









Section 13a

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12 INCH DESIGN

PRODUCTION BLOX

Royalty Free Library of Motion Graphics



ProductionBlox is a royalty free library of motion graphics (animated back-grounds, matching elements and more) for use by any video or post-production professional. Each volume in the library is called a Unit. There are eight individual Units, and each contains 35 sets of elements: full-screen animated backgrounds with matching static left, right and lower thirds. The static elements are provided in five variations (clean, blurred, drop shadow, blurred drop shadow and gradiated transparency), all with alpha channel. Each set of elements is called a Blox. In addition to 35 Blox, each Unit also contains 5 CustoMattes and the unique ProductionBlox Catalog System. CustoMattes are full-screen, general purpose, animated mattes that can be combined with any other Blox elements to create unique custom animated

elements, such as animated lower thirds. The ProductionBlox Catalog System is a client and facility friendly catalog system that allows quick and easy previewing of the contents of each Unit. Each Unit also includes a DVD-video catalog viewable with any DVD player, a web browser based preview and printable catalogs in Word and Acrobat formats.

Available in SD (Standard Definition), HDV and HD formats, each ProductionBlox Unit comes with one single-sided Catalog Disc and two double-sided Data Discs, in NTSC and PAL formats. All animated elements are provided in QuickTime 6 format. Static elements come in uncompressed TIFF, TARGA and Photoshop 6 formats.

FEATURES

- ◆ All standard definition video elements conform to industry standards for resolution, pixel aspect ratio, luma and chroma values as set forth by ITU-R BT.601 (720 x 486 30p for NTSC D1 and 720 x 576 25p for PAL D1).
- All HD video elements conform to ATSC standards for resolution, pixel aspect ratio, luma and chroma values.
- All animated elements are supplied in Quick-Time 6 format. The video clips are losslessly compressed using maximum quality PNG compression.
- ◆ NTSC material is 720 x 486 30p with a 4:3 aspect ratio. PAL material is 720 x 576 25p with a 4:3 aspect ratio.
- ◆ HDV material is 1440 x 1080 with a 16:9 aspect ratio.
- ◆ HD material is 1920 x 1080 with a 16:9 aspect ratio.
- ◆ All animated backgrounds are provided in 24-bit RGB color.
- ◆ CustoMattes and other matte/alpha objects include an 8-bit grayscale alpha channel.
- All static thirds are provided as 32-bit files -24 bit color and an 8-bit alpha channel.

Sample ProductionBlox



What makes 12 INCH Design's royalty free video backgrounds collections different?

Their video backgrounds are created by designers with real-world, professional video experience working with professional video editors and producers. They work with the biggest names in the business and chances are that you've seen their designers' work on network television shows and commercials. They know what works, what's cool, and what gives a video a professional look.

They also know that production budgets are tight, so they give you more for less money!

All video backgrounds and animated lower thirds are provided in a lossless PNG format which means virtually no compression. You get the same video backgrounds in the HD units that you get in the SD units, albeit rendered in jaw-dropping HD 1920 x 1080 resolution! The same goes for HDV video backgrounds collections which are rendered at 1440 x 1080 resolution. All HD and HDV video backgrounds collections come on multiple DVD-ROMs.



12 INCH DESIGN

THEMEBLOX

ProductionBlox SD (Standard Definition) NTSC/PAL

ProductionBlox SD Unit 01-08 (Mfr # COMBO-PRO8-NTSC • B&H # 12PBCS)	179.95
ProductionBlox SD Unit 01 (Mfr # 01PRO-NTSC • B&H # 12PB1)	99.00
ProductionBlox SD Unit 02 (Mfr # 02PRO-NTSC • B&H # 12PB2)	99.00
ProductionBlox SD Unit 03 (Mfr # 03PRO-NTSC • B&H # 12PB3)	99.00
ProductionBlox SD Unit 04 (Mfr # 04PRO-NTSC • B&H # 12PB4)	99.00
ProductionBlox SD Unit 05 (Mfr # 05PRO-NTSC • B&H # 12PB5)	99.00
ProductionBlox SD Unit 06 (Mfr # 06PRO-NTSC • B&H # 12PB6)	99.00
ProductionBlox SD Unit 07 (Mfr # 07PRO-NTSC • B&H # 12PB7)	99.00
ProductionBlox SD Unit 08 (Mfr # 08PRO-NTSC • B&H # 12PB8)	99.00
ProductionBlox HDV (1440 x 1080, 29.97p)	
ProductionBlox HDV Units 01-08 (Mfr # COMBO-PRO8-HDV • B&H # 12PBHDVS18)	249.00
ProductionBlox HDV Unit 01 (Mfr # 01PRO-HDV • B&H # 12PBHDV1)	124.95
ProductionBlox HDV Unit 02 (Mfr# 02PRO-HDV • B&H #12PBHDV2)	124.95
ProductionBlox HDV Unit 03 (Mfr# 03PRO-HDV • B&H # 12PBHDV3)	124.95
ProductionBlox HDV Unit 04 (Mfr # 04PRO-HDV • B&H # 12PBHDV4)	124.95
ProductionBlox HDV Unit 05 (Mfr # 05PRO-HDV • B&H # 12PBHDV5)	124.95
ProductionBlox HDV Unit 06 (Mfr # 06PRO-HDV • B&H #12PBHDV6)	124.95
ProductionBlox HDV Unit 07 (Mfr # 07PRO-HDV • B&H # 12PBHDV7)	124.95
ProductionBlox HDV Unit 08 (Mfr # 08PRO-HDV • B&H # 12PBHDV8)	124.95
ProductionBlox HD (1920 x 1080, 24p)	
ProductionBlox HD Units 01-08 (Mfr # COMBO-PRO8-HD • B&H # 12PBHDCS)	299.00
ProductionBlox HD Unit 01 (Mfr#01PRO-HD • B&H #12PBHD1)	149.00
ProductionBlox HD Unit 02 (Mfr # 02PRO-HD • B&H # 12PBHD2)	149.00
ProductionBlox HD Unit 03 (Mfr # 03PRO-HD • B&H # 12PBHD3)	149.00
ProductionBlox HD Unit 04 (Mfr # 04PRO-HD • B&H # 12PBHD4)	149.00
ProductionBlox HD Unit 05 (Mfr # 05PRO-HD • B&H # 12PBHD5)	149.00
ProductionBlox HD Unit 06 (Mfr # 06PRO-HD • B&H # 12PBHD6)	149.00
ProductionBlox HD Unit 07 (Mfr # 07PRO-HD • B&H # 12PBHD7)	149.00
Production Rloy HD Unit 08 (Mr # 08PRO-HD • R&H # 12PRHD8)	149.00

- TIPS -

Video backgrounds can be used in many ways, such as video post production, live event production, multimedia-based worship, digital signage, DVD authoring, and many more. Here are a few ideas:

- ➤ Video backgrounds are a great backdrop for video inserts. If you have one or more frames containing video, try adding a subtle moving background.
- ➤ Make an animated lower third from a video background. Just combine any background with the alpha channel (matte) from any of the static lower thirds included with ProductionBlox. Or use a DVE to move the background off screen. You can even vertically squash the clip because all material is progressive scan, so there are no fields to worry about.
- ➤ If you have a logo or bumper, try dropping a video background behind it to make it really pop. Moving backgrounds make great animated backdrops for DVD menus. Just import the clip into your authoring software to add a very professional look to all your DVD projects.
- ➤ Add your own elements to the backgrounds. Use the backgrounds as time-saving building blocks, adding other elements to make them look unique. This approach is perfect for the customer that wants a custom look but doesn't have a huge budget to work with.



12 INCH DESIGN

PowerBlox



Available in NTSC and PAL, PowerBlox is a royalty free toolkit for editors that includes hundreds of motion graphics elements and other useful content. PowerBlox will complement any professional motion graphics library, such as 12 Inch Design's critically acclaimed ProductionBlox. They include dozens of animated transitions, animated earth content, animated mattes and motion design elements. As with every 12 Inch Design product, all elements are provided in industry standard QuickTime format.



PowerBlox Unit 01

- 20 classy, quick and full screen animated transitions that can be overlayed on top of any edit between two clips
- ◆ 20 Animated Displays: Unique 3D rendered objects designed as display areas for text or other graphic elements. Each one opens, freezes and closes again. Just add text to create a professional and unique element!
- 7 high quality, full screen looping animations of spinning globes.
 Includes stylized and realistic Earth renders, and two keyable globes.
- ◆10 simple, animated and keyable shapes. Use to add accents to any part of your project. You will find these indispensable!
- ◆ 10 animated displays with After Effects corner pin tracking data. Load the project file into AE and track your video clip onto the animated display. Expensive custom-looking 3D animation at your fingertips.

- ◆ 65 high quality single frame mattes with alpha channel. You will never need a new matte again! Combine them with other static elements for more than 500,000 possible different looks!
- ◆ 20 Looping animated borders with alpha channel that can easily be combined with any video footage.
- ◆ 25 looping grayscale animations (moving textures) rendered at 800 x 600. Great for layering and blending, or using as "Matte To" objects.
- ◆ 50 DVD menu templates— huge time saver when you need to quickly deliver a DVD. Includes plug-and-play menus in Adobe Encore, DVD Studio Pro 2 and MyDVD formats set up and ready to go. Also includes all of the menus and elements as Photoshop, TIFF, TGA and BMP files, so they'll work with any DVD authoring software.

 PowerBlox Unit 01 (Mfr # 01POW-NTSC • B&H # 12PB1Q)
 149.00
 PowerBlox Unit 02 (Mfr # 02POW-NTSC • B&H # 12PB2Q)
 149.00

 PowerBlox 2 (Mfr # COMBO-POW2-NTSC • B&H # 12PBS): Includes -PowerBlox Unit 01 and 02
 249.00

PowerBlox Unit 02

- ◆ 40 stylish animated lower thirds with alpha channel. Each lower third loops seamlessly.
- ◆ 20 classy, quick and full screen animated transitions that can be overlayed on top of any edit between two clips.
- \blacklozenge 12 On and Off lower thirds that animate on and off the screen.
- ◆ 8 customizable lower third element sets that include a frame and matte. Fill each third with any ProductionBlox background or other video source to create a truly unique lower third.
- ◆ 10 high quality, full screen looping animations of spinning globes. Includes stylized and realistic Earth renders. All globes are keyable (include alpha channel).
- ◆ 22 keyable miscellaneous multipurpose animated elements, indispensable for all kinds of production.
- ◆ 22 elegant animated elements that "draw" on to the screen. Also includes separate looping glint animation.

- ◆ 16 elegant looping animated swaths of fabric. Great for adding that "softer" look to your production. Many can also be used as animated lower thirds.
- ◆ Over 40 cool and useful anmations
- ◆ 10 Looping animated grids with alpha channel.
- 14 animated bars and lines. Useful as screen separators, lower thirds, or for anywhere you need to place a line of text.
- 18 moving animated mattes that grow on-screen, animate organically and then disappear. Great for punching a hole in the screen to drop in other video.
- ◆ 30 Tech Rings—cool looping elements that add high-tech flair to any production.
- ◆ 20 cool high-tech mattes that slide on screen from the side or top. Each matte also includes a separate matching border. Great for revealing a second video source or clip.



12 INCH DESIGN

THEMEBLOX



A line of themed motion graphics, ThemeBlox units each include 35 fullscreen looping animated backgrounds and 25 keyable elements, ensuring that you will find the one that is right for your video project. Ideal solution for producers and editors who need to quickly add an animated background to a video but don't have the resources or time to create one. Available in SD



(Standard Definition), HDV and HD formats, themes include holidays,

weddings and events, sports, high-tech and medical. Standard Definition NTSC & PAL includes QuickTime.

ThemeBlox SD (Standard Definition) NTSC/PAL

ThemeBlox SD Units 01-07 (Mfr # COMBO-THM7-NTSC • B&H # 12TB1T7)	
ThemeBlox SD Unit 01– High Tech & Medical (Mfr # 01THM-NTSC • B&H # 12TB1)99.00	
ThemeBlox SD Unit 02– Sports (Mfr # 02THM-NTSC • B&H # 12TB2)	
ThemeBlox SD Unit 03 – Weddings & Events (Mfr # 03THM-NTSC • B&H # 12TB3)99.00	
ThemeBlox SD Unit 04– Business & Money (Mfr # 04THM-NTSC • B&H # 12TB4)99.00	
ThemeBlox SD Unit 05– Faith & Worship (Mfr # 05THM-NTSC · B&H # 12TB5)99.00	
ThemeBlox SD Unit 06– Patriotic & Elections (Mfr # 06THM-NTSC • B&H # 12TB6)	
ThemeBlox SD Unit 07– Holidays & Seasons (Mfr # 07THM-NTSC • B&H # 12TB7)	

ThemeBlox HDV (1440 x1080, 29.97p)

ThemeBlox HDV Units 01-07 (Mfr # COMBO-THM7-HDV • B&H # 12TB1T7HDV))
ThemeBlox HDV Unit 01– High Tech & Medical (Mfr # 01THM-HDV • B&H # 12TB1HDV)149.00)
ThemeBlox HDV Unit 02– Sports (Mfr # 02THM-HDV • 8&H # 12TB2HDV))
ThemeBlox HDV Unit 03– Weddings & Events (Mfr # 03THM-HDV • B&H # 12TB3HDV)	,
ThemeBlox HDV Unit 04– Business & Money (Mfr # 04THM-HDV • B&H # 12TB4HDV)	,
ThemeBlox HDV Unit 05– Faith & Worship (Mfr # 05THM-HDV • B&H # 12TB5HDV))
ThemeBlox HDV Unit 06– Patriotic & Elections (Mfr # 06THM-HDV • 8&H # 12TB6HDV))
ThemeBlox HDV Unit 07– Holidays & Seasons (Mfr # 07THM-HDV • B&H # 12TB7HDV))

ThemeBlox HD (1920x1080, 24p)

ThemeBlox HD Units 01-07 (Mfr # COMBO-THM7-HD • 8&H # 12TBHD1T7)299.00	
ThemeBlox HD Unit 01 – High Tech & Medical (Mfr # 01THM-HD · B&H # 12TBHD1)	
ThemeBlox HD Unit 02 – Sports (Mfr # 02THM-HD • B&H # 12TBHD2)	
ThemeBlox HD Unit 03 – Weddings & Events (Mfr # 03THM-HD • B&H # 12TBHD3)	
ThemeBlox HD Unit 04– Business & Money (Mfr # 04THM-HD • B&H # 12TBHD4)	
ThemeBlox HD Unit 05– Faith & Worship (Mfr # 05THM-HD · B&H # 12TBHD5)	
ThemeBlox HD Unit 06- Patriotic & Elections (Mfr # 06THM-HD • B&H # 12TBHD6)	
ThemeBlox HD Unit 07– Holidays & Seasons (Mfr # 07THM-HD • 8&H # 12TBHD7)	



ADOBE

AFTER EFFECTS CS3 PROFESSIONAL



Motion Graphics and Visual Effects Creation Software

After Effects CS3 Professional brings infinite variety to your creative vision and stunning impact to your communications. Animate freely using Shape Layers and the Puppet tool; combine moving imagery with still images, text, and sound; and manipulate your creations with inexhaustible effects combinations. Work from scratch or jump-start projects quickly with hundreds of customizable animation presets and templates, and use the Brainstorm feature to generate animation variations based on parameters you choose.

Intuitive interface lets you accomplish even the most complex tasks fast. Enhanced multicore and multiprocessor support offers faster rendering. Tight integration with Adobe's world-class

applications lets you to move easily between After Effects and Photoshop CS3 Extended, Premiere Pro CS3, Illustrator CS3 and more. When your projects reach review, clients and colleagues can make timecode-specific comments using Adobe Clip Notes, streamlining the approval process and getting you on to the next job.

Designed for tomorrow, today, flexible tools let you produce professional output for cutting-edge media types, like FLV and SWF for the web or mobile devices; work with a wide range of file formats from HDV to OpenEXR, H.264, and Camera Raw; and take advantage of additional animation presets available for download via Adobe Exchange.

FEATURES

32-bit 2D and 3D Compositing and Animation

- ◆ Start a composition in 8-bit color mode, and then finalize and output it to 16-bit or 32-bit color for optimal quality. Produce work that is film- and HDTV-ready using the range of colors available in 16- and 32-bit color modes.
- Mix and match 2D and 3D layers in a single composition in real time using OpenGL acceleration. OpenGL 2.0 capabilities include blend modes, 2D motion blur, common effects, shadows, and transparency.
- Export Vanishing Point data from Photoshop CS3 Extended, and then import the data into After Effects to automatically build a 3D composition from the 2D Photoshop image.
- Create and animate multiple cameras and lights. Specify a point of interest, produce soft shadows, and simulate different types of lights to add depth.
- Create adjustment layers similar to those in Photoshop to apply effects to any layers that appear below them.
- Quickly arrange multiple layers in time with the Sequence Layers keyframe assistant, and arrange layers in space with the Align and Distribute tools.

- See how layers interact in space and manipulate a composition from multiple perspectives using multiple views. Use predefined workspaces or create your own to contextually streamline your workflow.
- Automatically adjust motion blur based on the speed of the layer to provide high quality output for fast-moving objects; high-quality and faster rendering for slow moving objects.
- Project light through a layer to create colored shadows, stained-glass effects, and the look of projected slides.
- Speed up production by defining a parentchild relationship between layers so that the child layer inherits all transformations applied to the parent.
- Produce cool animations from scratch by creating layers, adding masks, and applying effects. Or use the included project templates to quickly create DVD motion menus, animated backgrounds, and more.
- ◆ Import 3D camera and null animation data in the Alias Maya (MA) format, directly from Maya or from any 3D tracking software that can export MA files, such as 2d3's boujou.

Text and Vector Graphics Creation and Animation

- Create text using standard Adobe tools for typing, editing, and formatting text. Easily edit text created in Photoshop. Mix and match fonts and other attributes on a layer.
- Animate text along paths, transform or displace words or lines of text over time, set inter-character blending modes, randomize the order in which characters animate, blur, or wiggle your text, and more.
- ◆ Save animation time by instantly applying more than 250 professionally designed, fully editable text animation presets, or create and save your own. Use Adobe Bridge CS3 to conveniently preview and apply presets.
- Explore new text animation possibilities by making individual characters in your text or phrase—move and rotate in 3D space.
- Easily create and animate vector graphics with new Shape Layers. Add and animate strokes, fills, gradients, and vector effects.
 You can convert text into shapes and animate them just like any other shape type.
- Export animated text as vector-based SWF files to create innovative, web-friendly animations



ADOBE

AFTER EFFECTS CS3 PROFESSIONAL

Superb Color Correction

- Manage color correction with a variety of tools, including Tritone Brightness & Contrast, Channel Mixer, Color Balance, Levels. Tint. Hue/Saturation, and more.
- ◆ Take advantage of Color Finesse from Synthetic Aperture, a full-featured color correction environment that contains highend telecine-style correction tools.
- Enhance the contrast and tone of footage over time with Photoshop style Auto Color, Auto Contrast, and Auto Levels controls.
- Automate color correction over time while preserving the shadows and highlights within individual frames.
- ◆ Adjust the tonal range of an image with complete control, such as decreasing blues in the shadows and increasing them in bright areas. You can import curve settings from Photoshop as well.



The pins on the arms and legs control the figure; currently selected pins appear as solid circles, deselected pins hollow. Simply by dragging the pins at the knees, hand and head, a highly stylized effect can be achieved (although subtler animations are possible too). Pins that aren't repositioned hold surrounding areas in place.

Graph Editor

- Edit Value and Speed graphs in the Graph Editor. Scale and offset keyframes with free-transform features, just as you would scale or offset vertices on a mask
- ◆ See spatial properties such as Position represented with value graphs on individual channels, each with a unique color.
- Snap keyframes to interesting points as you drag them horizontally or vertically around the Graph Editor.
- ◆ Freely zoom and pan around the Graph Editor with the Zoom tool, Hand tool, or your mouse scroll wheel, using modifier keys for more controls. Automatically fit all graphs to the current view with a single click.

Extensive Visual Effects

- ◆ Use a broad selection of included effects to change the appearance of footage or generate entirely new elements. Create unique looks from scratch or by using more than 100 customizable effects presets.
- Organize effects the way you like and quickly access them in the Effects & Presets palette.
 Save, apply, and share animation presets with specific settings and animated properties.
- Add smoke and sparks using Particle World, create blazing ray-of-light transitions using Light Burst and Light Sweep, and apply more than 60 other bundled effects from Cycore.
- Re-create the effect of a unfocused camera lens with Lens Blur, and use Smart Blur to create soft color effects without destroying fine detail. Other blur effects include Directional Blur, Box Blur, and Gaussian Blur.
- Warp and distort full frames—as well as selected areas—in specific, realistic ways with effects like Mesh Warp, Bezier Warp, and Displacement Map. Paint distortions directly onto imagery with Liquify. Distort footage using Mirror, Ripple, Bulge, and other effects.
- Add, remove, or match grain artifacts from footage automatically or manually. Specify the characteristics of grain on all three individual color channels for a perfect match.

- Create textures and organic elements with Fractal Noise, which is perfect for simulating caustics, clouds, lava, flowing water, and gas. Use included presets to create eye-catching animated backgrounds.
- Morph one defined shape in a layer into another shape on the same layer, distorting the image itself to fit the shape of the new area.
- Skew the corners of an image to simulate the perspective of a plane in 3D space. Use the tracker to create animated corner pin data, matching scene features precisely.
- ◆ Import 3D channel image files saved in RLA, RPF, Softimage PIC/ZPIC, and Electric Image EI/EIZ formats. Simulate the effects of camera depth of field, and use Fog 3D to simulate volumetric haze in a source 3D image file.
- ◆ Instantly brighten or diffuse the bright areas of an image to create a glowing halo or other lighting effect, suitable for stylized emphasis of featured elements.
- Simulate explosions, flocks of birds, swarms of bees, and more using a powerful particle system. Even text layers can be a particle.
- Generate sizzle around borders by adding dancing, dissolve-style animated pixel scatter to masked areas of a layer.

Masking and Keying Tools

- ◆ Control which parts of a 2D or 3D layer are visible by adding and animating an unlimited number of masks on any layer.
- ◆ Stroke, feather, transform, animate, and apply motion blur to masks over time.
- ◆ Import Photoshop and Illustrator paths as masks.
- Turn any channel, including alpha channels, into a vector-based mask, and quickly create animated masks.
- Replicate natural motion by taking control of mask transitions.
- ◆ Keylight creates subtle, elegant mattes of reflections, semi-transparent areas, and hair. Spill suppression, color correction, and edge refinement help perfect the result.
- ◆ Replicate the method used to key color footage on landmark films. The Color Difference Key weights the dominant color being keyed against the other two primary colors.

- ◆ Turn grayscale image, movie, or animated text or graphic into an alpha or luma matte to control what's visible on another layer.
- Quickly eliminate all the pixels on a layer that are similar to a color you've specified. For example, cut out a greenscreen background in one step by specifying that color.
- ◆ Create high-contrast mattes with subtle edge thresholds.
- Remove unwanted color spill from footage quickly and easily.
- Compare foreground information in a scene against a precisely matched, static background "clean plate," leaving only the pixels that are different.
- Derive the key from border pixels selected by creating a rough mask around edges of an object, to help in difficult keying situations.
- ◆ Spread or choke the selection area of any alpha channel with a subpixel level of control.



ADOBE

AFTER EFFECTS CS3 PROFESSIONAL

Powerful Motion Controls

- ◆ Puppet tool lets you squash and stretch an image or text to bring it to life as an animated character. You can also record the position and speed of your puppet movements, stiffen areas of the character, and control the depth of elements of your puppet.
- Slow down and speed up footage with smooth, crisp results and minimal artifacts.
 Use Timewarp to analyze pixel motion and create more accurate in-between frames.
- Produce effects such as variable slow motion and backward playback using two types of frame blending: Frame Mix and Pixel Motion.
- Quickly draw an animation path and set its velocity. Then fine-tune the shape and speed of the path with Smoother.
- ◆ Precisely match the motion of source footage using the fast, accurate Motion Tracker. Use as many points as you like or standard one-, two-, and four-point settings to track x and y positions, rotation, and scale.
- Eliminate unwanted motion using the Motion Stabilizer, which can give handheld video shots the look of a locked-off shot.
- ◆ Create natural-looking zoom effects by making linear changes of scale exponential.
- Mix different portions of source footage creatively using the luminance of one layer to control the timing of pixels in another layer.

Enhanced Performance

- ◆ Take full advantage of multiprocessor and multicore systems for RAM previews and final renders. After Effects renders multiple frames simultaneously whenever possible.
- Advanced OpenGL capabilities include support for blending modes as well as motion blur, anti-aliasing, track mattes, high-quality shadows and transparency, and accelerated rendering of common effects. Use OpenGL for accelerated final renders.
- Preview compositions in real time and benefit from intelligent caching. Define a region of interest for fast and long RAM previews.
- ◆ Dramatically enhance previewing and interactivity on large projects with disk caching.
- Use the powerful Render Queue to simultaneously render at multiple resolutions and file formats—or to batch render files.

A single Shape Layer containing a compound shape makes it possible to control what appear to be multiple shapes with a single set of controls.



Text and Vector Graphics Creation and Animation

- Create text using Adobe-standard tools for typing, editing, and formatting text, and edit text created in Photoshop. Mix and match fonts and other attributes on a layer.
- ◆ Animate text along paths, transform or displace words or lines of text over time, set inter-character blending modes, randomize the order in which characters animate, blur, or wiggle your text, and more.
- ◆ Explore text animation possibilities by making individual characters in your text— or an entire phrase—move and rotate in 3D space.
- ◆ Save animation time by instantly applying more than 250 professionally designed, fully editable text animation presets, or create and save your own. Use Adobe Bridge CS3 to conveniently preview and apply presets.
- ◆ Easily create and animate vector graphics with new Shape Layers. Add and animate strokes, fills, gradients, and vector effects. You can convert text into shapes and animate them just like any other shape type.
- ◆ Export animated text as vector-based SWF files to create web-friendly animations.

Nondestructive Vector Painting

- Work with brushes similar to the ones in Photoshop. Customize brushes to control size, spacing, and angle, and save the settings.
- Remove unwanted distractions like dust and scratches or replicate elements for a desired effect, such as filling a stadium with people.
 The Clone tool offers multiple presets and onion-skinning of the source frame.
- ◆ Animate individual paint strokes over time to change their size, position, or shape and to create write-on and write-off effects.
- ◆ Control whether the Eraser tool removes paint strokes only or paint strokes plus the underlying background footage.
- ◆ Use Wacom tablets for more precise control when painting in AE CS3

Integrated Script Editor

- Organize and edit scripts using numbered lines, user-defined text formatting, and colored text.
- Profile individual functions or lines within scripts for individual timing and hit-count information to understand how and when individual parts of the scripts are called.
- Clearly isolate specific functions and statements in complex scripts by interactively managing breakpoints.
- Instantly access all scripts in the Scripts menu, which also includes a JavaScript Console and Call Stack, Breakpoints, and Data Browser palettes.

Flexible Media Management

- View a flowchart of a composition or project to see how it's organized and which footage, layers, and effects are used.
- Use post-render actions to streamline back-end production tasks, such as creating proxies or replacing project footage with output from the Render Queue.
- ◆ Easily share projects and files across Windows and Macintosh platforms.
- ◆ Mix multiple file resolutions from thumbnails up to 30,000 x 30,000-pixel frames.
- ◆ Use commands such as Find, Reveal, Reduce Project, and Collect Files to manage files.



ADOBE

AFTER EFFECTS CS3 PROFESSIONAL

32-bit Audio Tools

- ◆ Prepare and resample audio using sampling rates from 22kHz to 96kHz. Play back audio in real time without having to render
- Pan from the left speaker or channel to the right speaker or channel, or vice versa, with the Stereo Mixer.
- ◆ Remap audio over time with the Delay and Backwards audio effects. Adjust audio tone with Bass & Treble. Use Modulator, Parametric EQ, and High-Low Pass for precise professional control over 32-bit audio. Delay, Flange & Chorus, and tone generation allow you to stylize sound or generate sounds from scratch.
- Generate full-color visuals based on audio elements that animate dynamically along a frequency spectrum or that behave like an audio waveform.

Color Accuracy

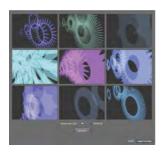
- Enable color management by selecting a Project Working Space. Maintains the color accuracy of imported files as they are displayed and rendered and allows you to preview how footage will look on other devices.
- Color spaces from HD and SD video formats are interpreted automatically. Profiles can also be set via Interpret Footage.
- Preview color accurately and simulate how final output will appear whether on a broadcast monitor or projected via film stock.
- ◆ Convert color appropriately for a specific output format (including SD and HD formats).
- Files such as 32-bit PSD, TIFF, or EXR, composite accurately in a 32-bit linear HDR project workspace. Any output profile can be linearized for 32-bit HDR.



Color management in After Effects CS3 goes beyond making color footage look correct on your own monitor. It also lets you simulate how your final output will look on a wide range of displays, from mobile devices to television to film. You can even create your own custom simulations.

Brainstorm

Jump-start animations with Brainstorm, a new user interface that offers variations based on selected design and animation parameters. Choose which properties and effects you want to explore, and Brainstorm will propose animated variations. Brainstorm offers an array of possibilities; you can select one you like and apply it, or you can choose to evolve it further by clicking Brainstorm below the preview area. The possibilities are endless.



Professional Results for Every Media Type

- ◆ Specify output frame rates and resolutions (up to 30,000x30,000 pixels) to meet international film and broadcast standards, including Cineon, HDTV, HDV, and more.
- Import and export HDR color images in Photoshop, OpenEXR, Radiance, and TIFF formats to preserve the full dynamic range of all footage.
- Simultaneously render at multiple resolutions and file formats or batch render files, either on a local machine or across a network.
- ◆ Import/output files in QuickTime, FLV and SWF, AVI, MPEG-2, Windows Media (Windows only), Photoshop (PSD), Camera Raw, OpenEXR, Cineon, SGI, TIFF, TGA, IFF, JPEG, MP3, WAV, and AIFF formats.

Unmatched Adobe Integration

- Save 32-bit high dynamic range (HDR) and 16-bit color values in Photoshop files. Text remains editable, and layers, video layers, layer styles, blending modes, masks, transparency, and color profiles are all preserved when importing Photoshop files as compositions.
- Export Vanishing Point data from Photoshop CS3 Extended, and then import the data into After Effects to automatically build a 3D composition from the 2D Photoshop image.
- Copy vectors from Illustrator to use as After Effects masks or motion paths. Illustrator layers and blend modes are preserved, and vector shapes can be continuously rasterized (and output as compact SWF files), preserving smooth edge detail.
- ◆ Save time and preserve project organization when working with Adobe Premiere Pro projects. Preserve bins, edits, markers, keyframed effects, nested sequences, transitions, and more. Drag and drop or copy and paste clips from one application to the other.

- Import SWF files as continuously rasterized vectors with alpha channel preserved, allowing you to scale them without loss in quality.
- ◆ Use markers to create cue points that can be added to your FLV output. Automatically convert any layer's keyframes to cue points to make it easier to trigger events in Adobe Flash based on motion or elements changing over time
- Create motion menus and interactive buttons for your DVDs. Export movies from After Effects with markers that Adobe Encore CS3 software reads as chapters.
- Work more efficiently via a single interface to search and access your project files, preview and apply presets, run batch processes, and tag assets with XMP metadata.
- ◆ Work in an elegant and adaptable interface featuring workspace panels that dock and group for optimal organization, eliminating overlapping windows. Save custom workspaces, control UI brightness, and more.

After Effects CS3 Professional Software:

For Windows (Mfr # 25510629 • B&H # ADAECS38W) or Mac (Mfr # 15510671 • B&H # ADAECS38M).......939.95

Upgrade After Effects CS2 to CS3 Professional:

For Mac (Mfr # 15510673 • B&H # ADUAECS38M), or Windows (Mfr # 25510631 • B&H # ADUAECS38W)......298.95

Total-Training DVDs:



ADOBE

PREMIERE PRO CS3



Video Editing Software for Mac or Windows

Bundled with Adobe OnLocation CS3 (Windows only) and Adobe Encore CS3, Premiere Pro CS3 software is a complete start-to-finish solution for efficient video production. Tell your story with powerful, flexible editing tools. Bring new dimension to your projects efficiently and in real time with precise keyframe controls and features like high-quality slow motion with time remapping. Save time creating dramatic effects and get finer creative control thanks to tight integration with Adobe Photoshop CS3 and After Effects CS3 Professional. Achieve your vision with professional color correction, quickly and precisely edit footage from multicam shots, and much more—all from within a familiar, customizable interface.

Work with virtually any format with uncompromised image quality from start to finish.

Maximize footage quality and save time while shooting with professional camera image

monitoring and direct-to-disk recording using OnLocation CS3 software. Premiere Pro CS3 efficiently takes you from on-site capture to final delivery without sacrificing the quality and integrity of your footage.

Finish and deliver content anywhere, from film and tape to the web, DVD, Blu-ray Disc, and mobile devices. Use Encore CS3 to create interactive content for DVD, Blu-ray Disc, and the web. Export FLV files with Premiere Pro CS3 timeline markers converted automatically to cue points, and streamline the client review process with Adobe Clip Notes.

FEATURES

Edit Creatively and Efficiently

Focus on telling your story with powerful, flexible editing tools. Save time creating dramatic effects and get finer creative control thanks to tight integration with Adobe Photoshop CS3 and After Effects CS3 Professional.

- Import and animate Photoshop layers. Edit still images from Premiere Pro CS3 with Photoshop CS3. Automatically create Photoshop files to match the current project's frame size and aspect ratio.
- Save tape and time by eliminating capture.
 Record SD and HD video directly to hard disk
 OnLocation CS3 software. Instantly review each shot without shuttling tape.
 OnLocation automatically detects and flags problems to provide the best results.



Improve efficiency and incorporate a tapeless workflow during shoots using OnLocation CS3 to monitor your camera's video signal and record it directly to hard drive.

- Drag and drop or copy and paste clips and timelines between Premiere Pro CS3 and After Effects CS3 Professional. Open complete Premiere Pro projects, including nested sequences, in After Effects. Premiere Pro is compatible with most After Effects plug-ins.
- Open Illustrator files in Premiere Pro CS3.
 When scaling an image in Premiere Pro, the image is rerasterized, ensuring that image quality remains pristine.
- Send audio files to Adobe Soundbooth software for editing, and hear changes immediately in the Premiere Pro CS3 timeline.
- Adjust the Premiere Pro CS3 interface to fit any editing style, workflow, and environment.
 Panels can be configured in many arrangements and across multiple monitors.
 Use the docked interface to simultaneously adjust all windows.
- Find files fast with search tools that instantly update results as you type. Sort and organize assets into multiple project panels, each with its own graphical or text view setting. Display and handle media files, making project management easier and more efficient.

- Save time in the authoring process by sending media with timeline markers directly to Adobe Encore CS3 for interactive authoring for Blu-ray Disc, DVD, and the web.
- Archive media, reclaim drive space, and move between offline and online environments.
 Consolidate projects to a single location for archiving and storage management.
- Use Adobe Bridge CS3 to search for and access your project files, preview and apply settings, run batch processes, and tag assets with XMP metadata.
- Personalize your experience by creating multiple keyboard maps for different tasks or to support multiple users.
- Set the timeline to scroll smoothly under a stationary indicator during playback, or adjust it to advance one page as the playback indicator reaches the edge of the window.
- Switch between panels using keyboard shortcuts that save time and mouse fatigue.
- Play nested sequences immediately without having to render audio. This can save time when working with multicam sequences.



ADOBE

PREMIERE PRO CS3

Advanced Video Editing

- Make complex edits (ripple, rolling, slip-andslide) in one step. Trim and adjust footage with single actions that would otherwise require multiple steps.
- Multicam editing lets you view multiple video tracks from a multiple-camera shoot, easily sync via timecode, and edit by switching between tracks in real time. Rerecord sections of your edit, make fine adjustments using standard timeline editing tools, and easily adjust color correction across multiple shots, even after editing.
- Use primary and secondary color-correction tools to match shots; change colors; correct exposure errors; and modify highlights, midtones, and shadows across clips, sequences, or entire projects.
- Use OnLocation CS3 to quickly calibrate your camera, check levels, and monitor your signal. Use simple tools that function like their hardware equivalents to get results quickly and easily. The virtual reference monitor, waveform monitor, vectorscope, and audio spectrum analyzer help you avoid problems and improve quality when shooting.
- Monitor luma and chroma levels on every line with the built-in waveform monitor and vectorscope. Display Waveform IRE information in standard, YCbCr Parade, RGB Parade, or combined modes.
- ◆ Edit each section or sequence of your project on its own timeline. Nest each timeline section into a master timeline while maintaining full access to every edit.
- Maintain source integrity with support for 10-bit video and 16-bit PSD files.
- Break master clips into smaller subclips for more flexible editing, especially when working with large sections of content. Treat subclips like any other video clip by trimming, applying effects, renaming, and more.



The Multi-Camera window makes editing action recorded with several cameras or in multiple takes as easy as pointing and clicking.

Advanced Audio Editing

- ◆ Create 5.1 surround-sound audio mixes, edit audio with individual sample precision, and apply clip- and track-based effects, using the included VST plug-ins or your own. Create and manipulate 5.1 multi-channel audio to produce true surround sound and other richly layered audio experiences.
- ◆ Apply multiple audio effects to any audio clip or track and work with third-party VST-format audio plug-ins. Enjoy audio effects and editing unequaled by any other nonlinear editor and by most audio software.
- Built-in audio mixer lets you control volume and pan/balance setting. Use advanced features like channel inserts, auxiliary sends and returns, automation, and more.
- ◆ Adjust audio clips with a precision of up to 1/96,000 of a second. Set precise L- and J-cuts. Eliminate small pops, crackles, and other unwanted audio elements.
- Create smooth audio crossfades and other audio changes with a minimal number of keyframes, simplifying editing and preserving system resources.



Powerful editing, finishing, and delivery tools for Mac and Windows

Effects

- Apply powerful visual and motion effects to your clips with high-quality built-in effects.
 An almost unlimited choice of additional effects is available thanks to the wide range of After Effects compatible plug-ins for video and VST plug-ins for audio.
- Add a spot, directional, or omni light to your video footage. Create multiple lights to see different looks on different parts of a scene.
- Explore hundreds of high-quality production and design filters and effects to restore and enhance your video, graphics, and audio
- Create your own effects presets. Save simple and complex effects parameters as a custom preset that you can quickly apply to any clip in any project.
- Use slow motion to create dramatic effects that focus on the action. Time remapping feature lets you speed up, slow down, reverse, and hold frames with precision.

- Use the Timewarp effect as in After Effects to create high-quality slow motion through pixel-motion analysis. The Timewarp filter gives precise keyframe control over every parameter, producing the highest quality results on the most difficult source content.
- Instantly improve your video image quality with filters like those in Photoshop, including Auto Color, Auto Contrast, and Shadows/Highlights.
- Create traveling mattes by applying effects and animation to individual track-matte clips.
- Control any audio and video effect parameter using comprehensive keyframe controls that mirror those found in After Effects. Get precise control using Bezier handles to finesse the shape of parameter curves.
- ◆ Create sophisticated text and graphics titles from scratch, from professionally designed templates, or from user-defined styles.



ADOBE

PREMIERE PRO CS3

Broad Format Support

Work with virtually any format with uncompromised imagery from start to finish. Maximize footage quality and save time by recording directly to hard disk using OnLocation CS3.

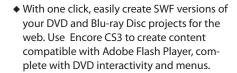
- ◆ Work with the formats you want. Edit all standard- or high-definition formats, from DV and HDV to HD and beyond (some formats may require additional hardware).
- ◆ Import and edit content from Panasonic P2 cameras without transcoding or rewrapping, saving time during editing and retaining important metadata from the P2 device.
- ◆ Edit the majority of the frame rates and resolutions supported by Panasonic P2 cameras, including 50P and 60P. Combine resolutions freely on the timeline.
- ◆ Capture and edit HDV content in real time and in its original format with no conversion or quality loss. Premiere Pro CS3 supports HDV cameras VCRs from Sony, JVC, and Canon.
- ◆ Import and export major video, audio, and graphic file formats, including QuickTime, Windows Media, AVI, BWF, AIFF, JPEG, PNG, PSD, TIFF, and more.
- ◆ Import still-image files in any major format including PSD, BMP, GIF, EPS, JPEG, PCX, PICT, PNG, and TIFF. Export in BMP, GIF, TARGA, and TIFF formats.
- ◆ Play through most common transitions and effects without waiting to render. For even more real-time performance, add hardware from a variety of third parties.
- ◆ Display timecode for 16mm and 35mm film in standard Feet + Frames nomenclature.
- ◆ Import, edit, and output image sequences with dimensions up to 4,096x4,096 pixels.
- ◆ Preview widescreen footage on a 4:3 monitor or lay off to a 4:3 tape or DVD with real-time letterboxing. Help ensure that your 16:9 material looks right during playback.
- ◆ Capture and edit HD or up to 4K scanned files, consolidate and manage projects, and work efficiently with After Effects CS3 Professional and Photoshop CS3 software.
- ◆ Set your project to any resolution and work with it throughout production—great for creating video banner ads, content for small screens, and more.

Hardware Support

- ◆ Control video decks through RS-422 and RS-232 serial protocols or Firewire interfaces for precise batch capturing, recapturing, and insert editing.
- ◆ Record and play back audio through any multichannel audio card or hardware that supports the industry-standard ASIO protocol (Windows only).
- ◆ Choose from a wide range of capture cards and other hardware to build the HD, SD, or DV editing system that meets your needs and budget.

Deliver Everywhere

- ◆ Accelerate reviews and reach the widest possible audience by delivering your work to film, tape, the web, DVD, Blu-ray Disc, and mobile devices.
- ◆ Exchange project metadata with major video, film, and audio applications via industry-standard Advanced Authoring Format (AAF), AAF with Edit Protocol, and Edit Decision List (EDL) files. (AAF import/export for Windows only)
- ◆ Maintain the pristine quality of your HD video all the way to distribution. Create high-definition Blu-ray Discs with Adobe Encore CS3, working with the same interface and features used to create standard-definition DVDs.



- ◆ Easily incorporate video into Flash CS3 projects as you create immersive experiences for the web. Timeline markers are embedded as cue points when exporting FLV files from Premiere Pro CS3, streamlining the process of creating interactive and navigational triggers.
- ◆ Support for any frame size up to 4,096 x 4,096 pixels, and for every major image and sequence file format (including AI, PSD, TGA, TIFF, and BMP), makes Premiere Pro CS3 the ideal tool for editing and preparing sequences for output to film formats.



Maintain control of your media with multiple Project panels, customizable panel display settings, and instant file searches.

- ◆ Use Encore CS3 to author interactive titles, and then publish them to —Blu-ray Disc, DVD, and SWF for playback through Adobe Flash Player—with a single click.
- ◆ When editing Panasonic P2 content, export your sequence to a P2 card for reuse and playback on other Panasonic P2 equipment.
- ◆ Make your project web ready. In addition to FLV format, choose from comprehensive compression tools for Internet-friendly file formats including Real, Windows Media, and QuickTime.
- ◆ Export your digital cinema project as a Windows Media 9 Series file with 720p or 1,080p resolution and 5.1 surround sound create a stunning theatrical experience.

Premiere Pro CS3 Video Editing Software for Windows (Mfr # 25520528 • B&H # ADPPCS33W)......734.95 Premiere Pro CS3 Video Editing Software for Mac (Mfr # 25520540 • B&H # ADPPCS33M)......749.00 Adobe Upgrade Premiere Pro or Encore CS2 to Premiere Pro CS3 for Windows (Mfr # 25520568 • B&H # ADUPEPPCS33W) Adobe Upgrade Premiere Pro or Encore CS2 to Premiere Pro CS3 for Macintosh



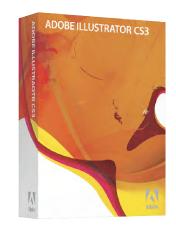
ADOBE

ILLUSTRATOR CS3

The Essential Vector Tool

Illustrator CS3 allows you to create sophisticated artwork for virtually any medium. Industry-standard drawing tools, flexible color controls, and professional type controls help you capture your ideas and experiment freely, while timesaving features such as easier-to-access options let you work quickly and intuitively. Improved performance and tight integration with other Adobe applications also help you produce extraordinary graphics for print, web and interactive, and mobile and motion designs.

Quickly explore multiple design options with industry-standard drawing tools, new color controls, and a wealth of powerful effects enable greater creative productivity and the ability to easily experiment. Use new Live Color to explore color harmonies and interactively apply color to any selection of objects. Work faster by controlling path editing and point



alignment in the Control panel. And enhance your artwork with professional typography and transparent effects. With easier access to tools and options, flexible and customizable workspaces, and a wealth of timesaving features and shortcuts, you can speed through design and production tasks. The enhanced Control panel frees up screen space and puts more options at your fingertips, while New Document Profiles provide a launch pad for video and other designs.

FEATURES

- Live Color, which lets you select any artwork and interactively edit the colors to see results immediately.
- Organize swatches in groups and view them in organized hierarchies. Automatically name them by their color values, or intuitively.
- Easily paint any closed or partially closed area of your artwork with the Live Paint Bucket
- Warp, liquify, and distort artwork any way imaginable with envelopes and live distortion tools. Easily access envelope options from the Control panel.
- Apply live effects without affecting the underlying artwork, so you can edit at any time without starting over.
- ◆ Bblending modes and transparency effects similar to those in Photoshop.
- Simulate airbrush and watercolor effects by adding multiple colors and precisely controlling the transitions between colors.
- ◆ Turn 2D shapes into fully editable 3D objects by extruding and revolving paths. Add lighting and wrap images around 3D shapes to create objects such as packaging mock-ups.
- ◆ Add design elements to your artwork by spraying, scaling, colorizing, and adjusting the transparency of repeated symbols while keeping file sizes small.

- Use clipping masks to hide areas of an object or group, crop placed images, or cut intricate shapes.
- Use opacity masks to alter the transparency of underlying objects and achieve effects such as a transparent gradient.
- Assign a spot color to a linked, embedded, or opened grayscale image, or even apply a spot color to a drop shadow.
- Morph one shape into another to create smooth shading, complex contours, and basic animations.
- ◆ Apply nondestructive live effects from the Adobe Photoshop Effect Gallery.
- Produce visually compelling charts and graphs, including quickly applying harmonious color groups with Live Color.
- Quickly and accurately convert photos, scans, or other bitmap images to editable and scalable vector paths using Live Trace.
- Quickly remove areas of artwork with the Eraser tool as easily as you erase pixels in Photoshop. Enjoy complete control over the width, shape, and smoothness of the erasure.
- ◆ Remove, connect, and split paths and convert anchor points. Roll the mouse over curve handles to get an enlarged view for easier point selection.

- Align and distribute anchor points with one click using options in the Control panel. It's as easy as aligning and distributing objects.
- Position objects and anchor points with expert precision using Smart Guides and the Align, Transform, and Control panels.
- Draw with precision using the Pen tool for full control over anchor points and Bezier curves.
- Draw onscreen as you would on paper with the Pencil tool. Smooth out paths by drawing a new line near the path you want to alter.
- ◆ Define solid and dashed lines in the Stroke panel. Specify weight, miter limit, the style of joins and caps, and whether the stroke is inside, centered on, or outside the path.
- ◆ Add flair to paths with customized brushes. Choose from calligraphic, scatter, art, and pattern brushes, or make your own brush.
- Apply formatting to individual characters, lines of type, or entire paragraphs with a single click.
- Expand typographic options using ghosted text, transparent drop shadows with soft edges, and other effects for transparent text.

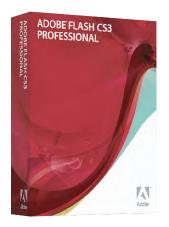
Illustrator CS3

For Windows (Mfr # 26001648 • B&H # ADICS313W) or Mac (Mfr # 16001647 • B&H # ADICS313M)599.00



ADOBE

FLASH CS3 PROFESSIONAL



Create and Deliver Interactive Content

Flash CS3 Professional is the most advanced authoring environment for creating rich, interactive content for digital, web, and mobile platforms. Create interactive websites, rich media advertisements, instructional media, engaging presentations, games, and more. Designers and developers depend on Flash and the ubiquitous Adobe Flash Player software to ensure their content reaches the widest possible audience. Available for Windows and as a universal-binary application for Mac, Flash CS3 Professional provides the tools you need to be successful. Realize your creative vision with a full complement of drawing, animation, and interactive design tools. Explore innovative styles and techniques, impress clients with more than they expected, and deliver consistent results across multiple platforms. Leverage the power of a true development environment. Utilize professional coding tools including code collapse, comment-

ing, automatic syntax completion, streamlined error resolution, and more.

FEATURES

Sophisticated Video Tools

- Choose from either the high-quality On2 VP6 codec or the Sorenson Spark codec for advanced encoding options when creating FLV files. Use the batch processor to encode multiple video files at once.
- ◆ Export video directly to FLV from leading professional post-production applications.
- Overlay video composited with a transparent or semi-transparent alpha channel with other content at runtime. Create unique effects using compositing tools such as After Effects and import them into Flash CS3 Professional with transparency preserved.
- Produce video quality that rivals today's best video codecs while maintaining small file size with the advanced video codec in Flash Player, On2 VP6.
- Embed cue points directly into an FLV file to trigger events during playback and coordinate the playback of accompanying graphics and animations.

- Centralized dialog presents options for FLV deployment during video import. The dialog also instantiates the skinnable video component and prepopulates it with required deployment parameters.
- Easily import and improve video quality and appearance with encoding options such as deinterlacing, advanced cue point control, and new video component skins.
- Use the skinnable video component to easily customize the look and feel of video projects without significantly increasing file size. The component works with multiple deployment options, including streaming and progressive download.
- Render content published in a SWF file as a QuickTime video using the advanced Quick-Time exporter. Export content that includes nested MovieClips, content generated with ActionScript language, and runtime effects such as drop shadow and blur.

Time Saving Coding Tools

- Hide code from view by selection or tag so you can focus more easily on the code you are developing.
- Use easy menu commands to apply comment/uncomment tags to entire lines or any section of code. This Script Editor feature remains consistent across both Adobe Flash CS3 and Dreamweaver software.
- View code errors in a separate panel that is automatically generated when performing tasks such as check syntax, test movie, test project, debug movie, or publish. Click to jump directly to that section of code.

Drawing Capabilities

- Manipulate vector shapes with powerful shape drawing tools. Easily bend, erase, distort, skew, and combine vector shapes in a natural and intuitive way.
- Create pie wedges, round off rectangle corners, define an inner circle radius. Visually adjust shape properties on the stage.
- ◆ Create precise vector illustrations with the Pen tool inspired by Adobe Illustrator, and then manipulate Bezier control points using Illustrator keyboard shortcuts.
- ◆ Copy and paste illustrations from Illustrator into Flash CS3, preserving full fidelity.
- ◆ Toggle the object drawing mode to represent shapes as objects for easy visualization, the same way you would in Adobe Illustrator.







ADOBE

FLASH CS3 PROFESSIONAL

Powerful Animation Tools

- ◆ Create more compelling designs with built-in filter effects like drop shadow, blur, glow, bevel, gradient bevel, and color adjust. Apply effects to MovieClips and text fields to be rendered at runtime by Flash Player, consequently minimizing file size.
- ◆ Use blend modes to create unique visual blending effects when images overlay each other. Blends are rendered at runtime and updated live as objects move.
- Easily and precisely control the velocity of animated objects using an intuitive graph that provides independent control of position, rotation, scale, color, and filters.
- Copy an animation that is applied to an object and paste it into any other timeline object, dramatically reducing time spent on animation development.



Flash CS3 sports a user interface consistent with that found in other Adobe Creative Suite 3 components—easy to read and adjust to your liking. Panels can also be reduced to a new iconic view and slide open as you need them, leaving more room to see your document.

- Experiment with different versions of the same file, manage complex layouts, and save time by exposing only the layers you want to export and hiding the rest.
- Import MP3 files. Integration with Adobe Soundbooth makes it easy to edit files, without any audio production experience.
- Avoid unnecessary re-rendering of vector objects with bitmap caching. Flag an object as a bitmap at runtime so it gets cached as a bitmap; vector data is maintained, so it can be converted back to a vector at any time.
- Leverage the Flash APIs to easily develop extensions that add custom functionality.
- Add motion to your creations with the easyto-use, highly controllable, frame-based timeline inspired by traditional animation principles such as keyframing and tweening.

ActionScript Development

- ◆ Save time with ActionScript 3.0 language, featuring improved performance, increased flexibility, and more intuitive and structured development.
- ◆ Test content with a powerful, new ActionScript debugger that offers greater flexibility and user feedback, as well as consistency with Adobe Flex Builder 2 debugging.
- Facilitate scripting with Script Assist, a visual user interface for script editing that includes automatic syntax completion as well as descriptions of the parameters of any given action.
- ◆ Easily use different versions of the ActionScript language by selecting from different language profiles in the Actions panel, including profiles for mobile development.
- ◆ Instantly convert timeline animations into ActionScript 3.0 code that can be easily edited, re-used, and leveraged by developers. Copy animations from one object to another.
- ◆ Create interactive content with new, lightweight, easily skinnable interface components for ActionScript 3.0. Visually modify components' look and feel with the drawing tools — no coding required.
- ◆ Integrate video into ActionScript 3.0 projects using optimized video playback component, featuring closed-captioning capabilities, as well as support for streaming FLV content and progressively downloaded FLV files.

Adobe Integration

- Import and integrate Photoshop (PSD) files, while preserving layers and structure, and then edit them in Flash CS3. Optimize and customize the files during import with advanced options.
- Import and integrate Illustrator (AI) files, while preserving layers and structure, and then edit them in Flash CS3. Optimize and customize the files during import with advanced options.
- Export individual layers with transparency using the new QuickTime exporter, and import them into After Effects for advanced manipulation.
- Export individual layers with transparency using the new QuickTime exporter, and import them into Adobe Premiere Pro for advanced manipulation. Import FLV directly from Premiere Pro.
- ◆ Enjoy a streamlined interface that emphasizes consistency with other Adobe CS3 applications and can be customized to improve workflow and maximize stage space.

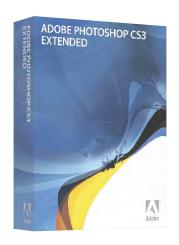
- ◆ Work more efficiently to create and edit animations created in Flash. Preserve vectors from animations created in After Effects for lean and clean delivery, and create FLV content more easily. Import SWF files as vectors with alpha channel preserved and batch render FLV files with embedded cue points.
- ◆ Import/export XML-based cue-point data files from Premiere Pro, After Effects, and Soundbooth to create sophisticated interactive video experiences. Use cue points to trigger interactivity at specific points in video and audio content.
- ◆ Design, preview, and test mobile device content using Adobe Device Central CS3, now integrated throughout Creative Suite 3. Create and test interactive applications and interfaces viewable with Flash Lite software.
- ◆ Enjoy a more efficient workflow with Adobe Bridge CS3, the hub of Creative Suite 3, which offers central access to project files, applications, and settings, as well as XMP metadata tagging and searching capabilities.

Flash CS3 Professional Software for Windows (Mfr # 38039481 • B&H # ADFPCS39W)698.5	95
Flash CS3 Professional Software for Macintosh (Mfr # 38039336 • B&H # ADFPCS39M)698.5	95
Upgrade Flash 8 to Flash CS3 Professional for Win (Mfr # 38039496 • B&H # ADUFPCS39W)198.5	95
Upgrade Flash 8 to Flash CS3 Professional for Mac (Mfr # 38039351 • B&H # ADUFPCS38M)198.5	€5



ADOBE

PHOTOSHOP CS3 EXTENDED



The World-Standard Image Editing Program

Accelerate your path from imagination to imagery. Ideal for editors, graphic designers and web designers, Photoshop CS3 Extended offers features such as automatic layer alignment and blending that enable advanced compositing. Live filters boost the comprehensive, nondestructive editing toolset for increased flexibility. And a streamlined interface and new timesaving tools make your work flow faster. Take advantage of a wide range of improvements designed to boost productivity. Maximize your workspace with a streamlined interface, process raw images with increased speed and quality, and manage assets more efficiently in the revamped Adobe Bridge CS3. And enjoy complete compatibility with Photoshop Lightroom software, so the changes you make to an image in one product will automatically appear in the other. The comprehensive image-editing toolset in Photoshop CS3 Extended lets you correct and enhance your images with unmatched creative control. Experiment more freely with

nondestructive filters. Manage and correct color more easily, and convert color images to rich black-and-white with one click. Retouch images with more powerful cloning and healing tools. And count on higher fidelity conversion when you merge a series of exposures into a 32-bit high dynamic range (HDR) image.

Photoshop CS3 Extended offers a wealth of features that make compositing multiple images easier than ever before. Create more accurate composites with new tools that automatically align and blend layers or images based on similar content. Make an image selection with one brush stroke. Perfect any selection edge in an easy-to-use, intuitive dialog box. And merge multiple photos into a panorama with superior results.

FEATURES

- Undo and redo any set of editing steps in an open image with the History palette, and automatically track all editing steps within your files with the Edit History log. Export steps to a text file or save them as part of image metadata for easier documentation of your work, file audits, and more.
- ◆ Take advantage of Adobe Flash and Zoomify technology to export high-resolution images to the web for viewing through Adobe Flash Player software. Flash Player displays your image quickly and efficiently, letting viewers zoom in on details with minimal delay.
- Import and export a wide range of file formats, including PSD, BMP, Cineon, JPEG, JPEG2000, OpenEXR, PNG, Targa, and TIFF.
- Experience native performance on Intel and PowerPC- based Macintosh computers, and on Windows XP and Vista systems.
- ◆ Paint, add text, and clone over multiple frames of an imported video sequence.
- Easily create animations from a series of still images or video frames with a new Animation palette that enables onion skinning.

- Create compelling mobile content, such as wallpapers and screensavers, and then visually preview how it will render on mobile devices using the built-in Adobe Device Central CS3. Tune your designs for mobile screen sizes and lighting conditions.
- Automate common production tasks in a variety of ways. Set up event-based scripts, record a series of steps as an Action for efficient batch processing, and design repetitive graphics faster with Variables.
- ◆ Maximize screen space for editing while keeping essential tools accessible. Palettes are now arranged in convenient, self-adjusting docks that can be widened to full size or narrowed to icons or even a thin, self-revealing strip at the edge of your monitor.
- Organize and manage images efficiently with Adobe Bridge CS3, which has a Filter panel for easy searching, can group multiple images under a single thumbnail, the Loupe tool, offline image browsing, and more.
- Set up and save custom menus, keyboard shortcuts, and workspaces for quick access to what you need.

3D Image Editing

- ◆ Easily render and incorporate rich 3D content into your 2D composites even edit existing textures on 3D models directly within Photoshop Extended and immediately see the results. Supports common 3D interchange formats, including 3DS, OBJ, U3D, KMZ, and COLLADA, so you can import, view, and interact with most 3D models.
- Create, modify, and collaborate on 3D content more easily through tight integration between Photoshop CS3 Extended and Acrobat 3D software. Convert myriad 3D CAD formats to the robust U3D interchange format, enhance models and create composites with Photoshop Extended, and easily embed 3D models created in Photoshop Extended into PDF files to distribute for review.
- ◆ Edit in perspective on multiple surfaces even those connected at angles other than 90°— with the enhanced Vanishing Point, which also lets you measure in perspective; wrap graphics, images, and text around multiple planes; and output 2D planes as 3D models.



ADOBE

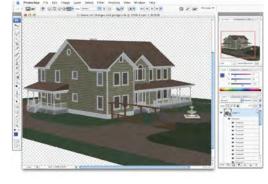
PHOTOSHOP CS3 EXTENDED

Unrivaled Editing Power

- Add, adjust, and remove filters from an image without having to resave the image or start over to preserve quality.
 Nondestructive Smart Filters let you visualize changes without altering original pixel data.
- Perform non-destructive scaling, rotating, and warping of raster and vector graphics with Smart Objects. Preserve the editability of vector data from Adobe Illustrator.
- ◆ Take advantage of precision color correction made faster and easier. Brightness/ Contrast now provides better results from the same intuitive interface, and enhanced Curves controls let you make automatic adjustments with included presets or those you create; convert to black-and-white with point sliders; and use a histogram, color channel lines, and a clipping preview.
- ◆ Easily convert color images to rich blackand-white and adjust tonal values and tints with a new tool. Experiment with the included black-and-white presets, or create and save your own custom presets to achieve the best results.
- Take advantage of new functionality and a host of presets that make the Channel Mixer easier to use for B&W conversion.
- ◆ Create and edit 32-bit images and combine multiple exposures into a single, 32-bit image that preserves the full range of a scene—from the deepest shadows to the brightest highlights. New image processing and alignment algorithms deliver superior results.
- Experience greater control when retouching images with cloning tools and the Healing Brush. See source pixels under your tool or brush for more precise positioning; preview changes to source content live; and set multiple source points, scale, and rotate in the new Clone Source palette.
- Create or modify images with a wide assortment of professional, fully customizable paint settings, artistic brushes, and drawing tools.
- ◆ Take perspective-based editing to a new level with the enhanced Vanishing Point, which lets you create multiple planes in an image, connect them at any angle, and then wrap graphics, text, and images around them to create packaging mock-ups and more.

Composite with Breakthrough Tools

- Composite images, text, and effects on hundreds of layers for extraordinarily sophisticated results. Organize layers with up to five levels of nesting, and save in different combinations as Layer Comps.
- ◆ Create more accurate composites by automatically aligning multiple Photoshop layers or images based on similar content. The Auto-align Layers command quickly analyzes details and moves, rotates, or warps layers to align them perfectly, and the Auto-blend



- Layers command blends the color and shading to create a smooth, editable result.
- Make selections in a snap. Loosely draw on an image area, and the Quick Selection tool automatically completes the selection for you. Then fine-tune your selections with the Refine Edge tool.
- ◆ Take advantage of Photomerge technology, which uses layer-alignment and layer-blending capabilities to let you automatically stitch horizontal or vertical photos into seamless panoramas.

Measurement, Counting, and Edit-Tracking Tools

- ◆ Extract quantitative information from images with new measurement tools. Easily calibrate or set the scale of an image, and then use any of the Photoshop Extended selection tools to define and calculate distance, perimeter, area, and other measurements. Record data points in a measurement log and export data, including histogram data, to a spreadsheet for further analysis.
- ◆ Show scale in images destined for presentation or publication using the Scale Marker, which lets you easily add a scale graphic to any image.
- ◆ Easily and accurately count objects or features in scientific images with the Count tool, which eliminates the need to perform manual calculations or rely on visual assessments of changes from image to image.
- ◆ Undo/redo any set of editing steps in an open image with the History palette, and automatically track all editing steps within your files with the Edit History log. Export steps to a text file or save them as part of image metadata for easier documentation of your work, file audits, and more.

Support for Manufacturing, Medical, and Scientific Workflows

- ◆ Quickly combine a series of related images and render them into a single view using a wide variety of rendering options, such as median and maximum. Photoshop Extended automatically analyzes and combines the images while preserving the originals. Image Stacks are extensible, so third parties can write their own render modes.
- ◆ Use the comprehensive Photoshop Extended toolset to import, correct, annotate, analyze, and create animations from DICOM images. Even automatically remove patient information from DICOM metadata and batch save JPEG files for presentation purposes.
- ◆ Pass image data directly between Photoshop Extended and MATLAB with the ability to call Photoshop Extended directly from the MATLAB command line. Visualize results of MATLAB algorithms in the software, and combine MATLAB processing with Photoshop Extended image editing to render, test, and refine algorithms for image processing, analysis, and more.



ADOBE

CS3 PRODUCTION PREMIUM



The Total Post-Production Solution

Maximize your productivity with Adobe's Creative Suite 3 Production Premium, the total post-production solution for both Mac and Windows. Achieve creative control with a complete set of professional video and audio post-production tools to take your ideas from storyboarding and acquisition through production and delivery. Work with Adobe's powerful software components to realize even the most demanding vision. Capture footage, edit efficiently, apply blockbuster visual effects, create and match compelling audio to your productions, deliver your creations virtually anywhere, and much more. Experience exceptional productivity offered by a highly integrated set of tools. Move smoothly among select components via Adobe Dynamic Link, which eliminates intermediate rendering so you can work fast and stay focused. Enjoy native Photoshop file support across

the components of Production Premium, as well as all-new integration between Photoshop and After Effects to allow for even greater animation possibilities. Save time by exporting from After Effects, Premiere Pro, and Soundbooth with markers converted to cue points for easier project creation in Adobe Flash. Manage media more efficiently than ever with Adobe Bridge, a single, intuitive interface that enables instant previews of video and audio files, batch processing, and image sequence previewing and scrubbing.

Reach the widest possible audience. CS3 Production Premium supports every major file format and lets deliver your work to virtually any medium, including film, video, DVD, Blu-ray Disc, the web, and mobile devices.

FEATURES

- Use native files any way you need to: Open native Photoshop files in Illustrator, import them into Flash projects. Open Illustrator files in Photoshop and import them into Flash projects.
- ◆ Get the most out of CS3 Production Premium on Intel-based Macs and Windows Vista systems. Work smoothly on legacy PowerPC based Mac and Windows XP systems as well.
- ◆ Experience unrivaled image editing and compositing, and even perform advanced image analysis, using Photoshop CS3 Extended. Produce inspired vector graphics with Illustrator CS3, which lets you interactively explore, apply, and control color. And work seamlessly between the two components with native file format support.
- Become more proficient at web andinteractive design. Get up to speed quickly in Flash, which features a familiar Adobe-standard interface, an object-oriented drawing mode, and a Pen tool like the one in Illustrator.
- ◆ Import layered Photoshop and Illustrator files into Flash, animate them, and export them automatically as ActionScript 3.0 to hand off to developers.

Adobe Bridge CS3

A powerful, but easy-to-use media manager for visual people, Adobe Bridge CS3 provides centralized access to project files, applications, and settings, as well as XMP metadata tagging and searching capabilities. Allowing you to easily organize, browse, locate, and preview assets, Bridge CS3 offers faster performance; customizable workspaces; nondestructive batch-editing of TIFF, JPEG, and camera raw files; playback of SWF and FLV files; and direct access to useful services such as Adobe Stock Photos.

- ◆ Locate files using the powerful Filter panel, which lets you filter content by metadata properties such as file type, file modification date, keywords, aspect ratio, and orientation. Sort results by criteria ranging from filename and creation date to label and rating.
- ◆ Set color preferences from a centralized panel in Bridge for more consistent color in your projects and files. This single set of preferences controls color settings for Photoshop and Illustrator CS3, so colors match closely onscreen as you work with the same file in different tools.
- View and search by new types of metadata criteria, including Illustrator swatches and the DICOM medical imaging format. Search images using more types of metadata criteria, including EXIF camera settings such as exposure, focal length, and aperture.

- Access Device Central CS3 from within Bridge to easily preview images, animations, and other content you're developing for mobile devices. With Device Central, you can preview, test, and optimize your designs, for a variety of mobile devices.
- ◆ Browse and purchase royalty-free stock photos from a wide range o iimage libraries in one convenient location. Search more than one million images from 23 agencies, and narrow results with easy-to-use advanced search features. Download comps in one click, and edit images directly in Photoshop.
- Evaluate images in the enhanced Preview panel, which can quickly be sized to full screen and offers a new Loupe tool to zoom in on details. Compare images side by side, preview and play back SWF and FLV files, and preview and scrub image sequences.



ADOBE

CS3 PRODUCTION PREMIUM

Adobe Device Central CS3

Adobe Device Central CS3 is designed to boost the efficiency and productivity of creativeprofessionals and mobile developers who want to produce innovative and compelling content for a broad range of mobile phones and consumer electronics devices. A regularly updated library of device profiles, combined with intelligent integration between Device Central CS3 and the other Creative Suite 3 components, simplifies the mobile authoring workflow and makes it a snap to preview designs and test content on the desktop — before loading it on the target device for final testing.

Adobe Acrobat Connect

Enjoy built-in access to Acrobat Connect software from within CS3 Production Premium. Save time and money and be more productive with Acrobat Connect, the subscription-based web-conferencing service that enables you to review creative concepts and other work in real time with clients and colleagues.

Adobe Dynamic Link

Enjoy greater freedom to experiment with new ideas without having to wait for intermediate rendering. Available only in Creative Suite 3 Production Premium, Dynamic Link allows you to move smoothly between After Effect and Premiere Pro or Adobe Encore software:

- ◆ Incorporate After Effects motion graphics, title sequences, and visual effects into your Adobe Premiere Pro timeline without rendering. Work with the compositions in both applications at the same time. Changes made in After Effects appear immediately in your Adobe Premiere Pro project.
- Use After Effects compositions in Encore for motion menus without rendering. Work with the compositions in both applications at the same time. Changes made in After Effects appear immediately in your Encore project.
- ♦ In the past, when using motion graphics or visual effects in a video or as motion menus for a DVD, you had to render the composition before including it in your video application. With Adobe Dynamic Link, you get a fluid workflow for integrating After Effects compositions into their final post-production context. Now you can deliver higher quality work under tight deadlines.

Adobe Soundbooth CS3

Soundbooth CS3 lets you take command of your audio in film, video, and Adobe Flash software projects. Use on-clip controls to make fast edits and intuitive, task-based tools to clean up recordings, polish voice-overs, customize music, modify sound effects, apply high-quality filters, and much more. Tight integration with Flash CS3 Professional and Premiere Pro CS3 and anintuitive, visual interface mean you can get the job done quickly without sacrificing creative control.

- ◆ Powerful, sample-accurate tools to cut, copy, paste, fade, and stretch audio assets. Intuitive tools make common edits instant, and visual feedback keeps you informed at every step.
- Automatically detect and fix common flaws in audio recordings such as hisses, hums, rumbling, crackling, and pops.
- ◆ Select one of the dozens of included Soundbooth Scores, and then customize it to match your project. Adjust intensity to match the visual mood, and change the length to fit.
- ◆ Enjoy a library of audio filters to help you achieve your own sound, including reverb, echo, EQ, time and pitch stretch, distortion, chorus, and more. Combine up to five effects using the Effects Rack.

- ◆ Use tools like those in Photoshop to visually identify, select, and remove individual sounds from a spectral display of your waveform.
- ◆ Use streamlined mastering tools to polish your file, clarify vocals, and give it punch.
- ◆ Record high-quality mono or stereo audio files such as voice-overs with markers and take numbering.
- Create or customize existing audio using thousands of sound effects available via Resource Central.
- ◆ Lay down markers in Soundbooth and export them as XML or in FLV. Access the markers through ActionScript language in Adobe Flash or in the FLV encoder for tasks like driving animation or creating captions.

Adobe Encore CS3

With unmatched Photoshop software integration and a flexible and intelligent workflow, Adobe Encore CS3 (included with Premiere Pro CS3) is packed with a rich set of creative tools for DVD and Blu-ray Disc authoring and SWF export to the web. Available for both Intel-based Mac and Windows systems, Encore CS3 is the right choice for easy production of full-featured, menu-driven DVD and Blu-ray projects, on disc and on the web.

- ◆ Maintain the pristine quality of your HD video all the way to distribution. Create high-definition Blu-ray Discs with the same interface and features used to create standard-definition DVDs.
- ◆ With one click, easily create SWF versions of your DVD and Blu-ray Disc projects for the web. Produce content compatible with Adobe Flash Player software, complete with DVD interactivity and menus, without opening another application.
- ◆ Create menus in Photoshop file format, using Photoshop technology built into Encore CS3. Edit menus in Photoshop and see your changes instantly in DVDs, Blu-ray Discs, and SWF projects.

Adobe Creative Suite 3 Production Premium:

Combines Adobe Dynamic Link, Adobe Bridge CS3, Adobe Device Central CS3, and Adobe Acrobat Connect with:

Adobe After Effects CS3 Professional (page 1028), Adobe Premiere Pro CS3 (page 1032), Adobe Illustrator CS3 (page 1035), Adobe Flash CS3 Professional (page 1036), Adobe Photoshop CS3 Extended (page 1038), Adobe Soundbooth CS3 and Adobe Encore CS3. Windows versions also include Adobe OnLocation CS3 (Windows only) and Adobe Ultra CS3 (Windows only).

CS3 Production Premium for Windows (Mfr # 29600055 • B&H # ADPPCS33WQ)......CALL
CS3 Production Premium for Macintosh (Mfr # 19600055 • B&H # ADPPCS33MQ)......CALL



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CREATIVE SUITE 3.3 MASTER COLLECTION



Highly Integrated Tools for Designing Content Across Media

Creative Suite 3.3 Master Collection features highly integrated, exceptionally productive tools for designing content across media. Provides design professionals with all the tools they need for print design and production as well as tools to expand their skills — and business — into web, interactive, mobile, and even video design and production. Web design professionals can create more compelling and dynamic websites by incorporating high-quality motion graphics and video in your designs, and move beyond the web to design print, video, and mobile content. Film and video professionals can tell compelling stories in virtually any medium. Showcase your work in high-quality, standards-based

output, promote your work in print and on the web, and increase production values on ever-shrinking budgets.

FEATURES

- ◆ Discover new levels of creative opportunity and efficiency with all-new versions of professional Adobe tools for print, web, interactive, film, video, and mobile design.
- Expand your technical skills without breaking your budget. Adobe Creative Suite 3
 Master Collection software combines the best of the Design Premium, Web Premium, and Production Premium editions into one value-packed offering.
- Publish content to multiple media. Preview Photoshop, Flash, or Illustrator artwork for mobile devices using Device Central. Prepare audio in Soundbooth, and then layer it over video in Adobe Premiere Pro — and export the result as FLV for use on a website.
- Repurpose InDesign layouts using XML, and export InDesign layouts as XHTML to open in Dreamweaver. Master Collection makes it easy to leverage your content for various final media.
- ◆ Produce rich, engaging content that can be freely deployed on the web and on a wide variety of mobile and other devices. Quickly copy motion to ActionScript 3.0 language to hand off to a developer working with Flash, or use scripts to automate tasks across components of the software. Master Collection offers robust features for producing and deploying cutting-edge content as well as improving efficiencies between designers and developers.
- You'll also find learning resources, CSS-based web page starting points, animation presets, and other support for quickly getting highquality results in design disciplines you're just starting to explore.
- ◆ Simplify installation and software management using a single installer and serial number. Install all components at once, or install only those you most need now, and add additional components later.

Applications

- Professional page layout, image editing, vector illustration, and print production.
- Website design, development, prototyping, and blogging
- ◆ Creation of rich interactive content
- ◆ Industry-standard visual effects and motion graphics
- ◆ Video capture, editing, and production; DVD titling; and digital audio
- Whether you need to produce brochures, compelling websites, rich interactive experiences, engaging mobile content, or stories told through motion and sound, find the perfect mode of expression for your ideas with Master Collection.
- Venture into new creative territory with Master Collection, which offers everything you need to excel in your core discipline as well as meet changing customer requirements and expand your creative business in new directions.
- Master Collection meets the most rigorous output criteria, from high-quality print to high-definition video. It offers the professional output options needed for every design discipline, from print to web to video. Adobe's ongoing focus on open standards means your work can easily go wherever you want.

Highly Efficient Integration

Work more productively than ever thanks to the exceptional integration of the tools in Master Collection. Come up to speed quickly with the help of the consistent interface across many of the creative tools — including the new Adobe-standard interface in Flash — and easily exchange native file formats to streamline content creation across design disciplines. Import layered Photoshop files into Illustrator, InDesign, Fireworks, Flash, After Effects, Adobe Premiere Pro, and Encore, or copy and paste from Photoshop to Dreamweaver. Export InDesign files as XHTML to jump-start web designs in Dreamweaver. Paint video layers in Photoshop CS3 Extended, and then export to a variety of video formats, including FLV, to incorporate into a website or an After Effects or Adobe Premiere Pro project. And much more.



ADOBE

CREATIVE SUITE 3.3 MASTER COLLECTION

Includes everything in CS3 Production Premium, PLUS—

Adobe InDesign CS3

Explore more creative possibilities and experience new levels of productivity using InDesign CS3 page layout software. Built for demanding workflows, it ntegrates smoothly with Photoshop, Illustrator, Acrobat and Dreamweaver. Powerful features for creating rich, complex documents; and reliably outputs pages to multiple media. Sophisticated design features and enhanced tools for streamlining repetitive tasks lets you work faster and better than ever.

Adobe Acrobat 9 Pro

Tightly integrated into four editions of CS3.3, Acrobat 9 Pro enables you to create richly expressive PDF files, collaborate more effectively with clients and colleagues, and confidently prepare files for high-end print production. Add content created in Adobe Flash software to your PDF files for more engaging interactive communications. Streamline your work with shared PDF reviews, and deliver high-quality print projects using enhanced preflight tools.

Adobe Dreamweaver CS3

Easily design, develop, and maintain websites and web applications — from start to finish. Built for both designers and developers, Dreamweaver CS3 offers the choice of working in an intuitive visual layout interface or a streamlined coding environment. Intelligent integration with Photoshop CS3, Illustrator CS3, Fireworks CS3, Flash CS3 Professional, and Adobe Contribute CS3 software ensures efficient workflow across your favorite tools.

Adobe Fireworks CS3

Fireworks CS3 is the ideal tool for creating and optimizing images for the web and rapidly prototyping websites and web applications. Offers the flexibility to edit both vector and bitmap images, a common library of prebuilt assets, and timesaving integration with PhotoshopCS3, Illustrator CS3, Dreamweaver CS3, and Adobe Flash CS3. Mock up designs quickly in Fireworks, or leverage other assets from Illustrator, Photoshop, and Flash. Then move directly into Dreamweaver CS3 for easy development and deployment.

Adobe Contribute CS3

Contribute CS3 enables content authors to easily update existing websites and blogs while maintaining site integrity — with no technical expertise required. Thanks to a true WYSIWYG authoring environment, content authors and contributors can edit or update any website or blog without having to learn HTML.

Adobe Version Cue CS3

With Version Cue CS3, you can centrally manage shared project files, work in parallel with others using an intuitive version control system, track file status with comments, use Adobe Bridge to find files visually, search for XMP metadata, and host Adobe PDF reviews. Seamlessly integrated with specific Creative Suite 3 components, Version Cue helps creative workgroups easily manage shared project files — without leaving the design environment.

	Creative Suite 3 Production Premium	Creative Suite 3.3 Master Collection			
InDesign 3		✓			
Photoshop CS3 Extended	✓	✓			
Illustrator CS3	✓	✓			
Acrobat 9 Pro		✓			
Flash CS3 Professional	✓	✓			
Dreamweaver CS3		✓			
Fireworks CS3		✓			
Contribute CS3		✓			
After Effects CS3 Professional	√	✓			
Premiere Pro CS3	✓	✓			
Soundbooth CS3	✓	✓			
Encore CS3	✓	✓			
Shared Features, Services and Applications					
Bridge CS3	✓	✓			
Version Cue CS3		✓			
Device Central CS3	✓	✓			
Acrobat Connect	✓	✓			
Dynamic Link	✓	✓			
On Location CS3 (Windows Only)	✓	✓			
Ultra CS3 (Windows Only)	✓	√			

InDesign CS3 for Mac (Mfr # 17510933 • B&H # ADIDCS35M)699.00
InDesign CS3 for Windows (Mfr # 17510933 • B&H # ADIDCS35M)699.00
Dreamweaver CS3 for Mac (Mfr # 38040348 • B&H # ADDWCS39M)398.95
Dreamweaver CS3 for Win (<i>Mfr # 38040334 • B&H # ADDWCS39W</i>) 398.95
Fireworks CS3 for Mac (Mfr # 38039926 • B&H # ADFWCS39M)298.95
Fireworks CS3 for Windows (Mfr # 38039927 • B&H # ADFWCS39W)298.95
Contribute CS3 for Mac (Mfr # 38040285 • B&H # ADCCS34.1M)168.95
Contribute CS3 for Win (Mfr # 38040286 • B&H # ADCCS34.1W)168.95

Creative Suite 3.3 Master Collection for Windows: Includes CS3 Production Premium (page 1041), plus Adobe InDesign CS3, Adobe Acrobat 9 Pro, Adobe Dreamweaver CS3, Adobe Fireworks CS3, Adobe Contribute CS3 and Adobe Version Cue CS3.

Creative Suite 3.3 Master Collection for Macintosh: Includes CS3 Production Premium (page 1041), plus Adobe InDesign CS3, Adobe Acrobat 9 Pro, Adobe Dreamweaver CS3, Adobe Fireworks CS3, Adobe Contribute CS3 and Adobe Version Cue CS3.



AJA

KONA LSE• KONA LS

SD Capture Card for Macintosh

KONA cards are the preferred choice for performance and stability in the broadcast industry. Now, with KONA LSe, everyone can enjoy the rich features, rock-solid video/audio and factory support that exemplify AJA products. The affordably priced LSe is the perfect video capture and playback card for building a professional standard definition editing system. Configured with a Apple Mac Pro or G5, RAID storage, computer display and video

monitor - along with Final Cut Pro - it achieves the same editing quality as an expensive turnkey suite.

Kona LSe offers full featured SD connectivity: analog video input/output that can be configured as component, composite or S-Video, 10-bit resolution SDI input and output with multi-channel embedded audio support, analog balanced audio input/output, and AES balanced digital audio input/output.

AJA offers direct integration with Final Cut Pro, as well as support for software applications like Adobe After Effects, Motion and more. KONA LSe can capture to QuickTime at uncompressed 10-bit 4:2:2 or 8-bit 4:2:2 and allows ingest from—and mastering to—BetacamSP, Digital Betacam, DVCPro50 and other standard definition VCRs. Also supports capture and playback from compressed SD formats like DV and DVCPro50, to provide the most flexibility for your SD workflows.

FEATURES

- ◆ 12-bit SD component, composite or S-video analog input/output
- ◆ SDI input and 2 SDI outputs
- AES digital audio input/output; hardware sample rate conversion on input (2 channel, balanced XLR) eliminates source synchronizing requirements.
- ◆ Balanced analog audio I/O (2 channel, balanced XLR)
- ◆ 8-channel SDI embedded audio support
- ◆ Broadcast-quality TBC with VHS support
- ◆ Genlock and RS-422 machine control
- ◆ AJA QuickTime drivers
- ◆ Support for Final Cut Pro, After Effects, Combustion, Motion, and more
- Supports all popular standard definition formats: 8- and 10-bit uncompressed, JPEG, DV25, DV50 and more
- ◆ 3-year warranty
- ◆ Available in PCIe as KONA LSe or PCI/PCI-X compatible form as KONA LS

Kona LSe (*Mfr # KONALSE • B&H # AJKONALSE*)
PCle Capture Card with Cables**849.95**

Kona LS (Mfr # KONALS • B&H # AJKONALS)
PCI/PCI-X Capture Card with Cables849.95

KONA Desktop

Most users run multiple applications to create their video projects. So in addition to Final Cut Pro or After Effects standard video output support, the KONA cards allow broadcast design elements to be viewed with the proper aspect ratio and color depth on a broadcast monitor via the KONA card in Macintosh Desktop mode. KONA Desktop output supports Adobe Photoshop, Apple Shake, Autodesk Combustion.

AJA also includes additional software utility applications with the KONA software driver installation to make post-production tasks easier: the AJA Data Rate Calculator which can be used to calculate the amount of storage required for your selected format, frame rate, and compression and the AJA KONA System Test, which can be used to benchmark the performance of your drives and more. AJA's installer also includes KONATV, an application for playing back QuickTime movies directly out of the KONA video and audio outputs without having to launch an editorial application.

Optional Breakout Box

The optional breakout box for KONA LSe/LS and LHe/LH simplifies connectivity in post-production environments by offering a 19" (1RU) rack-mountable breakout box that attaches to the card. The breakout box offers all the same inputs and outputs as the standard breakout cable, and



can be easily rack-mounted or placed on top of a monitor or editing console. Additional functionality over the standard breakout cable comes in the form of BNC AES input/output connectors, 2-channel RCA analog audio monitoring jacks, and looping BNC Genlock reference connectors. If you're using an analog Betacam SP, Digital Betacam, DVCPro50, or for the KONA LHe, a DVCPRO HD, HDV, HDCAM or D5 deck—you'll have the proper connections.



KONA LHE • KONA LH

SD/HD Capture Card for Macintosh

Stepping up from the LSe, the KONA LHe offers a full ride to HD with a host of no-compromise features: 10-bit uncompressed video, 2-channel AES and 8-channel SDI embedded digital audio, analog composite/component video I/O, 2-channel balanced analog audio I/O, and broadcast-quality hardware down-conversion A lot of card for a low price, LHe also features dual-monitor desktop viewing for editing ease, TBC on analog inputs and comes standard with a breakout cable. For convenience, an optional KL-Box-LH for rackmounted I/O

is available. Like the KONA LSe, the LHe hardware-based flexible connectivity allows capture to QuickTime at 10-bit and 8-bit uncompressed formats as well as DVCPRO HD, DV50, DV25, and more.

In addition to perfection in video, KONA LHe offers all the audio support you'd ever want: native OS X multi-channel audio and 24-bit AES/EBU digital audio at 48kHz for digital production. For ease of use, KONA LHe also includes hardware sample-rate conversion on AES inputs - eliminating source synchronizing requirements. Because of it's unique HD/SD analog I/O, KONA LHe is perfect for not only uncompressed and Apple ProRes 422, but also HDV and other diverse workflows.

FEATURES

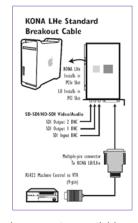
- ◆ SDI/HD-SDI single link 4:2:2 input/output
- ◆ 12-bit HD analog component input/output
- ◆ 12-bit SD analog component, composite, or S-Video input/output
- ◆ 10-bit hardware based-realtime
- ◆ HD to SD down-conversion
- ◆ DVCPRO HD and HDV hardware acceleration
- ◆ Dynamic RT Extreme hardware acceleration
- ◆ 2 independent SDI/HD-SDI outputs configure one for HD and the other for SD
- 2-channel balanced XLR AES digital audio and 2-channel balanced XLR analog audio input/output
- ♦ 8-channel SDI embedded audio I/O
- ♦ HD/SD Genlock and RS-422 machine control
- ◆ Suppport for Final Cut Pro, Motion, After Effects, Combustion, and more
- ◆ 3-year warranty
- ◆ Available in PCIe as KONA LHe or PCI/PCI-X compatible form as KONA LH

Kona LHe (Mfr # KONALHE • B&H # AJKONALHE)
PCle Capture Card with Cables......1549.95

Kona LH (*Mfr # KONALH • B&H # AJKONALH*)
PCI/PCI-X Capture Card with Cables1529.95

KONA LHe Hardware Acceleration

Final Cut users will love the DVCPROHD, HDV, and Apple RT Extreme hardware acceleration available on the LHe. It takes part of the codec processing load off the CPU, allowing more RealTime (RT) effects in Final Cut Pro when outputting. LHe also has hardware support when capturing, bringing amazing RealTime HD production power to the desktop. With KONA LHe, any source can be captured using the DVCPROHD codec - giving you online HD quality at remarkably low data rates, allowing the internal Mac Pro or SATA storage to be used for HD capture, playback and RT effects. Of course, you get better performance with a SCSI or Fibre array, but this allows HD to be used where only SD would have been considered because of money or time. LHe even supports DVCPROHD and HDV codecs with downconversion - allowing projects to be converted to SD.



Because KONA's precision hardware does part of the work, the Mac Pro has more time available to process RT effects. This means more RT-effects power and more RT streams. DVCPROHD and HDV codes use a two-step process. The video is first scaled to a lower horizontal pixel count, and then the video is compressed. LHe's hardware dramatically speeds up the scaling part of the job—with full 10-bit broadcast quality. When using the Final Cut Pro HDV codec, allows instantaneous RT playback for both monitoring and recording. Even KONA's downconverter works in realtime with HDV, allowing SD monitoring, dubs or mastering.

For Final Cut Pro's Dynamic RT feature, KONA's hardware is used to offload the video scaling as the "Playback Video Quality" dynamically adjusts. This allows more playback power - and because KONA handles it seamlessly, the Dynamic RT you see on the Mac monitor is the same as that shown on your professional broadcast monitor.

With sufficient storage solution, you can handle up to 16 sources in realtime. Each stream of video is captured individually and then ganged together in Final Cut Pro for a multi-cam editing workflow. KONA LHe seamlessly plays the multi-cam clips out to monitors or decks via SDI, HD-SDI or component video. Up to 16 sources can be viewed in realtime (4-, 6-, 9-, 16-up etc.), or each individual source can be viewed as it is selected via Final Cut Pro.



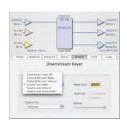
AJA

KONA 3 • KONA 3X

Capture Card for Uncompressed SD, HD, 2K and Dual Link HD

The top-of-the-line KONA 3 card has all the features you need: uncompressed video, 8-channel AES digital audio and 16-channel SDI embedded audio support, realtime hardware-based up/down/crossconversion for efficiently working with SD and HD formats, SD to SD aspect ratio conversion, hardware downstream keyer, plus HD/SD component analog output. Available as a state-of-the-art 4-lane PCIe (KONA 3) or PCI-X 133MHz (KONA 3Y) card the KONA 3 is designed to be the tool of choice for your post production workflow. It offers into

3X) card, the KONA 3 is designed to be the tool of choice for your post-production workflow. It offers integrated and easy to use support for Apple's Final Cut Pro software plus hardware scalar acceleration for the DVCPRO HD and HDV codecs as well as Dynamic RT Extreme effects within KONA 3 supports a wide variety of uncompressed SD and HD formats, including



high bandwidth Dual Link and 2K formats. It captures and plays back uncompressed 10-bit and 8-bit broadcast quality digital video and 24-bit digital audio, providing unparalleled power and workflow efficiency to meet today's broadcast standards. KONA 3 can also capture and playback many compressed SD and HD formats when disk space or realtime effects might be the biggest concern. Because KONA 3 is more than just an input/output card, it also includes a variety of 10-bit broadcast-quality features, such as hardware-based up-, down-, and cross-conversion to and from HD, and adds a hardware HD/SD keyer for compositing graphics like logos or bugs. With the hardware

downstream keyer, waiting for a graphic or logo to render in software can become a mere memory.

FEATURES

- ◆ SDI/HD-SDI single link 4:2:2, Dual Link HD-SDI 4:4:4, and 2K input/output support via HSDL
- ◆ HDV, DVCPRO HD and Dynamic RT Extreme hardware scalar acceleration
- ◆ Broadcast-quality hardware based 10-bit up-, cross- and down-conversion
- ◆ SD-SD hardware-based aspect ratio conversion (anamorphic to letterbox & vice versa)
- ◆ 12-bit SD and HD component output or SD composite plus Y/C analog outputs
- ◆ 10-bit HD/SD video+key output
- Internal HD/SD hardware based downstream keyer
- 8-channel 24-bit digital AES at either 48kHz or 96kHz via XLR, or 16-channel of 48kHz SDI embedded audio
- QuickTime driver and additional applications included with the software installer
- ◆ Suppport for Final Cut Pro, Motion, After Effects, Combustion, and more
- ♦ RS-422 machine control
- ◆ Optional breakout box ◆ 3-year warranty

Dual Link

KONA 3 supports Dual Link 4:4:4 HD-SDI, with full bandwidth 4:4:4 RGB at 10-bits for 1080i, 1080p, 1080PsF and 720p formats. KONA 3 can also convert between 4:4:4 and 4:2:2 formats for single link HD-SDI monitoring and output.

Broadcast-Quality Conversion

KONA 3 features full 10-bit, broadcast-quality, motion adaptive SD to HD up-conversion, HD to HD cross-conversion, HD to SD down-conversion, and automatic HD/SD 12-bit component analog output. That's the equivalent of rolling AJA's stand-alone HD D/A converter, HD to SD down-converter, and SD to HD up-converter into one convenient, cost-efficient KONA 3 board — at half the price. The quality is identical to AJA's award-winning stand-alone products, and all functionality is hardware-based, making it available full time, all the time, on digitize or playback. KONA 3 will address your varied delivery needs with support for hardware-based 1080-to-720 or 720-to-1080 cross-conversion. Uniquely, the KONA 3 can even cross-convert 720P 23.98 to 1080PsF 23.98. Cross-conversion streamlines dailies and deliverables creation at true broadcast picture quality in realtime. KONA 3 also offers SD to SD aspect ratio conversions meaning that anamorphic SD can be converted to letterboxed SD or vice versa—yet another measure of the power and flexibility of its hardware based conversions.

Internal SD/HD Hardware Downstream Keyer

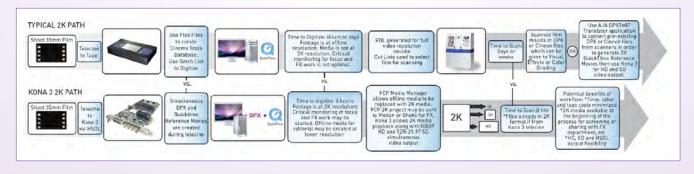
Available for the first time on any QuickTime capture card is a powerful hardware down-stream keyer that can place graphic files with an alpha channel over the video being input to the board—or a selectable color matte, or the contents of the card's frame buffer (KONA TV/Final Cut Pro). The downstream keyer can also key a QuickTime clip that has an alpha channel— a flying logo perhaps— by playing it in the KONA TV application over live video coming into the card.



KONA 3 • KONA 3X

2K

As the most full featured 2K capable card on the Mac platform, you can use KONA 3 to ingest from HSDL (high speed data link) equipped sources and record simultaneous 2K DPX files and 2K QuickTime reference movies. Material can be played out at 2K via HSDL, offering further synergy with other 2K products available such as digital disk recorders and 2K projectors. Additionally, KONA 3 allows 2K files to be viewed with a user selected crop function on HD 1080PsF supported video monitors. This functionality helps lower the price barrier for viewing 2K material. The 1080 HD playout can also be down-converted to SD in realtime, giving users a powerful solution for multi-format video playout of 2K material and flexible tape mastering options. Offline editing can be done in Final Cut Pro and, because of the flexibility of Final Cut Pro and QuickTime, even a 2K conform on the Mac is possible using the KONA 3.



	KONA 3	KONA LHe	KONA LSe	
SD (NTSC and PAL)	yes	yes	yes	
HD (720p, 1080i, 1080sf)	yes	yes	-	
2K (2048x1556, 2048x1080) Dual-Link HD, 2K HSDL, 4:4:4 RGB	yes	-	-	
HD to SD Down-conversion (10-bit, in hardware)	yes	yes	-	
SD to HD Up-conversion (10-bit, in hardware)	yes	-	-	
HD to HD Cross-conversion (1080 to/from 720, 10-bit, in hardware)	yes	-	-	
12-bit Analog Video (Component, Composite, and Y/C)	output SD/HD	input/output SD/HD	input/output SD	
10-bit SDI Digital Video (BNC)	input/out	put SD/HD	input/output SD	
Analog Audio (balanced XLR)	-	input/outp	ut/output 2 channel	
AES Digital Audio (balanced XLR)	input/output 8-channel	input/output 2-channel	input/output 2-channel	
Embedded SDI Audio (via BNC)	input/output 16-channel	input/output 8-channel	input/output 8-channel	
Professional Genlock	yes	yes	yes	
RS-422 Machine Control	yes	yes	yes	
DVCPRO HD Hardware Scaling Acceleration (in FCP)	yes	yes	-	
HDV Hardware Scaling Acceleration (in FCP)	yes	yes	-	
Dynamic RTExtreme Hardware Scaling Acceleration (in FCP)	yes	yes	-	
Optional 1RU Breakout Box	yes	yes	yes	
PCIe and PCI-X Available	yes	yes	yes	
3-year AJA Warranty with Advanced Exchange	included	included	included	

Kona 3:

12/10-bit analog/SDI, HD-SDI, dual link HD-SDI 4:4:4, HD and SD video editing PCIe capture & output card with SD-HD, and HD-SD up/down-conversion support.

(Mfr # KONA300 • B&H # AJKONA3)......**2549.95**

KONA 3x:

12/10-bit analog/SDI, HD-SDI, dual link HD-SDI 4:4:4, HD and SD video editing PCI-X capture & output card with SD-HD, and HD-SD up/down-conversion support.

K3-Box Breakout Box for KONA 3:

19", rack-mountable breakout box attaches to the KONA 3 with just 5 cables. This box offers all the same inputs and outputs as the standard breakout cable, and can be easily rack-mounted or placed on top of a broadcast monitor or editing desk. The box offers XLR and BNC AES output, 2-channel RCA analog audio monitoring, and looping BNC Genlock reference connectors. You can independently switch between HD and SD with the K-box since there are two HD/SD SDI video outputs and a component analog output. With this feature SD analog can be configured as composite.

Turnkey System



AJA

XENA/LSE

SD Capture Card for Windows

Running on Windows and supporting Adobe CS3 Production Premium, along with a wide variety of 3rd-party software, the XENA LSe is designed for serious editing, graphics and design professionals.

The affordably priced XENA LS is the perfect solution for capture, playback and printing video for non-linear editing and visual effects/motion graphics. It features AJA-quality standard-definition video capture and playback, rock-solid

video/audio, and factory support that exemplify all AJA products. XENA LS supports 10-bit resolution SMPTE SDI, using a choice of many formats (TGA, TIFF, BMP, AVI or QuickTime). It also has great audio I/O support: 2-channel balanced XLR analog, 2-channel balanced XLR AES and multi-channel embedded SDI audio. Hardware sample-rate conversion on AES inputs eliminates source synchronizing requirements. An optional breakout box provides all the standard features of a cable in an easy-to-use 1RU rackmount panel.



- 12-bit component, composite and S-Video analog input/output
- ◆ SDI input, 2 independent SDI outputs
- ◆ AES I/O, sample-rate conversion on input (2-channel, XLR)
- ◆ Balanced analog audio I/O (2-channel, XLR)
- ◆ 8-channel SDI embedded audio support
- ◆ Broadcast-quality TBC with VHS support
- ◆ Support for TGA, TIFF, BMP, AVI and QuickTime files
- ◆ Support for all popular standard definition formats (NTSC and PAL)
- Reference input (for genlock) and RS-422 machine control on the breakout cable and the optional breakout box
- ◆ AJA Machina software
- AJA plug-in support for Adobe Premiere Pro CS3, Adobe After Effects CS3, Photoshop CS3 Autodesk Combustion 4, and Eyeon Fusion 5.
- ◆ XENA 3rd-party support for Sony Vegas
- ◆ Optional rackmounted breakout box
- ◆ 3-year warranty

XENA LSe (Mfr # XENALSE • B&H # AJXENALSE)
PCle capture card with cables.......**859.95**

XENA LS (Mfr # XENALS • B&H # AJXENALS)
PCI/PCI-X capture card with cables......859.95

KL Box (Mfr # KLBOX • B&H # AJKLBOX)
Breakout Box for Xena LS/LSe......259.95



AJA Machina

AJA Machina is a powerful stand-alone capture/playback application with full VCR machine control. Bundled with all XENA cards, full access to any and all XENA supported file formats, video standards and conversions is presented in an easy-to-use interface. Captured files can then be imported into virtually any software package that supports these XENA file formats, such as compositing, 3D animation, audio editing programs and much more.

With Machina, you can also output to tape the files exported from these same programs.

Machina offers vast array of uncompressed capture options ranging from Quicktime to DPX. It give users with the ability to choose from many capture options including bit depth, colorspace, and audio capture options. Machina can also output in all the same formats which it can capture. All these capture and output options are complimented with deck control.

Machina has great desktop preview features. Preview files full screen on the desktop display at various zoom levels, creating an alternative for frame by frame viewing when only one monitor is available. It also gives users the power to apply 1D LUT's on output, to output video+key for monitoring or mixing, and to key in static graphics on selected XENA cards. Use Machina to tap your XENA card's format conversion abilities during capture, output, or monitoring.

Supplied Cables and Optional Breakout Box

The XENA/LSe includes cables to connect to almost any device. For additional flexibility, the optional KL-Box breakout box further simplifies connectivity in professional post-production environments. The 19" 1RU rack-mountable box attaches directly to the XENA card using supplied cables. The breakout box offers all the same inputs and outputs as the standard breakout cable,



and can be rack-mounted or placed on top of a broadcast monitor or editing console.

Additional functionality over the breakout cable comes in the form of BNC AES I/O connectors,



2-channel RCA analog audio monitoring jacks, and looping BNC genlock reference connectors. If you're using an

analog BetacamSP, Digital Betacam or DVCPro50 deck you'll always have the proper connections.



AJA

XENA/LHE

SD/HD Capture Card for Windows

The XENA LHe offers a full ride to HD with no-compromise 10-bit and 8-bit uncompressed video, 2-channel AES and 8-channel embedded audio, analog composite/component video I/O, 2-channel analog audio I/O, 10-bit broadcast-quality hardware HD to SD down-conversion and TBC on analog inputs. XENA LHe bridges the analog and digital worlds by offering I/O for both.

XENA LHe comes standard with a breakout cable and also works with the optional KL-Box for rackmounted I/O convenience. XENA LHe provides optimum quality for SD and HD—

the maximum allowed in SMPTE SDI standards. Using many user-selected formats—DPX, Cineon, TGA, TIFF, BMP, YUV, AVI or QuickTime—XENA LH captures directly to disk. In addition to top quality video, XENA LHe supports multi-channel audio and 16/24/32-bit AES/EBU digital audio at 48kHz for digital production. For ease of use, XENA LHe also includes hardware sample-rate conversion on AES inputs—eliminating source synchronizing requirements.

XENA LHe is perfect for many diverse workflows, including capture from analog component connections from HDV cameras that allow direct ingest of HDV-acquired material into uncompressed or any other supported file format. These 12-bit analog inputs and outputs, in addition to 10-bit digital I/O's, ensure that XENA LHe can interface to almost any Single-Link SDI or analog HD or SD device you throw at it. Monitor HD files on an SD monitor. Make analog or digital SD tape masters from an HD project. Awesome workflow capabilities are yours with XENA LHe.



Step-up Features from the XENA LSe

- ◆ 10-bit uncompressed SD/HD capture card
- ◆ 12-bit HD analog component I/O
- ◆ 12-bit SD analog component or composite/YC I/O
- ◆ 10-bit hardware HD to SD down-conversion
- ◆ Native support for DPX, Cineon, TGA, TIFF, BMP, YUV, AVI and QuickTime files
- ♦ SDI or HD-SDI input
- ◆ 2 independent SDI/HD-SDI outputs
- ◆ 2-channel balanced XLR AES and 2-channel balanced XLR analog audio I/O
- ◆ 8-channel SDI embedded audio I/O
- ♦ HD/SD Genlock
- ◆ Available in PCIe and PCI/PCI-X versions

XENA LHe (Mfr # XENALHE • B&H # AJXENALHE)
PCle capture card with cables..................1549.95

XENA LH (Mfr # XENALH • B&H # AJXENALH)
PCI/PCI-X capture card with cables........1549.95



XENA HS

XENA HS was jointly developed with Adobe to deliver turnkey desktop software and hardware for native full-resolution capture, editing and playback in SD and HD. Working via Adobe's Open HD certification program, Adobe implemented support for AJA's XENA HS real-time HD-SDI I/O card in the Adobe Production Studio. which features a streamlined workflow with

products including After Effects, Photoshop and Premiere Pro.

XENA HS support in Premiere Pro 2.0 allows post-production editors, videographers and multimedia creative professionals to input and output high-speed, uncompressed digital audio/video under full control of the Adobe software for integrated capture, playback and print to tape. With XENA HS, you also get AJA's own plug-ins for capture, preview and export within Adobe PhotoShop, and for preview within After Effects.

Running on Windows XP and working under Adobe's Production Studio software, the XENA HS supports both HD/SD-SDI I/O for capture and playback. Has one SDI video input, one SDI video output, as well as support for six channels of AES audio I/O. XENA AES/EBU audio is 24-bit/48khz. All AES inputs support asynchronous audio at 32-96kHz.

Reference input (BNC) allows you to synchronize outputs to house reference video signal (or black burst). If you have a sync generator or central piece of video equipment to use for synchronizing other video equipment in your studio, then connect its composite output here. When XENA outputs video it locks to this reference signal.



AJA

XENA/2KE

Capture Card for Uncompressed SD, HD, 2K and Dual Link HD

AJA's top-of-the-line card for Windows, the 2KE delivers uncompressed SD, HD, Dual Link HD and 2K, enabling customers to work in nearly any resolution and in a flexible and future-safe architecture.

XENA 2Ke's 4-lane PCI-Express bus interface plus integrated AJA drivers and plug-ins, team



up perfectly with Windows and a wide variety of applications such as Adobe Premiere Pro, After Effects, Combustion, and Fusion, to give you unparalleled power and efficiency. XENA 2KE captures and plays back uncompressed 10-bit and 8-bit digital video and 24-bit 48kHz digital audio in SD (standard definition, single-link and dual-link HD (high definition), D-Cinema, and full frame 2K via HSDL.

FEATURES

Step-up Features from the XENA LHe

- ◆ SDI, HD-SDI, Dual Link SD and HD-SDI 4:4:4, and 4:4:4:4, HSDL
- ◆ 2K frame format support
- ♦ HSDL support
- ◆ Look Up Table support (LUT)
- Broadcast-quality hardware based 10-bit upconvert, down-convert and cross-convert
- ◆ 12-bit HD component and SD component/composite analog output
- ◆ 8-channel 48/96Khz AES, and 16-channel embedded SDI audio support
- Downstream keying support for overlay of static graphics in Machina
- ♦ 12- bit SDI capture and output support in RGB (at 1920 x 1080p 23.98 only)
- ♦ Video + Key output
- ◆ Optional K3-Box breakout

XENA 2K (Mfr # XENA 2K · B&H # AJXENA2K)
PCI/PCI-X capture card with cables.......2669.95

Dual Link

XENA 2K supports Dual Link 4:4:4 HD-SDI devices such as Sony HDCAM SR Decks, ARRI D-20 or Thompson Viper cameras. XENA 2K Dual Link supports full bandwidth 4:4:4 RGB at 10-bits for 1080i, 1080p, and 720p formats. XENA 2K can also convert between 4:4:4 and 4:2:2 formats for Single Link HD-SDI output.

Broadcast-Quality Conversion

XENA 2K features full 10-bit, broadcast-quality, motion adaptive SD to HD up-conversion, HD to SD down-conversion, HD cross-conversion and automatic HD/SD 12-bit component analog output. In addition to all these conversion features, XENA 2K can also do SD to SD aspect ratio conversions from 4:3 to 16:9 and vice versa. The quality is identical to AJA's award-winning stand-alone products, and all functionality is hardware-based, making it available full time, all the time, on digitize or playback. XENA 2K will address your needs with support for hardware-based 1080-to-720 or 720-to-1080 cross-conversion. This powerful feature further streamlines dailies and deliverables creation at true broadcast picture quality in realtime.



Flexible I/O

XENA 2KE boasts 2 HD/SD SDI video inputs and outputs and one component analog output, each independently switchable between HD and SD (SD analog can be configured as composite). For example, if you are working in HD, you can have simultaneous HDSDI, SDI, and HD or

SD component analog output. Using XENA 2KE's full-time format conversion features, monitoring can be as simple as a single composite monitor for both SD and HD projects. Dual Link can be monitored via Dual Link HD-SDI outputs, Single Link HD-SDI, or HD component analog.

When you plug in XENA 2Ke's breakout cables, they automatically configure. For SDI video, the card features 2 HD/SD inputs and 2 outputs for Single or Dual Link, one connection for Genlock input, and 3 for HD/SD component analog video out. A 9-pin D-connector is included for RS-422 machine control. SDI inputs and outputs use a separate cable with special mini-BNC connectors on one end and full-sized BNCs on the other for ease of connection and superior reliability.



AJA

XENA/2KE

2K WORKFLOW

XENA 2K can capture directly from a 2K telecine to disk, eliminating both the need for tape stock and the process of digitizing tapes for the nonlinear editor. The additional 2K support in XENA 2K will benefit large, full-service facilities as well as boutique facilities entering the 2K "film as digital" landscape.

2K telecine to XENA 2K saves time and steps in the process by directly creating 2K DPX, QuickTime, Cineon, AVI, TGA, TIFF or BMP files. XENA users can capture directly into the format they need and move files immediately into their editing/compositing environment. These same files can be played out at 2K via High Speed Data Link (HSDL) at 15 fps, offering further synergy with other 2K products already in use in the market.

Additionally, XENA 2K allows 2K files to be viewed on HD 1080 24P-supported video monitors, lowering the price barrier for recording to tape and viewing 2K material. This 1080 HD playout can also be down-converted to SD in realtime, giving the 2K DI pipeline a powerful solution for multi-format video playout of 2K material.

By generating 2K files during the digitize phase, filmmakers can skip tape altogether and begin editing from a digital master immediately after the telecine is complete. Tape capture becomes unnecessary. Offline editing can be done in Adobe Premiere Pro and because of the flexibility of Adobe Premiere Pro and Windows, even a 2K online is possible.

XENA Workflow	SOURCE	CONVERT	ACQUIRE	CREATE, EDIT, PLAYBACK	EXPORT, CONFORM, OUTPUT	OUTPUT Video or File-Per-Frame	
	Analog	Crossconvert.	8-bit or 10-bit	Edit, add Realtime Effects.	Crossconvert	Analog	
From VTR,	SD	Upconvert (XENA 2K)	Uncompressed AVI and QuickTime, DPX, Cineon, TGA,	Composite, Render, To/From 8-bit or 10-bit	Upconvert (XENA 2K) Downconvert	SD	To VTR,
Camera, Etc.	HD	Downconvert (XENA LH. 2K) or Pass-through	TIFF, and BMP files to storage (DPX and Cineon	Uncompressed AVI and QuickTime, DPX, Cineon, TGA, TIFF, and BMP	(XENA LH, 2K) or Pass-through	HD	Monitor, Etc.
	Telecine	(all)	on XENA LH/2K Only)		(all)	Telecine	1

	XENA 2Ke	XENA LHe	XENA LSe	
SD (NTSC and PAL)	yes	yes	yes	
HD (720p, 1080i, 1080sf)	yes	yes	-	
2K (2048x1556, 2048x1080) Dual-Link HD, 2K HSDL, 4:4:4 RGB	yes	-	-	
HD to SD Down-conversion (10-bit, in hardware)	yes	yes	-	
SD to HD Up-conversion (10-bit, in hardware)	yes	-	-	
HD to HD Cross-conversion (1080 to/from 720, 10-bit, in hardware)	yes	-	-	
12-bit Analog Video (Component, Composite, and Y/C)	output SD/HD	input/output SD/HD	input/output SD	
10-bit SDI Digital Video (BNC)	input/out	put SD/HD	input/output SD	
Video + Key	yes	-	-	
Analog Audio (balanced XLR)	-	input/outp	ut 2 channel	
AES Digital Audio (balanced XLR)	input/output 8-channel	input/output 2-channel	input/output 2-channel	
Embedded SDI Audio (via BNC)	input/output 16-channel	input/output 8-channel	input/output 8-channel	
Professional Genlock	yes	yes	yes	
RS-422 Machine Control	yes	yes	yes	
Native support for DPX, Cineon	yes	yes	-	
Native support for TGA, TIF, BMP, YUV, AVI, and QuickTime	yes	yes	yes	
AJA plug-ins for Adobe CS3 and other 3rd-party Apps.	yes	yes	-	
AJA Machina application for powerful capture/preview output	yes	yes	yes	

Audio

XENA 2KE's extensive audio support makes installation a breeze, working with 8-channel 24-bit AES audio via XLR (balanced) connections, and 8-channel embedded 24-bit embedded SDI/HD-SDI audio. XENA 2K also features high-quality input sample-rate conversion on AES inputs, which eliminates the need for audio source synchronization.

Optional K3-Box for XENA 2K/ XENA 2KE



The K3-Box for XENA 2K/2KE simplifies interfacing by offering a 19", 1RU rack-mountable breakout box that attaches to the XENA 2K/2KE with just two cables. This option offers all the same inputs and outputs as the standard breakout cable, and can be easily rackmounted or placed on top of a broadcast monitor or editing desk. Additional functionality includes simultaneous XLR and BNC AES output, 2-channel RCA analog audio monitoring, and looping BNC Genlock reference connectors.

XENA 2K/HP xw8600 Turnkey System



AJA

io HD

Portable FireWire-800 Analog/Digital Capture Device

io HD is an effortless to use, transportable plug-in solution for working with HD and SD in Final Cut Studio 2. With a single FireWire 800 connection, io HD can easily be connected to a Mac Pro desktop or a MacBook Pro laptop, offering unparalleled video and audio connectivity.

Within its portable and rugged form factor (measures only 8.2 x 12 x 4.8" and has a built-in handle), io HD offers SD/HD analog I/O, SD/HD digital I/O including HD-SDI and HDMI, balanced analog and digital AES audio, as well as RS-422, genlock, and even LTC timecode connections. It is also the only device in the world that supports Apple's ProRes 422 codec in hardware, enabling true 10-bit video editing with a MacPro or MacBook Pro. Add AJA's realtime hardware-based 10-bit up/down/cross conversions, and you can

work anywhere in SD or HD—all in full-raster 10-bit 4:2:2 quality.



FEATURES

io HD Software

io HD runs on an AJA-built driver, similar to the KONA driver, which brings features such as Core Audio and very low latency capture and playback. The io HD driver also provides RGB support, allowing for the direct video output of applications such as After Effects, Autodesk Combustion and Apple Motion. Co-developed with Apple for use with Final Cut Studio 2, lo HD is a full-featured device delivering powerful audio/video capture, editing and post-production capabilities— all in an intuitive to use and integrated system.

- AJA Control Panel is used to select the input audio/video source, configure up/down/cross-conversions and much more.
- ◆ AJA Data Rate Calculator lets you calculating storage and bandwidth requirements
- ◆ AJA System Test lets you benchmark storage such as disk arrays
- ◆ AJA TV is a simple to use QuickTime viewing application with video output.

Broadcast-Quality Conversions

io HD features full 10-bit, broadcast-quality, motion-adaptive SD to HD up-conversion, HD to HD cross-conversion, HD to SD down-conversion, and HD/SD 12-bit component analog output. The quality of the io HD's conversions is identical to AJA's award-winning stand-alone products, and since all functionality is hardware-based, this means that it is available all the time, on digitize or playback without using CPU processing like software conversions would. Supports hardware-based 1080-to-720 or 720-to-1080 cross-conversion.



Rear view of the io HD

Audio Connectivity

- ◆ Extensive audio support makes integration with professional audio gear a breeze.
- Connect io HD to a digital audio mixer or DAW output with 8-channel 24-bit 48kHz AES audio via BNC connections.
- Offers 8-channel SDI embedded 24-bit 48kHz audio for multi-channel audio mastering.
- High-quality input sample-rate conversion on AES input eliminates the need for audio source synchronization. You can even input and output up to 8 embedded channels on the HDMI inputs and outputs.
- Balanced analog XLR connections for four channels are provided along with two unbalanced RCA connectors for connection to consumer monitoring devices.

Apple ProRes 422 Workflow—in Hardware

- ◆ Allows ProRes 422 to move over FireWire 800 connectivity.
- ◆ Creates images visually indistinguishable from the source.
- ◆ 4:2:2 chroma sampling provides high-quality color definition.
- ◆ 10-bit sample depth produces images suitable for color correction and compositing.
- ♦ I-frame encoding results in easily computer-processed and edited media.

io HD: With three year warranty (Mfr # IOHD • B&H # AJIOHD)2999.95
TecNec Rackmount AV Breakout Panel (2U) for io HD (Mfr# HD-BAJA B&H# TEHDBAJA)374.95

Video Connectivity

- Rear panel connectors to directly connect standard broadcast devices. For SDI video, the box features two HD/SD inputs and two outputs, one connection for Genlock input and a loop-through, and two groups of three BNCs which may be configured for component HD/SD analog video input and output.
- ♦ HDMI input and output allows interfacing with low-cost camcorders and HD monitors. Add to that composite, S-Video, LTC in and out—and RS-422 machine control and you can connect to just about anything.



AJA

lo • lo LD • lo LA

Uncompressed Over-Firewire Devices for Final Cut Studio

The lo family provides a simple elegant plug-in solution for working with Final Cut Pro on a Mac. With a single FireWire connection, any lo connects to a Mac Pro, MacBook Pro, or Power Mac and provides audio and video I/O, connection



to VCRs, Genlock and integrated Final Cut Pro drivers. With the proper FireWire card and external drives, you can even use lo products with an Apple laptop. Io products are the simple solution for building a Mac-based video finishing system. Co-developed with Apple, lo products work with Final Cut Pro to provide a seamless non-linear editing experience, with all the features of proprietary systems - but without the expense and hassles.

FEATURES

lo Software

- ◆ The Io family was co-developed with Apple for use with Final Cut Pro to deliver powerful video/audio capture, editing and video production — all in a single, integrated system.
- ◆ Each lo comes with special Final Cut Pro presets to facilitate ease of use. The lo driver provides RGB support, allowing for the direct video output of applications such as After Effects, Discreet Combustion and Apple Motion.

Io Control Panel

- ◆ The stand-alone Control Panel software application lets users manage the lo as an "everything in/ everything out" frame synchronizer. Now the lo can perform as a stand-alone A/D and D/A converter, SDI audio mux/de-muxer, and more.
- The Control Panel provides simple, at-a-glance configuration and control capabilities. Flexible software controls allow users to select input sources, choose formats, color correct, and save setting in up to 10 unique presets.
- ◆ These presets can be recalled at a later time to instanty reconfigure the lo. Once a preset is recalled, the lo can be disconnected from the Mac's FireWire port and operated as a stand-alone converter.
- When Final Cut is running, the Control Panel steps aside and automatically lets it take over the Io, resuming control again when Final Cut quits. The Control Panel provides a powerful addition to Final Cut's capabilities with features like proc amp and output timing controls.

	lo	lo LA	lo LD
Easy FireWire Installation	Yes	Yes	Yes
Portable	Yes	Yes	Yes
Future Safe (not dependent on CPU bus standards)	Yes	Yes	Yes
Rackmountable I/O	Yes	Yes	Yes
Hardware user interface (LEDs show input status and mode)	Yes	Yes	Yes
Standalone format conversion (using control panel application)	Yes	Yes	Yes
Does Not Require a PCI/PCI-X slot	Yes	Yes	Yes
Works with a PowerBook Laptop	Yes	Yes	Yes
Video analog in	YPbPr/RGB/S/ Composite	YPbPr/RGB/S/ Composite	_
Video analog out	YPbPr/RGB/S/ Composite	YPbPr/RGB/S/ Composite	YPbPr/RGB/S/ Composite
SDI in	10-bit	_	10-bit
SDI out	10-bit	_	10-bit
AES I/O	4-channel XLR	_	_
SPDIF I/O	Optical	_	2-channel Out
A/D/A audio	24-bit	24-bit	24-bit
Analog audio in	4-channel XLR	4-channel XLR	_
Analog audio out	4-channel XLR	4-channel XLR	2-channel XLR
Embedded audio	8-channel	_	8-channel
RGB application support	Yes	Yes	Yes
Genlock	Looping	Looping	Looping
RS-422	Yes	Yes	Yes
Warranty	3-year	3-year	3-year

lo (Mfr # 10 • B&H # AJIO)	1979.95
Io LA (Mfr # IOLA • B&H # AJIOLA)	999.95
lo LD (Mfr # IOLD • B&H # A IIOLD)	849.95



D-SERIES MINIATURE CONVERTERS

D₁₀CE

SDI to Analog Component and Composite Converter

The D10CE provides excellent quality 10-bit conversion of SDI to simultaneous component and composite video. Component outputs are user configurable to Y/Pb/Pr, Betacam, or RGB (or composite Y/C). The composite output is configurable to composite video or sync. The component and



composite outputs are completely independent including optimum chroma filtering for each and independent pedestal configuration. The D10CE also features an exclusive PLL jitter filter/memory to reduce the effects of SDI jitter on the output analog video. This feature, along with the precision 4x oversampled D/A filters, provides the highest quality analog outputs including very low phase noise in composite outputs. The D10CE also provides two re-clocked, loop-thru SDI outputs. All functions are user configurable via external dip switches.

D10C2

SDI to Analog Component or Composite Converter



The D10C2 provides excellent-quality 10-bit conversion of SDI to analog component or composite video at low cost. In component mode, outputs are user configurable to Y/Pb/Pr, Betacam, or RGB. In composite mode, it provides two composite outputs and an S-Video output. The D10C2 also provides two

re-clocked, loop-thru SDI outputs and a composite sync output (component mode). All functions are user configurable via external dip switches.

D₁₀AD

Analog Component or Composite to SDI Converter

The D10AD provides excellent-quality 10-bit conversion of analog component or composite video to SDI (four outputs) with EDH. The D10AD accepts Y/Pb/Pr, Betacam, or RGB component inputs or composite (automatic NTSC/PAL) and S-Video inputs. The D10AD features a 4-Line Adaptive Comb Filter for high-



quality decoding of composite sources. The comb filter can be switched to 2 line or notch modes for minimum delay requirements. Video format, AGC mode, and color bar generator, and pedestal are user configurable via dip switches.

D10A

Analog Component to SDI Converter (with Separate Sync Input)

A favorite of professional video engineers, the D10A provides superior quality component-only analog to 10-bit SDI. The D10A is factory-set to accept either Y/Pb/Pr, Betacam, or RGB in 525 or 625 line formats, converting the analog component signal to 10-bit SDI. The D10A has



three BNC's for component input, one external sync input, and three SDI (two loop-through) outputs. Input formats can be reset by internal jumpers and level/gain controls. Normal/Wide V-blanking.

D10CEA

SDI to Analog Audio and Video Converter



The D10CEA converts SDI video with embedded audio to 10-bit component or composite analog video and 4-channel balanced analog audio. Video outputs can be configured as YPbPr, RGB, composite or S-Video. The 4-ch analog audio outputs can be wired in a balanced or unbalanced configuration. The 4 audio

output channels can be selected as group 1-4 from SMPTE embedded audio. Audio level has 4 settings. Audio and video output connections are available on a 25-pin "D" subminiature connector – a break-out cable is supplied. All video/audio configuration is done by external dip switch selection. This versatile, low-cost, miniature monitoring solution also outputs two re-clocked loop-thru SDI outputs.

D10C

Composite Digital (D2/D3) to Composite Analog, or SDI to Component Converter

Providing excellent quality 10-bit digital to analog conversion at low cost, the D10C is useful for D/A conversion, high-quality monitoring, or adding an SDI input to VCRs, workstations, or other analog video equipment. The D10C automatically works with component or composite SDI inputs in 625 or 525 line



formats. Featuring one SDI input with two re-clocked, loop-thru SDI outputs, the D10C also acts as a distribution amplifier/repeater.

The D10C provides a component analog output for component SDI inputs (D1), a NTSC output for 525 line composite SDI inputs (D2, D3), and a PAL output for 625 line composite inputs SDI (D2, D3).



AJA

D-SERIES MINIATURE CONVERTERS

D₅D

Analog Composite and S-Video to SDI Converter

The D5D Decoder provides low-cost, all digital decoding of analog composite (NTSC/PAL) or S-Video to SDI. The D5D is useful for bringing video from time-base corrected analog composite equipment into a serial digital environment.



The D5D features selectable 2 or 3 line adaptive comb filter as well as a crystal

PLL jitter filter/memory to reduce jitter in each of the three SDI outputs. The D5D decodes the full dynamic range of input video - values below black and above white are not clipped. In the NTSC mode, the removal of the 7.5 IRE pedestal can be enabled by external dip switch selection.

D5CE

SDI to Analog Component or Composite Converter

The D5CE provides low cost, all digital conversion of SDI to either



composite or component analog video. Three analog BNC outputs are user configurable to cover a wide range of format combinations including three composite (NTSC/PAL), one composite and S-Video, YPbPr, Betacam, or RGB. The D5CE also features a re-clocked, loop-thru SDI output. Pedestal and

narrow/wide H/V blanking are user configurable via dipswitches.

- ◆ User selectable component or composite/S-Video outputs
- YPbPr, Betacam, or RGB component formats
- ◆ Automatic NTSC/PAL selection
- User selectable Vertical/ Horizontal blanking

D4E

SDI to Analog Composite Converter

The D4E SDI Encoder provides the lowest cost all-digital conversion of SDI to analog composite (NTSC/PAL). The D4E is useful for monitoring, level and phase checking, dubbing, etc. Pedestal and narrow/wide H/V blanking are user



configurable via dip switches. The D4E encodes the full dynamic range of input video: levels below black and above white are not clipped.

- ◆ Lowest-Cost SDI to NTSC/PAL Available
- ◆ One SDI Input, two composite/S-Video outputs
- ◆ Automatic NTSC/PAL selection
- ◆ Built-in test pattern
- Ultra-miniature size mounts anywhere

D₅DA

1x4 SDI Distribution Amplifier

The D5DA is a multi-format, 1x4, re-clocking SDI Distribution Amplifier.

It can be used as a low-cost SDI DA or repeater. The SDI input is re-clocked and equalized to 300 meters of cable. In addition, the multi-standard feature allows the D5DA to automatically adapt to 143, 177, 270, or 360 Mb SDI inputs automatically.



D5DA (Mfr # D5DA • B&H # AJD5DA) ...214.95

D5PSW

SDI Protection Switch



The D5PSW accepts 2 SDI inputs, Primary and Secondary, and automatically switches to the Secondary input if the Primary input is not present or is not a valid SDI signal. An SDI input is considered valid if a proper SMPTE 259 stream is present. An LED indicator is Green if both Primary and Secondary are

present, flashing green if the Primary is present but the Secondary is not present, and Orange if the Secondary is present but the Primary is not. The D5PSW has 3 SDI outputs.

- ◆ Cable EQ to 300 Meters ◆ Useful as a repeater and/or DA
- ◆ Multi color LED status

DWP

Miniature Power Supply

A miniature 100-240v, 50/60Hz high quality power supply for all of AJA's stand-alone products. Custom manufactured for AJA, it is so small it does not cover the adjacent socket in power strips. With a 2x power over-rating and a molded, latching, circular connector with good pins, the DWP meets the high



reliability requirements of the professional video industry.



DWP-U In-Line AC Adapter

The DWP-U is an in-line 100-240v, 50/60Hz AC adapter with a universal input which can accept a power cord anywhere in the world.

DWP-U (Mfr # DWPU • B&H # AJDWPU).......**54.95**



AJA

HD-SERIES MINIATURE CONVERTERS

3GM

3G/1.5G HD-SDI Multiplexer

The 3GM is versatile and economical tool for interconnecting dual-link 1.5G SMPTE372M and 3G SMPTE425M. 3GM is bi-directional - allowing dual 1.5G to 3G or 3G to dual 1.5G conversion.

Additionally, 3GM's 3G HD-SDI output is configurable for SMPTE425M type A or B. The 3GM can even convert 3G



from/to type A or B. Also provides a monitor output which is a single link 1.5G HD-SDI. Has a total of two inputs (HD/SD-SD) and three outputs (3G HD-SDI, HD/SD-SDI). Fully equalizing and re-clocking with jitter attenuation. Passes all ancillary data.

HD10C2

HD/SD-SDI to Analog Component Converter

The HD10C2, AJA's second generation HD D/A converter, brings exciting new features. In addition to being a high-quality 10-bit HD converter, it is "dualrate" and works with both HD-SDI and SDI inputs. For HD-SDI inputs, the HD10C2 outputs full bandwidth HD component or VGA-style RGBHV video.



For SDI inputs, component or composite SD outputs are supported. When connected to a multi-format monitor like the Sony 20L5, the HD10C2 will automatically provide an image from almost any HD or SD input format. The HD10C2 also features 2 equalized HD-SDI outputs.

3GDA

1x6 3G/HD/SD Reclocking Distribution Amplifier



The 3GDA is a miniature, low-cost 1x6 3G HD-SDI/HD-SDI/SDI re-clocking distribution amplifier. Featuring six separately buffered SDI outputs, the 3GDA provides automatic input detection, re-clocking and cable equalization.

3GDA (Mfr # 3GDA • B&H # AJ3GDA)**589.95**

HD10MD3

HD-SDI to SDI/Analog Downconverter



The HD10MD3 is a miniature digital downconverter for converting HD-SDI video to standard definition SDI and analog component/composite video. The HD10MD3 uses a full 10-bit data path and multi-point interpolation to produce broadcast quality downconverted video. In addition, the HD10MD3 converts either

1080p24 or 1080p24sf to 59.94 Hz output video using the standard 3:2 pulldown technique. The output can be formatted for either 4:3 or 16:9 standard definition monitors. Four-channel input embedded HD-SDI audio is passed to the SDI output.

HD10MD3 (Mfr # HD10MD3 • B&H # AJHD10MD3)1099.95

HD10A

HD Analog to HD-SDI Converter

The HD10A is a miniature, high-quality, 10-bit analog to digital converter for HDTV. A companion to the popular HD10C D/A converter, the HD10A can add an HD-SDI output to cameras, computers with HD RGB graphics, VTRs, or other analog-only HD equipment. The HD10A accepts HD YPbPr or RGB



analog and outputs three duplicate HD-SDI signals. Works in 1080i, 1080psf and 720p with internal or external sync (tri-level).

HD10AVA

SD/HD Analog Composite or Component Video and 4-Channel Analog Audio to SD/HD-SDI with Embedded Audio

The HD10AVA is a miniature, highquality, audio/video, HD/SD A/D converter. The HD10AVA automatically detects the video input format and embeds the audio inputs in the SDI/HD-SDI outputs. The HD10AVA is useful for adding an SDI/HD-SDI audio/video output to tape decks or



any professional video equipment with analog outputs. The HD10AVA is especially useful for adding HD-SDI outputs to most HDV cameras or decks by using the component outputs of such devices. The HD10AVA uses a breakout cable (included) for audio/video inputs and provides 3 SDI-HD-SDI on BNC.

HD5DA

1x4 HD/SD-SDI Distribution Amplifier



A low cost, 1x4 HD/SD-SDI DA/repeater. Featuring four separately buffered HD/SD-SDI outputs, the HD5DA provides automatic input cable equalization to 330' and automatically adapts to 143, 177, 270, 360 MB, and 1.5 GB.

HD5DA (Mfr # HD5DA • B&H # AJHD5DA) ...249.95

HD-SERIES MINIATURE CONVERTERS

HD10CEA

SDI/HD-SDI to Analog Audio/Video

The HD10CEA converts SDI/HD-SDI video with embedded audio to analog video and 4 channel balanced analog audio. SD video outputs can be configured as YPbPr (Betacam or SMPTE/EBU-N10), RGB, composite or YC (S-Video). HD video outputs can be configured as YPbPr or RGB. The analog



audio outputs can be wired in a balanced or unbalanced configuration. The 4 audio channels can be selected from group 1-4. Audio and video output connections are available on a 25 pin "D" subminiature connector (breakout cable supplied). All video/audio configuration is done by external dipswitch selection. This versatile, low-cost, miniature monitoring solution also outputs two loop-thru SDI/HD-SDI outputs.

HDP

HD-SDI/SDI to DVI-D and Audio Converter



A miniature HD-SDI/SDI to DVI-D converter for LCD or Plasma monitors. Using a very high quality scaling engine, the HDP will automatically size 4:3 or 16:9 inputs to many DVI-D monitors (see Technical Note below). For appropriate monitor configurations, scaling is automatically 1:1 — for example, displaying

1920 x 1080 video on a WUXGA (1920 x 1200) monitor. The HDP will also automatically adapt the input frame rate for monitor compatibility. In addition, the HDP provides 2 channel RCA style audio monitoring and 2 looping outputs of the SDI inputs. HDP is the ideal solution for displaying SDI or HD-SDI on any LCD or Plasma DVI-D monitor.

HD10P (Mfr # HDP • B&H # AJHDP)......679.95

GEN₁₀

HD/SD Sync Generator, Blackburst and Tri-level Sync Generator

The GEN10 is a cost effective and flexible SD/HD/AES sync generator. The GEN10 features 7 outputs including 2 groups of independently controlled SD/HD sync outputs and one AES-11 output. The SD outputs can be switched between color black or color bars. HD tri-level sync can be switched between 19 different HD formats including all that



are in use today. The AES-11 output can be switched between SILENCE and TONE. All outputs are in sync with each-other and are sourced from an accurate master time base.

HD10AMA

HD/SD 4-Channel Analog Audio Embedder/Disembedder

The HD10AMA is a dual rate 4-channel analog audio Embedder/Disembedder. The Disembedder is always functional providing 4 outputs. The Embedder is user selectable, on a channel pair basis, to either "pass" input audio or embed input audio from the breakout cable. Analog audio levels are selectable. The HD10AMA



automatically detects and configures to the input video standard.

HD10AMA (Mfr # HD10AMA • B&H # AJHD10AMA)......899.95

HD10DA 1x6 HD/SD-SDI Distribution Amplifier



The HD10DA is a miniature, low-cost 1x6 SD/HD (dual-rate) re-clocking distribution amplifier with auto sensing HD-SDI or SDI input. Featuring six separately buffered HD-SDI outputs, the HD10DA provides automatic input cable re-clocking and equalization to 400'. Also offers bi-color LED indication of input lock and rate. Passes all ancillary data.

HD10DA (Mfr # HD10DA • B&H # AJHD10DA)469.95

DWP Miniature Power Supply

A miniature 100-240v, 50/60Hz high quality power supply for all of AJA's stand-alone products. Custom manufactured for AJA, it is so small it does not cover the adjacent socket in power strips. With a 2x power over-rating and a molded, latching, circular connector with gold pins, the DWP meets the high reliability requirements of the professional video industry.



RMB Rack Mounting Brackets

RMB-10 (Mfr # RMB10-RO • B&H # AJRMB10RO)

Designed for D- and H-series converters, they let you secure your converter in virtually any installation area. Package of 10 brackets with mounting screws.....



DWP-U In-Line AC Adapter

The DWP-U is an in-line 100-240v, 50/60Hz AC adapter with a universal input which can accept a power cord anywhere in the world.

DWP-U (Mfr # DWPU • B&H # AJDWPU)......54.95



HD-SERIES MINIATURE CONVERTERS

ADA4

4-Channel Bi-Directional Audio A/D & D/A Converter

The ADA4 is a 4-channel converter that can be configured as a 4-channel A/D, a 4-channel D/A, 2-channel A/D and 2-channel D/A, or an AES sychronizer. The ADA4 can accept a AES11, wordclock or video sync/color black reference input for synchronization. Reference input and synchronization are automatic. Audio levels are configurable via dipswitch control.



ADA4 (Mfr # ADA4 • B&H # AJADA4)

...334.95

HA₅

DMI to SDI/HD-SDI Video and Audio Converter

The HA5 converts HDMI to SD-SDI or HD-SDI. Up to eight channels of HDMI audio are embedded into the SD/HD-SDI output allowing a convenient single cable audio/video connection. The HA5 provides two SDI/HD-SDI outputs and supports long HDMI cables on the input. Ideal for connecting HDMI cameras to SDI/HD-SDI equipment.



HD10AM

HD/SD 8 Channel AES Embedder/Disembedder

A dual rate 8 channel AES audio Embedder/Disembedder. The Disembedder is always functional providing 4 AES outputs. The Embedder is user selectable, on a channel pair basis, to either "pass" SDI input audio or to embed input AES audio from the breakout cable. AES inputs are sample



rate converted to a 48KHz rate synchronous to the video input. It automatically detects and configures to the input video standard.

HD10AM (Mfr # HD10AM • B&H # AJHD10AM)......899.95

Hi₅

HD-SDI/SDI to HDMI Video and Audio Converter

The Hi5 converts SDI or HD-SDI to HDMI for driving HDMI monitors. Embedded SDI/HD-SDI audio is supported in the HDMI output allowing a convenient single cable audio/video connection. The Hi5 provides 2 Channel RCA style audio outputs for separate audio monitoring if needed. The Hi5 also provides a looping



SDI/HD-SDI output useful for connecting additional equipment, or for "daisy chaining" multiple monitors to the same SDI-HD-SDI source.

Hi5 (Mfr # HI5 • B&H # AJHI5)419.95



◆ Parallel to serial, serial to parallel video conversion

- ♦ Multi-format, multi-standard
- ◆ Auto configuration to component/ composite, 525 or 526-line
- ◆ Dither mode for proper 10-bit to 8-bit conversion
- Ancillary data filter blocks audio/ unwanted data
- ◆ Crystal PLL Jitter Filter available

C10SP & C10PS

Parallel Serial Converters

The C-Series converters are designed to efficiently adapt 8-bit or 10-bit parallel digital video equipment to serial digital interfaces. The C-Series converters attach directly to the "D" connectors of parallel equipment - eliminating the need for expensive and unreliable parallel cables. At only .65" wide, they can fit on even the highest density parallel equipment. Require power supply (C10WP or C10WPU).

C10-Series Power Supplies

The C10WP is a miniature, high quality switching power supply for the C10SP and C10PS. Custom manufactured for AJA, the C10WP is so small it does not cover the adjacent socket in power strips. With a 2x power over-rating and a molded, latching, circular connector with gold pins, the C10WP meets the high reliability requirements of the professional video industry. The C10WPU is an in-line universal input version that can accept a power cord anywhere in the world.

C10SP: Serial (SDI) to Parallel (Multi-Standard) Transcoder (Mfr # C10SP • B&H # AJC10SP)	419.95
C10PS: Parallel (Multi-Standard) to Serial (SDI) Transcoder (Mfr # C10PS • B&H # AJC10PS)	449.00
C10WP: Power Supply (Mfr # C10WP · B&H # AJC10WP)	46.95
C10WPU: Universal Power Supply (Mfr # C10WPU • B&H # AJC10WPU)	59.95



FS1

Universal SD/HD Audio/Video Frame Synchronizer and Converter

Featuring a flexible "everything in, everything out" architecture, the FS1 can simultaneously work with both HD and SD video—all in full 10-bit Broadcast quality video and 24-bit audio. The FS1

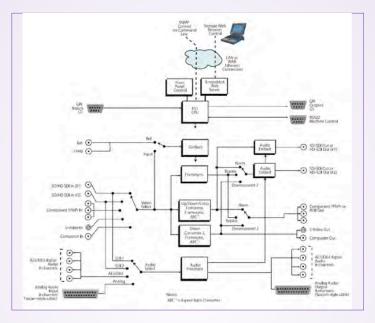


supports virtually any input or output, analog or digital, HD or SD. The FS-1 can up- or down-convert between SD and HD, and provide simultaneous HD and SD outputs. Cross-conversions between HD formats are also supported, with simultaneous output of both formats. For audio, the FS1 supports 8-channel AES, Balanced analog, or embedded audio with full flexibility. The FS-1 supports closed captioning and the conversion of closed captioning between SD and HD formats. The FS-1 is also network ready, supporting web-based remote control.

FEATURES

- ◆ SD1 HD up/down conversion
- ◆ SD1 SD aspect ratio conversion
- ◆ HD1 HD cross conversion (720p/1080i)
- Up/down/cross converting with both the input and converted formats on SD/HD-SDI outputs (both synchronized)
- ◆ HD cross converting with simultaneous downconverted SDI output
- ◆ Dual HD/SD SDI inputs and outputs
- ◆ Component analog HD/SD input and output
- ◆ Composite/S-Video input/output with TBC
- 8-channel AES and balanced analog audio inputs and outputs
- ♦ 8-channel embedded audio I/O
- ◆ Fully redundant power supplies standard
- ◆ 10/100 LAN with SNMP, and embedded web server for remote control
- ◆ Video Proc Amp; Audio Processing
- ◆ Closed caption support including SD to HD upconversion
- Chassis styling optimized for machine room use with simple panel and remote web browser user interfaces
- Front panel alphanumeric and graphical display shows input/output settings and parameter viewing/editing choices
- ◆ LED status indicators for at-a-glance system monitoring
- ◆ Two GPI inputs and outputs, TTL, isolated

Anything in. Anything out. FS1 Architecture



Featuring a flexible "anything in, anything out" architecture, the FS1 Universal SD/HD Audio/Video Frame Synchronizer and Converter can simultaneously work with both HD and SD video — all in full 10-bit broadcast quality video and 24-bit audio. The FS1 supports virtually any input or output, analog or digital, HD or SD. The FS1 can up-or down-convert between SD and HD, and provide simultaneous HD and SD outputs.

Cross-conversions between HD formats are also supported, with simultaneous output of both formats. For audio, the FS1 supports 8-channel AES, balanced analog, or embedded audio with full flexibility and audio processing controls. The FS1 supports closed captioning and the conversion of closed captioning between SD and HD formats. The FS1 is also network ready, supporting web-based and SNMP remote control.



AJA

FR1 • FR2

R-SERIES One and Two RU Rackmount Frames





The FR1 and FR2 mounting frames provide high-density rackmount solutions for AJA's R-Series modules. The FR1 is a 1 RU frame with 4 slots; the FR2 is a 2 RU frame with 10 slots. Both frames feature high-capacity power supplies with no power restrictions for any module combination. Also, both frames feature multi-fan forced-air cooling,

which provides ample cooling capacity without

the need for an empty rack space above the units. Both frames feature optional redundant power supplies - the FR2's power supplies are easily changed from the front of the unit. The FR2 features a reference distribution amplifier which distributes a color black reference to all slots from one BNC input. The FR1 also features a frame reference input with a passive distribution to all 4 slots.



FEATURES

FR₁

- ♦ 1 rack unit mounting frame
- ♦ 4 module capacity
- ◆ Multiple fan forced air cooling
- ◆ Optional redundant power supplies
- ◆ Power supply monitoring
- ◆ Frame reference input BNC
- ◆ Universal 90-240v AC 50w power supply

FR₂

- ♦ 2 rack unit mounting frame
- ◆10 module capacity
- lacktriangle Multiple fan forced air cooling
- ◆ Optional redundant power supplies
- ◆ Reference DA sends color black to all slots
- Power supply monitoring
- ◆ Universal 90-240v AC 50w power supply

	FR1	FR2
Capacity	4 Slots, 1 Rack Unit	10 Slots, 2 Rack Unit
Inputs	Power Supply Monitoring Reference Input, BNC	Power Supply Monitoring; Reference Input, BNC — Active DA to all slots
Power	50 Watt Capacity Universal Input 90-240 VAC Power Supply; Optional Redundant Power Supply, Diode Isolated	100 Watt Capacity Universal Input 90-240 VAC Power Supply; Optional Redundant Power Supply, Diode Isolated
Cooling	Multiple Fan Forced Air	Multiple Fan Forced Air
Dimensions	19" x 1.75" x 14.75", (1RU)	19" x 3.5" x 13", (2RU)

FR1: FR1 Frame with one FR1-PS Power	Supply
(Mfr # FR1 • B&H # AJFR1)	.664.95
FR1-D: FR1 Frame with dual FR1-PS (Redundant) Power Supplies Installed (Mfr # FR1D - B&H # AJFR1D)	749.95

FR1-PS: Power Supply Module for FR1 Frame	
(Mfr # FR1-PS • B&H # AJFR1PS)	5

FR2: FR2 Frame with one FR2-PS Power Supply
Installed (Mfr # FR2 • B&H # AJFR2)1089.95
FR2-D: FR2 Frame with dual FR1-PS
(Redundant) Power Supplies Installed
(Mfr # FR2D • B&H # AJFR2D)

FR2-PS: Power Supply Module for FR2 Frame (Mfr # FR2-PS • B&H # AJFR2PS)229.95



FSG Frame Sync/Genlock Module

The FSG Frame Sync/Genlock Module is an optional upgrade to AJA's R20 series encoders and decoders. The FSG Module provides user-adjustable output timing relative to an external sync reference. Also, a delay mode provides adjustable delay with respect to the video input. In addition to the frame sync and delay functions, when installed on AJA R20 Series encoders, the FSG Module allows the encoder to Genlock to an external reference.



R-SERIES

RH10UC

SD to HD Upconverter & HD Frame Synchronizer

The RH10UC is a 10-bit SD to HD up-converter. Using motion-adaptive de-interlacing and high quality digital scalers, it provides excellent broadcast quality HD video from SD sources. Output





HD video is selectable between 720p and 1080l formats. 4:3 to 16:9 aspect ratio conversion is selectable between 4:3 pillarbox, 14:9 crop, 16:9 anamorphic, and 16:9 zoom. Input SD ITU Rec. 601 color space is converted to ITU Rec. 709. The RH10UC passes 8 channel embedded audio with a compensating delay. Additionally, it can operate as a stand-alone HD or SD Frame Synchronizer.

(Mfr # RH10UC • B&H # AJRH10UC)2599.00

RH10DA

Dual Rate SD/HD 1x8 Re-Clocking DA

The RH10DA is a multi-standard Dual Rate 1x8 SDI/HD-SDI Distribution Amplifer. The input is re-clocked



and equalized to 100/300 meters (HD/SD) of coax cable. The RH10DA automatically configures to 143,



177, 270, 360MB, or 1.485GB SDI inputs. The re-clock function can be by-passed with an on-board jumper.

RH10MD

HD Down Converter & HD-SDI Distribution Amplifer



The RH10MD is a 10-bit broadcastquality HD down converter and HD-SDI/SDI DA. There are 4 re-clocked HD-SDI/SDI outputs and four down-converted SD outputs. The SD outputs can be

individually configured as analog or SDI - analog can be component or composite. All HD formats are supported including 24p/psf with 3:2 pulldown. The SD output can be formatted for either 4:3 or 16:9 monitors. For 4:3 monitors both letterbox and crop modes are supported. The RH10MD is also dual-rate (HD/SD) and will support SDI inputs. 4-CH AES embedded audio is passed through to the SDI outputs.

(Mfr # RH10MD • B&H # AJRH10MD)



.....2049.95

R₂0AD

Analog Composite or Component to SDI Converter



The R20AD provides excellent quality, universal 10-bit conversion of component or composite analog video to four SDI outputs. The R20AD accepts Y/Pb/Pr, Betacam, or RGB component in-

puts and composite (NTSC/PAL), S-Video inputs. Features a 3-Line Adaptive Comb Filter for high quality decoding of composite sources. The comb filter can be switched to 2 line or notch modes for minimum delay requirements. The R20AD accomodates the optional FSG card (Frame Sync) offering choices for synchronizing the output video relative to an external reference or the input video. NTSC/PAL configuration is automatic. Video format, AGC, H/V blanking, and pedestal are all user configurable.

RD10MD

Dual HD to SD Downconverter

A 10-bit broadcast-quality dual HD down converter. Channels 1 and 2 are fully independent. Channel 1 has 2 re-clocked HD/SD-SDI outputs, and channel



2 has 1. Both channel

1 and 2 have 2 down-converted outputs, which can be independently configured as SDI or analog composite. All HD formats are supported, including 24p/psf with 3:2 pulldown. The SD output can be formatted for either 4:3 or 16:9 monitors. For 4:3 monitors, both letterbox and crop modes are supported. Has a 4:3 safe-zone graticule. It is also dual-rate (HD/SD) and will support SDI inputs.

(Mfr # RD10MD • B&H # AJRD10MD)1999.95

R20DA

1x8 SDI Distribution Amplifier

The R20DA is a multi-format, 1x8



s a multi-format, 1x8 SDI DA. The SDI input is re-clocked and equalized to 300 meters of cable. In addition, the



multi-standard feature allows the R20DA to automatically adapt to 143, 177, 270, or 360 MB SDI inputs.

(Mfr # R20DA • B&H # AJR20DA).....**259.00**



R-SERIES

R5CE

1x4 SDI DA and **Component/Composite Analog Converter**

An SDI DA and universal monitoring D/A converter. It provides 4 equalized and re-clocked SDI outputs along with four analog monitoring outputs.



The analog outputs can be configured as

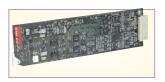
composite (NTSC/PAL), S-Video, Y/Pb/Pr, Betacam or RGB. A PLL jitter filter/memory reduces the effects of SD jitter on the analog outputs. An exclusive feature on the R5CE is a 10- to 8-bit dithering circuit that removes contouring in the analog outputs. It also features user-selectable pedestal and H&V blanking. (Mfr # R5CE • B&H # AJR5CE)......539.00

RD5CE

Two-Channel Digital to Analog Component/Composite Converter

A low-cost, dual-channel, universal video D/A converter. It supports two completely separate channels of SDI

to analog conversion and is useful for video/kev or video/video applications.



Channel 1 can output component or composite analog video including Y/Pb/Pr, Betacam, RGB, composite or S-Video. Channel 2 can output composite or Y. Both SDI inputs have a reclocked SDI loop-thru output.

R₁₀CE

1x4 SDI DA and 10-Bit Component/Composite Analog Converter



The R10CE is an SDI distribution amplifier and universal monitoring D/A converter. It provides four equalized and re-clocked SDI out-

puts along with four

10-bit analog monitoring outputs. The four analog outputs can be configured as composite (NTSC/PAL), S-Video, Y/Pb/Pr, Betacam or RGB. A PLL jitter filter/memory reduces the effects of SD jitter on the analog outputs.

(Mfr # R10CE • B&H # AJR10CE)..... 589.95

RD20DA

Dual-Channel SDI Distribution Amplifier



The RD20DA is a multi-standard, 2-channel, 1x4 and 1x3 SDI Distribution

Amplifier. The SDI input is re-clocked and equalized to 1000' of cable. In addition, the multi-standard feature

allows the RD20DA to automatically adapt to 143, 177, 270, or 360 MB SDI inputs.

(Mfr # RD20DA • B&H # AJRD20DA)......329.00

R44E

Four-Channel SDI to Analog Composite Converter

The R44E provides four analog composite (NTSC/PAL) monitoring outputs from four separate SDI



inputs. Each channel has a separate D/A converter with a 10-bit DAC and 8-bit broadcast encoding.



Values below black and above white are not clipped. Each channel has a test pattern generator with separate user selectable blanking controls. The R44E also features automatic NTSC or PAL configuration.

R₂0CE

SDI to Analog Component/Composite Converter

A universal D/A converter that provides excellent quality 10-bit conversion of SDI to simultaneous component and composite video. The 4 analog outputs are user config-



urable to composite (NTSC/PAL), S-Video, Y/Pb/Pr Betacam, or RGB. The component and composite outputs are completely independent including optimum chroma filtering for each and independent pedestal configuration. The R20CE also features an exclusive PLL jitter filter/memory to reduce the effects of SDI jitter on the output analog video. This feature, along with the precision 4x oversampled D/A filter, provides

the highest quality analog outputs - including very low phase noise in composite outputs. The optional FSG (Frame Sync/Genlock) Module allows genlock to an external reference with full timing adjustment. Without the FSG Module, the reference input provides color frame timing.



BREAKOUT CHART

	8-BIT	10-BIT	Component YPbPr/RGB to SDI	Composite Y/C NTSC/PAL to	SDI to YPbPr/RGB Component	SDI to NTSC/PAL Composite	SDI to SDI Reclocking Loop	Frame Sync/FSG Option	HD-SDI to HD YPbPr/RGB	HD YPbPr/RGB to HD-SDI	HD-SDI to HD-SDI DA	HD-SDI to SDYPbPr/RGB/Y/C/	SDI to HD-SDI	HD-SDI to SDI	Dual Rate	Audio Embed/Disembed	Audio Conversion	Audio Reference Generator	Passes Audio To Output(s)	+5 to +18Vdc
D4E	1	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_
D5CE	1	_	_	_	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_
D5D	1	_	_	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
D5PSW	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
D10AD	1	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
D10A	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
D10C	1	1	_	_	1	D2	1	_	_	_	_	_	_	_	_	_	_	_	_	_
D10C2	1	1	_	_	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_
D10CE	1	1	_	_	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_
D10CEA	1	1	_	_	1	1	1	_	_	_	_	_	_	_	_	1	_	_	1	_
D5DA	1	1	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_	_	1	_
R44E	1	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_	_	_	_	_
R5CE	1	_	_	_	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_
RD5CE	1	_	_	_	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_
R10CE	1	1	_	_	1	1	1	_	_	_	_	_	_	_	_	_	_	_	_	_
R20AD	1	1	1	1	_	_	_	1	_	_	_	_	_	_	_	_	_	_	_	_
R20CE	1	1		_	1	1	1	1	_	_	_	_	_	_	_	_	_	_	_	
R20DA	1	1	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_	_	1	_
RD20DA	1	1	_	_	_		1	_	_	_	_	_	_	_	1	_	_	_	1	
RH10MD	_	_	_	_	1	1	1	_	_	_	1	1	_	1	1	_	_	_	1	_
RD10MD	_	_	_	_	1	1	1	_	_	_	1	1	_	1	1	_	_	_	1	
RH10DA	1	1	_	_	_	_	1	_	_	_	1	_	_	_	1	_	_	_	1	_
RH10UC	1	1	_	_	_	_	1	_	_	-	1	_	1	_	_	_	-	_	✓*	_
FS1	_	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	
3GM	1	1	_	_	_		1	_	_	_	_	_	_		1	_	_	_	1	
3GDA	1	1	_	_	_	_	1	_	_	_	1	_	_		_	_	_	_	1	✓
ADA4	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	1	1	1	✓
HD10C2	1	1	_	_	1	1	1	_	1	_	1	_	_	_	1	_	_	_	_	✓
HD10A	1	1	_	_	_	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_
HD10AVA	1	1	_	1	1	_	_	_	_	1	_	_	_	_	1	1	_	_	1	1
HD10AM	_	_	_	_	_	_	1	_	_	_	_	_	_	_	1	1	_	_	1	1
HD10AMA	_	_	_	_	_	_	1	_	_	_	_	_	_	_	1	1	_	_	1	✓
HD10CEA	1	_	1	_	1	1	_	_	1	_	_	1	_	_	1	1	_	_	1	_
HD10MD3	1	1	_	_	1	1	1	_	_	_	1	1	_	1	1	_	_	_	1	✓
HD5DA	1	1	_	_	_	_	_	_	_	_	1	_	_	_	1	_	_	_	1	_
HD10DA	1	1	_	_	_	_	1	_	_	_	1	_	_	_	1	_	_	_	1	1
HDP	1	_	_	_	_	_	_	_	_	_	1	_	_	_	1	1	_	_	1	1
Hi5	_	1	_	_	_	_	_	_	_	_	_	_	_	_	1	1	_	_	1	_
HA5	_	1	_	_	_	_	_	_	_	_	_	_	_	_	1	1	_	_	1	_
GEN10	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1	_	1

^{*} RH10UC passes audio on up-convert, but not in HD Framesync mode



APPLE

Mac Pro



Tower of 8-core Power

The fastest Macintosh ever made, the Mac Pro features the latest Quad-Core Intel Xeon 5400 series processors running up to 3.2 GHz, each with 12MB of L2 cache per processor for breakthrough performance and power efficiency. The ideal system for creative professionals, 3D digital content creators and scientists, it offers high-bandwidth hardware architecture, dual-independent 1600 MHz front side buses, up to 32GB of DIMM memory, powerful graphics and up to 4TB of internal storage.

The Mac Pro comes standard with the ATI Radeon HD 2600 XT graphics card with 256MB of video memory. It includes a PCI Express 2.0 graphics slot, and supports the latest generation of graphics cards from NVIDIA, such as the GeForce 8800 GT with 512MB of video memory, or Quadro FX 5600 with 1.5GB of video memory. With support for up to four graphics cards, the Mac Pro can drive up to eight 30" displays at once for advanced visualization and large display walls. The most expandable Mac ever, Mac Pro features four internal hard drive bays with direct-attach, cable-free installation of four 1TB Serial ATA hard drives, totaling 4TB of internal storage and support for two SuperDrives. With optional 15000 rpm SAS drives that can deliver up to 250MB/s of RAID 5 disk I/O performance, the Mac Pro is ideal for film and video editors. Combined with SATA or SAS drives, using an optional Mac Pro RAID card offers the ultimate data protection and disk I/O performance on the Mac Pro. The Mac Pro is easily accessible in front and back so users can connect external devices with five USB 2.0, two FireWire 400, two FireWire 800, optical and analog audio in and out, dual Gigabit Ethernet ports and a headphone jack. Includes an ultra-thin aluminum Apple Keyboard and built-in Bluetooth 2.0 makes it easy to reduce cable clutter with the optional Apple Wireless Keyboard and Apple Wireless Mouse.

PROCESSING POWER

- ◆ Inside the Mac Pro are Quad-Core Intel Xeon "Harpertown" processors. These processors run at blazingly fast speeds up to 3.2GHz. Based on 45-nm Intel Core microarchitecture, they deliver amazing performance but still maintain outstanding energy efficiency.
- ◆ A huge amount of L2 cache 12MB per processor keeps frequently used data and instructions close to the processor cores and improves overall performance. 6MB of cache is shared between pairs of processor cores, allowing an individual core to use all the available shared cache at any one time.
- ◆ With the fastest Xeon architecture available, the Mac Pro features 1600MHz dual independent frontside buses. These 64-bit buses give each processor a direct connection to the system controller and deliver improved processor bandwidth of up to 25.6GB per second 20% greater than the previous Mac Pro.

- With a new system architecture, speedier system buses, and fast 800MHz DDR2 fully buffered DIMM memory, Mac Pro memory throughput is up to 1.6 times faster than before.
 - ◆ Every Intel Xeon processor features an enhanced SSE4 SIMD engine. Capable of completing 128-bit vector computations in a single cycle, SSE4 is ideal for transforming large sets of data, such as applying a filter to an image or rendering a video effect.
 - ◆ The Mac Pro incorporates a 256-bit-wide, fully buffered memory architecture with Error Correction Code (ECC), which corrects single-bit errors and detects multiple-bit errors automatically. These features are especially important in mission-critical or compute-intensive environments. Apple designed a

more stringent thermal specification for the Mac Pro FB-DIMMs, so the internal fans spin at slower speeds and keep the system quiet.





APPLE

Mac Pro

Graphics

- ◆ All-new high-performance graphics cards from ATI and NVIDIA make Mac Pro graphics technology even more cutting edge. The standard graphics card an ATI Radeon HD 2600 XT with 256MB of GDDR3 memory, PCI Express 2.0, and two dual-link DVI ports provides great performance for typical creative applications. Get dual 30″ Apple Cinema HD Display support out of the box.
- ◆ For motion graphics, 3D modeling, rendering, or animation, you'll need the greater graphics horsepower offered by the NVIDIA GeForce 8800 GT with 512MB of GDDR3 memory and latest-generation NVIDIA GPU technology.
- ◆ The optional NVIDIA Quadro FX 5600 graphics card is the ultimate workstation-class graphics card available, with a massive 1.5GB of GDDR3 memory and a 3D stereo port for stereo-in-a-window applications.
- ◆ All of these cards feature the latest-generation unified shader model support. Compared to dedicated pixel and vertex shaders, shaders are no longer special-purpose and can now be utilized based on the needs of the graphics application.
- ◆ 16-lane dedicated graphics slot features PCI Express 2.0 for connecting high-performance graphics card. PCI Express 2.0 delivers twice the transfer rate of PCI Express.
- ◆ To create an incredible display wall or largescale visualization, install up to four graphics cards, each with two dual-link DVI ports. You can run up to eight 30" Cinema HD Displays at the same time with just one Mac Pro.

I/O Ports

- ◆ Two FireWire 800 ports (one on front panel, one on back panel)
- ◆ Two FireWire 400 ports (one on front panel, one on back panel)
- ◆ Five USB 2.0 ports (two on front panel, three on back panel)
- ◆ Two USB 2.0 ports on included keyboard
- Front-panel headphone minijack and speaker
- ◆ Optical digital audio in/out TOSLINK ports

Rear ports

 Analog stereo line-level input/output minijacks

Unequaled Expansion Capability

The Mac Pro's smart design makes installing massive amounts of memory, adding expansion cards, and increasing storage surprisingly simple and intuitive. Plenty of I/O ports to connect external devices. The Mac Pro features four full-length expansion slots, including an even higher-performance PCI Express 2.0 graphics slot, with up to twice the bandwidth of PCI Express. The graphics slot is double-wide, so your graphics card won't cover an adjacent slot. In addition, three available expansion slots, one PCI Express 2.0 and two PCI Express, provide room to grow. And thanks to a tool-less PCI bracket, you can take out cards as fast as you put them in.

The Mac Pro comes with four 3.5" internal hard drive bays for an enormous amount of internal storage — up to 4TB. These bays are direct-attach and cable free, so it's easy to add or remove drives. Just attach the drive carrier to either a Serial ATA 3Gb/s or Serial Attached SCSI 3Gb/s drive, and slide the drive into place. There are no connectors or cables to contend with. Lock the drives with the side door latch, and you're done.

Installing more memory is a snap. Mac Pro has two memory riser cards with four fully buffered DIMM slots each. Just slide out the riser cards and snap in the memory. You don't have to dig around inside the computer or wrestle with wires or cables. With eight DIMM slots available, you can install up to 32GB of 800MHz ECC fully buffered DIMM memory.

Storage and RAID

The Mac Pro comes with four 3.5" internal hard drive bays for an enormous amount of internal storage — up to 4TB when you install four 1TB Serial ATA 3Gb/s drives. Each bay provides its own independent 3Gb/s channel for fast access to data. And thanks to the cable-free, direct-attach installation system, adding (or replacing) hard drives is a surprisingly simple process.

Using Mac OS X, you can stripe two, three, or all four hard drives in a RAID 0 array to increase performance and create a massive volume for video editing; or create a RAID 1 mirror for protecting your critical digital media assets against a drive failure. For the ultimate in data protection and enhanced performance, add the optional Mac Pro RAID Card with 256MB of RAID cache, a 72-hour cache-protecting battery, and hardware RAID levels 0, 1, 5, and 0+1. Apple's RAID Utility software makes setting up and managing the RAID card easy.

You can also choose ultrafast 15,000-rpm Serial Attached SCSI (SAS) 3Gb/s drives with 300GB of capacity for the highest in disk I/O performance. Together with the Mac Pro RAID Card, these drives provide 250MB/s of RAID 5 disk I/O performance. Enough data to play back one stream of 10-bit uncompressed HD content. The ultimate storage solution for demanding data transfer situations like editing uncompressed HD video content or updating ultra-high-resolution images.

Sure it's great to have one 16x SuperDrive at your disposal, but think how much more productive you could be with two. Imagine backing up your data to two double-layer DVDs at once. With two optical drive bays in every system, the Mac Pro lets you do exactly that.

Apple Keyboard and Mighty Mouse

Every Mac Pro comes with an Apple Keyboard and Mighty Mouse. The keyboard adds 2 additional USB 1.1 ports to your system, perfect for connecting low-speed devices. The



Apple Mighty Mouse can plug into one of those ports and features left and right click ability, a 360° clickable Scroll Ball and "squeeze clicking" side buttons.



APPLE

OS X LEOPARD



At the core of every Macintosh computer is the OS X Leopard operating system. Built on a rock-solid UNIX foundation, Leopard delivers true 64-bit performance, and incorporates industry-leading animated graphics. Plus, you get full performance and compatibility for your 32-bit applications and drivers, so you don't need to update everything on your system just to run a single 64-bit application. There's no need to upgrade drivers, and you can even stick with your existing printers, storage devices, and PCI Express cards. Leopard lets you take advantage of 64-bit processing power without having to use command-line applications, servers, and computation engines. What makes Leopard so great? The fully compliant UNIX technology. It can compile and run all your existing UNIX code. It helps you make the most of multicore systems. It puts a new tabbed-interface terminal at your fingertips.

Leopard is designed to take full advantage of eight cores of processing power. The Leopard scheduler efficiently allocates tasks across multiple cores and processors. So Leopard spends less time managing tasks and more time performing computations. A new multithreaded network stack speeds up networking by handling network inputs and outputs in parallel.

XSERVE Quad Xeon 64-Bit Server

Apple's Xserve is an enterprise-quality network server with the Mac OS X Server operating system for unlimited users. Housed in a 1U rackmount form



factor, the server features a Quad Core architecture powered by two Dual-Core-Core Intel Xeon 5100 processors, dual Gigabit Ethernet ports, two PCI Express 8x expansion slots, two FireWire-800 ports, two USB 2.0 ports, one FireWire-400 port, and one DB-9 serial port. It also features an ATI Radeon X1300 graphics chipset with a mini-DVI connector and a SuperDrive DVD burner. The system includes an 80 GB SATA hard drive; two drive bays are available to add additional storage via SATA or SAS Apple Drive Modules.

- ♦ It all starts with the 64-bit Quad-Core Intel Xeon "Harpertown" 5400 series processor. Thanks to this powerful 45-nanometer Intel Core micro architecture processor, Xserve runs at blazing speeds up to 3.0GHz. Each Intel Xeon processor has its own 1600MHz system bus for up to 25.6GB/s of bandwidth, so there's even faster access to main memory.
- ◆ Four processing cores deliver an incredible performance boost across the board. A massive 12MB of L2 cache per processor keeps instructions and data close to the processor cores, reducing frontside bus transactions and memory latency. Intel's cache technology allows core pairs to share 6MB of cache. If one core happens to be idle or needs less cache resources, the other can fully utilize it. The enhanced SSE4 SIMD engine handles 128-bit vector computations in a single cycle.
- ◆ Supports up to 32GB of 800MHz DDR2 ECC FB-DIMM (fully buffered DIMM) memory —64% throughput boost over previous-generation.
- ♦ In every Xserve, there are two PCI Express 2.0 expansion slots —one x16 and one x8 (one slot can be configured as a PCI-X slot). These expansion slots provide the bandwidth needed for the latest Apple and third-party I/O cards, such as dual- and quad-port 4Gb Fibre Channel cards and 10Gb Ethernet adapters.
- ◆ Built-in graphics allows use of a keyboard, mouse, and display, without taking a valuable slot. 2D/3D acceleration of the GPU enhances rendering and video processing. Mini-DVI output lets you drive a 23″ Apple Cinema HD Display, and the included VGA adapter supports connection to VGA devices and KVM (keyboard-video-mouse) switches.



APPLE

MAC PRO SYSTEMS

Processor	RAM	Hard Drive	Graphics Card	SKU	Price
2x 2.8GHz	2GB (2x1GB) 800MHz	320GB	ATI Radeon HD 2600 XT	Mfr # MA970LL/A	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP228A	
2x 2.8GHz	2GB (2x1GB) 800MHz	500GB	ATI Radeon HD 2600 XT	Mfr # Z0EM065-7536	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP228B	
2x 2.8GHz	2GB (2x1GB) 800MHz	500GB	nVIDIA GeForce 8800 GT	Mfr # Z0EM-7533	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 512MB of GDDR3	B&H # APMP22	
2x 3GHz	2GB (2x1GB) 800MHz	500GB	ATI Radeon HD 2600 XT	Mfr # Z0EM-7534	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP230	
2x 3GHz	2GB (4x512GB) 667MHz	250GB	nVIDIA GeForce 7300 GT	Mfr # # Z0D8-00BAW	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP3D	
2x 3GHz	2GB (2x1GB) 800MHz	500GB	nVIDIA GeForce 8800 GT	Mfr # Z0EM065-7533	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 512MB of GDDR3	B&H # APMP230C	
2x 3GHz	4GB (4x1GB) 800MHz	320GB	ATI Radeon HD 2600 XT	Mfr # Z0EM065-7534	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP230D	
2x 3GHz	2GB (2x1GB) 800MHz	1TB	nVIDIA GeForce 8800 GT	Mfr # ZOEM-0505	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 512MB of GDDR3	B&H # APMP230C2X1T	
2x 3GHz	4GB (4x1GB) 800MHz	750GB	ATI Radeon HD 2600 XT	Mfr #ZOEM-0657538	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP230B	
2x 3.2GHz	4GB (4x1GB) 800MHz	500GB	ATI Radeon HD 2600 XT	Mfr # ZOEM065-7535	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 256MB of GDDR3	B&H # APMP232B	
2x 3.2GHz	4GB (4x1GB) 800MHz	500GB	nVIDIA GeForce 8800 GT	Mfr # Z0EM-7535	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 512MB of GDDR3	B&H # APMP232	
2x 3.2GHz	4GB (4x1GB) 800MHz	500GB	nVIDIA Quadra FX 5600	Mfr # ZOEM-7536	Call
Quad-Core Intel Xeon	DDR2 FB-DIMM	7200rpm SATA	with 1.5GB of GDDR3	B&H # APMP232A	

30" CINEMA HD DISPLAY

Featuring four million pixels in an anodized aluminum enclosure, Apple's 30" Cinema HD Display gives you the space you need to visualize your entire creation — yet provides the resolution necessary to edit in place. It lets you view a web page and its code next to it — or a long video timeline in wide format. Work in Photoshop with more than 30 layers in a palette. Take in the whole timeline in Final Cut Pro. Display 126 Logic Pro mixer controls simultaneously. Or peer into four different modes of a molecule visualization with subatomic detail.

The quality of the pixels you see impacts how you use your computer. After years of experience, Apple engineers have discovered the ideal resolution to display both sharp text and high-resolution graphics. Others may offer a larger monitor, but with less resolution, so you end up with fewer pixels. Or a smaller monitor with very high resolution







APPLE

MacBook Pro



Take the latest mobile processor from Intel, sophisticated system architecture, loads of memory, bigger hard drives, and cutting-edge graphics, and you have the force behind every creative endeavor. The MacBook Pro has the performance, power, and connectivity of a desktop computer—without the desk part. Starting at just 5.4 lbs. MacBook Pro is a full-featured notebook encased inside one inch of sturdy aluminum.

MacBook Pro makes your ideas even more brilliant with a sharp, high-resolution screen. Choose the 15.4", 1440 x 900-pixel or the 17" 1680 x 1050-pixel LED backlit digital display, with glossy and anti-glare options. Or choose the optional high-resolution 17" LED

backlit model for the optimal viewing experience. The high-resolution 17" LED backlit display is lighter, more power efficient, and delivers full screen brightness the instant you turn it on.

MacBook Pro features an advanced trackpad with amazing Multi-Touch technology. You can flip through photos, enlarge text, and adjust an image using just your fingers. And your hands have room to spread out on the full-size keyboard with crisp, responsive keys. MacBook Pro has a built-in ambient light sensor that adjusts the keyboard and display brightness so it's easy to work in low-light settings such as airplanes and conference rooms.

FEATURES

- Multi-Touch technology from iPhone and iPod touch comes to MacBook Pro in an amazing new Multi-Touch trackpad. Pinch, swipe, or rotate to enlarge text, advance through photos, or adjust an image.
- MacBook Pro has a standard hard drive up to 250GB and up to 4GB of RAM. So there's more room for even bigger ideas.
- ◆ Intel Core 2 Duo processors run at speeds up to 2.6GHz on a groundbreaking 45nm process technology with up to 6MB L2 cache. Which means you can encode video, render effects, and open and manipulate large images that much faster.
- ◆ Connect storage, multimedia devices, and high-speed peripherals to MacBook Pro. Along the sides, you'll find a FireWire 400 port, a FireWire 800 port, a DVI port, optical audio in and out ports, and an ExpressCard slot. There are three USB 2.0 ports on the 17″ MacBook Pro and two on the 15″ models.
- ◆ Connect an Apple Cinema Display to expand your desktop and lose nothing in translation. That's because the DVI connection gives you a pure digital signal from system to display. View more than 4 million pixels on a 30-inch Apple Cinema HD Display, powered by the NVIDIA GeForce 8600M GT graphics processor.

- Power adapter with MagSafe connector is a magnetic connection instead of a physical one. So, if you happen to trip over the power cord, you won't send MacBook Pro flying. The cord simply disconnects, without damage to either the cord or the notebook.
- MacBook Pro sounds as good as it looks, with unprecedented attention to audio detail. For musicians on the go, MacBook Pro offers pristine sound through crisp, clear stereo speakers, a built-in microphone, and optical digital audio on both input and output.

MacBook Pro Systems

All Include Class on Demand Basic Training DVD for Mac OS X Leopard FREE!



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FINAL CUT EXPRESS 4

Powerful Video Editor for DV, HDV and AVCHD Formats



Based on award-winning Final Cut Pro, the affordable Final Cut Express 4 adds support for the latest AVCHD cameras, allows mixing of standard and high definition content on a single timeline, and gives users access to hundreds of sophisticated FxPlug cinematic effects and filters. Open format timeline lets users mix and match DV, HDV and AVCHD material, in realtime, using the same editing and trimming tools found in Final Cut Pro. Supporting both 1080i and 720p HD resolutions, Final Cut Express 4 automatically performs the necessary scaling, cropping and frame rate adjustments. When starting projects from scratch, the setup automatically configures everything based on the first clip dropped on the Timeline.

Final Cut Express 4 features advanced editing capabilities such as multiple layers of video and graphics, picture in picture effects and animated titles. It includes over 50 FxPlug filters, including Soft Focus, Vignette and Light Rays. With enhanced audio controls, users can automatically raise any clip to its maximum level without distortion using the Soft Normalize and Gain controls. Final Cut Express 4 also features LiveType 2, which provides an intuitive environment for creating dynamic and fun animated titles and includes an extensive library of animated fonts, textures, templates and effects.



FEATURES

- ◆ Edit footage captured in such popular video formats as DV, HDV, and AVCHD. Or export iMovie '08 projects, putting professional polish on them in Final Cut Express.
- ◆ Capturing DV and HDV footage is as simple as connecting a camcorder to your Mac and keeping an eye on the Capture window to select what you'd like transferred. Preview it full screen on your primary or secondary display whenever you want. Final Cut Express supports both standard-definition DV and high-definition 1080i and 720p HDV.
- ◆ Edit video captured with the most popular AVCHD devices, using the Log and Transfer tool to access video recorded to disks, memory cards, or DVDs. Select the clips you want, then transfer them to Final Cut Express. It's never been easier to work with HD content.
- Edit like a pro, mixing different video formats in its open format Timeline and using the same precision editing tools enjoyed by moviemaking pros.
- No need to worry about formats, frame rates, or conversions. Final Cut Express 4 provides an open format Timeline that accommodates DV (NTSC/PAL) and HD footage. It even lets you edit clips from multiple formats in real time simultaneously.

- Based on the industry-leading editing tools in Final Cut Pro, you can edit in the Timeline or with the innovative Edit Overlay tool. Choose from a comprehensive set of edit options, including insert, overwrite, fit-to-fill, and more. To add clips, simply drag them into the Timeline.
- Ready for more advanced editing tools? Working in the Timeline or a dedicated Trim window, fine-tune your edits with ripple, roll, slip, slide, extend, and shorten. These pro-level trimming tools, combined with the principles of three-point editing, let you experiment with complex variations and edits. That includes "L cuts," where the audio and video start at different times.
- Build the perfect mix using multiple audio tracks, keyframe automation of audio levels, advanced audio filters, and a Soft Normalize and Gain feature for more audio control.
- ◆ Enhance audio with included Audio Units filters as Reverb, EQ, Echo, and Delay. The Soft Normalize and Gain feature analyzes sound clips, automatically raising clips to their maximum level without distortion. You can even adjust audio filters in real time, listening to your work in progress and modifying it as the track plays.

- ◆ Creating a documentary? Achieve professional results by using the Voice Over tool to record your narration. Final Cut Express 4 lets you create quick scratch tracks or add a voiceover track as your video plays. Besides offering a countdown cue, the Voice Over tool records "before start" and "after stop," providing handles for your recorded audio.
- Mix up to 99 audio tracks using pans, levels, and the 3-band EQ. Set keyframes on each audio track to adjust level and pan settings over the length of a clip. Import music from GarageBand and combine it with sound effects and voiceover to craft a complete multitrack audio mix.
- ◆ Add dramatic animated text to your project using LiveType. It features the exclusive Live-Font animated font technology and provides an extensive library of textures and effects.
- ◆ Hundreds of preset animations and text effects let you create eye-popping animated titles in record time. Use them as is; customize them with fades, zooms, and motion; or develop your own. It's easy and fun. Once you achieve the desired result, save your new text effects for use in other projects.

Final Cut Express 4: Video Editing Software for Mac OS X (Mfr # MB278Z/A • B&H # APFCE4)179.95



APPLE

FINAL CUT STUDIO 2



The most powerful production suite on the planet, Final Cut Studio 2 take you beyond mere editing. With the intuitive power of creative tools designed expressly for Final Cut Pro editors, you can rapidly move through editing to motion graphics, audio editing and mixing, color grading, and delivery — all as a natural extension of the work you already do.

Final Cut Studio 2 is fast, fluid, and flexible. Use a laptop on location and a desktop in the studio. Start with the tools you already use today and extend your reach when you're ready. Start working quickly with intuitive tools and familiar interfaces. Whenever you're ready for precise control, a comprehensive set of features is just a click away.

Everything you need in a single product, each application in Final Cut Studio 2

has been designed with Final Cut Pro editors in mind. The industry-standard for independent filmmakers, Hollywood film editors, corporate video and event producers, and editors with hourly deadlines cutting broadcast spots or network news, almost one million creative professionals the world over have made Final Cut Pro their first choice for editing. In addition to Final Cut Pro 6 with Apple's ProRes 422 format for uncompressed HD quality at SD file sizes and support for mixed video formats and frame rates in a single timeline, Final Cut Studio 2 includes Motion 3 featuring an intuitive 3D environment, paint and new behaviors; Soundtrack Pro 2 with dozens of innovative tools for multitrack editing, surround mixing and conforming sound to picture; Compressor 3 delivering powerful batch encoding for multiple formats with a single click; and DVD Studio Pro for SD and HD DVD authoring. Final Cut Studio 2 also includes "Color," a professional color grading and finishing application for ensuring consistent color and creating signature looks.

Final Cut Studio 2 is not just a product. It's a platform. Open standards give developers and partners the freedom to create custom solutions. With XML to share project data and QuickTime to seamlessly move media between systems, Final Cut Studio 2 can fit into virtually any production pipeline or newsroom.

Edit: Use Final Cut Pro 6 for native editing of any format — from DV and SD up to HDV, XDCAM HD, DVCPRO HD, and fully uncompressed HD. Or use ProRes 422 for uncompressed HD quality at SD file sizes. Drag clips with different formats and even different frame rates into the open format Timeline.

Animate: Create stunning 2D and 3D motion graphics in real time with Motion 3, the fastest and most intuitive way to animate and express your creative vision. Drag and drop to make dramatic particle effects explode into 3D space; form vector-based paint strokes with the swish of a pen. Motion master templates let you edit text and drop in video without leaving Final Cut Pro.

Grade: Give your production a signature look or create a consistent feel for shots from different sources. Color offers professional color grading that can elevate the quality of any production.

Mix: Record and edit dialogue, add music and effects, and complete your mix with ease. Soundtrack Pro 2 lets you work faster than ever in its streamlined interface. You can even produce in surround sound using innovative visual tools. If you make changes to your edit in Final Cut Pro, you can rapidly update your audio mix with the powerful Conform feature in Soundtrack Pro.

Deliver: Use Compressor 3 to create pristine-quality output for a wide range of delivery formats — including the web, iPod, iPhone, Apple TV, and broadcast servers. A streamlined new interface lets you batch-process encoding with point-and-click ease. If film is your destination, use Cinema Tools to output film lists that combine timecode and keycode in a single list. Or use DVD Studio Pro for professional DVD authoring and mastering.

Magnet Media: Inside Final Cut Studio Consisting of 7 DVDs, you get over 35 hours of comprehensive training on Final Cut Pro 5, Motion 2, DVD Studio Pro 4 and Soundtrack Pro. No more costly classes, phone calls to help lines or time-consuming trial and error (B&H# MAFCST)249.95



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FINAL CUT STUDIO 2 / FINAL CUT PRO 6

Emmy Award-Winning Editing Software

The first choice of professional editors worldwide, Final Cut Pro 6 delivers high-performance digital nonlinear editing, native support for virtually any video format, and facility-class extensibility and interoperability. Its workflow extends through the other Final Cut Studio applications and Final Cut Server for even more power. Whether you're working solo or collaborating with a team, Final Cut Pro gives you more creative options and technical control than ever before.



Wide Format Support

With native support for virtually any format, Final Cut Pro 6 lets you edit virtually anything with the highest possible quality. Edit everything from uncompressed SD to HDV, DVCPRO HD, and uncompressed HD — as well as Panasonic P2 and Sony XDCAM HD/EX tapeless formats. Or use ProRes 422, Apple's post-production format, for uncompressed HD quality at SD file sizes. Mix and match a wide range of formats and even frame rates in the open format Timeline. If you edit film, use the redesigned interface in Cinema Tools 4 to work faster than ever, with customizable lists that let you combine timecode and keycode in a single document.

◆ Mix and match source material in a wide range of formats and even different frame rates. Just drag your footage into the Timeline. Freely edit a combination of HD and SD, including NTSC and PAL, all in real time. Offers real-time scaling and playback for video in various camera-native formats as well as Apple ProRes 422. Watch the QuickTour



◆ Edit virtually anything natively, so you get pristine quality from the first cut to the final output. No need to transcode video from cameranative formats — no matter whether it's coming from a DV, HDV, or DVCPRO HD camera. Output will always be as stunning as the original source. Final Cut Pro 6 supports a wide range of standard definition and high-definition formats.

- ProRes 422 post-production format offers uncompressed HD quality at SD file sizes. Use ProRes 422 when collaborating on an Xsan storage network, when working with non-native camera formats, or to preserve maximum quality for composites and demanding color grading work.
- ◆ Use the Log and Transfer function in Final Cut Pro for ingesting Panasonic P2 files or Sony's free XDCAM Transfer software for ingesting 18-, 25-, and 35Mbps XDCAM HD/EX footage. Preview shots before you bring them in, add In and Out points, and incorporate metadata before you transfer files to save time when you get to the edit. Ingest tapeless files in the background at high speeds while you continue to edit or preview other material.
- With support for the Apple Intermediate Codec, Final Cut Pro 6 can import and work with media and projects from the most recent versions of iMovie HD and Final Cut Express HD.

Cinema Tools 4 for Film

Cinema Tools 4 offers convenience for traditional film workflows. Deeply integrated with Final Cut Pro 6, it features a streamlined interface that lets you work quickly and easily. The film lists produced by Cinema Tools 4 are completely customizable and can include both timecode and keycode in the same list. Easily export your lists as XML and import them into industry-standard tracking systems used to pull film negatives. You can even output beautifully formatted, easy-to-read PDF lists to use for reference or to share with clients.

- ◆ Manage keycode and timecode data associated with your projects shot on film or scanned to DPX or Cineon files. Cinema Tools is a database application that tracks clips and sequences back to their original film frames or scanned files for final finishing. Export film lists with timecode and keycode in both PDF and XML formats. Use the pulldown removal functions to turn 29.97 video into 23.98 and modify 25fps footage to edit at true 24 fps.
- ◆ In digital editing, you can use the same clip repeatedly without creating physical copies. Cinema Tools includes a list of digital dupes in the cut list. This information helps filmmakers reduce costs by eliminating unwanted dupes. Dupes that remain in the list alert the negative cutter that additional copies of the film footage are required. The cut list identifies optical effects as well.
- ◆ To edit film footage digitally, you convert footage to digital video, using a film-to-tape telecine process. Transfer film footage to any of a wide range of SD and HD video formats supported by Final Cut Pro 6. Then edit the same way you would cut original video, using the 24p frame rate required for film. Cinema Tools 4 tracks the edits and outputs the information you need to conform the original camera negative for your final film out.



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FINAL CUT STUDIO 2 / FINAL CUT PRO 6

Incredible Real-Time Effects

Add visual interest to any production with the rich set of effects and visualization tools built into Final Cut Pro 6. Experiment freely and iterate quickly. You'll see the results of your changes in real time as you work, with no need to waste time waiting for renders. Final Cut Pro is built for speed. RT Extreme delivers real-time performance for more than 150 filters and effects as well as for multistream video. Dynamic RT adjusts image quality and frame rate on the fly for optimal playback on any system. Use the SmoothCam feature to automatically stabilize shaky shots while preserving standard camera moves. Easily swap out video clips and edit text in motion graphics without leaving Final Cut Pro, using editable Motion 3 master templates.

- ◆ RT Extreme with Dynamic RT delivers real-time performance for DV, SD, HDV, DVCPRO HD, and fully uncompressed HD video. RT Extreme delivers real-time playback of over 150 effects as well as multiple streams of video used for picture-in-picture effects and multicamera editing. Dynamic RT analyzes your system's capabilities and adjusts video playback quality and frame rate on the fly. If you prefer, set preferences to favor playback quality or frame rate as the video plays back.
- ◆ More than 150 real-time capable filters and effects, many of which use high-resolution 32-bit float image processing to produce stunning film-quality results. Extend your repertoire even further by bringing in 3rd party filters based on the FxPlug standard the same format used to produce the extraordinary real-time effects in Motion.
- ◆ Smooth out shaky scenes without altering zooms, pans, dollies, and other standard camera movements. The SmoothCam feature in Final Cut Pro 6 uses sophisticated optical flow technology to analyze and adjust your problem shots. SmoothCam works in the background, so you can edit other material while it analyzes the shaky footage.



- ◆ Motion 3 master templates for Final
 Cut Pro make it easy to update content such as video clips, titles, and lower thirds, while preserving the underlying motion graphics. The templates include video drop zones and editable text fields that let you rapidly create multiple versions, all without leaving Final Cut Pro.
- ◆ Final Cut Pro 6 includes a comprehensive set of real-time color correction tools, including primary and secondary color correctors; image control filters; broadcast-safe filters; tools for matte and key operations as well as luma and chroma range checking; real-time scopes and monitors; and a frame viewer for comparing your shots.
- ◆ Preview a digital cut of your HD video full screen complete with real-time effects using Digital Cinema Desktop. Evaluate your edit full screen on a single display. Or use a second display for video output. Even if you're working on a MacBook Pro, you can view the video full screen or create an impressive screening for clients with a second high-resolution display or projector.

Comprehensive Editing Tools

A complete set of professional editing and trimming tools lets you work quickly, while a full range of customization options gives you flexibility and control. Use powerful multicamera editing tools to view and cut video from multiple sources in real time. Mix up to 24 channels of audio with the onscreen mixer or use a Mackie Control Protocol device with faders. When you're finished, output frame-accurate video at stunning quality. The faster the tools, the more time you have to be creative.

- ◆ Final Cut Pro 6 provides a full set of industry-leading editing and trimming tools. Edit in the Timeline or with the innovative Edit Overlay tool. Choose from a comprehensive set of edits, including Insert, Overwrite, Replace, Fit-to-fill, Superimpose, Add Edit, or Swap Edit. Then fine-tune your choices with Ripple, Roll, Slip, Slide, Extend, and Shorten, either in the Timeline or a dedicated Trim window.
- All the tools that professional editors expect three-point editing, JKL keyboard navigation, match frame, multitrack and asymmetric trimming, extend and split edit functions, and more.
- ◆ Cut multi-camera footage as quickly as if you were switching a live show. Simultaneously view and cut from multicamera sources using the intuitive 1-, 4-, 9-, or 16-up display. You can also group up to 128 sources into multiclips, adding and subtracting cameras at any time.
- ◆ Customize window layouts and Timeline track sizes; customize Browser column order, width, and layout; and adjust font size in the Browser and Timeline. Then zoom through your work with customizable access to more than 600 commands; create keyboard shortcuts or add buttons to the user interface for the commands you use most.

- Work with 24 channels of audio input/output at up to 24-bit, 96kHz resolution. Freely adjust your mix without altering the original audio files. Adjust levels using the onscreen mixer or ride multiple faders at the same time on any Mackie Control Protocol (MCP) device. The Soft Normalize and Gain feature analyzes and automatically raises the level of any clip to its maximum without distortion.
- Apply high-quality Audio Units filters such as Reverb and EQ without leaving Final Cut Pro. Audio Units filters are also used in Soundtrack Pro, so that you can continue to adjust your effects if you send your project to Soundtrack Pro for additional mixing.
- High-quality scale and rotate algorithms ensure that picture-in-picture effects or effects with rotation look crisp and beautiful. Other features include enhanced gamma processing for high-definition video; 32-bit floating-point filters; and frame-accurate precision for editing to tape.
- ◆ Use the Final Cut Pro Media Manager for project-, sequence-, or clip-level operations. Quickly and accurately copy, move, and consolidate projects. Search, sort, and sift right in the Browser to rapidly find the assets you need for your project.



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FINAL CUT STUDIO 2 / FINAL CUT PRO 6

The Hub of Final Cut Studio 2

Final Cut Pro 6 extends its power through the other applications in Final Cut Studio 2. Finish editing with professional color grading, add sophisticated 2D and 3D motion graphics, and mix surround sound or stereo soundtracks. Output to multiple delivery formats, all at pristine quality. Or create a professional DVD in SD or HD resolution. Deep integration with the full range of Apple professional products further extends the Final Cut Pro platform.



- ◆ If you want to give your finished project a specific cinematic look –or if you need to do significant color correction across the entire project – send your project to Color for advanced color grading with round-trip ease. Sequence metadata from Final Cut Pro is preserved when you send your project back and forth between Final Cut Pro and Color.
- ◆ More and more feature films are produced with Digital Intermediate (DI) workflows. DI workflows are used for productions that are shot on film, scanned to a high-resolution 4:4:4 2K data format, edited digitally, and then released on film, as digital cinema, or as high-definition video. Some studios skip the film original and go direct to tapeless DPX video by shooting with a high-resolution camera such as the Thomson Viper.
- ◆ Edit a DI in Final Cut Pro 6 using ProRes 422 proxies, then send your project to Color for color grading and final output using the original 2K DPX media. Render out DPX files for the final film out or digital cinema master while retaining 4:4:4 2K quality. For broadcast or video release, you can output high-quality 10-bit ProRes 422 or uncompressed HD.
- ◆ Send a Final Cut Pro project to Motion complete with cut points, layering, motion paths, retiming, and SmoothCam information. Add dynamic 2D and 3D graphics, with or without video. When you save your project in Motion, the updated content appears in Final Cut Pro.
- ◆ Complete basic audio editing and mixing in Final Cut Pro, then send your project to Soundtrack Pro to enhance audio tracks with additional plug-ins, dialogue, music, Foley, and sound effects. Mix for surround sound, stereo, or both at the same time. Soundtrack Pro also repairs problems such as clicks, pops, or hums. Use the Conform feature to automatically update your audio project to match your video edit after you make changes in Final Cut Pro. Bring your surround sound mix back into Final Cut Pro and monitor your audio in full 5.1.

- ◆ Send shots to Motion whenever you want to make additional SmoothCam and retiming refinements. You can also use Motion 3 to create editable templates with video drop zones and text fields for repeated use in Final Cut Pro.
- Productions today are distributed in multiple formats, which may include formats for the web, iPod, iPhone, Apple TV, and digital cinema.
 Send Final Cut Pro projects to Compressor 3 for easy batch processing output of multiple files to multiple formats, all at pristine quality.
- ◆ To author a DVD in SD or HD resolution, begin by sending your Final Cut Pro project to DVD Studio Pro 4. Chapter information from Final Cut Pro will automatically be read into DVD Studio Pro for authoring.
- Motion picture studios and digital effects houses use Shake 4 to create effects for some of the world's most celebrated films. Send clips from Final Cut Pro 6 to Shake; Shake converts Final Cut Pro 6 cuts and layers to a node tree for final compositing.
- ◆ Capture once, save time, and share media with multiple editors simultaneously using a consolidated storage pool powered by Xsan. Media management tools in Final Cut Pro make reconnecting and working with media in shared environments easy. Workgroup editors can adjust real-time effects playback based on available SAN bandwidth.
- ◆ Final Cut Pro 6 works seamlessly with Final Cut Server, Apple's software for asset management and post-production workflow automation. Drag assets from Final Cut Server into Final Cut Pro for immediate use. Or bring assets from other sources into Final Cut Pro; the assets will be added to the catalog when you check your project back into Final Cut Server. Use Final Cut Server on a LAN or WAN, or use the power of Xsan to share media across a large number of workstations.

Open, Extensible Architecture

You're an independent filmmaker. Or you edit in a commercial post house. Or you're a video journalist cutting stories on the hour for a global news network. No matter who you are or how you work, Apple's open-standards approach lets you use a favorite third-party tool or even create best-in-class custom systems for large-scale workflows — all through the open architecture and natural extensibility of the Final Cut Studio platform.



- ◆ Final Cut Pro 6 uses XML to track and manage all of the thousands of actions and assets that go into an edit. Developers use the format to create applications that seamlessly share project data with Final Cut Pro. These range from cool tools to specialized high-end systems for broadcast. With XML interchange, the sky's the limit with Final Cut Pro.
- ◆ FxPlug is the default plug-in format for filters and transitions in Final Cut Pro 6 offering astonishing quality through GPU-accelerated 32-bit float processing. Dozens of leading developers are using the FxPlug standard to create hundreds of extraordinary effects that can be used in Motion, Final Cut Pro, or both.
- ◆ Final Cut Pro supports the full range of QuickTime formats. QuickTime is flexible enough to contain virtually any type of media all the way from DV up to fully uncompressed, high-bit-depth video at HD resolutions. This means that developers can easily create products that are interoperable with Final Cut Studio.



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FINAL CUT STUDIO 2 / MOTION 3

Motion Graphics Software

Motion 3 takes the complexity out of 3D by extending the 2D tools you already use. With its intuitive interface and rich toolset, the only limit is your imagination. Send particles exploding through space. Swing cameras around an object with breathtaking ease. Squiggle a vector-based paint stroke in 3D through the cosmos. Motion 3 lets you create 3D motion graphics with drag-and-drop ease, startling performance, and unprecedented color fidelity.



Intuitive Real-Time Design Environment

- ◆ Powerful real-time design engine lets animate in real time, and even modify your animation while it's playing back. Use Motion to experiment with wild abandon. Press a key or swish a pen. Slide a fader back and forth. Drag a behavior, then drag another one on top of it.
- ◆ Use intuitive heads-up displays and drag-and-drop tools to accomplish the basics with ease. If you want to tap into the full power of a feature, a single click reveals a comprehensive set of controls for timing adjustment, keyframe editing, and parameter settings.
- ◆ Apply behaviors for a rapid, fluid approach to animation. Take advantage of full keyframe curve editing for fine-grained precision. Or mix and match. Behaviors are used to produce natural-looking motion and realistic simulations of interactions among objects.
- ◆ Behaviors can also be used to trigger sets of parameters, like the Audio behavior that automatically synchronizes your animation to a soundtrack. Choose from over 100 behaviors to set things in motion.
- ◆ Keyframe Editor lets you draw animation curves in a flash. Squish, stretch, and reposition groups of keyframes using the flexible transform box. Motion 3 lets you use time-saving keyboard shortcuts to call up curves for position, opacity, rotation, scale, shear, and anchor point.

3D Motion Graphics

- ◆ Fly through 3D space, with behaviors that let you drag and drop to set up cameras that dolly, truck, and orbit around a scene or move from layer to layer. You can even set up multiple cameras and cut between angles to create dynamic multicamera animations.
- ◆ Create additional drama by animating directional, point, or spot lights with control over light intensity, falloff, color, and more. Easily create your own 3D paths as you move objects through space. With 2D and 3D compositing intelligently integrated in a flexible, intuitive interface, Motion takes you into new dimensions of creativity.
- ◆ Use particles, Replicator patterns, paint, text behaviors, and motion paths — along with composited images — to create a unified 3D design. Set up dazzling particle systems to explode and travel in 3D space.
- ◆ Choose a 3D behavior to send objects rocketing around 3D space. To create astonishing title sequences, just apply a 3D text behavior; the Text Sequence behavior produces wavelike animations through characters, with full 3D rotation and positioning changes. If you're in a gestural frame of mind, use pressure-sensitive brush strokes in the new paint feature and animate the strokes through 3D space.

Breathtaking Filters and Effects

- ◆ Use any object, including a QuickTime movie, as a particle shape. Apply multiple objects to a simple particle emitter to create more elaborate effects. Use particles to create animated backgrounds or real-world effects like smoke or sparkles. In Motion 3, particles can explode into 3D space or swirl around other objects in your scene.
- ◆ Select a shape, such as a grid, spiral, 3D sphere, or 3D box, then modify it until you get the effect you want. Bring Replicator patterns into 3D groups to move cameras around them or to combine them with other animations in 3D space. Create amazing motion graphics in minutes.
- ◆ Turn a simple brush stroke into swirls of chocolate, floating feathers, or glowing light trails with a simple menu selection. Create pressure-sensitive paint strokes and give them dramatic 3D looks.
- ◆ Bring in a clip with a speed change set in Final Cut Pro and refine it in the Keyframe Editor. Or apply revolutionary new retiming behaviors that let you change the speed of the clip and set ramp in and ramp out parameters — all while your video continues to play back.
- ◆ Attach text, particles, or any layer to an object in a video clip and follow the movement of the object. Extract precise motion paths from a moving image, like a a bus that travels through a shot; then flawlessly integrate a new side-panel billboard that moves as the bus moves.
- ♦ If you've been handed a shaky shot, Motion 3 can correct it quickly and easily. Use the stabilizer to lock down a shot without the timeconsuming setup required by most stabilization tools. Or use the new SmoothCam feature, which retains camera moves like pans, tilts, and zooms, while algorithmically eliminating handheld camera jitters.
- ◆ Motion 3 includes more than 150 GPU-accelerated filters and effects that can operate at 32 bits per pixel for extraordinary quality. Have fun with effects such as Underwater, Glass Block, and Insect Eye; or choose from a wide variety of standard effects including blurs, distortions, and color correction filters. Expand your palette of options even further by bringing in third-party FxPlug filters and effects.

Time Saving Features

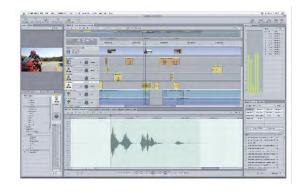
- ◆ Move projects into and out of other applications in Final Cut Studio without a second thought. When you bring Final Cut Pro sequences into Motion, they retain editable cuts, layers, and retiming effects.
- ◆ Send Motion 3 master templates to Final Cut Pro complete with drop zones for video and fields for editable text — and update them without leaving Final Cut Pro.



FINAL CUT STUDIO 2 / SOUNDTRACK PRO 2

Soundtrack Pro 2 offers unprecedented convenience and power to editors. Fly through audio editing and mixing with a streamlined interface that combines the multitrack Timeline and Waveform Editor in a single view. Easily create immersive soundtracks with innovative surround sound tools. Automatically conform your audio edit to changes made in your video edit. With its familiar interface and intuitive tools, Soundtrack Pro is the Final Cut Pro of audio post-production.

- Streamlined interface allows video editors to work efficiently with familiar tools, while simultaneously providing the depth and control that audio professionals need to complete even the most complex projects.
- ◆ Whether you're performing a simple crossfade or comprehensive audio post-production, Soundtrack Pro 2 gives you a full range of professional tools for precision editing, audio restoration, processing, and mixing all with unparalleled video integration.



- ◆ Cinematic sound. Revolutionary control. Eerything you need to create immersive surround mixes for your video. Whether you're mixing a multimillion-dollar blockbuster or an independent film, creating an enveloping cinematic soundtrack has never been easier.
- ◆ Synchronize changes from your video edit by using integrated audio conform process. Work in Final Cut Pro, change the picture edit, and then automatically compare and conform the audio project in Soundtrack Pro 2. There's no need to comb through EDLs or build elaborate change lists.

 Soundtrack Pro takes the tedium out of the conform process, while offering you complete control over which changes to accept, modify, or reject.
- ◆ Powerful integration with Final Cut Studio. Seamless interchange with other applications. Soundtrack Pro 2 gives you everything you need to tackle the most complex audio post-production tasks, with the flexibility to work the way you want.

FINAL CUT STUDIO 2 / COLOR





Apple's professional color grading application.
Quickly and easily experiment with primary and secondary color grade adjustments for SD, HD, and even 2K projects. Color lets you preview the results — at any resolution — in real time. When you have just the look you want, render at stunning quality and blazing speeds. Color uses GPU-accelerated processing to produce RGB output in resolutions up to 4:4:4 with 32-bit float processing. Color makes it

easy for editors to create signature looks for projects ranging from short video pieces to full-length theatrical films.

Intuitive Task-Based Workflow

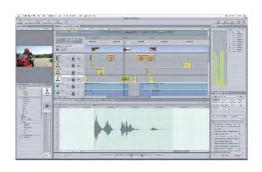
- ◆ Color uses a task-based workflow that is organized logically into eight "rooms," or workspaces, designed to offer streamlined access to just the tools you need. Start with Primary In for foundational grading, then use any other room in any order until you're ready to render through the Render Queue room.
- ◆ The tools in Color extend from a familiar Timeline, color wheels, and standard scopes to an intuitive new 3D Color Space scope. Editors will find it easy to use Color because of their experience with Final Cut Pro.
- ◆ Create custom mattes to quickly isolate an object or area in the frame for additional enhancements or effects. Automatically track and adjust your changes over subsequent frames with complete control. To apply advanced effects, choose from more than 35 professional effects and over 20 looks built into Color. Use them alone or combine them in a variety of ways to create completely custom effects.
- ◆ Create a signature look for a single production or apply a unified look to a series of productions. Get started fast by choosing one of more than 20 looks provided as custom effects in the Color FX Bin, then modify the look and save it for later use. You can also save a color grade, complete with primary and secondary adjustments, and reuse it on other projects. Experiment freely with up to four "live" grades at a time and save the ones you like best. You can even import and use grades created by professional colorists or other editors.
- ◆ Easily send a project round-trip between Final Cut Pro and Color. Video layers, effects, titles, and all of the other XML metadata from Final Cut Pro are preserved when you return to Final Cut Pro for finishing and final output. You can even use Final Cut Pro and Color together for Digital Intermediate workflows, complete with the ability to render out DPX files at full 4:4:4 2K quality.



APPLE

FINAL CUT STUDIO 2 / COMPRESSOR 3

With increasing demand for media distribution in multiple formats ranging from HD broadcast to an iPod screen — it's more important than ever to be able to output files efficiently while keeping quality high. The streamlined interface of Compressor 3 lets you quickly configure batch processes for encoding to a wide range of industry-standard formats. Or create format and standards conversions at pristine quality through sophisticated optical flow technology. For the ultimate high-speed workflow, set up distributed encoding over a shared-media network powered by Xsan.



Streamlined Encoding Workflow

Compressor 3 makes encoding easy and efficient, whether you are outputting a single file or delivering multiple files in multiple formats. Drag and drop intelligent presets to set up batch templates that you can save for later use. With a customizable interface, powerful audio and video filters, and a dynamic Preview window, Compressor is designed to give you total creative control over your encoded media.

Industry-Standard Encoding Support

Use Compressor 3 to create files for delivery on iPod, Apple TV, the web, DVD, mobile phones, and next-generation Blu-ray and HD DVD discs. Compressor 3 makes it easy with support for leading industry-standard formats, such as MPEG-2 and H.264. Expand your encoding choices with the new Episode Pro plug-in from Telestream that supports VC-1, WMV, GXF, and FLV output as well as proprietary formats for broadcast servers.

Pristine Format Conversions

Using Apple's optical flow technology, Compressor 3 produces pristine format and standards conversions — including standards conversions for international distribution and gorgeous SD to HD up-conversions. Change frame rates, convert between progressive and interlaced video, or perform reverse telecine processing — all while maintaining the quality of the original source.

Distributed Encoding

Use the Qmaster application included in Compressor 3 to distribute encoding jobs across a network of Mac systems. The AutoCluster option instantly configures clusters of available computers. Set up Qmaster to run rendering jobs for motion graphics, encoding jobs, or a combination of the two. For maximum speed in workgroups, configure a network powered by Xsan.

FINAL CUT STUDIO 2 / DVD STUDIO PRO 4



DVD Studio Pro 4 makes it easy to extend your creative vision to every aspect of DVD authoring. Whether your project is simple or sophisticated, you'll enjoy using familiar, easy-to-use tools to produce the perfect presentation of your SD or HD content. A comprehensive set of advanced features is available whenever you want more control. You don't have to be a programmer to author a DVD using DVD Studio Pro 4. It easy to get started on a first project, then add sophistication over time with powerful, intuitive tools. Choose one of three interface configurations or customize and save your own views. Drag and



drop to design menus and set up connections to your content, quickly choose transitions, and build engaging slideshows with ease. Best of all, you can preview and test your work in real time, with no need to create a DVD image or burn a disc.

- ◆ DVD Studio Pro 4 offers support for authoring a wide range of projects, from quick DVD dailies to complex commercial titles. Build the tracks for your project by using a familiar timeline, with up to nine video angles, eight audio streams, and 32 subtitle streams for each track. Explore the Story feature to create multiple playlists, or use point-and-click scripting tools to create interactive elements like games and quizzes. You can even take advantage of advanced features for memory management and disc layout.
- ♦ Whether you burn a one-off disc on your Mac Pro or send a title out for commercial replication, you can have confidence that your DVDs will play back on a wide range of set-top players and computers. Burn your own discs in a wide variety of formats, including double-layer DVDs. For commercial replication, choose one of the traditional red laser formats or double the capacity on your HD DVD disc by using a blue laser format. Add commercial features to SD titles, including copy protection flags used by replicators, region coding, and jacket picture art.



APPLE

FINAL CUT STUDIO 2 TURNKEY SYSTEMS

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Final Cut Studio 2/Mac Pro Turnkey System	Blackmagic Decklink HD
System includes 2.66 GHz quad-core Mac Pro; 4GB (4x 512MB, 2x 1GB)	Mac Pro Turnkey System with Final Cut Studio 2
RAM; 2 TB (4x 500GB) SATA hard drive; 500GB G-Raid2 external RAID 0;	System includes 3.0GHz quad-core Mac Pro; 4GB (4x 512MB, 2x 1GB)
16x dual-layer SuperDrive; nVIDIA GeForce 7300 GT 256MB graphics;	RAM; 2.75TB (1x 250GB, 3x 500GB) hard drive; Blackmagic Decklink HD
Airport Extreme, Bluetooth 2.0+EDR; Mac OS X 10.5 Leopard; 3-year	Extreme video capture card; 2.5TB Ciprico MediaVault SCSI Array; 16x
AppleCare; Bella keyboard for Final Cut Studio	dual-layer SuperDrive; nVIDIA GeForce 7300 GT 256MB graphics; Airport
Final Cut Studio 2/Mac Pro (B&H # APFCSMP1)Call	Extreme; Bluetooth 2.0+EDR; Mac OS X 10.5 Leopard; 3-year AppleCare;
	Bella Keyboard for Final Cut Studio.
Final Cut Studio 2/Mac Pro Turnkey System	Final Cut Studio 2/Mac Pro/Decklink HD (B&H# BLDLHDXMT)
System includes 3.0 GHz eight-core Mac Pro; 4GB (4x 1GB) RAM; 1.75TB	
(1x 250GB, 3x 500GB) hard drive; 500GB G-Raid2 external RAID 0; 16x	AJA IoHD/17" MacBook Pro
Dual-Layer SuperDrive; ATI Radeon X1900 XT 512MB graphics; Airport	Turnkey System with Final Cut Studio 2
Extreme, Bluetooth 2.0+EDR; Mac OS X 10.5 Leopard; 3-year AppleCare;	System includes 2.4GHz Intel Core 2 Duo CPU; 2GB (2x 1GB) RAM; 160GB
Bella keyboard for Final Cut Studio	5400 rpm hard drive; 1TB G-SATA eSATA hard drive array; AJA IoHD; 8x
Final Cut Studio 2/Mac Pro (B&H # APFCSMP2Q)Call	SuperDrive; nVIDIA GeForce 8600M GT 256MB graphics; 17" widescreen
	display; Bluetooth 2.0+EDR; 802.11n AirPort Extreme; Mac OS X 10.5
Final Cut Studio 2/Customized 17" MacBook Pro Turnkey System	Leopard, 3-year AppleCare, it weighs 6.8 lbs.
System includes 2.4 GHz Intel Core 2 Duo CPU; 2GB (2x 1GB) RAM; 160GB	Final Cut Studio 2/MacBook Pro/AJA IoHD (B&H # AJIOHDPT)Call
7200rpm hard drive; 500GB G-Raid2 external hard drive; 8x SuperDrive;	
nVIDIA GeForce 8600M GT 256 MB; 17" widescreen display; Bluetooth	AJA IoHD Breakout Box
2.0+EDR, AirPort Extreme; Mac OS X Leopard; 3-year AppleCare. The	Mac Pro Turnkey System with Final Cut Studio 2
MacBook Pro weighs 6.8 lbs, and the G-Raid2 weighs 3.85 lbs.	System includes 3.0GHz eight-core Mac Pro; 4GB (4x 1GB) RAM; 1.75TB
Final Cut Studio 2/17" MacBook Pro (B&H # APFCSMBP)Call	(1x 250GB, 3x 500GB) hard drive; AJA IoHD; 3TB G-SPEED Fibre-Channel
	RAID; 16x dual-layer SuperDrive; ATI Radeon X1900 XT 512MB graphics;
AJA Io Breakout Box Mac Pro Turnkey System with Final Cut Studio 2	Airport Extreme; Bluetooth 2.0+EDR; Mac OS X 10.5 Leopard; 3-year Ap-
System includes 2.66 GHz quad-core Mac Pro; 4GB RAM (4x 512MB, 2x	pleCare; Bella Keyboard for Final Cut Studio.
1GB) RAM; 2TB (4x 500GB) SATA hard drive; 16x dual-layer SuperDrive;	Final Cut Studio 2/Mac Pro/AJA IoHD (B&H # AJIOHDT)
AJA lo Breakout Box; nVIDIA GeForce 7300 GT 256MB graphics; Airport	
Extreme; Bluetooth 2.0+EDR; Mac OS X 10.5 Leopard; 3-Year AppleCare;	Blackmagic Multibridge Pro
Bella Keyboard for Final Cut Studio.	Customized Mac Pro Turnkey System with Final Cut Studio 2
Final Cut Studio 2/Mac Pro/AJA Io Breakout Box (B&H # AJIOTA)Call	System includes 3.0GHz dual Intel Dual-Core Xeon 5100 Series CPU; 4GB (4x 512MB, 2x 1GB) RAM, 1TB (2x 500GB) SATA hard drive; Blackmagic
AJA Kona LHe Mac Pro Turnkey System with Final Cut Studio 2	Multibridge Pro video capture breakout box; 2.5TB external SCSI RAID;
System includes 3.0 GHz quad-core Mac Pro; 4GB RAM (4x 512MB, 2x	16x dual-layer SuperDrive; ATI Radeon X1900 XT 512MB graphics, Airport
1GB); 2TB (4x 500GB) SATA hard drive; AJA Kona LHe video capture card;	Extreme; Bluetooth 2.0+EDR; Mac OS X 10.5 Leopard; 3-Year AppleCare.
2.5TB Ciprico MediaVault SCSI Array; 16x dual-layer SuperDrive; nVIDIA	Final Cut Studio 2/Mac Pro/Multibridge Pro (B&H # BLDLMBPMTQ)
GeForce 7300 GT 256MB graphics; Airport Extreme; Bluetooth 2.0+EDR;	Tillal Cut Studio 2/Mac FTO/Multibridge FTO (bari # blbLMbFMTQ/Call
Mac OS X 10.4; 3-year AppleCare; Bella Keyboard for Final Cut Studio.	Multibridge Eclipse/Mac Pro Final Cut Studio 2 Turnkey System
Final Cut Studio 2/Mac Pro/KONA LHe (B&H # AJKONALHETZ)Call	System includes 3.2GHz Eight-Core Mac Pro; 4TB Dulce PRO DQ Array;
	·
AJA KONA 3 Mac Pro Turnkey System with Final Cut Studio 2	Blackmagic Design Multibridge Eclipse; Boris FX Graffiti 5.2; Final Cut Studio 2; Pro Series Keyboard for Final Cut; 3-year AppleCare
System includes 3.0 GHz eight-core Mac Pro; 4GB RAM; 1TB hard drive;	· · · · · · · · · · · · · · · · · · ·
4TB PRO DQ Array; KONA 3 with Breakout Box; Boris Graffiti 5.2; Final Cut	(B&H # BLDLMBEQT1)Call
Studio 2; AppleCare (B&H# AJKONA3TF)Call	
	Multibridge Pro/Mac Pro Turnkey System with Final Cut Studio 2
Blackmagic Decklink HD	System includes 3GHz Eight-Core System; 2TB Ciprico MediaVault 5108
Mac Pro Turnkey System with Final Cut Studio 2	Array; Blackmagic Design Multibridge Pro; Boris FX Graffiti 5.2; Final Cut
System includes 3.0 GHz eight-core Mac Pro; 4GB (4x 1GB) RAM; 1.75TB	Studio 2; 3-Year AppleCare (B&H # BLDLMBPMTQ)Call
(1x 250GB, 3x 500GB) hard drive; Blackmagic Decklink HD Pro; 2.5TB	
Ciprico Fibre-Channel Array; 16x dual-layer SuperDrive; ATI Radeon	Multibridge Pro/Mac Pro Turnkey System with Final Cut Studio 2
X1900 XT 512MB graphics; Airport Extreme; Bluetooth 2.0+EDR; Mac OS	System includes 3GHz Quad-Core System; 2TB Ciprico MediaVault 5108

X 10.5 Leopard; 3-year AppleCare; Bella Keyboard for Final Cut Studio.

Final Cut Studio 2/Mac Pro/Decklink HD (B&H # BLDLHDPDLPEZ)Call



Array; Blackmagic Design Multibridge Pro; Boris FX Graffiti 5.2; Final Cut

Studio 2; 3-Year AppleCare (B&H # BLDLHDXMT)......Call

APPLE

SHAKE 4.1



Advanced Digital Compositing

Optimized to run on Intel-based Macintosh computers, Shake 4.1 is priced to fit even the tightest production budgets. Used to create the world's most celebrated visual effects, Shake provides the only compositing software with a complete toolset for both single artists and visual effects facilities. With Shake 4.1, you can leverage the creative work you're producing in Final Cut Studio, extending it with an integrated workflow that puts a wide range of tools—e.g., sophisticated 3D multi-plane compositing, 32-bit Keylight and Primatte keying, cutting-edge Optical Flow image processing, smooth stabilization, image tracking, and an open, extensible scripting program—at your fingertips. You can, for example, drop Motion 2 projects directly into Shake to create a powerful graphics and effects combination; then render the resulting project

using the shared OpenEXR format for film quality reproduction. The result: now everyone who uses Final Cut Studio has the power to create the most sophisticated film and television visual effects—without breaking the budget.

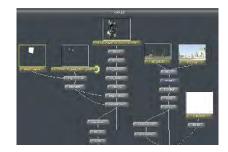
FEATURES

Unified 2D/3D Compositing

Shake delivers the most efficient compositing operations for handling large images with pristine quality. From full 32-bit float Keylight and Primatte keyers to OpenGL-accelerated 3D multi-plane compositing, no other visual effects software delivers as complete a toolset for individual artists and full visual effects facilities.

- Multi-plane compositing is integrated into the node view, making it seamless to jump from 2D paint, rotoscoping and image processing into a 3D layered composite.
- ◆ Adding a multi-plane node allows you to "plug in" any number of layers for 3D compositing. Match CGI-rendered elements with live-action scenes by importing 3D tracking data from applications including Maya, Boujou and Pixel Farm. Your layers remain highly interactive while you work, thanks to OpenGL hardware-accelerated previews.
- ◆ Import Photoshop layers with blend modes
- ◆ Change the resolution and bit-depth during the compositing process as many times and wherever you wish. Output a film-resolution 32-bit plate and an 8-bit video-resolution image simultaneously. Shake allows you to work in 8 bits, 16 bits, or 32 bits per channel, all within the sameproject: No need to have all compositing operations in a project at the same bit depth. You optimize the project, using 16- and 32-bit operations where needed while performing quick 8 bit operations as well.

- ◆ Customizable quad split viewer
- ◆ Since every effect in Shake is a distinct node that you can insert into a node tree, use the Node View to select, view, navigate and organize the functions that comprise the node tree. In the Node View, you can access any part of your composite. As you view and select the controls for each node, you can modify them while looking at the final render. You can, for example, paint on a frame that rotates 3D space without viewing the frame in adifferent window.
- In Shake, you can mask a layer or an effect to control which areas of an image are affected. For sophisticated animations, you can keyframe each mask or track each point on the rotoshape and apply a photo realistic motion blur.
- ◆ Includes Primatte and Keylight—industrystandard keyers, that operate with full 32-bit float precision to ensure the continuation of high bit depth throughout a project. Whereas other packages take a "one-keyerfits-all" approach to keying, Shake allows you to combine keys to achieve the best results.



- ◆ Truelight a complete HD-to-film or filmto-film color management system from Filmlight — is integrated directly into Shake for pre-visualizing the look of projected film images on LCD and CRT displays. Use Truelight 3D Cube technology to accurately predict the look of your HD or film imagery when printed, without unnecessary film-outs.
- ◆ Create multiple shapes within one rotoshape node while modifying soft-edge falloff controls independently on each control point.
- ◆ Boolean and Image Math layer operations
- ◆Fully editable node grouping/ungrouping
- Channel swapping and copying
- ◆ Constraint of any operation to channel, field, tolerance or region
- External masking capabilities for every operator
- ◆ Audio scratch track support on Mac OS X
- ◆ Support for third-party plug-ins including The Foundry, GenArts and RE: Vision Effects



APPLE

SHAKE 4.1

Advanced Image Processing

- Optical Flow technology uses pixel-by-pixel image analysis to create smooth retiming, incredible high quality resizing and automatic stabilization. The results are cleaner, sharper and more natural-looking images.
- ◆ A sophisticated method of motion estimation that automatically tracks an image pixel by pixel in order to create "new" frames, Shake's Optical Flow-based retiming gives you smooth slow motion effects at amazingly low frame rates. Shake can nonlinearly retime any clip, allowing you to ramp forwards and backwards though a clip.
- Use Smoothcam to smooth out bumpy camera moves or eliminate camera movement altogether. Smoothcam uses Optical Flow technology to remove camera jitter from static shots without setting tracking points.
 Smoothcam even revives unusable shots by correcting uneven pans across a scene.
- ◆ Powerful tracking technology that follows the movement of pixels over a series of frames to create "motion paths" you can attach other elements to. Shake's tracker allows you to define various parameters to automate tracking of even the most difficult shots. Attach trackers to paint strokes, warper shapes or even individual points on a mask shape.
- Use shape-based morphing and warping in Shake to achieve fantastic shape-shifting or seamless corrective effects.
- ◆ Integrated directly into Shake, morphing and warping shapes use the standard spline tools, making it more intuitive to create and modify an effect than with mesh-based warping tools. Unlike hardware-based warping tools, Shake employs software-based rendering for fine precision. Apply trackers to shapes and create moving morphs and warps faster: The Shake warping engine takes full advantage of dual processors.
- ◆ Combine multiple source images in to a single panorama with Auto-Align, an Optical Flow analysis-based transform node. Use Auto-Align to align, warp and luminance match images that overlap either horizontally or vertically. Unlike similar photographic tools, Auto-Align works with both stills and image sequences. This means you can, for example, turn three side-by-side shots or an expanse of action into a single, extremely wide-angle background plate.



The choice of Oscar Winning effects artists over the past 10 years, Shake now offers a host of new features that give you the highest quality output for film and HD. Use Shake to create convincing, photorealistic, Hollywood-caliber visual effects on a desktop — and on a budget.

Filters

- Film grain simulation
- Extremely fast, high-quality Gaussian blurs
- User-definable Convolves
- Grain, Median, Sharpening, Embossing, Edge Detection, Radial and Z-Depth-based Blur
- Optical Defocus; Dilation/Erosion
- Image-driven Blurring, Sharpening or Dilation
- Keying
- 32-bit Photron Primatte chroma keyer
- Included 32-bit CFC Keylight chroma keyer
- Chroma, Luma, Difference or Z-Depth keying
- Spill suppression

Warps

- Shape-based warper and morpher nodes
- New Lens warp node
- Randomization and turbulence
- Twirl and Pincushion
- Image- and expression-based warping

Rotoscoping

- Multiple Bezier style Rotoshapes per node
- · Independent animation control
- Non-uniform edge blurring
- · Non-uniform, velocity-based motion blur

Paint

- Procedural, pressure-sensitive vector-based paint
- Insert Paint nodes anywhere in the process tree
- · Clone, reveal and smudge paint modes
- · Apply tracking data to paint strokes
- View Paint strokes in context of transforms
- Switch interpolation modes at any time: single frame, persistent and frame to frame interpolation

Animation

- Animate virtually any slider or toggle
- Flexible split window animation curve editing
- Automatic or manual key framing
- Copy/Paste Key frames
- View audio wave forms against animation curves
- Drive parameter animation based on audio
- Overlapping Key controls for moving, interpolating and replacing control vertices
- Curve controls for maintaining keyframe slopes and values over a range of frames
- Resample function
- Linking of any parameter to any other parameter
- Expressions on any parameter

AppleShake 4.1 for Mac OS X - Single User License (Mfr# MA434VA B&H# APS41)449.95
Shake 4.1 for Mac OS X - Volume Authorization (Mfr # MA434Z/A · B&H # APS41ORB)498.95



AVID

MEDIA COMPOSER

World's Most Powerful and Refined Film and Video Editing Software

The editing system that started it all —real-time, multiformat editing —plus all the creative tools, media management, and true facility-wide collaboration that makes it the best editor on the planet. An affordable, flexible, hardware-independent film and video editing solution for Mac and Windows, Media Composer is the application used to create more of the world's films, television shows, and commercials than any other editing system, and it's more powerful than ever. Media Composer works with DVCPRO HD, HDV, and Avid DNxHD on both the PC and Mac. Using the optional Avid



DNxcel board, editors can also encode HD material into Avid DNxHD resolutions of 145 Mb, 220 Mb, and 10-bit 220 Mb data rates. Composer's advanced features include enhanced real-time multi-cam functionality, motion tracking and stabilization tools, Long GOP splicing for superior HDV performance, and full-screen SD and HD monitoring via DVI using the host graphics card for both Mac and PC.

Provides collaborative media production environments by offering workflow-intelligent tools that connect directly to Interplay, Avid's nonlinear workflow engine. Leveraging the Interplay engine, Media Composer users can perform many time-consuming production tasks in the background, and monitor changes to all project assets made by team members as the creative process evolves. In addition, users have a window into all shared workgroup content, allowing them to easily browse through every asset used on a project – including media and non-media files.

Media Composer also includes two industry breakthroughs – Avid ScriptSync, a next-generation script-based editing tool that uses phonetic speech recognition technology to automatically sync text with media; and Avid DNxHD 36, the industry's most efficient HD codec for offline editorial, which runs at a data rate of 36 Mb/s), only slightly greater than the data rate of DV25 media, but at full-raster HD resolution.

FEATURES

HD Support

- ◆ Avid DNxHD encoding (8- and 10-bit 4:2:2) at 1080i at 59.94, 50 fps; 1080p at 25, 24, 23.976 fps; 720p at 59.94, 23.976 and 50 fps.
- ♦ Native DVCPRO HD support for 1080i 59.94, 50 fps; 720p at 59.94, 23.976 and 50 fps.
- ◆ Variable Frame Rate support take advantage of Panasonic's wide range of frame rates and get slow motion effects without having to render using 720p 23.976 or 720p 59.94 project types.
- Native XDCAM HD support for 1080i at 59.94, 50 fps; 1080p at 25, 23.976 fps
- ◆ Native HDV support for 1080i at 59.94, 50 fps; 1080p; 720p at 29.976 fps.

Open Timeline

- ◆ Media Composer offers all the support you need to mix multiple formats and resolutions in the same timeline—in real time—so you can keep the creativity flowing. Combine HD, SD, DV, and film formats and resolutions, as well as Avid AVR and Meridien JFIF media without rendering, transcoding, or re-digitizing. Edit native DVCPRO HD and HDV media. Take advantage of real-time, mixed-format multicam editing.
- ◆ Save time with direct capture of media and "tapeless" workflows: no need to shuttle through tapes looking for a shot. Native MXF support provides direct integration of Sony XDCAM and Panasonic P2 formats into an Avid workflow. Edit straight from Panasonic P2 cards or high-speed file transfers. Sony XDCAM support offers native editing of Long-GOP proxies, DV, and high-resolution IMX media.
- ◆ Part of the end-to-end file-based workflow, "write-back" functionality allows editors to send clips and sequences over FireWire to XDCAM discs (as IMX, DVCAM or XDCAM HD) and P2 cards (as DVCPRO or DVCPRO HD). Both formats offer increased levels of portability, access and cost-effectiveness that are just as efficient for archiving and distribution as they are for acquisition.



MEDIA COMPOSER

Editing Features

Intuitive. Faster trim tools. The industry's most accurate and reliable film editing workflow. No other application offers the features and functionality of Media Composer.

- ◆ Advanced trimming tools
- ◆ Real-time Multicam (9 screens SD, 3 screens HD)
- Motion Tracking and Stabilization featuring SteadyGlide
- Media consolidate and transcode between resolutions
- ◆ 24 video and audio tracks (unlimited video layers via nesting)
- ◆ 24 MetaSync tracks
- ◆ Full Film Composer toolset
- Render uncompressed effects independent of clip resolution
- ◆ Real-time equal power audio dissolves
- ◆ Scrolling timeline
- ◆ 4:3 and 16:9 support
- ◆ DV Scene extraction
- Support for 24P normal and advanced pulldown capture over IEEE1394 and SD- SDI/Analog
- ◆ PAL 24P and 25P
- ◆ Video Archive for SD video rate projects
- ◆ Edit while capture (Avid Interplay required)
- ◆ Native 23.976, 24, and film editing with 24 to 23.976 sequence conversion
- Can work at MPEG GOP structures smaller than the standard 15 frames. This allows users to export HDV material without having to render the entire sequence, saving valuable time in the editing room.
- Record up to 4 channels of audio directly to the timeline without having to capture and then edit the material. During complex dialogue replacement or narration, multiple voices can be recorded into the timeline, for a huge time savings.

Integrated Titling and Graphics

- ◆ Real-time uncompressed graphics and titles
- ◆ 2D and 3D titling including Marquee
- Rolling and crawling titles
- ◆ User-savable title style sheets

New! Media Composer Nitris DX

Professional Film and Video Editing with Comprehensive SD and HD I/O and DNxHD Acceleration

When you edit high-profile films, television programs, or commercials for a living, your editing system becomes an extension of yourself. Media Composer Nitris DX integrates the Media Composer toolset with the new Avid Nitris DX hardware for a remarkably responsive, high performance, multi-codec SD and HD editing solution. The result is the most powerful Media Composer system ever built.

- ◆ The Nitris DX architecture tightly connects the host workstation and PCI Express I/O hardware into a single high-bandwidth, high-performance effects engine. The architecture is optimized for highly responsive real-time editing using the latest generation of HD codecs, including HDV, XDCAM-HD, DVCPRO HD, AVC-I, and Avid DNxHD.
- ◆ Refined editing tools, integrated media management, and seamless conform help you stay focused on telling the best story. And Avid's Open Timeline lets you juggle formats and ideas offering real-time editing and playback of multiple SD and HD resolutions.
- ◆ Native integration of P2, XDCAM-HD, and HDV formats lets you focus on editing. Its the perfect solution for HD offline. Need to go out to DVD, Blu-ray, or the Web? Sorensen Squeeze and Avid DVD by Sonic (PC only) are included for multi-format output.
- ◆ Match shots quickly with the industry-standard Avid color correction toolset. Push the envelope with SpectraMatte keying, Fluid Motion time effects, Boris Continuum Complete, Avid FX and a wide range of third-party AVX2 plug-ins.

Avid Mojo SDI Portable Digital and Analog I/O

Compact enough to take on location yet powerful enough to serve as the core of a professional video editing suite, the optinal Avid Mojo SDI is a hardware I/O that connects to Mac or PC laptop and desktop systems via FireWire (IEEE1394) cable. Unlike other add-on hardware, it lets you capture audio or video while also providing output of the same source, so you can monitor what you're capturing, including watching video on a client monitor while recording voiceover – impossible with hardware from other manufacturers. In addition, Avid Mojo SDI lets you



monitor and output HD timelines in SD with real-time down-convert. In addition to serial digital video, Avid Mojo SDI also provides I/O for IEEE1394, and either component or composite and S-video. Mojo SDI supports up to 8 channels of embedded audio over SDI and 2 channels of optical S/PDIF audio, with additional connections for 4 channels of AES/EBU audio. Offers simultaneous output to both monitors and tape, and features Genlock and Word Clock for video and audio sync with external devices. Media Composer with Avid Mojo SDI gives you SDI input/output, composite, S-Video and component input/output. For audio you four channel analog, four channel AES/EBU, two channel optical S/PDIF, 8 channels of SDI embedded, audio sync output, realtime audio mix to picture, support for Digidesign AudioSuite plug-ins and real-time multiband EQ.

Avid Mojo SDI. (Mfr # 7010-06812-01 • B&H # AVM)......CALL



AVID

MEDIA COMPOSER

Effects & Compositing

- Motion tracking and stabilization with SteadyGlide[™] – enables editors to smooth shaky camera footage while maintaining desirable camera motion, such as pans and tilts.
- Real-time customizable 3D effects, including Warp, Picture-in-Picture, Corner Pinning, Shapes, Video Titles
- Real-time Dissolves, Superimposition, Resize, Flips, Flops, Wipes, Conceals, Squeezes, Masks, and Picture-in-Picture
- Capture and playback off-speed frame rates from tapes and files created by Panasonic Varicam cameras. Camera operators can choose off-speed frame rates (using 720p 23.97 or 720p 59.94 project types) with the comfort of knowing that they will be seamlessly reproduced in the editing process.
- Real-time Moving Mattes
- Real-time Chroma and Luma keys
- Real-time full-motion alpha keying
- Non-destructive compositing on unlimited layers
- Customizable rampable motion effects UI including FluidMotion™
- Supports all AVX™ 1.5 and AVX 2.0 plug-ins including 3rd party real-time plug-ins
- ExpertRender renders just the effects needed
- Intraframe Paint, AniMatte, Scratch Removal
- Pan & Zoom creates video from high-res stills
- Deep Defocus, blur, mosaic
- Reformat tools for aspect ratio management
- Full/Draft Quality mode for maximum performance
- Create incredibly smooth slow-motion effects and "fit-to-fill" video using patented pixel morphing technology. Control speed and position using intuitive curve-based keyframing. Apply the look of 24 fps progressive frame rates to 30 fps interlaced sources with the exclusive FluidFilm feature.
- Pulling a key with 8-bit formats such as DVCPRO HD can be tricky. Create higherquality keys and play them back in real time with high quality SpectraMatte chroma keyer featuring 16-bit SpectraGraph technology. An interactive environment eliminates guesswork, letting editors achieve a perfect key.
- Native 10-bit Boris Continuum Complete (version 4) effects and filters

Streamlined Workflows

The unified Avid editing environment and seamless conform closes the gap between editing and finishing and eliminates the need to re-build creative editorial work in the online suite. Remote Play and Capture allows editing systems to act as networked source/record devices. Support for the Avid Interplay nonlinear workflow engine adds background media management, transfers, and encoding for facility-wide collaboration over Avid Unity shared media networks.

- Edit while capturing media from an AirSpeed or Media Composer (requires Avid Interplay)
- Total Conform of bins, sequences, edits, composites, audio settings, effects, and Avid media with Avid Xpress, Media Composer, Film Composer, and Symphony systems
- Advanced conform with Avid DS Nitris systems with AFE
- Sony XDCAM support including MPEG 4 proxies, IMX and XDCAM HD

- Panasonic P2 import and export support for DVCPRO and DVCPRO HD
- AAF import/export
- MXF or OMF native media
- Windows Media HD and SD encoding
- Photoshop layers and After Effects support
- 24-bit audio file compatible with Pro Tools
- DI metadata management for file-based offline workflows

Encoding for Web + Interactive Delivery

Collaborate with others across town, across the country, or across the globe. The DigiDelivery media delivery system provides safe and secure direct export right from the editor. An e-mail driven user interface makes it a fast, cost-effective way to review and approve every phase of a project.

- Encoding of WMV HD and Windows Media 9, H.264 MPEG4, MPEG 1&2, QuickTime, Flash, and RealMedia
- WMV HD for high definition content on today's DVD-ROMs
- QuickTime Reference Movie output
- Push-button export of Windows Media (ASF), QuickTime 7.0, and MPEG-2
- Sonic DVDit
- Sorenson Squeeze
- SmartSound SonicFire Pro

Superior Media Management

Organize, label, and locate all your media sources and assets quickly and easily. Move and rename clips without losing links—all occurrences are automatically updated. Intuitive, customizable media management features are built into the Avid editing environment and are designed for long, complex projects.

- Multi-level find, sift, and sort functions
- Frame, script, and text views
- •Unlimited number of bins
- Media Consolidate feature
- Folder hierarchy (nestable folders) within **Project Window**
- Advanced project accounting tools
- User, project, and site settings
- · Ability to lock media
- Supports Avid Interplay for facility-wide search and display and local or remote asset management

Full Screen Play over DVI Output

Content creators can utilize lighter, less expensive LCD monitors for viewing full screen playback of SD and HD output connected via standard DVI connectors. No need for expensive bulky CRT-based HD monitors.



AVID

MEDIA COMPOSER

10-bit Color Correction

Save time and money with fast, accurate color correction tools based on award-winning Avid Symphony finishing technology. One click automatically analyzes and color corrects an entire sequence, allowing editors to create matching sequences quickly and easily.

- Real-time professional-level color correction tools
- Patented One Step AutoCorrect
- NaturalMatch for easy tone matching
- Real-time keyframeable color effects
- Three-monitor color correction windows
- ChromaCurve and ChromaGraph display
- Advanced Waveform & Vectorscope monitors
- Split-screen client monitoring

Professional Film Tools

The industry's most powerful and precise 24p technology lets you handle film and video projects with equal ease and efficiency. Features such as real-time pulldown of 24p media directly over IEEE-1394 (FireWire) eliminate time-consuming conversions and offers greater flexibility to output to video or film.

Academy Award winning Avid Film Composer film metadata management features are built in to every Media Composer system. Save time and eliminate costly errors with real-time capture of normal pulldown and automatic audio and video source synchronization. Stay focused with Script-based Editing and Webbased film cutlists. Accelerate your film workflow with seamless Timecode, KeyKode, DPX, VXF, and UNC metadata tracking.

Latest Features

- ◆ Supports Sony XDCAM-EX (using the Sony Clip Browser software), Panasonic AVC-I & JVC 23.976p & 25p HDV
- ◆ Improved real-time performance for nonfull-raster HD codecs
- MetaFuze tool, for quickly merging singleframe files (such as DPX and TIF) from film scanning or CGI systems into a single media clip. (Windows only)
- ◆ Real-time multi-window timecode burn-in tool
- ◆ SubCap subtitling tool

Media Composer (Mfr # 7500-20000-01 • B&H # AVMCS)

Editing Software for Macintosh/Window

CALL

Avid 1-Year Assurance for Media Composer (Mfr # 0540-03627-01 • B&H # AVA1YMC)



Avid Media Composer Turnkey System with Avid Mojo SDI

Professional editors understand the importance of concentrating on their work rather than tinkering with a computer to get it working correctly. B&H turnkey systems let editors do what they do best: edit. B&H backs this system with a full year of technical support. This ensures that your system will run smoothly and allow you to concentrate on your work. Custom built by B&H to take your creativity to the next level, this system is built around the HP xw8600 workstation and comes pre-installed with the Avid Media Composer software editing suite.



System Includes:

- ◆ HP xw8600 Workstation
- ◆ Quad-Core 2.83GHz Intel Xeon System
- tem ◆ 4GB (4x1GB) RAM

- lacktriangle 750GB ATA Internal Hard Drive
- ◆ 1.25 TB SCSI RAID
- ♦ nVIDIA Quadro FX 1700 Graphics
- ◆ Atto ExpressPCI UL4D PCI-X Dual-Channel Ultra320 SCSI Host Adapter
- ◆ 20x Internal Dual-Layer DVD Burner
- ◆ Avid Media Composer Software installed
- ◆ Avid Mojo SDI •
- ◆ World Tech Specialist Keyboard
- ◆ Windows XP Professional

Avid Media Composer Turnkey System with Avid Mojo SDI (B&H# AVMCMST).....CALL



Class on Demand: Complete Training for Avid Media Composer (Mfr # 90900 · B&H # CLTAMC)



AUTOMATIC DUCK

PRO IMPORT AE 4.0



Import Avid or Final Cut Pro Timeline into Adobe After Effects

With Pro Import AE for Adobe After Effects, your system has never been more powerful or complete. Pro Import AE completely and accurately imports timelines from Avid, Final Cut Pro, and Apple Motion into After Effects. Media handles, layers, and clip names are preserved, saving valuable time and effort. Translating a sequence takes just seconds, importing all your media and clips in one step. Effects are translated and recreated for you and your timeline becomes a composition in After Effects, ready for you to take your vision to the next level. Numerous effects are supported, including keyframe and audio import. Supports AAF or OMF 2.0 files from Avid Media Composer, Symphony and Adrenaline.

FEATURES

- ◆ Accurately imports, translates, and edits all associated media into the After Effects (AE) timeline. You can actually slip and trim shots in AE just as they would any other layer.
- When an edit sequence is imported into After Effects, the layers are named exactly the same as clips had in their Avid of FCP timeline. This allows for a much more streamlined and structured workflow.
- Avid Timewarp effect becomes Time Remapping in AE. Want to use the effect as the Avid did it? Render it and view the render in AE.
- Advanced interface offers powerful control over import. You can choose the direction layers "step" in AE, choose to use Avid render media, verify FCP media timecode, override composition settings, and more!
- ◆ AE uses the same media files as your NLE, so no additional storage space is required.
- ◆ Translate popular color correction plug-in's settings from FCP to AE.
- ◆ Improved translation including Particles and Replicators
- ◆ Supports multiclips from FCP
- ◆ Not only are many parameters translated into After Effects, but keyframes are too!
- ◆ Even the most complex sequences import in just seconds. The time you save is enormous, soon you won't be able to work without it!

Pro Import AE 4.0 Software for Mac (Mfr # PIAE4M • B&H # AUPIAEM4)474.95

Pro Import AE 4.0 Software for Windows
(Mfr # PIAE4W • B&H # AUPIAE4W)........474.95

Support for Avid Features

Dissolve, Dip to Color, Superimpose, Picture-in-Picture with support for Advanced Keyframes, 3D Warp with support for Advanced Keyframes, 3D PIP, Submaster, Flops and Flips, X/Y/Z-Spin, Matte Key, Speed Changes including Timewarps, Strobe, Freeze Frames, Transfer Modes (from Profound Effects' Transfer AVX plug-in), Title Tool text. Support for all ABVB, DV, DV50, Meridien, DNxHD and DVCProHD compressions (HDV native media and 720p 1:1 not supported). Support for media captured to multiple files. Option to reference rendered media

Support for Final Cut Pro Features

Dissolve, Opacity (from motion tab), Position ("center" in motion tab), Rotation and Scale (from motion tab), Flops and Flips, Distort (from motion tab), Speed Changes, Freeze Frames, Composite Modes, Clip Markers, Sequence IN/OUT (markers set After Effects work area), Sequence Markers, Text, Time Remapping, all Final Cut Pro media files, DVCPRO HD and third party After Effects filters.

Support for Apple Motion 2 Features

Opacity, Position, Scale, Rotation, Blend Modes, Four Corner, Crop, Markers, Text, nested clips and layers (become nested comps), Playrange (sets After Effects work area), Media playback (speed is translated to AE footage fps) and third party After Effects filters.



PRO EXPORT FCP 3.04

Export "Avid-Compatible" OMF compositions from FCP. Or export OMFs with embedded audio for Pro Tools. Or export an AAF file for Quantel iQ or eQ Quattro systems. Pro Export FCP 3.04 is Universal, meaning it runs natively on both PPC and Intel-based Macs. It lets productions get through post with less pain, in less time, in the end costing less money.

- Export your mix from FCP to your Audio Editor and maintain your volume keyframes!
- ◆ HTML Export Log with omplete listing of areas that need attention.
- ◆ When you export out of FCP all of your sequences media can be embedded into the OMF file

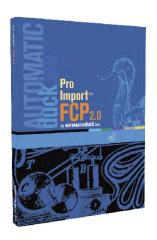
 Pro Export FCP 3.04 (Mfr # PEFCP3 • B&H # AUPEFCP3)
 474.95

 Pro Export FCP 3.04 and Pro Import FCP 2.0 (Mfr # FCP_SUITE • B&H # AUFCPS)
 762.95



AUTOMATIC DUCK

PRO IMPORT FCP 2.0



Import OMF Compositions from Avid or Pro Tools into Final Cut

Pro Import FCP 2.0 is the most complete import solution for Final Cut Pro. If you're using Final Cut Pro to finish shows offlined on an Avid editing systems, Pro Import FCP is a must-have. Using Pro Import FCP 2.0 for Final Cut Pro you can import OMF files from Avid editing systems, OMF files from Digital Audio Workstations like Pro Tools or AAF Edit Protocol files or or AAF files exported from Toon Boom's Storyboard Pro!

Pro Import FCP 2.0 is truly the next generation importer, representing a major leap forward in what is possible as well as making Final Cut Pro an even more powerful solution for finishing your video projects.

FEATURES

Import from Avid

- Avid Title Tool from Media Composer 8 or later and Marquee title effects translated into FCP Text Generators.
- Picture-in-Picture, including keyframes (old-keyframe model)
- 3-D Warp, including keyframes (old-keyframe model).
- Resize, including keyframes
- Superimpose, including keyframes
- Collapsed layers become nested sequences
- Speed Changes both traditional motion effects and time warps
- Strobe
- Dissolves
- Dip to Color Dissolves
- Freeze Frames
- Flops and Flips
- Transfer Modes from Profound Effects' Transfer AVX plug-in
- Audio Pan
- Audio Automation Gain keyframe
- 24fps sequence import

Pro Import FCP 2.0

(Mfr # PIFCP2 • B&H # AUPIFCP2)......474.95

Pro Import FCP 2.0 and Pro Export FCP 3.04 (Mfr # FCP_SUITE • B&H # AUFCPS)......762.95

Pro Import FCP 2.0, Pro Export FCP 3.04 and Pro Import AE 4.0

(Mfr # FULL_SUITE • B&H # AUFULLS)......1049.95

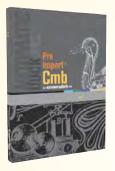
Import from Pro Tools

- Imports timeline and media from OMF exports
- Also can import audio-only OMF 2.0 files exported from Final Cut Pro
- Quantizes edits to frame boudaries if needed
- Volume automation import
- Fade effects translated into Final Cut Pro cross fades

Import from Story Board Pro

- StoryBoard Pro exports edits from storyboard into AAF
- Pro Import FCP translates AAF file into FCP sequence
- Use the "Use existing media" option in Pro Import FCP to connect FCP to the QuickTime files generated by StoryBoard Pro
- StoryBoard Pro 1.5 or later required

PRO IMPORT CMB



Import FCP, Avid or Premiere Pro Timeline into Combustion

With Pro Import Cmb for Autodesk Combustion 3 (Windows) or Combustion 4 (Macintosh) you can very quickly translate an Avid OMF, Final Cut XML or Premiere Pro timeline (via AAF) into Combustion. Importing an AAF, OMF or XML composition takes just seconds, importing all your media and clips in one step.

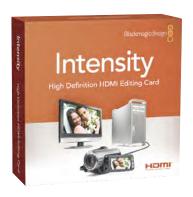
- Supported effects are translated and recreated for you, your timeline is recreated as a composition in Combustion, ready for you to take your vision to the next level.
- Not only are your edits translated, your media is imported -- All the media referenced by your sequence. This means you can actually slip and trim your shots in combustion without having to go back to your NLE to re-edit and re-export!

Pro Import Combustion 3 for Windows (Mfr # IMPORTC3WIN • B&H # AUPIC3W)199.00
Pro Import Combustion 4 for Macintosh (Mfr # PICBM • B&H # AUPICM)474.95



BLACKMAGIC DESIGN

INTENSITY • INTENSITY PRO



High Definition HDMI Editing Cards

Intensity and Intensity Pro are incredibly small HDMI capture and playback cards that instantly switch between 1080HD, 720HD, NTSC and PAL video. Once plugged into compatible PCI Express Windows or Mac OS X computers, users get the amazing quality of uncompressed video via HDMI from cameras, decks and set top boxes, enabling them to play back to any HDMI big screen television or video projector for video editing, in SD or HD, and with real time effects. This allows owners of low cost consumer and prosumer camcorders with HDMI video connections to move beyond the quality limits of HDV compressed video to a new world of uncompressed editing and design.

Users can benefit from uncompressed video quality, allowing direct-from-CCD recording for the highest uncompressed quality. Users recording to HDV tape also benefit from HDMI uncompressed capture and editing. Once the HDV footage is recorded uncompressed via HDMI, and graphics and effects are placed, the edited video will retain full HD resolution and color depth. The edited footage can then be viewed in real time via the HDMI video output on monitors or projectors. Intensity's media files are also fully compatible with Blackmagic Design's DeckLink and Multibridge capture cards, so users can output to broadcast tape decks by moving content to these systems.

Stepping up, the Intensity Pro combines the high quality of HDMI capture and playback with the wide compatibility of analog component, NTSC, PAL and S-Video and analog audio capture and playback.

FEATURES

True HDMI Digital Connections

The cards feature HDMI input for connecting to HD cameras for the highest quality capture. They achieve higher quality by capturing direct from the image sensor and bypassing the HDV compression chip. HDMI is fully digital and has no video compression, so it doesn't suffer from any image degradation. Unlike DV and HDV Firewire-based video standards, HDMI allows deeper bit depths and full color resolution, eliminating banding and contouring problems in high quality video. HDMI is found on the latest HD consumer and prosumer camcorders.

As edit software can't play back to HDV cameras for monitoring, the cards are ideal to use for monitoring uncompressed HD or HDV, and even DV edits on monitors and projectors by connecting to the HDMI output.

Professional Video Standards

Instantly switch between HD and SD video standards including HDTV 1080i/59.94, 1080i/50, 720p/59.94, 720p/59, NTSC and PAL. Intensity cards allows capture in professional file formats which are fully compatible with Blackmagic Design's DeckLink and Multibridge capture cards, so you can deliver finished television programs, music videos and other work at broadcast standards.



Live Production with On-Air 2.0

Experience the incredible excitement of filming events live. Intensity cards are bundled with Blackmagic's On-Air 2.0, which allows two Intensity boards to be plugged into Mac Pro systems for live mixing between two HD or SD cameras. On-Air includes everything you need for a live production studio

including camera monitoring, program monitoring, graphic keying and recording to disk. On-Air 2.0 supports auto-sync of video inputs, so users don't need expensive cameras with genlock. Featuring "genlock-less" operation, any camera with HDMI outputs will work as an incredibly low cost solution. Full resolution live HD production is ideal for weddings, education, corporate production and more. HD has never been so affordable.

Go Beyond HDV Video Quality

With Intensity, you can now capture and play back full resolution HDTV uncompressed video for true broadcast and feature film quality editing. Totally eliminate HDV & DV compression quality problems, and render much cleaner graphics while retaining deeper color and image detail. If you need lower data rate editing, you can also select from a range of professionalcompressed video capture modes.

Windows & Mac OS X Compatible

Plug into Windows or Mac OS X computers with the same card, and use your favorite software, including Final Cut Pro, Premiere Pro, After Effects, Photoshop, Fusion and many more. Intensity is fully DirectShow and QuickTime compatible, which adds HDMI capture and playback ability to your computer.

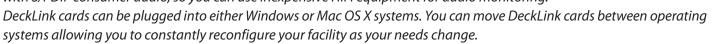


BLACKMAGIC DESIGN

DECKLINK SD SERIES

High-Quality Standard Definition Capture Cards

Affordable high-end video for post production or broadcast, DeckLink lets you connect to SDI digital or analog broadcast decks for high end editing, design, paint and broadcast graphics. True 10-bit SDI capture retains all the subtle detail in your images, even during multi generation rendering and video processing. When using analog decks such as Betacam SP, DeckLink SP and DeckLink Extreme models feature analog component YUV video and balanced analog audio, so you don't need cumbersome external converters. All DeckLink cards feature unbalanced AES digital audio out for incredible quality and sample accurate AV sync. DeckLink unbalanced AES audio outputs are also compatible with S/PDIF consumer audio, so you can use inexpensive HiFi equipment for audio monitoring.



Six models to choose from, all DeckLink cards have the same powerful features, the only difference being the video and audio connections between models. Specifically designed with connectivity for different types of broadcast decks, you get only what you need at the most affordable price.

DeckLink: The original DeckLink is ideal for simple 10-bit SDI only applications. It features SDI in and out, unbalanced AES output and RS-422 control with all connections on the rear of the card. It doesn't need genlock as it provides a stable SDI output for locking decks to the card, eliminating the need for a black burst generator.

DeckLink Pro: Ideal for working with SDI equipment, such as Digital Betacam decks, while using analog monitors without an SDI input. DeckLink Pro has SDI input and outputs, and also includes analog component YUV/NTSC/PAL switchable video output, great for video monitoring. DeckLink Pro also includes genlock input as well as RS-422 control. DeckLink Pro includes 4 unbalanced AES outputs, so you can output 8 channels of digital audio de-embedded from the SDI video output. All connections are on a 7' break out cable so you don't need to purchase any extra cables when building your editing system.

DeckLink SP: Designed for older analog Betacam SP decks, it features analog component YUV video input and output, with analog balanced XLR audio. It also includes unbalanced AES out, 10-bit SDI output for digital mastering, genlock input and RS-422 control. All connections are on a long 7' break out cable for a direct to deck connection. Available in standard PCI-33/66 or PCI Express models.

DeckLink Extreme: Handling both both analog and digital connection input/output, the DeckLink Extreme lets you connect to both digital SDI as well as analog component YUV decks. The ultimate standard definition card, DeckLink Extreme combines analog component YUV/NTSC/PAL switchable video and analog XLR audio in and out, along with digital 10-bit SDI inputs and outputs. Also included is unbalanced AES output, genlock input and RS-422 deck control. All connections are on a 7' break out cable. Available in standard PCI-33/66 or PCI Express models.

THEY ALL FEATURE

DeckLink, DeckLink Pro and DeckLink Extreme cards support full 10-bit SDI uncompressed video capture and playback for better quality than any other system - at any price. Ideal for Digital Betacam and Panasonic DVCPRO 50 decks, true 10-bit SDI capture retains all the subtle detail in your images, even during multi generation rendering and video processing. The Blackmagic codec allows 16-bit RGB per channel rendering preserving the quality of 10-bit video.

When using analog decks such as Betacam SP, DeckLink SP and DeckLink Extreme feature analog component YUV video and balanced analog audio, so you don't need cumbersome external converters.

All DeckLink cards feature unbalanced AES digital audio out for incredible quality and sample accurate AV sync. DeckLink unbalanced AES audio outputs are also compatible with S/PDIF consumer audio, so you can use inexpensive HiFi equipment for audio monitoring. 8 channel SDI audio is supported, perfect for 5.1 and 7.1 surround sound audio work.

DeckLink Pro includes 4 AES audio outputs for a massive 8 channels of audio, great for mastering 8 channels to multi-track audio equipment. When connecting to analog decks, DeckLink SP and DeckLink Extreme include analog XLR audio I/O for direct analog deck connection.



BLACKMAGIC DESIGN

DECKLINK SD SERIES

Offline Editing

DeckLink cards operate in SD and HD, DV, ProRes 422, JPEG and also support 23.98fps editing. This makes DeckLink cards great offline tools for feature film production and other long form editing, such as television series.

Choose Windows or Mac OS X

On Windows, DeckLink supports DirectShow for compatibility with most video software. For editing, DeckLink includes a full suite of plug-ins for Adobe Premiere Pro including Deck Control. You can even playback AVI, QuickTime and still frames files all on the same Premiere Pro timeline and with multi-channel audio via the ASIO driver. For Mac OS X, they offer full compatibility with software such as Final Cut Pro, After Effects, Shake, DVD Studio Pro, iDVD, Combustion and many more.

Flexible File Formats

When used with Mac OS X and Windows systems, you can select from the highest quality 10-bit and 8-bit uncompressed. When used on Mac OS X, DeckLink includes support for ProRes 422, DV and JPEG compressed video formats. On Windows, you can choose between AVI and QuickTime file formats and even play back TARGA and BMP image sequences in the Premiere Pro timeline without rendering. No other card has such wide support for various file formats and operating systems for cross platform compatibility. DeckLink uncompressed QuickTime files can be freely moved between Mac OS X and Windows systems.

Down Conversion and Real Time Effects

When running on Mac OS X DeckLink cards feature full broadcast quality down conversion, so you can instantly master HD edits to standard definition.





Even the basic DeckLink card can play back uncompressed HD files and then downconvert to standard definition. Down conversion uses polyphase interpolation and filtering for incredible quality with conversion at full 10-bit quality. Even DVCPRO HD multi-layer editing in Final Cut Pro can be downconverted and played out on all DeckLink cards in standard definition.

Frame Accurate

Editing systems based on Final Cut Pro or Premiere Pro using DeckLink, may be inexpensive but they're certainly professional. Editors demand frame accurate batch capture and perfect AV sync! If you're conforming EDL's or recapturing for online finishing, DeckLink will allow frame accuracy so all of your edits are always assembled correctly.

NTSC and PAL Switchable

DeckLink cards can instantly switch between NTSC and PAL with a simple change of your settings. You can have both NTSC and PAL media files on the same disk.

Bundled Software Utilities

All SD DeckLink cards support keying so you can key graphics over live input video in real time. Controlled by the Blackmagic LiveKey application, it's a snap to switch DeckLink into a keying card. Key graphics over incoming video on all modes and in both high definition or standard definition.



- For broadcast graphics and paint, they include Photoshop plug-ins for capture and output of still frames.
- ◆ If you need DPX image sequences for DI workflow, FrameLink lets you instantly access QuickTime and AVI media as DPX files.
- ◆ Blackmagic Deck Control application lets you control a deck remotely via RS-422. Capture and play clips to and from tape with timecode accuracy, which is great for broadcast design.
- ◆ For easy disk array setup, the cards include Blackmagic Disk Speed Test for real world checking of your capture disk, with speed results displayed in easy to understand video frames per second.
- ◆ When moving media between systems, software codec lets you open and render files even without the DeckLink hardware installed.

Audio Mix-Down

With support for Core Audio on Mac OS X and ASIO compliant audio drivers on Windows, DeckLink cards are great when you need to mix down audio tracks for edits using powerful audio tools.



Realtime Effects with Final Cut Pro

When used with Final Cut Pro, many exciting realtime effects are supported with DeckLink. These include Cross Dissolve, Non Additive and Additive Dissolve, Fade in/out, Dip to Color, Sepia, Desaturate, Brightness and Contrast, Proc Amp, Tint, Gamma Correction and 3 way color correction. DeckLink cards are fully compatible with Final Cut Pro RT Extreme built-in effects for unlimited possibilities.

DeckLink cards feature blazing speed 33/66 MHz PCI while retaining compatibility with older 33 MHz PCI slots. Fast PCI 66 MHz keeps your system's PCI bus running full speed. DeckLink SP and DeckLink Extreme are also available in a PCI Express model for the latest Apple Mac Pro and Intel and AMD-based Windows systems.

DeckLink (Mfr # BDLK • B&H # BLDL)	279.95
DeckLink Pro (Mfr # BDLKPRO • B&H # BLDLP)	559.95
DeckLink SP (Mfr # BDLKSP • B&H # BLDLSP)	559.95
DeckLink SP PCIe (Mfr # BDLKSP-PCIE • B&H # BLDLSPE)	559.95
DeckLink Extreme (Mfr # BDLKEXTR • B&H # BLDLX)	839.95
DeckLink Extreme PCle (Mfr # BDLKETR-PCIE • B&H # BLDLXPE)	839.95

DeckLink Pro, DeckLink SP and DeckLink Extreme have more video and audio connectors than could ever fit on the back of a PCI card. Instead, Blackmagic includes them all on a long 7-foot breakout cable. No need to purchase any extra cables when building your editing system. (Standard DeckLink has an SDI input/output only.)



BLACKMAGIC DESIGN

DECKLINK SD SERIES

	DeckLink	DeckLink Pro	DeckLink SP	DeckLink Extreme					
SDI Video Input	1 x 10 bit	1 x 10 bit	None	1 x 10 bit					
SDI Video Output	2 x 10 bit	2 x 10 bit	1 x 10 bit	1 x 10 bit					
Analog Video Input	None	None	YUV/NTSC/PAL switchable to composite	YUV/NTSC/PAL switchable to composite					
Analog Video Output	None	YUV/NTSC/PAL switchable to composite	YUV/NTSC/PAL switchable to composite	YUV/NTSC/PAL switchable to composite					
AES Audio Output	2 Channels AES & S/PDIF compatible	8 Channels AES & S/PDIF compatible	2 Channels AES & S/PDIF compatible	2 Channels AES & S/PDIF compatible					
SDI Audio Input	8 Channel	8 Channel	None	8 Channel					
SDI Audio Output	8 Channel	8 Channel	8 Channel	8 Channel. Digital audio can be combined with SDI video					
Analog Audio Input	None	None	2 Channel	2 Channel. Analog audio can be combined with analog video					
Analog Audio Output	None	None	2 Channel	2 Channel					
Dual rate support	Standard definition SDI only	Standard definition SDI only	Standard definition SDI only	Standard definition SDI only					
Sync Input	None	Blackburst Input	Blackburst Input	Blackburst Input					
Device Control	Sony compatible RS422 deck control ports. Serial ports TxRx direction reversible under software control								
Settings Control	DeckLink System Preference (Mac OS X) and Control Panel (Windows)								
Updates	Firmware for cards built into software driver. Loaded at system start								
		STANI	DARDS						
SD Format Support		625/25 PAL, 525/29.97 N	TSC and 525/23.98 NTSC						
SDI Compliance		SMPTE 259M a	nd ITU-R BT.601						
SDI Video Sampling		4:	2:2						
Card type		5 MHz. Fully functional with PCI 6 extreme PCIe and DeckLink SP are							
		PROCE	ESSING						
Colorspace Conversion		Hardware ba	sed real time						
HD Down Conversion	Mac OS X only, soft	ware-based real-time rendering o	on all SD cards. Support for HD 108	30 and HD 720 to SD					
Real time effects	Apple Final Cut Pro internal effects on Mac OS X. Adobe Premiere Pro internal effects in DV, MJPEG and uncompressed edit formats								
		EXT	RAS						
Software Included	Deck Control, Disk Speed Test, LiveKey, FrameLink, Blackmagic driver. DeckLink Pro supports external key, in addition to internal key, with Blackmagic LiveKey								
Installation	PCI-33/66 Models: "Short" PCI 66 MHz card, fully functional with PCI 66 & 33 MHz slots and PCI-X 133 & 100 MHz slots. Windows PC's must have 64-bit PCI or PCI-X slots. PCIe Models: "Short" PCI Express 1 lane card for high speed 2.5 Gb/s transfers. Compatible with 1, 4, 8 and 16 lane PCIe slots.								

Replacement Breakout Cables
Connectors include Analog, SDI, Monitor, S/PDIF, Genlock and RS-422 on a 7' Cable

For DeckLink Pro
(Mfr # CABLE-BDLKPRO • B&H # BLBOCDLP)........109.00

For DeckLink SP

(Mfr # CABLE-BDLKSP • B&H # BLBOCDLSP)129.95

For DeckLink Extreme

(Mfr # CABLE-BDLKEXTR • B&H # BLBOCDLE)129.95



BLACKMAGIC DESIGN

DECKLINK HD EXTREME



HD/SD Broadcast Video Card

The new DeckLink HD Extreme is the most advanced capture card ever built. Now you can afford the incredible quality of HD at SD prices. The ideal solution for connecting to any camera, deck or monitor, DeckLink HD Extreme features both SDI and analog I/O connections that instantly switch between HD and SD video. Plus, it offers HDMI capture and playback, 3 Gb/s SDI support, and 3D lookup tables. Use with the latest PCI Express Mac and Windows computers for the world's highest quality editing, effects and broadcast paint solution. Supporting the highest quality 10-bit SDI video, and 14-bit analog video,

DeckLink HD Extreme connects to any video equipment in both HD or SD, as well as SDI and analog. In addition to support for 10-bit uncompressed video, the card also features broadcast-quality HD to SD downconversion and its 4:2:2 SDI connectivity delivers superior chromakey performance. The card can work with both Windows and Mac OS X computers, making it an excellent choice for your editing needs regardless of your operating platform.

DeckLink HD Extreme features a dozen independently regulated power supplies integrated into the card to eliminate interference from the computer's power supply getting into delicate analog video and audio. It also features incredibly wide band filtering for eliminating noise and SDI jitter, so even if you upgrade your computer in the future with increased computer clock speeds, your investment is protected.

FEATURES

Connect to Anything

DeckLink HD Extreme is the only solution that connects to SDI, HDMI, component analog, NTSC/PAL and S-Video equipment for capture and playback, while instantly switching between SD, HD and 2K. DeckLink HD Extreme includes 2 channels of AES/EBU audio in and out with a sample rate converter on the AES/EBU input as well as 2 channels of XLR professional analog audio in and out. Work with the widest range of equipment, such as HDCAM, HD-D5, HDCAM SR, Betacam SP, Digital Betacam, HD receivers, HDV cameras, televisions, mixers and more

More HD Real Time Effects

DeckLink HD Extreme's super fast 10 Gb/s connection plugs directly into your editing software's real time effects processing. Unlike FireWire products, you get all CPU time for real time effects, so only PCI Express lets you upgrade to HD without limiting real time effects. The higher speed of PCI Express also handles advanced formats such as full resolution 2K digital film. Only the high speed PCI Express ensures that when you upgrade to high definition, you get full real time effects.

10-Bit SDI Capture/Playback

DeckLink HD Extreme supports true 10-bit SDI uncompressed video capture and playback for better quality than any other system at any price. Ideal for high end broadcast decks, uncompressed 10-bit is the highest quality possible from the SDI system. The Blackmagic codec allows 16-bit RGB per channel rendering preserving the quality of 10-bit video.

HDMI Input/Output

Full resolution HDMI input and output lets you connect to any HDMI television or video projector for full HD resolution monitoring at much lower cost than a dedicated HD broadcast monitor. Unlike FireWire capture, using the HDMI output of consumer cameras means you get the highest quality uncompressed video from the camera, or you can use the native compression of your editing software, such as uncompressed, JPEG, DVCPRO HD, and ProRes. Unlike FireWire compression, using the native compression of your editing software, combined with high speed 10 Gb/s PCI Express gives you all CPU time for maximum real time effects playback direct to large screen displays and broadcast monitors.

Flexible File Formats

Select from the highest quality 10-bit uncompressed and 8-bit uncompressed capture and playback. When used on Mac OS X, DeckLink includes support for DV, ProRes 4222, JPEG, DVCPRO HD and HDV compressed video formats. On Windows, you can choose between AVI and QuickTime file formats and even play back TARGA and BMP image sequences in the Premiere Pro timeline in real time. Uncompressed QuickTime files can be freely moved between Mac OS X and Windows systems.

Down Conversion and Real Time Effects

When running on Mac OS X DeckLink cards feature broadcast quality down conversion and is deal for mastering HD edits to SD. DeckLink HD Extreme uses custom poly-phase interpolation and filter processing for incredible quality conversion at the highest 10-bit precision. DVCPRO-HD multi-layer editing in Mac OS X with Final Cut Pro can also be downconverted and played out in standard definition, even when running complex multi-layer HD real time effects.



BLACKMAGIC DESIGN

DECKLINK HD EXTREME

Professional Quality Audio

Featuring unbalanced AES digital audio I/O, DeckLink HD Extreme guarantees incredible quality and sample accurate AV sync. Unbalanced AES connections are also compatible with S/PDIF, so you can use inexpensive consumer equipment for audio monitoring. Also offers two channels XLR-balanced audio I/O. Take advantage of a massive 12 channels of embedded SDI audio when switched to HD, or 8 channels of embedded SDI audio when working in standard definition.

3 Gb/s SDI Connections

The DeckLink HD Extreme includes high speed 3 Gb/s SDI connections allowing 4:4:4 RGB and 2K film connection with a single BNC cable. 3 Gb/s SDI runs twice the data rate of normal HD-SDI video, however instantly switches to traditional SD/HD-SDI. 3Gb/s SDI allows 4:4:4 RGB workflow or full resolution 2K feature film quality 24 fps 2048 x 1556 capture and playback. 2K via SDI lets you connect film resolution video around your facility using the same familiar workflow as a "normal" video job!

Highest Quality Electronics

DeckLink HD Extreme features the latest in high quality ultra low noise design. It features custom 14-bit analog output, for incredibly accurate conversion, resulting in crisp clean output from the most demanding computer generated graphics. DeckLink HD Extreme is unique with multiple power supplies that completely isolates the card from noisy computer power, while including hundreds of filter components dedicated to eliminating digital noise.

Inputs/Outputs

- ♦ 4:2:2 HD/SD-SDI input
- ◆ HD/SD-SDI (x2) outputs that can switch to fill and key output for graphics.
- 12-bit analog component input and 14-bit analog component, that switches to composite NTSC/PAL, or S-Video formats.
- ◆ SDI in and out support 12 channel audio in HD, and 8 channel audio in SD modes.
- ◆ 2 channels of analog balanced XLR audio input and output
- ◆ 2 channels of digital AES/EBU input/output
- ♦ RS-422 interface
- ◆ Genlock/Tri-Sync reference input

	DeckLink HD Extreme	DeckLink HD Pro				
SDI Video Input	1 x 10 bit SD/HD	2 x 10 bit SD/HD				
SDI Video Output	2 x 10 bit SD/HD	2 x 10 bit SD/HD				
Supported Video Formats	525 NTSC, 625 PAL, 720H	D and 1080HD switchable				
Analog Video Input	12 bit Component YUV/NTSC/ PAL/S-Video switchable between SD and HD in Component	No				
Analog Video Output	14 bit Component YUV/NTSC/PAL/S-Video switchable between SD and HD in Component					
AES Audio Input	2 Channels unbalanced AES/EBU compatible with S/PDIF digital audio					
AES Audio Output	2 Channels unbalanced AES/EBU compatible with S/PDIF digital audio					
SDI Audio Input	HD: 12 channels on Mac OS X, 8 channels on Windows. Standard Definition : 8 channels. Full support for the maximum 6 channels in Adobe Premiere Pro					
SDI Audio Output	,	nels on Windows. Standard Definition : num 6 channels in Adobe Premiere Pro				
Analog Audio Input	2 Channels of professional balanced XLR analog audio	No				
Analog Audio Output	2 Channels of professional balanced XLR analog audio	No				
Video Sampling	4:2:2	4:2:2 and 4:4:4				
Color Precision	4:2:2 10 bit	4:2:2 and 4:4:4 10 bit				
Color Space	4:2:2 YUV	4:2:2 YUV and 4:4:4 RGB				

Loads of Software Utilities Free

Bundled software utilities assist real world production needs. Use Blackmagic LiveKey to switch DeckLink HD Extreme into a keying card. For broadcast graphics and paint, Photoshop plug-ins are included for capture and output of still frames. For DPX image sequences and DI workflow, FrameLink lets you instantly access QuickTime and AVI media as DPX files. Blackmagic Deck Control lets you control a deck remotely via RS-422 for capture and play-out clips to and from tape with timecode accuracy. For easy disk array setup, Blackmagic Disk Speed Test checks your disk array with speed results displayed in frames per second.

DeckLink HD Pro

If your looking for a pure digital card for Dual Link 4:4:4 editing with Sony SR decks, but don't need a lot of the features of DeckLink HD Extreme, Blackmagic offers the Dual Link 4:4:4 DeckLink HD Pro. Available in PCI Express or PCI-X, DeckLink HD Pro allows you to edit in high quality RGB 4:4:4 using the traditional Dual Link 4:4:4 video via 1.5 Gb/s SDI. DeckLink HD Pro doesn't have 3D LUTs, 3 Gb/s SDI, HDMI, analog audio, or analog video input. However it is a good solution for 4:4:4 Dual Link editing when you need to build this support inside the machine as a plug in PCI card. If you need the features of DeckLink HD Extreme, combined with Dual Link 4:4:4 features, check out Multibridge Pro or Multibridge Eclipse.

DeckLink HD Extreme (Mfr # BDLKHDEXTR • B&H # BLDLHDX)	.95
DeckLink HD Pro PCle 4:4:4 PCle: (Mfr # BDLKHDPRO-PCIE • B&H # BLDLHDPDLPE)1129	.95
DeckLink HD Pro PCI-X 4:4:4 PCI-X (Mfr # BDLKHDPRO-DL • B&H # BLDLHDPDL)1399	.95



BLACKMAGIC DESIGN

MULTIBRIDGE PRO • MULTIBRIDGE ECLIPSE

Uncompressed HD/SD Capture and Conversion Systems

Multibridge is an external PCI Express capture and playback solution that instantly switches between SD, HD and 2K, in 4:2:2 or 4:4:4 video quality. Connect to PC or Mac via high speed 10 Gb/s PCI Express for the world's highest quality editing system, or use independently as a bi-directional SDI video converter. With 3 Gb/s SDI standard connections, Multibridge Pro allows twice the SDI data rate than normal HD-SDI, while retaining compatibility with normal HD-SDI and SD-SDI equipment. Use 3 Gb/s SDI for 4:4:4 HD using a single BNC connection, or use Blackmagic's 2k via SDI for high resolution real time 2048 x 1556 feature film editing. For greater assistance in the feature film editing



process, Multibridge Pro includes color management via built in 3D lookup tables.

Consisting of a compact (1RU) but robust PCI Express break-out box, Multibridge Pro connects to a computer via PCI Express 4 lane, allowing full audio and video capture and playback. Disconnected from the computer, it instantly transforms into a standalone converter. This functionality is possible because of the unique PCI Express cable connection used for connecting to Mac or Windows computers. This allows all the electronics to be built into the break-out box, creating a much more useful and intelligent solution.

Multibridge Pro switches between HD and SD video, and features an SD/HD-SDI input, and two SD/HD-SDI outputs. It also includes 12-bit analog video input and incredible 14-bit A/D video conversion output.

The analog video connections can be independently switched to component (YUV), composite NTSC/PAL and S-Video. When using component (YUV) video, the analog connections will switch between HD and SD allowing connection to HDV cameras, or analog decks such as Betacam SP. There are two 2 channels of analog balanced XLR audio, 4 channels of AES/EBU digital audio I/O with each input featuring sample-rate converters, and 2 channel unbalanced audio out for HiFi monitoring. Multibridge Pro also includes a built-in HDMI digital monitoring output. HDMI allows up to 12 bit at full HD resolution for a very high quality built-in digital video monitoring solution.



MULTIBRIDGE ECLIPSE

Designed for more complex needs in high end broadcast and post production, Multibridge Eclipse steps up with a larger 2 rack unit size for a massive 12 channels of AES/EBU, 4 channels of XLR balanced audio, and 32 independent audio level meters for audio monitoring. It also incorporates an advanced front panel design with status lights that shows users instant feedback of operational status—resolution, genlock format and video input status—vital in busy broadcast facilities.

World's Highest Quality

Fully compatible with SDI and HD-SDI 4:2:2, Multibridge Pro and Eclipse also features Dual Link HD-SDI 4:4:4 connections for feature film quality. Dual Link 4:4:4 is used on the latest Sony HDCAM SR decks, and contains additional color detail giving you full RGB color bandwidth and extra precision of up to 10-bit SDI video. When connected via PCI Express to a host computer, this higher quality video can be captured and played back completely uncompressed for amazing feature film quality.



BLACKMAGIC DESIGN

MULTIBRIDGE PRO • MULTIBRIDGE ECLIPSE

Capture and Playback

Multibridge Pro and Eclipse connect to your computer via PCI Express and work just like a capture and playback card inside



your computer. All electronics are contained in a compact external chassis connected to your computer via an included PCI Express cable and plug-in board. This unique design allows space for lots of video and audio connections, and they can be used as a video converter when not connected to your computer. 25x faster bandwidth than FireWire, high speed 10 Gb/s PCI Express doesn't suffer from any latency or require any video compression, so you get a fast acting and fluid editing experience at the the highest video quality.

Connect to Anything

Capture and playback from any SDI, HDMI or analog deck, camera or monitor. Use Multibridge as a bidirectional video converter and convert from SDI to analog and HDMI, and analog to SDI and HDMI simultaneously. For the widest compatibility, SDI, HDMI and analog component connections switch instantly between standard and high definition.

All-in-one Converter

Disconnect the PCI Express cable from the host computer and Multibridge Pro and Eclipse instantly switch into a bi-directional broadcast video and audio converter. Simultaneously convert from digital to analog, and analog to digital all at the same time with selectable audio embedding and de-embedding. (SDI audio is de-embedded and output on audio outputs, while audio inputs can be embedded into SDI video outputs).

Down Conversion and Real Time Effects

Multibridge features massive processing power, that is fantastic for broadcast quality HD down conversion and other processing based features. Even complex multi layer HD editing can be down converted and played out in standard definition all in real time. Down conversion uses custom polyphase interpolation and filtering for incredible quality at the highest 10-bit precision.

Audio

Multibridge Eclipse supports a massive 12 channels of AES/EBU digital audio on balanced XLR connectors, as well as 4 channels of pro balanced analog audio on XLR connectors. Multibridge Pro supports 8 channels of AES/EBU digital audio on a multi-pin DB-25 connector, as well as 2 channels of pro balanced analog audio on XLR connectors. Both support sample rate converters on AES/EBU inputs for the widest plug and play audio compatibility, and both include 2 channel RCA audio outputs for low cost HiFi monitoring.

3 Gb/s SDI Connections

Multibridge Eclipse and Pro include high speed 3 Gb/s SDI connections via a single BNC cable. 3 Gb/s SDI runs twice the data rate of normal HD-SDI video, however instantly switches to traditional SD-SDI and HD-SDI. 3 Gb/s SDI allows 4:4:4 RGB workflow or full resolution 2K feature film quality 24 fps 2048 x 1556 capture and playback. 2K via SDI allows a revolutionary change to feature film workflow as you can connect film resolution video around your facility as easily as video is handled today. This eliminates retraining time and cost when you want to work on film projects. For greater assistance in the feature film editing process, Multibridge Pro and Eclipse include color management via built in 3D lookup tables. 3D lookup tables allow the accurate matching of film stock so editors can see the correct color of the final film output when editing.

Multibridge Pro rear



Multibridge Eclipe rear

Built in HDMI

Both feature full resolution HDMI input and output. Use the HDMI output for connecting to any HDMI television or video projector for full HD resolution monitoring at much lower cos. Use the built in HDMI input to capture from cameras with HDMI outputs. Unlike Firewire capture, using the HDMI output of consumer cameras means you get the highest quality uncompressed video from the camera, and your video files can use the native compression of your editing software, such as uncompressed, JPEG, DVCPRO HD, and ProRes. Unlike FireWire compression, the native compression of your editing software lets you use real time effects and real time playback direct to large screen displays and broadcast monitors.

Standard Definition, HDTV or 2K Film

They feature dual rate SDI and are completely format independent, so you can instantly switch between standard or high definition. Connect to SD-SDI equipment such as Digital Betacam, as well as HD-SDI equipment such as HDCAM. Because they include the extreme quality of Dual Link SDI connections, you can work in 10 bit 4:4:4, and connect to the decks such as Sony HDCAM SR. With the ability to update new formats via USB, you can connect to virtually any equipment, now and in the future. They supports 2K 2048 x 1556 at 23.98 and 24fps, 1080 lines at 23.98PsF, 24PsF, 50i, 59.94i, 60i, 720 lines at 50p, 59.94p, 60p and VariCam. NTSC, PAL and S-Video.

Compatible with all Video Software

Multibridge is compatible with QuickTime and DirectShow so you can use any supported video software in standard definition, high definition, or even 4:4:4 10-bit RGB HD. Use your favorite video software such as Final Cut Pro, Premiere Pro, After Effects, Photoshop, Combustion, Fusion and many more. They work in Windows XP, Vista and Mac OS X systems. Instantly switch between 2K, 1080 HD, 720 HD, NTSC and PAL for worldwide compatibility.



BLACKMAGIC DESIGN

MULTIBRIDGE PRO • MULTIBRIDGE ECLIPSE

2K Feature Film Resolution

◆ Multibridge Pro and Eclipse have the speed of PCI Express combined with support for an Apple 30" Cinema display when used with the HDLink Pro. That allows the full resolution of a 30" display to be used for native playback 2K feature film resolution, so you see pixel for pixel feature film resolution. When combined with HDLink Pro, large 30" 2560 x 1600 resolution displays can be used for native 2048 x 1556 playback. Imagine editing 2K video in real time at full resolution without proxies.

Software Utilities

- ◆ For broadcast graphics and paint, they include Photoshop plug-ins for capture and output of still frames. If you need DPX image sequences for DI workflow, the Blackmagic FrameLink lets you instantly access QuickTime and AVI media as DPX files.
- ◆ Blackmagic Deck Control application lets you control a deck remotely via RS-422. Capture and play clips to and from tape with timecode accuracy. Easy to use, just enter an IN and OUT timecode point, and select grab, or put, and your clip will be transferred between Multibridge and your broadcast deck. Its all automatic, so its fast. .
- For easy disk array setup, the cards include Blackmagic Disk Speed Test for real world checking of your capture disk, with speed results displayed in easy to understand video frames per second.
- Blackmagic's Software Codec lets you open and render files even without the DeckLink hardware installed.
- ◆ Blackmagic Codec features correct anti aliasing 4:2:2 color filtering, so RGB graphics convert to correct 4:2:2 YUV video-space without aliasing problems.

Conveniences

- Designed for installation, Multibridge Pro and Eclipse come in compact rackmount design. Or remove the rack brackets and install the included rubber feet for desktop use.
- Video Desktop for output from non video software. Realtime RAM preview in After Effects, Motion, Fusion and Combustion.
- Forget annoying DIP switches, as Multibridge features all settings and software updates via built-in USB 2.0 connection.

	MULTIBRIDGE PRO	MULTIBRIDGE ECLIPSE				
SDI Video Input	2x 10-bit SD, HD, 3Gb/s HD and 2K switchable. Usable as Dual Link HD-SDI for 4:2:2 or 4:4:4 connection or 3 Gb/s for HD-SDI 4:4:4 or 2K.					
SDI Video Output	2x 10-bit SD, HD, 3Gb/s HD and 2K switchable. Usable as Dual Link HD-SDI for 4:2:2 or 4:4:4 connection or 3 Gb/s for HD-SDI 4:4:4 or 2K.					
Supported SDI Formats	525 NTSC, 625 PAL, 720HD, 1080H	HD and 2K 2048 x 1556 switchable				
Analog Video Input	· · · · · · · · · · · · · · · · · · ·	Component YUV, NTSC, PAL and S-Video switchable between SD and HD in Component				
Analog Video Output	' '	AL and S-Video switchable HD in Component				
Supported Analog Formats	525 NTSC, 625 PAL, 720H	D and 1080HD switchable				
SDI Audio Input	16 channels in HD and 2K capture and playback mode. 8 channels supported in SD. 16 channels de-embedding supported from SDI input in converter mode.					
SDI Audio Output	16 channels in HD and 2K capture and playback mode. 8 channels supported in SD. 16 channels de-embedding supported from SDI input in converter mode.					
Analog Audio Input	2 channels of professional balanced XLR analog audio	4 channels of professional balanced XLR analog audio				
Analog Audio Output	2 Channels of professional balanced XLR analog audio 2 Channels of unbalanced RCA analog audio for monitoring	4 Channels of professional balanced XLR analog audio 2 Channels of unbalanced RCA analog audio for monitoring				
AES/EBU Audio Input	4x inputs on DB-25 for 8 audio channels. Sample rate converted.	6x inputs on XLR connectors for 12 audio channels. Sample rate converted				
AES/EBU Audio Output	4x outputs on DB-25 for 8 audio channels.	6x outputs on XLR connectors for 12 audio channels.				
HDMI Audio Input	2 Channels 2 Channels					
HDMI Audio Output	2 Channels 2 Channels					

Capture Gamma Tables

Capture video direct from log video sources by using custom gamma tables loaded into the DeckLink system preference. DeckLink uses the same gamma table technology and file format as the popular HDLink DVI converter, so you can reuse your custom gamma tables facility wide. You can even customize lift, gain and gamma settings for each RGB channel, if you're simply color balancing input video. They also include Panasonic and Grass Valley Viper camera standard gamma tables, allowing instant setup when on the production set.

1499.95	Multibridge Pro (Mfr # MULTIBRPRO2 • B&H # BLDLMBPQ2)
2569.95	Multibridge Eclipse (Mfr# MULTIBRECL • B&H # BLDLMBEQ)
	Accessories for Multibridge Pro/Extreme
49.95	PCIe Host Adapter (Mfr # ADPT-1PCIESLCAB • B&H # BLAPE4S)
129.95	6.6' Host Adapter Cable (Mfr # CABLE-4LANEPCIE2M • B&H # BLCPCIE42)
59.95	



BLACKMAGIC DESIGN

MINI CONVERTERS

Advanced Converter Family for SD and HD

Build your SDI studio with the worlds most advanced and easy to use converters. Blackmagic's Mini Converters include auto SD/HD switching, redundant input, AES/EBU and analog audio on 1/4" jacks, combined with advanced 3 Gb/s SDI technology. There are 4 great models to choose from depending on the conversion you need, plus a sync generator model.









- Mini Converters instantly switch between SD and HD video formats and changeover is automatic when the video input changes. A huge range of video standards are supported including, NTSC, PAL, 1080i/59.94, 1080i/50, 1080psf/23.98, 1080psf/24, 720p/59.94 and 720p/50 formats, plus new formats can be added via USB.
- ◆ They feature a unique redundant input for mission critical tasks such as broadcast or live events. You can connect a redundant cable to the second input, so if the main input is lost, the Mini Converter will automatically switch over to the redundant input cable. This lets you can use Mini Converters in locations where crowds or the environment might cause cable damage, or lets you place Mini Converters in hard to reach locations such as roof mounted video projectors etc. A loop though SDI output is also provided for connecting to other devices.
- ◆ They include the latest 3 Gb/s SDI technology and upgrades can be loaded via the built in USB connection for future video format compatibility. 3 Gb/s SDI is also fully compatible with all your standard definition and high definition SDI equipment.
- ◆ The Mini Converters are equipped with 1/4" jacks that accept balanced analog or AES/EBU digital audio. This means you only need one model of Mini Converter for both analog and digital audio. You select the type of audio from one of the mini switches on the side of the Mini Converter unit. On modes with AES/EBU digital audio in, a sample rate converter lets you connect to any AES/EBU source, either synchronized, or un-syncronized. On HDMI models, you also have full access to the HDMI audio embedded in the HDMI video connection.
- Use them anywhere in the world. A universal power supply is included with international socket adapters for all countries. To stop power accidentally being disconnected, a cable tie point is included to lock down the power connection tight.

• Mini Converters are built to highest quality standards with low SDI jitter so you get the longest SDI cable lengths combined with multiple internal power supplies for ultra low noise broadcast quality analog video and audio. Mini Converters feature the highest grade broadcast quality analog audio and video electronics. In fact, Mini Converters uses the same analog video design as the award winning Multibridge Eclipse. That means you get the highest quality, all in a very affordable and incredibly compact unit.

SDI to Analog (Mfr # CONVMSA • B&H # BLSDIAMC)

Analog to SDI (Mfr # CONVMAS • B&H # BLASDIMC)

SDI to HDMI (Mfr # CONVMSH • B&H # BLSDIHDMIMC)

HDMI to SDI (Mfr # CONVMHS • B&H # BLHDMISDIMC)

$\textbf{Sync Generator} \; (\textit{Mfr \# CONVMSYNC} \boldsymbol{\cdot} \textit{B\&H \# BLSGMC})$

Broadcast Converter (Mfr # CONVBR • B&H # BLBCC)

Combines most mini converters features into a 1RU chassis that allow bi-direction conversion. Convert SDI to analog/HDMI while at the same time converting analog to HDMI to SDI. Complete solution for connecting analog decks to SDI based systems in a compact rack mount design944.95



BLACKMAGIC DESIGN

HDLINK • HDLINK Pro

Advanced HD Monitoring Solutions

Monitoring converters for professional post production editors and broadcast paint and effects artists, HDLink and HDLink Pro allow any supported DVI or HDMI display to be used for incredible HD/SD-SDI monitoring. When DVI-D or HDMI monitors are connected, HDLink instantly switches between

HD and SD, and allows pulldown for best monitor compatibility. For highest quality, HDLink features 4:2:2 and dual link 4:4:4 quality combined with 10-bit lookup tables. HDLink also supports stereo RCA audio output for monitoring on consumer equipment, as well as software for Windows XP and Mac OS X via an easy to use software interface.



Supporting the 3 Gb/s SDI standard, the HDLink Pro allows 4:4:4 video via a single BNC cable or Blackmagic's 2k via SDI allows high resolution real time 2048 x 1556 feature film editing. HDLink Pro includes color management via built in 3D lookup tables that allow any feature film stock to be simulated so editors can always see the correct color of the final film output. Popular 3D lookup tables can be loaded for various film stocks, and HDLink Pro is compatible with third party software for generating tables. Included in HDLink Utility software is full control for adjusting tables and generating custom "looks" for download into HDLink Pro. When editing with complex 5.1 surround sound audio tracks, HDLink Pro allows full 5.1 monitoring by including 6 separate channels of audio output.

FEATURES

Full Resolution HD Monitoring

- ◆ HDLink and HDLink Pro connect SDI video directly to any supported DVI-D based LCD computer monitor for incredible true HDTV resolution video monitoring.
- ◆ HDLink Pro features 3 Gb/s SDI for high resolution 2K film monitoring when connected to a large 30" DVI display. With every individual pixel in the HD or 2K SDI connection digitally mapped directly to the pixels of the LCD display, you get a perfect digital-to-screen pixel for pixel HDTV or 2K display.
- ◆ Connect any HDMI TV or video projector to HDLink for cinema style monitoring. Even large 23" CRT-based monitors can't display the full resolution of the HD-SDI signal, but with HDLink you see every pixel in the HD signal, so you'll always see a perfect image. You'll be amazed at the quality of HD or 2K video when you monitor via HDLink for the first time. There's simply no higher resolution HDTV monitoring possible!

Support both DVI and HDMI

- ◆ They support DVI-D based digital computer displays and include HDMI video support. HDMI supports video at 1080i/50, 1080i/59.94 and 720p/59.94 on any HDMI device.
- ◆ DVI-D supports displays at 1920 x 1200 (16:10) resolution for all 1080 HDTV formats. When working in 720 HDTV formats you can even use lower cost 1280 x 800 resolution display for pixel for pixel 720p viewing.
- When working in NTSC or PAL, HDLink can 2x oversize the displayed image making viewing easier. Because most computer displays are limited to approximately a 60 Hz refresh rate, HDLink will automatically apply pull-down to allow video frame rates to be displayed.
- ◆ HDLink includes a built-in Power PC processor allowing automatic adjustment of native display resolutions using VESA E-EDID1.3.

World's Highest Quality 3 Gb/s SDI in 4:4:4

- ◆ HDLink introduced the world's first full HDTV resolution 4:4:4 monitoring solution that supports both standard definition SDI, HD-SDI and Dual Link HD-SDI 4:4:4 for full resolution color monitoring. Dual Link HD-SDI 4:4:4 uses two HD-SDI video cables for twice the color resolution. Conventional SD and HD video is 4:2:2 based, which limits color detail while 4:4:4 HD video preserves the full color detail which is important for critical keying and feature film work.
- ◆ HDLink Pro is the first solution for the new high speed 3 Gb/s SDI standard for 4:4:4 RGB and 2K film monitoring. 3 Gb/s SDI runs twice the data rate of normal HD-SDI video, allowing 4:4:4 RGB video to be connected using a single SDI connection. 3 Gb/s SDI also allows full resolution 2K feature film quality 2048 x 1556 video to be connected via SDI.



BLACKMAGIC DESIGN

HDLINK • HDLINK Pro

Standard Definition, HDTV or 2K

- ◆ HDLink and HDLink Pro support all SDI based formats from standard definition NTSC/PAL to HD-SDI 1080 and 720 when used with DVI displays. HDLink Pro features 3 Gb/s SDI, so it also works with real time 2K monitoring as used on Blackmagic's Multibridge Eclipse.
- ◆ HDLink's SDI video input automatically switches between SD, HD and 2K. HDLink also supports all HDTV frame rates and formats including progressive HD formats.
- ◆ SMPTE 352M video payload identification ancillary data is used for automatic input format recognition and RGB/YUV color space detection. Color precision is at an incredible 10-bit in both SD and HD formats. Video data is automatically rounded down to the bit depth of the connected LCD display for superior viewing quality.

Analog Audio Monitoring Output

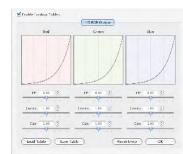
- ◆ Audio outputs are de embedded from the SDI input and then converted to analog at an incredible 24 bit. HDLink supports 2 channels of audio out, while HDLink Pro supports 6 channels out allowing easy monitoring of 5.1 surround sound audio. Audio is output on RCA connectors so you can easily connect to standard HiFi systems.
- ◆ If the connected display requires pull-down processing then HDLink will apply a variable audio delay ensuring perfect audio to video sync. To protect speakers and eliminate loud pops and other audio glitches, HDLink gently mutes the audio if video formats change or when SDI signals are connected and disconnected.

Format Support

- ◆ SDI 4:2:2, 4:4:4 and 2K support.
- ◆ Video formats supported on DVI Displays: 2K 2048 x 1556 at 23.98PsF, 24PsF. 1080 lines at 23.98PsF, 24PsF, 25PsF, 48i, 50i, 59.94i, 60i. 720 lines at 50p, 59.94p, 60p. Standard Definition NTSC and PAL.
- ◆ Video formats supported on HDMI Displays: 1080 HD at 23.98PsF, 24PsF, 25PsF, 48i, 50i, 59.94i, 60i. 720 lines at 50p, 59.94p, 60p. Standard Definition NTSC and PAL.
- ◆ Selectable 16:9 or full screen resize in SD
- ◆ Color precision support: 4:2:2 10 bit, 4:4:4 10 bit and 2K 10 bit. Color space support: 4:2:2 YUV, 4:4:4 RGB and 2K RGB.

Color Management via 3D Lookup Tables

◆ For matching LCD display colorimetry and simulating various types of film stocks, HDLink includes 1D RGB lookup tables, while the HDLink Pro model features more advanced 3D lookup tables. Advanced 3D lookup tables increase color control because a blend of red, green and blue video can be output to each primary color on the connected display. Only advanced 3D lookup tables can give full color control for accurate simulation of almost any feature film stock.



- ◆ Lookup tables are fully adjustable via high speed

 USB 2.0 port using the included HDLink Utility

 software for Windows and Mac OS X. This allows full custom 10-bit lookup tables, combined
 with lift, gamma and gain adjustments in red, green and blue channels. This is vital when color
 calibrating for various popular brands of connected LCD panels, and ensures accurate broadcast quality color representation of the HD-SDI video input.
- Users can load their own custom lookup tables, or select from the built in lookup tables compatible with Panasonic and Grass Valley Viper standard gamma encoded video. As an added bonus, the built in USB interface also allows software updates, so HDLink is never obsolete as software updates add new features.

CONNECTIONS			
SDI Video Input	12x SDI switchable between HD and standard definition.		
SDI Video Outputs	24x SDI switchable between HD and standard definition.		
Dual Rate Support	Auto detection of HD or standard definition SDI inputs. Simultaneous routing of both HD and standard definition video.		
Device Control	12x bidirectional Sony compatible RS422 deck control ports. Serial ports TxRx pin reversible under software control.		
Router Control	USB 2.0 high speed interface shared over IP network.		
Updates and Configuration	USB 2.0 high speed (480Mb/s) interface.		
Re-Clocking	On all SDI inputs, auto switching between high-definition and standard definition.		
	STANDARDS		
HD Format Support	1080p24, 1080p25, 1080p30, 1080i48, 1080i50, 1080i59.94, 720p30, 720p50, 720p59.94 and 720p60.		
SD Format Support	625/25 PAL and 525/29.97 NTSC.		
SDI Compliance	SMPTE 292M, SMPTE 259M, SMPTE 296M, ITU-R BT.656 and ITU-R BT.601.		
SDI Video Sampling	4:2:2 and 4:4:4 when using 2 routes.		
SDI Color Precision	4:2:2 and 4:4:4 10-bit when using 2 routes.		
SDI Color Space	YUV, or RGB when using 2 routes.		
SDI Metadata Support	Video payload identification ancillary data as per SMPTE 352M.		
SDI Audio Sampling	Television standard sample rate of 48 kHz and 24-bit.		

HDLink (Mfr # HDL-DVI • B&H # BLHDL)	409.95
HDI ink Pro (Mfr # HDI-DVIPRO • R&H # RI HDI P)	729.95



BLACKMAGIC DESIGN

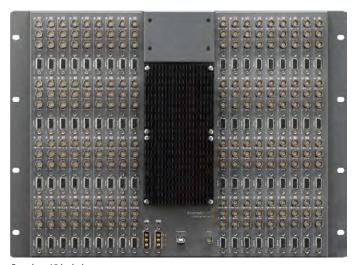
WORKGROUP & BROADCAST VIDEOHUB

Dual-Rate HD/SD SDI Routing Switchers

Now you can afford to connect everyone together in both HD or SD and eliminate the mess of manually patching editing systems to decks. Workgroup Videohub eliminates complicated manual cable patching by connecting everyone together into a fully featured professional routing switcher. Workgroup Videohub automatically switches

Workgroup Videohub rear

between SD-SDI and HD-SDI with full 12x24 routing, with 12 extra independent SDI monitoring outputs allowing separate



Broadcast Videohub rear

monitoring direct from the router. Also included are 12 RS-422 deck control ports with two channels in internal processing for HD down conversion and a keying frame store. Stepping up, the Broadcast Videohub is a powerful broadcast grade routing switcher that features a massive 72 SDI inputs, 144 SDI outputs, 72 deck control ports, twin redundant power connections, SDI re-clocking, auto switching SD, HD and 3 Gb/s SDI technology all in a compact 8 rack unit chassis less than a few inches deep. Workgroup and Broadcast Videohub include an easy to use control software application that works on Mac OS X and Windows systems, and all control is done via the local network so no extra cabling is required when installing.

FEATURES

◆ Video routing switchers allow non-technical people to connect to each other and share broadcast decks without the complexity of manual cable patching. Remote switching via your IP network means you don't even need to walk to a central patch panel which is great when there are many people are working on the same client job.

In the past, most studios have been forced to use manual patching to connect editing workstations and decks. However, this can become too complicated for creative designers, graphic artists and editors to understand, plus it gets even more complicated as your studio grows. Manual patching also caused problems with limited SDI cable lengths, and patch cables quickly wear out, so you get glitches as other uses bump them while patching.

Workgroup and Broadcast Videohub eliminate this problem since everyone is permanently connected, and no cables need to be physically changed ever. All video connections are changed from an easy to use software application right from your computer desktop. Unlike manual patching, the Workgroup and Broadcast Videohubs re-clock the SDI video signal for long cable lengths. You can also send one SDI video connection to as many outputs as you like, so multiple people can access any SDI video source, all at the same time.

High end post production and broadcasters have understood the advantages of professional routing switchers for decades, and now with Workgroup and Broadcast Videohub, everyone can afford these same workflow advantages.

- ◆ Workgroup and Broadcast Videohub are easy to install. All connections are grouped together to include an SDI input, SDI output, deck control port, and SDI monitor output for each user. The Videohubs have twice as many SDI outputs as inputs, so each user can connect monitoring directly to the router. This lets people control their monitoring without affecting the input of their editing workstation. This is important when more than one person is working on a post production project, and the client wants to switch monitoring to see the entire project being worked on.
- ◆ Workgroup Videohub has fully reversible rack mounting in a compact 3RU size, 1" deep, the Broadcast is 8RU and a few inches deep. They can be mounted front side for traditional installation, backwards for patch panel installation, or on the rear side of equipment racks to save valuable space.



BLACKMAGIC DESIGN

WORKGROUP & BROADCAST VIDEOHUB

Deck Control Routing

With 12 or 72 independent Sony compatible RS-422 serial control ports included, each editing system can control any deck in your facility. Each deck control connection is independently reversible via software control, so it's easy to connect edit stations or decks to any of the 12 or 72 deck control ports. Reversible deck control serial ports are ideal when using deck-to-deck editing or deck emulation DDR software.

SD or HD

- ◆ They use standard and high definition SDI connections, so you can connect any device used in television production. You can connect editing systems, decks and even equipment within telecine suites. Use Videohub for connectivity within the telecine workflow, such as color correction noise reduction, frame stores and disk recorders. You can use two inputs and outputs on Videohub for routing dual link 4:4:4 video.
- With built-in powerful HD down conversion, you can convert HD into standard definition video and then send it to any device on the router. That's great if you're doing an HD job but need to monitor in standard definition, or record client tapes.

Integrated Video Processing

- ◆ The most exciting features of the Videohubs is their powerful real time video processor. Integration with the router is via an additional 2 SDI input and output connection. Real time video processing allows high quality down conversion, and simultaneous keying frame store and with customizable video frames loaded onto the host and downloaded via USB on demand from any client computer. The keying frame store is great for test signals and identity logos, working in both high definition and standard definition.
- ◆ For added reliability in critical environments, router connections are preserved in non volatile ram in case of power failure. When power is restored all connections recover instantly even if the host computer is not connected.
- ◆ Fully compatible with Windows and Mac OS X, you can mix and match platforms for router control and even host control. You can use both platforms in any combination.

SDI Re-Clocking

They include built in SDI re-clockers on each SDI input which regenerate the SDI video signal. Every inch of video cable from your SDI video devices degrades the SDI signal. Expensive premium grade "digital" cables can help, however simply cannot eliminate this loss. With SDI re-clocking you can a regenerated and clean SDI signal out to all the SDI devices in your studio. That means longer cable lengths, and no glitches in your video.

Network Router Control

Workgroup and Broadcast Videohub use software control panels running on Windows and Mac OS X. This lets you control the router from the same system you edit on. The Videohub connect to any computer via USB and is then shared over your local network. Any computer can be the host and simply connecting to the router via a USB 2.0 connection activates that computer as the host, and allows other computers on your network to connect. Router labels can be changed from any computer and are fully unicode compatible for foreign language support.

Broadcast VideoHub Only

- ◆ Broadcast Videohub includes two high reliability power supplies even though you only need one. The extra power supply is used as a backup and power changes over is instant in case of failure. You could also connect the second power supply to a different power circuit in your building or a UPS. For extra protection in case of a complete power failure, when the power comes back, all your connections are instantly restored.
- ♦ With 3 Gb/s SDI connections built in, Broadcast Videohub allows twice the SDI data rate than normal HD-SDI. Use 3 Gb/s SDI for high resolution real time 2048 x 1556 feature film editing. 3 Gb/s SDI has full compatibility with SD, HD or 2K in 4:4:4 or 4:2:2 all with a single BNC cable. With 3 Gb/s SDI built in, you have fully compatibility with all your current SD-SDI and HD-SDI equpment, plus any new formats that come in the future.

	BROADCAST VIDEOHUB	WORKGROUP VIDEOHUB			
SDI Video Input	72x 10-bit SD SDI, HD-SDI, 3Gb/s HD and 2K switchable	12x SDI switchable between HD and standard definition			
SDI Video Output	144x 10-bit SD SDI, HD-SDI, 3Gb/s HD and 2K switchable	24x SDI switchable between HD and standard definition			
Dual rate support	Auto detection of SD, HD or 3 Gb/s SDI. Simultaneous routing of both HD and standard definition video.				
Device Control	72x bidirectional Sony compatible 12x bidirectional Sony compatible RS422 deck control ports. Serial ports TxRx pin reversible under software control				
Router Control	USB 2.0 high speed interface shared over IP network				
Updates & Configuration	USB 2.0 high speed (480Mb/s) interface				
Re-Clocking	On all SDI inputs, auto switching between standard definition, high definition or 3 Gb/s SDI video.	On all SDI inputs, auto switching between standard definition or high definition video.			
SD Format Support	625/25 PAL and	525/29.97 NTSC			
HD Format Support	1080p24, 1080p25, 1080p30, 1080i48, 1080i50, 1080i59.94, 720p30, 720p50, 720p59.94 and 720p60				
2K Format Support	2048 x 1556/23.98 and 24	None			
SDI Compliance	SMPTE 292M, SMPTE 259M, SMPTE 296M, SMPTE 424M, ITU-R BT.656, ITU-R BT.601	SMPTE 292M, SMPTE 259M, SMPTE 296M, ITU-R BT.656 and ITU-R BT.601			

Workgroup Videohub (Mfr # WGVHUB • B&H # BLWGVH)......4599.95 **Broadcast Videohub**

(Mfr # VHUB/BR • B&H # BLBCVH)......14,694.95



BORIS FX

GRAFFITI



Broadcast-Quality 2D and 3D Titling Effects

Create titles and graphics directly inside your nonlinear editing system without importing and

exporting. Easily create sophisticated title animation including type on text, text on a path, jitter and randomization. Create 3D text with bump maps and reflections. An expansive Style Palette and the Boris Library Browser provide easy access to hundreds of preset effects and styles. Adding Graffiti to







your existing NLE system puts the most innovative and user-friendly titling tools in the industry at your fingertips.

EPS Import and Extrusion

Scalable vector art can be imported directly into Graffiti. Add, delete or modify the original spline points right within the Graffiti interface and the result can be extruded and animated in 3D space. Unlike raster art which is pixel based, vector art never suffers a loss in quality when it is resize or scaled. Most company logos are generated in this format.

Resolution Independent Vector Text

Text created in Graffiti using the vector text option remains razor sharp at any scale. This is important when dealing with titles that change size at different points along the timeline. Raster-based text will display visible artifacts when scaled up, but because the text in Graffiti is vector based, it is always sharp.

Advanced Type-On Title Animation



Graffiti includes some very powerful type-on controls for generating animated titles, which makes it very easy to create eye-catching animations. Make titles appear to pop in to the center of the scene from behind the camera or slide in from left or right. Add jitter to

the color or position of a title or page of text.

Text On a Path

Text can be animated along a user generated vector path in Graffiti. Options include the ability to set the angle of the letters along the path, the position of the letters on the path and the justification of the text along the path. The reverse path option flips the text upside down along the path. Motion blur

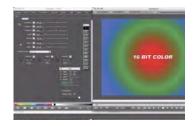


can be added to the text for added realism.

Automated Rolls, Crawls, Fades and Zooms

Title Container automates the chore of creating rolls, crawls, faces, zooms and shuffles. With unlimited pages of text per container, built-in DVE controls, background generator, 27 composite mixable modes with built-in color correction tools and of course motion blur, creating titles has never been easier.

16-Bit Color (host dependant)



Generate smoother gradients and more precise color correction via an enhanced color palette, which expands the available color gamut from 16 million in 8-bit color to trillions of colors. The result is that gradients are far less prone to mach banding or color

stepping. 16-bit color in Graffiti is host dependent and will only work in hosts that support this feature, such as Avid systems.

35 Filter Effects Including Several FEC Filters

The original filter effects in Graffiti have all been replaced with the more





Snow Generator

powerful filters from the Boris Continuum. There are 35 effects filters including radial blurs, particles, glows, distortions and procedural generators such as snow, rain and clouds. Also included are several filters from the Final Effects Complete package.

Support for 3rd Party AE Plug-in Filters

Most 3rd party After Effects filters can be used in Graffiti, and thereby the editing system into which it is plugged into making it easy to use some of your favorite AE filters in the host editing environment. A complete list of the supported filters is available on the Support section of the BorisFX web site.



BORIX FX

GRAFFITI

3D Shapes such as Cylinders, Spheres and Cubes

Graffiti includes the ability to map generated text onto 3D objects such as cylinders, spheres and cubes. These objects can be manipulated in 3D space with controls for camera, lights and motion blur. Each of the objects has it's own unique features, such as the ability to disassemble a cube or



unwrapping a cylinder or sphere over time. You can even map text onto a page turn shape and peel back pages of text to create flip-book style text animations.

2D and 3D Chart Generator with Import Feature



The Chart Generator enables users to enter data in a spreadsheet format via the built-in chart editor, which is then converted into flat or extruded graphical charts. Charts can take on the form of pie, bar, line and filled and can be animated and revealed or

removed in a true 3D environment. Graffiti charts can also be generated from imported user data, which was saved in Microsoft Excel format.

3D Text with Textures, Reflection Mapping, Materials and Lights

Any 2D text object can be extruded and converted into a 3D object in Graffiti. Reflect the background track onto the 3D text that is above it, or add a separate texture track to the text or use bump mapping for added photo-realism. The position, orbit and pan camera controls make it easy to animate the 3D object in 3D space and the depth of field option emulates the out of focus ranges of real camera lenses.

3D User Modifiable Spline Primitive Shapes

Several spline primitive shapes are included with Graffiti and all of these shapes can be filled, stroked or even extruded into 3D objects. The extruded objects can also be reflection, texture and bump mapped for added realism. Every aspect of the shapes can be modified by the user; points can be added, deleted or manipulated just like any other bezier spline shape.

Gradient Generator

A procedural media generator that is capable of generating smooth gradients with options for linear, contour, bevel, edge and revolve gradient styles. Every parameter of the gradient can be animated, including the gradient color and stops.



Audio Import with Scrubbable Waveform

Title effects are more often than not accompanied by audio sound cues like a pop or splash. Graffiti enables users to import scratch audio tracks and the visual cues from the waveform monitor in the timeline helps users to synchronize the video effect with the imported audio track. The audio track can be



played with the effect preview and the timeline waveform can be scrubbed to ensure correct synchronization of the audio and video.

Vector Paint System



The vector paint system in Graffiti can be used to generate 2D geometric shapes that can be used as a graphic element in your composition or as part of a mask track. The style palette can be used to apply beveled edges to filled or stroked paint and in addition to this, animated

vector paint strokes can be used to create write-on title effects.

Hardware Accelerated OpenGL Previews

Graffiti takes advantage of the built-in OpenGL libraries included with most video cards to accelerate the preview of effects on-screen. Although the level of OpenGL support does not extend to rendered output files, this feature speeds title effects generation making on-screen previews immediate, which is especially useful when dealing with 3D elements.

Library Browser with Hundreds of Preset Animations

The built-in Library Browser contains hundreds of preset compositions, all of which are user-modifiable. Categories include lower thirds, path text and animated type-on effects.



Users can save customized composition settings into the Library Browser for future retrieval and use on other projects.

Graffiti For Windows (Mfr # BGW500 • B&H # ARBBGW500). for Macintosh (Mfr # BGM500 • B&H # BOG52M)......279.95

Graffiti / FX Bundle For Mac (Mfr # BFXGRAFBUNM • B&H # BOBFX9G5M)

for Windows (Mfr # BFXGRAFBUNW • B&H # BOBFX9G5W)......459.95



BORIS FX

FX



Effects, Image Processing, Paint & Rotoscoping

FX is a great value with realistic lighting, advanced keying and color correction, compositing, DVE, vector paint and support for third-party After Effects filters.

Need an effect completed quickly?

FX offers a Library Browser with hundreds of high-quality presets



for easy application in over 20 NLEs. Sophisticated vector paint and spline tools allow you to create animatable masks. More than 115 video filters include motion tracking and image stabilization, as well as self-animating natural effects that easily interact with timeline video.

Unlimited Layers of Media

FX includes the ability to create unlimited layers of media of any size, which can be used to generate complex composites using the many apply modes included on each layer. Multiple apply modes can be mixed to generate unique effects. Layers can be masked with the built-in pixelchooser matting and masking system or by adding spline-based garbage mattes. The masking system in FX features both upstream and downstream masking, making this a very flexible compositing system.

Oversize Image Import for Pan and Scan

Import image-based media of any size into your editing timeline using FX and animate the position and scale of the layer to create smooth pan and scan documentary-style effects.

3D Shapes such as Cylinders, Spheres and Cubes

FX includes the ability to map generated text onto 3D objects such as cylinders, spheres and cubes. These objects can be manipulated in 3D space with controls for camera, lights and motion blur. Each of the objects has its own unique features, such as the ability to disassemble a cube over time or unwrapping a cylinder or sphere over time. Create bouncing balls mapped with video, cylindrical video tunnels or spinning video cubes with ease and speed.

3D User-Modifiable Spline Primitive Shapes

Several spline primitive shapes are included with FX and all of these shapes can be filled, stroked or even extruded into 3D objects. The extruded objects can also be reflection, texture and bump mapped for added realism. Every aspect of the shapes can be modified by the user; points can be added, deleted or manipulated just like any other bezier spline shape.

Gradient and Procedural Media Generator

Included in FX is a procedural media generator that is capable of generating smooth gradients with options for linear, contour, bevel, edge and revolve gradient styles. Every parameter of the gradient can be animated, including the gradient color and stops.

Motion Blur

Built into every shape track in FX, Motion Blur adds a photo-real touch to animated objects. Motion Blur can also be used on animated masks to match the natural motion blur recorded by the camera.

Volumetric Lighting Filters

Use one of the many included lighting filters in FX to simulate volumetric lighting in which objects appear to be in a scene with hazy air, dust, smoke, steam, mist or fog. Several filters in FX specialize in creating different volumetric lighting effects, such as textured or puffy light.

Motion Tracking, Stabilization and Corner Pinning

The motion tracker can track an object over time and apply the recovered motion to a second object, such as paint, to lock the movement of the paint to the motion of the object in the clip. Image stabilization is used to remove unwanted camera shake from a clip and the corner pinning function enables the user to accurately and easily pin one image clip to another with perspective distortion.

Over 115 Filter Effects Including Several FEC Filters

FX ships with over 115 distinct filter effects from Continuum Complete. Also included are many filter effects from the Final Effects Complete product. Each of the included filter effects has a built-in preset manager, which can be used to load any of the 1000 + filter presets designed to







ease effects creation. The preset manager can also be used to save out custom favorite filter effects settings, which can be shared across

networked environments. Each filter also includes the pixelchooser masking and matting system and a built-in motion tracker.



BORIS FX

GRAFFITI / FX

INTEGRATION AND PRODUCTIVITY

	GRAFFITI	FX
Host Integration	Custom UI	Custom UI
Number of Supported Hosts	20	20
Open GL Acceleration	1	1
User Interface with Sticky Magnetic Windows	1	1
Mini Timeline with Keyframes in Composite Window	1	1
16-Bit Deep Color (Host Dependant)	1	1
Library Browser with animated preset effects	1	1
Keyframer for offline effects creation	1	1
Customizable keyboard shortcuts	1	1
Searchable Electronic Help System	1	1
Static generator for Sony Vegas 7 Host	1	1
Filter Palette and Plug-in Filter Manager	/	1
Non-modal Options Palette	1	1
Save customizable workspaces	1	1
Resolution Independent	1	1
Industry-standard file format support	1	1
Preview to monitor via FireWire; Track Sliding	1	1
User-defined title safe grid; History Palette	1	1
Layers of Media	Unlimited	Unlimited
3D Bezier Spline Shapes and Masks	1	1
3D Shapes - Cylinder, Sphere, Cube	6	6
3D Spline Primitives	1	1
3D Containers		1
Spline Compound Paths; Spline Styles; Vector Paint	1	1
Static gradients; Animated gradients	1	1
Natural Media; Import Bitmap Graphics	1	1
Brush Stroke Reveal Effect	1	1
Tumble, Spin and Rotate in 3D Space	1	1
Soft Drop Shadows, Edge Borders	1	1
Import Oversize Images with Alpha		1
Motion Blur for Shapes	1	1
Redesigned Noise Map Generator		1
Film Effects including Film Damage, Film Grain		1
Precise Keying Filters; Particle system and 3D particles		1
Distortion filters including Ripple, Wave and Twirl		1
Volumetric Light filters including Light Zoom		1
Procedural Generators including rain, snow, and clouds		1
Superior Color effects		1
3rd Party AE Filter Support	1	1
Corner Pin Tracker; Motion Stabilizer		1
Motion Tracker, Motion Path Effect		1
Compositing Apply Modes; Preview to RAM Option	1	1
Audio Import and Playback; Effects Library Browser	1	1
Offline Effects design (Keyframer); OpenGL Support	/	1

COMPOSITING

	GRAFFITI	FX
Animatable Apply Modes	1	✓
Vector paint and Rotoscoping		✓
Vector Paint Only	1	
3D Shapes including cubes, spheres and cylinders	1	✓
Motion Tracking		✓
Image Stabilization and corner pin tracker		1
PixelChooser Masking		/
Support for 3rd party After Effects filters	1	1
High-quality 3D DVE		1
Upstream and Downstream masking		1
Preserve layers of imported Illustrator files	1	
True cast shadows, Track-based Motion Blur	1	1
Pixel-based Motion Blur		1
Import Oversized Images		1
3D Primitives with Bump Maps and Textures	1	

GRAPHICS AND TITLING

Vector Text; 2D and 3D Text	1	
Auto-animated rolls and crawls	✓	
Support for multi-layer Photoshop files		1
Type-on animation by word, character or line	✓	
Animate and extrude multi-layer EPS files	1	
Animatable 3D spline objects	1	
Animated Gradients; Natural Media generation	1	1
Texture Maps; Bump maps and Reflection maps	✓	
2D and 3D animated charts; Write-on text effects	1	
Text jitter, text on a path, text randomization	1	

TEXT AND PAGE FORMATTING

Resolution Independent Vector text	✓
Library Browser template Mode	✓
Appearance Preferences	✓
Support All Outline Font Types	✓
CJK Multibyte Font Support	√
Native Unicode Support	✓
Kerning, Tracking and Leading	√
Word Wrap, Page Width, Justification	✓
Skew and Baseline	✓ /
Top Down Vertical and Left to Right	✓
Per Character Font and Point Size	✓ /
Text Tool (Entering Text Directly Over Video)	✓
Snap Text to Grid or Guides	✓ /
Import RTF or ASCII Text Files	✓
Insert Text	✓



BORIS FX

RED



Titling, Effects and Compositing Software

The only integrated 3D compositing, titling, and effects application to deliver unparalleled performance to over twenty NLE's including Apple Final Cut Pro, Adobe Premiere Pro, and Avid systems. Designed specifically for editors, RED offers an unprecedented range of features and adds a standalone engine for rendering. It integrates 2D and 3D compositing, native vector titling, motion tracking, vector paint, rotoscoping, a full suite of tools to create and extrude vector objects, 3D creation and animation, and the industry-leading software DVE technology. Save time and money using one interface, in one system.

Step-up Features from Graffiti and FX (Combined)

- ◆ Film effects including DeGrain, Match Grain
- ◆ Film process image retouching including Wire Remover and Light Wrap
- ◆ Raster Paint
- ◆ Clone Paint
- ◆ Paint with Images
- ◆ Time-based effects including Optical Flow and Temporal Blur
- ◆ Motion Path Effect
- ◆ Standalone render engine with render queue
- ◆ Intersect shapes in Z-space
- ◆ Export to TIFF and PICT
- ◆ Standalone rendering to Quicktime and AVI file formats
- ◆ Export to Flash (.swf)
- ◆ Import and animate Photoshop layers

User Interface

- ◆ New UI look and feel to better match an NLE's buttons, colors, other UI elements.
- Toolbar is context sensitive
- Button array now features bigger buttons that are user configurable
- Buttons highlight as the cursor is rolled over them in the button array, the toolbar and at the bottom of the controls and composite windows
- Redesigned render queue delivers more feedback to the user
- All windows feature tabs that automatically layer so that they remain visible regardless of the window size

Windows

- RED's timeline window features the ability to concurrently display an <u>unlimited</u> number of comps from the same project, with each composite occupying a separate tab.
- ♦ Improved project window includes a media tab, which displays a thumbnail and list view of all imported media associated with the open project. Information such as the media name, type, size and length are displayed. Clicking on any of the name, length, type or size buttons will cause the media to be sorted according to the selected criteria.
- ◆ Composite window features a show / hide timeline toggle switch, a color depth toggle switch, additional play controls, timeline marker creation and navigation controls and a button that enables you to add the current comp to render queue. Composite window also includes a mini timeline providing users with the ability to add and modify keyframes without having to go to the timeline.

Motion Key

Optical flow based motion key filter enables users to remove foreground objects from a scene with little effort. Objects that pass through a scene can be isolated and removed completely as if they were never there to begin with, using only a few rough keyframes which are required to show the filter where the object to remove from the scene is located.

Optical Stabilizer

Optical stabilizer can be used to remove unwanted camera shake from an image with no user input other than applying the filter to the clip and selecting stabilize from a pop-up menu.

Motion Path Filter

Animating shapes along a custom spline path is easier than ever with the motion path filter, which automatically positions nested items along the length of the user drawn spline path.

Subtitle Import

Enables users to import EBU subtitle files and modify the imported text slates to suit their requirements right within the RED timeline. As added bonus to FCP users, the modified subtitle file can then be exported as FCP XML data.

Vector Trace Tool

Enables the conversion from a raster bitmap image such as a TIFF, JPEG or a frame from a movie file to a scalable vector graphic with the ability to extrude any of the resulting vector shapes. Options for this function include the ability to select the color or alpha channel with which to base the conversion.

Options Palette

Options Palette makes working with functions, such as grids and guides, or vector splines easy. It can be left open at all times and changes made are instantaneous. Available for Vector Trace, Splines, Grids and Guides, Keyframe Interpolation, Keyframe Generator and Timecode.

BCC Filters

Ships with over 150 filter effects. Each of the filters includes a preset manager, which can be used to load any of the included 1500+ preset effects settings. The preset manager can also be used to save custom settings, which can be shared with BCC filters that have been installed into any other host on your network.



BORIS FX

RED

Paint Engine

- With the clone paint brush users can clone areas from one part of the image source to another area within the same image, or even from a separate image input taken from another track in the timeline.
- Full support for Wacom tablet pressure channels, which means that you can use the data recorded by the Wacom tablet device to control various aspects of the paint stroke, such as opacity, size and color.
- ◆ Support for pressure sensitive Wacom tablets, les users use the Wacom data to drive raster paint strokes a variety of different ways. The data gathered from the tablet includes: pressure, velocity, direction, tilt, bearing, jitter, white noise, length and reverse length. Any one of these can be used to drive the color, opacity, and size of the brush along the length of the stroke.
- Paint with image media as the paint source. Any image or clip residing on your system can be used as a paint brush stamp. Most standard media file formats are supported including native photoshop files (both flattened and layered) and movie media.
- When using layered photoshop files as the brush source, each individual layer can be automatically sequenced over the course of the paint stroke, either in the order that they exist in the photoshop file or in a random order. When using a movie clip as the brush stamp, the movie will update as the user moves through the timeline.
- ♦ In addition to the conventional oil paint brush, there is also a spray airbrush option, which can be used to spray specs of paint onto the canvas. options for this brush type include pixel, dot (3x3 pixel array) or blot (5x5 pixel array) and a flow modulator function that controls the speed of the paint as it flows out of the airbrush nozzle.
- ◆ Roller brush applies paint in the style of a flat roller brush using a still image or a movie clip as the brush source. The resulting stroke can be angled in 3D space, which can be used to produce a wavy ribbon-like effect.
- All raster paint strokes created with any of the brushes in RED 4 can be converted to a vector spline shape with the touch of a button. The bezier spline that results from this conversion can be animated as you would any other vector spline shape within RED.

Bump Maps

In addition to the textures and materials for 3D extrusions found in earlier versions, RED also offers bump maps with a variety of presets (including rock and steel plate), all customizable and animatable. Bump maps may also be derived from any still or animated image, including video. The "height" of the bumps may be controlled and animated so that surfaces push up or down. The bump map's original color can even be passed through to combine with the material attributes. As RED 's 3D



environment continues to evolve and expand, 3D cameras now include control over depth of field.

Natural Filters

- ◆ Fire is an auto-animated procedural fire effect which offers control over flame width and height, color, and movement. It can use the alpha channel in any other layer as a Map layer, allowing fire effects to conform to a pre-composed image or logo.
- Clouds can act as a filter on a layer, or generate a sky with clouds and a horizon layer.
 Three types of clouds automatically animate using the direction, angle and speed you set.
 Mask and map layers can also be used to constrain clouds or smoke to a specific shape.
- Rain and Snow are auto-animated as well, and offer a wide range of interactions with the compositing environment, such as snow piling up on 3D text, or rain bouncing off a logo and the bottom of the frame





- ◆ Stars is an auto-animated star generator which can composite stars over a sky color or an image layer. can also use the alpha channel in any other layer as a map layer, allowing you to create skies in which stars fill a precomposed image or logo.
- ◆ Comet and Sparks offer a variety of possibilities beyond what their name v suggests, as they are specialized particle generators. As such, they can be configured in a variety of ways beyond their auto-animated defaults.

2D and 3D Animated Charts

Video editors are used to editing, and may be less familiar with the world of graphic creation. Even expert graphic artists, however, have had few options for to quickly create high-quality animated charts. Rather than trying to squeeze broadcast-quality results out of multimedia business applications, you can tap into RED's powerful vector graphics to instantly create pie, bar, line and area charts use data generated from spreadsheets or input data directly using a simple Chart Editor.



Red 4: For Windows and Macintosh (Mfr # BRWM400 • B&H # BOBR4).

...929**.**95

Class on Demand: The Complete Training for Boris Red 4



BORIS FX

BLUE



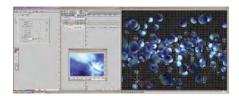
Real-time 3D and Motion Graphics Solution for High-Speed Compositing and Effects Creation

Boris Blue is a standalone 3D compositor for Windows XP as well as a plug-in for Adobe After Effects, Premiere Pro, and Avid editing and finishing systems. Based on the familiar Boris interface, Blue is designed for video editors and compositors who want to create stunning 3D looks without the learning curve and render times associated with 3D applications. Perfect for post facilities with client-supervised sessions or demanding deadlines, Blue uses the latest generation NVIDIA GPU-based graphics cards to provide an interactive effects design experience. Blue delivers real-time processing of 2D and 3D effects as well as real-time playback of video and audio media. Users can adjust effect parameters during playback, a "front room" capability that is ideal for working side by side with clients. The fast

export to disk, including hardware rendered anti-aliasing, motion blur, and 3D shadows, provide significant time savings.

FEATURES

Particles



Use any 3D object as a particle, including extruded shapes and imported 3D Models. Multiple attractors and repellers provide dynamic particle interaction. Sprite-based particles simulate Fire, Smoke and Sparks.

- Hardware accelerated for real-time interactivity during effect design and extremely fast export to disk.
- ◆ Any shape can be a particle.
- A single particle emitter can contain multiple particle types with their own individual properties.
- ◆ Particles can be used to create realistic simulations like fire, smoke, and sparks.
- ◆ Particles can be used as design elements like backgrounds or animated 3D objects.
- Particle emitters include useful preset emitter shapes, also other 3D shapes in the composition can act as particle emitters.
- ◆ Particles can be influenced by attractors or emitters to simulate wind or other forces.
- Particle Emitters can be animated along a user defined path

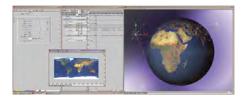
Enhanced Extrusions



Create custom bevels by defining a curve with spline drawing tools. Extrude text, spline primitives, free hand spline drawings and imported EPS files. Import 3D models in the .3ds and .obj formats, preserving individual geometry groups.

- Custom bevel and extrusion surfaces can be user-defined using Blue spline creation tools.
- Any vector based media can be extruded: text, spline primitives, imported eps files, and spline objects drawn with the Blue spline creation tools, or pasted from another application.
- It is also possible to start with a pixel-based image and use the Blue Bitmap to Vector Trace feature to create a vector-based spline which can then be extruded.
- Hardware accelerated for real-time interactivity during effect design and extremely fast export to disk.

Materials



Materials include per-pixel lighting controls and texture, bump and reflection mapping. Fully hardware-accelerated for blazing speed.

- Per-Pixel Lighting controls allow for precise individual control over Ambient, Diffuse, and Highlight colors and intensities.
- ◆ Texture maps allow for mapping media such as moving video, still graphics, gradients, or natural media (Blue generated procedural textures) to the surface of any 3D object.
- ◆ Ceate the illusion of 3D bumps by affecting how the material responds to light.
- ◆ Reflection maps can be used to define an image the material will seem to reflect Blue reflection maps include support for 6-layered cube maps which can create a very realistic 3D reflection and can also be displayed as an environment map for the 3D scene.
- Blue Materials include support for masking (including user-defined masks that can be created with Blue spline creation tools), as well as cropping and tiling of texture maps.
- Also includes Materials which use anisotropic lighting to simulate shiny surfaces such as Metal and other specific materials.



BORIS FX



Deformers, Image Processors and Generators



Vertex Deformers provide true 3D warping of 3D objects. Blue's Deformers, Image processors and generators are fully hardware accelerated for blazing speed.

- ◆ Deformers provide true 3D distortions that can apply to any 3D shape.
- ◆ Image Processors can be applied to any texture map or at the scene level.
- Image Processors include utility effects such as luma and color adjustments and keying effects for blue/green screen keying, as well as stylize effects, 2D distortions, and wipes.
- Generators include animatable noise-based effects such as clouds and electricity.
- Hardware accelerated for real-time interactivity during effect design and extremely fast export to disk
- ◆ New 3D Deformers include:
- Curl
- Flatten
- Mesh Chaos
- Mesh Shatter
- Model Displacer
- Pre-Transform
- Pulse
- Slice-Stretch
- Un-Deform
- ◆ New Image Processor Effects include:
- Film Grain
- Film Process
- Glow Edge
- Glow Light
- Glow Light Replace Color
- Glow Remove Color
- Mist

Comparing Blue and RED

Boris Blue and RED are both professional compositing and motion graphics solutions used to achieve outstanding visual effects. Even though Blue is based on the award-winning Boris RED, the two products are actually quite different from one another. When used together they can create visually stunning results faster then ever before.

Advantages of Blue over RED

- 100% hardware preview and rendering to disk means faster speed.
- Imported models Blue can work with a large number of polygons.
- Custom spline-based bevels on extrusion give Blue more modeling power.
- Material shaders include bumps and reflections, giving users more control over 3D materials.
- 3D deformers more animation options
- Sprites and 3D models, more particle options and on screen interaction.
- Movie direct streaming from hard drives with Audio - no need to preview to RAM.
- Animate multiple objects on spline based paths.
- Type On effects allow intersection of objects in 3D more options than in RED.

Advantages of RED over Blue

- More integrations with many NLEs not yet in Blue
- Mac OS support not yet in Blue
- Wider graphics card support not yet in Blue
- Chart generator not yet in Blue
- Pixel Chooser not yet in Blue
- Compatible settings with FX, Avid FX and Graffiti - Blue has own settings format
- Large selection of software filters not yet in Blue (many made into Blue shaders but not all, Blue accepts plug in filters such as Continuum but they are not included)

Sophisticated Animation Made Fast and Easy

Blue includes tools such as Type On Containers and the Motion Path filter for more convenient creation of complex 3d animations. Combined with full hardware acceleration, these high quality effects can be designed and exported with amazing speed.

- Hardware accelerated for real-time interactivity during effect design and extremely fast export to disk.
- True 3D animation of individual text characters while they are preserved as a single editable text block.
- ◆ Easily design sophisticated text reveal, remove, and wave effects.
- Text appearance can be changed globally by applying Extrusion Styles from the Style Palette.

Crossgrade Boris Red to Boris Blue for Windows: Allows owners of Red to purchase Boris Blue at a reduced price when compared to buying the full version of the software.



BORIS FX

CONTINUUM COMPLETE



Native Filters and Transitions

Boris Continuum Complete (BCC) is an expansive plug-in filter set that lets you create effects from the practical to the inspired directly in your native host interface for unprecedented workflow. Over 180 filters and 1,500 presets include lights, advanced keying, matting, image processing, distortion, temporal effects, generators, wipes, and motion tracking. These filters provide the creative freedom to animate your graphical elements or video at any speed, acceleration, or position you want. New BCC 5 filters include UpRez, Pan and Zoom, MatchMove, LED, Scanline, Prism, Damaged TV, Turbulence, Noise Map 2, and Color Choke. BCC 5 also delivers user workspace enhancements including on-screen and contextual controls for faster effects design.

The BCC 5 Product Family consists of:

* BCC 5 AE for Adobe Creative Suite 3 (also supports earlier versions of After Effects, Premiere Pro, and After Effects-compatible applications.

* BCC 5 FxPlug for Apple Final Cut Studio 2

* BCC 5 AVX for Avid editing and finishing systems

FEATURES

BCC5 AE Key Features

- ◆ Onscreen controls for easy parameter set up
- ◆ Motion Key for removing foreground object based on Optical Flow
- ◆ Image Stabilization without point trackers
- Optical Flow based footage retiming and motion blurl
- Original eye-catching effects such as Artist's Poster, LED, Cartooner, Rays
- ◆ Texture generators for Brick, Cloth, Wood Grain
- ◆ Natural effects such as Fire, Rays, Sparks, Stars
- ◆ Compositing tools: Light Wrap, Matte chocker
- ◆ Light effects: Glare, Glint, Glitter, Light Sweep
- ◆ Special effects: Damaged TV, Scanline, Prizm
- ◆ Time effects: Jitter, Looper, Sequencer, Temporal Blur
- ◆ Performance and quality
- ◆ 16-bit processing, OpenGL acceleration, and multi-core performance

BCC5 FxPlug Key Features

- ◆ High quality SD to HD conversion tool
- Professional Ken Burns effect with large still images
- Integrated Match Move right inside Final Cut timeline
- More than 1500 presets, save your own settings and share with other editing systems
- ◆ Precise Keying and advanced Matte filters
- Motion Tracking is integrated into all appropriate effects
- ◆ Integrated PixelChooser masking tool
- ◆ Each filter includes integrated online help
- Common post production tasks are simplified with wire removal, light wrap, as well as dust and scratches

- ◆ OpenGL filters add new unique looks to your video with blazing rendering speed
- ◆ Advanced high quality keying
- Stack multiple filters on keyed elements or titles
- Sophisticated layer blending
- ◆ Optical Flow creates keyframable motion effects and super smooth slowmotion
- ◆ A wide variety of effects such as Blurs, Glows, Light Rays,
- ◆ Wave Distortions, Particle Wipes, and 3D Shapes
- ◆ Film effects for making video appear more like film
- ◆ Auto-animating Wipe Transitions

Boris Continuum Complete 5.0 AVX for Mac (Mfr # BCCAVXM500 · B&H # BOCC5AMCM)1994.	€
Boris Continuum Complete 5.0 FxPlug for Mac (Mfr # BCCFXPLUG • B&H # BOCC5FXPM)849.	00
Boris Continuum Complete 5.0 AE for Mac (Mfr # BCCAEM500 • B&H # BOCC5AEM)849.	00
Boris Continuum Complete 5.0 AE for Windows (Mfr # BCCAEW500 · B&H # BOCC5AEW)849.	00
Boris Continuum Complete Training DVD for Final Cut Pro and Motion	
(Mfr#BCCFCPTRDVD • B&H #BOTCCAE) 98.	€5



BORIS FX

CONTINUUM COMPLETE

BCC5 AVX Key Features SOME OF THE NEWEST FILTERS

◆ Working in the native Avid interface reduces your learning curve to virtually zero

- Advanced image processing algorithms which enhance image quality while transform scaling a clip
- ◆ Pan and Zoom filter with extensive on-screen UI and rotation control
- Avid AVX 2 architecture support including extensive use of HUD (heads-up display) user interface controls and Avid's advanced keyframing mode
- EZ parameter display mode and ability to display only modified or animated filter parameters
- ◆ The unique PixelChooser provides integrated channel or region-based masks.
- A custom option lets users draw an animatable vector-based bezier spline masks using onscreen controls
- Motion Tracking is integrated into all appropriate filters. The Motion Tracker lets you pre-process your image to increase accuracy
- New OpenGL category includes hardware accelerated filters such as Glint, Lens Flare, LED, Prism, Damaged TV
- ◆ Volumetric lighting filters including Rays Cartooner, Texture, Streaky and Light Zoom
- ◆ Combine and animate apply modes in a single layer
- Auto-animating wipes use a unique influence parameter to create custom shapes based on channel information
- Precisely key with spill suppression, Chroma, Luma and Two Way Key, Matte Choker, Light Wrap and Wire Remover
- ◆ Motion Key foreground object removal
- ◆ State-of-the-art Time filters include Temporal Blur, Velocity Remap, Jitter, Looper and Optical Flow
- ◆ Primary and secondary color correction filter
- ◆ 35 real-time processing filters and 16 real-time static texture generators
- Create 3D geometric shapes such as spheres and cylinders, which intersectin Z-space with soft cast shadows and 3D spotlights
- ◆ Over 1500 factory installed presets
- ◆ Deep color support with 16 bit image processing

Designed to make easy work of documentary style Pan and Zoom techniques. The filter uses on-screen controls for the size and position of the zoom region along with additional on-screen UI for the anchor point, and a preview window where you



Pan and Zoom Filter



can see a small rendering of the final result. This filter employs very sophisticated image sampling technics with edge detection, providing a very high quality image result without the need for additional post processing or filtering.





LED Filter

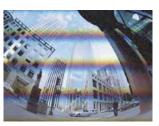
Designed to make an image, clip or text element with alpha appear as though it was constructed out of an array of blinking or solid LED lights similar to the display boards seen in sports

stadiums. By default, the lights take their color from the clip to which it was applied and can be set to either square or round diodes or "bulbs". Alternately the filter can apply a tint of color over the media element to which it was applied.

Scanline Filter

Designed to generate rolling RGB scanlines over the source image clip, emulating the effect of a computer monitor which was shot on video tape or film. The RGB bars rolling scan lines that





the filter generates can be offset from each other in yx space and time to generate photorealistic effects. The filter also includes a user controlled noise generator function for added realism.

Damaged TV Filter





Emulates the appearance of a CRT style television set that is receiving a bad antenna signal or is in need of repair, complete with gun offset, distorted edges, image roll, noise, scan lines, and interference lines. This powerful filter features both fully

automatic or manual modes of operation. When using it in automatic mode, the filter will automatically animate image roll, scan lines, noise or any other visible parameter - and even though the filter is being used in automatic mode, the user retains full control over every parameter.



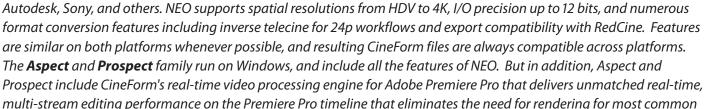
CINEFORM

NEO • ASPECT • PROSPECT

CineForm offers two families of products, each offering an online compressed Digital Intermediate (DI) workflow for HD post-production, whether your source is HDV, full-raster HD, or up to 4K. This means you never have to work with proxy files, and you never have to conform a project at completion - you're always working with full-resolution source material using the Visually Perfect CineForm Intermediate codec.

Each enables cross-platform and cross-applications compatibility:

The **NEO** family delivers a software post-production environment compatible with most high-resolution video/film applications on Windows and Mac OS X, including those from Adobe, Apple,



Prospect include CineForm's real-time video processing engine for Adobe Premiere Pro that delivers unmatched real-time, multi-stream editing performance on the Premiere Pro timeline that eliminates the need for rendering for most common functions including transitions, effects, titles, motion, etc., all performed without rendering. This results in a very efficient workflow, allowing you to spend time editing, not rendering. In fact, with the Aspect HD or Prospect HD/2K real-time software engine, you can play from 3 to 6 HD streams in real-time on the Premiere Pro timeline - simultaneously. CineForm's real-time video engine is software-based, so it scales fully with CPU performance and is never limited in functionality as is common with hardware-based architectures. Prospect HD/4K also include the CineForm QuickTime codec for Mac.

FEATURES

- "Normalize" myriad camera, tape, and file formats into CineForm AVI or MOV files as your new digital master
- Remove telecine (24p from 60i), de-interlacing, spatial resampling, plus many more preprocessing features
- ◆ Up to 4K spatial resolution, 12-bit precision, plus 4:2:2, 4:4:4:4, and Raw chroma formats
- Converted files are Windows and Mac compatible: Premiere Pro, After Effects, Vegas, Final Cut Pro, Motion, etc.
- ◆ Post-production is always "online" meaning you edit the CineForm master files – no proxy files or conforming
- ◆ CineForm files are visually equivalent to using uncompressed files but smaller.

Neo HDV (Mfr # N2040DL • B&H # CINHD)	219.95
Neo HD	CALL
Neo 4K	CALL
Aspect HD (Mfr # A1050 • B&H # CIAHDQ)	449 . 95
Prospect HD (Mfr # P3030 • B&H # CIPHDQ)	949.95
Prospect 4K	CALL

Cineform Workflow

Upon source acquisition, CineForm Intermediate or CineForm RAW files become the online digital master throughout a project – from acquisition, into long-term archive, through post, and into final export. This is possible because CineForm files offer the highest visual fidelity, easily holding up to the rigors of a multi-generation or effects-heavy workflow.

CineForm Intermediate files are source independent, allowing conversion of varying media, from SD to HD to 4K, with I/O precision up to 12 bits, and with 4:2:2 or 4:4:4 chroma. Variable frame-rate support, inverse telecine processing, plus spatial and temporal resampling are but a few of the optional source pre-processing options. CineForm files are compatible across operating systems and applications, offering the industry's most versatile and interoperable workflow, with support for both Windows .AVI and QuickTime .MOV wrappers.

Throughout post, CineForm's compressed DI workflow frees you from restrictions imposed by old-style proxy/conform methodologies in which many required elements can only be performed after a final conform. When using a CineForm workflow your media is always online, so you can color correct or composite at any point in your project, or deliver a high-resolution review copy or film festival export on demand. Keying CineForm Intermediate files is a breeze as color information is so accurately preserved that key results are virtually identical to using uncompressed sources.

To share files or portions of a project with a client or others, the CineForm decoder (Windows or Mac OS X) is easy to download and install directly from CineForm's website.

Upon project completion, the cross-platform compatibility of CineForm files makes it easy to export to virtually any desired presentation format, right from the timeline of your favorite NLE, whether for film or digital projection, broadcast, or Internet delivery. And because CineForm files are the Digital Master, your completed project and associated CineForm media are now ready for long-term project archive. Whether you are a seasoned film or television professional, or are taking your first step into HD, CineForm's software products are designed for your post production needs.



CINEFORM

NEO • ASPECT • PROSPECT

	NEO-HDV	NEO-HD	NEO-4K	Aspect HD	Prospect HD	Prospect 4K
Operating System	Windows	Windows Mac OS ¹	Windows Mac OS ¹	Windows	Windows Mac OS ¹	Windows Mac OS ¹
Max spatial resolution (capture/export)	1440	1920	Unrestricted	1440	1920	Unrestricted
I/O Precision	8-bit	10-bit	10- / 12-bit	8-bit	10-bit	10- / 12-bit
Chroma Format	YUV 4:2:2	YUV 4:2:2	YUV 4:2:2 RGB 4:4:4 RGBA 4:4:4:4	YUV 4:2:2	YUV 4:2:2	YUV 4:2:2 RGB 4:4:4 RGBA 4:4:4:4 RAW Bayer
CineForm RAW Encoding (Windows Only)	_	1	1	_	1	1
480i/p, 720p, 1080i/p	1	1	1	1	/	/
Decoder Resolution - Unrestricted	✓	1	✓	1	1	1
CineForm RAW Workflow	_	_	_	_	_	1
Active Metadata: WB, Color Matrix, 3D LUT ³	_	_	1	_	_	1
Acquisition sources:	_	_	_	1	/	1
- HDV including scene split	1	1	1	1	1	1
- DVCPRO HD MXF	1	1	1	1	/	1
- Sony XDCam HD / XDCam EX Conversion	1	1	1	1	1	1
- JVC TOD File Conversion	/	/	1	1	/	/
- HDMI (using Blackmagic Intensity)	1	1	1	1	1	1
- Single-Link HD-SDI (AJA or Blackmagic)	1	1	1	1	/	1
- Dual-Link HD-SDI	_	_	Not Yet Supported	Not Yet Supported	Not Yet Supported	Not Yet Supported
HDV/P2 camcorders - special mode support:	/	/	1	1	/	/
- Canon: i) 24p; ii) 24F / 25F / 30F	1	/	1	1	/	✓
- JVC: i) 24p/25p; ii) 50p/60p	/	/	/	1	/	/
- Panasonic: Variable Frame Rate	/	1	1	1	1	1
- Sony: i) 24p; ii) CineFrame	/	/	1	1	/	/
RedCine Export Compatible (CineForm 444)	_	_	1	_	_	_
Selectable Wrapper - AVI or MOV	/	/	1	1	/	/
AVI <> MOV Rewrapping	/	/	✓	1	/	1
Image Spatial Resampling	/	/	1	1	/	/
Telecine Removal (24p in 60i)	√	1	1	1	1	1
Image Flip (for 35mm adapters)	/	/	1	1	/	/
DPX <> CineForm Batch File Conversion ²	/	1	1	1	/	1
Slow Motion - Up To 2.5X	/	/	/	1	/	/
M2T File Export from Premiere Pro Timeline	_	_	_	1	/	1
Real-time Editing Engine for Adobe Premiere Pro	_	_	_	1	/	/
- Keyframeable Color adjustment	_	_	_	1	/	1
- Over 40 Parameter-Controllable Transitions	_	_	_	1	/	1
- Slow-motion and Frame Hold	_	_	_	1	1	1
- Static and Moving Titles and Video Overlays	_	_	_	1	/	1
- Pan/Scan/Rotate/Zoom (PSRZ).	_	_	_	1	/	1
32-bit Floating-point Effects Processing	_	_	_	_	1	/
Multiple Spatial Resolutions on Timeline	_	_	_	1	1	1
CineForm MOV Render Output	_	_	_	1	/	/
Batch Capture HDV with Timecode	_	_	_	1	/	1
Batch Capture HD-SDI with Timecode	_	_	_	_	1	/
HD-SDI Monitoring of Editing Timeline (AJA only) ⁴	_	_	_	_	/	/

 $^{1. \}textit{CineForm Mac OS codec only} \quad 2. \textit{Not yet shipping} \quad 3. \textit{Currently supported only in CineForm RAW}. \textit{Will be added for CineForm 444}$



^{4.} Monitoring using OEM Xena-2K is not yet supported, but it is on the list to complete

DIGIEFFECTS

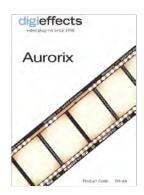
PLUG-INS

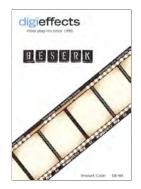
For Adobe After Effects, Premiere Pro, Apple Final Cut Pro and Autodesk Combustion

Aurorix

While After Effects users have demonstrated that the program is capable of creating almost anything, they are often limited by the source footage they have. Aurorix provides some interesting texture and pattern generation filters such as Soap Film and Strange Nebulae. Unique distortion filters such as Infinity Warp and Turbulent Flow can use existing footage to make original patterns as well. Aurorix also comes with tools for simulating lighting, including the 3D Lighting filter that can also add bump maps for an embossed look. Finally, Aurorix includes Aged Film, the filter for adding grain, hair, dust, and discoloration to footage, which eventually went on to spawn DigiEffects popular Cinelook.





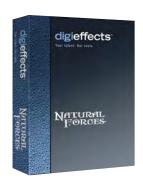


Beserk

Berserk is an awesome set of incredibly useful and creative After Effects tools. A pack of 20 award-winning special effects plug-ins, Beserk offers atmospheric effects including StarField and FogBank, distortions including Perspectron and Cyclowarp, and stylistic effects like VanGoughist and Night/Bloom. One of the 20 plug-ins is called Blizzard. Like its name, Blizzard uses a particle system to create a simulated snow storm. You can adjust the number of flakes, speed and size of the flakes, lilt amount, gravity and the opacity of the flakes. You can simulate light snow or full blizzards. By combining Blizzard with other filters, you can create interesting animated textures.

Natural Forces

The most potent power in the world is the power of nature. Water cuts canyons from solid rock, fog can cut visibility to mere feet, stars inspire, fire consumes. Natural Forces harnesses the power of nature for you to command. Snow, rain, fog, clouds, fire and electrical arcs are just a part of this collection of effects.



Natural Forces: Vapor

Natural Forces: Aqua

A collection of effects focused on various forms of weather and water effects including Rain, Puddle and Waterbeads.....CALL

Natural Forces: Astro

A collection of effects focused on space with Comet, Star Dust,
Star and more......

Sim

Simulate: Pyor
You guessed it. Muzzleflash, Laser, Fireworks, Inferno, Sparkler and
Voltage effects.......CALL

Simulate

Creating effects in-camera is a time-tested method of constructing illusion. However, there are occasions when limitations in time, budget (or pre-planning) prevent practical effects from being executed in the field. Simulate collection enable you to deal with everything from shot exposure to an aged film aesthetic to firearms discharge.



Simulate: Illuma

Light and filter options like Halo,
Lightracer Photogust and Luminus

Simulate: Camera (*Mfr # SIMULATECAMERA • B&H # DESIMULATECAMERA*)

Providing practical lighting and camera filter effects including Archive,
Overexposure, Iris, Destabilizer and Lens FlareCALL



DIGIEFFECTS

DAMAGE

Damage harnesses the destructive power of lame rabbit ears, bad BNC cables, tree branch-obstructed satellite dishes, poorly tracking VHS machines, scratched DVDs, low fidelity security cameras, micro-datarate cell phones...the list goes on. Damage contains four plugins:

Blockade: Blockade makes your clip look like it is highly compressed and being transmitted through a very bandwidth-limited pipe. Areas of subtle color subsample aliasing blocks blending with frame stuttering mimic low data rate rate video acquisition devices. Essential for simulating internet based micro cam display or personal video communication.

Artifact: Artifact simulates lost DCT blocks and frame dropping, most often seen when a digital video file suffers from corruption or a satellite feed is hampered by weather. If you've ever experienced these kinds of defects, you'll instantly recognize them. Make sure you warn clients and your house engineer that it's only an effect...

Skew: Uniquely analog/broadcast image badness like noise, image shearing, ghosts...

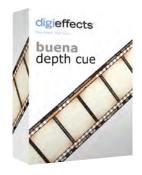
Interference: If it's television you want, traditionally you'll need some sort of interlaced field scanning to achieve that sense of "broadcast video." Interference

creates the look of interlaced video fields, even on progressive footage or still images, adding noise, colorization and offset separately for each field. Interference will make any footage superimposed on CRTs in your scenes instantly more credible.



DAMAGE: For Macintosh and Windows

Buena Depth Cue



Buena Depth Cue is a set of plug-ins that adds realistic depth effects to 3D layers. Each effect works on a 3D layer and changes based on the location of the layer, lights, and cameras in 3D space. *Included with Buena Depth Cue are seven plug-in effects including:*

3D Composite: Allows 2D footage with a depth channel, such as you might generate in Maya, 3D Studio Max, or other 3D applications, to interact with After Effects' 3D layers.

Depth: Displays the depth of each layer in grayscale for use as a gradient map with other plugins, or with other applications.

Falloff Lighting: Lights your layers realistically. Layers farther away from lights are illuminated less than those near lights.

Fog: Shrouds your layers in a light haze or a deep, murky mist. Objects farther away from the camera have more fog applied to them than objects close to the camera.

Rack Focus: Produces realistic depth of field effects and focus pulls, including simulating boke and anamorphic lens effects.

Camera Mapper: Turn 2D stills and footage into 3D scenes right in After Effects. It works by projecting parts of your 2D footage onto 3D solids in a composition, then rendering the composition from different angles.

Flipside: Maps one layer onto the back side of another layer. This allows you to flip the front layer over to reveal the back layer. It does this without creating any gap between the 2 layers, and without the occlusion problems that sometimes show up when trying to put 2 layers very close together in a composition.

Buena Depth Cue

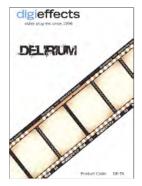
For Macintosh and Windows......CALL

Delirium

Delirium contains over 39 special effects plug-ins. It also contains tools for creating particle-based fire, smoke and bubbles. These particle effects enhanced with built-in turbulence processing to create realistic imagery without resorting to complex 3D programs. Many of the plug-ins AutoAnimate, meaning that many of the pluq-ins will begin to animate as soon as they are applied to an image, meaning you no longer have to tweak parameters to get quick results.

All plug-ins can save, load and modify presets. No need to navigate to find a preset - just click the pop-up! Each plug-in has several presets to get you started quickly. FireWorks creates amazing pyrotechnic displays automatically – it's an AutoAnimate plug-in. It can create spectacular spherical explosions complete with sparkly trails quickly and easily.

Delirium: For Macintosh and Windows.....



CALL



CONTOUR DESIGN

MULTIMEDIA CONTROLLER



ShuttlePRO

The ShuttlePRO is a powerful productivity enhancement tool for video and audio editors. It ships pre-configured for many leading video and audio applications and you can easily customize it for virtually any application. The ShuttlePRO is designed for ergonomic integrity and maximizing productivity, allowing onehand access to the fully programmable buttons and jog/shuttle knob.

- ◆ Nine of the buttons have removable keycaps for easy labeling and referencing.
- ◆ The inner ring or 'jog' rotates through 360° and provides precise frame-byframe control.
- ◆ The outer black ring or 'shuttle' is rubberized and spring-loaded; it facilitates fast forward and rewind.
- ◆ You can also use the jog and shuttle for many other purposes such as scrolling, volume control, and sequencing.

ShuttleXpress

Modeled after the award-winning ShuttlePRO, the ShuttleXpress brings professional multimedia control to users at an even more attractive price. It can be used by



itself or along with a ShuttlePRO for multiple device control. The ShuttleXpress is a 5-button jog and shuttle multimedia control surface. Comes pre-configured or can be customized for virtually any application.

- ◆ Designed for ergonomic integrity and maximizing productivity, allowing one-hand access to the five fully programmable buttons and jog/shuttle knob.
- ◆ The inner ring or 'jog' rotates through 360° and provides precise frame-by-frame control.
- The outer black ring or 'shuttle' is rubberized and spring-loaded; it facilitates fast forward and rewind.
- ◆ You can also use the jog and shuttle for many other purposes such as scrolling, volume control, and sequencing.

ShuttleXpress (Mfr # SXPRS · B&H # COSX)......49.95

FOCUS ENHANCEMENTS

HD FILE CONVERTER PRO

Panasonic P2 cameras and decks capture DVCPRO HD, DVCPRO 50 and DVCPRO/DV video and audio in the industry-standard P2 Material Exchange Format (MXF). With HD File Converter Pro, you can convert HD and SD P2 MXF files to or from the most popular DVCPRO HD, DVCPRO 50 and DVCPRO/DV-based video and NLE file formats. HD File Converter Pro sports an intuitive drag-and-drop interface that makes multi-format digital video file conversion remarkably fast and easy.

Por Product image Converter Product image

- ◆ Convert to and from DVCPRO HD, DVCPRO 50 and DVCPRO/DV formats
- In DVCPRO HD mode, convert to/from P2 MXF, QuickTime, AVI and RawDV
- In DVCPRO 50 mode, convert to/from P2 MXF, QuickTime, AVI and RawDV
- In DVCPRO/DV mode, convert to/from P2 MXF, Avid OMF, QuickTime, RawDV, AVI Type 2, Matrox AVI, Canopus, and more
- ◆ Create XML metadata files for DIF files
- ◆ Generate the P2 MXF directory structure and thumbnails
- ◆ Insert or extract embedded audio
- ◆ Combine several video files to create one large clip (spanning clips support)
- ◆ Take advantage of auto conversion and FTP transfer

HD File Converter Pro (Mfr # ASYF1279-01 • B&H # FOHDFCP)

298.95

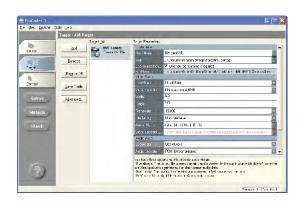


GRASS VALLEY

ProCoder 3

Ultimate Format Converter

ProCoder 3 software combines speed and flexibility into a streamlined video conversion tool. Widely acknowledged as the leading software transcoder, it features extensive input/output options, advanced filtering, batch processing, and an easy-to-use interface. Whether encoding MPEG video for DVD production, producing Window Media for streaming or transcoding between NTSC and PAL, ProCoder 3 makes video format conversion quick and easy. With it you can encode a single source to multiple targets simultaneously, run multiple conversion jobs back-to-back in batch mode, or use



drag-and-drop preset icons to start conversion with a single click. ProCoder 3 has an array of high-performance features, including a design that efficiently leverages CPU power, broad codec support, local and networked use capabilities to fit your workflow, and queue management to ensure your jobs are performed in just the right order.

FEATURES

- Professional high-speed, high-quality encoding and conversion of video to all popular formats including MPEG-1, MPEG-2, Windows Media, QuickTime, and more.
- ◆ Grid encoding for MPEG-2 (transport stream, program stream).
- ◆ Support for multiple CPUs within one PC (including quad core).
- ◆ Stitching of multiple source files to create single file.
- Multiple color-space support including YUV and RGB.
- Aspect-ratio and NTSC/PAL conversion, frame-rate interpolation, and automatic adaptive de-interlacing.
- ◆ 3:2 pull-down and inverse telecine.
- ◆ Multi-pass VBR processing.
- ◆ Full HD support for MPEG and Windows Media
- ◆ VOB file and DVD-video image creation with chapter points.
- ◆ Save droplets for quick, drag-and-drop conversion.
- Separate audio import/export options including multiplexing and audio mapping.
- ◆ Export plug-in for EDIUS and Adobe Premiere Pro applications that provides extensive timeline export capabilities including DVDvideo image export options.

Speed Without Limits

Using Canopus scalable-technology architecture, ProCoder 3 leverages the full power of your CPU, including quad-core machines. The more powerful your system, the faster the software's conversion speed. In many cases, it can transcode files faster than real time, outperforming many costly hardware encoders.

Any Format In/Out

- ◆ ProCoder 3 software includes conversion options for many popular video codecs out of the box to support encoding needs ranging from mobile/handheld to high-definition (HD) formats. These codecs include the high-quality, high-speed, Canopus DV and Canopus HQ models as well as H.264 and MPEG-2 encoders. It also supports codecs already installed on your system.
- ◆ The ProCoder 3 software also imports still images for animation-sequence encoding and imports external audio files for music and narration, or for multiplexing with elementary video streams for output.

Local/Networked Watch Folders

◆ You can configure ProCoder 3 software to automatically encode any video file copied to a designated watch folder. You can also assign specific encoding parameters to the desired watch folder and place it on a network so that anyone, including editors on Macintosh operating system-based platforms, can encode video.

Queue Management

The queue manager within the ProCoder 3 lets you manage multiple transcoding jobs easily, letting you keep track of which jobs are being encoded, and pause, remove, or restart jobs as needed. The queue manager also provides information on each job's progress, as well as warnings or error messages if they occur.



ProCoder 3 Encoding Software for Windows

(Mfr # 606195 • B&H # GRPC3) ..

...449.95



GRASS VALLEY

EDIUS NEO



Affordable Non-Linear Editing

Begin your journey into the world of standard definition (SD) and high definition (HD) video editing with Grass Valley's EDIUS Neo. Featuring a basic, entry-level range of tools and features, the EDIUS Neo software is perfect for those new to video editing. Yet it also provides powerful nonlinear editing

features common to all GV EDIUS solutions, such as real-time, multi-track, mixed-format HD/SD editing, chroma keying, titling, and DVD authoring.
Built on the same highly-acclaimed technology as the EDIUS Pro application,



EDIUS Neo software offers native editing of various formats including AVCHD, HDV, DV, Windows Media, and QuickTime—

and provides a seamless, real-time workflow that supports the mixing of all formats within the same timeline. And should you need to extend your editing capabilities, you can upgrade to the EDIUS Pro application at any time.

FEATURES

- Realtime, mixed format HD/SD editing, including DV, HDV, AVCHD, MPEG-2, Windows Media and QuickTime video
- ◆ Fast, flexible user interface, including unlimited video, audio, title and graphics tracks
- ◆ Realtime editing and conversion of different HD/SD aspect ratios, such as 16:9 and 4:3.
- ◆ Realtime editing and conversion of different frame rates, such as 60i, 50i and 24p.
- ◆ Realtime editing and conversion of different resolutions, such as 1440 x 1080, 1280 x 720 and 720 x 480.
- ◆ Realtime HD/SD effects, keyers, transitions and titles.
- ◆ Realtime, render-free DV output directly from the timeline.
- ◆ Nested timeline sequences.
- ◆ High-speed HDV timeline export, built for Dual Core CPU technology.
- ◆ Segment encoding (smart rendering) export for MPEG and HDV.
- ◆ Direct-to-DVD timeline export with menus.
- ◆ Quick Titler software, for realtime titling including rolls and crawls.
- Requires no special hardware to work—it can run on a laptop as well as a workstation system, and can input/output video from any OHCI FireWire-compatible hardware.

Exceptional Mixed-Format Editing

Featuring unrivaled realtime video transcoding technology, EDIUS Neo performs realtime conversion between different HD and SD resolutions, aspect ratios and frame rates. Edit 1080i on a 4:3 SD timeline, use NTSC together with PAL or combine them all into a 720/24p project without wasting a single moment on conversion or rendering. EDIUS Neo also features realtime playback and DV output of all effects, keyers, transitions and titles.

Unsurpassed Image Quality and Performance

EDIUS Neo features the revolutionary Canopus HQ Codec. Designed with Scalable Technology, this innovative codec offers the highest image quality and performance available. It provides superior Luma and Chroma sampling of HD video, plus offers adjustable bitrate for increased video quality when capturing and encoding on high-performance systems.



EDIUS Neo XL

For those who need analog I/O support, the EDIUS Neo XL package includes the Neo software and a ACEDVio board. Featuring an OHCI-based design, and legendary ADVC analog/DV conversion technology, the ACEDVio board is equipped with high-quality analog and digital inputs/outputs for DV, composite, S-Video and unbalanced audio. It allows you to connect to DV, HDV and AVCHD camcorders.

Because the ACEDVio board doesn't require any additional

software or hardware drivers, installation is a breeze. As an extra bonus, its platform-free design also makes it possible for you to use the hardware with any other separate program that features IEEE 1394 FireWire support, in addition to working hand-in-hand with EDIUS Neo.



GRASS VALLEY

EDIUS Pro • EDIUS BROADCAST

Editing Software for DV, HDV and HD

Whether you are working with standard definition or high definition video, EDIUS Pro frees you from the limitations of conventional editing systems. Providing a seamless realtime workflow supporting all video acquisition formats, including all DV and HDV cameras and decks, EDIUS Pro features realtime, multi-track, mixed format HD/SD editing (HD, HDV, DV, MPEG-2, lossless and uncompressed SD video), compositing, chroma keying, titling and timeline output capabilities. EDIUS Pro can edit DV content in HD resolutions, providing automatic, realtime upscale conversion from SD to HD video, and all project titles, graphics





and effects are applied in HD resolution. Ensuring a painless transition to the world of HD, editors can edit and output HDV content to hard disks or DVD-R drives without requiring an HDV camera or deck. A highly flexible craft editing solution that delivers maximum productivity to video professionals, EDIUS Pro offers advanced features such as multicam support, nested sequence editing, improved trimming tools, alpha-channel support in the HQ codec, and keyframe support for color correction. Otherwise the same, EDIUS Broadcast provides support for higher-end video equipment and formats such as Panasonic DVCPRO 50, DVCPRO HD, DVCPRO P2, AVC-Intra*, VariCam, and Sony XDCAM. (EDIUS Pro is upgradeable to EDIUS Broadcast).

FEATURES

Edit Mixed Formats in Realtime

Seamlessly edit, in realtime, any mix of HD, HDV, DV, uncompressed SD and MPEG-2 video, maintaining the full native format, resolution and color space quality of all video clips. The EDIUS engine is resolution and frame-rate independent, ensuring support of future video codecs and formats. Whether its native 720/24p HDV, 1080/30p, QuickTime H.264, or standard definition NTSC/PAL DV or AVI footage, productivity gains from realtime mixed format editing are immense as there is no time-consuming format pre-conversion or preparation required prior to editing.

They provide support for Windows Media and include EDIUS Speed Encoder for HDV for fast HDV video output. The parameter-based keyframe support for frame-by-frame color correction gives users the tools to quickly enhance the quality of their video productions.

Nested Timeline Sequences

Nested Sequences expands exponentially the realtime editing power and exceptional responsiveness of EDIUS Pro. Create projects within projects, complete with all of the realtime effects, keyers, transitions and titling features already available in EDIUS Pro. Combine your sequences together for the final edit. Sequences can be handled like standard clips on the timeline, allowing you to apply any number of filters and effects. Support for nested timeline editing lets users work on sections of a production as separate timelines and nest them into a master project for simplified editing, task separation and organization. Nested Sequences combined with EDIUS Pro's realtime multi-format, multi-frame rate editing capabilities gives you limitless editing potential.

Multi-Format Support

EDIUS Pro provides capture, edit, and export support for Sony 1080/24p, 1080/25p, and 1080/30p and JVC 720/60p and 720/50p HDV formats. EDIUS Broadcast adds support for higher end Panasonic DVCPRO and Sony XDCAM formats. Both programs can also import AVCHD MPEG-4 material, which you can either edit natively or convert to HQ format for increased realtime productivity. Import and export Advanced Authoring Format (AAF) files from Pro Tools and After Effects, and various forms of Edit Decision List (EDL) files from other packages. Seamlessly edit and combine native Windows Media footage, including WMVHD, with any other supported format, without rendering or pre-processing footage.

Multicam Editing Mode

Multicam feature supports up to eight cameras and provides realtime monitor preview, as well as a master channel preview that displays all eight camera angles. Users have the feel of a live switcher, but with the flexibility of a nonlinear editing environment. Edit a sequence using up to eight different sources and view them simultaneously. Switching between cameras is as easy as



pressing the number keys on your keyboard. When editing is finished, keep all the footage on the timeline with original tracks intact, including the unused sections, or automatically condense the timeline into a single track, retaining only the trimmed clips.



GRASS VALLEY

EDIUS Pro • EDIUS BROADCAST

User Interface



- ◆ Interface features advanced bin window media management with "watch" folder clip import, media searching tools, productive yet simple mouse gestures for clip trimming, scrubbing and playback, and a realtime Vectorscope and Waveform monitor for detailed analysis of footage while capturing and editing.
- ◆ Customize the appearance and functions of the user interface. Features include a floating window design with adjustable preset positions, options to add and remove function buttons within each window, and a keyboard shortcut mapping utility that allows users to change virtually any keyboard commands to suit their workflow.
- ◆ Features the traditional "File, Edit, View..." menu system. However, you can reposition the various application panels easier than ever.
- ◆ Can display all video and audio effects as visually recognizable icons; effectively making them behave in much the same way as would any media clip within the Bin.
- ♦ Change the color of the interface, zoom into the Waveform and Vectorscope displays and add 4:3 or 14:9 safe area markers when editing 16:9 projects.
- ◆ User Profiles can be created and imported at any time, and you can export and import customized project settings). This allows you to take customized interface and application settings with you when jumping from EDIUS system to EDIUS system. Save out and import:
 - Window layouts
 - Application settings, including timeline and render settings
 - Customizable settings, such as GUI buttons and keyboard shortcuts
 - Plug-in settings
- ◆ Time Remap feature lets you set multiple, keyframed speed adjustments to a clip, without affecting its duration on the timeline. Via Time Remap, speed up and then slow down a clip's playback, and then speed it up again—all in realtime, with perfectly smooth results.
- ◆ Timeline trimming functions can be performed within a specialized view in the Monitor window. With a refined set of keyboard shortcuts and GUI buttons, you can easily perform ripple, slip, slide, and rolling edits with precision.



Realtime Effects and Titles in HD and SD

EDIUS Pro or EDIUS Broadcast empower editors with an array of realtime filters, keyers and transitions to refine and enhance video projects, without the need for rendering. Realtime effects, filters and keyers within EDIUS Pro can be stacked and used in any combination to provide unrestricted creativity. Video and audio effects may be customized and saved as presets for use in future projects. They features 28 different realtime video filters to style, enhance or correct any video project. Each filter offers simple yet powerful adjustment controls to further refine an effect.

- ◆ Includes realtime keying effects, such as Chromakey for compositing. With realtime, multi-track editing power and intelligent keying controls, any sequences that feature Chromakey, Lumakey or Picturein-Picture effects, can be previewed and output instantly. They provide 16 layer blending keyers for high-quality compositing of video layers, based on different image properties. Blend keyers include Color Burn, Difference, Exclusion and Soft Light.
- ◆ They include Xplode for EDIUS and EDIUS FX, advanced 2D and 3D video effect engines. These transition effects incorporate proprietary Canopus Effects Technology and provide the power to create stunning and professional quality video transitions. With over 40 transition groups to choose from, each with customizable options, controls and numerous presets, Xplode for EDIUS and EDIUS FX provide sophisticated power for the demanding video editor.
- ◆ Bundled Quick Titler is a basic character generator and titling program that allows editors to quickly create titles in HD or SD resolution. Features preset text styles and artwork objects for fast title creation, in addition to providing the tools and options for creating customized titles and objects, all of which can be aligned and positioned with absolute precision. Quick Titler also supports text file importing and titles can be set with either a static, roll or crawl animation preset, resulting in effortless creation of project credits.
- ◆ Include Inscriber TitleMotion Pro for EDIUS, a specially-optimized, full version of the popular broadcast titling package, which provides editors with tools to create high-quality titles with realtime preview and playback during composition in either SD or HD. Featuring keyframed animation capabilities within both 2D and 3D spaces, TitleMotion Pro can produce polished, broadcast titles within minutes. TitleMotion Pro titles can be created and stored within the Bin window, or created directly from the editing timeline.
- ♦ In addition to the included audio filters, they can use third-party audio effects that make use of the Virtual Studio Technology (VST) interface standard. This allows any number of additional realtime audio effects to plug into EDIUS Pro/Broadcast for more sophisticated audio editing.
- ◆ The HQ codec has been enhanced, upporting alpha channel information within the video data. This means that you can avoid using storage-consuming formats such as uncompressed HD or still image sequences when compositing and layering video.
- ◆ All color correction filters feature keyframe controls for every property within each filter. In addition, genuine keyframe curve manipulation has been added to provide the highest level of precision.
- ◆ Alpha Channel support means that you can avoid using storageconsuming formats such as uncompressed HD or still image sequences when compositing and layering video.



GRASS VALLEY

EDIUS Pro • EDIUS Broadcast

Audio

- ♦ If you need to work with individual audio channels, whether two, four or eight, EDIUS Pro can automatically map individual channels to appropriate audio tracks within the timeline, complete with a separate waveform display for each channel.
- ◆ Panning controls have also been enhanced, with logical left and right panning defaults.
- ◆ AC-3 audio decoding and encoding enables clips that feature Dolby Digital audio to be imported to the timeline. This is a particularly useful feature for importing DVD-based material, and for exporting DVD-compatible streams with smaller audio file sizes.
- Using the PCM WAVE exporter option creates files with BWF TimeReference metadata, compatible with any third-party applications that support BWF audio files.

Output

- ◆ Upon completion of a project, export to all widely used file formats and mediums, such as MPEG-2, DV, and HDV. To assist in choosing the right options for your delivery format, you can also export your timeline with ProCoder Express for EDIUS. Built with the same high-speed, high-quality encoding and media technology found in Grass Valley ProCoder 3, ProCoder Express features an easy-to-use Wizard interface, guiding you every step of the way to export to Quick-Time, Real Video, Windows Media, and more.
- Use the Batch Export feature to not only queue up export jobs for multiple sequences within your project, but you can also assign multiple target formats for your project.
 Once set, you can leave EDIUS to encode away, one file at a time.
- ◆ Bundled DVD Creator is a basic DVD authoring package for quickly putting together simple DVD titles with static menus based off the artwork included in the style gallery. DVD Creator can either use the material on the current EDIUS Pro timeline, or import a pre-encoded MPEG-2 stream.
- ◆ Create DVD titles with simple menus and chapter navigation, using built-in menu button and background artwork. The 'Print to DVD' function offers a choice of constant or variable bitrate video encoding, and Dolby Digital AC-3, PCM Wave or MPEG Layer II audio encoding.

Additional Features

- ◆ Segment Encoding ('Smart Rendering') supports standard definition (480i, 576i) and 1080i MPEG-2 content. Reduces the time taken to export projects to the same format and bitrate, by simply encoding the edited and modified sections of any source MPEG-2 clips that match the target MPEG-2 format (e.g. frame rate, resolution, bitrate).
- ◆ EDIUS Speed Encoder for HDV boosts the speed of HDV MPEG-2 export, by not only taking advantage of dual CPU system configurations, but also of the Dual Core processor technology featured with Intel and AMD CPUs. This optimization dramatically reduces the time needed to encode native HDV MPEG-2 transport streams from the EDIUS Pro timeline.
- ◆ Exporting your finished projects gets a boost with EDIUS Pro or Broadcast. You can now use the Batch Export feature to not only queue up export jobs for multiple sequences within your project, but you can also assign multiple target formats for your project. Once set, you can leave EDIUS to encode away, one file at a time.
- ◆ Create your own custom export targets based off the inbuilt exporters included with EDIUS. This means that you can have an exporter specifically create for a certain type of medium you want to deliver your work out on, and reuse that specialized exporter again in the future.

EDIUS NX Express 5.25" Bay: Sleek, black, 5.25-inch breakout panel provides front-mounted connectors for 4-pin FireWire, composite, S-Video and unbalanced stereo RCA audio. Includes all cables for connecting the bay to the EDIUS NX Express board. (Mfr # 630060 • B&H # GREDIUSNB)149.95

EDIUS Broadcast Video Editing Software (Mfr # 616255 • B&H # GREDIUS4B)......899.95

EDIUS SP Breakout Box: With a solid, 1U 19" rackmount design, the EDIUS SP Breakout Box option is a tidy and convenient solution for connecting the many different analog and digital video devices that EDIUS SP supports.

Class on Demand: Complete Training for Edius 4.5



INTEL

CORE 2 QUAD

Next-Generation Processor

The Intel Core 2 Quad processor is the latest in cuttinge-edge processor technology for the desktop PC. Based on Intel Core microarchitecture, the Intel Core 2 Quad processor delivers four complete execution cores within a single processor, delivering unprecedented performance and responsiveness in multi-threaded and multi-tasking applications. More instructions can be carried out per clock cycle, shorter and wider pipelines execute commands more quickly, and improved bus lanes move data throughout the system faster. This quad-core processor represents Intel's continued leadership and drive of multi-core processing and more parallel computing.



Built on Intel's 45nm manufacturing technology, the processor uses hafnium-

infused Hi-k transistors, enabling even more processor performance by doubling the transistor density, improving efficiency and speed relative to the previous generation, and increasing cache size by up to 50 percent.

The Intel Core 2 Quad processor is at the center of today's most interactive and content-rich software experiences. Whether it's encoding, rendering, editing, or streaming, make the most of your professional-grade multimedia applications with a PC powered by the Intel Core 2 Quad processor. With four processing cores and up to 12MB of shared L2 cache and up to 1333 MHz Front Side Bus, it brings a multimedia powerhouse to your house.

FEATURES

- ◆ Quad-Core processor provides four complete execution cores in a single processor with up to 12 MB of L2 cache and up to a 1333 MHz Front Side Bus. Four dedicated, physical threads help operating systems and applications deliver additional performance, so users experience better multi-tasking and multi-threaded performance across many types of applications and work loads. Each of the four execution cores can complete up to four full instructions simultaneously.
- ◆ Smart Memory Access optimizes the use of the data bandwidth from the memory subsystem to accelerate out-of-order execution. A newly designed prediction mechanism reduces the time in-flight instructions have to wait for data. Pre-fetch algorithms move data from system memory into fast L2 cache in advance of execution. These functions keep the pipeline full, improving throughput and performance.
- ◆ Intel® Advanced Digital Media Boost accelerates the execution of Streaming SIMD Extension (SSE) instructions to significantly improve the Media Boost performance on a broad range of applications, including video, audio, and image processing, and multimedia, encryption, engineering, and scientific applications. SSE4-optimized applications, such as video editing and encoding in high-definition resolution, will see additional performance improvements.

- ◆ Intel 64 Architecture alows the processor to access larger amounts of memory. With appropriate 64-bit hardware and software, platforms based on an Intel processor supporting Intel 64 architecture can allow the use of extended virtual and physical memory.
- ◆ Advanced Smart Cache provides shared level 2 cache across each pair of cores that can be dynamically allocated to each processor core, within the pair, based on workload. This efficient implementation increases the probability that each core within the pair can access data from fast L2 cache, significantly reducing latency to frequently used data and improving performance.
- ◆ Execute Disable Bit provides extended virus defense when deployed with a supported operating system. Memory can be marked as executable or non-executable, allowing the processor to raise an error to the operating system if malicious code attempts to run in non-executable memory. This can prevent the code from infecting the system.
- ◆ Digital Thermal Sensor (DTS) provides more efficient processor and platform thermal control improving system acoustics. The DTS continuously measures the temperature at each processing core. The ability to continuously measure and detect variations in processor temperature enables system fans to spin only as fast as needed to cool the system.

Ouad-Core Intel Xeon Processor 5300 Series

Maximize performance/density and performance/watt with the the highest performance available for 2-way servers running high performing infrastructure applications.

Ouad-Core Intel Xeon Processor 7300 Series

Maximize performance, scalability and reliability available for datademanding applications while offering the headroom and peak-load responsiveness for large virtualization and server consolidation.



PROFESSIONAL SERVICES FROM THE PROFESSIONAL SOURCE

- Non-linear Editing Systems
- Digital Audio Workstations
- Media Management Servers
- Compositing and Animation Systems



Turnkey Systems

With a 15-year track record of building Professional Turnkey Systems, The 8&H Research & Development team utilizes a trial-anderror diagnostic process. following a strict code of quality which minimizes the potential need for onsite troubleshooting.

Sales Consultation

Our Sales Associates are experts in their fields and are well-versed in all the latest technologies. With manyyears of professional experience and rigorous vendor training, you can rest assured that you are getting the best solution. tailored to your specific needs.

On-Site Installation

Our in-house team of installers and consultants design, spec, and install professional solutions for your studio location. From basic system setups to video server fibre channel arrays, B&H now offers everything professionals seek in a streamlined solution.

Service & Support

As an Authorized Service Center. The B&H Engineering staff goes through exslive vendor training and offers you expert knowledge and experience. B&H offers unparalleled support with complimentary 1-year Phone, Remote Access, and In-house Repair services for every Turnkey system.





JL COOPER

CS-3000 SERIES



Media Command Stations

perfection, using tactile controllers from the A/V industry's most widely used control surface technology.

MCS-3000 Series products are the pinnacle of JL Cooper's control station product line. The MCS-3800 and other Media Command Stations are in daily use with systems from Apple, AVID, BitCentral, Doremi Labs, Digidesign, DVS, Enco, Grass Valley, Leitch, IBIS, IFX, Harris, Inscriber, IRIDAS, MOTU, Merging Technologies, Panasonic, Roland, Steinberg, Yamaha and many others. Media Command Stations provide tactile control of popular computer-based workstations for audio/video production, post production, color correction, broadcast automation and other applications. Edit and refine your work to

FEATURES

- ◆ MCS-3000 stations are designed with a modular approach. This lets you customize the control surface for your specific needs. No other control product offers the advanced flexibility and proven reliability.
- ◆ Add tactile controls to digital audio and video workstations. The stations feature touch-sensitive motorized faders, programmable function keys, innovative, dynamically-relegendable LCD keys, back lit LCD displays, VF displays, rotary encoders, professional transport controls and full size numeric keypads.
- ◆ They advance the state of modular, control for non-linear audio and video editing systems. They expand to offer as many as 64 moving faders. Models include JLCooper's custom, optically-encoded, concentric jog wheel with shuttle ring. The SP jog/shuttle mechanism on the MCS-Transport SP) offers a more traditional feel for video applications.
- ◆ Interfacing options including Ethernet, USB, RS-422, Quad RS-422, RS-232, MIDI and GPI.
- ◆ Stations are solid, professionally crafted controllers beautifully sculpted with an optional simulated stone (granite) trim and wrist rest ('W' models include contoured simulated granite wrist rest).
- ◆ Provide access to on–screen mixing and DSP functions.
- ◆ Software lets you add additional controls to most applications.
- ◆ Low profile and compact design with heavy duty construction.
- ◆ Combine units to form a custom configuration for specific requirements and budget.

MCS-3800

The MCS-3800 is an eight fader main console with a full complement of necessary controls. It features touch-sensitive motorized faders, 60 function keys, full-size numeric keypad, professional transport controls, LCD and LED displays. Includes built in MIDI I/O and two card slots for optional interface cards. It serves as a hub for an expanded system with a wide variety of optional accessories. Customize by adding MCS-3000x, MCS-Panner and MCS-Bridge and other options.

MCS-3800 Media Command Station (Mfr # MCS-3800 • B&H # JLMCS3800) MCS-3800W Media Command Station with Wrist Rest (Mfr # MCS-3800W · B&H # JLMCS3800W)3655.95

MCS-3400

The MCS-3400 is a smaller main console for applications where space is at a premium or fewer than eight faders are required. It features four touch-sensitive, motorized faders and it's smaller size makes it the ideal addition to personal editing suites. Includes built in MIDI I/O and two card slots for optional interface cards. It may be fully expanded with a variety of options and it can be used with a many computer-based editing systems. It is otherwise identical to the MCS-3800.

MCS-3400 Media Command Station (Mfr # MCS-3400 • B&H # JLMCS3400)2624.95 MCS-3400W Media Command Station with Wrist Rest (Mfr # MCS-3400W • B&H # JLMCS3400W)3093.50

MCS-3000

The MCS-3000 is a smaller main console for applications where space is at a premium or no faders are required. It is a low profile, compact design, with professional controls and quality construction. Supports the MCS-3000x and MCS-3000XL 8 channel fader expanders and other expansion options. Has built in MIDI I/O and two card slots for optional interface cards.

MCS-3000 Media Command Station (Mfr # MCS-3000 • B&H # JLMCS3000) MCS-3000W Media Command Station with Wrist Rest (Mfr # MCS-3000W · B&H # JLMCS3000W)2624.95

Expansion Options for the MCS-3800, MCS-3400 and MCS-3000

53 <i>000X)</i> 1964.	MCS-3000X: 8-channel fader expander (Mfr # MCS-3000X • B&H # JLN
nel labels, color coded track	MCS-3000 XL: Same as above, plus the potential to display cha
XL • B&H # JLMCS3000XL) 2799.	arming status and other mission critical information (Mfr # MCS30
# JLMCSP) 1218.	MCS Panner: Three Axis Joystick Controller (Mfr # MCS-PANNER • B&
H # JLMCSBRIDGE) 937.	MCS Bridge: Channel Display and Pan Option (Mfr # MCS-BRIDGE •
937.	MCS Wiper: Transition Controller (Mfr # MCS-WIPER • B&H # II MCSW)



JL COOPER

MCS3- MEDIA CONTROL STATION³ABC

Professional Remote Control for VCRs, MIDI, Audio, Video and Multimedia Software

Media Control Station3 features professional transport buttons for Record, Play, Stop, FF and REW. It has 18 physical buttons for a variety of editing functions and the V/Stick Navigation Control. A precision, optically encoded jog wheel with a concentric shuttle ring lets you control audio or video effortlessly and with frame accuracy. Available in a number of different versions, MCS3 features a balanced, optical jog wheel with shuttle ring and RTZ and shuttle back at play speed. It provides remote transport control, permits remote track arming, and is made of durable all metal construction.

JLCooper controllers let you work faster. They provide the ease-of-use and tactile elegance that's missing from "software only" user interfaces.

Professionals can depend on JLCooper control products to provide reliable service that far outlasts plastic alternatives.

MCS³ USB

Controls all Mac and Windows Applications

Working with virtually any software program, Media Control Station³ USB version features professional transport buttons, a precision optically encoded jog wheel with a concentric shuttle ring and 18 function keys. Supports Mac OS9 & OSX, Windows 98, 2000, Me, XP and Vista. Lets you use and customize supplied keysets for advanced control of applications including Final Cut Pro, iMovie, Premiere Pro, Pro Tools, Nuendo, DP5, Vegas Video, Virtual VTR and others.

MCS³ RS-232

Controls Windows Applications

Media Control Station³ RS-232 features professional transport buttons, a precision optically encoded jog wheel with a concentric shuttle ring and 18 function keys. Supplied software is compatible with Windows 98, 2000, NT, Me, XP and Vista, and can be used with any editing software program. MCS³ works with Premiere Pro, Cakewalk Pro, MPEG Edit Studio and other systems.

MCS³ MIDI/MMC

Controls Audio Hard Disk Recorders

Media Control Station³ MIDI/MMC version sends MIDI Machine Control messages for controlling compatible hard disk recorders and computer based editing systems. Use it with recorders from Alesis, Akai, Mackie, Roland, Tascam and others. It can be coupled with FaderMaster Pro, FM 4/100 or MCS-ProTracker to form a compact custom console.

MCS³ RS-422

With JLCooper Jog/Shuttle Mechanism

Media Control Station³9-Pin version features professional transport buttons, a precision optically encoded jog wheel with a concentric shuttle ring and 18 function keys. It's a 9-Pin/P2 compatible universal VTRor DDR jog/shuttle remote with Sony BVU 800/900 emulation. It couples to MCS-Locator to as a full function controller, capable of controlling up to 4 professional video decks.

MCS³ SP RS-422

With VTR Style Jog/Shuttle Mechanism

Features the familiar push-push jog/shuttle controller. Push wheel once for Jog mode. Push wheel again for shuttle mode. In shuttle mode, it features a detent "click" when stopped. Controls AVID Symphony Nitris, Grass Valley Edius, professional P2 compatible VTRs and hard-disk based VTR emulators. Couples to MCS-Locator as a full function controller, capable of controlling up to 4 professional VTR's.

MCS³ SP USB

With VTR Style Jog/Shuttle Mechanism

Media Control Station3 SP USB features professional transport buttons, a VTR Style Jog/Shuttle Mechanism and 18 function keys. MCS3 SP USB is the first Mac compatible USB controller with VTR style Jog/Shuttle and the best way for classic video editors to work with a familiar jog wheel on the Mac. Supplied software lets you use and customize keysets for advanced control of Quicktime compatible applications including Final Cut Pro, Pro Tools, DP5, Virtual VTR and others.



MATROX

RT.X2



Professional Realtime HD Editing for Adobe CS3

Ideal for corporate communicators, event videographers, project studios, educational facilities and digital filmmakers, the RT.X2LE allows users to get maximum productivity from Adobe Premiere Pro CS3 and CS3 Production Premium. The RT.X2 LE is a ¾-length PCle card with a professional breakout box, that lets you edit HDV or P2 MXF 720p and output HD. Plus, you can capture other HD and SD formats over the analog inputs, and mix all types of footage on an HD or SD timeline in real time.

RT.X2 LE goes far beyond the capabilities of systems that combine Premiere Pro CS3 and a simple I/O card. The RT.X2 hardware provides

accelerated editing of full-quality, full-frame-rate video, export to DVD, Blu-ray, QuickTime, Adobe Flash and other formats, and extra productivity with WYSIWYG graphics and realtime downscaling of HD projects for SD delivery.

Otherwise the same, the full-version RT.X2 provides full-resolution HD monitoring on an inexpensive flat panel display via its independent DVI output. In fact, the RT.X2 provides better HD video definition, with pixel-to-pixel mapping on a flat panel (1920 x 1200), than you will get on expensive professional HD monitors which re typically limited to approximately 800 lines of resolution. And for those working exclusively in SD (Standard Definition), the RT.X2 SD is available.

FEATURES

Realtime Multi-Layer HD/SD Workflows

- ◆ Designed primarily for realtime native HDV, DV, and Panasonic P2 720p and SD editing, the RT.X2/LE also provides a high-quality MPEG-2 4:2:2 I-frame codec so you can capture other HD and SD formats over the analog inputs, and mix all footage on an HD or SD timeline in real time.
- ◆ Extensive support for a wide range of analog, DV, HDV, and P2 cameras including: JVC GY-HD110, GY-HD200 and GY-HD250, Sony HVR-A1, HVR-Z1, HVR-V1, PDW-F330, Panasonic HVX-200, HDX-900, HD-C27H, HPX2000, Canon XH-A1, XH-G1, XL-H1.

Highest Quality Realtime Effects

Provides performance- and quality-optimized effects processing. Built on Matrox Power of X and Flex technologies, the RT.X2/LE leverages CPU and GPU power to provide a tightly integrated, high performance editing environment for Adobe Premiere Pro. RT.X2/LE's broadcast quality effects are fully keyframeable and feature a high level of control for detailed work. Each effect has a series of parameters that can be fine tuned to get just the look you want. To save time you can use the preconfigured effects presets or create and save your own presets.

Most Realtime Video/Graphics Layers

RT.X2/LE doesn't compromise quality or effects refinement to increase the number of layers—it always deliver maximum realtime quality. Timelines with more layers and/or effects than can be processed in realtime can benefit from hardware-accelerated previews. The RT.X2 always play back the timeline at the best possible quality and if necessary, gracefully reduce the frame rate. You get in-context feedback as you work.

Realtime Native HDV Editing Workflow

Transfer native HDV footage over IEEE1394 to your RT.X2/LE system. Native HDV material can be mixed in real time on your HD timeline with MPEG-2 I-frame clips. You can also place SD clips on your HD timeline and RT.X2 will upscale them in real time so you can mix NTSC material into a 1080i at 29.97 fps timeline. You can also mix 576p or 486p material into a 1080p timeline. When your edits are complete, you can record your project directly to tape using RT.X2/LE's analog component HD output or or export to HDV for playout over IEEE1394.

Realtime Editing of Panasonic P2 MXF 720p Files

- ◆ Provides native editing of Panasonic P2 MXF 720p files at 23.98, 25, 29.97, 50, and 60 fps and SD files at 23.98p, 25i and 25p, 29.97i and 29.97p fps in Premiere Pro and After Effects. In addition, the bundled Matrox EZ-MXF utility lets you use your native MXF files in animation, compositing, and motion graphics applications that support Video for Windows AVI files. RT.X2/LE also supports the use of the Focus Enhancements FireStore drives allowing you to simply transfer P2 and HDV files to your RT.X2/LE system and edit them in real time. RT.X2/LE supports Panasonic VariCam 24p and 25p workflows with the HVX-200 camera via MXF file transfers.
- ♠ RT.X2/LE extends Windows Explorer functionality to simplify AVI and MXF file management. Important details such as User Clip Name, Start Timecode, End Timecode, Duration, etc. are available in the Windows Explorer Details View. A clip icon can also be displayed in the Thumbnails View to let you more easily identify your clips.



MATROX

RT.X2

- ◆ Downscale HD projects to broadcast-quality NTSC and PAL with proper conversion of the HD color space to the SD color space. You can print your HD edit to analog SD tape in real time and or use this feature to preview HD projects on inexpensive SD monitors.
- ◆ Capture in HD, then edit in SD for maximum realtime performance. You maintain the quality of the original footage, yet benefit from maximum realtime performance during editing, similar to what you will experience when editing in native DV. When your edits are complete, you can output straight to SD. When you view the SD master you will see very littel difference in quality compared to a project that is edited in native HDV then downscaled to SD. If you need an HD master, you can open the same SD project in an HD timeline. No recapturing is necessary.
- ◆ All RT.X2 cards provide amazing realtime editing performance in DV. On a reasonably performing system, you can expect to edit at least five native DV video layers plus six graphics layers and effects in real time. Other SD clips captured from analog SD sources with the same resolution and frame rate can be mixed on your SD timeline in real time.
- ♦ When the need arises, HDV clips can also be placed on your SD timeline. The RT.X2 cards will downscale them so you can mix 1080i at 29.97 fps material into an NTSC timeline or 1080i at 25 fps material into a PAL timeline in real time. With Matrox RT.X2 and RT.X2 LE, you can also mix MPEG-2 I-frame HD material on an SD timeline in real time.
- ◆ The voiceover feature of Premiere Pro is supported to let you record audio directly in the timeline. Also supports Premiere Pro's multi-channel 5.1 surround sound mixing.
- WYSIWYG video output plug-in for After Effects and Photoshop lets you see your work directly on your video monitor. The Adobe Dynamic Link feature is also supported.
- VU meters let you see if your audio input is active and also let you monitor and adjust audio levels in order to obtain the optimal signal-to-noise ratio and dynamic range.
- ◆ You get instant output of video files such as MPEG, DivX, and AVI on your broadcast monitor using Adobe Bridge, Windows Media Player or other DirectShow-based applications. Use to show different versions of your work to clients on a broadcast monitor without having to open Adobe Premiere Pro.

RealtimeFlex CPU and GPU Effects

The RT.X2 platforms rely on the power of your CPU to perform a variety of realtime and accelerated effects. They are also available in Adobe After Effects. Using the power of your system GPU, you can create a wide variety broadcast-quality 2D and 3D digital video effects.

RT.X2 provides one of the finest realtime chroma keyers in the industry. Clean blue- and green-screen keys are easy to achieve, even with DV and HDV material shot in less than optimal lighting conditions. Your video is upsampled to 4:4:4:4 resolution and advanced noise reduction algorithms



are used to ensure superior results. The auto key button intelligently adjusts the key with soft edges, spill removal, and shadow preservation. Further refine the key with manual controls.

- Page curls are true 3D with full-motion video on the reverse side and realistic highlights. Page curls on graphics let you create great looking text effects. You control the position, rotation, scaling, and zooming of page curls in 3D space. You also have control over the softness of the edges.
- ◆ RGB curves control offers a fast, natural way to fine-tune the colors in your video. If, for example, you want to remove a blue tint from your video, you simply drag the blue curve down. With RGB curves you can also achieve wild color effects and other looks that are otherwise impossible.
- Primary color corrector provides basic proc amp control; three-way color correction complete with master, shadows, midtones and highlights control; input/output level control; and RGB curves control.
- ◆ Easily adjust four proc amp controls hue, saturation, brightness, and contrast. . You can also use these controls to create special effects, such as black and white, in real time.
- Colors can be corrected using 9 parameters related to the black (shadow), midtone, and white (highlight) levels of a clips. Easily match colors or balance blacks, whites, and grays against a reference shot in one step.



- Position your clips anywhere in 3D space while adding soft edges and rounded borders with color gradients in real time.
- ◆ Simulate camera defocus and create unique effects in real time with Blur/glow/soft focus.
- ◆ The surface finish effect gives metal, brick, wood, or granite textures to your video clips and titles with color spot lighting.
- Mask effect lets you choose from dozens of soft-edged cutout shapes for your video clips. You can also create your own masks.

Realtime track matte effect lets you superimpose one clip onto another using an animated matte (traveling matte), to determine how the two clips are composited (keyed). You can use a grayscale video or graphics clip as your matte, or use a graphics clip or graphics sequence with an alpha channel as your matte.

- ◆ Realtime pan and scan filter lets you convert footage from any aspect ratio to any other.
- ◆ Page curls are true 3D with full-motion video on the reverse side and realistic highlights. Page curls on graphics let you create great looking text effects. Control position, rotation, scaling, and zooming of page curls in 3D space. Control the softness of the edges.
- Realtime mask blur effect lets you create a "region of interest" by adding a mask and applying blurring to it.

RT.X2 SD Capture Card (Mfr # RTX2SDNAC • B&H # MARTX2SD)	795.00
RT.X2 LE Capture Card (Mfr # RTX2LE/NAC • B&H # MARTX2LE)	995.00
RT.X2 Capture Card (Mfr # RTX2NAC • B&H # MARTX2Q)	CALL
RT. X2 SD. RT.X2LE. RT.X2 bundled with Adobe Premiere Pro CS3	CALL



MATROX

AXIO LE

Realtime Engine for HD Editing for Broadcast and Post

Axio LE makes Adobe Premiere Pro CS3 and CS3 Production Premium the foremost realtime HD and SD editor for demanding broadcast and post-production



environments. It features no-render HD and SD finishing in compressed and uncompressed formats, superior realtime color correction tools, advanced realtime effects, and a full complement of analog and digital audio and video inputs and outputs. It also lets users work seamlessly with the other Adobe Production Studio applications, fully supporting Adobe Dynamic Link and providing WYSIWYG video output support for After Effects and Photoshop, as well as other

industry-leading animation and compositing packages.

Stepping up from RT.X2 platform, the Axio LE features simultaneous HD and SD output, SD/HD-SDI input/output, analog component input/output, SD genlock and Tri-level HD genlock. It also supports full 1080i resolution at 25, 29.97 and 1080p at 23.98, 24 and 25, and offers Closed Captioning (CC) support.

	AXIO LE	RT.X2	RT.X2 LE	RT.X2SD	
HDV 1080i / HDV 1080p / HDV 720p	1/1/	1/1/	1/1/	capture only / capture only / —	
DVCPRO HD / DV, DVCPRO, DVCAM / DVCPRO50	1/1/	-/√/-	-/√/ -	-///-	
P2 MXF – DVCPRO50, DVCPRO HD	✓	720p/SD only	720p/SD only	_	
XDCAM MXF – DVCAM, IMX / XDCAM HD MXF	111	-/-	-/-	-/-	
Uncompressed	8-bit SD, HD / 10-bit SD, HD	_	_	_	
MPEG-2 4:2:2 I-frame HD	1440 / 1920 / 1280 Hor. Res. 50-300 mbps	1440 Horizontal Resolution 50-100 mbps	1440 Horizontal Resolution 50-100 mbps	_	
Compressed HD for offline	✓	Editing only	Editing only	_	
Realtime Video Effects	Three-way primary color correction, Three-way secondary color correction, Super smooth field- or frame-blended slow motion, Advanced 3D DVE, Chroma/luma keying, Dissolve, wipes, Surface finish, Blur/glow/soft focus, Shadow Transitions, Page curls, Mask, Pan & Scan, Mask mosaic, Mask blur, Four-corner pin, Track matte, Native Adobe transitions Native Adobe effects – opacity, crop, motion, etc., Accelerated shine, Crystallize, Old movie, Lens flare, Move & scale Ripple, Twirl, Impressionist, Adobe garbage mask, Sphere, Timecode, Accelerated cube (Requires GPU with 512 MB.)				
Video Editing	Ultra high performance editing with Adobe Premiere Pro CS3, Realtime mixed-format timelines, EDL import and export, AAF export, Waveform and vectorscope monitors, User customizable keyboard, Multiple nestable timelines, WYSIWYG for compositing and graphics applications				
Audio Editing	Support for multi-channel 5.1 surround sound, mixing and monitoring, Sub-frame audio editing Audio sweetening with VST plug-in support, Voiceover recording in the timeline, VU meters on capture				
Closed captioning support in NTSC	✓	_	_	_	
Analog Audio I/O	2 in / 6 out (XLR)	2 in / 2 out via System Sound Card			
AES/EBU audio, SDI embedded audio	2 in / 6 out, 8 in / 6 out	_	_	_	
1/4" Output for Stereo Monitoring	✓	_	_	_	
Simultaneous HD and SD output	✓	_	_	_	
DVI-D preview output	_	✓	_	_	
SD Video I/O	1394, Composite, Y/C, Analog component				
SDI – SMPTE 259M Video I/O	/	_	_	_	
Analog and Digital Genlock	Analog Only	_	_	_	
HD 1394 Video I/O	/	✓	✓	Input Only	
SDI HD – SMPTE 292M Video I/O	✓	_	_	_	
Analog YPbPr component Video I/O	/	✓	✓	_	
Tri-level Genlock	✓	_	_	_	

MATROX

MX₀2



Complete Portable I/O for Mac

The first truly complete portable I/O device for the Mac, the MXO2 is lightweight, fits in your laptop bag, and runs for hours on a field battery or the or the included AC adapter. It lets you work seamlessly in any format you want. Designed to streamline editing workflow with Apple Final Cut Studio and Adobe CS3 Production Premium on MacBook Pros and Mac Pros, the MXO2 provides broadcast-quality

input/output, monitoring, and up/down/cross conversion. Users can benefit from file-based workflows with native support for XDCAM, XDCAM HD, XDCAM EX, and P2. In addition, they are not limited to using a single codec as with some other I/O devices on the market.

FEATURES

Truly Portable

◆ The first truly portable I/O device for the Mac. It fits easily into your laptop bag and can run off standard field batteries or the included AC adapter. It connects to your MacBook Pro via Apple's ExpressCard/34 slot or to your Mac Pro via a PCI Express adapter card.

HD and SD Inputs/Outputs

- ◆ Features a full complement of professional inputs and outputs. RS-422 machine control is provided for frame-accurate capture and print-to tape with Final Cut Pro and Adobe Premiere Pro. Up to five user selectable simultaneous video outputs, HD and/or SD on HDMI, SDI, and analog are supported.
- Video inputs include HD/SD-SDI, analog component HD, composite, S-Video and HDMI
- Audio inputs include two XLR-balanced, two RCA unbalanced, two AES/ABU, SDI and HDMI embedded (up to 8 channels).
- Video outputs include two HD/SD-SDI, 12-bit analog component, 12-bit composite, and S-Video, one HDMI.
- Audio outputs include four XLR-balanced, six RCA unbalanced for surround sound monitoring, two AES/ABU, SDI and HDMI embedded (up to 8 channels).
- ◆ The MXO2 provides SD analog black burst (bi-level) or HD tri-level sync genlock. It can genlock to any type of video input or to house sync. Timing offset controls can be used to align your video output relative to your external genlock source to compensate for cable delays within your facility.

Flexible Workflows

The MXO2 gives you a wide range of workflow possibilities by providing frame-accurate capture via RS-422 deck control to a variety of codecs including:

- ProRes 422 ProRes 422 HQ
- DV DV50 DVCPRO DVCPRO HD
- Uncompressed HD/SD (8- and 10-bit)
- Offline RT
- ◆ Work with file-based formats such as XDCAM, and P2 on your timeline.

HD and SD Monitoring

- ◆ The MXO2 turns your HDMI monitor into a true-color video display you can trust, even for color grading. It's packed with features that make it the ideal monitoring solution for Final Cut Pro, Adobe Premiere Pro, and other QuickTime-based applications. No need to buy expensive HD monitoring equipment. In addition, realtime downscaling feature lets you view your HD projects on an SD monitor.
- ◆ Adjust and control your HDMI monitor exactly like you would a broadcast HD monitor. Controls for hue, chroma, contrast and brightness are provided. Also has a Blue-only mode to gives you completely accurate color representation.
- ◆ Provides 1:1 pixel mapping on HDMI monitors that support this feature. You get accurate monitoring on your HDMI display in the following resolutions: 720 x 486 (NTSC), 720 x 576 (PAL), 1280 x 720 and 1920 x 1080.

Audio Monitoring

◆ Provides built-in 5.1 surround sound monitoring via RCA and HDMI so you don't have to buy more equipment. The MXO2 also lets you map any audio track in Final Cut Pro or Adobe Premiere Pro to any audio output.

Realtime Hardware Conversion

- Provides realtime HD to SD downscaling.
 Proper conversion of the HD color space to the SD color space and proper aspect ratio conversion to anamorphic, letterbox, and center cut are supported.
- Provides realtime SD to HD upscaling with proper conversion of the SD color space to the HD color space.
- ◆ Offers realtime cross conversions from 720 to 1080 and 1080 to 720. Realtime frame rate conversion is also supported with the following cadences 2:3:2:3, 2:3:3:2, and 2:2:2:4. It also facilitates monitoring when, for example, you need to work with 23.98 fps footage but your monitor does not support that frame rate. You can use MXO2's realtime frame rate conversion to view your project at 29.97 fps.

Final Cut Pro Acceleration

♦ In Dynamic RT editing mode, Final Cut Pro automatically reduces frame size to let you preview non-realtime segments of a project at a better frame rate. The MXO2 hardware upscaler accelerates these segments to their original frame size saving processing power for other Final Cut Pro operations, so you get better realtime performance.



MOTU

V4HD

FireWire Video Interface

With one simple plug-and-play FireWire 400 or 800 connection, the V4HD turns your Mac or PC desktop or laptop computer into a powerful HD/SD video production workstation equipped with all the video and audio I/O you need. Connect all your gear, from SD camcorders and monitors to professional HD cameras, video decks, LCD reference monitors and plasmas – all at the same time, with no cable swapping. Choose your input source, then





log and capture HD or SD clips directly into Final Cut Pro or Premiere Pro.

In Final Cut Pro, the V4HD supports full-raster 1920 x 1080 HD capture and playback using Apple's ProRes 422 codec in both standard and HQ modes. Final Cut users can ingest an uncompressed SDI or component HD source and then capture and edit in ProRes while monitoring their ProRes timeline in HD and SD simultaneously via the V4HD's hardware-accelerated up- and down-conversion.

In Final Cut Pro and Premiere Pro, the V4HD provides hardware-accelerated capture and playback of DVCProHD, DVCPro50 and DVCPro25 video streams, plus 8- and 10-bit uncompressed SD — with convenient plug-and-play FireWire connectivity and CPU-efficient intra-frame editing. The V4HD can also instantly playback DVCProHD/P2 clips (imported or ingested) with no transcoding necessary. Conversely, you can connect any SD or HD video source such as an HDV camera, legacy video deck or DVD player and then capture it directly as a DVCProHD clip in Final Cut or Premiere. Many cameras now feed their uncompressed SDI or component output directly from the camera's optics and imager, before compression, for the best-possible picture quality during capture. Need to bring SD material into your HD project? The V4HD even provides hardware-accelerated SD-to-HD up conversion for capturing SD sources in DVCProHD format.

FEATURES

- ◆ HD/SD FireWire video interface for Mac and Windows — provides HD and SD capture and playback for any current-generation FireWire equipped computer.
- Plug-and-play connectivity via FireWire 400 or 800 — connects to either a desktop tower or a portable laptop.
- Captures and plays 25 HD and SD formats up to and including 1080p30 (720p, 1080i, 1080p and 1080PsF).
- ◆ Full-raster Apple ProRes workflow supports full-raster capture and playback (1920 x 1080 and 1280 x 720) in Apple's ProRes 422 HD codec in both standard and HQ modes. Work with ProRes clips pixel for pixel in full 10-bit 4:2:2 resolution.
- ◆ HDMI monitoring connect a large-format HD plasma, reference LCD, consumer DLP or other flatscreen for flexible and affordable "pixel for pixel" HD monitoring.

- Provides hardware-accelerated capture and playback of industry standard DVCProHD/P2, DVCPro50 and DVCPro25 video streams to/from Final Cut Pro and Premiere Pro.
- Connect multiple HD and SD sources and destinations simultaneously. Switch HD/SD sources on the fly while converting to multiple HD/SD destinations. All outputs are "hot", regardless of source format.
- Pristine HD quality and efficient editing ProRes and DVCProHD formats provide 10-bit 4:2:2 broadcast quality color and CPU-efficient, intra-frame native editing.
- ◆ Captures and plays uncompressed SD 8-bit or 10-bit NTSC or PAL.
- Broadcast quality hardware-based real time SD-to-HD up-convert — capture SD while working in HD; monitor HD when working in SD.

- Broadcast quality hardware-based real time HD-to-SD down-convert — capture HD while working in SD; monitor SD when working in HD.
- Hardware-accelerated 2:3 or 2:3:3:2 pulldown insertion and removal — go between film and NTSC rates in real time, with no rendering required.
- ◆ Comprehensive up/down conversion formatting — anamorphic, pillar box, letterbox, 14:9 pillarbox, 14:9 letterbox and full screen.
- Two rack space form factor with dedicated connectors — no cable swapping or gangly, inconvenient breakout cables.
- ◆ Stand-alone operation converts and distributes selected input source to all supported output formats with SD-to-HD up-convert, HD-to-SD down-convert and pull-down insertion/removal.



MOTU

V4HD

Video I/O

- ◆ Choose any input as a video source and the signal is distributed to all outputs, both HD and SD simultaneously, via hardware-accelerated up/down conversion. This allows you to work with both HD and SD devices without cable swapping. The HD-SDI and SD-SDI banks supply two mirrored outputs so that you can connect both a deck and a monitor to each bank. Independent banks of HD and SD component are also supplied, along with legacy SD formats (composite and S-Video).
- HD-SDI and SD-SDI in and out (4:2:2 10-bit) on independent BNC connectors.
- Extra HD-SDI and SD-SDI output connector.
- HDMI output (4:2:2 10-bit, YCbCr or RGB).
- Support for DVI output with optional HDMI-to-DVI adapter.
- HD and SD component in and out (10-bit, YPbPr or RGB) on independent BNCs.
- Composite and S-video in and out (10-bit).

Audio I/O

- 32 channels of simultaneous audio input and output (four 8-channel banks: analog, AES/EBU, optical and embedded).
- ♦ 8 channels of analog in/out at all standard sample rates from 44.1 to 192kHz.
- ◆ Four XLR analog in/out 4-channel direct connection without a breakout cable.
- ◆ 8 channels of AES/EBU digital in/out at sample rates up to 96kHz.
- ◆ 8-channel HD-SDI and SD-SDI embedded audio in/out, 24-bit at 44.1 or 48kHz.
- ◆ 8-channel HDMI embedded audio output, 24-bit at 44.1 or 48kHz.
- ♦ 8-channel ADAT optical digital audio in/out.
- ◆ Headphone jack with volume control.

Synch and Device Control

- ◆ Video reference in / thru resolve to blackburst, composite or HD Tri-level sync.
- ◆ Time code I/O: LTC, VITC (SD analog), D-VITC (SD-SDI) and embedded (SD/HD-SDI).
- ◆ RS-422 machine control via 9-pin protocol.
- ◆ Word clock in, out and thru at sample rates from 44.1 to 192K.
- ◆ DSP-driven phase lock engine provides ultra-low jitter.

Built-in Mixer

- ◆ The V4HD is equipped with a complete 32 x 32 on-board digital mixer, allowing you to quickly route any combination of inputs to outputs. This is a bona fide monitor mixer complete with 16 stereo busses, and panning, mute and solo on all input channels. Multiple mix outputs can share inputs, giving you complete flexibility for any audio mixing application. Transfer from any audio format to any other audio format with zero latency.
- 32-channel, 16-bus mixer for monitoring live inputs from cameras, mic preamps or other audio sources with no delay. Set up send/return loops to digital mixers and outboard audio processing.
- Multiple CueMix DSP mixes -- create 16 separate stereo monitor mixes (8 stereo at 176.4 or 192kHz) for main outs, headphones, outboard gear send/return loops, etc.
- Audio delay compensation -- both fully automated and programmable controls ensure that audio always remains perfectly in sync with picture
- Audio only mode -- operates as a 32 channel cross-platform audio interface
- Stand-alone operation -- mix and monitor with no computer connected

Laptop Operation

Thanks to FireWire, the V4HD opens the door to a world of possibilities for laptop systems. All current and late-generation MacBook and MacBook Pro computers are equipped with both FireWire 400 and 800. Most PC laptops are equipped with built-in 4-pin FireWire 400. In both cases, the V4HD gives you plug-and-play broadcast-quality capture and monitoring. With the enormous performance gains seen in laptop technology, they are now powerful enough to easily capture and play back both HD and uncompressed SD video. You can essentially build a complete capture/edit system that fits in a backpack.

Using FireWire for Video I/O also frees up the PC card slot on your laptop for professional-grade video storage solutions. Expresscard-based storage solutions offer enough storage space and access speed to support the most demanding HD and uncompressed SD workflows. Alternately, you can daisy-chain a FireWire 800 hard drive on the same bus as the V4HD connected to the computer via FireWire 800. This offers compact, portable yet large-scale storage.

With Premiere or Final Cut

- ◆ The V4HD is the first and only all-in-one capture/playback solution for Premiere that provides both SD and HD capture over FireWire, allowing you to build a comprehensive, yet compact and portable desktop workstation without the need for separate PCI expansion products.
- ◆ The V4HD provides support for full-raster 1920 x 1080 HD capture and playback using Apple's ProRes 422 codec in both standard and HQ modes. Ingest any uncompressed SDI or component HD source and then capture and edit in ProRes while monitoring your ProRes timeline in HD and SD simultaneously via the V4HD's hardware-accelerated up- and down-conversion. The V4HD also offers hardware-accelerated DVCProHD capture and playback from Final Cut.
- ◆ Using the V4HD with Final Cut Pro couldn't be easier. The V4HD software installer provides Easy Setup presets, Sequence presets, Capture presets and Device Control presets to get you going quickly. In minutes, you'll be ready to log and capture, edit and monitor your project material.
- ◆ The V4HD features 9-pin device control for batch capture, print to video and edit to tape operations. It also provides up to 16 simultaneous channels of audio capture and playback with Final Cut Pro in any of four support audio formats: analog, AES/EBU, optical and embedded.

V4HD - FireWire Video Interface (Mfr # 4026 • B&H # MAV4HD)......

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NEWTEK

VT[5]

Integrated Production Suite

A TV studio in a box, VT[5] defines the cutting-edge in live production. More powerful, flexible and affordable than ever before, VT[5] features live switching and Web streaming of up to 24 cameras, live virtual sets, real-time keying, titling, the world's fastest SD & HD editing and video painting. All this is tightly integrated with everything you need for production, post-production, and graphics.



VT[5]'s extensive HD post production capabilities include sophisticated real-time, non-linear editing, video painting

sophisticated real-time, non-linear editing, video painting and a full-featured animated character generation package. VT[5]'s real-time, uncompressed video processing with component and optional SDI output delivers unsurpassed video quality. The optional SD switcher adds an additional eight SDI inputs and SDI routing functionality to the system. Designed for the video producer that wants to expand their services without breaking the bank, VT[5] gives the power, flexibility and functionality of a system costing much more. Whether the project calls for a live CEO message integrated with pre-edited segments or a complex edit for broadcast television, VT[5] gives you the tools necessary to complete your next award-winning project.

FEATURES

Live Switching

- ◆ Add up to 32 external inputs using SX-84 and SX-SDI expansion modules
- ◆ 16:9 wide-screen and 4:3 support
- Advanced matte capabilities for luminance and chroma keying with adjustable controls for spill removal, tolerance, smoothness and garbage matte removal
- ◆ Key settings are stored for each camera input
- ◆ Key preview is visible before you take it live
- ◆ LiveSet real-time virtual studio enviroments with multiple camera angles and focal lengths, real-time shadows, reflections, lighting and more
- ◆ Support for transitions between virtual sets
- LiveSet Constructor utility to create up-stream key graphics, virtual sets, fixed background keys and more
- ◆ Upstream effects bus for double-box interviews and picture-in-picture effects
- ◆ 2D and 3D DVE Transitions
- Hundreds of reversible DVEs (Fades, Wipes, Curls, Trajectories, Rotation, Compression, Borders, Chroma FX, Overlays and much more...)

- iVGA adds external computer displays (Mac and PC) as a switcher channel with multiple input selection
- ◆ Integrated DSK with both take and fade in/out
- ◆ Titling, graphics, videos and animations directly assigned to switcher buses
- ◆ Dynamic switcher buses allow reconfiguration (no need to re-cable the video inputs)
- ◆ Save/load switcher configuration

Titling or Character Generator

- ◆ Save As Title Template feature to create Live Title Templates for VT[5] and TriCaster
- ♦ WYSIWYG editing
- ◆ Interactive template based CG module
- ◆ Display Program output within CG interface
- ◆ Use any installed TrueType font
- ◆ Powerful drawing tools
- ◆ Create and insert graphic objects (boxes, circles, splines, images)
- ◆ Save pages as 32-bit images or animations
- ◆ Save or recall text styles

Digital Disk Recorder

- ◆ Multi-format, multi-standard on-screen video player
- ◆ Play back a single clip or list of clips
- ◆ Cue clips to roll instantly when triggered by Switcher
- ◆ Use multiple DDRs simultaneously
- ◆ DDR can be assigned to the Downstream Keyer (DSK) providing live animated overlays
- ◆ Count up or count down in either project time or clip time
- ◆ Record program out to hard drive either as a DV file or uncompressed

Video Monitors

- ◆ Full-field on-screen playback on computer monitor
- ◆ Monitor program, preview, key or DSK buses
- ◆ Display supports 4:3 and 16:9 widescreen
- ◆ Underscan mode; YUV video display
- ◆ Zebra stripes for both 75 IRE and over-legal video
- ◆ Adjustments to match computer display to reference video monitors



NEWTEK

VT[5]

External Controller

- ◆ Control external RS-422 and DV decks from your VT[5] desktop
- ◆ Batch capture deck lists and configurations
- Record allows user to enter time code settings

Audio Mixer (using SX-84 expansion box)

- ◆ Mix 8 live sources (stereo) and 8 online sources (4-channel)
- ◆ 4 adjustable XLR balanced mic/line inputs with phantom power
- ♦ 6 stereo unbalanced audio inputs from live sources
- ♦ 8 inputs from computer sources
- ◆ DV and SDI audio inputs
- ◆ EQ, balance, mute and mono for all inputs
- ◆ Audio-follows-video capability
- ◆ Talk over (reduces mix levels for mic inputs)
- ◆ Automated mixing to transition between audio presets
- ◆ 4-channel audio (4 discrete channels) in/out
- ◆ PA mix output for live PA or control room feed

Signal Correction Proc Amp

- ◆ Brightness, contrast, hue, saturation
- ◆ U offset, V offset, U gain, V gain
- Calibrate computer sources as well as analog sources
- ◆ Advanced panel with 70+ adjustable parameters
- ◆ Auto calibration for 75 IRE, 100 IRE bars and video pass-through mode (requires SX-84)

Aura Video Paint

- Amazingly fast 2D paint and animation engine
- ♦ Paint over live video
- ◆ Four-point pixel tracking
- ♦ 3D compositing
- ◆ Stroke recorder
- ◆ Instantly use a graphic alpha channel
- ◆ Animate text along path

Live Virtual Sets

VT[5] includes LiveSet, a proprietary new technology that allows users to implement multi-channel virtual sets in a live environment with unprecedented realism and video quality. This ground-breaking technology, integrated into a live production environment, fundamentally changes the quality and the power of the tools available for video producers.

NewTek's proprietary LiveSet system in VT[5], allows separate virtual sets to be assigned independently to all switcher inputs, including all cameras and DDRs. In addition, each input has an independent LiveMatte matting module that



eliminates the need for expensive hardware for each source connected to the system. Each virtual set supports virtual cameras with multiple angles and zoom levels, with support for secondary video sources for on-set virtual monitors. All effects are rendered with unprecedented photo-realism, including reflections, refractions, shadows, bump maps, and sophisticated filtering. Additionally, the advanced keying capabilities included in the LiveMatte technology enable refined previews of mattes for the precise isolation of color, edge and spill for the sharpest possible results.

Video Scope Waveform Monitor

- ◆ Waveform of Y/V, Y, C, YUV or RGB
- ♦ Vectorscope at either 75% or 100% chroma
- ◆ Monitor program or preview feeds
- ◆ Adjustable display brightness and tint

DVD Authoring

- ◆ Complete DVD authoring
- ◆ Direct encoding from a VT-Edit projects.
- ◆ Instant DVD Project playback
- ◆ MPEG-2 encoding and decoding

VT[5] Supported File Formats

Video Formats: AVI, DV, RTV, MPEG1, MPEG2 Program Stream, MPEG2 Transport Stream, HDV, Quicktime (with alpha support), MPEG-4 (including PSP and iPod), Image sequences, Flash, WMV HD (Render only) and VC-1. **Graphic formats:** PG, JPEG, PNG, Targa (TGA), Tiff, BMP,WBMP, PCX (alpha-channel support for Targa and PNG)

Audio Formats: WAV, MP3, AU, SND, AIFF, WAX, DIF

VT[5] Systems and Components

VT[5] Integrated Production Suite for Windows with SpeedEDIT (see next page)
(Mfr # VT090000-0501 • B&H # NEVT5F).....

SX84 A/V Switcher Expansion Module for VT[5]: Provides 24 composite and 8 component and Y/C inputs, 4 balanced Audio In/Out, 12 RCA Audio In, 8 RCA Audio Out, RS-422.

SX-SDI Expansion Box: SDI Switching Hardware Extension



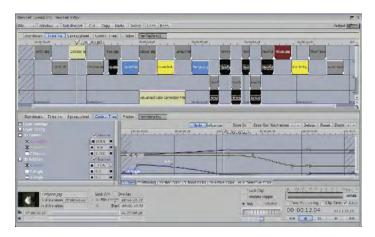
NEWTEK

VT[5]

SpeedEDIT Non-Linear Editor

Anyone that needs to produce video for web, broadcast or DVD will love from SpeedEDIT's clean design, streamlined operation, and pristine output. SpeedEDIT is a resolution-independent video editor designed to work quickly and efficiently on any project, from web streams to HD. SpeedEDIT works smoothly and natively with MPEG-2, AVI, QuickTime and most popular video formats in either SD or HD. Enjoy real-time, full resolution on-screen HD previews with FireWire output to camera or deck.

Rather than emulating the "old school" film-cutting workflow, NewTek streamlines the editing process by eliminating many unnecessary steps. SpeedEDIT allows



all editing functions to be performed directly on native clips within its unique timeline and storyboard interface. This avoids time consuming transcoding or pre-trimming. SpeedEDIT further accelerates the editing by dynamically linking Storyboard and Timeline, which allows the performance of many common functions in fewer steps. Ripple edits, clip replacement, segment repositioning, 3D video rotation, color correction and animated titles are just a few of the everyday tasks that SpeedEDIT performs faster than any other professional editor.

FEATURES

- ◆ Whether your are rendering an HD project in Windows Media HD, VC-1, Blu-ray or HD DVD, SpeedEDIT already has you covered.
- Virtual Studio Technology allows you to use hundreds of audio tools for sophisticated sweetening, and SpeedEDIT even provides dozen useful audio plug-ins.
- SpeedEDIT lets you use project markers to determine the exact frame to begin each DVD chapter, for faster authoring.
- ◆ Let the SpeedEDIT Project Backup Wizard quickly conform all your assests to another drive for easy transport or archiving.
- ♦ It doesn't matter what you want to create, you can output in that resolution. Low-res web streams, standard def, or high def can all be created from the same project file by simply rendering out the desired size.
- Don't waste time conforming or converting clips. DVCPro HD, MPEG-2, M2t, QuickTime, AVI and most other formats are ready to use the moment you drag them into SpeedEDIT.
- Using Image Super-sampling, SpeedEDIT allows you to transparently scale standarddefinition clips up to High-definition.

- One keystroke is all it takes to insert smooth fades into a selected region or your entire project. Keep building your story, without even thinking about the process behind it.
- ◆ Stack clips as you need, and slide them to one side or another to shorten/lengthen the pace of the dissolve. Its about working visually.
- ◆ Enjoy the flexibility of adding or deleting clips from your project WHILE it plays.
- ◆ SpeedEDIT lets you lasso a group of clips and with one gesture, shorten, lengthen, rotate or color-correct the entire region at once.
- Quickly choose the shot you want from among numerous takes, and drag it straight to Timeline or Storyboard, without importing or creating intermediaries or converting or...
- Need another copy of the clip you're working on? Hold down Ctrl key and drag a fresh copy, complete with all settings from the original.
- ◆ If you have already edited, sized or positioned a clip, it can be effortlessly replaced withanother by just holding down the Alt key while dragging the new clip on top. All of the created properties are instantly applied to the new clip.

- ◆ Left-clicking on the bottom of a Timeline clip pops up a thumbnail showing the frame. Holding the left button down and dragging horizontally will perform a 'local scrub' of just this clip. This is handy when you are trying to find a clip or frame in a layer of elements.
- When active, clicking on any clip in the project causes the time bar to snap to that clip. This behavior can also be refined by having the time bar jump to the first, middle or last frame in the clip.
- Any adjustment to audio levels are immediately visible in the clip's timeline waveform, as you adjust.
- ◆ HD and multi-layered SD projects may require more disk bandwidth than your laptop can provide. SpeedEDIT has dynamic background renders that keep your complex comps ready for playback as soon as possible. Make a small change, and only that adjusted portion re-draws for immediate feedback.
- Load that project tonight, tomorrow or two years from now, and you can undo your steps back to the project's first action (if that is how your preference is set).



NEWTEK

VT[5]

- ◆ Ctrl-drag a clip into a folder and it saves clip settings. This provides multiple benefits, such as music clips already marked to the beat of the music. These instances point back to the source clips, and take no disk space.
- Use your own system to visually distinguish between audio narration, music clips and background efx; pinpoint problem areas from your last session.
- ◆ Combine SD and HD clips on the timeline. Anything can be edited alongside or on top of anything else. Mixing your existing library into your new HD clips never gets in the way of the story, as there's no converting or rescaling to distract you.
- ◆ Edit a project in any resolution, from a 320 x 240 web stream to 2880 x 1920 max resolution and then render it out to any resolution, progressive or fielded, that you need. This also gives you the ability to output HD, SD and web-sized versions of the same project.
- No intermediaries. Drop an HD clip onto the timeline from a folder and it is ready to scrub and play. Avoid time wasted converting or rendering clips when you could be building your project. SpeedEDIT allows you to send your project back through the camera for HDV playback on your broadcast monitor.
- Output any frame-rate or resolution.
 Whether you are editing for output to
 Jumbotron, HD, DVD or broadcast, you can provide exactly what your client wants. Edit any clips you have, and focus on the pacing and storyline. When completed, you can render out to any resolution you need.
- Perfect a move or color-correction once.
 Then, with two clicks, recall it to apply to one or dozens of clips in the project.
- ◆ CG Post allows animated titling in any aspect or resolution. Nearly 200 preset pages allow a quick starting point for fast set-up.
- ◆ SpeedEDIT lets you make both subtle and major warm/cool correction to your video.
- Pick a color. Any color. Now, modify just that color with saturation or hue. Do that three more times and you have the ability to fine-tune anything in the frame.
- ◆ Simultaneous wide and close-up views of the project.
- ◆ Real-time chroma and luma keying with spill suppression.
- ◆ Real-time animatable video and audio filters.

SDI I/O Expansion Card

NewTek's SDI option allows you to send VT's pristine D1 video output in real-time in an absolutely lossless, uncompressed state to any SDI-capable capture device or tape deck using a single coaxial cable. For users of Digital Betacam or Digital-S equipment, this is the perfect solution, providing a direct digital connection between your source or master tapes and VT.

SX-84 Switcher Expansion Module (6U Breakout Box)

The SX-84 is the heart of the VT[5] LIVE! Switcher, offering component, Y/C or composite ins and outs, along with audio, preview, alpha channel, tally, GPI and machine control. There are 8 Video input rows, but that does not indicate the true flexibility of this rack-mountable beauty measuring 18 7/8" wide by 10 ½" high (or 6 rack-units high) and 1 ½" deep. This is a production switcher that saves you both time and money.

All inputs can use whatever cameras you have at your disposal, and unlike most switchers, does not require cameras to be genlockable. VT[5] performs all this internally, with each input having its own dedicated genlock controls in software. This means less gear to haul to a shoot, less time in setup and less investment for you to produce a multi-cam production. There is even an input for house synch, so you can time VT[5] to the other suites.

SX-SDI Switcher Expansion Module (2U Breakout Box)

In addition to live switching of 8 digital sources, SX-SDI also serves as a signal router, with the ability to assign any of the serial digital inputs to any of 5 digital outputs. Further flexibility is provided on the audio side, with support for embedded digital audio selectable from any SDI input, as well as AES-EBU audio in and out. While the SX-SDI adds additional inputs to VT[5], it does not limit the capacity of the SX-84 analog switcher. This means an SX-SDI added to a VT[5] LIVE! system continues to provide component, Y/C and composite in and out in addition to the digital connectivity.

	VT[5]	VT[5] LIVE!	+ SX-SDI
VT[5] 32-Bit PCI 66 MHz card	✓	1	1
1 in/out Component YUV or Y/C or composite	✓	_	_
1 in/out Unbalanced stereo audio	✓	_	_
1 genlock input	✓	_	_
1 Alpha out / preview out	✓	_	_
SX-84 switcher expansion module (6U breakout box)	Option	1	1
8 component or 8 Y/C or 24 composite inputs	_	1	1
4 component or Y/C outputs	_	/	1
4 composite program outputs	_	1	1
4-Channels XLR balanced audio in/out	_	1	1
12/8 RCA unbalanced audio in/out	_	1	1
1 Tally / GPI connector	_	1	1
SX-SDI switcher expansion module (2U breakout box)	Option	Option	1
8 Serial Digital inputs	_	_	1
1 Serial Digital Preview + 1 Program outputs	_	_	1
5 Serial Digital routeable outputs	_	_	1
Embedded Serial Digital audio: 1 input /1 output	_	_	1
AES-EBU Serial Digital audio: 1 input /1 output	_	_	/
SDI I/O Expansion Card	Option	Option	



RED GIANT

MAGIC BULLET SUITE 2007



Powerful Finishing Tools in One Package

Magic Bullet Suite 2007 supports After Effects, Final Cut Pro, Motion, Premiere Pro, and Avid. The full suite of tools includes Magic Bullet Looks (including Misfire), Magic Bullet Frames, Magic Bullet Colorista, and Instant HD for high-quality up-conversion. (Each package is also available individually).

MAGIC BULLET SUITE 2007 (B&H # REMBS07)

...699.95

Magic Bullet Looks

Set the mood on any timeline

Desert sunrise, Arctic tundra, nighttime urban streets: the look of your footage defines the mood. Now you can define the style of your video or film, regardless of on-set conditions, with powerful imaging tools. Choose from 100+ Look presets, to help set the mood for everything from a wedding to the next Sundance original. You also get the standalone Magic Bullet LooksBuilder,



for pre-visualizing looks on set or anywhere. Portable presets load into any editing hosts, so the same Looks you create on set are the ones you finish with in the editorial suite: no need for an expensive finishing system.

- ◆ Designers interface balances ease of use with the power of 36 distinct Look Tools that emulate how light is captured on film. Emulate the apprearance of specific film stocks and technical processes such as TechniColor, Bleach Bypass, 2 and 3 process. Tool controls keep clutter to a minimum. A linear-light processing engine provides fluid interaction using the power of your graphics card.
- ◆ More than one hundred unique Looks, conveniently organized by category in the Look Library, are a great starting point for defining the mood of any scene. The presets range from simple exposure and film process emulation to radical color changes. Best of all you can use the Look Theater to browse through the library using your own images — finding a look couldn't be easier.
- Magic Bullet Looks works as both a plug-in and a standalone application. The Looks-Builder plug-in accesses presets and renders looks inside a variety of popular editing software packages.
- ◆ Customize one of the 100 presets with LooksBuilder (organized by category, ranging from simple exposure and film process emulation to radical color changes), or create your own unique looks from scratch and save them for later use. The application lets you refine and create looks anywhere, from on set to your edit suite, using any image as a foundation. Go from pre-visualization to final output, all with the same look.
- ◆ Match look of TV or film (for example, The Matrix, Traffic, CSI, and Saving Private Ryan).

- Quick Drawers provide access to tools and presets without wasting valuable space.
- ◆ Get blazing speeds with GPU acceleration (using your ATI or NVIDIA card).
- Include Magic Bullet Misfire, which adds film damage such as dust and scratches to artificially age a film.
- ◆ Adjust the mood to match the scene or dialogue throughout your movie. Add warmth to wedding videos, even when shot on cloudy days. Simulate different time periods and aged appearance. Create a distinctive look to visually distinguish a flashback or other special sequences. Presets without taking up valuable space.
- Works as a plug-in for Final Cut Pro, Motion, After Effects, Premiere Pro, and Avid systems or a standalone application.
- ◆ Use either a trackball or trackpad for instant manipulation of a tool's controls.
- ◆ Handles SD, HD, 2K, and 4K images on standard hardware, or up to 8K x 8K pixels with the latest NVIDIA GPUs.
- ◆ Unique linear-light processing engine and HDR support yield true-to-life results.

What is a Look?

Traditionally achieved with filters, filming techniques or chemical processes, a "look" was any treatment applied to film stock to lend it a color, appearance, or mood. With digital editing, many more sophisticated effects are now possible. Often referred to as color correction, the process is similar to working in a virtual darkroom. Ordinary footage can be made to look like old films or TV, colors can be adjusted to turn a daytime shoot into film noir, and camera tricks can be simulated digitally.



RED GIANT

MAGIC BULLET SUITE 2007

Magic Bullet Colorista

Simple, fast, industry-standard color correction

Now that you've locked your edit, load Magic Bullet Colorista and make your project shine. Under the hood is the next-generation Magic Bullet engine with real-time processing for fast review and rendering. Colorista is ready for action with industry-standard color wheels for precise color control. Plus, use the Power Mask tool to isolate areas - the easiest way to light up your talent.

- ◆ Colorista make your whites look white and your talent look their best with controls for modifying shadows, mid-tones and highlights. Colorista uses the Lift, Gamma, Gain color model to assure that shadow values do not become too bright during the tinting process.
- ◆ Color Finesse 2 uses Offset Gamma Gain and will cause shadow brightening when using tint that can be objectionable because it lowers the contrast of an image making it look muddy and less detailed.
- ◆ Saturation and Exposure options let you makes flesh tones look natural, plus set the highlight and shadow levels exactly. Apply the correction just where you need it. With Colorista you can create a simple circular or rectangular shape to isolate a specific zone. No longer is it necessary to pre-mask a shot to deepen the color of a sky or redefine the actionable area of the shot. The animatable controls for area and feather let you work right in the canvas or composer window.



Magic Bullet Frames

Give interlaced video the 24p look of film

Start with ordinary interlaced video, apply Frames, sophisticated algorithms, and you'll get the smoother, professional de-interlaced look of 24p film. Choose between motion-adaptive and field-blended approaches, and you'll get high quality footage at high speeds, right in your editor's timeline. NTSC-to-24p and

De-interlacing filters offer both a field-blended and a motion-adaptive de-interlacing approach that deliver great artifact-free video. Includes letterboxing and line offset controls to easily create mattes and adjust the image inside the letterbox area.

- ◆ Shoot on low-cost video and get the expensive look of film. Converts interlaced 60i/50i to 24p/30p/25p right on the timeline without going to another program.
- ◆ Get true 24p conversion from interlaced material (including NTSC, PAL, and HD) in Final Cut Pro, Premiere Pro, After Effects and Motion. Filters support greater than 8-bit per channel processing in all hosts.

Magic Bullet Instant HD

Crystal-clear HD with one click!

Instant HD up-converts DV video into a variety of HD video formats. Choose from a list of preset resolutions to easily integrate DV video into your next HD production. When scaling from standard definition (SD) to high definition (HD), Instant HD's algorithms generate the missing pixels with integrated sharpening and anti-aliasing for sharp, clear results inside your favorite video application.

- ◆ 5 simple controls: Output Size, Filter Type, Sharpness, Quality settings, and Antialiasing
- Output resolution presets lets you quickly choose the right HD output resolution
- ◆ Improve the final appearance with integrated sharpening
- Antialiasing smoothes the rough edges of DV video



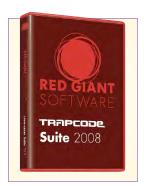
- ◆ Conform standard defintion motion graphics for high definition broadcast
- ◆ Use Instant HD output with Magic Bullet to deliver professional "film look" HD masters

Magic Bullet Looks (B&H # REMBC)399.00	Magic Bullet Frames (B&H # REMBF)196.95
Magic Bullet Colorista (B&H # REMBC)196.95	Magic Bullet Instant HD (B&H # REMBIHD)97.95



RED GIANT

TRAPCODE SUITE 2008.5



All the Trapcode plug-ins at one affordable price

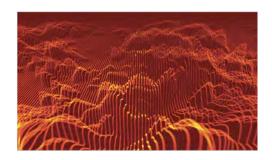
With Trapcode Suite 2008.5, the right effects plug-in will always be at your fingertips, because they're all included! This motion graphics bundle of products provides a wide variety of the industries' best tools to create unique, eye-popping effects easily. Included are light effects, 3D particle systems, back grounds, 3D lights and much more. Includes Trapcode Particular, Form, Shine, Starglow, Lux, 3D Stroke, Particular, Echospace and Sound Keys, and the new Trapcode Form plug-in. (Each package is also available individually).

TRAPCODE SUITE 2008.5 (B&H # RETS2008).....

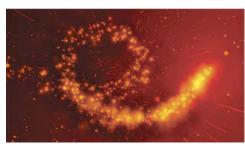
699.95

Trapcode Form 3D Surface Generator

Words dissolve into sand, logos catch fire, and water droplets ripple to bass guitar. All of this is possible with a single powerful plug-in that generates animated 3D shapes to mesmerize and entice viewers. Choose from 61 customizable presets, or tweak your own to get just the look you want. Full integration with After Effects' 3D environment allows you to fly cameras through and around your animated forms.



Trapcode Particular Quick-rendering 3D particles



Particular is a powerful 3D particle system that can produce a wide range of effects from natural smoke and explosions to geometric or organic abstract motion graphics design elements. Tight integration with Adobe After Effects provides bouncing particles on 3D layers, emitting particles from layers and lights and using a layer as custom particle. Comp-camera aware and 16-bit of course! The physics engine includes air resistance, gravity and turbulence, providing very realistic particle motion. The keyframable Physics Time Factor gives you full control over time so you can freeze time and move the camera around in a scene.

Trapcode 3D Stroke

Create glowing, swirling shapes and lines, then fly the camera through them!

3D Stroke uses paths from one or more masks to render volumetric strokes that can be rotated and moved freely in 3D space. Path reveals are made easily using the keyframable sliders for start and end. With 3D Stroke, paths, logos or lines can take on lives of their own: glowing, tapering, and moving in complex ways through



3D space, while a built-in camera lets you capture the action from any angle. Its broadcast TV's secret weapon for animated logos and sophisticated write-on effects.

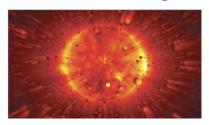


RED GIANT

TRAPCODE SUITE 2008.5

Trapcode Shine

Ultra-fast light ray effects!



Create compelling light effects without leaving your editing timeline, and without the tedious render times of specialized 3D applications. Sunshine through clouds, headlights through fog, or horror movie titles: Shine does it

all. Choose from 22 powerful presets, or make your own light ray effects from scratch. 16- and 32-bit support guarantee high-quality light effects for any project.

Trapcode Sound Keys

Synchronize video to any audio

Audio-intensive animations no longer require time-consuming hand-tweaking of keyframes. Trapcode Sound Keys, a plug-in for Adobe After Effects, makes it easy to synchronize motion and sound using either amplitude or frequency ranges. Unlike palette-based audio-sync products, Sound Keys is applied as a regular effect, making it possible to save settings with your project, generate keyframes into output parameters, and link keyframes to expressions.

Trapcode Lux

See the light in After Effects

After Effects' 3D lighting feature creates pools of light generated from light sources in 3D space — but you can't see the light itself or the cone it produces. Lux simulates the "visible light" phenomenon of light in a dark or foggy



environment. Use Lux to create incredibly realistic visible light sources for spotlights, flashlights, headlights, or stage lighting of all kinds.

Trapcode Horizon

The sky is no longer the limit!!



Give your compositions what they've been missing with this unique mapping tool. Trapcode Horizon plug-in is a camera-aware image mapping tool that ties your After Effects camera to a 3D world. By applying images or

gradients to the inside of a giant sphere, Horizon creates an infinite background. No matter where your camera is directed, the simple ontrols make photorealistic backgrounds or sky gradients a snap.

Trapcode Starglow

Give ordinary highlights a dazzling, sparkling effect

Starglow is a fast-rendering multi-directional glow effect. It can be used to create multi-colored star shaped glints like those created by a camera filter. Each customizable glow consists of up to eight directions, and each direction can be assigned an individual color map and streak length offering endless possibilities.

Trapcode Echo Space

Create painless 3D layer instances!

Echo Space takes the tedium out of working with multiple layer instances in After Effects. Begin with an image, text, footage, or even compositions, and Echo Space will create multiple versions of that layer which can be



controlled as a group or individually. Movement and effects can ripple through the stack — with offset and delay controls and much more.

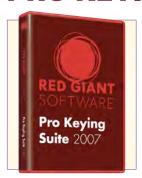
TRAPCODE SUITE 2008.5 (B&H # RETS2008)	699.95
TRAPCODE FORM (B&H # RETF)	196.95
TRAPCODE PARTICULAR (B&H # RETP)	295.95
TRAPCODE 3D STROKE (B&H # RET3DS)	97.95
TRAPCODE SHINE (B&H # RETS)	97.95

TRAPCODE HORIZON (B&H # RETH)	97.95
TRAPCODE SOUND KEYS (B&H # RETSK)	147.50
TRAPCODE STARGLOW (B&H # RETST)	97.95
TRAPCODE LUX (B&H # RETL)	196.95
TRAPCODE ECHO SPACE (B&H # RETE)	68.50



RED GIANT

PRO KEYING SUITE 2008



Everything you need to pull the perfect key in After Effects

Frizzy hair? Semi-transparent glass? This bundle of Primatte Keyer Pro 4.0 and Key Correct Pro lets you tackle the toughest keying challenges with confidence and in record time. Begin by using Key Correct Pro's pre-key tools to prep your footage for keying in the powerful Primatte Keyer, then touch up your mattes in Key Correct Pro for pixel-perfect results within After Effects.

PRO KEYING SUITE 2008

KEY CORRECT PRO

The Ultimate Greenscreen Companion

Key Correct Pro is a set of 15 plug-ins designed to help After Effects users create better composites with built-in keying tools. This set of plug-ins can be in used in combination with any keyer to soften alpha channels, match foreground and background colors, fix outlines, and clean up noise. Ensures top-quality results from popular keyers such as Primatte Keyer, Keylight, and Ultimatte.



- ◆ Color Matcher filter re-maps foreground colors to match backgrounds, making it easy to put your subject in front of a virtual sunset or other compelling backgrounds.
- ◆ The deartifactor PreKey filter fixes chroma sampling problems that are
- often found in footage shot on DV or HDV cameras.
- ◆ With Matte Feather and Edge Blur, you can accurately soften the edges

◆ SmoothScreen minimizes background color variation before the key is

pulled, while Alpha Cleaner fills in the holes in a matte afterward.

- of mattes, hiding the uneven and chattering edges that are often caused by noise, grain or DV artifacts.
- ◆ Light Wrap gives the illusion that background-layer light is reflecting in the foreground, allowing colored lights from sunsets or other scenes to reflect on your subject.



Primatte Keyer Pro

A perfect key with a single click!!

Primatte Keyer Pro is a professional greenscreen tool that extracts keys from any color background quickly and easily. Brings new levels of power and speed to After Effects, Avid and Final Cut Pro. New features include easy-to-use Auto setup, which creates an almost-perfect key with one click. Powerful features allow Primatte Keyer to overcome keying challenges such as uneven lighting, compression artifacts, subtle shadows, and edge light

contamination. Best of all, Primatte Keyer 4 works right on the timeline.

Users get the power of Primatte's amazing quality, but with just one click. The new autosetup analyzes the backing color and creates the key setup automatically.

With new versions for Final Cut Pro and Motion, users can create mattes right on the timeline without leaving their editing application.

Light wrapping and color match features ensure keys that look like they've always belonged on the background of your choice.

Key Correct Pro (B&H # REKCP)

Primatte Keyer Pro (B&H # REPKP).....



RED GIANT

KNOLL LIGHT FACTORY

Lens flare tool from Academy Award winner John Knoll



Created by John Knoll, Photoshop co-creator and Star Wars effects guru, Knoll Light Factory is one of the industry's most popular motion graphics tools. It is most famous for its high-fidelity simulations of light effects called flares, which simulate reflections from a very bright light source as seen through a camera's lens. Knoll Light Factory is Hollywood's go-to tool for adding interest to text or logos or extra pop to FX explosions.

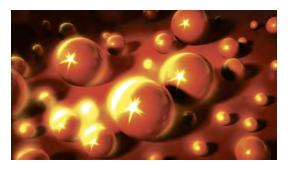


- ◆ Build your own flares or edit a preset with the custom lens editor. Choose from elements such as StarFilter, Ellipse, or PhotonSpikeBall, and control each element's position, color, scale, thickness, angle, and width. You also get pinpoint control over brightness, scale and color of the lens as a whole.
- ◆ Use the same presets (over 70) that the pros turn to every day for sports events and major motion pictures. Presets include Desert Sun, Arc Welder, Generic Panavision, Spikey Glow, Pv1 (for exploding stars), RedLaser, RockConcert, Omnimax (a flare seen on IMAX projection), or Distant Quantum (the original photon torpedo).

◆ Flares can be obscured by objects (cars, enemy spacecraft) that come between them and the viewer. The auto-track feature tracks specific points in an existing alpha channel, making flare location a snap. The integrated Knoll Unmult tool generates alphas, making it easier to include lights and flares in complex composites.

Knoll Light Factory (B&H # REKLFP)..

.394.95



RADIUM GLOW

Easily add sophisticated glimmer to your projects

Unlike most glow filters that just blur your source video, Radium Glow gives you pinpoint control over the glow, with editable shapes that can generate precise outlines or create glimmering points. Includes

advanced edge controls, built-in masking, and output controls that mimic real light behavior. Choose one of three separate glow plug-ins to add nice neon-shaped glows to text, or combine Radium Glow with Trapcode Particular or other plug-ins to create dazzling highlight effects.

- Radium's intelligent area selection system makes the image glow where the source is the brightest. Bright parts of the subject glow larger, much like the result of widening a real camera's iris. This yields natural-looking halos and sparkle that cannot be replicated with other glow effects.
- Plug-ins include Glow which offers advanced masking and intensity controls, Glow Lite has simple controls to apply a glow quickly, and Glow Edge applies glows only around the edges of objects. Four quality levels and full 32-bit floating-point rendering let you find the right tradeoff between speed and detail.
- ◆ Radium Glow uses shapes to generate a glow. Simple circles and star shapes are included, along with a library of 10 other shapes to enable sophisticated glow effects. Glow can even use any source image as a shape, giving you powerful creative control.



SONY

VEGAS PRO 8



Professional Video, Audio and DVD Creation Software

Vegas Pro 8 is actually a collection of software, including Vegas Pro 8, DVD Architect Pro 4.5, and Dolby Digital AC-3 encoding software, to offer an integrated environment for all phases of professional video, audio, DVD, and broadcast production. These tools let you edit and process DV, AVCHD, HDV, SD/HD-SDI, and all XDCAM formats in real time, fine-tune audio with precision, and author surround sound, dual-layer DVDs.

Vista-compatible, Vegas Pro 8 expertly delivers broadcast-ready, high definition content through its flexible user interface and extensive professional toolset. It offers customizable creation tools Including ProType titling technology, multicamera editing, and Blu-ray disc

burning. Equipped with a new 32-bit floating point video engine, Vegas Pro 8 delivers increased quality and accuracy of final output while handling a 10-bit SDI interface at full capacity.

The software offers enhanced scripting capabilities for automating complex workflows, as well as providing new capabilities for editing and delivering Sony AVCHD content. Sony Vegas Pro 8 also introduces a new channel-based mixing console and other audio enhancements, continuing its legacy as the most optimized solution for integrating audio within the video production environment.

FEATURES

- Edit multicamera productions intuitively and quickly by specifying shots as you watch your project. Switch between as many as 32 video sources. Vegas Pro 8 keeps all unused shots as alternate takes to make fine-tuning your edits more efficient.
- ◆ Surpasses traditional 10-bit standards with 32-bit floating point video processing. Take advantage of greater color range for more vivid colors, reduced gradient banding and posterization for smoother color transitions, linear light capability for optically correct compositing, and many other precision enhancements.
- ◆ Edit on 23.976, native 24, 25, 29.97 or 30 fps timelines. Use video in different sizes and frame-rates all on the same project or on the same track—no conversion is necessary. Render Vegas projects out to just about any resolution.
- ProType Titler lets you create animated text effects with splined paths, per-character animation, and advanced curves. Add shadows, glows, blurs, and gradients for unique text treatments. Supports Unicode and TrueType fonts, as well as OpenType fonts with kerning pairs, alternate styles, bidirectional text, ligatures, custom kerning, and more.



Fast, flexible, and feature-rich, Vegas Pro 8 is ideal for SD and HD digital video production, streaming content creation, broadcast production, and more. Edit SD or HD video with drag-and-drop functionality, mouse and keyboard trimming, and ripple editing. Features include ProType Titling technology, multicamera editing tools, 32-bit floating point video processing, customizable window layouts, color-coded snapping, improved HDV/SDI/XDCAM support, Cinescore plug-in support, A/V synchronization detection and repair, and auto-frame quantization.

VEGAS PRO 8

- ◆ Digital signage support makes it easy to author video for tall signage purposes.
- Multiprocessor support significantly reduces complex project-render times on multiprocessor, HT, and multicore systems.
- ◆ Use multiple file formats and frame rates in the same project or on the same track, and crossfade them on the same track roll—all without conversion or rendering.
- ◆ Provides high-quality MPEG-2 encoding for DVD, broadcast and other delivery targets.
- Powerful color correction and matching tools let you adjust differences in video from different camera setups or lighting situation. Enhance dull, washed out footage; or make specific color ranges stand out.
- ◆ Supports high-performance native HDV M2T playback, and 601/709 color space handling. Offers superior SD downconversion and frame-rate conversion including 24p, and precision upconversion for HD-SDI mastering. Also has powerful no-recompress technology for faster render times.
- ◆ SD/HD-SDI support for Blackmagic DeckLink boards and AJA Xena cards allow you to capture, edit, monitor, and print-to-tape using SDI and component SD and HD decks.
- ◆ Choose from over 190 customizable video effects including: Lens Flares, Light Rays, Film Effects, Chroma Key, Timecode Overlays, Color Gradients, Media Generators, Credit Rolls, Text Effects and more.
- ◆ Over 175 2D and 3D real-time transitions, including Barndoor, Clock Wipe, Dissolves, Iris, Linear Wipes, Page Peels, Venetian Blinds, Zooms, 3D Fly In/Out, 3D Shuffle and more. All transitions are customizable and can be keyframed to change over the length of each fade or overlap.
- ◆ Envelope Brush "Paint" Tool lets you "paint" an envelope curve over time by holding down the shift key. This is a quick way to outline the general shape of an envelope without placing and modifying many distinct points. Once you rough in your envelope, the auto thinning feature approximates the drawn curve with as few points as possible. These points can then be further adjusted.
- ◆ Transition progress envelopes provide full keyframeable control over all transition attributes across the length of an event overlap. Create customizable fades or reverse, hold and repeat individual transitions.

DVD Creation

Nothing beats DVD Architect Pro software for professional DVD authoring. Its clean, dragand-drop interface and powerful layout and authoring tools make it easy to develop dynamic menu-based DVDs, movies, picture slideshows, and music compilations. DVD Architect Pro 4.5 software works seamlessly within the Vegas Pro 8 environment.



With Vegas Pro 8 you can burn a Blu-ray Disc directly from the timeline. Blu-ray Disc burning allows you to create a disc similar to a "single movie" DVD—the movie has no titles, menus, or buttons. Blu-ray Disc burning in Vegas Pro 8 provides an alternate distribution option for high-definition content, rather than traditional file-based hard disk or streaming media formats. You can also use the Blu-ray Disc burning feature to create high-definition discs that can playback on a set-top Blu-ray Disc player or on a Sony PS3 gaming system.

- Author menu-based and single-title DVDs using backgrounds, motion menus, buttons, text, and effects.
 Set content to loop, hold, or timeout at the end of a scene. Import layered Photoshop (PSD) files for use as backgrounds, buttons, masks, graphics.
- With Sony Cinescore installed, use it within DVD Architect Pro to generate music for menus, slideshows, and media without leaving the DVD Architect Pro environment.
- Create and run scripts in final DVD design. With scripting you can build robust interactivity into DVD projects.
- ◆ Add keyframes to the DVD Architect Pro timeline to animate objects such as buttons and graphics. You can also use keyframes to control pan/crop attributes over time.
- ◆ Different marker types give you complete control over: Scene selection, Navigation and Button-over-video placement.
- ◆ Create instantly previewable 3D motion effects in realtime with precise control over Z-depth, plane intersection, compositing and more. Track grouping model allows multiple tracks to move and rotate in 3D space.
- ◆ Produce keyframeable Bezier masks for complicated objects. Create depth-of-field effects, apply color correction to specific areas of a clip, crop surrounding source material and create mask overlays. Multiple animated free-form shapes can be created in a single window, with mask invert control for each object. Feather and blend hard edges, set opacity levels for each layer, and zoom the workspace to the sub-pixel level for extremely accurate Bezier mask creation.
- Full screen timeline playback to secondary displays via component or DVI connections, with support for scaling, de-interlacing, and color profiles. Additionally, supports timeline monitoring using DeckLink cards, at all supported resolutions.

- Make subtitles for use in DVD Architect Pro. Create named regions, export the list as a text file using the provided script, then import the file into DVD Architect Pro to autogenerate frame-accurate subtitles. Translated files can also be used as alternate language subtitles in a DVD Architect Pro project.
- ◆ Directly import Flash (.swf) files which can then be scaled to any project size without loss of resolution. Create complex text animations and other effects for projects using any editing tool that supports .swf export.
- ◆ Capture, edit, and render 24p for DV, XDCAM MXF, HD-SDI and more. Export 24p MPEG-2 for use in DVD Architect, create 24p DV, XDCAM HD and HDCAM masters, or create 24p files for conversion to film.
- ◆ Includes Vectorscope, Waveform, Parade and Histogram scopes to accurately measure in realtime— the color, black and whites of video, and locate illegal chroma and luma levels so you can fix them prior to output.



SONY

VEGAS PRO 8

Audio Production

Vegas Pro 8 includes a powerful set of audio tools for the most demanding productions. 24-Bit/192 kHz audio, 5.1 surround mixing, effects automation and time compress/expand. Mix audio in a multitrack environment on an unlimited number of tracks. Use on-the-fly punch-in recording, real-time record meters, 32 assignable effects, 26 Master and Aux outputs; perform automatic crossfades and take advantage of hands-on mixing using external control surfaces and envelope automation recording. Apply customizable, real-time audio effects like EQ, Reverb, Delay, and more. Expand your audio processing and mixing options with supported third-party DirectX and VST audio plug-ins. Use the Mixing Console for precise audio control. No other NLE provides as robust an audio feature set as Vegas Pro 8 software.

- ◆ The Mixer Console provides sophisticated hardware emulation to mix audio, specify routing, assign audio effects, and control automation. Customize your console layout and the details of all track and bus controls—including FX sends—to make working with your audio mixes efficient and productive.
- Vegas Pro 8 takes advantage of new multicore and hyper-threading computer systems to maximize available hardware resources. By leveraging the full capabilities of the hardware and reducing direct CPU load, you will notice:
- Greater number of tracks and audio/video effects for real-time preview
- Improved performance at lower latencies Faster audio render times
- ◆ Vegas Pro 8 automatically detects the existence of Sony Cinescore software, if installed, so you can use Cinescore software within the Vegas Pro environment. This allows you to edit your video and quickly create a custom soundtrack in one application.
- ◆ Supports full resolution 24-bit/32-bit 192 kHz files for the ultimate in audio fidelity. Import, save, and even record to this resolution if your hardware supports it.
- Apply over 30 customizable, real-time audio effects. Automate delays, reverbs, EQs and more with envelope control for each parameter. Use over ten automated effects such as Track EQ, Reverb, Chorus, Delay, Noise Gate, and Flange/Wah/Phase. 5.1 DirectX effects for the master bus include EQ, Dither, and Wave Hammer Surround compression tools.
- Use effects to manipulate the audio components of your project. The included audio plug-ins can improve the quality of the audio in your project or create unique sounds. Vegas software supports additional DirectX and VST effects from a variety of vendors. Audio effects can be applied to all events on a track, to busses, or as assignable effects.
- ◆ Extensive tools for the creation of 5.1 surround mixes. Keyframeable surround panning for tracks and busses lets you mix the most demanding DVD soundtracks without leaving the Vegas environment. Apply 5.1-channel audio effects to the master bus for enhanced control over DVD mixes. Export projects as discrete tracks for postencoding, or encode directly to Dolby Digital surround with the Dolby-certified AC-3 encoder. DVD Architect Pro 4.5 imports AC-3 files for the creation of multichannel 5.1 DVDs.
- On-the-fly punch-in recording on armed tracks while playing back your Vegas Pro project. Record and maintain multiple takes of audio into an empty track, a time selection, an event, or a combination of time and events.



- Perform tape style auto-input record monitoring with event ASR parameters applied to the incoming signal. Monitor input signal when playback is both stopped and during recording.
- ◆ Includes 19 user-definable timestretch modes that let you choose the resampling method that best fits your audio material. Select: change pitch, change length; change length, preserve pitch; or change pitch and preserve length, by semitones or cents.
- ◆ You can use scrubbing to scroll playback of your project at varying speeds. Vegas Pro 8 also has a tape-style scrubber above the timeline that mimics dragging an analog tape past the playhead.
- Use ACID loops in your Vegas Pro project to perform easy video scoring and audio mixing. ACID loops, or any audio event that has had ACID metadata assigned to it, will auto-stretch to the existing project tempo.
- Change the pitch of ACID loops, or any audio event that has had ACID metadata assigned to it, via keyboard commands and modify your audio mix in realtime. Pitch, tempo and stretch amount information is displayed in timeline events.
- ◆ In addition to supporting Microsoft Mapper, Windows Classic Wave, and WDM drivers, Vegas Pro 8 also supports professional-quality low latency ASIO drivers.
- You can use Broadcast wave format files to exchange audio between audio editors or broadcasting platforms. Broadcast wave format files are similar to standard .wav files, but they contain additional metadata including timestamps that tell the software where to add audio on the Vegas Pro timeline.
- Film-Style 5.1 Surround Panning mode supports panning between pairs of adjacent speakers using a constant power model, and is optimized for theater-style speaker placement.
- Vegas Pro 8 provides real-time downmix previewing of audio from 5.1 surround to stereo, or from stereo to mono, to ensure that your mix will sound as intended no matter what the destination playback device.
- Create complex sub-mixes with bus-to-bus routing. The routing flexibility provided by Vegas software gives you a more robust structure for mixing audio projects.
- Modify your project's volume, effects, and panning at the sub-group level. Use bus envelopes to set track effect parameters, volume, and panning for your entire Vegas project.
- Supports the Gracenote MusicID media recognition service. When you extract audio from a CD, you can now view information the tracks including title, artist, and song name.



SONY

VEGAS PRO 8

Capture, Import and Export

Vegas Pro 8 has extensive capture, import, and export support for video and audio. It allows you to efficiently edit and process DV, AVCHD, HDV, SD/HD-SDI, and all XDCAM formats in real time, fine-tune audio with precision, and author surround sound, dual-layer DVDs.

- ◆ Capture DV from a variety of sources with automatic scene detection, batch capture, tape logging, media bins and thumbnail previews. Print projects to DV tape directly from the Vegas Pro timeline with NTSC or PAL color bars, tone, and source file or timeline timecode windows
- ◆ High-quality 2-pass VBR MPEG-2 encoding for DVD, broadcast, and other delivery targets. The high-quality DV codec delivers pristine colors, incredibly sharp images, artifact-free compositing and unparalleled recompression quality.
- ◆ Edit Atrac files and encode to a file format used by Sony MP3 players, NET-MD players, and HI-MD players.
- ◆ Import and arrange multichannel Broadcast Wave files. These files are used by field/hard disc recorders such as Nagra, Sound Devices, Mackie, and Tascam. Vegas Pro 8 provides a workflow by recognizing time-stamp information on multichannel files and working well with these field recorders.
- ◆ Import multichannel audio from pro cameras and decks over SDI. Vegas Pro 8 can treat audio files from these sources as logical grouped events.
- ◆ On faster PCs, Vegas can now print to tape without creating an audio proxy.
- ◆ Burn projects directly to VideoCD
- ◆ Master and burn Red Book Audio CD pre-masters suitable for professional replication directly from the Vegas timeline, with ISRC, UPC, and PQ list support.
- ◆ Create user-customizable scripts for batch rendering, still image export, timecode export, XML-based project export and see how Vegas scripting can optimize your workflow.
- ◆ Supports Windows Media Audio 9 file format, providing users with high-quality, low bitrate compression options, including lossless, CBR, VBR and 5.1 surround audio.
- ◆ Insert metadata command markers to launch Web sites during media file playback, display captions and more.

Efficient, Professional Workflow

The Vegas Pro 8 interface provides a fully customizable workspace for accomplishing a wide range of production requirements. Dock multiple windows across multiple monitors, and save your layouts to fit specific editing tasks; nest Vegas projects within the timeline, customize and save keyboard commands, and use application scripting to automate repetitive tasks. System-wide media management produces maximum efficiency. Network rendering saves time by using multiple computers and networked drive arrays to render complex projects. Vegas Pro software also supports 24p, HD and HDV editing.

- ◆ Supports HD editing and rendering, including output to 1080/60i, 1080/30p, 1080/24p, 720/60p, 720/30p, and 720/24p. Output HD video to .AVI, .MOV, MPEG-2, Windows Media, RealVideo, .PNG and .JPEG sequences. Work with projects up to 2048 x 2048.
- ◆ Efficiently edit and arrange events on the timeline via drag-and-drop. Apply real-time effects, transitions, envelopes, color changes, reverse, time-stretching and motion effects. Expertly edit complex SD or HD long-form projects using mouse or keyboard trimming along with powerful ripple editing modes.
- ◆ Playback and edit effects, transitions and composites on-the-fly without rendering while viewing each change on a monitor in real-time. Vegas Pro takes advantage of the PC's processing power by caching complex processes or effects directly to RAM for smooth frame-rate playback and previews.
- ◆ Projects can be rendered to an iPod®-compatible file that can be transferred using iTunes.
- ◆ MPEG-2 encode supports I-frame insertion at timeline markers. By providing I-frames at timeline markers, a rendered file has precise chapter and navigation point placement for DVD Architect Pro4 software.
- ◆ Customize the layout and positioning of the traditional Vegas layout. Dock multiple windows and save up to ten layout configurations for single and dual monitor systems. Recall a customized window layout for a specific task, and instantly switch to new layouts during playback.
- ◆ View the Vegas timeline on both an internal monitor and an external device (or secondary display) simultaneously.
- ◆ Split-screen A/B previewing lets you compare affected and unaffected video, or compare the timeline with a clipboard image—all viewable in real-time on an external monitor via 1394 enabled hardware.

- ◆ Use the Media Manager window to search and manage media assets. Media Manager maintains a database of your files, including the attributes, ACID metadata, and tags that you can assign to classify your audio and video clips.
- ◆ Use AAF (Advanced Authoring Format) files to exchange projects between applications.
- ♦ When audio and video events are not aligned, Vegas will highlight the events in the timeline so you can see synchronization problems at a glance.
- ◆ Record track envelope and keyframe parameters in real-time using a mouse or external control surface hardware with touch and latch record modes and automatic post-record keyframe thinning. Automation parameter control is available for both stereo and 5.1 tracks and buses, as well as for video track envelopes.
- ◆ Use the Trimmer window to select portions of a piece of media that can be placed into events on tracks, and create media subclips that reference portions of a media file.
- ◆ Scan your project to quickly find edit points using new tape-style scrubbing. Control playback of your project at varying speeds. Scrub using JKL/shuttle or keyboard commands.
- ◆ Create and edit new keyboard shortcuts, import a keyboard mapping scheme or save your current layout for use as a backup.
- ♦ Instantly reverse audio and video events on the timeline either as a locked A/V event group or as independent elements.
- ◆ Effects packages retain their chain order and individual plug-in settings so you can quickly apply desired effects to media.
- ◆ Expertly edit complex long-form projects using mouse or keyboard trimming, event shuffling, as well as advanced ripple editing



SORENSON

SQUEEZE 5



High Quality Compression Made Easy

Squeeze 5 is the latest version of Sorenson Media's award-winning compression and encoding software. In only three quick steps users can select, pre-process, and compress video for output in a variety of formats and publish directly to websites or burn to CD or DVD. Squeeze allows users to output content in all popular formats including: Flash, QuickTime, Windows Media, MPEG-1, MPEG-2 and MPEG-4. Squeeze 5 offers best in class workflows, the highest quality audio & video codecs, simultaneous multi-file encoding, and optimized filter presets, along with an unmatched level of automation. Squeeze requires no in-depth knowledge of compression formats and allows users to work faster without compromising quality. Squeeze 5 includes Sorenson Video 3 Pro, Sorenson Spark Pro, Sorenson

MPEG-4 Pro and Sorenson H.264 Pro video codecs. It also supports the On2 VP6 Pro Encoder and Bias Soundsoap plug-ins (sold separately). VP6 and Soundoap are included as part of Squeeze 5 Pro.

FEATURES

- ◆ The Squeeze single-pane interface enables you to compress video without requiring a detailed knowledge of codecs or compression settings.
- Includes Microsoft VC1 codec for Blu-ray encoding, high quality H.264 codec, improved MPEG-1 and MPEG-2.
- ◆ Audience Presets feature allows users to bundle preprocessing filters, filter order, encoding settings and even output destinations, such as FTP, into a single custom preset. Squeeze 5 also allows presets to be sorted by either format or output target. In addition, a convenient active-search feature built into the preset lists allows users to quickly find what they need.
- New video filters include Watermarking, Hue, Saturation, and Sharpen. Enhanced filters include Inverse Telecine and Deinterlacing. New audio filters include Audio Duration and Audio Volume.
- ◆ Squeeze is easy to use for beginners and pros, and integrates seamlessly with leading video production applications and finished work distribution options. Squeeze's optimum workflow will minimize the amount of time spent on the compression task.
- Easy to understand layout offers individual customization and shortcut keys where you need them.

- ◆ Squeeze includes High Definition (HD) encoding options for AVC/H.264, Flash, MPEG-1, MPEG-2, MPEG-4, QuickTime, RealMedia. and Windows Media.
- Import digitized video files, reference movies, or capture from DV cameras. After importing files, publish video in the format of choice and have it automatically sent to an application, to another location on your network, or uploaded to the Web via FTP.
- ◆ Works the same on Mac and Windows. Learn it once and use it on either OS.
- Maximum flexibility with advanced controls of audio/video parameters such as: audio normalization, contrast/brightness, de-interlacing, fade-in/out, telecine removal, video noise reduction, white/black restore with image smoothness slider.
- ◆ Sorenson Media FLV player makes it possible to play and preview encoded FLV files.
- Squeeze supports Two-Pass VBR, which produces higher-quality video than standard compression while only adding slightly more processing time.

Squeeze 5 Pro Step-up Features

Squeeze 5 Pro is the industry-leading video encoding tool, enabling users to efficiently re-purpose video content for web, CD, DVD or applications. Squeeze allows users to output content in all popular formats including: Flash, QuickTime, Windows Media, MPEG-1, MPEG-2 and MPEG-4. Squeeze 5 Pro includes Sorenson Video 3 Pro, Sorenson Spark Pro, Sorenson MPEG-4 Pro and Sorenson H.264 Pro video codecs. Includes the On2 VP6 Pro Encoder and BIAS Soundsoap plug-ins. It also includes the Complete Squeeze 5 Training DVD.



Squeeze 5

For Windows and Mac. (Mfr # 20310-31 • B&H # SOS5)499.00

Squeeze 5 Pro

For Windows and Mac. (Mfr # 20350-31 • B&H # SOS5P)...**599.00**



TIFFEN

DFX

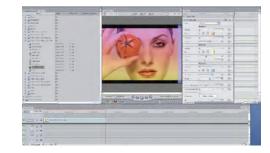


Digital Filter Suite Software

Free your creative potential. Choose from a palette of up to 1,000 definitive digital filters. Tiffen Dfx represents a technological breakthrough that both complement and expand the extraordinary creative

control Tiffen optical filters bring to imaging. Unlike other software, Dfx offer effects that simulate the extensive range of Tiffen's world-reknown optical filters, plus much more! They also provide ease of use, unmatched performance, tremendous flexibility, and infinite creative control.

Dfx is offered both as a stand-alone and as a suite of application-specific plug-ins. The plug-ins seamlessly integrate with today's popular image-manipulation or video post-production software. Both the suites and stand-alone are Windows and



Mac compatible. For videographers and editors, a video production version of the Dfx filter suite allows for seamless integration with today's most popular post-production software, including Final Cut Pro, Avid Xpress, Adobe After Effects, and other compatible programs.

Dfx Complete Edition (Stand Alone) (Mfr # DFXCMP • B&H # TIDFXCMP) ...199.95

Dfx Plug-in for Adobe After Effects (Mfr # DFXAE • B&H # TIDFXAE)**599.95**

Dfx Plug-in for Final Cut Pro (Mfr # DFXFC • B&H # TIDFXFC)599.95

SCREEN WRITING SOFTWARE

FINAL DRAFT



Final Draft 7 Script Writing Software for Mac/Windows

Final Draft AV 2.5 for Mac/Windows (Mfr # FDAV25 · B&H # FIFDAV25)

Dedicated full-featured scriptwriting software designed for professional writers of commercials, corporate and training videos, documentaries and presentations.

Unlike standard word processors, Final Draft AV keeps the audio and video columns automatically aligned when text is added, edited or deleted. There are no complicated commands to learn and no need to worry about style or placement of text; Final Draft

AV creates a professionally formatted Audio-Visual script in no time......134.95

POWER PRODUCTION



Storyboard Quick 5

A quick and easy way to create storyboards for film, music videos, commercials and other projects. The software is simple to use and features pre-drawn props, characters and

locations. It lets you import digital photos and easily output finished storyboards so that you can collaborate with others on your project. Storyboard Quick allows you to easily create professional storyboards, even if you can't draw to save your life. It features an intuitive interface and a plethora of pre-drawn props, customizable characters and locations for use in your storyboards. It even allows you to import your script to more easily create a visual outline of your project before you ever turn on the camera.

Storyboard Quick 5 (*Mfr#PPS1005* • *B&H # POSBQQ*)
For Mac and Windows**289.95**

