Adobe Premiere Pro

# Create a 5.1 surround audio sequence

You can use Adobe® Premiere® Pro to mix 5.1 surround audio, such as soundtracks for DVD content or theatrical motion pictures.

To properly monitor 5.1 surround audio, your computer must have audio hardware that fully complies with the ASIO (Audio Stream Input/Output) specification, that's connected to a complete set of 5.1 surround speakers, and that's capable of 6-channel output. If your audio hardware doesn't meet these requirements, Adobe Premiere Pro must downmix the 5.1 channels to the two channels in your stereo speakers or headphones, and you won't hear surround sound properly.
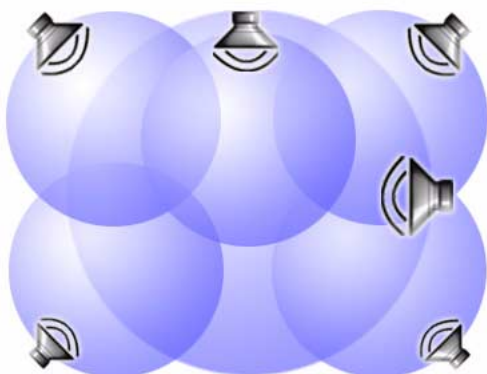
1. Create a sequence with a 5.1 surround audio master track.

In the Project window, click the New Item button, and choose Sequence. For Master, choose 5.1. (The master track of a sequence must be 5.1 surround for you to mix 5.1 surround audio.) For Mono, Stereo, and 5.1, specify the number of each type of track you need for the source audio you have. Set the other options as desired, and then click OK.
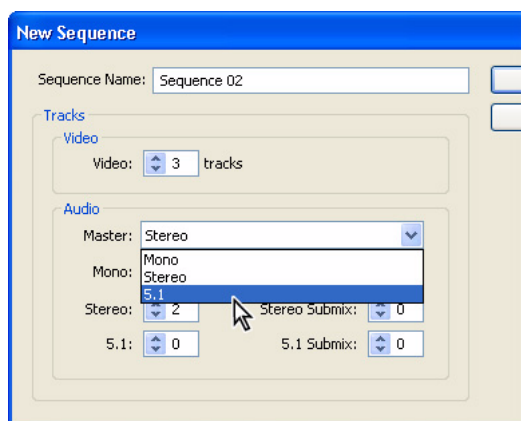

2. Import audio clips.

Choose File > Import, select one or more audio tracks, and click Open.

You can also create clips or a 5.1 surround audio mix using Adobe Audition™ and import it into Adobe Premiere Pro. In addition, if you export the Audition audio file using the Project Link option, later you can use the Edit Original command in Adobe Premiere Pro to open the Audition project that created the audio file.

3. Add audio clips to the sequence.

Drag audio clips from the Project window to the 5.1 surround sequence in the Timeline window. You can drag an audio clip only to a track with the same number of channels, so if necessary choose Sequence > Add Tracks to add new tracks containing the number of channels that match the clips you want to import.

You can position monophonic clips anywhere within the 5.1 surround audio field, while stereo clips can only be balanced, and the channels of 5.1 surround clips are simply passed on to the master tracks without modification.
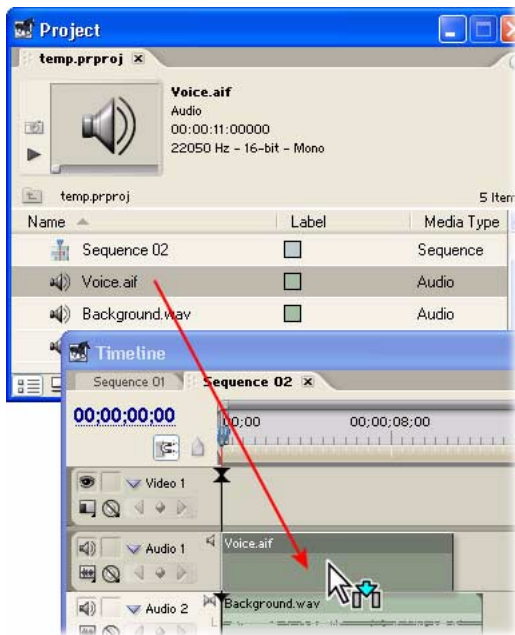
4. Open the Audio Mixer window.

Choose Window > Audio Mixer to open the Audio Mixer window, which contains controls for adjusting track volume levels, panning or balancing tracks, and applying effects.
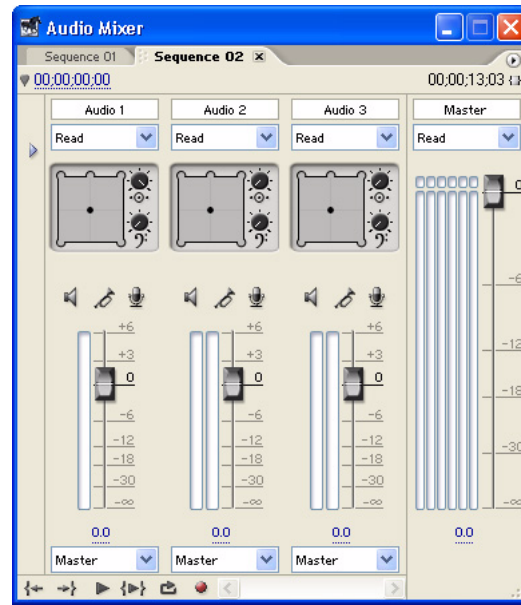
5. Enable automation recording, and start playback.

On the Automation Options pop-up menu for the track you want to adjust, choose Write, Latch, or Touch. Click the Play button in the Audio Mixer window to hear the current mix. As you mix audio, you may want to click the Loop button so that you can make adjustments over repeated passes (use Touch mode so that you change only the existing mix when you actually alter settings).

Write mode records Audio Mixer settings at all times during playback. Latch mode doesn't start recording settings until you change a setting. Touch mode is like Latch except that it returns settings to their previous state whenever you stop adjusting during playback. These automation options record changes you make in the Audio Mixer as the sequence audio plays back.
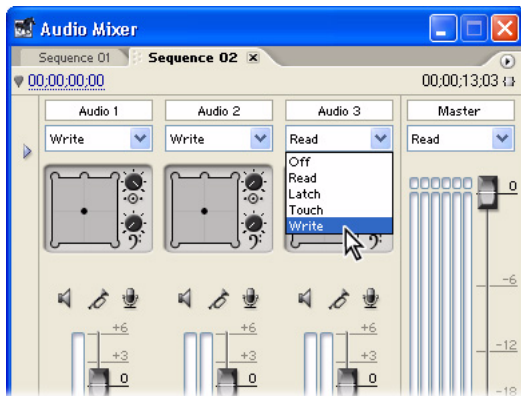
6. Pan or balance the audio tracks within the 5.1 master track.

Make sure that each track's automation option is set as desired, and then click the Play button. Drag the puck within the 5.1 surround tray (which appears above the volume meters), or snap the puck to any of the corner pockets.

You use the tray to position a mono audio track or balance a stereo audio track within the 5.1 surround audio field created by the sequence's master track. Pockets at each corner and at the front center of the tray represent channels within the surround audio field.

If you added any 5.1 surround audio tracks to the sequence, a pan/balance tray isn't available for those tracks. When a 5.1 surround audio track outputs to a 5.1 master track, each track channel outputs directly to each corresponding master track channel.

7. Adjust the center channel percentage.

Make sure that each track's automation option is set as desired, and then click the Play button. Adjust the strength of the center channel by turning the knob next to the top right corner of the tray.

Because the center speaker is often used to enhance dialog, you might want to reduce the center channel percentage of non-dialog tracks, such as a musical sound track, to keep them out of the center speaker.

8. Adjust the LFE volume.

Make sure that each track's automation option is set as desired, and then click the Play button. Adjust the strength of the LFE (low-frequency effects) channel by turning the knob labeled with a bass clef. The LFE signal is normally routed to a subwoofer speaker to enhance very low frequencies (deep bass, generally under 120 Hz).

9. Evaluate the results.

On the Automation Options pop-up menu, choose Read to be able to play back the recorded automation settings without altering them. As needed, switch back to Write, Latch, or Touch mode, and continue adjusting positions and levels until you're satisfied with the result. When you're finished, be sure to leave the Automation Options pop-up menu set to Read.

The steps in this tutorial are just a starting point, because there are many approaches to mixing 5.1 surround audio. For example, mixing a symphony orchestra for a CD is very different from mixing the audio for an action movie.