Sound Editing in Final Cut Studio

Creating a Sound Mix

Part **5**

Finishing Your Mix

The sound mix is typically completed in four stages. First, set the dialogue levels, ensuring that they're all at a uniform volume (usually –12 dB or –20 dB); then set the sound effects levels to make them feel natural and integrated into the scene; then set the music levels, fading them in and out so as not to overwhelm the rest of the mix; and finally, play all the tracks at the same time and hear how each element interacts with the others.

Remember to spread your sounds across the frequency spectrum. If you add music with a heavy bass track on top of a scene that already has a significant low-end ambience track, you risk getting a muddy sound from both tracks. You're much better off choosing a different song.

Mixing in Soundtrack Pro

Although Final Cut Pro has all the tools necessary to successfully produce your mix, sound professionals crave controls, filters, and options that are more audio-specific than even the most full-featured video editor can contain. Fortunately, Final Cut Studio comes bundled with Soundtrack Pro, a professional application designed specifically for the audio postproduction needs of film and video projects.

For example, Final Cut offers 2 types of audio fades, but Soundtrack Pro has 16—not to mention its 68 filters compared to 32 in Final Cut Pro. Soundtrack Pro offers *bussing*, which allows you to create submixes to simultaneously apply effects to groups of tracks and then automate them. It also offers graphical surround sound mixing, multi-take dialogue editing (ADR), a unique frequency spectrum editor, and automatic project conforming. Because Soundtrack Pro is dedicated to audio, it has an efficient workflow, advanced tools and shortcuts that simplify and speed up your audio editing.

Sending to a Soundtrack Pro Multitrack Project

It's often been said that any creative work—film included—is never finished; simply abandoned. (That paraphrased quote is variously attributed to artist Leonardo da Vinci and to poet Paul Valery, both of whom died long before the film medium was invented.) So it's a good idea to use the day you send out your audio for the final mix as the milestone for forbidding yourself from making additional edits. However, if you must make changes, it is possible. *Apple Pro Training Series: Color Correction in Final Cut Pro 7*, the book from which these lessons are excerpted, explores how to reconcile additional changes.

Assuming that your picture is locked, and you've been diligent, your tracks have been organized into D, M & E (dialogue, music, and effects), and you're ready to move your workflow into Soundtrack Pro to perform a precision mix.

1   Open and play the *3. Ready For Soundtrack* sequence.

This is another version of the *Look Ma No Hands* sequence. The fades haven't yet been added, and the levels of the sound effects and music are very rough.

2   Select the sequence in the Browser and choose File > Send To > Soundtrack Pro Multitrack Project.
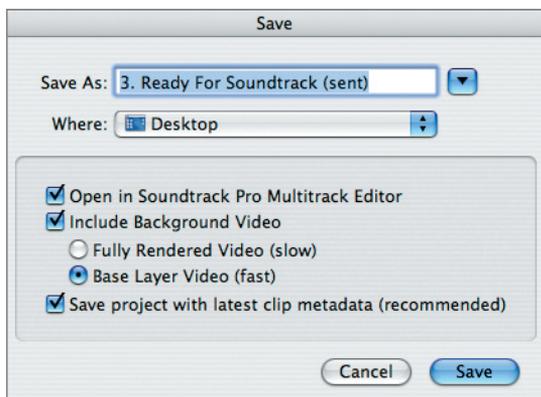
A Save dialog appears. You're saving a Soundtrack Pro project file which, like a Final Cut Pro project file, contains no media but only pointers to the actual media, and is therefore very small. It's a good idea to save such files in the same location that you save your Final Cut Pro project files.

3   Navigate to the destination of your choice and click Save.

Soundtrack Pro opens and displays a Timeline nearly identical to the one in Final Cut Pro. Audio levels, pan settings, and cross fades are all present.

One notable difference is that Soundtrack Pro displays both channels of a stereo pair in a single track, compared to the two separate tracks in Final Cut Pro.

You can also rename tracks in Soundtrack Pro, which provides a huge organizational benefit, especially in complex projects that can quickly grow to include dozens of tracks.

4   Click the name area of track A1 & A2 and rename it *Dialogue 1*.

5   Click the name area for the next track and rename it *Dialogue 2*.

6   Rename tracks A5 and A6, *FX1* and *FX2*, respectively, and rename tracks A7 & A8 *Music*, as shown below.

7   Press the spacebar to play the sequence.

> **TIP** ▶ You'll find that many of the familiar Final Cut Pro keyboard shortcuts also work in Soundtrack Pro, including J, K, and L for multispeed playback; I and O (as well as their Shift and Option key modifiers) to control In and Out points; Shift-Z to zoom the Timeline to fit in the window; N to toggle snapping; M for markers; and so on.

Performing Basic Mixing Tasks

In Soundtrack Pro, you can do the same mixing tasks that you performed earlier in Final Cut Pro. Some of these are easier to do in Final Cut Pro, because there are fewer options; others are easier or faster in Soundtrack Pro.

Muting and Soloing

The mute and solo controls are vital to effectively mix any multitrack project. On most projects, you'll frequently turn on and off groups of tracks to focus on one aspect at a time.

Soundtrack Pro tracks can be muted and soloed either in the Timeline track area or in the mixer window.

Mute Solo
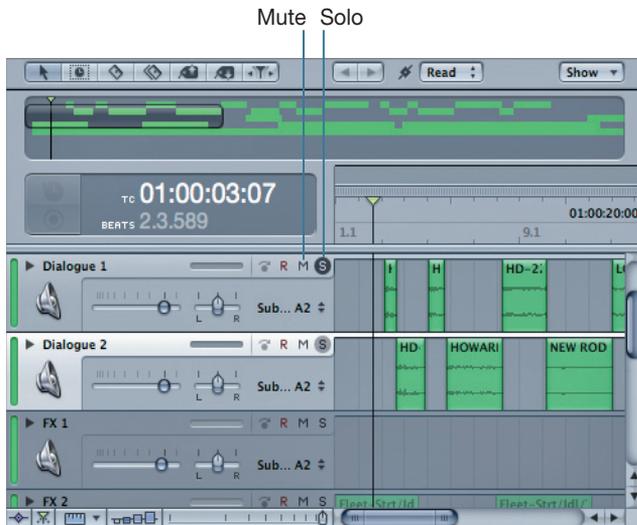
1   Click the solo button for the Dialogue 1 and Dialogue 2 tracks.

2   Play the sequence.

The tracks are successfully soloed.

3   Click the solo buttons again to unsolo those tracks.

> **TIP**   With a track selected, you can press the Y key to toggle Solo or the T key to toggle Mute for that track. You can press Control–Up Arrow to select the track above or Control–Down Arrow to select the track below the currently selected one.

Adding Fades

Sound designers could talk for hours about fades. Fortunately, applying them in Soundtrack Pro takes almost no time at all.

1   Press Home to bring the playhead to the beginning of the sequence. Press
    Command-+ (plus) to zoom in, if necessary, until the first few dialogue clips fill the
    Timeline.
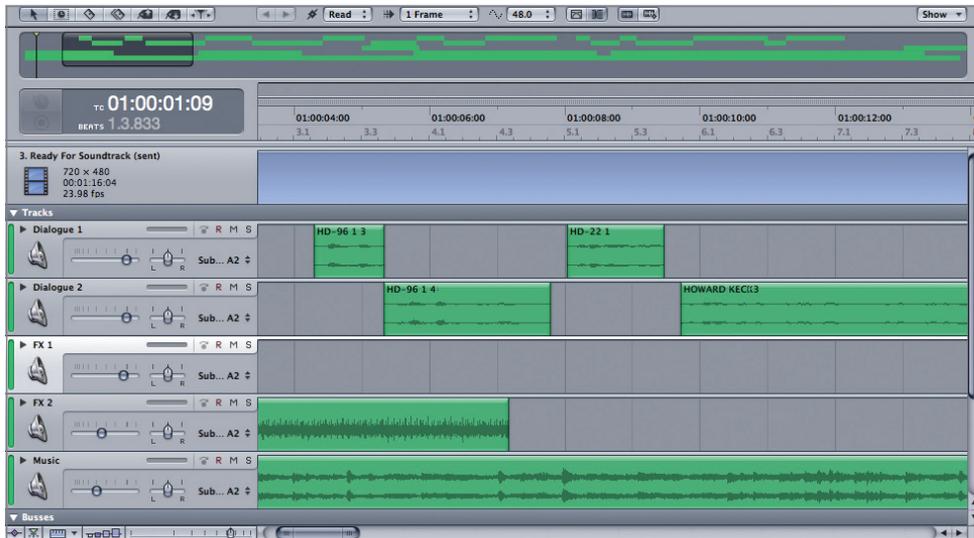
2   Position your mouse pointer over the upper-left corner of the first clip (**HD-96 1 3**).

    The pointer changes to the Add Fade pointer.

3   When the pointer appears, drag to the right, and extend the fade to the first bump in
    the waveform.

4   Double-click the fade.
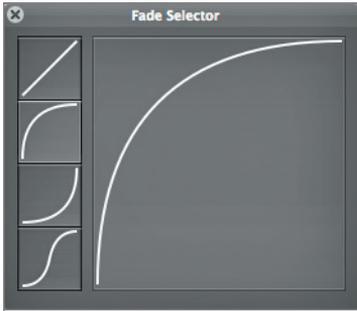
The Fade Selector Heads-Up Display (HUD) appears, allowing you to choose one of four fade patterns.

5   Click the various patterns to apply them to the fade on the clip, and then click the Close button to close the HUD.

Soundtrack Pro allows you to set either side of a cross fade to a different fade pattern.

6   Press Shift-Z to zoom the entire scene into view, and then scroll down until you can see the Music track.
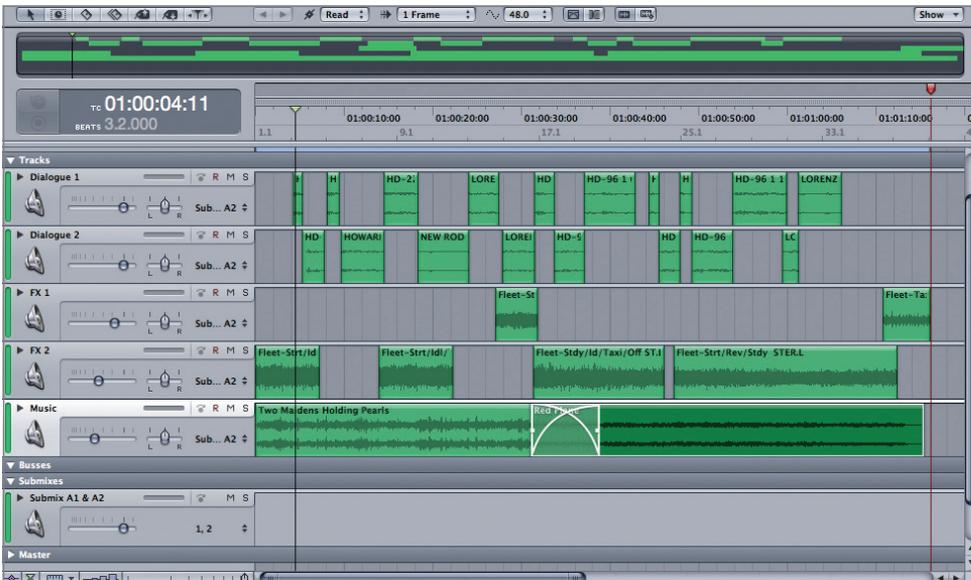
7   On the Music track, double-click the cross fade to open the HUD.
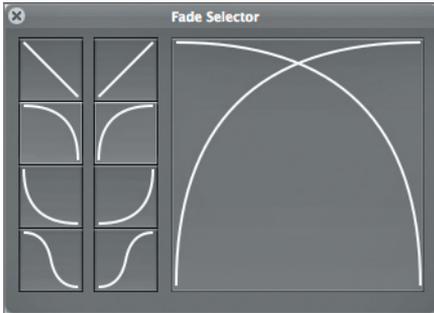
Now, the HUD shows both sides of the fade.

8   Experiment with different fade selections, and then close the HUD.

Adjusting Levels

Just like in Final Cut Pro, Soundtrack Pro has a mixer window in which you can set and monitor levels, and automate level changes by dragging sliders while a sequence plays.

Moving a slider changes the values on the associated track. You can also change levels in the Timeline area. Volume and pan sliders are located under the track label for each track.

Positioning the pointer over either slider displays a tooltip that shows the current value.

The Timeline can also display graphs (known as *envelopes*) that show how levels change over time.

1   In the upper-left corner of the FX 2 track, click the disclosure triangle.
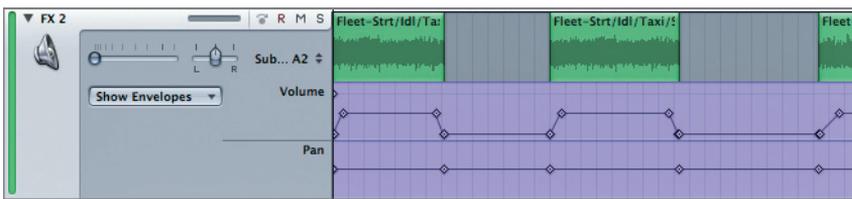
The envelopes for both volume and pan are displayed.

Adjusting the volume slider affects the clip currently under the playhead.

2   Position the playhead over the first clip. Drag down the volume slider to approximately –33 dB.

3   Play the sequence to hear the results.

You can continue dragging to finesse the level setting while the sequence plays.

NOTE ▶ When keyframes are added to the level envelope, adjusting the slider will affect only the segment under the playhead.

Automating Level Changes

Of course, you can also add keyframes on the fly in Soundtrack Pro, and there are even multiple modes (*Latch* and *Touch*) that produce slightly different results. Latch mode adds keyframes as you adjust the slider and, after the last keyframe, the level remains constant. Touch mode does the same thing, except after you release the slider, the level jumps back to wherever the level was before you first dragged the slider. Touch mode is helpful for doing quick *ducks* or boosts in a mix where you don't want to disturb the other levels.

1 In the upper-left corner of the mixer, set the Automation Mode pop-up to Latch.
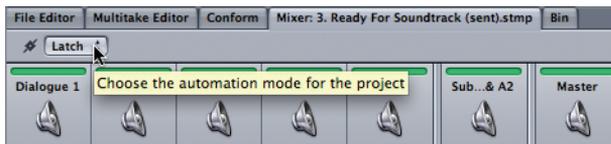
This enables keyframe recording. It's not necessary to expand the tracks in the Timeline, but doing so allows you to see the keyframes as they appear.

2 Click the disclosure triangle to the left of the music track's label to display the level and pan envelopes.

3 Position your pointer over the mixer slider for the music track, and then play the sequence and drag the slider to adjust the levels of the music track as it plays.

The keyframes are added while the sequence plays.

4 In the Timeline, drag a marquee around the keyframes, and press Delete.

The keyframes are removed from the clip.

We've now touched upon the basic techniques of audio editing and mixing in both Final Cut Pro and Soundtrack Pro. However, Soundtrack Pro contains many more advanced tools and techniques for producing professional audio. In the upcoming lessons we'll go

into an in-depth exploration of Soundtrack Pro's professional tools as they are applied in real-world post-production workflows.

Returning to Final Cut Pro

When you're finished with your sound mix, it's time to move back to Final Cut Pro in preparation for final output.

1   In Soundtrack Pro, choose File > Export.
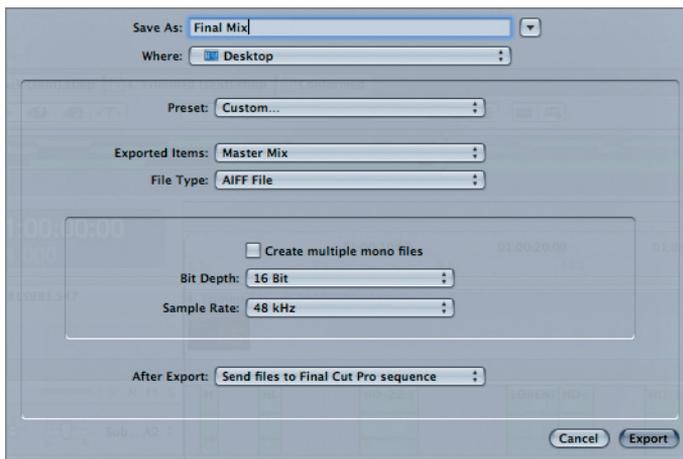
The Export dialog opens. In this example, you made only one stereo mix. As you get more comfortable in Soundtrack Pro, you'll learn how to create submixes and surround mixes, any of which can be exported in the same way.

2   Name the file *Final Mix*. Leave all of the settings at their defaults, except After Export. Set it to "Send files to Final Cut Pro sequence." Click Export.

The mix is exported to an XML file, and Final Cut Pro is automatically brought forward with the Import XML dialog.

3 Leave all the settings at their default values, and click OK.

A Save dialog appears, asking you to save a project.

4 Navigate to the directory of your choice and click Save.

NOTE ▸ You may safely disregard any non-critical error warnings.

A new sequence named *Final Mix* is added to the Final Cut Pro project.

5 Double-click the sequence.
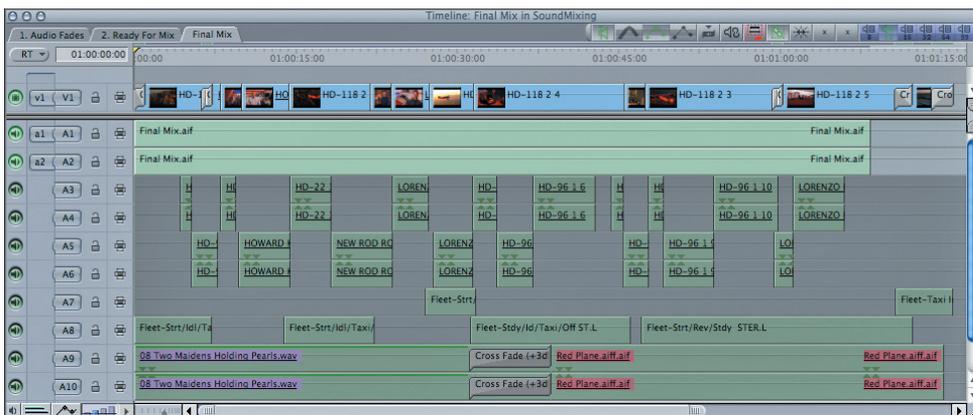
The sequence contains all of the clips from the original sequence you previously exported. Two new audio tracks have been added to tracks A1 and A2, and these contain the finished mix you exported from Soundtrack Pro. All the other audio tracks have been moved down and disabled.

NOTE ▶ This tutorial is excerpted from *Apple Pro Training Series: Sound Editing in Final Cut Studio*, by Jeff Sobel, 0-321-64748-3. For more information or to buy the book, go to www.peachpit.com/apts.