



Final Cut Pro X for Final Cut Pro 7 Editors

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Introduction

Final Cut Pro X is a revolutionary editing application that includes many new concepts and features that are different from those in previous versions of Final Cut Pro. This document—structured according to the major parts of an editing workflow—uses the Final Cut Pro 7 application for comparison to discuss how to complete important tasks in Final Cut Pro X.

Getting Started

Projects

Final Cut Pro 7 and Final Cut Pro X use different media databases and terms for basic organizing concepts.

Final Cut Pro 7	Final Cut Pro X
Project	Project (Timeline) and Event (source media)
Sequence	Project

- In Final Cut Pro 7, projects include both sequences, which contain your editing decisions, and clips, which are the connections to the source media. As a result, all the sequences and metadata associated with the source media travel together in a single project.
- In Final Cut Pro X, sequence information and media information are stored in separate database files—the former in a project, and the latter in an Event. A Final Cut Pro X project contains a single sequence, but you can have as many projects as you like, all of which can refer to the same media and metadata.
- It's easy to switch among multiple Final Cut Pro X projects by clicking the History buttons. Control-click and hold the buttons to show a list of projects opened during your editing session. The list allows you to quickly jump to another project, for example, to copy and paste clips or clip attributes like effects.
- The Project Library displays all projects within the Final Cut Projects folders located on local and network-attached drives. You can organize projects within the Project Library using folders. You can also move projects out of the Final Cut Projects folder at the Finder level, so that they no longer appear within the Project Library.

Events, Source Media, and Render Files

Final Cut Pro X offers robust media management based on unique identifiers that are added to every clip upon import. Final Cut Pro X also features a new set of rules for connecting media and render files.

Final Cut Pro 7	Final Cut Pro X
Audio and video Capture Scratch folder	Final Cut Events folder
Audio and video Render Files folder	Final Cut Projects folder

- When you import media into Final Cut Pro X, you associate it with an Event, either by creating a new Event or choosing an existing one. The Event can be created on a local, external, or network drive and becomes available automatically whenever the drive is mounted.
- The Event Library displays all Events within the Final Cut Events folders located on local and network-attached drives. You can organize Events within the Event Library using folders. You can also move Events out of the Final Cut Events folder at the Finder level, so that they no longer appear within the Event Library.
- If the “Copy Files to Final Cut Events folder” option is selected in Import preferences, the imported media is copied to the Original Media folder within the Event folder.
- If the “Copy Files to Final Cut Events folder” option is not selected, the media stays in place. If the media is on a network, external, or local drive that is different from the drive that contains the Event, a connection is created between the Event and the source media. This means that any metadata associated with imported media can be used across any project on your computer; it’s not attached only to one project as it is in Final Cut Pro 7.
- In Final Cut Pro 7, you set a scratch disk location to indicate where video and audio files are stored when imported into Final Cut Pro. You also set a location for render files, thumbnails, and audio waveforms. When you create a project in Final Cut Pro X, the project folder contains a project file that holds all the information about your edit. The project folder also stores all the related render files in a separate subfolder called Render Files. This means that when you move the project’s folder to another location, you move the edit information and the render files at the same time.

Interface

Final Cut Pro X has a streamlined interface that you can customize by enabling and disabling different types of visual displays and lists.

Final Cut Pro 7	Final Cut Pro X
Browser	Event Library
Viewer	Event Browser, Inspector, or Viewer, depending on task
Timeline	Timeline
Effects tab (in the Browser)	Effects Browser
Text generator	Titles Browser and onscreen controls for titles
Tool palette	Toolbar and Tools pop-up menu
Audio meters	Audio meters in the Dashboard and in expanded view

Preferences

Final Cut Pro X includes a streamlined set of preferences, so there are fewer options to set prior to editing. As in Final Cut Pro 7, you can move your custom keyboard shortcuts and preferences between computers by copying these files.

Final Cut Pro 7	Final Cut Pro X
Separate User Preferences, System Settings, Easy Setup, and Audio/Video Settings windows	Single Preferences window with Editing, Playback, and Import panes
Keyboard Layout window (choose Tools > Keyboard Layout > Customize)	Command Editor (choose Final Cut Pro > Commands > Customize)

- Final Cut Pro X offers keyboard customization that allows you to map keyboard shortcuts to the many new organization and editing functions in the application. The Command Editor is a good place to familiarize yourself with many of the new functions and keyboard shortcuts.
- You can export and import custom command sets by choosing Final Cut Pro > Commands > Export and Final Cut Pro > Commands > Import.
- You can copy a Final Cut Pro X preference settings file between computers. Simply copy the file to the following location on any Mac. If necessary, overwrite any existing version of the file at that location.

`/Users/username/Library/Preferences/com.apple.FinalCut.plist`

Import

In Final Cut Pro 7, both the Log and Transfer and Log and Capture functions are replaced by the Import from Camera function.

Final Cut Pro 7	Final Cut Pro X
Log and Transfer	Import from Camera
Log and Capture	Import from Camera
Import	Import Files

Importing from File-Based Cameras

- In Final Cut Pro X, you can use the Import from Camera command to import media from file-based recording devices, FaceTime HD cameras, iSight cameras, or any other FireWire-connected camera. You can also use Import from Camera to import volumes of media and metadata from file-based cameras, including clips that are spanned across multiple files.
- Final Cut Pro X has all the familiar keyboard shortcuts to control camera playback. You can use the J, K, and L keys for navigation and set start and end points using the I and O keys before importing media. However, in Final Cut Pro X, background importing means that you can start editing from the inserted camera media immediately (from either a card or a hard drive). The files are copied in the background and swapped into the Event seamlessly when they're ready to be used.
- The Import from Camera function also allows you to create a camera archive that saves a folder of media as if it was a volume that originated on a file-based recording device. This enables skimming clips, setting start and end points for selectively importing sections of a clip, and batch importing. All the benefits of using a file-based camera are available when importing from a camera archive.

Importing from FireWire Cameras and Decks

Device control for FireWire capture in Final Cut Pro X is similar to Capture Now in Final Cut Pro 7. You can control the camera or deck and queue the tape to the point where you want to start capturing, then begin the import. New clips are created at timecode breaks, just as in Final Cut Pro 7.

Importing Files

You can import files into Final Cut Pro X by choosing Import > Files or by dragging files directly into the Event Library. You don't need to specify whether you're importing an individual file or a folder, as you do in Final Cut Pro 7.

Organization

Clip organization has been completely redesigned to efficiently handle large amounts of media. The choices for labeling and searching are more powerful and easier to use in Final Cut Pro X.

Final Cut Pro 7	Final Cut Pro X
Item Properties	Inspector
Bins	Keyword Collections
Subclips	Range-based keywords
Markers with duration	Favorites

Column View and the Inspector

- Like the Browser in Final Cut Pro 7, the Event Browser in Final Cut Pro X provides a list view that shows your clips in a list with columns of metadata.
- Final Cut Pro X can show much more clip metadata in the Inspector, where you can rearrange fields, create custom views, and add custom metadata fields.

Bins and Keyword Collections

You can create basic “bin” organization in Final Cut Pro X with Keyword Collections in several ways:

- Drag files from the Finder with the “Import folders as Keyword Collections” Import preference selected. This creates a Keyword Collection for each folder name, and the files inside the folder are assigned that keyword.
- Choose File > New Keyword Collection to create a new keyword to apply to clips. You can assign the Command-B keyboard shortcut to this operation if you want it to work in the same way as choosing File > New > Bin in Final Cut Pro 7.
- Drag clips from the Event Browser to Keyword Collections in the Event Library.

NOTE: Keyword Collections are all virtual, so a single clip or clip range can exist in multiple Keyword Collections simultaneously. This eliminates the need to duplicate clips and place them in separate bins as in Final Cut Pro 7.

Subclips and Range-Based Keywords

- In Final Cut Pro X, range-based keywords allow you to achieve the same results as you can with subclips in Final Cut Pro 7.

NOTE: Range-based keywords are not bound by the same media limits as subclips. If you find you need to extend the range, all the original media outside the range is still accessible.

- To jump to a specific timecode location in a clip, press Control-P and type a timecode value. To enter a precise duration for the range, press Control-D.
- Shuttle through clips using the J, K, and L keys, and select a range using the I and O keys. To jump to the beginning or end of a clip, press Shift-I or Shift-O. Use the Keyword Editor to assign a keyword to the range, or drag a range directly to an existing Keyword Collection.

NOTE: Using the J, K, and L keys is a little different than in Final Cut Pro 7. When moving at faster than 1x speed with the L key, pressing J once instantly reverses playback at -1x speed. In Final Cut Pro 7, this key combination would have slowed the forward playback by one step.

Favorites

- After you make a selection in the Event Browser, you can preserve that selection by pressing the F key and creating a Favorite. This is similar to—but much faster than—creating a marker with a duration in Final Cut Pro 7. You can name the Favorite in list view by selecting it and entering a name that will be easy to search for later using the Filter window.
- To quickly reselect the favorite range, simply click the green bar in the clip. Unlike clips in Final Cut Pro 7, clips in Final Cut Pro X can have multiple selection ranges through the assignment of range-based keywords and ratings.

Custom Metadata

The Inspector allows you to display much more metadata per clip than you could in Final Cut Pro 7. You can choose from several views, and you can edit each view to add preset metadata fields or create custom ones. Final Cut Pro X also has a fully customizable batch renaming feature that becomes especially useful when working with large amounts of file-based media.

Editing

Final Cut Pro X offers a completely new trackless editing paradigm designed for speed and flexibility. Editors familiar with Final Cut Pro 7 should spend some time becoming familiar with the new editing tools and functionality.

Final Cut Pro 7	Final Cut Pro X
Tracks	Storylines and connected clips
Nested sequences	Compound Clips
Linked clips	Video and audio are combined into a single unit
Merged clips	Synchronized clips
Multiclips	Multicam clips

Tracks and Secondary Storylines

- Final Cut Pro X is based on a new timeline structure that doesn't include fixed audio and video tracks like those in Final Cut Pro 7. The benefit of the trackless Timeline is that you can work quickly to build multiple lanes of content, without having to worry about creating tracks, assigning destination tracks, and moving clips between tracks. Editing is not restricted or interrupted by clip collisions, because clips automatically move out of the way to make room for your edits.
- The primary storyline includes the main clips in your project. For example, the primary storyline in a documentary might include on-camera interviews.
- Secondary storylines allow you to build groups of complementary material connected to the primary storyline. In the documentary example, you might create a secondary storyline for B-roll, cutaways, or additional audio.

Complex Projects and Compound Clips

- For complex projects, Final Cut Pro 7 lets you build a large stack of tracks for various elements. You can build similarly complex projects in Final Cut Pro X and manage them using Compound Clips, which are like nested sequences in Final Cut Pro 7 but much more powerful. It's easy to select a range of clips, collapse them into a Compound Clip, and then move the Compound Clip or add effects to it just as you would with any other clip.
- Unlike nested sequences in Final Cut Pro 7, Compound Clips in Final Cut Pro X display audio waveforms, and you can break them apart.
- You can also create Compound Clips in the Event Browser, before making a single edit to your project. You can double-click any Compound Clip to open it in its own Timeline and make changes, even before you add it to the project.

Primary Video and Audio Sync

- Just as linked audio remains synced in Final Cut Pro 7, primary audio and video are always in sync in Final Cut Pro X. Final Cut Pro X offers the additional advantage of displaying primary audio and video together as part of the same clip. This makes it impossible to move audio and video out of sync by mistake.
- Just as in Final Cut Pro 7, you can alter the timing of the video and audio components of a clip to create split edits, so that the video plays with other audio in the Timeline, or vice versa. Double-click the audio section of a clip to display audio and video separately. Use the Trim tool to separately adjust the start or end point of the video or audio.
- You can view audio and video separately in the same clip in the Timeline by expanding all clips that have both audio and video, or just clips that have split edits. You can also apply and adjust audio effects with just the selected clip.
- As in Final Cut Pro 7, you can deliberately move audio out of sync in Final Cut Pro X if you wish. Control-click the clip and choose Open in Timeline from the shortcut menu to open the clip in its own Timeline. Then slip audio with sample-level accuracy.
- In certain cases, you may want to break apart the audio and video in the Timeline. You can do this using the Detach Audio command.

Basic Editing Functions

You can complete most editing functions with keyboard shortcuts in Final Cut Pro X.

Final Cut Pro 7	Final Cut Pro X
Insert (F9)	Insert (W)
Overwrite (F10)	Overwrite (D)
Replace Clip (F11)	Replace, Replace from Start, Replace from End (Drag a clip to an existing clip and choose an option from the shortcut menu)
Superimpose (F12)	Connect to Primary Storyline (Q)
End + Overwrite (End-F10)	Append to Storyline (E)

To backtime an edit to the playhead or skimmer, press Shift-W or Shift-Q.

Routing to Tracks vs. Placing Video and Audio Separately

In Final Cut Pro 7, you can specify destination tracks to place video and audio separately. When you add a clip to the Timeline in Final Cut Pro X, you can specify whether to add just the video, just the audio, or both.

Final Cut Pro 7	Final Cut Pro X
Source and Destination controls for specifying destination tracks	All (Option-1) Video Only (Option-2) Audio Only (Option-3, or use the Edit pop-up menu below the Event Browser)

Insert vs. Overwrite Mode and the Position Tool

When using the default Select tool in Final Cut Pro X, editing operations cause clips to ripple in the Timeline. This behavior is similar to an insert edit in Final Cut Pro 7. Final Cut Pro X also allows you to trim clips and add them to specific places in the Timeline, even creating gaps, using the Position tool. This behavior is similar to the default selection behavior in Final Cut Pro 7.

Final Cut Pro 7	Final Cut Pro X
Insert (drag to Timeline)	Default function of the Magnetic Timeline
Overwrite (drag to Timeline)	Drag with the Position tool (P)
Ripple Delete	Delete
Lift (Delete key)	Lift (Shift-Delete)

Ripple, Roll, Slip, and Slide

In Final Cut Pro X, editing tools adjust dynamically to allow you to ripple, roll, slip, and slide your edits.

Final Cut Pro 7	Final Cut Pro X
Trim in the Timeline, leaving a gap	Trim in the Timeline with the Position tool (P)
Ripple tool (RR)	The default Select tool changes to the Trim tool when you move the pointer near an edit point (drag the edit point to perform a ripple edit)
Roll tool (R)	Trim tool (T)
Slip tool (S)	With the Trim tool active, drag a clip left or right
Slide tool (SS)	With the Trim tool active, Option-drag a clip

Three-Point Edits

- You can perform three-point edits in Final Cut Pro X just as you would in Final Cut Pro 7. First, set start and end points for the source selection in the Event Browser. Then position the skimmer (or the playhead if the skimmer is not available) where you want your edit to start, and press D to make an overwrite edit.
- To make a backtimed edit, position the skimmer or playhead where you want your edit to end, and press Shift-D.
- If you select a range in the Timeline, the start and end points of the range provide two of the points for the three-point edit. When you press D to perform the edit, the start point of the Event Browser selection is used as the third point; when you press Shift-D, the end point is used.

Multicam Editing

Final Cut Pro X version 10.0.3 has been completely updated for modern multicamera workflows. It has been designed to handle source material with different frame sizes, frame rates, and codecs—all in the same multicam clip. It can also combine the rich metadata in Final Cut Pro X and your file-based media to sync more easily and accurately than ever before.

Final Cut Pro 7	Final Cut Pro X
Choose Modify > Make Multiclip	Choose File > New Multicam Clip
Choose Modify > Make Multiclip Sequence	Choose File > New Multicam Clip
Choose View > Multiclip Active Tracks	Make video-only or audio-only cuts and switches in the Angle Viewer
Choose View > Multiclip Layout	Choose the number of angles to display from the Settings pop-up menu in the Angle Viewer
Choose View > Reveal Master Clip	Choose Clip > Reveal in Event Browser
Choose View > Match Frame > Multiclip Angle	With the multicam clip selected in the Angle Editor, choose Clip > Reveal in Event Browser
Choose Show Multiclip Overlays from the View pop-up menu in the Viewer	Choose an overlay option from the Settings pop-up menu in the Angle Viewer
Sync angles using In points, Out points, or timecode	Sync angles automatically or manually using timecode, Content Created date and time, start of first clip, first marker, or audio sync

- Unlike in Final Cut Pro 7, you no longer need to sync clips manually by placing them in a sequence before making a multiclip. Select all of the camera angles that you want to place in a multicam clip and choose File > New Multicam Clip. Then choose the automatic syncing method or one of several custom methods if you have a specific way to sync the clips. You can also use the automatic audio sync technology in Final Cut Pro X to make precision sync adjustments based on the audio waveforms in the angles of a multicam clip, even if the clips don't have matching timecode.
- To view all the angles of a multicam clip, you no longer double-click to open the multicam clip in the Viewer. You can choose to open the Angle Viewer (Command-Shift-7) and adjust the display depending on the number of angles or banks of angles.
- The Angle Editor is a completely new interface that allows you to view the layout of the clips, adjust the sync and the angle order, set the monitoring angle, or add or delete angles. These changes affect all the places where the multicam clip is used in a project.
- At any time, you can add effects to clips in the Angle Editor just as you would add them in the Timeline. The effects appear wherever that multicam clip is used throughout your projects. For example, if you add a multicam clip to a project and then realize that the sync is off, you can adjust sync in the Angle Editor and see the change appear in all projects that contain the multicam clip. In Final Cut Pro 7, adjusting sync modifies only the single multicam clip instance in the Timeline.
- If the number of angles in your multicam clip exceeds the current Angle Viewer display setting, Final Cut Pro X creates additional banks and displays them as separate grids of squares. Using the Angle Viewer in Final Cut Pro X, you can quickly switch between a series of banks. Press Shift-Option-Semicolon (;) or Shift-Option-Apostrophe ('), or click the bank switcher icons.

- Final Cut Pro X includes a new option to display angles in a vertical column view in the Angle Viewer. If you choose 2 Angles or 4 Angles from the Settings pop-up menu, you can arrange the angles in a column by resizing the Angle Viewer window. This is an efficient use of space when you're using small screens.
- You no longer need to create a multiclip sequence as in Final Cut Pro 7, because Final Cut Pro X can identify an individual camera based on metadata and place clips in sequence in a single angle, adding appropriately timed gaps between the individual clips whenever the camera was stopped and started.
- The Show Multiclip Overlays command in Final Cut Pro 7 is replaced by the overlay options in the Settings pop-up menu in the Angle Viewer. You can choose to display timecode and either the clip name or the angle name below the angle so that the overlay is less visually distracting.
- In Final Cut Pro 7, assigning a camera angle name to a clip requires selecting a single clip and choosing Edit > Item Properties > Format, and only letters A through E are supported as camera angles. In Final Cut Pro X, you can name the camera on import or select multiple clips in the Event Browser and add either a camera name or an angle name. You can give the camera angle any name you like and combine it with the camera name to make multicam editing easier than ever.
- The order of angles in the Viewer in Final Cut Pro 7 is determined by the order in which they were selected. In Final Cut Pro X, angles can be ordered automatically, by timecode or by alphabetical order. You can also change the angle order simply by dragging angles vertically in the Angle Editor.
- In Final Cut Pro 7, you can add clips to a multiclip after it has been created, but you have to sync the clips manually. In Final Cut Pro X, you can use the Sync to Monitoring Angle command, which syncs clips automatically even if they're added later.
- In Final Cut Pro X, you can now create angles that contain only audio or only photos. Audio-only angles are very useful for working with a dedicated sound recorder and dual system sound. Instead of syncing the audio to each clip in the multicam clip, you can just add the audio as an angle and select it as the source for audio when editing. A photos angle can add coverage to an event when a combination of photographers used DSLRs for both video and still images. Final Cut Pro X uses the time stamp in the photo's metadata to place the photo in its own multicam angle so that the image matches the action recorded as video. The duration of the photos is adjusted automatically to "fill in" the angle between each shot.

Color Grading

You can color grade in Final Cut Pro X using the Color Board. The Color Board is available for every clip in your project, without your having to first apply a separate color correction effect.

Final Cut Pro 7	Final Cut Pro X
Add color correction filters	Color Board available for every clip
Color Corrector 3-way color wheels and sliders	Color Board controls for Color, Saturation, and Exposure
One secondary correction per effect	Unlimited secondary corrections in the Color Board
Auto Level controls for blacks, whites, and contrast	Balance Color
Match Hue eyedropper	Match Color with full-frame reference

Color Adjustments with the Color Board

The Color Board provides the functionality of the Color Corrector 3-way filter in Final Cut Pro 7, while using less screen space and including unlimited secondary color corrections. The ability to save and reapply presets within the Color Board makes it easy to work with favorite looks, and offers a faster workflow when compared to saving effects in a bin as you would in Final Cut Pro 7.

Secondary Color Grading

Final Cut Pro X has advanced controls for correcting particular areas of an image using color masks and shape masks. For example, you could correct a shot to make the sky more blue while leaving the rest of the image the same. Final Cut Pro 7 has only a single, limited color mask function attached to each Color Corrector 3-way effect, whereas Final Cut Pro X has an unlimited number of secondary color corrections that can be added to each shot.

Titles and Effects

Titles

With direct control and real-time preview of titles, Final Cut Pro X offers major titling improvements compared to Final Cut Pro 7.

Final Cut Pro 7	Final Cut Pro X
Text generators	Titles Browser with skimmable templates
Text controls with keyframes	Onscreen controls with keyframes

- The titling controls in Final Cut Pro 7 are available in Final Cut Pro X. To apply any title, just select it in the Titles Browser and drag it to your clip.
- Adjust the timing of the title by trimming the purple bar in the Timeline.
- Unlike Final Cut Pro 7, which requires you to enter text in a separate window, Final Cut Pro X allows you to type directly in text fields in the Viewer.
- To adjust text parameters like font, size, alignment, or spacing, first select the title in the Timeline, and then click the Text button at the top of the Inspector.
- To reposition text on the screen, double-click the text in the Viewer and drag the title's text field to a new position (using the position button).
- If you want a quick way to create a basic text title, you can use the Custom title option in the Titles Browser. This provides a basic text field that you can position and resize any way you want.

Effects

- The Effects tab in the Browser in Final Cut Pro 7 is replaced by skimmable thumbnails available in various Final Cut Pro X media browsers, which you can access by clicking buttons on the right side of the toolbar.
- In Final Cut Pro X, you can preview any effect without applying it. To preview, just skim across the effect's thumbnail. You see the effect previewed in the thumbnail and with the selected clip in the Viewer.
- Double-click the effect thumbnail in the Effects Browser to apply the effect to a selected clip, or drag the effect directly to a clip.

Transitions

- In Final Cut Pro X, you can apply a transition from the Transitions Browser just by dragging the transition between two clips in the Timeline, or you can double-click the transition to apply it to both ends of a selected clip.
- Press Command-T, just as in Final Cut Pro 7, to apply a cross dissolve between clips or to both ends of a selected clip.
- To adjust the duration of a transition, drag either edge of the transition, or select the transition, press Control-D, and type the precise duration.
- As in Final Cut Pro 7, you can adjust the transition's parameters directly in the Inspector in Final Cut Pro X. Each transition shows relevant parameters like center point and amount.

Using Keyframes

Just as in Final Cut Pro 7, you can keyframe any parameter in any effect in Final Cut Pro X.

Final Cut Pro 7	Final Cut Pro X
Timeline keyframe graph area	Video Animation Editor Audio Animation Editor

- To add and adjust keyframes, select the clip or effect you want to animate, and choose Clip > Show Video Animation (Control-V) or Clip > Show Audio Animation (Control-A).
- Position the skimmer or playhead where you want to add a keyframe and press Option-K, or Option-click in the Animation Editor to add a new keyframe.
- You can also add keyframes in the Inspector. Position the skimmer or playhead where you want to add the keyframe, and select the parameter you want to keyframe. Click the keyframe icon to add a keyframe, or choose Add Keyframe from the pop-up menu to the right of the icon.
- For parameters with percentage values, you can adjust the value of the keyframe in the Animation Editor. You can adjust values for other parameters in the Inspector.

Audio Editing

If you're familiar with the powerful audio controls in Soundtrack Pro, you'll feel right at home in Final Cut Pro X. New libraries of professional 64-bit plug-ins with custom interfaces are available in Final Cut Pro X. And support for compressed audio formats means no more rendering before using MP3 and MP4 audio clips.

Final Cut Pro 7	Final Cut Pro X
Timeline keyframe graph area and clip overlays for inline keyframing	Audio Animation Editor
Small number of bundled audio plug-ins and limited support for 32-bit Audio Units plug-ins	Wide range of bundled Logic Studio audio plug-ins and support for 64-bit Audio Units plug-ins
EQ audio effect	10-band and 31-band EQ controls built into every clip, with presets for common uses
Support for uncompressed formats only	Support for MP3, MP4, and other compressed formats
0 dB and +3 dB audio crossfades	Fade handles on every clip with the choice of four fade types: Linear, S-curve, +3dB, and -3dB
Manual matching of audio EQ	Match Audio
Keyframing for volume and stereo panning	Keyframing for volume, stereo, and 5.1 surround panning with animated presets

Audio Dissolves and Keyframing

- In Final Cut Pro 7, you show the keyframe graph area and clip overlays to control keyframes directly in audio clips in the Timeline. In Final Cut Pro X, choose Clip > Show Audio Animation, and Option-click to add inline keyframes.
- Audio dissolves in Final Cut Pro 7 are replaced by fade handles in Final Cut Pro X. These fade handles are available at the head and tail of every clip with audio. With additional controls for split edits and the flexibility of trackless editing, fade handles provide a higher level of control than standard dissolves. You can Control-click any fade handle to choose one of the following fade types: Linear, S-curve, +3dB, or -3dB.
- You may be accustomed to applying the Normalization effect in Final Cut Pro 7 to even out volume changes between clips. Final Cut Pro X includes the Loudness option built into the Audio Enhancements section in the Inspector, which allows you to establish more uniform audio levels.

- Final Cut Pro X includes built-in options for Background Noise Removal and Hum Removal, allowing you to repair damaged or problematic audio.
- Create unique 5.1 panning effects using the controls in the Inspector. Final Cut Pro X also supports keyframing of surround effects.
- Select the “Show reference waveforms” option in Editing preferences to view visual information about original audio levels as you adjust levels and add effects to your clips.

Highlighting and Muting Groups of Audio Clips

- In Final Cut Pro 7, you might organize items like titles or scratch audio on specific tracks so that these items can be selected, soloed, or muted. In Final Cut Pro X, simply apply a role or subrole to any clip in the Event Browser or Timeline. To quickly highlight all audio clips of a specific type—music, for example—just open the Timeline Index, click the Roles button, and click the Music role. All the music clips in the Timeline are highlighted.
- You can turn roles on and off to view or play clips according to their assigned role. For example, if you’re editing dialogue, you can easily turn off all music and sound effects. You can also minimize clips to eliminate visual distractions and make more space to work with clips in the Timeline.
- There’s no limit to the number of roles and subroles you can create.

Exporting Audio Stems

In Final Cut Pro 7, you might export audio stems by disabling certain tracks of audio, exporting an audio file, and then repeating this process for each separate audio stem. In Final Cut Pro X, choose Share > Export Media to open the export window. From there, you can choose to export any or all stems based on their assigned roles.

Exporting

Share Menu

The Share menu in Final Cut Pro X includes delivery options optimized for common destinations.

Final Cut Pro 7	Final Cut Pro X
Share to iPad, iPhone, iPod, Apple TV	Share to Apple Devices
Share to DVD, Blu-ray	Share to DVD, Blu-ray
Send to Compressor	Send to Compressor
Export QuickTime Movie	Export Media
Share to YouTube	Share to YouTube, Vimeo, CNN iReport, Facebook, Podcast Producer, Email
Choose Cluster	Advanced pane of the Share window
Background export as default	Background Rendering option in the Advanced pane of the Share window

- Unlike in Final Cut Pro 7, Final Cut Pro X warns you before exporting if you have missing media.
- Final Cut Pro X defaults to a faster, GPU-accelerated foreground export process. Alternatively, exporting can be set as a background process. The Advanced pane in most Share windows allows you to specify a background rendering option and choose from any available network cluster node to perform the transcoding.

Export Media

- When working with an Apple ProRes codec, you can choose Share > Export Media to output an Apple ProRes file without rendering or transcoding. Final Cut Pro X exports an Apple ProRes QuickTime movie of your project by copying the existing render files. This method produces high-quality output files faster than the alternative methods in the Share menu, which use background processing. Choose Share > Export Media and confirm that the (default) Current Settings option is selected.
- You can also choose to automatically open the exported file in Compressor for additional transcoding to other formats.

Compressor Settings and Send to Compressor

Just as in Final Cut Pro 7, you can access custom Compressor encoding settings in the Share menu.

Final Cut Pro 7	Final Cut Pro X
Send to Compressor	Choose Share > Send to Compressor
Create and use custom settings in Compressor	Choose Share > Export Using Compressor Settings directly from Final Cut Pro X
Export QuickTime Movie is 8-bit	Export through the Share menu is 10-bit

- In Final Cut Pro 7, the Export QuickTime Movie option provided many simple choices for exporting a sequence at lower quality for low-bandwidth scenarios. In Final Cut Pro X, choosing options within the Export Using Compressor Settings window offers all those choices and more at 10-bit quality.
- Final Cut Pro X offers a new high-quality workflow for exporting. When working with an Apple ProRes codec, choose Share > Export Media and select the Open in Compressor option. After creating your Apple ProRes master, you can use Compressor in the background to harness the power of multiprocessor clusters to create additional files and versions.

Conclusion

Understanding the similarities and differences between Final Cut Pro 7 and Final Cut Pro X will allow you to work faster than ever with this new breakthrough application. A rebuilt 64-bit multicore architecture; rich metadata support; a collection of tools for automatic and manual organization; and increased control over editing, audio sweetening, motion graphics creation, color grading, and delivery offer significant improvements over Final Cut Pro 7. Final Cut Pro X is a powerful and flexible video editing application designed for pro editors, and there is much to learn and explore that will accelerate your workflows and allow you to focus on the important creative decisions of storytelling.

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