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Monthly Newsletter!

Larry Jordan's Monthly Newsletter

Editor: Larry Jordan
Issue #52 - January, 2009

Happy New Year, everyone!

Welcome to the latest edition of my monthly Final Cut Studio newsletter for January, 2009.

The goal of this newsletter is to provide information helpful to the professional user of Final Cut Pro. This newsletter publishes each month. Key articles from past issues are posted on my website each month for your reference. At the end of each year, all newsletters for that year are bundled and available in my store. 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 400 articles and tutorials to help you get the most out of Final Cut!

NEWSLETTER CONTENTS

- [Welcome](#)
- [Larry's PowerUP Seminars Are Traveling In February!](#)
- [Technique: Resolving Problems With Multi-Channel Audio In Soundtrack Pro](#)
- [Thoughts On Blu-Ray Discs Versus Digital Downloads](#)
- [Buzz Special Report: Bruce Nazarian On Blu-Ray Discs -- Jan. 21!](#)
- [Larry Is Writing A New Book And Needs Your Help](#)
- [2008 Newsletter Back Issues Now Available](#)
- [Technique: Using The Timeline Patch Panel](#)
- [Cool FCP Keyboard Shortcuts](#)
- [More on Keyboard Shortcuts](#)
- [Last Month's Survey](#)
- [Larry Presents Six New Powerup Video Tutorials](#)
- [Tips For Growing Your Business](#)
- [Technique: Setting The Right Audio Levels](#)
- [Digital Production Buzz](#)

READER MAIL

- [HDFEST - Call For Entries For 2009 Festival](#)

- [Storage, Archiving, and Peace of Mind](#)
- [Getting Organized For Final Cut](#)
- [Thoughts on DPI](#)
- [Lots of Really Dumb Questions](#)
- [A Caution on Western Digital Drives](#)
- [DigiBeta Workflow](#)
- [Audio Problems With MP3 Files](#)
- [More Audio Questions](#)
- [Questions on Scaling](#)
- [A Solution For Scrolling Text](#)
- [Calculating Sunrise and Sunset](#)
- [Monitoring HD Video](#)
- [More Color and Monitoring Questions](#)
- [Working With Stills](#)
- [Issues With Images](#)
- [Shimmering Images](#)
- [Picking a Camera](#)
- [Potential Bug in Compressor 3.0.5](#)

WRAP-UP

WELCOME

Welcome back from your holidays - I hope they were all you wished for.

We have been busy during the last few weeks and not just in sampling the egg nog. We have lots of announcements, including new international seminars, new tutorials, a new book that I need your help with, and something we've never done before: a Digital Production BuZZ Special Report.

Plus, lots and lots of techniques, a mind-bending Soundtrack Pro "anomaly" that took me two weeks to figure out, and tons and tons of reader mail.

So, let's get started!

[[Go to Top.](#)]

LARRY'S POWERUP SEMINARS ARE TRAVELING IN FEBRUARY!

February is "Seminar Travel Month" - so I'm packing an extra-large suitcase and hitting the road. We are visiting:

* Feb. 9 - 10: **Cairo Egypt** - Cairo ICT Trade Show

A series of trade show seminars -- www.cairoict.com

* Feb. 12: **Dundee, Scotland**

Final Cut Pro Workflow Secrets - 4 hours -- www.larryjordan.biz/

seminars

* Feb. 13: **Glasgow, Scotland**

Final Cut Studio Pro Techniques - 8 hours -- www.larryjordan.biz/seminars

* Feb. 17-19: **London, England** - Broadcast/Video Forum 2009

A series of trade show seminars -- www.broadcastvideoexpo.co.uk

* Feb. 20: **London, England**

Final Cut Studio Pro Techniques - 8 hours -- www.larryjordan.biz/seminars

* Feb. 21 - 22: **Dublin, Ireland**

Final Cut Pro Workflow Secrets - 8 hours
Final Cut Studio Pro Techniques - 8 hours
Contact: Adrian Brett -- adobrett00@hotmail.com

Some of these seminars are free. With the others, we've worked hard to bring the costs down significantly. Visit the relevant website to learn more.

Please register quickly - seats are very limited!

[Click here to learn more](#) about what each seminar covers.

[[Go to Top.](#)]

TECHNIQUE: RESOLVING PROBLEMS WITH MULTI-CHANNEL AUDIO IN SOUNDTRACK PRO

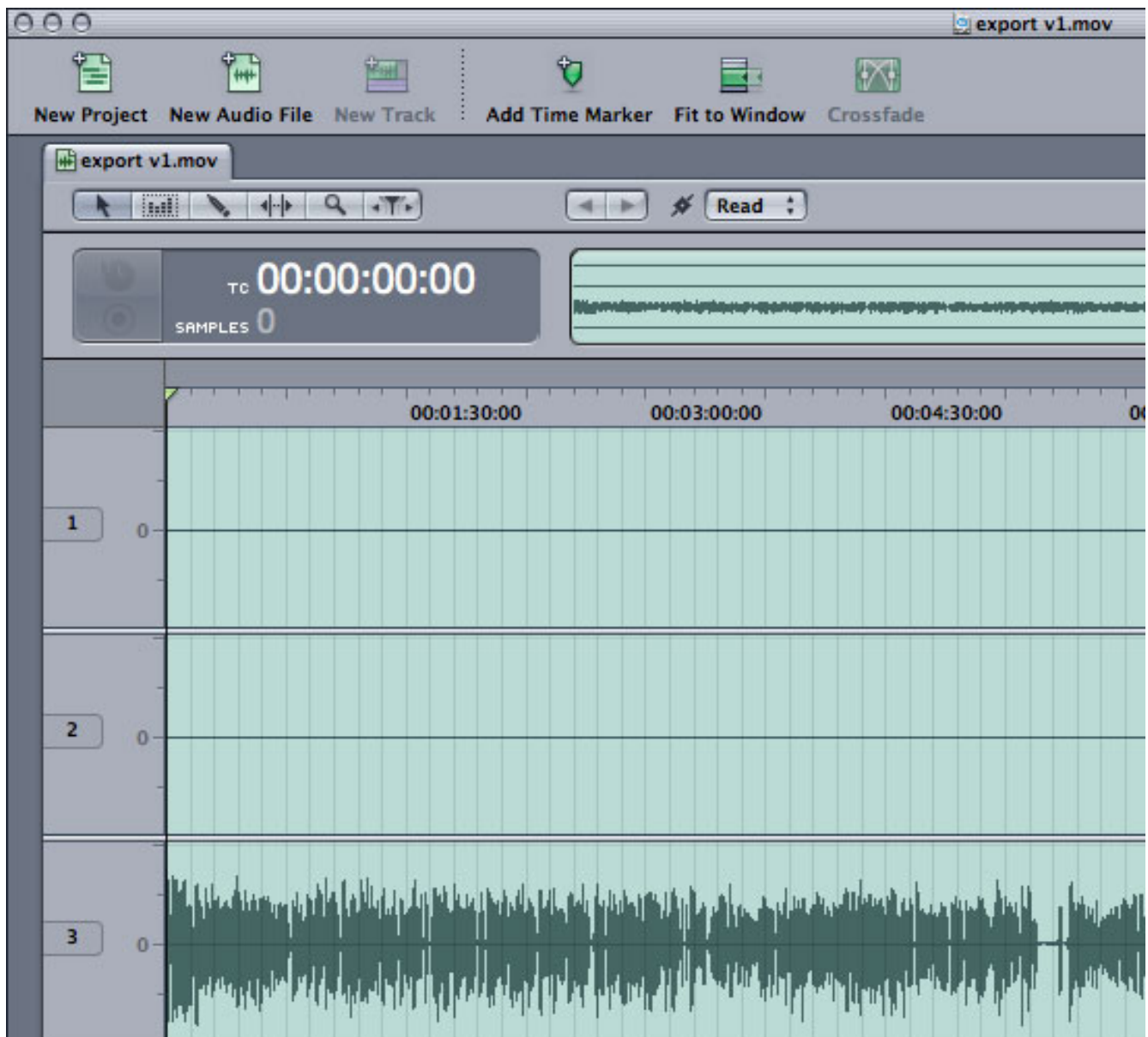
I ran into an interesting problem with Soundtrack Pro recently... Well, it's "interesting" now that I've solved it, but for two weeks it was driving me NUTS! Anyway, along the way I discovered new features in Soundtrack that I hadn't worked with before, so I wanted to share them with you.

Here's the problem: when I mix my audio in Soundtrack Pro, I can hear all the tracks. When I export the final mix, all my voice-over audio disappears. Very, very weird. And recent, as this has worked reliably in the past.

THE BACKGROUND

I do a lot of screen-capture recording for all my different tutorials. The utility I use to capture them ([SnapZPro](#)) always records four channels of audio:

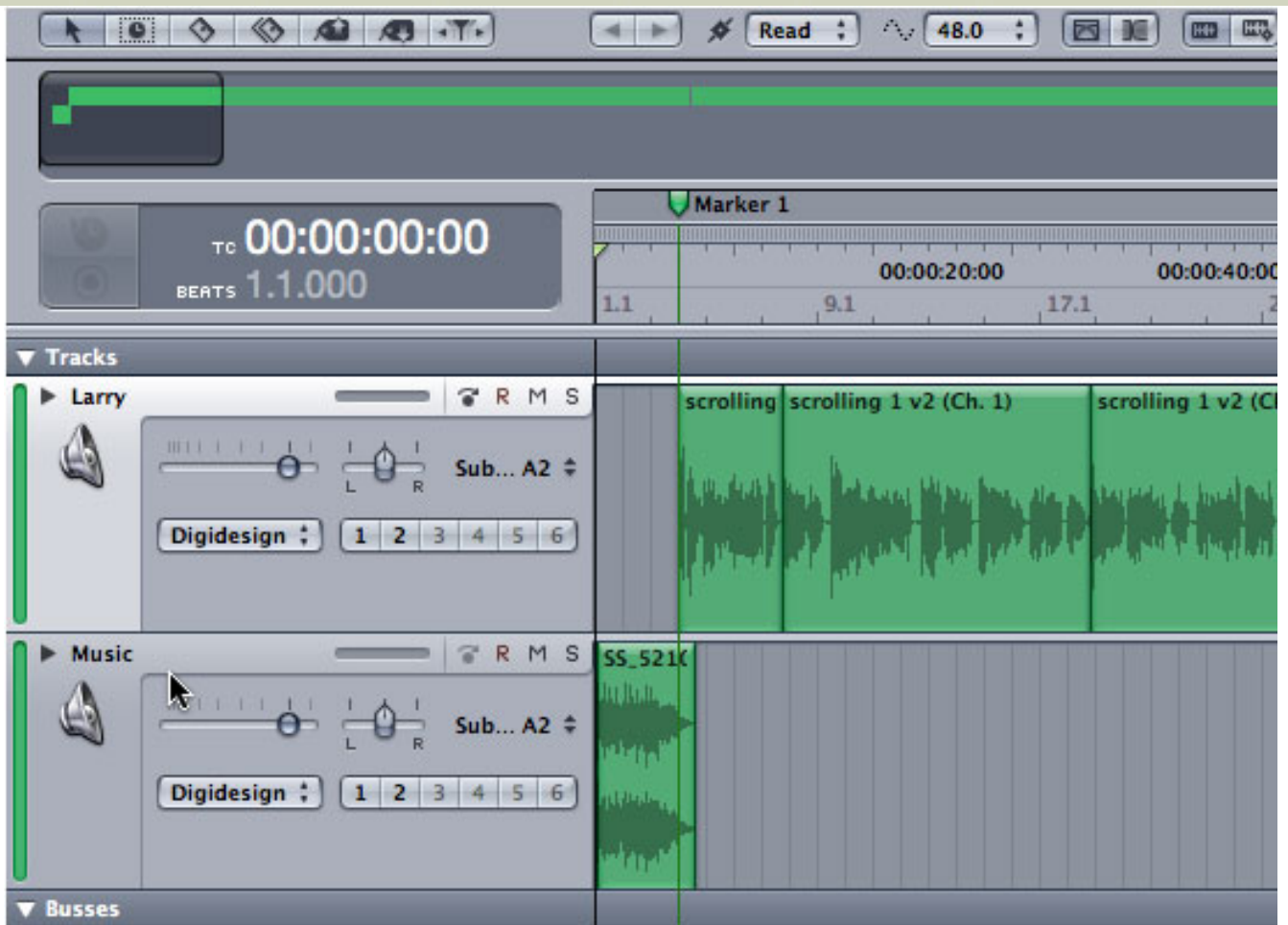
Channel 1: Left channel, Mac audio
Channel 2: Right channel, Mac audio
Channel 3: My voice from a microphone
Channel 4: Blank



If I were to open the audio file in Soundtrack Pro it would look like this. Notice that my audio is on track 3 and tracks 1 and 2 are blank.

My general workflow for these tutorials is to open these files in Final Cut and edit them until I'm happy with how the images look. Then, I send the files (**File > Send to > Soundtrack Pro Multitrack Project**) to Soundtrack for mixing and final sweetening.

So far, so good.



I then go through the process of cleaning up breaths, smoothing out transitions, and applying filters until things sound the way I want. During all of this, I'm monitoring everything through my studio speakers.

Again, no problems.

Finally, its time for output. To bring a mix back to Final Cut Pro, you export it (**File > Export**).

Now things get weird. The audio meters bounce for the music at the open, then totally die for the rest of the export. Nothing. Zip. Silence.

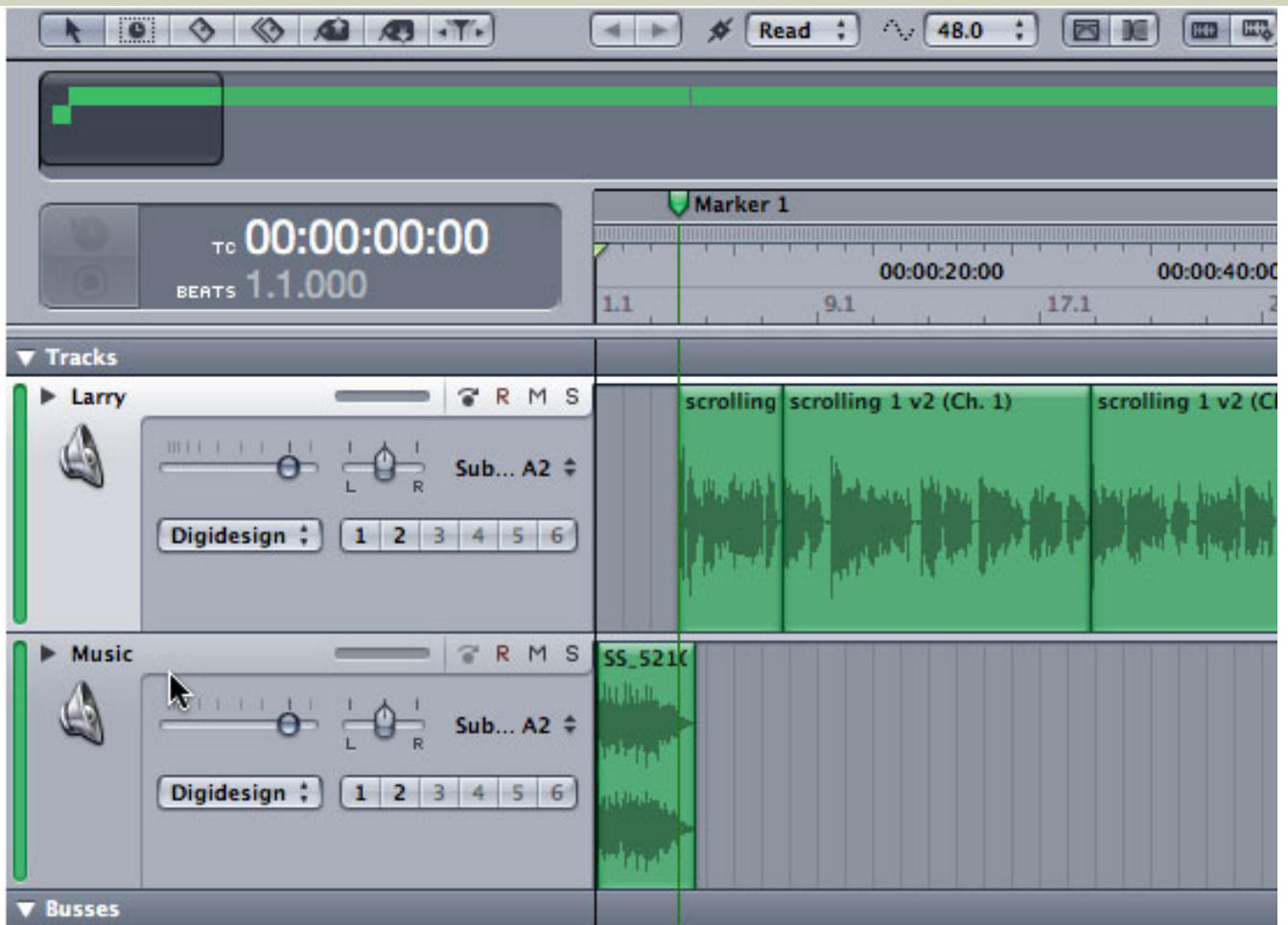
Needless to say, I found this somewhat, ah, discouraging.

THE SOLUTION

The first thing I did was check out Apple's KnowledgeBase, which did not have anything about this.

Then, I wondered if the problem was in how I was sending the file from Final Cut. So I tried using two different versions of Final Cut Pro 6 and two different versions of QuickTime. Same problem.

Finally, after about two weeks, I figured out what was causing the problem, which lead me to the workarounds I want to share with you today.

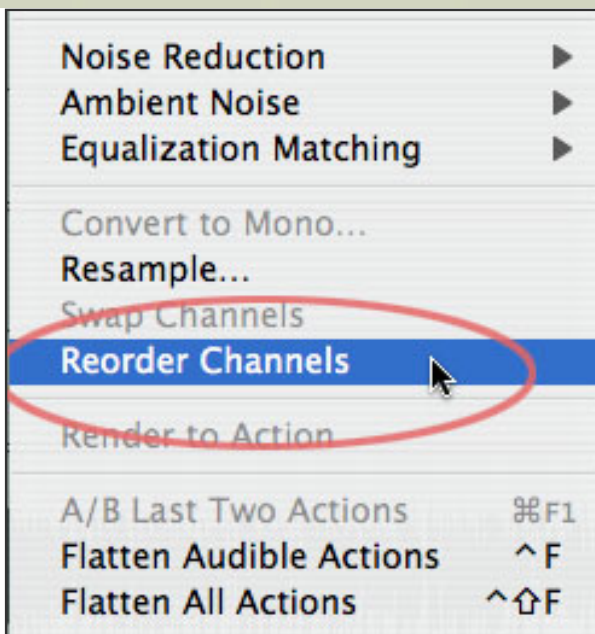


Look again at the audio on the track labeled "Larry." Notice that while STP thinks it is a mono file (only one waveform is displayed), as we saw earlier the file is actually four tracks. Because of this, during export, Soundtrack only exports the first track, which is silent, rather than the third track, which is what it is displaying in the Timeline. From my point of view, this is a bug.

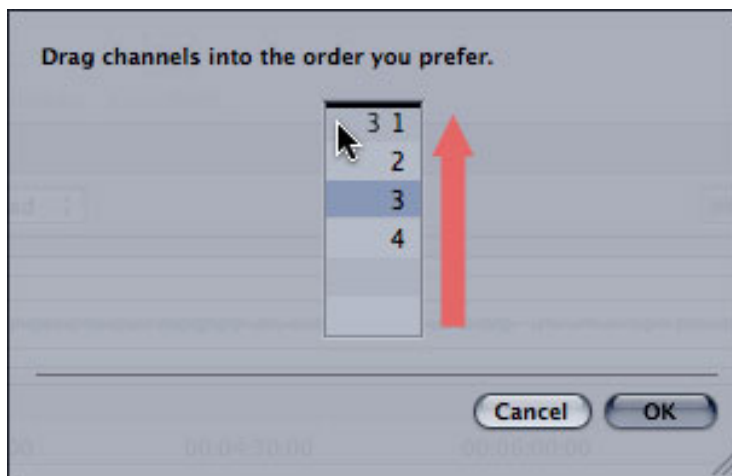
There are two ways to solve this: before you start the edit and after the edit is complete.

THE BEFORE-THE-EDIT SOLUTION

One of the least-known features in Soundtrack is the ability to change track order, then save that revised track order back into the source file. This is done using the Process menu.

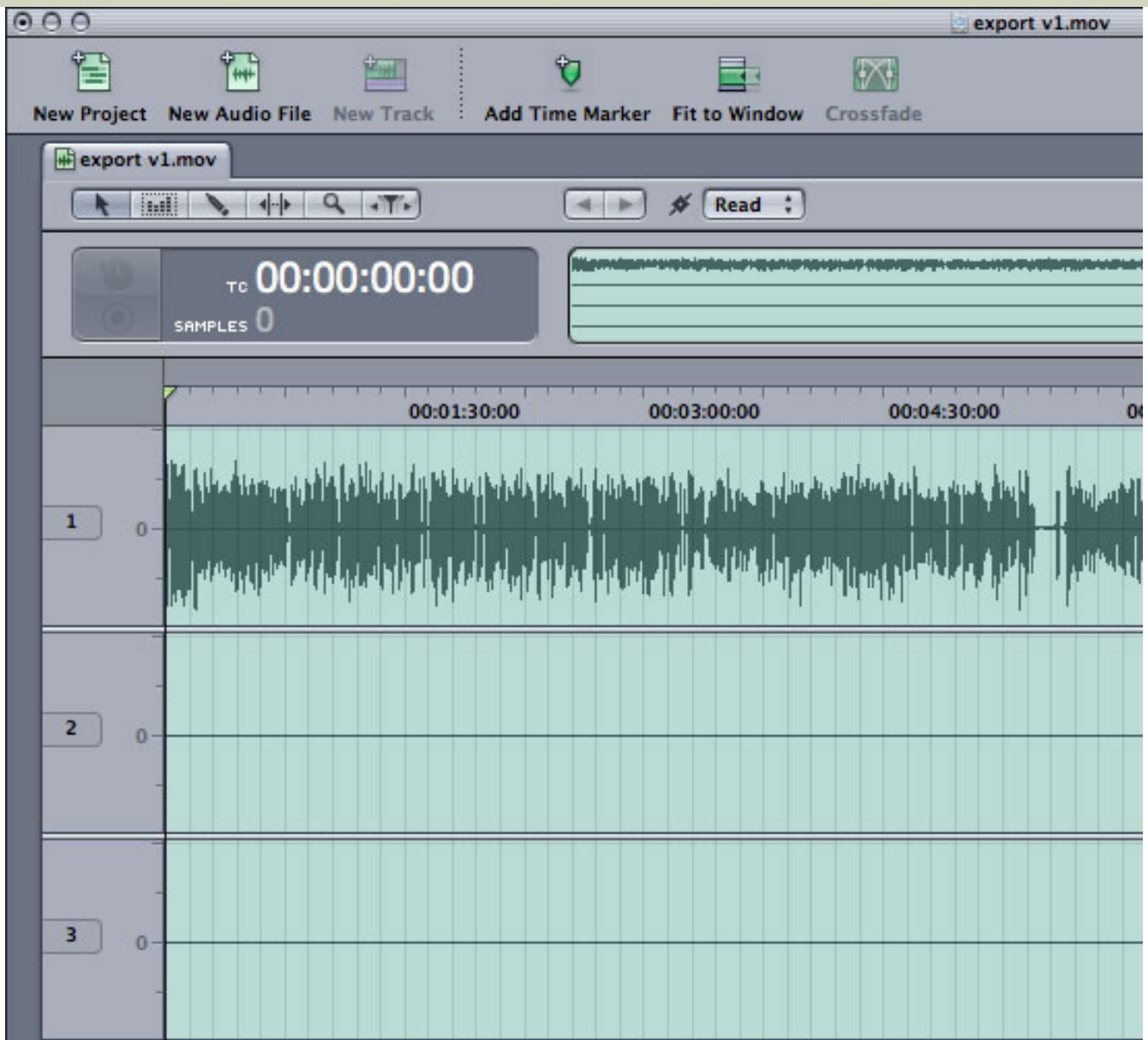


Since STP was expecting my voice on track 1, what I needed to do was to move my voice over from track 3 to track 1. To do this, I opened the clip as a Soundtrack Audio Project, then selected **Process > Reorder Channels**.



Because I wanted track 3 to be the first track, I dragged it to the top of list. Then, because both FCP and STP want stereo pairs to start on an odd-numbered track, I dragged track 4 up under track 3.

This reordered my tracks from 1 - 2 - 3 - 4 to 3 - 4 - 1 - 2. The key is to make sure my voice track was the first one in the clip.

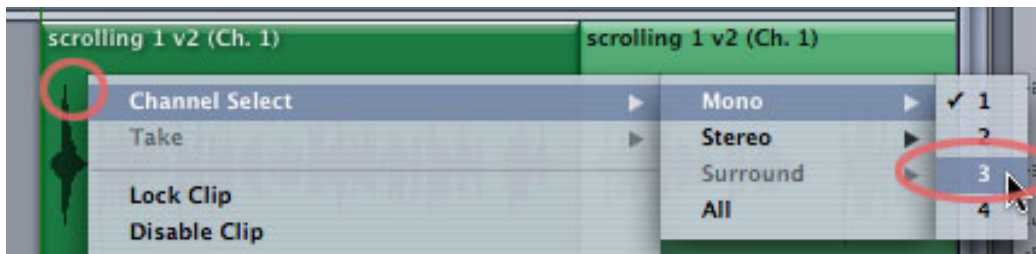


It takes a while for STP to process the file and a while longer to save it back to the hard disk. On the other hand, this reliably solves the problem for the entire file, prior to starting the edit.

THE AFTER-THE-EDIT SOLUTION

However, if the edit is complete and you have this problem, changing the source file won't make your life any easier. In which case, here's the workaround.

Send the file from FCP to STP as a multi-track project.



Then, **Control+click** in the first audio segment that is refusing to export properly and change the

channel selection from its default of 1 to the channel your voice over (or other audio) is on.

Note: You may need to double-click one of these files in order to see what tracks your audio is actually stored in.

The only problem with this approach is that you need to reset each individual misbehaving segment manually. However, once you have the channels pointing in the right direction, you'll be able to export with no problems.

CONCLUSION

I'm sure that Apple will fix this problem in future versions of the software. For now, though, this was a great way for me to discover features in Soundtrack that I never knew it had.

And the nice thing is that once I made these changes to my files, the whole mixing process worked flawlessly.

[You can see the results here.](#)

[[Go to Top.](#)]

THOUGHTS ON BLU-RAY DISCS VERSUS DIGITAL DOWNLOADS

Jason Chong, writing in from Australia, sent me the following piece. In the midst of all the discussion on the viability of Blu-ray, he had an interesting perspective.

I love listening to [The Buzz](#), it keeps me entertained, informed and most of all inspired about the industry.

I wanted to put my thoughts into the debate as to the distribution war between Blu-ray and the Internet.

We all hear the phrase "content is king" ad nauseam, but I think it's an ideology that has been forgotten in this debate.

As a consumer, when I buy or hire a movie, I don't just want to see the film, I also want to see the special features. I think for a lot of consumers, the decision to upgrade from VHS to DVD was less to do with quality, and more to do with extra content. There will always be early adopters who want to show off their big TV's and latest sound systems, but for the mass market who plug their DVD player into their 4:3 TV, the quality isn't nearly as important as the experience being offered around the feature.

And I think the same can be said about the format that will replace DVD. My problem with online distribution is that you get the movie, but you get nothing else in terms of commentaries, behind-the-scenes featurettes or interactivity. And it seems that if one of the formats was perfectly suited to give consumers not just their feature, but also extra goodies, it would be online.

Blu-ray offers extra content, but it is usually the content is just HD versions of what you get on the standard DVD. I believe that for the average consumer, while the experience change from VHS to DVD was a massive step up, DVD to Blu-ray is just StepHD. And therefore, why do we expect them to upgrade their existing home theatre equipment (in the meantime relegating all their current DVDs to the "old

technology" pile) if we're not offering them anything else apart from more pixels?

For an industry that stresses that it's not simply that we have the technology to create amazing monsters, but what we make those monsters do that's important, Hollywood has got caught up in it's own hype, and forgotten that advancements in technology don't equate to happier customers and therefore don't equate to profit. If it doesn't benefit the average viewer, why should they buy it?

At this stage, I have no intention to buy a Blu-ray player, or rent movies from iTunes as I don't believe either of them offer me more value than a DVD with extra content.

What would make me want to jump on either wagon? That's the billion dollar question. Back in the day, people could buy movies, then they could buy movies with supporting stuff about the movie. What's next? A behind the scenes of the making of? I hope not, but I'd certainly be curious! Perhaps it utilizes the trend for people to combine all their entertainments onto a singular media centre (PC/AppleTV/PS3). Could they offer game demos? A movie/extra features/soundtrack/video game package? Access to Q&A sessions with the cast and crew? Social networking benefits?

I guess that's up to content producers to figure out, see what works and what will disappear. I'm pretty excited by what's coming next, but I think we're still a fair way off.

Thanks for letting me rant, I'd love to hear your comments if you have any.

UPDATE - Jan. 7, 2009

Wiithin 30 seconds of each other, two divergent opinions appeared. The first is from **Kit Laughlin**, from Australia:

In addition to the excellent points raised by Jason is the following: all that additional content he refers to that is missing from digital downloads (in comparison to Blu-Ray DVDs) is *already* available on the present SD DVDs. So, there is an additional question to his, which is, "Why upgrade to Blu-Ray at all?"

Here's my thinking: I have a very high quality Hitachi plasma (1.1m diagonal) which I view from about 2m. At this distance, the pixels are not discernible, and the viewing angle is about 1.5 times the width of an extended arm with spread fingers, and the images look real. By comparison, at ordinary viewing distance at the movies, the screen viewing angle is about two spread hands, or 2.5 if you like to sit closer than the middle. I have an excellent Mourdant-Short 5.1 sound system to complete the home setup.

My point is that a well-authored DVD (like "Blackhawk down" or "Minority Report") looks incredibly rich, detailed, and sharp on this system, and although of course not the same as the true movie experience, a wonderful experience just the same. The overall image looks "gentle" and not digital, with very sharp details where the director intended this focus. By comparison, the demo Blu-Ray DVDs that I have seen look too sharp, and look fake, somehow. I know that to an extent this is habit and training of the brain, but to make another comparison, as a photographer these days, I use softening as much as I use sharpening in my Nikon full frame images to help these look like what we actually see.

[Perhaps] the step-up to Blu-Ray may not be a step up, if you already have a decent system.

Then came an alternate view from **Lorin David Schultz**:

I don't think as many consumers care about extra "Special Features" content on DVD or Blu-Ray as Jason believes. People didn't buy into DVD for extras, they did it for convenience and better quality, in the same way they dumped cassettes for CDs. The problem Blu-Ray faces is the same one that prevented acceptance of SACD: DVD crossed the threshold of "good enough."

That's a daunting enough challenge to overcome on its own, but there's an even bigger problem. A growing number of consumers consider physical media of any kind superfluous.

I'm in the camp that doesn't care much about "extra" content -- I just want to see the movie, thanks -- but I still want a physical disc. First, because the quality is invariably much better than a download, and second because storage is so much more convenient. No drives to manage, no libraries to keep current, just a little box on a shelf. Plus, archiving the media is not only easier, it's safer to boot. I've lost so much material to file management mistakes and hardware failures over the years that I really appreciate having a comparatively robust offline storage solution.

But for any of that to be perceived as a benefit, we have to assume that I want to KEEP the material. The sense I get from informal observation of a reasonably broad demographic is that many people DON'T. They watch the movie once or twice and they're done with it. They put an mp3 of a current hit song on their iPod then delete it when they get something new. They view entertainment content as largely disposable. They enjoy it for a while then they're done with it. To them, physical media equals occupied storage space, which they view as undesirable.

In a world in which an inkjet print-out of a jpeg is considered a reasonable substitute for film and an mp3 file is an acceptable alternative to a CD, I don't know whether the mass market is going to care that Blu-Ray is better quality than DVD.

Larry replies: Jason, Kit, and Lorin, thanks for sharing your opinions. These are all good things to think about as we try to discern where the future is taking us.

From my point of view, I think Blu-ray needs to do everything it can to be viable. If all it turns into is a delivery vehicle for Hollywood movies, I think it will be very easy to supplant with digital downloads. Which would be a shame, as the format offers significantly more.

[[Go to Top.](#)]

DIGITAL PRODUCTION BUZZ SPECIAL REPORT: BRUCE NAZARIAN ON BLU-RAY -- LIVE -- JAN. 21!

Jason's comments on Blu-ray sparked an idea. Wouldn't it be great if there was a place to go to get all your questions answered about Blu-ray technology?

Yeah, I thought so too.

So the [Digital Production BuZZ](#) is sponsoring a Blu-ray Special on Wednesday, Jan. 21. The show airs LIVE starting at 2:00 PM PST and we'll keep going until we run out of questions.

I've invited **Bruce Nazarian**, president of the [DVD Association](#) and one of the world's leading experts on DBD Technology to join me for this extended look at where we are with Blu-ray.

[Send us your questions](#) - and we'll answer them on the show.

There's no charge to listen. Please join us. If this works, we will do other special reports on The BuZZ in the future. Talking with Bruce is always fun -- this will be exciting!

[Click here](#) to email us a question, or suggest someone we should interview.

[Click here](#) to learn more about the Digital Production BuZZ.

[[Go to Top.](#)]

LARRY IS WRITING A NEW BOOK AND NEEDS YOUR HELP

Based on the success of our Fall PowerUP Seminars, Focal Press has asked me to write a book titled: *Adobe Production Premium for Final Cut Editors*.

This looks at all the ways that Final Cut editors can use Adobe software to work faster or do things that just aren't possible with Final Cut Studio by itself.

And **I need your help** -- I'm looking for stories on how editors are using BOTH Adobe and Apple software.

If you would like to appear in the book, along with your photo, website and credits, [drop me a note](#). I'm looking for 250-300 words describing how you use the software. There's no money in it, but I'll do what I can to provide world-wide fame!

The book is scheduled for release in the late spring -- so please contact me immediately. I have room for only twelve stories.

[Click here](#) to let me know you are interested. However, DON'T send your story until we chat.

[[Go to Top.](#)]

2008 NEWSLETTER BACK ISSUES NOW AVAILABLE

I've been getting a lot of requests for newsletter back issues. So, as we do each year, I've compiled PDFs of all the updated versions of each issue and gathered them together as a complete collection for 2008.

Best of all, these are **available today for immediate download!**

My newsletters provided 327 pages of Final Cut Studio information over the last year. Everything from simple tips to detailed techniques. They are stored in PDF format to make searching and storage easy.

Even better, due to the increased demand, we've reduced the price on all our newsletter collections from 2004 through to 2008!

[Click here to download your collection today!](#)

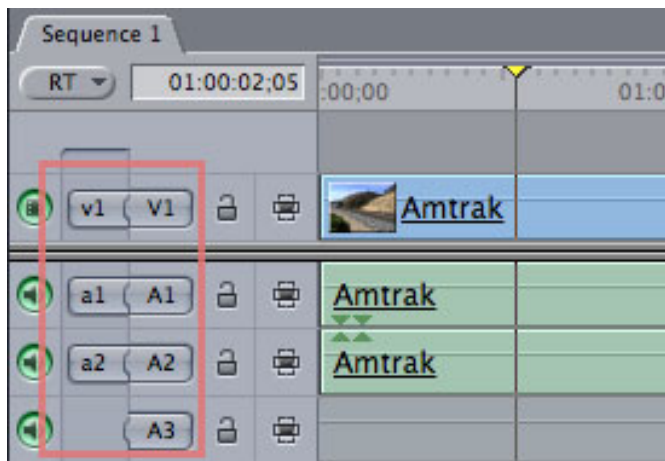
TECHNIQUE: USING THE TIMELINE PATCH PANEL

Over the holidays, I received several requests for help in how to edit only video, or only audio, to the Timeline.

In looking through over 400 tutorials that we have posted in our website over the years, I discovered that I have never written about this. So, this is a perfect opportunity to remedy that lack.

WHAT IS THE PATCH PANEL?

The Timeline Patch Panel determines which elements from the clip in the Viewer edit to the Timeline. It is called that because for many years, production facilities would route signals by connecting short wires (called "patches") between plugs in a patch bay.



Note: The patch panel also affects clips dragged into the Timeline from the Browser, however, because we have more control over clips in the Viewer, I'll be using them in this technique.

The Patch Panel allows us to edit video-only or audio-only into the Timeline. And it allows us to determine the tracks to which we edit a clip. However, the Patch Panel only works when we are editing clips using what I call the Power Tools - F9/F10, dragging a clip into the Canvas, or onto the red envelope at the bottom left of the Canvas. If you drag a clip directly into the Timeline, you can override the patch panel.

Note: If you want more information on these high-speed power tools, [here is a video tutorial](#) that describes how to use them.

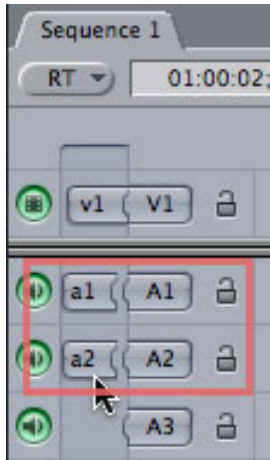
The Patch Panel has two sides. The left side, labeled with lower-case letters, represents the clip in the Viewer. The right side, labeled with upper-case letters, represents the tracks in the Timeline. The left side of the Patch Panel is smart; that is, it looks at the clip in the Viewer and only displays the tracks that are there. If there is no audio with a video clip, there will be no audio patches on the left.

Think of the Patch Panel as indicating the SOURCE of the clip on the left and the DESTINATION of the clip on the right. Since we can't move tracks around in the Timeline, we use the Patch Panel to do it for us.

EDITING ONLY THE VIDEO OF A CLIP TO THE TIMELINE

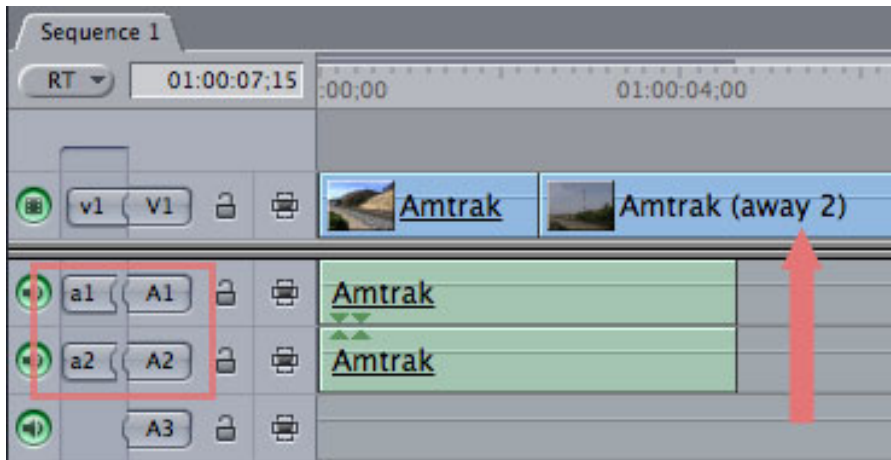
To edit just the video of a clip from the Viewer into the Timeline:

1. Load the clip into the Viewer and, if necessary, set an In and Out.



2. Click the **a1** patch, on the left. Then, do the same to the **a2** patch. When you do so, a small gap appears between the two sides of the patch panel. This gap means that the audio will NOT edit from the Viewer to the Timeline.

3. Edit your clip by clicking the small red envelope in the lower left corner of the Canvas.

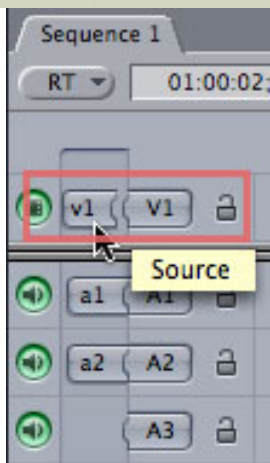


Ta-DAH! Just the video edits into the Timeline.

EDITING ONLY THE AUDIO OF A CLIP TO THE TIMELINE

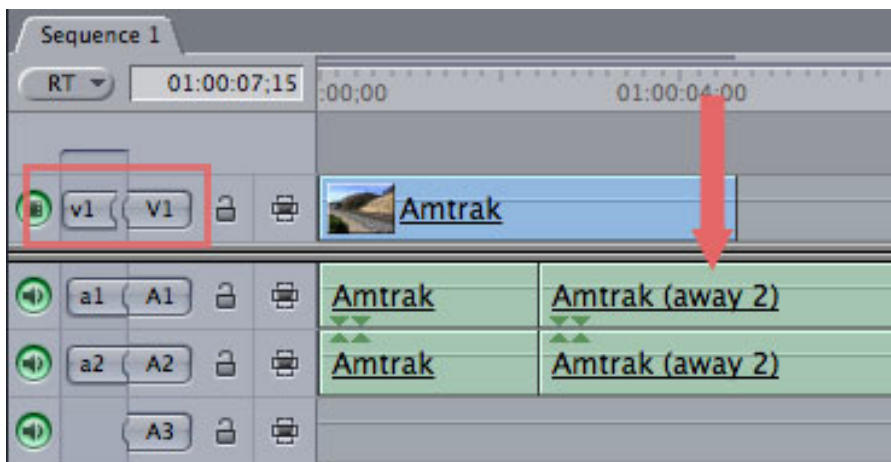
To edit just the audio of a clip from the viewer into the Timeline:

1. Load the clip into the Viewer and, if necessary, set an In and Out.



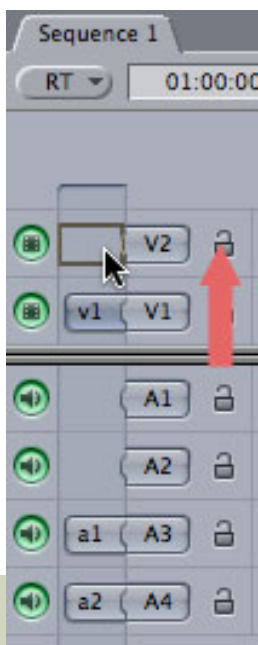
2. Click the **v1** patch, on the left. (Since you can only have one video clip at a time in the Viewer, there will always be only one v1 patch.) When you click it, a small gap appears between the two sides of the patch panel. This gap means that the video will NOT edit from the Viewer to the Timeline.

3. Edit your clip by clicking the small red envelope in the lower left corner of the Canvas.



Ta-DAH, again!! Just the audio edits to the Timeline.

EDITING CLIPS TO DIFFERENT TRACKS

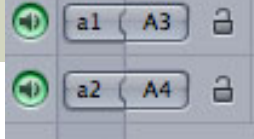


Another benefit of the Patch Panel is its ability to edit any clip to any track, simply by dragging the patches to where you want the clips to appear.

For instance, to edit the video to track 2, and the audio to tracks 3 and 4, simply drag the patches on the left to match up with where you want the tracks of your clip to go on the right. (Remember, the Viewer source is on the left, and the Timeline destination on the right.)

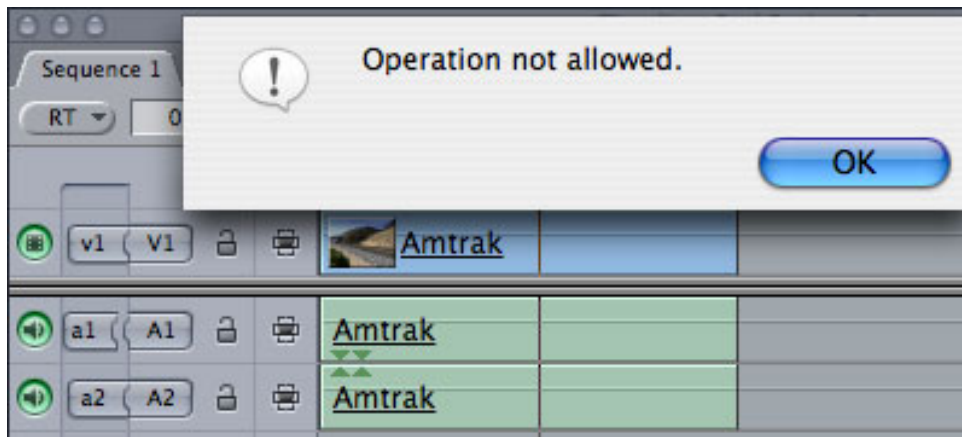
There are keyboard shortcuts you can use to move the patches:

- **Shift + F6** - Disconnects the v1 patch
- **Shift + F7** - Disconnects the a1 patch
- **Shift + F8** - Disconnects the a2 patch
- **F6 + a number** - Patches v1 to that track
- **F7 + a number** - Patches a1 to that track
- **F8 + a number** - Patches a2 to that track



PATCH PANEL PROBLEMS

What if there is no patch tab for audio or video in the Timeline? This means that the clip you have in the Viewer is audio-only, or video-only. Final Cut's patch panel is smart. It looks at the clip in the Viewer and only displays patches for the media that the clip contains.



What if you get this error message? This error means that you are trying to edit a stereo clip to the timeline, where one of the two needed patches is not connected. See the gap next to the **a1** patch? When you connect both patches everything edits properly.

What if I want to reverse the order of tracks edited to the Timeline? Easy. Just drag the patches where you want the audio to go. There's nothing that says the audio patches need to be in order.



What if you don't have a Timeline track where you need it? Easy. Just **Control-click** in the gray area above your video tracks, or below your audio tracks, and select **Add Track**. Poof! Instant new track.

I use the Patch Panel constantly. It works great and it makes all my editing a lot easier.

[[Go to Top.](#)]

COOL FCP KEYBOARD SHORTCUTS

I was just playing around inside Final Cut Pro and stumbled across eleven keyboard shortcuts I never knew were there.

- Control+F2:** Play in reverse at 5x speed
- Control+F3:** Play in reverse at 4x speed
- Control+F4:** Play in reverse at 3x speed
- Control+F5:** Play in reverse at 2x speed
- Control+F6:** Play in reverse at 1x speed
- Control+F7:** Play forward at 1x speed

Control+F8: Play forward at 2x speed
Control+F9: Play forward at 3x speed
Control+F10: Play forward at 4x speed
Control+F11: Play forward at 5x speed
Control+F12: Play forward at 6x speed

Some of these are similar to pressing **J** multiple times to go in reverse, or **L** multiple times to go forward.

Still, I never knew they were there. I LOVE discovering new things!

Note: Some of these keyboard shortcuts may be blocked by the OS or other software. To see a complete list of keyboard shortcuts, select **Tools > Button List** and enter **Play** in the search box.

[[Go to Top.](#)]

MORE ON KEYBOARD SHORTCUTS

Eric Mittan, (<http://emittan.com>) chief editor at WSIL-TV, sent this in recently:

I work at a small news station in Southern Illinois and I love your Final Cut Tip of the Day. Today's tip covered keyboard shortcuts, and how to get F9 and F10 working again if they're assigned to Expose.

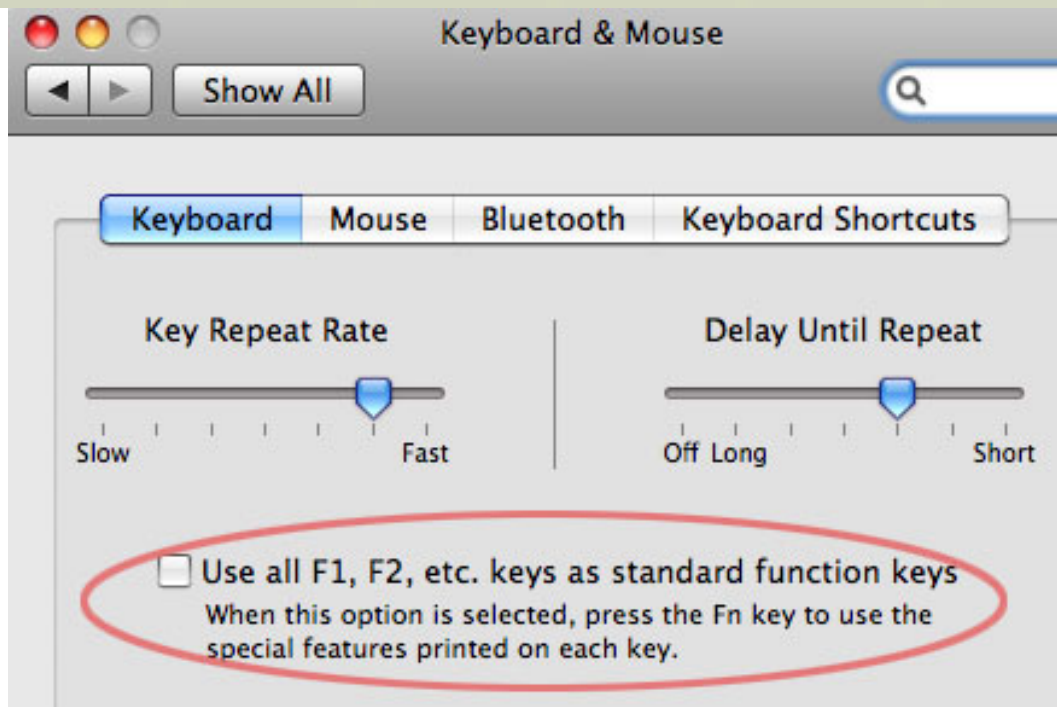
However, on the newest models of Apple Keyboard (the Aluminum and wireless Aluminum keyboards) there is a secondary problem, as F9 is assigned to "Forward" as a media player control button, and F10 is assigned to "mute."

Now while you can certainly make the argument that a "real" editor should go out and get themselves a "real" keyboard, I also think that the budget-minded editor should be able to use the best features of Apple's Hardware and Software right out of the box. This means a little tweaking.

In order to get F9 and F10 working again in Final Cut on the new Aluminum keyboards, visit System Preferences > Keyboard and Mouse and click on the keyboard tab. Make sure the check box is turned on for "Use all F1, F2, etc. keys as standard function keys". This will make F9 and F10 work in Final Cut again.

But now how do you use volume controls?!? Turning on this function disables the functionality of ALL your volume control buttons, not just F10. Note that there is a Function modifier key labeled "fn" on the new keyboards. On the wireless aluminum keyboard it's in the lower left corner of the keyboard next to control. On the wired aluminum keyboards, it's just under F13, next to home and above forward delete. Press this key in addition to F10, F11, and F12, and your volume keys will function as they did before.

Note that the tip works the same for Apple notebooks, with the function key in the lower left corner. Although I think on Laptops, "Keyboard and Mouse" in System Preferences is called "Keyboard and Trackpad".



Hope this helps! Here's a screenshot of the System Preferences pane with the checkbox to be turned on.

Larry replies: Eric, thanks for sending this in. I used to work as a news editor myself, except back then, what we were editing was film. Nothing like wondering if your last-minute lead story would break in the film processor to add some excitement to your life!

[[Go to Top.](#)]

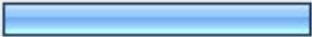
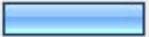

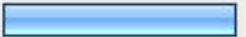
LAST MONTH'S SURVEY

Thinking of tips and techniques, I want to thank the readers that took the time to answer last month's survey on training. I found your answers to be truly helpful!

So much so, that I want to share some of them with you here.

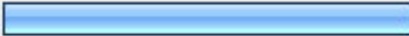




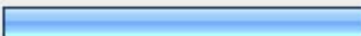
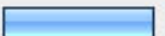
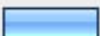
Note: I also want to apologize for those of you that went to take the survey and found it closed. I discovered today that the website I was using has a limit of 100 responses per survey. Sorry, I'll make sure that doesn't happen the next time.

1. In the next three months, how likely are you to spend money on training for yourself

		Response Percent
Very likely		33.0%
Likely, but price is most important		15.0%
Likely, but content is most important		27.0%
Not likely at all - things are just too tight.		25.0%


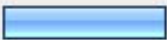

First, even in these uneven economic times, I was pleased to see that 75% of you were interested in additional training.

2. What kind of training is most effective for you?

		Response Percent
Hands-on, in-classroom training		44.0%
Classroom lecture without hands-on		7.0%
On-line video training covering an entire subject		54.0%
DVD video training covering an entire subject		22.0%
On-line video training covering a specific topic		58.0%
On-line articles or other material to read		39.0%
Books and magazines		16.0%
Web-based seminars (webinars)		10.0%

It was also interesting to see that the two top favorites for training were on-line. The top choice was on-line on specific topics. The second choice was on-line on entire subjects.

My training on Lynda.com provides complete coverage of entire subjects. But, in this rapidly changing industry, the idea of on-line tutorials on specific issues gave me something to think about.

1. Which is more valuable to you:		Response Percent
Video training materials which you can download		68.8%
Video training materials on CD or DVD which you can travel with		16.7%
Printed training materials, such as workbooks or articles		14.6%

It was also interesting to me to see that significantly more people preferred downloadable training.

These results are fascinating to me and I'm grateful for your time.

I'm looking forward to working with the folks at Lynda.com to continue to provide comprehensive training covering Apple's entire suite of products.

However, as I learned during conversations with you during my seminars and as this survey illustrates, there's also a need for training that is not specific to a single piece of software and for training that covers one specific technique in depth.

More on this next.

[[Go to Top.](#)]

LARRY PRESENTS SIX NEW POWERUP VIDEO TUTORIALS

Following on your survey responses, I've created almost two dozen on-line video tutorials -- each covering a very specific issue in depth.

In an effort not to repeat material that is available elsewhere, I try, in each tutorial, to either present material that I've not done before or present additional ways to accomplish each task. I also look for ways to present new technology so you can see whether it makes sense for you and your projects.

I was busy over the holidays creating six new tutorials (which is how I discovered the Soundtrack Pro problem I wrote about earlier). The six newest are:

* [Creating a video-in-video traveling matte \(this is my current favorite\)](#)

* [Editing audio more easily in Soundtrack Pro's timeline](#)

* Reducing audio noise using Soundtrack Pro

* Using Final Cut Pro's Log & Transfer

* Introducing 3D-space in Motion 3

* Creating scrolling credits in LiveType

I'm working on creating more titles from the suggestions you provided in the survey.

For a complete list of titles available, [click here](#). (This list changes weekly, so please check back frequently.)

Let me know what you think of these titles as well as any specific training ideas.

Please [click here](#) to email me!

[[Go to Top.](#)]

TIPS FOR GROWING YOUR BUSINESS

Last week, on [Digital Production BuZZ](#), I interviewed **Brent Altomare**, founder of [Groovy Like a Movie](#), a San Diego-based production company.

Brent had some really interesting ideas on things he was doing this year to grow his business. In fact, I posted them to my blog. You can [listen to him here](#).

Note: In case you haven't checked into my blog recently, [its worth a visit](#). When ever something interesting happens, I'll cover it there first.

However, I also want to remind you that for those looking for ways to grow, or maintain, revenue this next year, I've put together three half-hour illustrated lectures filled with ideas on how we can grow our business.

The first presentation, which I created from all the classes I've taught, focuses on networking, client management, and looking for work. (Here are two tips from this first show that I share with my students: "Never ask for a job, ask for an opinion." And, second, "The first person to mention money loses cash in the negotiation." I explain these more in the programs.

The second segment, hosted by **Bill Frank**, looks at techniques you can use to improve your marketing.

The third segment, also hosted by **Bill Frank**, looks at ways you can improve your sales.

These three titles have been very popular these last few months, and they are especially relevant in today's economy.

Here's the link to - [Finding Work](#).

Here's the link to - [Improving Marketing](#).

Here's the link to - [Improving Sales](#).

I've had lots of comments from editors who told me they found these very helpful. I'm hoping they can help you as well.

[[Go to Top.](#)]

SETTING THE RIGHT AUDIO LEVELS

I got my start in radio, many years ago. This taught me my love of audio. And I have always enjoyed talking with audio engineers about their craft and technology.

But one thing I've learned is that if I get five audio engineers in the same room at the same time, I'll get seven opinions on what constitute the best audio levels.

Proper audio levels really do vary - a lot.

Still, there are some general guidelines which I want to share with you here, that can keep you out of trouble and your projects sounding great.

Note: Please consider these as guidelines. If you are given specific technical specs from someone who actually knows what they are talking about, then please follow the specs. Otherwise, where no specs exist, my guidelines can keep you out of trouble.

CHECKERBOARD YOUR AUDIO

First, when building your audio in the Timeline, consider checker-boarding it. This means to put all the same audio on the same track.



There are several benefits to checker-boarding:

- Having a consistent organizational structure for editing your audio decreases mistakes and speeds editing.
- It makes it easier to figure out what you did when you go back to re-edit a project you haven't worked on for a while.
- It decreases the amount of time an audio engineer needs to reorganize your project if you

- send it out for mixing, which saves you money
- It is a common-sense, professional way of working.

Audio engineers have been checkerboarding their projects for years. In fact, my system is modeled after many that I've seen used in professional audio suites -- where mixing a major motion picture soundtrack can have over 100 tracks of audio!

While I don't expect you to be mixing an audio project that big, we can still follow the same procedures.

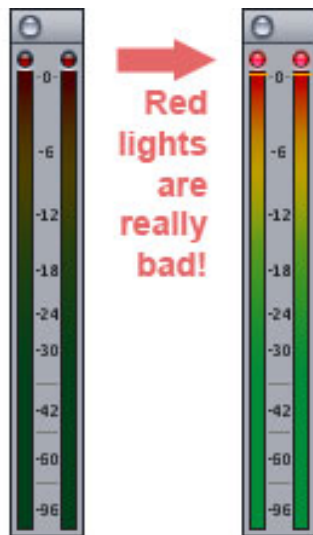
So, here is how I organize the audio in all my projects:

- A1, A2:** Main talking head audio - for example, the main speaker on V1
- A3, A4:** B-roll audio from clips on V2
- A5:** Narrator
- A6, A7, A8:** Sound effects - wild, not synced with video
- A9, A10:** Music cue 1
- A11, A12:** Music cue 2

If I don't have a narrator, or don't need three sound effects tracks, I simply move everything up. But I ALWAYS build my sequences in this order.

If I have a guy narrator and a girl narrator, I'll put them on separate tracks, as they get different EQ and filters during mixing.

NEVER GO OVER ZERO



The most important rule to remember with audio is that your audio **MUST NOT EVER** go over zero. Not once. Not even a little bit. Not even when no one is looking. **NEVER!**

Unlike analog audio, digital audio starts distorting as soon as your audio levels exceed zero and those red clip lights flash on. While you are mixing, these red lights tell you that your audio levels need adjusting.

However, during final output, those red lights indicate that your audio has been permanently damaged and there is not a technology on the planet that can fix it. You'll need to go back to your source materials and remix.

SETTING THE RIGHT LEVELS

Audio levels are additive. This means that as you add more audio clips at any given point of your Timeline, your audio levels increase. Four clips of audio playing at the same time are louder than any one of them playing alone.

However, since we add clips one at a time during our edit, it is useful to rough in the audio levels so that you can get a sense of how things are going to sound.

Remember, do not allow a single clip, or the audio as a whole, to ever exceed 0 dB.

With that as background, here are my recommendations on setting levels. This assumes you are using Final Cut Studio or Soundtrack Pro (or ProTools, for that matter).

Since the sum of all audio can not exceed **0 dB**, have your meters bounce between **-3 to -6 dB** for the total mix.

To achieve that, here is where I rough-in my audio during editing:

Talking head audio: **-6 to -12 dB** -- this is the SOT, or Sound-On-Tape)
Sound effects: **-12 to -18 dB** -- this is the NATSOT, or Natural-Sound-On-Tape)
Music underscore: **-18 dB**

Then, I use my good ears, my good speakers, and my good common sense to make things sound right - given that the sum of all my audio levels fall in the range of -3 to -6 dB.

I've found that these levels sound great when used for DVDs, web video, and general purpose broadcast.

Note: Many broadcast commercials are mixed to a level of -10 dB, with no dynamic range. Again, if you are given specifications for your mix, please follow them.

THOUGHTS ON OTHER AUDIO MEASURING SYSTEMS

You sometimes see references to **dBFS**. This refers to how audio levels are measured. Final Cut uses a dBFS scale. However, that is not the only way we have to measure audio levels... that would be too easy.

In the UK, they use an entirely different audio measuring system called **PPM**. There's a very useful Final Cut utility called PPMulator+ that displays PPM levels inside Final Cut projects. Generally, PPM levels between 3 and 4 are considered appropriate.

In Europe, they use **dBU**.

Older, analog systems use **VU** (Volume Unit) measurements.

As I was researching this article, I got a very helpful email from **Woody Woodhall**, of Allied Post Audio in Santa Monica, and head of the Los Angeles Post-Production Group. Woody writes:

These systems are all measuring the same thing. What's confusing is the dBU and dBFS. The dBU looks to me to be modeled after analog metering which goes into the "+" range and dBFS is absolute and stops at zero. The formula to convert from one to the other is:

$$0 \text{ dBU} = 4 \text{ PPM} = -18 \text{ dBFS} = -4 \text{ VU}$$

[Depending upon project] levels for broadcast delivery are:

$$+8 \text{ dB} = 6 \text{ PPM} = -10 \text{ dBFS} = +4\text{VU}$$

Like video editing, audio mixing is both art and science. But it need not be a mystery. Using these settings can help your projects sound great -- while keeping you on safe ground technically.

UPDATE - Jan. 7, 2009

Bob Merrill adds:

I wanted to add one thing regarding audio levels. If you are using Compressor to make MPEG-2's for your DVD's, make sure and set the "Dialog Normalization" to **minus 31**. Failing to do so will result in a final audio level lower than expected.

Larry replies: Thanks, I've mentioned this before in other training, but am happy to add it here.

UPDATE - Jan. 7, 2009

Woody Woodhall sent me an illustration of the mess we've made of audio levels. He writes:

If [you are creating a project] for broadcast my experience is that the "peak" levels delivery specs are either all over the place or non-existent. In December I delivered a commercial to [a large] cable [system], I asked for their audio specs. They sent me a very nice sheet that had a lot of information regarding the video and a sentence that said "Program Left should be Channel 1 and Program Right should be Channel 2."

I then called, found a master control operator who told me to "do whatever you usually do." So much for standards...

Larry replies: Thanks. I've also gotten a couple of emails expressing confusion over being told to set program levels at -20 dBFS. Because audio is logarithmic, setting program levels this low means that you are using less than 12.5% of your total audio dynamic range. This makes no sense to me! However, I'm doing some more research and will supplement this report if I find anything that needs revision.

[[Go to Top.](#)]

DIGITAL PRODUCTION BUZZ

If you haven't listened to the [Digital Production BuZZ](#), you are missing out on the latest industry news, gossip and information.

The BuZZ is the longest-running Internet podcast and each week it presents the latest on digital production, post-production, and distribution.

Plus, we are now getting into special reports - with "[All Things Blu-ray](#)" at 2 PM PST, Wednesday, January 21.

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

Also, The BuZZ is now on Facebook. Here's the link. Stop by and say Hello!

[[Go to Top.](#)]

READER MAIL

HDFEST - CALL FOR ENTRIES FOR 2009 FESTIVAL

Marisa Cohen, head of HDFEST, sent me this reminder:

HDFEST is now seeking entries of films for its 2009 Festival Events. HDFEST 2009 marks the organization's 10th year anniversary of celebrating High-Definition filmmaking. The festival screens exclusively movies shot with Hi-Def or HDV cameras. All festival content is also projected using HD technology. All movies must have been completed after January 2007. HDFEST also gives out the annual HDFEST Deffie Awards recognizing achievement in HD independent moviemaking. The Deffie Awards offer prizes of filmmaking equipment and software in over 20 categories offered exclusively to High-Definition and HDV filmmakers. HDFEST also has a unique festival category recognizing achievement in High-Definition animated filmmaking.

THE HDFEST DEADLINE FOR ENTRY IS MAY 26th, 2009. The entry fee is only \$60 for features and \$50 for short films For more information on HDFEST visit <http://www.hdfest.com/hdfestsubmit.html>. Or enter the festival via withoutabox at <http://www.withoutabox.com/login/5780> to fill out the entry form online.

[[Go to Top.](#)]

STORAGE, ARCHIVING, AND PEACE OF MIND

Bill Campbell, from Bark Studios, writes:

Thanks for the great info on hard drive refreshing recently. This is so helpful. Love the newsletters + Love the Buzz!

#1 issue for us is.... PRODUCTION WORKFLOW (video codecs + hard drives)

I can't be alone in my quest for a media and storage solutions. It's becoming my #1 issue. I am filling volumes of cheap hard drives up every month with HD video. I use P2 + Sony codecs...this is a mess for us in the industry who can't afford high end solutions.

I recently purchased a Drobo to test their system...so far I love it... but I'm only using it on my personal computer.

I have four editing stations, a mish-mash of working drives that are SATA...dozens of cheap USB drives for storage and it's a friggin mess!!!

My guys have cobbled together a makeshift network on our macs but mostly if a project goes from 1 workstation to the other we pull the SATA cable from the back of

one mac and put it into another.

HELP US PLEASE..... there must be an affordable way to manage media while editing, including having backups and then storing it permanently. It seems to me the hard drive industry is missing a HUGE opportunity to capitalize on this issue.

Honestly Drobo seems like the first guys to even begin to address this but they only have FW800 to date and it might not be fast enough to edit DVC Pro HD footage. Are we supposed to capture and convert to H.264 immediately or not...??

There are so many options, so many possibilities and it seems so few answers. I thought a natural next step to your articles on hard drives would be the workflow....

Larry replies: Bill, thanks for writing.

The whole issue of archiving tapeless media is continuing to boil. Manufacturers have finally discovered that not everyone can afford a \$50,000 archiving solution. While Drobo is a good product, it is not designed for long-term storage (i.e. archiving for 20 years), but instead for protecting the media you have during the edit process.

The biggest limitation of Drobo is its speed -- or lack of it. At about 22 MB/second, it is barely fast enough to edit DV. However, as a backup system, or on-set acquisition of tapeless media, it is excellent.

Based on the conversations I've been having over the last month or so, I think we will see significant progress toward solving this whole archiving issue during 2009. Personally, I think NAB will be the place to watch.

We shall see.

[[Go to Top.](#)]

GETTING ORGANIZED FOR FINAL CUT

David Harbsmeier, from the eMedia Group, sent this in:

After reading the article about getting organized for Final Cut Pro in your recent newsletter, I thought I'd share my technique - a lesson learned after a hard drive crash*.

As you know, when you start a new project in FCP, the very first thing you should do is give the project a unique name (File->Save Project As). Once you've done that, when you first capture or render in that project, FCP will create the appropriate folders bearing that project's name on the assigned capture/scratch volume to store the captures and render files.

As we all know, it is relatively easy to recapture footage if the hard drive it's stored on is lost. it's also a rather simple process to re-render. But what about all those graphics, photos, VOs, music files and other works that you spend hours and hours creating? How do you recover those in the event of hard drive failure? The answer is: BACKUP.

In the Same way that FCP creates the Audio Render folder, the Capture Scratch folder and the Render Files folder (each with the various folders for each current

project inside), I created a "Project Elements" folder which is stored on the media drive. And with each new project, I manually create a folder inside the "Project Elements" folder bearing that project's name.

As I create or need to import non-recapturable files into a project, I place them in the proper project folder inside the "Project Elements" folder. I also keep any pertinent notes on the project (in text format) in that folder. That keeps all of the files for any current project in one place making it a very simple task to back them up all at one time to another hard drive or to a remote server. It also makes it easy to archive ALL the non-recapturable files for any given project once I've finished the edit. I simply burn that project's folder (along with a copy of the project file) to a CD or DVD in case there's a need for a re-edit later; I won't have to recreate all of my hard work.

And last but not least, it makes it very easy to delete all of those types of files once I'm ready to remove that project from my system; simply delete the folder for that project in the "Project Elements" folder just like you would the captured clip and renders.

* I learned to do this the hard way. I had been working on a documentary and had spent at least six days restoring and retouching over 400 old photographs that I had scanned for this project. Literally hundreds of hours were involved just in the photo prep alone. Well ... as fate would have it, the hard drive crashed on which all of the photos were stored. There was no way to recover the retouched images and no way to recover all those lost hours of painstaking work. I had to re-do every single photo. But from that moment, I developed the above workflow and religiously backup the "Project Elements" folder.

Larry replies: Thanks, David, for your thoughts. This is a perfectly good system and thanks for sharing it.

For me, personally, I tend to put these files into my Final Cut Pro projects folder, because I want to back up all my other project data.

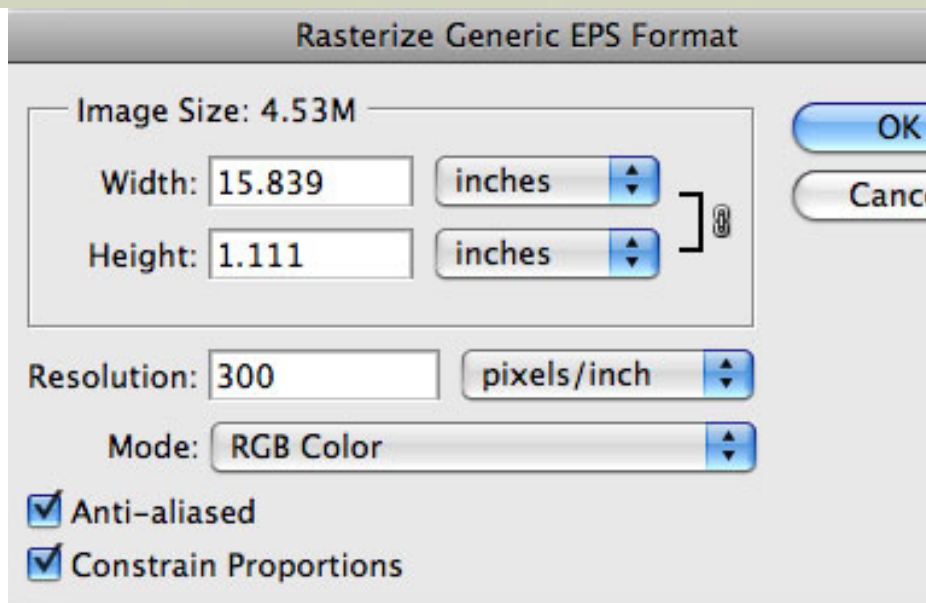
But you are EXACTLY correct -- regardless of where you store your project files, if you don't back them up, you are **dead**.

[[Go to Top.](#)]

THOUGHTS ON DPI

Thomas Kihneman, from Prime Time Advertising, writes:

Thanks for your seminars. As always, I learn new things. [In fact, during one session,] we were fighting about DPI. Here is why I often have to deal with that terminology.



When you drop an EPS image on Photoshop this is what you get.

I don't know if there is a way to change preferences to match your way of thinking or am I just misunderstanding what that 300 means?

Larry replies: Tom, we weren't fighting, it was a spirited discussion - and I appreciated all your questions!

DPI is a term relevant to print, where different printers and presses have differing resolutions. EPS was a format invented to meet the needs of print. They are, essentially, a mathematical formula that describes an image or font. Because EPS describes everything using math, it can be scaled to any arbitrary size, or any arbitrary resolution, very easily.

Because Photoshop tends to think in print terms, it defaults the DPI setting on imported EPS files to 300 DPI. This makes sense if you want to print your Photoshop document.

However, all video is bitmapped and fixed in resolution: 720 x 480, 1280 x 720, 1920 x 1080. Regardless of how big, or small, a screen you view the video on, the resolution of the image does not change. DPI is not relevant because as the screen gets bigger, the DPI does not increase. Each pixel simply grows bigger to fill the frame.

With video, what is important is the total number of pixels across, by the total number of pixels down. Video cares about pixel count, not DPI.

This is the direct opposite of print, where as the piece of paper to be printed gets bigger, you need more pixels to cover it.

Consequently, DPI for video is meaningless - since all video has fixed resolution, as screen size increases, all we can do is make each pixel bigger. Thus, the DPI of a 60 inch monitor is totally different than the DPI of a 9 inch monitor -- yet the number of pixels in the image remains the same.

For this reason, I recommend you ignore DPI, and concentrate on the total number of pixels. It will simplify your life. In the case of importing your EPS file, set the DPI to 72.

UPDATE - Jan. 7, 2009

Don Smith, from NewsVideo.com, asks:

Your advice [to ignore DPI] prompts my question: "Doesn't a higher DPI allow you to zoom into a small section of the picture better?"

I recently had to import a still of a young girl walking beside an elderly lady in a wheelchair and the two were holding hands. I made a move on the picture starting with a very tight close-up of their hands, then pulling out for a reveal. If the picture I started with had only the pixels across and pixels down to match a frame of video resolution and I push in to a small part of that picture, wouldn't the result be pixelated? Is it here that DPI would come to the rescue? In the case of the two people holding hands I used a large file and thus was able to push in tight without pixelating.

Or, if I plan a push, is it that I just need to start with a picture several times the x and y pixel count of video?

Larry replies: Don, you are confusing DPI with pixel count. DPI measures the number of pixels per inch in the image - Dots Per Inch - which is meaningless when the same image is displayed on a 9-inch field monitor and a 60-inch behemoth in the living room. By increasing DPI, what you are really doing is increasing the total number of pixels, which allows you to move around the image.

So, I stand by my advice - set DPI to 72 and stop worrying about it. Instead, concentrate on the total number of pixels across and down. As those increase, up to a point, you are able to move around and zoom into a picture.

Note: Final Cut Pro has a limit of about 4,000 pixels on any dimension. Do NOT try to force it to handle extremely large images, it will crash.

[[Go to Top.](#)]

LOTS OF "REALLY DUMB QUESTIONS"

William Granzier, from South Africa, writes:

I am from South Africa and just wanna say great podcasts and great site!

I have been working on DV for most of my projects and I do tons of production work for Television. I have 2 Canon GL-1's and a XL-1. Recently, I upgraded to a JVC GY101HD.

On with my "really dumb questions":

Q1 - If a Television channel broadcasts on HD, will they be able to broadcast both 1080 and 720 programs or is it kinda one or the other?

Q2 - Which will give a better picture: shooting DV in 50i or 25p - I assume interlaced would be better for sport and the Progressive would be better for panoramic Nature type shots.

Q3 - There is a lot of talk in the pro circles about what is 'real' HD. You can go to an electronic shop and pick up a 1080i HD SONY HDD cam for cheap... Is that real HD?

Well the reason I ask that question is this - would that picture be any better or worse that a Z1 ?

The pros are saying that if you want true HD you need to shoot with a HD lens? Sony have a few nice HD cams in the pro range but the cost makes those cams only available to studios etc.

Q4 - Do you recommend a FireStore as an alternative tapeless format to P2 ... Does it work well ?

Larry replies: William, thanks for writing! Let's tackle your questions in order.

1. A television station will broadcast in either 1080i or 720p, but never both. Here in the States, CBS, NBC, and PBS are all 1080i networks. ABC, FOX, and ESPN are all 720p networks. Check with your station to determine what HD format they support.

2. If you are shooting PAL DV, it is, by definition, interlaced -- 25 interlaced frames per second with two fields per frame. DV is always standard-definition. There is no high-definition DV. HDV is significantly different from DV, not just in image size, but in how it is compressed, and a wide variety of other technical criteria. They just put the letters "DV" in "HDV" to confuse us.

If, on the other hand, you are shooting HD, progressive is generally better for action and sports, while interlacing is generally better for things that don't move as quickly.

3. The fastest way that I know of to start a bar fight is to ask what is "Real HD." The question is, essentially, unanswerable. The only practical answer is that if the format of HD you are shooting (and there are HUNDREDS of different variations of HD) meets your client's needs, allows you to meet your deadlines, looks good to your eyes, and the ultimate customer is happy so that you get paid, then that is about as real as it gets.

Here's [an article](#) that may help.

4. I have never used a FireStore, so I have no personal experience. From the emails that I get, I think they are a good idea that tends to be finicky. My hope is that newer versions, in addition to providing longer record times, have also improved on its highly convoluted setup menus and reported instability.

[[Go to Top.](#)]

A CAUTION ON WESTERN DIGITAL DRIVES

John Bowling sent this in. I posted it to my blog, but wanted to share it with you here, as well:

I just ran into a situation that I believe others should be aware of. I use a Mac Pro for editing and wanting the best performance I could get out of it, I swapped out the original boot drive with a Western Digital Raptor 10k rpm, 150G drive about a year ago. The performance increase has been noticeable. Perhaps not earthshaking but every little bit helps.

The problem recently surfaced as I filled that drive with more applications. (Not data, just apps) When WD announced they now had available a 300G 10k rpm Velociraptor the solution seemed simple and I acquired one. Here's the problem, the 300G Velociraptor is a 2.5" 10k rpm drive that is mounted to an aluminum heat sink frame to adapt to the standard 3.5" drive bays. But for some reason WD machined

this heat sink where the SATA connections on the back end up shifted about an inch over from where they are on every other SATA drive

After 30 minutes on the phone with WD Customer service we both agreed that this drive is not compatible at all with a Mac Pro due to this problem. The WD customer tech did not find any info in their system about this problem either so it sounds as if WD is unaware as well. I have since found reference to the problem on the net so its not just me.

But if you look on the cardboard box, there is the happy Mac logo proudly proclaiming compatibility. They could fix this easy enough by changing their aluminum heat sink, but till they do.... Hope this helps somebody else.

Larry replies: Thanks, John, for the heads up.

UPDATE - Jan. 7, 2009

Darryl Yee writes:

In response to your reader's problem with the WD Velociraptor, there is a new version of the drive that corrects the interface problem. [Click here to see it.](#)

Click on the 3.5 backplane-ready option and click on the 3rd thumbnail and you will see that the SATA interface is now in the standard position.

Larry replies: Thanks for the update Darryl!

[[Go to Top.](#)]

DIGIBETA WORKFLOW

Jonny Elwyn writes:

Thanks for the pleasant surprise of finding my last email in there! I am about to start on a DigiBeta project. Usually my workflow would be:

Digibeta J-30 deck > Firewire > DV > edit > DV master and DVD

However, after a lot of searching on the Internet, and with the aim of maintaining the highest quality, I'm trying to work out if:

- a) its better to go SDI rather than FireWire (in general)
- b) I should be capturing to ProRes 422 (rather than DV) - this would be a higher quality and help with roundtrip to color?
- c) if i do capture to ProRes 422 will i need to go SDI or can i still do it over FireWire? (having read lots on ways of taking HDV to pro res over FireWire)

On this project i will be mastering to Digibeta. What would be the best modern (now we have prores) digibeta workflow?

Larry replies: The native format for DigiBeta video in Final Cut Pro is Uncompressed 10-bit. Using this codec means that there is no loss in image quality from the deck, as there is if you convert from DigiBeta to DV for transfer via FireWire

The only downside to Uncompressed 10-bit is that it requires a data rate of about 27 MB/second and takes about 99 GB to store an hour of media. The requires some fairly fast and large hard disks. Still, this is your best choice for quality.

An excellent second choice is ProRes 422 HQ. When used for SD material, it has a data rate of about 8.1 MB/second, and takes only 29 GB to store an hour of material.

while there is some potential loss in image quality compared to uncompressed 10-bit, it is still far better to use ProRes 422 HQ than DV.

If you have a lot of material, I'd suggest using ProRes. If not, I'd suggest Uncompressed 10-bit.

In either case, it is absolutely better to bring in your images via SDI than FireWire. However, SDI will require a capture card from AJA, Blackmagic Design, or Matrox.

UPDATE - Jan. 7, 2009

Matt Davis, from the UK, writes:

Following up on the DigiBeta workflow question, I used to use SDI in to the AJA IO, and - so I could edit with a laptop and external FW800 drive - used the DV50 codec. This had the benefit of 4:2:2 but only sacrificed the 10 bit to 8 bit. 10 bit was only sometimes necessary for chromakey and motion graphics.

Strictly speaking, DV was 5:1 compression, Digibeta 2:1 compression and DV50 2.5:1. But it did mean I could cut DigiBeta at near-as-dammit DigiBeta quality on a laptop in the field, and that counted for a lot.

Larry replies: Matt, thanks for the update.

[[Go to Top.](#)]

AUDIO PROBLEMS WITH MP3 FILES

José Antonia Donoso writes:

I've had two problems with audio lately that I hope you can help me with; none of the audio articles I found in your page could do it. The first one is related with using files in the Mp3 format: Every once in a while, the MP3 files seem to make some sort of "auto-render" or "corrupted" render which is not undoable.

The second problem I was hoping you could help me with is related to audio also: I was editing material recorded with a miniDV camera, with two different audio sources: in some scenes I used material coming directly from the camera, while for others I received a CD with WAV files recorded by a (sort of) sound engineer. I edited, rendered, made a DVD with it and it was all good. Then I was requested to make a master in miniDV also.

To my surprise, when listening to the "product" through the camera I was recording in, the audio lost a lot of level in a point. That point was a dialogue received as a WAV file, which didn't seem corrupt or damaged. And, to add to my surprise, if I put earphones on the camera output there was NO loss of level in that dialogue. ??? I tried different ways: panning both channels to the center, panning them to the

opposite side they had so far, but nothing. I then exported some audio renders of the dialogue as WAV, AIFF, MOV. I used FC, Compressor, and MPEG streamclip. The problem (or symptom) remained the same: when listening to THAT file (a single line of dialogue), it was almost mute if I listened through the camera I was recording to, but OK if I listened my timeline in FC or (???) through the camera's earphones. I should also make clear that I did listen to the recorded tape, and yes, the audio problem was there. Eventually I erased one of the audio channels in the timeline, panned the remaining one to the center, checked the levels and the problem was solved.

Larry replies: Thanks for writing -- and for your excellent questions.

First, Final Cut Pro HATES MP3 files - your solution to convert them to AIF before editing in iTunes is the best way to work. You can do the same thing using Soundtrack Pro. Final Cut expects to work with uncompressed audio. That means all your audio should be converted to either AIF or WAV before importing it into Final Cut.

Here's [an article that explains how](#).

If you are still getting breakup, my suggestion is that somehow an MP3 sneaked onto your timeline or you will need to reconvert the file using other software. I've never had problems using AIF files in FCP.

The second problem is caused by audio phase cancelation. This is most often caused by using microphone cables that are not wired the same way. The audio signals are recorded "out of phase." While each channel sounds fine when listened to separately, like on headsets, when you combine the two channels into a mono track, each cancels the other out and the level drops. You can fix this either by deleting one channel, which you did, or by using the Analysis tab in Soundtrack Pro to fix it.

[[Go to Top.](#)]

MORE AUDIO QUESTIONS

Bo Cumberland, from Oak Ridge Associated Universities, writes:

I came to one of your conferences a few months ago and you spoke of an audio program that had the flexibility to let you dictate how many minutes or seconds you needed an audio clip to be, the tempo and everything and it would produce the beginning, middle and ending to fit those parameters. Can you please remind me what the name of that program was? The reason I don't remember is because at the time my company wasn't interested in an audio program such as that but now they are.

Thanks in advance for your help.

Larry replies: This one is easy - it's the Time Stretch feature in Soundtrack Pro. In looking over my articles, I just realized I haven't written about this yet. I'll add that to my list for the future.

UPDATE - Jan. 7, 2009

I was just looking over my seminar notes and realized that I also demoed the new version 5 of [SonicFire's SmartSound](#).

If you want to adjust the time of a clip, use **Process > Time Stretch**. If you want to select a piece of music and make it any arbitrary length and change the instrumentation or tempo, check out **SmartSound**.

[[Go to Top.](#)]

QUESTIONS ON SCALING

Harlan Mallis writes:

I have a DVD with some widescreen content. so it's letterboxed SD. I want to have it full frame 4:3 but if I capture the WS as is, I either have to scale it full frame or distort. I don't need all the content in the WS image but full frame 4"3 is the final goal. Can the Kona do this?

Larry replies: The Kona 3 can do this - however, you are going to lose image quality.

A 16:9 image is 720 x 480. And a 4:3 image is also 720 x 480.

Blowing up the image, which is what you'll need to do, means that you are simply enlarging existing pixels, so some image degradation will occur.

The Kona 3, however, will minimize this as best it can.

Harlan then wrote back:

I ended up contacting AJA and they said that, indeed, the Kona 3 would do the aspect ratio change but my AJA LH does not have that ability. I bought the LH because I still needed some analog inputs. I could have gotten a Kona 3 and then one of their convertors that will take analog into SDI. I didn't realize they made that. Oh well.

For now I did some scaling and some distorting and it looks OK It's for a broadcast mosaic, with the individual assets at 180x120 and only a few will enlarged to 640x480. Most of the DVDs i get are already widescreen and I guess when the studio makes some DVD that are full raster SD they have a good hardware setup to do the conversion that maintains quality.

Larry adds: Thanks for sharing this.

[[Go to Top.](#)]

A SOLUTION FOR SCROLLING TEXT

Tom Stitzer, from Royal Sun Productions, writes:

Awhile ago you wrote [an article about text scrolls](#). In the comments, **Tom Wolsky** wrote about how there seems to be no way to on the Mac to control the pixel speed per second, which is what is necessary to stop the flickers and stutters that occur when scrolling text.

I have been trying to find solutions to this problem and came across this FCP plugin (<http://alex4d.wordpress.com/2008/10/13/final-cut-pro-my-free-closing-credits-plugin/>). I have tried it and it seems to work OK. It's practically the same as the built-in FCP plugin, except for a few more options, one of which is the pixel speed per second adjustment. I don't know if this plugin is actually better than the Boris text roll, but they appear pretty close to me and it is definitely better than FCP's built in text roll.

Larry replies: Thanks for letting me know, Tom.

[[Go to Top.](#)]

CALCULATING SUNRISE AND SUNSET

John Warner, a long-time reader, sent me the following:

Larry, here's a new iPhone application that calculates sunrise and sunset. Your readers might be interested in this.

Link: <http://spiraldev.com/focalware/>

Focalware goes beyond sunrise and sunset by calculating sun and moon position throughout the day anytime of the year anywhere on the globe. It also predicts moon phases.

There are already sun and moon rise/set iPhone Apps but this gives the DOP's and photographers precise knowledge of sun and moon position so they can preview and plan their shoots. Since it isn't limited to current day, you can plan a shoot for months ahead in any location of your choosing.

Larry replies: Thanks, John.

[[Go to Top.](#)]

MONITORING HD VIDEO

Maly Gabor writes:

There is a lot of talk about using calibrated HD monitors for monitoring your work out of FCP or Color.

If I do not use an HD monitor I risk having inaccurate color and contrast. I am OK with the color piece, you would truly see it in action on an HD LCD but as long as I keep my waveforms in the range (monitoring it in Color on the waveform window) making sure blacks do not go below 0 and whites above 100 would I not ensure they look perfect on all LCDs/TVs for final output even without monitoring during post process? Why would I need an HD monitor for monitoring contrast?

Larry replies: Gabor, thanks for writing.

The answer for HD is the same as for SD. The reason we use a monitor is to assure ourselves that the color we see is accurate. Especially when we are doing work for clients, we need to assure them that the color they sign off on in our edit suite is the same color they will see anywhere else in the world they play your project.

The need for monitors does not diminish as we move to HD, its just that the cost of monitors has sky-rocketed due to the greater resolution they need to support.

[[Go to Top.](#)]

MORE COLOR AND MONITORING QUESTIONS

Paul Turcott, from Seattle, writes:

I have 3 questions:

- 1) Is there a way that you can quickly color match scenes using the eye dropper in FCP?
- 2) How do you import clips into Apple Color?
- 3) Is a monitor made for Macintosh reliable for color correction and if not which type of monitor is?

Larry replies: Thanks for sending this in, Paul. Here are some quick answers:

1. Yes, using the Color Corrector 3-way filter. [Here's an article](#) that explains how:
2. The easiest way is **File > Send > to Color**.

3. No. You'll need some hardware - a Matrox MXO or MXO2 will make a computer monitor suitable for low-end color correction such as for web, DVD, broadcast, or cable. I would not use it for anything projected. For high-end color correction, get an AJA or Blackmagic Design card and use a JVC or Sony HD monitor.

[[Go to Top.](#)]

WORKING WITH STILLS

Michael Freedman, from London, writes:

I have been working as a professional editor for the past 2 and a half years mainly within the advertising industry. I edit a lot of promos for agency's that are fast turn around.

I am currently using FCP Studio 2 and it s a great piece of kit. I have done all your tutorials on lynda.

I have one question though that keeps bugging me... I have followed what you have advised on the treatment of stills when importing them into FCP, but still when I animate them with the motion tools, I get two outcomes that look pretty awful

1] When I scale up an image with keyframes the still seems to wobble

2] When I scale up or down a still with text, the text seems to flicker

Can you tell me why this might happen and how I can best remedy this?

Larry replies: Thanks for writing, Michael.

The wobbling is caused by how FCP handles Bezier curves on position keyframes. In a word, it does it badly. You can avoid the wobbles by avoiding using Bezier curves on Center keyframes. The best option here is to create your movement in either Motion or After Effects.

The text flicker is, probably, caused by interlacing. A better idea is to create your text inside FCP and scale it from the Controls tab, rather than scaling a bitmap from the Motion tab. The Controls tab works with text as a vector, which is infinitely scalable, while the Motion tab works with text as a bitmap to match your Sequence settings, which has very limited scalability.

[[Go to Top.](#)]

ISSUES WITH IMAGES

Louise Fleming writes:

I am working in FCP 5.1 - I scanned some pictures and text [using Tiff] - from there I transferred the Tiff into PS and then imported to FCP - using the appropriate dimensions [h720 w480] In FCP my import [i.e. pictures & text] are sharp/in focus in the Viewer but go soft in the Canvas?

Please advise as to I can correct this so that the image is sharp in the Canvas as well -- and/or -- should I simply video tape the images [in focus of course] and edit them into FCP.

Larry replies: Louise, thanks for sending this.

First, you should [read this article](#) - because I suspect your images are the wrong size.

Second, the Viewer shows your images at their native resolution. The Canvas shows your images based on the video codec you are using for that project. You can get your images to look better by working with a higher-quality codec - such as Uncompressed 10-bit - assuming your hard disks are fast enough to support it.

[[Go to Top.](#)]

SHIMMERING IMAGES

Jeff Lyness writes:

I really appreciate your books, videos, and newsletters. I'm an amateur editor, having moved up to Final Cut Express this past year in order to pull together a video

tribute to our son on the occasion of his high school graduation.

I have been disappointed, though, that FCE seems little better than iMovie when it comes to shimmering photos. My videos include sequences of photos that I have imported as TIFFs, and done (nice and slow) pans and zooms using the FCE motion controls. But horizontal lines and some other textures shimmer terribly. Using the Deflicker filter helps, but softens the images too much. I should mention that the movies I use are in DV format, as I also include footage from a consumer Canon camcorder recording standard definition video on DV tapes. Is there something I'm missing, or any good workaround for this? I wonder if this is related to the interlaced video format, but deinterlace filter also softens things too much (and doesn't actually help the shimmering as much as the deflicker filter).

Larry replies: Jeff, there's not an easy answer to your question. The problem is that still photos are shot at a MUCH higher resolution than video will support. What you are seeing are the artifacts of displaying an image filled with tiny details that don't survive the trip to video.

The moiré that you are seeing is caused by two things: the extremely low resolution of the video image and interlacing.

Things that will help are to avoid photos with fine detail and applying a Gaussian Blur filter and set the radius to 0.5. This is an issue that we have been living with since the 1950's. magnifying images also helps.

Jeff then wrote back:

Does it help to convert the image to a lower resolution, matching or nearer the video resolution? Might that allow preservation of detail while reducing shimmer?

Larry replies: Yes, absolutely, And [here's an article](#) that will help explain this.

UPDATE - Jan. 7, 2009

Monte Koshel, from Studio 1, adds:

In response to Jeff's problem with SHIMMERING IMAGES. We needed to put together a montage of high quality photos and had the same problem. I found the Flicker Filter to be most helpful. (**Video Filters > Video > Flicker Filter**)

Larry replies: Monte, thanks for the update.

[[Go to Top.](#)]

PICKING A CAMERA

I get a lot of questions similar to **Jon Preston's**:

I'm looking to replace my trusty old PD-150. Modest prices are important; after examining Panasonic & Sony's mid-priced cameras, my choice is the Panasonic HMC-150. The problem is the AVCCAM format; I have been informed that FCP can't edit natively and my G5 can't transcode it to prores (only intel processors?!). Have you heard of workarounds? Intensity card and HDMI capture seems to negate the solid state speed advantages. Any hope, or should I resign myself to an HDV camera? I can only upgrade one item, camera or computer, but, I need HD now.

I wish to thank you for your wonderful newsletters; I can't tell you how many stumbling blocks have been averted or problems solved.

Larry replies: Jon, this is a great question -- some of which I can answer, some I can't.

For me, the criteria I use in buying a camera are:

1. The quality of the lens - removable lenses are much preferred. Nothing improves an HD picture like a high-quality lens.
2. The size of the camera sensor chip - bigger is better.
3. The video codec it shoots.

The price of the camera is not as important as you think. If you buy a cheap camera that saves you a ton of bucks, but none of your clients like your images, you really haven't saved any money. You'll spend all the money you saved renting the right gear.

Which is my first point: unless you are shooting a LOT, rent a camera, don't buy it. Camera technology is changing too quickly. Especially, if you are thinking of buying, rent the camera first to see if you REALLY like it. Then, buy the one you like.

From a technical point of view, no one does a better job evaluating cameras than Adam Wilt. You can visit his website here: www.adamwilt.com.

Currently, Final Cut can not edit AVCCAM video natively. However, it converts it to ProRes, which is an excellent intermediate format. The only disadvantage to this is that ProRes can't be created on a G-5.

Blackmagic gear requires Intel/Macs to create ProRes. However, the AJA IO-HD can create ProRes and feed it to a G-5.

[[Go to Top.](#)]

POTENTIAL BUG IN COMPRESSOR 3.0.5

Adam Connell writes:

I have just found the root of a problem I was having with COmpressor 3.0.5.

I downloaded the latest version of ProApp support, (2008-05), for some AVCHD support in FCP. When exporting a sequence in compressor, compressor seemed to work, but, even when left for an hour or so, it had not made any progress over 0%. Strange.

I restarted the Mac, and tried again, all was well. I turned on my modem to read up if there were any issues known. Went back to see how compressor was going. After 20 mins, it was on the same % as it was when I turned on the modem. See where I'm going with this?

It turns out that as soon as one connects to the internet with compressor 3.0.5, Qmaster decides it will kick in, and automatically search for a connection to other servers to utilize. This in turn stops your lone Mac from compressing.

Larry replies: Interesting. Thanks, Adam, for sending this in.

[[Go to Top.](#)]

WRAP-UP

Well, that's about it for this month.

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

- [Please check out my latest video tutorials.](#)
- [Visit our store and buy something nice - FREE shipping thru the end of January!](#)

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

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