



Final Cut Studio 2

Product Overview
April 2007



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Final Cut Studio 2

Introducing Final Cut Studio 2. Editing unleashed.

Final Cut Studio 2

Final Cut Pro 6
Color
Motion 3
Soundtrack Pro 2
Compressor 3
DVD Studio Pro 4

Final Cut Studio 2 helps take you beyond mere editing. Discover the intuitive power of new creative tools designed expressly for Final Cut Pro editors. 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 puts a powerful new version of Final Cut Pro at the center of an integrated post-production workflow. Final Cut Studio 2 includes Final Cut Pro 6, Motion 3, Soundtrack Pro 2, Compressor 3, DVD Studio Pro 4, and Color—a brand-new application for professional color grading.

It's a Final Cut World

Independent filmmakers. Hollywood film editors. Corporate video and event producers. Editors with hourly deadlines cutting broadcast spots or network news. Hundreds of thousands of creative professionals all over the world have made Final Cut Pro their first choice for editing. It has rapidly become an industry standard.

Building on this success, Apple has designed each application in Final Cut Studio 2 with Final Cut Pro editors in mind. 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.

The Editor's Choice

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. Final Cut Studio 2 has everything you need in a single product.

Edit. Use Final Cut Pro 6 for native editing of virtually any format—from DV and SD up to HDV, XDCAM HD, DVCPRO HD, and fully uncompressed HD. Or use ProRes 422, a new post-production format from Apple that offers uncompressed HD quality at SD file sizes. Drag clips with different formats and even different frame rates into the new 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. Just drag and drop to make dramatic particle effects explode into 3D space; form vector-based paint strokes with the swish of a pen. New Motion master templates let you edit text and drop in video without leaving Final Cut Pro.

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 new 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.

Grade. Give your production a signature look or create a consistent feel for shots from different sources. Color is the newest member of the Final Cut Studio family, offering professional color grading that can elevate the quality of any production.

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 4 to output film lists that combine timecode and keycode in a single list. Or use DVD Studio Pro 4 for professional DVD authoring and mastering.

Post-Production Without Walls

Final Cut Studio 2 is not just a product. It's a platform. Open standards encourage innovation, giving 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.

Whether you're working in a group of 2 or 200, Final Cut Studio lets you collaborate with ease. Share media seamlessly across multiple workstations with Xsan. Use Final Cut Server—with or without Xsan—for media asset management and workflow automation that is deeply integrated with Final Cut Studio 2. Whether you're cutting commercials, editing feature films, or pushing out the nightly news, Final Cut Server helps you work faster whenever you're working together.

New in Final Cut Studio 2

Final Cut Studio 2 is a powerful new version of Apple's industry-leading post-production software. It includes substantial upgrades—Final Cut Pro 6, Motion 3, Soundtrack Pro 2, and Compressor 3—and introduces Color, a brand-new application for professional color grading.

The following are some of the top new features in Final Cut Studio 2:

- **Open format Timeline.** The new open format Timeline in Final Cut Pro 6 lets you mix and match source material in a wide range of formats and even different frame rates. Freely edit a combination of HD and SD, including NTSC and PAL, all in real time.
- **Apple ProRes 422.** Final Cut Pro 6 introduces ProRes 422, Apple's new post-production format offering uncompressed HD quality at SD file sizes. Use ProRes 422 when collaborating over an Xsan storage network or working on a portable computer in the field; when working with non-native camera formats; or to preserve maximum quality for composites and demanding color grading work.
- **Real-time professional color grading.** Use Color, Apple's new color grading application, to create signature looks for projects ranging from short video pieces to full-length theatrical films. Move freely through a set of streamlined workspaces designed for primary and secondary color adjustments, color effects, reference stills, and geometry changes. An easy-to-use toolset helps editors work efficiently, using familiar interfaces and intuitive adjustment tools. Round-trip integration makes Color a seamless extension of your work in Final Cut Pro 6.
- **3D multiplane compositing environment.** Motion 3 makes it easy to create 3D motion graphics by extending the 2D tools you already use into 3D space. Drag and drop camera behaviors to dolly, truck, and orbit around a scene or move from layer to layer. Use multiple viewports to adjust cameras, lights, layers, and motion paths in 3D space. Then go beyond the basics by bringing elements like particles, Replicator patterns, and text behaviors into this comprehensive 3D design environment.
- **Point tracking and match moving.** Set up point tracking or four-corner match moves in just a few clicks using intuitive new tools in Motion 3. Quickly attach text, particles, or any layer to an object in a video clip and follow the movement of the object with pinpoint accuracy. Say good-bye to guessing and repeated trials; Motion identifies the best potential tracking points and dynamically adjusts for common tracking errors.
- **Image stabilization and SmoothCam.** Motion 3 offers two powerful options for correcting shaky shots. Use the image stabilizer to lock down a shot without the time-consuming setup required by most stabilization tools. Or use the SmoothCam feature to retain standard camera moves like pans, tilts, and zooms while eliminating handheld camera jitters or bumps. Both features are based on sophisticated optical flow technology originally developed for Shake.

- **Professional multitrack editing.** Work more efficiently than ever in the new single-window interface in Soundtrack Pro 2, with tools designed to save you time on common tasks such as selecting takes, spotting sound to video, and removing noise from field recordings. Then use a rich palette of audio effect plug-ins, Foley, sound effects, and music to add the perfect creative touch to your soundtrack.
- **Intuitive surround sound.** Soundtrack Pro 2 makes it easy to create professional surround sound mixes. Use an innovative surround panner to view a dynamic visual representation of how sound is panned in the surround field. Choose from more than 1000 royalty-free surround music beds and sound effects; use any of the provided surround audio effect plug-ins, such as the Space Designer convolution reverb, or adapt any mono or stereo effect plug-in for use on surround tracks.
- **Automatic audio conform process.** If you make changes to your sequence in Final Cut Pro, use the powerful new Conform feature in Soundtrack Pro 2 to automatically update your audio project to match the video edit. The Conform feature compares the two versions and highlights the changed audio clips. Confidence ranking, auditioning, and intuitive navigation tools help you choose whether to accept, reject, or modify each change, or you can accept all changes. Then Soundtrack Pro repositions your accepted changes to match the audio edit to the video edit.
- **Multiformat delivery made easy.** Compressor 3 has been streamlined to optimize efficiency for any encoding job, including the output of multiple files to multiple formats. With a customizable interface and drag-and-drop batch processing tools, Compressor makes it easy to create files for delivery on iPod, Apple TV, the web, DVD, mobile phones, and next-generation Blu-ray and HD DVD discs. This versatility comes through expanded support for leading industry-standard formats, such as MPEG-2 and H.264, as well as chaptering tools for podcasts and Apple TV.
- **AutoCluster for distributed encoding.** Use the Qmaster application included in Compressor 3 to distribute encoding jobs across a network of Mac systems. The new AutoCluster feature in Qmaster automatically configures a cluster of computers based on available resources. For even faster throughput, you can configure Qmaster to manage individual processors in each computer, turning any Mac Pro into a virtual render farm.

Final Cut Pro 6

One timeline. Infinite possibilities.

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, including:

- Broad format support
- Incredible real-time effects
- Comprehensive editing tools
- Expanded power as the hub of Final Cut Studio
- Open, extensible architecture



New in Final Cut Pro 6

New features in Final Cut Pro 6 offer even more ease of use and flexibility—including expanded format support and deeper integration with the other applications in Final Cut Studio 2. New features include:

- **Open format Timeline.** The new open format Timeline in Final Cut Pro 6 lets you mix and match source material in a wide range of formats and even different frame rates. Freely edit a combination of HD and SD, including NTSC and PAL, all in real time.
- **Apple ProRes 422.** Final Cut Pro 6 introduces ProRes 422, Apple's new post-production format offering uncompressed HD quality at SD file sizes.

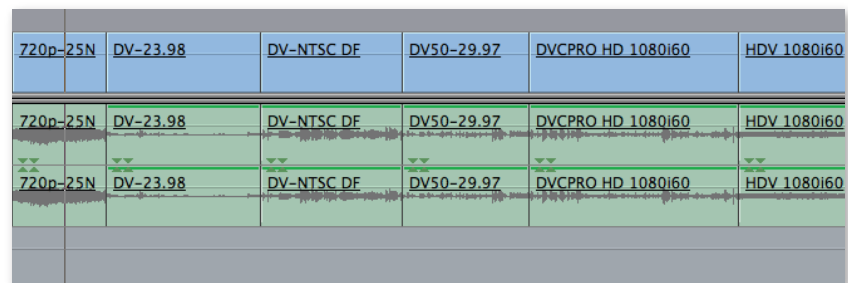
- **SmoothCam.** The SmoothCam feature automatically smoothes out shaky shots while preserving standard camera moves like dollies, pans, and zooms.
- **Deep integration with Motion 3.** Editable Motion 3 master templates—complete with video drop zones and text fields—let you easily update content without leaving Final Cut Pro. Transfer clips to Motion while preserving your retiming and SmoothCam information from Final Cut Pro.
- **FxPlug filters and transitions.** Add to more than 150 real-time filters and effects in Final Cut Pro 6 by bringing in third-party filters based on the FxPlug standard—the format used to produce the extraordinary real-time effects in Motion.
- **Improved audio.** New Soft Normalize and Gain controls can be applied to single or multiple clips to automatically raise the level of any clip to its maximum without distortion. Create a surround sound mix in Soundtrack Pro, then return to Final Cut Pro to monitor your audio in full 5.1 surround sound as you continue your video edit.
- **Simplified setups.** Setting up a sequence is now as easy as dragging and dropping. Final Cut Pro instantly configures the setup to match the format of the first clip you drop into the Timeline. For manual setups, save time with the Easy Setup feature.
- **Integration with Color.** Send your project to Color for advanced color grading with round-trip ease. Color can also be used in Digital Intermediate workflows to color grade and output high-resolution film scans.
- **Cinema Tools 4.** A streamlined interface in Cinema Tools 4 helps you work more efficiently. Customizable film lists now let you mix 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 also output easy-to-read PDF lists.

Broad Format Support

Final Cut Pro 6 lets you edit virtually anything and retain the highest possible quality, including camera-native editing of leading SD and HD formats. Work with DV one day, then HDV, XDCAM HD, DVCPRO HD, or uncompressed HD the next. Or use ProRes 422, Apple’s new post-production format, for uncompressed HD quality at SD file sizes.

Open format Timeline

The new open format Timeline in Final Cut Pro 6 lets you mix and match source material in a wide range of formats and even different frame rates. Just drag and drop your footage into the Timeline. Freely mix and match HD and SD, including NTSC and PAL. Final Cut Pro 6 offers real-time scaling and playback for video in various camera-native formats as well as Apple ProRes 422.



Apple ProRes 422

Final Cut Pro 6 introduces ProRes 422, the new post-production format from Apple that 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.

Camera-native editing

Final Cut Pro 6 lets you edit virtually anything natively. That means that you'll get pristine quality from the first cut to the final output. Final Cut Pro doesn't need to transcode video from camera-native formats—no matter whether it's coming from a DV, HDV, or DVCPRO HD camera. Your output will always be as stunning as your original source.



Final Cut Pro 6 supports a wide range of standard- and high-definition formats.

Standard Definition	High Definition
DV, DVCPRO, DVCAM	HDV
DVCPRO 50, IMX	DVCPRO HD, XDCAM HD
Uncompressed 8- and 10-bit SD	Uncompressed 8- and 10-bit HD

Tapeless formats

It's easy to work with the latest high-speed, tapeless devices from Panasonic and Sony. Use the Log and Transfer function in Final Cut Pro for ingesting Panasonic P2 files; use Sony's free XDCAM Transfer software for ingesting 18-, 25-, and 35-Mbps XDCAM HD 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.

Cinema Tools 4 for film

Cinema Tools 4 is a powerful upgrade that offers additional convenience for traditional film workflows. This version is deeply integrated with Final Cut Pro 6 and features a streamlined interface that lets you work even more 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.



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, without wasting time waiting for renders.

RT Extreme with Dynamic RT

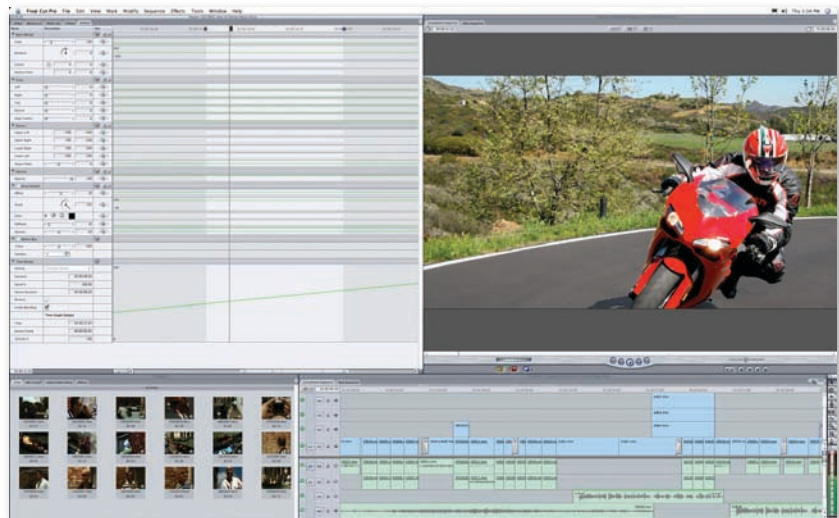
RT Extreme with Dynamic RT delivers industry-leading real-time performance for DV, SD, HDV, DVCPRO HD, and fully uncompressed HD video. RT Extreme delivers real-time playback of more than 150 effects—as well as multiple streams of video used for picture-in-picture effects and multicamera editing.

Enjoy maximum performance on systems ranging from a MacBook Pro to powerful desktop systems. 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.

Dramatic filters and effects

Make your project memorable by choosing from 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.

Then extend your repertoire even further by bringing in third-party filters based on the FxPlug standard—the same format used to produce the extraordinary real-time effects in Motion. Dozens of leading developers support the FxPlug standard for real-time, GPU-accelerated plug-ins at 32-bit float quality.



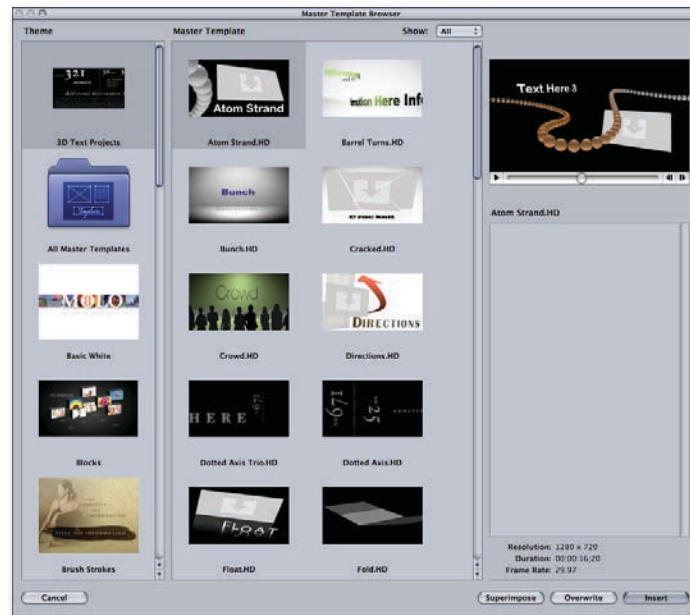
SmoothCam

Smooth out shaky scenes without altering zooms, pans, dollies, and other standard camera movements. The new SmoothCam feature in Final Cut Pro 6 uses sophisticated optical flow technology to analyze and adjust your problem shots. Because SmoothCam works in the background, you can edit other material while it analyzes the shaky footage.

Editable Motion 3 master templates

Whether you're creating program opens, promos, bumpers, or any other repeating element, you can't afford to waste time rebuilding the graphics every time you need to swap out footage or update the text.

New 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.



Real-time color correction

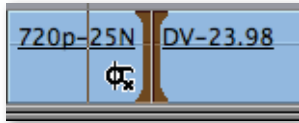
Final Cut Pro 6 includes a comprehensive set of real-time color correction tools, including primary and secondary color correctors; image control filters; broadcast-safe filters; tools for matte and key operations as well as luma and chroma range checking; real-time scopes and monitors; and a frame viewer for comparing your shots.

Digital Cinema Desktop

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, such as an Apple Cinema HD Display or any DVI-based device for video output. Even if you're working on a MacBook Pro, you can view your video full screen or create an impressive screening for your clients with a second high-resolution display or projector.

Comprehensive Editing Tools

The faster the tools, the more time you have to be creative. Final Cut Pro 6 makes it easy to edit quickly, accurately, and flexibly. Everything you do in Final Cut Pro—from editing and trimming to audio mixing to finishing to delivery—feels like second nature, so your creativity can flourish.



Precision editing and trimming

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, and Swap Edit. Then fine-tune your choices with Ripple, Roll, Slip, Slide, Extend, and Shorten, either in the Timeline or a dedicated Trim window.

You'll find all the tools that professional editors expect—including three-point editing, JKL keyboard navigation, match frame, multitrack and asymmetric trimming, extend and split edit functions, and more. It's all there, it's all frame accurate, and it's all fast.

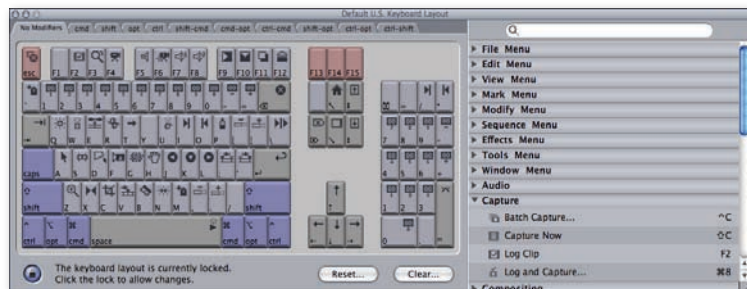
Real-time multicam editing

Cut multicamera 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. For even more speed and convenience, group up to 128 sources into multiclips, adding and subtracting cameras at any time.



Fully customizable interface

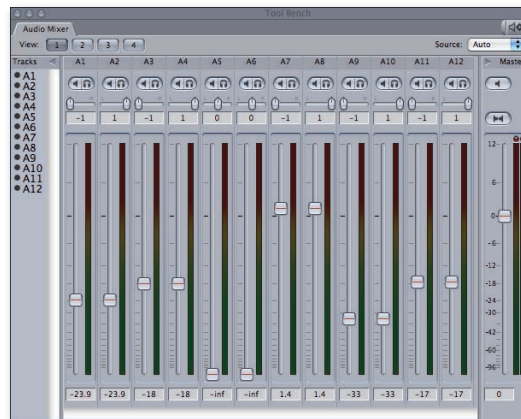
Final Cut Pro speeds your edit even more by letting you work the way you want. Easily customize window layouts and Timeline track sizes; customize Browser column order, width, and layout; and adjust font size in the Browser and Timeline. Then zoom through your work with customizable access to more than 600 commands; create keyboard shortcuts—or add buttons to the user interface—for the commands you use most.



24-channel audio mixing

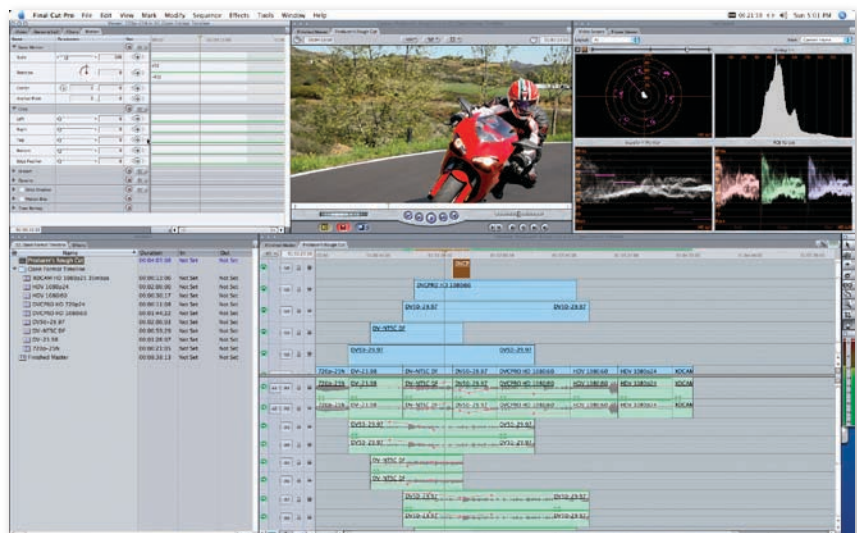
Final Cut Pro 6 lets you work with 24 channels of audio input and output at up to 24-bit, 96kHz resolution. Freely adjust your mix without altering the original audio files. You can adjust your levels using the onscreen mixer or ride multiple faders at the same time on any Mackie Control Protocol (MCP) device. The new Soft Normalize and Gain feature analyzes and automatically raises the level of any clip to its maximum without distortion.

You can apply high-quality Audio Units filters—such as Reverb and EQ—without leaving Final Cut Pro. These filters are also used in Soundtrack Pro, which means that you can continue to adjust your effects if you send your project to Soundtrack Pro for additional mixing.



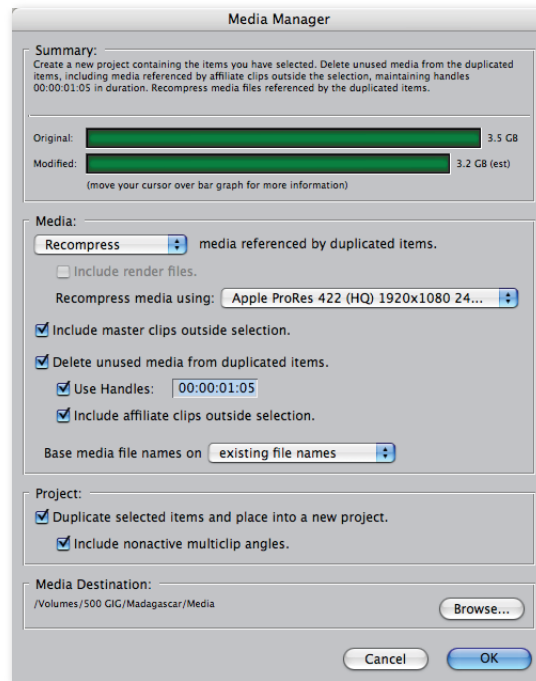
Pristine finishing and frame-accurate output

Final Cut Pro 6 has complete Edit to Tape and Print to Video tools for creating professional output. High-quality scale and rotate algorithms ensure that picture-in-picture effects or effects with rotation will 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.



Built-in media management

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.



The Hub of Final Cut Studio

Final Cut Pro 6 extends its power through the other applications in Final Cut Studio 2. Finish your edit 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.

Professional color grading with Color

When 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.

Digital Intermediate and 2K camera-native workflows with Color

More and more feature films are produced with Digital Intermediates. This refers to productions that are shot on film, scanned to a high-resolution 4:4:4 2K DPX 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 Digital Intermediate 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.

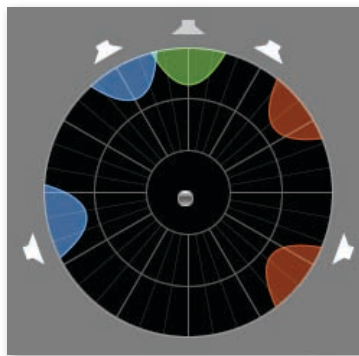
Motion graphics and image processing with Motion 3

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.

Send shots to Motion whenever you want to make additional SmoothCam and retiming refinements. You can also use Motion 3 to create editable templates—complete with video drop zones and text fields—for repeated use in Final Cut Pro.

Surround sound and stereo mixes with Soundtrack Pro 2

Complete your basic audio editing and mixing in Final Cut Pro, then send your project to Soundtrack Pro to enhance your audio tracks with additional plug-ins, dialogue, music, Foley, and sound effects. Mix for surround sound, stereo, or both at the same time. You can also use Soundtrack Pro to quickly repair audio problems such as clicks, pops, or hums. Use the new Conform feature in Soundtrack Pro 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.



Pristine-quality output with Compressor 3

It's no longer enough to output just to film or tape. Most productions today are distributed in multiple formats, which may include formats for the web, iPod, iPhone, Apple TV, and digital cinema. Send your Final Cut Pro projects to Compressor 3 for easy batch processing output of multiple files to multiple formats, all at pristine quality.

Professional authoring with DVD Studio Pro 4

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.

Integration with Shake 4

Top major 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.

Xsan support

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.

Integration with Final Cut Server

Final Cut Pro 6 works seamlessly with Final Cut Server, Apple's new 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.

XML interchange

Final Cut Pro 6 uses XML under the hood to track and manage all of the thousands of actions and assets that go into an edit. But it's no secret.

Apple has documented this powerful XML format and made it public. 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. Thanks to XML interchange, the sky's the limit with Final Cut Pro.



FxPlug

FxPlug is a new format for filters and transitions that offers astonishing quality through GPU-accelerated 32-bit float processing. Originally introduced in Motion, FxPlug is now the default plug-in format for Final Cut Pro 6, and Apple has made it an open standard. Dozens of leading developers are using the FxPlug standard to create hundreds of extraordinary effects that can be used in Motion and Final Cut Pro.

QuickTime

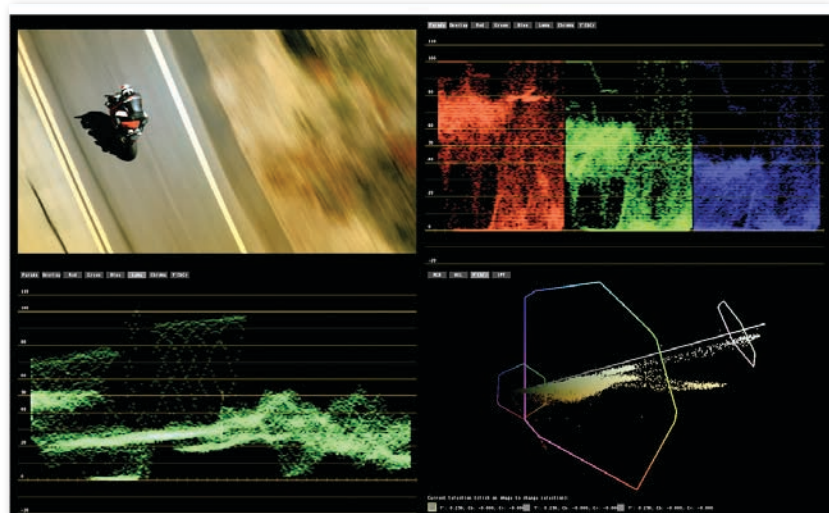
QuickTime is an industry standard for professional video. Final Cut Pro supports the full range of QuickTime formats, including the new Apple ProRes 422 post-production format. QuickTime is flexible enough to contain virtually any type of media—all the way from DV up to fully uncompressed, high-bit-depth video at HD resolutions. This means that developers can easily create products that are interoperable with Final Cut Studio. The QuickTime format includes custom metadata that can be used to support specialized workflows.

Color

Color grading is in the house.

Color grading involves more than color correction. Just as different soundtracks can make a particular scene feel humorous, romantic, or menacing, the look created by a color grade can radically alter the tone and mood of a sequence. Color, Apple's new professional color grading application, makes it easy for editors to create signature looks for projects ranging from short video pieces to full-length theatrical films. Color offers the following key features:

- Real-time professional color grading
- Dramatic color effects
- Cinema-quality signature looks
- Final Cut Studio workflows



Real-Time Professional Color Grading

Quickly and easily experiment with primary and secondary color grade adjustments for SD, HD, and even 2K projects. You can preview the results—at any resolution—in real time as you work. 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.

Intuitive task-based workflow

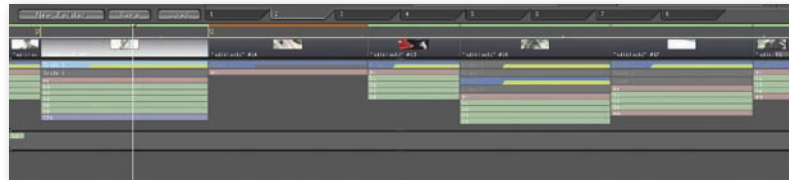
Color uses a task-based workflow that is organized logically into eight “rooms,” or workspaces, designed to offer streamlined access to just the tools you need. Start with Primary In for foundational grading, then use any other room in any order until you’re ready to render through the Render Queue room. The rooms are as follows:

Setup	Setup is automatic when you send a Final Cut Pro project to Color. Use the controls in the Setup room when you want to define special-purpose render settings, apply broadcast-safe settings, or group shots from different reels or sequences to apply effects in a nonlinear workflow.
Primary In	The Primary In room is used in every color grading project to perform global adjustments on an entire clip or sequence. The primary grade serves as the foundation for applying additional corrections and effects as needed.
Secondaries	Use secondary correction tools to isolate discrete parts of the image for further adjustment. You can track selection areas over time so that effects happen precisely where you want them. Make up to eight secondary corrections per grade.
Color FX	The Color FX room allows you to apply color transformations and other effects to create a specific look.
Primary Out	The Primary Out room allows you to make global adjustments on top of all your other grading choices, as a final step before rendering. Or use Primary Out to quickly show directors or clients a new grade that they have requested at the last minute.
Geometry/ Pan & Scan	Quickly adjust the composition of a scene or your entire project in the Geometry/Pan & Scan room. Prepare a 4:3 version of a 16:9 project using preset aspect ratios; or use custom settings for zooms, scaling, and rotation. To change the composition of the shot over time, use automatic motion tracking or keyframes.
Still Store	Work in the Still Store room to capture stills for use as reference images. Use reference stills to compare footage with your ideal grade so that you can identify and fix inconsistencies.
Render Queue	Enter the Render Queue room to set up and monitor rendering for your final color grade. Use a recommended graphics card to render in RGB at resolutions up to 4:4:4 with 32-bit float processing.

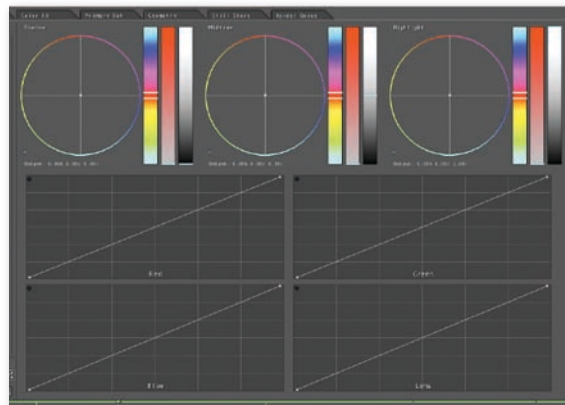
Accessible toolset

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 Color easy to use because of their experience with Final Cut Pro.

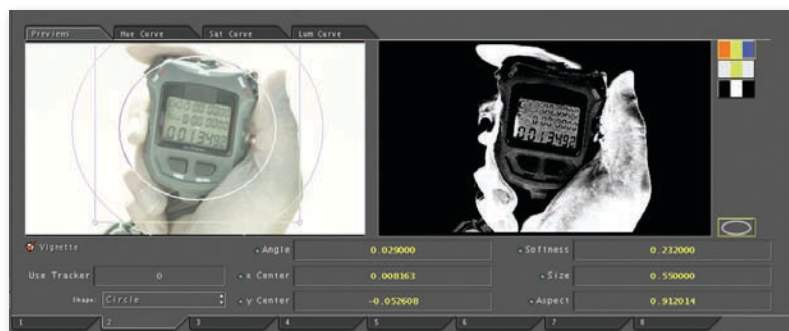
- **Timeline and Bins.** Use familiar tools to manage your color grade. Your sequence in Color appears the same way you see it in Final Cut Pro, complete with a customizable multitrack Timeline. For Digital Intermediate (DI) workflows, use the Timeline for trimming as you render to DPX or Cineon files. Bins are used to save settings for later reuse, including Corrections (made in a single room), Grades (made across multiple rooms), Still Store images, and custom color effects.



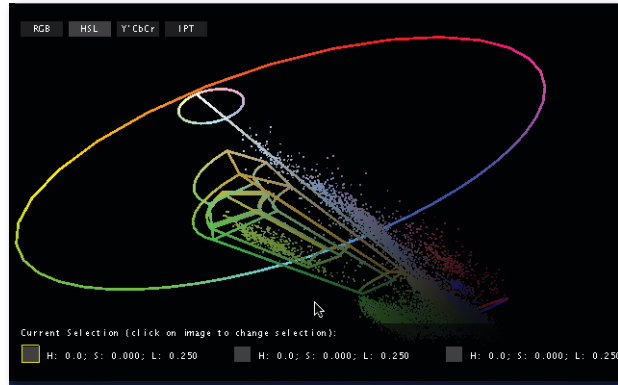
- **Primary grading tools.** Primary grading tools are used to make adjustments to the entire image in a frame, shot, or sequence. Use familiar color wheels to adjust highlights, midtones, and shadows. Rapidly make adjustments for lift, gamma, gain, and saturation. You can make primary corrections on input to begin grading, or on output after you've added other color or geometry effects.



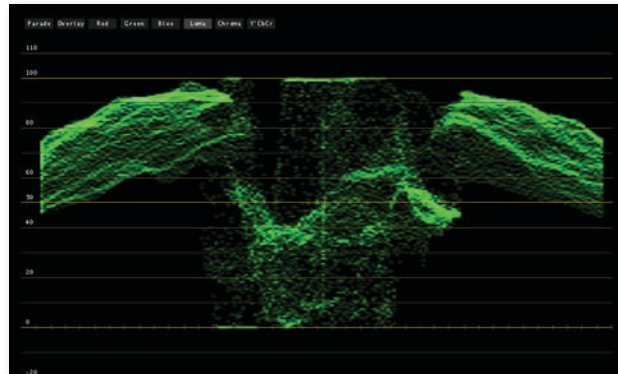
- **Secondary grading tools.** Secondary grading tools let you adjust parameters that are restricted to specific objects, areas, or color ranges in the scene. Select areas using hue, saturation, or luminance values. Or create custom masks, called Vignettes—including freeform shapes with soft edges that offer complete control over edge falloff. Automatic motion tracking makes it easy to attach a Vignette to a moving object.



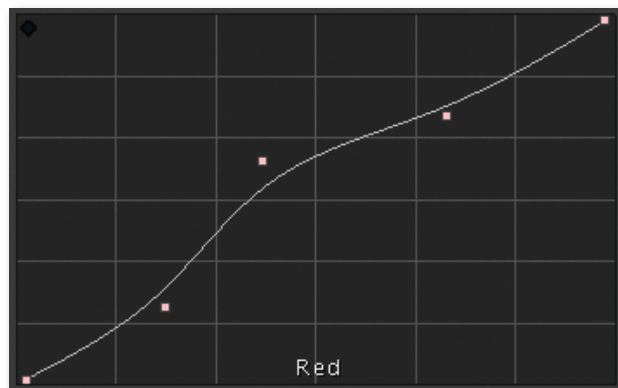
- **3D Color Space scope.** An innovative scope displays chrominance and luminance in a single view that you can manipulate in 3D space—all with real-time response and precise control. You can view the colors in the entire image or isolate a specific color. Use the 3D Color Space scope to monitor RGB, HSL, Y'CbCr, or IPT values as you make fine-grained color grading adjustments.



- **Interactive 2D scopes.** Enjoy instant feedback from waveform monitors and vectorscopes as you make adjustments. For additional insights, use scopes that show histogram and RGB parade views.



- **Curve controls.** Quickly refine primary grades using highly responsive, interactive curve controls. Add control points and make adjustments to red, green, blue, and luma curves, while seeing the results in real time. B-spline smoothing between control points helps you get to your final look faster.



- **Keyframe Editor.** Tune primary, secondary, and geometry parameters over the duration of your scene or sequence by using the Keyframe Editor. Add as many control points as you need; interpolation controls let you rapidly create values for in-between frames.



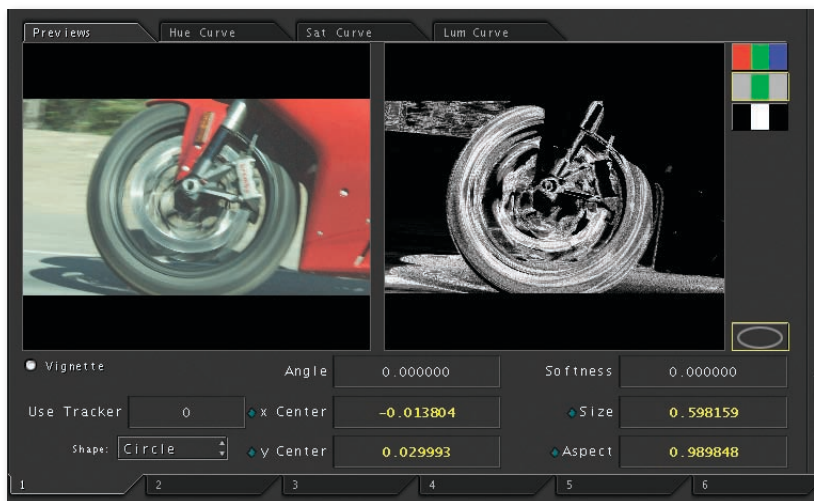
- **Control surfaces.** For even greater efficiency, add industry-standard control surfaces from Tangent Devices or JLCopper. These devices include trackballs and knobs that allow you to control multiple parameters at the same time.

Dramatic Color Effects

Color grading extends well beyond primary color correction. A complete system of color effects, advanced masking, motion tracking, and other tools in Color lets you isolate a specific area of a shot or sequence and make it memorable.

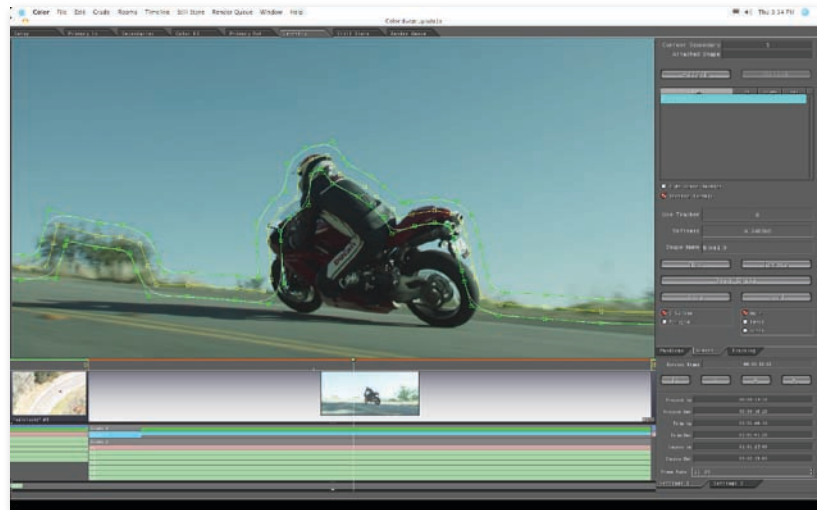
Chroma key mattes

Select specific areas to work with based on hue, saturation, and luminance (HSL) values. Then use the Keyframe Editor to tweak parameters over the duration of your scene, so you get just the effect you want in every frame. Use the Key Blur parameter to soften the matte and reduce noise.



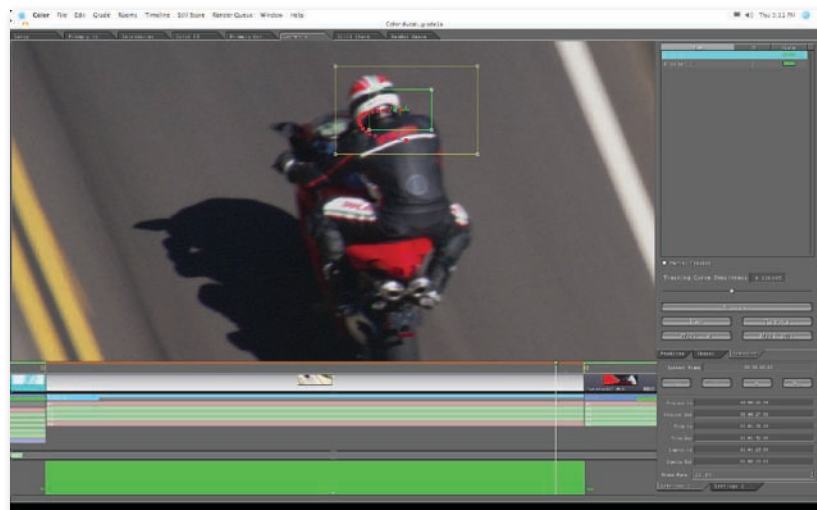
Shape masks and custom masks

Precisely define an area for secondary color correction by creating a Vignette, or mask. These masks can be based on four-sided shapes; ovals or circles; or freeform B-spline shapes—all with complete control over size, location, and rotation. Vignettes also have fully adjustable edge qualities. Quickly change softness using either a graphical interface or numerical controls; manipulate inner and outer splines to make fine-grained adjustments to edge falloff.



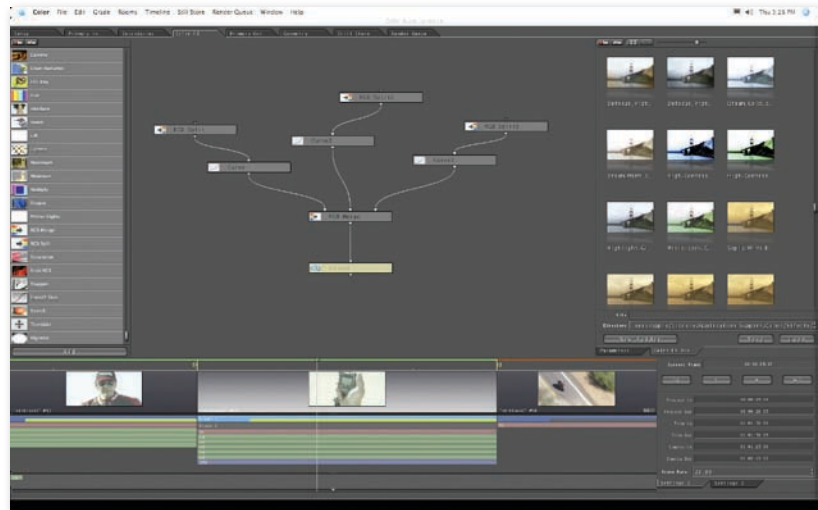
Motion tracking

Use motion tracking to match Vignettes to objects over time, so effects can happen precisely where you want them. Easily set up target and search areas for automatic tracking; Color calculates the series of points based on the target area you've identified. You can even save different sets of tracking points and use the set you like best. Adjust Tracking Curve Smoothness to even out any movement between the tracking points and improve the accuracy of the track. If you prefer to track a shot by hand, use the Manual Tracker.



Color effects

Choose from more than 35 color effects included in the application, such as Grain Reduction, Film Look, Bleach Bypass, and Printer Lights. Apply a single effect or create completely custom effects by chaining effects in a node tree with drag-and-drop ease. Then save your effects for later use. If you want, expand your library even further with third-party plug-ins from leading developers.



Cinema-Quality Signature Looks

Realize the director's vision with a signature look for a film. Create a unified look for a series of broadcast programs or promos. Or design a look for a low-budget project that makes it feel like a blockbuster. Color makes it easy to create, reuse, and share grades that express a specific mood, tone, or visual style. It even includes a library of grades to help you get started fast when you're ready to create the perfect look for your project.

"Live" color grades

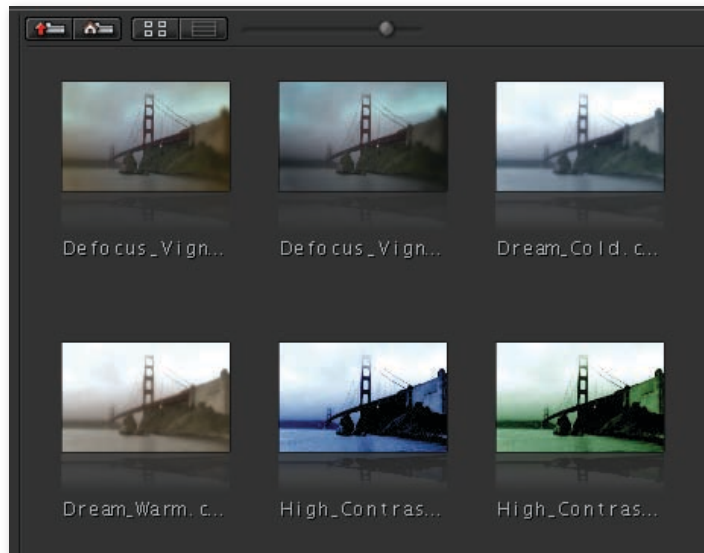
A color grade gives a project its distinctive look by storing a set of adjustments made across multiple rooms. Work dynamically with up to four "live" grades that you can switch at will as you evaluate different looks. Rapidly make changes using nondestructive tools and see your results in real time. You can even use live grading with real footage for rapid tests on the set, to ensure that the lighting and other aspects of the production design will support the final look.

Reusable grades

Color makes it easy to experiment freely, with or without a client in the room. Apply a grade to an entire sequence, copy and paste grades, and save any grade for reuse or distribution. A professional colorist using Final Cut Studio can create a grade for you on a separate workstation. Then you can import the grade into Color and apply it to your sequences before returning to Final Cut Pro for finishing and output.

Built-in looks

Get started fast by choosing one of more than 20 looks provided as custom effects in the Color FX Bin. The looks, reminiscent of your favorite films, include Dream Warm, Day for Night, Warm Glow, and Movie Look Green for a science fiction feel. Modify the looks if you wish, or create and save your own custom looks.



3D lookup tables (LUTs)

When you're doing precise high-resolution color grading, you want to be sure that the color you see on your grading monitor is exactly the same color you'll see on the big screen. Import standard 3D lookup tables into Color to represent the color space for common film stocks, projection systems, and digital video formats, or create your own color management system to match specialized display or projection requirements.



Final Cut Studio Workflows

You've finished the edit. Now it's time to give your project a memorable look. Send it to Color with a single click, perform sophisticated color grading, then return color-corrected media files to Final Cut Pro without losing any of the original XML data from your edit.

Round-trip integration

Send sequences from Final Cut Pro to Color with a single click. You'll see the constant speed effects play back just the way they do in Final Cut Pro, and you can correct multilayered video in place. When you've finished your color grade, send the project back to Final Cut Pro for finishing and output.

Nondestructive XML-based workflow

All of the Final Cut Pro XML metadata from your edit is preserved when you send your project between Final Cut Pro and Color. The metadata used by Color points to your original media. After you finish your color grade, render out, and send the project back to Final Cut Pro, the sequences automatically point to the new color-graded media, leaving your original files intact.

Digital Intermediate and 2K camera-native workflows with Final Cut Pro 6

More and more feature films are produced with Digital Intermediates. This refers to productions that are shot on film, scanned to a high-resolution 4:4:4 2K DPX 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 Digital Intermediate 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.

Motion 3

Now playing in 3D.

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. This powerful upgrade to Apple's award-winning motion graphics software features:

- An intuitive real-time design environment
- Flexible animation tools
- 3D motion graphics done right
- Breathtaking filters and effects
- Numerous time-saving features



New in Motion 3

Motion 3 sends your animated graphics into exciting new dimensions with its intuitive 3D design environment and a range of sophisticated new image processing tools. New features include:

- **3D multiplane environment.** Easily create 3D motion graphics by extending the 2D tools you already use. Motion 3 offers a comprehensive 3D design environment, complete with cameras, lights, layers, and motion paths. Bring particles, Replicator patterns, and text behaviors into 3D space for instant 3D effects.

- **Vector-based paint.** Use the swipe of a pen to create pressure-sensitive paint strokes, complete with dramatic 3D looks. Because the strokes are vector-based, you can adjust their path and position without losing any of their texture or animated properties.
- **3D text behaviors.** Build dramatic title sequences with drag-and-drop ease using new 3D text behaviors. For astonishing multidimensional effects, drag 3D text behaviors onto text arrayed on a 3D path.



- **Point tracking and match moving.** Set up point tracking or four-corner match moves in just a few clicks. Quickly attach text, particles, or any layer to an object in a video clip and follow the movement of the object with pinpoint accuracy.
- **Image stabilization and SmoothCam.** Use the image stabilizer to lock down a shot without the time-consuming setup required by most stabilization tools. Or use the SmoothCam feature to retain standard camera moves like pans, tilts, and zooms while eliminating handheld camera jitters or bumps.
- **Synchronized Audio behavior.** With the new Audio behavior in Motion 3, creating an animation that synchronizes to music has never been easier. Apply the behavior to any parameter on any layer.
- **Dynamic retiming behaviors.** New retiming behaviors in Motion 3 let you create sharp, clean speed changes and adjust them dynamically. Motion 3 even calculates match frames for the beginning and end of retiming effects.
- **Advanced Keyframe Editor.** Draw animation curves for any parameter in seconds using the intuitive new keyframe pen tool in Motion 3. Easily squish, stretch, and reposition groups of keyframes. Use convenient keyboard shortcuts to call up curves for position, opacity, rotation, scale, shear, and anchor point.
- **Seamless integration with Final Cut Pro.** Motion 3 preserves Final Cut Pro cuts, layers, retiming, and SmoothCam information. New editable Motion 3 master templates—complete with video drop zones and editable text fields—let you easily update content without leaving Final Cut Pro.

Intuitive Real-Time Design Environment

The powerful real-time design engine in Motion 3 means that you can 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. Explore. Experiment. Play.

Real-time design engine

Work fast, fluidly, and flexibly in real time, using intuitive tools that let you set objects in motion with drag-and-drop ease. Motion 3 makes it possible to create animations interactively with a client in the room, or enjoy the creative freedom of rapid iteration when you're working alone. Just drag a behavior to the Canvas to set an object in motion, without any need to write expressions or manipulate keyframes. When you're ready for final output, enjoy the stunning quality of GPU-accelerated 16- and 32-bit float rendering.



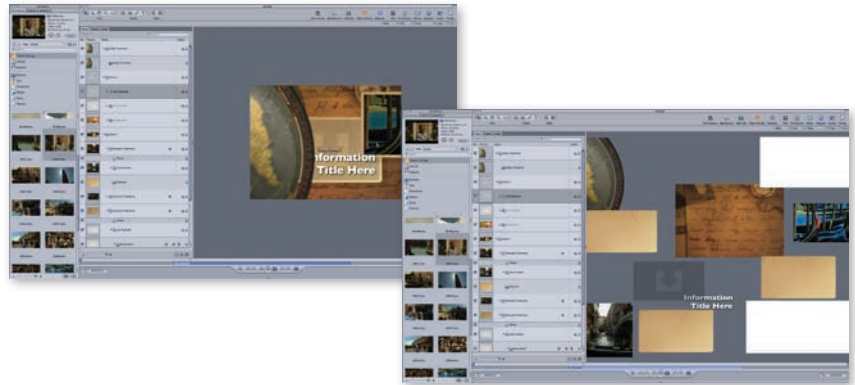
Progressive interface

Sometimes you want to work fast and keep it simple. Sometimes you need precise control. Motion 3 gives you the best of both worlds with its progressive interface. Use intuitive heads-up displays and drag-and-drop tools to accomplish the basics with ease. When you're ready for more control, a single click opens a full Timeline, Inspector, or Keyframe Editor for making precise adjustments or creating completely custom effects.

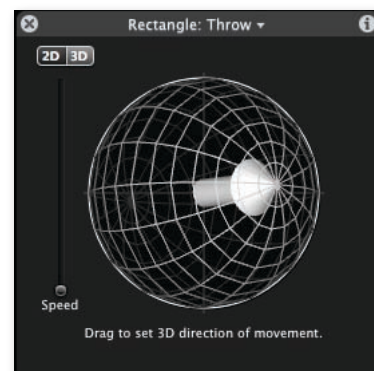
Configurable workspace

Motion 3 lets you work quickly and intuitively, with all the options you need for a given activity available at the click of a mouse or swipe of a pen. The fully configurable user interface lets you arrange the controls to fit your work style without obscuring or shrinking the Canvas. You can even remap keyboard shortcuts with drag-and-drop ease.

- **Layers.** Take advantage of unlimited layering to combine video, text, and graphics. You can composite using standard blend modes; group objects and layers for parenting-like control; and use any graphic or particle system as an image mask. Use the Layer Exposé feature to instantly access any layer; a single keystroke displays all layers as thumbnail views in the Canvas.



- **Library.** The Library lets you quickly and easily search for one of more than 700 filters, effects, particles, and design elements included in Motion 3. You can also use the Library to save your own sets of favorites. Preview effects and animation presets as you search.
- **Timeline.** The Timeline supports multitrack audio and video editing, including Insert, Overwrite, and Replace edits. Use the Timeline to trim movies, filters, and behaviors or to adjust the speed of video and audio clips.
- **Heads-up displays.** A heads-up display (HUD) is a semitransparent floating palette that offers dynamic control over the most common parameters for a given object. Manipulate shapes or use sliders; the HUD displays just the controls you need, making it simple and even fun to manipulate animation behaviors. Choose the 2D view for creating two-dimensional animations; a single click reveals dynamic 3D controls for working in three dimensions.



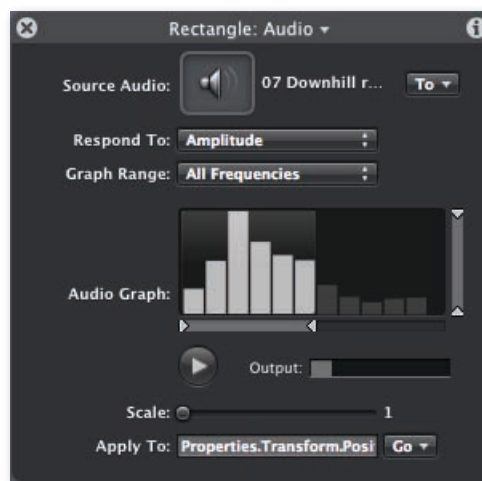
Flexible Animation Tools

Apply behaviors for a rapid, fluid approach to animation. Or take advantage of full keyframe curve editing for fine-grained precision. You can even mix and match to get just the effect you want.

Behaviors

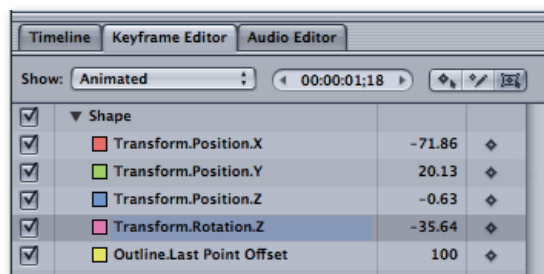
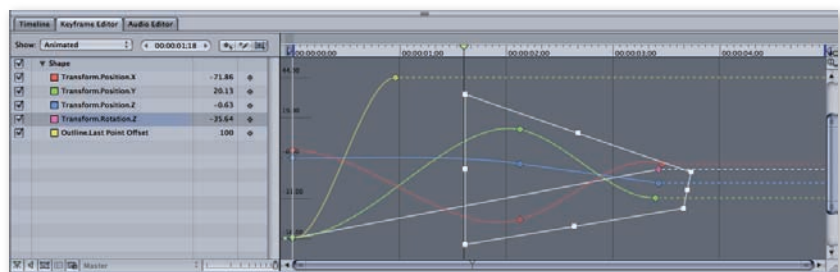
Behaviors are used to produce natural-looking motion and realistic simulations of interactions among objects. Just drag a behavior—such as Gravity, Repel, Throw, or Vortex—into the Canvas to set objects bouncing, spinning, or orbiting.

Behaviors can also be used to trigger sets of parameters, like the new Audio behavior that automatically synchronizes your animation to a soundtrack. Choose from more than 100 behaviors that make it easy to set things in motion.



Keyframes

If you want to use keyframes, the 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 Done Right

Motion 3 makes it easy to create 3D motion graphics without learning a new interface or writing expressions. The integrated 3D multiplane environment is a natural extension of the 2D tools you already use. All of the familiar Motion features, such as particles, Replicator, text behaviors, and motion paths, extend into three dimensions with ease. Freely mix 2D and 3D groups to quickly achieve the results you want.

3D multiplane environment

Motion 3 makes it child's play to 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.



Integrated 3D toolset

Do what you do best, then do it even better in 3D. The 2D features you already use have been extended to 3D space. 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. Group patterns of repeating elements created with Replicator and fly a camera around them, or have other 3D layers animate through the replicated patterns.

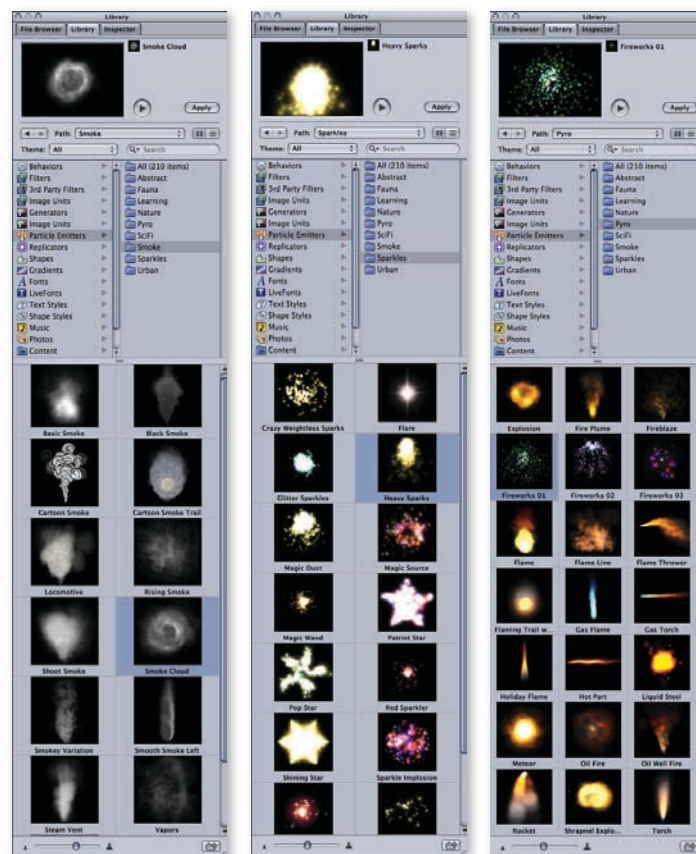
Choose a 3D behavior to send objects rocketing around 3D space. To create astonishing title sequences, just apply a 3D text behavior; the Text Sequence behavior produces wavelike animations through characters, with full 3D rotation and positioning changes. Or use pressure-sensitive brush strokes in the new paint feature and animate the strokes through 3D space.

Breathtaking Filters and Effects

Motion 3 comes with more than 150 GPU-accelerated filters and effects—including Aura, Light Rays, Dazzle, and Glass Distortion filters—that you can use to move your projects from so-so to spectacular. And filters are just the beginning. Insert particles, replicating patterns, or vector-based paint strokes. Use sophisticated motion tracking tools to match the moves of a graphic element to a moving object in a video clip. Or adjust your footage with sophisticated optical flow retiming and shot stabilization tools.

Particles

Particle effects in Motion 3 are limited only by your imagination. 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.

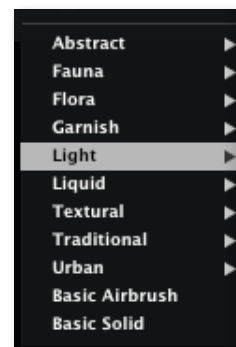
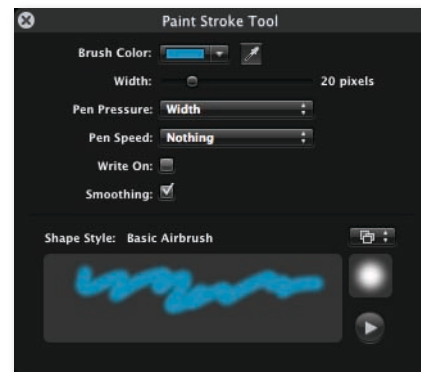
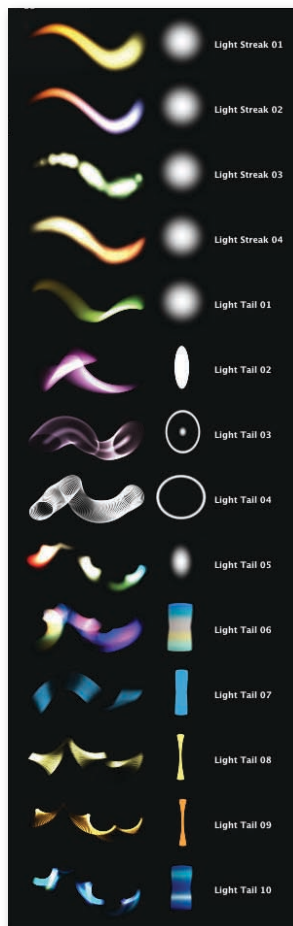
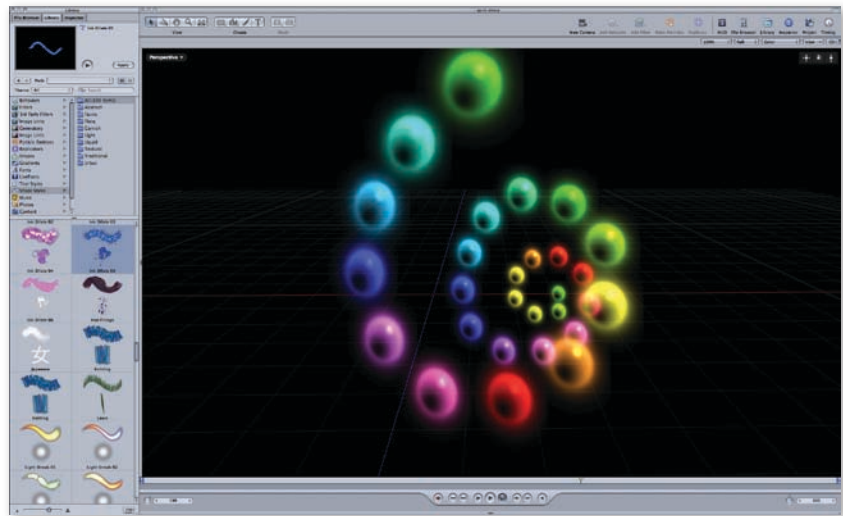


Replicator

Replicator makes it easy to build patterns of repeating elements. Just 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. You'll create amazing motion graphics in minutes.

Vector-based paint

It's indistinguishable from magic. 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. You can design your own brushes using color, gradients, or even QuickTime files. Because the strokes are vector-based, you can adjust their path and position without losing any of their texture or animated properties. Every stroke you make can add depth to your animations.



Optical flow retiming

Motion 3 lets you achieve crystal-clear slow motion and modify the settings with drag-and-drop ease. 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. Slide retiming effects anywhere on the clip and the effect automatically updates.

You'll see stunning results, thanks to the power of optical flow technology developed originally for Apple Shake. Optical flow uses a sophisticated algorithm to analyze the footage and create new "in-between" frames, while maintaining pristine quality across the clip. Keep working while your shots are analyzed in the background. The analysis for every clip is saved for future use, so you'll never have to analyze a clip more than once.

Point tracking and match moving

Use Motion 3 to automatically match the move of an object to a moving point in a video clip. Quickly 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, such as a bus that travels through a shot; then use a four-corner match move to flawlessly integrate a new side-panel billboard that moves as the bus moves.

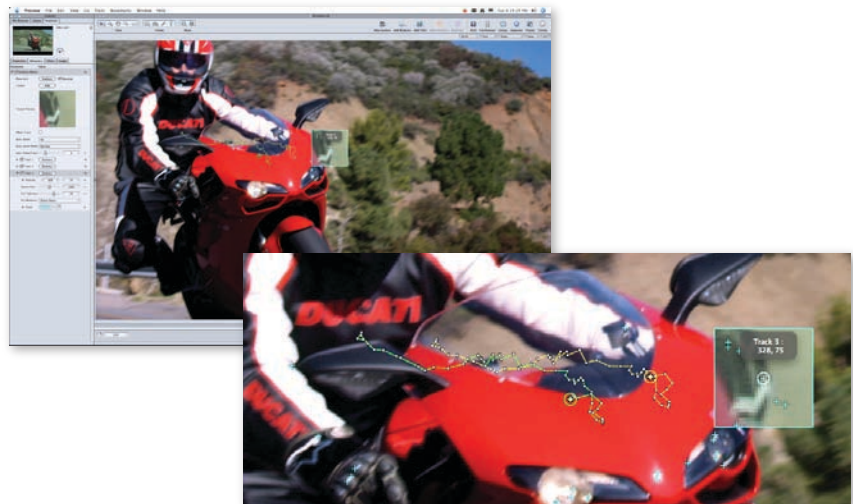


Image stabilization and SmoothCam

If you've been handed a shaky shot, bring it into Motion 3 to correct it quickly and easily. Use the stabilizer to lock down a shot without the time-consuming setup required by most stabilization tools. Or use the new SmoothCam feature, which retains standard camera moves like pans, tilts, and zooms, while algorithmically eliminating handheld camera jitters or bumps from the move.

Real-time filters and effects

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. Many of these effects work just like native Motion 3 effects, with the same onscreen controls, floating-point processing, and GPU acceleration.

Time-Saving Features

Spend your time creating content—not sifting through media, converting files, or reinventing the wheel with basic animation builds. Motion 3 takes the hassle out of your job with a set of features that free you from tedious, repetitive, low-level tasks. Now you can focus instead on the creative work you love.

Integration with Final Cut Studio

Deep integration with the Final Cut Studio family saves time when you send files between Motion and the other applications.

Final Cut Pro sequences retain editable cuts, layers, retiming effects, and more when you bring them into Motion.

Drag any Motion project into Final Cut Pro or DVD Studio Pro without exporting or rendering. Instantly see updated motion graphics in either application after you save changes to your project in Motion. Or send your audio to Soundtrack Pro. As soon as you save the updated soundtrack, it appears in Motion.

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.

Integration with other applications

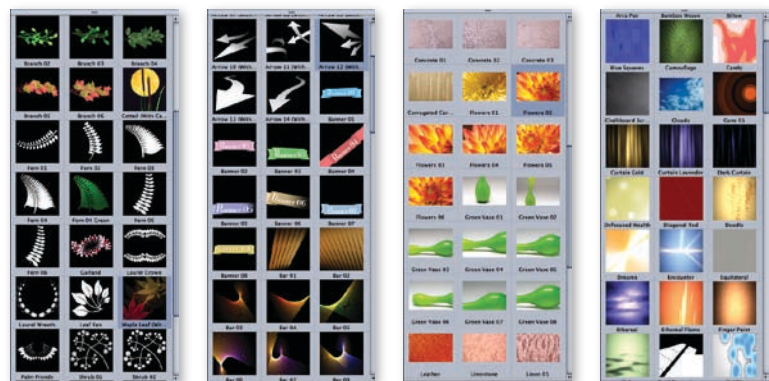
Motion 3 also works smoothly with applications outside Final Cut Studio, including Apple Shake and common Adobe graphics applications.

Send Motion projects to Shake 4, Apple’s industry-leading compositing tool, by dropping Motion projects into Shake without rendering; render 32-bit OpenEXR files in Shake to bring stunning film quality back into Motion.

Easily import vector-based Adobe Illustrator files or layered Photoshop graphics. Or use native Motion projects as nested compositions in After Effects 7. You’ll be able to work fast and keep your options open thanks to the integration features in Motion 3.

Apple-designed graphic elements

Find quick inspiration and get a jump start on your next motion graphics project. An extensive library of motion graphic elements designed by Apple is available for your use—royalty-free—right in Motion 3.



Select from a large set of particle systems, including smoke, fire, rain, bubbles, clouds, snow, glittering sparkles, and more. Pick an elegant animated shape, such as calligraphy effects. Or select from a library of stunning high-resolution textural photographs. Use combinations of elements as building blocks for your own creations and modify any element at will. These high-quality elements quickly take care of the basics, so you can let your creativity run free on the rest of the design.

Media management

It's easy to move, pare down, and find the media assets you use to create and modify your Motion projects. The Collect Media function moves all the content associated with a project into a folder. The Unused Media feature discards media not used in your project to minimize your storage requirements.

Spotlight keyword searches let you drill through your projects down to the layer level to locate just the project you need. Or use the powerful features of Final Cut Server for comprehensive asset management and workflow automation.

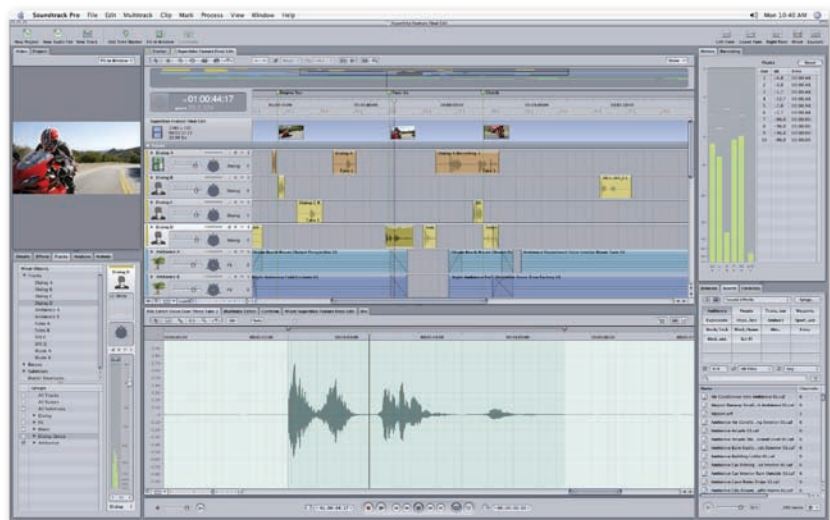
Soundtrack Pro 2

The next wave in audio post.

Soundtrack Pro 2 offers unprecedented convenience and power to editors. Fly through audio editing and mixing with a new, 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.

Key features of Soundtrack Pro 2 include:

- Streamlined multitrack interface
- Professional editing and dialogue tools
- Intuitive surround sound
- Automatic audio conform process
- Intelligent workflows



New in Soundtrack Pro 2

Soundtrack Pro 2 offers a new, streamlined interface and a comprehensive set of professional tools for audio editing, including intuitive surround sound mixing and a range of time-saving features:

- **Streamlined multitrack interface.** Work more efficiently than ever in the single-window interface, with tools designed to save you time on common tasks such as selecting takes, spotting sound to video, and removing noise from field recordings.

- **Surround mixing.** Soundtrack Pro 2 makes it easy to create professional surround sound mixes with an innovative surround panner, more than 1000 royalty-free surround music beds and sound effects, as well as surround audio effect plug-ins.
- **Automatic audio conform process.** If you make changes to your sequence in Final Cut Pro, use the powerful new Conform feature in Soundtrack Pro to automatically update your audio project to match the video edit.
- **Multipoint spotting display.** The innovative new three-up video display makes it easy to synchronize sound effects and dialogue to specific events in the video. Scrub the audio cue back and forth and watch the video dynamically update the start-, sync-, and end-point views.
- **Lift & Stamp.** Use the new Lift & Stamp tool to quickly copy a set of effects or EQ characteristics from one clip and apply them to another, or save them as a preset for future use.
- **Revolutionary “take” management.** Combine parts of the best takes in record time. The new Multitake Editor lets you select the best words or phrases from each take; then Soundtrack Pro seamlessly combines them in a final composite.
- **Professional podcasting.** Soundtrack Pro 2 makes it easy to create professional podcasts, including audio-only, enhanced, and video podcast formats. Place chapter, artwork, and URL markers without leaving Soundtrack Pro.

Streamlined Multitrack Interface

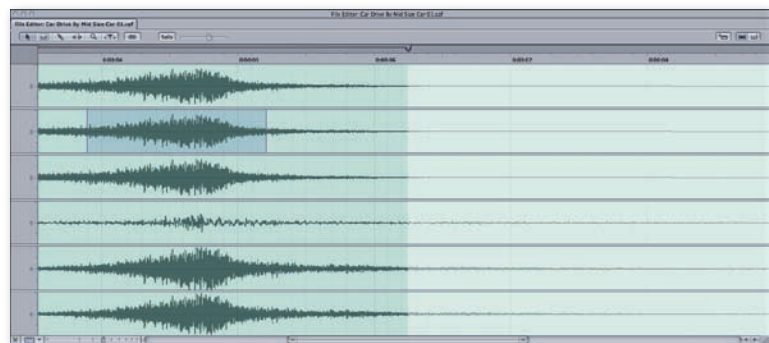
Soundtrack Pro 2 features a streamlined interface that allows video editors to work efficiently with familiar tools, while simultaneously providing the depth and control that audio professionals need to complete even the most complex projects.

Single-window interface

The multitrack Timeline is now combined with the Waveform Editor in a new single-window interface that lets you fly through audio editing and mixing. Start with a simple Timeline, then progressively disclose additional interface controls for sophisticated tasks. Customize screen layouts, including configurations for single- and dual-display systems.

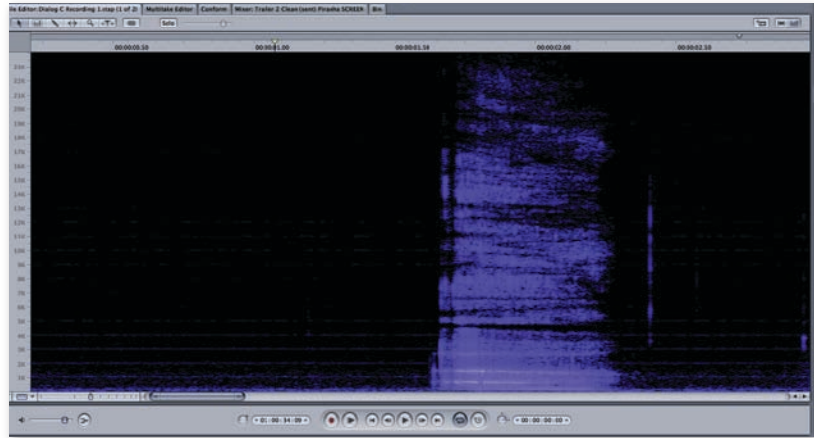
Nondestructive, multichannel Waveform Editor

Select any clip from the multitrack Timeline, then use the integrated multichannel Waveform Editor to perform nondestructive edits and processing on the audio file.



Spectrum view editing

View audio frequency over time in the Spectrum view, with amplitude revealed through color intensity. Select portions of the audio frequency with pinpoint precision, then edit them without affecting other frequencies.



Multitrack Action List

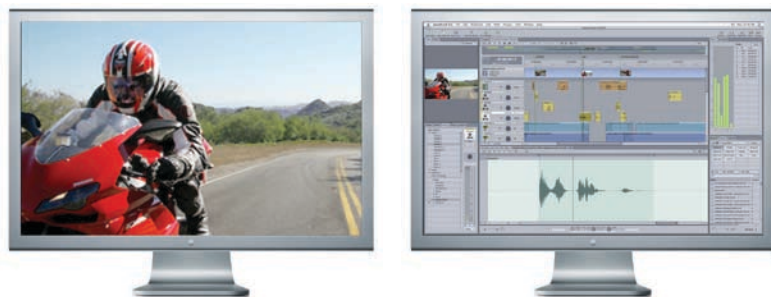
Instantly recall a list of actions for any file or clip in your multitrack project using the multitrack Action List. Quickly reorder, suspend, or delete any operation on any file at any time, right in the single-window interface.

The Bin

Use the Bin to manage audio files, clips, and markers across multiple projects. The Bin includes a powerful search tool and provides single-click access to your media.

Integrated video playback

Watch perfectly synchronized HD or SD video in the integrated playback window, view it on a second monitor, or send the video out through professional I/O devices to a broadcast monitor.

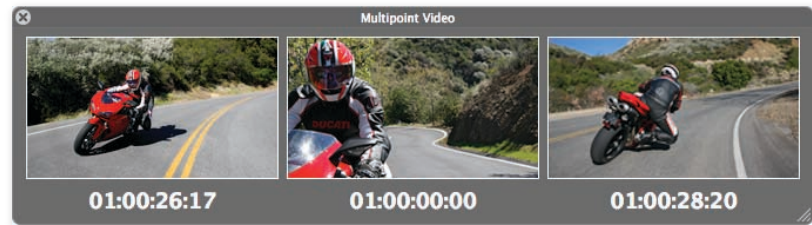


Professional Editing and Dialogue Tools

Whether you're performing a simple crossfade or comprehensive audio post-production, Soundtrack Pro gives you a full range of professional tools for precision editing, audio restoration, processing, and mixing—all with unparalleled video integration.

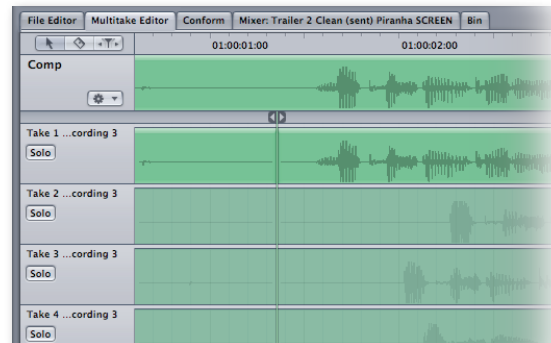
Multipoint spotting display

The innovative new three-up video display makes it easy to synchronize sound effects and dialogue to specific events in the video. The display shows video frames for a clip's start, sync, and end points. Scrub the audio cue back and forth and watch the video dynamically update as you identify exactly where to position your sound effect.



Revolutionary take management

Combine parts of the best takes in record time. The new Multitake Editor lets you view all takes simultaneously in a single window. Select the best words or phrases from each take, then let Soundtrack Pro combine them in a final composite, including crossfades between takes for seamless playback.



Lift & Stamp

Use the new Lift & Stamp tool to quickly copy a set of effects or EQ characteristics from one clip and apply them to another, or save them as a preset for future use. The Lift & Stamp EQ matching technology in Soundtrack Pro 2 can make dialogue from different sources sound as if it were recorded at the same time.

Intelligent find-and-fix

Repair field-recorded dialogue or restore old or damaged recordings quickly and easily. Soundtrack Pro 2 includes a set of audio tools that analyze an audio file for common problems, such as clicks and pops, hum, and phase issues, and fix them individually or in a single operation.

Professional effects

You can sculpt exactly the sound you want with more than 50 professional stereo and surround effect plug-ins. Choose EQ, Compression, Reverb, or more extreme delay, distortion, and modulation effects. Then extend your collection with a range of fully compatible third-party Audio Units plug-ins.

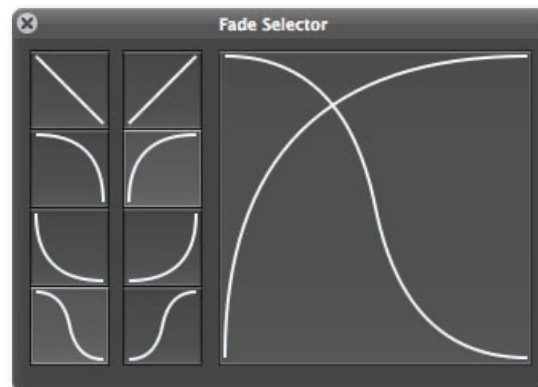


Multitrack recording

Soundtrack Pro 2 supports multitrack recording for mono, stereo, or multichannel input sources.

Fade Selector

Quickly apply fades with the option to choose and customize fade curves in a visual interface.



Rolling edits

New trimming tools in Soundtrack Pro work in the same way as tools in Final Cut Pro. Adjust trim points between audio clips with ease.

Tape-style scrubbing

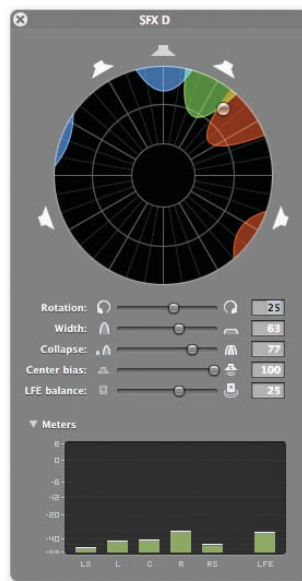
Accurately locate significant points in the audio for placing edits. The Scrub tool lets you hear the sound at any speed, just as if you were scrubbing tape.

Intuitive Surround Sound

Cinematic sound. Revolutionary control. Soundtrack Pro 2 gives you everything you need to create immersive surround mixes for your project. Whether you're mixing a multimillion-dollar blockbuster or an independent film, Soundtrack Pro makes it easy to produce cinematic soundtracks for your productions.

Surround mixing

Soundtrack Pro 2 offers an intuitive and comprehensive set of tools for creating professional surround mixes. Create cinematic soundtracks for your projects with discrete 5.1 mixing, bussing, and routing. An innovative surround panner dynamically represents how sound is panned in the surround field as you make adjustments, which greatly simplifies the task of creating immersive sound mixes.



Surround effects

Use fully surround-capable compressors, EQs, reverb, and modulation effects to sculpt your sound for surround space. Soundtrack Pro 2 includes more than 50 audio effect plug-ins—many in true surround, including the astonishing Space Designer convolution reverb.



Space Designer is a true surround plug-in that creates reverbs with all cross-reflection patterns in 5.1, using advanced impulse response technology to let you accurately emulate the reverb of any space. Soundtrack Pro gives you the ability to make all of your effects surround-capable; adapt any mono or stereo effect for use with surround tracks.

Surround music beds and sound effects

Soundtrack Pro 2 includes a library of more than 1000 royalty-free surround music beds and sound effects. These professionally produced and recorded elements make it easy to get started fast and keep quality high when you create a surround sound mix. The library also includes 5000 royalty-free Foley, sound effect, and music segments for stereo use. Easily add third-party music and effect libraries when you want more options.

Simultaneous mixes

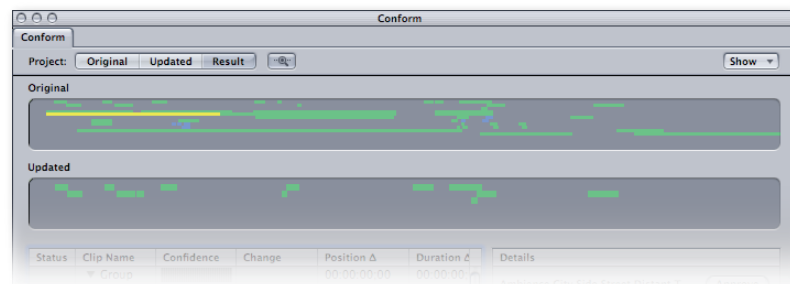
Many productions require delivery in both stereo and surround sound. For example, a title can be streamed on the web with stereo sound and released on DVD with surround sound. Save time and effort by creating simultaneous surround sound and stereo mixes in the same project.

Automatic Audio Conform Process

Send a Final Cut Pro project to Soundtrack Pro 2 for additional editing and mixing with a single click. If you make changes to your sequence in Final Cut Pro, use the powerful new Conform feature in Soundtrack Pro to automatically update your audio project to match the video edit.

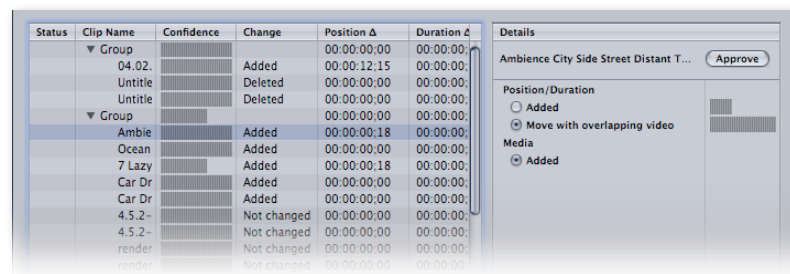
Intuitive visual interface

The Conform feature compares the two versions of your Final Cut Pro edit and highlights the changed audio clips in your Soundtrack Pro project. Instantly see the changed areas with a visual “map” that highlights different parts of the edit. View the original project, the incoming changes, or the resulting project.



Automatic grouping

Changes are intelligently grouped by type in the list view. Soundtrack Pro analyzes the changes and provides confidence ratings to help you quickly identify and accept low-risk changes.



Accepting, rejecting, or modifying changes

Audition and choose which changes to accept, reject, or modify on an event-by-event basis or decide to accept all changes at once. When you accept a change, Soundtrack Pro repositions the audio clip to synchronize with the picture change or removes the clip if it is no longer needed.

Intelligent Workflows

Powerful integration with Final Cut Studio. Seamless communication with other applications. Soundtrack Pro 2 gives editors everything they need to tackle the most complex audio post-production tasks, while maintaining the freedom to work the way they want.

Integration with Final Cut Pro

In Final Cut Pro, send a clip to the Waveform Editor or send an entire sequence to the multitrack Timeline in Soundtrack Pro—all with a single click. Instantly return audio clips—or an entire mix—from Soundtrack Pro to Final Cut Pro. Use the Conform feature in Soundtrack Pro for automatic updating of your audio project to match editorial changes made in Final Cut Pro.

Integration with Motion

Send files between Motion 3 and Soundtrack Pro 2 with ease. A new Audio behavior in Motion 3 creates animations that automatically synchronize to an audio file. Send the file over to Soundtrack Pro 2 for additional editing and mixing when the motion graphics are complete.

OMF and AAF import/export

Easily move complete multitrack projects between Soundtrack Pro 2 and other industry-standard audio applications. Import and export AAF files for round-trip convenience. If you need to work on older projects, you can import OMF files.

Professional podcasting

Soundtrack Pro now lets you create professional podcasts, including audio-only, enhanced, and video podcast formats. Place chapter, artwork, and URL markers without leaving Soundtrack Pro and output your files with a single click. Compressor 3 works in the background to encode your podcast files with pristine quality. You can even create podcast chapter markers from Final Cut Pro chapter markers in a single step.



Flawless output

Output audio using any Mac OS X Core Audio-compatible I/O device; or send your mix back to Final Cut Pro 6 for multichannel output to tape with video. You can access the wide variety of output formats in Compressor 3 from a simple export dialog in Soundtrack Pro. Preview surround mixes directly from Soundtrack Pro, Final Cut Pro, or DVD Studio Pro.

AppleScript automation

Save time on repetitive audio production tasks by creating AppleScript shortcuts. Call up your scripts in Soundtrack Pro or Final Cut Pro. Or turn your script files into droplets in the Mac OS X Finder, then drag your files onto a droplet whenever you need to activate the script. Use Automator to script complex workflows that involve multiple applications and Finder actions as well as Soundtrack Pro scripts.

Compressor 3

Create once. Debut everywhere.

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.

Key features of Compressor 3 include:

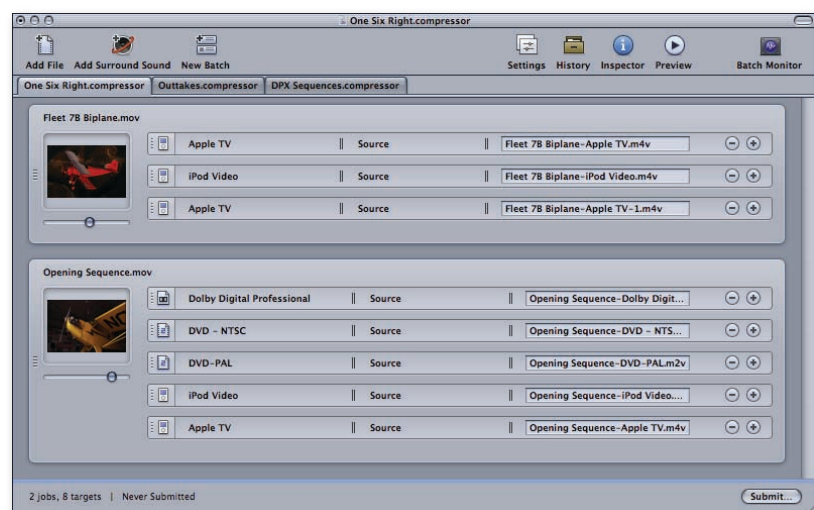
- Streamlined encoding workflow
- Industry-standard encoding support
- Pristine format conversions
- Distributed encoding



New in Compressor 3

Compressor 3 features a new customizable interface, streamlined workflow, and expanded support for a wide range of encoding tasks. New features include:

- **Streamlined workflow.** The new interface in Compressor lets you customize the window layout and toolbar to fit the way you work. Drag presets in any order to create batch processes, then save the batch as a template for reuse.
- **Expanded format 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.
- **Dynamic video filters.** Compressor 3 lets you easily place animated watermarks in your footage. Add timecode overlays and include text labels for reel number, location, or other information. You can also create fade-in/fade-out effects for your video.
- **Qmaster AutoCluster.** Use the Qmaster application included in Compressor 3 to distribute encoding jobs across a network of Mac systems. The new AutoCluster feature automatically configures a cluster of computers based on available resources. For extra power, configure Qmaster to manage individual processors in each computer.
- **Support for Telestream Episode Pro plug-in.** The new Episode Pro plug-in from Telestream supports Flash 8 FLV, Windows Media WMV, VC-1, and broadcast formats, such as GXF, IMX, MPEG-2 4:2:2, High Profile H.264, as well as formats used by broadcast servers.
- **New geometry controls.** Compressor 3 offers new geometry controls that automatically crop or pad images when you convert them from one aspect ratio to another.
- **Sophisticated frame controls.** Flexible retiming controls in Compressor let you speed up, slow down, or fit your video to a time duration using optical flow analysis for interpolated retiming or frame mapping to play back all of the existing frames. A new reverse telecine feature converts 29.97-fps video to 23.98 fps while removing pulldown.
- **Fine-tuned audio control.** Use audio filters to perform final adjustments on your audio before encoding it. You can now import and preview Dolby Digital AC-3 files as well as import or output MP3 files.
- **Advanced encoding options.** Compressor 3 includes options for adding metadata to files, including keywords, copyright information, and other annotations. You can now also include closed caption information with the output of MPEG and QuickTime files.

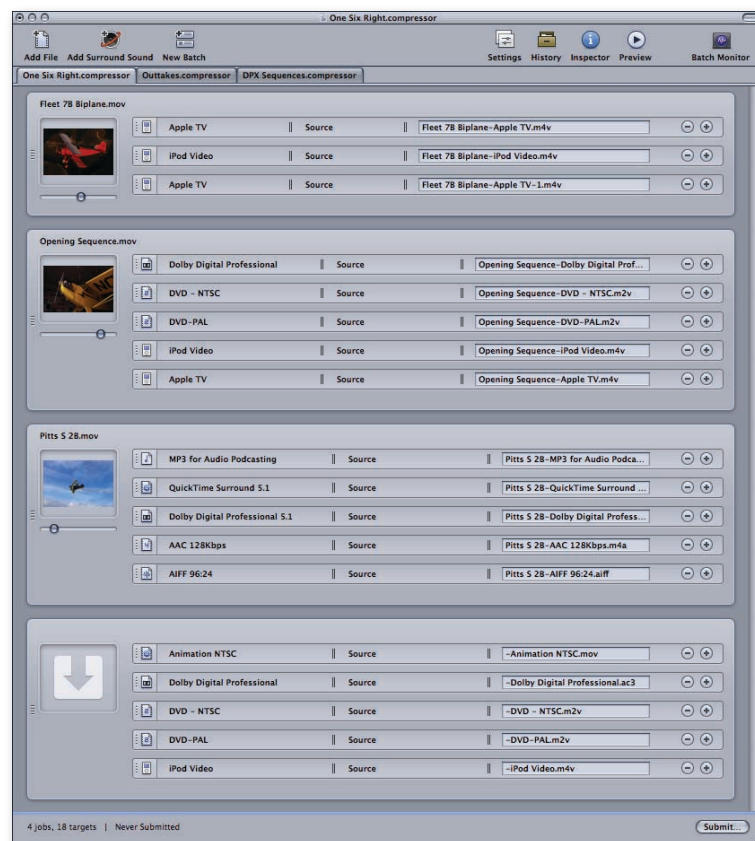


Streamlined Encoding Workflow

Compressor 3 simplifies encoding tasks and makes multiformat delivery easy and efficient. Set up encoding batches with drag-and-drop ease and save them as templates for future use. Quickly apply audio and video filters or make geometry adjustments while viewing your changes in the real-time Preview window. Compressor speeds you through routine encoding operations so that you have more time for your creative work.

Streamlined interface

Compressor 3 lets you seamlessly encode and output multiple formats from the same source file or even output multiple formats from multiple files. An entirely new interface designed for editors lets you customize the window layout and toolbar to fit the way you work. Choose from more than 100 intelligent encoding presets that analyze your files to provide the best default setting. Or customize settings, save them for reuse, and apply them to encoding jobs with drag-and-drop ease.



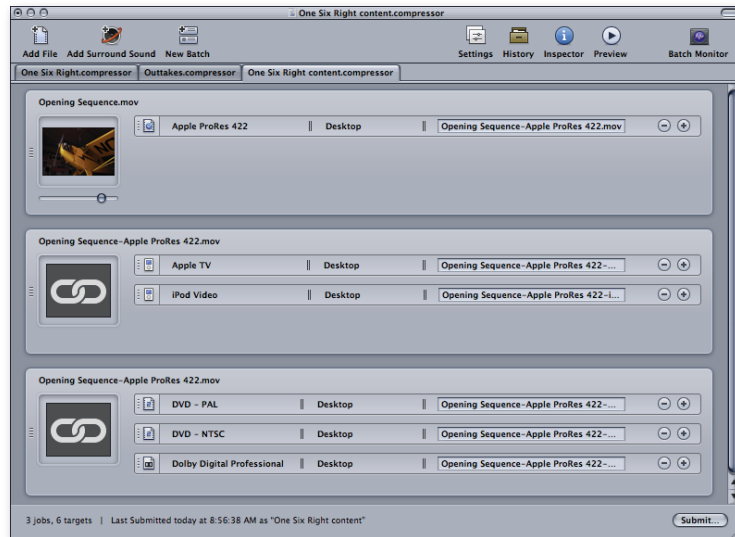
You can also convert any preset to a droplet, a special desktop folder that is used to run a batch process. Just drag your files onto the droplet and let the encoding run in the background while you do other work.

Batch processing templates

Use any combination of presets to set up an encoding "batch." Cut and paste groups of settings to create additional batches, or bring in settings from the History drawer. For maximum efficiency, you can save a batch for later use. Just open the named batch and drag new video files to the batch window to start an encoding job.

Job chaining

Sometimes the order in which you perform encoding steps is critical to maintaining quality. Job chaining allows you to use the output of one step as the source for the next step. Quickly set up job chaining in the batch window to arrange the sequence of processes that you need.



Video filters

Compressor 3 includes video filters that offer additional flexibility as you prepare files for output. Preprocess your video with filters for color adjustment, noise reduction, brightness, and contrast. Easily produce footage with timecode burn-in windows or add text overlays. You can even place animated watermarks in your footage by bringing in an alpha channel Motion project or QuickTime movie.



Audio filters

Use audio filters to perform final adjustments on your audio before encoding it. Filters include Dynamic Range, Peak Limiter, Graphic Equalizer, and the Fade In/Fade Out control with options for duration and gain.

Geometry

Deliver to multiple formats without spending hours reframing your video. Compressor 3 includes easy-to-use controls for image padding, as well as tools that let you simultaneously crop and scale to adjust the aspect ratio of your video before output. Compressor can even detect the requirements of common conversions. For example, it can automatically crop and scale a 16:9 HD program to fill the 4:3 display of an iPod without letterboxing. Compare the new format to your original by using the output image insert in the Preview window.



Dynamic Preview window

Use the dynamic Preview window to evaluate adjustments in real time as you prepare your footage for encoding. Take advantage of a split-screen view for before-and-after comparisons. Scrub through your video with frame-accurate timecode controls, trim media, and see the results of effects and filters.

If you're delivering a podcast, you can insert markers with URLs and poster frames or edit chapter markers brought in from Final Cut Pro 6.



Industry-Standard Encoding Support

Today's editors expect to deliver a single project to multiple distribution channels, including theatrical release, broadcast, DVD, the web, and devices such as iPod and Apple TV. Compressor 3 offers greatly expanded support for encoding to a wide range of industry-standard formats, including specialized broadcast server formats, both Blu-ray and HD DVD, MP3 audio, and media with advanced chaptering for podcasts and Apple TV.

Industry-standard video formats

Handle all your encoding needs without leaving Final Cut Studio. Compressor 3 encodes to the leading industry-standard video formats, including:

- **MPEG-2.** Compressor 3 lets you output MPEG-2 files in SD and HD resolutions up to 40 Mbps for transport or program streams. You can also prepare encoded MPEG-2 files to create elementary streams for DVD formats, including next-generation Blu-ray and HD DVD discs.

- **H.264.** A scalable, state-of-the-art video codec, H.264 delivers stunning quality at remarkably low data rates. Use H.264 to deliver video for distribution on iPod, Apple TV, the web, mobile devices, and HD DVD.
- **QuickTime.** Access all QuickTime-supported codecs, including DVCPRO HD, uncompressed SD and HD, and ProRes 422—the new post-production format from Apple that provides uncompressed HD quality at SD file sizes.

Support for the Telestream Episode Pro plug-in

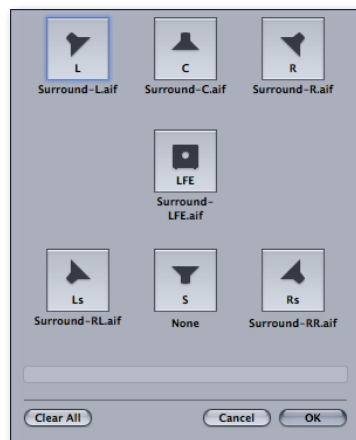
Expand your output options with the new Telestream Episode Pro plug-in for Compressor. The plug-in lets you access the full range of output formats supported by Episode without leaving the Final Cut Studio workflow.

Output files in a range of formats including Flash 8 FLV, Windows Media WMV, and VC-1. In addition, Episode Pro encodes broadcast-specific formats, such as GXF, IMX, MPEG-2 4:2:2, High Profile H.264, and formats used by broadcast servers manufactured by Omneon, Quantel, Avid, Grass Valley, and Leitch. For more information, visit www.telestream.net/products/episode_pro.htm.



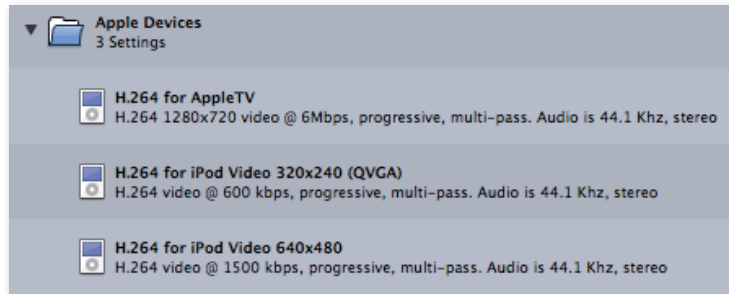
Audio encoding

Compressor now outputs files to MP3 as well as any QuickTime-compatible format, including AAC, AIFF, and QuickTime Surround 5.1. Easily convert surround sound stems into Dolby Digital Professional AC-3 files for your DVD projects. You can choose Dolby Digital Professional 2.0 or 5.1 audio, or let Compressor select the appropriate setting based on the number of channels in the source file. Audition your settings in the Preview window to hear how your finished file will sound before you start encoding.

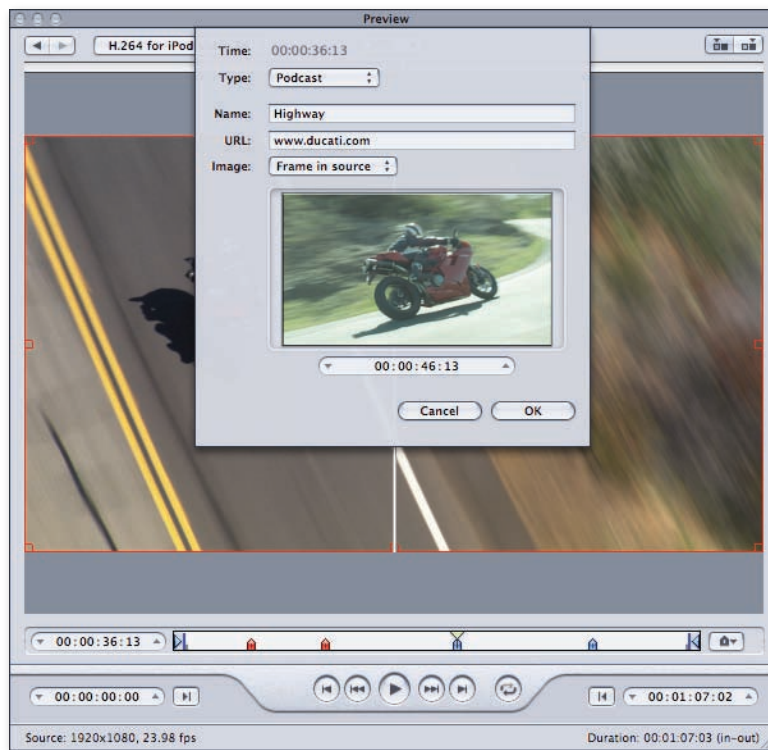


Apple devices

You can select H.264 encoding presets that are optimized for iPod, Apple TV, and other Apple devices.



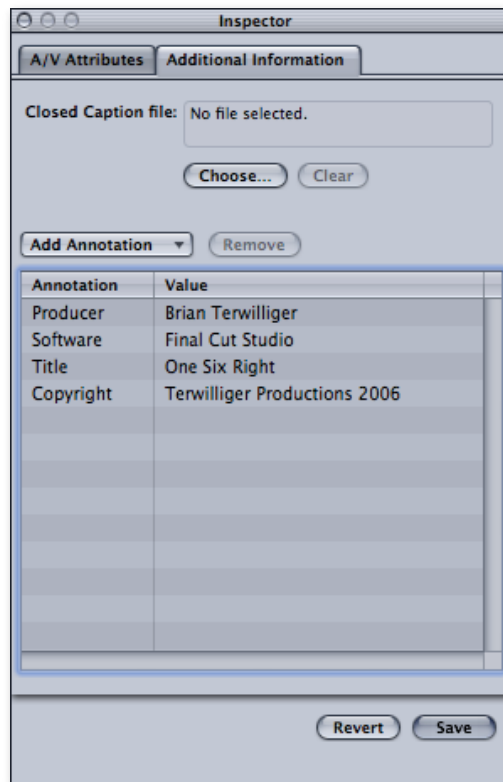
Add chapter markers for easy navigation of content on Apple TV or in podcasts. When you've finished preparing and encoding your material, upload your files directly to any .Mac iDisk or FTP site.



Advanced encoding options

Compressor 3 includes a comprehensive set of options for advanced encoding, including:

- **Metadata annotations.** Add keywords, copyright information, and other notes to your media. All of the applications in Final Cut Studio can read metadata encoded by Compressor.
- **Closed caption.** Include closed caption information with the output of MPEG and QuickTime files.
- **Command-line access.** Use the command line to write shell scripts for large-scale automation of encoding tasks.



Pristine Format Conversions

Compressor 3 uses optical flow technology, originally developed for Apple Shake, to create format and standards conversions with beautiful results. Convert NTSC to PAL, SD to HD, or interlaced video to a progressive format. Create flawless retiming effects with or without interpolation. Or use the reverse telecine feature to restore the original frame rate of a film by removing pull-down.

Optical flow technology

Optical flow is a sophisticated method of motion analysis that tracks an image pixel by pixel to create “new” frames with stunningly smooth results. Compressor uses optical flow analysis to scale video, perform interlace and deinterlace operations, and change the frame rate for format and standards conversions as well as retiming effects—all with the quality of dedicated hardware converters.



Standards conversions

Standards conversions are used to prepare projects for global distribution. Run international standards conversions in either direction between NTSC and PAL or between 50Hz and 60Hz HD formats. Thanks to optical flow technology, the video in the new format will have the same quality as the original source file while maintaining smooth playback.

Video retiming

Flexible retiming controls in Compressor let you speed up, slow down, or fit your video to a time duration. Compressor uses optical flow technology to analyze and interpolate frames for pristine retiming effects. For an alternative retiming approach that plays back all of the existing frames, Compressor uses frame mapping to adjust the playback speed of your clip to fit exactly the frame rate you need. Both types of retiming include automatic pitch adjustment for audio. Preview retiming effects of either type and make adjustments in real time as you work.

Reverse telecine

Compressor 3 gives you the ability to convert 29.97-fps material to 23.98 fps. This process is called 3:2 pulldown removal, or reverse telecine. In fact, there is a wide range of pulldown schemes, or cadences, in addition to 3:2, and a sequence may include footage with multiple cadences. Compressor uses an adaptive cadence approach to sample and analyze the footage, then select the dominant cadence to use for conversion.

Distributed Encoding

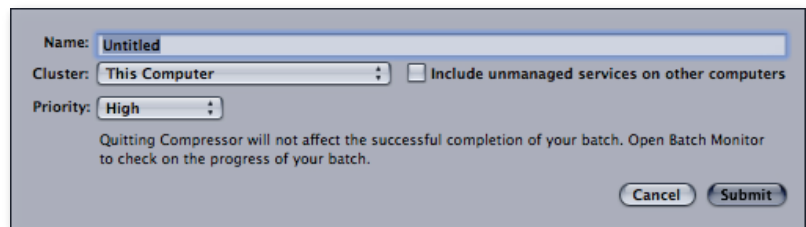
Get encoding done faster—without interrupting other work—through the power of distributed encoding. The Qmaster application included in Compressor 3 distributes encoding jobs among multiple computers and even segments files for faster results. Configure Qmaster to manage individual processors in a single computer to turn any Mac Pro into a virtual render farm. When you're ready to take distributed encoding to the next level, use Xsan.

AutoCluster

A cluster is a group of networked computers used for distributed encoding. The AutoCluster feature in Qmaster dynamically configures a cluster of computers or processors based on available resources. Each computer user makes processing resources available to Qmaster on an opt-in basis.



AutoCluster polls the network for available resources and dispatches encoding tasks to computers that have opted in. This means that users doing processor-intensive work can elect to make their computers unavailable for encoding, then release resources at the end of the task or work day.



Clusters for encoding and rendering

Qmaster uses the processing capacity of your network computers for a wide range of tasks, including encoding and rendering for motion graphics produced by applications such as Apple Shake, Adobe After Effects, and Autodesk Maya. Configure Qmaster clusters to run jobs for encoding, rendering, or both, and change the configuration in a few simple steps.

You can output files even faster by configuring clusters to take advantage of multiple processors, or “services,” as well as multiple computers. By using multiple services, Qmaster can turn any Mac computer with more than one processor into a virtual render farm. To further optimize your workflow, create clusters to be used for specific jobs, users, or applications.

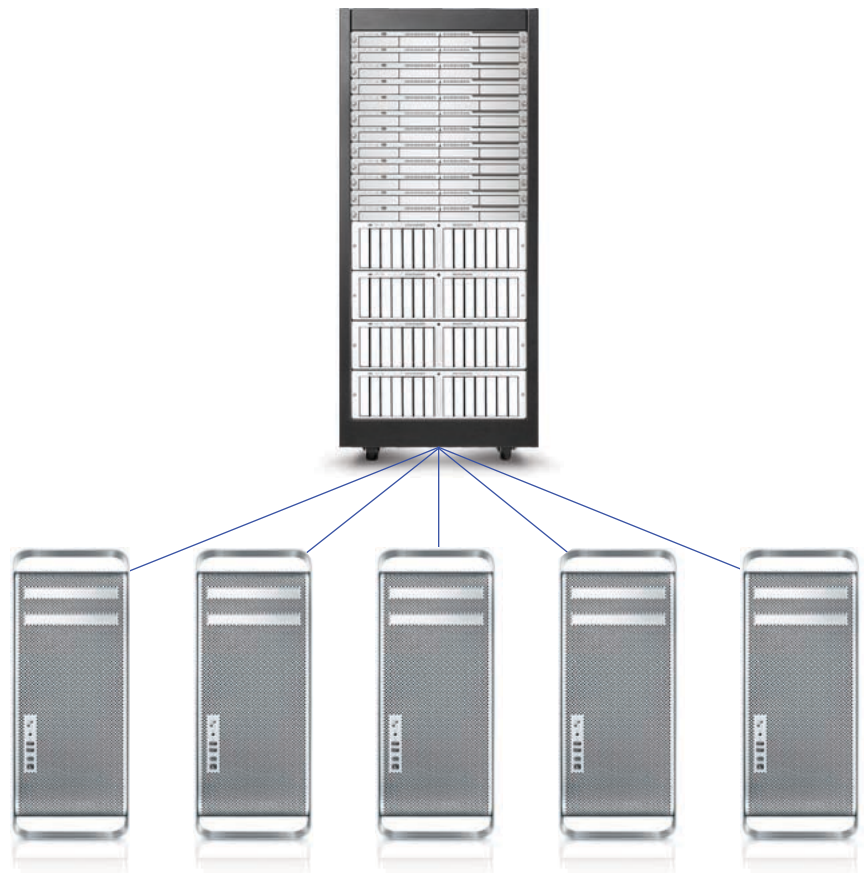
Scheduling and load balancing

Create your content during peak hours, then schedule your encoding and video processing for off-hours. Qmaster lets you define which resources to use and when to use them for each encoding task.

Using an intelligent, weighted load-balancing system, Qmaster makes efficient use of your computing resources. Automatic detection identifies the fastest Mac computers available for encoding work; load balancing sends more work to the faster computers and less work to the slower ones. Fault-tolerance algorithms automatically redistribute the work to other computers if an assigned system is not online.

Distributed encoding with Xsan

Distributed encoding works over any standard network and can include an unlimited number of client nodes. To further accelerate the process, use Xsan—the SAN file system for Mac OS X—to connect encoding nodes on a Fibre Channel network. Because your media files are accessed over a high-speed network, large files never have to be copied to individual workstations.



DVD Studio Pro 4

Simply powerful DVD authoring.

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.

Key features of DVD Studio Pro 4 include:

- Intuitive design environment
- Professional authoring tools
- Versatile DVD mastering



Intuitive Design Environment

You can design a DVD as easily as you edit video, thanks to the intuitive tools in DVD Studio Pro 4. Extend your creative vision as you interactively design menus and apply transitions. Set up connections with drag-and-drop ease, then simulate playback in real time. DVD Studio Pro works behind the scenes to create the code, allowing you to focus on the look rather than worrying about the logic.

Design-focused interface

Call up any of three interface configurations—from basic to advanced—then customize it by adding, deleting, and arranging windows in any layout. Assign as much space as you want for the Viewer window, then decide which other features to expose. You can easily add tabs with additional features when you need them. Streamline your work by creating and saving configurations for particular types of projects, such as DVD dailies or commercial titles.

Dynamic menu creation

DVD Studio Pro 4 helps you create stunning menus in minutes. Get started fast by choosing from more than 30 Apple-designed menu templates for HD and SD aspect ratios in both NTSC and PAL. Modify the templates if you like or create your own menus with drag-and-drop ease, using a rich palette of styles, shapes, buttons, and drop zones. The real-time compositing engine lets you preview menus instantly as you work. For even more creative control, use Motion 3 to create breathtaking motion menus with alpha channels, import them without rendering, and edit them with round-trip ease.

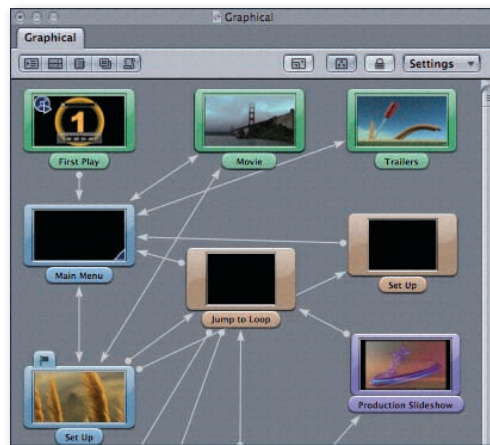


Drag-and-drop connections

Context-sensitive drop palettes dramatically streamline the authoring process. Simply drag any object onto the Menu Editor as you build your menu, then see a selection of choices based on the type of element you've added. For example, an asset can be used as a background, overlay, button, or drop zone.



Use the interactive Graphical view to see all your relationships at a glance and to make additional connections.

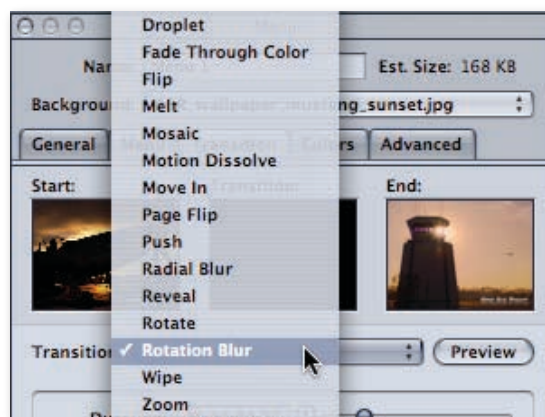


The built-in Simulator lets you evaluate the user experience as you work.



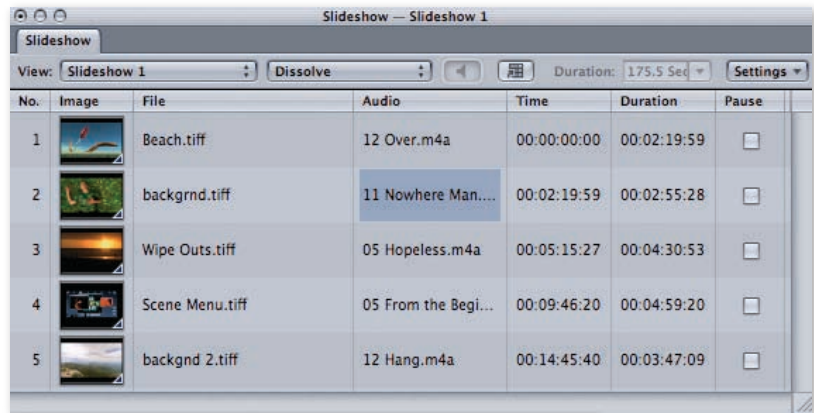
Dazzling transitions

Transitions—including Alpha transitions with transparent backgrounds—are used to create dramatic effects in segues between menus and within slideshows. Choose from more than 30 stunning Apple-designed transitions in SD and HD, including transitions that match menu templates. Preview transitions without rendering and experiment until you get just the effect you want.



Engaging slideshows

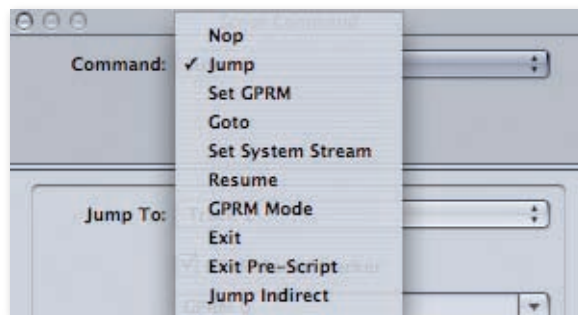
Create DVD slideshows ranging from a basic set of still images to self-running presentations complete with rich soundtracks and impressive transitions. To get started, drag individual images or entire folders of images into the Slideshow Editor. For an alternative approach, drag a folder of images to a menu button and let DVD Studio Pro create the slideshow for you, complete with navigation. You can include up to 99 images in a slideshow.



To create a self-advancing slideshow, just assign the duration for each image and select transitions to insert between slides. Apply a soundtrack to the entire slideshow—including looping audio—or assign audio to individual slides. You can adjust slide timing to fit the duration of the audio clip or trim your audio to fit the slide timing. For even more sophisticated productions, convert your slideshow to a DVD track with a single click; then mix in video clips, create alternative audio tracks, and add subtitle streams.

Professional Authoring Tools

The intuitive authoring environment in DVD Studio Pro 4 makes it easy to develop everything from simple DVDs to sophisticated commercial titles. Create a unique experience for your audience by using advanced features to define navigation and playback behaviors.

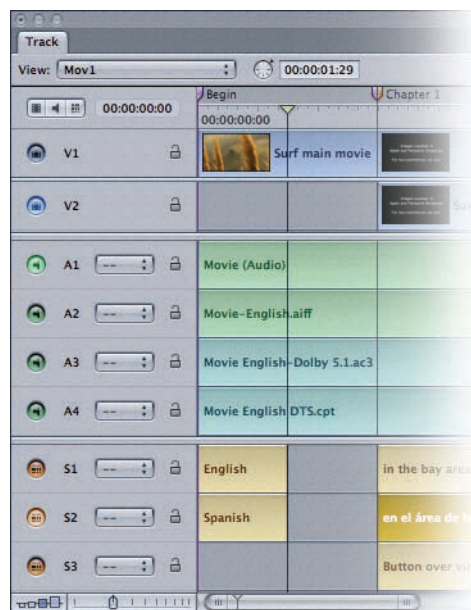


Advanced track editing

Use the timeline-based Track Editor to shape your DVD project. You can include tracks for video, audio, and subtitles. DVD Studio Pro 4 supports the maximum DVD specification of up to nine video angles, eight audio streams, and 32 subtitle streams for each track.

The Track Editor lets you trim the start and end times for each asset as well as merge multiple video or audio assets in a single track. Easily add, move, and rename chapter markers, including markers originally set in Final Cut Pro; add subtitles with the integrated Subtitle Editor; and add closed captions (Line 21) for the hearing impaired.

Use a subtitle track to create buttons over video; these buttons allow the user to make navigation selections while video content is playing, without having to go to a menu.



Extensive audio support

DVD Studio Pro 4 supports PCM audio at 48kHz and 96kHz. Or you can work with cinematic surround sound using Dolby Digital 2.0 or 5.1 or DTS 6.1 formats. Preview any audio source, including surround sound, right in DVD Studio Pro.

You can now use Soundtrack Pro STAP files without conversion. If you need to make changes to a STAP file, open Soundtrack Pro from the DVD Studio Pro interface. When you save your project in Soundtrack Pro, the updated audio project instantly appears in your DVD Studio Pro project.

Multiple playlists

Use the Story feature to create multiple versions, or playlists, of your content without duplicating media assets. For example, create a DVD of a full-length movie and include a playlist that shows only scenes of a certain type. You can define up to 98 versions of your DVD project using the same source tracks and content. Create playlists that include, exclude, or reorder specific chapters or content.

Interactive DVD authoring

DVD Studio Pro 4 supports a wide range of advanced features for authoring interactive DVD titles. Use point-and-click scripting menus to create interactive games and quizzes, options for random playback, and conditional playback settings based on variables such as the type of DVD player. GPRM partitioning flexibly allocates up to seven of the eight memory registers, allowing you to use up to 112 partitions for your scripts.

You can use the VTS Editor to create up to 99 Video Title Set (VTS) blocks and allocate assets across multiple blocks. This VTS allocation method removes space restrictions that could limit the creativity of your project and allows you to optimize playback of your DVD by organizing your disc content to minimize search times.



Other advanced authoring features

Advanced authoring features support player behaviors used in commercial titles. DVD Studio Pro lets you selectively disable player operations during “must see” sections like the FBI warning. You can also control whether specific menus, tracks, or stories will appear based on player setup. Remote-control settings let you program specific keys to call up certain locations on the disc.

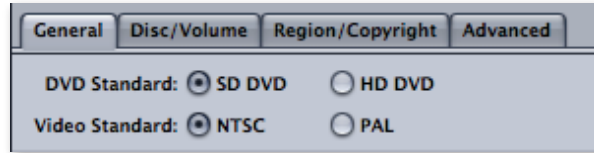
You can also create DVDs that combine video content and data for use on a computer. Create discs that include electronic documents—such as marketing materials or lesson plans—and even software tools. Assign links to menus, tracks, and markers to open an application, such as a web browser, on a computer.

Versatile DVD Mastering

DVD Studio Pro 4 makes it easy to burn your own discs using the SuperDrive in your Mac or an external burner. Or you can create masters for commercial replication, complete with copy protection flags used by replicators, region coding, and other professional features. Whether you burn a one-off disc on your Mac Pro or send a title out for commercial replication, you can feel confident that your DVDs will play back on a wide range of set-top players and computers.

Easy disc burning

Easily burn discs to use for dailies, demo reels, and more. Use the SuperDrive in your Mac computer to burn your content to discs in leading formats, including DVD-R, single- and double-layer DVD+R, DVD-RW, DVD+RW, and DVD-RAM.



Commercial replication

DVD Studio Pro 4 lets you create industry-standard images for SD and HD DVD replication, including dual-layer (DVD-9) as well as single-layer discs. Replicate to traditional red laser formats or double the capacity on your HD DVD disc by using the blue laser format.

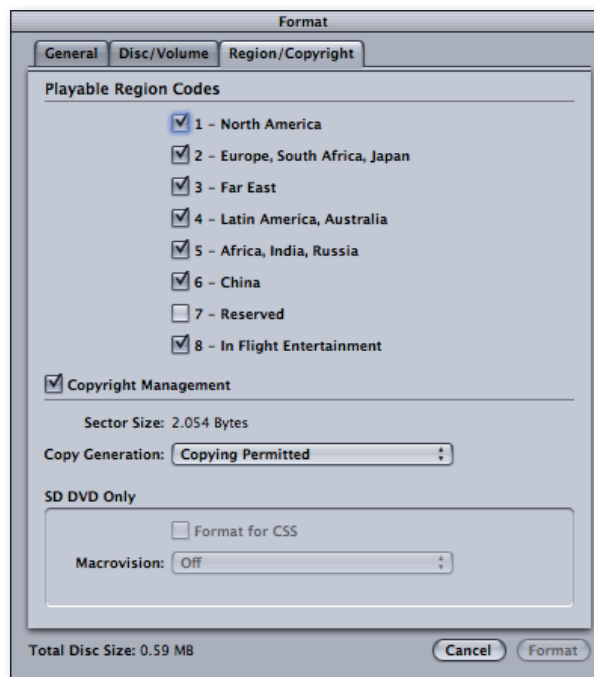
You can create a disc image in one of two industry-standard formats: Cutting Master Format (CMF) version 1.0 for SD discs or version 2.0 for HD DVD discs; or Disc Description Protocol (DDP) version 2.1 for SD discs or version 3.0 for HD DVD discs. Write images to a hard drive, DVD, or digital linear tape (DLT) for transfer to the replication facility.

Copy protection flags

If you send an SD project to a commercial replicator, you can benefit from features added during replication for copy protection and encryption. DVD Studio Pro 4 sets flags used by replicators to generate codes for Macrovision copy protection (Types 1, 2, and 3) and CSS encryption.

Other replication features

DVD Studio Pro 4 lets you add region coding that enables your disc to be played in designated regions of the world or to be used as in-flight entertainment. Add jacket picture art to show a custom picture when the viewer stops playback.



Post-Production Workgroups

Collaborate with a small team of editors in a boutique post-production facility. Or build a custom workflow for a global news network. Whether you're sharing a small number of media assets over a LAN or supporting hundreds of editors on a SAN, Final Cut Studio makes it easy for everyone to work together.



Shared Media Assets

Small workgroups can share media over a LAN or WAN by copying assets from a shared volume to a local workstation. For a scalable high-performance shared storage solution, Final Cut Studio editors can collaborate over a Fibre Channel storage area network (SAN) powered by Xsan.

With Xsan, every editor on a project has concurrent access to source media files and never needs to transfer assets between workstations. Each Mac system accesses shared files on the SAN as if the storage were directly attached. Xsan can support hundreds of concurrent clients and can easily be expanded to provide more storage capacity and bandwidth as your needs grow.



Asset Management and Workflow Automation

Meet Final Cut Server, Apple's powerful new media asset management and workflow automation software. Final Cut Server takes the headache out of managing large collections of media files, then extends to tracking job status, managing reviews and approvals, and automating complex sequences of tasks—all with Apple's legendary ease of use, and all in a single product designed to work seamlessly with Final Cut Studio.

Final Cut Server combines server software designed to run on Mac OS X with a cross-platform client that runs on either Macintosh or Windows-based computers. Collaborate over a LAN or WAN with a small number of users, or leverage the power of Xsan to share media across a large number of workstations.

Product Details

Pricing and Availability

The U.S. retail price of Final Cut Studio 2 is \$1299.¹ Contact your authorized Apple representative for education pricing. Current Final Cut Studio owners can upgrade for \$499. Owners of any version of Final Cut Pro can upgrade to Final Cut Studio 2 for \$699. Upgrades are available only for retail versions.

Final Cut Studio 2 is available worldwide in English, French, German, and Japanese. It can be purchased from the Apple Store online (www.apple.com/store), Apple Authorized Resellers, and Apple retail stores.

System Requirements

The following are the system requirements for Final Cut Studio 2:

Minimum requirements to install all Final Cut Studio applications

- A Macintosh computer with a 1.25GHz or faster PowerPC G4, PowerPC G5, Intel Core Duo, or Intel Xeon processor
- 1GB of RAM
- An AGP or PCI Express Quartz Extreme graphics card (Final Cut Studio is not compatible with integrated Intel graphics processors)
- A display with 1024-by-768 resolution or higher
- Mac OS X v10.4.9 or later
- QuickTime 7.1.6 or later
- A DVD drive for installation

Application-specific requirements

Motion

- The standard graphics card in any Mac Pro, MacBook Pro, iMac with Intel Core Duo, Power Mac G5, or iMac G5; 1.25GHz or faster PowerBook G4; or 1.25GHz or faster flat-panel iMac:
 - ATI Radeon 9800, 9700 Pro, 9600 XT, or 9600 Pro
 - ATI Mobility Radeon 9700 or 9600
 - NVIDIA GeForce 7600 GT, 7300 GT, 6600, 6600 LE, FX Go5200, or FX 5200 Ultra
- For 16- and 32-bit rendering: a graphics card with at least 128MB of VRAM

Color

- The standard graphics card in any Mac Pro, 17-inch MacBook Pro, 24-inch iMac with Intel Core Duo, or 2.5GHz or faster Power Mac G5 Quad:
 - ATI Mobility Radeon X1600
 - ATI Radeon X1600
 - NVIDIA GeForce 7800 GT, 7600 GT, 7300 GT, 6800 Ultra DDL, 6800 GT DDL, 6600, or Quadro FX 4500
- A display with 1680-by-1050 resolution or higher
- A three-button mouse for full functionality

DVD Studio Pro

- For playback of DVD Studio Pro 4–authored HD DVDs: a Macintosh computer with a PowerPC G5 or Intel Core Duo processor
- For writing finished projects to disc: an Apple SuperDrive or other DVD recorder
- For writing finished projects to a double-layer disc: a double-layer-compatible recorder and double-layer media
- For transporting HD projects to a replicator: an external drive or Internet transfer of the project’s disk image
- For transporting SD projects that contain copy-protection or dual-layer features to a replicator: a DLT drive, external drive, or Internet transfer of the project’s disk image

Soundtrack Pro

- For 5.1 surround monitoring of multichannel audio content: an audio interface with a minimum of six outputs
- For multitrack recording: an audio interface with multiple inputs

Recommended configurations

The following are recommended for all applications:

- 2GB of RAM when working with compressed HD and uncompressed SD sources
- 4GB of RAM when working with uncompressed HD sources

Application-specific recommendations

Motion

- One of the following graphics cards is highly recommended:
 - ATI Radeon X1900 XT, X850 XT, X800 XT, or X1600
 - NVIDIA GeForce 7800 GT, 6800 Ultra DDL, 6800 GT DDL, or Quadro FX 4500
- For 32-bit rendering: a graphics card with 256MB of VRAM or more

Color

- The following graphics card is highly recommended:
 - ATI Radeon X1900 XT
- Dual displays with 1920-by-1200 resolution or higher

Available disk space

- 4GB of disk space required to install all applications (Final Cut Pro, Color, DVD Studio Pro, Soundtrack Pro, Motion, Cinema Tools, LiveType, Compressor, and Apple Qmaster)
- Additional 55GB required to install all optional templates, content, and tutorials (may be installed on separate disks):
 - 9GB for DVD Studio Pro content
 - 8GB for Motion templates and tutorial media
 - 24GB for Soundtrack Pro audio content
 - 12GB for LiveFonts and LiveType animated elements and templates
 - 2GB for Apple Pro Training Final Cut Studio Tutorials media

Support

Final Cut Studio 2 comes with 90 days of telephone support for installation, launch, and basic troubleshooting. In addition, Apple offers a range of professional support options, including AppleCare Professional Video Support.

AppleCare Professional Video Support

AppleCare Professional Video Support can help you keep your project running smoothly, whether you are editing HD video, performing color grading, designing motion graphics, creating a soundtrack, encoding files for output, or authoring custom DVDs.² With this product, one authorized contact can call³ or email⁴ the Apple Professional Video Technical Support team for one full year. Apple's support team is on call 12 hours a day, 7 days a week. These experts provide one-stop support for the applications included in Final Cut Studio. Also included is troubleshooting for Apple hardware and for interconnectivity between your Mac or Xserve and an Xserve RAID,⁵ as well as assistance with DV, SD, and HD video input/output over FireWire or Apple-qualified capture cards.⁶ For more information or to purchase support, visit www.apple.com/support/products/provideo.

Tutorials

Get up to speed quickly by viewing approximately three hours of video tutorials provided with Final Cut Studio 2. The training is ideal for Final Cut Pro editors who want to expand their skills into new areas, as well as creative professionals new to any of the six applications included in Final Cut Studio 2.

Each tutorial movie demonstrates key product features, along with useful tips and shortcuts. The tutorials emphasize the integration of Final Cut Pro 6, Color, Motion 3, Soundtrack Pro 2, DVD Studio Pro 4, and Compressor 3. Examples showcase the post-production of the Suzuki "Salt Flats" commercial.

You can view the tutorials in one of three ways. Play the DVD included with Final Cut Studio 2 on your Mac computer or on a set-top player. Or visit www.apple.com/finalcutstudio/tutorials to play the tutorials in a browser. Finally, for go-anywhere convenience, download the iPod video version by dragging the podcast icon from the DVD to your iTunes library.

Training

The Apple Pro Training Program is designed to keep you at the forefront of Apple's digital media technology while giving you a competitive edge. Whether you are an editor, graphic designer, sound designer, web developer, special effects artist, or teacher, these training tools are meant to help you expand your skills.

Take instructor-led classes at an Apple Authorized Training Center

There are more than 200 Apple Authorized Training Centers worldwide. For more information, visit www.apple.com/software/pro/training.

Use self-study courses from the Apple Pro Training Series

The official Apple Pro Training Series courseware is published by Peachpit Press. For more information, visit www.apple.com/software/pro/training.

Become an Apple Certified Pro

On completion of the course material, you can become an Apple Certified Pro by taking the certification exam at an Apple Authorized Training Center. For details, visit www.apple.com/software/pro/training.

For More Information

For more information about Final Cut Studio 2, including detailed technical specifications for Final Cut Pro 6, Color, Motion 3, Soundtrack Pro 2, Compressor 3, and DVD Studio Pro 4, visit www.apple.com/finalcutstudio.

¹Prices are Apple Store prices as of April 15, 2007, do not include taxes or shipping, are subject to change, and are listed in U.S. dollars. ²Details of support coverage and eligible Apple technologies are described under the terms and conditions at www.apple.com/support/products/provideo. ³Telephone numbers and hours of operation may vary and are subject to change; local telephone fees may apply. ⁴Access to web-based resources requires the use of a compatible Internet service provider; fees may apply. ⁵Hardware repairs that are not covered under warranty require an extended service contract, such as the AppleCare Protection Plan. ⁶For a list of Apple-qualified capture cards, see www.apple.com/finalcutstudio/finalcutpro/specs.html.

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