



User Guide

Adobe Premiere 5.1

Limited Edition

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Written and designed at Adobe Systems Incorporated, 345 Park Avenue, San Jose, CA 95110-2704, USA

Adobe Systems Europe Limited, Adobe House, 5 Mid New Cultins, Edinburgh EH11 4DU, Scotland, United Kingdom

Adobe Systems Co., Ltd., Yebisu Garden Place Tower, 4-20-3 Ebisu, Shibuya-ku, Tokyo 150, Japan

Adobe Systems Pty. Ltd., Level 4, 67 Albert Avenue, Chatswood, New South Wales 2067, Australia

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Getting Started

Welcome to Adobe® Premiere® 5.1 Limited Edition—software that brings the world of digital movie making to the desktop. Premiere LE lets you record, create, and play video programs using video, sound, animations, photographs, drawings, text, and other material on your Windows® or Macintosh computer.

You can play movies created in Premiere LE in any application that supports the Apple QuickTime™ format or (in Windows only) the DirectShow™ format. You can also output video programs to videotape or create video files for publishing on the Web.

This program offers a limited set of features from the full retail version of Adobe Premiere 5.1. Once you've mastered the limited edition version of Premiere, you'll want to upgrade to the full version and take advantage of all the additional features. For more information on upgrading, call 1-888-724-4507 or, in Premiere LE, choose File > Adobe Online and click the Upgrades button.

The full version of Premiere 5.1 includes the following powerful features:

- 77 transition effects, including wipes, zooms, and spins, each with a variety of different settings for unlimited possibilities.
- 67 video filters, including color correction, sharpen, lens flares, and more; many with keyframes you can use to control and vary the filter's settings over the clip's duration.
- 21 audio filters, including reverb, noise gate, parametric EQ, and more; many with keyframes you can use to control and vary the filter's settings over the clip's duration.
- 14 transparency settings, including Bluescreen, Alpha Channel, and Track Matte, for use when superimposing clips on top of one another.
- Automatic saves and up to 32 levels of undo on the Timeline.
- Commands palette for automating frequently accessed menu items.
- Navigator palette for moving quickly through the Timeline.
- Motion control, including spinning, zooming, rotating, and more.
- Plug-ins for producing Web video, including Animated GIF, RealPlayer, Microsoft® NetShow ASF, and MPEG formats.

- Support for high-end offline editing through EDLs (Edit Decision Lists), batch capture, and batch processing.
- RAM-based preview option for quick viewing of visual effects.
- Timeline, Monitor, and Project Window Options, which let you customize your windows to fit your working style.

About this guide

The *Adobe Premiere LE User Guide* provides detailed information about using Premiere LE. It is designed to be used as a reference tool in your everyday work with Premiere LE. This manual provides instructions for using Premiere LE on both Windows and Mac OS systems. Most differences in Premiere LE procedures between operating systems are noted in the text.

Some of the artwork and representations of dialog boxes and windows, such as the Timeline and Monitor windows, in this user guide may look different than they do in your version of Premiere. These images were created using the full version of Adobe Premiere.

This guide assumes you have a working knowledge of your operating system and its conventions, including how to use a mouse and standard menus and dialog boxes and how to open, save, and close files. For help with any of these techniques, please see your Windows or Mac OS documentation.

Windows systems requirements

The following hardware and software are required to run Adobe Premiere LE:

- Intel Pentium processor.
- Microsoft® Windows 95, Windows 98, or Windows NT® 4.0 (or later) operating system.
- 32 MB of RAM.
- 60 MB of available hard-disk space for installation (30 MB for application).
- 256-color display adapter and compatible monitor.
- CD-ROM drive.

We recommend the following:

- Multiprocessor system (Windows NT only).
- 64 MB or more of RAM.

- Large capacity hard drive or disk array.
- 24-bit color display adapter
- Certified Microsoft Video for Windows®-compatible or Apple QuickTime for Windows-compatible video capture card (see the Premiere page on Adobe's Web site at www.adobe.com/premiere for a list of currently certified video capture devices).
- Apple QuickTime for Windows 3.0 or later (optionally installed with Premiere LE), Microsoft DirectX® Media 5.1 (optionally installed with Premiere LE), or other video software supported by your video-capture hardware.
- Sound card (recommended if your video capture card does not contain on-board sound circuitry).

Mac OS system requirements

The following hardware and software are required to run Premiere LE:

- PowerPC™ processor.
- System Software 7.5.5 or greater (or 7.5.1 with Radius™VideoVision™ only).
- 16 MB of application RAM.
- 30 MB of disk space for installation.
- CD-ROM drive.

We recommend the following:

- Multiprocessor system.
- QuickTime 3.0 or later (installed with Premiere LE).
- 48 MB or more of application RAM.
- Large capacity hard disk or disk array.
- 24-bit color display adapter.
- Certified QuickTime-compatible video capture card (see the Premiere page on Adobe's Web site at www.adobe.com/premiere for a list of currently certified video capture devices).

Registration

We are confident you will find that the Premiere LE program greatly increases your productivity. So that we can offer technical support and keep you informed about new Premiere software developments, please register your copy by returning the enclosed registration card. Once your product is registered, you can easily upgrade to the current full version of Adobe Premiere.

In the U.S. you can register instantly through Adobe Online (in Premiere LE, choose File > Adobe Online, and then click the Register button).

Contents of the Premiere LE disc

The Adobe Premiere LE CD-ROM disc contains the following:

The installer program Installs the Adobe Premiere LE program and the video system software. Other software included on the discs use their own installers.

Video system software Includes QuickTime (Windows and Mac OS) and DirectShow™ software (Windows only).

Adobe Type Library Includes a number of Type 1 fonts for your use. The fonts are not installed automatically when you install Premiere LE.

Adobe Type Manager Improves font displays on-screen, lets you print PostScript fonts on non-PostScript printers, and lets you create customized instances of multiple master fonts. You can install this utility separately.

Tour movie Provides an additional guide to help you learn Premiere LE. The tour movie requires that you install the QuickTime software, demonstrates the key benefits and features of Adobe Premiere.

Adobe Acrobat Reader software Lets you view the online documentation and third-party reference material that have been saved as PDF (Portable Document Format) files.

Note: The CD-ROM also includes a document with instructions for obtaining technical support.

About Adobe products and services

For information about Adobe products and services, you can visit the Adobe site on the World Wide Web (<http://www.adobe.com>) if you have Internet access. You can also open the Adobe Web site from within Premiere (provided you are connected to the Internet) by choosing File > Adobe Online and clicking a link in the window that appears. Adobe's home page is customized for 20 different geographical regions.

To access Adobe's home page for your region:

- 1 Open Adobe's U.S. home page at www.adobe.com.
- 2 From the Adobe Sites pop-up menu, choose your geographical region.

Installing Adobe Premiere LE

Use the following procedure to install the Premiere LE program files from the Adobe Premiere LE CD-ROM. You cannot run Premiere LE from the CD-ROM; you must install the program files onto your hard disk.

To install Premiere LE:

- 1 Insert the Adobe Premiere LE Application CD-ROM disc into your CD-ROM drive.
- 2 Select the language of your choice.
- 3 Depending on your system, do one of the following:
 - (Windows) Double-click the Setup.exe file to begin the setup procedure.
 - (Mac OS) Double-click the Install Adobe Premiere LE icon to begin the installation process.
- 4 Follow the on-screen instructions until installation is complete.

Using online Help

The Premiere Help system contains all the information in this user guide, and more, optimized for use online. The Help system also provides sections on keyboard shortcuts.

To get online Help:

Choose Help > Contents (Windows) or Help > Help Topics (Mac OS). You can also choose a specific section of Help from the Help menu.

Installing plug-in software modules

Other companies may offer plug-ins that you can use with Adobe Premiere LE. These plug-ins can enhance the application and help integrate hardware components, such as capture cards, with the software application.

To install additional plug-in software:

Make sure Premiere LE is not running, and drag the plug-in software from its original location to the Plug-ins folder inside the folder in which you installed Premiere LE.



1



Chapter 1: A Tour of Adobe Premiere 5.1 LE

The tour in this chapter helps you understand and work with basic concepts and features of the Adobe Premiere LE program. You'll run through a typical series of steps for creating a video piece, including basic editing techniques, adding transitions, and changing opacity. Completing the video piece should take approximately one hour.

All of the files you'll use in the Tour are included in the Tour folder in your Premiere LE folder (if you installed the Tour with Premiere LE) or on the Adobe Premiere LE Application CD-ROM disc (if you did not install the Tour). At any time, you can view a completed version of the movie you'll create in this Tour by double-clicking the Zmov_LE movie in the Tour folder.

***Note:** To complete the tour or view the Zmov_LE.mov file using QuickTime, QuickTime 2.5 or later must be installed on your system. QuickTime 3.02 is available as an installation option with Premiere LE; For installation instructions, see "Installing Adobe Premiere LE" on page 5.*

Creating the bicycle advertisement: First steps

Over the course of this chapter, you'll create a promotional television spot for a fictional bicycle company using video and audio clips provided on the CD-ROM. You'll be working with clips that have already been captured. The clips are available as QuickTime files on Mac OS, and as .AVI files on Windows. If you were actually producing this project from the start, you would likely capture clips from the original video tapes, using Premiere LE.

Deleting custom preference settings

The procedures in this chapter assume you are using the program settings initially provided with Premiere LE, as specified in the Premiere LE preferences file. The following steps ensure you are clearing away any modified preference settings which might conflict with the instructions in this chapter.

- 1 Make sure that Premiere LE is not running. If it is, choose File > Exit (Windows) or File > Quit (Mac OS).
- 2 Depending on your system, do one of the following:
 - (Windows) Use the Explorer to locate the Prem50.prf file inside the Premiere LE folder and move it to another folder.
 - (Mac OS) Use the Finder to locate the Adobe Premiere 5.1 LE Prefs file in the Preferences folder in your System folder and move it to another folder.

By moving the preferences file temporarily, you ensure that Premiere LE starts with fresh settings for the current project. At the completion of the project, you can then restore the custom settings specified in the Preferences file currently on your system. To do so, move the file back to its original location, allowing it to overwrite the existing file when prompted.

Copying files from the Adobe Premiere LE CD-ROM

You'll create the video piece described in this chapter using optionally installed files. If Premiere LE was installed on your system without the "Tour" option selected, you'll need to manually copy the files from the Application CD-ROM disc.

Note: If the Premiere LE folder on your hard drive includes a Tour folder, then the Tour files were installed with the program, and you can skip the following procedure.

- 1 Insert the Adobe Premiere LE Application CD-ROM disc into your CD-ROM drive.
- 2 Use the Explorer (Windows) or Finder (Mac OS) to copy the Tour folder from the CD-ROM disc onto your hard drive. You'll need approximately 15 MB of space available on your hard drive.

Specifying project settings

To start any project, you first need to import the clips you'll be using for your video program. A clip can be digitized film, video, audio, or a still image (or a sequence of still images when using the full version of Adobe Premiere); a video or audio clip might be only a few seconds long.

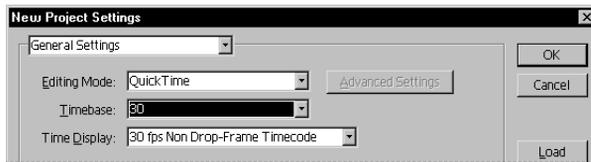
- 1 Start Adobe Premiere LE.

The Load Settings dialog box appears. This is useful if your capture card includes custom presets, you have created custom presets that you want to use multiple times, or you want to use any of these existing standard presets. For this lesson, you won't use any of these available presets; instead, you'll set individual project settings using the New Project Settings dialog box.

- 2 Click Cancel to close the Load Settings dialog box without selecting a preset.
- 3 Choose File > New > Project.

Now you'll select the custom settings for this project.

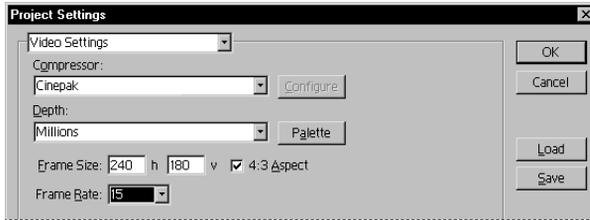
- 4 In the New Project Settings dialog box, choose QuickTime or AVI (Windows only) for the Editing Mode.
- 5 Choose 30 for the Timebase.



The Timebase menu specifies the frames per second for editing. If you were producing the final version of your video program for broadcast, you would choose 29.97, which is the National Television Standards Commission (NTSC) standard for television, or 25, for the PAL (Phased Alternating Line) standard, depending on the part of the world in which you were broadcasting.

- 6 Click Next to open the Video Settings section of the New Project Settings dialog box.
- 7 For Frame Size, type **240** in the leftmost box to set the width of the preview.

Because the 4:3 Aspect option is checked, 180 appears automatically for the height of the preview frame. This setting controls how the project is previewed on your monitor.



8 For Frame Rate, specify 15, and then click OK.

Many of the project settings you just defined determine how the video program will be built and exported. Before you create your own videos, read Chapter 2, “Working with projects,” for a better understanding of the available settings and their importance to the success of your work.

Now Premiere LE is set to work with clips you import.

Importing the clips

There are several ways to bring clips into a project. In this chapter you’ll import clips directly into the Project window, where Premiere LE lists each clip associated with a project.

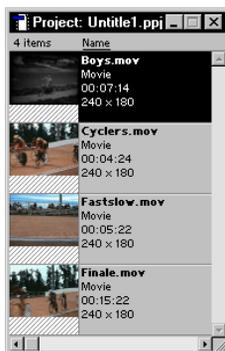
***Note (Windows only):** The steps throughout this chapter refer to the QuickTime .MOV versions of the tour files. In Windows, the tour files are provided as AVI files, which have the same filenames but end with an .AVI extension.*

1 Depending on your platform, do one of the following:

- In Windows, Choose File > Import > File, and then open the Tour folder you copied or installed from the Premiere LE Application CD-ROM disc. Select the Boys.avi file, hold down the Shift key, and then select the Finale.avi file. This selects the first four movie files in the folder. Then click Open.

- In Mac OS, choose File > Import > Multiple, open the Tour folder you copied or installed from the Premiere LE Application CD-ROM disc. Then select Boys.mov and click Import. Do the same for the Cyclers.mov, Fastslow.mov, and Finale.mov files, and then click Done.

The files appear in the Project window. For each file that you import, the Project window lists its name, type, duration, and frame size. Other columns let you add your own descriptions or labels. You can scroll or enlarge the window if necessary.



Before you continue, save the project and give it a name.

2 Choose File > Save.

3 In the Save File dialog box, type **Cycling.ppj** for the file name, and specify a location on your hard drive. Click Save.

Premiere LE saves the project file to your hard disk.

Creating a rough cut

For many projects, you may want to begin by creating a *rough cut* of your video program. A rough cut is simply a sequence of clips assembled in the general sequence you want, with little or no editing. A rough cut can quickly give you some sense of your video program's effectiveness, letting you start making decisions about where to cut, trim, and add transitions and special effects.

- 1 If the Timeline window is not open, choose Window > Timeline.

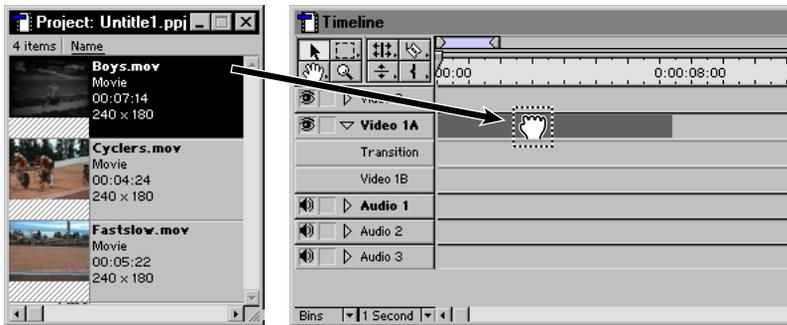
The clips you imported do not become part of the video program until you place them into the Timeline. The Timeline window is where you'll construct and edit your video program—adding, copying, and moving clips, adjusting their lengths, and so on. The Timeline provides an overview of your work by showing where in time each clip begins and ends, as well as the relationships between clips.

It's important to understand that just as there are different ways to import a clip, there is more than one approach to editing a video in Premiere LE. Experienced video-editors, for example, might prefer to rely on the Monitor window (described later in this chapter) rather than the Timeline. The method of editing described in this tour is appropriate for novice users creating a relatively simple project. Chapter 4, "Editing Video," describes more advanced approaches to editing in Premiere LE, such as 3-point editing.

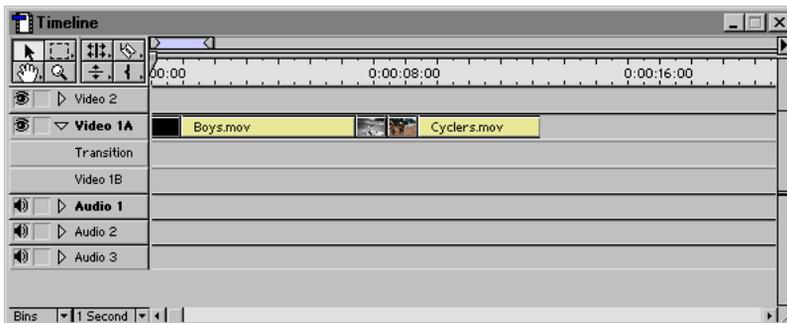
When you first open the Timeline window, it displays seven separate rows, called *tracks*, underneath the time ruler. The tracks act as containers for the clips; by involving multiple tracks and arranging clips within the tracks, you create sequences and effects that become the video program you are making. This chapter introduces you to each kind of track and to the kinds of controls available for all tracks.

- 2 In the Project window, select the Boys.mov clip and drag it into the Video 1A track. As you drag into the Video 1A track, the clip appears as a darkened box. Before releasing the mouse, make sure that the left end of the box is up against the left side of the Video 1A track.

Note: If the Video 1A track is not expanded (that is, set to show the Transition track and the Video 1B track with which it is associated), click the arrow to the left of the track name so that the tracks appear as they do in the following illustration.



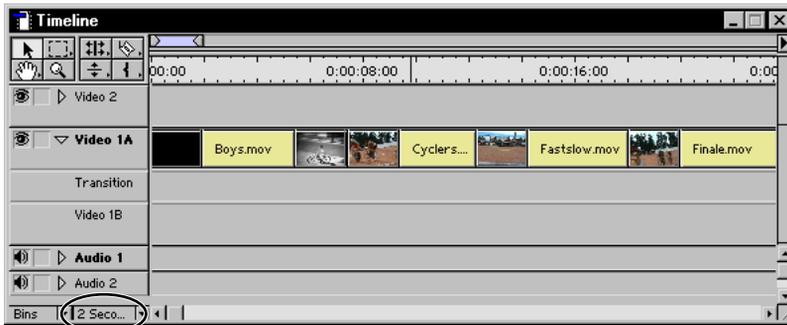
3 Select the Cyclers.mov clip and drag it into the Video 1A track, this time positioning it just after the Boys.mov clip, so that the beginning of the Cyclers clip is up against the end of the Boys clip.



4 Select the Fastslow.mov clip, drag it into the Video 1A track, and position it after the Cyclers.mov clip. Do the same with Finale.mov clip, dragging it just after the Fastslow.mov clip.

Now you have four clips in your Video 1A track, forming a video program about 32 seconds in length. This is a rough cut, giving you some idea of how your sequence works and what needs to be trimmed, edited, and modified. In the next section, you'll preview this sequence. Before moving on, though, you'll change the unit of time displayed throughout the Timeline.

5 From the Time Units pop-up menu in the lower left of the Timeline window, choose 2 Seconds.



The clips now take up less horizontal space, since you're now displaying the Timeline contents in a time unit requiring less detail.

Now it's time to play the sequence of clips you've imported.

Previewing in the Monitor window

To see how your work is progressing, you can preview one or more clips in the Monitor window.

1 If the Monitor window is not already open, choose Window > Monitor.

The Monitor window displays two views:

- Source view (on the left side of the window) lets you preview a clip, trim it, and then insert it into the Timeline window. This view can store many clips at a time.
- Program view (on the right) lets you preview your entire video program, at any time. This view displays the sequence of clips currently in the Timeline window. You can also use the Program view to edit your video program.

2 In the Monitor window, click the Play button underneath the Program view.



The rough cut of your video program plays until the end.

Note that the edit line in the Timeline moves in tandem with the preview. This edit line indicates the active frame—the frame being edited or previewed.

3 To replay it, click the Play button again, or click the Loop button (♻️) to play the video program in a continuous loop. To stop the action, click the Stop button (■).

Now that you've got a general idea of the video program, you'll trim the video clips and add audio, transitions, special effects, and superimposing to create the finished version.

Trimming clips in the Monitor window

When you shoot footage with your camera, you almost always produce much more material than you'll actually use in your video program. To create scenes, cuts, and transitions, you'll need to trim your clips, removing the parts that you don't need. Trimming clips is an essential part of creating a video program, something you'll do many times. Premiere LE provides a number of different ways to trim clips, including quick rough-cut tools and more precise frame-by-frame views.

You'll start editing the bicycle video by trimming the Boys.mov clip, the first clip in the video program.

1 Make sure that both the Timeline window and the Monitor window are visible and that they don't overlap one another. Then click the Timeline window title bar to make the Timeline active.

- 2 In the Video 1A track of the Timeline window, double-click the Boys.mov clip.
The first frame of the Boys.mov clip appears in the Source view of the Monitor window.



Before you trim, first play the clip.

- 3 Click the Play button (▶) underneath the Source view, or press the spacebar.

As it is, the clip is a little long, so you'll trim it somewhat. Trimming a clip involves setting a new *In point*, *Out point*, or both. An *In point* is the frame at which a clip begins; an *Out point* is the last frame of the clip. You'll change the *Out point* for the Boys.mov clip.

- 4 To get an idea of exactly where you'll trim the clip, click the Play button and look for the point at which the first bike rider stops moving forward (just over 4 seconds into the clip): That is where you'll set the *Out point*.

The controls for both views in the Monitor window also contain a shuttle slider, which lets you *scrub* clips. Scrubbing—advancing or reversing a clip manually—lets you precisely identify events.

- 5 Under the Source view, drag the shuttle slider until you see the first bike rider at the end of his ride. (The time below the shuttle slider should read between 4:20 and 5:00 seconds.)



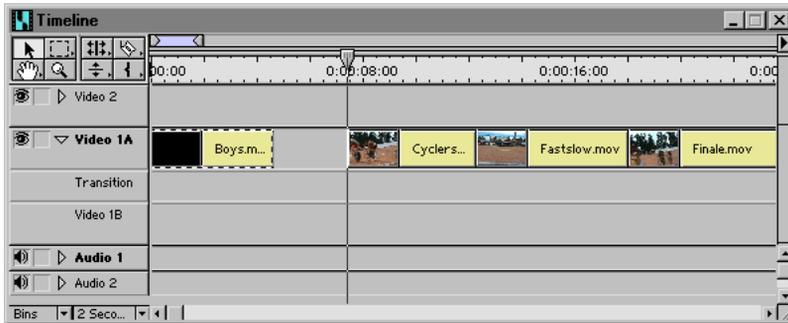
- 6 Click the Mark Out point button (⏸).

After you've positioned the Out point correctly, you need to apply the change to the clip in the Timeline. Note that the Apply button is now visible above the Source view. This button appears whenever you mark a new In or Out point for a clip in the Timeline.



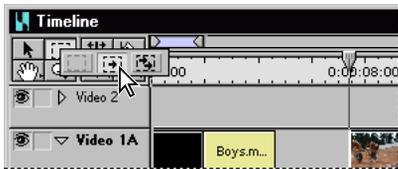
- 7 To apply the trim, click the Apply button.

Premiere LE trims the end of the clip to give the clip a new Out point. It's important to understand that the trimmed area has not been deleted; Premiere LE has merely hidden the trimmed frames so that they don't appear in the Timeline and will not appear when you preview or export the video program. You can easily restore any trimmed frames by resetting the Out point using any trimming method.



Because you set a new Out point, there is now a gap in the Timeline between the first and second clips. To preserve a continuous flow from one clip to the next, you need to close this gap by moving the other clips to the left. To do this, you'll use the track selection tool (⌘). This tool selects all the clips in a track to the right of where you click. (Later in the lesson you'll learn how to automatically close gaps when you trim.)

8 In the Timeline window, select the track selection tool.



- 9 Click the Cyclers.mov clip in track 1A. This clip, and the clips to the right, are selected.
- 10 Drag the selection to the left, until it is up against the Boys.mov clip.
- 11 Click the selection tool () , since you are through with the track selection for now.
- 12 In the Monitor window, click the Program view Play button to preview the changes you've made.

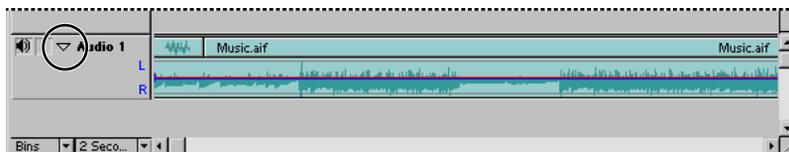


- 13 Save the project.

Adding audio

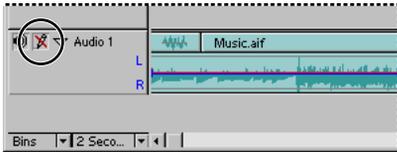
Now you'll add some music to the project by importing and placing an audio file in the first audio track. The music in the audio file was recorded in a studio, digitized, and then assembled and rendered in Premiere LE.

- 1 Choose File > Import > File, and double-click the Music.aif file in the Tour folder. The file appears in the Project window.
- 2 Drag the Music.aif icon from the Project window to the Audio 1 track.
- 3 Click the arrow to the left of the track to expand it.



The expanded view shows the waveform of the clip. The waveform displays the volume of the audio over time. Higher peaks in the waveform indicate greater volume. In the next section, you'll come back to the audio track to synchronize events in the video with the music. For now, you'll lock the track so it doesn't get repositioned later.

- 4 Click in the box next to the speaker icon to lock the audio track.



- 5 Click the Program view Play button in the Monitor window to preview the video and the audio together.

Trimming clips in the Timeline window

In addition to trimming clips in the Monitor window, you can trim clips in the Timeline window using a number of different methods. To edit more precisely in the Timeline window, it's often easier to view a wider range of frames. By default, the Timeline window displays the frame at each second.

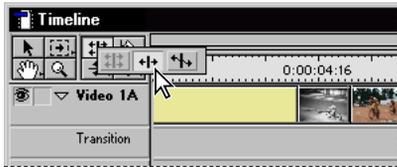
- 1 From the Time Units pop-up menu in the lower left of the Timeline window, choose 8 Frames.



The Timeline window now displays every eighth frame, allowing for more precise editing and viewing in the Monitor window as you drag the edit line through the Timeline.

First, you'll adjust the trim you made to the Boys.mov clip so that its Out point is synchronized with the first spike in the audio track.

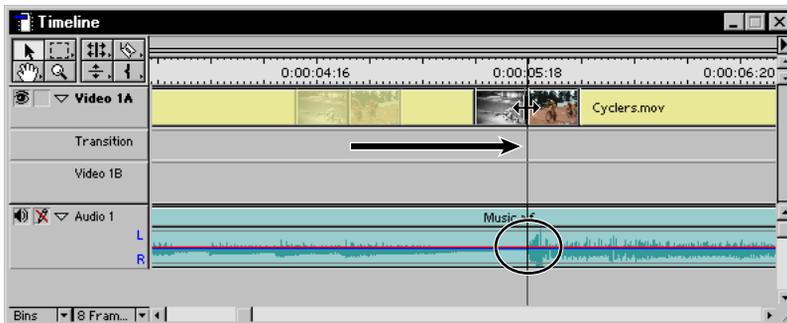
- 2 Select the ripple edit tool (**+**) in the Timeline window.



A *ripple edit* trims the specified clip, but keeps the duration of all other clips the same. The trim, however, “ripples” through the project; other clips are pulled in or pushed out, depending on whether you shorten or lengthen the clip. The duration of the entire video program, therefore, changes.

- 3 Move the pointer across the line where the first two clips join. Notice how the pointer changes into the icon representing a ripple edit.

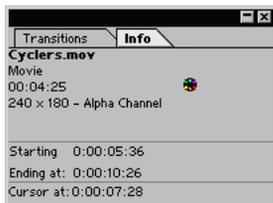
- 4 Drag the ripple edit tool until it is positioned over the first spike in the audio track, and then release the mouse button.



Now you'll trim the Cyclers.mov clip so that its endpoint corresponds with an exact point in the Timeline. To trim the Cyclers.mov clip to this time, you'll use the Info palette.

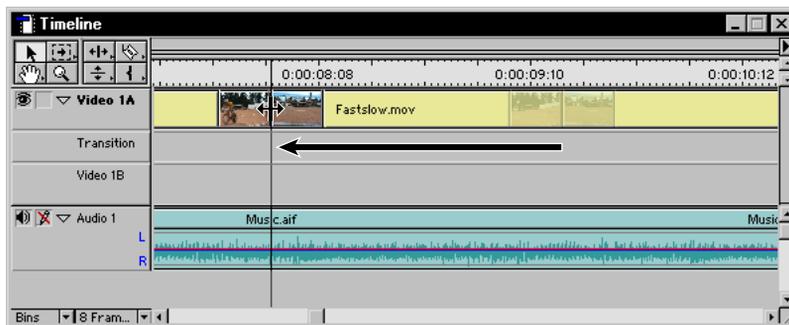
5 Choose Window > Show Info, and then select the Cyclers.mov clip.

The Info palette displays the name, duration, and the starting and ending points of the selected clip. In addition, it displays the current location of the pointer; you'll use the pointer information to help you trim.



6 With the ripple edit tool still selected, move the pointer across the line where the Cyclers.mov and Fastslow.mov clips join.

7 Drag the ripple edit tool to the left, until the position of the pointer in the Info palette reads 0:00:08:01, and then release the mouse button.



You have trimmed the Out point of the *Cyclers.mov* clip. Since you trimmed the clip using a ripple edit, the subsequent clips have followed suit, shifting to the left.

8 Select the selection tool () , since you are done with ripple editing.

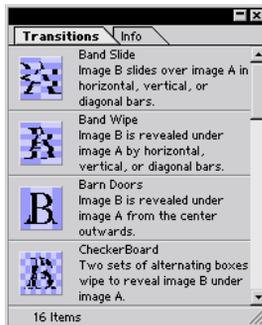
Now you'll move on to applying a transition between clips.

Adding a transition

A *transition* is a change from one scene to the next, or from one clip to another. The simplest transition is the *cut*, where the last frame of one clip leads directly into the first frame of the next. By placing the first two clips together—*Boys.mov* and *Cyclers.mov*—you created a cut between them.

1 Choose Window > Show Transitions.

The Transitions palette appears, displaying the available transitions. Each icon graphically represents how the transition works.

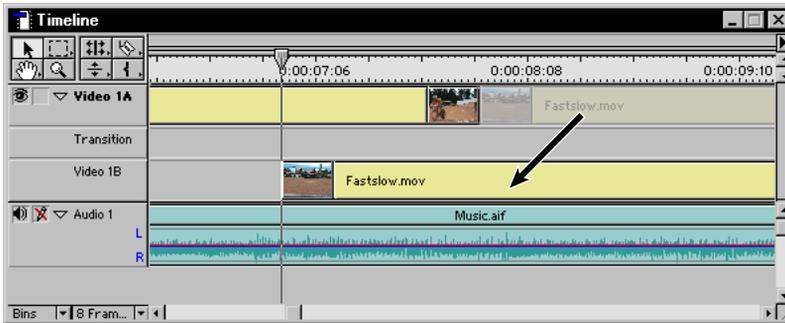


2 If the Video 1 track is not expanded, click the arrow to the left of the track.

To create a transition, you first need to overlap two clips in the Video 1A and Video 1B tracks. The overlapping portion of the clips are used in the transition. Typically, the overlapping portions of the clips are not essential to your project, since the transition will obscure them both somewhat.

3 In the time ruler, drag the edit line to one second before the Out point of the *Cyclers.mov* clip (0:00:07:01); you'll use this as a kind of guide for repositioning the *Fastslow* clip in the next step.

- 4 Now drag the *Fastslow.mov* clip down to the Video 1B track, snapping its In point to the edit line.

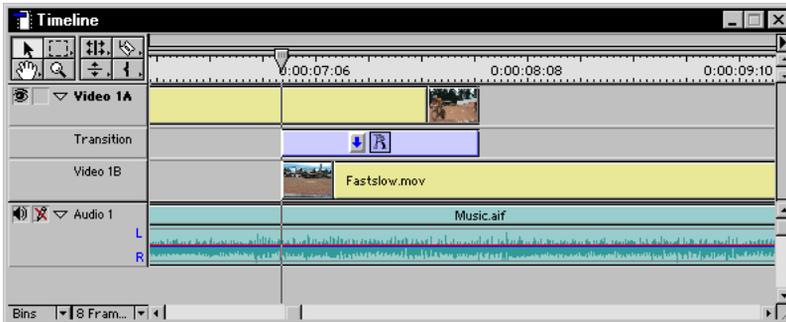


The two clips are now overlapping for a one-second duration.

- 5 In the Transitions palette, find the Cross Dissolve transition.

This transition, frequently used in video and film, “dissolves” one scene into another, over a brief duration.

- 6 Drag the Cross Dissolve transition into the Timeline window, placing it in the *Transition* track (the area where the two clips overlap).



When you release the mouse, the transition is automatically sized to the overlap and displayed as an icon. This Cross Dissolve begins one second prior to the end of the *Cyclers.mov* clip and ends one second into the *Fastslow.mov* clip.

Previewing transitions and other effects

The Program view play button previews only the video clips in the Video 1 track and the audio clips but does not play transitions, filters, or superimposed clips (ones placed on the Video 2 track) unless a *preview file* has been created. Once the preview file has been created, the Program view shows the additional effects.

- 1 Hold down the Alt key (Windows) or the Option key (Macintosh) and move the pointer into the time ruler within the Timeline window. The pointer changes into a small downward arrow (▼).
- 2 Drag the pointer in the time ruler over the transition, keeping the Alt or Option key held down.

The Cyclers.mov clip dissolves into the Fastslow.mov clip, over a duration of one second.



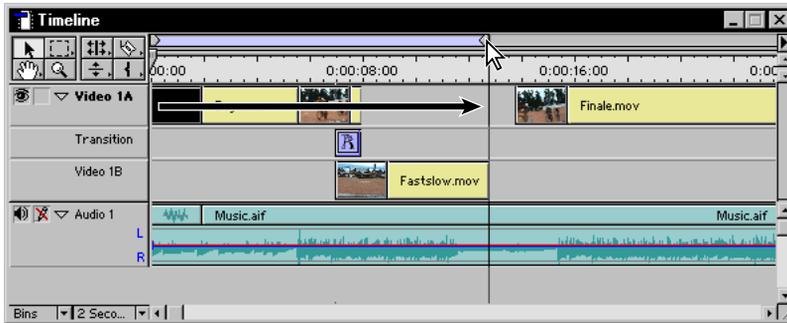
Dragging in this fashion provides a quick method for previewing your video program but cannot play back at a precise frame rate, since you're moving it by hand. To preview effects at a specified frame rate, you need to generate a Preview file.

Before you generate it, however, you need to adjust the *work area bar*—the topmost section of the Timeline window—to cover the area you want to preview. The work area bar specifies the portion of your project that you want to preview (with transitions, filters, and other effects) or output. In this case, you'd like to preview the first three clips of your project, including the transition effect you just added.

- 3 To view the first three clips in their entirety, choose 1 Second from the Time Units pop-up menu. Now it will be easy to extend the work area by the correct amount.

Note: Depending on the size and resolution of your monitor, the 1 Second setting might not make the first three clips entirely visible; in that case, choose the 2 second setting from the Time Units pop-up menu. Doing so will not affect your ability to follow the remaining procedures in this chapter, although the illustrations may not exactly match what you see on your screen.

- 4 Drag the right end of the work area bar so that it extends the length of the first three clips and aligns with the end of the Fastslow.mov clip.



- 5 Choose Project > Preview or press Enter (Windows) or Return (Mac OS) on the keyboard.

Premiere LE displays a status bar as it generates a preview file. When complete, the preview of your video program plays in the Program view of the Monitor window.

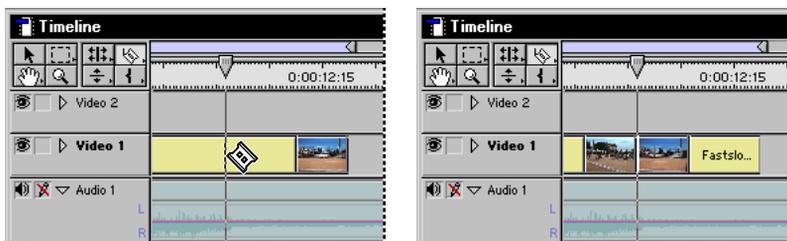
Splitting a clip

Sometimes you may want to superimpose a portion of a clip. To do this, you need to split the clip to create two or more separate clips. Here you'll split the Fastslow.mov clip so that you can make a particular portion of it change speed and fade out.

- 1 In the Timeline window, move the edit line across the Fastslow.mov clip until you see the shot of the unobstructed bleachers (11:19). Leave the edit line positioned at this point.



- 2 In the Timeline window, select the razor tool ()
- 3 Position the pointer over the Fastslow.mov clip at the current edit line, and click.



Premiere LE cuts the Fastslow.mov clip at the point where you clicked, creating two separate clips.

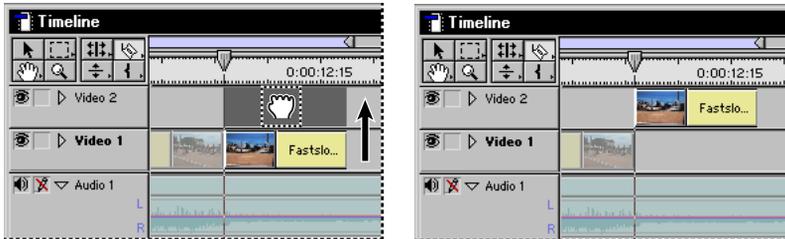
Changing the speed of a clip

You can change the playback speed of a clip to make it play slower or faster. Changing the speed changes its duration without adding or removing any frames. To make the bike sequence more interesting and attention-getting, you'll slow down the second portion of the clip you just cut, increasing its duration.

Since you also want to fade out the same clip, which requires it to be placed in a superimpose track, you'll place it there now.

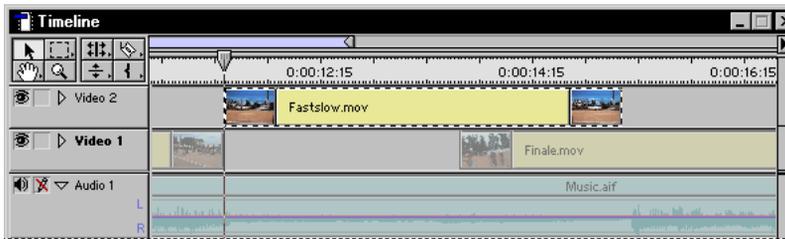
- 1 Collapse the Video 1 track by clicking the downward pointing arrow to the left of the track.
- 2 Click the selection tool () to select it, and then drag the second portion of the Fastslow clip upward into the Video 2 track.

Make sure to keep the position of the clip at exactly the same point in time; the edges of the clip snap to its same location in the Video 2 track.



Now you'll change its speed.

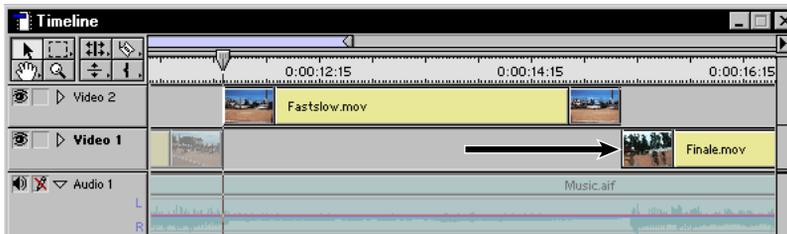
- 3 Select the clip you just moved (if it is not already selected), and choose Clip > Speed.
- 4 In the dialog box, type 30 in the New Rate box. Click OK.



The playback speed of the clip is now at 30% of its original speed. Accordingly, the duration of the clip has increased proportionally, approximately tripling in length.

Note that this clip now overlaps some of the Finale.mov clip. Because you want the slowed-down clip to fade to black, you need to move the Finale.mov clip to the right.

- 5 Drag the Finale.mov clip to the right until its left edge snaps to the Out point of the slowed-down clip.



Now let's generate another preview.

- 6 Drag the right end of the work area bar to the right so that it extends to the end of the Fastslow clip in the Video 2 track.
- 7 Choose Project > Preview or press Enter (Windows) or Return (Mac OS) on the keyboard. To preview more than once, just repeat this step.
- 8 Save the project.

Changing a clip's opacity

If a clip is on Video 2 track, you can make it partially transparent by changing its opacity. The opacity option lets you fade into or out of a clip and superimpose one or more clips on top of others, so that two or more clips are visible at the same time. In the full version of Premiere, you can superimpose clips by applying transparency settings such as Alpha Channel or Blue Screen.

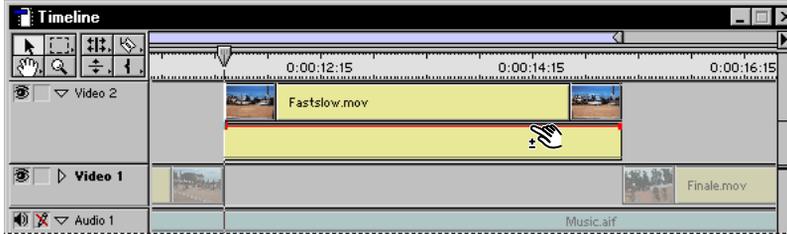
Premiere LE includes one superimpose track, Video 2, above the Video 1 track. Once a clip has been placed in the superimpose track, an opacity control bar, or a “rubber band,” becomes available. To see the bar, you need to expand the Video 2 track.

- 1 Click the arrow to the left of the Video 2 track.

The opacity bar shows the clip's opacity. Right now, the opacity is at 100%.

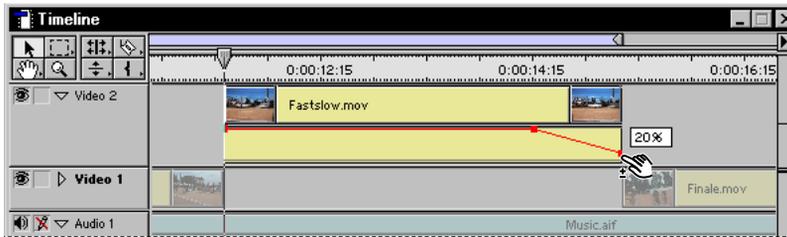
- 2 Now move the pointer onto the opacity bar (where the pointer changes into a pointing finger), and click about three-quarters of the way into the clip to create a small box called a *handle*.

The handle divides the control bar into sections that you can adjust by dragging. A control bar includes a handle at each end to define the beginning and ending opacity settings.



3 In the Video 2 track of the Timeline window, click the rightmost handle. Keep the mouse button depressed throughout the next step.

4 Press Shift, and then drag the selected opacity handle down until the value beside the handle displays 20%.



This creates a downward slope in the control bar, starting at the first handle you created. A downward slope decreases opacity. In this case, the opacity of the clip begins at 100% and decreases to 20%. (Make sure you press the Shift key after you select the handle, otherwise the change applies starting with the leftmost handle in the control bar.)

***Note:** You can also drag handles without holding down Shift, but that limits you to 5-percent increments and does not produce a pop-up display. You can, however, use the Info palette to view the opacity setting if you drag without holding down the Shift key.*

Preview what you've done.

5 Hold down the Alt key (Windows) or the Option key (Macintosh) and slowly drag in the time ruler above the clip you just adjusted. The preview plays in the Monitor window. Because this clip is the only one playing in the Timeline, it fades into the background color, which is black.



6 Save the project.

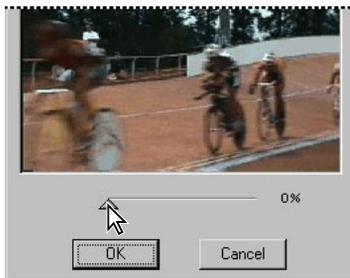
Adding special effects to a video clip

Premiere LE lets you create many different kinds of special effects using video filters. For the last clip in the video program, you'll add the Camera Blur effect, which blurs a clip as if it were leaving the focal range of the camera.

- 1 Select the Finale.mov clip in the Timeline window.
- 2 Choose Clip > Filters.
- 3 Move the Filters window so that you can see both it and the Monitor window.
- 4 In the Filters window, select Camera Blur from the Available column, and then click the Add button.

The Camera Blur control window appears, displaying the first frame of the Finale.mov clip.

- 5 Drag the slider bar to zero, and then click OK.

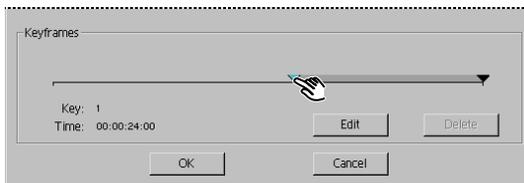


The Camera Blur filter appears in the Current column of the Filters window. Filters listed in this column are applied to the currently selected clip.

To create an effect of changing focus, you can vary the Camera Blur effect over time. To do this, you set *keyframes*. A keyframe specifies a control value at a specific point in time.

The lower portion of the Filters window now displays a timeline, representing the duration of the Finale.mov clip. The triangular keyframes at each end of the timeline control when the effect begins and ends, and with what amount of blurring. Since you'd like the blurring to start about midway through the Finale.mov clip, you move the first keyframe. Moving a keyframe scrubs the clip in the Program view of the Monitor window.

6 Arrange the Filters window so that the program view in the Monitor window is visible. Then drag the first keyframe (the triangle on the left) to the right until you reach the point in the clip where the bikes are perpendicular to the camera.



7 Click the Edit button.

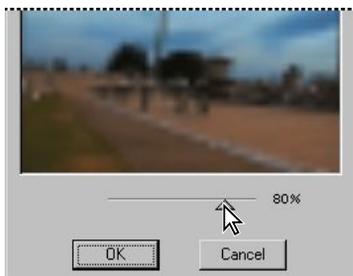
8 Make sure the slider is set at zero. Click OK.

Now you'll create a new keyframe and increase the amount of blurring.

9 In the Filters window, click in the middle of the two keyframes.

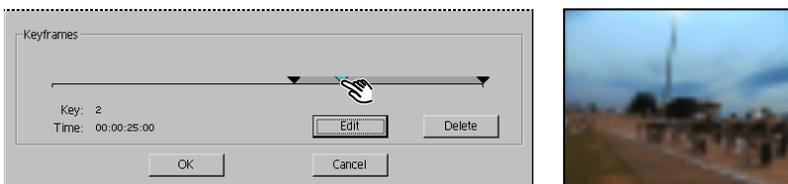
A new keyframe is created and selected, and the Camera Blur Settings edit box appears.

10 Drag the slider bar until the Blur is at 80%, and then click OK.



Now you'll position this keyframe at an exact time.

11 Drag the keyframe you just created until the timecode reads 00:00:25:00 (25 seconds).



12 Now select the last keyframe (the triangle at the far right) and click Edit.

13 Once again, drag the slider bar until the Blur is at 80%. Click OK.

14 In the Filters window, click OK.

Let's briefly review what you've just done. By setting three keyframes—the first at 0%, the second at 80%, and the third at 80%—you have specified that the Camera Blur effect begins at 0% at the point in time you specified, increases to 80% at 25 seconds, and then remains at 80% for the duration of the clip.

Why not just use two keyframes—the first at 0% and the last at 80%? Premiere LE always creates a linear change between keyframes. Therefore, if you used only two keyframes, the blurring would gradually increase over the duration of the clip. This is not the effect you want; rather, you want the blur to happen fairly quickly, and then remain at that level for its duration.

Preview your work again.

15 Press Enter (Windows) or Return (Mac OS).



It's starting to look like something now!

16 Save the project.

Superimposing an image

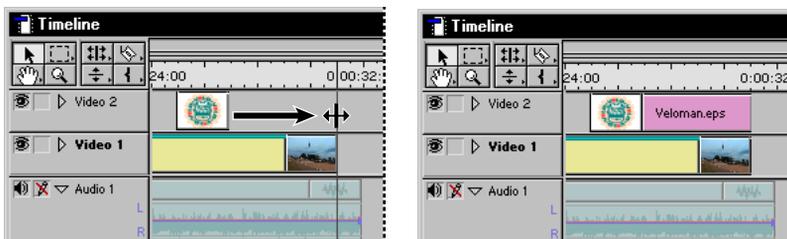
In the previous section, you used the Camera Blur filter to blur the second half of the final clip. Now you'll superimpose a company logo on top of this clip, making it gradually fade into full view.

- 1 Choose File > Import > File. Then locate and select the Veloman.eps file in the Tour folder. Click Open.
- 2 From the Project window, drag the Veloman.eps image into the Video 2 track.
- 3 Choose Window > Show Info if the palette is not already open, and adjust the image to that its In point is set to 0:00:25:00.

By default, the duration of a still image is set in the General Preferences at 30 frames. Because the frame rate of your video program is 15 frames per second, the duration of the image is 2 seconds. To keep the image visible until the end of the video program, you'll need to extend its duration. Unlike video, still image duration can be specified by stretching the clip representation in the Timeline.

- 4 In the Timeline window, select the selection tool.

- 5 Drag the right edge of the Veloman.eps image to the right until it snaps to the end of the Finale.mov clip.



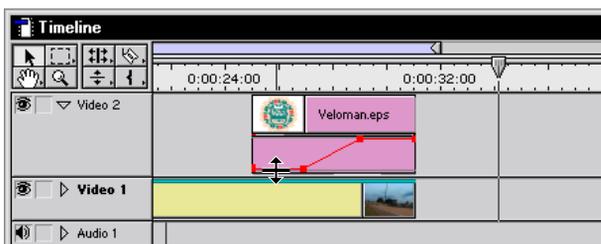
The image now overlaps the Finale.mov clip in the Timeline window. The overlapping area is where the logo will be superimposed on the bike race.

Now you'll use the Video 2 track control bar again to adjust the opacity of the Veloman.eps image so that it gradually fades into full view.

- 6 Click the arrow to the left of the Video 2 track name.
- 7 Move the pointer over the red opacity bar at 0:00:27:00 and click to make a new handle.
- 8 Move the pointer to 0:00:29:00 and click to make another new handle.

Now you'll use the fade adjustment tool to move the line between the handle at the beginning of the clip and the first handle you created.

- 9 In the Timeline window, select the fade adjustment tool (\updownarrow).
- 10 Position the fade adjustment tool over the opacity bar between the handle at the very beginning of the clip and the handle you created at 0:00:27:00, and drag the line to the bottom of the track.



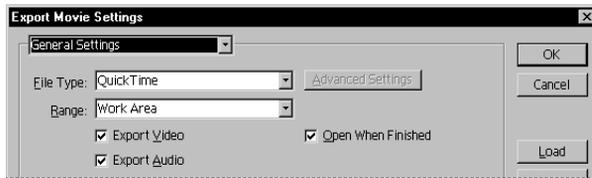
Notice the clip now appears totally transparent for 2 seconds, gradually increases to full opacity, and then remains at full opacity for the remainder of the video program. Using the fade adjustment tool makes it easy to create effects in which the fade remains constant for certain periods of time.

- 11 To preview the effect, hold down the Alt key (Windows) or the Option key (Mac OS) and scrub in the time ruler over the area where the superimposition occurs.
- 12 Save the project.

Exporting the movie

To complete the tour, you'll make the project into a QuickTime or AVI (Windows only) movie. The QuickTime format is a standard format for both Windows and Mac OS systems.

- 1 Choose File > Export > Movie.
- 2 Click the Settings button.



- 3 Make sure QuickTime or AVI (Windows only) is selected for File Type, and Entire Project is selected for Range.
- 4 Also make sure that the Export Video and Export Audio options are selected. The default values for other settings, including those for compression, are fine for this project.
- 5 Click OK to close the Export Movie Settings dialog box.
- 6 In the Export Movie dialog box, specify a filename (make sure to use the .AVI extension for a Windows file or the .MOV extension for a Mac OS file) and a folder in which to store the movie.
- 7 Click Save.

Premiere LE starts making the movie, displaying a status bar that provides an estimate for the amount of time it will take to render or output the movie. The output time always depends on the capabilities of your computer. On most systems, Premiere LE should finish making the movie within 7 minutes. You can cancel the output process by pressing the Esc key.

8 When the movie is complete, it will automatically open inside Premiere LE.

Note: If the movies does not open, you can open and play it within Premiere LE by choosing File > Open, and double-clicking the file you just exported.



9 Click the Play button to watch the show.

Congratulations on completing the Tour!



2



Chapter 2: Working with Projects

A *project* is a single Premiere file that describes a video program. It stores references to all the clips in that file and contains information about how you arranged the clips. It also includes details of any transitions or effects you applied. You can add and remove clips, and use low-resolution or substitute clips as placeholders for your final, high-resolution clips.

Starting a project

You start a new project by specifying project settings, such as duration and frame size. It's a good idea to save the project immediately. See "Saving a project" on page 51.

When you first open Premiere LE, the Load Project Settings dialog box appears, displaying a list of presets, which contain specific predetermined project settings. This dialog box makes it easy to use the custom settings specific for your capture card (many capture cards include a preset file for optimal output) or a custom preset you have created (see "Saving and loading project settings (presets)" on page 51). Alternatively, you can select one of the common preset options, such as Multimedia, to start from. You can also change the project settings after the project opens. See "General settings" on page 45.

Note: You can change the window that opens when you start Premiere LE. See "Changing the startup window" on page 57.

To start a new project:

- 1 Choose File > New > Project.
- 2 Do one of the following:
 - Specify project settings. See "Specifying project settings" on page 44.
 - If you want to apply preset project settings, click Load, select an item from the Available Project Settings, and then click OK. See "Saving and loading project settings (presets)" on page 51.
- 3 Click OK to close the Project Settings dialog box.

Specifying project settings

When you start a new project, review the project settings, which are organized into five categories:

General Settings Control the fundamental characteristics of the video program, including the methods Premiere LE uses to process video, count time, and position edits.

Video Settings Control the frame size, picture quality, and compression settings Premiere LE uses when you play back video from the Timeline, the window where you edit your video program.

Audio Settings Control the characteristics of audio you play back from the Timeline.

Keyframe and Rendering Options Control frame-related characteristics when you play back video from the Timeline. They work in combination with the Video settings.

Capture Settings Control how Premiere LE transfers video and audio directly from a deck or camera. Other Project Settings panels do not affect capturing.

The settings in these categories are described in more detail later in this chapter, except for Capture Settings. For more information about capture settings, see “Preparing for video capture” on page 65.

The appropriate settings for your project are usually determined by the current stage of your project. Keep the following guidelines in mind as you progress through your project:

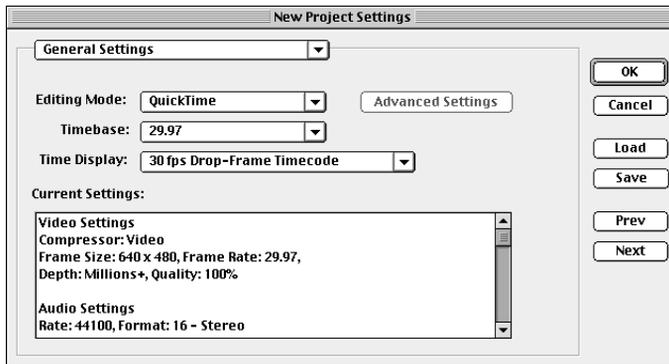
- When setting up or editing a project, specify settings that will provide the quality you want when you play back the Timeline. For example, you can specify project settings that match the requirements of the final program, or you can specify settings that temporarily lower the picture quality so that your computer can process edits faster.
- If you are about to use a videotape deck to record directly from the Timeline, specify project settings that represent the final picture quality you want.

- If you are about to export the video program to a file and you want to specify different settings than you did for editing, you must also specify export settings, which are available through the File > Export command, not in the Project Settings dialog box. This lets you use separate settings for previewing and exporting. It also lets you maintain a set of preview settings that stays constant while changing export settings when repurposing a program for multiple distribution media such as television and the World Wide Web. When you specify project settings for the first time, the settings are copied to the export settings, making your export settings the same as your project settings unless you change the project or export later. See “Exporting video files” on page 187.

 *Premiere LE generates preview files based on the project settings. If you plan to export your final cut to a file, specify project settings that match the export settings you want. If project settings match export settings, Premiere LE can use existing preview files in the export process, saving processing time. You may also want to make sure your project settings are not set to a higher quality than your original clips. See “Analyzing clip properties and data rate” on page 83.*

General settings

When you choose Project > Settings > General, you can specify the following options:



Editing Mode Determines which video method is used to play video back from the Timeline and which compression methods are listed in the Video Settings panel. The QuickTime editing mode is installed with Premiere LE. In Windows, the Video for Windows editing mode is also installed. Manufacturers of video-capture cards or other video hardware may provide plug-in software that adds editing modes for maximum compatibility and quality with their hardware.

***Note:** The Editing Mode does not necessarily specify the export format. For more information, see “Exporting video files” on page 187.*

Advanced Settings This button is not available for the Video for Windows or QuickTime editing modes, but it may be available for plug-in editing modes provided by other manufacturers. If you choose an editing mode other than Video for Windows or QuickTime and this button is available, see the documentation provided by the manufacturer of the plug-in editing mode.

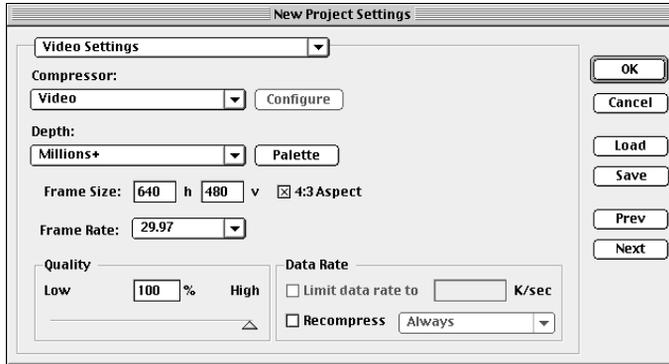
Timebase Specifies the time divisions Premiere LE uses to calculate the time position of each edit. In general, choose 24 for editing motion-picture film, 25 for editing PAL (European standard) and SECAM video, 29.97 for editing NTSC (North American standard) video, or 30 for other video types. Timebase is not to be confused with the frame rate of the video you play back or export from the Timeline, although timebase and frame rate often use the same value. For more information on the relationship between timebase and frame rate, see “Timebase” on page 199 and “Understanding frame rates in relation to the timebase” on page 200.

Time Display Specifies the way Premiere LE displays time throughout the project. The time display options correspond to standards for editing video and motion-picture film. For broadcast NTSC video, choose 30 fps Drop-Frame Timecode if that was the time display used by the original video. For video that will be played back from the Web or CD-ROM, choose 30 fps Non Drop-Frame Timecode. For PAL and SECAM video, choose 25 fps Timecode. For motion-picture film, choose Feet + Frames 16mm or Feet + Frames 35mm. To count individual frames and audio samples instead of timecode, choose Frames/Samples. For more information, see “Understanding timecode and time display options” on page 202.

Current Settings Displays a summary of the settings you specified in all Project Settings panels.

Video settings

When you choose Project > Settings > Video, you can specify the following options:



Compressor Specifies the *codec* (compressor/decompressor) for Premiere LE to apply when playing video back from the Timeline. The codecs available depend on the Editing Mode you chose in the General Settings panel. Click Configure (if available) to set options specific to the selected codec. If you chose an editing mode provided by a manufacturer of a video-capture card or other hardware, see the documentation for the hardware because it may recommend a particular codec for editing with that hardware. Otherwise, consider choosing a fast codec so that edits are processed quickly. In order to play video back through your capture card to a NTSC or PAL monitor, you need to have the codec specific to your capture card selected in this dialog box. For more information, see “Finding an appropriate codec” on page 214.

Note: *If you use a clip in your video program without applying effects or changing frame or time characteristics, Premiere LE uses the clip’s original codec for playback. If you make changes that require recalculation of each frame, Premiere LE applies the codec you choose here.*

Depth Indicates the color bit depth, or number of colors to include in video played back from the Timeline. This button may not be available if the selected compressor provides only one option for bit depth. You can also specify an 8-bit (256 color) palette when preparing a video program for 8-bit color playback, such as for the Web or for some presentation software. The Palette button may be available when 256 Colors is chosen, if the selected Editing Mode

and Compressor support 256 colors. When available, click Palette and then either select Make Palette From Movie to derive a color palette from the frames used in the video program, or select Load Palette Now to import a color palette you prepared and saved previously. You can load color palettes stored in the .ACO (Photoshop color swatch), .ACT (Photoshop color palette), or .PAL (Windows palette—Windows only) format.

Frame Size Specifies the dimensions, in pixels, for frames when you play back video from the Timeline. Select 4:3 Aspect to constrain the frame size to the 4:3 aspect ratio used by conventional television. A larger frame size lets you see more detail but requires more processing. If playback is slow, try reducing the frame size. For more information, see “About output settings” on page 183.

For more information about standard frame sizes and aspect ratios, see “Measuring frame size and resolution” on page 206.

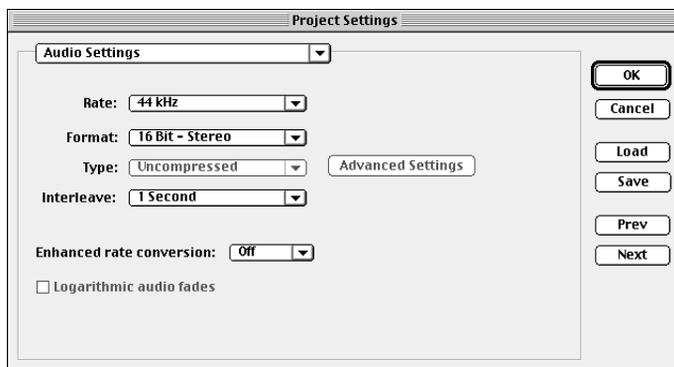
Frame Rate Indicates the number of frames per second to play back video from the Timeline. In general, type a value that matches the frame rate of the final video, or type a lower value to process previews faster. In many cases this value should match the timebase. For more information about specifying standard frame rates, see “Understanding frame rates in relation to the timebase” on page 200.

Quality Affects the picture quality and disk space used when you play back video from the Timeline. Low quality usually plays faster and uses less disk space, and may be preferable for editing. High quality provides the best-looking image the selected compressor can provide, but requires more disk space and may not play smoothly on slower computers. This setting is not available for all codecs.

Data Rate If available for the selected compressor, places an upper limit on the amount of video data that Premiere LE is allowed to transfer for previews so that the video does not overwhelm the data transfer capacity of your system. Select Limit Data Rate to _ K/Sec and type the data rate required. If you are outputting to video, the data rate you enter here should match the data rate of your captured clips. If previews do not play smoothly, reduce this value. Select Recompress to ensure that Premiere LE processes a video preview that stays under the data rate you specified. This option is also useful when your video program contains non-video files, such as still images and titles, that need to match the video output. Select Always from the menu to compress every frame even if it is already within the data rate, or select Maintain Data Rate to preserve quality by compressing only the frames that are above the specified data rate. This setting is not available for all codecs.

Audio settings

When you choose Project > Settings > Audio, you can specify the following options:



Rate Higher rates provide better audio quality when you play audio back from the Timeline but require more disk space and processing. Resampling, or setting a different rate than the original audio, also requires additional processing time; try to capture audio at the final rate.

Format Higher bit depths and stereo provide better quality but require more disk space and processing.

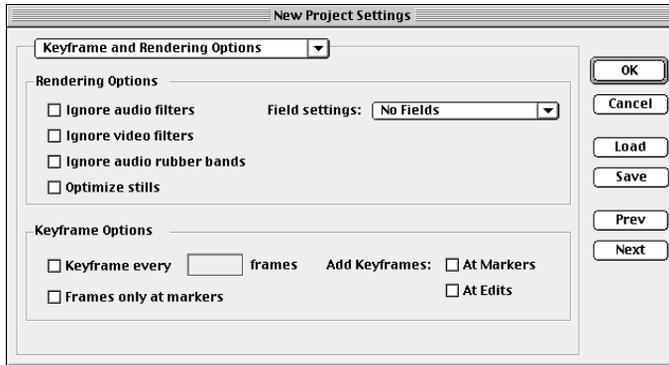
Type Specifies the codec for Premiere LE to apply when playing audio back from the Timeline. Premiere LE uses only uncompressed audio files. More options are available with the full version of Adobe Premiere.

Interleave Specifies how often audio information is inserted among the video frames in the preview file created when you play audio back from the Timeline. A value of 1 frame means that when Premiere LE plays back a frame, the audio for the duration of that frame is loaded into RAM so that it can play until the next frame appears. If the audio breaks up when playing, the interleave value may be set too high.

Enhanced Rate Conversion When playing audio back from the Timeline, specifies a level of quality for converting the sample rates of clips in the Timeline to the sample rate you specified in the Rate option. Enhanced Rate Conversion controls both rate upsampling and down-sampling. Off resamples audio most quickly but produces moderate quality. Better balances quality with processing time. Best resamples audio for the highest possible quality but requires the most processing time.

Keyframe and rendering options

When you choose Project > Settings > Keyframe and Rendering Options, you can specify the following Rendering Options:



Ignore Audio Filters Select to play back audio from the Timeline without applied audio filters.

Ignore Video Filters Select to play back video from the Timeline without applied video filters.

Ignore Audio Rubber Bands Select to play audio from the Timeline excluding changes made using the rubber-band controls for audio fading and audio panning in the Timeline.

Optimize Stills Select to use still images efficiently when playing back video from the Timeline. For example, if a still image has a duration of 2 seconds in a project set to 30 frames per second, Premiere LE will create one 2-second frame instead of 60 frames at 1/30 of a second. Deselect this option if the exported video file exhibits playback problems when displaying still images.

Field settings Select an option that matches the playback display. No Fields is the default and is the equivalent of progressive scan, the correct setting for previewing on a computer display. Select Upper Field First or Lower Field First when playing back video on a television monitor using an interlaced standard such as NTSC, PAL, or SECAM; the option you actually choose depends on the specific video hardware you use. Choosing the wrong field settings causes the video to flicker when played back from an NTSC monitor. For more information on fields, see “Comparing interlaced and non-interlaced video” on page 204.

Saving and loading project settings (presets)

The Save and Load buttons in the Project Settings dialog box let you save all project settings into a presets file and later load them into any project. For example, after completing a television program, you can load a different project settings file that prepares the same program for Web video. Some video-capture cards may include settings files for Premiere LE. For information about loading saved settings, see “Starting a project” on page 43.



Save and name your project settings even if you use only one set. This creates a backup copy of the settings in case someone accidentally alters the current project settings.

Saving a project

Saving a project saves your editing decisions, references to source files, and the most recent arrangement of the program’s windows. Protect your work by saving often. For information about ways of returning to earlier versions of a project, see “Correcting mistakes” on page 55.

To save a project:

Do one of the following:

- Choose File > Save. If necessary, specify a location and filename, and click OK.
- To save a copy of a project under a new name or location and continue working in the new copy of the project, choose File > Save As, specify a location and filename, and click OK.
- To save a copy of a project under a new name or location but continue working in the original project, choose File > Save a Copy, specify a location and filename, and click OK.

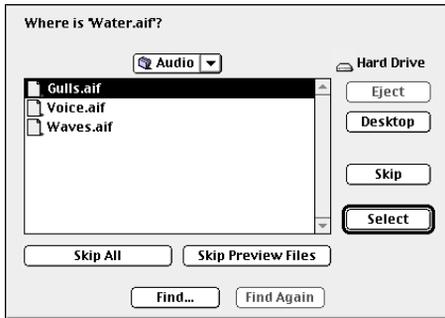
Opening a project

You can open one project at a time. Premiere LE recognizes Premiere LE project files created using Premiere 5.1 LE and the full Premiere versions 5.0 and 5.1 on Windows or Mac OS. You can also open many kinds of clips created on other computer platforms; see “Using a Premiere LE project on another platform” on page 53.

To open an existing Premiere LE project:

Choose File > Open. Locate and select the file, and then click Open.

Premiere LE doesn't copy an original clip into the project—it stores only a reference to the original clip based on its filename and location at the time you imported it. If you move, rename, or delete a clip after you import it, Premiere LE displays the Locate File dialog box the next time you open the project. You can resolve this situation using the Locate File options explained below.



The Locate File dialog box appears when a source clip or preview file is missing.

OK (Windows) or Select (Mac OS) Replaces the missing file if you first use this dialog box to locate and select the original file or its replacement, and then click this button.

Skip Removes all references to the missing file throughout the project. All instances of the clip will disappear from the Project and Timeline windows. Do this only when you are certain that you want to rework all the instances where the file is used in the project.

Skip All Removes all references to the missing file throughout the project, without stopping to ask you for confirmation.

Skip Preview Files Removes the preview files associated with the file.

Note: *Because a clip is only a reference to its source file, do not delete source files while you are using them as clips in a Premiere LE project. After you deliver the final movie, you can delete source files if you do not plan to edit the project or use the source files again.*

Using a Premiere LE project on another platform

Premiere LE project files are designed to be usable across computer platforms. You can open and work with a Premiere LE project on any other platform on which Premiere LE is available.

Transferring a Premiere LE project to another platform is similar to moving a Premiere LE project to another computer: You must move not only the project file, but all of the source clips used in the project. In addition, follow these guidelines:

- All of the source files must be in a format supported by the destination platform. For example, if you plan to transfer a project to Mac OS for editing, don't use Windows PCX files. For more information about filename extensions and platform support for various file formats, see "Importing clips" on page 78.
- All files must conform to the destination platform's filename conventions. For best results, use the 8.3 filename convention (eight characters and a three-character filename extension). For example, a Premiere LE project uses the extension .PPJ.
- For best results, make sure source clips are saved using cross-platform codecs such as Motion JPEG A or Motion JPEG B, provided by QuickTime.
- Any fonts used in titles must be available on the destination platform.
- When you open the project on the other platform, you'll be asked to locate each source clip (see "Opening a project" on page 51).

Premiere LE Project files (.PPJ) and project settings (.PRS) can be transferred across platforms.



If you have trouble opening a project file from another platform by double-clicking, try using the File > Open command from within Premiere LE.

Setting up Premiere LE's scratch disks

When you edit a project, Premiere LE processes your changes in RAM. When the available RAM isn't enough, Premiere LE can use hard disk space as an additional work area. Also, Premiere LE stores some project information, such as preview files, on your hard disk. The files Premiere LE creates for this use are called *temp files*, or temporary files. Premiere LE uses temp files the same way you would use a paper scratch pad. If your system has access to multiple *volumes* (disks or disk partitions), you can specify which one Premiere LE uses as a *scratch disk* for its temp files. The scratch disk space Premiere LE uses increases as a program becomes longer or more complex. For maximum performance, follow these tips:

- Store Premiere LE and the operating system on one hard disk, and capture video to an additional AV-certified hard disk on which nothing else is stored.
- To enhance performance further, specify an additional, separate AV hard disk for video preview files and another for audio preview files.
- Specify only disks attached to your computer—a hard disk located on a network is usually too slow. Removable media may be acceptable if they are fast enough.

To specify scratch disks:

- 1 Choose File > Preferences > Scratch Disks/Device Control.
- 2 For Temp/Captured Movies, select the volume where Premiere LE will store video and audio files you digitize using Premiere LE.
- 3 For Video Preview Temps, select the volume where Premiere LE will store files generated when previewing video clips.
- 4 For Audio Preview Temps, select the volume where Premiere LE will store files generated when previewing audio clips.
- 5 Click OK.

Premiere LE can warn you when a scratch disk you specified is running out of space. You can specify when the point at which the warning appears.

To specify the warning level for low disk space:

- 1 Choose File > Preferences > General / Still Image.
- 2 For Low Disk Space Warning Level, indicate in kilobytes the amount of unused scratch disk space that will trigger the warning. Click OK.

For more information about working with memory, see “Preserving quality and performance during video capture” on page 219.

Correcting mistakes

If you change your mind or make a mistake, Premiere LE provides several ways to undo your work. You can undo only those actions that alter the video program; for example, you can undo an edit, but you cannot undo scrolling a window.

To correct mistakes:

Do one of the following:

- To undo the most recent change, choose Edit > Undo. You can undo the three most recent changes made to the program.
- To undo all changes made since the last time you saved the project, choose File > Revert.
- To stop a change that Premiere LE isn't finished processing (for example, you see a progress bar), press the Esc key.
- To close a dialog box without applying changes, click Cancel.

Working with windows in Premiere LE

Three named windows form the main work area in Premiere LE:

- The Project window lets you import, organize, and store references to clips. It lists all source clips you import into a project, though you don't have to use every clip you import. When you import a folder, a separate window, called a Bin window, is created in the Project window.
- The Monitor window includes the Source and Program views. Use the Source view to see an individual video clip and the Program view to see the current state of the video program being edited in the Timeline.
- The Timeline window provides a schematic view of your program, including all video, audio, and superimposed video tracks. Changes you make appear in the Program view.

For more information about using the Monitor and Timeline windows, see Chapter 4, "Editing Video."

Premiere LE also provides specialized windows for tasks such as capturing video and creating titles; those windows are described with their tasks elsewhere in this user guide.

When you exit Premiere LE, the positions of windows and palettes are saved.

Naming and deleting items

You can easily manage the clips and other items in your project by renaming and deleting them.

To manage project items:

Do any of the following:

- To rename an original file on disk, exit Premiere LE and rename the file using Windows Explorer (Windows) or the Finder (Mac OS). The next time you open the project that uses the renamed file, Premiere LE will ask you to locate the file (see “Opening a project” on page 51).
- To delete an item from a Project or Bin window, select the item, and then press the Delete key.

Printing window contents

You can print the contents of the Project window, Timeline, or Clip windows for use in a storyboard or to document your project. You can also print the Get Properties and Data Rate Graph windows.

To print the contents of a window:

- 1 Click the Project, Timeline, or a Clip window to activate it.
- 2 If necessary, choose File > Page Setup, specify page options, and click OK.
- 3 Choose File > Print, specify printing options, and then click OK.

Note: *The options in the Page Setup and Print dialog boxes come from the driver software for the currently selected printer, not from Premiere LE. For information about printing options, see the documentation for your printer software.*



To save paper when printing a wide window, such as the Timeline, choose File > Page Setup and set the paper orientation to Wide or Landscape.

Changing the startup window

When you start Premiere LE, it displays the palettes you left open the last time you used Premiere LE. You can also make the Open or New Project dialog box appear automatically at startup.

To change the startup window:

- 1 Choose File > Preferences > General/Still Image.
- 2 Choose an option from the Window at Startup menu and click OK:
 - None starts Premiere LE with the palettes from the previous session.
 - New Project opens the New Project dialog box when you start Premiere LE.
 - Open Dialog opens the Open dialog box when you start Premiere LE.
 - Load Settings opens the Load Project Settings dialog box when you start Premiere LE. This is the default setting.

Using context menus

In addition to the menus that appear at the top of your screen, Adobe Premiere LE contains a number of context-sensitive menus. These menus display commands that relate to the active tool, selection, or window. You can use context menus as a quick way to choose commonly used commands.

To display context menus:

- 1 Position the pointer over the clip or window.
- 2 Do one of the following:
 - In Windows, click with the right mouse button.
 - In Mac OS, press Control and hold down the mouse button.

Working with palettes

Adobe Premiere LE includes an Info and Transitions palette. These palettes display information and help you modify clips. You can display, hide, or combine these palettes as you work. For information on the palettes, see “Using the Info palette” on page 59 and “Using the Transitions palette” on page 127.

Changing the palette display

You can change the arrangement and display of the palettes to make the best use of space on your monitor.

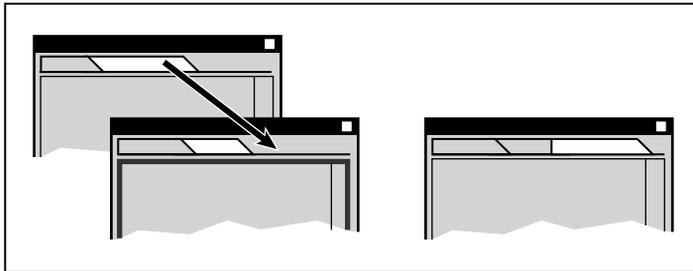
To show and hide palettes:

Do one of the following:

- To show or hide a palette, choose the name of the palette from the Window menu.
- To hide or display both palettes, press the Tab key.

To combine both palettes into one group:

Drag one palette tab to the other group.



To separate the palettes:

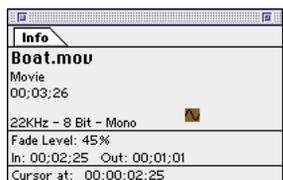
Drag a palette tab away from the other palette.



If you have more than one monitor connected to your system and your operating system supports a multiple-monitor desktop, you can drag palettes to any monitor.

Using the Info palette

The Info palette displays information about a selected clip or transition. If you drag a clip in the Timeline, you can watch the starting and ending time change in the Info palette. The information displayed in the palette may vary depending on factors such as the media type and the current window. For instance, an empty space in the Timeline, a rectangle in the Title window, and a clip in the Project window display information unique to each item when selected.



Info palette for a clip selected in the Timeline



3



Chapter 3: Preparing and Importing Source Clips

You can import clips from any source—videotapes, motion-picture film, audio, still images—as long as they exist as digital files stored on disk. The topics in this section describe how to import clips and describe requirements for converting other media types before they can be used digitally in your project.

Source material exists in two main forms:

- *Digital* media is stored in a file format that a computer can read and process directly. Many newer video and audio recorders and still cameras can save images and sound in a digital format. Digital media stored on tape must be transferred to disk before Premiere LE can use it in a project. You can use Premiere LE to capture digital video from tape and save it to disk as clips you can then add to your project.
- *Analog* media must be *digitized*, or converted to digital form, before a computer can store and process it. Some examples of analog media are motion-picture film, conventional audio tape, and slides. You can use Premiere LE to digitize analog videotape such as Hi-8 and save it to disk as clips you can then add to your project.

Although digital media equipment is becoming increasingly common, a great amount of video and audio continues to be recorded and stored using analog equipment. For this reason you may need to capture analog video and audio as part of your workflow. You can digitize analog video directly into Premiere LE if you use digitizing hardware to connect an analog video player or camera to your computer. Video-digitizing hardware is built into some personal computers, but usually must be added to a system by installing a hardware expansion card. The first part of this chapter describes procedures for digitizing analog source clips, and the second part describes importing clips that are already digital.

Capturing video for offline and online editing

Premiere LE is limited to online video editing. If you require a higher level of quality than your computer can generate, you will need to upgrade to the full version of Adobe Premiere, which lets you edit offline.

About online editing

Online editing is the practice of doing all editing (including the rough cut) on the same computer that will produce the final cut. Previously, online editing had to be done on expensive high-end workstations designed to meet the picture quality and data processing requirements of broadcast-quality video. Editors with high-end requirements who could not afford a suitable online system had to rent time at a production facility that owned one. As personal computers have become faster, online editing has become practical for a wider range of productions. With high-end personal computers, online editing is practical for broadcast television or motion-picture film productions.

For online editing, you'll capture clips once at the highest level of quality your computer and peripherals can handle.

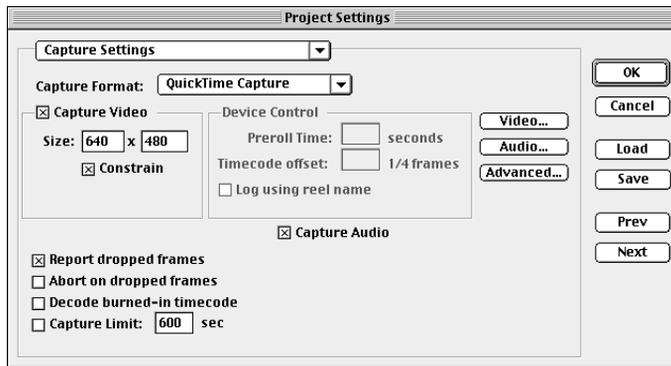
About offline editing

Offline editing is only available with the full version of Adobe Premiere. In *offline editing*, you edit video using lower-quality copies of the original clips and produce the final version on a high-end system. Offline editing was developed to save money by editing in a less expensive facility. Although offline editing can be as simple as writing down time points for scenes while watching them on a VCR, it is increasingly done using personal computers and Premiere. Once you have completed the offline edit in Premiere, you create a table of scene sequences called an *edit decision list*, or EDL. You then move the EDL to an *edit controller* on a high-end system, which applies the sequence worked out in Premiere to the original high-quality clips. In this way, the editing work done on the less-expensive workstation is used to create the final cut on the more expensive, higher-quality workstations.

Preparing for video capture

Premiere LE is sold with many video-capture cards, which usually include non-Premiere LE software written by the card manufacturer to control the specific card type. Most video-capture card software is written so that its controls appear within Premiere LE for your convenience, even though much of the actual video processing happens in the card, outside of Premiere LE. This complex relationship between video-capture cards and Premiere LE can make it difficult to identify which part of the system is responsible for a particular option or problem. For more information on how video processing is divided between the video-capture card and other parts of your system, see “General problems when capturing video” on page 223. If an option or problem you are working on is traced to your video-capture card or its software, see the documentation provided by the manufacturer of your video-capture card.

Most of the settings that control how a clip is captured from a camera or a deck are found in the Capture Settings section of the Project Settings dialog box.



Capture Settings for QuickTime capture. Settings vary depending on the selected Capture Format. Available capture formats vary depending on the type of video-capture card installed.

To prepare for capturing video:

- 1 Specify the scratch disk for captured movies. See “Setting up Premiere LE’s scratch disks” on page 53.

Note: *The length of a captured clip may be limited by the file size limits of your operating system. At the time this guide was printed, file sizes were limited to 1 to 2 GB (depending on the video-capture card) for AVI on Windows and 2 GB for Mac OS.*

2 Set up the video source. For QuickTime for Mac OS, choose Project > Settings > Capture, click Video, choose Source, and choose a video source from the Digitizer menu. For an editing mode provided with a video-capture card, see the documentation included with the video-capture card.

3 Carefully check other settings in the Capture panel (summarized below). As noted in the following list, some capture settings are specific to a particular capture format.

Capture Format Select the file format for your video program. Changing the Capture Format changes the options available in the Capture Settings dialog box and changes options in the dialog boxes that appear when you click the Video, Audio, and Advanced buttons.

Capture Video Select to enable video capture.

Size (QuickTime) Type the width and height of the digitized frame in pixels, and select Constrain to restrict the aspect ratio to 4:3. For AVI capture, click Video to specify frame size.

Rate (AVI) If available, choose a frame rate for digitizing video. For NTSC, choose 29.97 fps; for PAL and SECAM, choose 25 fps.

Video, Audio, Advanced, VFW Settings If available, click to set options provided by software that came with your video-capture hardware, usually including compression settings. Understanding these card-specific options is critical for successful capturing; see the documentation for your capture hardware.

Capture Audio Select to enable audio capture. For AVI capture, specify settings for Rate (the sample Rate for digitizing audio), Format (the bit depth of digitized audio), and Type (the compression method for digitized audio). For QuickTime capture, or if these options are not available, click Audio to specify audio settings. If you chose an Editing Mode other than AVI or QuickTime, and Capture Audio settings are not available, they may be set by the software that came with your audio-capture hardware; click Audio or Advanced to specify audio settings. See “Capturing analog audio” on page 74 and the documentation for your capture hardware.

Report Dropped Frames Select when you want Premiere LE to alert you when at least one frame is lost as a clip is being digitized.

Abort on Dropped Frames Select when you want Premiere LE to stop capturing automatically when at least one frame is lost as a clip is being digitized.

Decode Burned-In Timecode (Mac OS only) Select when you want Premiere LE to optically read timecode visible in the video you are capturing. For information see “Reading timecode from source video” on page 69.

Capture Limit Select and type a time span in seconds to limit how much video you will allow Premiere LE to capture in a single capture session.



To help determine the effect of your compression settings on the data rate of the captured video, use Premiere LE's Data Rate graph as explained in "Analyzing clip properties and data rate" on page 83.

Capturing video without device control

If you don't have a controllable playback device, you can capture video by watching the picture in the Movie Capture window and manually operating the deck and Premiere LE controls to record the frames you want. For example, you can use this method to capture video being played from an inexpensive consumer VCR or camcorder.

To capture a clip without a controllable device:

- 1 Make sure the deck or camcorder is properly connected to your computer.
- 2 Choose File > Capture > Movie Capture.
- 3 Use the controls on the deck or camcorder to move the videotape to a point several seconds before the point where you want to begin capturing. Be sure to leave enough time for the deck to reach the proper speed.
- 4 Press the Play button on the deck or camcorder, and then click Record in the Movie Capture window.
- 5 When you see the point where you want to stop recording, wait a few seconds to provide room for editing, and then click the mouse to stop recording. The captured clip appears in a Clip window and exists as an unsaved temporary file in the capture disk you specified.
- 6 Make sure the Clip window with the captured clip is active. Choose File > Save As, specify a location and filename, and click Save.

Capturing video with device control

Device control refers to controlling the video deck from within Premiere LE when capturing clips. You can use device control to capture video from analog or digital video decks or cameras.

Note: Adobe Premiere does not include a device-control unit; you must purchase it separately from a device-control manufacturer. Current DV/Firewire/iLink/IEEE-Bay devices have built-in device control.

Using device control has the following advantages:

- You can control the tape deck and view its source video directly from Premiere LE instead of switching between Premiere LE and the tape deck controls.
- You can capture the timecode that exists on the tape so that Premiere LE uses it during editing.

Use this checklist to prepare for capturing with device control:

- Make sure you have the necessary equipment. You'll need a frame-accurate tape deck that supports external device control, a cable that connects the deck to your computer, a Premiere LE-compatible plug-in software module that lets you control the tape deck directly from Premiere LE, and source videotape recorded with timecode.
- Set the general device control options for capturing as explained in the previous section.
- Calibrate the timecode on your system if you intend to capture timecode with your clips (see “Calibrating timecode” on page 73).
- Use the following procedures to configure Premiere LE to recognize the device, set capturing options, and capture the video.

***Note:** The capabilities of device control vary depending on the brand and model of playback device you are controlling. For information, see the documentation that came with the device or with its device-control software.*

To specify the capturing device and its options:

- 1 Choose File > Preferences > Scratch Disks/Device Control.
- 2 In the Device Control section, select a Device from the menu. Many devices come with a Premiere LE-compatible plug-in that displays the name of the device in this menu when the plug-in is installed correctly.
- 3 Select the appropriate options and click OK.
- 4 Click OK to close the Preferences dialog box.

To capture a clip using device control:

- 1 Choose File > Capture > Movie Capture.
- 2 Type the Reel Name when asked by Premiere LE. (You may be asked to specify the Reel Name each time you insert a new tape, depending on the device control software and the video deck.)
- 3 Use the controls in the Movie Capture dialog box to move to the place in the videotape where you want to start capturing the clip, and click In.
- 4 Use the controls in the Movie Capture dialog box to move to the place in the videotape where you want to stop capturing, and click Out.
- 5 Click Auto Record. Premiere LE automatically moves the tape to the Preroll specified before the In Point, plays the tape, begins capturing at the In Point, and stops capturing at the Out Point. After Premiere LE completes the capture, the clip appears in a Clip window in Premiere LE and exists as an unsaved temporary file in the capture disk you specified.
- 6 Make sure the Clip window with the captured clip is active. Choose File > Save As, specify a location and filename, and click Save.

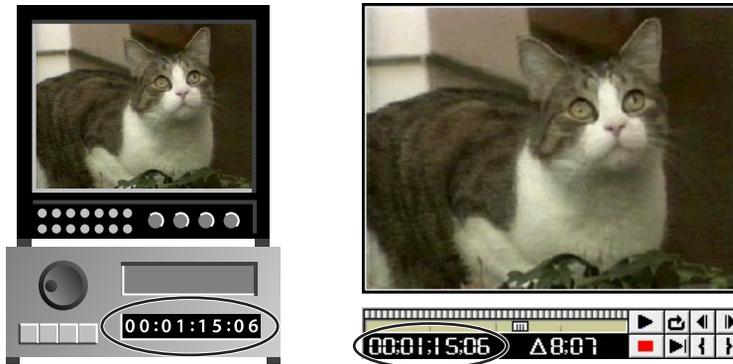
Reading timecode from source video

On most home VCRs, the tape counter doesn't keep track of specific frames—for example, tape counters on many VCRs reset to zero if you switch tapes or turn the VCR off and on. High-end and professional video decks and cameras can record and read *timecode* to and from a videotape, marking specific frames so that it is possible to accurately locate, edit, and synchronize video frames and the audio track. When capturing video, you usually want to capture the timecode associated with each clip if the source video contains timecode. Using SMPTE timecode ensures frame accuracy. See “Understanding timecode and time display options” on page 202.

Note: *Timecode capture with controllable devices depends on the precision of your tape deck. If your tape deck cannot read the timecode accurately, you may have to calibrate your system or manually assign the timecode to your movie by matching frames*

When capturing video with timecode, keep in mind the following:

- The timecode of a source video is captured when you use device control. (Capturing with device control requires timecode. See “Capturing video without device control” on page 67.)



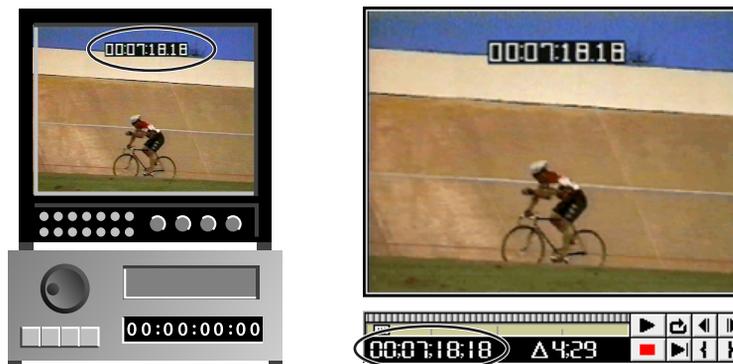
With device control, you can use videotape timecode (left) to precisely edit a program in Premiere LE (right).

- Timecode is only visible in the tape counter on equipment that can recognize timecode, unless the timecode has been *burned-in*, or recorded over the picture in a copy of the tape, as explained in “Reading burned-in timecode (Mac OS only)” on page 71. Most home VCRs cannot read or write timecode.
- To ensure that Premiere LE accurately records timecode when you use controlled video capture, calibrate your device controller and turn off applications or system extensions that may interrupt your system (such as e-mail, file sharing, and special clocks). See “Calibrating Timecode” on page 73.
- If you plan to capture an entire tape, only the In point of the movie needs to be recognized during capture. Once the In point is recorded, a frame-accurate tape deck will capture all of the following frames accurately. The default Out point is beyond the length of your tape; thus, the entire tape can be captured without setting an Out point. Large file sizes are cumbersome to work with and will slow down processing time. Also, video playback software limits the size of video.

Note: When capturing large portions of video into one file, be aware that Video for Windows can only play back files that are 1 GB or smaller, and DirectShow and QuickTime can only play back files that are 2 GB or smaller. If you try to play larger files, you may encounter errors or system crashes, or the movie simply may not play.

Reading burned-in timecode (Mac OS only)

While capturing, Premiere LE can read timecode from a window dub using optical character recognition.

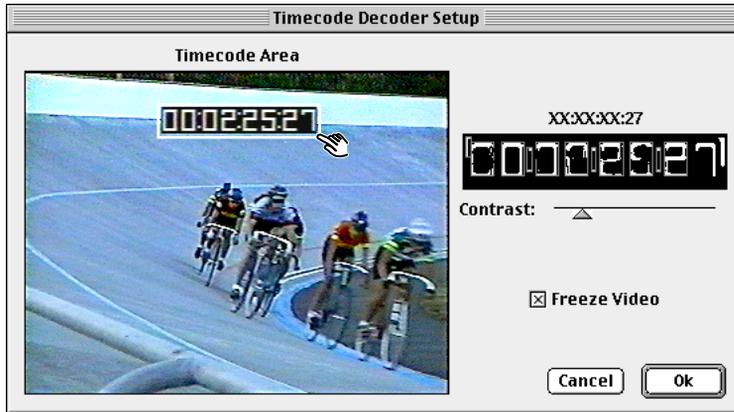


When timecode only exists on a tape as a window dub (left), Premiere LE can read it so you can use it for editing (right).

To set up the Timecode Decoder:

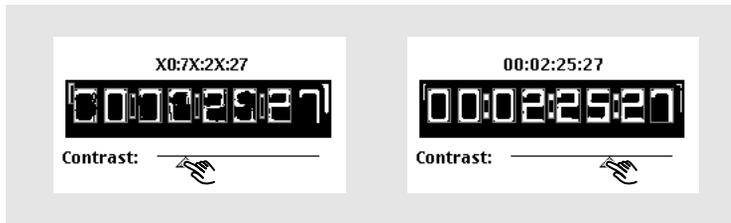
- 1 Make sure the Capture window is open, and choose Movie Capture > Timecode Decoder.
- 2 Press the Play button on the deck to start the tape. The video plays in the Timecode Decoder Setup window.
- 3 Click Freeze Video. This retains the frame you were viewing in Premiere LE but does not stop the deck.

4 Adjust the rectangle in the frame so that it encloses the window dub.



Positioning the rectangle around the window dub

5 Adjust the Contrast slider until Premiere LE can read all the digits in the window dub. If Premiere LE cannot read a digit, it displays an X in its place. The readout displays the message “Unreadable” if none of the digits can be read.



Adjusting the Contrast slider to create enough contrast for optical character recognition

6 Click OK.

7 Choose Project > Settings > Capture, select Decode Burned-in Timecode, and click OK.

When you capture the clip, Premiere LE will read the burned-in timecode and apply it to the clip.

Calibrating timecode

When capturing SMPTE (Society of Motion Picture and Television Engineers) timecode with a controllable device, make sure that your system records timecode accurately. With some device controllers, changes to video and audio input options can affect the timecode stamping of captured movies. As a result, the timecode readout of a frame that appears in the Clip window may not match the timecode for the corresponding frame on your videotape. To compensate for these kinds of errors, Premiere LE provides ways to calibrate timecode automatically and manually.

The automatic calibration feature requires that the source video have burned-in timecode. Most professional video decks let you superimpose window dubs as the tape plays.

To calibrate timecode automatically:

- 1 Insert a tape that has a timecode track and a window dub that is visible for at least 3 minutes, or have the deck generate a window dub for at least 3 minutes as the tape plays.
- 2 Set up the Timecode Decoder as described in “Reading burned-in timecode (Mac OS only)” on page 71.
- 3 Select **Movie Capture > Calibrate Timecode**. The Calibration Status window appears. Premiere LE plays the tape through several calibration passes. When calibration is finished, the clip appears in the Movie Capture window.

If timecode calibration performed properly, the timecode readout at the bottom of the Movie Capture window will match the window dub timecode displayed on the clip. If the timecodes do not match, do the next procedure.

***Note:** Some QuickTime cards duplicate the first frame captured, so the first few frames may not match. Move a few frames into the movie to check timecode accuracy.*

To correct miscalibrated timecode:

- 1 Note the difference between the timecode readout at the bottom of the Movie Capture window and the window dub in the video frame. If you do not have a video source with burned-in timecode, you must compare captured frames with frames from the video tape.
- 2 Choose **Project > Settings > Capture**.

3 In the Device Control section for Timecode Offset, type a positive number if the Movie Capture timecode readout was greater than the window dub timecode. Otherwise, type a negative value. Then click OK.

Note: The Timecode Offset value is in quarter frames. If, as in most cases, the timecode is off by a number of whole frames, multiply the number of frames by four and type the result as the Timecode Offset.

Capturing analog audio

If you want to use audio that is not yet in digital form, you will need to capture it. With the proper audio or video-capture card, Premiere LE can capture audio that is synchronized with its source video or that is independent of it. In Windows you can use an audio capture program such as the Microsoft Windows Sound Recorder to capture audio as a waveform (.wav) file, and then import it into Premiere LE. On Mac OS, you can capture an audio-only clip directly from within Premiere LE, and then save it to disk as a file you can import. For information about the sound formats you can import into Premiere LE, see “Importing clips” on page 78.

The quality of digitized audio and the size of the audio file depend on the *sample rate*, or the number of samples per second, and *bit depth*, or the number of bits per sample, of the digitized audio. Also, digitizing stereo audio requires twice as much disk space as mono audio. These parameters, controlled in the Capture Settings section of the Project Settings dialog box, determine how precisely the analog audio signal is represented in digital form. Higher sample rates and bit depths reproduce sound at higher levels of quality, but with correspondingly larger file sizes. If you plan to export or play back the final cut from Premiere LE, capture audio at the highest quality settings your computer can handle, even if those settings are higher than the settings you’ll specify for final export or playback. This provides *headroom*, or extra data, that will help preserve quality if you adjust audio gain or apply the Equalize audio filter; see “Applying audio filters” on page 144.

To set options for capturing audio:

- 1 Choose Project > Settings > Capture.
- 2 Choose a Capture Format from the menu, and click Audio if available.

3 Specify audio options and click OK. The available options vary and are provided by the hardware and software you are using to capture audio.

***Note:** The Audio Settings in the Project Settings dialog box affect audio previewing and exporting, not audio capture. The Audio options in the Capture Settings panel affect audio capture. See “Preparing for video capture” on page 65.*

To set the location of a file captured from an audio-only source:

- 1** Choose File > Preferences > Scratch Disks.
- 2** For Temp/Captured Movies in the Device section, select a location. Then click OK.

To capture an audio source (Windows):

- 1** Choose File > Capture > Audio Capture.
- 2** Choose Audio Capture > Sound Input.
- 3** Locate and select the capture program you want to use, and click OK. If you have not purchased a separate audio-capture program, you can use the Windows Sound Recorder (sndrec32.exe, located in the folder in which you installed Windows). Then click OK.
- 4** Use the audio capture program to record an audio file. See the documentation or online Help for the capture program.
- 5** Premiere LE remembers the program you chose for recording audio. The next time you choose Capture > Audio Capture, Premiere LE automatically starts the same audio program.

***Note:** In Windows, audio input options are affected by the settings in the Multimedia Control Panel and in the capture program you use. For information, see the online Help for Windows and for the capture program.*

To capture an audio source (Mac OS):

- 1** Choose File > Capture > Audio Capture.
- 2** Choose Audio Capture > Sound Input.
- 3** Select a Source from the menu. The options available depend on the audio hardware you are using. For example, a capture card’s software may add options to this dialog box.
- 4** For Sample Rate, select the number of samples per second. 11025 Hz may be sufficient for voice, and 22050 Hz may be sufficient for medium-quality music reproduction. Compact-disc audio is stored at 44100 Hz.

- 5 For Format do the following:
 - Select a bit depth from the left menu. 8-bit sound is sufficient for voice and medium-quality music; compact-disc audio is stored at 16 bits. Stereo audio requires twice as much disk space and processing as mono audio.
 - Select the channel usage you want from the right menu.
- 6 For Speaker, select how you want the speakers to function while you record.
- 7 For Volume, drag the slider to amplify or attenuate the incoming audio signal.
- 8 If available, click Options, specify any options provided by your audio hardware, and click OK.
- 9 Click OK to close the Sound Settings dialog box.
- 10 Click Record.

***Note:** If no audio is recorded or you can't hear your source audio, try playing the audio through the computer speaker system without recording. If you still can't hear it, the audio source may not be properly connected. Check hardware connections, settings in the Multimedia Control Panel (Windows) or the Sound or Monitors and Sound control panels (Mac OS), and the documentation that came with your computer and sound card.*

Capturing DV

DV carries compressed picture and sound information using the binary code used by computers. Although DV is already in binary computer code, you still need to capture it to a file on a hard disk. Capturing DV from a digital camera or deck to a computer is a simple file transfer if your computer has an available FireWire (IEEE-1394/FireWire/iLink/DV) port and if a DV codec is available. The DV codec may be provided as a hardware chip connected to the FireWire port, or as software. Premiere LE includes support for DV codecs and can read digital source video without further conversion. In general, capturing DV is similar to capturing analog video. You can help prevent dropped frames by using an AV-certified hard disk capable of sustaining the 3.6-MB-per-second data rate of DV. Depending on the equipment you use, you may be able to use device control to import DV clips directly from a camera or deck. See “Capturing video with device control” on page 67.

DV cameras compress video data to make it easier to process and store within the camera. Even with compression, the quality of DV surpasses Super VHS (S-VHS). In addition, like a computer file, a high-quality DV program can be copied to successive generations with little or no loss of quality. With analog video, a copy several generations removed from the original will display a noticeable reduction in quality.

To import video from a DV camera or deck into Premiere LE:

- 1 Connect the camera or deck to a FireWire port available on the computer.
- 2 On your computer, locate the DV file and copy it to the computer. The exact method varies depending on the software included with the hardware you use:
 - The videotape may appear to your computer as a disk drive so that you can copy the file to the hard drive or use Premiere LE to import it (as described in step 3).
 - You may have to use either a file-transfer program provided by the hardware manufacturer or a plug-in software module for Premiere LE. For information, see the documentation for your device.

After the file is transferred to the hard disk, you can import it as you would any other file.

- 3 Start Premiere LE, and choose File > Import. Locate and select the file, and then click Open. See “Importing clips” on page 78.

Importing digital audio

Premiere LE can import digital audio clips stored as audio files or tracks in video files. Digital audio is stored as binary data readable by computers. Most digital audio is stored on computer hard disks, audio compact discs (CDs), or digital audio tape (DAT). If you have capture hardware that can read digital audio data directly, you can preserve the quality of your digital audio source. Many computers in their standard configuration import audio through analog input jacks; the digital audio is converted to analog when you use the audio equipment output jacks and converted back to digital when you capture. This additional digital-analog-digital conversion will reduce audio quality somewhat. If you require audio of the highest possible quality, try to set up all-digital connections. Once the digital audio is in a format Premiere LE can read, you can include it in your project using the Import command. See “Importing clips” on page 78.

On Mac OS, you can import audio CDs tracks as AIFF files with no loss of quality, using a converter built into QuickTime. Make sure you own the copyrights or have licensed the copyrights to any CD tracks you use.

To import an audio CD track (Mac OS only):

- 1 In Premiere LE, choose File > Open. Locate and select the audio CD, and click Open.
- 2 Select a track and click Options.
- 3 Click Play to verify that you've selected the correct track.
- 4 Specify the following options:
 - For Rate, select the number of samples per second. Compact-disc quality is 44.1 kHz.
 - For Size, select the bit depth of the audio. Compact-disc quality is 16 bit.
 - For Use, select whether the track is imported as monophonic or stereophonic audio.
- 5 If you want to import only a portion of the entire track, do any combination of the following in the Audio Selection section and then click OK:
 - For Start and End, type times relative to the track duration.
 - Drag the beginning or ending sliders.
- 6 Specify a location and filename to store the converted track, and click OK.

Importing clips

You can import clips into Premiere LE in several ways. You can import a single clip, multiple clips, or an entire folder of clips directly into the Project window. If you want to examine a clip before importing it into the project, you can first open the clip in a Clip window and then move the clip to the Project or Timeline window. Clips cannot exceed 4000 pixels tall by 4000 pixels wide. If the software you use to create art does not let you specify pixels as a unit of measure, specifying points may be sufficient. By default, Premiere LE will alter the size and aspect ratio of a video clip or still image to match that of the video frame you specified for your project. You can preserve the original aspect ratio of a clip (see “Maintaining the original aspect ratio of a clip” on page 105).

Premiere LE can import a number of video and audio formats. Importable video formats include Audio-Video Interleaved (.AVI), QuickTime (.MOV), and MPEG1 file formats. In addition, the Windows version of Premiere LE imports Open DML file formats. Importable audio formats include AVI, MOV, and the Audio Interchange Format (.AIF). In addition, the Windows version of Premiere LE imports the Audio Waveform (.WAV) file format, and the Mac OS version of Premiere LE imports the Macintosh Sound Format and Sound Designer I & II file formats. Premiere LE also imports still-image and animation file formats; see “Importing still images” on page 80, “Importing Adobe Illustrator files” on page 81, “Importing Adobe Photoshop files” on page 81, and “Importing an animation or still-image sequence” on page 81.

File format support is provided by plug-in software modules. Over time, additional, new, or updated file formats may be available from Adobe or other manufacturers.

To import one or more clips into the Project window:

- To import a single clip, choose File > Import > File. Locate and select the file, and then click Open.
- To import multiple clips in Windows, choose File > Import > File. Hold down Control as you select each file you want to import, or hold down Shift to select the first and last files of a range you want to import. Click Open.
- To import multiple clips in Mac OS, choose File > Import > Multiple. Locate and select a file, and click Import. Repeat for each file you want to import. Then click Done.
- To import a folder of clips, choose File > Import > Folder. Locate and select the folder you want to import, and then click OK (Windows) or Select <foldername> (Mac OS).

To examine a clip before adding it to the project:

- 1 Choose File > Open.
- 2 Locate and select the file you want to examine, and then click Open. The clip appears in the Monitor source view or in a Clip window.
- 3 Examine the clip. If you decide to add it to the project, position the pointer inside the clip display and drag it to the Project window or choose Project > Add This Clip.

Note: To control the window in which a clip opens, choose File > Preferences > General/Still Image, select or deselect the Open Movies in Clip Window option, and click OK.

Importing still images

You can import individual still images, or convert a numbered sequence of still images into a single animation as you import (see “Importing an animation or still-image sequence” on page 81). When you import an individual still image, it uses the duration specified in the dialog box that appears when you choose File > Preferences > General/Still Image. You can change the duration of a still image after you import it.

Premiere LE can import the Adobe Illustrator (.AI), Adobe Photoshop (.PSD), Joint Photographics Experts Group (JPEG)(.JPG), Macintosh Picture (PICT), Storyboard Image, Targa (.TGA), and Tagged Image File Format (TIFF) file formats. In addition, the Windows version can import PCX (.PCX) and Windows Bitmap (.BMP) file formats.

To change the default duration for still images:

- 1 Choose File > Preferences > General.
- 2 In the Still Image section, specify the number of frames you want as a default duration for a still image.

To change the duration of a still image you already imported:

Select the clip and choose Clip > Duration. Type the new duration and click OK.

By default, Premiere LE will alter the size and aspect ratio of a still image to match that of the video frame you specified for your project. You can specify that still images retain their original aspect ratio (see “Maintaining the original aspect ratio of a clip” on page 105).

If you’re planning to use many still images that use different aspect ratios than your project frame size, you can lock the aspect ratios of each still image before you import them.

To lock the aspect ratios of still images before you import them:

- 1 Choose File > Preferences > General.
- 2 In the Still Image section, select Lock Aspect to preserve the proportions of a still image in Premiere LE. When Lock Aspect is deselected and you import a still image that has a different aspect ratio than the video frame in the Monitor window, Premiere LE resizes the image to fit.

Importing Adobe Illustrator files

You can import an Adobe Illustrator still-image file directly into a Premiere LE project. Premiere LE converts path-based Illustrator art into the pixel-based image format used by Premiere LE, a process known as *rasterization*. Premiere LE automatically *anti-aliases*, or smooths, edges of the Illustrator art.

You can import Illustrator art up to 2000 pixels wide by 2000 pixels high. If you want to define the dimensions of the Illustrator art as it will be rasterized by Premiere LE, use the Illustrator program (sold separately) to set crop marks in the Illustrator file. For information about setting crop marks in Illustrator, see the *Adobe Illustrator User Guide*.

To rasterize and import an Adobe Illustrator file:

Choose File > Import > File. Locate and select an Illustrator file, and click Open.

Importing Adobe Photoshop files

Premiere LE can import files from Photoshop 3.0 or later. You can also import an individual layer from a multi-layer Photoshop file.

Note: If you have trouble importing a Photoshop file that uses a layer mask or multiple layers, flatten (combine) the layers in the Photoshop file before importing it into Premiere LE; for information see the Adobe Photoshop User Guide.

Importing an animation or still-image sequence

Premiere LE can import a sequence of numbered still-image files and automatically combine them into a single clip; each numbered file represents one frame. Some programs can generate a series of numbered still images, such as Adobe After Effects and Adobe Dimensions®. Images in a still-image sequence cannot include layers, so flatten images that will be part of a sequence. For information on layers and flattening, see the documentation for the application that created the file.

Premiere LE can import Adobe Illustrator (.AI), Adobe Photoshop (.PSD), Filmstrip (.FLM), Macintosh Picture (PICT), Targa (.TGA), and TIFF (.TIF) sequences. In addition, the Windows version can import Windows Bitmap (.BMP) sequences, and the Mac OS version can import PICS animations.

To import numbered still-image files and compile them into a single clip:

- 1 Do one of the following:
 - In Windows, make sure each still-image filename has the correct file extension, and make sure all filenames in the sequence contain an equal number of digits at the end of the filename, but before the filename extension—for example, *file000.bmp*, *file001.bmp*, and so on.
 - In Mac OS, make sure all filenames in the sequence contain a suffix of a period followed by an equal number of digits—for example, *File.000*, *File.001*, and so on. You may insert a space between the period and the file number—for example, *File. 000*, *File. 001*, and so on.
- 2 Choose File > Import > File.
- 3 Locate and select the first numbered file in the sequence, and select Numbered Stills. Then click Open (Windows) or Import (Mac OS).

Importing another project

You can add the contents of an existing project to an open project. For example, you can break up a large project into smaller, more manageable pieces in separate projects, and then import each project into a main project to create the final video program. When you import a project into an open project, the imported project's clips are added to the Project window in a bin named after the imported project. You can import a project's Timeline contents at the beginning, end, or edit line in the open project's Timeline. All of the imported project's special effects, such as transitions and filters, are included.

Premiere LE imports the project as an insert edit. Any clips on all tracks at or after the insertion point are moved later by an amount corresponding to the duration of the imported project. If you import a project at the edit line, it bisects any clips at the edit line.

To merge a project into a currently open project:

- 1 Make sure the destination project is open.
- 2 Choose File > Import > Project.
- 3 Locate and select the project, and then click OK.
- 4 Click Beginning, Edit Line, or End to specify where in the Timeline you want the imported project to appear, and then click OK.

Analyzing clip properties and data rate

Premiere LE includes clip analysis tools you can use to evaluate a video file in any supported format stored inside or outside a project. For example, after producing a video clip to be streamed from a Web server, you can use clip analysis tools to determine if a clip you exported has an appropriate data rate for Internet distribution.

The Get Properties command provides detailed information about any clip. For video files, analyzed properties can include the file size, number of video and audio tracks, duration, average frame rate, audio and data rates, and compression settings. You can also use Properties to alert you to the presence of any dropped frames in a clip you just captured. For information about dropped frames, see “Preserving quality and performance during video capture” on page 219.

To see the properties of a clip:

- 1 Do one of the following:
 - If the clip is in the Project, Monitor, or Timeline window, select it and choose File > Get Properties For and select the filename of the clip.
 - If the clip is not yet in the project, choose File > Get Properties For > File. Locate and select the clip you want to analyze, and then click Open.
- 2 To save the Properties window text as a text file, choose File > Save As, specify a location and filename, and click Save.
- 3 To see the Data Rate Graph for a video clip, click Data Rate.

Use the data rate graph to evaluate how well the output data rate matches the requirements of your delivery medium. It charts each frame of a video file to show you the key frame rate, the difference between key frames and differenced frames (frames that exist between key frames), and data rate levels at each frame. For information about key frames, differenced frames, and data rates, see Appendix B, “Compressing video and audio.” The Data Rate Graph includes the following:

- Data rate, the white line represents the average data rate.
- Key frame sample size, the red bars represent the sample size of each key frame.

- Differenced frames sample size, the blue bars represents the sample size of the differenced frames between key frames.

4 When you are finished, close the Data Rate Graph window and the Properties window.



You can also view clip properties from a window containing a clip by right-clicking a clip (Windows) or pressing Control as you click a clip (Mac OS) and choosing Get Properties.



4



Chapter 4: Editing Video

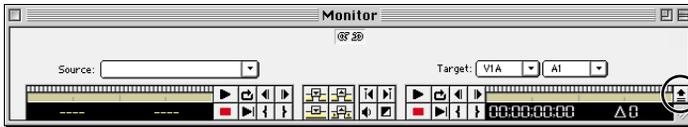
The concept of video editing is simple: You arrange a set of video clips in the desired order. In reality, editing a video program can require many iterations as you refine the editing decisions that make all your clips flow together smoothly. Premiere LE is designed to help you solve the wide range of editing challenges that an unfinished video can present.

This chapter describes how to use the Monitor, Timeline, and Project windows to build a video program. You'll learn how to designate an *In point* (the first frame of a clip that will appear in the video program) and an *Out point* (the last frame that will appear in the video program) for each of your clips. As you read this chapter and the ones that follow, keep in mind that there is no set order in which tasks must be performed, and that Premiere LE often provides more than one way to accomplish a task. This flexibility lets you adapt how you use Premiere LE to match the requirements of your work.

Using the Monitor window

The Monitor window displays individual frames of clips and the video program. Using default settings, the Monitor window resembles the monitors in a conventional edit bay with one monitor for the *source*, or source clip, and another for the *program*, or edited video. Controllers at the bottom of the Monitor window are like the edit controller in an edit bay. See “Editing a video program” on page 106. (A *source clip* is a clip outside the Timeline or in the Source view of the Monitor window; a *program clip* is a clip in the Timeline or Program view of the Monitor window.)

If you are viewing the program on a connected television monitor, click the Collapse button in the Monitor window. This removes the monitor display from the controllers, simulating the separate Controller palette in previous versions of Premiere LE.



Click the Collapse button to remove the Source and Program views from the controllers.

Note: If you're using a video-capture card to play clips on a television monitor, a clip may not appear on the separate monitor if it wasn't compressed with the video-capture card's codec.

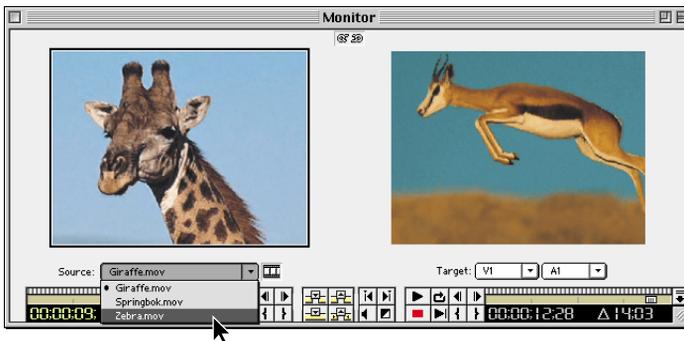
Displaying a clip

You can display a clip either in the Source view (left side) of the Monitor window or in a Clip window. If you want to compare several clips you can open a window for each.

To view a clip:

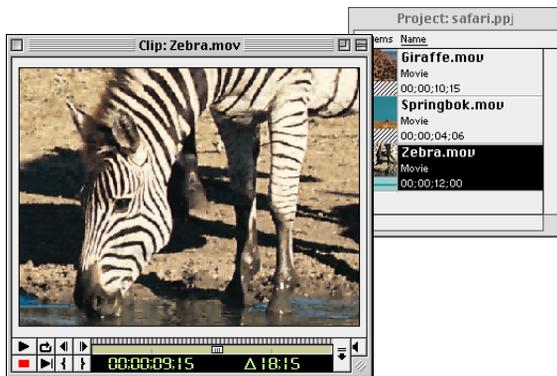
Do any of the following:

- To view a clip in the Source view, double-click the clip in a Project or Timeline window. Premiere LE displays the clip and adds its name to the Source menu below the Source view.
- To see a clip you previously viewed since opening the current project, choose the name of the clip from the Source menu below the Source view.



Selecting a clip to view from the Source menu

- To add multiple clips to the Source menu simultaneously, drag multiple clips from the Project or Bin window into the Source view, or select multiple clips in the Project or Bin window and double-click any of them. Still images cannot be dragged to the Monitor window.
- To open the currently visible Source view clip in its own window, press Alt (Windows) or Option (Mac OS) as you double-click the clip in the Source view.
- To always open a clip in its own window, choose Preferences > General, select Open Movies in Clip Window, and click OK.
- To override the current window preference for opening clips (described in the previous paragraph), press Alt (Windows) or Option (Mac OS) as you double-click a clip in the Project window. For example, if you set the preference to open clips in their own windows, pressing Alt/Option opens a clip in the Source view.



A clip displayed in a Clip window

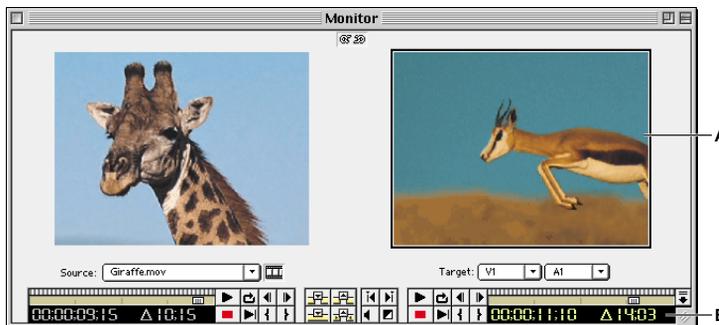
- To view a clip that isn't already in a Project or Bin window, choose File > Open, locate and select the clip, and click Open.

Using Monitor window controllers

The Monitor window contains similar controllers for the Source and Program views. You use a controller to view and find frames in a clip or video program. Many of the controls work like the tape transport controls on a video deck. The controllers serve the following purposes:

- Use the Source controller (under the Source view) to play or view the frames of a source clip and to specify the clip's *source In and Out points*, which define the portion of the clip that will be added to the program. (The first frame that will be added is the source In point and the last frame that will be added is the source Out point.)
- Use the Program controller (under the Program view) to play or view the video program in the Timeline and to specify a clip's *program In and Out points*, which define where the clip's source In and Out points are located on the Timeline.

When you want to use a controller to navigate a clip or the program, first make sure the correct controller is active. When a controller is active, its timecode readout is green, and the view above it is outlined with the highlight color set for your computer. The number at the bottom left of each controller is the current time position for that view. The number preceded by a delta symbol (Δ) at the bottom right of each controller is the time difference between the In point and the Out point of the currently displayed source clip or video program.



Program view active, indicated by highlighted border (A) and green numbers (B).

To play the Source or Program view:

- To play, click the Play button (▶).
- To stop, click the Stop button (■).
- To play from the current time to the Out point, click the Play to Out button (▶|).
- To play and loop, click the Loop button (↺).
- To play in reverse, press Ctrl+Alt+~ (tilde) (Windows) or Command+Option+~ (tilde) (Mac OS).
- To play faster, press ~ (tilde). Pressing the key repeatedly increases speed further.

- To play including preroll and postroll, press Alt (Windows) or Option (Mac OS) as you click the Play button. *Preroll* starts playback from a time before the In point, and *postroll* stops playback at a time after the Out point. You set preroll and postroll values in the General/Still Image preferences dialog box.

To view a different frame:

Do any of the following:

- Make sure the view you want is active, and on the numeric keypad type the new time. You do not need to type colons because Premiere LE converts the numbers automatically.
- To go forward one frame, click the Frame Forward button (▶).
- To go forward five frames, press Shift as you click the Frame Forward button.
- To go backward one frame, click the Frame Reverse button (◀).
- To go backward five frames, press Shift as you click the Frame Reverse button.
- To go to the previous edit in on the Video 1, Audio 1, and Audio 2 tracks, click the Previous Edit button (⏮) in the program controller. (An *edit* is where a program clip ends or begins in the Video 1A, Video 1B, Audio 1 or Audio 2 tracks.)
- To go to the next edit on the Video 1, Audio 1, and Audio 2 tracks, click the Next Edit button (⏭) in the program controller.

Note: *The Previous and Next buttons also stop at the midpoint of each transition when the Video 1 track is expanded, and at audio cuts.*

- To go to the first frame, press the Up Arrow key.
- To go to the last frame, press the Down Arrow key.
- To go to the edit line position in the Timeline, press T.

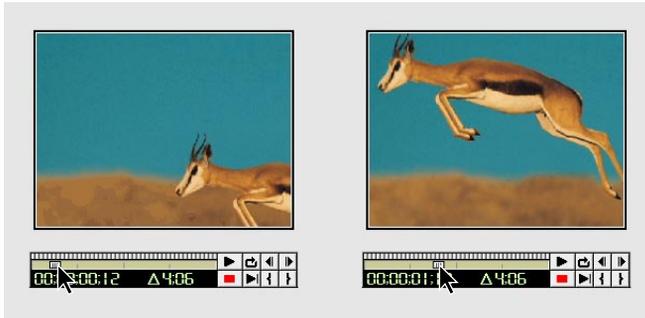
For more information, see “Moving around in the Timeline” on page 93.

The Monitor window controllers also include a *jog tread* and a *shuttle slider*. The shuttle slider is slightly easier to understand—the slider marks the position of a frame relative to the beginning and end of the clip (in the Source view) or Timeline (in the Program view). However, because the shuttle slider is a fixed width, it is less precise with long clips or programs. The jog tread is helpful in these cases, because you can navigate finer increments of a clip or program than with the shuttle slider.

To jog or shuttle through frames:

Do one of the following:

- Click the shuttle slider at the time position you want.
- Drag the shuttle slider to the time position you want.



- Drag the jog tread left or right, past the edge of the controller if necessary, until you reach the frame you want. If you drag the cursor to the edge of the screen without reaching the end of the clip or program, you can continue from the same time position by starting another drag from the jog tread.

 *If you are trying to find a frame and you know its approximate location within a clip, start by clicking the shuttle slider in the general location of the frame and then drag the jog tread to look carefully in that area.*

Using the Timeline window

The *Timeline* is a time-based view of your program where you can select, arrange, and modify the instances of the source clips you've used in the video program. The Timeline graphically shows the placement of each clip in time, its duration, and its relationship to the other clips in the program.

Moving around in the Timeline

The *time ruler* at the top of the Timeline displays the current time position of the edit line. From the time ruler, you can view the In and Out points of each clip and the duration of the entire video program. When you do anything that repositions the edit line, such as clicking the Next Frame button, you change the current frame in the Monitor Program view.

Note: *The full version of Adobe Premiere includes a Navigator palette that facilitates moving around and viewing different sections of the Timeline.*

To move the edit line in the Timeline:

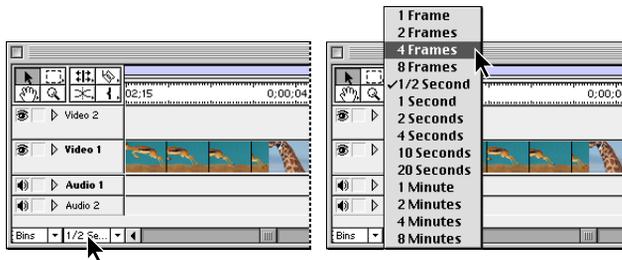
Do any of the following:

- In the Timeline, drag the edit line or click the ruler.
- In the Monitor window, type timecode into the program controller, or drag the jog tread or shuttle slider.
- In the Monitor window, click a button in the Program controller. See “Using Monitor window controllers” on page 89.

To display the Timeline in more detail:

Do one of the following:

- Select the zoom tool (Q) and then click on, or drag a rectangle around, the part of the Timeline you want to see in more detail.
- Select a smaller time increment from the Time Unit menu at the bottom of the Timeline.



To display more of the program in the Timeline:

Do one of the following:

- Select the zoom tool and then press Alt (Windows) or Option (Mac OS) as you click the part of the Timeline you want to be centered in the new view.
- Select a larger time increment from the Time Unit menu at the bottom of the Timeline.

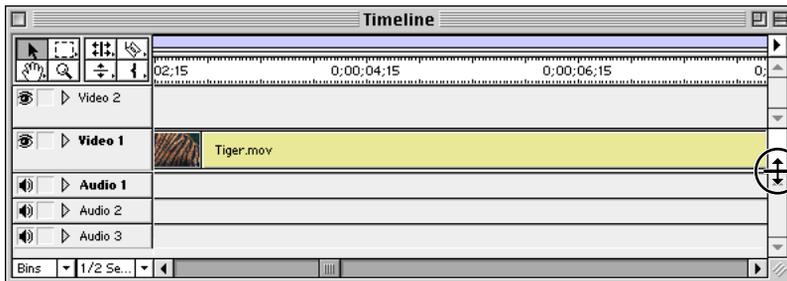
Customizing track views

The Timeline window lets you edit by arranging clips in multiple video and audio tracks. For basic video programs, such as a *cuts-only* (no transitions) rough cut, you may want to display only the Video 1 track. For more complex programs, you can expand the Video 1 track to show three subtracks (Video 1A, Transitions, and Video 1B). This resembles a conventional editing method called *A/B roll editing*, which uses two video tapes or rolls (A and B) and an effects switcher to provide transitions. Another track, named Video 2 by default, is available for superimposing clips over the Video 1 tracks. Similarly, you can use the Premiere LE multiple audio tracks to overlap sound.

You can put a video or still image clip on any video track and an audio clip on any audio track. However, to use a transition, video clips must be on the Video 1A and 1B tracks, and to be superimposed, a video clip must be on the Video 2 track. You can control the proportion of space taken by video and audio tracks, condense the vertical space of tracks by collapsing them, or hide tracks. Finally, you can prevent tracks from being included when you preview, play back, or export the video program.

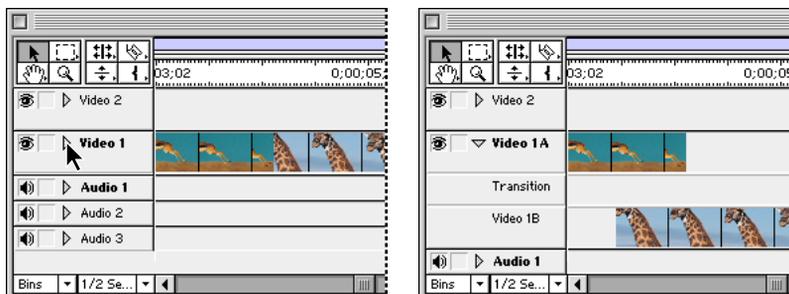
To change the proportions of video and audio tracks displayed in the Timeline:

Drag the split-window bar at the right side of the Timeline.



To collapse or expand a track:

Click the triangle next to the track name.



When you collapse track Video 1, it displays the results of the A, B, and transition subtracks together. When you expand track Video 1, it displays the A, B, and transition tracks individually. Because the Video 2 track is a superimpose track, expanding it displays the opacity control for superimposition. See “Using the Fade control” on page 172. When you expand an audio track, it displays the audio waveform, the gain fader, and the pan control. See Chapter 6, “Mixing Audio.”

Hiding tracks

You can mark a track as *shy*, which means it can be hidden in the Timeline. Marking a track as shy may not immediately conceal it in the Timeline, because you must choose the Hide Shy Tracks command to conceal or reveal all shy tracks simultaneously. The shy setting affects only Timeline viewing; it does not affect previewing or exporting. Shy tracks are included in the video program even when they are not visible in the Timeline.

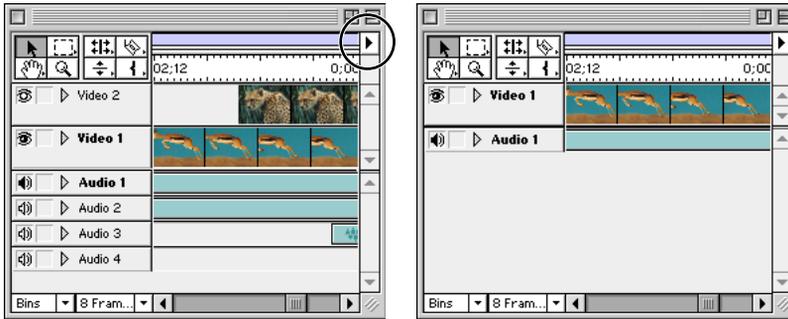
To conceal or reveal tracks in the Timeline:

1 Do one of the following:

- To mark a track as shy, press Control (Windows) or Command (Mac OS) as you click the eye icon (👁) (for video) or speaker icon (🔊) (for audio) at the left edge of a track. The icon appears as an outlined eye (👁) (for video) or outlined speaker (🔊) (for audio).
- To mark a track as not shy, Control/Command-click an outlined eye icon (👁) (for video) or speaker icon (🔊) (for audio).

- To mark as shy or not shy all audio tracks, press Control+Alt (Windows) or Command+Option (Mac OS) as you click to modify the speaker icon at the left edge of any audio track.

2 Click the triangle below the Timeline window title bar (▶), and choose Hide Shy Tracks or Show Shy Tracks from the Timeline window menu.



All tracks visible (left), and shy tracks hidden (right).

To exclude or include a track from previews and exported video:

Click to hide or display the eye icon (for video) or speaker icon (for audio) at the left edge of a track. An excluded track still appears in the Timeline, but is not included in exported video nor when previewing or scrubbing the Timeline.

To exclude or include all tracks except Video 1 from previews and exported video:

Press Alt (Windows) or Option (Mac OS) as you click to hide or display the eye icon (for video) or speaker icon (for audio) at the left edge of any track.

Specifying source and target tracks

When you add clips to the Timeline by dragging, the clip is added to the track and time position where you drop it. However, when you add clips to the Timeline using Monitor window controls or by using the keyboard, Premiere LE cannot assume exactly how and where you want a clip to be added. In such a case, you must specify in advance the way video and audio tracks are added to the Timeline. By default, both source audio and video are added; in the Timeline, the Video 1A and Audio 1 tracks are the default *target*, or destination, video and audio tracks. In the Timeline, the names of the target video and audio tracks are bold.

You control how source video and audio are added to the Timeline using the Take icons and Target menus:

- The Take Video icon () and Take Audio icon () control the source clips. They prevent a particular source clip's video or audio track from being added to the Timeline. For example, if one clip contains video you don't want to use, you can specify that the source clip will provide only audio to the Timeline.
- The video and audio Target menus control the video program in the Timeline. They govern which Timeline video or audio track is set to receive the video or audio track from the source clip. It is possible to target no Timeline track for either video or audio. For example, if you build a rough cut of a music video and the only audio you want to use is a music clip separate from any of your video clips, you may want to target no audio tracks so that your program receives no audio from any source video clip. In this example, no audio is added to the program regardless of how you set the Take icons for the source, and the same is true for targeting video tracks.
- For predictable results, watch out for cases where the target tracks don't make sense compared to the settings for the source video and audio. For example, if you turn on Take Video but turn off Take Audio for the source clip, but Timeline tracks are targeted for both video and audio, the video goes to the target video track as expected, but the source clip audio duration is inserted in the target audio track as blank space. This is because targeting a track always adds the duration of the source clip even if the corresponding source track (audio or video) is not available to the target. If you don't want the blank audio, specify no target audio tracks.

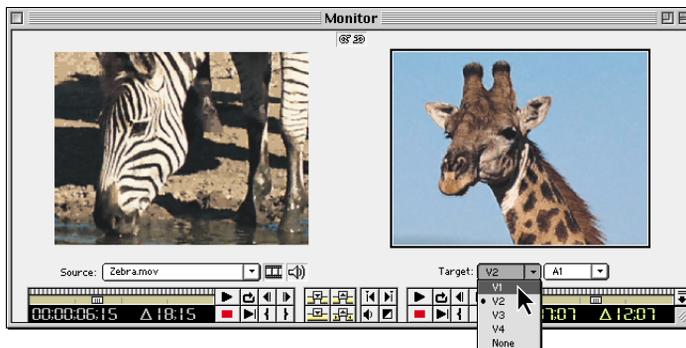
Exactly how clips are added to the Timeline depends not just on the interaction of Take icons and target tracks but also on the current states of other track and clip options. Certain combinations of these factors may cause unintended tracks to shift in time; see “Tracks shift out of sync” on page 229.

Note: *The Take Video icon, Take Audio icon, and Target menus affect a clip only during the process of adding it to the Timeline. They don't otherwise change the state of clips.*

To set up Take Video and Take Audio icons and target program tracks:

Do any of the following to specify how video and audio tracks are added to the Timeline:

- To include the source video track, make sure that the Take Video icon (📺) below the Source view is not crossed out (if it is, click the icon to enable it). Then make sure a video track is selected in the Target menu below the Program view; if necessary, choose a video track.



Selecting track Video 1 from the video target track menu in the Monitor window

- To include the source audio track, make sure that the Take Audio icon (🔊) below the Source view is not crossed out. If it is, click the icon to enable it. Then make sure an audio track is selected in the Target menu below the Program view; if necessary, choose an audio track.
- To include only source video, make sure that the Take Video icon (📺) below the Source view is not crossed out (if it is, click the icon to enable it). Choose a target video track from the first (video) Target menu below the Program view, and then make sure None is selected in the second (audio) Target menu.

- To include only source audio, make sure that the Take Audio icon (⌘) below the Source view is not crossed out (if it is, click the icon to enable it). Make sure None is selected in the first (video) Target menu below the Program view, and then choose a target audio track from in the second (audio) Target menu.

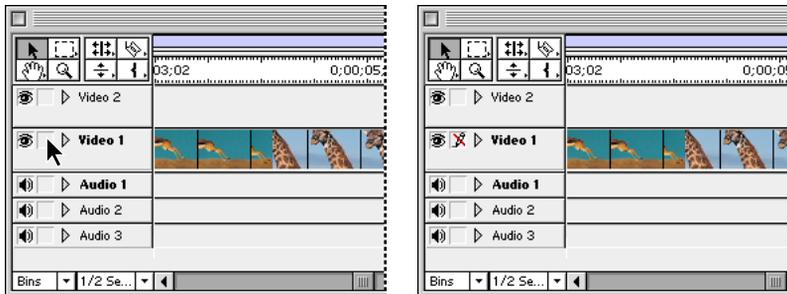
 You can also specify a target track by clicking the name of a track in the Timeline so that it becomes bold. Clicking a bold name (the current target track) is the same as choosing None from a target track menu—the track will no longer be the target, and its name is no longer bold.

Locking and unlocking tracks

Locking an entire track is useful for preventing changes to any clips on that track while you work on other parts of the program. A locked track is included when you preview or export the program. If you lock the target track, it is no longer the target, so source clips cannot be added to it until you unlock it and then target it. A locked track is marked by a crossed-out-pencil icon next to the track name. If you position the pointer or a tool over a locked track, the pointer appears with a lock icon (🔒) to remind you that the track is locked. Locked tracks are dimmed in the Target menus below the Program view. If you want to lock both a video track and a track with corresponding audio, you must lock each track separately.

To lock or unlock a track:

Click to display or hide the pencil icon (✎) next to the track name.



Editing In and Out points

Most clips are captured with extra footage at the beginning and end to allow for more precise editing later. It's common to fine-tune the beginning and end of a clip just before moving a clip into the program. You define the beginning by marking an In point (the first frame of a clip that will appear in the video program), and you define the ending by marking an Out point (the last frame that will appear in the video program).

Marking and finding In and Out points

For numerical precision, you can set In and Out points using the Monitor Source or Program view. The pointer automatically changes to the edge trim tool when you move the selection tool near the edge of a clip in the Timeline. This interactive tool is useful for a rough cut, and it can be as precise as specifying In and Out points numerically if you set the Timeline to display individual frames in the Time Ruler.

To mark or remove In and Out points using the Source or Program view:

- 1 Do one of the following:
 - To edit In and Out points for a source clip, double-click a clip in a Project or Bin window.
 - To edit In and Out points of a clip already in the program, double-click a clip in the Timeline.
- 2 In the Monitor window, click the view (Source or Program) in which you want to work with In and Out points.
- 3 Do any of the following:
 - To edit an In point, go to the frame you want and then click the Mark In button (⌘).
 - To clear the In point, press Alt (Windows) or Option (Mac OS) as you click the Mark In button.
 - To edit an Out point, go to the frame you want and then click the Mark Out button (⇧).
 - To clear the Out point, press Alt (Windows) or Option (Mac OS) as you click the Mark Out button.
 - To clear both the In and Out point, press G.
- 4 If you opened a clip from the Timeline, click Apply above the Source view to make your changes take effect. The Apply button doesn't appear when you prepare a new clip for the Timeline because your In and Out points are automatically applied when you add the clip to the Timeline.

Marking in and out points for a subclip

If you're working with a subclip that was trimmed (see "Using named subclips and unnamed instances of clips" on page 101), you may want to set a new In or Out point beyond the In and Out point of the subclip. You can do this by opening the subclip's master clip.

To mark In and Out points beyond the current start and end of a subclip:

- 1 Open the clip in the Source view of the Monitor window, and choose Clip > Open Master Clip.
- 2 Create a new subclip if you don't want to trim the master clip. See "Using named subclips and unnamed instances of clips" on page 101.
- 3 Set the In and Out points.

Using named subclips and unnamed instances of clips

You can use a clip multiple times in the Timeline. The original source clip is called a *master clip*, and each time you add the same master clip to the Timeline, you create a new *instance* of that master clip. Premiere LE automatically keeps track of each instance of a clip, but doesn't list them in the Project window. If you want a clip instance to be listed in the Project window, create a *subclip*. A subclip is useful when many or all of the scenes you want to use are in one long clip. Instead of capturing each scene separately and managing a number of different captured files, you can simply capture one long clip and create a named subclip for each scene.

A master clip is a reference to an actual file on disk. An instance refers to the master clip in the project, so if you delete the master clip, its instances are also deleted. A subclip is an independent duplicate of its master clip that refers directly to the source file on disk, so if you delete the master clip, subclips created from it remain in the project. Creating a subclip doesn't create any new files on disk. Other than the differences described here, working with instances and subclips is the same as working with a master clip.

When you double-click an instance or a subclip in the Timeline, it appears in the Source view and is added to the Source view menu, which identifies each subclip by name, and each instance by the timecode of its program In point (where the source In point appears in the program).

To create a subclip:

- 1 In the Project window, select the clip for which you want to create a named subclip.
- 2 If you want to create a subclip for just a portion of the master clip, double-click the clip to open it, and set the In point and Out point to define the frames you want to include in the subclip. See “Editing In and Out points” on page 100.
- 3 Choose Project > Create > Subclip.
- 4 Name the subclip and then choose a Location. If you have a Bin window open, it will also appear in the Location menu along with the Project window.
- 5 Click OK. Premiere LE stores the new reference to the master clip in the window you specified.



You can also create a subclip by copying a clip in a Project or Bin window, and then pasting in any of those windows, or by dragging a clip from the Source view to the Project or Bin windows. If you copy from or paste to the Timeline, you create a clip instance instead of a subclip.

Editing clips

The options in this section affect entire individual clips.

Changing clip duration and speed

The *duration* of a video or audio clip is the length of time it plays—the difference in time between a clip’s In point and Out point. The initial duration of a clip is the same as it was when the clip was imported or captured. If you alter the beginning and ending of a clip by editing the source In and Out points, its duration will change. You can also set the duration of a clip by specifying a length of time from its current source In point. You can set the default duration of the still images you import; see “Importing still images” on page 80.

The *speed* of a clip is the playback rate of the action or audio compared to the rate at which it was recorded. Speed is initially the same as it was when the clip was imported or captured. Changing a clip's speed alters its source frame rate and may cause some frames to be omitted or repeated (see "Understanding frame rates in relation to the timebase" on page 200). In addition, changing the speed of a clip requires playing the same number of frames in a different length of time, which also changes the duration (moves the Out point) of the clip. When you change the speed of a clip containing interlaced fields, you may need to adjust how Premiere LE treats the fields, especially when speed drops below 100% of the original speed. See "Processing interlaced video fields" on page 104.

To change the duration of a clip or still frame:

- 1 Do one of the following:
- 2 Select a still image clip in the Timeline or Project window.
- 3 Select a video clip in the Timeline.
- 4 Do one of the following:
 - To change duration numerically, choose Clip > Duration, type a new duration and then click OK.
 - To change duration visually in the Timeline, move the selection tool over the edge of the clip, and drag either end of the clip. If you are making the clip longer, the source clip must contain enough additional frames beyond its source In and Out point for the adjustment are making.

Note: You can also access the Duration dialog box using context menus. See "Using context menus" on page 57.



Original duration



New duration

To change the speed of a clip in the Timeline only:

- 1 Select a clip, and do one of the following:
 - To change speed numerically, choose Clip > Speed. Type a percentage or new duration (or type a negative value to play a clip in reverse), and click OK.
 - To change speed visually, select the rate stretch tool (⏏) and drag either end of the clip.

Note: You can also access the Speed dialog box using context menus. See “Using context menus” on page 57.



Original duration



Duration after specifying a slower speed—clip takes longer to play

To change the speed of a clip that is not in the Timeline:

- 1 In a Project or Bin window, select a clip.
- 2 Choose Clip > Speed to specify the new speed in terms of percentage or duration.
- 3 Type a percentage or new duration (or type a negative value to play a clip in reverse), and click OK. Applying this command to a clip in a Project or Bin window won't affect clips already in the Timeline.

Processing interlaced video fields

In some video sources, such as NTSC, PAL, or SECAM, each video frame consists of two interlaced fields (see “Comparing interlaced and non-interlaced video” on page 204). One field contains the odd-numbered lines in the frame, and the other field contains the even-numbered lines. The two fields display in sequence to create a frame, but the *field dominance*, or the field displayed first, can vary depending on the video format and the equipment used to capture and play it. If the field sequence is reversed, motion may appear jerky or appear to flicker. Fields can become reversed in the following situations:

- The field dominance of the original videotape was the opposite of the field dominance of the video-capture card used to capture the clip.
- The field dominance of the original videotape was the opposite of the field dominance of the video-editing or animation software that last rendered the clip.
- You have set an interlaced clip to play backwards in Premiere LE.

The full version of Premiere offers several options for correcting reversed field order. When using Premiere LE, you can correct the problem by exporting the clip and selecting No Fields in the Keyframe and Rendering Options dialog box (see “Exporting video files” on page 187). Then import the new clip and apply the effect.

Maintaining the original aspect ratio of a clip

A project can contain clips that have varying aspect ratios (proportions of height to width). The aspect ratio of a project is determined by the frame size you specify in the Project Settings or Export Settings dialog boxes. When a clip in the Timeline uses an aspect ratio that is different than the project aspect ratio, Premiere LE stretches the clip to match the aspect ratio of your project. However, this distorts the picture, so Premiere LE also lets you maintain the clip’s original aspect ratio. When you maintain the aspect ratio of a clip with a different aspect ratio than the frame, two sides touch the edge of the frame and empty space appears outside the other two sides, similar to how letterboxed wide-screen videos appear on a television. Premiere LE lets you specify the color for the empty areas. For more information, see “Aspect ratio” on page 206.

To maintain the original aspect ratio of a clip:

Select a clip in the Timeline, and do one of the following:

- Choose Clip > Video > Maintain Aspect Ratio.
- Right-click (Windows) or Control-click (Mac OS) and select Maintain Aspect Ratio.

To set the color for frame areas outside a clip with a maintained aspect ratio:

- 1 Select a clip in the Timeline.
- 2 Choose Clip > Video > Aspect Color, specify a color (see “Using the Color Picker” on page 165), and click OK.

Finding the source of a program clip

You can quickly find the source of any clip in the Timeline and highlight it in the Project or Bin window that stores it. You can also view the source of a clip in the Monitor window so that it is ready to edit.

To view the source of a program clip:

Select the clip in the Timeline and do one of the following:

- Choose Clip > Locate Clip to highlight the source in the window that stores it.
- Right-click (Windows) or Control-click (Mac OS) and select Locate Clip to highlight the source in the window that stores it.
- Choose Clip > Open Clip to view the source in the Monitor window.
- Right-click (Windows) or Control-click (Mac OS) and select Open Clip to view the source in the Monitor window.

Editing a video program

You can edit a program in the Monitor window using the source and program controllers to enter timecode, or you can edit visually in the Timeline. Some time-based edits are easier in the Timeline, where you can adjust In and Out points and duration by clicking and dragging.

Editing using the keyboard

Some experienced video editors can edit faster using the keyboard than the mouse. Premiere LE provides keyboard shortcuts for most commands and buttons, so it is possible to edit a video program with minimal use of the mouse. This User Guide documents only those keyboard shortcuts that have no equivalent in menus, tools, or buttons.

To find the keyboard shortcut for a command, tool, or button:

Do one of the following:

- For a tool or button, hold the pointer over a tool or button until its Tool Tip appears. If available, the keyboard shortcut appears in the Tool Tip after the tool description. (If Tool Tips do not appear, choose File > Preferences > General/Still Image and make sure Show Tool Tips is selected.)



- For a menu command, the keyboard shortcut is listed on the menu to the right of the command, if a shortcut is provided.

 Keyboard shortcuts are also listed in online Help.

Adding a clip to the Timeline

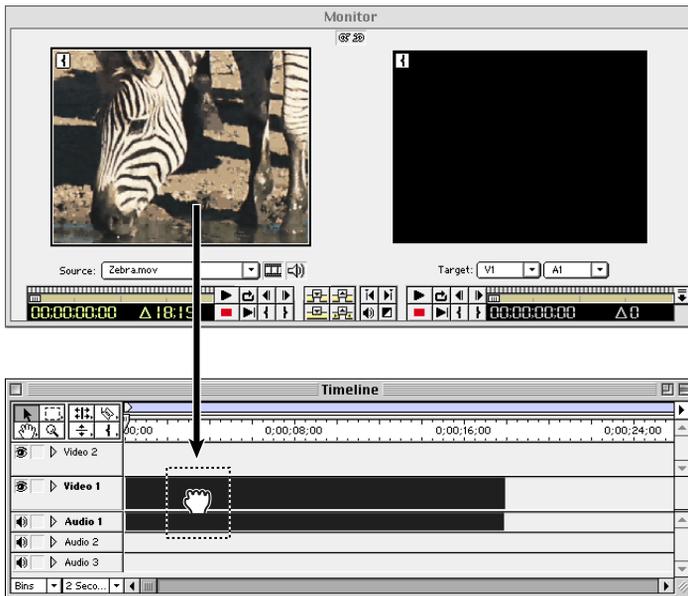
A clip in your project is not actually part of the final video program until you add it to the Timeline. When you add a clip, it appears in the Program view and in the Timeline, and the first frame of the clip is the In point you set in the Source view. You can add or remove clips by clicking and dragging clips between windows or by using Monitor window controls. Dragging is a more visual method and depends heavily on using the mouse. Using the Monitor window controls emphasizes the keyboard and allows many edits to be performed entirely within the Monitor window. You can use either method at any time.

When you add clips to the Timeline by dragging, the clip is added to the track and time position where you drop it. However, when you add clips to the Timeline using Monitor window controls or by using the keyboard, Premiere LE cannot assume exactly how and where you want a clip to be added. In such a case, you must specify the target track in the Monitor window.

***Note:** Depending on the relationship between your source clip and project settings, certain source frames may be omitted or repeated after the clip is added to the Timeline. See “Measuring time” on page 199.*

To add a clip by dragging:

- 1 Mark the In and Out points of the source clip. (see “Marking and finding In and Out points” on page 100).
- 2 Drag the clip from the Source view to an unused duration in the desired Timeline video or audio track. If you drag a clip that contains both video and audio and both Take icons are enabled (see “Specifying source and target tracks” on page 97), Premiere LE will automatically add both the video and audio and start them at the same time.

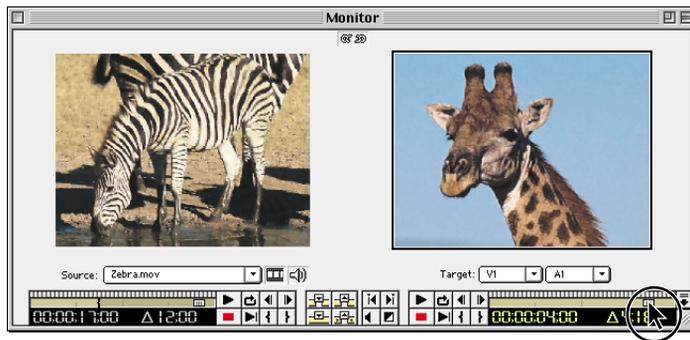


 If you don't need to trim a clip or you don't want to trim it yet, you can drag it directly from a Project or Bin window to the Timeline.

Note: If you are building a rough cut and have expanded the Video 1 track, start by dragging clips into the Video 1A track. Use the Video 1B track as an alternate track, or B-roll, and use the Video 2 track as the superimpose track (see “Customizing track views” on page 94).

To add a source clip using Monitor window controls:

- 1 Set up the Take Video and Take Audio icons and the target program tracks (see “Specifying source and target tracks” on page 97).
- 2 Mark the In and Out points of the source clip (see “Marking and finding In and Out points” on page 100).
- 3 In the program controller, specify the frame where you want the source clip In point to start playing. See “Using Monitor window controllers” on page 89.

**4 Do one of the following:**

- Click the Insert button () or choose Edit > Insert at Edit Line. Any video and audio clips following the edit point are moved later in time by the duration of the inserted source clip. If the edit line bisects an existing clip, Premiere LE splits the clip and moves the clip's second half and any other subsequent clips later in time, to make enough room for the new clip.
- Click the Overlay button () or choose Edit > Overlay at Edit Line. Any existing video or audio frames occupying the duration of the inserted clip are replaced by the inserted clip.

For information about editing clips in the program, see “Editing a clip that exists between other Timeline clips” on page 113.

Note: By default, the Insert and Overlay buttons add a clip to the Timeline at the edit line. You can override this and specify the intended location of your clip by setting a program In point, a program Out point, or both. See “Replacing program frames using a three- or four-point edit” on page 110.

Replacing program frames using a three- or four-point edit

You can use the Monitor window to replace a range of program frames with a range of source clip frames. Premiere LE provides three-point and four-point edits, standard techniques in traditional video editing.

In a *three-point edit*, for the source and program together, you mark either two In points and one Out point, or two Out points and one In point. This type of edit is useful when one end of a source or program edit is critical but the other is not. A three-point edit can also save time because you don't have to specify the fourth point, and because the process concludes with the edit line at the end of the clip, a convenient position if you want to add another clip afterward. When you add the source frames to the Timeline, Premiere LE will determine the fourth point by applying the duration of the In and Out points you specified to the third point. For example, if you mark a source In point of 00:03:15, a source Out point of 00:04:15, and a program Out point of 13:22:05, Premiere LE will apply the one-second duration between the source In and Out points to the program Out point, and automatically set the program In point to 13:21:05. You can leave any single In or Out point unmarked, but you must specify a total of three In and Out points.

In a *four-point edit*, you mark source In and Out points and program In and Out points. A four-point edit is useful when the starting and ending frame in both the source and program are critical. If the marked source and program durations are different, Premiere LE will alert you to the discrepancy and provide alternatives to resolve it.

You can preview three- or four-point edits by synchronizing the source and program controllers. See “Previewing an edit by synchronizing controllers” on page 121.

To perform a three-point edit:

- 1 Set up the Take Video and Take Audio icons and the target program tracks (see “Specifying source and target tracks” on page 97).
- 2 In the Source and Program views, mark any combination of three In and Out points (see “Marking and finding In and Out points” on page 100).
- 3 Click the Insert button () or the Overlay button (.

To perform a four-point edit:

- 1 Set up the Take Video and Take Audio icons and the target program tracks (see “Specifying source and target tracks” on page 97).
- 2 Using the Source controller, mark an In point and an Out point for the source clip. Then use the Program controller to mark an In point and Out point for the program. (See “Marking and finding In and Out points” on page 100.)
- 3 Click the Insert button () or the Overlay button (). If the marked source and program durations are different, select one of these options when prompted:
 - Fit to Fill distributes the range of source frames within the program In and Out points you specified, even though their durations are different. The speed of the clip will change.
 - Trim Source moves the source Out point you specified until the source frames fit within the program In and Out points you specified. The speed of the clip will not change.
 - Cancel Edit applies no changes.

Selecting clips

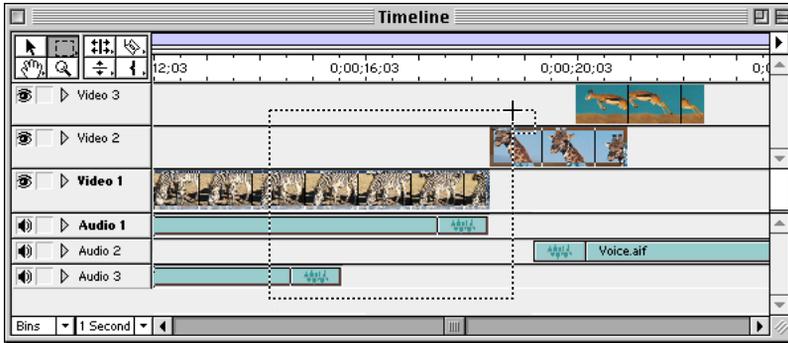
When you want to perform an action that affects a clip as a whole, such as applying a filter, deleting a clip, or moving a clip in time, you must first select the clip in the Timeline. The toolbox contains selection tools that can handle various selection tasks.

To select one or more clips:

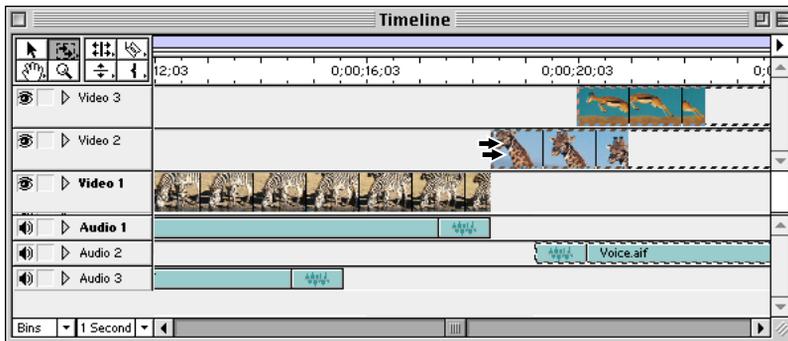
Do any of the following:

- To select a single clip, select the selection tool () and click a clip in the Timeline.
- To select multiple clips by dragging, select the range select tool () and drag a rectangle that includes the clips you want to select.

- To select multiple clips by clicking, select the range select tool (⌘) and hold down Shift as you click each clip you want to select.



- To select all whole or partial clips that exist on and after a certain time on one track, select the track select tool (⌘) and click the clip at the beginning of the time span you want to select. Press Shift as you click to select clips on additional tracks
- To select all whole or partial clips that exist on and after a certain time, select the multitrack select tool (⌘) and click the clip at the beginning of the time span you want to select.



- To select a video clip to edit independently of its linked audio clip, select the link override tool (⌘) and click the clip you want to select.

Moving clips in time

In general, moving a clip is as simple as dragging it to any empty track area in the Timeline. A clip can snap to the edge of another clip, to a marker, to the start and end of the Timeline, and to the edit line.

To move a clip earlier or later in the program:

Drag the clip to the left or right, position the clip by watching the In point and Out point indicator lines (if you stay on the same track) or the black rectangle that represents the clip duration (if you drag to a different track), and then release the mouse button.

***Note:** If you drag a clip containing both video and audio, Premiere LE attempts to keep video and audio on similar tracks. For example, if you drag a clip on track Video 2, Premiere LE will drag the clip's audio along on Audio 1, but if you try to drag the video part of the clip to a time where the track Video 2 is empty and Audio 1 is occupied, you won't be able to drag there. You can override this by pressing Alt (Windows) or Option (Mac OS) as you drag, and Premiere LE will move the audio clip to the next empty audio track at that time so that you can complete the drag.*

To snap the edge of a clip to the edge of another clip or a marker:

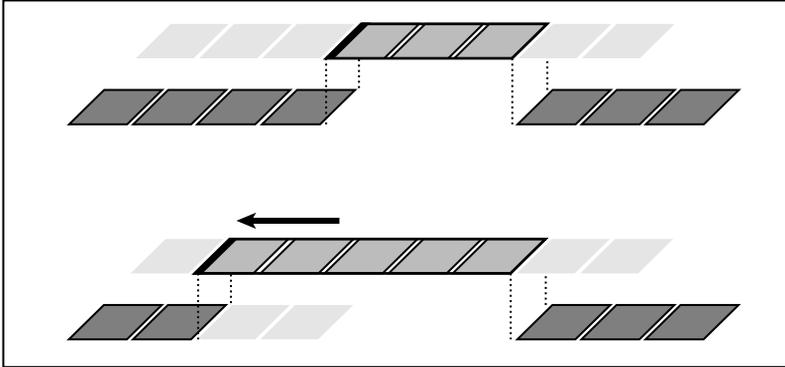
- 1 Make sure that Snap to Edges is selected in the Timeline window menu. If it isn't selected, click the triangle below the Timeline window title bar (▶) to choose it.
- 2 Drag the edge of a clip close to the edge of another clip or a marker.

Editing a clip that exists between other Timeline clips

Before you edit a clip in the Timeline, decide how you want to affect adjacent clips and the duration of the entire program. For example, when you make a clip shorter by moving its Out point to an earlier time, do you want all the following clips to stay in place or to fill the gap left by the clip you're adjusting? You can perform edits that let you specify exactly what happens to clips adjacent to the clip you want to adjust, making it easier to edit right the first time and preserve the integrity of the rest of the video program.

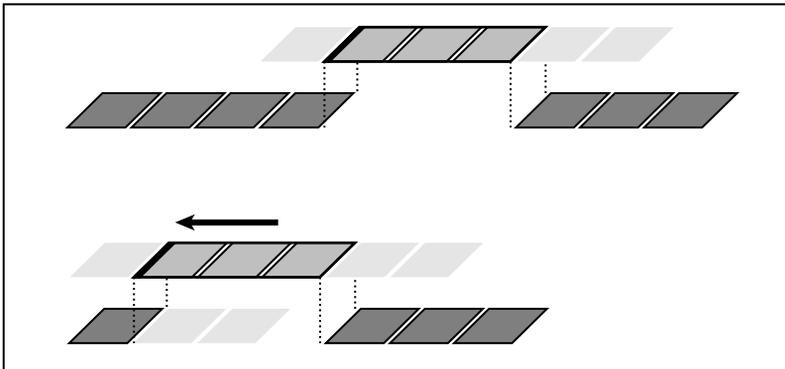
Premiere LE supports the following edits for a clip and the clips adjacent to it:

- A *rolling edit* keeps the program duration constant. You adjust the edit line, and the frames you add or subtract from one clip are subtracted or added from the clip on the other side of the edit line.



In this rolling edit, the edit line is dragged earlier in time, shortening the previous clip, lengthening the next clip, and maintaining the program duration.

- A *ripple edit* maintains the durations of all other clips by changing the program duration. You drag the edit line, and the overall program duration is lengthened or shortened by the number of frames you added to or subtracted from the clip to the left of the edit line.

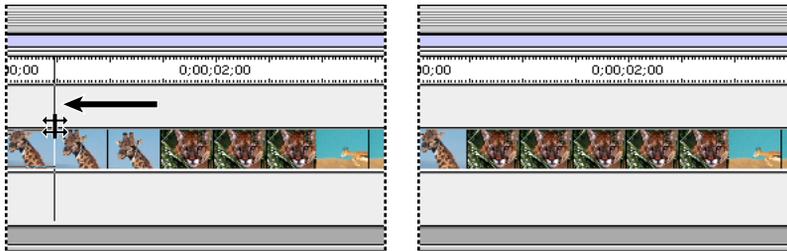


In this ripple edit, the edit line is dragged earlier in time, shortening the preceding clip and the program duration.

Note: When you perform any action that extends the duration of a clip, additional frames must be available in the clip's source (master) clip beyond the current In or Out point. For example, if you didn't trim the beginning or ending of a source clip before adding it to the Timeline, the clip is already using all frames available from its source, so its duration cannot be extended.

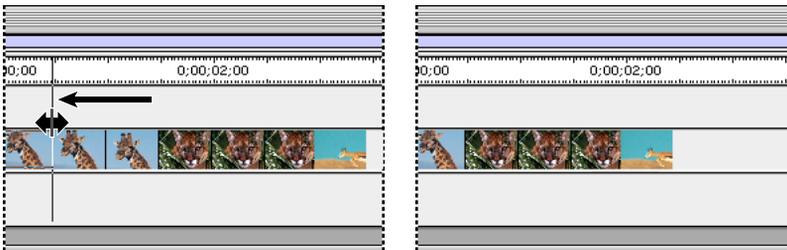
To perform a rolling edit:

- 1 Select the rolling edit tool (**⇄**).
- 2 Position the rolling edit tool on the edge of the clip you want to change, and drag left or right. The same number of frames added to the clip are trimmed from the adjacent clip.



To perform a ripple edit:

- 1 Select the ripple edit tool (**⇨**).
- 2 Position the ripple edit tool on the Out point of the clip you want to change, and drag left or right. The program duration is extended or shortened to compensate for your edit, but the duration of adjacent clips remain unchanged.



Note: Unlocked clips on other tracks will move to maintain synchronization with your edit. If you want to change just one track, you may want to lock other tracks. If you do this, remember to lock both video and audio tracks.

Splitting a clip

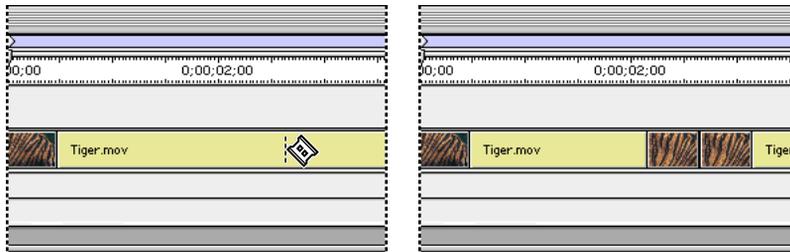
You can split a clip in the Timeline by using the razor tool. Splitting a clip creates a new and separate instance of the original clip. It can be useful when you want to use different effects that can't both be applied to a single clip. When you split a clip, Premiere LE creates a new instance of the clip and any clips to which it is linked.

***Note:** If you want to change filter settings over time, you needn't split the clip; you can apply keyframes to a single clip instead. See "About video filters and keyframes" on page 177.*

To split a clip:

Do one of the following:

- Position the edit line where you want to split a clip and choose Edit > Razor at Edit Line.
- Select the razor tool () and click a clip in the Timeline where you want to split it.



To split multiple tracks at the same point in the Timeline:

Select the multi-razor tool () and click a clip in the Timeline where you want to split it. Premiere LE splits all unlocked clips on any unlocked track at that time point into two independent instances in the program.

Cutting and pasting clips and clip settings

You can rearrange existing clips in the Timeline by cutting and pasting. When you paste a clip, Premiere LE inserts it at the edit point and extends the duration of the video program by the duration of the clip you pasted.

***Note:** Cutting and pasting work on individual clips only. You cannot cut and paste a clip with its linked audio or video. If you want to move a clip with its linked audio or video, drag it instead.*

To copy and paste a clip into a selected space:

1 Select a clip and do one of the following:

- Choose Edit > Cut or Edit > Copy.
- Right-click (Windows) or Control-click (Mac OS) and choose Cut or Copy.

2 Select an empty segment in the Timeline and do one of the following:

- Choose Edit > Paste.
- Right-click (Windows) or Control-click (Mac OS) and choose Paste.

Deleting space between clips

You can quickly delete empty space between clips on a track using *ripple deletion*. This option closes a gap by moving all subsequent clips.

To delete empty space between clips:

Select the empty space and do one of the following:

- Choose Edit > Ripple Delete.
- Right-click (Windows) or Control-click (Mac OS) and choose Ripple Delete.

Removing a clip or a range of frames from the program

You can remove an entire clip or a range of frames from the Timeline. Premiere LE provides two ways to remove a range of frames from the program:

- *Lifting* removes frames from the program and leaves a gap of the same duration as the frames you remove.
- *Extracting* removes frames from the program and closes the resulting gap by ripple deletion.

These methods are most useful when you want to remove frames from the middle of a clip or across multiple clips on the same track. If you just want to remove frames from one end of a clip, simply trim the end of the clip (see “Editing a clip that exists between other Timeline clips” on page 113).

To remove frames without affecting other clips (lift):

Do one of the following:

- To remove an entire clip, select the clip in the Timeline and press the Delete key.
- To remove a range of frames, use the program controller to specify the In and Out points to remove, and click the Lift button () in the Monitor window.

To remove frames and close the resulting gap (extract):

Do one of the following:

- To remove an entire clip, select the clip in the Timeline and choose Edit > Ripple Delete.
- To remove an entire clip, right-click (Windows) or Control-click (Mac OS) and choose Ripple Delete.
- To remove a range of frames, use the program controller to specify the In and Out points to remove, and click the Extract button () in the Monitor window.

To delete all clips on one track:

Select the track select tool (), click the first clip in the track, and press Delete.

Linking video and audio clips in the Timeline

When you add a clip containing video and audio to the program, and you've specified adding both the video and audio portions (see "Specifying source and target tracks" on page 97), the video portion appears in a video track and the audio portion appears in an audio track. The video and audio portions of the clip are *linked* so that when you drag the video portion in the Timeline, the linked audio moves with it. If you split the clip, the video and audio are still linked within the two resulting clips. You can only link video to audio—you cannot link a video clip to another video clip.

In many situations it is useful to link or unlink clips manually. For example, you might want to move previously unlinked audio or video clips together, or edit the In or Out point of the video or audio portion of a clip independently. You don't have to unlink clips if you only want to delete one clip or the other.

To link video and audio:

Do one of the following:

- Select the soft link tool (), click the first clip you want to link, and then click the second clip you want to link.

- With the selection tool (☛), select the first clip you want to link, and then press Shift as you click the clip you want to link to the selected clip.

To unlink video and audio:

- 1 Select a linked clip.
- 2 Choose Edit > Break Link.

To temporarily edit only one of two linked clips:

Select the link override tool (☞), and edit a linked clip using a tool in the Timeline. When you stop editing with the link override tool, Premiere LE restores the link.

Previewing a video program

So that you can evaluate the program as you edit it, Premiere LE lets you preview part or all of the video program without having to export the entire video program. You can display previews in the Monitor Program view, in the center of a monitor on a black background, or on any compatible monitor attached to your computer. Previewing is relatively quick for a program that simply cuts between clips. Applying transitions, filters, effects, or superimposition settings adds processing time to a preview.

The appearance of a preview is controlled by the settings in the Video Settings panel of the Project Settings dialog box (see “Specifying project settings” on page 44).

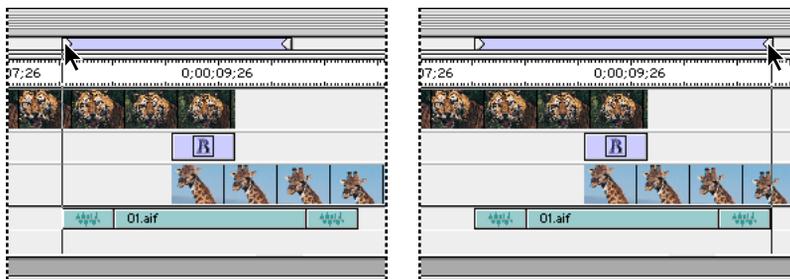
To set the area to be previewed (the work area):

Do any of the following:

- Drag the work area bar over the section you want to preview.



- Drag the work area markers to specify the beginning and ending of the work area.



- Press Alt (Windows) or Option (Mac OS) as you click in the work area band above the series of clips you want to preview. This sets the work area to preview a continuous series of clips. The work area stops at the first gap detected between clips to the left and right of where you click.
- Double-click the work area band to preview only the section of the Timeline that is visible in the Timeline window.

To preview the work area at the final playback speed:

Choose Project > Preview or press Enter (Windows) or Return (Mac OS).

This also processes all effects and stores them in preview files on disk (see “Working with preview files” on page 122). The first time you preview, there may be a slight delay as effects are processed. However, once effects are processed, subsequent previews play back instantly unless you have edited effects within the work area since the last preview.

To preview by scrubbing the time ruler:

Do one of the following:

- Drag the edit line in the time ruler. Premiere LE displays program frames without applied effects or filters.
- To scrub while previewing transitions and filters, press Alt (Windows) or Option (Mac OS) as you drag the edit line in the time ruler.

You can also use the Monitor source and program controllers to view frames without applied effects or filters (see “Displaying a clip” on page 88).

Previewing an edit by synchronizing controllers

There may be times when you want the Source and Program views to move together. This is called *ganging* the monitors, and it lets you preview how a clip fits into the video program without having to actually add the clip to the program. For example, if you want to compare the action in a source clip to the time available for it in the program, you can start playing the program at the proposed In point for the clip, and it will play in the Source view simultaneously with the Program view. You can then use the controllers to preview where the proposed Out points would fall in the source clip and existing program.

To synchronize the source and Program view controllers:

- 1 In the Source and Program views, use each controller to go to the frame in each view from which you want to begin the synchronized playback.
- 2 In the Monitor window, click the gang button (⌘Ⓜ) to turn it on.
- 3 Use the jog tread, shuttle slider, Previous Frame button, or Next Frame button on the controller under the Source view to compare frames. (Using other controls will turn ganging off.) As you use one controller, the other controller will move the same amount of time in the same direction. There may be a slight delay as the controllers synchronize.

Previewing on another monitor

You can display the preview on any monitor connected to your computer. To accurately evaluate how your video program will look, you must connect a monitor that can display the program using the video standard of the target audience. For example, for a program intended for television viewing in North America, you would connect an NTSC monitor; for Europe, you would connect a PAL monitor. Previewing on another monitor requires video hardware that provides an appropriate video port for the preview monitor. Some video-editing cards and operating-system software support a preview monitor independent of the desktop, and others support a preview monitor that is contiguous with the desktop so that it can also function as additional space for windows and palettes. See the documentation that came with your video-editing card and operating system software.

Premiere LE lets you move the Monitor view to another monitor while keeping the controllers with the other windows and palettes in Premiere LE. To do this, your computer and operating system must support a multiple-monitor desktop.

To preview the Monitor Program view on another monitor:

- 1 In the Monitor window, click the Collapse button (☰) at the lower right edge of the window. The Monitor window divides into a Monitor window containing the source and program controllers and a Monitor View that shows the frame at the timecode of the active controller.
- 2 Press Control (Windows) or Command (Mac OS) and click the Source or Program window to automatically send the Monitor view to a television monitor, if one is connected to and supported by your system.

Note: If you double-clicked without a TV monitor attached, double-click again to return the Monitor view to your computer monitor.

Working with preview files

When you preview a program, Premiere LE creates temporary files on your hard disk. These *preview files* contain the results of any effects that Premiere LE processed during a preview. If you preview the same work area more than once without making any changes, Premiere LE instantly plays back the preview files instead of processing the Timeline again. Similarly, preview files can save time when you export the final video program by using the processed effects already stored in the preview files. Premiere LE stores the preview files in a folder you can specify.

If no preview file exists for a clip, the area above the clip directly below the work area band is white. If a current preview file exists for an clip with transitions or effects applied to it, the area above the clip and directly below the work area band is dark.

To specify the disk location for preview files:

- 1 Choose File > Preferences > Scratch Disks.
- 2 For the Video Preview Temps and Audio Preview Temps menus in the Scratch section, choose a location for video and audio preview temporary files, respectively. The disk you choose must be large and fast enough to support video playback, so choose a hard disk attached to your computer, not a network drive. Also, because Premiere LE must be able to locate the preview files when you open a project, avoid specifying removable media.
- 3 Click OK.

To delete preview files:

Select a clip, and press Control+Backspace (Windows) or Command+Delete (Mac OS).

To skip preview files when opening a project:

Select Skip Preview Files in the Open File dialog box.

Playing back full-screen video

The Print to Video command plays a clip or the Timeline centered on a computer or television monitor. If the clip or Timeline is smaller than the full screen, it plays alone on a black background. This is useful for previewing the program in the Timeline, for viewing source clips or individual video files, or for television playback such as recording onto videotape. Print to Video can double the size of the frame during playback so that you can play a quarter-screen video at full-screen size.

***Note:** Some video-capture cards do not support this feature, or support it differently. If you see different options than the ones documented in this section, see the documentation included with your video-capture card.*

To play a video on a blank screen:

1 Do one of the following:

- To play the Source view in the Monitor window, activate the Source view.
- To play the program in the Timeline, activate the Program view in the Monitor window and make sure the work area you want to preview is specified in the Timeline.
- To play a clip in its own window, activate a Clip window.

2 Choose File > Export > Print to Video.

3 Specify the following options as necessary and then click OK:

- For Color Bars, type the number of seconds to display color bars before playing the video.
- For Play Black, type the number of seconds to display a black screen after the color bars (if specified) and before playing the video. For recording on videotape, displaying 15 seconds of black screen works well in many cases.
- Select Full Screen (Windows) or Zoom Screen (Mac OS) to scale the frame size to fill the screen for Print to Video only.

(Mac OS only) Choose Hardware from the Screen Mode menu if you have a video card that supports hardware zooming; otherwise, choose Software.

If the frame size specified in Video Settings is less than about half the size of the display screen, the resulting picture may appear coarse or with obvious pixels; however, this effect may be less noticeable after recording on videotape.

- (Windows only) Select Zoom by 2 to double the height and width of the frame size for Print to Video only. This is useful for project frame sizes 320x240 or smaller.
- For Screen Mode, choose Current to play on the main computer screen, or choose NTSC if you have an NTSC monitor connected to your system. The plug-in software included with some video-capture cards allows a temporary switch into the specified mode; see the documentation that came with your video-capture card.
- Select Loop Playback to replay the video continuously.

For information about recording the Timeline on videotape, see “Creating a videotape” on page 191.

To stop Print to Video playback:

Press Esc.



5



Chapter 5: Adding Transitions

The visual change from one clip to another is called a *transition*. To add nuance, texture, or special effects between video clips, Premiere LE provides a variety of transitions, such as wipes, bands, and dissolves.

About transitions

The simplest transition is the *cut*, where the last frame of one clip leads directly into the first frame of the next. The term comes from film editing, where a cut means splicing two shots together. Very often, a cut is the most effective way to move from one scene to the next. Other transitions, however, are useful in setting a mood or adding a creative element to your project.

The transitions included with Premiere LE typically involve the end of one clip and the beginning of the next. For example, the Cross Dissolve transition might dissolve the last second of one clip into the first second of the next. Some transitions, such as Band Slide, can involve both clips in their entirety, depending on the desired effect.



The Cross Dissolve transition dissolves the end of the first clip into the beginning of the next.

Using the Transitions palette

Premiere LE includes sixteen transitions, which you choose from the Transitions palette. In the palette, icons represent the way each transition works, where A is the first clip and B is the second. A brief description appears next to each transition name in the Transition palette to help you choose. You can also preview the transition effect with actual frames from the two clips involved in the transition. See “Changing transition settings” on page 132.

To display the Transitions palette:

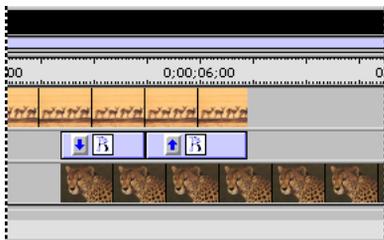
Choose Window > Show Transitions.

Creating transitions

To add a transition, you place it in the Timeline window between two clips. Transitions can be applied only to clips on the Video 1A and 1B tracks. You can add a transition to the Video 1 track either when it is collapsed or expanded. You can also click the default transition button in the Monitor window (or use keyboard shortcuts in the Monitor or Timeline windows) to apply a default transition (see “Adding the default transition, Cross Dissolve” on page 131).

The method you use to add a transition does not affect the way the transition works; the transition acts on the two clips in the same way.

To combine the effects of two or more transitions as a sequence, you can place the transitions side by side in the area where the clips overlap. In this way, you can creatively enhance the transitions provided with Premiere LE.



Two transitions creating a transition sequence

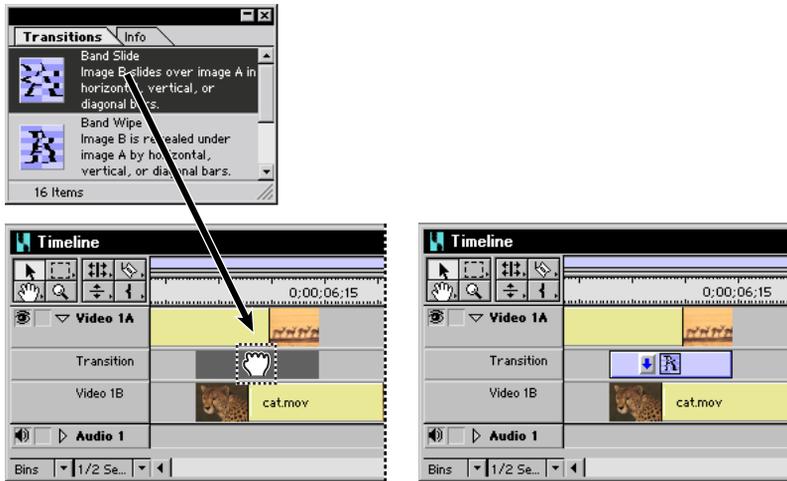
Working with the expanded Video 1 track

When the Video 1 track is expanded, you can easily add and adjust transitions between two overlapping clips. Because a transition somewhat obscures the overlapping area of the two clips, you should make sure that this area does not include elements essential to your video program.

To add a transition to the expanded Video 1 track:

- 1 Position one clip in the Video 1A track and another clip in the Video 1B track so that some (or all) of the two clips overlap. The amount of overlap determines the default size of the transition.
- 2 If the Transitions window is not visible, choose Window > Show Transitions.

- 3 Select and drag a transition from the Transitions palette to the Transition track in the Timeline window, between the overlapping area of the two clips. The duration of the transition is automatically sized to the overlapping area.



Transition placed and automatically sized in overlapping area

- 4 To lengthen or shorten the transition, make sure the pointer tool is selected and then drag the left or right edge of the transition. To reposition the transition between the clips, drag the transition itself. The transition must be completely overlapped on the top and bottom by clips in the Timeline, otherwise it will not display correctly when previewed.
- 5 Adjust transition settings, as described in “Changing transition settings” on page 132.

Note: Once a transition is added, moving an edge of the transition can cause an edge of the affected clips to move correspondingly, and vice versa. To move a clip or transition edge independently, hold down Control (Windows) or Command (Mac OS) as you drag the edge.

To preview a transition:

Do one of the following:

- Press Alt (Windows) or Option (Mac OS) as you drag the edit line in the time ruler.
- Set the work area so it covers the transition, and then press Enter (Windows) or Return (Mac OS). See “Previewing a video program” on page 119.

Working with a collapsed Video 1 track

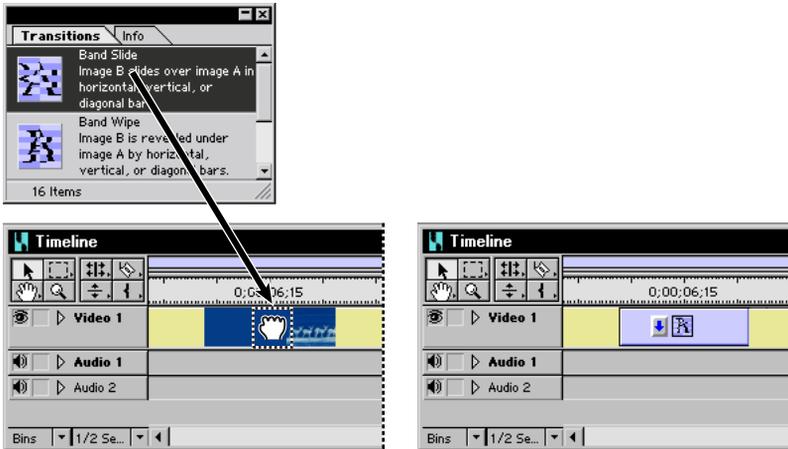
You can add a transition between two clips when the Video 1 track is collapsed, provided that both clips contain extra frames which Premiere LE uses to create the transition. For example, you create extra frames by extending the Out point of the first clip and the In point of the second so the two overlap.

This method of creating a transition is similar to the one in traditional linear editing studios, where frames that are not essential to the video program—frames that you trim—are used to create a transition. In general, this method requires more planning: Because you have less visual feedback as to the length and content of the overlap, it is recommended for more experienced video editors, especially those with a traditional editing background.

To add a transition to the collapsed Video 1 track:

- 1 If the two adjacent clips in the Timeline window do not already have extra frames, extend the Out point of the first and the In point of the second by the number of frames that will be used in the transition.

- 2 Drag a transition from the Transitions palette onto the meeting point of the two clips. The overlapping area will be highlighted as the pointer moves over the meeting point.



A transition dragged into a collapsed track overlaps the extra frames created by extended In and Out points.

Note: *If you expand the Video 1 track after adding a transition to the collapsed track, the Video 1A and Video 1B tracks now display the overlapping frames that you added when you extended the In and Out points. It is recommended that you do not switch back and forth between the two methods of adding transitions, since it may not be clear which frames you added for the transition.*

Adding the default transition, Cross Dissolve

You can add the Cross Dissolve transition quickly, without stopping to open the Transitions palette and drag the transition to the Timeline. The technique you use depends on whether you are editing a collapsed or expanded Video track.

To add the default transition:

- 1 Position one clip in the Video 1A track and another clip in the Video 1B track so that some (or all) of the two clips overlap. If the Video 1 track is collapsed, position the clips so that they either meet or overlap.
- 2 Position the edit line where the two clips meet or overlap.
- 3 Do one of the following:

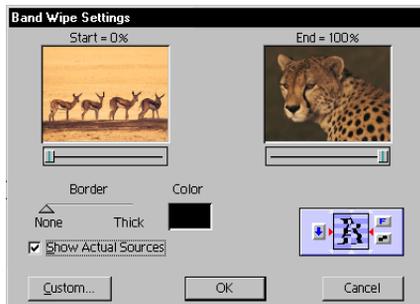
- In the Monitor window, click the Default Transition (👍) button, or press Control+D (Windows) or Command+D (Mac OS). This technique works only if there are extra frames available at the start and end points of the adjacent clips.
- In the Timeline, expand the Video track if necessary, press Control + Alt + Shift (Windows) or Command + Option + Shift (Mac OS) and click in the Transition track between two overlapping clips. This technique only works if the two clips overlap.

Changing transition settings

You can change a number of settings for each transition, including the transition direction, the start and end values, the border, and anti-aliasing. The following procedure describes how to display the Transition Settings dialog box and change settings common to many transitions. Settings specific to transitions are available by clicking the Custom button in the Transition Settings dialog box.

To change transition settings:

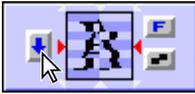
- 1 Open the Transition Settings dialog box in one of the following ways:
 - To change the settings for a single instance of the transition in the video program, in the Timeline either double-click the transition or select the transition and choose Clip > Transition Settings.



- To change the default settings of a transition for this and future projects, double-click the transition in the Transitions palette.

2 Adjust any of the following settings and then click OK:

- To see the starting and ending frames of the clips, select Show Actual Sources.
- To change the initial and final appearance of the transition, use the Start and End sliders. (For example, you might want the Page Turn transition to begin with the page already half open.) Hold down the Shift key to move the start and end sliders together. For example, you might use this option to start or end the transition in the middle of the effect (50%).
- To adjust the width of the optional border on the transition, drag the Border slider. The default Border is None. Some transitions do not have borders.
- To select a border color, click the color swatch, select a color from the color selection window, and then click OK.
- To specify which clip begins the transition, click the Track selector on the left side of the transition's thumbnail to toggle back and forth between starting with clip A (the left clip) or clip B (the right clip). You can also click this selector from the transition's thumbnail in the Timeline window if the thumbnail is large enough.



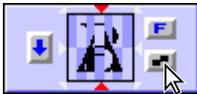
- To change the orientation of the transition, click an Edge selector on the transition's thumbnail. The Edge selectors are small triangles bordering the transition icon.



For example, the Barn Doors transition can be oriented vertically or horizontally. Some transitions do not have Edge selectors because the transition has only one orientation.

- To make the transition play forward or backward, click the Forward/Reverse selector in the upper-right corner of the transition's thumbnail. For example, the Page Turn transition can play from left to right or from right to left.

- To adjust the smoothness of the transition's edges, click the Anti-aliasing selector in the lower right corner of the transition's thumbnail. Clicking cycles through the values Low, High, and Off.



Anti-aliasing smooths the edges or borders of the transition, making the transition appear less abrupt. You can also set anti-aliasing from the transition's thumbnail in the Timeline window.

- To adjust the center point of the transition, drag the small box that appears in the Start and End images.
- To change settings specific to the transition, click the Custom button. (Transitions without additional controls do not include a Custom button.)



6



Chapter 6: Mixing Audio

You can use Premiere LE to edit, add effects to, and mix up to three tracks of audio in the Timeline. You can layer audio tracks and control gain and pan settings directly within the Timeline, performing functions that would otherwise require a conventional audio mixer. Premiere LE also provides a wide range of built-in controls for *audio sweetening*, or sound processing. For example, you can apply equalization and reverb effects to an audio clip.

Basic editing procedures for audio-only clips are identical to those for editing a video clip, such as setting In and Out points, speed, and duration. When you edit a video clip linked to an audio clip, your edits are applied to both video and audio. See “Chapter 4: Editing Video.”

You control how audio plays back from the Timeline by specifying settings in the Project Settings dialog box, and you control how audio is processed during export by specifying settings in the Export Movie dialog box. See “Audio settings” on page 49 and “About output settings” on page 183, respectively.

Understanding how Premiere LE processes audio

You can apply audio effects to a clip in several ways: by adjusting the audio track in the Timeline, choosing a menu command for a selected clip, or applying an audio filter. Understanding the order in which Premiere LE processes audio can help you plan audio adjustments.

Regardless of a clip’s original format, its audio is converted one frame at a time into the settings you specify in the Audio Settings dialog box. Any applied audio filters are processed next, followed by any pan or gain adjustments in the Timeline audio track for the clip. Finally, Premiere LE processes any gain adjustments you applied using the Gain command. The result is included in the video you preview, play, or export.

Adjusting gain

You can adjust the *gain*, or volume, of a single clip. This is useful for balancing the gain levels of several clips or when a clip's audio signal is too high or too low. However, keep in mind that if the gain in an audio clip was set too low when it was digitized, increasing the gain may emphasize noise or introduce distortion. For best results, follow the standard practice of making sure the gain level is correct at the time the audio clip is digitized.

To adjust gain uniformly for a clip:

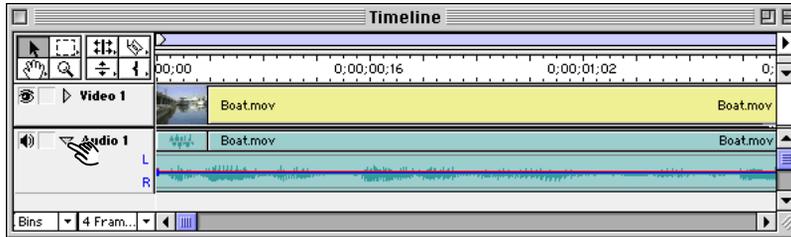
- 1 In the Timeline, select an audio clip and choose Clip > Audio > Gain.
- 2 Do one of the following:
 - Type a Gain value. A value above 100% amplifies the clip. A value below 100% *attenuates* the clip, making it quieter.
 - Click Normalize to set an automatic gain value calculated by Premiere LE.
- 3 Click OK.

Fading and cross-fading

You can easily fade the audio track in or out. The red *fader*, also called a *rubber band*, allows precise adjustment of the gain level at any point during the clip. You specify the point by creating a *handle* on the fader. A handle marks the beginning and ending of a fade, and you can drag the handle up or down to change the fade level. All audio clips include two handles that you can't remove—one at the beginning of the clip, and another at the end. You can also *cross-fade* two audio clips automatically so that one fades out as another fades in.

To fade audio at a specific point:

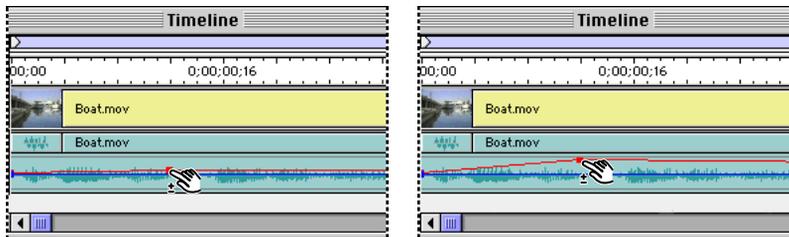
- 1 If necessary, click the triangle to the left of the track name to expand the audio track you want to adjust.



- 2 With the selection tool selected, position the pointer over a part of the red fader line where you want to create a new handle. The pointer changes to a pointing finger with red plus and minus signs to indicate that you are about to edit the red fade control.

***Note:** When adjusting gain, ignore the blue L and R labels at the left end of the waveform graph. They indicate stereo channels for the blue pan control and are not relevant to the red fader control.*

- 3 Click to create a new fade handle.
- 4 Drag the fade handle up or down to adjust how the incoming segment (if present) fades to the gain level at the handle you drag, and how the gain level changes from the handle you drag to the outgoing segment (if present).



 *If you activate the Info palette before you drag, you can watch the fade level update in the Info palette as you drag.*

To remove a fade handle:

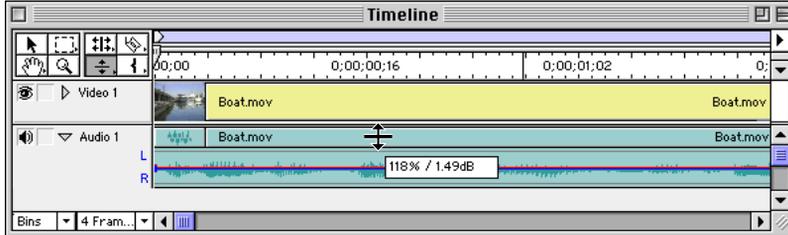
Drag a fade handle outside the audio track and release the mouse.

To fade audio in one-percent increments:

- 1 If necessary, click the triangle to the left of the track name to expand the audio track you want to adjust.
- 2 Click the fader to create a new fade handle if necessary.
- 3 Position the pointer over the fade handle you want to adjust so that the pointer changes into a pointing finger with red arrows. Press and hold the Shift key so that the pointer changes into the fade adjustment tool icon (⇄), and drag the fade handle. A numeric display appears over the audio track to indicate the current fade level as you drag.

Note: If you press and hold Shift after you start dragging, the pointer will continue to appear as a pointing hand with red handles.

- 4 Drag up or down. As long as you hold the Shift key, you can drag beyond the top and bottom of the audio track, if necessary. The larger drag area lets you adjust gain in one-percent increments, as indicated in the numeric display.

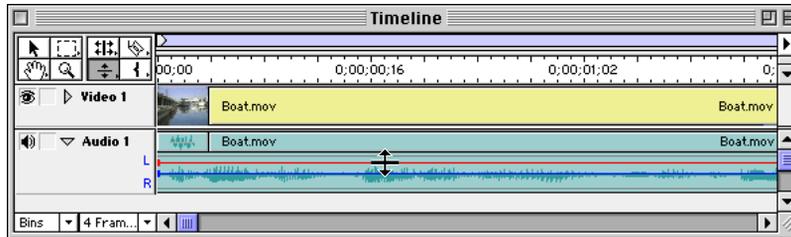


To fade two handles simultaneously:

- 1 If necessary, click the triangle to the left of the track name to expand the audio track you want to adjust.
- 2 Select the fade adjustment tool.



- 3 Position the fade adjustment tool between the two handles you want to adjust, and then drag that segment up or down.



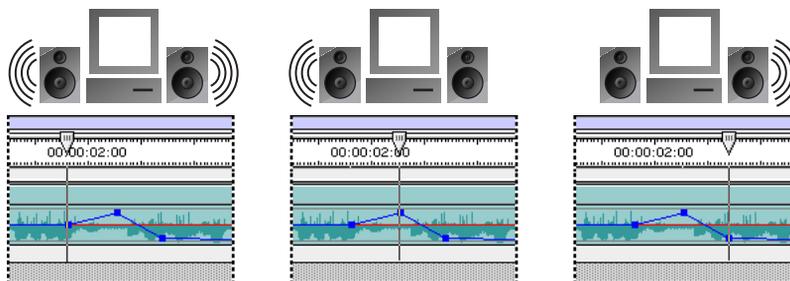
When you use the fade adjustment tool, you adjust gain by moving two adjacent fade handles simultaneously.

Panning a clip

You can *pan* a monophonic audio clip to set its position between the left and right stereo channels. For example, if an audio clip contains one person's dialogue, you can pan the audio to match the person's position in the frame. You can vary the pan freely along the duration of the clip by adding and dragging handles on the blue *pan control* (a rubber band for panning) on the audio track, using techniques similar to those you use for adjusting gain.

Note: *You cannot pan stereo audio clips because both the left and right channels are already full of audio information.*

For best results when previewing panning, make sure that your computer or audio card is connected properly to speakers in stereo. Make sure the left and right channels are not reversed.



Audio panned over time from the center, to the left, and finally to the right.

To pan an audio clip:

- 1 If necessary, click the triangle to the left of the track name to expand the audio track you want to adjust.
- 2 With the selection tool selected, position the pointer over a part of the blue pan control where you want to create a new handle.
- 3 Press Alt (Windows) or Option (Mac OS) as you click to create a new pan handle.
- 4 Position the pointer over the pan handle you want to adjust, so that the pointer changes into a pointing finger with blue arrows. Drag a pan handle up to pan left, or down to pan right. If the pan handle is very close to a red fade handle, it may be difficult to select and drag, so press Alt/Option to drag only the pan handle.

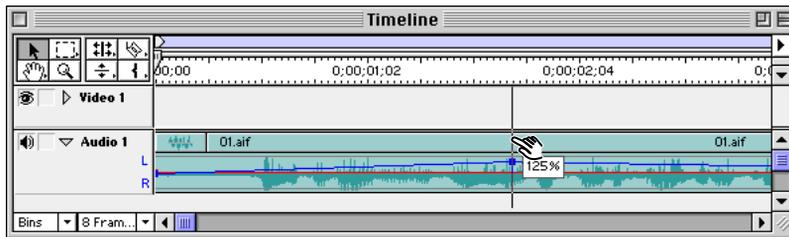
Note: When panning, always make sure you're adjusting the blue pan control and not the red fader control.

To pan a clip in one-percent increments:

- 1 Press Alt (Windows) or Option (Mac OS) as you position the pointer over the fade handle you want to adjust, so that the pointer changes into a pointing finger with blue arrows.

2 As you continue to press Alt/Option, press and hold the Shift key so that the pointer changes into the fade adjustment tool icon (⇧), and drag the pan handle. A numeric display appears over the audio track to indicate the current pan level as you drag. As long as you hold the Shift key, you can drag beyond the top and bottom of the audio track, if necessary. The larger drag area lets you pan in one-percent increments to the left or right with the center at 0%; the exact value appears in the numeric display.

Note: If you press and hold Shift after you start dragging, the pointer will continue to appear as a pointing hand with red handles.



Viewing audio clips

You can view an audio clip's gain and pan controls and its waveform in the Timeline. You can also view an audio clip in its own window, which is useful in situations such as setting precise In and Out points (see “Marking and finding In and Out points” on page 100). The gain and pan controls are described later in this chapter.

To view audio clips:

- To view the audio waveform of a clip in the Timeline, click the triangle to the left of the audio track name.
- To view the audio waveform of a clip containing video and audio which is not in the Timeline, add the clip to the Timeline and then click the triangle to the left of the audio track name.
- To view an audio clip in its own window when it is currently in the Timeline, press Alt (Windows) or Option (Mac OS) as you double-click the clip.
- To always view an audio clip in its own window, choose Preferences > General, select Open Movies in Clip Window, and click OK.

- To override the current window preference for viewing clips (described in the previous paragraph), press Alt (Windows) or Option (Mac OS) as you double-click a clip in the Project window. For example, if you set the preference to open clips in their own windows, pressing Alt/Option opens a clip in the Source view.

Applying audio filters

You can use audio filters to correct or enhance audio or to create special audio effects. You can apply multiple filters to a single audio clip, and you can vary filter settings over time. You can also apply the same filter multiple times to the same clip with different settings. For example, you can add multiple instances of the Equalize filter for situations when you would chain together multiple equalization hardware modules in a conventional audio studio.

To apply an audio filter:

- 1 Select the audio clip in the Timeline.
- 2 Choose Clip > Filters.
- 3 In the Filters dialog box, click the filter you want to apply.
- 4 Click Add, and specify options as needed.



For information about the options in each filter, see online Help.

- 5 If you want to hear the effect of your settings on a short portion of the selected audio clip, select the Preview option if available. Any settings you change can be heard immediately. When you're done, click OK.
- 6 Repeat steps 3 through 5 as needed for any other filters you want to apply to the same instance of the clip in the Timeline.
- 7 If available, add and edit keyframes to animate a filter over time. Keyframes for audio filters work the same way as keyframes for video filters (see “About video filters and keyframes” on page 177). Not all filters support animation.
- 8 Click OK to close the Filters dialog box.



You can quickly open the Filters dialog box by right-clicking (Windows) or pressing Control as you click (Mac OS) an audio clip in the Timeline, and choosing Filters.

Audio filters included with Premiere LE

Premiere LE includes the Backwards (Audio), Equalize, and Reverb audio filters. A filter is available to Premiere LE when its plug-in software file is present in the Plug-ins folder, which is stored in the Adobe Premiere LE folder by default. If you purchased additional plug-in filters or removed filter files from the Plug-Ins folder, you may have a different set of filters than those described in online Help. To install new audio filters, see “Installing plug-in software modules” on page 6.



7



Chapter 7: Creating Titles

You can create type and graphics in Premiere LE's Title window. A title can include straight lines, shapes, and rolling credits. Once you create a title, you use it in your project just like any other source clip, by editing it into your video program using cuts and transitions, or superimposing it over other clips. Titles created using the Premiere LE Title window contain an alpha channel for transparency, so when you place them in the Video 2 track the white background becomes transparent and the title content is superimposed over clips in the Video 1 track.

Your titles are not limited to the options in the Title window. You can create a title in another graphics application, such as Adobe Illustrator, save it in a graphics format compatible with Premiere LE, and import it into Premiere LE (see "Importing still images" on page 80). However, if you create and import a title from another application, you cannot superimpose it over other clips in Premiere LE (see "About transparency" on page 171). The full version of Premiere includes transparency options that let you superimpose titles, still images, and other video clips over other clips in the timeline. See *Getting Started*.

Creating a new title

Even though you can create a title while working in a project, a title is an independent file, separate from your project. Like any other clip, it doesn't become part of your video program until you add it to the Timeline. You can work with more than one open Title window at a time, or use a title in more than one project.

To start and save a new title:

- 1 Choose File > New > Title.
- 2 Choose File > Save As.
- 3 Specify a location and filename, and then click Save.

Setting up the Title window

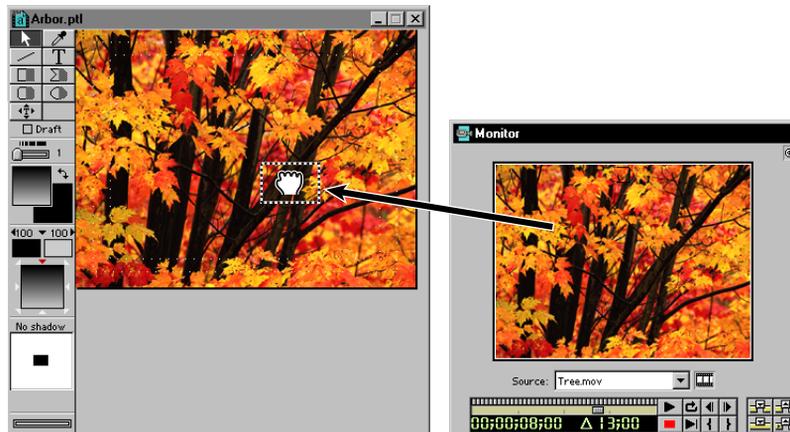
The Title window provides ways to help position titles accurately. For example, if you plan to superimpose the title over a clip, you can import a frame from the clip for positioning.

Importing a sample frame

When you import a frame from a clip (or still image), the frame functions only as a positioning aid for title type and graphics and is not actually included in the title clip. You can use any color from the sample frame by using the eyedropper tool (👉). Premiere LE uses the first frame in the clip (or for a QuickTime clip, the poster frame if one was defined).

To import a sample frame for positioning:

- 1 Do one of the following:
 - If a project is already open, double-click any clip in the Project window.
 - If no project is open, choose File > Open, locate the video clip or still image file you want to use as a reference, and then click OK.
- 2 In the clip, go to the frame you want to use for title positioning.
- 3 Make sure a Title window is open, and then drag the frame into the Title window.



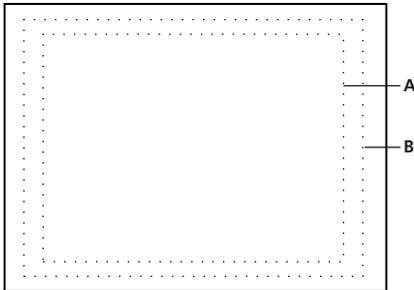
To remove a sample frame:

Select Title > Remove Background Clip.

Setting Title window options

The Title window options let you specify the size of the title area, a background color, and safe zones. Safe zones are useful when editing for NTSC broadcast and videotape, because most NTSC consumer television sets cut off some portion of the outer edges of the picture. This process, called *overscan*, permits the center of the picture to be enlarged. The amount of overscan is not consistent across all televisions, so it is best to keep titles within the *title-safe* zone and important subjects within the *action-safe* zone. The Title window options include an option to display NTSC title-safe and action-safe zones. For best results, play back the video on a television monitor connected to your computer (see “Previewing on another monitor” on page 121).

Note: The safe zones indicated by Premiere LE represent only NTSC video and are only guidelines for other video standards such as PAL or SECAM.



Title-safe (A) and action-safe (B) zones

To set Title window options:

- 1 With the Title window open, choose Window > Title Window Options.
- 2 Specify the following settings as necessary and then click OK:
 - For Drawing Size, select 4:3 Aspect if you want to preserve such an aspect ratio when you specify the title clip size. Then specify the horizontal (h) and vertical (v) dimensions in pixels.
 - For Background, click the rectangle to specify a background color (see “Using the Color Picker” on page 165). If you want the background color to be visible in Premiere, select Opaque.
 - Select Show Safe Titles to display NTSC title-safe and action-safe zones.

- Select NTSC-Safe Colors to automatically move colors that are outside the NTSC-safe range into the NTSC-safe range when the title is rendered. This option may mute colors somewhat. If you are creating titles for NTSC television and you do not select this option, colors outside the NTSC-safe range may display poorly or bleed across television scan lines.

 When the Title window is active, you can set the background color to black or white from the keyboard by pressing B for black or W for white.

To speed up display using the Draft option:

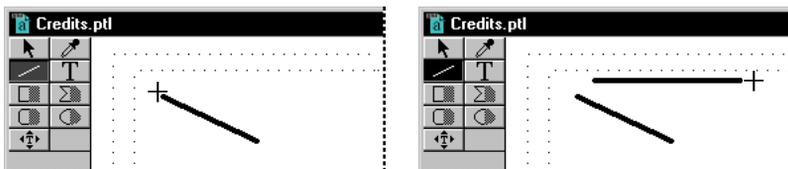
Select Draft in the Title window. The Title window displays faster, at the expense of quality. The Draft option affects the display in the Title window only; the title displays at full quality when you use it in a video program.



To select text and graphic tools:

Do one of the following:

- To select a tool for one operation, click the tool in the toolbox (except the selection tool). The toolbox highlights the tool in gray, and the tool reverts to the selection tool after one use.
- To select a tool for continual operation, double-click the tool in the toolbox. The toolbox highlights the tool in black, and the tool remains active until you select another tool.



Tool selected for single use (left), and tool selected for continuous use (right)

 You can get quick access to most formatting options by right-clicking an object (Windows) or Control-clicking (Mac OS) and choosing a command from the menu.

Creating text objects

You can use the tools and commands in the Title window to create objects containing text which are known as *text objects*. Premiere LE gives you a number of text formatting options and lets you choose from a wide range of fonts, including PostScript or TrueType fonts. To set default text attributes, see “Setting default text and graphic attributes” on page 166.

Compared to paper, video displays at a much lower resolution and is viewed from much farther away (often from across a room). For maximum legibility, use the following guidelines when specifying type for video:

- Use large sans-serif fonts. Avoid small type and serif fonts; the thin strokes of some small or serif characters do not display well on interlaced television sets, causing them to flicker.
- Use semibold and bold type weights, which are generally easier to read on television than regular or light type weights.
- Use few words in your titles. Long paragraphs of small type are difficult to read on television.
- When designing a title to be superimposed, use colors that contrast well with the background video. You can import a sample frame to check a title against its background (see “Setting up the Title window” on page 149). If the background is complex, consider adding a shadow (see “Adding a shadow” on page 161) or a semitransparent shape behind the type (see “Creating graphic objects” on page 158).

Note: Make sure that the fonts you use in the title file are installed on any other computer where you plan to open the title file or the project that includes it. Font names are often different between Windows and Mac OS, even when the fonts are identical. After you complete editing and record the final cut on videotape or export it to a video file, you no longer need the title fonts.

To create text:

- 1 Select the type tool (T).
- 2 Click to position the top left corner of the text object in the Title window, and type the text you want.

3 When the type is complete, click outside the text.



Text while typing (left) and after clicking outside the text (right)

The new text uses the current color, transparency, and gradient settings. See “Using color, transparency, and gradients” on page 162.

To edit existing type:

1 Do one of the following:

- To change attributes uniformly within a text object, select the selection tool (☞) and click the text. The entire text object is selected, and handles appear at the corners of the text object.
- To edit the text or apply different type attributes to individual characters, select the type tool, click a text object, and then drag to select the text you want to change. For example, you can apply a different color and size to one of the words in a title.

***Note:** The selection tool overrides uniquely formatted characters. For example, if you use the type tool to apply a blue color to one word, and then you use the selection tool to apply a red color to the text object containing the blue word, all the characters in the text object become red. However, any text attributes you don't change remain intact.*

2 Do any combination of the following:

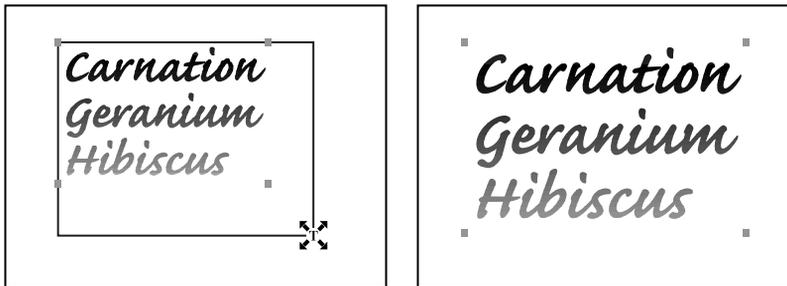
- To change the font, choose Title > Font and select a font. In Windows, click OK.
- To change the type style, choose Title > Style and choose from the Style menu. The Plain, Bold, Italic, and Underline styles work as they do in a word processor. The Emboss style creates a slightly offset copy of the text behind the original text.
- To change the font size, choose Title > Size and choose a type size.
- To change the color, see “Using color, transparency, and gradients” on page 162.

- To specify spacing between lines, choose Title > Leading and choose a leading (line spacing) adjustment from the menu. Reset Leading restores the default leading for the font.
- To kern (adjust the spacing between characters), click an insertion point between the letters you want to kern, or select a range of characters. Then click the Decrease Kerning button (◀◀) to remove space between characters or click the Increase Kerning button (▶▶) to add space between characters.
- To change paragraph alignment, click an insertion point in the paragraph you want to align, choose Title > Justify and choose an alignment.

 You can edit existing text by double-clicking text with the selection tool. Premiere LE changes the selection tool to the text tool so that you can select individual characters.

To stretch type:

With the selection tool, click a text object. Hold down Control (Windows) or Option (Mac OS) as you drag any of the object handles. The selection tool changes to a stretch tool as you drag.



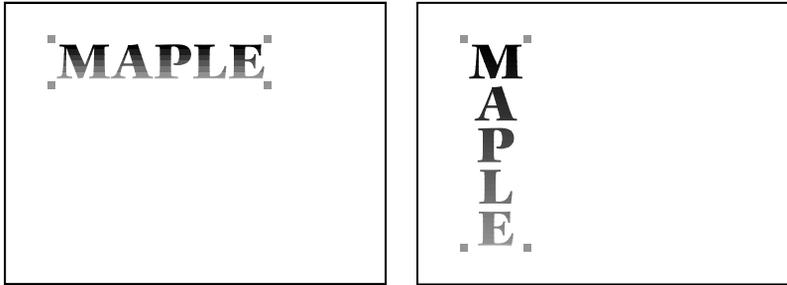
Text object being stretched (left) and after stretching (right)

Changing text orientation

You can change the orientation of text. By default, a line of text displays from left to right. You can specify vertical orientation so that a line of text displays from top to bottom. This is useful for creating titles in languages such as Japanese, or as a text effect.

To change the orientation of text:

With the selection tool (⌘), click a text object. Choose Title > Orientation and select Horizontal or Vertical.



Horizontal text (left) and vertical text (right)

Creating rolling and crawling text

You can make text *roll* (move vertically across the screen) or *crawl* (move horizontally). Rolls can move up or down, and crawls can move left or right.



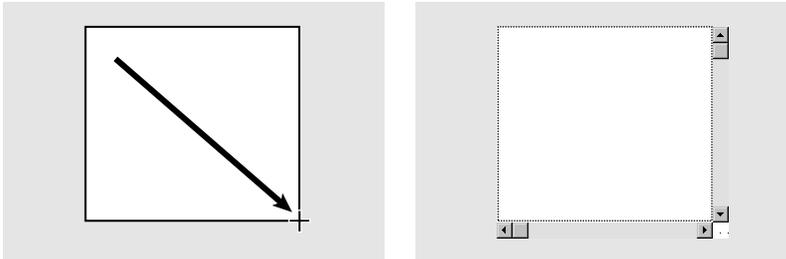
Credits rolling vertically in a title

When you add the title to a program, the speed of moving text is determined by the duration you specify for the title in the Timeline. For example, if you originally specified a duration of twenty seconds for a rolling title, and then you change the duration to ten seconds, the title must roll twice as fast to move the same number of lines across the screen in half the time.

To create rolling or crawling type:

- 1 Select the rolling title tool (⌘).

2 Drag to specify the size of the text object that will contain the rolling title. Make sure that the rolling title text object is smaller than the amount of text you will enter.



Dragging the rolling title tool (left) and an empty rolling title text object (right)

3 Type the text you want in the title.

4 With the rolling title still selected, choose Title > Roll Options.

5 In the Direction section, select the direction in which you want the type to move.

6 Select Enable Special Timings if you want more control over rolling or crawling motion. Then specify the following values as needed and click OK:

- For Pre Roll, specify how many frames you want to appear motionless (starting with the title clip In point to the frame in which the title starts moving).
- For Ramp Up, specify how many frames the clip should use to accelerate to normal speed. Type 0 (zero) to start moving the title at normal speed. To accelerate more gradually, specify more frames.
- For Ramp Down, specify how many frames the clip should use to decelerate to a halt. For faster deceleration, specify fewer frames. Type 0 (zero) to stop the title immediately. To decelerate more gradually, specify more frames.
- For Post Roll, specify how many frames you want the title to appear motionless (starting with the frame in which the title stops to the title Out point).

To preview rolling or crawling type:

Drag the slider at the bottom left corner of the Title window. Premiere LE plays back all rolling or crawling text objects in the Title window. If you have imported a background frame (see “Setting up the Title window” on page 149), Premiere LE uses the clip containing the background frame as the duration for the rolling or crawling type, and plays it along with the type.

***Note:** This slider does not preview special timings. Special timings depend on the clip duration in frames, which is determined by the Timeline. To preview special timings, add the title to a project Timeline (see “Adding a title to a project” on page 167) and preview the Timeline.*

Creating graphic objects

The Title window toolbox contains tools for creating *graphic objects* such as straight lines, rectangles, ellipses, and polygons. Your polygons can have sharp, defined corners or you can have Premiere LE smooth the corners into curves. Lines and shapes initially use the default line, color, gradient, and shadow attributes. You can change these default attributes at any time; see “Setting default text and graphic attributes” on page 166.

In the Title window, a graphic object can be either *framed* (outlined with no fill) or *filled* (filled with no outline). You can convert between framed and filled objects. If you want a shape to have both a fill and an outline, you must duplicate it and apply a fill to one and a line to the other.

To create a straight line:

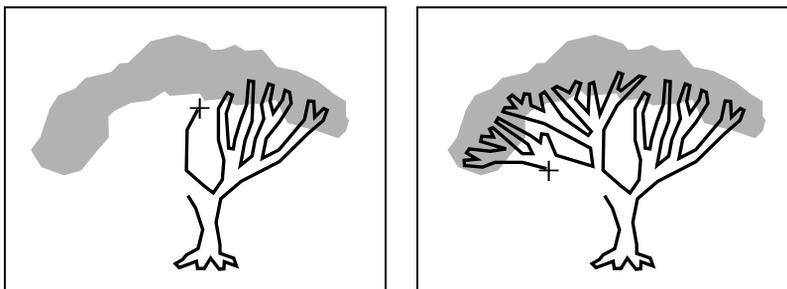
- 1 Select the line tool in the toolbox () . Each tool reverts to the selection tool () after one use unless you double-click it as explained in “Creating text objects” on page 153.
- 2 Drag to draw the line, or hold down Shift as you drag to draw a constrained line at 45-degree increments.

To create a rectangle, rounded-corner rectangle, or ellipse:

- 1 Click the left half of the desired tool for a framed shape or the right half of a tool for a filled shape.
- 2 Do one of the following:
 - Drag to draw the shape.
 - Hold down Shift as you drag to draw a constrained shape, such as a square, a rounded-corner square, or a circle.

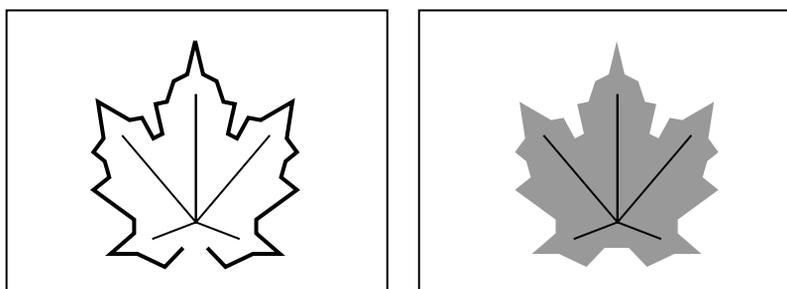
To create a polygon shape:

- 1 Click the left half of the polygon tool () for a framed polygon, or click the right half of the polygon tool () for a filled polygon.
- 2 Position the polygon tool where you want to start drawing, and click. This creates a point and a line segment leading out of it.
- 3 Position the polygon tool where you want to end the line segment, and click.
- 4 Repeat steps 2 and 3 until you have only one segment left to draw.



- 5 Do one of the following:

- To close the polygon, click the first point you placed.
 - To leave a framed polygon open, double-click where you want the last point to appear.
- You cannot leave a filled polygon open.



A leaf outline drawn as an open framed polygon (left) and closed filled polygon (right)

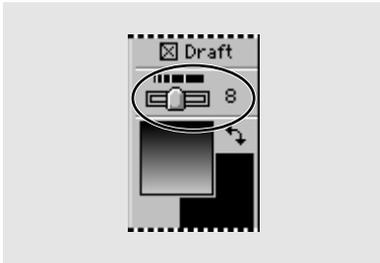
To change a filled object to a framed object or vice-versa:

- 1 With the selection tool, select the graphic object.

- 2 Choose Title > Convert to Filled or Title > Convert to Framed.

To adjust the line weight of a line or framed object:

- 1 With the selection tool, select the line or framed object you want to change.
- 2 Drag the Line Weight slider to specify the line weight you want.



You cannot adjust the line weight of a filled object because it has no outline. However, you can create a framed duplicate of the object (see the next procedure) and adjust the line weight of the new object.

To create a framed duplicate of a filled object:

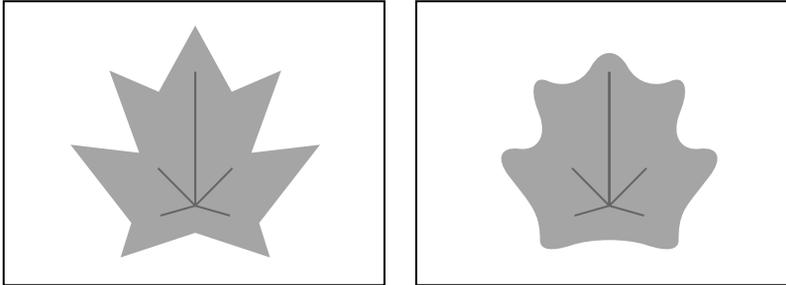
Select a filled object, and choose Title > Create Framed Object. A framed copy appears in the same position as the original.

To create a filled duplicate of a framed object:

Select a framed object, and choose Title > Create Filled Object. A filled copy appears in the same position on top of the original. If you can't see the framed original behind the filled copy, select the filled copy and choose Title > Send to Back.

To smooth a polygon:

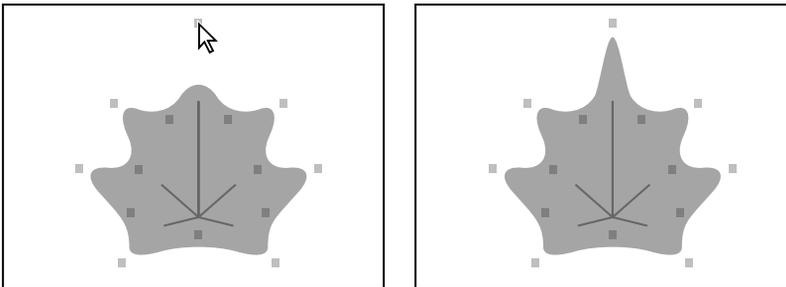
- 1 With the selection tool, select a polygon.
- 2 Choose Title > Smooth Polygon.



Polygon before smoothing (left) and after smoothing (right)

To edit a polygon:

- 1 With the selection tool, select the graphic object you want to edit.
- 2 Drag any handle on the object.



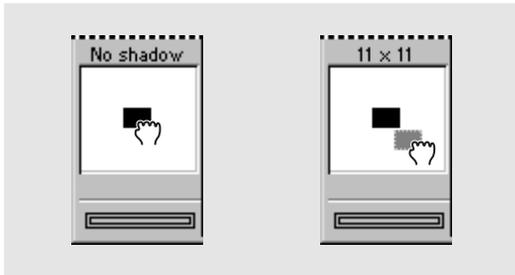
Smoothed polygon during editing (left) and after editing (right)

Adding a shadow

Premiere LE can create an adjustable shadow for text or graphic objects. A slight shadow can help distinguish type from its background. However, a shadow tends to make small type less legible. You can apply color, transparency, or a gradient to a shadow. See “Using color, transparency, and gradients” on page 162.

To create a shadow:

- 1 Select the object to which you want to add a shadow.
- 2 Drag the Shadow Offset control in the toolbox to specify how far the shadow falls from the object. To constrain movement to 45-degree increments, hold down Shift as you drag.



To specify the kind of shadow:

- 1 Select an object that has a shadow.
- 2 Choose Title > Shadow and choose a type of shadow from the Shadow menu:
 - Single creates a basic drop shadow.
 - Solid simulates a three-dimensional shadow.
 - Soft creates a soft-edged version of the Single shadow.

To remove a shadow:

- 1 Select an object that has a shadow.
- 2 Drag the Shadow Offset control either outside or to the center of the control area. When the Shadow Offset control displays the message “No Shadow,” you have successfully removed it.

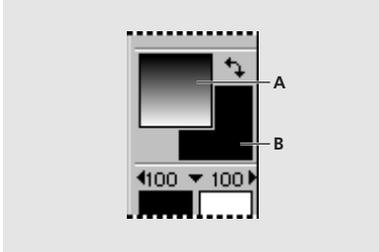
Using color, transparency, and gradients

You can apply color, transparency, gradient color, and gradient transparency to type, graphic objects, or shadows. You can also use the eyedropper tool to match a color that already exists in the title window, even if it is in a background frame you imported.

To apply a solid color:

- 1 Do one of the following:

- Use the selection tool () to select a text or graphic object to affect the entire object.
 - Use the type tool () to select individual characters in a text object to affect just those characters.
- 2 Click the Object Color swatch or the Shadow Color swatch.



Object Color swatch (A) and Shadow Color swatch (B)

- 3 Specify a color (see “Using the Color Picker” on page 165), and click OK.

To match a color that exists in the title window:

- 1 With the selection tool, select a text or graphic object to which you will apply the color.
- 2 Select the eyedropper tool () .
- 3 Click the eyedropper tool on the color you want to apply.

To match a color and apply it to individual text characters:

- 1 Click in an area without objects to make sure nothing is selected.
- 2 Select the eyedropper tool.
- 3 Click the eyedropper tool on the color you want to apply.
- 4 Click the Object Color swatch.
- 5 Write down the values for Red, Green, and Blue, and click Cancel.
- 6 Select the type tool and drag to select one or more text characters.
- 7 Click the Object Color or Shadow Color swatch, and for Red, Green, and Blue, type the values you wrote down. Then click OK.

To swap the object and shadow colors:

Click the curved double arrow (↻).

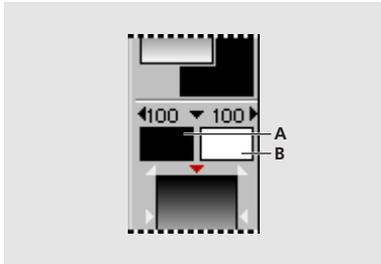
To apply a gradient:

1 Do one of the following:

- Use the selection tool to select a text or graphic object to affect the entire object.
- Use the type tool to select individual characters in a text object to affect just those characters.

2 Click the Object Color swatch or the Shadow Color swatch depending on whether you want to change the gradient of the object or its shadow. If the Color Picker appears, click Cancel.

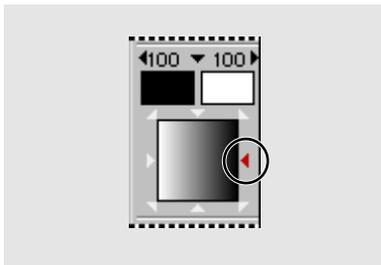
3 Click the Beginning Color swatch, specify a color (see “Using the Color Picker” on page 165), and click OK.



Beginning Color (A) and Ending Color (B) swatches

4 Click the Ending Color swatch, specify a color, and click OK.

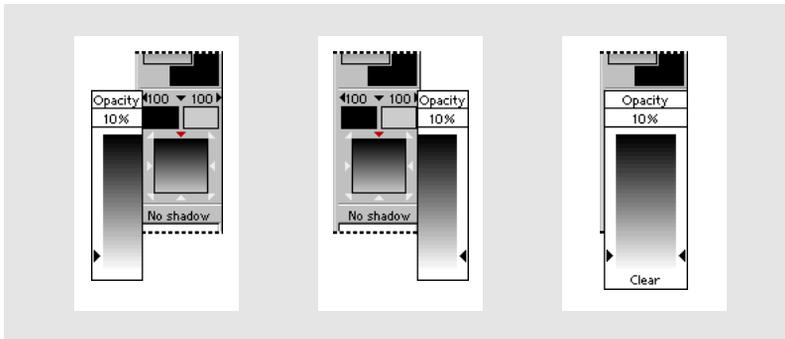
5 To set the direction of a gradient, click a triangle in the Gradient/Transparency Direction option.



Clicking a triangle sets the direction of a gradient.

To set opacity:

- 1 Do one of the following:
 - Use the selection tool to select a text or graphic object to affect the entire object.
 - Use the type tool to select individual characters in a text object to affect just those characters.
- 2 Click the Object Color swatch or the Shadow Color swatch depending on whether you want to change the opacity of the object or its shadow. If the Color Picker appears, click Cancel.
- 3 Do one of the following:
 - Click the triangle to the left of the Beginning Transparency menu or to the right of the Ending Transparency menu, and then click or drag to specify an opacity value.
 - Click the triangle between the Beginning and Ending Transparency menus, and then click or drag to specify an opacity value from the Overall Transparency menu.



The Beginning (left), Ending (center), and Overall (right) Transparency menus

Using the Color Picker

In Premiere LE, you can specify color visually or using RGB (red, green, and blue) color values. The Color Picker becomes available whenever color is an option for a task you perform.

To use the Premiere LE Color Picker:

- 1 Do one of the following:
 - To specify a color visually, click the color you want in the color area.
 - To specify a color using RGB values, type the values you want into the Red, Green, and Blue options.

In the upper right corner of the Color Picker, the bottom half of the color swatch changes to display the color you specify. For reference, the top half of the color swatch displays the original color and does not change.

2 If a new color swatch appears with a gamut warning symbol (⚠) next to the lower color swatch, the color you specified is outside the *color gamut*, or range, that NTSC video can reproduce accurately. If you are editing for NTSC video, click the swatch or gamut warning symbol to automatically move the color to the nearest color within the NTSC color gamut when the title is rendered (its appearance does not immediately change). The gamut warning symbol does not apply to PAL and SECAM video, which have a larger color gamut.

3 Click OK.

Setting default text and graphic attributes

If you want to apply a specific set of attributes to several text or graphic objects you haven't created yet, you can set attributes as defaults. For example, if you want several objects in your title to be light blue, set light blue as the default color and then create the objects. This can save time that you might otherwise spend formatting text objects individually. You can reset the default attributes at any time.

To set the default settings for text and graphic attributes:

Make sure nothing is selected, and then change any text, color, gradient, shadow, line width, or other attributes. The attributes apply to all subsequent text and objects you create until you change the attributes again.

Arranging text and graphic objects

By default, text and graphic objects appear in the window in the order in which they were drawn, from bottom to top. The Title window includes options for arranging text and graphic objects.

To arrange the stacking order of text and graphic objects:

- 1 With the selection tool (, select a text or graphic object.
- 2 Do one of the following:
 - Choose Title > Bring to Front.
 - Choose Title > Send to Back.
- 3 Repeat with other objects as necessary until type and objects are stacked the way you want.

To center type or objects in the drawing area:

- 1 With the selection tool, select a text or graphic object.
- 2 Do any combination of the following as necessary to achieve the centering you want:
 - Choose Title > Center Horizontally.
 - Choose Title > Center Vertically.
 - Choose Title > Position in Lower Third.

Adding a title to a project

When you've completed and saved a title, moving it from the Title window to a project is as easy as dragging. The title becomes a clip in the project, using the original title file as its source. If you imported a frame from a clip or a still image to use as a sample (see "Importing a sample frame" on page 150), it will not be part of the title when you add the title to a project. If you want to add a title that isn't currently open, import it the same way you would any other clip; see "Importing clips" on page 78.

If you want the title to be opaque and edited into the video program among other clips, just add it to Timeline track Video 1A or 1B the way you would any other clip. If you want to display the title over another clip, you must add the title to a superimposition track. When you move a title from the Title window into the project, empty and semi-transparent areas of the title are automatically converted into an *alpha channel*, which marks transparent and semi-transparent areas. Premiere LE automatically uses the alpha channel for transparency so any mattes or clips on lower tracks will be visible under the title.

To add a title to a project:

- 1 Save the title.
- 2 Make sure no type or objects are selected in the Title window.
- 3 Open the project to which you want to add the title.
- 4 Starting from an empty area of the Title window, drag to the Project window or Timeline. If you accidentally drag one object instead of the entire title, release the mouse, choose Edit > Undo if necessary, hold down Control (Windows) or Command (Mac OS), and then drag the Title window to the Project window or Timeline.



8



Chapter 8: Superimposing

Premiere LE lets you create partial transparency in any clip to add a visual fade effect to your video programs. You can adjust the opacity of part or all of a clip.

About transparency

In video or film, transparency allows one clip to show through another, creating composites, transitions, or special effects. The opacity of a clip or portion of a clip determines its level of transparency. At 100% opacity, an image contains no transparency at all; at 0% opacity, the image is completely transparent, allowing other clips to show through. At other percentages, the image is partially transparent, allowing other underlying images to be visible at the same time.

You can create transparency in a clip only after you have placed it in a superimpose track. By default, each new project includes one superimpose track, called Video 2. The full version of Adobe Premiere includes 14 different transparency keys, which you can use to superimpose clips on top of one another. The Transparency Settings dialog box is available in Premiere LE for you to access and experiment with; however, you cannot save any transparency settings for use in your video program. If your video program requires transparency, you will want to upgrade to the full version of Premiere. Information on upgrading appears on-screen before you open the Transparency Settings dialog box.

To experiment with Transparency Settings:

- 1 In the Timeline, select a clip in the Video 2 track.
- 2 Choose Clip > Video > Transparency.
- 3 Do one of the following:
 - If you want to upgrade to the full version of Premiere, click Upgrade, and then follow the prompts. Click Close when you are done.
 - If you want to experiment with the Transparency settings, click OK.
- 4 In the Transparency Settings dialog box, select a Key Type.

- 5 Click the page peel icon under the thumbnail to view the results of the transparency.



Fading

You can adjust the opacity of the entire clip to fade it in or out. You can use fading to create additional transitional effects or to create simple superimposing.



Using the Fade control

When you place a clip in a superimpose track, a Fade control appears beneath it (you must expand the superimpose track to display the Fade control). The Fade control specifies the opacity of the entire clip. By adding handles and adjusting this control over time, you can fade a clip in or out.

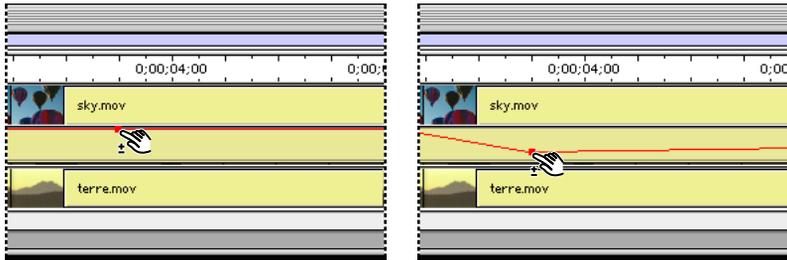
The Fade control adjusts opacity after any keys have been applied. In other words, moving the Fade control adjusts the opacity for opaque, transparent, and semitransparent regions in the clip.

To adjust fading:

- 1 Place a clip in a superimpose track. If necessary, click the triangle to the left of the track name to expand the track.
- 2 With the selection tool selected, position the pointer over the top line in the Fade control. The pointer changes to a pointing finger with red plus and minus signs.

3 Click to create a handle (a small red square), and drag the handle up or down to adjust the fading in 10% increments. The opacity percentage appears in the Info palette and updates as you drag a handle. Press the Shift key with a handle selected to view the opacity percentage and to change the percentage in 1% increments for finer gradations.

When the handle is at the top of the Fade control area, the image is fully opaque; when the handle is at the bottom of the panel, the image is transparent. The line between two handles indicates the direction, length, and speed of the fade. The steeper the angle, the more sudden the change.



4 Repeat the above step to create as many handles as needed.

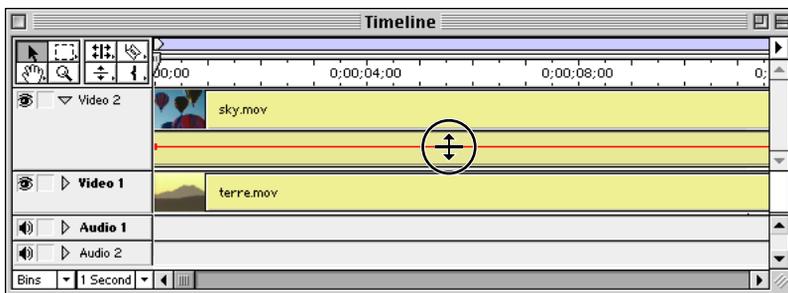
5 To delete a handle, drag it out of the superimpose track.

To fade a specific segment:

1 Select the fade adjustment tool or, with the selection tool active, hold down Shift to switch to the fade adjustment tool.



- 2 Drag the line segment up or down. You can set the opacity of the entire clip to a constant value by adjusting the Fade control in this manner before creating handles.



Adding a background matte

Adobe Premiere LE lets you create a full-frame matte of solid color that you can use like a clip. You can use a matte, for example, as a solid background for titles.

To create a background matte:

- 1 Activate the Project window.
- 2 Choose Project > Create > Color Matte.
- 3 Select a color from the Color Selection window and click OK.
- 4 Type a name for the matte, as it will appear in the Project window. Then click OK.



9



Chapter 9: Applying Video Filters

Adobe Premiere LE includes several video filters that let you distort, blur, and add special effects to your clips. You can change filters over time to increase or decrease the effect, and you can apply more than one filter to any clip.

***Note:** In addition to the dozens of filters included with Premiere LE, many filters are available in the form of plug-ins, which you can purchase or otherwise acquire. For example, Photoshop plug-ins can be copied into the Premiere LE Plug-ins folder to use on video clips or still-images in your video work. For more information, see “Installing plug-in software modules” on page 6.*

About video filters and keyframes

Each video filter provides one or more controls from which you can specify various properties of the effect. The Ripple filter, for example, lets you set the direction, intensity, and width of the ripple.

 Descriptions of video filters included with Adobe Premiere LE are available in online Help.

You can change a filter effect over time by creating *keyframes*. A keyframe contains the values for all the controls in the video filter and applies those values to the clip at the specified time. By applying different values to two or more keyframes, you can change a filter over time. Premiere LE automatically interpolates the values of the controls between the keyframes, using a linear progression. This means that you don't have to create a keyframe for every frame in the clip.



The effect of the Ripple filter gradually increases and then decreases over time as controlled by keyframes.

For example, suppose you wanted to use the Bend filter to add an effect that increases and then decreases over time. In this case, you would need to set three keyframes—the first with a slight bend, the second with more a significant bend, and the third with a slight bend. Because Premiere LE automatically interpolates the distortion between each keyframe, the bend will gradually increase (linearly) between the first and second keyframes and then gradually decrease between the second and third keyframes. For any filter, you can create as many keyframes as you need to produce the desired result.

By default, each filter has two keyframes at the beginning and end of the clip, indicated by triangles on a timeline in the Filters dialog box. The time displayed below the keyframe timeline shows the keyframe's position in the video program. If you don't make any changes to these default keyframes, the settings for the associated filter will apply to the entire clip. You cannot set additional keyframes for filters that have no adjustable settings.

Applying video filters to a clip

You can apply a video filter to a video clip in the Video 1 track and in the superimpose track. You can also apply one or more filters to a single clip, multiple clips, or to a portion of a clip. In the Timeline window, clips that have filters applied to them are displayed with a blue border at the top.

To apply a filter to a video clip:

- 1 Select the video clip in the Timeline window. To apply a filter to more than one clip, use the range select tool to select the clips. For more information on range selecting, see “Selecting clips” on page 111.

- 2 Choose Clip > Filters. The Filters dialog box appears.

Note: You can quickly combine steps 1 and 2 by clicking the clip either with the right mouse button (Windows) or while holding down the Control key (Mac OS), and choosing Filters from the pop-up menu that appears.

- 3 Select the filter from the Available list and click Add, or double-click the filter in the Available list.

- 4 If the filter has controls for its effect, the Settings dialog box appears. The settings you choose here apply to the first keyframe (if you change settings for other keyframes) or to the entire clip (if you make no changes to any keyframe). Click OK to apply the settings.

- 5 To change values for either of the two default keyframes (at the beginning and end of the clip), select the keyframe in the keyframe timeline (the triangle turns blue). Click the Edit button, and in the Settings dialog box specify the settings you want. Click OK.
- 6 To add and set other keyframes, click on the desired position in the keyframe timeline. In the Settings dialog box, adjust the settings, and click OK.
- 7 To reposition a keyframe, drag it to a new position in the keyframe timeline. As you drag, the Program view in the Monitor window scrubs the clip, updating the clip with keyframe settings.
- 8 To remove a keyframe you added, select it and click Delete. You cannot remove the first and last keyframes.
- 9 When you are finished setting keyframes, click OK in the Filters dialog box.

To remove a filter from a clip:

- 1 Select a clip and choose Clip > Filters.
- 2 Select the filter from the Current list in the Filters dialog box.
- 3 Click Remove.

Applying multiple filters

You can apply two or more filters to a clip to produce more complex special effects. Adobe Premiere LE applies filters in the order in which they appear in the Current list in the Filters dialog box, top to bottom. Therefore, with multiple filters, each one is applied to the effect created by those above it in the list. For example, if you add the Emboss, Bend, and Camera Blur filters to a clip, in that order, Camera Blur is applied only after Emboss and Blend. Different orders can change the overall effect.

Each filter has its own set of keyframes. Modifying keyframes for one filter does not affect the keyframes for any other filters applied to the same clip.

To apply multiple filters to a single clip:

- 1 Add a filter to the list of Current filters in the Filters dialog box as explained in “Applying video filters to a clip” on page 178.
- 2 Select another filter from the Available list and click Add, or double-click the filter in the Available list. Repeat for each filter you want to add.
- 3 Do any of the following:

- To rearrange the filters in the Current list, select one and drag it up or down.
- To increase the effect of a filter, add it to the Current list more than once.
- To modify keyframes for any filter in the Current list, select it and edit, add, delete, or reposition keyframes in the keyframe timeline.



10



Chapter 10: Producing Final Video

When you have finished assembling and editing clips in the Timeline, you can generate the final video. The options you choose when exporting the final video depend on how it will be used. This chapter will help you produce high-quality videos for different purposes:

- Record the Timeline directly to videotape as it plays from your computer.
- Export an AVI or QuickTime video file for viewing from a hard disk, removable cartridge, or CD-ROM.
- Export a video file for viewing over the World Wide Web.

If you want to create videotape or motion-picture film from a Premiere LE project, you must have either the proper hardware for video or film transfer or access to a service provider that offers the equipment and services you require.

About output settings

When you output a video program, the settings you adjust to control the output depend on the kind of output you want:

- When you record the Timeline or a clip to videotape as it plays back on your computer, the output is controlled by the Video Settings, Audio Settings, and Keyframe and Rendering options in the Project Settings dialog box.
- When you export the Timeline or a clip to a video file or still-image file, the output is controlled by the Export Settings available through the Export command.

Specifying compression for final video

You apply compression to final video so that a computer can play your program smoothly. However, the level of compression you apply depends on how the final video will be played back:

- If you create a program that will be played from the Timeline while recording directly on videotape, apply compression settings that preserve the highest picture quality without dropping any frames. Tune the settings for the computer that will play the program during videotape recording. If you will be recording to videotape using the same video card you used for capturing video, you can use the same compressor you used for capturing.
- If you create a program that will be played back from a wide range of computers, such as from a retail CD-ROM title, apply compression settings that allow smooth playback on the least powerful computer you plan to support.

Setting up a video codec

A compressor/decompressor, or *codec*, is a specific method of handling compression and decompression. Some are built into QuickTime or Video for Windows, and others are available as plug-in software modules. A wide range of codecs is available because there is no single codec that is the best for all situations. For example, the best codec for compressing cartoon animation is usually not very efficient for compressing live-action video.

The codecs available for recording to videotape depend on the Editing Mode you specify in the Project Settings dialog box, and the codecs available for export depend on the File Type you select in the Export Movie Settings dialog box. Video for Windows, QuickTime, and the software that comes with a video-capture card may each provide a different set of codecs to Premiere LE. If you create a program that will be played back from a wide range of computers, make sure your entire audience has access to the codec you use. For example, if you use a codec available only for QuickTime, your audience must have QuickTime installed. Some formats such as some streaming-video systems, use dedicated codecs. For information on compression and a description of many codecs, see “Finding an appropriate codec” on page 214.

Note: *If you cannot find options that your codec provides, see the documentation provided by the hardware manufacturer. Some codecs included with video-capture hardware require that you set compression options in dialog boxes provided by the codec, instead of through the options described in this section.*

To choose a codec:

1 Do one of the following:

- To choose a codec for recording on videotape as the Timeline plays, choose Project > Settings > Video Settings.
- To choose a codec as you export a video file, choose File > Export > Movie, click Settings, make sure the File Type is the one you want, and click Next.

2 Choose a codec from the Compressor menu.

3 Click Configure (if available), specify options, and then click OK. The actual options vary, depending on the specified codec.

4 Specify the level of Quality at the bottom of the Video Settings dialog box. Some codecs do not provide control over this option. Then click OK.

Setting the data rate

Some video codecs let you specify the *data rate*, which controls the amount of video information that must be processed each second during playback. Specifying a data rate in Premiere LE actually sets the maximum data rate, because the actual data rate varies depending on the visual content of each frame.

The data rate you specify depends on the purpose of the video. The following list describes data rate guidelines for some uses:

Videotape production The data rate should fall within the capabilities of the computer that will play the Timeline or clip during videotape recording.

Hard disk playback If your final video will be played back from a hard disk, determine the typical data transfer rate of your audience's hard disks and set the data rate accordingly. If you are exporting video to be edited further at maximum quality, use a lossless codec and specify the data rate that the editing system supports for video capture and editing.

CD-ROM playback The data rate for video played from a CD-ROM depends on the speed of the drive. For example, if you are preparing a final video file for a double-speed CD-ROM drive (300 KB per second) you might specify between 150 to 200 KB per second to account for both the data rate of the drive and for the system overhead required to move the data.

Intranet playback The data rate can be 100 KB per second or faster, depending on the speed of your *intranet*. An intranet is an in-house or private network that uses Internet network protocols. Because they are limited in scope, intranets generally use higher-quality communications lines than standard telephone lines, so they are usually much faster than the Internet.

Streaming video over the World Wide Web The data rate should account for real-world performance at the target data rate. For example, the data rate for streaming video designed for a 28,800 bps (bits per second) connection is often set to 20,000 bps. That's because factors such as data volume and line quality often prevent telephone-based Internet connections from consistently achieving their stated data rate.

Downloading a video file over the World Wide Web The data rate is less important than the size of the video file on disk, because the main concern is how long it takes to download the file. However, reducing the data rate for downloaded video can reduce the size of the video file, so that it downloads faster.



You can use the Get Properties For command to analyze the data rate of files you export. See “Analyzing clip properties and data rate” on page 83.

To specify the data rate:

1 Do one of the following:

- To set the data rate for recording on videotape as the Timeline plays, choose Project > Settings > Video Settings.
- To set the data rate as you export a video file, choose File > Export > Movie, click Settings, make sure the File Type is the one you want, and click Next.

2 Select Limit Data Rate to _ K/Sec and type the data rate required.

3 Select Recompress to ensure that Premiere LE exports a video file that is under the data rate you specified. Choose Always from the Recompress menu to compress every frame even if it is already within the data rate, or choose Maintain Data Rate to preserve quality by compressing only the frames that are above the specified data rate. Recompressing previously compressed frames may lower picture quality. Deselect Recompress to prevent current compression settings from being applied to clips that were not altered when you edited them into the program. (See “Recompressing clips” on page 212.) Then click OK.

Note: *Some codecs do not provide control over data rate options. In such codecs, the options in steps 2 and 3 will not be available.*

File types available for exporting

1 The following list describes the file formats available when you export.

Note: Notations such as “Windows only” or “Mac OS only” in this chapter and elsewhere refer to features that are specific to the Windows or Mac OS versions of Premiere LE. They are not intended to indicate whether a given file format can be opened or played on a particular computer platform.

AIFF audio (Mac OS only) Use when you want to export the audio track only.

Microsoft AVI (Windows only) Use the Audio Video Interleaved (AVI) format for videos that will be played back in Windows, which has built-in support for AVI. Sometimes used for downloadable Web video.

QuickTime Use for video files that must be playable on both Windows and Mac OS. Premiere LE always exports a *flattened* file containing all necessary playback information for each platform. Can be used for downloadable and streaming video, depending on settings and the version of QuickTime the audience uses.

Windows Audio Waveform (Windows only) Use when you want to export the audio track only. Also known as a .WAV file. Can be played back on Windows computers only.

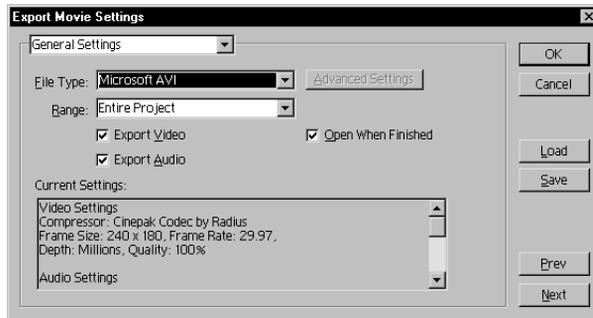
Exporting video files

The program you’ve edited in the Timeline is not available as an independent video file until you export it. After you export a video file, you can play it in other video playback or editing programs and move it to other disks or platforms. Before you export, make sure the Timeline is ready to output at the quality you require. You can also export from the Source or Program views or the Clip window, and you can specify a range of frames to export.

As part of the process of exporting, you’ll check the options in the Export Settings dialog box. The initial export settings are the same as the settings you specified in the Project Settings dialog box when you first started the project. But export settings don’t update as you work on your project, so it’s a good idea to make sure all export settings are the ones you want. Although the Export Settings dialog box is similar to the Project Settings dialog box, important differences exist.

To export a video file:

- 1 Activate the Timeline, Source view, Program view, or a Clip window.
- 2 Choose File > Export > Movie, and click Settings.

**3 Specify the following options as needed:**

- For File Type, choose the kind of file you want to export. If available, click Advanced Settings to specify options that vary depending on the file type you chose.
- For Range, choose the range of time to export. If the Timeline or the Program view is active, you may select Work Area to export the frame range marked by the work area markers (see “Previewing a video program” on page 119). If you are exporting from the Source view or a Clip window and In and Out points are marked, you may select In to Out to export the marked range only.
- Select Export Video to export the video tracks, or deselect to prevent exporting video tracks.
- Select Export Audio to export the audio tracks, or deselect to prevent exporting audio tracks.
- Select Open When Finished if you want to the exported file to be opened in Premiere LE after exporting is complete.

4 Choose Video Settings from the menu at the top of the dialog box and specify the following options:

- For Compressor, choose the *codec* (compressor/decompressor) for Premiere LE to apply when exporting a file, and click Configure (if available) to set options specific to the selected codec. The codecs available depend on the File Type you chose in the Export Settings panel. See “Setting up a video codec” on page 184.

- For Depth, choose the *color depth*, or the number of colors to include in video you export. This menu may not be available if the selected Compressor supports only one color depth. You can also specify an 8-bit (256-color) palette when preparing a video program for 8-bit color playback, for example to match the colors on a Web page or in a presentation. When available, click Palette and then either select Make Palette From Movie to derive a color palette from the frames used in the video program, or select Load Palette Now to import a color palette you prepared and saved previously. You can load color palettes in the .ACO (Photoshop color swatch), .ACT (Photoshop color palette), or .PAL (Windows palette—Windows only) format.

Note: *The QuickTime file type lets you attach a 256-color palette to a movie of any bit depth. This lets you specify a palette for 24-bit movies to use when displaying on 8-bit monitors, and it prevents palette “flashing” by letting you attach the same palette to many movies. Video for Windows supports attaching a palette only to an 8-bit movie.*

- Specify the Frame Size dimensions, in pixels, for video frames you export. Select 4:3 Aspect to constrain the frame size to the 4:3 aspect ratio used by conventional television. Some codecs support one or a specific set of frame sizes. Increasing the frame size displays more detail but uses more disk space and requires more processing during playback. See “Measuring frame size and resolution” on page 206.
- For Frame Rate, choose the number of frames per second for video you export. Some codecs support a specific set of frame rates. Increasing the frame rate may produce smoother motion (depending on the original frame rates of the source clips) but uses more disk space. See “Understanding frame rates in relation to the timebase” on page 200.
- For Quality, enter a value to affect the picture quality of and disk space used by exported video. Increasing quality makes the picture look better, but requires more disk space and may not play smoothly on slower computers.
- Select Limit Data Rate to _ K/Sec (if available for the selected compressor) to place an upper limit on the amount of video data produced by the exported video when it is played back. See “Setting the data rate” on page 185.

Note: *In some codecs, quality and data rate are interrelated, so that adjusting one option automatically alters the other.*

5 Choose Audio Settings from the menu at the top of the Export Movie Settings dialog box, and specify the following options:

- For rate, choose a higher rate for better audio quality in an exported file, or choose a lower rate to reduce processing time and disk-space requirements. Compact-disc quality is 44 kHz. Resampling, or setting a different rate than the original audio, also requires additional processing time; avoid resampling by capturing audio at the final rate.
- For Format, choose a higher bit depth and stereo for better quality, or choose a lower bit depth to reduce processing time and disk-space requirements. Compact-disc quality is 16-bit stereo. Stereo provides 2 channels of audio; Mono provides one channel.
- For Type, you can't choose an option unless you have the full version of Adobe Premiere. Premiere LE does not include any audio codecs.
- For Interleave, specify how often audio information is inserted among the video frames in the exported file. A value of 1 frame means that when a frame is played back, the audio for the duration of that frame is loaded into RAM so that it can play until the next frame appears. If the audio breaks up when playing, the interleave value may be causing the computer to process audio more frequently than it can handle. Increasing the value lets Premiere LE store longer audio segments that need to be processed less often, but higher interleave values require more RAM.

6 Choose Keyframe and Rendering Options from the menu at the top of the Export Movie Settings dialog box. In the Rendering Options section, specify the following settings as needed:

- Select Ignore Audio Filters to export audio without processing applied filters. This option can be useful for exporting a rough cut, but remember to deselect it for the final cut.
- Select Ignore Video Filters to export video without processing applied filters. This option can be useful for exporting a rough cut, but remember to deselect it for the final cut.
- Select Ignore Audio Rubber Bands to process a video program excluding changes made using the rubber-band controls in the Timeline for audio fading and panning. This option can be useful for exporting a rough cut, but remember to deselect it for the final cut.
- Select Optimize Stills to use still images efficiently in exported video files. This option is useful for keeping the data rate low when the file you are exporting is intended for the Web. For example, if a still image has a duration of 2 seconds in a project set to 30 frames per second, Premiere LE will create one 2-second frame instead of 60 frames at 1/30 of a second. Selecting this option can save disk space if you used still images. Deselect this option only if the exported video file exhibits playback problems when displaying the still images.

- For Field Settings, choose an option if required for your final medium. No Fields is the default and is the equivalent of progressive scan, the correct setting for computer display and motion-picture film. Choose Upper Field First or Lower Field First when exporting video for an interlaced medium such as NTSC, PAL, or SECAM. The option you choose depends on the specific video hardware you use. See “Comparing interlaced and non-interlaced video” on page 204.

7 Click OK to close the Settings dialog box. Specify a location and filename, and click OK. If you want to cancel exporting, press Esc; it may take several seconds to complete the cancellation.

 *You can use the Save and Load buttons in the Export Movie Settings dialog box to save and later quickly load export settings you frequently use. Loading saved settings is particularly useful when you create several types of video files (for example, NTSC and Web video) from the same project.*

Creating a videotape

You can record your edited program onto videotape directly from your computer. This can be as simple as playing the video full-screen and recording on a connected VCR. You can also use Premiere LE to control a deck if your computer is properly connected to a deck that supports device control. You can use the Print to Video or Export to Tape commands to play video on a black background for recording on videotape. Print to Video can also zoom frames, so that quarter-screen video plays at full-screen size. Many video-capture cards include Premiere LE-compatible plug-in software that provides a menu command for recording to videotape.

To videotape a Premiere LE video program, your hardware must be able to produce the scan rates and video signal encoding for television display, which are different than the signals produced by a computer monitor. Whether your computer can generate a television signal and provide the right cable connections depends on your computer and video card. Most standard video-capture hardware can generate television (NTSC, PAL, or SECAM) scan rates. See the documentation that comes with your computer and your video card for information on their capabilities. If yours does not, you need to add a specialized video card or peripheral device that can output to videotape.

 To give your recording deck additional time before your video program starts and after it ends, add a black or color matte before and after the program in the Timeline. See “Adding a background matte” on page 174. In addition, if you plan to have a post-production facility duplicate your videotapes, add color bars at the beginning of your program to aid in color calibration.

To prepare a program for videotape recording:

Choose Project > Settings > General, and make sure all options in all panels are appropriate for recording on videotape, because they may have been set for lower quality while previewing. See “Specifying project settings” on page 44.

To record the Timeline on videotape by using device control:

1 Make sure your video recording deck is on, that you’ve set it up correctly using the File > Preferences > Scratch Disks/Device Control command, and that the correct tape is in the deck.

2 Choose File > Export > Export to Tape, and specify options outside the Device Options section (see “Playing back full-screen video” on page 123).

Note: The Export to Tape command is available only if you have installed a plug-in that supports the Export to Tape command for a device-control deck. The exact options in the following steps may vary depending on the device-control plug-in you use. See the documentation that came with the device-control deck.

3 In the Device Options section, select Activate Recording Deck.

4 Specify the following options as necessary:

- Select Insert to include various program components into the recording. Select Video, Audio 1, and Audio 2 track names as necessary to include them, and if your video-capture card and recording deck are set up to record time code, select Time Code to use the timecode of clips in the program.
- For @, type the timecode at which you want program insertion to begin.
- For Preroll, type the number of frames you want Premiere LE to back up the recording deck before the specified timecode. Specify enough frames for the deck to reach a constant tape speed. For many decks, five seconds of frames is sufficient.

5 Click OK.

To record the Timeline on videotape without device control:

- 1 Make sure your video recording deck is on and the tape is cued to the frame where you want to start recording.
- 2 Choose File > Export > Print to Video. Specify options (see “Playing back full-screen video” on page 123). For the Play Black for _ Seconds option, make sure you enter enough time for the speed of the video recording deck to stabilize before the video starts.
- 3 Click OK, and start the video recording deck.



You can record a clip on videotape without adding it to the Timeline. Open the clip (see “Displaying a clip” on page 88) and then choose File > Export > Print to Video. When you do this, the clip plays using the settings saved with the clip.

About creating a video file for CD-ROM playback

When you create a video file to be played from a CD-ROM, you may need to specify export settings that take into account the wide range of hardware that your audience may be using, possibly including older single- or double-speed CD-ROM drives.

If your audience does use older CD-ROM drives, it becomes important to tune your exported video file for a low data rate. You can limit the data rate of your program simply by specifying it in Premiere LE, but if the video file still does not play well on your audience’s computers, you may also want to make the following adjustments:

- Lower the data rate and quality as far as you can without losing too much picture quality, if you specified a codec that lets you adjust data rate and quality. Using the Optimize Stills option can help lower data rate. See “Setting the data rate” on page 185 and “Exporting video files” on page 187.
- Lower the frame rate as far as you can without making motion seem too jerky. Start at 15 frames per second. See “Exporting video files” on page 187.
- Lower the color depth to 256 colors. In addition to lowering the data rate, this may improve picture quality of video on a system or in presentation software that can display only 256 colors (8-bit color). See “Exporting video files” on page 187.
- Choose a file type and codec appropriate for the target audience. For example, for a cross-platform CD-ROM, you might specify a QuickTime codec. Choose a codec designed for low data rates, such as Indeo, Cinepak, or Sorenson Video. See “Finding an appropriate codec” on page 214.

About creating a video file for the Internet

In general, Internet video is constrained by delivery data rates that are even lower than those used for CD-ROM playback. Use the guidelines for CD-ROM exporting (see “About creating a video file for CD-ROM playback” on page 193), but tune them to the data rates available on the networks through which you expect to deliver the video.

You have many choices for delivering video over the Internet. Each method has specific capabilities and workflow requirements, so consider the choices carefully.

QuickTime

QuickTime can play movies using a player application or play them directly on a Web page by using a plug-in. Premiere LE always creates QuickTime movies that are *flattened* so that they can play across platforms without modification.

DirectShow (Windows only)

Microsoft DirectShow and Video for Windows use the Audio Video Interleaved (AVI) format, which is a standard on the Windows platform. AVI is viewable in a player application such as the MediaPlayer included with Windows, or directly on a Web page. DirectShow is designed for displaying live-action video but can also play animations. You use AVI by choosing it from the File Type menu in the Export Settings dialog box.

MPEG

Motion Picture Experts Group (MPEG) is a file format that compresses video files effectively but is not as standardized as QuickTime or AVI. There are actually several variations of MPEG. The version generally used for Internet and CD-ROM is MPEG-1, which provides picture quality nearly comparable to VHS. MPEG-2 can provide SVHS picture quality. However, the keyframe-based compression that makes MPEG popular for delivery of final video makes it unsuitable for high-quality editing. MPEG export is not built into Premiere, but Premiere-compatible plug-in modules are available from other companies or may be included in some video-card bundles.

Streaming video

Streaming video resembles conventional television in that video is sent to you frame-by-frame, without downloading a large file to your hard drive. Streaming video export is not built into Premiere, but Premiere-compatible plug-in modules are available from other companies or may be included in some video-card bundles. Streaming video on the Web is constrained by the limited bandwidth (56 Kbps or less) of most consumer modems. However, streaming video can be deployed effectively within intranets where high-speed bandwidth is more readily available.

About creating a video file for use in other software

Premiere LE exports to many formats readable by other applications. For example, you can export a QuickTime movie for use in Adobe After Effects. When preparing to export to a video file for use in other video-editing or special effects software, answer the following questions:

- What file formats and compression methods does the other software import? This helps determine which format you will use to export.
- Will you be transferring across computer platforms? This may constrain the choice of file formats and compression methods further. Consider using high-quality cross-platform codecs (transcoders) such as QuickTime MJPG A or B, or the Animation codec.
- Will you be superimposing the Premiere LE clips over other clips? If so, preserve alpha channel transparency when exporting from Premiere LE.
- What is the highest quality compression method the other software imports? Using high-quality compression limits the degree of compression that can be applied to the video file but retains quality. You want to retain the highest possible level of picture quality until the editing process is complete. For maximum quality, choose the None compressor (no compression) if you have sufficient disk space to store the very large file that will result. See “Finding an appropriate codec” on page 214.
- Do you want to use a single frame as a still image? If so, see “Exporting a still image” on page 195.

Exporting a still image

You can export any frame or still-image clip to a still-image file. The frame is exported from the current time position in the Timeline, Clip window, Source view, or Program view.

In Windows, Premiere LE can export files to the Windows Bitmap (.BMP) format. In Mac OS, Premiere LE can export files to Macintosh Picture (PICT) format.

To export a still image:

- 1 Choose File > Export > Frame.
- 2 Click Settings.
- 3 Choose a File Type. Click Advanced Settings for the file type you chose (if available), specify options, and click OK.
- 4 Click Next. In the Video Settings panel, specify the Frame Size and color Depth.
- 5 Click Next. In the Keyframe and Rendering Options panel, specify options as needed (see “Exporting video files” on page 187).
- 6 Click Next. In the Special Processing panel, click Modify, and specify options as needed (see “Exporting video files” on page 187).
- 7 Click OK to close the Export Still Frame Settings dialog box.
- 8 Specify a location and filename, and then click OK.

About creating motion-picture film

If you are editing a project for viewing on motion-picture film, you first export the Premiere LE video program to a video file using high-quality settings. After you create the file, you need to use a motion-picture *film recorder*, a hardware device that prints individual frames to motion-picture film frames. This service is most likely to be available from a post-production facility. Motion-picture film can display more detail than most video formats, so your project may require a larger frame size than it would for videotape. The exact resolution you should use depends on the film stock to which you will print. For best results, discuss the project with your post-production facility before you begin.

A video frame is displayed using two alternating fields of scan lines. A motion picture frame appears all at once. When you create motion-picture film from clips that were originally digitized from interlaced video, be sure to set field options properly for each clip in the Timeline. This ensures that motion will play back properly. See “Exporting video files” on page 187.





Appendix A: Measuring Time and Frame Size

Video editing uses established measurement systems that address the specific requirements of working with video. Consistent measurement is important because video is typically transferred between many kinds of software and hardware in the course of video production. Understanding the measurement systems helps ensure that your video program works well when transferred from one medium to another. This appendix describes how time and frame size are measured in video editing.

Measuring time

A video program is defined by visual and audio changes that happen over time. Editing often requires more precision than can be measured using hours, minutes, and seconds, so smaller time spans are measured using the frames that make up each second.

A project can contain clips from many sources that may count time in different ways. The time options in Premiere LE let you define how time is to be counted so that all clips can be edited together and played back precisely and consistently.

Timebase

The *timebase* for your project specifies the number of time divisions per second by which Premiere LE will calculate the precision of your edits. The timebase is not the same as the frame rate, though they can use the same value. The timebase serves as a basis for time calculation, whereas the frame rate is the rate at which the final video program plays back frames. In general, choose 24 for editing motion-picture film, 25 for editing PAL and SECAM video, 29.97 for editing NTSC video, and 30 for other video types. Premiere LE also provides the Frames/Samples option for counting frames or audio samples without referring to time. For information about setting the timebase, see “General settings” on page 45.

The timebase affects the way clips are represented in the Project and Timeline windows. For example, the tick marks in the Timeline window's time ruler represent the timebase. A clip in Source view uses the timebase at which it was saved; Premiere LE duplicates or skips frames to adjust a source clip timebase to the project timebase. For this reason, source clips work best if their timebases match the project timebase at the time you import them. For situations where the frame rate may differ from the timebase, see, "Understanding frame rates in relation to the timebase" on page 200.

Because all time values in your project are calculated using the timebase, set the project timebase correctly before you begin editing. Changing the timebase in the middle of a project is not recommended as it changes the precision of time calculations, which can cause existing edit points or markers to shift, or may change clip durations slightly.

Understanding frame rates in relation to the timebase

The *frame rate* can have different meanings depending on whether you are talking about source clips or the final video:

- For source clips, the frame rate is the number of visual samples created per second when the clip was originally shot (using a camera) or rendered (using animation software).
- For final video, the frame rate is the number of frames an exported clip or the Timeline will display each second when played back.

For traditional media, set the frame rate to match the timebase of the target media; specify 24 fps for editing motion-picture film, 25 fps for PAL and SECAM video, and 29.97 fps for NTSC video. The depiction of motion on screen can only be as precise as the original frame rate of the source clips. Increasing the frame rate of final video will not by itself make motion appear smoother.

When the frame rate of original clips, the timebase, and the frame rate you specify for playback or export all match, you usually don't have to think about frame rate. When they don't match, the relationship between those three factors becomes important in the following ways:

- When the frame rate of a source clip doesn't match the timebase, Premiere LE compares the clip frame rate to the timebase to determine how the original frames can be represented in the Timeline. For example, if a clip shot at 24 fps is used in a project with the timebase set to 30, Premiere LE must repeat every fourth frame in the clip to match the number of frames required to match the timebase. If a clip shot at 30 fps is used in a project with the timebase set to 24, the mathematics work in reverse, and every fourth frame cannot be displayed.

- When the timebase doesn't match the Video Settings (Timeline playback) frame rate or the Export Settings frame rate, Premiere LE uses the Video Settings or Export settings frame rate to determine which frames can be included in Timeline playback and export, respectively. For example, if the original clips and timebase are 30 fps, but you set the Video Settings frame rate to 15 fps, you will see only every other frame in the Timeline when you preview.

Premiere LE lets you alter the relationship between source clip frame rate, timebase, and playback and export frame rates through the following options:

- The Clip > Speed command increases or decreases the frame rate of a clip in the Timeline. The change is specified as a length of time or as a percentage of the original duration. If the resulting frame rate is higher than the program frame rate specified in Video Settings or Export Settings, Premiere LE must omit frames that end up between Timeline frames as determined by the Timebase and the playback or export frame rate. If the resulting frame rate is lower than the playback or export frame rate, Premiere LE must repeat frames to match the playback or export frame rate.
- When working with audio, it can be useful to start playing from a point in the source audio clip that is between frames—not accessible at the time divisions provided by the timebase. You can use the Frame/Samples time display to work with those frames or audio samples. For more information, see “Counting frames and samples” on page 203.

If you are preparing a program for media that use different frame rates, such as both television and Web delivery, you can save a different set of project or export settings for each medium. For information about setting the project frame rate and saving project and export settings, see “Video settings” on page 47, “Saving and loading project settings (presets)” on page 51, and “Exporting video files” on page 187.

Duration

Each project and video clip has its own *duration*, which describes how long the item plays. Before you edit a clip, its duration is its original length. After you edit a clip, its duration is determined by the In and Out points you set for it. See “Changing clip duration and speed” on page 102 and “Editing a clip that exists between other Timeline clips” on page 113.

Understanding timecode and time display options

Timecode defines how frames are counted and affects the way you view and specify time throughout a project. You specify a timecode style based on the media most relevant to your project. For example, you count frames differently when editing video for television than when editing for motion-picture film. By default, Premiere LE displays time using the Society of Motion Picture and Television Engineers (SMPTE) video timecode: hours, minutes, seconds, and frames. The full version of Adobe Premiere includes options that let you change to another system of time display, such as feet and frames of 16mm or 35mm film. The method you choose applies to all time displays in Premiere. Timecode never changes the timebase or frame rate of a clip or project—it only changes how the frames are numbered. Also, timecode counts frames but not fields. See “Comparing interlaced and non-interlaced video” on page 204.

When using the full version of Adobe Premiere, you can choose from the following time-display options:

SMPTE and SMPTE–Drop Frame Count frames in frames per second. See the following topic, “Drop-frame and non-drop-frame timecode.”

Frames/Samples Counts individual clip frames and audio samples.

Feet/Frames 35mm and Feet/Frames 16mm Count feet of 35mm or 16mm motion-picture film, respectively, and count fractions of feet in frames: 35mm film has 16 frames per foot, and 16mm film has 40 frames per foot.

Drop-frame and non-drop-frame timecode

In the full version of Adobe Premiere, the Time Display option in the General Settings, Monitor Window Options, and Timeline Window Options dialog boxes includes the 30 fps Drop-Frame Timecode and 30 fps Non Drop-Frame Timecode options. Use drop-frame timecode whenever you are editing NTSC video that must match a specific real-time duration, such as a television program that must be precisely one hour long. When you work with a composition using the NTSC-standard 29.97 fps timebase, the fractional difference between the 29.97 fps frame rate and 30 fps frame numbering causes a difference between the stated duration of the program and its actual duration. While tiny at first, this difference grows as program duration increases, preventing you from accurately creating a program of a specific length. *Drop-frame* timecode is a SMPTE standard that maintains time accuracy by eliminating this error. When you use drop-frame time code, Premiere renumbers the first two frames of every minute, except for every tenth minute. For example, the frame after 59:29 is labeled 1:00:02. No frames are lost, because drop-frame timecode doesn't actually drop frames, only frame numbers.

Premiere displays drop-frame timecode by displaying semicolons between the numbers in time displays throughout the software, and displays non-drop-frame timecode by displaying colons between the numbers in the time display.



Drop-frame timecode uses semicolons (left) and non-drop-frame timecode uses colons (right).

When the precise duration of a program isn't critical, such as for an in-house corporate videotape, you may specify 30 fps non-drop-frame timecode, which doesn't renumber any frames. Drop-frame timecode was specifically designed for a 29.97 frame rate, so never use drop-frame timecode for PAL or SECAM video, which display at exactly 25 fps.

Counting frames and samples

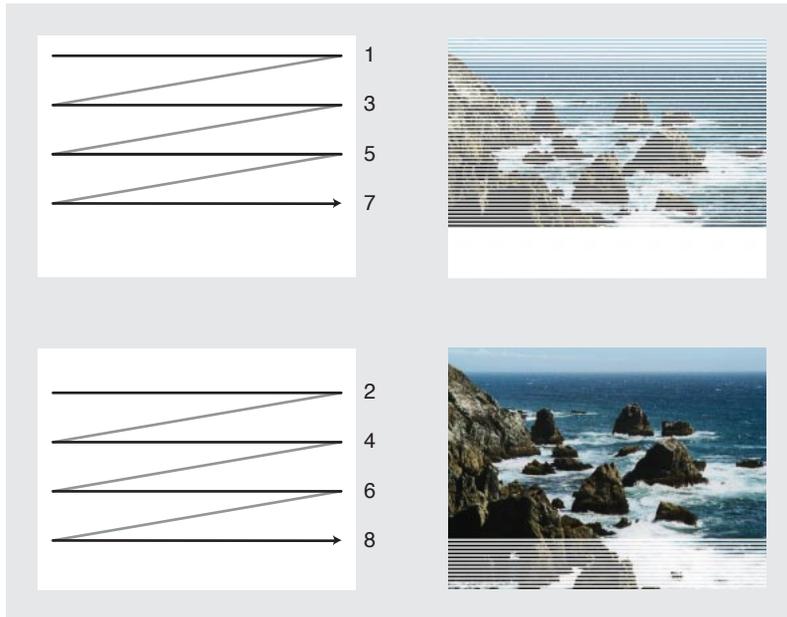
The ability to count individual samples of an audio clip in Source view can be useful. (Video clips always display individual frames in Source view.) Although this is not an issue when the audio source clip frame rate is equal to or lower than the timebase, it becomes important when the audio source clip frame rate is higher than the timebase: If you want to start an audio clip from a point that falls between timebase divisions, you need a way to work at a resolution finer than that of the timebase. You can handle these situations using the Frames/Samples option for time display, which counts individual frames or audio samples.

When you use the Frames/Samples option, you gain flexibility in setting the audio source In point only. The source clip's In point specifies the first frame or audio sample played back from the clip, not the program In point in the Timeline where the audio clip begins to play. When you add the clip to the Timeline, the clip's source In and Out points are translated into program In and Out points, which can only exist at the timebase you specified. So although the clip can start playing from any of its source frames or samples, the last frame or sample it plays will be rounded to the nearest frame boundary in the Timeline—even if you specified the source Out point at the frame or sample level. To use the Frames/Samples option for an audio clip, see “Using named subclips and unnamed instances of clips” on page 101.

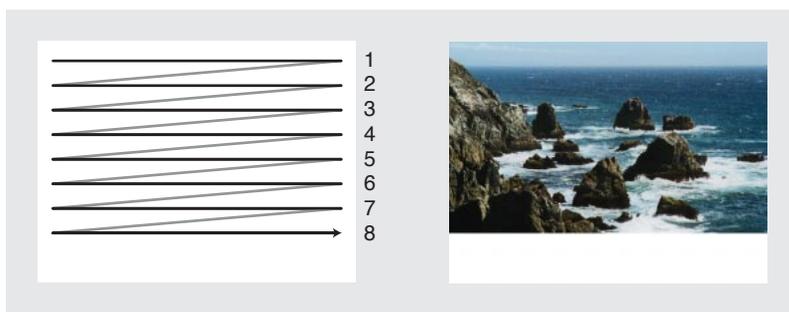
Comparing interlaced and non-interlaced video

Analog or digital video can be classified as interlaced or non-interlaced (progressive scan). Video programs using the NTSC, PAL, and SECAM standards are *interlaced*: Each frame consists of two fields displayed in two passes. Most personal computers display using *progressive scan*, in which all lines in a frame are displayed in one pass from top to bottom before the next frame appears.

In interlaced video, a frame is divided into two *fields*. Each field contains every other horizontal line in the frame. A TV displays the first field of alternating lines over the entire screen, and then displays the second field to fill in the alternating gaps left by the first field. One NTSC video frame, displayed approximately every 1/30th of a second, contains two interlaced fields, displayed approximately every 1/60th of a second each. PAL and SECAM video frames display at 1/25 of a second and contain two interlaced fields displayed 1/50th of a second each. The field that contains the topmost scan line in the frame is called the *upper field*, and the other field is called the *lower field*. When playing back or exporting to interlaced video, make sure the field order you specify matches the receiving system, otherwise motion may appear stuttered, and edges of objects in the frame may break up with a comb-like appearance.



Interlaced video describes a frame with two passes of alternating scan lines.



Progressive-scan video describes a frame with one pass of sequential scan lines.

Analog television signals are interlaced because they are sent through a limited bandwidth broadcast channel. Transferring television signals as progressive pictures would either cause intolerable flicker or low image resolution. By offsetting every other field, interlacing helps hide the line structure, and limits flicker to sharp, high-contrast horizontal details.

Computers have unlimited bandwidth, making progressive scan practical for computer monitors. Motion-picture film, while not technically video, is similar to progressive scan because it displays an entire frame at once.

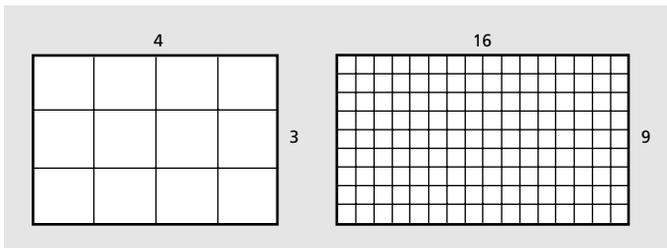
Interlacing is a characteristic of capturing and displaying clips, not a structural component of file formats or media. For example, it is possible to play back a digitized NTSC movie (interlaced) on a Mac OS or Windows monitor (progressive scan), or display a scanned 35mm film frame (progressive scan) on an NTSC video monitor (interlaced). However, progressive-scan video provides better final picture quality when editing with filters and effects that affect motion, including rotating a frame or compositing live-action video with special effects. In addition, thin lines and small text are more likely to flicker on an interlaced display. When you diagnose problems related to interlaced fields, view the clips on an interlaced television display, because diagnosing field problems on a progressive-scan monitor is unreliable. For information on Field Settings in Premiere LE, see “Keyframe and rendering options” on page 50.

Measuring frame size and resolution

In editing digital video, frame size is also referred to as *resolution*. Several attributes of frame size are important when editing video on a personal computer: pixel (picture element) and frame aspect ratio, clip resolution, project frame size, and bit depth. It is also important to understand the relationship between frame size and memory requirements. In general, higher resolution preserves more image detail and requires more memory to edit. The upper limit of useful resolution is usually dictated by the format on which the project is ultimately delivered.

Aspect ratio

The *aspect ratio* of a frame describes the ratio of width to height in the frame dimensions of an image. For example, the frame aspect ratio of NTSC video is 4:3, whereas some motion-picture frame sizes use the more elongated aspect ratio of 16:9. Where appropriate, Premiere LE provides options for preserving the aspect ratio of a clip or altering it to match the project aspect ratio.



A frame using a 4:3 aspect ratio (left), and a frame using the wider 16:9 aspect ratio (right)

The aspect ratio of the frame is not the only area in which proportions are relevant. Some video formats output the same aspect ratio but use a different aspect ratio for the pixels that make up the frame. For example, the D-1 (CCIR-601) standard produces the same 4:3 aspect ratio as the Windows, Mac OS, and NTSC standards but uses rectangular pixels at a resolution of 720 by 486 pixels. D-1 pixels in systems producing NTSC video are vertically oriented, and D-1 pixels in systems producing PAL video are horizontally oriented. If you display D-1 format on a non-D-1 monitor without modification, the 720-by-486 pixel resolution does not produce a 4:3 aspect ratio. Shapes and motion appear stretched; for example, circles are distorted into ellipses.



A 4:3 aspect ratio frame with square pixels (left), a 4:3 aspect ratio with tall horizontal pixels (center), and the center frame displayed using square pixels (right).

For more information about aspect ratio options, see “Maintaining the original aspect ratio of a clip” on page 105.

Frame size

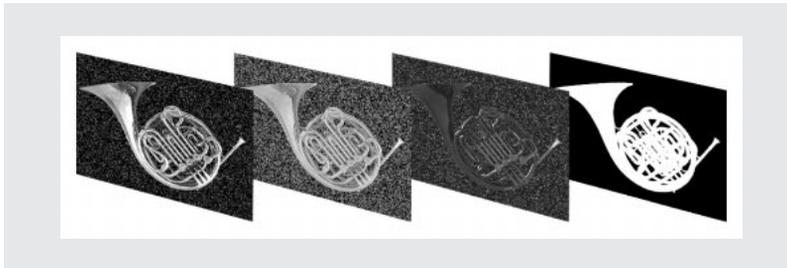
In Premiere LE, you specify a *frame size* for playing back video from the Timeline (see “Video settings” on page 47) and if necessary, for exporting video to a file (“About output settings” on page 183). Frame size is expressed by the horizontal and vertical dimensions of a frame in pixels. As you increase frame dimensions, you increase the number of pixels Premiere LE must process for each frame. For example, a 640-by-480 pixel frame contains 307,200 pixels, while a 720-by-486 image contains 349,920 pixels.

The frame size you specify is determined by the video output format to which your program will be played back or exported. For example, you might specify a frame size of 640-by-480 pixels for NTSC video or 720-by-576 pixels for PAL video. Or you might specify a frame size of 160-by-120 pixels to help create a small file size that downloads efficiently over the World Wide Web. Increasing resolution also increases memory and processing requirements, so you might decide to specify a smaller frame size for previewing edits than you would for playing back or exporting the final cut.

You set the frame size of a source clip in the software that produced it. If a source clip frame size doesn't match the frame size specified in the Video Settings or Export Settings dialog boxes, Premiere LE resizes it to fit. This may produce unsatisfactory picture quality if Premiere LE must resize the clip frame above its original dimensions or distort it if its aspect ratio doesn't match the frame aspect ratio in Premiere LE. For best results, make sure that source clip frame sizes and aspect ratios match the project settings before you import clips into a project.

Bit depth

Bit depth measures the number of bits used to store information in a single pixel. The higher the bit depth, the more colors the image can contain, which allows more precise color reproduction and higher picture quality. The bit depth required for high quality varies depending on the color format used by the video-capture card. Many capture cards use the YUV color format, which can store high-quality video using 16 bits per pixel. Before transferring video to your computer, video-capture cards that use YUV convert it to the 24-bit RGB color format that Premiere LE uses. For the best RGB picture quality, save source clips and still images with 24 bits of color, although you can use clips with lower bit depths. If the clip contains an alpha channel mask, save it from the source application using 32 bits per pixel (also referred to as 24 bits with an 8-bit alpha channel, or Millions of Colors+). For example, QuickTime movies can contain up to 24 bits of color with an 8-bit alpha channel, depending on the exact format used. Internally, Premiere LE always processes clips using 32 bits per pixel regardless of each clip's original bit depth. This helps preserve image quality when you apply effects or superimpose clips.



A 32-bit frame consisting of four 8-bit channels: red, green, blue, and an alpha channel mask

Appendix B: Compressing Video and Audio

Digital video involves storing, moving, and calculating extremely large volumes of data compared to other kinds of computer files. The data rate and file size of uncompressed digital video can overwhelm many personal computers and hard disks. Use *compression* to lower the data rate of digital video into a range that your computer system can handle.

Understanding scenarios that affect compression

As you build your video program in Premiere LE, compression settings are most relevant when capturing source video, previewing edits, playing back the Timeline, and exporting the Timeline. In many cases, the settings you specify won't be the same for all situations. The following guidelines can help you determine the proper compression settings:

- When capturing source video, use compression settings that lower the data rate just enough to preserve maximum quality and play back smoothly on the editing computer. If you're using a video-capture card, use the codec included with the video-capture card. You specify compression settings for capture in the Capture Settings dialog box (see "Preparing for video capture" on page 65).
- When previewing edits, compression settings affect how long you wait for edits to be processed before the Timeline is played back. Start by specifying the same compression settings you used for capturing, especially if you use a video-capture card for capturing and editing. If you're using the QuickTime editing mode, try Motion JPEG A or B; if you're using the Video for Windows editing mode, try Microsoft Video 1. If it still takes too long to wait for the Timeline to play back, you can try reducing the frame size or frame rate. You specify compression settings for previewing in the Video Settings and Keyframe and Rendering Options dialog boxes (see "Video settings" on page 47 and "Keyframe and rendering options" on page 50).

- When playing back the Timeline to record on videotape, preserve the highest quality by specifying the same compression settings you used to capture the source. If the video in your project was not captured using your computer, specify the highest quality compression settings your computer can handle while still playing back video smoothly. You specify compression settings for Timeline playback in the Video Settings and Keyframe and Rendering Options dialog boxes.
- When exporting video to a file, use compression settings that play smoothly on the kind of computer system you expect your audience to use. For media such as the World Wide Web, it may be necessary to specify lower quality settings to minimize the data rate of the video. You specify compression settings for export in the Export Settings and Keyframe and Rendering dialog boxes (see “Specifying compression for final video” on page 183).

Applying the best compression settings can be tricky. Your goal is to apply the degree of compression that lets the clip stay within—but not too far below—the target data rate. If you apply too little compression, the data rate will be too high for the system, causing errors such as dropped frames. If you apply too much compression, lowering the data rate too far, you won’t be taking advantage of the full capacity of the system and the picture quality may suffer unnecessarily. You can use the Data Rate Analyzer to evaluate any video file; see “Analyzing clip properties and data rate” on page 83.

About video compression

The topics in this section cover video codecs and some of the techniques they use to handle various situations. Understanding these techniques can help you identify issues and priorities as you evaluate compression strategies for your projects.

Spatial compression

Spatial (space) compression compacts the description of the visual area of a video frame by looking for patterns and repetition among pixels. For example, in a picture that includes a blue sky, spatial compression will notice that many of the sky pixels are a similar shade of blue. Instead of describing each of several thousand pixels, spatial compression can record a much shorter description, such as “All the pixels in this area are light blue.” *Run-length encoding* is

a version of this technique that is used by many codecs. As you increase spatial compression, the data rate and file size decrease, and the picture loses sharpness and definition. For many codecs, the degree of spatial compression is controlled by the Quality and Data Rate options—lowering the values for these options increases spatial compression. In some codecs, Quality and Data Rate are interrelated so that changing one affects the other.

Temporal compression

Temporal (time) compression looks for ways to compact the description of the changes during a sequence of frames. It does this by looking for patterns and repetition over time.

For example, in a video clip of a person speaking in front of a static background, temporal compression will notice that the only pixels that change from frame to frame are those forming the face of the speaker. All the other pixels don't change (when the camera is motionless). Instead of describing every pixel in every frame, temporal compression describes all the pixels in the first frame, and then for each frame that follows, describes only the pixels that are different from the previous frame. This technique is called *frame differencing*.

When most of the pixels in a frame are different from the previous frame, it's preferable to describe the entire frame again. Each whole frame is called a *keyframe*, which sets a new starting point for frame differencing. Some codecs automatically create a keyframe for a frame that is visually very different from the previous frame. As fewer keyframes are specified, the data rate and file size decreases, and so does the picture quality. The degree of temporal compression is usually controlled by a codec's Quality option and by keyframes. Lower values for these options increases temporal compression.

Lossless and lossy compression

Some codecs use *lossless* compression, which ensures that all of the information in the original clip is preserved after compression. This maintains the full quality of the original, which makes lossless compression useful for final-cut editing or moving clips between systems. However, preserving the original level of quality limits the degree to which you can lower the data rate and file size, and the resulting data rate may be too high for smooth playback on many systems.

Other compression methods discard some of the original data during compression. This is called *lossy* compression. For example, if the pixels making up a sky actually contain 78 shades of blue, a lossy codec set for less-than-best quality may record 60 shades of blue. Lossy codecs usually let you specify how much picture quality you want to trade to lower the data rate and file size so that you can tailor playback for your audience. Lossy compression allows much lower data rates and file sizes than lossless compression, so lossy codecs are commonly used for final production of video delivered using CD-ROM or the Internet. Some codecs are always lossy, such as JPEG, or always lossless, such as Planar RGB. Other codecs may or may not be lossy, usually depending on the settings you specify for the Quality and Data Rate options—lowering the value for these options saves more space by discarding more data.

Asymmetrical and symmetrical compression

The codec you choose affects your production workflow, not just in file size or playback speed, but in the time required for a codec to compress a given number of frames. Fast compression helps video production, and fast decompression makes viewing easier, but many codecs take far more time to compress frames than to decompress them during playback. This is why a 30-second program may take a few minutes to process before playback. Compressing video is like packing a suitcase—you can pack as fast as you unpack by simply throwing clothes into the suitcase, but if you spend more time to fold and organize the clothes in the suitcase, you can fit more clothes in the same space.

Similarly, different codecs require various amounts of time to compress or decompress video. A codec is considered *symmetrical* when it requires the same amount of time to compress as to decompress a clip. A codec is *asymmetrical* when the times required to compress and decompress a clip are significantly different. For example, the Cinepak asymmetrical codec decompresses video relatively quickly, making it useful for video files that must play well on both high- and low-end computers, but to achieve this it requires more time when compressing. Symmetry varies depending on the codec and is generally not adjustable within a codec.

Recompressing clips

When you play back or export a program consisting of compressed source clips, you can choose to recompress source clips that are already compressed or to leave them as they are. It's usually best to avoid recompressing the clips, because you cannot save additional space by compressing them again at the same settings. In fact, because many compressors are lossy, recompressing a clip degrades picture quality.

Premiere LE attempts to avoid recompressing when frames appear to be unchanged from the corresponding frames in the source clip, but there are situations where source clips must be recompressed. In general, recompressing is necessary when you've applied edits, effects, or output settings that cause significant changes to frames in a clip, such as the following:

- Reducing the Quality or Data Rate settings.
- Changing the frame rate, color bit depth, keyframe settings, codec or codec options, and in most cases changing the video type.
- Changing the visual content, including frame size, transitions, filters, transparency, or field options.

Selecting the Always Recompress option will always recompress clips regardless of whether or not frames changed. For information on setting recompression options for playback, see “Video settings” on page 47; for export, see “Setting the data rate” on page 185.

Other factors that affect file size

Some video characteristics can affect the size of a video file whether compression is applied or not, and regardless of the codec you specify.

Bit depth The bit depth determines the number of colors that will be used to export the movie. Higher bit depths create larger files. When you specify lower bit depths, you may be able to retain some control over color quality by specifying a custom color palette (see “Video settings” on page 47 and “Exporting video files” on page 187). If the option is not available, you've chosen a codec that doesn't support custom palettes or 8-bit color.

Frame size For best picture quality, the frame size of the project should match the frame size of the final video file. Where file size or data rate are more important than picture quality, such as for Internet delivery, reducing the frame size may help compression by reducing the initial amount of data to compress. For information about setting the frame size, see “Video settings” on page 47 and “About output settings” on page 183.

Frame rate For best motion quality, the frame rate of the project should match the frame rate of the final video file. Where file size or data rate are more important than the quality of motion, such as for Internet delivery, specifying a lower frame rate may help compression by reducing the amount of data to compress. For information about setting the frame rate, see “Video settings” on page 47 and “About output settings” on page 183.

Finding an appropriate codec

When editing, the Editing Mode you select in the Project Settings dialog box determines the codecs available to you. When exporting, available codecs are determined by the File Type you select in the Export Movie Settings dialog box. You can evaluate codecs by their intended uses, compression methods, and how they handle different kinds of pictures or sound. Video for Windows and QuickTime software are used for a wide range of video-related tasks, such as video conferencing, so they include many codecs which are not appropriate for video editing. Codecs intended for purposes other than video editing are identified in this section so that you can avoid them. If your video card provides hardware compression and its software is properly installed, its codec will appear in the Compressor menu in the Video Settings panel of the Project Settings dialog box. You can also access the codec in the dialog box for your video-capture hardware, which you can open by clicking the Video button in the Capture Settings panel of the Project Settings dialog box. See “Preparing for video capture” on page 65 and “Setting up a video codec” on page 184.

In all video codec lists, the None or Uncompressed setting provides excellent picture and sound quality because no compression is applied. However, working with uncompressed video is not recommended because the resulting data rate requires an extremely fast system and very large amounts of disk space.

***Note:** The following codecs were available in the versions of Video for Windows and QuickTime that were current at the time this user guide was written. The actual list of codecs may change as Video for Windows and QuickTime are updated. Also, additional codecs may be available depending on the video and audio software and hardware you have installed. Premiere LE does not include any audio codecs. To use audio codecs with your video program, you will need to upgrade to the full version of Premiere. For information on upgrading, see Getting Started.*

Video for Windows video codecs (Windows only)

When editing, the following software codecs are provided if you choose Video for Windows from the Editing Mode menu in the General Settings panel of the Project Settings dialog box. When exporting, the following software codecs are provided if you choose Microsoft AVI from the File Type menu in the General Settings panel of the Export Movie Settings dialog box.

Intel Indeo 5.03 Useful for video distributed over the Internet for computers with MMX or Pentium II processors. This codec includes features such as a quick compression option, flexible keyframe control, chroma keying (transparency), playback effects, and on-the-fly cropping that reduces the data load. Also, this codec employs a *progressive download* feature that adapts to different network bandwidths. Full use of these features requires utility software available separately from Intel. This codec is designed to work together with the Intel Audio Software codec.

Intel Indeo Video Raw R1.1 Useful for capturing uncompressed video with Intel video-capture cards. This codec provides excellent image quality because no compression is applied. However, captured video files are smaller than those captured with the None option because color is translated from the RGB color model to the more compact YUV color model.

Intel Indeo Video Interactive Similar to the Intel Indeo 5.03 codec, Indeo Video Interactive supports advanced features such as transparency, multiple-version movies, and playback effects. Full use of these features requires utility software available separately from Intel.

Microsoft RLE Useful for compressing frames that contain large areas of flat color, such as cartoon-style animation. This codec uses a spatial 8-bit run-length encoding (RLE) compressor and is lossless at the 100% quality setting.

Microsoft Video 1 Useful for compressing analog video. This lossy, spatial codec supports pixel depths of 8 or 16 bits.

Intel Indeo Video R3.2 Useful for compressing 24-bit video for playback from CD-ROM discs. This codec attains higher compression ratios, better image quality, and faster playback speeds than the Microsoft Video 1 codec. For best results, use the Indeo Video codec on raw source data that has not been previously compressed with a highly lossy codec. When used with a data rate for playback, this codec produces movies that are comparable in quality to those compressed with the Cinepak codec.

Cinepak Codec by Radius Useful for compressing 24-bit video intended for CD-ROM discs or for downloadable Web video files. This codec attains higher compression ratios and faster playback speeds than the Video codec. You can set the data rate for playback; picture quality drops more noticeably at data rates below 30 KBps. Cinepak is asymmetrical—it decompresses quickly, but compression is slow enough to make it impractical for editing. For best results, use Cinepak only for exporting the final version of a video file.

QuickTime video codecs

When editing, the following software codecs are provided if you choose QuickTime from the Editing Mode menu in the General Settings panel of the Project Settings dialog box. When exporting, the following software codecs are provided if you choose QuickTime from the File Type menu in the General Settings panel of the Export Movie Settings dialog box.

Component video Useful for capturing, archiving, or temporarily storing video. It has a relatively low compression ratio, so it requires relatively high amounts of disk space.

Graphics Useful for good picture quality with 8-bit color. The Graphics codec is intended primarily for use with 8-bit still images but is sometimes useful for video. Because this codec does not achieve high video compression ratios, it is suitable for playback from hard disk, but not from CD-ROM.

Video Useful for capturing and compressing analog video. This codec results in high-quality playback from hard disk and moderate quality playback from CD-ROM. It supports both spatial and temporal compression of 16-bit video. Data can be recompressed or recompiled later for higher compression ratios with minimal or no quality degradation.

Animation Useful for clips that use large areas of solid colors, such as cartoon animation. The settings determine the degree to which the compression is lossy; 100% quality is lossless. The Animation codec employs an Apple compression algorithm based on run-length encoding. When set for lossless compression, it can be useful for storing title sequences and other motion graphics.

Motion JPEG A and Motion JPEG B Useful as transcoders, for transferring video-capture files to other computers equipped with video-capture cards, particularly across platforms. These codecs are versions of JPEG implemented by many video-capture cards. Some video-capture cards include chips that accelerate Motion JPEG so that you can edit faster. See the documentation for your video-capture card to determine its degree of support for these codecs.

Photo-JPEG Useful for still images that contain gradual color changes or that do not contain a high percentage of edges or other sharp detail, like many photographic still images. Photo-JPEG is lossy, but at high quality settings, a compressed image is nearly indistinguishable from the original. Photo-JPEG is symmetrical—compression time is nearly equal to decompression time, but compression time is too slow for real-time video.

Photo-JPEG is not recommended for images that will be edited later because it is relatively lossy. However, its high compression ratio and picture quality can make it useful for moving files between systems, or for archiving finished projects.

Note (Mac OS only): Many hardware compression cards use JPEG. With QuickTime 3.0 or higher, the codecs for these cards may not be listed in the Compressor menu unless you hold down the Option key when you click the menu. If you select Photo-JPEG, the correct codec will automatically be used. Also, additional options for some cards are found by holding down the Option or Control key while choosing the codec.

H.263 Useful for video conferencing at low data rates; not recommended for general-purpose video editing.

DV - PAL and DV - NTSC Digital video formats used by PAL and NTSC digital video hardware. These codecs let you transfer clips from a connected DV deck or camera directly into Premiere LE. They are also useful as *transcoders*, for transferring digital video across platforms and between computers equipped with digital-video capture cards.

Cinepak Useful for compressing 24-bit video intended for CD-ROM discs or for downloadable Web video files. This codec attains higher compression ratios and faster playback speeds than the Video codec. You can set the data rate for playback; picture quality drops more noticeably at data rates below 30 KBps. Cinepak is asymmetrical—it decompresses quickly, but compression is slow enough to make it impractical for editing. For best results, use Cinepak only for exporting the final version of a video file.

Sorenson Video Useful for compressing 24-bit video intended for CD-ROM discs or for downloadable World Wide Web video files. Similar to Cinepak, this newer codec is designed for high quality at data rates under 200 KBps. This codec is capable of better picture quality and smaller files than Cinepak. It requires more compression time than Cinepak, so it is suitable for final export but not for editing. It supports *temporal scalability*, which lets a movie exported for a high-end computer play back smoothly on a low-end computer.

Planar RGB A lossless codec effective for frames that use large areas of solid colors, such as animation. It uses run-length encoding and is an alternative to the Animation codec.

Appendix C: Maximizing Performance

The performance requirements of video editing make it especially sensitive to how you set up your computer system and the decisions you make when you edit a program. Knowing how to set up and work efficiently can help you save time while preserving quality.

Preserving quality and performance during video capture

Video capture is one of the most system-intensive tasks you can demand of a personal computer. Getting professional results depends on the performance and capacity of all of the components of your system working together to pass frames from the video-capture card to the processor and hard disk. Your system is only as fast as its slowest component.

Video-capture hardware

Your video hardware must be fast enough to capture video at the level of quality required by your final medium. For broadcast-quality video, a video-capture card must be able to capture full-screen video at the frame and field rate of the broadcast standard you use, without dropping frames. For full-screen, full-motion NTSC video, the card must be capable of successfully capturing thirty frames (sixty fields) per second at 640 by 480 pixels; for PAL and SECAM, twenty-five frames (fifty fields) per second at 720 by 576 pixels. However, if you're capturing video for a project that uses a smaller frame size or lower frame rate than those listed here, such as for Internet video, specify the lower values. Specifying full-screen, full-motion values when you don't need them will unnecessarily consume processing time and disk space.

Hardware compression on the video-capture card can greatly increase performance and reliability by reducing the amount of data that the card passes on to the rest of the system. Video cards that have Motion JPEG compression can usually capture full-motion video effectively. To determine what settings will produce the best results for your projects, see “Understanding scenarios that affect compression” on page 209 and the documentation provided by the manufacturer of your video-capture card.

Hard disk

The hard disk must be fast enough to store captured video frames as quickly as they arrive from the video card. If the hard drive cannot keep up with the incoming frames, frames will be dropped from the captured clip. For capturing at the NTSC video standard of 30 frames per second, your hard disk should have an average (not minimum) access time of 10 milliseconds (ms) or less, and a sustained (not peak) data transfer rate of at least 3 MB per second but preferably around 6 MB per second. (The *access time* is how fast a hard disk can reach specific data located anywhere on the hard disk. The *data transfer rate* is the volume of data that moves between the hard disk and other system components.) As a general rule, the actual video-capture data transfer rate will be about half the data transfer rate of the drive, after accounting for overhead and other factors. Use the following guidelines when capturing to a hard disk:

- Use an AV (audio-video)-certified high-speed hard disk. AV hard disks are specially designed to sustain very high data rates for a sufficiently long duration to capture video without dropping frames. If you have more than one hard disk, capture to your fastest AV hard disk.
- Use an AV hard disk controller, such as Fast SCSI-2 card.
- Use a separate hard disk or create a separate partition on your hard disk for capturing video. If you create a separate hard disk or partition for capturing on your hard disk, use Premiere LE's Scratch Disks preferences to select the disk or partition to which you want to record. See “Setting up Premiere LE's scratch disks” on page 53.
- Keep the capture disk defragmented so that the free space is available in large contiguous blocks. A fragmented hard disk can reduce the frame rate at which clips are captured. Use a defragmenting utility as often as necessary.
- You may achieve higher transfer rates with special hard disk configurations, such as disk arrays, SCSI 2, Ultra SCSI, or Ultra DMA IDE. Most studios maximize both performance and volume by capturing video to very fast arrays of multiple high-capacity hard disks.

Central processing unit (CPU)

Because video capture and editing place such heavy demands on computer system performance, a faster processor is obviously better, as long as the other system components are fast enough to keep up with the processor. Multiple CPUs in one computer can speed processing but are not supported by all operating systems.

Processing demands of other software

The performance demands of video capture make it necessary to give the capture software the undivided attention of the CPU. If you capture video while several other programs are running (including virtual memory, network connections, unnecessary system enhancers, and screen savers), these other programs are likely to interrupt the video capture process with requests for processing time. Capture video while running as few drivers, extensions, and other programs as possible. On Mac OS systems, turn off AppleTalk.

Data bus

The *data bus* is the path along which the computer transfers data between system components. Its speed determines how fast the computer can move frames between the video-capture card, the processor, and the hard disk. Using fast components with a slow data bus is like driving a sports car in a traffic jam. If you purchased a high-end computer or a computer designed for video editing, the data bus is likely to be well-matched to the other components. However, if you've upgraded your computer with a video-capture card, a faster processor, or a hard disk, there is a chance that the new component may be faster than the data bus. Before upgrading components, review the documentation provided by the manufacturer of your computer to determine whether your data bus can properly handle a component you want to add.

Techniques for faster editing

As you create a video program, the number of source clips and settings you edit and manage become more complex. This complexity can get in the way of your creative flow, so Premiere LE provides many options and techniques to simplify a complex project and edit efficiently.

Allocating sufficient RAM

Premiere LE plays and exports video most efficiently when up to approximately 40 MB of RAM is available to it. You can make more than 40 MB of RAM available to Premiere LE, but above approximately 40 MB the performance gains are not as significant. Make sure you aren't running unnecessary programs, such as custom screen savers, that may be using memory that could be used more productively by Premiere LE. On Mac OS, allocate as much RAM as you can to Premiere LE. However, leave at least 2 MB of unused RAM so that the system software has room to load additional Mac OS system components such as QuickTime.

Closing unneeded windows and palettes

As you edit, each open window and palette requires processing time to update its display. To lighten the processing load, keep open only the windows and palettes that are necessary.

Hiding and locking tracks and clips

If you are working on a complex video program with many tracks, you can hide tracks you aren't currently editing by marking the tracks as shy and then choosing Hide Shy Tracks from the Timeline window menu. See "Customizing track views" on page 94.

If you do not want to modify a track or clip but you still want to see it, you can lock it. This can prevent you from accidentally modifying it. See "Locking and unlocking tracks" on page 99.

Appendix D: Troubleshooting

This appendix contains common solutions to problems you may encounter when using the Adobe Premiere LE program. For additional help, see the Read Me file installed with the program, which contains last-minute information not included in this user guide.

General problems when capturing video

First determine whether the problem is caused by Premiere LE, the video-capture card, the operating system, or the hardware configuration. Video-capture cards are not part of Premiere LE and are manufactured by other companies, but they often work together with Premiere LE. This can make it hard to identify the source of a problem. The following information may help you identify the true source of a problem:

- Set up your project settings to match the capabilities of your video-capture card. If the manufacturer of your video card included Premiere LE settings files along with the other software included with the card, you can simply load the settings into your project; see “Saving and loading project settings (presets)” on page 51.
- Drivers for video-capture cards are frequently updated. Contact the manufacturer of the video-capture card to make sure your driver is up to date. Most manufacturers operate Web sites from which you can download current software for your video-capture card if you have access to the World Wide Web.
- Try different codecs to reproduce the problem. If you find that the problem only occurs with the video-capture card’s codec, check with the card manufacturer to see if they have updated the codec. Capture cards often use a proprietary codec that lets the card share the workload with your computer’s central processing unit.
- If you have access to the World Wide Web, check the Adobe Systems Web site (<http://www.adobe.com>) for technical notes and test results for many video-capture cards. You can connect to the Adobe site quickly by choosing File > Adobe Online.

- If the problem is related to capture, playback, or export, try using software other than Premiere LE to reproduce the problem. MediaPlayer (Windows) and MoviePlayer (Mac OS) can play back video and are included with the operating system. If the problem still occurs outside of Premiere LE, it is caused by software other than Premiere LE, such as the video-capture card driver.

Frames are dropped when capturing clips

If you capture using a Motion-JPEG card and captured clips show signs of dropped frames and a lower-than-expected data rate, be sure you use the latest software, exit all other programs while capturing, and minimize the number of running system extensions or utilities. Make sure your system is optimized by reviewing and following the guidelines set by the manufacturers of your video-capture card and hard drive.

General operating problems

When problems are difficult to isolate or appear to involve an interaction with the operating system or other hardware, the following steps may lead you to a solution.

Disable the preferences file

Some problems occur because the Premiere LE preferences file is damaged. You can test for this by disabling the preferences file. In Windows, exit Premiere LE and move the Prem50.prf file from the folder in which you installed Premiere LE to the desktop. In Mac OS, quit Premiere LE and move the Adobe Premiere 5.1 LE Prefs file from the Preferences folder (stored inside the System Folder) to the desktop. If the problem doesn't appear the next time you start Premiere LE, you may delete the preferences file. If the problem still exists, the preferences file may not be faulty and may be moved back to its original location. (If prompted, allow the original preferences file to overwrite any newer version created by Premiere LE.)

Check for a conflict with new software or settings

Very often, problems with Premiere LE can be traced to recent installation of new software or utilities that are running at the same time as Premiere LE, often invisibly in the background. If you have recently installed new software or changed other system configuration settings, try removing the software or reinstalling your original settings. If you remove the software, you must also reinstall Premiere LE, following the instructions later in this section. This ensures that any Premiere LE files that might have been damaged by your new software installation are restored. If the problem disappears, try reinstalling the problem software, or contact the manufacturer to obtain compatibility information or a newer version.

Check for a utility conflict

In Windows, remove all items from the Startup folder and use a semicolon before the **load=** and **run=** lines in the win.ini file to disable them. In Mac OS, restart with non-Apple extensions disabled. If the problem doesn't appear the next time you start Premiere LE, you can try turning on disabled items one by one until you identify the software causing the problem. You can then try reinstalling the problem software or contact the software manufacturer to obtain compatibility information or a newer version.

Check SCSI device connections

Make sure that the SCSI devices you are using are securely and fully connected to your computer and that device cables are not damaged. Bad SCSI connections can cause problems such as system errors.

Important: *When troubleshooting SCSI connections, always turn off your computer and all connected SCSI devices before checking connections. Attaching or detaching SCSI devices while power is on may damage the devices.*

Diagnose and defragment your hard disk

Use hard-disk utility software to determine whether your hard disk contains bad sectors that may be causing problems such as crashes or corrupted files. If it has been several weeks or more since you bought or formatted the hard disk, try running defragmentation utility software to clean up file fragments and rearrange data for faster access.

Reinstall Adobe Premiere LE

If you are experiencing installation problems, try the following procedure.

To reinstall Premiere LE:

1 Before reinstalling, delete all of the files installed with Premiere LE. In Windows, you can do this by choosing Start > Programs > Adobe > Adobe Premiere 5.1 LE > Uninstall Premiere 5.1 LE. In Mac OS, drag the Adobe Premiere 5.1 LE folder to the Trash. Be sure you also delete the Preferences file as described earlier in this section. You don't need to delete project (.PPJ) files or files you saved or exported from Premiere LE.

2 Depending on your system, use the following techniques to start your computer without running additional software that may be causing problems:

- In Windows, restart the computer and hold down the Control key immediately after entering your password. This temporarily prevents software in the Startup folder from starting. For information on deactivating other startup software, see documentation that came with that software.
- In Mac OS, hold down Shift and restart to turn off all extensions before installing. If this will turn off extensions required to operate your computer, such as CD-ROM drivers or video cards, choose the Extensions Manager control panel and turn off all nonessential non-Apple extensions. In Mac OS, Extensions Manager provides built-in sets in the Selected Set menu which restrict extensions to those provided with the system software. For help, see the Mac OS documentation or online Help.

3 If you are installing from the CD, copy the entire set of program folders to your hard disk and then install from the hard disk.

For additional installation instructions, see “Installing Adobe Premiere LE” on page 5.

Common problems

This section describes how to resolve many common problems you may encounter while using Premiere LE.

An option is missing

Be aware of the following:

- The availability of many options in the Project Settings and Export Settings dialog box panels depends on the type of project or file you've specified. For example, if you select an editing mode provided by your video-capture card software, the codecs and file types available will be only those provided by your video-capture card software and not Video for Windows or QuickTime.
- Some options are only available for a particular feature.

Some menu commands or tools are not available

Check for the following:

- A command may not be available for all items or clips.
- Some commands are only available for some windows. For example, you can export only when a clip is open in the Monitor or Clip windows or when the Timeline is active. If the Project window is active, Export commands are unavailable.

Check the procedure in this guide for the command or tool you are trying to use to confirm that an appropriate window is active or an appropriate object is selected.

Undo is not available

If you were working in the Timeline window but switched to another window, try activating the Timeline again. This will not help if you have already performed an action outside of the Timeline after you switched away from it. You can undo up to three steps in the Timeline, but only one step in another windows (see "Correcting mistakes" on page 55). When you deactivate the Timeline, you deactivate the Timeline undo steps.

A file doesn't appear in the Import dialog box

Try the following:

- Double-check that the file format is supported by Premiere LE; see “Importing clips” on page 78.
- In Windows, make sure that the filename ends with the correct filename extension for its file format.
- Try importing the file into another application that also supports the clip's file format. If it won't work in the other application, the problem is with the file.
- If other applications can import the file successfully, the Premiere LE plug-in software module for that file format may be damaged or missing; try reinstalling Premiere LE.

A series of still images imports the first frame only

Make sure you selected both the first file in the sequence and the Numbered Stills option at the bottom of the Import dialog box.

Can't drag the video or audio of a clip in the Timeline

Do the following:

- Examine the linked audio track (if you were dragging video) or linked video track (if you were dragging audio), if present. If the linked track is touching an adjacent track in the direction you are trying to drag, there is no room to drag the linked track. If you are trying to perform a split edit or L-cut by dragging an In or Out point, you can override the link for the track you are trying to move.
- Make sure the track is not locked (see “Locking and unlocking tracks” on page 99).

A clip added to the Timeline appears on the wrong track or no track

Examine the source Take icons and the target video and audio tracks (see “Specifying source and target tracks” on page 97). Make sure they are the tracks you want to take and target.

Tracks shift out of sync

Try the following:

- If red triangles appear at the In points of linked video and audio clips that are out of sync, click each red triangle and select the timecode that appears. This resynchronizes the video and audio.
- Make sure the source clip is synchronized on its own. Play the source clip in another application, such as MediaPlayer (Windows) or MoviePlayer (Mac OS).
- Play the clip back, and at the point where it goes out of sync, click the stop button. Then click the play button again. If the audio is in sync when it starts playing again, the data rate might be too high for the computer (see “Setting the data rate” on page 185) or the setting for audio interleave may be incorrect. See “Specifying project settings” on page 44.
- With the Timeline window active, choose Edit > Undo up to three times to return to a state where audio and video are in sync. See “Correcting mistakes” on page 55.
- If you recently added clips to the Timeline, certain combinations of source Take icons, target Timeline tracks, Timeline window options, and editing options can cause some tracks to shift and not others when you add a clip. This might, for example, cause an audio clip to shift out of sync with its video. See “Specifying source and target tracks” on page 97.
- Choose Timeline Window Options from the Timeline window menu, and check the setting for On Insert. Select Shift Material Only in Target Tracks, click OK, and try your edit again. If Shift Material in All Unlocked Tracks is selected, a video track inserted without audio may cause the existing clips on the video track to ripple out of sync with existing audio tracks, or vice versa.

NTSC video goes out of sync with audio during playback or export

In Project Settings, make sure the timebase is set to 29.97 and that the frame rate is set to 30 fps Drop-Frame Timecode. Using a timebase of 30 for NTSC video will cause audio to go out of sync with the video.

Can't extend clip duration with ripple edit or rolling edit tools

The ripple edit and rolling edit tools can extend the duration of a clip only if it has been trimmed with either In or Out points so that extra source frames exist either before the program In point or after the program Out point. If this is not true for the clip you are trying to edit, there are no frames available for Premiere LE to extend the clip when you use these tools.

Motion appears to stutter in a clip when played back

Do the following:

- For playback or export to interlaced video, check the Field Settings option in the Keyframe and Rendering Options panel in the Project Settings (for playing back) or the Export Settings dialog box (for exporting). See “Comparing interlaced and non-interlaced video” on page 204 and “Keyframe and rendering options” on page 50.

For the next two items, evaluate what you find based on the information in “Understanding frame rates in relation to the timebase” on page 200.

- Check the relationship between the source clip frame rate, the project timebase, and frame rate specified in Project Settings (for playing back) or Export Settings (for exporting).
- Select the clip and choose Clip > Speed. If the speed is less than 100% of the original speed, the clip may stutter.
- Choose File > Get Properties For > File, locate a clip that plays properly, and click Open. Repeat for a clip that does not play properly so that you can compare the two reports and identify where their settings do not match. Also check for dropped frames in the source clip.
- Check where the clip is stored during playback. If you're playing it back from the Internet or other network server, network performance limits may be causing frames to drop out.

An object or other visual feature flickers during playback

Try the following:

- First, open the source clip and step through it frame by frame. If you see the flickering in the source clip, it was introduced when it was captured, before you worked with it in Premiere LE.

- If you don't see flickering in the source clip but you do see it in a clip you exported, it may be due to the width of lines or text in the clip. Thin lines and type may flicker or be difficult to read when exported to videotape because a television video frame is composed of two alternating fields. You can also prevent flicker by designing video graphics that use line and type weights that are thick enough to appear in at least two horizontal lines when the finished product is played on a television monitor.
- If you don't see flickering in the source or exported clip, there may be a problem with the overall hardware or software configuration.

Previewing, playback, or exporting seem slow

Do the following:

- Make sure the frame size is set correctly. The project frame size is set to 640 by 480 pixels in Premiere LE by default. If you are editing a multimedia video or other project where the final frame size will be smaller than 640 by 480 pixels, specify a smaller frame size in the Video Settings panel in the Project Settings dialog box (for playback) or Export Settings (for export). Even if your final frame size is 640 by 480 or larger, specifying a frame size smaller than your final size can speed processing of preview files. When you play back or export the final version, remember to specify the final frame size in Project Settings or Export Settings. Be aware that when output settings change, preview files must be recalculated.
- Compare the properties of source clips to the Project Settings or Export Settings, and make them more similar. When a source frame matches the Project Settings or Export Settings, Premiere LE can simply copy the frame from the source file to the destination file. Any difference in settings between source and destination adds to the processing time. For example, if a source clip uses the Animation compressor and you want to export it using the Graphics compressor, the translation to a different compressor will take longer than if you had exported it using its original Animation compressor. In addition, processing will take progressively more time if other settings, such as frame rate or color depth, are also different than the original properties of the source clips. You can check the properties of any source clip using the File > Get Properties For command (see "Analyzing clip properties and data rate" on page 83).
- In the Project Settings or Export Settings dialog box, choose Keyframe and Rendering Options from the menu at the top of the dialog box, select Ignore Audio Filters and Ignore Video Filters, and click OK. Then try previewing or exporting again. If it processes much faster, the slow performance you experienced may be related to the audio or video filter settings you applied.

Previewed or exported video is too short, too long, or the wrong section

Do the following:

- If exporting, make sure the Range option in the General Settings panel of the Export Settings dialog box is set properly. See “Exporting video files” on page 187.
- Make sure you specified the work area properly. Premiere LE previews the work area and also exports the work area if you specified Work Area in the Range option described above. See “Previewing a video program” on page 119.

The duration of previewed or exported NTSC video is inaccurate

If you are editing an NTSC video program for a specific duration, such as a program that must run for exactly 30 minutes, make sure you specified a timebase of 29.97 and a time display of 30 fps Drop-Frame Timecode; see “General settings” on page 45. Using a timebase of 30 for NTSC video will cause audio to go out of sync with the video. Using 30 fps Non Drop-Frame Timecode for NTSC will cause a duration inaccuracy that accumulates over time. See “Timebase” on page 199.

Previewed or exported video plays back with low picture quality

If a previewed or exported clip appears *pixilated* (blocky or having jagged edges), blurred, or distorted when you use a Motion-JPEG codec, the data rate may have been incorrect or unspecified. To prevent this problem, set the Quality slider to a higher setting, and specify a data rate limit. See “Setting up a video codec” on page 184 and “Setting the data rate” on page 185.

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Tutorial Photography and Video Footage

Robert Hoeschen (Boys on bikes: Tour)

Susan Bari Price (Velodrome: Tour)

Susan Bari Price (Dressage: Lesson1)

Image Club Graphics (Solar system: Lesson 2)

Susan Bari Price (Mystery: Lesson 3)

User Guide Photography and Video Footage

The Adobe Image Library (Trees.mov: chapter 7)

KTZZ archives (Boat.mov: chapters 1, 6; Cat.mov: chapter 2; Anchor.mov, Retsu.mov: chapters 2,8; Steph.mov: chapter 8; Mountain.mov: chapter 8)

Image Club Graphics, Digital Visions (Sky.psd: chapters 1,6; Gull.psd, Bird.psd: chapter 1;

Zebra.mov, Antelope.mov, Giraffe.mov, Tiger.mov, Springbok.mov, Leopard.psd, Rhinos.psd: chapters 4, 5, 11)

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