

Adjusting audio volume

There are several ways to adjust the volume of clips with Premiere Pro, and they are all nondestructive. Changes you make don't affect your original media files, so you can experiment freely.

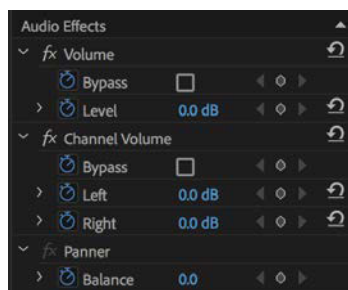
Adjusting audio in the Effect Controls panel

Earlier, you used the Effect Controls panel to make adjustments to the scale and position of clips in a sequence. You can also use the Effect Controls panel to adjust volume.

- 1 Open the Excuse Me sequence from the Master Sequences bin.

This is a simple sequence with two clips in it. In fact, it's the same clip added to the sequence twice. One version has been interpreted as stereo, and the other has been interpreted as mono channels.

- 2 Click the first clip to select it, and open the Effect Controls panel.
- 3 In the Effect Controls panel, expand the Volume, Channel Volume, and Panner controls.



Each control gives the right options for the type of audio you have selected.

- **Volume** adjusts the combined volume of all the audio channels in the selected clip.
- **Channel Volume** allows you to adjust the audio level for individual channels in the selected clip.
- **Panner** gives you overall stereo left/right output balance control for the selected clip.

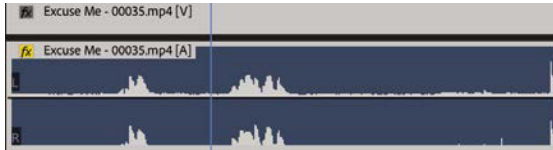
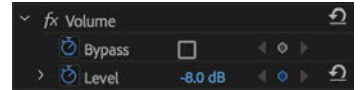
Notice that the keyframe toggle stopwatch icon is automatically enabled for all the controls. This means every change you make will add a keyframe.

However, if you add only one keyframe and use it to set the audio level, the adjustment will apply to the whole clip.

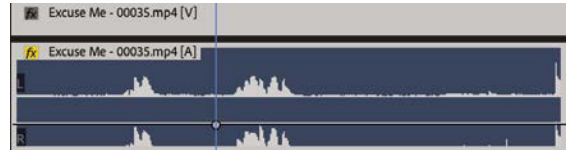
- 4 Position the Timeline playhead over the clip where you would like to add a keyframe (it doesn't make too much difference if you intend to make only one adjustment).
- 5 Click the Timeline panel Settings menu, and make sure Show Audio Keyframes is selected.
- 6 Increase the height of the Audio 1 track so you can see the waveform and special thin white line for adding keyframes, often referred to as a *rubber band*.

- 7 In the Effect Controls panel, drag left on the blue number that sets the volume level.

Premiere Pro adds a keyframe, and the rubber band moves down to show the reduced volume. The difference is subtle, but as you become more familiar with the Premiere Pro interface, it'll stand out more and more clearly.



Before



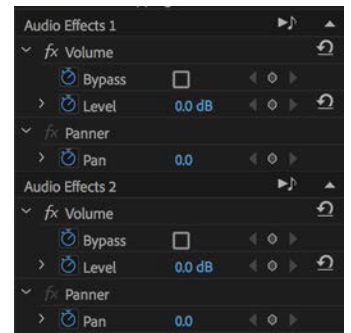
After (the difference is subtle)

- 8 Now select the second version of the Excuse Me clip in the sequence.

● **Note:** The rubber band uses the entire height of the audio clip to adjust the volume.

You'll notice you have similar controls available in the Effect Controls panel, but now there is no Channel Volume option. This is because each channel is its own clip segment, so the Volume control for each channel is already an individual one.

- 9 Experiment with adjusting the volume for these two independent clips.



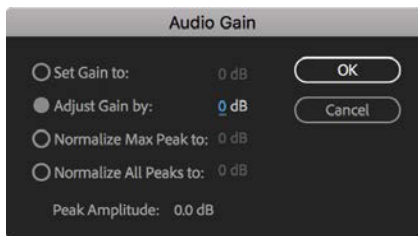
Adjusting audio gain

Most music is created with the loudest possible signal to maximize the difference between the signal and the background noise. This is too loud to use in most video sequences. To address this issue, you need to adjust the clip's audio gain.

- 1 Open the clip Cooking Montage.mp3 from the Music bin. Notice the size of the waveform.

● **Note:** You may need to adjust the zoom level on the Source Monitor to see the waveform.





● **Note:** None of the changes you make to the volume of your clips will change the original media files. You can make a change to the overall gain here, in the bin, or on the Timeline, in addition to any changes you make using the Effect Controls panel, and your original media files will remain unmodified.

2 Right-click the clip in the bin and choose Audio Gain.

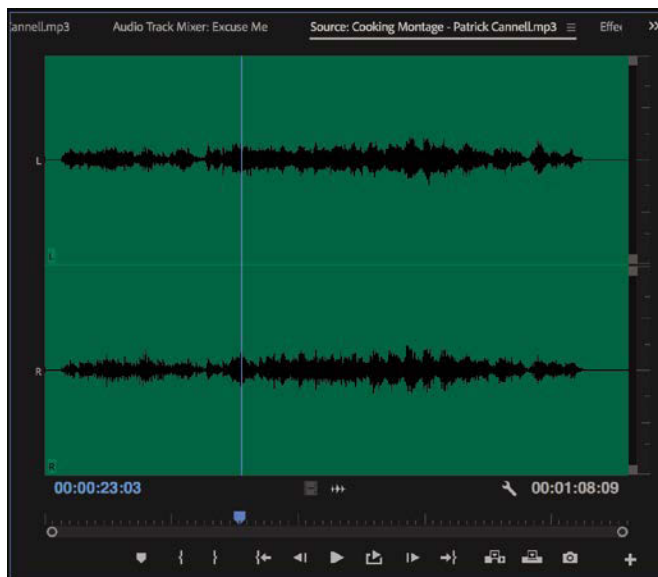
There are two options in the Audio Gain dialog box that you should learn about now.

- **Set Gain To:** Use this option to specify a particular adjustment for your clip.
- **Adjust Gain By:** Use this option to specify an incremental adjustment for your clip.

For example, if you apply **-3 dB**, this will adjust the Set Gain To amount to **-3 dB**. If you go into this menu a second time and apply another **-3 dB** adjustment, the Set Gain To amount will change to **-6 dB**, and so on.

3 Select Set Gain To and set the gain to **-12 dB**, and click OK.

Right away, you'll see the waveform change in the Source Monitor.



Changes like this, where you are adjusting the audio gain in the bin, will not update clips already edited into a sequence. However, you can right-click one or more clips in a sequence, choose Audio Gain, and make the same kind of adjustment there.

Normalizing audio

Normalizing audio is similar to adjusting gain. In fact, normalization results in an adjustment to the clip gain. The difference is that normalization is based on automated analysis rather than on your subjective judgment.

When you normalize a clip, Premiere Pro analyzes the audio to identify the single highest peak, in other words, the loudest part of the audio. The gain for the clip is then adjusted automatically so that the highest peak matches a level you specify.

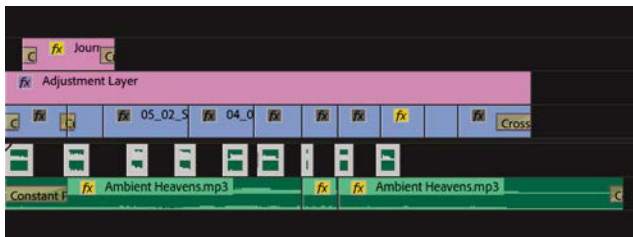
You can have Premiere Pro adjust the volume for multiple clips so that they match any perceived volume you like.

Imagine working with multiple clips of a voice-over, recorded over several days. Perhaps because of different recording setups or working with different microphones, several clips might have different volumes. You can select all the clips and, in a single step, have Premiere Pro automatically set their volumes to match. This saves significant time you would have spent manually going through each clip, one by one, to make adjustments.

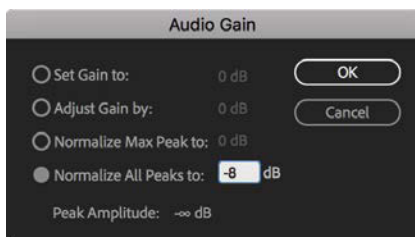
Try normalizing some clips by following these steps:

- 1 Open the Journey to New York sequence.
- 2 Play the sequence, and watch the level on the audio meters.
The voice level varies quite a lot, particularly in the third and fourth clips.
- 3 Select all the voice-over clips in the sequence on Track A1. To do so, you can lasso them or make an item-by-item selection.

Note: You may need to adjust the track size to see the audio waveforms. Do this by dragging the divider on the track header.



- 4 Right-click any of the selected clips and choose Audio Gain, or press the G key.
- 5 Enter **-8** for Normalize All Peaks To, and click OK. Listen again.



Every selected clip is adjusted so that the loudest peaks are at **-8 dB**.

Tip: You can apply normalization in the bin too. Just select all the clips you want to automatically adjust, go to the Clip menu, and choose Audio Options > Audio Gain, or you can select the clips and press the G key.

Notice the way the waveforms for the clips level out. If you choose **Normalize Max Peak To**, rather than **Normalize All Peaks To**, Premiere Pro will make an adjustment based on the loudest moment of all the clips combined, as if they were one clip.



Sending audio to Adobe Audition CC

While Premiere Pro has advanced tools to help you achieve most audio-editing tasks, it can't compete with Adobe Audition, which is a dedicated audio post-production application.

Audition is a component of Adobe Creative Cloud. It integrates neatly into your workflow when editing with Premiere Pro.

You can send your current sequence to Adobe Audition automatically, bringing all your clips and a video file based on your sequence, to produce an audio mix that follows along with the pictures.

To send your sequence to Adobe Audition, follow these steps:

- 1 Open the sequence you want to send to Adobe Audition.
- 2 Choose **Edit > Edit in Adobe Audition > Sequence**.
- 3 You'll be creating new files to work with in Adobe Audition to keep your original media unchanged, so choose a name and browse for a location, then choose the remaining options as you prefer, and finally click **OK**.
- 4 In the **Video** menu, you can choose **Send Through Dynamic Link** to view the video part of your Premiere Pro sequence live in Audition.

Adobe Audition has fantastic tools for working with sound. It has a special spectral display that helps you identify and remove unwanted noises, a high-performance multitrack editor, and advanced audio effects and controls.

It's also easy to send an individual clip to Audition to benefit from its superior audio cleanup, editing, and adjustment features. To send a clip to Audition, right-click the clip in your Premiere Pro sequence and choose **Edit Clip in Adobe Audition**.

Premiere Pro duplicates the audio clip, replaces the current sequence clip with the duplicate, and opens the duplicate in Audition, ready to work on it.

From now on, every time you save changes you have made to the clip in Audition, they'll automatically update in Premiere Pro.

For more information about Adobe Audition, go to www.adobe.com/products/audition.html.

Creating a split edit



A split edit is a simple, classic editing technique that offsets the cut point for audio and video. The audio from one clip is played with the visuals from another, carrying the feeling of one scene into another.

Adding a J-cut

The J-cut gets its name from the shape of the edit. Picture the letter *J* over an edit. The lower part (the audio cut) is to the left of the upper part (the video cut).

- 1 Open the Theft Unexpected sequence.
- 2 Play the last cut in the sequence. The join in the audio between the last two clips is rather abrupt. You may need to turn up your speaker volume to hear the join. You'll improve things by adjusting the timing of the audio cut.



- 3 Select the Rolling Edit tool , accessible by clicking and holding on the Ripple Edit Tool icon .
- 4 While holding Alt (Windows) or Option (macOS), click the audio segment edit (not the video), and drag a little to the left. Congratulations! You've created a J-cut!



- 5 Play through the edit.

You might want to experiment with the timing to make the cut seem more natural, but for practical purposes the J-cut works. You can smooth it over and improve it further with an audio crossfade later.

Remember to switch back to the Selection tool (V).

► **Tip:** With the default Premiere Pro preferences, you can apply a rolling edit using the Selection tool if you hold Ctrl (Windows) or Command (macOS).

● **Note:** Holding Alt (Windows) or Option (macOS) temporarily overrides linked selections, so you can adjust just the video or just the audio segment of a linked clip.

Adding an L-cut

An L-cut works in the same way as a J-cut but in reverse. Repeat the steps in the previous exercise, but try holding Alt (Windows) or Option (macOS) as you drag the audio segment edit a little to the right. Play through the edit and see what you think.

Adjusting audio levels for a clip

As well as adjusting clip gain, you can use the rubber band to change the volume of clips in a sequence. You can also change the volume for tracks, and the two volume adjustments will combine to produce an overall output level.

If anything, using rubber bands to adjust volume is more convenient than adjusting gain because you can make incremental adjustments at any time, with immediate visual feedback.

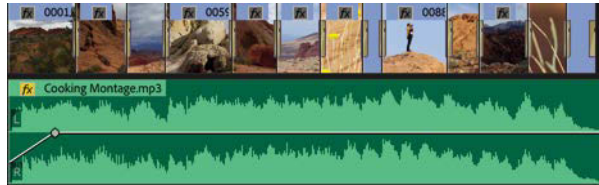
The result of adjusting the rubber bands on a clip is the same as adjusting the volume using the Effect Controls panel. In fact, one control automatically updates the other.

Adjusting overall clip levels

Try this now.

► **Tip:** You can find many more available keyboard shortcuts by choosing Edit > Keyboard Shortcuts (Windows) or Premiere Pro CC > Keyboard Shortcuts (macOS). Existing shortcuts are displayed on an illustrated keyboard layout.

- 1 Open the Desert Montage sequence in the Master Sequences bin.



The music already fades up and down at the beginning and end. Let's adjust the volume between those fades.

- 2 Use the Selection tool to drag down at the bottom of the A1 track header, or hover the mouse cursor over the track header and scroll to make the track taller. This will make it easier to apply fine adjustments to the volume.



- 3** The music is a little too loud. Click the middle part of the rubber band on the music clip in the sequence, and drag down a little.

As you drag, a tool tip appears, displaying the amount of adjustment you are making.

Because you're dragging a segment of the rubber band rather than a keyframe, you're adjusting the overall level for the segment between the two existing keyframes. If the clip did not have existing keyframes, you'd be adjusting the overall level for the entire length of the clip.

Changing clip volume with keyboard shortcuts


If the Timeline playhead is over a clip, you can also raise and lower clip volume using keyboard shortcuts. The result is the same, although you won't see a tool tip informing you about the amount of adjustment. These are particularly convenient shortcuts for quick, precise audio level adjustments:

- Use the [key to decrease clip volume by 1 dB.
- Use the] key to increase clip volume by 1 dB.
- Use Shift + [to decrease clip volume by 6 dB.
- Use Shift +] to increase clip volume by 6 dB.

If your keyboard does not have square bracket keys, and you would like to use these shortcuts, choose Edit > Keyboard Shortcuts (Windows) or Premiere Pro CC > Keyboard Shortcuts (macOS) to set alternative keys.

Keyframing volume changes

If you use the Selection tool to drag an existing keyframe, you'll adjust it. This is the same as making adjustments to visual effects using keyframes.

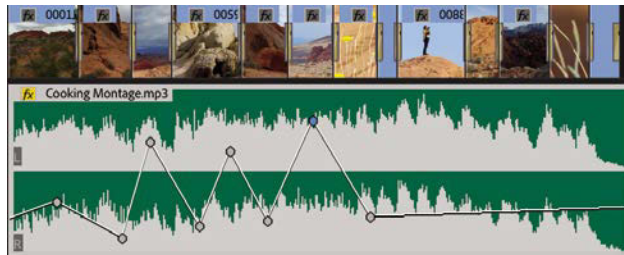
The Pen tool  adds keyframes to rubber bands. You can also use it to adjust existing keyframes or to lasso lots of keyframes to adjust them together.

You don't need to use the Pen tool, though. If you want to add a keyframe where there is none, you can hold Ctrl (Windows) or Command (macOS) when you click the rubber band.

The result of adding and adjusting the position of keyframes up or down on audio clip segments is that the rubber band is reshaped. Just as before, the higher the rubber band, the louder the sound.

► Tip: If you adjust the clip audio gain, Premiere Pro combines the effect with the keyframe adjustments dynamically. You can change either at any time.

Add a few keyframes with dramatic level adjustments to the music now and listen to the results.



Smoothing volume between keyframes

The adjustments you made in the previous exercise are probably pretty overwhelming. You might want to smooth the adjustments over time, and this is easy to do.

To do so, right-click any of your keyframes. You'll see a range of standard options, including Ease In, Ease Out, and Delete. If you use the Pen tool, you can lasso multiple keyframes and then right-click any one of them to apply a change to them all.

The best way to learn about the different kinds of keyframes is to select each kind, make some adjustments, and see or listen to the results.

Using clip vs. track keyframes

● **Note:** Adjustments you make to your clips are applied before adjustments you make to your tracks.

Until now, you've made all your keyframe adjustments to sequence clip segments. Premiere Pro has similar controls available for the audio tracks those clips are placed onto. Track-based keyframes work in the same way as the clip-based ones. The difference is that they don't move with the clips.

This means you can set up keyframes for your audio level using track controls and then try different music clips. Each time you put new music into your sequence, you'll hear it via the adjustments you have made to your track.

As you develop your editing skills with Premiere Pro and create more complex audio mixes, explore the flexibility offered by combining clip and track keyframe adjustments.


Working with the Audio Clip Mixer

The Audio Clip Mixer provides intuitive controls to adjust clip volume and pan keyframes over time.

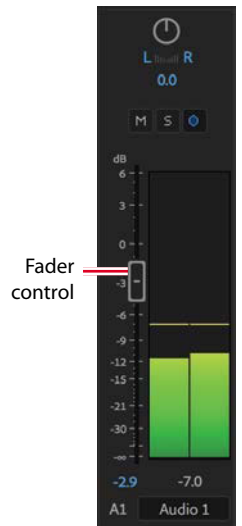
Each sequence audio track is represented by a set of controls. You can mute or solo a track, and you can enable the option to write keyframes to clips during playback by dragging a fader.

What's a fader? Faders are industry-standard controls based on real-world audio-mixing decks. You move the fader up to increase the volume and move it down to decrease the volume. You can also use the volume faders to add keyframes to your clip audio rubber band while you play the sequence.

Try this now.

- 1 Continue working with the Desert Montage sequence. Make sure the Audio 1 track is set to show audio keyframes, using the Timeline Settings menu.
- 2 Open the Audio Clip Mixer (not the Audio Track Mixer), and play the sequence. Because you already added keyframes to this clip, the Audio Clip Mixer fader moves up and down during playback.
- 3 Position the Timeline playhead at the beginning of the sequence.
- 4 In the Audio Clip Mixer, enable the Write Keyframes button  for Audio 1.
- 5 Play the sequence, and while it plays, make some adjustments to the Audio 1 fader. When you stop playback, you'll see the new keyframes that you added.
- 6 If you repeat the process, you'll notice that the fader follows existing keyframes until you make a manual adjustment.

You can adjust keyframes you have created this way just as you would adjust keyframes that were created using the Selection tool or the Pen tool.



Note: You won't see new keyframes until you stop playback.

Tip: You can adjust pan in the same way as you would adjust volume using the Audio Clip Mixer. Simply play your sequence, and make adjustments using the Audio Clip Mixer's Pan control.

The difference between Pan and Balance

Mono and stereo audio clips have different Panner controls to set the level for each output when producing a stereo or 5.1 audio sequence:

- Mono audio clips have a Pan control, which allows you to distribute the single audio channel between available output channels. In the case of a stereo sequence, this would mean choosing how much of the audio is in the left or right side of the mix.
- Stereo audio clips have a Balance control, which allows you to distribute the combined output of multiple audio channels in a clip between available output channels.

The controls displayed vary depending on your sequence audio mastering setting, and the available audio in each clip you select.

You have now discovered several ways to add and adjust keyframes in Premiere Pro. There's no right or wrong way to work with keyframes; it's entirely a matter of personal preference or the needs of a particular project.

Review questions

- 1 How can you isolate an individual sequence audio channel to hear only that channel?
- 2 What is the difference between mono and stereo audio?
- 3 How can you view the waveforms for any clip that has audio in the Source Monitor?
- 4 What is the difference between normalization and gain?
- 5 What is the difference between a J-cut and an L-cut?
- 6 Which option in the Audio Clip Mixer must be enabled before you can use the fader controls to add keyframes to sequence clips during playback?

Review answers

- 1 Use the Solo buttons at the bottom of the audio meters to selectively hear an audio channel.
- 2 Stereo audio has two audio channels, and mono audio has one. It is the universal standard to record audio from a Left microphone as Channel 1 and audio from a Right microphone as Channel 2 when recording stereo sound.
- 3 Use the Settings menu on the Source Monitor to choose Audio Waveform. You can do the same with the Program Monitor, but you probably won't need to; clips can display waveforms on the Timeline. You can also click the Drag Audio Only button at the bottom of the Source Monitor.
- 4 Normalization automatically adjusts the Gain setting for a clip based on the original peak amplitude. You use the Gain setting to make manual adjustments.
- 5 The sound for the next clip begins before the visuals when using a J-cut (sometimes described as "audio leads video"). With L-cuts, the sound from the previous clip remains until after the visuals begin (sometimes described as "video leads audio").
- 6 Enable the Write Keyframes option for each track you would like to add keyframes to.