

MTN  
Final  
Cut  
Pro  
Class  
Handout

# Final Cut Pro

## Pre-flight Checklist

1. Turn the power strip on.
2. Make sure the DVCAM deck is on by pressing the power button. The power light above the button should be green. Red means off, but receiving power.
3. Turn the Mac on with the button on the computer (tower).
4. After the computer starts up, choose "**Access**" from the list of users. You will then be prompted to enter the password. The password is.... (You will either want to remember it or write it down.)
5. Make a folder for your project files (if you haven't done this already) in the "**Projects alias**" folder. Your folder should be called "**Your Name Projects.**" Name your folder with your name rather than the name of your project.
6. Make a folder for your media files (if you haven't done this already) in the "**Video 1**" drive. It should be named with your name and the word "**Media.**"
7. Click on the Final Cut Pro icon in the Dock to start up the program.
8. If you are starting a new project, save the open untitled project by selecting "**File>Save Project**" and then saving the file in your project folder. To select your project folder, start at the box at the left and select the "Projects" folder. Then look for your folder and click on it to put its name in the "Where" window.
9. If you are returning to a project that you have already saved, open it by selecting "**File>Open**" and find it in your project folder
10. Select "**Final Cut Pro>Easy Setup**" and make sure the Easy Setup is set to "**DV-NTSC.**"
11. Select "**Final Cut Pro>System Settings**" and make sure the "**Scratch Disk**" tab is on top so you can set the scratch disk. Click the "**Set**" button on the first line and find your Media folder on Video 1. Press "**Choose**" when you have found your Media folder, and then double check that the Scratch Disk is set for your folder before you click on "**OK.**"
12. Now you are ready to edit!

### **And after the flight:**

Back up your project. The best way to do this is to use Print to Tape.

Close your Project by selecting "**File>Close Project**" before you close the application by selecting "**Final Cut Pro>Quit Final Cut Pro.**"

Log out of the computer by selecting "**Log Out**" under the Apple menu.

# Final Cut Pro

## Project files and Media files

Final Cut Pro utilizes two kinds of computer files, **Project files** and **Media files**. Project files are like a map - more specifically, they are like a treasure map. Media files are your actual video and audio clips. They take up a lot of space on a computer. They are a little like your treasure. A good pirate would never confuse her treasure map with her treasure, and neither will a good editor confuse her Project files with her Media files.

Media files are the treasure with which you will make your program. They are the source video and audio clips that you will be trimming, ordering and mixing together.

The Project files are the map that keeps track of where your Media files are and how you have used them. Project files are rather small in comparison with Media files, which can be quite large.

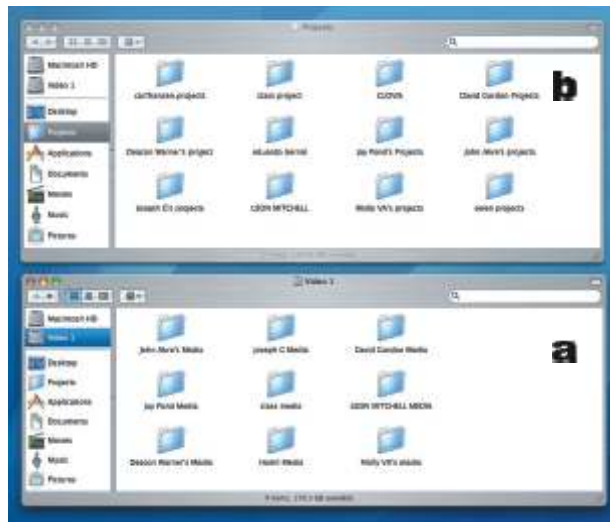
A good pirate would never store her treasure map in her treasure chest, so you can imagine that a good edit would never store her Project files in the same place that her media is stored.

Before you edit you need to establish places to put your Project and your Media files. This is covered in steps 5 and 6 of the **Pre-Flight checklist** (see page 1).

The computer has two hard drives inside the case. The first drive, the system drive, is labeled "**Macintosh HD**" (1). This hard drive holds the files that run the programs. It also holds a folder called "**Projects**" (2) into which you can save your Final Cut Pro Project files. You will also see a hard drive labeled "**Video 1**" (3). This drive is a large hard drive meant to hold Media files.



Make a folder for you media assets. This will be where you will store all your video and audio files. Make this folder in "**Video 1**." Click on the "Video 1" icon and a box opens up on the desktop. Inside the box, **Control + click**



(hold down the control key while you click the mouse) and select "**New Folder**." You may also select "**File>New Folder**" from the drop down menu at the top of the screen if the Video 1 window is highlighted. You will notice a name for the folder under it. Click on the name field for this folder. Now it should have a blue box around it. While the box is blue, type in the name of your folder (please give it **your name**, followed by the word "**Media**") and hit the enter key.

Make a folder for your project files. Please make this folder in the "**Projects**" folder (b). To do this, click on the "Projects alias" folder

on the desktop. Control + click inside the box and select "New folder." Type in **your name** and the word "**Projects**" while the name line is highlighted, and hit Enter to name it.

Note: files on the "Video 1" drive will be cleaned out often. Manage your media so you do not monopolize too much of the space on the hard drive.

## Starting Final Cut Pro



Note: there are multiple ways to perform many of the functions of Final Cut Pro. Whether you use the mouse or keyboard, Control + Click, the drop down menus, or drag and drop depends on what is comfortable for you. What I outline in this guide is only one method of working.

Load up Final Cut Pro. To do this, click on the Final Cut Pro icon in the dock (1).

Close any project that may have opened. Select File>Close Project. Final Cut Pro opens with the last project used on it.

This may be someone else's project, so close it to avoid confusion. You will also want to close your project when you finish editing. To do this select "**File>Close Project**" when you are done.

If an untitled project opened, you may make it your own by selecting "**File>Save Project As**" and saving it in your Projects folder. If you need to make a new project, select "**File>New Project**."

Determine your project settings. To do this, select "**Final Cut Pro>Easy Setup**." From the drop-down box select the "**DV-NTSC**" setup mode and click "Select."

Set your scratch disk. Select "**Final Cut Pro>System Settings**" and make sure that the tab that says "**Scratch Disk**" is active (a). A scratch disk is a folder or hard drive assigned to Final Cut Pro. The FCP program will put your Media into this location. Your Media includes video clips, audio, and rendered video and audio.



**Important:** Your scratch disk should be the folder you created on the "**Video 1**" media drive. You must select a scratch disk or your video will more than likely end up in somebody else's media folder. To select your scratch disk from the scratch disk window, click on "**Set**" (b) to set a scratch disk location. Whatever has a check mark in its box on the left will go to the folder you set here (c). When you click on "Set" a

dialogue box that looks like the usual "Save To" box opens up. Find "Video 1" on the left side and click on this to open it up. In the next box to the right, find the media folder you created and make sure that this folder is highlighted. When it is highlighted, click "**Choose.**" Click "OK" on the Scratch Disk dialogue box to leave it.

Save your project file. Select "**File>Save Project**" or "File>Save Project As..." Find your Project folder and save your file in it. Start on the left side of the Save As dialogue box, clicking on the "Projects" folder on that side. Find your folder in there and double click on that to open it. Type in the name of your project and click "Save" to save it.

## Log and Capture

In order to start an editing project, you need some video to edit. There are a few ways to get your video onto the hard drive, but **Log and Capture** is the preferred method.

Final Cut Pro allows you to log through your source tape and mark In and Out Points for video that you would like to capture for editing. You can go through your complete tape, create a log list, and save this list before putting any video at all onto the hard drives. Then you can "**Batch Capture,**" or capture all at once, only the shots that you are using for your current editing.

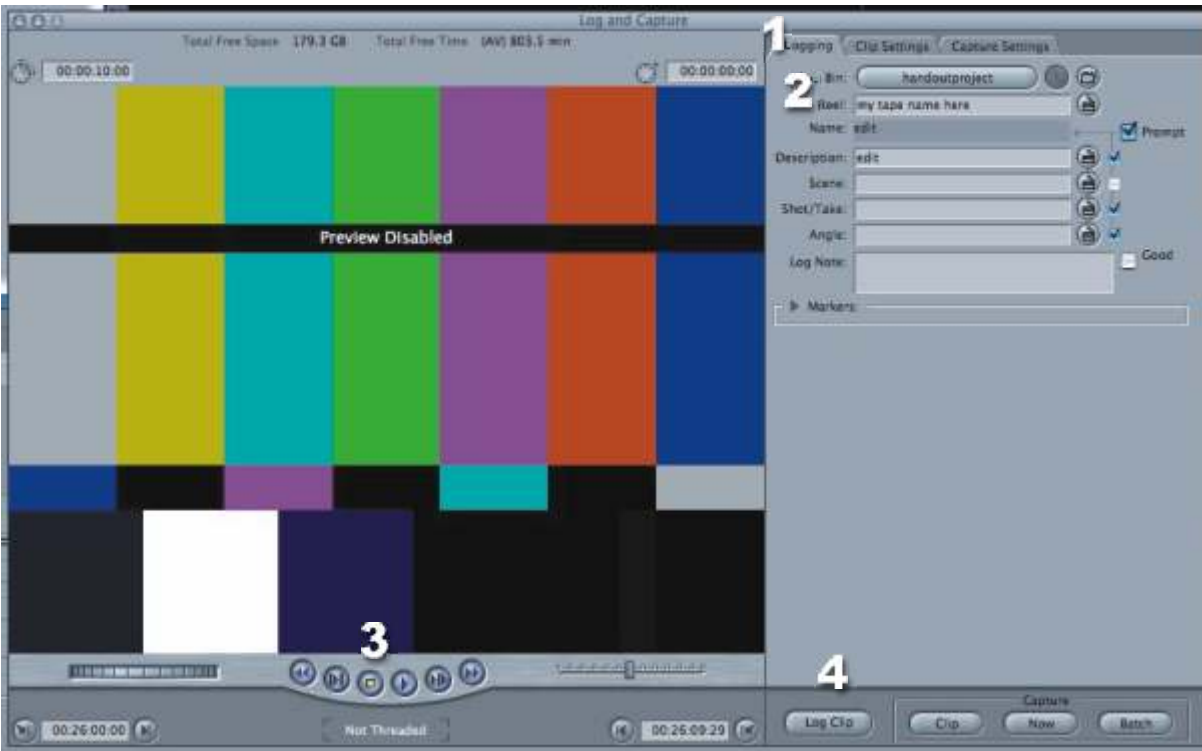
In order to get started, you need to open the Log and Capture window. Select "**File>Log and Capture**" to do this.

You may want to check the Capture Settings by checking the "**Capture Settings**" tab (1). But you really do not need to do this if you were careful to set your Scratch Disk and Easy Setup when you started running the Final Cut Pro program.



Check the Clip settings. Click on the "**Clip Settings**" tab (2). Look for the check boxes (a1 and a2) to the left of the words "**Video**" and "**Audio.**" If you want to capture both video and audio, you will want to make sure that both are checked. Click in the box if you don't see a check mark.

You can capture your two channels of audio either as stereo pair tracks, or as independent audio tracks. If you wish to control any attribute of your audio tracks separately, you want them to be independent. If you click on the space to the left of the two audio track icons (a3) you can put a bracket that connects the two tracks, or take it away. If the bracket is there, you will capture stereo audio. If the bracket is not there, you



will capture independent audio tracks. The difference is that changing the level of one stereo track automatically changes the level of the other. Independent audio tracks can be adjusted independently. If you recorded with two separate microphones using the two audio inputs on the camera, you will not want to capture your audio as stereo tracks.

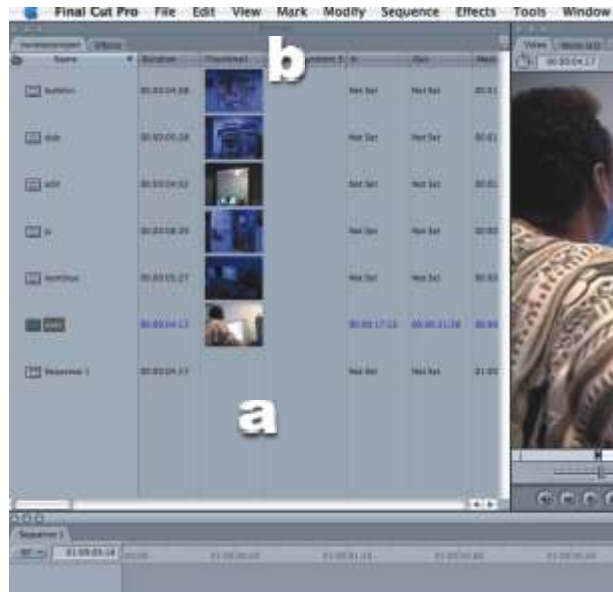
Click on the "**Logging**" tab (1). The "**log bin**" listed at the top is your project, the folder that your clips will appear in inside the "**Browser**" (see the section on the Browser ahead).

You may call it a tape, but editors call it a "Reel." The "**Reel Name**" (2) is the name of the tape from which you are logging shots. Give each of your tapes a unique name and write the name directly on the tape label. Down the road, if you ever want to re-input video that you logged earlier, the system will prompt you to put this tape in, using the Reel Name you establish here.

Play your tape and define in and out points to identify your clips. The controls (3) at the bottom of the video screen in the Log and Capture window will control the attached deck. But you may find the keys on the keyboard more useful for moving through your tape. Use the space bar on the keyboard to play the tape and pause it. The "**J**" key will play your tape backwards; if you press the key again, the rewind speeds up. The "**K**" key pauses your tape, and the "**L**" key will play it forward or fast forward in the same manner as the "J" key does. Mark your In Point with the "**I**" key and your outpoint with the "**O**" key. It is best at this stage to be a little loose in defining beginning and ending points for your shots. Including some handles, video before the exact beginning and ending of a shot, will give you more options later.

Log your clip. Press the "**Log Clip**" button (4) on the bottom right side of the Log and Capture Window, or the **F2** key on the keyboard. You may name your clip by typing into the "**Name Clip**" box that opens. After you hit "OK," an icon for the clip you just defined appears in the "Browser" window.

The **Browser** window (a) holds the contents of your Project file. It contains the clips that you define or capture, and it also holds the sequences, the edited versions that you make by combining clips. You can customize the contents of the Browser window by Control + clicking on the names of the columns (b) and selecting column items like you want, like the thumbnails shown.



As you log clips, they will appear in the Browser window with a red slash marked across them. This signifies that they are logged, but haven't been captured (these are known as "**Offline**" clips).

To capture the clips you have logged, click the "**Batch**" button (1) in the Log and Capture window. You will find this in the lower right edge inside the "**Capture**" box. A dialogue box will now open. Tell FCP which clips you would like to capture in the drop down box at the top of the window. If you have logged several clips, you may wish to choose "**All clips in the browser.**" If you just want to capture the selected clip, choose the option for that. If you have



already captured some clips and want to capture some new ones, choose "**Offline Clips only.**" All the other settings in this window are based on your Easy Setup, and should be fine. At the bottom of the window, check to make sure that there is enough hard drive space to hold the video clips you have

logged.

After you click OK, a new window will open. This window prompts you to insert the correct Reel. Make sure you have the correct tape in the deck and select the line in the **Insert Reel** box window for that specific tape. Click **OK**. The program then begins capturing the clips you logged. Make sure your tape is cued to a place that has **time code numbers**. If the tape is cued to a spot after your recorded video, the deck will not be able to read time code and will not be able to capture your clips.

If you wish to capture directly without logging you can do so by pressing the "**Now**" button (2) in the "Capture" section at the bottom of the right side of the Log and Capture window. The tape must be running in the deck during your Capture Now. Press the **Escape** key to stop capturing.

The "**Clip**" button (3) in the capture section allows you to capture a clip before you have logged it. Define an In Point and an Out Point for a single clip and then Click on "Clip." Just that single unlogged clip will be captured.

When you have finished logging and capturing, please close the "**Log and Capture**" window by clicking the red dot in the upper left corner. If you leave the Log and Capture window open while you are editing, you will have problems playing back your audio and video correctly.



## Editing

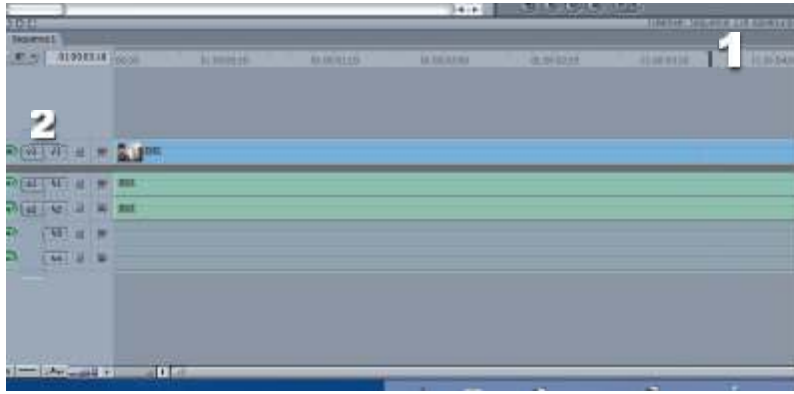
Final Cut Pro's four primary windows are the **Browser** (a), the **Viewer** (b), the **Canvas** (c) and the **Timeline** (d). The Browser is where all your media and effects can be found. This is your treasure map itself, the heart of your Project.

The **Viewer** is the window in which you can preview individual clips. Think of it as being like the Source monitor in a linear edit suite. Double click the icon for a clip in the Browser window. This opens that clip in the Viewer. The Viewer plays individual clips, and lets you make changes to that clip. You can play the clip with the buttons below the window, with the space bar on the keyboard, or with the **J**, **K** and **L** keys. You can set and in or out point with the In and Out buttons or by pressing "**I**" for in and "**O**" for out on the keyboard.

To edit this clip into your video, you can click and drag it into the "**Canvas**" window. The Canvas window is like the Record monitor in a linear edit system. The Canvas window plays back your full edited video. You can also edit a clip from the Viewer using the edit buttons in the Canvas window (f), or by using the **F9** or **F10** keys on the keyboard to either **Insert** or **Overwrite** edit.

The fourth window is the "**Timeline**" window. This window shows your clips in a line once you have edited them into a sequence. If you do not see the Timeline window, double click the "**Sequence**" icon in your browser (e). A "**Sequence**" is a specific Timeline that holds all the clips you edit, in the order and fashion that you edit them. The Canvas and Timeline windows are inseparable. The Canvas is simply the visual version of the Timeline and the Timeline is the linear version of the Canvas. If you close one, the other disappears.

In the timeline, place the "**Playhead**" (1) at the point where you want your next clip to be placed, or edited. You can select **target tracks** to put that clip onto, whether it is a video track, an audio



track, or a combination, by clicking the **target track icons** (2) in the area on the left side of the Timeline window. The source icon (i.e. lower case "v," representing the video in the Viewer window) will be connected to the video track (i.e. upper case "V1," representing the video track on the Timeline) when that track V1 is the target track for your source video.

Click and drag the target track icons around to target your clip to another track in the Timeline.

**Note:** your videotape has two audio tracks, Channel 1 and Channel 2. Do not mistake these two channels with the audio tracks on the Timeline. You may put Audio channel 1 of your source clip on any of the audio tracks, A1, A2, A3 and so forth.

When you drag a clip (a) from the Viewer into the Canvas window, some editing options light up on the left side of the window in an area called the **Edit Overlay** (b). The default edit option is "**Overwrite**." If you drag a clip into the Canvas and let go anywhere but on top of the buttons for any of the other options, you will "Overwrite" your clip. This option will put the clip onto the Timeline with its In point at the point at which the playhead is, or at an In Point that you have marked in the Timeline by pressing the "I" key on the keyboard while the Timeline window is selected. The clip will appear on the tracks that you selected as targets in the Timeline window. It will cover up any other material that is already on those tracks (i.e., video, audio or anything already on the tracks you have targeted).



Another common editing option is "**Insert**." If you drag the clip until the yellow border around "Insert" lights up, your clip will be placed at the point where the scrubber is and will shove forward any clips after that point. This is a great way to put a clip in between two clips you have already edited. If the playhead is in the middle of a clip, Final Cut Pro will break that clip in two parts and start the second part of the cut clip after the inserted clip ends.

In order to edit you must:

- Define the edit points (**In and Out Points**) for a source clip in the Viewer. (if you do not identify edit points, the entire clip will be edited.)
- Select your video and/or audio **target tracks** in the Timeline. Once you have chosen them, your target track icons should connect with the track name (Video will be placed on track V1 and audio channel 1 will go to audio track A1 and channel 2 will go to audio track A2 in the example shown at the top of the page.)

- Set **edit point(s)** in the Canvas or Timeline. If you do not set an edit point here, the location of the **Playhead** will be the In point.
- Drag your clip from the Viewer to the Canvas. When you have lit up the type of edit you want to make, release the mouse and the edit will take place. You may also complete the edit by clicking on the edit buttons in the canvas window or the **F9** (Insert) or **F10** (Overwrite) keys on the keyboard.

## Trimming

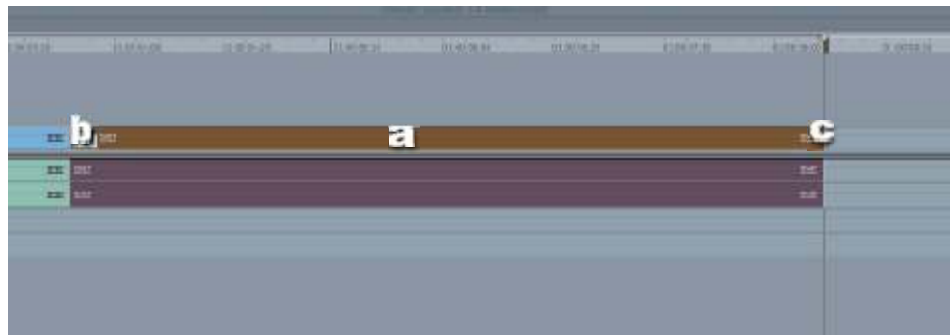


You can adjust clips that you have placed on the Timeline either directly in the Timeline or in the Viewer window. To adjust a clip in the Viewer window, double click on it in the Timeline. The clip opens in the Viewer. You will notice that the scrub bar (1) for this clip will have small dots in it that it did not have when you double clicked it from the Browser. The dots are your clue that the clip you see in the Viewer is the version of the clip that has been placed in the Timeline.

You can directly drag the **In** (2) and **Out Point Markers** (3) in the Viewer scrub bar to change the duration of your clip (of course you will not be able to make a clip longer if it is between two other Timeline clips). You

can also move the Playhead into position and then mark In or Out Points with the "I" and "O" key to adjust your edit points.

You can also trim a clip directly in the Timeline window. Note how the cursor changes when you move it from the middle of a clip to the edges of a clip. When you click and drag on a clip in its middle (a), you move the whole clip around. When you click and drag on the edge of a clip (b or c) you adjust its In Point or Out Point.



If you trim a clip you might end up with a gap on the Timeline. To close that gap, click the gap to select it, and then use the large delete key to delete the gap. You may also Control + click in the gap area and select "**Close Gap.**" This slides the clips to the left to close the hole.



The toolbar has a number of tools to help you fine tune your editing. Several of these buttons hide multiple tools. If you hold down on the mouse while you click on them, multiple tool options will fly out of the first square. Click on the option you want.

The **multiple select tools** (1) let you select more than one clip at once. The single arrow tools select one track and the double arrow tools select all tracks. The arrow indicates the direction of selection.

Other useful tools include the "**Ripple**" tool, which lets you adjust your edit points, and the "**Slip**" tool (2), which lets you slip the media of your clip without changing its duration. The "**Razor**" tool (3) cuts a clip into pieces. The double blade razor cuts all tracks on the Timeline at the point where you click. After you use a tool, it is best to click back on the "**Selection Tool**" (the arrow pointing toward Seattle - 4) so that the mouse acts like it normally would. You can also get the selection tool back by clicking the "A" key on the keyboard.

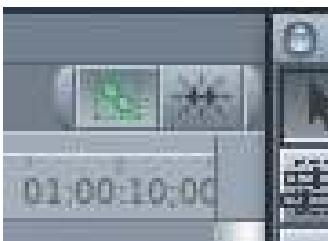
## Snap and Link

At the upper right hand corner of the Timeline window, you will see two buttons. These are the linking and the snapping buttons.

**Snapping** is the magnetic force that draws the playhead toward an edit point, or allows you to drag a clip's In and Out Point right to the playhead. If you wish to turn snapping off, click on the Snapping toggle icon (a). When you have finished the task that required you to turn Snapping off, you may wish to turn it back on.



**Linking** ensures that linked clips, like video and their synchronous audio tracks, remain attached. If you click on a video clip, its linked audio is also selected. You can tell linked clips from unlinked clips because the linked clips have underlines under their names in the Timeline. By turning Linking off, you can adjust the edit point of a video clip while leaving its audio clips as they were, or vice versa. This is a great way for making "J" or "L" cuts, which signal professionalism in editing. When you have finished your non-Linking task, click the Linking toggle button (b) to turn the linking back on.

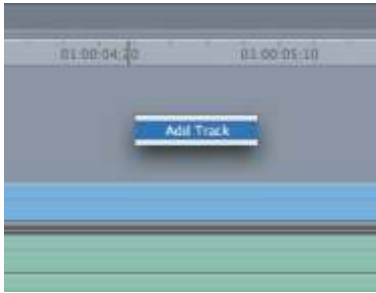


If Linking and/or Snapping are turned on, their buttons will look green. If they are turned off, their buttons will look black.

## Adding Tracks

You can have up to 99 video and audio tracks in Final Cut Pro. Audio tracks will all mix together. A video track will cover video on tracks beneath it. Putting a video clip on track 2 will work like a **cutaway** shot for the video on V1.

If part of the video on the higher track is transparent, you will see the clip below it in the



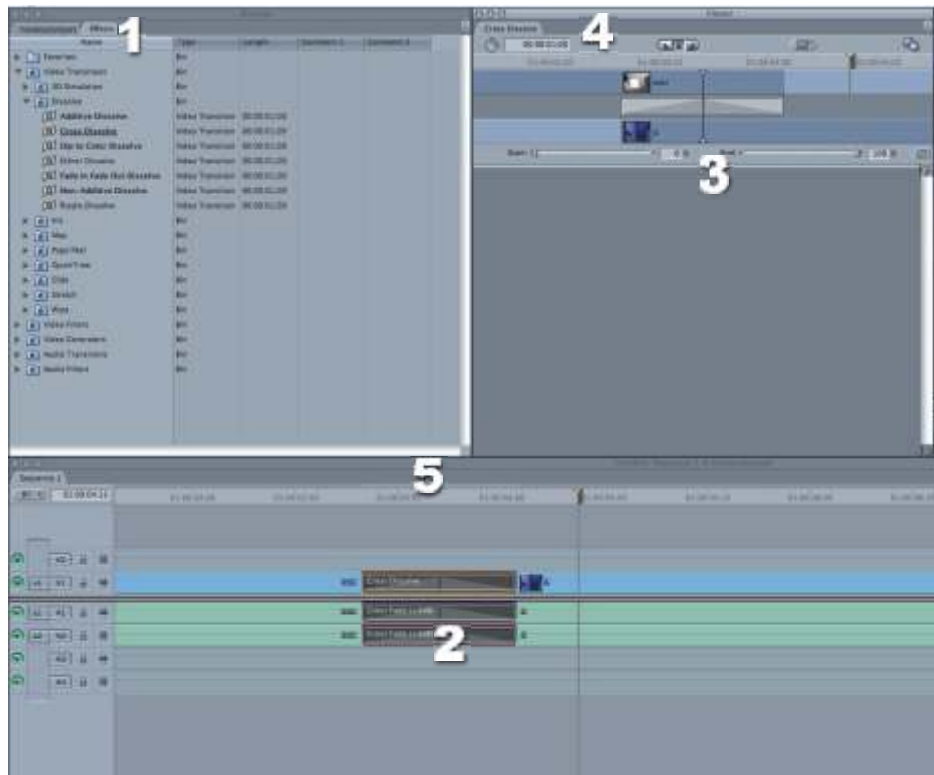
transparent area.

To make additional video and audio tracks, Control + Click in the gray area above the video track (to make a new video track) or below the audio tracks (if you want to make a new audio track). You will see "Add Track." Click on that to add a new track.

## Transitions

If you wish to add a transition between clips on the timeline, there are a couple ways to do this. You can **Control + Click** the mouse on the transition point, the line where the two clips come together. A box will open up and that box will contain an option to place the default transition at this point. The default transition is generally a **Crossfade**.

Another way to add a transition is to drag it from the "Effects" tab (1) of the Browser to the transition point between clips on the Timeline (2). In the Browser's Effects tab you will find an assortment of effects, including many transitions, grouped under types. All the transitions whose names are in **bold type** are real time transitions that you will be able to see without rendering. Find the transition you would like to place and drag it to



the point where your edits come together. Double click on the transition itself to open the transition in the Viewer window (3). Here you can change certain aspects of the transition, including its length (4).

A bar of color on the top line of the Timeline, just above the location of the seconds:frames numbers, will turn red if the transition needs to be rendered to be seen (5). One quick way to render that transition is to select it, then press "**Command + R**" on the keyboard, or "**Sequence>Render Selection**" from the drop down menu. You may render the whole timeline by choosing the timeline window and selecting "**Sequence>Render All**" from the drop down menu.



## To RT or not to RT

The Real Time effects in Final Cut Pro are made possible by the RAM of your computer, and some of these effects will test the limits of your machine. On the Timeline, look for the "RT" button (a) to the left of the sequence tab. You will get the best results if you choose "Safe RT."

In this same drop down menu, make sure the final selection "Record to Tape" (b) has a check mark next to "Full Quality."

## Working with Audio

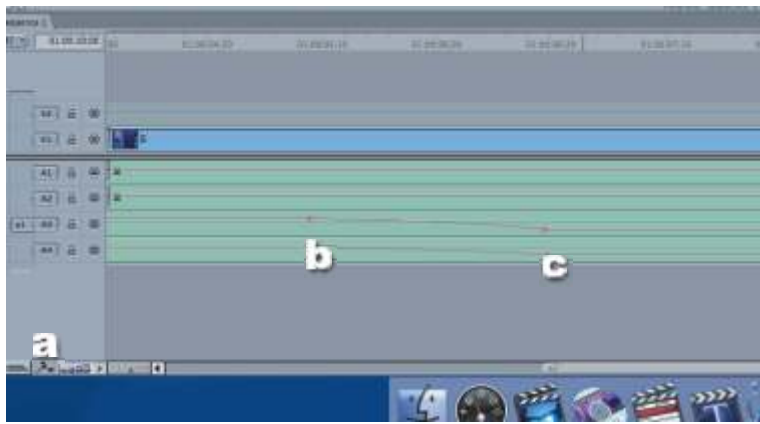
You may combine many audio tracks on the Timeline and mix them together for the audio mix you would like. To precisely control levels of an audio track, double click on an audio track in the Timeline. The clip will open in the Viewer (1). You may need to click on the proper tab (2) on the top of the Viewer screen to bring up the audio track that you wish to adjust.

To change the level of the audio track, drag the red line (for level - 3) up or down, or adjust the level slider or type in a value in the level area near the top of the window (4). If you wish to fade the audio up or down from a point, create a **Keyframe** by leaving the playhead at the point where you wish to make a change. Next, click the "Add Keyframe" button near the top of the viewer (5). Advance the Playhead to the point where you wish to make another level adjustment and click the "Add Keyframe" button again. You may now click and drag the level line up and down (6). The adjustments you make will alter the segment of the line between keyframes.



Keyframes always work in pairs. Make one keyframe to cement the level line at one position (one audio level). The second keyframe allows you to make a change to a new level value.

You may also make audio adjustments directly on the Timeline. Click the "Show Overlays" button to show the red level lines on the audio clips on the Timeline. Select the



**Pen tool** in the tool palette to mark keyframes. Click on the red audio level line to make a pair of keyframes (b and c). Click back to the **selection tool** to adjust the level of the line between keyframes, or to move the keyframe dots themselves. Notice how the mouse pointer turns into a **plus (+)** sign when you move it directly over a keyframe. When you see the plus sign, you know you can

drag that keyframe directly, either up and down or back and forth.

Watch the audio meters to keep your audio at a good level. Make sure your levels are strong, but keep them from going over the **12 db** mark very often. The yellow and red are warning colors. You never want to see red in your audio VU meters.

## Importing Audio from a CD

To open the disk tray in the computer, press **F12**. Hold the button down until you see the **Eject icon** on the computer monitor and the disk tray moves to open. There is also an eject button in the **iTunes** menu if you open this program to audition a CD.

Before you input a track from a CD, you must first drag that file from the CD into your media folder. Hide Final Cut Pro by selecting "**Final Cut Pro>Hide Final Cut Pro.**" Double click on the **CD icon** to open up the track selection and double click on **Video 1** to show your media folder. Drag the audio track or tracks you want to import into FCP from the **CD window** to your **Media Folder window**. After the files have transferred, return to Final Cut Pro by clicking on the icon in the doc. Select "**File>Import>Files**" and select the audio track or tracks you want from your Media Folder. The audio file will then appear in your browser.

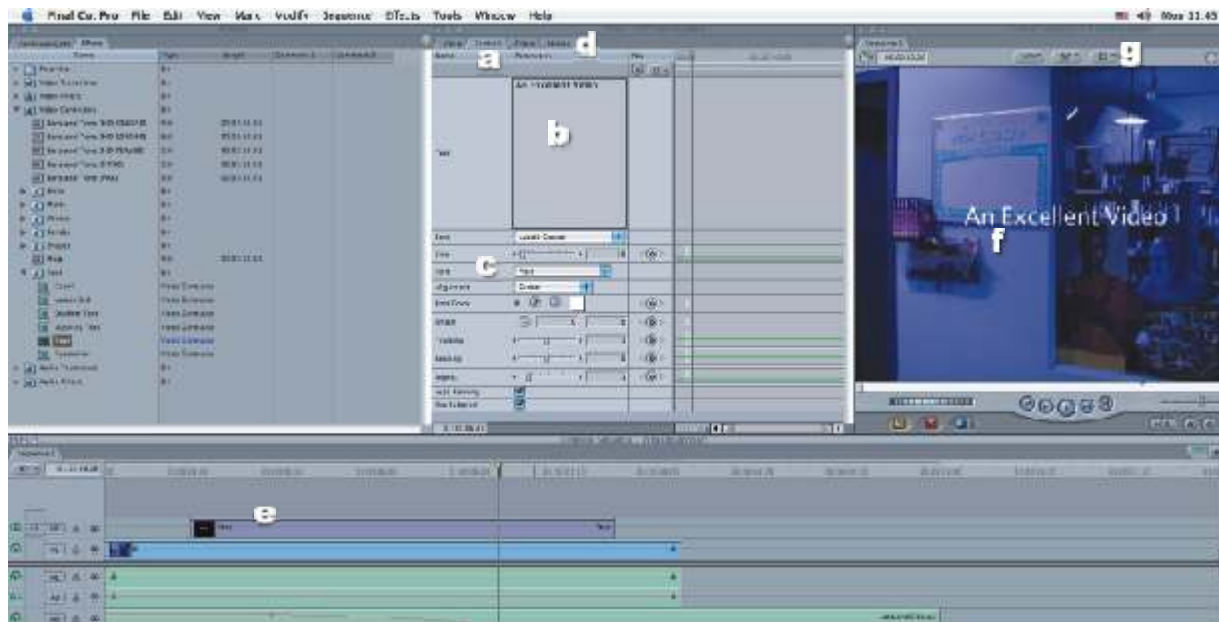
If you input a CD file directly from the CD without first placing it in your Media folder, the audio clip in the Browser will go **off-line** when the CD is removed from the computer.



## Generating Titles

To create a title in Final Cut Pro, you must use one of the **Text Generators**, found in the "**Video Generators**" folder in the **Effects tab** in the Browser (1).

Select the text effect you want by double clicking it. Some examples of text generators include "**Lower 3rd**," used to identify someone speaking, "**Scrolling Text**," used for rolling end credits, and "**Text**," which can be used for many purposes.



When you double click the text generator that you have selected, it opens in the Viewer window. Under the **Video** tab you will see any text entered as it will appear on screen. To change the text and adjust text characteristics, press the "**Controls**" tab (a). Enter your text into the "**Text**" box (b). You will need to hit the return key at the end of a line for Final Cut Pro to create a line break when it generates the text.

You may change the font type, size, and many other characteristics through the controls beneath the Text box (c). One useful text attribute that you may also wish to adjust is the "**Drop Shadow**," found in the "**Motion**" tab (d). Click the box next to "**Drop Shadow**" (1) to create a shadow, and make adjustments until the shadow is the way you like it. Click the **flippy triangle** (2) to the left of "**Drop Shadow**" to get to the controls. I recommend an **offset of 1** and **opacity of 80 or 90**. Preview the effect of them by clicking on the "**Video**" tab in the viewer.



Edit your title into your video using **Overwrite** or

**Insert** edit.

If you wish to superimpose your text over video, place it on the Timeline on a **track above** the video upon you wish it to superimpose (e and f). Video on higher tracks will cover up video on lower tracks. The Text Generators leave the background clear, so only the titles themselves will block the video layer below them. Select "**Image + Wireframe**" view in the **View Options** menu (g) at the top of the Canvas window in order to move the text around. When this option is selected, you can just click and drag the title around to place it. You may also use the "**Origin**" attribute in the Controls tab. Click the "+" next to "**Origin**" in the Control tab of the Viewer window and then click in the Canvas window at the point where you would like to have the first line of the title centered. This only works if you have already placed the title on the Timeline and have double clicked it to adjust it in the Viewer. You may also want to select "**Title Safe**" in the View Options. Make sure your text does not go beyond the bounds of the inside box.

# Live Type

There is an additional title program, **Live Type**, included with Final Cut Pro. It has an interface like Final Cut Pro, complete with a Timeline and Canvas. You may also create animated backgrounds in Live Type. Once you have created the titles and effects you wish, you must select "**File>Render Movie**" to create a Quick Time file of your Live Type work. Then return to Final Cut Pro and select "**File>Import>Files**" to get your work into Final Cut Pro. Be sure to save your **Live Type project file** so you can easily make changes.

# Filters

Filters are effects you can add to clips on your Timeline. To find the Filters, click on the **Effects tab** in the Browser and click open the "**Video Filters**" folder with its flippy triangle. In this folder you will find many other folders that group the many filters.

To apply a filter to your clip, **click and drag the filter** of your choice onto the clip in the Timeline. Double click the clip to open it in the Viewer. Then click on the "**Filters**" tab in the Viewer to make changes to the filter setting. Some filters have a visual adjustment mode, in which case you will see a specific tab in the Viewer to adjust that filter.

Make sure your Playhead is somewhere in that clip on the Timeline so you will be able to preview your changes in the Canvas window and on the NTSC monitor.

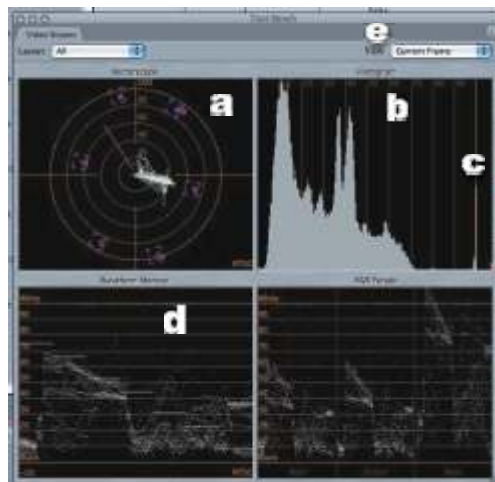
# Color Correction Tools

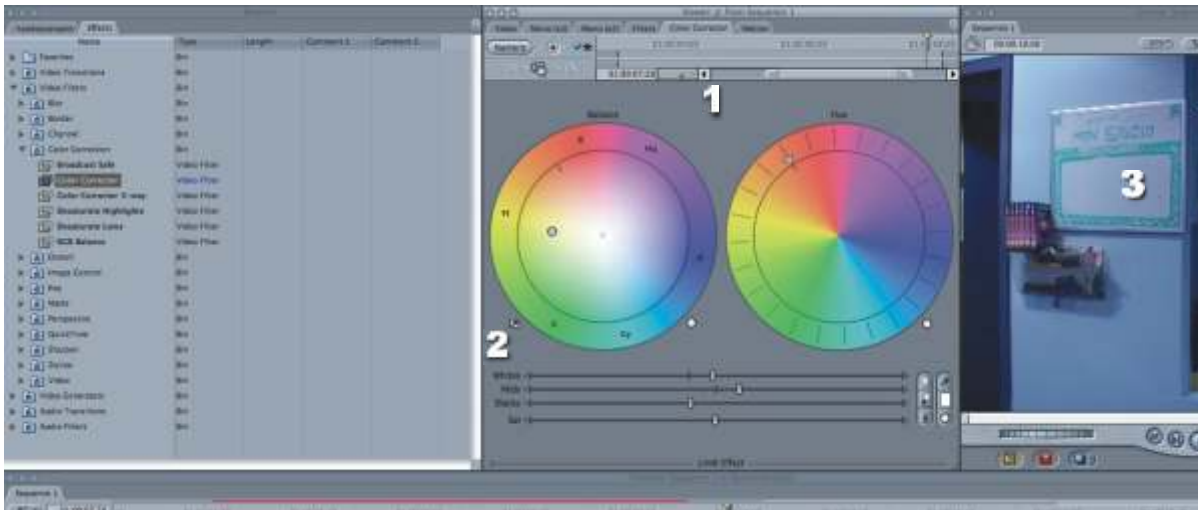
Before you use the Color Correction Tools, you will want to know how your video image sizes up. Select "**Tools>Video Scopes**" to see the standard engineer's video scopes. The upper left hand scope is the **Vectorscope** (a). It shows you color phase and saturation information.

The **Histogram** (b) shows you how many pixels in your image are represented by the various shades of brightness in the range of the **luminance scale**, from black to white. If you see red pixels, pixels representing luminance above the line at **100 IRE** (c), those pixels are overexposed or blown out video, video that is beyond the white level. IRE stands for "Institute of Radio Engineers" and is a scale used to express luminance. In DV video, 0 is the extreme on the shadow end (black with no detail) and 100 is the extreme on the highlights end (white with no detail).

The **Waveform Monitor** (d) also shows you luminance information. The x (horizontal) axis shows you brightness levels, in the same IRE levels as the Histogram. Any pixels over the 100 line represent illegal, or criminally overexposed video.

Make sure you are looking at the scopes' evaluation





of your video image by checking to make sure that "**Current Frame**" is selected (e) at the upper right side of the scopes window.

One quick tool to use to correct problems with your image is the **Broadcast Safe** filter located in the **Color Correction** filter folder. Drag this filter onto a clip that has video over the 100 IRE line. This filter will take all the video that exceeds 100 and clamp it down at 100. Keep in mind that this filter requires rendering, which might also degrade your video quality. It's best if you watch your exposure while recording so it is perfect in the first place.



The **Color Corrector** (1) and the **Color Corrector 3-way** filters are powerful tools. Their controls open in their own tab in the Viewer. You can easily correct an out of phase color balance with the **Eyedropper Tool** (2). Click on the Eyedropper Tool and you will see your cursor turn into an eyedropper. Then click on a section of your video in the Canvas that should be **white** (3). In the Color Corrector 3-way filter you can also set the color balance based on the Middle Grays with the **Mids Eyedropper**, and the Shadows with the

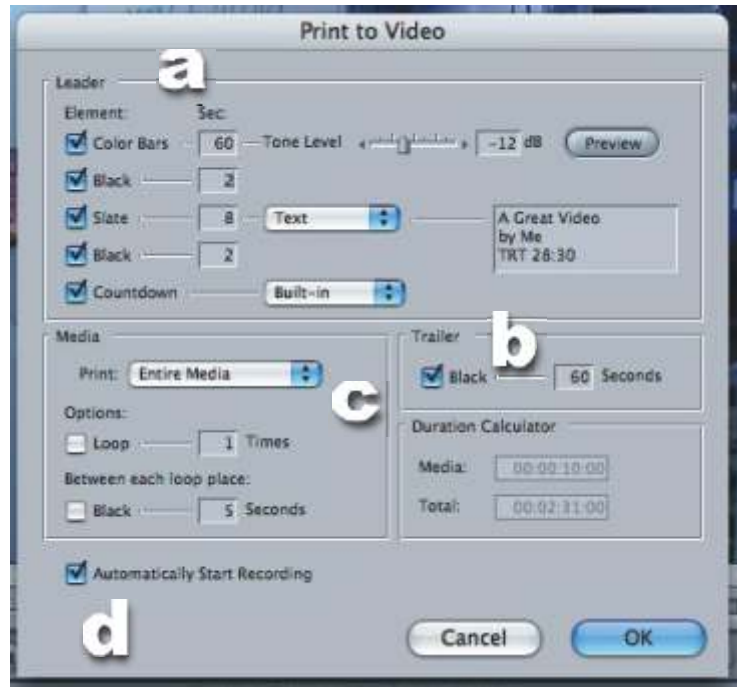
**Blacks control**. If your image is underexposed, you may want to brighten it by turning up the exposure before you start color correcting.

## Finishing

Before you output to the attached DVCAM deck, all your effects and titles need to be rendered, including the Real Time effects. To render the entire timeline, select "**Sequence>Render All>Both**," which renders both video and audio. Depending on the number of effects, this rendering may take some time. A status bar will indicate the progress of your render.

When your render has completed and you wish to put your Timeline on videotape, select "**File>Print to Video**." A dialogue box will open with some options that Final Cut Pro will print out in addition to your Timeline video. Under "**Leader**" (a), you may select items to put in front of your Timeline video, including color bars and tone, a slate (simply type the text for your slate into the Text Box and Final Cut Pro will make a slate) and a countdown. Under "**Trailer**" (b), you may select to put a minute or two of black after the end of your Timeline

video. Under “**Media**” (c), select “**In to Out**” if you are printing out only a portion of your Timeline, and have set In and Out points to define it, or “**Entire Media**” to print out the entire Timeline. At the bottom of the box, make sure “**Automatically Start Recording**” (d) is checked so that Final Cut Pro will also set the deck into record mode for you.



After you select “**OK**,” Final Cut Pro will do any more necessary rendering, and then it will give you a box that will prompt you to click OK to proceed to Print to Tape. The computer will then print out your Timeline with the leader and trailer that you defined into the attached DVCAM deck. When the video has finished printing to tape, make sure to check your tape and see that your video and audio did indeed record.

Close your project before quitting the program. To do this, select “**File>Close Project.**” If you do not do this, when the next person starts up Final Cut Pro, the program will open up to your project. Any changes they might make to your Project by mistake may be saved. Quit Final Cut Pro by selecting “**Final Cut Pro>Quit Final Cut Pro.**”

Please delete your media files from the hard drives when you are finished with them.

End your edit session by selecting “**Log Out**” from the Apple drop down menu. The computer will go to the Log In Screen. If you are the last one to use the computer this day, go ahead and Shut it down but clicking on the “**Shut Down**” button.

