

Adding Audio



The right music or sound effects adds impact to your video program. Adobe Premiere makes it easy to add additional audio, blend the sound on each, and carefully control the volume for maximum effect.

To learn about working with sound in Premiere, you'll create a promotional spot for a film festival, using a number of basic audio techniques. Specifically, you'll learn how to do the following:

- Place audio clips.
- Adjust audio fades and volume levels.
- Unlink audio and video clips.
- Synchronize audio and video tracks.

Getting started

Because you'll need to listen to audio clips in this lesson, first make sure that your computer's speakers or headphones are set up to play sounds at an appropriate volume. In addition, make sure you know the location of the files used in this lesson. Insert the CD-ROM disc if necessary. For help, see "Using the Classroom in a Book files" on page 4.

To ensure that the Premiere preferences are set to the default values, exit Premiere, and then delete the preferences file as explained in "Restoring default preferences" on page 5.

1 Start Premiere. If it is already running, choose File > New > Project.

2 In the New Project Settings window, choose QuickTime for the Editing Mode, and choose 30 for the Timebase.

Let's set some options Premiere will use when you export a movie at the end of this lesson.

3 Click the Next button to display the video settings.

4 (Windows only) Choose Video for the Compressor.

5 Type **240** in the first Frame Size box. Premiere automatically inserts 180 in the second field.

6 Choose 15 for the Frame Rate.

7 Click the Next button to display the audio settings.

8 Set Rate to 11 kHz and set Format to 8 bit - Mono.

9 Click OK to close the New Project Settings dialog box.

Viewing the finished movie

If you'd like to see what you'll be creating, you can take a look at the finished movie. Because parts of the lesson let you make your own editing decisions, your video program may be slightly different.

- 1 Choose File > Open and double-click the 05Final.mov file in the Final folder, inside the 05Lesson folder.

The video program opens in the Source view of the Monitor window.

- 2 Click the Play button (▶) to view the video program.

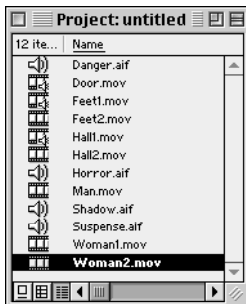
Importing and organizing clips

Now you're ready to import source files. To keep things organized, you'll create a bin for sound files, and then move those files into the sound bin.

- 1 Import files in one of the following ways, depending on your system:

- In Mac OS, choose File > Import > Multiple, open the 05Lesson folder, select Danger.aif, and then click Import. Do the same for the remaining files, but do not import the Final folder. Then click Done.
- In Windows, Choose File > Import > File and open the 05Lesson folder. Select all the files (but not the Final folder) by selecting the first file, holding down the Shift key, and then selecting the last file. Click Open.

The video and sound files are added to the Project window.



Bins are containers you can create for storing and organizing your clip files. You'll create a bin for the sound files.

2 Click the Project window to make it active. Then choose Project > Create > Bin, type **Sounds**, and click OK.

3 In the Project window, hold down the Control key (Windows) or Shift key (Mac OS) and click the Sounds bin icon (to deselect it), and click the Danger.aif, Horror.aif, Shadow.aif, and Suspense.aif icons to select them. Then drag the icons to the Sounds bin icon.

To make the clips in the Project window easier to identify, let's change the view for the window.

4 Choose Window > Project Window Options, select Thumbnail View from the menu at the top of the dialog box, and then click OK.

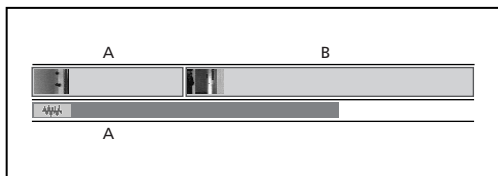
Finally, you'll save and name the project.

5 Choose File > Save, type **Mystery.ppj** for the name. Then click Save.

In Windows, the default file extension for Premiere projects, ppj, is added to your filename automatically. In Mac OS, type the extension as part of the filename.

Creating an L-cut

Video and film often use a technique called a *split edit* to create an audio transition between scenes. In a split edit, the audio that belongs to one clip extends into one or both adjacent clips. The audio from a quiet forest scene, for example, could extend into the scene of a crowd. One specific type of split edit, called an *L-cut*, extends the audio only into the following clip.



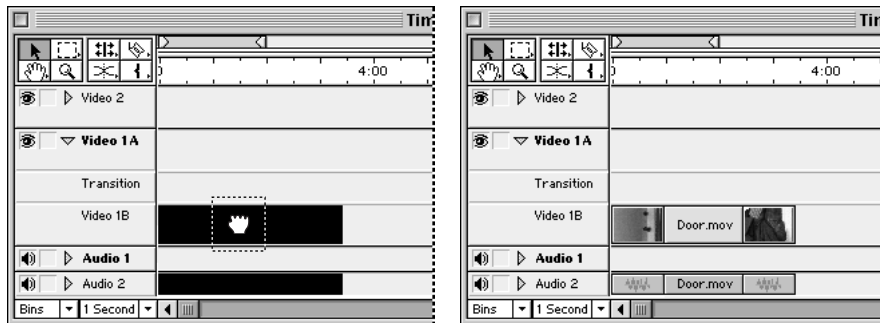
An *L-cut* allows the sound from one clip (A) to extend into the next clip (B).

Unlinking the video and audio

Typically, when you shoot a scene with your camera, you capture both video and audio at the same time. When you digitize the footage, the video and audio are linked together in one file. In Premiere, this is known as a *hard link*. You can break these links to replace or edit audio and video independently. In a later lesson, you'll temporarily override linked clips instead of breaking the link (see "Creating a split edit" on page 185).

You'll start by assembling the first two video clips of the project.

- 1 Click the title bar of the Timeline window to make it active. Choose Window > Timeline Window Options. Select the medium-sized icon for the Icon Size and then click OK.
- 2 In the Timeline window, make sure the Video1 track is expanded so that the Video1A track, the Transition track, and the Video1B track are displayed. If it's not expanded, click the arrow to the left of the Video1 track.
- 3 From the Project window, drag Door.mov into the Video1B track, placing it at the starting point of the Timeline. Here, you have placed the clip in the Video 1B track because later you will be overlaying clips in the Video 1A track.



When you place a clip in the Video 1B track, the audio portion of the clip is automatically placed in Audio 2 track. When you add clips with audio to the Video 1A track, the sound appears in the Audio 1 track. Notice that as you move the clip in the Timeline, the audio portion moves with it.

- 4 Drag Hall1.mov from the Project window into the Video1B track, placing it so that it snaps to the end of Door.mov.

Let's take a look at what you've assembled so far.

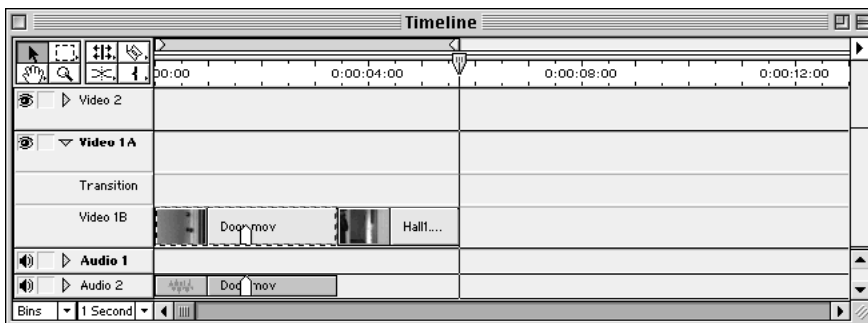
5 Make the work area bar cover all contiguous clips by pressing Alt (Windows) or Option (Mac OS) as you click the work area bar. Then press Enter (Windows) or Return (Mac OS).



The audio plays along with the video. Because the audio in Hall1.mov was recorded further from the door than the audio in Door.mov, it is difficult to hear the door being opened. Instead, you'll delete the Hall1.mov audio and let the audio from Door.mov extend into this clip.

6 Click the audio portion of Hall1.mov to select it.

7 Press the Delete key on the keyboard to delete the audio.



The Door.mov clip you added to the Timeline window contains linked audio and video. In this lesson, you will unlink the audio and video to edit them separately.

8 Select either the video or the audio portion of the Door.mov clip.

9 Choose Edit > Break Link.

The video and audio portions of the clip are no longer linked; they can be moved and trimmed separately.

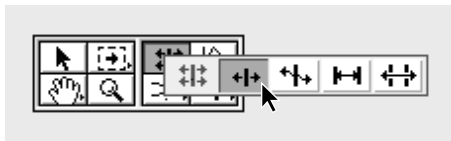
Trimming the video

Next, you'll trim the first clip so that the action matches that in the Hall1.mov that follows it. This will also permit you to extend the audio from Door.mov into the second clip.

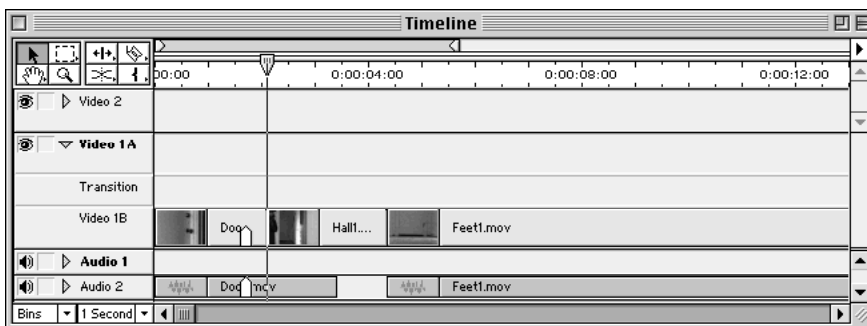
- 1 Drag the shuttle slider underneath the Program view to find the frame in Door.mov just before the man's coat starts to obscure the door knob (at 2:03).



- 2 In the Timeline window, select the ripple edit tool.



- 3 In the Timeline window, position the pointer on the end of the Door.mov video clip. The pointer turns into the ripple edit tool.
- 4 Trim the video portion by dragging it to the left until it snaps to the edit line. You have just completed an L-cut, in which the audio from one clip extends into the following clip.
- 5 Select the selection tool (↵) to deselect the ripple edit tool. Now you'll add a new video clip.
- 6 Drag the Feet1.mov clip just to the right of the Hall1.mov clip in the Video 1B track.



- 7 Extend the work area bar to span the clips you just added, and then press Enter (Windows) or Return (Mac OS) to preview it.
- 8 Save the project by choosing File > Save.



Using markers

Markers provide a way to indicate important points in time. They help you position and arrange clips. The Timeline and each clip can contain its own set of up to ten markers numbered from 0 to 9. In addition, the Timeline and each clip can individually contain up to 999 unnumbered markers. You work with markers in much the same way you work with In and Out points, but unlike In and Out points, markers are only for reference and do not alter the video program. In general, add a marker to a clip for important points within an individual clip, and add a marker to the Timeline for significant time points that affect multiple clips, such as synchronizing video and audio on different clips.

When you add a marker to a clip in Source view, it and any existing markers in the master clip will be included with the clip when you add it to the Timeline. However, if you open a clip from the Project window and add a marker to it, the marker won't be added to any instances of the clip already in the Timeline.

When you add a marker to the Timeline or the Program view, it appears in both the Timeline and in the Program view, but it is not added to any master clips. A marker you add to a clip in the Timeline appears with the clip, and a marker you add to the Timeline itself appears on the time ruler.

—From the Adobe Premiere User Guide, Chapter 4

Using markers to synchronize clips

When working with audio clips that are not linked to video, you'll occasionally encounter situations where you need to synchronize the audio to the video clip. In this part of the lesson, you'll cut together two clips of a man walking, filmed from different angles. One clip doesn't have audio, so you need to position it so that the footsteps in it match the sound of footsteps in the audio portion of the other walking clip. The most straightforward method of synchronizing these clips is to insert markers at matching events in both clips.

You'll start by marking a footstep in the clip that will be overlaid.

- 1 Double-click the Feet2.mov clip in the Project window to display it in the Source view.

- 2 Play the clip by clicking the Play button (▶).
- 3 Drag the shuttle slider under the Source view to locate the first footstep of the man's right foot. Find the first frame in which the right heel makes contact with the floor.




00:00:01:04 Δ2:24

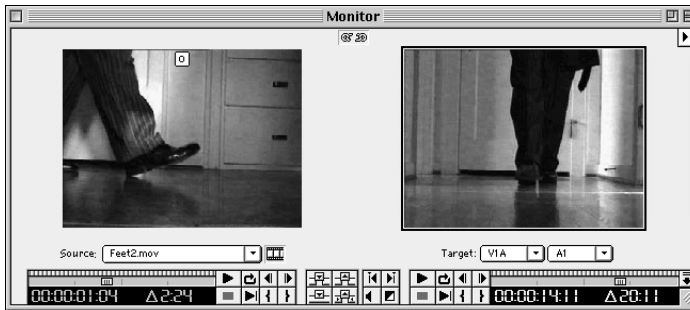
Now you'll mark this position. Premiere lets you use numbered or unnumbered markers. Numbered markers are convenient because they let you quickly jump to the marker by pressing Control (Windows) or Command (Mac OS) followed by the marker number. Each clip can have up to ten numbered markers.

- 4 Mark this point in the clip by selecting Clip > Set Marker > 0. The marker appears at the top of the image in the Source view.

Now you'll insert a marker into the Timeline, using the Program view of the Feet1.mov clip as a guide.

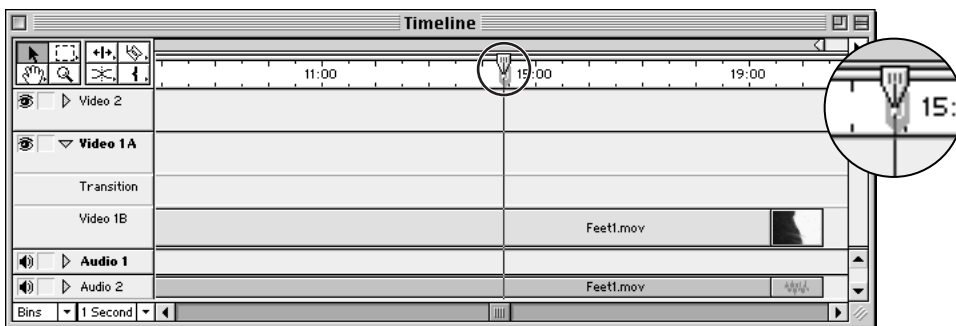
 *To quickly locate or synchronize sounds in an audio clip, view the clip as a waveform. Simply expand the audio track by clicking the arrow next to the track. Sounds are visible as pulses in the waveform displayed at the bottom of the audio track.*

5 Drag the shuttle slider below the Program view until the Source and Program views display the same moment in the action (at 14:11 below the Program view). In the Program view, click the Frame Forward (►) and Frame Back (◄) buttons to find the frame in which the right heel contacts the floor. (You can also use the left and right arrow keys on your keyboard.)



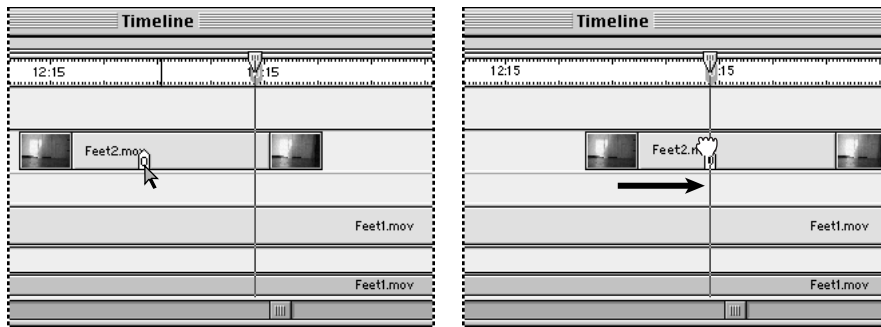
6 Mark this point in the Timeline by selecting Clip > Set Marker > 0.

A marker appears in the Timeline at the edit line and on the clip in the Program view. It doesn't matter what number you choose from the Set Marker menu as long as you haven't already used that number in the same clip. Choosing a marker number previously used in the same clip moves that marker to the current frame.



Now you can synchronize the two clips by lining up the markers. You'll do this by placing the Feet2.mov clip in the Video 1A track. Any video in upper tracks covers or hides video in lower tracks, except when a higher track has a Transparency setting. Here, you'll place a clip in the Video 1A track to cover a portion of the video in the Video 1B track. (Because the overlaid clip has no sound, the underlying audio is unaffected.) The result is similar to that of using the Overlay button (see "Trimming, inserting, and overlaying" on page 107). An advantage of this method is that it is easier to locate and position your overlaid clips.

- 7 In the lower left corner of the Timeline window, choose 1/2 second from the time units pop-up menu.
- 8 Drag the Feet2.mov clip from the Source view into the Video1A track.
- 9 Position the pointer over the marker in the Feet2.mov clip and drag the clip so that the marker in the clip snaps to the edit line, which is on the other marker in the Timeline.



- 10 Drag the work area bar to span the overlay you just created, and then press Enter (Windows) or Return (Mac OS) to preview it.

The footsteps in the Feet2.mov clip should match the audio track of the Feet1.mov clip. If your markers were not placed correctly, however, the video and the audio may be slightly out of sync. You can easily correct this.

11 If the sound of the footstep occurs before or after the heel contacts the floor, move the Feet2.mov clip slightly one way or the other and preview it again.

💡 *To move a clip in the Timeline one frame at a time, click on the clip to select it, and then press the left or right arrow key to move the clip in the desired direction. Each time you press an arrow key, the clip moves one frame.*

12 When you're satisfied that the clip is in sync with the audio, save the project.

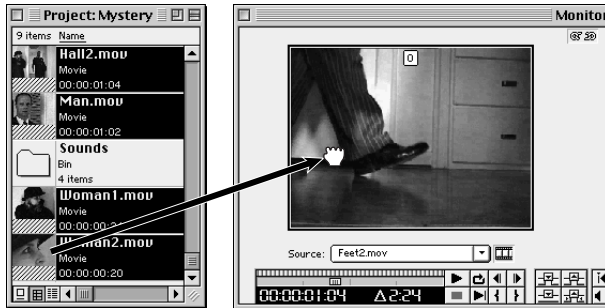


💡 *To jump to a numbered marker, press and hold down Control (Windows) or Command (Mac OS), and then press the number key that corresponds to the marker number.*

Overlaying video without sound

Now that you have positioned and synchronized the second walking clip to the audio, you'll overlay additional clips that don't need to be synchronized and that don't have audio linked to them. As before, you'll place clips in the Video 1A track. The audio from Feet1.mov will continue to play underneath.

1 In the Project window, hold down the Control key (Windows) or the Shift key (Mac OS) and click Hall2.mov, Man.mov, Woman1.mov, and Woman2.mov, to select them all. Then drag them to the Source view in the Monitors window.



Note: A clip in the Timeline can include the clip name, but it may not be displayed if the clip is too short or if you select the track format that does not include a name. To see the name of a clip in the Timeline, click the Timeline title bar to activate it, if necessary, and then simply position the pointer on the clip.

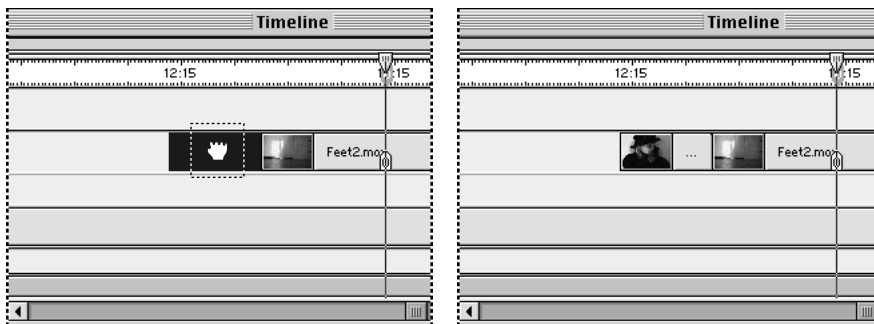
2 From the Source menu below the Source view, select Woman1.mov.

The Woman1.mov clip appears in the Source view.

3 Click the Play button (▶) to preview the clip.

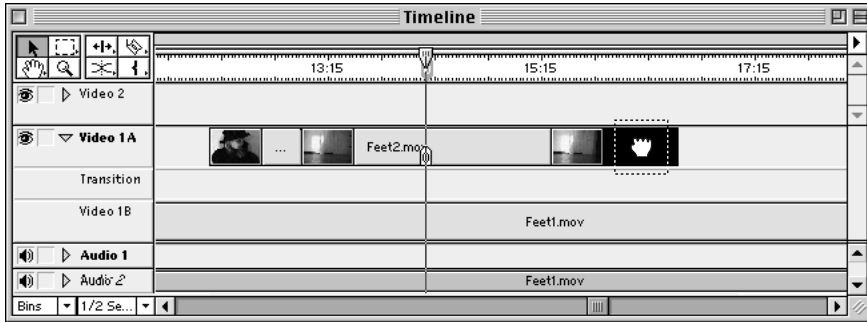
4 Drag the Timeline scroll box to display the center of the Feet2.mov clip.

5 Drag the Woman1.mov clip from the Source view into the Video1A track, so that it ends at the beginning of the Feet2.mov clip you inserted earlier.



6 From the Source menu, select Woman2.mov, and then click the Play button to preview it.

7 Drag the Woman2.mov clip from the Source view into the Video1A track, positioning it at the end of the Feet2.mov clip.



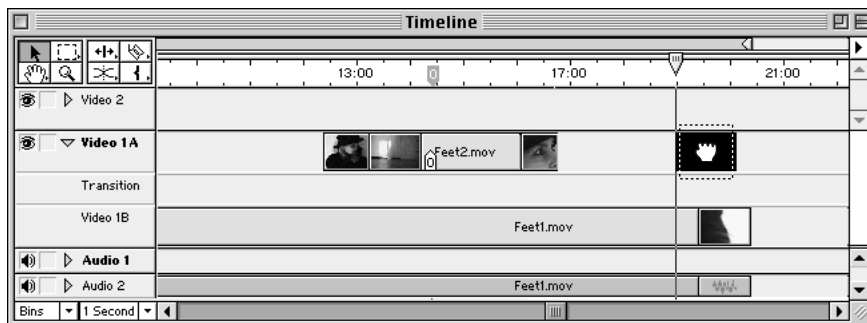
You now have three clips covering part of Feet1.mov. At this point, we want to let some of Feet1.mov “show through,” so we’ll place the next clip so that it starts a few seconds after the end of Woman2.mov.

8 In the lower left corner of the Timeline window, choose 1 second from the time units pop-up menu.

9 From the Source menu, select Hall2.mov, and then click the Play button to preview it.

10 Drag the edit line in the Timeline to 19:00.

11 Drag the Hall2.mov clip into the Video1A track and let its beginning snap to the edit line.



You can now insert the last clip of the video.

- 12 Select Man.mov from the Source menu, and then preview it.
- 13 Drag the Man.mov clip into the Video1A track at the end of the previous clip.



Now let's look at a preview of the entire project.

- 14 Extend the work area bar to span the entire project, and then press Enter (Windows) or Return (Mac OS).
- 15 To clean up the Timeline, click the arrow next to Video 1A track to collapse the video track.

The clips in the video track look as if they were all placed in a single track. You can click the arrow again at any time to work with the clips on the Video 1A and Video 1B tracks.

- 16 Save the project.



Adding audio clips

In addition to the synchronous audio that is recorded when you shoot your video, you can also import and add audio-only files. These files might include narration, music, or effects that you've recorded or purchased from a music library. In this part of the lesson, you'll add some audio clips containing music and effects. The audio clips you'll be using are in the Sounds bin.

Earlier in this lesson you saw that adding clips to the Video 1A track obscured the video clips beneath it in the Video 1B track. However, when you add audio to different tracks, the effect is different. Rather than covering the audio beneath it, audio on all tracks is mixed so that you can hear all audio tracks together.

The first sound you'll add is an effect to set the mood for this spot.

1 In the Project window, double-click the Sounds bin.

The Sounds bin is opened on top of the Project window.



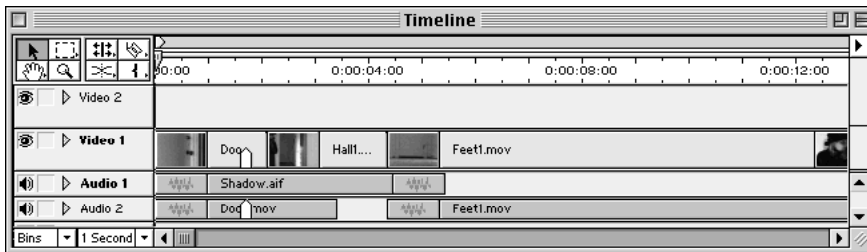
2 Double-click Shadow.aif.

The clip opens in the Source view of the Monitors window, represented by an icon.

3 To play the audio clip, click the Play button (▶).

4 To go to the starting point of the Timeline, click on the title bar of the Timeline window to activate it, and then press the up arrow key on the keyboard.

5 Drag Shadow.aif from the Sounds bin into the Audio1 track, positioning it at the starting point of the Timeline.



6 Resize the work area bar so that it spans the duration of the Shadow.aif audio clip, and then press Enter (Windows) or Return (Mac OS).

The audio from the first video clip is mixed with the audio clip you just inserted.

The next audio clip you'll add will be a sound effect. You'll position it slightly before the man turns, as if he is turning in response to this sound.

7 Drag the edit line in the Timeline to a point several frames before the man starts to turn to his right in the Feet1.mov clip (at roughly 10:20).

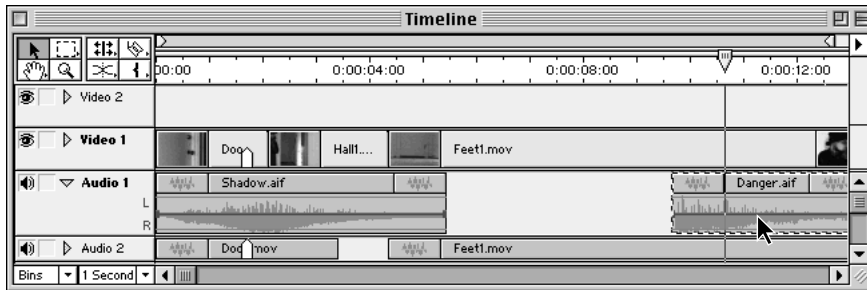


8 Drag Danger.aif from the Sounds bin into the Audio1 track so that it is approximately centered on the edit line.

Because the time interval between the effect and the man turning is critical to making the man's reaction look natural, you'll now fine-tune the sound's position.

9 Click the arrow next to the Audio 1 track to expand it. This lets you see the sound displayed as a waveform.

10 Drag the top portion of Danger.aif so that most of the noise (represented by the large pulse in the waveform) comes before the edit line, just before the man turns.



11 To preview your work, drag the work area bar so that it extends from the start of the Timeline to beyond the end of the audio clip you just inserted. Then press Enter (Windows) or Return (Mac OS).

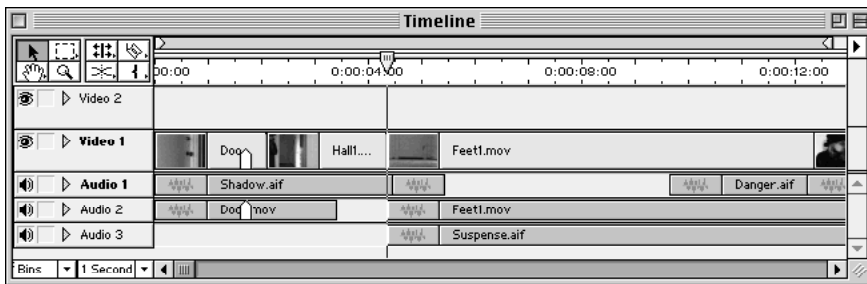
If the man appears to be turning too soon before or too long after he hears the sound, you may want to reposition the audio clip slightly.

12 To simplify the Timeline, click the arrow next to Audio 1 track to collapse it.

Now you'll add the last two audio effects clips by placing them in the Audio 3 track. If necessary, you could add additional audio tracks (up to 99 total), but you won't need to do that for this project.

13 Drag the edit line in the Timeline so it is at the start of the Feet1.mov clip.

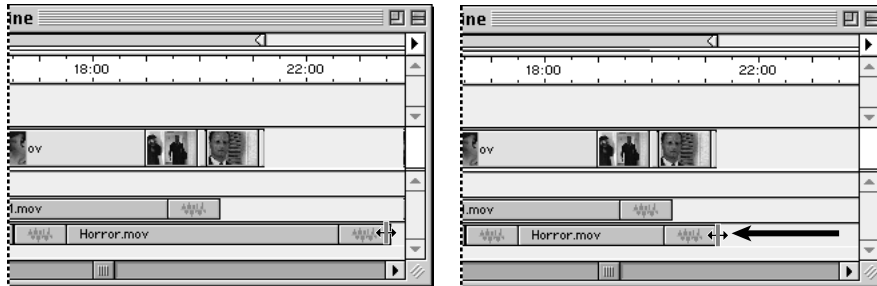
14 Drag Suspense.aif from the Sounds bin into the Audio 3 track and position it at the edit line.



15 Now drag Horror.aif into the Audio 3 track and position it at the end of the Suspense.aif clip.

Because you want all audio to end at the end of the last video clip, you'll need to trim the Horror.aif audio clip.

16 Move the pointer to the end of the Horror.aif clip, and then drag to trim until it snaps to align with the end of the last video clip.



17 Save the project.

Fading audio in and out

In Premiere, you can fade audio in and out to create more subtle transitions between clips. First, let's fade out the end of the audio track linked to the Feet1.mov video clip.

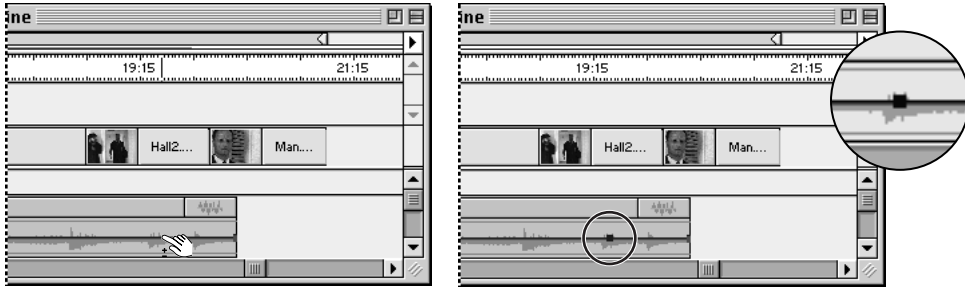
1 In the lower left corner of the Timeline window, choose 1/2 Second from the Time Unit pop-up menu.

2 In the Timeline window, click the arrow to the left of the Audio 2 track to expand it.

Running through the center of the waveform is a red line called the *fade control*, sometimes known as a *rubber band*. The fade control specifies the relative volume of the audio. By default, the fade control is a straight line, meaning that the volume is constant across the clip. To add a fade, you move one end of the fade control up or down.

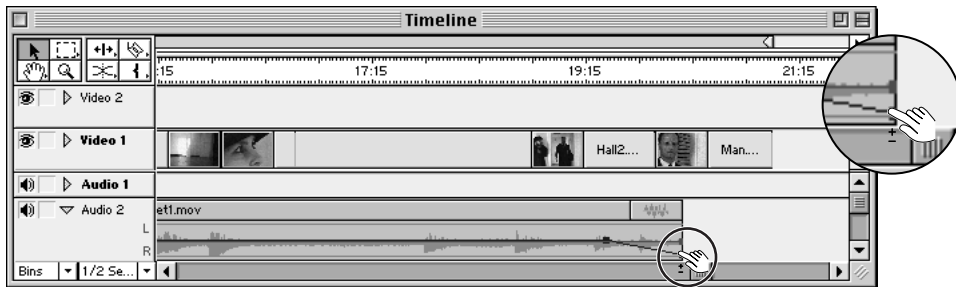
Note: The blue line running through the waveform is the pan control, which lets you adjust the degree to which sound plays in the left or right stereo channel. You will not change the pan control in this lesson.

- 3 In the Feet1.mov audio track, click on the fade control at a point that corresponds to the middle of the Hall2.mov video clip.



Clicking creates a small red square, called a *handle*. A handle breaks the fade control into separate segments so that you can adjust portions of the audio. The fade control always includes a handle at either end, so you don't have to create those handles.

- 4 At the end of the audio clip, drag the handle down as far as it will go.

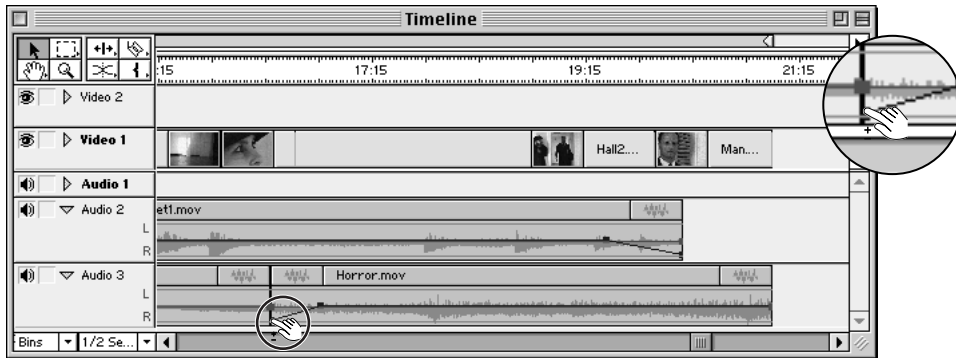


This creates a downward slope from the first handle you created. A downward slope fades out the audio. In this case, because you dragged the handle down to the bottom, the audio fades out to no sound at all.

The audio in the Horror.aif clip starts too abruptly and we want to fade it up at the end to build suspense. To make these changes, you'll fade in the audio by creating two separate handles.

- 5 Click the arrow next to the Audio 3 track to expand that track.

- 6** In the Horror.aif audio clip, click the fade control about 1/2 second from the In point. Then drag the handle at the In point all the way down.

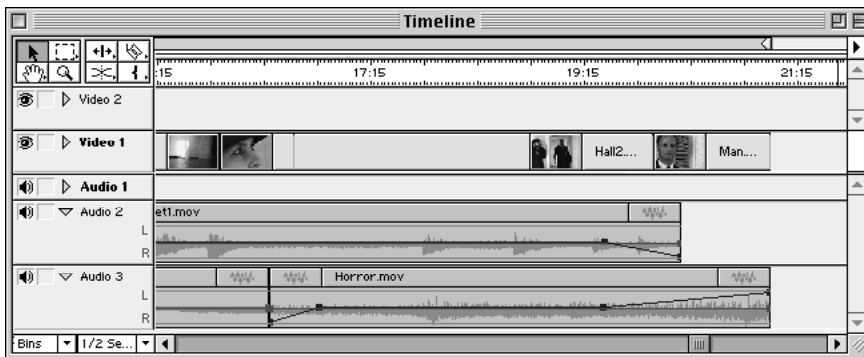


The upward slope fades in the audio. Now let's slowly raise the volume.

- 7** Click on the Fade Control in Horror.aif at a point that corresponds to the handle you created in the Audio 2 track. Another handle is created.

- 8** Drag the handle at the right end of the Fade Control all the way up to increase the volume at the end of the clip.

The volume in this audio clip will now fade in to full-level, maintain that level for about two seconds, and then slowly rise to an even higher level at the end of the clip.



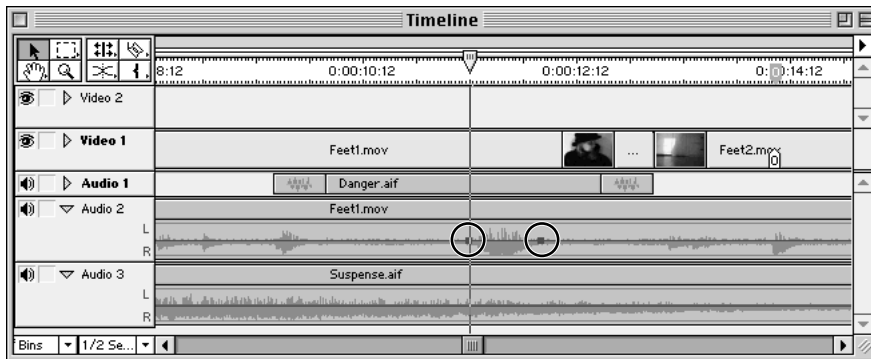
Let's preview this.

- 9** Make sure the work area bar covers the entire video program, and then press Enter (Windows) or Return (Mac OS).

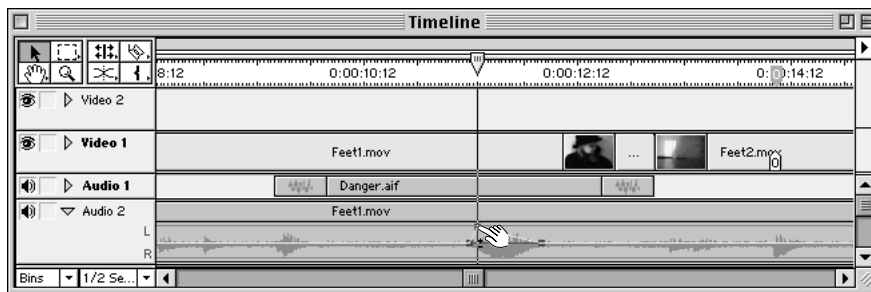
In about the middle of the piece, you may have noticed that the man calls out a name, but the volume is too low for it to be heard clearly. You'll need to boost just that portion of the audio clip.

10 Drag the edit line through the middle of the video program to locate “Marilyn” in the audio portion of the Feet1.mov clip.

11 Click on the Fade Control on either side of the pulse that forms the word “Marilyn” (at 11:12 and 12:03).



12 Just to the right of the first handle click and drag upward to create and move a handle in one step.



13 Position the pointer just to the left of the handle you created at the end of the pulse. Then click and drag upward to create and move a handle in one step.



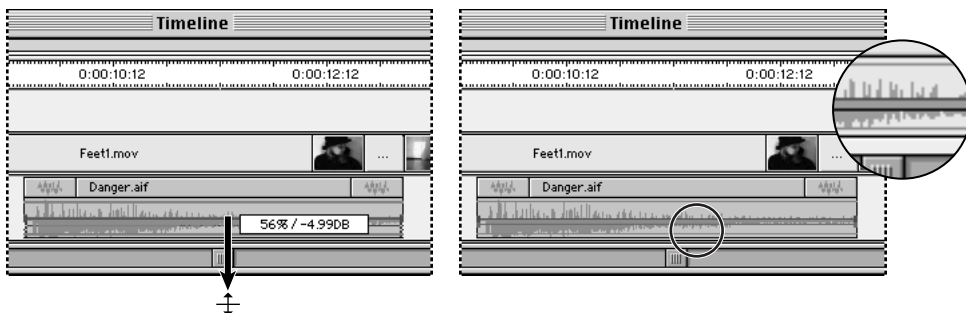
Check the level by playing this part of the project.

14 Make sure the work area bar covers the area of the clip you just changed, and then press Enter (Windows) or Return (Mac OS).

Finally, the sound effect we added before the man turns is a little too loud. You'll use a new technique to change the volume throughout the clip.

15 Click the arrow next to the Audio 1 track to expand it.

16 Locate Danger.aif in the Audio 1 track. Position the pointer on the fade control anywhere between the two handles. Hold down the Shift key and drag the segment downward until the level indication reads about -5 db. Notice that Premiere lets you drag outside the audio track so that you can make fine adjustments in the level.



The entire segment moves, adjusting its volume.

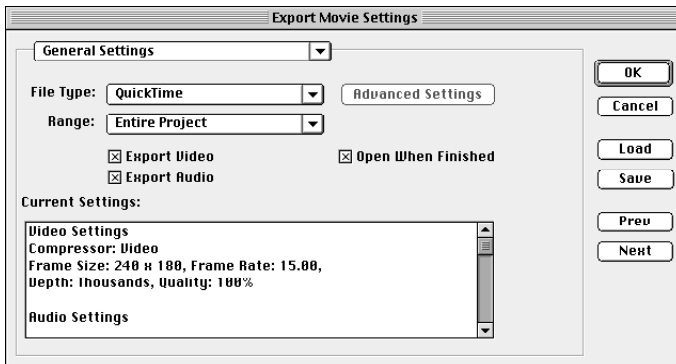
17 To preview the project, make sure the work area bar covers all your clips. Then press Enter (Windows) or Return (Mac OS).

18 Save the project.

Exporting the movie

You've finished editing, but your video program is still composed of several video and audio files and a Premiere project file. In order to distribute it as a single file, you need to export it to a movie file.

- 1 Choose File > Export > Movie.
- 2 In the Export Movie dialog box, click Settings.



- 3 Make sure QuickTime is selected for the File Type and Entire Project is selected for the Range.
- 4 Also make sure that the Export Video and Export Audio options are selected. You can leave the rest of the settings as they are because you set them when you started the project.
- 5 Click OK to close the Export Movie Settings dialog box.
- 6 In the Export Movie dialog box, specify the 05Lesson folder for the location and type **Mystery.mov** for the name of the video program. Click Save (Windows) or OK (Mac OS).
Premiere starts making the movie, displaying a status bar that provides an estimate for the amount of time it will take.
- 7 When the movie is complete, it opens in its own window.
- 8 Click the Play button (▶) to play the movie.

Exploring on your own

Feel free to experiment with the project you have just created. Here are some suggestions:

- Try inserting numbered markers throughout the project and jumping to them by pressing Control (Windows) or Command (Mac OS) followed by the marker number.
- From the Project Window Options dialog box, select each of the views and view the options for the Project window and look at the results.
- Using the Feet1.mov clip, break the link between video and audio portions, trim the video portion on both ends, and then try to resync the two and relink them.
- Use the shortcuts listed in the Premiere Quick Reference Card and in Premiere Help to move clips in the Timeline.

Review questions

- 1 What major advantage does a numbered marker have over an unnumbered marker?
- 2 What is the Fade Control used for?
- 3 What purpose do the handles on the Fade Control serve?
- 4 What must you do to see the waveform of an audio clip?
- 5 Which command might you need to use before editing an audio clip containing linked sound?

Answers

- 1 You can jump to a numbered marker by pressing and holding down Control (Windows) or Command (Mac OS) while pressing the number key that corresponds to the marker number.
- 2 The Fade Control changes the volume level of an audio clip.
- 3 Handles on the Fade Control create segments, which enable you to create fades.
- 4 To see audio events in an audio clip, you must first expand the track by clicking the arrow to the left of the track name.
- 5 Chose Edit > Break Link to unlink a video clip from an audio clip before editing the audio clip.