time solution (PhotoJPEG, DV25, DV50, Apple LiveType, Animation, RGBA, CinéOffline and full uncompressed SD 8-, 10- or 16-bit clips). *
- Only real-time support for Apple LiveType, Animation codec, RGBA, time remap with field blending, keys and 16-bit sources. *
- Only true CPU independent multi-stream solution in the space - get up to five streams on a 400 MHz G4! *
- Get up to seven uncompressed layers in real-time with full support for Apple RT Extreme with video out.

Size Does Matter
- True native HD editing on every single CinéWave unit.
- External detachable HD breakout box makes HD I/O available to all.
- Real-time keyframeable uncompressed HD image correction with simultaneous SD downconvert. *
- Complete support for all frame rates including overcrank and undercrank video with Panasonic's VariCam progressive scan variable frame rate HD camcorder.
- True real-time multi-stream HD DV100 editing and effects with simultaneous monitoring of video on SD and HD monitors.
- Capture and compress in real-time to DV100 from all popular HD formats, frame rates and legacy HD decks and devices through HD-SDI.
- Keyframeable uncompressed HD Pan & Scan downconvert to uncompressed SD with simultaneous live SD and HD outputs. *

The Features and Support You Need, When You Need Them - NOW!
- Only solution with two simultaneous outputs at all times.
- By far the most native I/O options from a single solution.
- Only solution supporting Steinberg Nuendo with video out.
- Only solution supporting Commotion Pro RAM preview.
- Real-time reverse telecine from 30 or 29.97 fps video capture to 24(23.98) fps footage in both HD and SD formats with support for DV25/DV50/DV100 and PhotoJPEG compression as well as full uncompressed.

CinéWave 4.6

Look Whose Talking

"Once you use the real-time effects, you can't go without it. It goes so much quicker, and you can try so many more things. The color correct is so strong and fast that I find I apply it to most shots now. By combining CinéWave with Final Cut Pro and Mac OSX, you get an enormous amount of flexibility that you don't have with Avid®."

Todd Sali,
The Sandbox

"It's a powerful combination. With Xserve® and the CinéWave card, it makes it almost as simple as working with DV again. It's just that reliable. I don't need to question whether my drive is going to perform. I've laid off hour-and-a-half programs at a time without worrying about dropping frames, or I've captured 30 minutes at a time without worrying about dropped frames. Now we're very, very happy with the performance. The card looks great."

Michael Friedman,
iPostini

"The equipment has worked flawlessly. It's a huge jump in capability. That's in part due to CinéWave's capabilities and Final Cut Pro 4. Between the two, we have the power of a major post-production facility with color correction and real-time, music, all kinds of things. It has upped our capability by 1,000%."

Roy Cox,
Roy Cox Productions

Images Courtesy of Dale Launer

"My Cousin Vinny"
WRITER GOES INDIE WITH CINÉWAVE

Dale Launer has written films that he's sold for "fistfuls of cash," including "My Cousin Vinny," "Dirty Rotten Scoundrels," and "Ruthless People." But Launer wanted to go indie. He explored doing movies on film, but found it highly expensive and labor intensive. So he went to NAB.
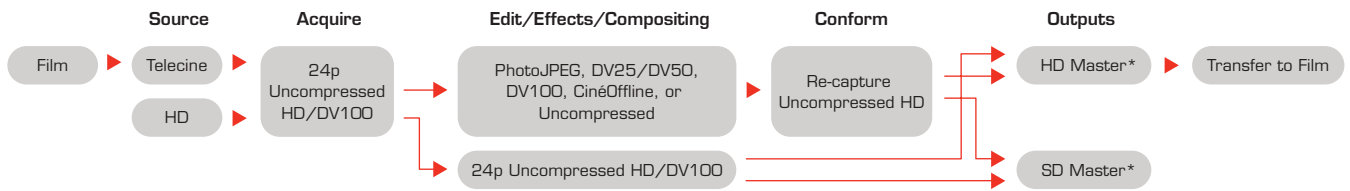
"They were talking about uncompressed high definition. I knew what high definition was, but uncompressed?" he says. He started exploring video editing and figured out what 'uncompressed' meant. "I realized if you're not cutting uncompressed, then you're missing the entire advantage of digital.

"I did some research and came to the conclusion that there was only one possible solution for editing online high definition video, and that was the Pinnacle CinéWave. All roads led to CinéWave." Since his whole plan is to minimize costs while maximizing quality and profit, he's especially happy that CinéWave allows him to edit online and watch his work in high definition without putting him out thousands more dollars.

"What is great about editing online is that, when people come over and I'm showing them the movie, watching uncompressed high definition on a great monitor looks fantastic."
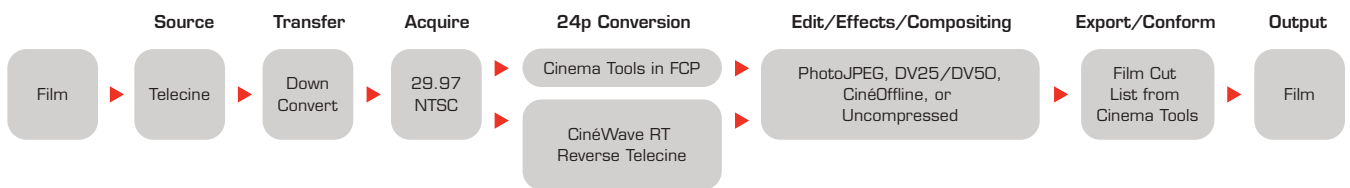
High Quality and Affordable Film/HD Workflow

24p All the Way for Optimal Ease

Source	Acquire	Edit/Effects/Compositing	Conform	Outputs

Film ▶ Telecine ▶ | 24p Uncompressed HD/DV100 ▶ PhotoJPEG, DV25/DV50, DV100, CinéOffline, or Uncompressed ▶ Re-capture Uncompressed HD ▶ HD Master* ▶ Transfer to Film

HD ▶

24p Uncompressed HD/DV100 ▶ SD Master*

*CinéWave Supports Simultaneous HD and SD Output

24p Source, Telecine to Video, 24p Output

Source	Transfer	Acquire	24p Conversion	Edit/Effects/Compositing	Export/Conform	Output

Film ▶ Telecine ▶ Down Convert ▶ 29.97 NTSC ▶ Cinema Tools in FCP / CinéWave RT Reverse Telecine ▶ PhotoJPEG, DV25/DV50, CinéOffline, or Uncompressed ▶ Film Cut List from Cinema Tools ▶ Film

CinéWave Software Components

CINÉWAVE OFFERS THE BEST QUALITY TOOLS FOR UNLIMITED LAYERING, EFFECTS, ADVANCED NON-LINEAR EDITING, MOTION TRACKING, PAINT, COMPOSITING, AUDIO RECORDING, EDITING AND MIXING

Final Cut Pro
Final Cut Pro is Apple's Emmy award-winning software for editing and finishing in SD and HD formats. Final Cut Pro and QuickTime work together to take advantage of Apple's Power Macs, delivering dramatic gains in video editing productivity.
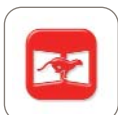
Commotion Pro
Commotion Pro is Pinnacle Systems' comprehensive desktop application for paint, rotoscoping, compositing, motion tracking, and effects.

Knoll Light Factory
Knoll Light Factory is the most widely used lighting effects tool. Now you can create an unlimited number of lighting effects and lens flares as seen in major TV broadcasts and feature films.

DupliCiné
DupliCiné is a motion effects editor's dream, with unique desktop mirroring capabilities for Apple Shake and Adobe Photoshop. DupliCiné compliments CinéWave's built-in RAM preview for programs like Commotion Pro and Adobe After Effects. Now you can really see what you're creating with real-time simultaneous SD and HD video output.

CinéAcquire
CinéAcquire is a powerful application that provides broadcast designers direct, frame accurate, machine control for video capture and record-to-tape. CinéAcquire works as a stand-alone application and as a plug-in module for Commotion Pro and Adobe After Effects.

Nuendo
Nuendo is a high-end digital audio workstation developed specifically for the demands of modern multimedia productions. Whether you're working on music or a post-production project, in broadcasting or video, Nuendo offers a solution which will perform to the highest expectations. With Nuendo and CinéWave, you can actually master your audio while simultaneously monitoring your SD and HD video out.

CinéWave Product Comparison

	CinéWave Classic RT	CinéWave RT	CinéWave RT Pro	CinéWave HD
TARGA Ciné Engine	■	■	■	■
CinéAcquire & Pipeline Digital RS-422 Device Control Cable	■	■	■	■
CinéOffline	■	■	■	■
Keyspan USB Twin Serial Adapter	■	■	■	■
Final Cut Pro with RT Extreme and Color Correction Tools	Optional	■	■	■
Commotion Pro	Optional	■	■	■
Knoll Light Factory	Optional	■	■	■
CinéWave RT Pro Software Upgrade	Optional	Optional	■	Optional
Pro Analog Breakout Box	■*	■*	■*	■*
Pro Digital Breakout Box	■*	■*	■*	■*
Pro Digital Plus Breakout Box	Optional	Optional	Optional	Optional
Pro Digital & Analog Breakout Box	Optional	Optional	Optional	Optional
Pro HD Breakout Box	Optional	Optional	Optional	■

Key ■ = Included/Supported, * = Includes Either a Pro Analog or Pro Digital Breakout Box

CinéWave Breakout Boxes

Pro Analog
- Video: Analog composite, component, S-Video, reference in (BNC)
- Audio: Analog unbalanced -10 dB (RCA); Balanced +4 dB (XLR)

Pro Digital (SDI)
- Serial Digital Interface (SMPTE 259M) resolution at 10-bits with embedded audio at 24-bit/48 KHz

Pro Digital Plus
- I/O for uncompressed standard definition Serial Digital Interface (SDI) video
- Supports up to 4 channels of AES/EBU audio
- Supports monitoring of analog composite video and RCA unbalanced audio
- Supports dual SDI outputs

Pro Digital & Analog
- Video: Composite, component, S-Video, analog 10-bit, serial digital (SMPTE 259M) resolution at 10-bit
- Audio: 4 In/6 out analog balanced audio, 4 In/4 out AES/EBU digital audio at 24-bit/48 KHz, 2 In/2 out S/PDIF digital audio, 2 In/2 out unbalanced audio, 8 In/8 out TDIF digital audio, SDI embedded audio at 24-bit/48 KHz

Pro HD Digital (HD-SDI)
- HD Serial Digital Interface (SMPTE 292M) with embedded audio at 24-bit/48 KHz
- Supports 1080i/30, 1080i/29.97, 1080i/25, 1080p/24, and even true 1080p/23.98 FPS
- Now full support for 720p with Final Cut Pro