



Sound Editing in Final Cut Studio

Creating a Sound Mix

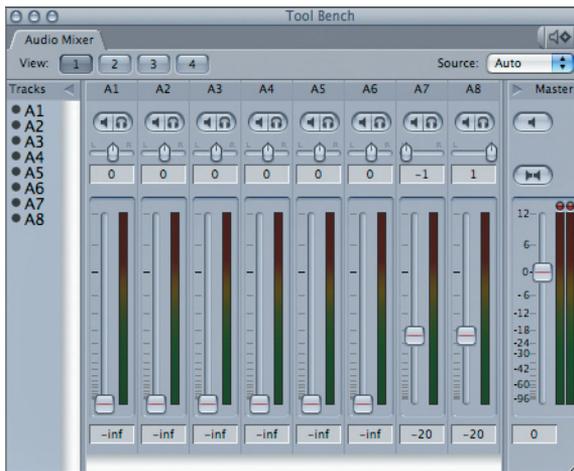
- Part 1: Smoothing Edits with Fades
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Part 3

Using Keyframes to Automate a Mix

NOTE ► This is the third part in a series of tutorials that build upon each other. Before beginning this part, make sure you've completed the exercises in Parts 1 and 2.

The Final Cut Pro Audio Mixer window offers another way to view the audio tracks in your sequence. But unlike the horizontal track arrangement seen in the Timeline, you view the tracks in vertical strips. The design of the Audio Mixer window emulates the layout of traditional mixing consoles such as the ones found in film dub stages.



One advantage to the Audio Mixer is that each track's level can be monitored independently, while you can simultaneously observe the overall audio level of the show. The other primary benefit of the Audio Mixer is that you can adjust audio levels while the sequence is playing, even adding keyframes on the fly for level changes and fades.

- 1 Choose Window > Arrange > Audio Mixing.

The windows rearrange, and the Audio Mixer window opens. Each vertical slider in the Mixer window represents a track in your sequence. There will always be one slider for each track in the sequence.

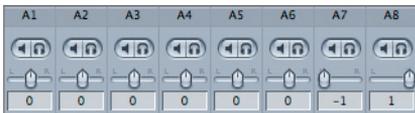
TIP You can open the Audio Mixer window without changing your window layout by choosing Tools > Audio Mixer or pressing Option-6.

- 2 Press the spacebar to play the sequence.

As the sequence plays, the meter beside each slider displays the audio level for its track. The sliders also move to reflect the level settings of each clip. On the right, the master slider displays the overall output level. The number of meters reflects the number of audio outputs in the sequence. By default, sequences are set to stereo output.



Above each slider are a pan control and mute and solo buttons identical to those in the Timeline.



Setting Up Views in the Audio Mixer

When using eight or more tracks, it may be difficult to monitor everything at once, so Final Cut Pro enables you to create four different views, each of which can display a custom selection of tracks in the Audio Mixer.



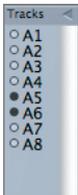
One common technique is to create one view just for dialogue tracks, one for effects, and one for music. The fourth view can be reserved for viewing all the tracks at the same time.

- 1 In the track list on the left, click the black circle to hide tracks A5, A6, A7 and A8.



The mixer view now shows only the dialogue tracks.

- 2 Click the View 2 button.
- 3 In the track list, hide tracks A1 through A4 and tracks A7 and A8.



This view now shows only the effects tracks.

- 4 Click the View 3 button.
- 5 Hide all but tracks A7 and A8.

View 3 now shows just the music.

- 6 Click each of the View buttons and observe the different collections of tracks.

NOTE ► Limiting the visible tracks in a view does not mute them; it only hides the sliders to allow you to better focus on a particular aspect of your mix.

TIP ► The view settings illustrate one reason for organizing your audio tracks efficiently. For example, if you put sound effects and dialogue on the same tracks, it makes the mixer far less effective.

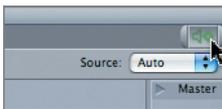
Mixing On the Fly

By now, you should understand the value of making editing decisions while watching your program, rather than while playback is paused. Audio mixing is another task that benefits immensely from that same ethic.

Be aware that anytime you adjust an Audio Mixer slider while a clip is playing, you change the level for that clip. There are two ways to employ this technique. By default, changes affect the level over the whole duration of the clip. Or, if you enable audio keyframe recording, every adjustment you make with the slider is recorded and applied to the clips in real time. This process is often called *automation*.

Automation is especially useful for adjusting the level of music as it plays under dialogue.

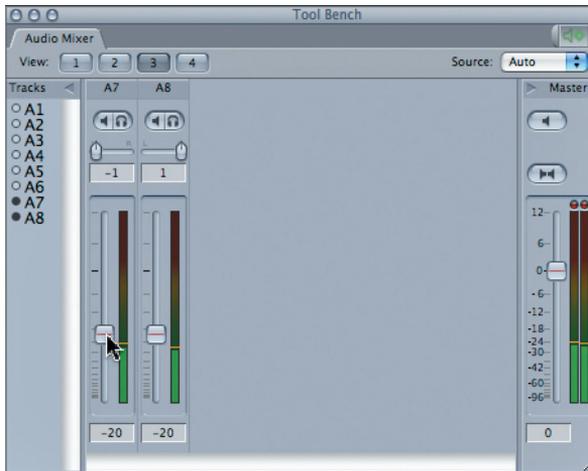
- 1 In the button bar of the Audio Mixer window, click the Record Audio Keyframes button.



- 2 Set the Audio Mixer to View 3.
- 3 Play the sequence.

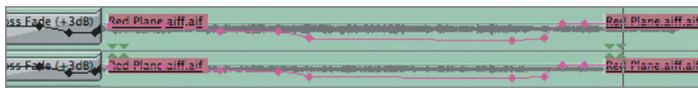
As it plays the first time, think about what you want to do with this sequence. In this case, the first piece of music has a good level, but the second piece seems to overpower some of the interviews.

- 4 Play the sequence again, and position your mouse pointer over the slider on track A7.



Because the clips on A7 and A8 are stereo pairs, changing one slider automatically changes the other.

- 5 As the sequence plays, listen to the mix. At the point where the music is too loud, pull the slider down slightly. After the last line of dialogue—“Look ma, no hands!”—quickly pull the slider all the way up to 0.



You have just added a few keyframes to the **Red Plane** clip, instantly mixing the sequence on the fly.

- 6 Play the sequence again and listen to your work.

The levels reflect the changes you just made. If you don't like what you did, don't fret. There are many ways to get rid of those keyframes.

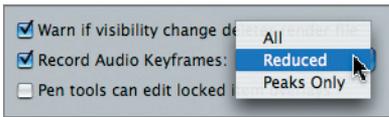
First, you could use Undo, but an even simpler solution is just to play the sequence again and make different adjustments with the slider. Each time you move the slider, new keyframes replace any that occurred at the same points in time. If you don't move the slider for a while, any existing keyframes remain intact.

Controlling Keyframe Frequency

There are times when you want every fine adjustment made with sliders to be recorded, and there are times when you want to record only the fewest number of keyframes. To accommodate both situations, Final Cut Pro provides a keyframe recording frequency with three settings.

In the previous example, you recorded keyframes with the default Reduced setting. When Record Audio Keyframes is set to Reduced, Final Cut Pro applies keyframes only as often as is necessary to smoothly reproduce your slider adjustments. In the real world, this setting works for nearly every situation.

- 1 Choose Final Cut Pro > User Preferences, and click the Editing tab.

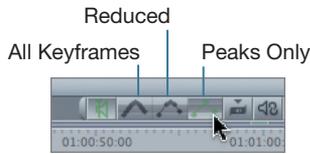


- 2 Set the Record Audio Keyframes pop-up menu to All, and click OK.
- 3 Play the sequence again, and make a series of adjustments to the audio sliders.



When Record Audio Keyframes is set to All, a new keyframe is added every time the slider is moved. Although this can be precise, the larger number of keyframes produced does make later adjustments more difficult.

You can also change the keyframe recording frequency using the buttons in the Timeline button bar.



- 4 Click the Peaks Only button.
- 5 Play the sequence again and adjust the slider.

There is no need to delete or reset the old keyframes. Recording new keyframes will automatically overwrite any existing ones.



When Record Audio Keyframes is set to Peaks Only, the fewest possible keyframes are added to replicate the movements you made with the slider.

- 6 Click the Reduced keyframe setting in the Timeline button bar.

Resetting All Keyframes

If you get in a situation where you just want to start fresh and eliminate all the keyframes you've recorded, you have two choices: You can play the sequence and use your mouse to hold the slider in place, thereby erasing any previously applied keyframes; or you can double-click the clip in question, and in the Audio Viewer click the Reset button.

