Ease Into Editing

Simple Steps to the Basics on Final Cut Pro

Intro to the Art of Documentary Video Editing

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http://cds.aas.duke.edu/courses/
http://www.empowermentproject.org/gatewood.html
http://cds.aas.duke.edu/saf/
http://carrborofilmfestival.com/

Ease Into Editing: Simple Steps to the Basics on Final Cut Pro

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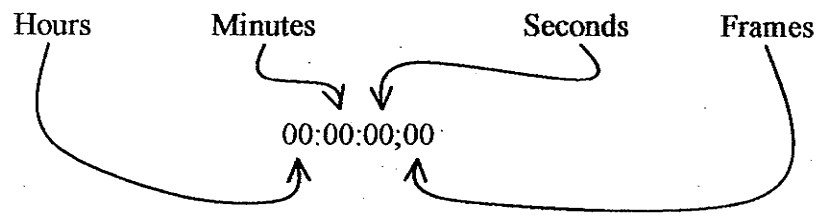
Time Code and How to Black Tapes

When you edit video using a computer (we'll use Apple's Final Cut Pro 5.1 at the Center for Documentary Studies), the computer is able to identify the footage you shoot, and execute the various editing commands you tell it to, because of what's called "time code." You want to shoot using *unbroken time code*, which means you will need to black (another word is "stripe") your tapes before you shoot. This explains how and why.

What is Time Code?

Imagine that you open up a mini-DV tape cassette and unroll the tape from beginning to end to make a long straight line with it on the ground until the tape runs out. Now imagine that you put a ruler next to that line of tape on the ground, only the ruler measures in time instead of in inches and feet. The tape will record up to 60 minutes of video, so if you look at the ruler at any point, you can see where during that 60 minutes you would be *in time*. Time code is like a digital address – if you want to work with a particular bit of footage you shot, you need to tell the computer where on the map (really where on the tape) to go to get that footage. Time code (or the address on the tape where you want the computer to pay attention to) begins at zero at the beginning of every new tape and looks like this:



One **frame** is the smallest unit of video footage. There are basically 30 frames in one second (for NTSC video format, which is the standard in the United States). Frames are represented as the last two digits in time code, and, moving right to left, come **seconds**, then **minutes**, then **hours**.

> For example, you record a surprise birthday lunch for your sister. You start the camera rolling at 12:00 noon as soon as the first guest arrives, and you keep the camera shooting until 1:00pm when the last person finishes her meal (or when your 60-minute tape runs out, whichever happens first). A couple of key events occur during the hour: your sister arrives and everyone yells "surprise!", the cake comes to the table, and the dog on the patio eats the leftover roast beef just before you turn the camera off.

If you want to use the shot of the dog eating the roast beef, you would need to tell the computer which portion of the tape to go to by typing in the time code (which displays on the viewfinder of your digital camcorder). In our example, the dog eats the roast beef starting at about 58 minutes into the tape, or at specific time code of 00:58:03;26 (zero hours, 58 minutes, 3 seconds, and 26 frames).

What Is Unbroken Time Code?

Most consumer-level camcorders will break time code when you turn the camera off before the tape runs out. This means that time code will start over again at 00:00:00;00 the next time you begin to record – even if you're already half-way (or five minutes, or anything) into the tape! This causes considerable frustration while editing because the computer thinks you're dealing with a brand new tape each time it encounters broken time code. The result is that you can have TWO (or more) places on the same tape with the same exact time code. In our example above, let's say you stopped recording after everyone yelled "surprise" – which was at time code 00:15:32;05. Time code started over at 00:00:00;00 when you started shooting again, once your sister was seated at the table. Around

fifteen minutes later, the cake comes to the table and you stop recording again in order to eat your cake. Time code starts over AGAIN when you turn your camera back on and begin to record again. Later, when you sit down to edit and you want to find the portion where they bring the cake to the table, just before you shut off the camera for the second time, you type in the time code 00:15:00;00 to get to around the right frame (in the right neighborhood), but it takes you to the FIRST place on the tape with that address – which is just before your sister comes in and everyone yells surprise. You see how confusing broken time code can be.

So, what you want to do is create unbroken time code before you begin shooting anything at all.* Once you shoot a tape from beginning to end *without interruption*, without turning off and back on your camcorder (or even pausing the recording), you will have "striped on clean time code," making life very easy for you in the editing room. Then, using a striped (or "blacked") tape, you can stop recording or pause your camera as many times as you want to and you will not have to deal with unbroken time code. When you re-record, the camera picks up the time code exactly where you left off and continues from there.

How to **Black Tapes**

Pop a tape into your camcorder.
Leave the lens cap on if you want.
Press "record."
Place the camera out of your way, say in your closet.
Go about your business for an hour, letting the tape record nothing for the full hour.
Rewind the tape.
Note on the tape's label that this tape has unbroken time code. (I write "TC").
Repeat with your other new tapes.

*Another thing you can do is simply record a minute longer than you need before shutting off the camera. Then, when you turn it back on, rewind a bit to pick up the old time code, and begin shooting from there.

Getting Ready To Edit: What To Do Before You Begin Using FCP

These are timesavers (since time in the editing room can be limited) that help you script the story, and organizational tips that can save you confusion and hassle down the road.

When you sit down to edit, it's useful to work from notes you create ahead of time so you know what to capture and have a general sense of where the story is headed.

1. Determine what material you want to work with. (If there is tape you know you won't use, don't capture it: save space on your FireWire drive, and save time.)
   - Review your tapes at home. Nothing can replace knowing your material well.
   - Create a system for naming your tapes. (See Rubin's chapter, "Organizing Your Video," in *The Little Digital Video Book*.)
   - Create a **log sheet** for each tape that lists time code as it corresponds to content. (See handout: sample log sheet.)
   - You may want to transcribe an interview (noting time code), either on your log sheet or separately. At least list general topical areas discussed in an interview.
   - Create a **Select List**: highlight or otherwise make note of the parts of your tape you plan to use. You may want to use a separate log sheet to make the list.

2. Make note of broken time code.
   - If a tape has broken time code, note it on the tape label. (e.g., "Tape 01 – at 4:03 TC starts at 0.")
   - In this case, be aware that FCP will treat Tape 01 as if it were two separate tapes. Be prepared to know which "tape" you're in when you capture (i.e., before or after the time code break).

3. If you have a rough sense for the order in which you want clips to appear, so much the better.
   - You may like to "story board" your material, drawing little pictures to show how the story will proceed.
   - It can help to plan the audio (interview) first, referring to transcription on the log sheet, and note possible visuals in conjunction with what is being said.
   - Stay flexible and open to discovery – things nearly always change once you move from paper to the real thing.

Overview: The First 8 Minutes

1. Plug in FireWire drive (and camcorder when capturing), if you're using an external drive.
   - See separate instructions for plugging in your drive (p. 5).
   - Double click on your drive's icon on the desktop to open your drive.

2. Open your FCP project (or create a new project if you're starting anew – see p. 8).
   - Double-click on the FCP icon that bears your project name.

3. **Make sure everything will be saved to proper places.**
   - **"Set scratch disks" to direct media and render files to your FireWire drive. (see p. 6)**
   - **"Save Project As..." to direct project to your FireWire drive. (see p. 7)**

4. Bring your footage into the computer so you can edit it in FCP. (Called "capturing")
   (If footage is already captured, skip to step #5.)
   - Put tape in camcorder – make sure camcorder is ON (in VCR mode)
   - From the menu, choose File – Capture
   - Type a name for "Reel Name" (the same name on the label of your mini-DV tape)
   - Play tape. When you see what you want, type I (to set an **in-point**)
   - When you're ready to stop, type O (to set **out-point**)
   - Click on Capture – Clip
   - Name the clip. FCP will rewind your tape and capture what you asked it to.
   - Notice the clip will appear in your browser with the name you gave it.
   - Repeat with all the clips you need for your project at this point.

5. From all you've captured, determine what portion of a clip you want to put in the sequence...
   - Double-click on a clip in the Browser. It opens in the Viewer.
   - Hit spacebar to play the clip in the Viewer. Watch for what you want.
   - Type **I** at the point you want to start with (set in-point). (Look for blue arrow in Viewer. <)
   - Type **O** at the point you want to end with (set out-point). (Look for blue arrow in Viewer. >)

6. ...and put it on the timeline. DON'T FORGET TO SAVE.
   - Designate which tracks will receive the clip you're about to place in the sequence.
   - Click and hold your finger down on the image in the Viewer. A small image of the clip appears beneath your cursor. Drag it to the top of the canvas. Colored choices will appear.
   - Let go on top of the red "Overwrite" square. Your clip now appears on the timeline, on those tracks you designated for it to appear.

7. Repeat steps 5-6 until you have all the clips you want on the timeline in the order you want them.

Things to remember:

- From any given clip in the Browser, you can place different (or multiple) chunks of that one clip onto the timeline, creating multiple clips out of the original one clip you captured.

- Once a clip is on the timeline, you can adjust where it begins and ends by scrolling the edges of the clip (dragging them out to include more, or pushing them in to include less). In- and Out-points effectively only fold the unwanted material behind the clip to hide it (remember the shoelace) – they never actually, literally cut anything off.

- You can always change the order in which clips appear on the Timeline. It's quite flexible. You can click and drag to move clips around, or you can cut and paste (under Menu—Edit).

Where Your Work Resides: Even Computers Get the Blues

Where Did My Project Go?

One of the most confusing things for new FCP users tends to be locating project files after you've created a project, gone home, and are coming back again to edit.

The default pathway where your project file **automatically** gets stored is:

Macintosh HD
Documents

If you are storing your project file on a separate FireWire hard drive, see the instructions on the following pages (Thing #1 and Thing #2).

Where Is My Media Stored?

You must realize that your project file is not the same thing as your media files, which FCP **automatically** stores in a different place from your project file.

The project file looks like a little red, white, and black clapboard, the Final Cut Pro icon. It contains your Browser, Viewer, Canvas, and whatever sequence you've built – i.e., the instructions for what the computer should do with the footage you've captured.

The video footage itself (a.k.a. media files) automatically gets captured as QuickTime files, which are white with a big blue Q on them plus the word Movie. Final Cut automatically creates a separate folder with your project's name on it and puts your media—your actual footage—inside that folder in this pathway:

Macintosh HD
Documents
Final Cut Pro Documents
Capture Scratch
Folder with your project's name

Why do my clips have red lines through them and when I try to view them it says, "Media Offline" and it won't play my footage?

FCP remembers the pathway that connects your media (i.e., footage, in the format of QuickTime files) to your project (i.e., the information stored in your Browser and Canvas). However, when this pathway changes or gets broken, FCP doesn't know where to look for your files and they go "off line." You have to "reconnect the media," telling the computer exactly where your QuickTime files are stored. Follow the pathway to your folder inside the Capture Scratch folder as outlined above. Avoid creating additional folders, renaming existing folders, or moving your footage from one folder to another, if you can.

Proper Sequence for Plugging In FireWire Hard Drives:

1. Plug the **power cable** into the drive FIRST (cord with round end)

2. Wait 10 seconds or so

3. Plug the **fire wire** cable into the drive (cord with flat end)

4. It usually takes a little time before you'll see the icon of your drive on the desktop

When You're Finished Working, Proper Sequence for Unplugging Drive:

1. **Save** your work.

2. From Menu choose
   Final Cut Pro
   Quit Final Cut Pro

3. Drag your FireWire **drive into the trash** can to eject
   (NOTE: ALWAYS eject the fire wire drive before you unplug it)

4. Unplug the **fire wire** cable first (cord with flat end)

5. Unplug the **power cable** last (cord with round end)

About FireWire Hard Drives and Cables

To store your media and project files for editing on the computer, you will need:

- A FireWire hard drive with these features:
  - 7200 rpm (the speed fast enough for video)
  - Portable (so you can carry the drive home with you)
  - 8 mb cache
  - 60 GB storage space (you won't use that much, see note below)*
- Two FireWire (IEEE 1394) cables
  - one 6-pin-to-6-pin for plugging the computer to the hard drive (usually comes in the box with a FireWire hard drive and power cable)
  - one 6-pin-to-4-pin for plugging the camera to the hard drive (sold separately)

*A note on storage space (or, "How many GB should I get?"):
You can store about 5 minutes of video and 2 minutes of audio per 1 GB (a.k.a. "gig" or "gigabyte") of storage space on a FireWire drive. (Remember that you need to save space for the actual sequence you build, and for all the rendering files that will be created, in addition to the footage you bring in to edit.) 60 GB is way more than enough space for the purposes of our course.

#1: Set Scratch Disks

How To Route Your Footage From the Tape to Where Your Media is to be Stored (and route rendering once you get started)

NOTE: YOU MUST DO THIS (and #2: Check "Save Project As") EVERY TIME YOU SIT DOWN TO EDIT AT CDS

(...otherwise, your media and/or rendering may be stored in the wrong place, and it may not be available to you the next time you edit.)

1) Plug in your Fire Wire drive (see p. 5).
2) Double-click your drive to open it.

FOR FALL 2006 EDITING COURSE: Click on the shortcut to your "documents" folder to find and open your project.

3) Double-click your Final Cut project to open it. (If you need to start a new project, see p.8)
   - *Note: A window might open named "External A/V" if the deck/camera are not turned on. Click* ***Continue*** *if you do not need to capture, or turn on your camera and click* ***Check Again*** *if you need to capture.*

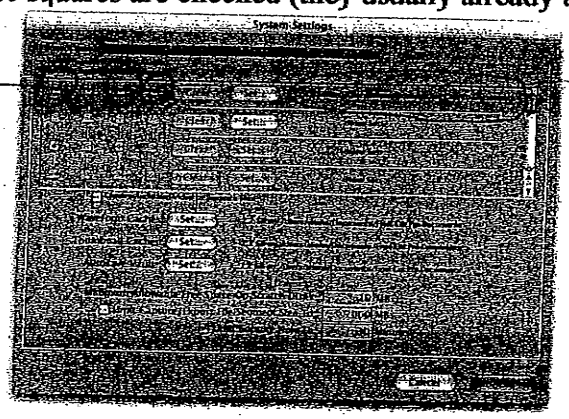
4) From the menu at the top of the screen click **Final Cut Pro**
   System Settings
   A box opens called "System Settings." (See picture at step 8 below.)

5) Look at the name of the drive next to the first **SET** button in the window. Chances are, it will say "Macintosh HD" (NOT where you should store your work if you're using a FireWire drive). Change this to your FireWire drive by clicking the top **SET** button, then:

6) In the "Choose A Folder" window that opens up, Find your drive in the list at the far left. Click only once on your drive to highlight it (**do not** mess with any of the folders to the right. Ignore these). Then:

7) Click **Choose**.

8) Make sure all three blue squares are checked (they usually already are) and that your drive's name is now showing.



9) Click **OK** (window closes). The project opens and you're ready to do #2 (see p. 7), then begin working in your project. **(Even if you do not need to capture, you still must set your scratch disks properly. Remember: do this procedure *every time* you sit down to edit on Final Cut.)**

#2: Check "Save Project As"

How To Route Today's Work Onto Your Fire Wire Drive

NOTE: YOU MUST DO THIS (and #1: Check Scratch Disks) EVERY TIME YOU SIT DOWN TO EDIT AT CDS

(...otherwise, the work you do today in your project may be stored in the wrong place, and you may not be able to find the most recent version of your project the next time you edit.)

If you are starting a brand new project, skip to p. 8.

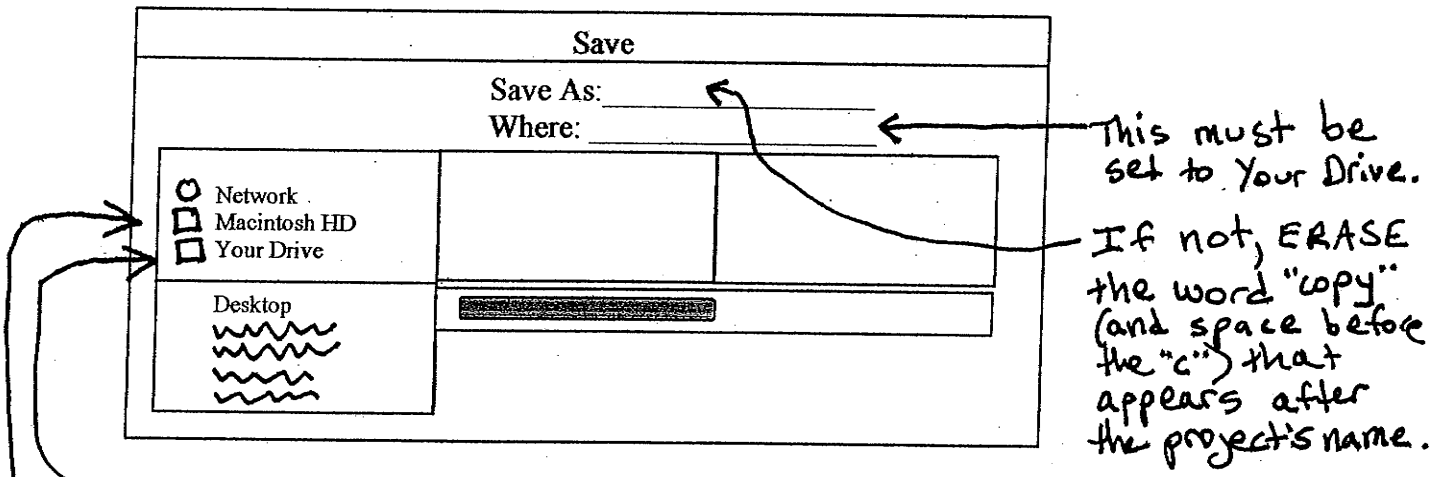
If you've already started your project and are returning to it now:

1. Follow instructions on handout **#1: Set Scratch Disks**. You are now looking at your open project.

2. Note that the first tab in the browser bears the name of your project.

3. From the menu choose **File**
   Save Project As

4. In the window that opens, do the following:
   a. Make sure your drive is highlighted. (You might need to click on the big arrow to display the drive options or drag the blue bar to the far left to see which drive is highlighted.)



If your drive is already highlighted, click Cancel and skip to Step #5 of these instructions. Otherwise:

   b. It's likely that "Macintosh HD" is highlighted instead of your fire wire drive. If so, **click once** on your fire wire drive to highlight it.
   c. You'll see that the name of the project automatically shows at the top of the box, but it's followed by the word "copy". **Erase the word " copy" (including the blank space before the "c")** so that the project keeps its original name (i.e., change "Nomadic Trading Company copy" to "Nomadic Trading Company").
   d. Click **Save**.
   e. A window will pop up declaring that a file already exists with that name and asking you what you'd like to do. Click **Replace**.

5. The **Save** window will close and you will be ready to edit.

To Create and Save a New Project in Final Cut

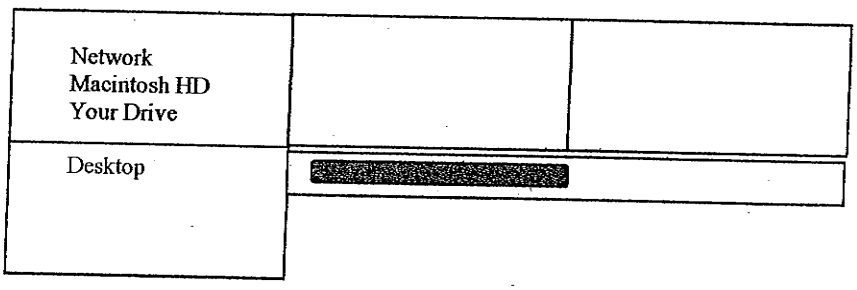
1. Double-click the Final Cut icon on docking station on desktop.
   Note: A window might open named "External A/V" if the deck/camera are not turned on. Turn on your camera or the deck and click ***Check Again****. If you don't need to capture, click* ***Continue****.*
   - Set your scratch disk now (see p. 6 if using a FireWire drive, or p. 4.5 if saving to the computer), if a window pops up asking you to do so.
   - Final Cut opens and you'll probably see the 4 windows: Browser, Viewer, Canvas, and Timeline.

2. **If** you are looking at an already existing project (one with clips in the Browser or Timeline):
   From the menu choose **File**
   Close Project
   And then:
   From the menu choose **File**
   New Project
   And then:
   From the menu choose **File**
   Save Project As **(PROCEED TO STEP 4.)**

-OR-

If you are looking at a new, unnamed project (everything is blank except for an unnamed sequence in the Browser)
From the menu choose **File**
Save Project As

4. In the dialog box that opens, do the following:
   a. Name your project.
      Save As: _____
   b. Where: _____



   - Click on your drive **once** to highlight it (your drive's name will appear next to "Where:") OR set the default pathway on the computer, outlined on p.4.5.

   c. Click **Save**. You are now looking at your project in Final Cut Pro (with the 4 windows).

5. Notice in your browser (top left window) the first tab has the name of your project. It worked!

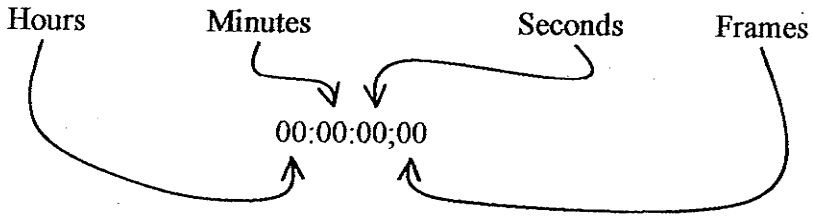
6. Before you begin editing, you **must** double check that your scratch disk is set: a) to your personal Fire Wire drive (see p. 6, **"#1: Set Scratch Disks"**) or b: to the default on the computer (see p. 4.5).

Getting To Know Final Cut Pro Basics

Clip = A particular length of videotape. A clip always has a first frame and a last frame (and can even be only one frame in duration). A clip is usually a combination of video and audio, but could be either one or the other. Clips are what you get when you capture chunks of videotape to your computer from your camera.

Sequence = What you create by building clips together onto the timeline through a series of edit decisions.

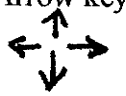
Frame = The smallest unit of video footage. There are 30 frames in one second (for NTSC video format, which is the standard in the United States). Frames are represented as the last two digits in time code:



Media files = The original and actual clips you capture from your camera onto your computer. Media files are usually QuickTime files (for video), but they can be AIFs or TIFs (for audio) or JPGs (for pictures) or other file formats. Media files should be saved on your external FireWire drive, a different drive from the start-up disk (where your FCP software is located).

The Playhead – The little yellow-topped stick that moves along the bottom of the Viewer and Canvas, or along the top of the Timeline while a clip is playing. "Wherever you go, there you are." (The playhead is like the cursor in a word processing program.)

Some Special Keys on the Keyboard:
Spacebar – Play or Stop. If your clip is playing, press Spacebar and it will stop. Vice versa.
Arrow keys:



Arrow to the left = Allows you to move forward one frame at a time.
Arrow to the right = Allows you to move back one frame at a time.

Apple key (Command) + S = SAVE
Apple key (Command) + Z = UNDO

An **In-Point** says, "This is the beginning."
An **Out-Point** says, "This is the end."

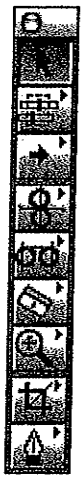
Marking (or setting) an in-point = What you do when you tell FCP, "This is where the shot I like begins." How to mark an in-point: type **I**

Marking (or setting) an out-point = What you do when you tell FCP, "This is where the shot I like ends." How to mark an out-point: type **O**

J – Type it once to rewind. Type it twice **(JJ)** to rewind a little faster. Type it three times **(JJJ)** to rewind faster still.

L – Type it once to fastforward. Type it twice (LL) to rewind a little faster. Type it three times (LLL) to rewind faster still.

Tools and Modifier Keys



Tool		To select tool	Tool + Cmd key	Tool + Shift key	Tool + Option key
	Selection	A	Select Additional	Select Range	Link On/Off
	Selection On Point		Gear Down	Unconstrained	Subtract
	Selection On Line Segment		Gear Down	Adjust Line Segment	Add Keyframe
	Edit Selection	G	Select Additional	Ripple Tool	Link On/Off
	Group Selection	G+G	Select Additional	Select Additional	Link On/Off
	Range Selection	G+G+G			Link On/Off
	Select Track Forward	T		All Forward	Link On/Off
	Select Track Backward	T+T		All Backward	Link On/Off
	Track Selection	T+T+T			Link On/Off
	Select All Tracks Forward	T+T+T+T		Track Forward	Link On/Off
	Select All Tracks Backward	T+T+T+T+T		Track Backward	Link On/Off
	Roll Edit	R	Select Additional	Ripple Tool	Link On/Off
	Ripple Edit	R+R	Select Additional	Roll Tool	Link On/Off
	Slip Item	S	Gear Down	Select Clip	Link On/Off
	Slide Item	S+S	Gear Down	Select Clip	Link On/Off
	Time Remap	S+S+S	Gear Down	Scrub/Snap to 10%	Move Frame to Time
	Razor Blade	B		Razor Blade All	Link On/Off
	Razor Blade All	B+B		Razor Blade	
	Hand	H	Zoom In		Zoom Out
	Zoom In	Z	Hand Tool	Zoom In Maximum	Zoom Out
	Zoom Out	Z+Z	Hand Tool	Zoom Out Maximum	Zoom In
	Scrub	H+H	Selection Tool	Selection Tool	
	Crop	C		All Sides	Opposite Sides
	Distort	D	Perspective		Resize
	Pen	P	Smooth On/Off	Adjust Line	Pen Delete
	Pen On Point		Gear Down	Move Point	Pen Subtract
	Pen On Line Segment		Gear Down	Adjust Line Segment	Pen Subtract
	Pen Delete	P+P			Pen
	Pen Delete On Point		Gear Down	Pen Subtract	Pen Add
	Pen Delete On Line Segment		Gear Down	Adjust Line Segment	Pen Add
	Pen Smooth	P+P+P			

034-2306-A
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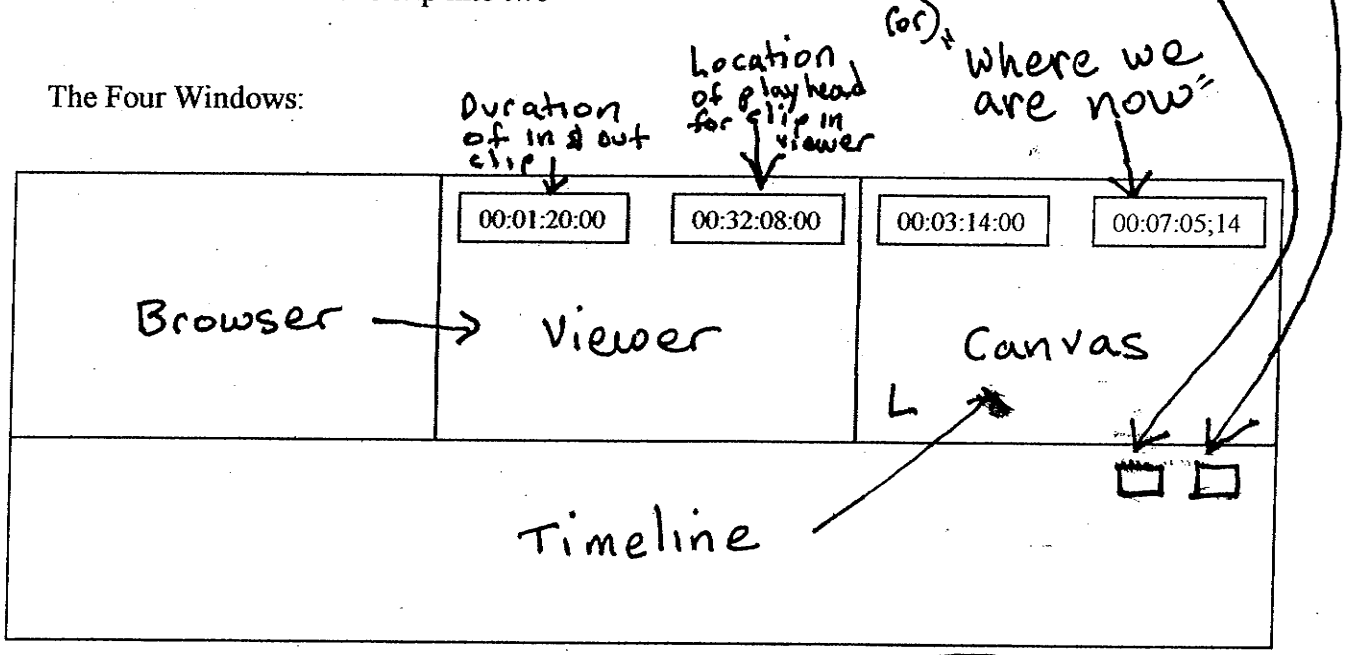
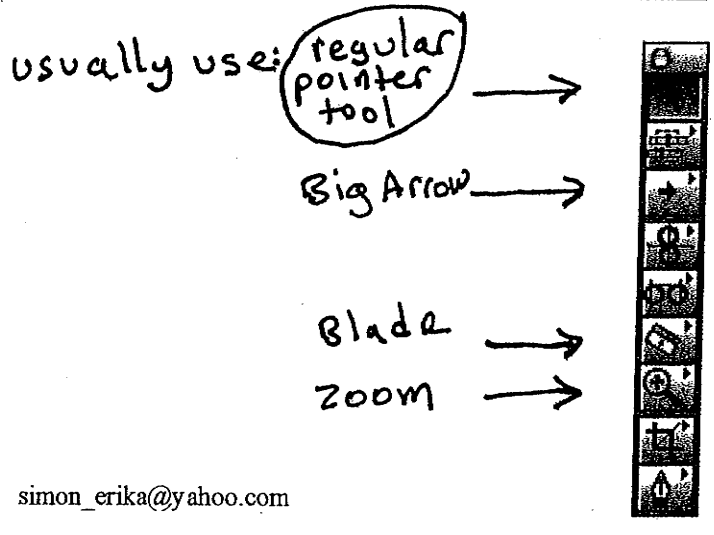
Helpful tools and concepts when editing in the Timeline:

- First frame/last frame of clip – you can see these on the canvas
- Trimming the edit line (changing the first frame or last frame of a clip) – do this by "pulling out" or "rolling in" the clip's edge in the timeline (like tucking the extra behind the clip). Or, you can use the razor blade tool, if you prefer.
- Re-ordering your clips by clicking and dragging them around – (this may become dangerous later on in a big or complex project, but is safe at the very beginning)
- Big double-arrow tool in toolbox – to highlight (for moving) everything on entire track(s)
- Snapping – know how to turn it off or on
- Linking – know how to link and unlink audio from video tracks, and why
- Scale – adjust this so you can see close-up detail, or the whole sequence at once
- Blade – use to cut one clip into two

The Four Windows:





Putting Clips into Sequence on the Timeline

1. Name the sequence. In the Browser, click once on the letters that say "Sequence One," in order to highlight them. Type the name of your sequence. Note that the new name appears on the sequence tab in the Timeline. NOTE: You can change the name of a sequence at any time.

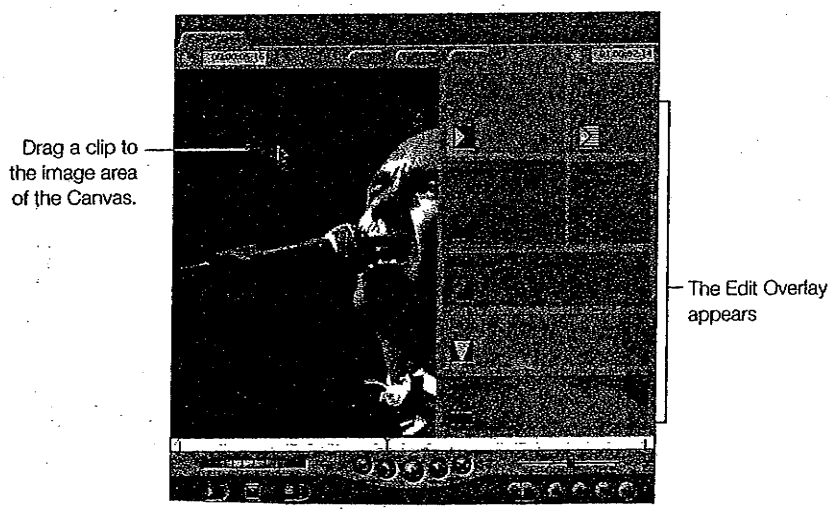
2. In the Browser, double-click the icon of the clip you wish to place into the sequence. It will open in the Viewer.

Now you have three things to check. Get used to asking yourself these three questions:

1. Have I told the computer which portion of the clip in the Viewer I want to put into the Sequence? (i.e., In the Viewer, set In-/Out-points to define the clip as you like)
2. Have I told the computer where in the Sequence to put the clip? (i.e. In the Timeline, set In-/Out-points or put the Playhead where the clip should begin)
3. Have I told the computer onto which tracks in the Timeline the clip should appear? (i.e., In the Timeline, make sure the Source Control and Destination Control "puzzle pieces" are set to invite the clip onto the tracks where you want them to appear. See p. 13 for more info.)

3. Once you've gotten the above 3 things how you want them, in the Viewer click once and keep your finger down on the image. A small icon of the image appears with your mouse click. Drag that icon to the right, hovering over the Canvas. Choices for how to place the clip onto the Timeline appear at the right side of the Canvas.

The Edit Overlay appears only when you drag clips from the Browser or Viewer to the image area of the Canvas. The Overlay appears translucently over the image currently in the Canvas.



4. Place the clip icon above the square you'd like to use: Overwrite (red) is the most common, with Insert (Yellow) a close runner-up.

5. Let go of your mouse click to release the clip onto the Timeline at the exact place you wanted the clip to go.

6. Save. (You can't save too often.)

Organizing Sequences, Clips, and Bins in the Browser

To create a new sequence in your project:

1. From the menu choose **File**
   New
   Sequence

A new sequence appears in the browser.

2. Name the sequence (see directions below).
3. Double-click the sequence (icon, not letters) to open it into the timeline.

When a sequence is open, notice that the name of the sequence appears on the tab in your browser and also on the tab in your timeline. You can have more than one sequence open at a time (much like having multiple documents open in Microsoft Word). You can cut or copy from one sequence and paste into another.

To name a sequence:

1. Click once anywhere on the letters of the sequence (e.g., "Sequence 2"). The letters become highlighted and your cursor is inside the box.
2. Type the name.
3. Click anywhere outside of the box to remove your cursor.

To create bins in your browser:

1. Ctrl. + click the mouse. From the options that pop up, select "New Bin."
2. Name the bin the same way you would name a sequence (see steps above).

To move clips into and out of bins:

1. You can drag and drop clips from anywhere in your browser into a bin. You can even put bins inside of bins. You can also put a sequence inside of a bin.
   - Click and drag the clip you want to move…
   - Drag it onto the icon of the bin – make sure the bin's icon is highlighted when you let go of the mouse. If the bin is not highlighted, the clip will not go in.
2. If you want to see what's inside of a bin, you can click on the arrow that appears to the left of the bin. When you click the arrow, it points in a different direction and the contents of the bin are listed below the bin. All the items that are indented are the items inside that bin.
3. To remove clips from a bin, simply drag them out. Drag and drop a clip from one bin into another, or from a bin into the browser in general (doesn't have to be in a bin).

"Set Logging Bin"

When you capture new clips, you can designate which bin you'd like the clips to go into in your browser. The default is the browser, not a bin. To tell FCP which bin to automatically put the clips into:

1. Ctrl. + click the mouse on top of the bin you want to set as the logging bin. Make sure the bin is highlighted when you click on it.
2. From the options that pop up, choose "select logging bin". Notice the icon (it looks like a move slate) that appears to the left of the bin, which indicates that this bin is the logging bin.

To Copy and Paste Between One Sequence and Another:

1. Highlight the portion of a sequence you want to move, and from the menu choose File—Copy.
2. Go to the other sequence, put playhead at in-point where you want the copied material to begin, and from menu choose File—Paste Insert.

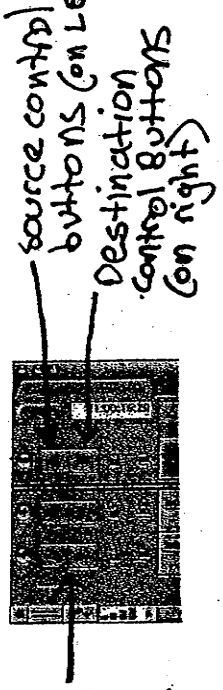
Split Edits

How to bring video images into your sequence to cover over the talking head in your interview (while keeping the audio you've already laid in):

Example:
Say your audio is from an interview of someone describing how she makes quilts and what the pattern is of a particular quilt. In the sequence, Audio tracks 1 and 2 contain her voice speaking. Now you want to cover over the image of her talking head with an image of her hands stitching the actual stitch she's describing.

1. If you have only 1 video track showing, create a new video track.
    a. From the menu choose: Sequence>Insert Tracks
    b. Click the box next to "Insert __ video tracks" because you want one new video track.
    c. Type 1 to indicate the number of this type of track that you want to insert.
    d. Click OK.

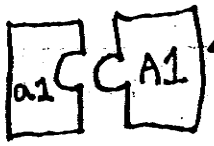
One new video track appears on your timeline.



2. Open into the viewer the clip you want by double-clicking it in the Browser. Notice the **"Source Control" buttons** (see diagram) that automatically appear in the panel to the left of the timeline. There is one button called "v1", which corresponds to the one track of video that was shot (the woman's hands stitching). There are also two buttons, called "a1" and "a2", which correspond to the left and right channels of audio, respectively.

3. Set the destination tracks for the new clip you're bringing into the sequence. Ask yourself, "Do I want just video for this, or do I want the audio also?" In our example, we just want the video of her hands stitching. We don't need the audio of the background noise in the room that was recorded with the closeup of her hands.
    a. Click on the V1 Source Control button and drag it up to the V2 track. It will stick like a puzzle piece to the V2 **"Destination Control" button**. This tells FCP to put the video clip of her hands stitching onto Video Track 2.
    b. Click on both the a1 and a2 Source Control buttons to break the puzzle-piece connection apart. This tells FCP not to bring any audio onto any audio tracks.

Both video and audio are linked here (puzzle pieces are not broken)



← Broken "puzzle piece" (audio is not invited onto this track and will not come when clip is placed from Browser.)

4. Now look at the clip in the Viewer. Set the in- and out-points in the viewer to specify which part of this clip you want to put into the sequence in the Timeline.
    a. Set an in-point.
    b. Set an out-point.

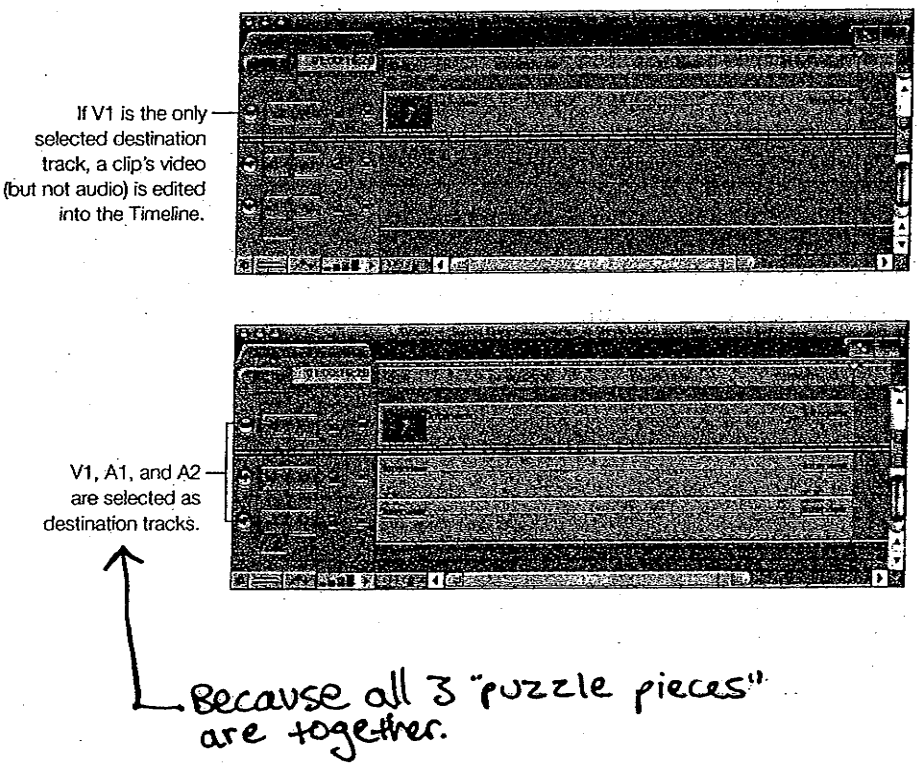
5. On the timeline, put your playhead where you want the clip to begin. She says, "I stitch the two pieces of fabric together…" So maybe you put the cursor at the exact point where she says "I…", or maybe at the exact point where she says, "stitch.."

6. Now double-check that you have everything as you need it. Here's your check list:
    - Have I set my video destination track where I want it? (Yes, v2.)
    - Have I set my audio destination tracks where I want them? (Yes, no audio.)
    - Have I marked the in- and out-points I want on the source clip in the Viewer? (Yes. There's an in-point and an out-point around the exact part of this clip that I want.)
    - Have I told FCP where on the Timeline I want the clip to go? (We put the playhead at the exact place where I want the first frame of the new clip to go. NOTE: this is like marking an in-point.)

7. Insert the clip onto the Timeline using overwrite.
    a. Click anywhere on the image in the Viewer and drag it over the canvas to the "Overwrite" (red) square. Let go.

The clip appears on the Timeline, just as you wanted it to.

NOTE: The source control and destination control puzzle pieces' <u>sole purpose</u> is to designate which tracks on the timeline will receive a clip *from the viewer*. Once a clip is already in the timeline, these control puzzle pieces are *entirely irrelevant*.



3-Point Editing

Let's say that now you want to put in a shot of the style of quilting that she's talking about. In your browser, you have a clip that contains a shot of the quilt that lasts about 10 seconds. On your timeline, the woman is describing the Crazy Quilt that her grandmother made. She says, "Grandma Lila, despite her love for order and pattern, had one quilt that was almost chaotic in its nature. It doesn't look like most of her other quilts at all, but I love it more for that. She was herself a little crazy…" and then our interviewee laughs and you can see the laugh in her eyes. You want to show the crazy quilt from the moment she says "…one quilt…" up until when she laughs (you want us to see her face for this laugh).

This situation calls for a precise in- and out-point *on your timeline*. You don't much care which portion of the 10 seconds of quilt end up in there, but you do care where exactly this clip begins and ends according to the audio that's already on your timeline.

Here's what you do:

1. On the timeline, set an in-point.
    a. Put your cursor where you want the clip to begin (at the word "one" in our example).
    b. Type "I" on the keyboard to set the in-point (sound familiar?)
2. On the timeline, set an out-point.
    a. Put your cursor where you want the clip to end (at the end of the word "crazy").
    b. Type "O" on the keyboard to set the out-point.

3. In the viewer, set an in-point. *Do not set an out-point.*

4. Check your destination tracks and make sure everything is as you need it (see step 6 above for your check list).

5. Click and drag the image on the Viewer over to the Canvas and let go in the red "overwrite" square. FCP will line up the exact frame of your source clip where you set the in-point, with the exact frame in the timeline where you set your in-point. And it will continue until it reaches the out-point you designated on your time-line, filling up the space you designated between the in- and out-points you set on the timeline.

Variations

Another variation is that you can set an in-point and an out-point in the Viewer, and just an out-point in the Timeline. Example: You want to show the entire bit you have of the crazy quilt and you don't care where it starts on the Timeline. You just know for sure that it should end at the moment we see the woman smile.

Or, you can set in- and out-points in the Timeline, and only an out-point in the Viewer. For example, if the clip of the woman's hands stitching happens to complete an entire row of stitches and you want to cut from the completion of the row back to her face, but you don't necessarily want us to see her stitching the entire row.

How To Back Up Your Final Cut Project to CD For Safe Keeping

You can save your project on a CD as a back-up, in case anything happens to your FireWire drive. NOTE: Only project files (i.e., what's on your timeline) can be saved; media files (i.e., the actual video clips you captured from your camcorder) are too big to fit on a CD. You can save songs or other audio clips on a CD, as well as some stand-alone graphics (e.g., still photographs that you scanned in or downloaded from the web).

Note: The CDS computers will only read CD-RW formatted CD's. Do not use a CD+RW.

For the first time you put a CD-RW in the CD drive:

1. Find the eject button on the keyboard (the upper right-hand key on the edge of the number pad). Use this to open and close the drive.

2. Put the CD into the drive.

3. A box might pop up saying, "You inserted a blank CD. Choose an action from the pop-up menu or click Ignore." The default is "Open Finder," leave it that way. Just click OK.

4. The CD will now pop up on the desktop. Click to highlight the lettering then name the CD.

Tell the computer what you want to save on your CD:

5. Click and drag your project file from your fire wire drive to just on top of the CD. A Green + symbol will appear letting you know that you're in position to add the file. Un-click your mouse and the file will be added to your CD. Continue to drag each project file for each homework assignment onto the CD.

Burn the CD:

6. Now before you eject the CD (none of your material will actually be on the disk until you burn it), go up to the file menu at the top of the screen and about 3/4 of the way down is the "Burn Disc" command. Select that command and the computer will begin to burn your disc with all your info on it.

Test to make sure you got what you wanted:

7. A good test is to eject the CD and then put it back in and check if all your materials are still there.

How to re-use your disc to burn a new back-up of your project.

You've already taken the steps above and saved a copy of your project. Now you have

done more work and want to save a copy of the revised version. **NOTE: Using this method, the only way to do this using the same CD is to erase everything from the CD and start over.** Here's what to do:

1. Put your CD in the drive (see step 1 above).
2. After a few moments, your CD-RW will pop-up on the desktop with the title you gave it last time.

3. Go to Disk Utility on Macintosh HD:
   On the desktop, double click on Macintosh HD
   Applications
   Utilities
   Disk Utility

   Double-click Disk Utility to open it.

4. Click once on the CD drive icon in the left panel of the dialog box to select the CD/DVD drive (it should be listed along with the Macintosh HD).

5. Four tabs appear at the top of the window: First Aid, Erase, Partition, and Restore. Click on Erase to open the Erase tab.

6. You will see it says Volume Format: Mac OS Standard, Name: [name of disk]. Make sure Quck Erase box is checked at bottom of screen. Click the Erase button.

7. The Mac will erase the disc and remove everything on it, recreating a blank disc.

8. Repeat steps 5-7 (on p. 20) in order to burn the CD-RW anew.

Capturing Clips: Vocabulary & Keyboard Shortcuts

Source Tape = The tape you're capturing footage from to use in the computer.

Reel Name = The name you assign to the source tape so that Final Cut Pro recognizes where it's capturing this particular material from. **Make sure you type the same name in "Reel" as it appears on the tape's label.** (If not, you may have trouble identifying which tape to insert in the future, when FCP asks for it, should you ever need to re-capture the source material for this project down the road. It's definitely worth the effort to keep this organized and accurate.)

Handles = A little extra time (2-3 seconds is good) you give to a clip when you capture it, both at the beginning and the end of the clip, in order to allow for dissolves, and for safekeeping. (Allowing a handle gives you valuable wiggle room.)

A clip that is "off-line" = A clip that is expected to be there, but the actual media file is not available (either because it hasn't been captured yet, or was captured to the wrong location, for example). A clip that is off-line appears in the browser with a diagonal red line crossed through it.

An **In-Point** says, "This is the beginning."

An **Out-Point** says, "This is the end."

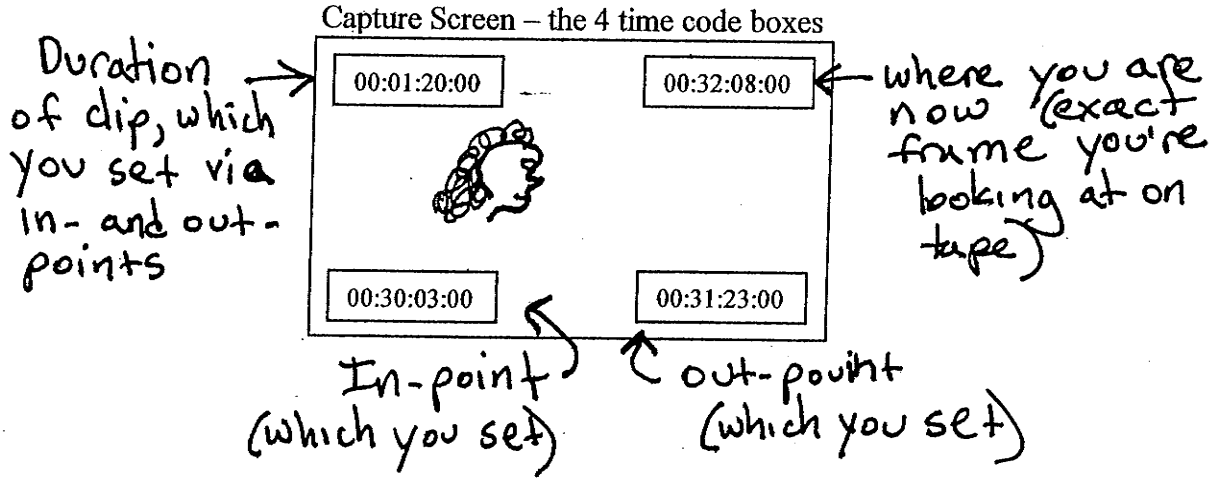
Marking (or setting) an in-point = What you do when you tell FCP, "This is where the shot I like begins." How to mark an in-point: type **I**

Marking (or setting) an out-point = What you do when you tell FCP, "This is where the shot I like ends." How to mark an out-point: type **O**

J – Type it once to rewind. Type it twice (**JJ**) to rewind a little faster. Type it three times (**JJJ**) to rewind faster still.

L – Type it once to fastforward. Type it twice (**LL**) to rewind a little faster. Type it three times (**LLL**) to rewind faster still.

Capture Screen – the 4 time code boxes



Capture: How to Bring Clips into Computer from Source Tape

"Capturing clips" means bringing them from your source tape (in your camera) into the computer so that you can edit them. "Logging clips" means telling the computer the in- and out-points of a given clip, what you want to name that clip, and any other information you may want to note about a given clip – all instructions for the computer so that it can capture what you want it to.

NOTE: **Before you capture anything, you must** be sure you have done the first two things you must always do before you edit in order to designate the place where everything will be stored: **#1 set scratch disks** and **#2 check save project as**... (see p. 6 and p. 7).

1. Open **Log and Capture** screen.
   - With the Final Cut project open that you're working with, from Menu choose
     File
     Capture

   The Capture screen opens.

2. Name the **Reel**.
   Reel refers to the name of the source tape (the tape that contains your raw footage). The default is "001." IMPORTANT TIP: Always name the reel with the ***same name*** that's on the label of your source tape so that you can easily locate which source tape contains which clips. This is essential and crucial if you ever need to re-capture footage in the future (e.g. if your FireWire drive is lost or damaged, or the computer where your media files are stored becomes unusable).
   - Highlight 001 and type in the name of your source tape.
   - Hit return (get yourself out of that little window).

   The rest of the stuff in the **Logging** tab you can ignore.

3. Make sure **[VTR OK]** appears at bottom center of Capture screen. If so, you're good to go.

   If message says **[No communication]**, check the following:
   - Is your camcorder turned on to VCR mode? (NOTE: If your camcorder is running on battery, it may turn itself off automatically now and then to preserve the battery. If you have the option to plug in the camcorder instead of use the battery, you may find it saves you time, fright, and headache to do so.)
   - Is your camcorder plugged into a FireWire cable that runs from camera to FireWire drive (or to hard drive in main computer)?

   If message says **[not threaded]**:
   - Do you have a tape in your camcorder?

To Capture Using "Clip"

Let's you capture one clip at a time. NOTE: This may not work for clips at the VERY beginning or end of a time-code region (i.e., first or last clip on a tape). If you're trying to capture the first or last clip within a time-code region, see "To Capture Using Now" (p. 21).

1. Play the source tape, watching the picture in the Capture screen (plug headphones into camcorder, as sound will only play from there, while capturing).

2. Set in-point.
   - When you see the beginning of the part you want to capture, type "I".

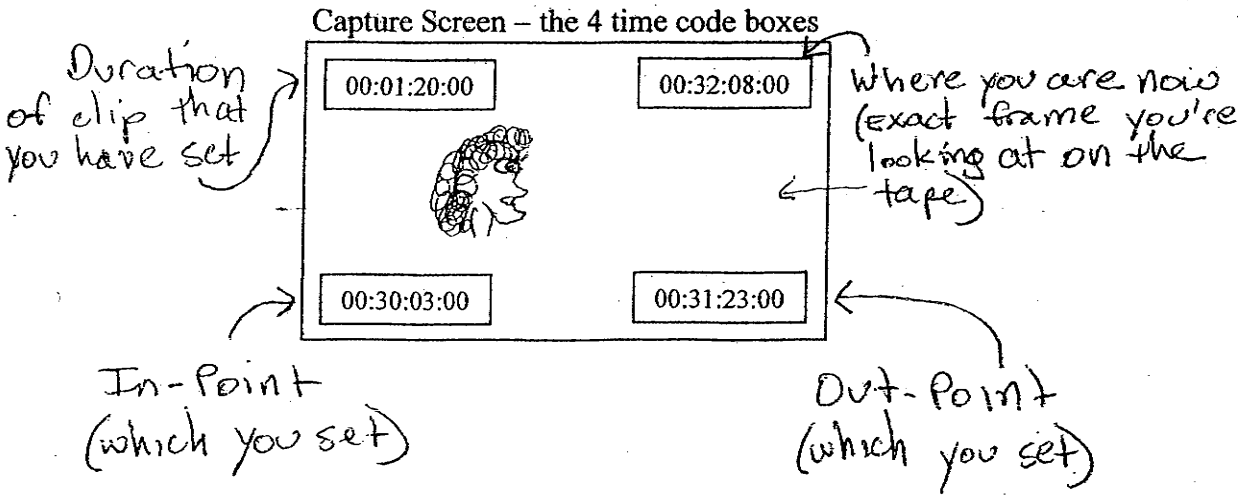
3. Set out-point.
   - When you see the end of the part you want to capture, type "O".
   - Press spacebar to stop tape from continuing to play.

4. Click on **Clip** (first choice at bottom right-hand side of Capture screen).
   A screen (named Log Clip) pops open asking you to name the clip.
   - Name the clip and click OK.

   The tape automatically rewinds to your in-point, and captures the clip. You will see the clip play in the Capture screen while it's being captured. The clip will appear in your Browser once it is captured.

5. Save. (From menu choose File—Save.)

NOTE: You will hear sound through your camcorder while you're capturing, so plug your headphones directly into your camcorder. When finished capturing, remember to plug headphones back into the computer.



To Capture Using "Now"

This is capturing "on the fly," no need to set In- and Out-points. This is most helpful when capturing a clip at the very start or end of a tape (or at the beginning or ending of a time-code break), if you get an Abort message while computer tries to capture.

1. Name the clip you are about to capture by typing it into the Description box (in the Logging tab of the Capture screen). Remember to type return key to get out of the Description box.

2. Play the tape (by hitting space bar on the keyboard). Note: Sound will come from your camera while capturing, not from the computer.

3. When you see what you like, while tape is playing, click on **Now** in the Log and Capture screen. Capturing begins immediately.

4. When clip plays to the end of what you want to capture, type "Esc" (escape) on the keyboard (first key – top left corner). A clip with the name you assigned to it appears in the Browser.

To Capture Using "Batch"

This is most useful when capturing multiple clips from the same one source tape, *if there's no time-code break,* especially if they appear on the tape more or less one right after another. You have to log the clips first. Then you can go make a pot of coffee while FCP does the capturing. Here's how:

1. Set a logging bin in the Browser.
   - Control + Click in the Browser to get a pop-up menu.
   - Choose **New Bin**. A new bin is created in the Browser.
   - Name the new bin.
   - Position mouse directly on top of bin icon (not letters) in the Browser. Control + Click directly on top of bin icon.
   - Choose **Set Logging Bin** from pop-up menu. Notice the slate icon that appears next to your new bin. Now, all the clips you log will be put into this bin.

2. Play the source tape, watching the picture in the Log and Capture screen.
3. Set in-point.
   - When you see the beginning of the part you want to capture, type "I".
4. Set out-point.
   - When you see the end of the part you want to capture, type "O".
   - Press spacebar to stop tape from continuing to play.

5. Click on "Log Clip" (at bottom right of Log and Capture screen).
   A screen (named Log Clip) pops open asking you to name the clip.
   - Name the clip and click OK.

   Notice that the clip appears in the Browser with a red line marked through it – this means the clip is "off line" and ready to be captured in the future.

6. Continue logging as many clips as you want (repeating steps 2-5). They will continue to appear in the Browser as off-line clips.

7. Capture the clips.
   When you're ready to execute the capture, you can capture *only those clips you're ready for*, leaving some clips off-line in the browser, if you want. Or, you can capture all the clips at once.
   - In the browser, from within the bin that is set as the logging bin, highlight those clips you wish to capture. (You can use Apple + click to highlight more than one clip at a time.)
   - When your clips are highlighted, go to the Log and Capture screen and click **Batch** (bottom right of screen).
   - You can set handles here if you want, bet be cautious about doing this if you have a clip near the beginning or end of time-code section.
   - Click **OK**.
   - A screen pops up asking you to "Insert Reel." Just click **Continue**.
   - FCP will now rewind and capture the clips you designated (it does this in real time, so if you have 10 minutes worth of tape to capture, it will take about 10 minutes and you'll wait). When clips are captured, a screen pops up saying it's done; click **Finished**.
   - Notice in the Browser that all the clips that were captured no longer have a red line through them. They are no longer "off line," but, rather, are now captured to your computer and ready for you to edit.

To Bring In a Song From a CD

You can bring in a song (called a "track") from a CD with Final Cut open or closed, either way. If FCP is open, you'll need to reduce or close the canvas so that you can see the desktop. (You need to be able to see both your fire wire drive icon, and, after you insert a CD, the CD icon on the desktop.)

1. Open the CD drive – last key on top right corner of the keyboard.

2. Insert the CD in the drive that pops open, then close the drive (same key on keyboard). After a short wait, you will see the CD icon appear on the desktop. (If iTunes opens automatically, you can listen to your tracks to make sure you choose the one you want. But once you're finished deciding, close and quit out of iTunes.)

3. Double-click the CD icon on the desktop. A screen opens that lists all the tracks on the CD. Select the one you want (by clicking on it once to highlight it), then drag it on top of your fire wire drive icon on the desktop and let go. (Note: you can select more than one track at a time.) The computer will copy the track(s) onto your fire wire drive.

4. Open your FireWire drive (by double-clicking on the icon). Click and drag the track to your browser in Final Cut Pro and let go. The track will be listed among your clips with a little horn icon, indicating that it's a music file.

To change the sampling rate to 48:

Many commercial CDs are formatted at a "sampling rate" of 41.4. The sampling rate for Final Cut is 48. In a project with complex audio you might have trouble playing a song from a CD (at 41.4) once you place it on your time line; so, it's good practice to convert songs from a CD to a sampling rate of 48 *every time you use one*. Here's how:

5. In the browser, click once on the song's icon to highlight it.

6. From the menu, choose **File**
   Export
   Using QuickTime Conversion

7. Look at the dialog box to make sure you have your fire wire drive selected as the designated drive.

8. Click on **Options**

9. Click on **Settings**
   The pop-up menu will list several settings. 44.1 will likely be selected. Change it to 48.
   You can choose the format "AIFF" for the soundtrack, if it's giving you options.

10. Deselect "Prepare for Internet Streaming." (Click where there's a check. The check will go away.)

11. In the **Save As** box, I suggest you add "48" to the name of the track so that you can tell you've already gone through this procedure and will be using the correct version of the song. (e.g., save it as "Amazing Grace 48" instead of "Track 2" or even instead of "Amazing Grace".)

12. Click **Okay**. The dialog box closes. Now bring the track into your project by:

13. Double-click your fire wire drive icon to open it. Find the track you just saved. Click and drag that track into your browser and let go. The little horn icon will appear and you're ready to place the music in your sequence whenever you want to.

14. Delete the bad version of the track by highlighting it and pressing the backspace key.

NOTE: Don't forget to open the CD drive again and remove your CD when you're finished (see Step 1). It's a sad day when you leave your CD in the lab.

Supported File Formats for Importing

Final Cut Pro is a QuickTime standard application, so it supports standard QuickTime-compatible file formats. You can import the following file formats into Final Cut Pro projects and sequences:

- **Graphics**
  BMP, FlashPix, GIF, JPEG/JFIF, MacPaint (PNTG), Photoshop (PSD), PICS, PICT, PNG, QuickTime Image File (QTIF), SGI, TARGA (TGA), and TIFF
- **Video**
  AVI, QuickTime Movie
- **Audio**
  AIFF, Audio CD Data (.cdda), Sound, and Wave
- **Special formats**
  Macromedia Flash (video only; you won't be able to play any audio portions)

Not MP3's

For information about the more commonly used formats, see Chapter 8, "Acquisition Strategies," on page 205. For a complete list of all QuickTime-compatible file formats, see the documentation that came with QuickTime Pro or visit Apple's QuickTime website at www.apple.com/quicktime.

Importing Media Files Into Final Cut Pro

You can import media files one at a time, by folder, or by groups of folders. If you import a group of folders, one folder inside another, Final Cut Pro imports all files in each folder and subfolder that are in formats it recognizes; unsupported file types are ignored. Folders imported into your project appear as bins in the Browser. If you import a group of folders, Final Cut Pro creates bins and organizes the files in the same hierarchy as on your hard disk.

Important If you import files from removable storage media, such as a CD, make sure you copy the files to the hard disk and folder where you want your project media stored. If you don't, the clips will become offline when you remove the media from your drive.

from: FCP 4 User's Manual

Titles in Final Cut

First, put a block of text into the timeline:

1. In the viewer at the bottom right corner, click on the text icon. (Looks like a piece of film with the letter "A" in the middle.)
2. From the pop-up menu choose:
   Text
   Text
   "SAMPLE TEXT" appears in the viewer with an in- and out-point automatically set for ten seconds.

3. Place the text onto the time line where you want it (just like any clip). Remember: put it on the highest video track (create a new one just for text, if you want). Whatever is the highest track is the one that shows up.
4. In the timeline, make sure your cursor is somewhere on the text clip so that you can see the text as you're working on it in the Canvas.
5. Make sure Title Safe is showing so that you can see where it's safe to place your text (from menu choose **View**, **Show Title Safe**).

Now, type the text you want:

6. In the timeline, double-click on the text clip. It will open in the viewer.
7. In the Viewer, click on the **Controls** tab.
8. Where it says SAMPLE TEXT, highlight those words and replace them with the words you want to use (by typing on the keyboard).
9. You can change the Font, Size, Style, etc. of the text by using the respective controls in the Controls tab.

To change the text's color:

There are several things you can do:

- In the **Font Color** section of the **Controls** tab, double-click on the box that is white. You can slide the bar or click on the circle to adjust to what you like. Then click **OK**.
- In the **Font Color** section of the **Controls** tab, you can click on the eye-dropper tool to select it. Then you can click anywhere on the video image to select a color. It will turn your text that color (notice the color square turns that color, too, which you can then adjust).

To change the text's position on the screen:

Use the **Origin** tool from the **Controls** tab.

- Click on the cross to select the tool.
- Click anywhere on the image on the Canvas and drag your finger around (don't let go!) until you like what you see.
- Let go.

Transitions (fades or dissolves) in Final Cut Pro

1. Ask yourself: Is it time for transitions yet?
Adding fades-to-black, cross fades between clips, etc. (e.g. between scenes or at the beginning or ending of your piece) should be one of your very last polishing steps, after you're done editing your whole piece. If you do this too early, you will waste precious time polishing clips by creating transitions that you might not even use in the end.

2. If so, ask yourself: What does this fade add to the piece? Is the piece just as good or better without a fade here? Is a simpler transition better than the one I'm considering?
Fades and dissolves work best when earned -- they should serve a clear purpose, helping to communicate something or add to a feeling you want to express. If you can't tell exactly what a fade is doing there, it's probably wise not to use it. Just stick with the straightforward cut.

3. To make one clip fade out while the next clip fades in, add a dissolve:

a. In the Timeline, highlight the edit line (click once in the spot just where the last frame of one clip and the first frame of the next clip touch each other) where you want the fade to appear.

b. In the Browser, click on the Effects tab

c. Open the folder marked Video Transitions, then the folder marked Dissolve. (Note: The "Fade In Fade Out Dissolve" is probably the most useful, or in some cases the "Cross Dissolve." Try them both to experiment and see what they do.)

d. Click and drag the dissolve you want to use, dragging it on top of the edit line you've highlighted in the Timeline and let go.

e. Play across the transition to see what you've got.

Possible problem-solvers:
1. Rendering – You might have to render the transition (choose Sequence, Render Selection, Video) before you can see what it looks like, if the red render bar appears along the top of the timeline (or if the canvas says "UNRENDERED" when you play across it).

2. Handles – If you can't place a dissolve on the edit line between two clips, or if it is very tiny, you probably don't have enough video at the end or beginning of the clip you are affecting. Either create more handle by trimming the clip (tucking a little of it behind), or go back to the original source tape and re-capture a bit of extra footage.

3. Scale – If you can't see the dissolve or can't pick up its edge to change its duration (see below), select to view the Timeline at a larger scale and try again.

For the adventurous:

- Follow steps 3a-3d above, but BEFORE YOU LET GO notice whether you've aligned the fade smack dab in the center of the transition, to the left of it, or to the right of it. Still keeping your finger down on the mouse, drag slightly to the left or right to notice each of these options. When you've got the one you want, let go.
- **To change the duration of a fade**, either to make it last longer/appear to fade out slower or to make it shorter/appear to fade out more quickly:
    - Click once on the fade to highlight it
    - Click and drag the edge of the fade to extend it or make it shorter. The wider the fade, the longer it will last.

To Adjust Volume in Only One Portion of Audio in a Clip: Use Keyframes

Say you have some nice ambient sound of crickets that you want to use, but a neighbor's voice shouts for his dog at one point really close to the microphone and you don't want to hear the shout that loudly. Or maybe your interviewee is speaking at a good volume, but laughs really loudly, TOO loudly, at one point. You want to hear her laughing, but bring down the volume just during the laughter. Perhaps you have an odd click in the audio that you want to get rid of. What can you do?

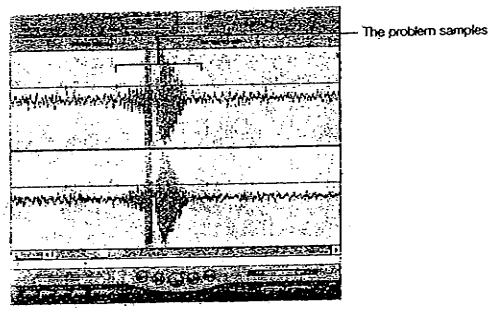
Set 4 keyframes to adjust only a portion of the audio level.

First, go to the start of where you want to make an adjustment:

1. In the timeline, put the playhead at the start of where you want to adjust the volume.
2. Double-click on the audio clip to open it in the Viewer.
3. Click on the audio tab in the Viewer. You will see the waveforms of the audio in the clip where your playhead is.
4. Make sure your playhead is exactly where you want the decrease (or increase) in volume to occur. (You can move the playhead from within the viewer.)

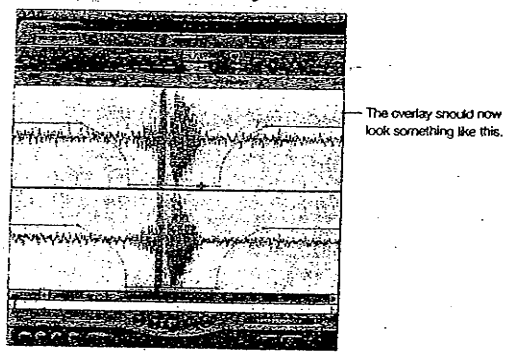
Next, set 4 key frames:

5. From the toolbar, click once on the pen tool (last tool on toolbar, which is the keyframe tool) to select it. In the viewer, hover over the pink line (which is the audio level) until your arrow turns into the pen tool.
6. With the pen tool, click on the pink line at the frame where you want to begin making the audio level louder or softer. A pink dot (called a key frame) appears on the pink audio line.
7. Set another key frame a little to the right of your first one.
8. Set a third key frame where you want to return to the original audio level.
9. Set a fourth key frame a little to the left of the third key frame.



Finally, adjust the audio level for just that portion:

10. Now, from the tool bar, click on the regular arrow-pointer tool (first tool at top of tool bar) to get rid of the pen tool.
11. In the viewer, to adjust the audio level, click and drag the pink bar down in the place that is between the innermost key frames. You can experiment with how it sounds until you have it the way you like it.



Outputting Your Edited FCP Piece onto Mini-DV

1. **BEFORE plugging in your FireWire drive:**
   Plug in your camcorder and turn it on (VCR mode).

2. **Load a blank mini-DV tape (or whatever mini-DV tape you want to record onto) into your camera and *cue it up to the point where you wish to record.***
   Checklist for if using your camcorder:
   - Is the camera plugged into a power source (best not to use your battery, as batteries tend to turn themselves off at inconvenient times)?
   - Is the camera turned on to VCR mode?
   - Did you plug in and turn on your camera **before** you plugged in your FireWire drive?
   - Does the camera have FireWire running between it and the computer (or between camera and your FireWire drive)?
   - Make sure the mini-DV tape you intend to record onto is set for recording (i.e., is the safety tab feature set for safety? If so, slide the tab into place for recording onto the tape).

   Checklist for if using the deck in the basement DES at the CDS:
   - Is the deck's power on?
   - Is the TV set to F-1?
   - Is the light on at the DV side (as opposed to the S-VHS side) of the deck?
   - Make sure the mini-DV tape you intend to record onto is set for recording (i.e., is the safety tab feature set for safety? If so, slide the tab into place for recording onto the tape).

3. **Plug in your FireWire drive. Open the project you wish to record.**

4. **Render All**
   - Click in the timeline for the sequence you wish to record in order to make the Timeline window active.
   - From Menu choose **Sequence**
     Render All

5. **Test the Playback in FCP**
   Make sure everything is playing properly before you start recording.
   - Put your playhead somewhere in your timeline and then hit spacebar to play back your clip.
   - On most camcorders, you should be able to *see* **and** *hear* your piece through the LCD screen of your camera. If you can't, return to step one above and make sure everything is connected properly. If you still can't, proceed (it might still work).

6. **Select the portion of the sequence you wish to record**
   Set an in-point at the beginning and an out-point at the end of your piece. NOTE: Consider inserting 5 seconds of black before the first frame of your piece. (Then, set the in-point at the first frame of that 5 seconds of black.)

7. **Print to Video**
   From Menu choose **File**
   Print to Video

In the **Print to Video** dialog box that pops up, de-select all the options along the left side – you don't need any of these. (You might want 5 seconds of black after the end of the sequence.)

Click OK. The screen turns black with a dialog box saying, "Ready for playback, start video recorder and click OK to begin." DON'T CLICK OK YET.

8. **Record your piece onto your camcorder**
   On the deck/camcorder, press record and play (buttons on the VCR keypad). NOTE: Check your camcorder's instruction booklet for the exact buttons to press for "dubbing" onto a mini-DV tape, as camcorders have different routines.

   Wait maybe 5 seconds or so, then:
   On the computer screen, click OK.

   You will see the piece play on the computer screen while it's recording. You will also see it play on your camcorder's LCD screen (probably, but not necessarily, since camcorders differ).

   To interrupt recording, press escape on your keyboard (top left corner).

   Press stop on your camcorder/deck to stop the recording once it's finished.

9. **Check to Make Sure it Recorded Properly**
   Rewind the tape and play it to be sure you got what you wanted. (If you're recording a long piece, you may wish to do a short test run before you do the whole thing.)

See separate handout for dubbing a tape from mini-DV to VHS using the deck in the DES at the Center for Documentary Studies (p. 31).

Creating a DVD

Note: The computers at the CDS use only "DVD-R" formatted DVD's. Do not use DVD+R.

1. Establishing an iDVD project

A. Click on the iDVD icon on the desktop dock.
B. From the File menu, choose "New Project" OR choose "New Project" from the window that appears.
C. Save as "YourFirstName.YourLastName.DVDproject" (eg, Nancy.Kalow.DVDproject) and save it onto your external hard drive. Don't save it onto the desktop or the computer's internal drive. Click to "Create" the project.
D. You'll see a window with your project name at the top. Click on "Customize" at the lower left of this window.
E. From the "All" themes menu, choose "Brushed Metal Two."
F. Delete the title, "Brushed Metal Two," from the window. You now have a blank window. "Save" this iDVD project. When we want to burn a DVD, you will (1) create Quicktime movie files of your homework sequences in Final Cut, and (2) import them to your iDVD project and (3) burn a blank DVD-R.

2. Making Quicktime movies

A. Open the Final Cut sequence that you wish to convert to Quicktime.
B. Set an inpoint at the first frame of your sequence, and an outpoint at the last frame -- you want to select the entire sequence.
C. From the File menu, choose "export." Choose "quicktime conversion" (not "quicktime movie")
D. Save as "process" or "interview" or whatever the title is.
E. Click on "options"
Video: choose DV NTSC; choose "best quality" video; 29.97 fps (frames per second); deselect "keyframes."
Audio: choose "no compression," 48 kHz, 16 bit, stereo.
Deselect "internet streaming"
F. "Save." The sequence will be converted to a Quicktime movie. It takes about 6 minutes for a three minute sequence.
G. Exit Final Cut . Take a look at the contents of your external hard drive. It should have a new Quicktime icon titled "process" or "interview," etc.

3. Importing Quicktime movies into your iDVD project

A. Open the iDVD project from your external hard drive.
B. From the iDVD menu, choose File -- import -- video.
C. Select the Quicktime movie you would like to import from your external hard drive. It will then show up on the iDVD window. (You can change the order of the icons in this window)
D. Choose File -- burn DVD
E. When prompted, insert a blank DVD-R. (Be sure to label this DVD-R with a sharpie pen.) It takes several minutes to burn, depending on the total length of the videos.

To Transfer from VHS to Mini-DV Using the Deck

1. Load blank tape into Mini DV drive.
2. Load SVHS (or VHS) tape into its drive.

REFER TO DIAGRAM BELOW FOR THE FOLLOWING:

3. Hit SVHS ◄
4. Hit SVHS (on right of screen) (make sure light is on)
5. Hit play
6. Hit DV (on left of screen) (make sure light is on)
7. Hit ● Record (red button)