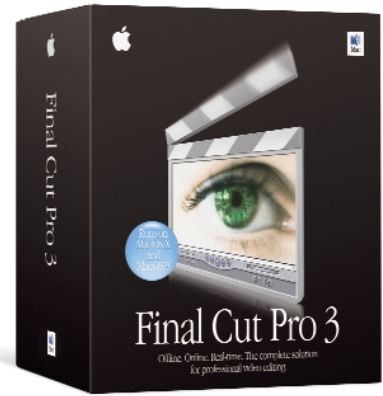# Final Cut Pro 3

Offline. Online. Real-time. Revolutionary.

Key Features

- Source/record three-point editing model with "JKL" navigation, match frame, extend edit, trim-on-the-fly, multitrack trimming, and multiple and nested timeline support
- Extensive keyboard shortcut commands supported by included keyboard overlays
- Mode-free interface for seamless movement between editing, trimming, and effects functions
- G4 real-time effects, the first host-based, dual-stream effects playback architecture[1]
- Ability to scale from offline and DV to M-JPEG, uncompressed SD, and HD—all within the same application
- OfflineRT format for high-capacity, seamless offline-to-online workflow[2]
- Flexible interface for editing via timeline drag-and-drop, contextual menus, or the intuitive Edit Overlay panel
- Advanced media management tool for project trimming, media consolidation, and web and offline-to-online format transcoding
- Advanced primary and secondary color correction tools
- EDL import/export for efficient workflow between other offline and online systems
- QuickTime based with OMF audio export and EDL I/O to ensure compatibility with other audio and editing systems
- New Boris Calligraphy for creating stunning animated 3D titles

Final Cut Pro 3 is a comprehensive and innovative professional video editing solution that offers unprecedented power and flexibility. With features that rival expensive proprietary editing systems, Final Cut Pro has made the advanced digital postproduction tools once reserved for the select few accessible to thousands. Fast and efficient, it delivers the simplicity and ease of use of entry-level editing applications, yet comes with tools that scale to meet the needs of the most demanding video professionals. Supporting DV to HDTV, NTSC, and PAL, Final Cut Pro is quickly becoming the digital editing tool of choice for professional editors and filmmakers worldwide.

Next-generation editing

Final Cut Pro 3 ushers in the next wave in digital editing productivity with industry-first innovations: real-time effects playback without a PCI card; a new high-capacity offline format for seamless offline-to-online workflow; and powerful new finishing capabilities such as advanced color correctors and increased support for HDTV. These breakthrough features and a flexible design create a unique editing environment that vastly reduces the time between concept and delivery—allowing you to create world-class programming in virtually every video format without the high cost normally associated with tools of this caliber.

Real-time breakthroughs

Final Cut Pro 3 features G4 real-time effects, the industry's first host-processor-powered, real-time effects architecture. This out-of-the-box real-time solution delivers render-free playback of transitions, composites, titles, and color correction for DV and OfflineRT formats—no PCI card required.[1] G4 real-time effects scale with the power of your Mac. When combined with a PowerBook G4, Final Cut Pro 3 provides unprecedented real-time mobile editing capabilities. For the ultimate in render-free editing, use the latest dual processor Power Mac G4 and take advantage of multiple layers of real-time transitions, titles, and effects.

OfflineRT: Redefining offline editing

Nonlinear editing systems can always use more hard drive space. No matter what type of programming you create—broadcast, long-form, film, documentary, or corporate—managing drive space is a challenge. Final Cut Pro 3 dramatically reduces hard drive media limitations with OfflineRT, a new high-capacity format that yields over 40 minutes of high-quality offline video per gigabyte on standard hard drives, providing a highly efficient editing workflow.

Offline for DV

OfflineRT is the first native offline format available for DV.[2] Simply set Final Cut Pro 3 to capture OfflineRT video via FireWire and get on-the-fly transcoding from the 3.6MB-per-second data rate of DV down to the 660K-per-second data rate of OfflineRT. The enhanced Media Manager in Final Cut Pro 3 also allows you to convert other finishing formats—M-JPEG, SD, and HD—to this highly mobile format.

OfflineRT and PowerBook G4: Create anywhere, in real time

With OfflineRT and a PowerBook G4, uncompromised mobile video editing is a reality. The rugged, titanium-clad 667-MHz PowerBook G4 features a 15.2-inch mega-wide screen (measured diagonally) and can be configured with a spacious 48GB hard drive that yields 24 hours or more of real-time offline editing.[1] The new Voice Over tool works with the microphone built into the PowerBook G4, so you can capture audio directly to the timeline for quick scratch tracks and voice-over work in the field.

Finish on your terms

Award-winning editing tools and support for virtually any video format allow you to create for any audience and compete with high-end facilities. With additional HDTV format support and the addition of advanced primary and secondary color correctors, you now have the tools to handle the most demanding programming, eliminating the need for expensive proprietary editing solutions. Final Cut Pro 3 supports the new generation of high-definition video cameras with a variety of interlaced or progressive-scan frame rates, including 1080i, 24p, 23.976, and other popular rates and formats (requires third-party PCI hardware such as Pinnacle Systems' CinéWave).

Get color correct

Differences between cameras, lighting situations, and even capture devices often require you to color-match shots to avoid jarring visual hiccups between cuts. Final Cut Pro 3 brings advanced primary and secondary color correctors to your desktop. With range checking, zebra-stripe overlays, broadcast-safe filters, and hardware-accurate waveform and vectorscope monitors at your fingertips, you can easily monitor video levels. You also get a powerful new set of image controls to maintain broadcast-safe luminance and black levels. New keyboard shortcuts let you quickly switch between shots one or two clips forward for easy analysis of your shots.

Stand out, finish fast

In addition to its support for advanced color correction and multiple finishing formats, Final Cut Pro 3 features integrated compositing tools that give editors an edge. You can edit, then simply turn on the wireframes and build visually complex layers of effects and motion graphics without leaving Final Cut Pro. You also get support for hundreds of Adobe After Effects plug-ins, precise media management tools, and a host of workflow and flexibility enhancements.

Deliver on DVD

Add Apple's DVD Studio Pro to your system and deliver digital-quality programs on Hollywood-style interactive DVDs. With DVD Studio Pro, your Final Cut Pro content can be exported to MPEG-2 ready for authoring. With Final Cut Pro 3 and DVD Studio Pro on one of Apple's SuperDrive-equipped G4 models, you have an entire digital creation and delivery system with unmatched features and ease of use.

More power to you

Best of all, Final Cut Pro 3 takes advantage of your Power Mac G4 in ways no other application does. This ideal union of multiprocessor support, Velocity Engine acceleration, and all-in-one software delivers a low-maintenance, high-productivity video editing workstation that lets you create without constraints. And because Final Cut Pro 3 is built for Mac OS X, you can experience the benefits of professional desktop editing on a system with rock-solid UNIX stability and media-rich QuickTime integration.

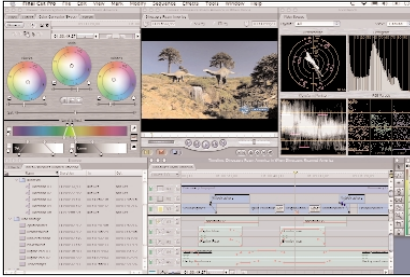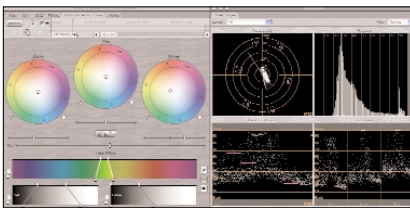Final Cut Pro 3. Offline, online, real-time: the complete solution for professional video editing.
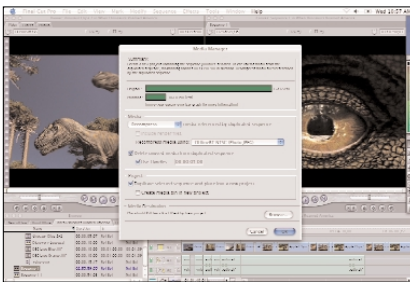
Final Cut Pro 3 features G4 real-time effects, the industry's first host-processor-powered, real-time effects architecture—no PCI card required.

Final Cut Pro 3 includes advanced new primary and secondary color correctors, range-checking overlays, and hardware-accurate waveform and vectorscope monitors.

The Enhanced Media Manager feature new graphs with "before" and "after" project size indicators and transcodes from OfflineRT and DV to M-JPEG, uncompressed SD, and even HD—all within the same application.

Features	Benefits
Breakthrough new features	• G4 real-time effects are the industry's first host-processor-based, dual-stream effects playback architecture, delivering real-time transitions, titles, composites, and color correction on Power Mac G4 and PowerBook G4 computers.[1] With no PCI card required, G4 real-time effects give you unprecedented flexibility and performance for mobile and desktop editing.
	• OfflineRT, a new high-capacity format, yields over 40 minutes of high-quality offline video per gigabyte of hard drive space.[2] OfflineRT projects can be captured in real time via FireWire or transcoded using the Media Manager tool.
	• Primary and secondary color correctors are backed by a broadcast-safe filter, range-checking zebra-stripe overlays, and a full complement of hardware-accurate video calibration tools.
	• The Voice Over tool allows you to capture audio directly to the timeline from a built-in or external microphone.
	• Boris Calligraphy lets you to create stunning animated 3D titles (included).
	• FXScript DVE from CGM delivers high-quality effects, including video cube transitions, 3D flips, a flexible softwipe, and advanced page curls (included).
	• Multiple clips' timecodes are visible simultaneously via new timecode overlays.
	• The QuickView preview lets you see complex effects without waiting to render.
	• The Autosave Vault saves your project at specified intervals so you can return to any point in your edit.
	• The Enhanced Media Manager features new graphs with "before" and "after" project size indicators. Sequences can now be moved or consolidated with an optional clip bin and projects can be transcoded between media formats, including the new OfflineRT format.
	• A new Three Up view features the new Tool Bench window, which houses video scopes, the QuickView viewer, and the new Voice Over tool.
	• Timecode Overlays allow you to see the source timecode of every frame on every track in the timeline at the position of the playhead.
	• Quick-Sync indicators show which clips on which tracks are in sync with one another.
	• The external editor preference allows you to define additional applications to launch and edit project elements.
	• Support is included for 23.976-fps HDTV formats, both interlaced and progressive.
	• Other improvements include support for up to 12 scratch disks, through-edit indicators, flicker reduction filter, enhanced chroma-key filter interface, and remaining render time indicator.
Editing	• Source/record three-point editing model
	• Unique mode-free interface for seamless movement between editing, trimming, and effects functions
	• Real-time effects support through out-of-the-box G4 real-time effects architecture or select real-time PCI cards for real-time editing with render-free playback of dissolves, wipes, motion effects, titles, and color correction[3]
	• Match frame
	• Extend and split edit functions
	• Support for multiple timelines in projects
	• Multiple actions, including insert, overlay, and replace
	• Ability to back-time edits in a single step
	• Active track targeting
	• Numerical trimming from timeline
	• Slip-and-slide, ripple, and roll tools
	• Through-edit indicators in timeline
	• Support for editing and trimming using black (null) space
	• Sync detection and automatic correction
	• Markers with or without comments and durations
	• Choice of editing with offline or online files
	• One-step transition and superimpose edit mode
	• Editing palette containing the most-used functions
	• Timecode Overlays and Quick-Sync indicators
	• Ability to paste and remove attribute commands

Features	Benefits
Compositing and effects	• Create virtually unlimited layers of sophisticated effects using integrated, proxy-free compositing and effects architecture. • Use Bezier curves with movable motion paths, graphs, and numerical controls to apply and control effects and animations with precise keyframe control. • Supported PCI real-time cards (including Matrox RTMac and Pinnacle Systems' CinéWave) use QuickTime-based real-time architecture for seamless integration with the Final Cut Pro motion tab and effects. • Create stunning 2D and 3D animated titles, multisided video cubes, and page curls with effects tools from BorisFX and CGM. • Manipulate video and images directly onscreen. • Use unlimited compositing layers. • Import Adobe Photoshop files complete with layers to assemble effects and motion. • Apply effects with compatible third-party After Effects plug-ins. • Enjoy the accuracy of subpixel interpolation rendering. • Insert fully editable nested sequences. • Use standard and advanced 3D and Scrolling Text generators. • Use keyframe-based filters to adjust effects over time. • Smooth compositing animations with Ease In/Ease Out motion paths. • Build complex effects with real-time wireframe playback. • Create custom FXScript plug-in filters and transitions using the FXBuilder scripting language. • Apply effects to time ranges, not just clips. • Use Photoshop-like transfer modes, such as multiply and lighten. • Work with multiple compositing methods such as alpha, blue and green screen, and luminance, including automatic alpha compositing. • Use time effects including slow motion with frame blending. • Use motion blur and sophisticated image deinterlacing. • Reduce unsteady still frames from interlaced video with the flicker filter. • Move an entire motion path using the Canvas. • Use low-quality render options for fast review; each of four quality settings has a separate render cache. • Take advantage of more than 60 predefined transitions and 75 built-in filters and keying effects.
Advanced media management	• Use the Media Management tool for clip- and sequence-based moving, transcoding, consolidation, trimming, and archiving. • Convert sequences and projects between formats using the graphical before and after indicator. • Take advantage of EDL import/export for efficient workflow between third-party offline and online systems. • Frame accurate "digital cuts" to tape. • View the Edit Decision List in a text window. • Protect your work with 99 levels of undo and the time-stamped Autosave Vault. • See the source timecode of every frame using Timecode Overlays. • View synced clips across timeline tracks using Quick-Sync indicators. • Take advantage of the external editor preference to define additional applications to launch and edit project elements. • Capture video directly from most DV devices. • Return easily to previous stages of a project with the Autosave Vault. • Store clips and effects in multiple bins and folders. • View icons and list views by name and other parameters. • Open multiple sequences and programs. • Use multi-item sorts, sifts, and Boolean searches and display long clip names. • Store clip information in 41 bin categories, such as file size, frame rate, and comments. • Use optional subclips. • Scroll through thumbnails in the Browser window.

Features	Benefits
Audio	• Eight tracks or more of audio playback in real time[4]
	• OMF audio export for easy workflow with industry-standard mixing and finishing systems
	• Built-in audio filters, including reverb, EQ, echo, and noise gate
	• Subframe audio editing to 1/100th of a frame
	• Sampling at 8 to 48 kHz and 8 to 16 bits
	• Audio level meters
	• Audio pan controls
	• Logarithmic audio fades
	• Scrubbing with or without pitch shifting
	• Automatic, single-step audio transitions
	• More than 12 audio filters, including three-band and parameter equalizer, compressor/limiter, 60/120-Hz hum remover, and noise gate
	• Audio peak detection for clips and sequences
	• PeakDV audio editing tool for time compression/expansion, VST plug-in support, and batch file processing (included)
Architecture	• Mode-free interface for fast, seamless transitions between editing, trimming, effects, and compositing
	• Video Native YUV-based rendering engine
	• QuickView preview for viewing complex effects without waiting to render
	• Selective device control and Easy Setups for multiformat acquisition
	• QuickTime based for outstanding support for cross-platform delivery
	• Support for Adobe After Effects plug-ins and Final Cut Pro 3 FXScript plug-ins
	• Designed for seamless performance with all current Macintosh computers
	• Optimized for PowerPC G4 with Velocity Engine, including dual processor Power Mac G4 computers
Input and output formats	• NTSC and PAL DV video using FireWire
	• Composite and component NTSC and PAL analog and uncompressed standard definition support using third-party capture cards from Pinnacle Systems and others
	• HDTV support for formats including 1080i, 23.976, 24p, 25, 29.97, and 30 fps (requires third-party PCI card)
	• QuickTime video and file format export, including M-JPEG, Sorenson, Cinepak, and web streaming
	• Standard image format import (BMP, JPEG, MacPaint, Photoshop, PICT, PNG, QuickTime Image, SGI, TARGA, TIFF) with alpha channels maintained
	• Support for standard audio formats, including AIFF, WAV, and various compressions
	• Import and export of common EDLs with preread options
Video capture	• Simultaneous video output to a computer monitor, an NTSC or PAL TV monitor, a VCR, or a camera
	• Multiple resolutions and transcoding options
	• Batch digitizing into bins
	• Support for making markers for subclips during logging
	• Ability to add scene, shot, and comment notations to footage as it is logged
	• Hardware-accurate waveform monitor and vectorscope
	• Autosync compensator
	• Long-frame indicators
Printing to tape and exporting	• Ability to insert and assemble to tape using device control
	• Up to 4000-by-4000-pixel resolution in any combination, including ITU-R 601 720-by-486-pixel and 720-by-576-nonsquare-pixel options
	• Compressed or uncompressed output
	• 60-field processing

Contents

- Application and tutorial CDs
- User and tutorial guides
- Boris Calligraphy plug-ins
- CGM FXScript DVE plug-ins
- Bias Peak DV 3

Requirements

- Macintosh computer with a 300-MHz or faster PowerPC G3 or G4 processor and built-in FireWire
— 500-MHz or faster single or dual processor Power Mac G4 or PowerBook G4 required for G4 real-time effects
— 667-MHz PowerBook G4 required for mobile G4 real-time effects in DV format
- Mac OS 9.2.2 or Mac OS X v10.1.1
- QuickTime (included)
- 256MB of RAM (384MB recommended for G4 real-time effects)
- 40MB of available disk space required for installation

1 G4 real-time effects require a 500-MHz or faster single or dual processor Power Mac G4 or PowerBook G4. A 667-MHz PowerBook G4 is required for mobile G4 real-time effects in DV format.

2 The OfflineRT format is based on a new QuickTime Photo-JPEG codec. Captured at 320-by-240 resolution and running at a data rate of 660K per second, OfflineRT yields approximately 40 minutes of footage per gigabyte of hard drive space.

3 See www.apple.com/finalcutpro for a list of approved third-party real-time capture cards.

4 Performance may vary with G4 real-time effects.

For More Information

For more information about this product or to find out where to buy Apple products, visit www.apple.com/software or call 800-538-9696. You can purchase Apple products from your authorized Apple reseller, the online Apple Store (www.apple.com/store or 800-MY-APPLE), or Apple's retail stores.

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