

Apple Pro Training Series

Final Cut Pro X

Second Edition

Professional Video Editing

Diana Weynand

DVD-ROM with lesson and media files included



Level One Certification

Apple Pro Training Series

Final Cut Pro X, Second Edition

Diana Weynand



Apple Pro Training Series: Final Cut Pro X, Second Edition
Diana Weynand
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Apple Series Editor: Lisa McClain
Editor: Bob Lindstrom
Production Coordinator: Kim Elmore, Happenstance Type-O-Rama
Contributors: Brendan Boykin, James Alguire, Lisa Hendricks, and Susan Merzbach
Apple Project Manager: John Signa
Apple Reviewers: Christopher Phrommayon
Technical Reviewer: Klark Perez
Copy Editor: Darren Meiss
Proofreader: Darren Meiss
Composer: Cody Gates, Happenstance Type-O-Rama
Indexer: Jack Lewis
Cover Illustration: Kent Oberheu
Cover Production: Cody Gates, Happenstance Type-O-Rama
Media Producer: Eric Geoffroy

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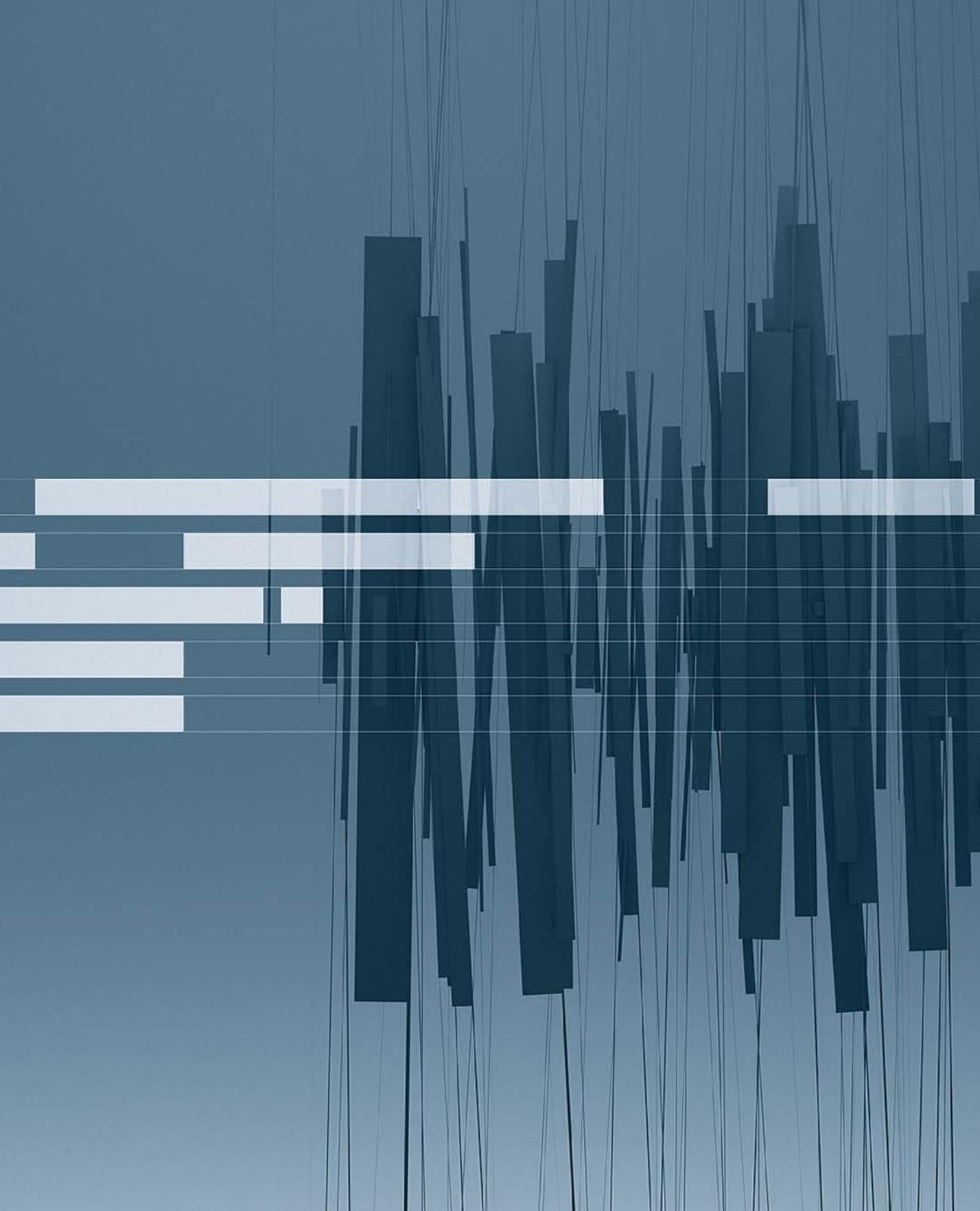
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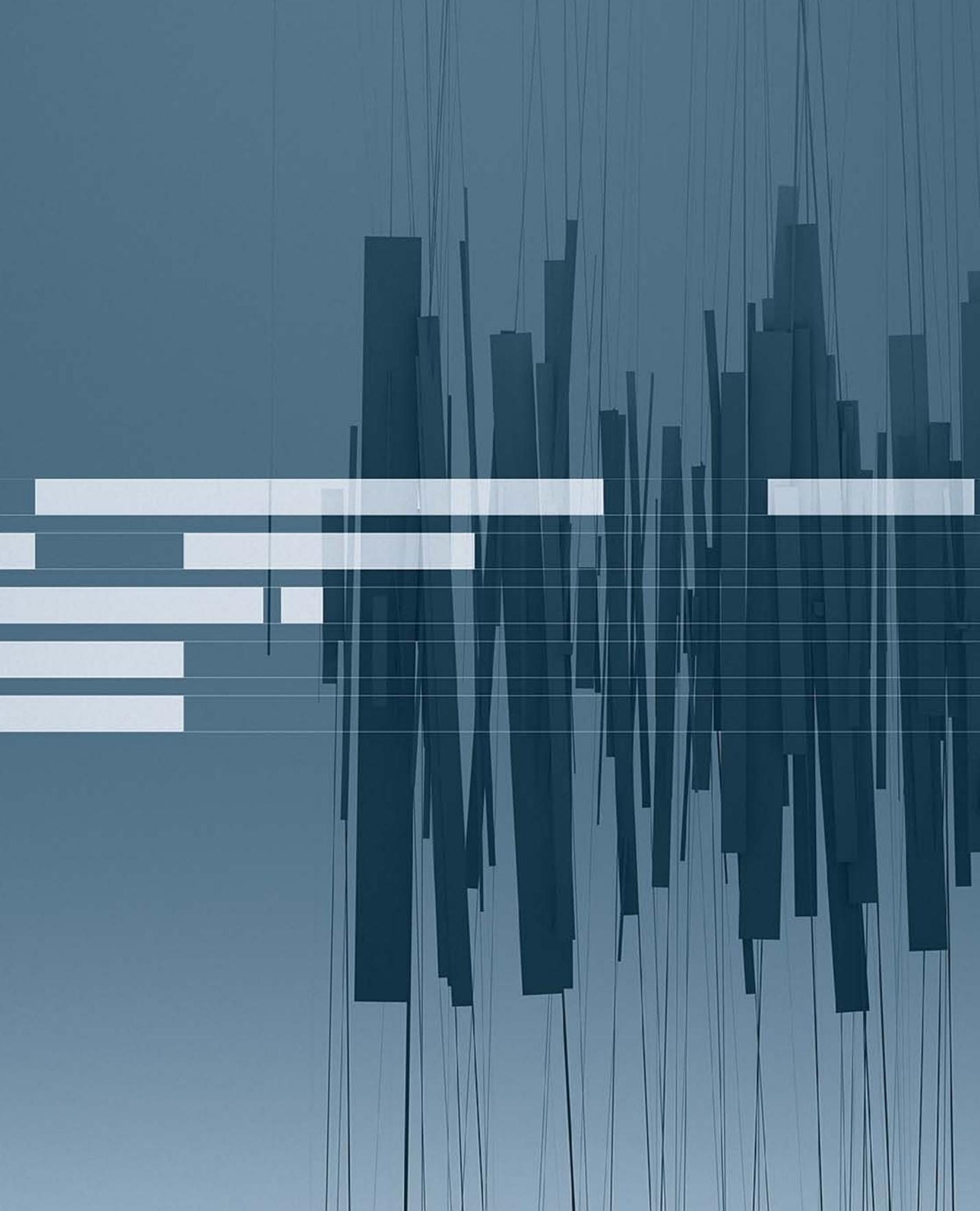


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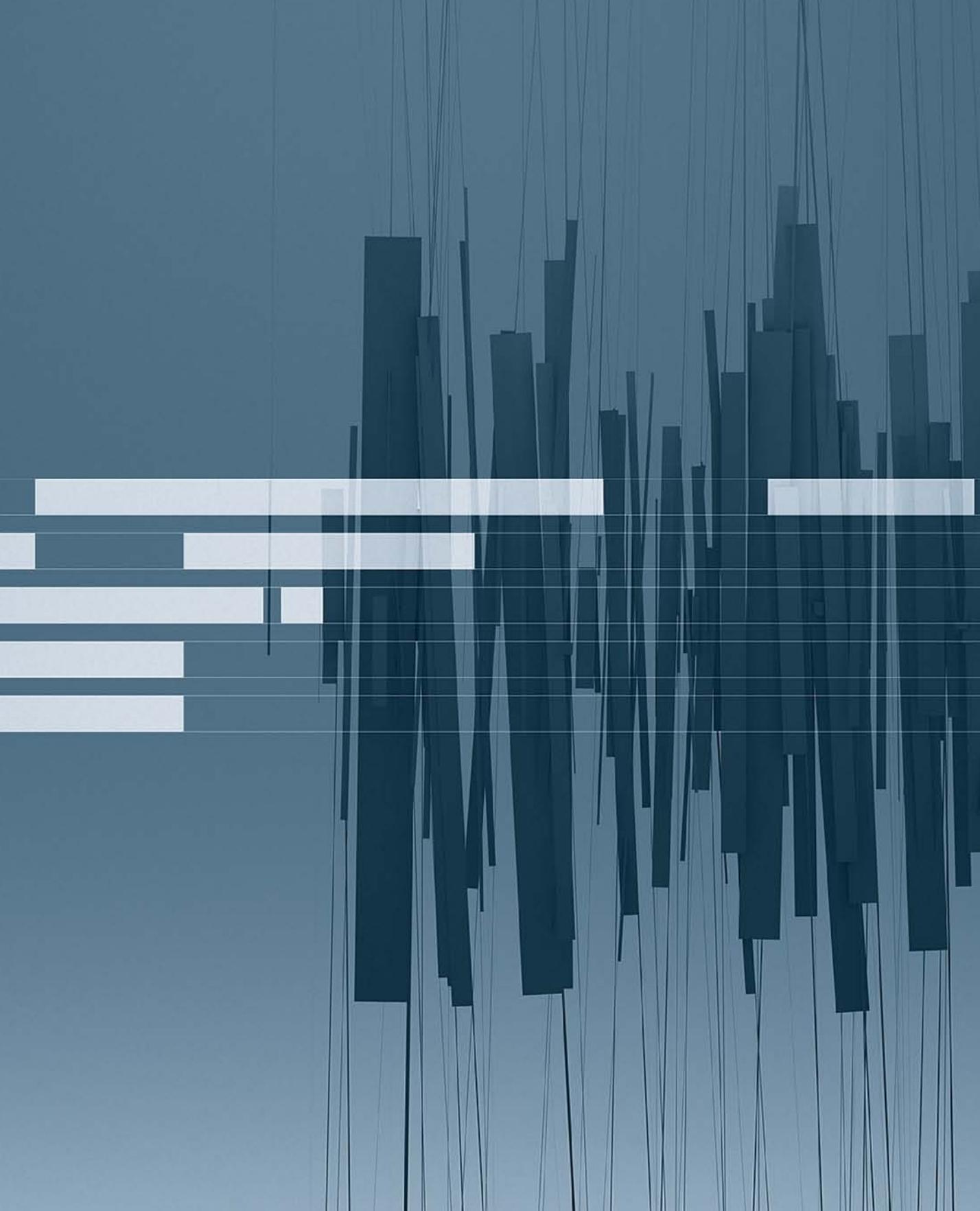
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See last page of this eBook for instructions on downloading your lesson files.



Getting Started

Welcome to the official Apple Pro Training course for Final Cut Pro X.

This book is a comprehensive guide to editing with Final Cut Pro. It uses exciting real-world footage from the USA Network series *Fairly Legal*, the award-winning documentary *Delicious Peace Grows in a Ugandan Coffee Bean*, exciting *Zero to Hero* racing footage from Pullin TV, and Matthew Modine's short film, *I Think I Thought*, all to demonstrate both the features of the application and the practical techniques you'll use daily in your editing projects.

For those who have edited on earlier versions of Final Cut Pro, or who edit on other NLE (nonlinear editing) platforms, you may ask yourselves: why make the jump to Final Cut Pro X? The answer lies not only in what Final Cut Pro X has the power to do, but what it has eliminated: many of the stumbling blocks that slow down the editing process. So let's start by taking a closer look at how that power will affect you as an editor.

The Power of “X”

Final Cut Pro X is not an upgrade, but a completely new application integrating some of the best of the latest OS X technologies. What this means for the editor is significantly better performance, workflow improvements, and the ability to perform many tasks simultaneously. For example, gone from Final Cut Pro X is the wait time for rendering and ingest. In the past, these activities halted the editing process. Now, rendering and importing, even analyzing and fixing, go on in the background as you continue to edit.

Another powerful aspect of the Final Cut Pro X technology is the Magnetic Timeline, which keeps audio and video locked in sync so it’s virtually impossible to separate the two accidentally. The Resolution Independent Playback System allows you to handle and smoothly play all formats, from standard definition to 5K resolutions, regardless of the origin of media. Final Cut Pro X can automatically control the quality and color of images during ingest, while at the same time performing audio cleanup tasks. And you don’t have to wait to begin organizing your footage. Metadata-based Keyword and Smart Collections begin during the import process, organizing files based on people and shot detection. Keywords will help you organize and locate clips within Final Cut Pro X with unprecedented speed, and unlimited undos and never having to save will provide a level of protection you’ve never known.

Bundled together, the many new developments in Final Cut Pro X will make your workflow faster, smoother, and easier so that you can spend more time in the creative decision-making process. And isn’t that what editing is really about? But before you begin to explore the new interface or jump into the editing lessons in this book, let’s take a more detailed look at what’s “under the hood” of Final Cut Pro X to get a better understanding of this powerful and intuitive editing application.

The Technology of “X”

You may have heard some of the geeky buzzwords like 64-bit processing and memory management, Grand Central Dispatch, and OpenCL. But what do those terms mean, and how do these features matter in the day-to-day drama of video editors? Here’s a brief look at these technologies, what they are, and why they make a difference when editing with Final Cut Pro X.

The 64-Bit Question

In order to utilize and support the new 64-bit processing in computer technology, Final Cut Pro X had to be completely re-engineered. You might be asking, “2-bits, 4-bits, 64-bits, a dollar. . . how many bits do I really need?” Typically, more bits means you can crunch bigger numbers—and crunch them faster—with more memory at your service.

Each central processing unit (CPU) is composed of different parts (registers, arithmetic units, controllers) working together to carry out an application’s instructions. CPUs (and their components) are built to handle a specific number of bits (8, 16, 32, 64, and so on), like different cars’ transmissions have different numbers of gears. Just as the number of gears in a transmission determines how fast a car can go, the bit depth—or number of bits the processor can manage—determines the largest number the processor can handle per clock cycle, and the maximum amount of memory that can be accessed.

Speed

The clock rate is how fast a CPU executes instructions. A 64-bit processor can move twice as much data as a 32-bit processor at the same clock rate, significantly improving performance. A 2 GHz processor can perform two billion instructions per second.

More Memory

A 32-bit processor is limited to using 4 GB of RAM, but a 64-bit processor can enable applications to address a theoretical 16 billion gigabytes of memory, or 16 exabytes. The more RAM you have, the faster your applications run because more data is kept in very fast physical RAM instead of on slower hard drives.

All this means that Final Cut Pro X runs faster than previous versions, can handle video formats from DV to 5K, can color correct video in an instant, can pitch correct audio on the fly while scrubbing through it, and can handle larger than ever project and sequence sizes.

Core Strengths

The Intel central processing units that Apple currently uses in its desktop and laptop computers are actually made up of multiple processor cores. It’s like a two-for-one deal at your favorite store. In older, single-processor computers, each step of a task had to be performed in sequential order. Consider a task like mailing a letter. You fold the letter, place it in an envelope, address and stamp it, and then drop it in the mailbox. If you’re the only one working on the task, and there are hundreds of letters, it takes some time to complete the task. With modern CPUs that have more cores (current Mac CPUs have between two and six cores), the Mac does more things at the same time, improving overall performance. Looking at that same mailing task, think of it as having one person per stage of the task. So a processor with four cores is like having three more people helping you: one to fold the letter, one to place it in the envelope, one to address and stamp it, and one to drop it in the mailbox. With more help tasks get done more quickly.

Following the Thread

One method applications use to take advantage of multiple processors or cores is through multi-threading, a programming technique allowing processors to work on different parts

of a program at the same time. Multiple threads make applications more responsive by allowing them to perform different tasks at the same time, like a mail program being able to send and receive email simultaneously. But threading is complex, and implementing it is difficult to program.

Now Arriving at Grand Central Dispatch Workstation

Grand Central Dispatch (GCD) is the technology Apple has developed to help software developers write programs that let the operating system divide up jobs and schedule them to run on different processor cores as an alternative to application threads. GCD is the system services OS X uses to manage tasks, breaking them up into chunks, assigning the chunks to different processors or cores, and integrating the results. It's a lot like juggling, but instead of balls or bowling pins, OS X is juggling code, making sure the right piece gets to the right place at the right time. Programs that support GCD are multi-processor aware and can do more work faster when more cores are available to do the work.

Because Final Cut Pro X supports GCD and is multi-processor aware, functions like background rendering, analyzing and correcting video on ingest, editing while still importing video, and instant color correction are not only possible but fast. Think of more cores as more hamsters spinning those wheels inside your Mac to make it work faster.

Come In, It's OpenCL

Today's modern video cards sport powerful graphical processing units (GPUs) capable of performing trillions of calculations per second. But unless you're running games or high-end 3D software, much of that power languishes, unused. OpenCL (Open Computing Language) is an open standard set of routines, developed in part by Apple, that allows application developers to harness the power of those GPUs. With OpenCL support, Final Cut Pro X can use the video card's GPU as another processor to analyze or render video, perform instant color correction, or stabilize shaky footage.

Finish with a Cup of Cocoa

The magic behind all these powerful modern new features of both OS X and Final Cut Pro X is the Cocoa application development environment. Cocoa is a suite of object-oriented software libraries, runtime systems, and integrated development environments for creating software for both the OS X operating system and iOS. Originally released as NextStep in the late 1980s, Cocoa is a powerful set of object-oriented tools for creating almost any kind of software for the Mac and iOS devices that can take full advantage of Mac or mobile device hardware.

Together, all these elements form the incredible Power of X.

Downloading Final Cut Pro X

Final Cut Pro X is available from the Mac App Store. Since installation can begin immediately after purchase, you should read Apple best practices (<http://support.apple.com/kb/HT4722>) *prior* to installing to ensure the best performance. The exercises in this book are based on Final Cut Pro version 10.0.7. If you have an earlier version, you should download this free update or some exercises may not work as described.

The Course Methodology

This is, first and foremost, a hands-on course. Every exercise is designed to enable you to do professional-quality editing in Final Cut Pro as quickly as possible. Each lesson builds on previous lessons to guide you through the program's functions and capabilities.

If you are new to Final Cut Pro, start at the beginning and progress through each lesson in order. If you are familiar with an earlier version of Final Cut Pro, you can go directly to a specific section and focus on that topic, because every lesson is self-contained.

NOTE ▶ Due to individual preferences settings, your screen may not match all screen shots exactly as they appear in the book.

Course Structure

The book is designed to guide you through the editing process as you learn Final Cut Pro.

You will begin by learning to import and organize media, create metadata in the form of keywords and Smart Collections, edit clips into a project, and then refine your project by trimming and adjusting edit points and clip location.

After working on several projects, you'll complete them by mixing the audio and adding transitions and titles. Finally, you'll add effects, color correct your project, and then prepare it for delivery.

The lessons are grouped into the following categories:

- ▶ Lessons 1–3: Preparing to Edit in Final Cut Pro X
- ▶ Lessons 4–6: Crafting the Story
- ▶ Lessons 7–9: Completing the Cut
- ▶ Lessons 10–12: Applying Effects and Finishing

In addition to the exercises, each lesson includes “Take 2” scenarios that present real-world challenges for you to practice what you've learned before moving on to new material.

At the end of every lesson, you will have an opportunity to hone your skills as you apply your own creative touches to an “Editor’s Cut” project, which is designed to review everything you learned in the lesson.

Using the DVD Book Files

The *Apple Pro Training Series: Final Cut Pro X DVD* (included with the book) contains the project files you will use for each lesson, as well as media files that contain the video and audio content you will need for each exercise. After you transfer the files to your hard disk, each lesson will instruct you in the use of the project and media files.

NOTE ► If you have purchased this volume as an eBook or your Mac lacks a DVD drive, you will find the URL to download the files following the book’s index. If you purchased the eBook, you will also find a “Where Are the Lesson Files?” page located at the end of the book.

Installing the Final Cut Pro X Lesson Files

On the DVD, you’ll find a file named APTS FCP X.sparseimage. This is a special file that operates like a virtual disk. You will use the contents of this virtual disk for the exercises in the book. Exercise care while installing these files (as with anytime you are performing media management functions) to ensure that the projects and media on the virtual disk are available within Final Cut Pro.

- 1 Insert the Apple Pro Training Series: Final Cut Pro X DVD into your DVD drive.

Depending on which version of OS X you are using and the Finder’s preferences, you may not see the DVD on your desktop. A quick look in a Finder window will display any mounted volumes (such as hard disks or DVDs) available to you.

- 2 In the Dock, click the Finder icon.
- 3 In the Finder window that appears, select the *APTS FCP X DVD* listed in the sidebar under Devices.
- 4 With the DVD selected, drag the APTS FCP X.sparseimage from the DVD to your desktop to copy it.

Alternatively, you may drag the sparseimage to any locally connected hard disk such as an external FireWire or Thunderbolt hard disk. Whichever destination you choose, Final Cut Pro must have access to the sparseimage, and you must have Read and Write privileges. The DVD contains about 4 GB of data.

- 5** After the DVD is copied, eject it.

Before you begin a lesson in this book, you must mount the sparseimage to give Final Cut Pro access to the project and media files for the lesson.

- 6** On your desktop (or other location to which you copied the file), double-click the APTS FCP X.sparseimage file.

A virtual disk labeled APTS FCP X appears under Devices in the Finder window's sidebar.

NOTE ▶ Depending on which version of OS X you use and the Finder's preferences, you may not see the APTS FCP X disk on your desktop.

Each lesson will explain which files to open for that lesson's exercises. You should not disturb the contents of the Final Cut Events or Final Cut Projects folders on the APTS FCP X virtual disk.

Connecting Media to Project Files

The DVD's APTS FCP X virtual disk links the projects and media files within itself. If for some reason project clips appear as offline media files, you can reconnect to the Events that contain the media.

- 1** In the Project Library, select the project containing the offline clips.
- 2** In the Inspector, select the Properties tab. At the bottom of the Inspector, click the Modify Event References button.
- 3** If the media is available, click the Event referenced on APTS FCP X in the dialog that appears and then click OK.

The clips appear and play back. You may skip the remaining step.

- 4** If the application is unable to find the media, click OK and quit the application by choosing Final Cut Pro > Quit Final Cut Pro. Proceed with the steps in the previous section "Installing the Final Cut Pro X Lesson Files" to reinstall the projects and media files.

Using Final Cut Pro on a Portable

Some of the keystrokes identified in this book for desktop use work differently if you are using a MacBook or Apple Wireless Keyboard. Specifically, you'll need to hold down the Function key (fn) when using the Left and Right Arrow keys to access the Home and End keys, respectively.

About the Media

Four sets of media are used throughout this book. Together they represent different types of projects and media formats. The exercises instruct you to edit the media in a particular way, but you can use any part of this footage to practice editing methods. Techniques you learn using one set of media in a lesson can be practiced with a different set of clips to create a new project.

NOTE ▶ Due to copyright restrictions, you cannot use this footage for any purpose other than executing the exercises in this book.

The media, as it appears in the book, includes the following:

Delicious Peace Grows in a Ugandan Coffee Bean—An award-winning documentary narrated by actor Ed O’Neill, produced by Ellen Friedland, and directed by Curt Fissel. This documentary film tells the uplifting and inspiring story of how a group of Christian, Jewish, and Muslim Ugandan coffee farmers overcame historical and economic hurdles to build harmonious relationships and increase economic development. The footage was shot as HDV 1080i60.

Fairly Legal—This footage is from the USA Network television series that starred Sarah Shahi as Kate Reed. In this episode, “Bridges,” which was directed by Peter Markle, veteran actor Gerald McRaney guests stars as Judge Nicasastro. Thanks to her innate understanding of human nature, thorough legal knowledge, and wry sense of humor, Kate is a natural when it comes to dispute resolution. Except, it seems, when it comes to conflicts in her personal life. This episode was shot using the RED MX camera at 1920 x 1080 and 23.98 fps.

Zero to Hero—This exciting racing footage was produced by Pullin Television, in partnership with the National Hot Rod Association. The series, which was produced and directed by Stephen Pullin, highlights different drag car racing stars and showcases their backgrounds, their passions, and their commitment to racing. Broadcast on Fox Television as well as distributed over the Internet, each episode was created using a variety of camera sources, including Sony EX3, Panasonic P2, and GoPro for live events, interviews, and field production, as well as additional footage from ESPN broadcasts that was mastered on DVC Pro.

I Think I Thought—Matthew Modine wrote, directed, and starred in this sardonically humorous short film about Joe—a thinker in a world that no longer tolerates analytical thinking. The film was co-produced and shot by Adam McClelland and edited by Terence Ziegler. It was released in 2008 and is available to download from the iTunes Store. It was shot on the Panasonic AG-HVX200 camera.

System Requirements

Before using *Apple Pro Training Series: Final Cut Pro X*, you should have a working knowledge of your Mac and the OS X operating system. Make sure that you know how to use the mouse/trackpad and standard menus and commands and also how to open and close files. If you need to review these techniques, see the printed or online documentation included with your system.

For the basic system requirements for Final Cut Pro X, refer to the technical specifications at www.apple.com/finalcutpro/specs/.

About the Apple Pro Training Series

Apple Pro Training Series: Final Cut Pro X is both a self-paced learning tool and the official curriculum of the Apple Pro Training and Certification Program.

Developed by experts in the field and certified by Apple, the series is used by Apple Authorized Training Centers worldwide and offers complete training in all Apple Pro products. The lessons are designed to let you learn at your own pace. Each lesson concludes with review questions and answers summarizing what you've learned, which you can use to help prepare for the Apple Pro Certification Exam.

For a complete list of Apple Pro Training Series books, see the ad page at the back of this book, or visit www.peachpit.com/apts.

Apple Pro Certification Programs

The Apple Pro Training and Certification Programs are designed to keep you at the forefront of Apple digital media technology while giving you a competitive edge in today's ever-changing job market. Whether you're an editor, graphic designer, sound designer, special effects artist, student, or teacher, these training tools are meant to help you expand your skills.

Upon completing the course material in this book, you can earn Apple certification. Certification is offered in all Pro Applications, including Aperture, Final Cut Pro, Motion, and Logic Pro. Certification gives you official recognition of your knowledge of Apple professional applications while allowing you to market yourself to employers and clients as a skilled user of Apple products.

Apple offers three levels of certification, **Apple Certified Associate**, **Apple Certified Pro - Level One**, and **Apple Certified Pro - Level Two**. Certification exams do not require class attendance. Students who prefer to learn on their own or who already have the necessary skill set in the chosen application may take an exam for a fee.

Apple Certified Associate status validates entry-level skills in a specific application. Unlike an Apple Certified Pro exam, you can take Associate exams online from the comfort of your own home or office. Apple Certified Associate status is appropriate for students, for someone who is preparing for a first job out of school or a college-level program, or for anyone interested in validating entry-level credentials. Instructions on how to take the exam are included later in this book. For details on what the exam covers, please visit training.apple.com/certification/proapps.

An **Apple Certified Pro** is a user who has reached the highest skill level in the use and operation of Apple Pro Applications as attested to by Apple. Students earn certification by passing the online certification exam administered only at Apple Authorized Training Centers (AATCs). Apple Certified Pro status is appropriate for industry professionals.

For those who prefer to learn in an instructor-led setting, training courses are taught by Apple Certified Trainers at AATCs worldwide. The courses use the Apple Pro Training Series books as their curriculum and balance concepts and lectures with hands-on labs and exercises. AATCs are carefully selected to meet Apple's highest standards in all areas, including facilities, instructors, course delivery, and infrastructure. The goal of the program is to offer Apple customers, from beginners to the most seasoned professionals, the highest-quality training experience.

For more information, please see the page at the back of this book, or to find an Authorized Training Center near you, visit training.apple.com.

Resources

Apple Pro Training Series: Final Cut Pro X is not intended as a comprehensive reference manual, nor does it replace the documentation that comes with the application. For comprehensive information about program features, refer to these resources:

- ▶ Final Cut Pro Help: Accessed through the Final Cut Pro Help menu, the Reference Guide contains a complete description of all features. You can also access the help at <http://help.apple.com/finalcutpro/>.
- ▶ For a list of other resources, please visit the Apple website at www.apple.com/finalcutpro/resources/.
- ▶ For details on the Apple Training and Certification programs, please visit training.apple.com.

4

Time

This lesson takes approximately 90 minutes to complete.

Goals

Work with projects

Screen and mark clips

Use the append edit option

Arrange clips in the Timeline

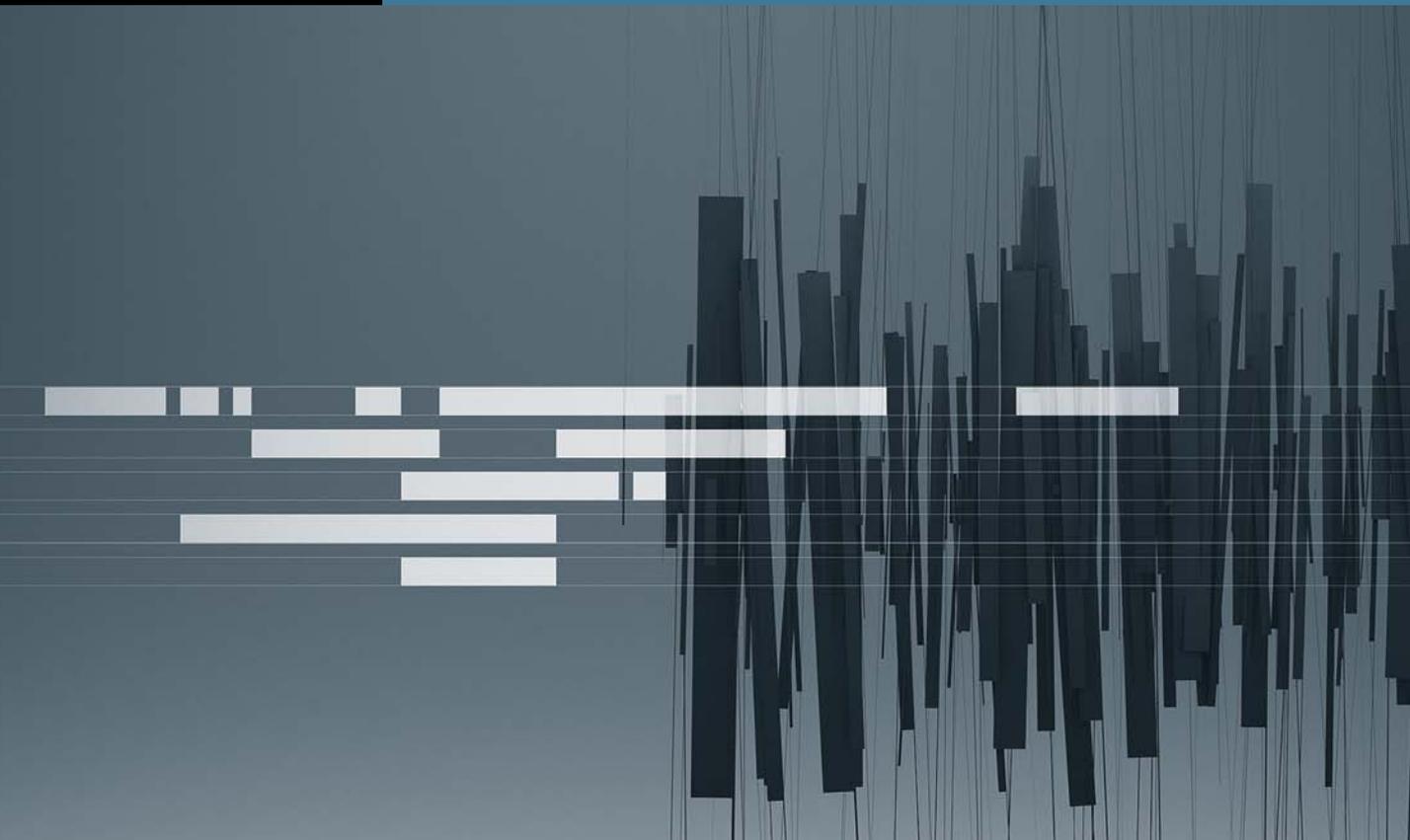
Work with the Magnetic Timeline

Insert clips

Use drag-and-drop editing

Make changes to project clips

Connect clips to the primary storyline



Lesson 4

Building the Rough Cut

Having imported your media and organized your Events, you are now ready to move into one of the most exciting parts of the editing workflow: building and crafting your story. Why “building” and not “telling?” Because a story needs a foundation, a primary thread—let’s call it a storyline—that will take you from beginning to end.

Once you craft the primary foundation or storyline, you can refine it by rearranging some clips and trimming others. You may want to add complementary B-roll visuals to create a secondary storyline, or enhance the story by adding music or narration. This is the real work of an editor, and represents the tasks you will encounter in this very important part of the editing workflow, and in this section of this book.



In this lesson you’ll build a rough cut using the source media from the Events. To begin, you will create a new project, and mark clips you’ve

placed in Keyword Collections. Then, you'll choose your Favorite clips and edit them into the project to create a primary storyline. Remember, it's a rough cut. It will require trimming, adjusting, and finessing, but all of that will be done in due time.

Creating a New Project

Every story you tell using Final Cut Pro is contained within a project. Projects are created and cataloged in the Project Library. Here you can neatly organize and store your projects until you are ready to refine them or share them with the world.

In this exercise, you will create a new project in the Project Library for the *Zero to Hero* story.

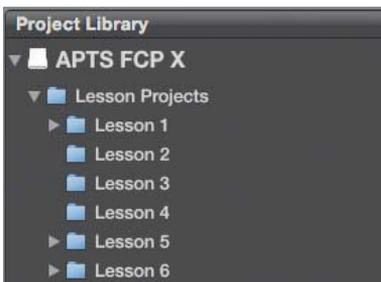
- 1 If the Project Library is not in view, click the Project Library button in the lower-left corner of the Timeline, or press Command-0 (zero).



When the Project Library is active, you'll see your internal hard disk along with any external drives connected to your computer. Any projects stored on a volume will appear under that volume's icon.

- 2 To reveal the projects on the APTS FCP X disk, click its disclosure triangle. To reveal the contents of the Lesson Projects folder, click its disclosure triangle.

The Lesson Projects folder was copied from the DVD and contains project files that you will use throughout the book. One folder has been created for each lesson.

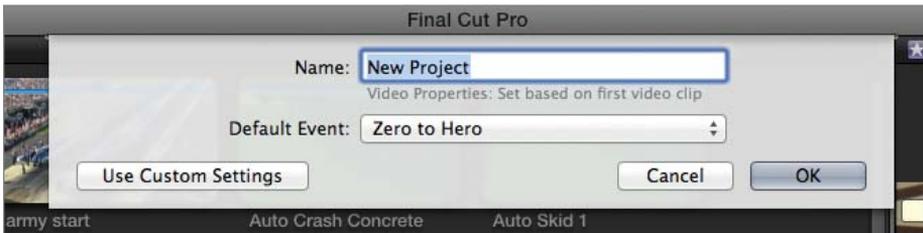


You'll create a new project for this lesson inside the Lesson 4 folder using the *Zero to Hero* Event on APTS FCP X.

- 3 In the Event Library, select the *Zero to Hero* Event under APTS FCP X. In the Project Library, select the Lesson 4 folder, and click the New Project (+) button.



A project dialog appears asking you to name the new project and the default Event that contains your source media.



- 4 In the Name field, enter *Zero to Hero*. From the Default Event pop-up menu, choose the first *Zero to Hero* Event listed.

NOTE ▶ Two *Zero to Hero* Events are listed if you did not delete the Macintosh HD Events created in Lesson 2. The first *Zero to Hero* listed is on APTS FCP X and the second is the Event you created on Macintosh HD.

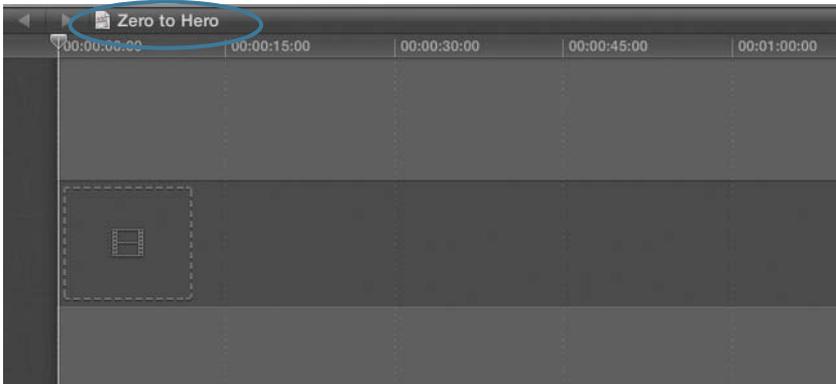
In the Default Event pop-up menu, Final Cut Pro will display Events stored in the Final Cut Events folders present on any connected hard disk. The current option displayed in the menu simply reflects the Event that was most recently selected in your Event Library. As you edit, however, you can use clips from multiple Events in your project.

By using the default settings, you're allowing Final Cut Pro to create a project using video formats that match the first clip you edit, and audio settings that follow the default audio options.

TIP To customize a project's audio and video properties, click the Use Custom Settings button. For Video Properties, select Custom, and then choose the desired Format, Resolution, and Rate from the pop-up menus that appear. Selecting Custom for the Audio and Render Properties section allows you to select Stereo or Surround sound, the audio sample rate, and the render file format.

5 Click OK.

When you create a new project, it automatically opens in the Timeline window. Notice that the name of the new project is displayed in the upper left of the window.



You still have a few more things to organize in the Project Library. For example, to narrow your focus among the many folders, you can bring your Lesson 4 folder front and center, and close the other folders.

6 To return to the Project Library, press Command-0 (zero). For the purposes of this lesson, drag the Lesson 4 folder onto APTS FCP X to bring it to the top level of that folder's hierarchy. Then click the disclosure triangle for the Lesson Projects folder to hide the other lesson folders.



TIP When you create projects, Final Cut Pro creates a Final Cut Projects folder in your Movies folder if Macintosh HD is selected or at the root level of a selected, non-system volume. You can exercise a media management best practice by not manipulating the project or media files in the Finder.

You can have an unlimited number of Final Cut Pro projects, but you can work on only one at a time. Next you'll get started building the project you just created.

- 7 Open the Lesson 4 folder to reveal its contents. To open the *Zero to Hero* project, double-click its icon. The project opens in the Timeline.

Screening and Marking Clips

If you organized your clips into Keyword Collections, or had Final Cut Pro do it for you on import, you'll have a head start on your editing process. Rather than needing to search through a large group of clips to find the content you want to use, you can select a collection of clips in the Event Library and start editing. In this exercise, you will work with *Zero to Hero* interview clips that were previously imported into a Keyword Collection based on the original folder structure of the media files.

About the Zero To Hero Media

“Zero To Hero” was produced by Pullin Television in partnership with The National Hot Rod Association to create entertainment programming for the professional race teams as well as the grassroots racing community. The series, which was produced and directed by Stephen Pullin, highlights several drag car racing champions and showcases their backgrounds, their passions, and their commitment to racing. Some of the drivers featured in the series are Tony Pedregon, a two-time Funny Car World Champion with 43 career wins and a top speed of 311.49 MPH; Tony Schumacher, a seven-time winner of the Top Fuel Dragster World Championships with 67 career wins and a top speed of 327.03 MPH; Antron Brown, a top fuel dragster driver with 27 career wins, and a top speed of 325.37 MPH; and John Force, a fifteen-time Funny Car World Champion with 132 career wins, and a top speed of 316.23 MPH. The series was broadcast on Fox television and also distributed over the Internet. Each episode was created using a variety of camera sources, including Sony EX3, Panasonic P2, and GoPro for live events, interviews, and field production, as well as additional media from ESPN broadcasts mastered on DVC Pro.

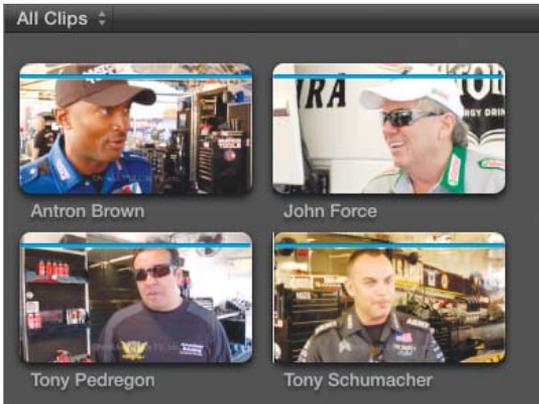
Starting with a Keyword Collection is a good first step for narrowing the choice of clips. But the real craft of editing is to narrow your media choice *within* a clip so you can edit just that selection into your project.

You can do this several ways. In the previous lesson, you used start and end points to define a range, and rated that range as a Favorite. (Final Cut Pro can easily display those Favorites as a group.) But you can also identify a clip range using start and end points and then edit that selection directly into the Timeline. In this exercise, you will view clips and mark the desired ranges you want to edit. You will also adjust the Event Browser to maximize its use for previewing clips before editing.

- 1 In the Event Library, click the disclosure triangle next to the *Zero to Hero* Event, and select the *Interviews* Keyword Collection. Click the Filmstrip View button.



The four people in this Keyword Collection are racers in the National Hot Rod Association (NHRA). They were interviewed on location at their race events.



As you've seen, the Event Browser can display clips in several ways. The more familiar you become with the Final Cut Pro editing process, the more you will gravitate to different setups for specific purposes.

- 2 To optimize the Event Browser for screening and marking selections within these clips, do the following:
 - ▶ Click the Filter pop-up menu and choose All Clips.
 - ▶ If text or icons are already in the search field, click the reset button (X) to clear the field.
 - ▶ In the Action pop-up menu, choose Group clips by > None, and Arrange clips by Name > Ascending.
 - ▶ To choose a single thumbnail representation, drag the Duration slider right to the All position, or press Shift-Z.
 - ▶ Click the Clip Appearance pop-up menu, and deselect Show Waveforms, and make the thumbnails as large as possible.
 - ▶ In the View menu, make sure Skimming, Audio Skimming, and Snapping are chosen.

NOTE ▶ How you view clips in the Event Browser is a personal preference. You can modify your choices as you work through these lessons, but the display setup in step 2 will be reflected in the images in this lesson.

- 3 To select the first clip, **Antron Brown**, simply click it. Then move your pointer through the clip to skim it.



With a single click, a yellow range selection outlines the entire clip. Notice that you can skim anywhere in the clip, but the white playhead remains positioned at the location where you clicked when you selected the clip.

- 4 Skim away from the white playhead, and press the Spacebar to play the clip.

TIP ▶ As you play a clip, you may want to fast forward a clip or play it backward slowly to find the beginning of a word or a specific moment. You can press the J-K-L keys to play the clip backward and forward, slow and fast, and use key combinations to move frame by frame.

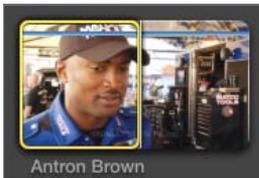
When you play a clip by pressing the Spacebar or the L key, the clip starts playing from the skimmer location, not the playhead location. This makes it very convenient to skim and play, skim and play, as you seek out editing options. When you're screening a clip for the first time, however, you'll typically want to play from the beginning of the clip.

- 5 To move the playhead *and* the skimmer to the beginning of the clip, press Shift-I, which moves both skimmer and playhead to the preceding start point. Then press Spacebar to play the entire clip.

NOTE ▶ When the clip finishes playing, you can press the Spacebar to play it again.

To edit a portion of this clip, you will change its selection range. Since Antron begins his comment at the very beginning of the clip, “One day you could be a hero,” the current start point is fine. Next you'll set an end point.

- 6 Play the **Antron Brown** clip from the beginning again and stop after you hear him say, “... you didn't qualify for a race.” Press O to set an end point at that playhead location. To play from the start to the end points, press the / (slash) key and watch your selected clip range play in the Viewer.



If the end point isn't exactly what you want—perhaps you caught Antron in the middle of his next word—you can change your range selection by dragging the selection edge, or by remarking the clip. To help you find a specific ending frame, you can also use the J-K-L or Left and Right Arrow keys.

TIP ▶ When audio skimming is enabled, you can hear Antron's audio frame by frame as you skim across the clip. To enable audio skimming, press Shift-S.

- 7 To move the playhead to the end point, press Shift-O. Press the Left or Right Arrow key to fine-tune the location of your new edit point, frame by frame. Make sure the frame is after Antron says, "...you didn't qualify for a race," but before he begins his next statement. To set a new end point at the playhead location, press O.

TIP ▶ Don't worry if your start and end points aren't perfect. Once the clip has been edited into a project in the Timeline, you can later apply trimming techniques to fine-tune the edit points.

With your clip range marked, you're ready to edit it. However, you have more clips to screen. You can rate this marked range as a Favorite for fast retrieval. You will learn more about editing in the next exercise.

TIP ▶ You can also press I or O as the clip plays to set a start or end point. Creating edit points in real time is referred to as marking on-the-fly.

- 8 In the **Antron Brown** clip, rate this portion as a Favorite by clicking the Favorite button, or pressing F.



The green Favorite line appears in the clip over the selected range. This is one way you can always see or easily return to the portion of the clip you liked.

- 9 In the Event Browser, mark selections for the two following clips. After you mark one clip, remember to save that range as a Favorite so you can return to that portion and later edit it into your project.

John Force—"There's nothing like....greatest feeling in the world." Then press F to save that portion as a Favorite.

Tony Pedregon—"The breed of the drag racer...has no fear." Press F to save this portion as a Favorite.

TIP ▶ Although keywords applied within a clip may overlap, ratings may not. Marking a new Favorite that overlaps a previously marked Favorite results in one big Favorite.

Rating selections as Favorites is a good workflow to preserve and prepare potential sound bites for editing. But another approach is to simply mark one or more selections within a single clip. In Lesson 2, you saw that Final Cut Pro remembers multiple selections while importing from an SD cards. It works similarly while screening and marking a clip in the Event Browser. You'll begin by marking a single sound bite.

- 10** Play the **Tony Schumacher** clip. Use the I and O keys to mark a range around Tony saying “Nobody wakes up and thinks...average my whole life.” Do not press F.

NOTE ▶ Make sure you read through the next few steps before marking a second selection. If you press the I or O key at this point, it would *replace* the previous selection you made, not add to it.



This is a great comment and one you will most likely want to use in the *Zero to Hero* project. But you might find other comments in this clip that are equally useful. As you continue to screen this clip, you can mark another comment without losing this selected range.

- 11** Continue playing the **Tony Schumacher** clip, and listen for when Tony talks about dreaming of the monster moment. Skim or position the playhead to just before Tony says, “People dream for that massive...”

You've already marked one selection in this clip that you don't want to lose. To add this second sound bite as an additional selection, you must use two modifier keys along with the I or O key.

- 12** To set an additional range, start in the already marked **Tony Schumacher** clip, and press Shift-Command-I.

TIP Another way to create an additional range selection is to Command-drag the clip's filmstrip or thumbnail.



The start of a second range appears. As expected, this new range automatically extends to the end of the clip. Let's find a more precise end point after Tony's killer statement.

- 13 Play or skim the clip and position the playhead after Tony says, "...big monster moment." Press Shift-Command-O.



Now you have two range selections within a single clip. Depending on the workflow you choose, you can continue screening and marking other clips before editing either selection. Let's select a different clip and return to this one later.

- 14 In the Event Browser, select the **Tony Pedregon** clip, and then reselect the **Tony Schumacher** clip by clicking in the middle of the clip between the two selections. Notice that both selections are still present. Click inside the first selection.



Clip selections are persistent. That is, they remain with the clip until you manually remove one or more of them. You can highlight a single range selection by clicking inside it, or select multiple ranges by using a modifier key.

- 15 Command-click inside the second range to add it to the selection. Command-click the first range to exclude it from the selection. Then Command-click it to add it again. With both range selections active, press F to make these selections Favorites.

Just as you can have multiple selections in a single clip, you can also create multiple favorites at one time from highlighted or active selections.

TIP ➤ To remove a range selection, click inside it to select it, and then press Option-X to clear it, or Option-click the range.

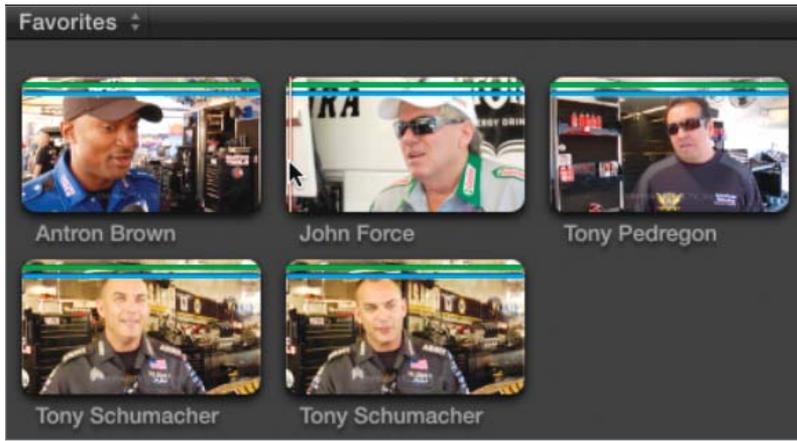
Appending Clips in the Timeline

A flexible feature of Final Cut Pro is the ability to mark many Favorites before editing, as you did in the previous exercise. Or, you can mark one clip, edit it into the project, and then you select and mark the next clip, edit it, and so on. Whichever approach you take, you have several methods for editing a source clip into a project.

One option is to simply add or *append* the clip to the end of the storyline immediately after the last clip you edited. When you're building a rough cut, as you're doing in this lesson, adding or appending clips is often the simplest approach to creating your primary storyline. Every project is based on a primary storyline. In this exercise, you will use the append edit option to edit the Favorite portions of the racers' clips you marked in the previous exercise. You'll also take a closer look at some of the Timeline functions.

- 1 To view just the Favorite selections of the racers, in the Event Browser click the Filters pop-up, and choose Favorites, or press Control-F.

Although just four racers are featured, five clips are displayed. This is because you marked two portions of the **Tony Schumacher** clip as a Favorite. Those two ranges appear separately in this filtered Favorites view.



For now, let's add these clips to the project in the order they appear in the Event Browser. Later you can rearrange them in the Timeline.

- 2 In the Event Browser, select the **Antron Brown** clip.

Because you are viewing only the Favorites, the portion of the clip you previously rated as a Favorite is selected. To add this clip to your project, you will use the append function.

- 3 In the toolbar, click the Append button.



The **Antron Brown** clip is edited into the dark gray area in the middle of the Timeline. This is where you will build your primary storyline, which, like the storyline of a book, is the main plot of your project. It drives the story you are telling with video and audio. For now, the append function simply adds the **Antron Brown** clip as the first clip of this story. Now you are ready to add your second Favorite clip to the Timeline.



TIP If you do not choose to use Favorites as part of your workflow, you can mark a range selection within a clip, select that range, and click the Append button to edit that portion of the clip into a project.

- 4 In the Event Browser, select the **John Force** clip. To review the Favorite portion, press the / (slash) key.



Now let's switch to the Timeline to see where this clip will be edited. As you switch from one window to the next, a few things will change in the interface. Let's examine those changes so you will always know which is the active window.

- 5 To select the Timeline, choose Window > Go to Timeline, or press Command-2. To select the Event Browser, choose Window > Go to Event Browser, or press

Command-1. Use these shortcuts to continue switching between the two windows and notice the changes in the following areas of the interface:

- ▶ Viewer image and name
- ▶ Dashboard
- ▶ Event Browser and Timeline background color
- ▶ Selected range color
- ▶ Rating buttons



Rating buttons with
Event Browser active



Rating buttons with
Timeline active

When the Timeline window is active, the image of the project clip appears in the Viewer along with the project name. The Timeline timecode is displayed in the Dashboard, and the Rating buttons are dimmed. The recently selected clip, **John Force**, remains selected in the Event Browser but the selection outline is now gray and not yellow.



Selected clip in inactive window

When the Event Browser window is active, the **John Force** clip selection outline returns to yellow and appears in the Viewer along with the clip name. The Rating buttons in the toolbar are active. Also, in each case, the active window's background is a lighter gray than an inactive window.



Selected clip in active window

Before you edit the **John Force** clip, let's take a closer look at how the append edit works.

- 6 To switch to the Timeline, press Command-2, and then press the Home key to move the playhead to the start of the clip. Play the clip from the beginning, but stop playback after Antron says, “take the Wally home.” Leave the playhead in the middle of the clip.

NOTE ▶ The Wally is the trophy awarded to winners of an NHRA national event. It’s named after the late NHRA founder, Wally Parks.

The toolbar has three edit buttons: Connect, Insert, and Append. Clicking each button performs a different type of edit. When you used append earlier, the function itself did not appear all that special; however, it really is significant. An append edit places the clip at the end of the primary storyline no matter where the playhead is positioned. (You will learn about the other edits later in this lesson.)

- 7 To edit the selected **John Force** clip to the Timeline, click the Append button in the toolbar, and watch where Final Cut Pro places the clip in the Timeline.



Even though the Timeline playhead was in the middle of the **Antron Brown** clip, Final Cut Pro appended the new clip to the end of the storyline. By using the append edit, you can very quickly add clips to your primary storyline.

TIP ▶ The Append function is further defined as adding source clips to the end of the primary or selected storyline.

Let’s add the third clip using the append edit keyboard shortcut.

- 8 In the Event Browser, select the **Tony Pedregon** clip. To review it, press the / (slash) key. To append the clip to your project, press E.

When you take the time to select a Favorite range in each of your clips, as you’ve done with these interview clips, you can move the editing process along even faster by appending more than one clip at the same time. In fact, Final Cut Pro can append any number of selected clips, or marked selections, in one step.

NOTE ► If you want to change the order of the clips in your project, you can easily rearrange the clips in the Timeline. You will do this later in the lesson.

- 9 In the Event Browser, drag a selection rectangle around the two **Tony Schumacher** clips to select them. To append these two clips to the storyline, press E.



Both clips are added to the end of the project in the order they appear in the Event Browser. If you Command-click to select multiple clips, they are added in the order that you clicked them.

TIP ► You can edit multiple range selections from one or more clips in the same way. Select the range selections you want to edit, and then click the Append button, or press E. The selected ranges will be edited in the order they appear.



To become more comfortable viewing your current project in the Timeline, let's change the Timeline view and look at some of the Timeline buttons.

- 10 To fit all the project clips in the Timeline, make the Timeline window active, and press Shift-Z. To play the project, press Home and then press the Spacebar, or the L key. Remember that pressing the Up and Down Arrow keys moves the playhead backward or forward to the beginnings of clips.

Zooming your Timeline with the Shift-Z shortcut is like performing a “Zoom to fit” command. It will either stretch or shrink your clip display so the entire Timeline window is filled with all the clips in the project.

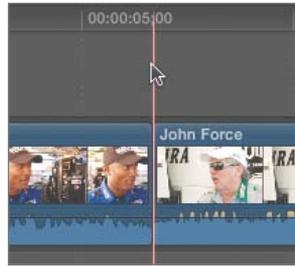
In the upper-right corner of the Timeline, you'll find three buttons that control how you skim through clips, including one that allows you to snap to clips as you skim.

- 11 Move your pointer *slowly* over the edit point between the **Antron Brown** and **John Force** clips. Notice that the skimmer *snaps* to that edit point. In the upper right of the Timeline, click the Snapping button, or press N, and then move across the edit point once again. Notice that there is no longer a pull toward the edit point.



Snapping selected

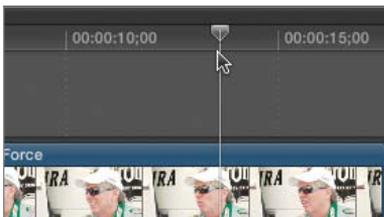
With snapping enabled, the skimmer easily aligns or snaps to the edit point and, when at the edit point, turns yellow as a visual cue.



NOTE ► The Snapping button also controls snapping in the Event Browser.

Both the Event Browser and the Timeline have a playhead and a skimmer. In the Timeline, the playhead and skimmer produce two different yet overlapping results.

- 12 Skim through the clips in the Timeline and notice that you are skimming the audio as well as the video. Then drag the playhead from the top of its stem through the clips.



Dragging the playhead through the project does not preview the audio as skimming a clip does.

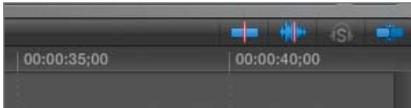
- 13 Click the second button, Audio Skimming, to deselect it. Skim through the clips in the Timeline, and then skim through the clips in the Event Browser.

With audio skimming disabled, you no longer hear the clips as you skim through them. Earlier in this lesson, you chose Skimming, Audio Skimming, and Snapping from the View menu. These are the same options controlled by these Timeline buttons. Selecting these options in the Timeline also affects how you view the clips in the Event Browser.

TIP ► The third button allows you to solo, or isolate, a clip. You will learn the use of this button in a later lesson.

At times during editing, you may want to edit using only the playhead. If you don't want the skimmer to follow your every move, you can deselect the Skimming button.

- 14 In the Timeline, deselect the first button, Skimming. When you try to skim through the clips in the Timeline or the Event Browser, you can't. In the Timeline, return the buttons to their active state by selecting all but the third button.



NOTE ► When both skimming and audio skimming are enabled, deselecting the Skimming button will deselect audio skimming as well.

Viewing and Arranging Clips in the Magnetic Timeline

Once you've edited clips and viewed their placement relative to each other, you may decide that you can improve your story by changing the clip order. With the Magnetic Timeline, you can easily drag a clip to a different location and let Final Cut Pro automatically create a space for the clip by shifting the other clips. In this exercise, you will change the order of the clips to improve the racing story. You will also employ the Timeline Index to see the list of clips in your project, and learn additional methods to change the way you view clips in the Timeline. Let's start by enlarging the clip thumbnails in the Timeline.

- 1 In the lower-right corner of the Timeline, click the Clip Appearance button. Click through the six buttons, and then click the fifth button from the left to create larger thumbnails. Drag the Clip Height slider to a middle position.



Each time you click a button, the clips in the Timeline change appearance. Sometimes, clip appearance is a personal choice. Depending on where you are in your editing workflow, however, it may be helpful to choose a particular view of your clips. For this exercise, you simply want to see the individual racers clearly, and you're less concerned with audio waveforms.



Before you change the position of the clips in the graphical Timeline layout, let's look at how they appear in a list.

- 2 In the lower-left corner of the Timeline, next to the Project Library button, click the Timeline Index button, or press Command-Shift-2.



The Timeline Index pane appears to the left of the Timeline. Clips and tags (such as keywords) in the current project are listed here in their order of appearance. The

Timeline Index provides a textual way to navigate your project. A gray highlight bar indicates the clip that is currently selected in the Timeline.



- At the top of the pane, click Clips, if it's not already selected. Beneath the list of clips, select All. Then select the **Antron Brown** clip at the top of the list.



The number to the right of each clip indicates the timecode location in the project where the clip begins. Above the list of clips, you can read the number of items in the project and the duration of the selected item(s).

- In the Timeline, select the **John Force** clip. In the Timeline Index, notice that this clip is also highlighted. In the Index, select the **Tony Pedregon** clip. In the Timeline, that clip is selected.

TIP If opening the Timeline Index caused some of the clips to go out of view, press Shift-Z again.

The Timeline Index is a great tool to help find clips and other items in your project. Although this project is small, it still provides a good opportunity to see how the Index works.

- 5 In the Timeline, drag the playhead through multiple clips, and watch what happens in the Index. In the Timeline, drag the playhead between the **Antron Brown** and **John Force** clips.



In the Index, the playhead appears horizontally and moves up and down through the clips as you drag the playhead vertically through the Timeline. You can leave the Timeline Index open as you rearrange the clips in the project.

NOTE ▶ You will explore other ways to view the Timeline Index in later exercises.

- 6 In the Timeline, play the first **Tony Schumacher** clip in which he says, “Nobody wakes up and thinks, ‘You know, gosh, I hope I’m just average my whole life.’”

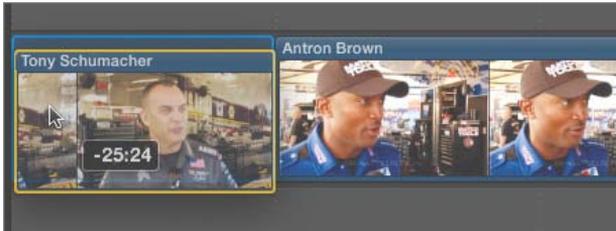


This dynamic line could really kick off the project with a lot of energy. Let’s move it to the beginning of the sequence of clips.

TIP ▶ To perform these steps, make sure that the default Select tool is chosen in the tool list.

- 7 Drag the first **Tony Schumacher** clip left to the head of the project. Before you release it, notice the blue insertion line where you will place the clip. When you see the

remaining clips reposition themselves, release the pointer to place the clip at this location. Then play the first few clips of the project.

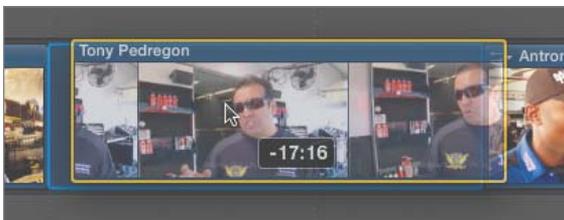


As promised, this clip gives the project a fiery start. In the Timeline Index, notice how the clip appears at the top of the list. Now let's bring Tony Pedregon into the second clip position.



- 8 Drag the **Tony Pedregon** clip to follow the first clip. When you see the blue insertion line and the other clips scoot aside, release the pointer. Play the first two clips.

When you drag a clip in the Timeline, a numerical value appears, indicating the length of time and in which direction you are repositioning the clip.

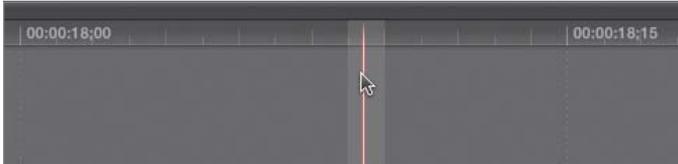


While the remaining clips could be reordered in a variety of ways, let's leave them in the order they appear: **Antron Brown**, **John Force**, and the second **Tony Schumacher** clip.

- 9 To close the Timeline Index, click the Timeline Index button, or press Command-Shift-2.

In the next exercise, you will insert some B-roll racing clips into this project. You may want to create additional room in the Timeline for the new material.

- 10** In the Timeline, press the Home key to position the playhead at the beginning of the project. Then move the skimmer to the middle of the Timeline. Press Command-- (minus) a few times to zoom out and press Command-= (equals) several times to zoom in to the clips.



The more you zoom in, the wider the clip and skimmer become and the more clip thumbnails you can see. Only the visual representation of each clip changes, not the clip length or duration. Also, the zooming occurs around the skimmer location as long as skimming is enabled. When skimming is disabled, zooming occurs around the playhead position.

You can also zoom in and out of the clips by dragging the Zoom control in the Timeline.

- 11** In the lower-right corner of the Timeline, drag the Zoom control to the left to zoom out, and then to the right to zoom in on the clips. To prepare for the next edits, settle on leaving about a third of the Timeline empty.



TIP If you are using a mouse with a scroll ball, you can scroll through project clips by moving the scroll ball left or right. You can also swipe two fingers across a Multi-Touch trackpad to scroll through a Timeline.

Inserting Clips into the Primary Storyline

You have added clips to the Timeline to build your rough cut. Like any rough cut, this one is a work in progress. So far, you've laid a strong foundation by editing and then reordering the interview clips that give this project its face, personality, and energy. Now it's time to insert other shots that show or demonstrate more of the racers' story and passion.

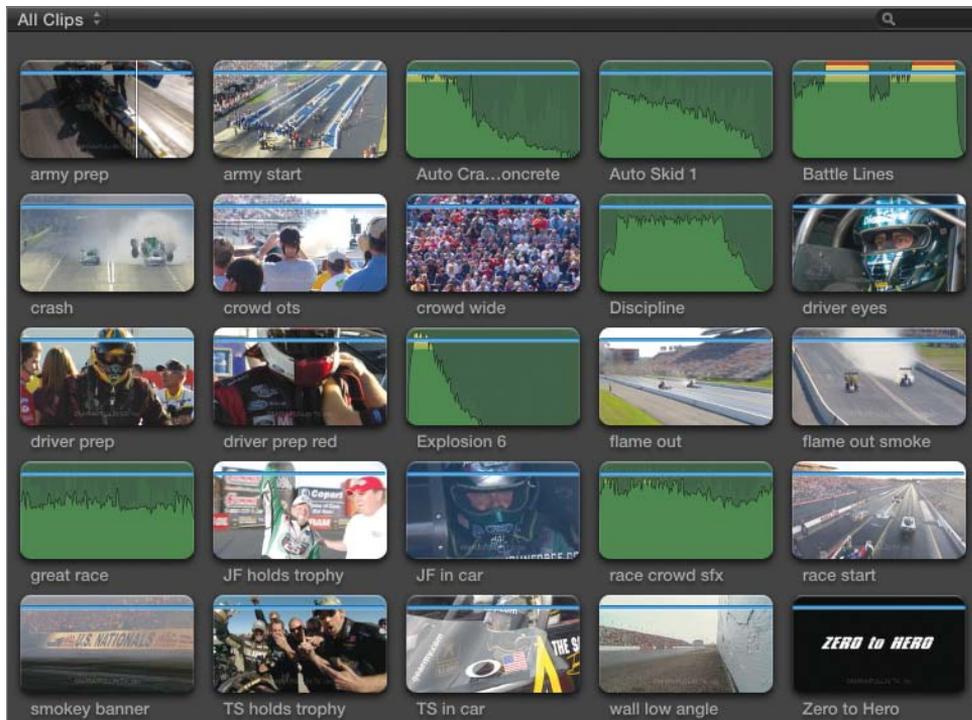
But rather than append these clips to the end of the project, you will use the insert edit to place, or insert, them between existing clips in the primary storyline. When you insert a

clip, a space for the new clip opens up in the storyline similar to the way the clips opened up when you repositioned them using the Magnetic Timeline.

In this exercise, you will work with media from the *B-Roll* Keyword Collection. In Lesson 2, Final Cut Pro used the existing media folder structure for that project to create a Keyword Collection of clips that were already organized in a B-Roll folder. Let's start by picking three shots to mark and insert into this rough cut.

- 1 In the Event Library, select the *B-Roll* Keyword Collection. In the Event Browser, from the Filter pop-up menu, choose All Clips. Take a moment to change the thumbnail view so that all clips are visible in the Event Browser.

When you first select the *B-Roll* Keyword Collection, no clips appear in the Event Browser because the Favorites filter is still active from the previous exercises. By choosing All Clips, you can see all the B-Roll clips in this collection.



NOTE ► You may wish to momentarily set the clip height to a smaller setting in order to see all of the clip thumbnails. The Clip Height setting is available by clicking the Clip Appearance button to the lower-right of the Event Browser.

As you look at the clip thumbnails, you will see a few audio-only clips. You won't be inserting audio clips at the moment, so let's hide those audio clips by choosing a media file type in the Filters window.

- 2 In the search field, click the Filter (magnifying glass) button to open the Filter window, or press Command-F. From the Add Rule pop-up menu, choose Media Type. Then, in the Media Type rule entry, from the Type pop-up menu, choose Video With Audio.

NOTE ▶ You can leave the Text entry selected because the Text field is empty and will not impact the search.



Only those clips that have both video and audio now appear in the Event Browser. In the search field, notice the filmstrip icon that indicates that a search is active based on media type.



To help place your audience at the scene, let's find some racing and crowd shots to insert into this project.

- 3 Close the Filter window. In the Event Browser, skim the **wall low angle** clip. To select the action portion of this clip, drag a selection from the head of the clip to the point where both cars are out of frame, at about 1:28 in the clip. Use the Viewer as a guide.



TIP ▶ If the entire clip is already selected, deselect it by clicking the selection, and then choose **Mark > Clear Selected Ranges**, or press **Option-X**. You can also **Option-drag** anywhere in the clip to create a new selection.

You could edit this selection immediately, but to preserve the range of this material for later use, rate it as a Favorite.

- 4 To rate the selected clip range as a Favorite, click the Favorite button, or press **F**.

TIP ▶ Remember you can press **Shift-I** or **Shift-O** to move the playhead to the range start or end points, finesse the range by pressing the **Left** or **Right Arrow** keys or **J-K-L**, and reset the start or end points by pressing **I** or **O**.

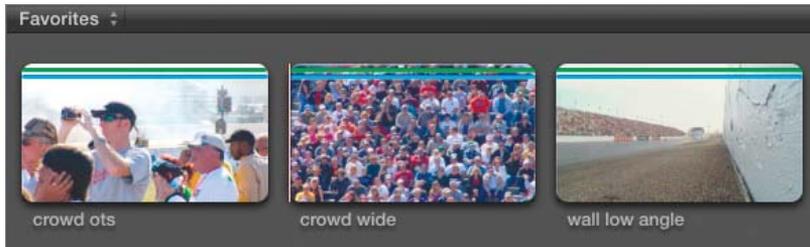
- 5 Skim through the **crowd ots** clip. To select the latter part of this clip, press **I** to set the start point when the red racing lights come on, just before the man with a camera turns. Press **F** to rate this selection as a Favorite.

When you set a start point by itself, a selection automatically appears from the start point to the end of the clip. Likewise, when you set a single end point, the selection appears from the head of the clip to the end point.



NOTE ▶ **OTS** stands for *over the shoulder*. It's used to identify a shot that shows a point-of-view perspective, as though you were looking over a viewer's shoulder. In this shot, you are seeing the race track from the crowd's perspective.

- 6 Skim the **crowd wide** clip. Notice everyone in the crowd moves their heads together at the same time. Mark a start point before the heads turn, and press F to rate the selection from here to the end as a Favorite.
- 7 To view the Favorites you just created, from the Filters pop-up menu, choose Favorites.



The three Favorite selections you just created appear. Now that they are marked, it's easy to insert them anywhere in the project. To set the stage for this project, let's insert them at the beginning. To do this, you must first specify the edit location.

- 8 Press Command-2 to switch to the Timeline, and press the Home key to move the playhead to the beginning of the project. Make sure the skimmer is not in a different location.

NOTE ▶ When you press the Home key, it moves both the skimmer and playhead to the beginning of the project. If you skim away from the playhead location into other clips, and make an insert edit, the edit will be performed at the skimmer location.

To review, an append edit automatically places a clip at the end of a storyline no matter where the playhead is located. For insert and connect edits, you must first position the playhead or skimmer where you want to place the clip.

- 9 In the Event Browser, select the **wall low angle** clip. In the toolbar, click the Insert button. Then play the first few clips.



In the Timeline, the **wall low angle** clip now appears before the **Tony Schumacher** clip.

- 10** In the Timeline, snap the playhead between the first two clips. In the Event Browser, select the **crowd ots** clip, and click the Insert button, or press W.

After you perform any type of edit in the Timeline, the playhead repositions to the end of the newly edited clip. If you want to insert a shot to follow the clip you just edited, the playhead is already in position.



- 11** To insert the **crowd ws** clip as the third clip, select it in the Event Browser, and press the insert edit keyboard shortcut, W.

TIP As with append editing, you can also insert edit a group of selected clips or marked selections at one time.

Take 2

The producer of your project is old school and remembers the good old days of drag-and-drop editing. She says she doesn't trust an editing system where you can't drag and drop. Although you enjoy the ease of using keyboard shortcuts to make your edits, you know it's also possible to drag a clip from the Event Browser directly into the Timeline at the desired edit point. You ease the producer's worries and perform a drag-and-drop edit by following these steps:

TIP Make sure snapping is enabled for these steps.

- ▶ In the Timeline, zoom the project so you can see the last clip.
- ▶ In the Event Browser, from the Filter pop-up menu, choose All Clips.
- ▶ Select the **smokey banner** clip in its entirety.
- ▶ Drag the **smokey banner** clip into the Timeline and snap it to the end of the **Tony Schumacher** clip. Look for the blue insertion line before releasing the pointer.



NOTE ▶ With drag-and-drop editing, you needn't drag the playhead to where you're focused, and click a button in the toolbar. You can simply rely on your eyes to target the new location and manually drag the clip directly to where you want it in the storyline.

Changing Edited Clips

Once you've edited several clips into your primary storyline, you may be distracted by one clip that's too yellow or another clip that's too loud. There are stages during the editing workflow when you will correct all of the color problems or perfectly blend each audio clip. But for now, you just want to view the project without cranking up the volume control or checking to see if you're wearing amber sunglasses.

As you learned in Lesson 2, you can access the Inspector window to view video or audio information about your clip. In this exercise, you will use the Inspector to make a few adjustments that will make viewing your project more pleasant. This is an important part of building a rough cut. Although you aren't making final changes, you are tweaking the Timeline to determine whether or not the clips you've edited are effectively telling your story. Let's start by adjusting the Timeline view.

- 1 In the Timeline, click the Clip Appearance button and click the third thumbnail button. Then drag the Clip Height control to make the clips taller.

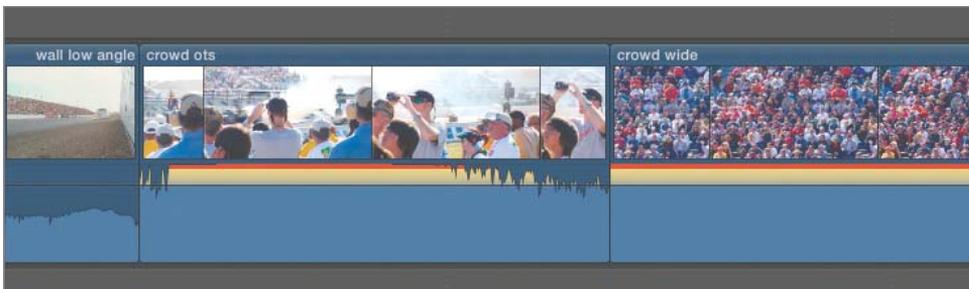


With this clip appearance option chosen, the clip waveform appears beneath the video thumbnails. This makes it easy to see which clips need an audio boost and which are already raising the roof.



TIP Since you will be skimming a few loud clips, you may want to disable audio skimming by deselecting that button in the Timeline, or pressing Shift-S.

- 2 Skim to the first clip and press Command-= (equals) to zoom in to this area. Then play the first three clips in the project and watch the waveforms as they play.



Notice that the first clip's audio waveform is shaded blue and falls safely beneath the horizontal audio volume line. The waveforms of the second and third clips, however, go above the volume line; those portions of the waveforms appear yellow and red. You can easily lower the volume of these two clips in the Timeline.

TIP In the waveforms, yellow indicates audio levels approaching peak levels, whereas red indicates peaked audio. You'll learn more about peaking in Lesson 8; but for now, know that red is too loud.

- 3 In the Timeline, move your pointer into the **crowd ots** clip and position it over the volume line. When it turns into a vertical resize pointer, notice the 0 dB info flag, and then drag down until the waveform is at a similar level to the first clip.

NOTE ► The abbreviation dB means *decibels*, the unit of measurement for audio volume.



TIP ► If the skimmer gets in the way of adjusting the volume line, deselect the Skimming button in the Timeline, or press S.

When you lower the volume of the **crowd ots** clip, the waveform no longer displays yellow areas or red peaks. But notice that the top portion of this clip is flat. When the audio was originally recorded at the racing location, the loudness of the race caused the audio to *clip*.

- 4 In the **crowd wide** clip, drag the volume line down to match the first two clips. Play these clips in the Timeline. To enable skimming again, press S.

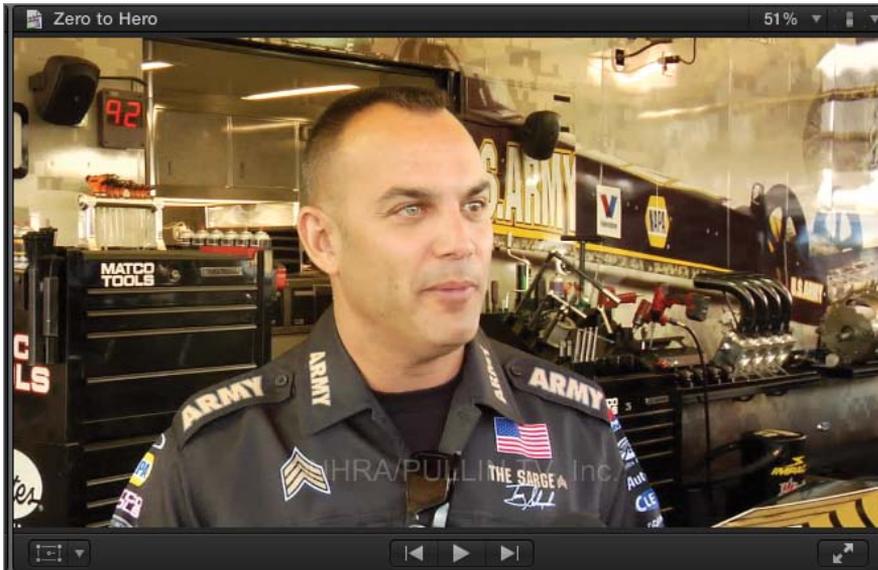
NOTE ► Remember, the dB number you see in the Level field represents a change of volume up or down relative to the original sound level of this clip.

Now when you play these clips, you can get a better idea of whether their audio content will work in the project.

- 5 Skim to the fourth clip, **Tony Schumacher**, and play it. Then click above that clip to move the playhead to this location. Notice that the background sounds of the shop are too loud, and the video has a yellow tint. Leave the playhead over the clip so you can see it in the Viewer.



TIP As you work with a particular portion of a project, it's always a good idea to zoom in to that area so you can see it more clearly.



This type of show is often shot under extreme conditions where you have to grab a few minutes with a racer whenever you can, no matter what's going on around him. You may not have time to color balance the camera or ask everyone to leave the shop and reduce the background noise. Final Cut Pro can help in both situations. To get a closer look at this clip's properties, let's open the Inspector.

- In the toolbar, click the Inspector button, and then click the Video tab at the top of the window. In the Color section, select the checkbox next to Balance, and notice how the clip changes in the Viewer.



By selecting Balance, Final Cut Pro automatically color balances this clip, pulling out the yellow cast, and making it look much more pleasing.



One of the uses of the playhead is to park it to identify a location, like a bookmark, and hold that place while you skim to look for other content. In this situation, it would be nice to compare the **Tony Schumacher** clip you just color balanced with the clip featuring Tony later in the project.

- 7 With the playhead parked over the first **Tony Schumacher** clip, skim down to the second **Tony Schumacher** clip to compare the clips. Then skim back to the playhead location.

In the Inspector, you can also adjust the volume of the selected clip as well as mute individual channels.

- 8 In the Inspector, click the Audio tab and look for the Channel Configuration section towards the bottom of the Inspector. Make sure the Channel Configuration area displays four mono channels. If it doesn't, click the disclosure triangle next to the clip's name.



This clip has four audio channels. For this shoot, a lavalier microphone recorded two channels of Tony's interview, and another microphone recorded two channels of ambient sound from the shop. By deselecting each channel, you can identify which is which.

- 9 In the Timeline, play the first **Tony Schumacher** clip, and as it plays, deselect the third and fourth mono audio channels in the Inspector window.



NOTE ▶ If your pointer is over an audio channel in the Inspector when you press the spacebar, you will hear only that source channel play and not the Timeline clip.

The lower two channels contain the background ambient noise from the shop. By deselecting these channels, you can hear Tony's interview more clearly.

Now let's adjust the clip volume in the Inspector.

- 10** In the Timeline, click above the **Tony Pedregon** clip and look at the top of the Inspector window to see the clip name change.



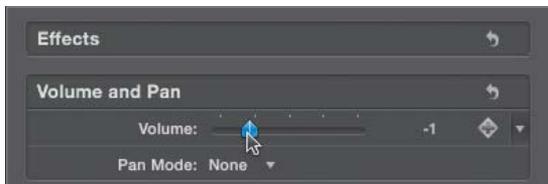
TIP You can also Option-click a project clip to simultaneously select the clip and cue the playhead to that location.

The Inspector window displays the selected clip's properties, whether that clip is from the Timeline or the Event Browser.

- 11** Play this clip and deselect the third and fourth mono channels. Then select them again.

In this clip, deselecting and turning off these channels leaves the clip sounding a little tinny. Leaving them turned on gives the clip a fuller sound, but also raises the overall volume.

- 12** In the Inspector window, drag the Volume slider to the left until the clip waveform in the Timeline no longer has yellow areas or red peaks. Then close the Inspector. Now the clip plays at a lower volume.



Connecting Clips to the Primary Storyline

As you build your rough cut, you may find that adding audio—such as narration, music, or sound effects—improves your storyline. For example, it might be nice to add music to help build momentum in the *Zero to Hero* project. But which edit option do you choose? You wouldn't append music to the end of the clips. And you wouldn't insert it between clips. Instead, you use another edit option in the toolbar to *connect* the clip to the primary storyline.

A connected clip could be any clip that is attached to the primary storyline in the Timeline. Connected clips remain attached where you edit them until you move or remove them. In this exercise, you will filter the *Zero to Hero* B-roll clips so that only the audio clips appear, and then connect a music clip to your video sequence and adjust its position in the primary storyline.

TIP ➤ If necessary, press Shift-Z to view all the clips in the Timeline.

- 1 In the Event Browser, from the Filter pop-up menu, choose All. Press Command-F to open the Filter window. From the Media Type pop-up menu, choose Audio Only. Close the Filter window.

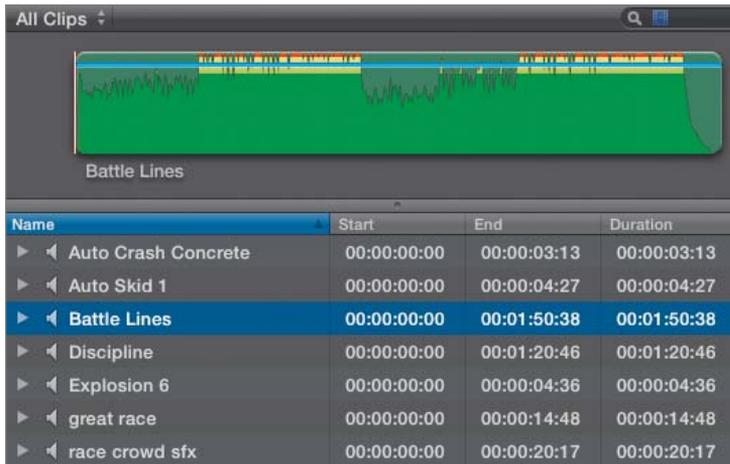


TIP ➤ You could also open the Filter window by clicking the search field when a search rule, such as the media type icon, is present.

You now see just the audio clips that are part of the *B-Roll* Keyword Collection. Since audio clips have no thumbnails, let's view them as a list.



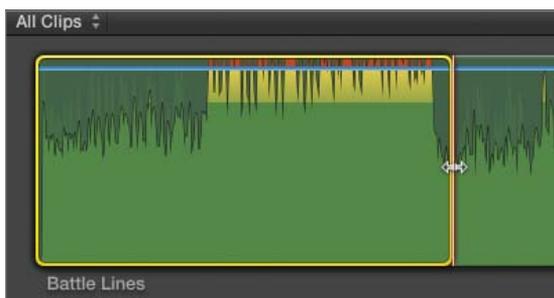
- In the Event Browser, click the List View button. Then play the first part of the **Battle Lines** music clip. Viewing this clip in list view provides an expanded view of the waveform.



- To edit the first half of this clip, mark a start point just before the music begins, and an end point after the first series of waveform peaks.

TIP With audio skimming selected, you can press the Left and Right Arrow keys to find the exact music start.

In the clip waveform display, notice that some of the upper parts of the waveform appear yellow and some appear red, indicating that the audio may be peaking at 0 dB. As you know from the previous exercise, you can easily adjust the volume of this clip in the Timeline.



You could start this music at the head of the project. But it might be more fun to let the two race cars zoom by and then begin the music.

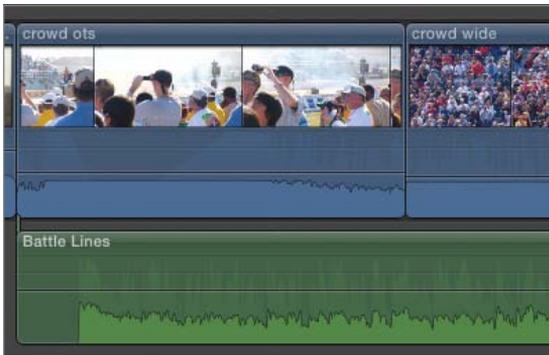
- 4 To make the Timeline window active, press Command-2. Press the Up or Down Arrow key to move the playhead to the beginning of the **crowd ots** clip.

As with the insert edit, when you edit a connecting clip, Final Cut Pro always places the clip at the skimmer or playhead location.

- 5 In the toolbar, click the Connect button, or press the connect edit keyboard shortcut, Q. In the Timeline, play the first few clips, and then look at the thin vertical line connecting the **Battle Lines** music to the **crowd ots** clip.



By performing a connect edit, you connected the music to the primary storyline at the playhead location. Let's see what happens when you reposition this clip.



- 6 Drag the **crowd ots** clip to the right and reposition it after the **crowd wide** clip. Play this arrangement, and then drag the clip back to its original position.

When you move the **crowd ots** clip, the music travels along because it is connected to the clip you're dragging.



But just because you started a connection with one clip doesn't mean you have to keep that connection. By dragging the music later in the Timeline, you can connect it to a different clip.

- 7 Drag the **Battle Lines** clip to the right and snap it to the head of the first **Tony Schumacher** clip. Notice that when you snap it to this edit point the playhead turns thick and yellow.



As you drag this connected clip, the thin vertical connection line relinks with another clip in the Timeline, in this case, the **Tony Schumacher** clip.

- 8 Play the first few clips of the project.

Now the music provides a very dynamic start to the interview clips. However, you are not limited to snapping a connected clip to an edit point. You can also shift the position of the clip left or right. You can do this by using shortcut keys to shift the clip one frame at a time, 10 frames at a time, or by entering a numerical length of time.

- 9 With the **Battle Lines** clip selected, press the , (comma) key several times to move the clip to the left in one-frame increments. Then press the . (period) key to move the clip to the right in one-frame increments. Press Shift-, (comma) to move the clip to the left 10 frames, or press Shift-. (period) to move it to the right 10 frames.

TIP The comma key shares the Left Angle Bracket key, and the period key shares the Right Angle Bracket key. It may be helpful to think of moving in the direction these keys point.

Sometimes you can successfully finesse clip placement by adjusting it just a few frames. Other times, you may need to move it a specific amount of time, perhaps to allow for another clip you will be edited later.

- 10** With the **Battle Lines** clip still selected, enter -200 . Look at the Dashboard and notice that the number entry has replaced the timecode location. Press Return or Enter.



When you precede a number amount with a + (plus) or - (minus) sign, Final Cut Pro reads that number as a trim or nudge amount, even adding colons every two digits, and moving the selected clip by that amount.

Editor's Cut

You're now familiar with three types of edits, how to mark clips for editing, and how to customize the Timeline and Event Browser. With this arsenal of knowledge, you can create another rough cut using totally different media. Remember, you are still in the rough cut stage of the editing process.

- ▶ To work with new media, in the Project Library, create a new project and name it *I Think*.
- ▶ In the Event Library, view the *I Think* clips and edit them in whatever sequence feels natural for you.
- ▶ You can connect narration and music clips after you have the video clips in place.



NOTE ▶ Although Final Cut Pro editing functions work the same regardless of the media in use, rehearsing them using different types of media is a good way to hone your editing chops and gain greater control over the tools, functions, and shortcuts.

Closing Your Project

Once you finish working in a project, you may want to close it so that you have a clean slate the next time you open Final Cut Pro.

- 1 In the Project Library, click the disclosure triangle next to the Lesson 4 folder to hide its contents.
- 2 Drag the Lesson 4 folder into the Lesson Projects folder beneath the APTS FCP X icon.

TIP ➤ Closing a project in this way is a good practice to continue when finishing each lesson.

Lesson Review

1. What methods can you use to create a new project?
2. How do you create an additional range selection in the same clip?
3. What four different methods allow you to edit clips into your project?
4. What is an append edit?
5. How can you zoom in or out of an area of the Timeline?
6. How do you change the display size of the clips in the Timeline?
7. How can you view a list of all clips in the Timeline?
8. How can you quickly adjust a clip's volume in the Timeline?
9. How can you mute specific audio channels for a clip in the Timeline?
10. How can you toggle snapping on or off?
11. When you drag clips to rearrange their positions in the Timeline, what visual indicator shows where the clip will be positioned when you release the pointer?
12. How would you connect music or B-roll to the primary storyline in your Timeline?

Answers

1. Click the New Project (+) button; Control-click a folder or drive and choose New Project from the shortcut menu; or select the target location, and choose File > New Project, or press Command-N.

2. Set a range start and end for one section of the clip, then press Shift-Command-I to start a new range, and Shift-Command-O to set the end of the new range. Another method is to press the Command key and drag a range within a clip's thumbnail or filmstrip.
3. To create an edit, click an edit button in the toolbar; choose an editing command from the Edit menu, such as Append; press a keyboard shortcut; drag a clip from the Event Browser, from a media browser such as the Photos Browser, or from the Finder.
4. An append edit adds one or more clips to the end of a project or selected storyline.
5. Press Command-= (equals) to zoom in, and press Command-- (minus) to zoom out. You can also zoom in and out by dragging the Zoom control in the lower right of the Timeline.
6. Click the Clip Appearance button in the lower-right corner of the Timeline. In the Clip Appearance window, drag the Clip Height slider to the left to decrease the clip height, or to the right to increase the clip height.
7. In the lower-left corner of the Timeline, click the Timeline Index button, or press Command-Shift-2. The Timeline Index pane appears to the left of the Timeline and displays clips, roles, and tags (such as keywords) used in the current project in their order of appearance.
8. Position your pointer over the volume line in the Timeline. When the pointer turns into a vertical resize pointer, drag down to lower the volume or drag up to raise it. Audio that approaches peak levels appears yellow in the waveform; audio that exceeds peak levels appears red.
9. Select the clip in the Timeline, click the Inspector button in the toolbar, and then click the Audio tab and deselect the appropriate channels.
10. Click the Snapping button in the Timeline, press N, or choose View > Snapping.
11. A blue insertion line indicates where clips will be placed.
12. Position the playhead in the Timeline where you want to connect one or more clips. Select the clips in the Event Browser. In the toolbar, click the Connect button, or press Q. In the Timeline, a blue connection line for video or a green connection line for audio indicates the connection point.

Keyboard Shortcuts

N	Turn snapping off and on
Command-N	Create a new project
Control-click	Open a shortcut menu
Command-F	Open the Filter window
, (comma)	Move selection to the left 1 frame
. (period)	Move selection to the right 1 frame
Shift-, (comma)	Move selection to the left 10 frames
Shift-. (period)	Move selection to the right 10 frames
Command-0 (zero)	Open the Project Library
Command-1	Go to the Event Browser
Command-2	Go to the Timeline
Command-Shift-2	Open the Timeline Index
Command-- (minus)	Zoom out of the Timeline, Event Browser, or Viewer
Command-= (equals)	Zoom in to the Timeline, Event Browser, or Viewer
Shift-I	Move the playhead and skimmer to the beginning of the range selection
Shift-O	Move the playhead and skimmer to the end of the range selection
Shift-Z	Zoom the contents to fit the size of the Event Browser, the Viewer, or the Timeline
Shift-S	Toggle audio skimming
Up Arrow	Go to the previous item (in the Event Browser) or the previous edit point (in the Timeline)

Keyboard Shortcuts

Down Arrow	Go to the next item (in the Event Browser) or the next edit point (in the Timeline)
S	Toggle video and audio skimming
Q	Connect to primary storyline
W	Insert into primary or selected storyline
E	Append to primary or selected storyline
F	Rate selection as a Favorite
/ (slash)	Play selection
J	Play reverse
K	Stop
L	Play forward
I	Set range start point
O	Set range end point
Spacebar	Play/pause

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