



Sign up for Larry's **FREE**
Monthly Newsletter!

Larry Jordan's Monthly Newsletter

Editor: Larry Jordan
Issue #50 - November, 2008

Welcome to the latest edition of my monthly Final Cut Studio newsletter for November, 2008.

The goal of this newsletter is to provide information helpful to the professional user of Final Cut Pro. This newsletter publishes each month. Past issues are archived at the end of each year with key articles posted on my website for your reference. All software references are to Final Cut Studio 2 unless otherwise noted.

Please invite your friends to visit my website -- www.larryjordan.biz. There you'll find daily tips, latest industry news, over 350 articles, and tutorials to help you get the most out of Final Cut!

NEWSLETTER CONTENTS

- [Welcome](#)
- [PowerUP Seminar Tour Ends](#)
- [Tutorial: Refreshing Hard Disk Storage](#)
- [Tutorial: How To Create A Variable Speed Clip](#)
- [New Larry Jordan Video Tutorials](#)
- [Industry News: Blu-Ray Disc Update](#)
- [Digital Production Buzz Covers DV Expo](#)
- [Digital Production Buzz: Official Podcast Of GV Expo](#)
- [Technique: Understanding Video Data Rates](#)
- [Tutorial: Audio Checker-Boarding And Setting Levels](#)
- [Quick Software Notes](#)
- [Tutorial: Working With Motion Templates](#)
- [Is There A Better Way To Work With Filters?](#)
- [Heads-Up On Soundtrack Pro](#)

READER MAIL

- [Retouching Images](#)
- [Transcribing In Soundbooth CS4](#)
- [Thanks!](#)
- [Working With HD](#)
- [Getting Organized For Final Cut Pro](#)

- [Setting Up For An Audio Mix](#)
- [Transferring P2 Files](#)
- [Configuring Hard Drives](#)
- [Moving Files Between Office And Home](#)
- [Turning Off An Auto-Launch](#)
- [Blurring Out Portions Of Images](#)
- [Capturing HDV Tapes](#)
- [Audio Help Needed](#)
- [Playback Problems](#)
- [More Playback Problems](#)
- [Missing Render Files](#)
- [DVD Question](#)

WRAP-UP

WELCOME

Whew!

After two months on the road, my seminar tour is finally over! I'll have more on this in a bit, but for now, it is really good to be home.

I wasn't home more than two days when I was off to [DV Expo](#) to provide five hours of podcast coverage from the show floor for the [Digital Production BuZZ](#). After talking with dozens of vendors at the Expo, I came away from the Expo realizing that it wasn't just the election -- change truly **is** in the air. And, in our industry, it continues at a dizzying pace.

There's lots of things I want to share with you this month, as well as dozens of ideas suggested by readers. So, I'm in a hurry to get started.

Before I do, however, I want to apologize for the blizzard of emails in the last couple of weeks. We got a little carried away and I feel badly about that. It won't happen again.

[[Go to Top.](#)]

POWERUP SEMINAR TOUR ENDS

Over the last two months, I've conducted 48 seminars in 15 cities across North America. I enjoyed every one of them - even though it was exhausting.



What I liked the most was meeting many of you - listening to your questions - and helping you to improve your technical skills and understanding of the technology upon which we all depend. I was especially touched when many of you would hang around after the seminar was over, asking questions and sharing stories.



I also heard the requests from literally hundreds of other editors across the world who weren't able to attend a seminar -- either because it was too distant or the timing didn't work.

Adobe

In this economically troubled times, finding work and keeping clients are paramount. Many of you have asked us to create a more economical version of the seminar content which can be shared over the web.

Blackmagicdesign



Adobe

I've been listening and thinking about all these requests. You'll see the roll-out of some new training this month ([click here](#) to jump to the details) and we'll be announcing some very cool new stuff in next month's newsletter.

Also, I want to thank our PowerUP sponsors. Putting on a nationwide tour of this magnitude takes a lot of hard work and money.

Our training would not be possible without the generous support of our [Adobe Systems](#), [Blackmagic Design](#), [Media Distributors](#), [The Rental Station](#), [Automatic Duck](#), and [Smartsound](#).

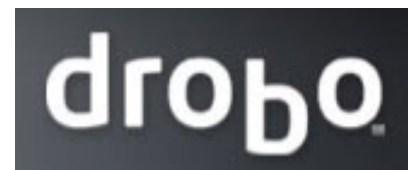


The Rental Station
A MEDIA DISTRIBUTORS COMPANY

Whether it was showing off the new features in Production Premium CS4, explaining how a Blackmagic card simplifies the process of HD capture and monitoring, talking about all the different hardware options that need to be considered when moving to HD showing how easy it is to move projects between applications, or the stunning SmartSound music demo, it was fun explaining how these products can improve a Final Cut Studio workflow.



Finally, two new sponsors joined us just for the Los Angeles seminars: [Drobo](#) and [Video Symphony](#).



I am grateful to all of our sponsors and encourage you to visit their websites to learn more about how their products can help you with your projects.

For those of you who couldn't attend, we will be repackaging our seminars and providing them in a variety of new formats over the next couple of months -- in fact, we've already started, as you'll see later in this newsletter.



[[Go to Top.](#)]

TECHNIQUE: REFRESHING HARD DISK STORAGE

Two issues ago, I reported that when a hard disk is powered down and stored on the shelf, after time the magnetic data will tend to slowly "evaporate."

The basic problem is that magnetic data stored on the drive fades, or loses its charge, over time causing you to lose all the data on that hard disk. (I've been told the term for this data loss is "bit flux.") This data can start to disappear as early as a year after the hard disk is powered off.

As you can imagine, this caused quite a stir. ([You can read the original article here.](#))

After talking with a lot of hard disk folks, I learned that the easiest solution is to refresh the data on the hard disk before it starts to "fade." All hard drives are programmed to refresh data as the heads skim along the drive. But that only happens when the hard drive is powered up and operational -- something not possible when it is sitting on a shelf.

What I didn't know was how to do a refresh... until recently.

Thanks to **Robert Gobeille**, I now have a solution and an explanation. Feel free to share this with your friends.

When Bob first sent me the procedure, I asked him to please **double-check** that this is safe, find out how long a scan takes, and tell me how to escape out of it. From those questions, Robert put together the **Q&A** below.

- - - THE PROCEDURE - - -

- Log into your computer as an administrator.
- Open **Applications > Utilities > Terminal**
- At the terminal prompt, type: `sudo cat /dev/rdisk0 > /dev/null`

Note: There is a space AFTER "sudo," "cat," and the ">" sign.

- - - BOB'S EXPLANATION - - -

This will do no harm. The following may cause your eyes to glaze, but I'll attempt to explain all this and keep it simple. Here is the command again:

sudo cat /dev/rdisk0 > /dev/null

"**sudo**" is a command that says "run the following command with root (administrator) privileges. You need this privilege level to read the disk as if it is one big file (as opposed to reading each individual files).

"**cat**" is a command that says copy the following file.

"**/dev/rdisk0**" is the name of your primary disk. It is a file name just like a .mov but it happens to represent the entire disk. Since this follows "cat", this is the file you are copying. (Note the use of the letter "r" in front of the word "disk".)

" **> /dev/null**" says to copy the file (/dev/disk0) to the file named /dev/null /dev/null is a special type of device. Anything you write to it will be thrown away. It's like copying things to a black hole.

So the above command means to read the entire disk and copy it to nowhere. I know this sounds strange, and yes I could write a program that reads the entire disk without "copying to nowhere", but the above is pretty simple.

Start Activity Monitor.app (in your Applications/Utilities directory) and select "Disk Activity". Then run the above command. You will see lots of data read but none written.

Q: How long will this take?

A: I'm running it on my MacBook Pro as I write this. I see data read at 12 MB/s and the disk capacity is 232GB. So this should take around 5 hours. Nobody will probably run this on a MacBook. A Mac Pro

should be considerably faster.

Q: How do I measure how long this takes?

A: Change the command to: **sudo time cat /dev/rdisk0 > /dev/null** and it print out how long it took, when it is done. The output will look funky. For example, "12345.67 real 2.34 user 345.89 sys" The 12345.67 is the seconds it took to run the command.

Q: How do I terminate this command once it starts?

A: In the same terminal window where you executed this command, press **Control+C**. That is, hold down the Control key and press the letter C.

Q: The command above says that it is reading the file /dev/disk0, but I have several disks. How do I know the correct name of the disk that I want to scan?

A: Excellent question! This is a critical point that I forgot to address above. Go into Disk Utility (in your Applications/Utilities directory). You will see all your mounted disks in the left column. This list is indented. It will say something like "232.9 GB Hitachi" and underneath that will be your volume name indented, like "Macintosh HD". - Click on the top line (the "232.9 GB Hitachi" line in my example) - Click on the Info button - Read the "Disk Identifier" line. It will say something like "disk0". Where Disk Utility is saying "disk0" or "disk1" or "disk2", ... put an "r" in front. This is the name you use in the command (/dev/rdisk0 in this case).

Q: Will this hurt anything? What if I say /dev/rdisk0, like your first example, but I should have put in /dev/rdisk3 (which I learned from the last question)?

A: If you specify the wrong disk, you will simply read the wrong disk. There is no harm in reading a disk. Obviously, you need to read the correct disk to refresh the disk but you will do no harm.

Thanks, Bob. This explains what I wanted to know.

[[Go to Top.](#)]

TECHNIQUE: HOW TO CREATE A VARIABLE SPEED CLIP

Michael Grenadier sent in a request a while back asking me to create a tutorial that shows how to create a variable speed clip.

There are two ways you can create a variable speed clip: in the **Viewer** or in the **Timeline**. The Viewer is easier, but the Timeline is more accurate.

First, though, before we start, here are four rules to keep in mind about creating a variable speed clip.

Creating a *variable* speed clip:

1. Changes only the video, not the audio, of the clip
2. Does not change the duration of the clip.
3. Does not change the duration of the sequence.
4. Is guaranteed to play the In, after that, all bets are off.

Contrast those four rules with what happens when you make a constant speed change to a clip.

Creating a *constant* speed clip:

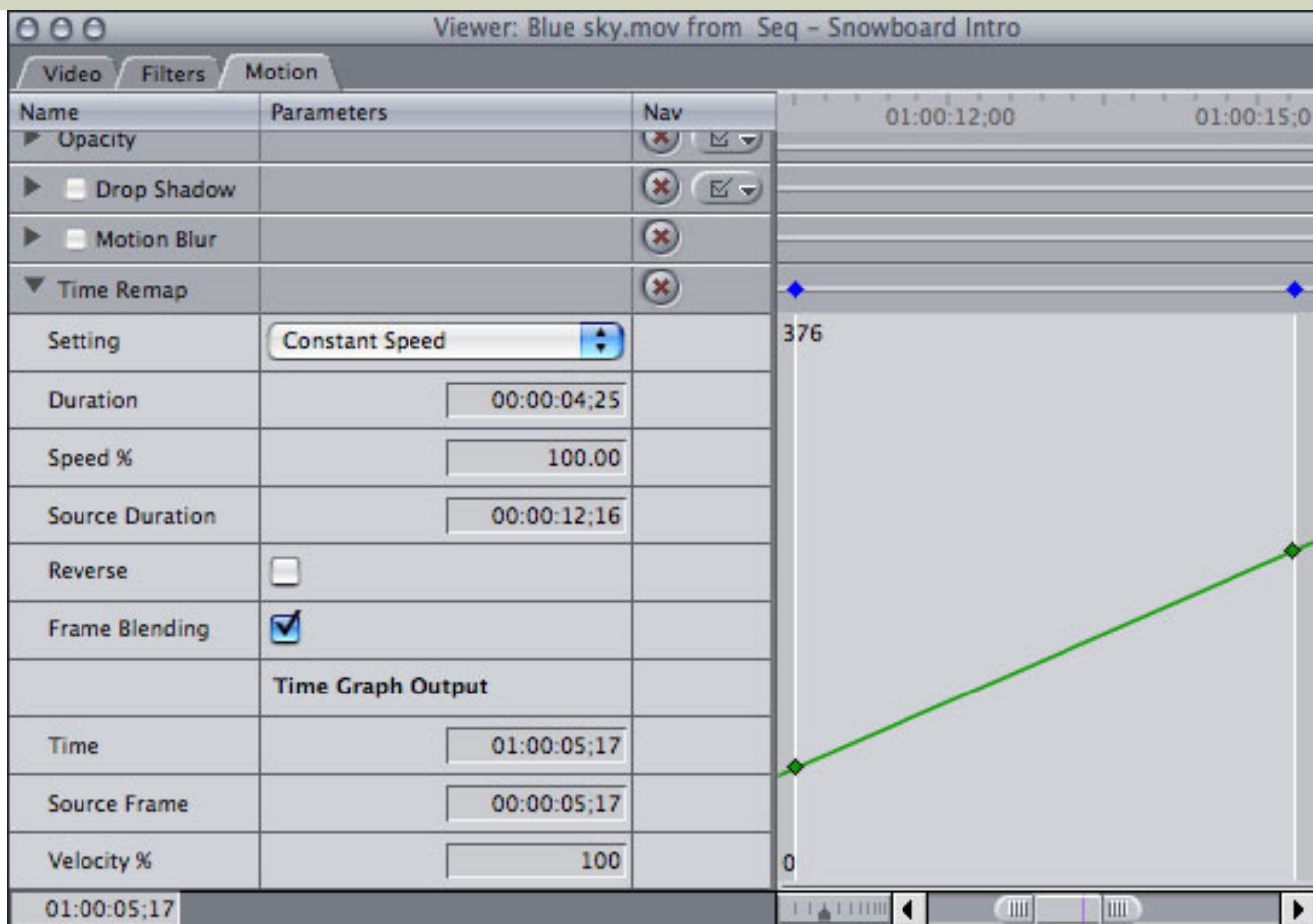
1. Changes both the audio and video in the clip
2. Plays every frame from the In to the Out.
3. Changes the duration of the clip.
4. Changes the duration of the timeline.

VIEWER VERSION

Ken Stone was the one that showed this to me and it made so much sense that I've been introducing the concept this way ever since.

Here are the steps:

1. Edit the clip who's speed you want to change into the Timeline so it is the length and position you want.
2. Double-click the clip to load it into the Viewer.
3. Click the **Motion** tab, then, go down to the bottom and twirl down the right pointing triangle next to **Time Remap**.

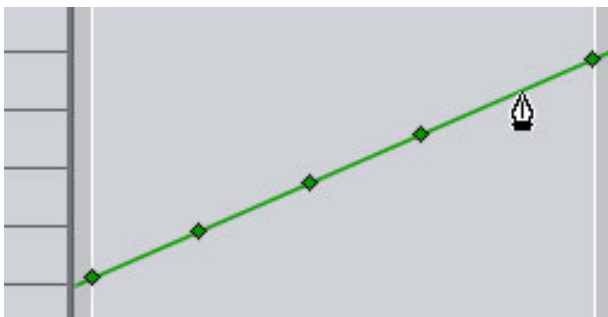


4. Although the numbers on the left look very impressive, you can ignore them - we are concentrating on the green line to the right. If you can't see it, grab the lower right corner of the Viewer and drag it to the right to expand the size of the window until you can.

5. A helpful keyboard shortcut is to type **Shift+Z**. This expands, or contracts, the clip (represented by the light gray portion of the window) to fit in the window.

6. The green line represents the speed of your clip. What the angle is does not matter. That it HAS an angle is critical. As long as the angle of this line does not change, the speed of the clip does not change.

7. Select the pen tool (press **P**) and create, for this example, four keyframe along the line. You can create any arbitrary number of keyframes -- my goal here is to show you how this works. You can then apply this technique in an almost unlimited number of ways.



8. Here's how to change the speed of the clip. Adjust the keyframes so that:

- the first line segment remains **untouched**
- the second line segment **declines** a bit
- the third line segment is **flat**
- the fourth line segment goes **down-hill right**
- the fifth line segment has a **steeper up angle** than the first line segment.

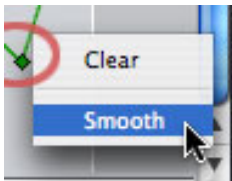


9. Here's how to translate the line angles into speeds:

- If the angle of the line doesn't change, the speed doesn't change.
- If the angle of the line is shallower than the original angle, the clip slows down.
- If the angle of the line is flat, the clip becomes a still frame.
- If the angle of the line goes downhill right, the clip goes in reverse. The speed it goes in reverse depends upon the steepness of the line.
- If the angle of the line is steeper than the original angle, the clip goes faster than original speed, the speed being determined by the steepness of the line.

Take a minute and try it.

Extra credit: Control+click any keyframe and select **Smooth**. This adds a Beziér control point that allows the speed change to occur gradually, rather than abruptly.



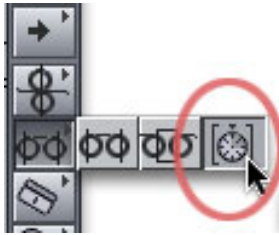
The nice thing about changing speed in the Viewer is that it is easy to see your changes as you drag the green line up and down.

TIMELINE VERSION

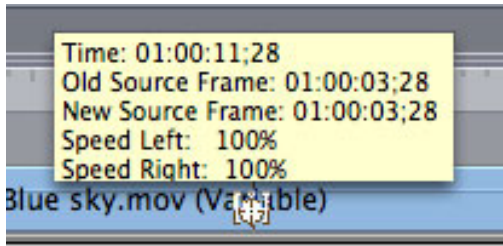
What working in the Viewer doesn't allow is changing the speed with any precision. THAT requires doing speed changes in the Timeline using time keyframes. When ever you work with keyframes, you must use at least two -- one to indicate the start of the time change, the other to indicate where the time change ends. So, we will create a simple variable speed change where the clip starts at normal speed, then switches to 50% slow motion in the middle of the clip.

Here's how.

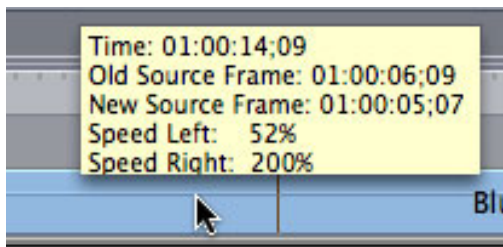
1. Edit the clip who's speed you want to change into the Timeline.
2. From the tool palette, select the Time Remap tool (press **SSS**).



3. In the middle of the clip where you want the speed change to start, click to set a keyframe. BE SURE not to move the mouse once you click the mouse. In this case, I added a keyframe in the middle of the clip.



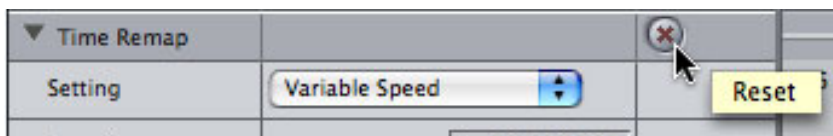
4. Go to the point where you want the speed change to either end or change speed, and click to set a second keyframe. HOWEVER, this time, don't let go of your mouse. Drag your mouse and watch the yellow tool tip.



As you drag your mouse, the speed of the clip to the left and right of the keyframe will change. Depending upon how many frames you have between the two keyframes, you may not be able to get perfectly round numbers (i.e. 50%, 200%) but you can get close.

Load the clip into the Viewer and notice how the Time Remap tool has added keyframes, but this time, you've done it with a precision that allows you to control the speed of the clip before and after the keyframe.

To reset all your settings back to normal, click the red X in a circle next to the Time Remap title in the Viewer.



Whether you create your keyframes in the Viewer or the Timeline, you can always add Beziér curves to any keyframe, once its been created, by control+clicking a keyframe in the Viewer.

Note: Not all speed changes will look great - it depends upon how many frames you have and what speed you've chosen. Also, pulldown frames, added when converting 24 fps material at 30 fps, will always make slow-motion look stuttery.

[[Go to Top.](#)]

NEW LARRY JORDAN VIDEO TUTORIALS

One of the requests I heard many times during my **PowerUP Seminar Tour** was to create a series of short, focused, inexpensive video tutorials on the hidden corners of Final Cut.



So I have.

We currently have six tutorials and by the time you read this, I hope to have closer to ten. Each tutorial is a QuickTime movie that runs between 6 - 10 minutes. In it, I show you a set of specific techniques you can use to solve a particular problem.

Each tutorial costs \$4.99 and can be instantly downloaded at any time from our store.

Click here to see a [complete list of available tutorials](#).

Click here to [go to our store](#).

If you have ideas on some specific video training I should create, [click here](#) to send me an email.

[[Go to Top.](#)]

INDUSTRY NEWS: BLU-RAY DISC UPDATE

Ever since Blu-ray became the de facto HD standard (last February to be precise), independent producers have been chomping at the bit to release their titles in high-def. The only obstacle has been the licensing fees.



And this has been a MAJOR obstacle.

Recently, **Bruce Nazarian**, president of the DVD Association contacted me with a status report. What he told me was so important to what many of us would like to see in this high-def format, that I've included his letter here.

[Click here to read Bruce's letter](#) (2 pages - 100 KB).

If you are interested in publishing titles in HD, please take a minute to read this letter. The key point is this:

"[The DVD Association's] goal was merely to bring focus to this [licensing] issue,

and to strongly suggest a tiered approach to licensing fees that will enable everybody to participate according to their means."

Click here to go to the [DVD Association website](#).

[[Go to Top.](#)]

DIGITAL PRODUCTION BUZZ COVERS DV EXPO



Cristina Clapp, editorial director of New Bay Media, asked [Digital Production Buzz](#) to cover DV Expo. So we did.

We originated five hours of programming directly from the show floor last week. With that much time, we were able to interview a wide range of companies and spend the time in our interviews that we just don't have when doing a weekly show.

Based on those interviews, there are four things I'd like to call to your attention:

Jan Crittenden-Livingston, business line manager for Panasonic's professional cameras, talks with us about Panasonic's move to tapeless video, their latest P2 cameras, and issues with archiving tapeless media. [You can listen to her interview here.](#) (TRT: 14:55 7.0 MB)

David Walton, assistant vice-president for marketing communications for JVC, talks about their move into the professional market, why they chose MPEG-2 for their ProHD line of products, and discusses the future of tapeless technology. [You can listen to his interview here.](#) (TRT: 21:54 10.3 MB)

Pay attention to what [Dulce Systems](#) is doing with high-speed RAIDS.

And a small company, called [Topaz Labs](#), has created an amazing up-rez software product to convert SD to HD video. It isn't fast, but based on their demo, the results look REALLY great.

To listen to our "Highlights of DV Expo" podcast, [click here](#).

To hear any of the four different extended shows we produced, [click here](#).

I want to thank the folks at DV Expo and New Bay Media for making these podcasts possible.

[[Go to Top.](#)]

DIGITAL PRODUCTION BUZZ: OFFICIAL PODCAST OF DV EXPO

We no sooner accepted the challenge of covering DV Expo, than **Cristina Clapp** asked us to be the official Media Partner of Government Video Expo -- Dec. 2-4 at the Walter E. Washington Convention Center in Washington, DC.



Government Expo

Government Video Technology Expo reflects the diversity of the government video market, including state and local government, law enforcement and federal agencies. And of course our men and women in uniform. GV Expo delivers an exhibit hall with more than 200 vendors, certification and training classes in post-production and a wide reaching Government Video conference program covering issues in video, audio, multimedia, conferencing and broadcast. This is a one-of-a-kind event designed to bring government buyers and sellers together. Register today.

We'll be originating hours of coverage each day of the event; including a highlights show that will air on The BuZZ

We'll have more on this as we get closer. But, if you live in the DC area and can free up a day in your calendar, come on over to the show and say "Hi!" We'd love to see you. We'll be **in booth 356**.

Click here for info on Government Expo: <http://www.gvexpo.com>

Click here to learn more about [The BuZZ](#).

[[Go to Top.](#)]

TECHNIQUE: UNDERSTANDING VIDEO DATA RATES

As we move from the world of standard-definition to high-def, understanding hard disk speeds and the data requirements of video formats can prevent a lot of problems.

Here's the **key concept**: hard disks are not infinite in speed, nor unlimited in storage.

The **corollary** to this rule is that dropped frame errors are most often caused by a hard disk that can't keep up with your video format.

During my recent seminars, I spent a lot of time explaining hard drive speeds and video format requirements. This is a summary of what I talked about.

HARD DRIVE SPEEDS

While hard drive speed, that is, the speed with which a hard drive transfers data between the disks and the computer, is impacted by how fast it rotates, a much greater controlling factor is how the hard drive attaches to your computer. We call this a drive's "data transfer rate."

Here are several things to keep in mind:

1. All FireWire drives are hubbed. This means that when both fast and slow devices are connected to the built-in ports of your computer, the slower devices (cameras and decks) slow down faster devices (hard drives).

For instance, a FireWire **800** drive connected to a computer where a FireWire **400** drive is also connected ran at HALF the speed of the same FireWire 800 drive when the FireWire 400 drive was not connected.

2. FireWire does not operate at its rated speed. While a FireWire 400 drive has the potential to transfer data at up to 50 MB/second, it doesn't. This is due to how the hard drive processes data internally using a FireWire bridge chip.
3. The more FireWire devices you add to your system, especially when you have more than five, the slower the data transfer rate is.
4. The more data you store on a hard drive the slower it goes. A drive is fastest when it is empty. When a drive is totally full, it neither plays back, nor records. It is generally a good idea to keep about 20% free space on your drive - though bar fights have broken out over what is the best proportion of free space to maintain. For me, I recommend 20%.

While individual drives can vary, I've found that connection speeds generally group into the following speeds.

Data Transfer Rates By Hard Drive Connection Type

Connection	Data Transfer Speed
USB 1.0 or 2.0	Not fast enough for video editing
FireWire 400	20 - 25 MB / second
FireWire 800	40 - 50 MB / second
SATA	75 - 90 MB / second
RAIDs	90 - 400 MB / second (and more)

With this as a background, let's see how we can apply that to video editing.

VIDEO FORMAT DATA TRANSFER REQUIREMENTS

Here's how you read the table below.

Format indicates the video format as indicated by Easy Setup.

Store One Hour indicates how much hard disk space it takes to store an hour of material in a particular format. This allows you to estimate what your total storage needs are based upon the amount of material shot. Remember, to add 20% for general storage overhead and free space.

Dupe indicates those video formats that Final Cut duplicates the media from its source format (i.e. P2 or AVCHD) into its transcoded format (i.e. QuickTime or ProRes 422). As a general rule of thumb, double all storage requirements for these formats. While not totally accurate (for instance, if you don't transfer the footage into Final Cut Pro, no duplication occurs), its as reasonable a way to estimate file storage size as anything else.

Transfer Rate indicates how much data, on average per second, is required by that format. (The speed is measured in megabytes per second - MB/s.)

Keep in mind that a real-time dissolve doubles each of these transfer rates because during the dissolve two streams of video are playing. A four-camera multiclip increases each rate by four times because there are four streams of video playing.

Here's the key point: Assuming your hard drives are healthy, a dropped frame error means that you are trying to read or write more data than your hard drive will support. This table helps you to match the data rate of your video format with the speed of your hard drive, indicated in the table above.

Note: HD-CAM and HD-CAM SR create massively big files and the exact file sizes vary widely by frame rate and image size. In all cases, these formats should be edited using a RAID with a data transfer rate in excess of 200 MB / second. Faster is absolutely better.

Data Transfer Rate by Video Format

FORMAT	Store 1 Hour	Dupe	Transfer Rate
SD			
DV NTSC / PAL	13 GB	No	3.75 MB/second
DVCPRO-50	27 GB	No	7.5 MB/second
Uncompressed 8-bit	72 GB	No	20.2 MB/second
Uncompressed 10-bit	96 GB	No	26.7 MB/second
ProRes 422	19.5 GB	No	5.5 MB/second
ProRes 422 HQ	28.1 GB	No	8.0 MB/second
HD			
HDV (25 mbps) 60i	13 GB	No	3.75 MB/second
AVCHD (varies)	Up to 10.8 GB	Yes	1.5 - 3.0 MB/second
AVC-Intra (Panasonic)	Up to 10.8 GB	Yes	1.5 - 3.0 MB/second
AVCCAM (Sony & Pana.)	Up to 10.8 GB	Yes	1.5 - 3.0 MB/second
XDCAM HD (50 mbps)	28 GB	Yes	7.75 MB/second
XDCAM HD (35 mbps)	19 GB	Yes	5.2 MB/second
XDCAM EX	19 GB	Yes	5.2 MB/second
DVCPROHD	54 GB	Yes	15 MB/second
ProRes 422	65 GB	No	18.1 MB/second
ProRes 422 HQ	99 GB	No	27.5 MB/second
R3D	137 GB	No	28 or 38 MB/second
HDCAM 720p 60 fps	396 GB	No	110 MB/second
HDCAM 1080 60 fps	834 GB	No	237 MB/second

I found that understanding the relationship between hard disk speeds and video formats greatly simplified storage budgeting and solving dropped frame problems.

UPDATE - Nov. 17

Rich Roddman sent me the following note:

You have R3D files listed as not needing to create Pro Res files as they are imported into Final Cut. That is not quite true, while you can just drop the proxy file in the timeline to view or edit, if you use the Log & Transfer tool to import the R3D files they will transcode them into Pro Res (HQ). The 4K files are converted to 2K in width, 3K import at 3K and 2K stays at 2K. Much like P2, it is not a fast process even with an 8 core tower.

Rob Naim adds:

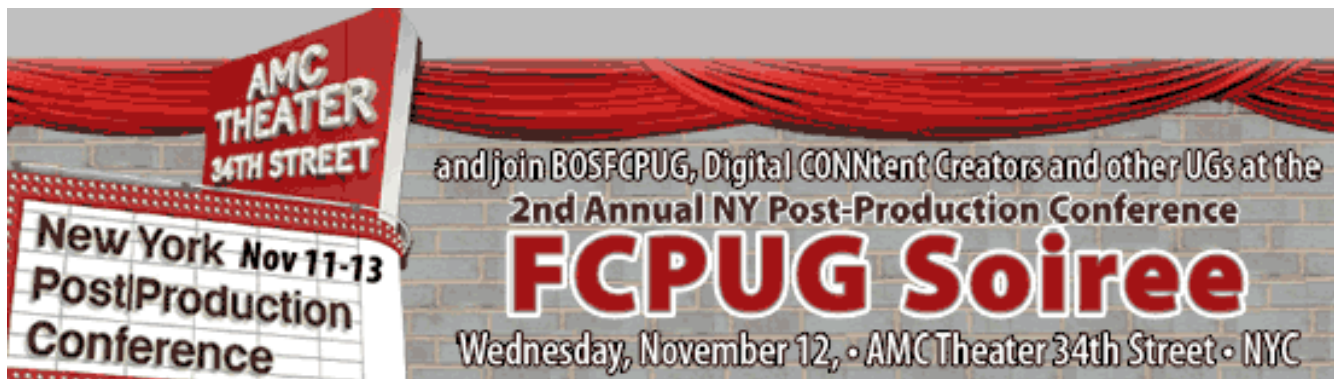
There is a great widget from a UK company called Digital Heaven than can be helpful when working out video storage issues that you've discussed in your current newsletter.

Have a look at it here: <http://www.digital-heaven.co.uk/videospace/>

It doesn't do data rates but does do storage needed for length of video and its free.

Larry replies: Thanks for both your thoughts.

[[Go to Top.](#)]



TECHNIQUE - AUDIO CHECKER-BOARDING AND SETTING LEVELS

I love audio. I love recording audio, mixing audio, and talking to engineers about audio.

But if there's one thing I've learned its that if I get five audio engineers in the same room at the same time, I'll have seven opinions on what qualifies as good audio levels.

Yet, good audio levels are essential to any video project. So, in this technique, I want to talk about two things:

- * How to organize your audio
- * How to set levels for your audio

ORGANIZING YOUR AUDIO

When ever you edit audio into your Timeline, you have to put it somewhere. My philosophy is that since you have to store it, why not store it in a place where you can easily find it.

Even better, why not store it in the same place for each project. That way, when you open up an old project, you don't need to wonder where everything has been put.

When I first started editing with Final Cut, I took it as a personal challenge to make sure there were NO empty holes in my audio tracks. I edited audio like it was a jigsaw puzzle. No two clips went in the same place, or even on the same track.

I was feeling pretty proud of myself until I needed to reedit a project I finished about six months earlier. It took me almost four days to figure out where I put all that audio!

Organizationally, it was a complete shambles, and it cost me days of time to figure it out well enough to fix it.

I realized then that there had to be a better way. There is -- its called **checker-boarding** -- and I stole it from the movies.

Here's the basic idea: Put the same audio on the same track. Though Final Cut audio is not track-based, both Soundtrack Pro and ProTools are. This means that if you ever plan to send your audio out for professional mixing, they will first take the time to checker-board your audio -- which costs you both money and time.

Plus, when you decide to start mixing your own projects, getting into the habit of checker-boarding will save you time as well.

So, here are the rules I follow as to what audio goes on which track. Feel free to borrow this for your own projects:



Audio Tracks

1 and 2 -- Sync sound -- what news calls Sound-on-Tape (SOT)
Your main speaker, the audio from the image on V1

3 and 4 -- Natural sound -- what news calls Natural-Sound-on-Tape (NATSOT) The sync audio from B-roll on V2

5 -- Narration. One voice needs only one mike, which needs only one track.

6, 7, 8 -- Sound effects. SFX that you buy are mono. SFX that you

shoot yourself are stereo. Assigning three tracks means that you have room for all of these.

9 and 10 -- Music cue 1

11 and 12 -- Music cue 2. Putting music cues on separate tracks allows you to slowly fade out one piece of music, while rapidly fading in a new piece of music.

I always follow this track allocation during editing. If, for instance, I don't have a narrator, then I just pull up the lower tracks. However, I make a point to never combine different audio on the same track. Sound effects are never placed on the same track as sync sound.

AUDIO LEVELS

Here's the most important rule: **Your audio levels must NEVER go over 0 dB.** Not once. Not ever. The red clip lights must remain dark for your entire project.

There are only three technical offenses that will get an editor fired:

1. Audio levels that go over **0 dB.**
2. White levels that exceed **100%.**
3. Chroma levels that **over-saturate.**

Of these, the easiest to prevent is maintaining control over your audio levels. (Keep in mind that no one, really, cares how soft your audio goes -- that is an aesthetic decision you get to make. People only get bent out of shape when it gets too loud.)

However, audio sounds better when it is loud than when it is soft. So our goal is to get as close to 0 dB as we can, without going over.

Note: Here's another little-known audio factoid -- audio levels are logarithmic. Every time your gain increases by 6 dB, your volume doubles. This means that when your levels are hovering around -6 dB, you have as much audio gain between -6 and 0 as you do between -6 and -96. -6 dB is the 50% point for your audio levels!

So, here are levels that I recommend for all general mixing -- creating audio for DVDs, the Internet, broadcast, weddings -- anywhere that there is not a specific technical specification that you need to meet.

Audio level we **must not** exceed: **0 dB**

Total audio mix level: **-3 dB to -6 dB**

Principle speaker (SOT) audio: **-6 dB to -12 dB**

Sound effects audio: **-12 dB to -18 dB**

Music when its an underscore: **-18 dB**

Use these levels as a guide to get your audio levels close. Then, use your good speakers, your good ears, and your good common sense to make your audio sound perfect.

Remember, the only level that counts is the level of the total mix.

Note: Don't confuse reference tones with audio levels. Reference tones are used to make sure audio levels match between various pieces of gear. They do NOT determine the maximum point of your audio levels.

[[Go to Top.](#)]

QUICK SOFTWARE NOTES

Looking to up-res SD video to HD, while maintaining the detail?

Take a look at Topaz Labs -- <http://www.topazlabs.com/>

Looking for software that will stretch the edges of 4:3 material to fit 16:9 sequences while leaving the center essentially untouched?

Take a look at Andy's Elastic Aspect -- http://web.mac.com/andymees/Free_and_Easy/main/Entries/2008/3/3_Andy's_Elastic_Aspect.html

Looking for an FCP logging application?

Take a look at Frameline 47 -- <http://www.frameline.tv/>

Looking for way to import P2 MXF data into Final Cut Pro?

Take a look at MXF4QT -- <http://mxf4mac.com/mxf4qimport>

Looking for a faster way to import P2 media into Final Cut Pro?

Take a look at P2 Flow -- <http://mxf4mac.com/p2-flow>

Looking for a faster way to import ANYTHING into Final Cut?

Take a look at Loader -- <http://www.digital-heaven.co.uk/loader/>

Looking for a way to get more drives inside a MacPro?

Take a look at ProDrive - <http://www.transintl.com/store/category.cfm?Category=2746>

Looking for an alternative to SnapZ for screen capture?

Take a look at ScreenFlow - <http://www.flip4mac.com/screenflow.htm>

Having problems getting Compressor to launch?

Take a look at Digital Rebellion Compressor Repair - http://www.digitalrebellion.com/compressor_repair.htm

[[Go to Top.](#)]

TUTORIAL: WORKING WITH MOTION TEMPLATES

This technique was sparked by an email from **Craig Olmstead**, who wrote:

Is there was to do the sliding fx in Motion or in FCP and save the sliding fx, so that every time I'm wanting to do the same sliding fx in FCP I just load the clip in and apply the fx I created.

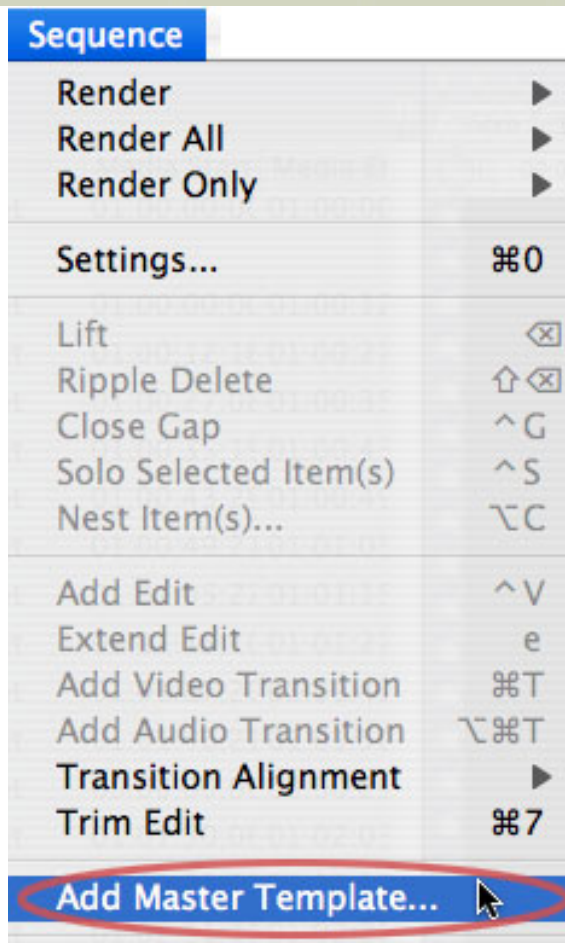
The answer is yes -- provided you have Final Cut Studio 2.

One of the new features in FCS 2 is the ability to create Motion templates, then reuse them in Final Cut. The thing I like best about this is that, as my design skills lean toward the weaker side, I can hire a graphics designer to create the template, then reuse it over and over without having to go back into Motion.

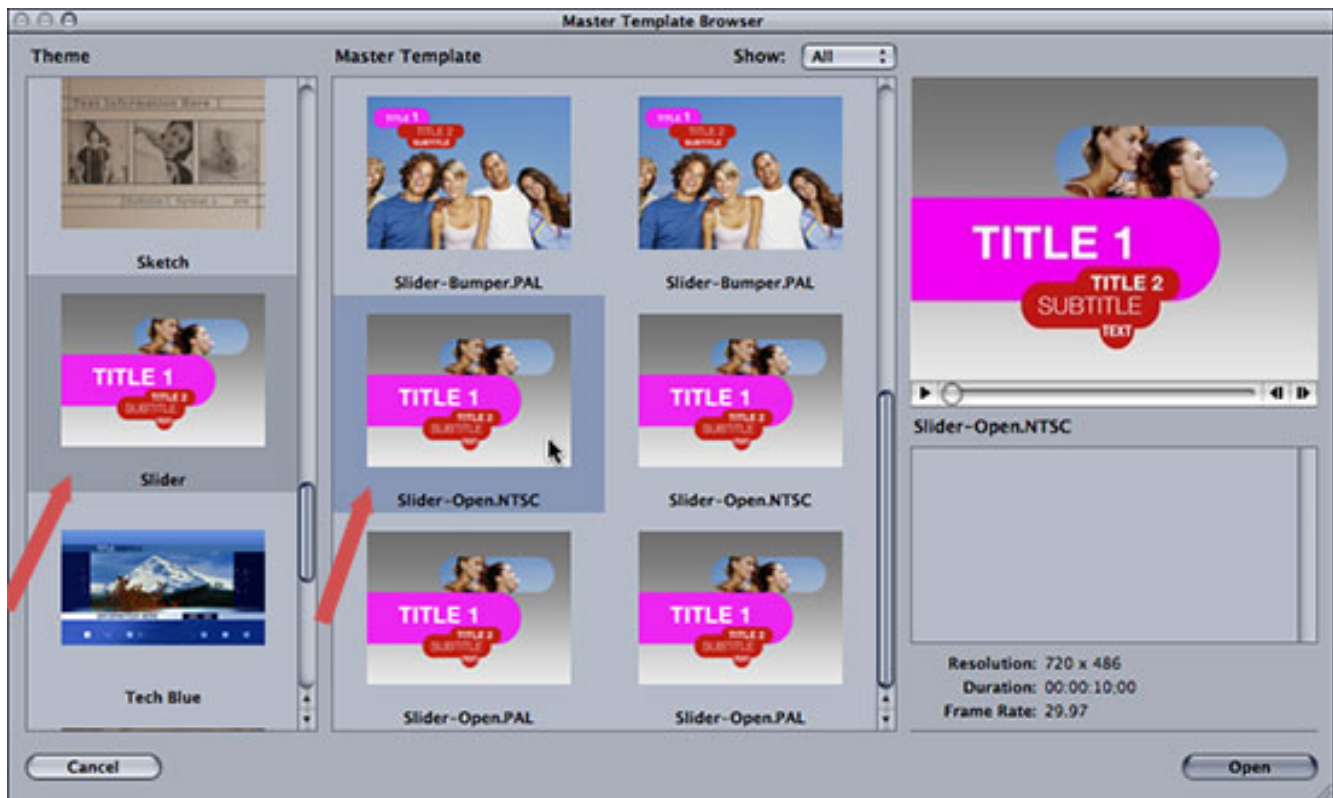
Even better, Apple provides a whole flock (which is a technical term) of templates that are ready to use inside Final Cut Pro. Here's how.

1. If you want the template to open in the Viewer, select the *Viewer*. If you want the template to be edited into the Timeline, select the *Timeline*. I prefer opening the template in the Viewer first, so I start by selecting the Viewer.

2. Go to **Sequence > Add Master Template**



3. Scroll down the template collections on the left side until you find one you like. Then, in the middle pane, Final Cut will display all the variations of that template that are available. In this case, I selected the **Slider** collection.



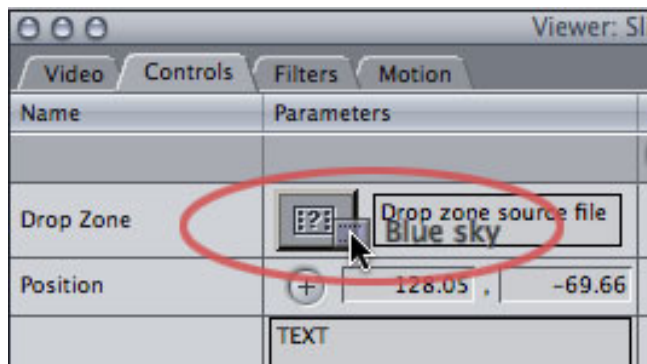
4. Click the specific version of the template you want to use. In this case, I clicked **Slider-Open.NTSC**. As soon as you click it, a small animated preview is displayed in the top right corner.

5. Click **Open** in the lower right corner to open the template into the Viewer.

6. Depending upon which template you select, the Viewer will either display a picture, a gray screen, or black. Don't panic. Edit the Viewer clip into the Timeline where you want the template to appear.

7. Put your playhead in the middle of the template, then, double-click the template in the Timeline to load it back into the Viewer. This allows you to customize the template - and see the results immediately in the Viewer.

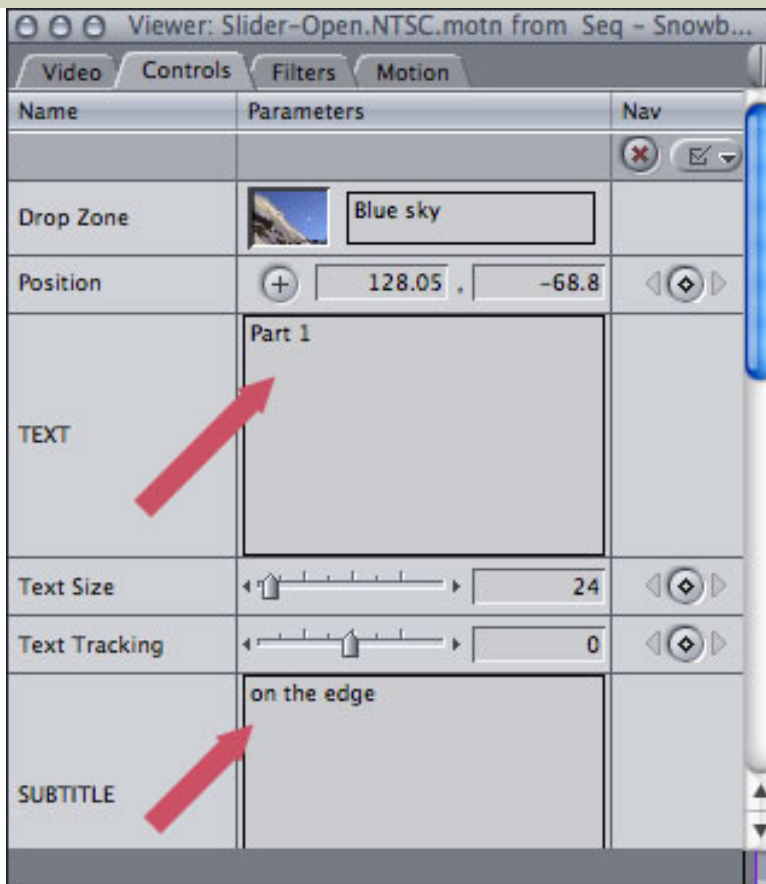
8. Click the **Controls** tab in the Viewer.



9. A drop zone is where you can customize the template by adding a video clip. This clip needs to be a self-contained QuickTime movie. It can't be a Livetype or Motion template. In this example, I'm dragging a clip from the Browser into the little graphic well to add it to the template.

10. The text boxes correspond to the various text elements that are part of the animation. The text you type here shows up in the final animated template. You can change the point size and spacing between letters, but you can't change the animation.

Add text to each box until your template is complete.



11. Preview the results by either rendering or typing Option+P (which plays an unrendered clip as fast as it can without first rendering it).

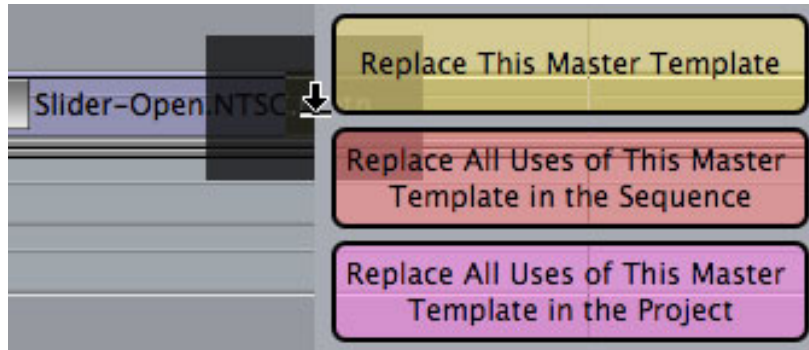


12. One of the reasons I like loading templates into the Viewer before adding them

to the Timeline is that FCP makes it easy for me to change templates - while retaining as much of the customized text or images as possible.

For example, select the Viewer, then choose **Sequence > Add Master Template** and pick a different template. Click **Open** to load it into the Viewer.

13. Drag the template from the Viewer to the Timeline then HOLD it over the timeline template. Wait.



14. After a few seconds, a pop-up menu appears asking whether you want to replace just this one template with your new choice, replace all the same templates in the entire sequence, or replace all templates in all sequences in the entire project.

This is a VERY fast way to make a whole lot of changes in a hurry.

Using Motion templates in Final Cut is a great way to create something once, then reuse it over and over again.

[[Go to Top.](#)]

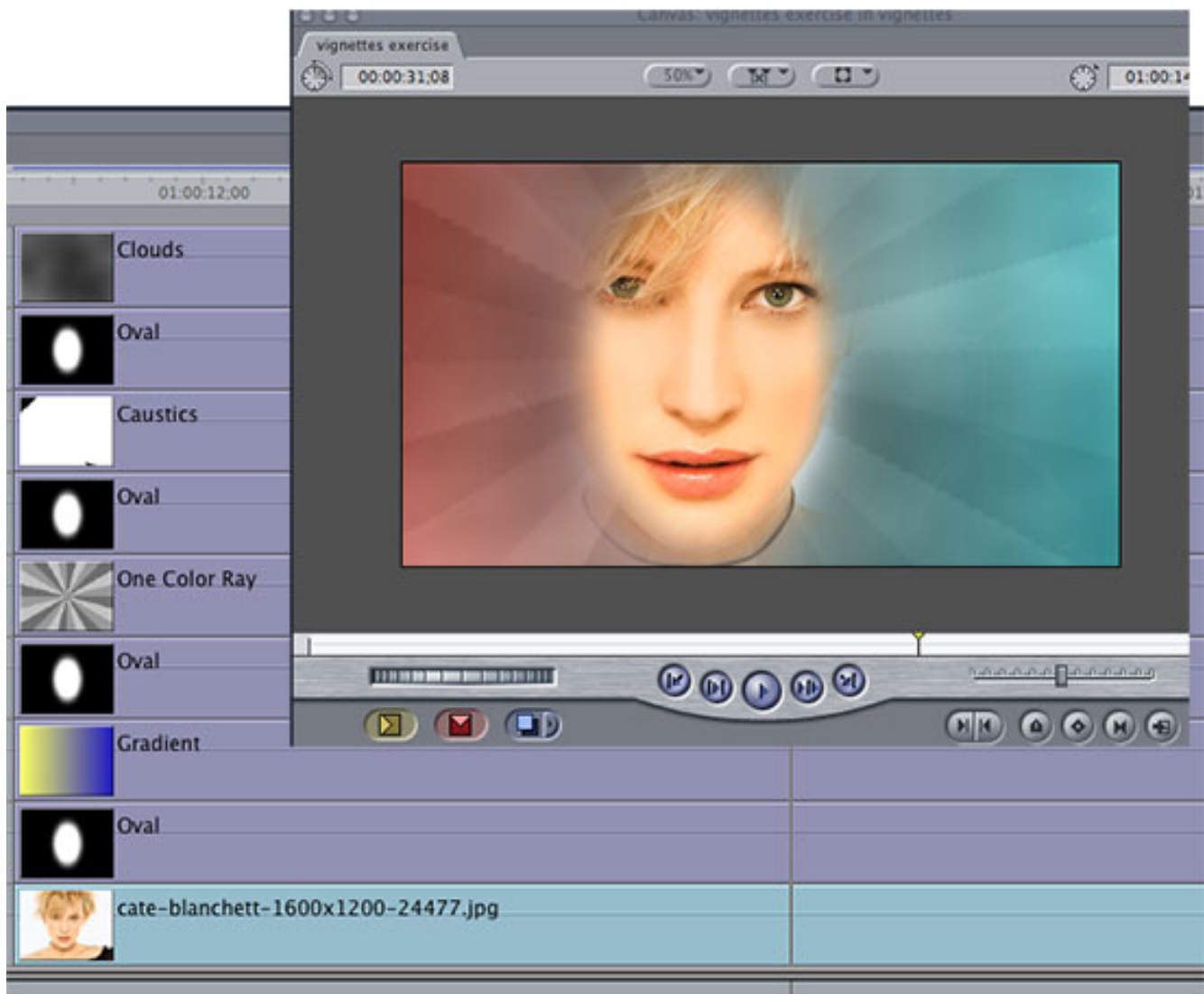
IS THERE A BETTER WAY TO WORK WITH FILTERS

Sam Shirakawa sends in the following question:

I'm working on expanding my horizons re making custom vignettes, and I've found a way to incorporate multiple generators and filters, but I'd like to know if there's a faster, more efficient way of obtaining an effect similar to the one in the screenshot I am attaching.

For example, must you pair layers for each effect i.e. oval/gradient, oval/clouds etc? Or is there a simpler, more efficient way to arrive at the image in the canvas, which, by the way, is animated in some way in all layers?

I also have found that in using the pairing approach, that I must reduce the opacity of each generator including and above V3. I was under the impression that the Modify/composite mode/travel matte-luma option integrates everything automatically.



Larry replies: Sam, this could probably be done more easily using some third-party filters, but I don't know them well enough to make a recommendation.

Hopefully, one of our readers can suggest something - if so, send me an email.

By the way, to see an example of what Sam is creating, watch this:

<http://www.youtube.com/watch?v=bigrgycLumY>

[[Go to Top.](#)]

HEADS-UP ON SOUNDTRACK PRO

Just a note - I've had several emails from folks about trying to apply Effects using the **Process** menu in a Soundtrack Pro Audio File project. I agree. I've found these to be very unstable.

A better technique is to apply all audio filters as part of a multitrack project, during your mix, rather than as part of cleaning up a single audio file.

[[Go to Top.](#)]

READER MAIL

RETOUCHING IMAGES

Joe St. Leger, from Dublin, writes:

I am working on a project in FCP Studio and am including some old film footage that was telecined to dv tape and captured from tape to G5. The old film is dirty in places. Not scratched, but hairs and blotches flash up on odd frames. Is there some way to touch these up for final edit - similar to clone tool in Photoshop maybe. Any thoughts would be great.

Many thanks for your monthly newsletter - When are you coming back to Dublin?

Larry replies: Thanks for writing, Joe!

Actually, you CAN retouch these images directly in Photoshop. You will need Photoshop Extended CS3 or CS4. **In fact, I created a video tutorial that shows you how.**

By the way, I'll be in Glasgow in February. We are still working out where else in the area we should go. If anyone has any ideas for England, Ireland or elsewhere, please let me know.

[[Go to Top.](#)]

TEXT TRANSCRIPTION IN SOUNDBOOTH CS4

Lee Berger writes:

Earlier in the week I downloaded the beta version of Soundbooth as a test. I figured for \$200 it would be worth it if it really worked. Here is what I discovered testing with my 2.8GHz Quad Core MacPro.

1. You cannot directly import a file captured by FCP (I used DV). It does not recognize the file type.
2. You can convert to some other QuickTime format including H.264, but the Timecode does not import. It resets to zero in Soundbooth.
3. I used an interview, close miked with a single Tram TR50 Lav in a quite room. Using the highest setting, the transcription got many common words wrong. I got slightly better results after normalizing the audio. I only transcribed about :20, but over a full interview it would be annoying and counter productive.

Perhaps there was an error in my workflow. Any suggestions?

Larry replies: Lee, yes, there is an error in your workflow.

Because Soundbooth is cross-platform, it needs all imported files to have extensions. Once you

add a file extension (i.e. .mov), files will load perfectly; even those captured in Final Cut.

Second, as long as you bring in a QuickTime movie, Soundbooth will read timecode from the tape - however, it doesn't display frames, it displays thousandths of a second. This is actually better because that allows it to support a wider variety of frame-rates.

And, while my tests showed the software was not perfect, it did get more than 80% of the words right - EXCLUDING proper nouns, which it does poorly at.

I remain very impressed with this first effort at text transcription and encourage you to take a second look.

[[Go to Top.](#)]

THANKS!

Chris Replogle writes:

I've been a long time subscriber to your newsletter and it has been full of useful information. I subscribed to Lynda.com just for your FCP tutorials. I haven't been a video editor for long, but I have learned so much from your newsletters and Lynda.com tutorials.

I had to write you and thank you for the article on capturing 32k. I edit the nightly news and for as long as I can remember, our sports guy has been giving me DV tapes that are captured at 32k. I would always get that error about it not being 48k. When I asked the editor who was here before me about this, he told me "I don't know why it does that but don't worry.." Sometimes it would drift so far out of sink that our sports guy would get angry. Now I finally have a solution! Thank you so very much!!!

Larry replies: Chris, thanks for the nice note. Happy to help.

[[Go to Top.](#)]

WORKING WITH HD

Todd Burns writes:

I would really appreciate an answer to these questions about the HD (broadcasting) changeover in February.

- Can you output an HD video from FCP to a standard SD Beta deck (UVW-1800)?
- Will the video be stretched?
- Do we need to get an HD Beta deck?
- Do we even have to output in HD after the change in February?

Larry replies: Thanks, Todd, for writing!

Keep in mind that the February 17, 2009, transition is to digital transmission, not necessarily HD. The National Association of Broadcasters has published an FAQ on this. [You can read it here.](#)

So, in answer to your questions:

1. Not directly. You need to down-convert (transcode) from HD to SD. This can be done using a capture card - Blackmagic Design or AJA - in real time, or prior to tape output by creating an SD QuickTime file in Compressor.
2. Not necessarily. Keep in mind that all HD is 16:9, and most SD is 4:3. This means you would lose information on the edges of the HD material when transcoding (converting) it from 16:9 HD to 4:3 SD.
3. You only need an HD deck if you are going to record HD to tape. Most stations use playout servers that take digital files, rather than tape. Contact the station to learn their specs.
4. The format you output in is determined by where the tape is going. In other words, what format does your customer need? There are two different broadcast formats - 720p (ABC, ESPN, Fox) and 1080i (CBS, NBC, PBS). Be sure to determine who needs what format before outputting your project.

[[Go to Top.](#)]

GETTING ORGANIZED FOR FINAL CUT PRO

Jay Taylor, from Harrisburg, PA, writes:

I've been an Avid editor (local commercials/tv shows/etc) in Philadelphia and Harrisburg for about 13 years. The station recently got Final Cut Studio 2. I've joined the lynda.com and find your training very helpful as I try to learn this system quickly.

My first question - should QuickTime movies, Photoshop files, Live Type files, Final Cut Project - only go on the boot drive, or can they go on the media drive as well? From what I've learned in your training - these files should go on the boot drive, not the media drive. Only media - defined as video captured from a camera and the render files, etc should go on the media drive. The reason I'm asking - we hired someone in our department in August with Final cut experience. He think it should all go on the Media drive.

My 2nd question - logos and graphics from Photoshop - Our Avids are older, we worked with Photoshop 7 in these edit suites. We save everything as PICT files to import into the Avid with shadows, etc while keeping a large Photoshop files with many layers so we can make changes as necessary. From your training, it seems as though Photoshop Files, TIF files or PNG files are the best method of working with graphics and to use a shadow, we must rasterize the graphic. Since we're used to working with these large photo shop files and then saving a copy as a PICT file for individual graphics, can you suggest exactly what we should do now working with Final cut?

Larry replies: Jay, all video files - whether captured or not - should be stored on your media drive. Project files, images, audio, anything which is not video, can be stored anywhere. To keep things simple in my own mind, I put media on the media drive and everything that isn't media in the project folder.

You can store the project folder anywhere -- I tend to store it either on my boot drive, or a drive that is not the media drive. That helps remind me what I need to back up when I am done with the project.

Regarding working with PICTs, you can continue your same workflow. PICTs, though an older format, work just fine with Final Cut Pro.

Here's an article I've written that [describes getting organized in more detail](#).

[[Go to Top.](#)]

SETTING UP FOR AN AUDIO MIX

Jonny Elwyn writes:

just a quick question, I'm about to hand over a DVD for IKEA, to a post house to be on-lined, and i have done a rough and ready sound mix (for client viewings) on the FCP timeline which involves 5/6 mics. To do the mixing quickly i have just added edits into the tracks, then adjusted the volume on either side as desired (so rather than keyframing anything, i've used the cuts to separate bits)

my question is - will the cuts (which are in continuous time code - with the little red triangles in FCP) translate into the OMF or will they essentially be ignored? But how will the differing levels operate on either side of the cuts?

Larry replies: Jonny, the answer to your question is not the answer to your question...

First, FCP 5.x ignores volume levels when exporting an OMF. FCP 6.x allows you to include both audio levels and pan as part of the export dialog.



However, that answer misses the point.

As my [article earlier in this issue](#) made clear, as soon as a mix is imported into an audio application, such as Soundtrack Pro or ProTools, the audio engineer is going to checker-board all the clips to make sure the same clips are on the same track, then remove all your keyframes so that they can adjust your levels with much more precise tools than exist inside Final Cut.

So, the REAL answer is that while you can include the levels if you want, they will be removed

during the mix by the audio engineer.

[[Go to Top.](#)]

TRANSFERRING P2 FILES

Richard Morris writes:

Larry, I have been awarded three segments of National Geographic Wile Chronicles and I use an HVX 200 with Final Cut 5... What is the best way for me to transfer the clips to their HD which will then be edited by them in another suite in DC???

Larry replies: Copy the material from each P2 card into its own folder. Make sure each folder has a unique name - similar to the Reel ID we used to give video tapes. Then, copy the folders from your hard disk to theirs. Or, if you have a fast Ethernet connection and the files are not gigantic, you can FTP them.

The key is to keep all the material on each P2 card intact, don't try to break it up into separate folders.

[[Go to Top.](#)]

CONFIGURING HARD DRIVES

Eric Hoffhines writes:

I'm purchasing a Mac Pro Dual Quad Core computer for Final Cut Suite/After Effects/ Adobe CS3 etc. Do you have a recommendation for hard drive configuration? Would you go with an external RAID?

Larry replies: In general, I recommend using external RAIDs. Based on what I've seen so far, they are faster than an internal RAID on a MacPro and if you have a problem with the RAID, you can send it off for repair without losing access to your computer.

The way I would configure a MacPro would be a minimum of two internal drives - a boot drive and a data drive - with an external RAID for video data storage.

[[Go to Top.](#)]

MOVING FILES BETWEEN OFFICE AND HOME

Brian Grystar writes:

I work at a TV station with a Final Cut Pro suite in it. We only have one suite and I don't get a lot of time to do much in it, however I have my own FC Pro system at home. I have some DVCPRO archives and raw video that I'd like to transfer to my system/external hard drive at home. What is the best way to do this without bringing in a main/large external hard drive?

(I need to do this as quick as possible when the suite is available) Will a WD Passport or Iomega portable hard drive be able to transfer my video captures/files back to my home drive without messing up the reference files? I've done it with a Lacie 250 GB but it requires a few extra cables and is not real portable. I love the idea of a portable hard drive to keep projects and music on the go and save space on my laptop.

Larry replies: You can do this, but it will take some steps.

First, keep these three things in mind:

1. USB drives are NOT fast enough to capture video ([read here for details](#))
2. Never edit video stored on your boot disk, you'll always get dropped frames
3. All captured media files are stored in a folder named after your project in [**Second drive**] > **Final Cut Pro Documents** > **Capture Scratch**

Second, assuming you have connected an external hard drive you want to move between work and home, on your external hard drive, create a folder called "Final Cut Pro Documents"

Open Final Cut Pro and go to **Final Cut Pro > System Settings**

Set the scratch disks to point to the Final Cut Pro Documents folder on your second drive that you just created.

Capture all materials to that scratch disk.

Final Cut captures all media files, and stores all render files, on whatever disk you set as the scratch disk. By setting your external hard drive as the scratch disk, all your files will go where you expect.

Remember to save your project to that external drive as well - that way, both media and project files will be on the same disk.

UPDATE - Nov. 17

Zach Mull sent the following comment:

In regards to Bryan Grystar's desire to move projects back and forth from work with a portable drive, I suggest that he look into a bus-powered RAID like the G-Technology G-RAID Mini. These drives are compact and require only one cable, provided that your computer has a FW400 or FW800 port. They have transfer rates suitable for multiple streams of compressed HD. They also make fantastic backup devices for tapeless acquisition.

[[Go to Top.](#)]

TURNING OFF AN AUTO-LAUNCH

Jagadish, from India, writes:

I work for a regional channel in india as editor. From last one week if i boot my mac pro machine, as soon as it boot, final cut pro will automatically launch. how can i

disable this option? i don't want to start each time FCp after booting my machine.

Larry replies: Go to the **Blue Apple > System Preferences > Accounts** tab.

Click the lock to unlock this panel - enter your password.

Go to the **Login Items** tab and delete *Final Cut Pro* from the list of items.

Conversely, to have an application automatically launch when you log into your system, drag the name of the file, or application, into the LogIn Items tab.

[[Go to Top.](#)]

BLURRING OUT PORTIONS OF IMAGES

Marcia Orland writes:

I work with a non-profit helping people with developmental disabilities. They aren't always careful when shooting things to use in their DVDs, and sometimes a label shows on video they want in the project.

Is there a way to blur out part of an object in video? I don't have to worry about movement very much, as the items are usually static with someone standing in front of them talking.

Larry replies: Yup.

Here's an article that explains what to do: http://www.larryjordan.biz/articles/lj_travel.html

[[Go to Top.](#)]

CAPTURING HDV TAPES

Matt Jeppsen writes:

appreciate the consistent collection of monthly tips and tricks. Normally I've got nothing to offer, but there was one comment in the newsletter that is at odds with what I've personally experienced, and I wanted to write and mention it.

In the section entitled "CAPTURING AN ENTIRE HDV TAPE" you suggested to Jagadish that it is impossible to capture an entire HDV tape without FCP creating new clips at the start of each new scene/tc break. Specifically: "Larry replies: Capturing an entire tape containing multiple shots is not possible with HDV - unless you bypass FireWire and capture using the analog output of the camera with a capture card, such as AJA or Blackmagic Design."

With all due respect, I don't think that statement is 100% accurate. I can tell you that I capture entire HDV tapes in one file all the time. The relevant setting that worked for me is in the HDV capture window on the Clip Settings tab. Untick "Create new clip on Start/Stop." Now, I've read somewhere on the DV info forums that this setting

made no difference for some JVC HDV camcorder users. That may well be the case. I have no experience with capturing JVC HDV footage. The setting does work as advertised for me, however, with my Sony HDV camcorders. So maybe it's based on the capture device control preset, or something along those lines.

Anyway, just wanted to let you know that at least ONE user in the Midwest can capture entire HDV tapes without scene breaks. :-)

Larry replies: Thanks, Matt, for sharing this with us.

[[Go to Top.](#)]

AUDIO HELP NEEDED

Al Williamson, of the University of Florida, writes:

I read with great interest your article Technique: Changing Audio Capture Settings to 32 kHz in the latest issue of your monthly newsletter. I have a similar issue but I'm not sure if it can be remedied by changing a capture setting: we have a Sony HVR-DR60 hard drive that we use as a firewire drive to capture long presentations or sessions. I can bring the clips captured on the hard drive into Final Cut Pro 6 but immediately begin to run into problems-- the clips can play in the Viewer but the audio and video tends not to sync up. (Sometimes the video will just freeze while the audio continues to play.) More importantly, I cannot edit the clip into a sequence or timeline without having to render the clip after it's been edited into the timeline. Depending on the length of the edited clip(s) into the timeline, this can take several minutes of rendering.

When I look at the difference (audio wise) in Final Cut between these clips and those captured from our Sony camcorders, I find a discrepancy between the two. While they are both show 48 kHz in the Audio Rate column, the clips captured from DV tape have a 16-bit Integer (as shown in the Audio Format column). However, the clips from the hard drive show 32-bit Floating Point. When I check my sequence, it too shows the 32-bit Floating Point in the Audio Format column. I am not sure how I can adjust either the clip or the sequence so it can work with the clips from the hard drive without rendering.

Have you every heard of this issue or maybe know of a work around? Currently, if I want to forego the rendering wait, I can open the clips from the hard drive with Quicktime Player Pro-- which plays the clips without any problems-- and export the audio out as 48 kHz AIFF files. Then, of course, I have to sync them up in Final Cut. That's kind of a long workaround.

Any type of suggestions you can impart would be greatly appreciated! Thanks for all your help and providing such a helpful newsletter!

Larry replies: The basic problem is that Final Cut doesn't like 32-bit floating point audio. Consequently, it renders (converts) it from 32-bit to 16-bit before it will play back. The ideal solution is to convert your audio to 16-bit prior to import - either by setting a menu on the deck, or shooting in 16-bit.

[[Go to Top.](#)]

PLAYBACK PROBLEMS

Rich Roddman, of CMR Studios, writes:

I have been doing a lot of web video that the is shot on green screen. I bring the files into Final Cut as Pro Res media @ 1920 x 1080. My final output will be 640 x 480. (I use the 1080 so I can adjust the size for wide shot to close ups and anywhere in between as needed) If I have my master timeline (Square pixels & Progressive) at 720 x 480 I can playback with an orange bar, but if I make the timeline 640 x 480 in get a red line and need to render to see anything. I don't understand why the aspect ratio set at NTSC (4:3) causes a full render to be needed but NTSC DV (3:2) can playback?

Larry replies: Rich, my guess is that this is because 720 x 480 is a video format designed for real-time playback inside Final Cut, while 640 x 480 is a video format designed for the web that can be played back only after compression is complete.

[[Go to Top.](#)]

MORE PLAYBACK PROBLEMS

Derek Casari, of Fox Post, writes:

My question involves 1920 x 1080 resolutions. I had a couple of test clips made for me:

Here's the deal. Only one file played back without motion artifacts when imported into just ProTools. That was the Apple Photo JPG at 170 mb/s. The other Apple Photo JPG at the higher data rate and the H.264 both showed artifacts. All of these were 24 fps and 1920 x 1080. I'm thinking that the data rates are the issue and maybe I'll just have to empirically create a number of files to find one that plays back without problems, which seem to be temporal aliasing. BTW, is Apple Photo JPGA different than regular photo JPGA? I'm trying to avoid the GOP codecs because of the issues they have with sync and frame boundaries. Any suggestions on a codec AND data rate for playback of a QT movie imported into Protools at 1920 x 1080 would be a big help.

Larry replies: Derek, it depends upon how your video was shot.

Motion JPEG-A is designed to work with interlaced footage.

Photo-JPEG is designed to work with progressive images.

Both have a reasonably small data-rate, yet are easy to uncompress without taxing the playback system. This is critical because you want your computer to spend its time running ProTools, not in decoding compressed video.

H.264 uses GOP compression and requires serious computer horse-power to decode.

[[Go to Top.](#)]

MISSING RENDER FILES

Alan Day, from Cape Town, South Africa, sent me the following:

[I'm having problems with render files disappearing] when I use the Smoothcam filter.

We have been editing one of THOSE mammoth documentaries. Shot mostly on HDV 60i with a Sony Z1 with some footage shot DVCPRO HD with a good Panasonic camera.

My first action was to set the time line and render settings to the appropriate PRO RES codec. BUT... We still could not render a whole sequence manually without FCP crashing. Closer inspection showed that all these clips "losing" their renders were shot hand held on a camcorder by a non-pro ... CONSEQUENTLY they had ALL been "smooth-cammed"...

Is there a problem with render files and the smoothcam plug-in?

UPDATE - Nov. 17

Mike Brennan sent me the following:

I believe that the issue is with HDV footage round tripped to motion or with the smoothcam filter. FCP only uses 2 gigs of Ram and the system cache gets to full to quickly. If they had transcoded via a capture card or AJA IOHD to ProRes I don't believe that they would have this problem. If they had round tripped to motion it would make more sense to export quicktime's form motion or via compressor and import the self contained clips in the timeline. Alan uses the word Mammoth to describe his project and from what I've seen HDV and big sequences never work well. Most HDV workflows start by transcoding or playing out to digibeta and recapturing to avoid the long gop codec.

I think that FCP can not read all the mtdf files and calculate all the missing i frame data in real time on projects that are over an hour, I think that it crashes the system because the cache is full. Hence move away from HDV by transcoding as a first step.

Larry replies: Thanks, Mike, for the idea. I don't know what's causing this myself, so your thoughts sound like a good first step.

[[Go to Top.](#)]

DVD QUESTION

Dave Victorson writes:

What is the trick to getting clean buttons with DVD Studio Pro. Even their factory supplied buttons such as Circle Small are pixelated.

I have tried chroma and grayscale overlays but still am not successful at eliminating a few pixels of the black or color from around the edges.

Is there a reference that you know of?

Larry replies: Dave, the trick is to NOT change the color of the button or text. Because DVD Studio Pro does not support anti-aliasing, all text edges look ragged. The best thing is to use button highlights that add a symbol to the side of the text, rather than changing the color of the button or text itself.

In fact, if you look at the menus of most Hollywood movies, you'll see they do exactly that - don't change button or text color, change the color of an object near the button or text.

[[Go to Top.](#)]

WRAP-UP

Well, that's about it for this month.

For current news on what's happening in our industry, be sure to listen to the [Digital Production BuZZ](#) every week.

- [Check out my latest video tutorials.](#)
- [Visit our store for our latest training videos](#) - like **Moving with Stills in Final Cut Pro.**

In the meantime, please continue [sending me your comments](#) and questions. I love hearing from you and enjoy the conversations that develop around these stories.

Until next month, take care, and edit well.

Larry

<p>Subscribe to Larry's FREE Monthly Newsletter!</p>
<p>Email:</p>

[[Click here for a printer-friendly PDF version of this issue.](#) 750 KB]

Legal Notes

The newsletter is free -- but does require a subscription. Please invite your friends to sign up at www.larryjordan.biz/newsletter.

To unsubscribe, simply send me an email and I'll remove you from the list. This list is not sold, rented, or bartered. The only person who knows you are on this list is me.

The information in this newsletter is believed to be accurate at the time of

publication. However, due to the variety of possible system and software configurations, the author assumes no liability in case things go wrong. Please use your best judgment in applying these ideas.

The opinions expressed in this newsletter are solely those of the author. This newsletter has not been reviewed or sanctioned by Apple or any other third party. All trademarks are the property of their respective owners and are mentioned here for editorial purposes only.

Text copyright 2008 by Larry Jordan & Associates, Inc. All rights reserved. This newsletter may not be reproduced or published in any way, in whole or in part, without specific written permission from the author.

Links to my home page or website articles are welcome and **don't** require prior permission.

[Home](#) | [About](#) | [Training](#) | [Articles](#) | [Goodies](#) | [Products](#) | [Email Support](#) | [Contact](#)

© 2008, Larry Jordan & Associates, Inc. All rights reserved. info@larryjordan.biz