How to edit audio tracks

Although at times you will use Soundbooth to record new audio, you will often use it to edit, clean up, or add effects to an existing audio file—such as an audio file recorded with a video. For example, if you've done an interview, you might use Soundbooth to reduce background noise, to make the audio louder, or to remove a mobile-phone ring.

This guide covers the following tasks:

- Splitting a sound into clips
- Cutting clip length
- Reducing noise on an audio file
- Increasing or decreasing the volume of a track
- Removing a noise from an audio file
- Adding an effect to an audio file

Splitting sound into clips

1. Choose File > Open to open the sound file in the Soundbooth editor.
2. Drag to select a segment of the sound file (**Figure 1**).
3. Choose File > New > Audio File From Selection.

   Soundbooth creates a new file based on your selection and opens the file in the Editor (**Figure 2**).
4. Save the clip with a new name and accept the default settings.

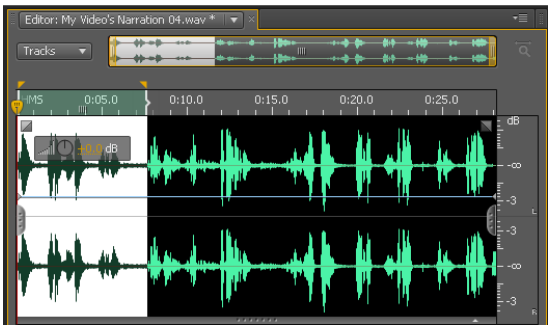

Figure 1 Selecting a segment of a sound file

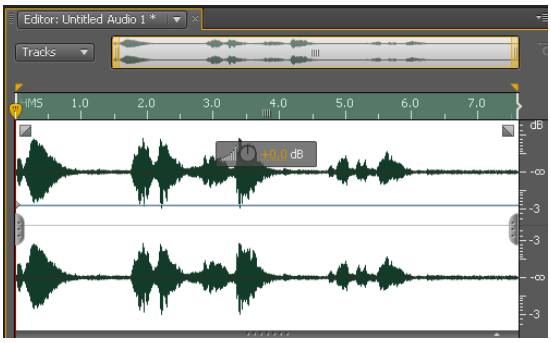

Figure 2 Clip opened as new file

Trim audio file

To cut parts of an audio file, you have two options:

If the part you want to remove is at the beginning or end of the clip, you can drag the trim handles away from the beginning or end.

To trim audio at the beginning or end of a file:

1. Click the Zoom Out Full button to display trim handles in the Editor panel (**Figure 3**).
2. Drag either handle inward (**Figure 4**).

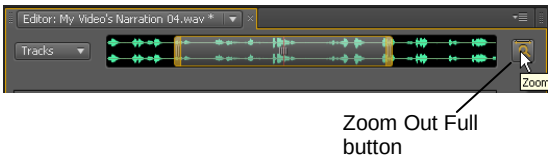

Figure 3 Zoom Out Full button

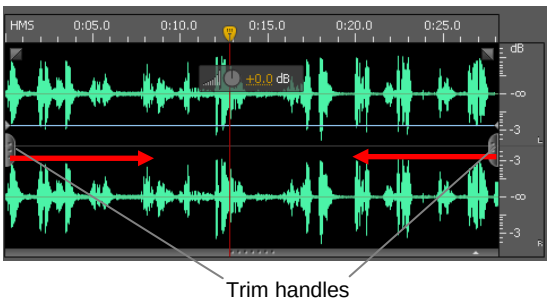

Figure 4 Trim handles

To delete audio in the middle of a file:

Select the segment you want to remove, and then choose Edit > Delete.

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Reducing noise

Often, your video recording will have consistent background noise: the hisses and clicks picked up by your video camera's microphone or the whirr caused by a nearby machine. You will have clearer vocals if you reduce much of this noise by using the Clean Up Audio task in the Tasks panel.

To reduce noise:

1. Open the sound file in which you want to reduce noise.
2. Click the Clean Up Audio task in the Tasks panel.
3. Click the Noise button in the Noise section of the task (**Figure 5**).

   The Noise dialog box appears (**Figure 6**), with two sliders, the Reduction slider and the Reduce By slider. The Reduction slider determines the amount of reduction in decibels; you can choose a decibel level from 0 to 25, and the noise will be reduced by this decibel amount. The Reduce By slider determines the amount of noise reduction by percentage.

   By default, the Noise dialog box lets you preview the sound as you adjust the sliders. Use this preview to fine-tune your choices with the sliders.

   To turn off preview mode, click the green on/off button in the lower left corner of the dialog box.
4. When you are satisfied with the amount of noise reduced, click OK.

   To discard your changes, click Cancel.

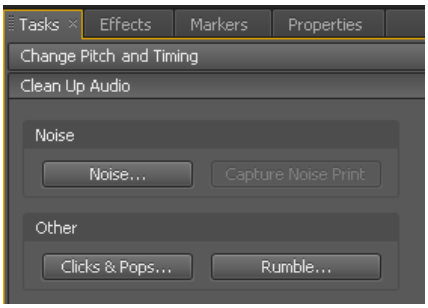

Figure 5 Noise button

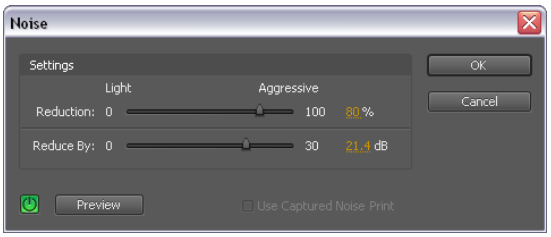

Figure 6 Noise dialog box

Increasing or decreasing volume

When you record the audio for a video, you may need to increase or reduce volume. You can do this in one of two ways:

- By using the volume pop-up bubble (this appears in the Edit panel over the sound)
- By using the Louder button

Both methods can be applied to all or part of an audio file (you first need to select the file by using the mouse). When you use the volume pop-up bubble, you can increase parts of the sound's volume in relation to the sound's existing volume. When you use the Louder button, Soundbooth boosts all parts of the file to the same level. The first time you click the Louder button, Soundbooth *normalizes* the sound so the volume is the same throughout the track. Each time you click the Louder button again, Soundbooth increases overall volume by 3 dB. The Louder button avoids distortion or clipping by applying a *hard limit*: when you click the Louder button, the sound will never be louder than the loudest level available.

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Increase or decrease the volume of sound by using the Volume pop-up bubble

You can increase all or part of an audio file by selecting segments of the file and dragging the Volume pop-up bubble. The Volume pop-up bubble appears in the middle of an audio file when you open it.

1. Open the audio file you want to adjust.
2. Select all or part of the file by dragging.
3. Drag the decibel numbers in the Volume pop-up bubble to the left or right to increase or decrease the level of sound (**Figure 7**). As you do, observe that the changed sound is previewed in the highlighted segment.
4. Release the mouse button.

   The change is applied.

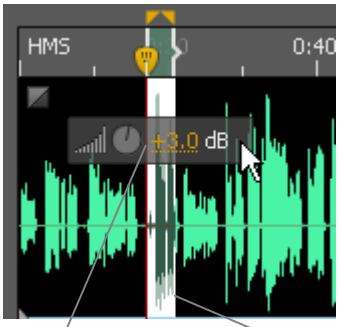

Figure 7 Using the Volume pop-up bubble

Increase or decrease a track's sound by using the Louder button

1. Open the audio file you want to adjust.
2. Drag to select all or part of the file.
3. Click the Louder button (**Figure 8**).

   The volume increases.
4. Save the file.

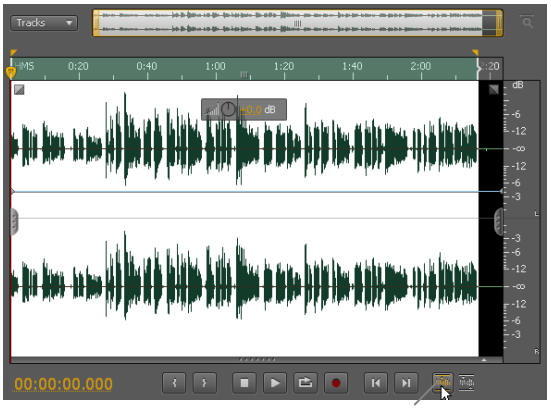

Figure 8 Using the Louder button

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Removing a noise

Sometimes you get a single instance of an unwanted noise in the middle of an audio recording—for example, a mobile phone ringing. You can remove such sounds by using the Remove A Sound task in the Tasks panel. This task gives you tools to select and remove parts of an audio file.

Note: The following techniques work best with distinct, clear sounds, such as a cough, a mobile phone ringing, or a chair sliding.

1. Display the Tasks panel and click Remove A Sound.

   The Tasks panel expands to show the Remove a Sound options (**Figure 9**).

2. Select the Time Selection, Marquee, or Lasso tool.

3. Make sure the Spectral Frequency Display button is selected to view the sound as a spectral display (**Figure 10**).

4. In the Editor panel, zoom in on the sound you want to remove.

   In the Editor panel, repeatedly replay the section of audio that contains the noise you want to remove (such as the cell phone ring). Look for a pattern of colors in that section of the spectral display that differs from the rest of the file. That pattern may represent the offending noise.

5. In the spectral display, use your selection tool from step 2 (such as the Lasso) to select the pattern of colors you identified (**Figure 11**). Try to make the selection no longer than 25,000 samples (.52 seconds at a sample rate of 48 kHz).

6. In the Tasks panel, select Play Selected Frequencies Only and then click Play to test your selection. If you hear only the offending noise, you were successful. If not, examine the color patterns again and test a different selection.

7. In the Tasks panel, click Auto Heal or choose Edit > Auto Heal.

   The Auto Heal button removes the sound gracefully, blending the audio with the surrounding sounds.

   Alternatively, you can select a larger segment of audio and use the Volume pop-up bubble to reduce the segment's sound level to –20, –30, or –40.

   Note: You should never delete a segment completely, as this may affect the rest of the audio track. Similarly, you usually will not want to decrease the Volume pop-up bubble to levels lower than –40.

8. Click the Spectral Frequency Display button again to close the spectral display.

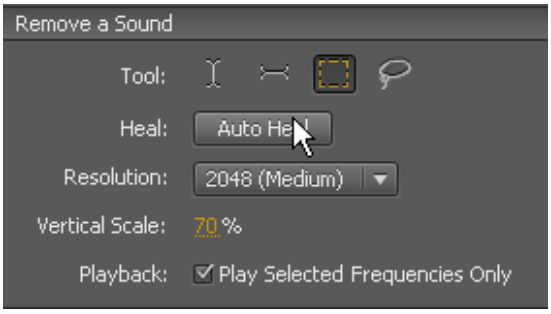

Figure 9 Remove a Sound task

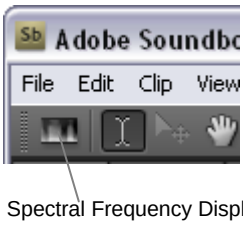

Figure 10 Spectral Frequency Display button

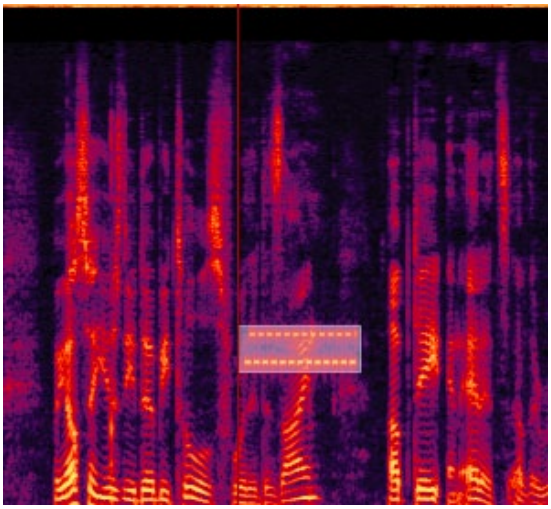

Figure 11 A noise selected

Applying effects

An *effect* is a way to distort or modify a sound. Soundbooth lets you apply up to five effects at once by using an *effects rack*. Prior to applying a rack, you can preview it and then customize, bypass, or remove individual effects. Soundbooth offers a number of effects you can apply to your files to improve and enhance them.

Removing a 60-cycle hum

As an example, your audio file might have picked up a low-frequency hum from recording equipment that is connected improperly or has picked up signals from nearby electrical outlets. You can remove this hum by using an effect called Remove 60 Cycle Hum.

1. Open the sound from which you want to remove a hum.
2. Display the Effects panel.
3. From the Stereo Rack Preset pop-up menu, choose Fix: Remove 60 Cycle Hum (**Figure 12**).
4. Click Play to preview the effect.
5. If you are satisfied with the effect, click Apply To File.
6. Save the file.

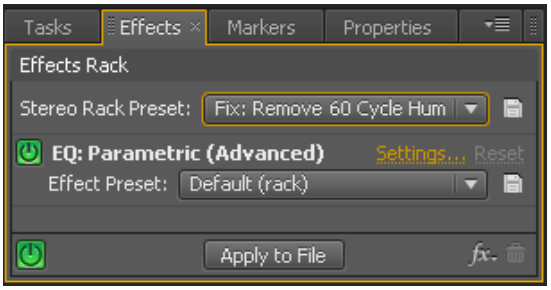

Figure 12 Stereo Rack preset menu and Apply To File button

Adding a reverb effect

You can also use effects to add character to your audio files. For example, you can make voices sound as though they are in a large concert hall by using a *reverb effect*.

1. Open the sound to which you want to add a reverb effect.
2. Display the Effects panel.
3. From the Stereo Rack Preset menu, choose Reverb: Large Room.
4. Click Play to preview the effect.
5. If you are satisfied with the effect, click Apply To File.
6. Save the file.

Other effects

Soundbooth provides a variety of other effects. The Mastering effects range from Fast Music to Web Broadband. Special effects include Distorted (which makes things sound punk or lofi) and SciFi (which imposes a spacey feel), among others. Another set of effects lets you improve the sound of different voices: female, internal dialog, male.

You can apply these effects by using the same steps as for 60 Cycle Hum and the reverb effect. Take the time to experiment with different effects. You can preview before you apply them, so you can experiment without changing the file.

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