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Larry Jordan's Monthly Newsletter

Editor: Larry Jordan
Issue #59 - August, 2009

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

The goal of this newsletter is to provide information helpful to the interested user of Final Cut Pro. This newsletter publishes each month, past issues are available in my store.

Please invite your friends to visit my website -- www.larryjordan.biz. There you'll find daily tips, the latest industry news, and over 450 articles and tutorials to help you get the most out of Final Cut!

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WRAP-UP

WELCOME!

Sigh... It's 104 degrees (F) outside in my backyard - where I certainly am NOT! It's supposed to be the hot, hazy, lazy days of summer. Hot it certainly is. Wildfires are raging near enough to haze the sky, but not close enough to cause us concern, thankfully. But lazy? Not this year!

You may have noticed that this is the August issue and, if I write fast enough, I'll just make it!

Just before Apple released Final Cut Studio (3) on July 23, I was getting ready to record some

more video tutorials and slowly continue working on my two book projects.

With the release of the new software, my books, which were supposedly due in November, suddenly became due in three weeks! Everything else stopped - including this newsletter - as I scrambled to get both of them done. (Writing one book is hard enough, writing two books at the same time is just ridiculous. Now, I've learned.)

I delivered the manuscript for the first book for Focal Press (Adobe Production Premium for Final Cut Editors) on August 10. Left the next day for a one-week seminar tour of the UK, thanks to the efforts of Academy Class. Continued writing on the train and in the evening and delivered the second book to Peachpit Press (Power Skills for Final Cut Editors) on August 20.

At which point, I needed to spend a week catching up on everything that was dropped so I could have time to write; including launching new workshops, which I am very excited about. More on this in a bit.

Which brings me to this newsletter. Snow Leopard is freshly released, Final Cut Studio (3) has been out for a month, and summer is ending.

There's a lot to discuss. Let's get started.

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DIGITAL PRODUCTION BUZZ IS GOING TO DV EXPO

This year, DV Expo moves to the Pasadena, CA, Convention Center for three days of conferences, exhibits, and meetings. I'll be taking the Digital Production BuZZ to the event to provide on-going coverage in six shows, starting Sept. 22.

If you are anywhere close to Southern California, you should plan to visit the show. The trade show allows plenty of time to meet with vendors, the conferences provide extensive training on a number of software packages, as well as insight on the industry. Plus, a number of user groups are holding special meetings at the show, including: LAFCPUG, DVPA, Digital Cinema Society, Hollywood Post Alliance, and the Red User Group - LA.

For details on what The BuZZ is doing at the show, click here.

For details on DV Expo, click here.

Stop by - **Booth #130** - and say Hi! I'd love to take a moment to visit.

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THE CYCLE OF LIFE - THOUGHTS ON SNOW LEOPARD

I first wrote about this on my blog - read my latest postings here.

First, Apple releases hardware. For instance, until the iPhone was released, the best App in the world had no where to go.

Next, Apple releases the operating system to support the hardware. Sometimes, in the case of the iPhone, the operating system and the hardware are released at the same time. In other cases, such as Snow Leopard, the operating system is released separately.

Finally, with hardware and OS released and available, developers - both inside and outside of Apple - can begin the process of testing, updating, or creating great new software. But only AFTER the release. The definition of beta software is software that continues to change. By analogy, you can't build a house on a foundation that keeps shifting. The same holds true with software.

Apple needs to release Snow Leopard. Its under-the-hood enhancements promise a wealth of opportunities for developers to build on for years to come. And that's the key market, initially, for an OS - developers. The rest of us should wait a bit.

As editors, we rely on our gear and software to work reliably to enable us to meet our deadlines. At this moment in time, we don't know what software works and what doesn't work with the new operating system. Every third-party developer is scrambling to test their products for compatibility, make necessary updates, and release, if needed, a new version.

It won't hurt anyone to hold off upgrading for a while. Apple will survive as a company. Developers will have time to update their products. And we will continue to meet our deadlines using our existing software without worry.

Snow Leopard will be great. I'm looking forward to running it on my key editing systems. But not now. Not until a few months have passed and all the kinks are worked out of the system and third-party developers have all their plug-ins, drivers, interfaces, and hardware tested, updated, and working.

So take a deep breath. Force yourself not to install the update in the middle of a project. Wait. Because I'm really not looking forward to answering the email on Saturday that starts "I just updated to Snow Leopard and now I can't open my project. What should I do?"

TIME PASSES

I'm currently waiting on the delivery of a new MacPro because it is finally time to move on from my very trusty G-5. The MacPro will become my new main editing system.

However, when it arrives, I'm hoping it still has Leopard on it. Because it is WAY too early to

move to Snow Leopard for any system that needs to be reliable.

I've written an article covering my thoughts on upgrading, but here's the executive summary: wait.

Wait to give time for developers to catch up to Apple.

Wait for Apple to find and fix any critical bugs in the software.

Wait until you are between projects and have the time to update your operating system, then all the OTHER software you own that also needs to be updated to run properly on the new operating system.

In spite of all the scrambling on blogs and Vikki's to provide a "complete list of all software that works with Snow Leopard," it is way too early to know what REALLY works and what doesn't.

Fight the urge. Wait a bit.

UPDATE - Aug. 30

It took a day longer than I expected. I published this blog the day before Snow Leopard was released (8/27). I'm finishing this newsletter two days after the release (8/30). This afternoon I got an email from a reader, complaining that they upgraded to Snow Leopard and now, one of the plug-ins upon which they depend, won't work.

They demanded to know why they weren't told in advance, because they can't get their project finished.

My question to them, instead, is why did they decide to update NOW?

UPDATE - Aug. 31, 2009

I just learned that P2 drivers from Panasonic need to be updated for Snow Leopard. Watch Panasonic's site for more details.

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INTRODUCING LARRY'S NEW HALF-DAY WORKSHOPS

One of the most frequent requests I get is to present more workshops, in local areas, and at a reasonable cost.

Introducing a series of 4-hour MONTHLY workshops across southern California.

HIGH-QUALITY, INEXPENSIVE WORKSHOPS -- AS LOW AS $59!

We set ourselves the following goals:

- Create a new workshop every month
- Offer them in more than one city - and outside downtown LA
- Make them inexpensive
- Go in-depth on a single subject
- Add more time for questions and discussion

So, I'm delighted to announce we've done it - one seminar, three locations, every month:

- Anaheim, CA - starting Sept. 21
- Burbank, CA - starting Sept. 8
- Woodland Hills, CA - starting Sept. 11

Click here to learn more and register. Discover our innovating discount pricing!

I've reserved almost two hours at each seminar to make sure you get your hardest technical questions answered. I'd love to see you there!

Please register today!

> **SPECIAL NOTE** - we have one remaining full-day seminar this year in **Santa Barbara on Sept. 9**. Click here to learn more.

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FINAL CUT STUDIO (3) IS RELEASED!

Apple released the latest version of Final Cut Studio on July 23 which they, in their marketing wisdom, called "Final Cut Studio." No version number.

This bit of marketing foolishness is supposed to reassure us that Final Cut is... what? Accessible? Always current? A way to save money on printing ink?

Stupid.

From here on out, I'm calling it Final Cut Studio (3).

By now you've heard of the update, read stuff about it online, and probably seen some of the demos.

Over the last month, I've worked extensively with Final Cut Pro, a great deal with Compression, a

fair amount with Soundtrack, played with Motion, an haven't touched Color at all. DVD Studio Pro is a long-time friend, but, as it hasn't changed, I haven't spent much time with it - except for creating projects to make money -- which it does very, very efficiently.

So, in this article, I'll present an an interview I had with Richard Townhill, Senior Director of Product Marketing, on the day that FCS (3) was released.

Then, I'll wrap up with some thoughts on what other experts are saying and whether the update is worthwhile from my point of view.

RICHARD TOWNHILL INTERVIEW

The afternoon that Final Cut Studio (3) was released, I spoke with **Richard Townhill**, Director of Video Application Marketing for Apple, and the public face of Final Cut Studio. In fact, Richard is responsible for all the ProApps in Apple, including Final Cut Studio, Aperture, and Logic Studio.

Probably no one in Apple has more direct control over the future of the product than he does. For this reason, it was good to get his take on the latest release. What follows are my notes from our conversation.

Apple's goal for this upgrade was to integrate user requested features, improve performance, and increase stability for all the applications.

From his point view, the key big features are:

> * New versions of ProRes at both the high and low end, including support for alpha channels
> * Improved export options from Final Cut Pro
> * Blu-ray support within Final Cut Pro and Compressor
> * Improved collaboration tools with iChat Theater
> * And over 100 new features

One of the questions I ask Richard every year is whether Apple has improved the interface. This year, Richard's answer was the same: they did not change the interface "It works great just the way it is." However, I finally realized that Richard and I are thinking different things when it comes to the interface. I suspect when Richard hears that question, he's thinking about the look of the program; while I'm thinking usability. And, from what I've experienced they've done a lot to improve usability.

The new version runs an Intel-only systems, requiring OS X 10.5.6 and QuickTime 7.6.2. So, this rules out using my trusty G-5 for editing. I'm already shopping for a new MacPro.

> **As a note**, I have a hard time recommending purchasing the new MacBook Pro 15" for Final Cut, principally because Apple has removed both a FireWire port and the Express-Card/34. Yes, you can connect a FireWire external drive, but nothing faster. Why should I limit myself to data rates that AT BEST hover around 50 MB/sec, when an eSATA drive is almost double that and a PCIe drive is four times faster? I see no reason to reward short-sighted hardware development with my money.

I asked Richard whether this version supports Snow Leopard. Richard said: "I can't comment on unreleased products." I then asked, does that mean that editors should hold off upgrading until Snow Leopard is released in two months? Richard then said: "We have been testing this version of Final Cut Studio with current builds of Snow Leopard and we don't anticipate any significant problems when the new OS is released."

According to Richard, DVD Studio Pro remains an application that creates Standard-Def DVDs. They have not added Blu-ray support to it. However, FCP and Compressor can create Blu-ray discs -- with some limitations. If you need multiple movies and full motion menus, you'll still need to use Adobe Encore. However, to export and burn a sequence out of Final Cut - say for a client review - you can now do that easily.

Richard made a point to describe how you can create a Blu-ray-playable disc using the red laser burner in every Mac. Apple calls this an AVCHD disc - a DVD that is burned using a red-laser (such as in a SuperDrive) yet, contains fully compatible Blu-ray media.

The ease of getting files out of Final Cut - what Apple calls "Easy Export" - is very exciting. It is now a single click to publish your project to YouTube, or Blu-ray, or the web. You can even establish post-encode options that compress a file, then FTP it to the website of your choice.

Much to my personal sadness, LiveType did not make the cut. However, it is not completely dead. The text effects in LiveType were integrated into Motion - FCP 7 will support existing Livetype project, but Motion's text has been beefed up in this version. This means that if you now own LiveType, you'll be able to create animations for the new version. However, new purchasers of the system won't have access to LiveType. Richard tells me that when you install the new version, existing LiveType files are not removed.

There is no change in rendering or the video processing engine in Final Cut. FCP 7 does not take advantage of the GPU, though Motion 4 does. What I learned is that FCP rendering is codec-dependent and most codecs don't support GPU rendering.

However, ProRes has been optimized for multi-core processing. Where possible, transcoding video formats like AVCHD, HDV, XDCAM HD, or XDCAM EX to ProRes will significantly, according to Richard, improve both speed and quality. ProRes now supports both YUV and RGB video, along with 4:4:4:4 (uncompressed Red, Green, Blue, and alpha channels) color sampling.

Apple has done significant work inside Soundtrack, which is a program I use daily, as well as all the other applications inside Studio. However, I'll save that for another report at a later time.

THOUGHTS ON PRORES

Apple has expanded the ProRes codec family to now include five members:

* ProRes Proxy
* ProRes LT
* ProRes 422
* ProRes 422 HQ
* ProRes 4444 (called 4-by-4)

Here's a table that illustrates the difference in file sizes of each version.

ProRes Storage and Data Rate Requirements

Version*	Format	Data Rate	Store 1 Hour
ProRes Proxy	HD	5.6 MB/sec	20 GB
ProRes LT	HD	12.75 MB/sec	46 GB
ProRes 422	SD	5.25 MB/sec	19.5 GB
ProRes 422	HD	18.1 MB/sec	66 GB

ProRes 422 HQ	SD	7.8 MB/sec	28.1 GB
ProRes 422 HQ	HD	27.5 MB/sec	99 GB
ProRes 4444**	HD	41.25 MB/sec	148 GB

NOTES

* All versions of ProRes use variable-bit-rate encoding, so the actual data rate and file sizes will differ somewhat from this table. In most cases, they will be smaller.

** ProRes 4444 is listed without including the alpha channel. As alpha channels vary wildly, it is hard to predict the ultimate file size.

Several important points to make:

1. ProRes can only be encoded (created) on a Mac. However, it can be played back on both Windows and Mac systems.

2. ProRes is highly-optimized for multi-core systems. It provides a very fast rendering speed; earlier versions of ProRes rendered up to 40% faster on systems that I've tested.

3. All of these versions have exactly the same specifications EXCEPT for the data rate they support. Lower data rates create smaller files, however, with a trade off in quality.
4. All versions of ProRes support what Apple calls YUV (YCbCr) color space. ProRes 4444 also supports RGB color space.

5. Although Apple makes a point of referring to ProRes Proxy for creating very small files for off-lining projects. The process of converting an off-line to an on-line can be burdensome, especially when you could have compressed into one of the higher-quality ProRes versions and bypassed the entire off-line/on-line conform process in the first place. My guess is that ProRes Proxy files will best be used in Final Cut Server and other environments where long-term retention of a version of the file make small file size important.

6. With the release of ProRes 4444, there is no reason to use the Animation codec on system that have it installed, even if you don't need an alpha channel. (Alpha channels are used when you want to retain the transparency information in a clip.) With or without an alpha channel, ProRes 4444 creates smaller files, with higher quality, than does Animation. And, Final Cut Pro is optimized to play them back.

   Therefore, if you are exporting out of After Effects, or Photoshop, with or without alpha channels, use ProRes 4444.

7. If you need to work with multiple HD formats, transcoding (converting) them to ProRes can simplify your entire editing process.

8. If you are working with R3D files, transcoding them to ProRes 422 HQ reduces their file size and makes working with them much easier than native R3D files -- and, I suspect, you won't be able to see a difference in quality.

   As someone pointed out recently, if you want to work with R3D files, use ClipFinder to convert them to ProRes 422 HQ.

9. My recommendation is that if you are shooting HDV, XDCAM HD, XDCAM EX, or DVCPRO HD, transcode into ProRes 422. If you are shooting R3D, HDCAM, HDCAM SR, or 2k formats, transcode into ProRes 422 HQ. While ProRes can also be used for SD projects, my suggestion is to work with the native codec, such as DV, rather than transcode into ProRes.

UPDATE - Aug. 30, 2009

Luca Immesi adds:

> I enjoy your newsletter every month, it's a real valuable source. I'm a film maker and I am one of the Red, Redallert, Clipfinder alpha tester. In your last newsletter there's written to convert the R3D footage to prores 4:2:2 but now the right format is ProRes 4444 as R3D files are 4:4:4, this is suggested also by Red and Apple.

Larry replies: Thanks, Luca! Though it may be easier for some, especially those not going into heavy CGI work, to keep their file sizes smaller and transcode into ProRes 422 HQ.

UPDATE - Aug. 31, 2009

Uli Plank adds:

> [Larry, regarding your comment on the llimited difference in quality between ProRes 422 and 4444.] Sorry, not true. ProResHQ is 10 bit only, so you'll loose some latitude for [color] corrections. It can be handled by doing a first-light correction in ClipFinder before transcoding.
>
> But I'd rather use ProRes 4444, which is 12-bit, according to Apple's whitepaper.

Larry replies: Thanks!

THOUGHTS ON SNOW LEOPARD

The day before Snow Leopard shipped, I sent Apple an email asking if they would provide a statement regarding Final Cut and Snow Leopard. They declined. So, here's my take.

The reason Apple released Final Cut Studio (3) BEFORE Snow Leopard, I believe, was that it did not support any of the new features in Snow Leopard. FCS is not 64-bit. It is not Grand-Central Dispatch aware. It does not support GPU-based rendering.

In other words, upgrading to Snow Leopard will not significantly improve or change the operation of Final Cut Studio. For that, we will need to wait for a future release.

So, as you are weighing whether and when to update to Snow Leopard, be sure to make the decision for the correct reason: there is something in it that you just can't live without. Because Final Cut 7 will still be essentially the same.

Ben Balser adds:

> I've been running FCS (3) on Snow Leopard for a few days now doing some serious work with it. Very interesting. Installed both as "upgrades' to see what happened. No problems at all, except for the weird lacking of features in QuickTime X. If anyone installs Snow Leopard, be sure to check off the option to keep QT7, as QTX will not give you any of the Pro features we all very seriously depend on. I find QT X a huge let down, the only negative with these FSC/OSX updates.

UPDATE - Aug. 30, 2009

Grant Harrington adds:

If you have a copy of QuickTime Pro already installed, Snow Leopard installs a copy of QuickTime 7 in the Utilities folder as well. There may be a setting (I didn't notice at the time of install if there was) too, but found it there and it works as it did in Leopard.

- QuickTime X (Applications)
- QuickTime 7 Pro (Utilities)

Larry replies: Thanks, Grant.

THOUGHTS ON LIVETYPE

I was saddened to see that LiveType did not make the cut. However, according to **Richard Townhill**, it is not completely dead. The text effects in LiveType were integrated into the latest version of Motion. Motion's text has been beefed up in this version.

Even better, however, is that FCP 7 will support all existing LiveType projects. Even better, Richard tells me that when you install the new version of FCS (3), existing LiveType files are not removed.

This means you can use your existing version of Livetype to create projects for the new version. However, new purchasers of the system won't have access to LiveType.

Dick Osso sent me an email asking:

I bought some very usable fonts for Live type. If I upgrade to the new SUITE, Live Type is gone (?). If so, if I make the upgrade, is there any WORK AROUND that I can retain the LIVE TYPE I have?

The same day, **Ben Balser** sent me the answer:

If you do an "upgrade" to FCS 2009 LiveType is still there. If you do a fresh install, LiveType disappears totally. Now here's what kills me. Apple actually states somewhere I read that all LiveType functions have moved to Motion. This is half true. LiveFonts have moved to Motion, and that's it. The text behaviors, many of which Motion did not have, are gone totally. The motion background loops are totally gone. The graphic elements are totally gone, as are the really awesome templates. Templates are important, as I work with many wedding videographers, and LiveType had some great wedding templates that Motion sorely lacks. Well, with a fresh install of FCP 2009, they're gone, completely vanished.

Larry adds: Ben, I'm a fan of LiveType as well. My suspicion is that updating it to support Snow Leopard was not possible. It will miss it.

THOUGHTS ON ACADEMIC PRICING

With the latest release of Final Cut Studio (3) Apple has lowered the retail price to $999, but RAISED the academic price to $899.

Since the academic version can not be upgraded, there is very, very little reason to purchase the academic version when, for $100 more, you can purchase the full version. Both are identical in

terms of functionality. While it can be argued that the academic version is cheaper, my feeling is that if you can't afford $999, you probably can't afford $899 either.

UPDATE - Aug. 30, 2009

Carl Sundermann adds:

> I wanted to comment on something you said about the academic pricing of FCS 3. You mentioned that they raised the Academic pricing to $899, which is true, but ONLY for personal purchases by teachers/students/etc. It's still $299 for purchases by academic organizations, like the K-12 school district I work for. When on Apple's site and clicking "Education Store", you have to use the "Purchasing for your institution" link, and that gives the $299 pricing. I just did this last week and ordered two seats for $598.
>
> Just thought I would pass the word.

Larry replies: Thanks, Carl.

THOUGHTS ON FINAL CUT STUDIO FROM OTHER EXPERTS

Steve Martin, in an interview on The BuZZ, said that with a program as old and feature-rich as Final Cut, its hard to add a new feature that gets everyone all excited; such as multi-cam in version 5 or HD in version 4. But he felt that the enhancements in the current version make using the software on a day-to-day basis much easier.

Bruce Nazarian, in an interview on The BuZZ, said he is very impressed with the Blu-ray capability. He thinks Apple has done a great job in optimizing the compression settings to get very small file sizes with excellent quality.

At a recent LA Final Cut Pro User Group, a number of Final Cut experts got a chance to demo and comment on the software.

Brian Gary emphasized the shift in philosophy reflected in both Final Cut Pro and Compressor from exporting to create a file, to providing an automated system (Brian does not like the word "workflow") to create the thing you want to make.

For example, Brian illustrated that with the new Share menu, you click one button and Final Cut Pro exports the file, compresses the file, then transfers that file to its final destination -- YouTube, your iTunes folder, a DVD, or Blu-ray. In other words, the process of finishing your project has become much easier.

Michael Wohl illustrated ways that many of the features that were in the initial specification for version 1 of the software have now been added to improve the usability of Final Cut.

Andrew Balis, in demoing Color 1.5, again illustrated that while the interface has not significantly changed, it has become much more useable. Andrew is a noted Director of Photography and colorist, who uses Color on a regular basis. During a conversation, he made a comment I found interesting. When asked if the Color interface should become more like the rest of Final Cut Pro, Andrew strongly urged that it not be changed. The reason Color looks the way it does is that it is designed to make final color decisions on your video projects. For this reason, the interface needs to fade to the background so your eyes can focus on the video and not be distracted by overly bright or colorful interface elements.

Mark Spencer said that Motion has lots of good new features and improvements throughout. For him, the most meaningful were adding much needed framing behaviors in the 3D portion of the program.

 Final Cut Pro

Licensed To:
Larry Jordan

Version:
Final Cut Pro 7.0

MY RECOMMENDATIONS ON UPGRADING

No version of any software is perfect, and Final Cut Studio (3) is no exception.

The biggest issue known to me is that, currently, Color 1.5 does not properly support Motion tab effects created in Final Cut Pro. One other issue I've personally noticed is that the memory leak in STP still seems to be there. Which means I need to save my work and restart the program, not the computer, every two hours or so.

However, on the whole, I find the changes made in all the programs to be subtle improvements which make the program easier to use. I really like the new additions to the ProRes family, the improved export capabilities, and little improvements to markers, labeling, shortcuts, and changing clip speed inside Final Cut.

The improvements in other applications range from significant: Soundtrack Pro, Motion, Compressor; to Not-Much-Change: DVD Studio Pro; to Still-Needs-Work: Color.

For these reasons, while I do not feel you should upgrade yet to Snow Leopard, I feel comfortable recommending the Final Cut Studio upgrade to anyone running on an Intel/Mac as your time, budget, and projects permit. Please remember to never upgrade in the middle of an active project -- there is no sense tempting fate.

UPDATE - Aug. 30, 2009

Grant Harrington adds:

> Here is my workflow for any major OS upgrade:

1. Do a complete (bootable) backup of my current internal HDD using SuperDuper, http://www.shirt-pocket.com/
2. Boot up using the External drive (System preferences-> Startup Disk)
3. Install the latest OS (SnowLeopard in this case) on that drive.
4. Make a dry run of my "must have" apps and if I find something isn't working, I can always boot back to my internal drive if there are any problems and continue editing.

Larry replies: Thanks, Grant.

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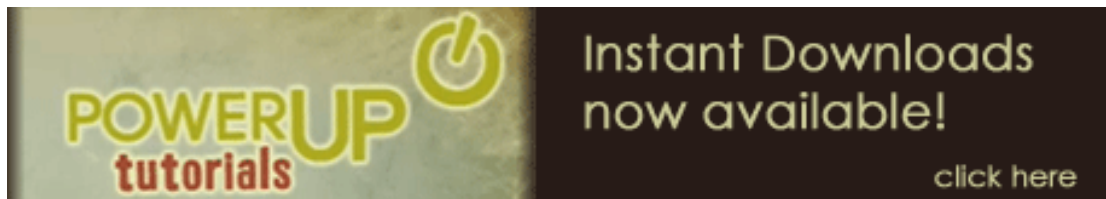
CHECK OUT MY VIDEO TUTORIALS - AND NEW BUNDLES!

I'm already working on new tutorials for Final Cut Pro 7, in the meantime, take a look at over FIFTY new tutorials and bundles. These short, focused video training can solve your technical questions and get you up and running faster than anything else.

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MORE FROM RICHARD TOWNHILL ON THE OTHER APPLICATIONS

In my conversation with **Richard Townhill** the day Final Cut Studio (3) was released, we also discussed other applications in the suite. Here are his comments.

FINAL CUT SERVER

Adobe made a big push with CS4 to support metadata - that is, data about your files - throughout all their programs.

Without looking at the specifics on a file by file basis, Richard couldn't provide details. However, if the metadata is inside the QuickTime file or a industry standard side-car file (a separate file linked to the main file containing metadata), FC Server can read it. FC Server still does not read inside a Soundtrack Or Motion project.

The biggest new feature, for Richard, is the support of ProRes Proxy to create very small, high-quality versions of your clips for long-term storage within the program.

The workflow is:

- Check in the high-res files to Final Cut Server
- Check the project back out using Proxy media.
- Edit off-line using these proxies.
- Check the project back in and Server automatically relinks to the high-res versions.

Soundtrack and Motion projects can be stored as objects, but, unlike Final Cut, assets inside them are not readable by Server.

Final Cut Server is now sold for $999 and provides unlimited licenses.

SOUNDTRACK PRO
The big feature in STP is voice level matching for dialog between clips.

More than just normalization, this adjusts equalization levels between clips, so that the voices sound the same, but the background remains unchanged. I haven't had time to test this, but I am very interested to see if this works, because I could use this in almost every project.

Richard also told me we can extract dialog using the frequency spectrum view which could also be useful in improving the understandability of our audio.

COLOR
Apple has improved the ease-of-use and integrated it more tightly with Final Cut Pro. (However, as a note, as of when this newsletter is written, there is a bug in Color that causes it to improperly handle effects created in the Motion tab of Final Cut Pro. For this reason, be sure to test a clip before committing your entire project.)

We didn't talk about all the programs - you'll notice Motion is missing from his comments - simply because we ran out of time.

However, I found Richard's perspective interesting and wanted to share it with you. Thanks, also, to Richard Townhill for sharing his time for this interview.

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GROWING YOUR BUSINESS
Business Tips for the Video Editor

GET HELP GROWING YOUR BUSINESS

You don't need me to remind you that times are tough. A while ago, I put together three 30-minute tutorials on how to look for work and how to keep clients. There are three sections:

- Looking for work and managing clients
- Improving your sales
- Improving your marketing

These are a very popular segments in my recent seminars and a valuable resource for you.

This training is focused on the idea that the best way to get a job is to never ask anyone for work. **Don't ask for a job, ask for an opinion, and *network* your way into a job.**

If you are new to the industry, or looking to expand your current client base, invest a few dollars and a little of your time and watch this training. It can make the difference when you are looking for work.

Click here to learn more or purchase the tutorial.

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TECHNIQUE: SHARE VS. SEND VS. EXPORT IN FCP 7

One of the new features that I find very interesting in Final Cut Pro 7 is **File > Share**. I've mentioned this earlier and will talk about it later in this issue.

In past versions, we could only use **FIle > Export** to create a file. Now we have four options. In this short technique, I'll illustrate what these four options are and when to use them. (This is a modified excerpt from my forth-coming book for Peachpit Press.)
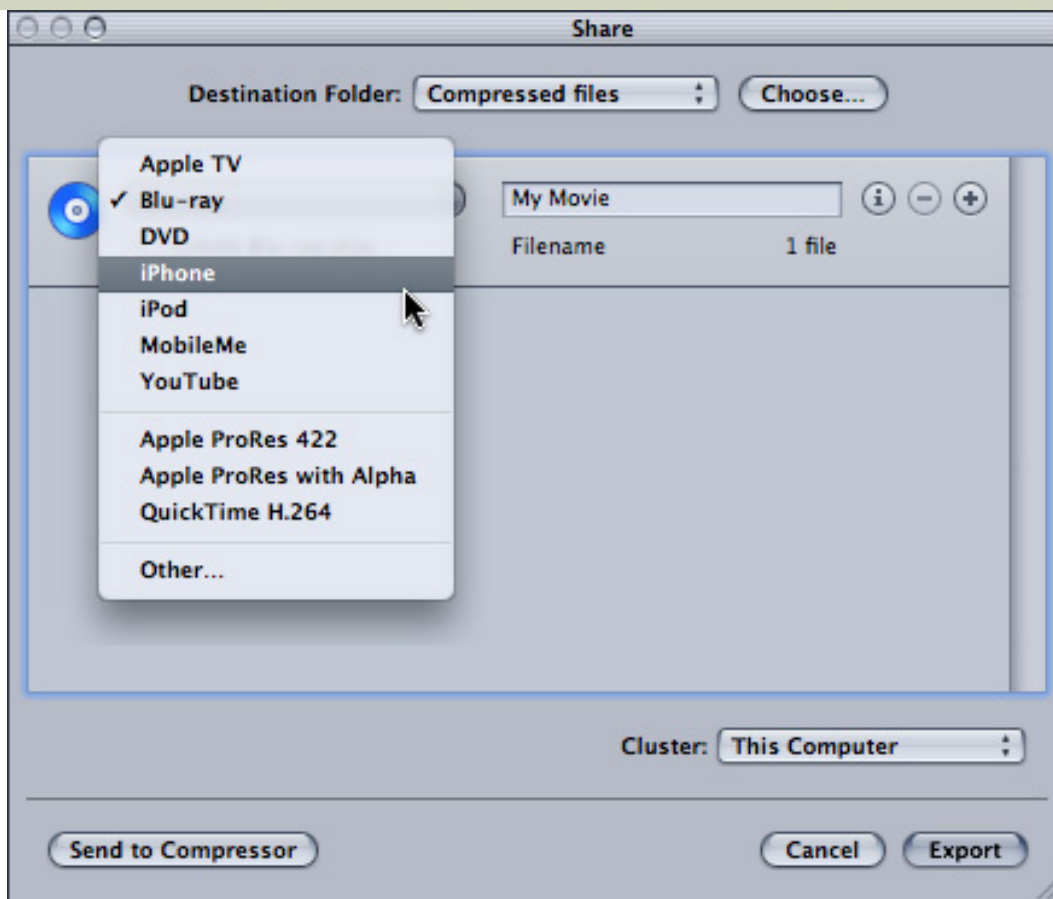
File > Share provides a fast way to assign a compression setting and destination, for one or more files. This provides a single button way to "do something to a file, then put it somewhere." It can build all your selected files into a single master movie or output them as separate files. However, it limits you to one destination per Share window and requires a pre-set compression setting.

File > Send to Compressor is the best choice when you want to create a customized compression setting that you have not yet saved as a preset. It is also the best choice when you want to send a file or files to multiple destinations.

Both Send and Share do their exporting in the background, making them very, very fast.

> **Note**: Actually, the exporting process still takes a long time, but since Final Cut is ready for you to continue editing almost immediately after you click Export, both of these options give you the appearance of exporting instantly. Don't be surprised if your compressed files take a long while to appear.

File > Export > QuickTime Movie is the fastest way to get your movie out of Final Cut as a high-quality master file. It is best used when you need a stand-alone file with outstanding image quality. Use this when you want to create a master file you can store, transfer to another computer, or process repeatedly thru Compressor.

File > Export > Using QuickTime Conversion is the best choice for exporting freeze frames or compressing video using third-party software that doesn't work with Compressor.

UPDATE - Aug. 30, 2009

Tom Wolsky adds:

Just a note about Send and Share. Though they are sort of background processes, they are very slow compared to a reference export and encode in Compressor, and they both require the FCP application to remain open, as both methods call up the application, slowing done the compression process significantly.

The advantage of the Share function that gives you a post-process function like send to YouTube is available in Compressor without using the Share or Send function. The only thing in the Share function that gives it an advantage is the Blu-ray disc creation function with basic menus.

Larry replies: Thanks, Tom.

SEND ME YOUR FAVORITE FCP 7 FEATURES

If you've already upgrade to Final Cut Pro 7, send me your favorite three things about the program. I'll add them to a list I'll publish in the September issue of my newsletter.

Click here to email your favorites.

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ADD DIGITAL PRODUCTION BUZZ PODCASTS TO YOUR WEBSITE

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Digital Production BuZZ is the longest, continuously-running podcast covering digital production, post-production, and distribution.

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... copy the HTML code and paste it into your home page.

What you are installing is a simple, free, Flash player that automatically updates each week when we create a new show. There's no hidden agenda here, we're just looking for ways to get the word out about the BuZZ. You can remove the code from your site at any time.

You can see the player in action on my website: www.larryjordan.biz.

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TECHNOLOGY: UNDERSTANDING GAMMA SETTINGS

John Menszer sent me the following:

> I and my friends have always had this problem- the video looks great in the Canvass but when it is exported to Quick Time it looks washed out. I recently stumbled across this Apple support article (support.apple.com/kb/HT2912), which discusses Gamma settings.
>
> But I don't know what they mean. Can you help?

Larry replies: Gamma controls where the mid-point of gray is set. On the Mac, traditionally, gamma is set to **1.8.** In video, gamma is set to **2.2**. The easiest way to see this is via an illustration.

Gamma 2.2   Gamma 1.8

Gamma defines 50% gray, without changing black or white.

The only difference between these two images is the gamma setting. The image on the left has a gamma of 2.2. Notice how the image seems darker than the image on the right with a gamma of 1.8? The blacks and whites of both are at exactly the same level. The only difference is where the grays are set.

(Thanks to my actress niece, **Resmine Atis**, for the use of her head-shot.)

In general, for all operating systems EXCEPT Snow Leopard, set your Mac Gamma to 1.8. This is where most Mac applications expect to find it. Final Cut, however, knowing that it is editing video, resets the computer monitor gamma to 2.2 while you are running Final Cut. This means that you see your video correctly within the program.

As Apple's tech doc states:

"While it is possible to re-calibrate Apple displays via the Display Calibrator Assistant in Displays preferences, users should leave the gamma of their monitors to the 1.8 Standard Gamma setting when working in Final Cut Pro. ColorSync settings are not used by either Shake or Final Cut Pro for automatic color calibration or compensation of any kind."

The trouble comes, as John discovered, when you view videos outside of Final Cut, because they appear lighter than you expected.

In the past, the principal distribution media for our projects was tape. When we laid video off to tape, this difference in gamma setting was handled automatically during the tape lay-back so that material in Final Cut and on tape looked correct.

So far, no problem.

However, now, tape is the exception, not the rule. Most of our projects are sent to the web. And, here, the differences in gamma between Macs, PCs, and video become most apparent.

(This is the reason in my tutorials on video compression, I show you were to set the gamma setting during compression so that you can adjust for these differences as you are compressing the file.)

With the release of Snow Leopard, Apple is changing its default gamma setting to 2.2; so this problem of matching gamma goes away.

However, until such time as he decides to upgrade, **John** asks another very relevant question:

"Usually I am making videos to deliver to others who will project it to an audience. I thought I was giving them the best quality by handing them a QT movie and getting them to play it full screen in Quick Time Player Pro. Instead of compressing it to DVD format and suffering the quality losses of compression. If there is going to be no DVD how should I set the gamma?"

Here the answer is a bit more complex. First, QuickTime does not allow you to adjust the gamma setting of a movie. Nor does Final Cut Pro, gamma adjustments are available for still images, but not video.

However, there are two relatively easy solutions, seeing as you want these to be projected as QuickTime movies.

If you are projecting the QuickTime videos using a properly calibrated **PC**, there's no problem, as PCs and video share the same gamma.

If you are projecting the QuickTime movies from a **Mac**, changing the system gamma to 2.2 for the purposes of projection also solves this problem.

Fortunately, there's a very easy way to do this. Go to **Apple menu > System Preferences > Display** and select the **Color** tab.
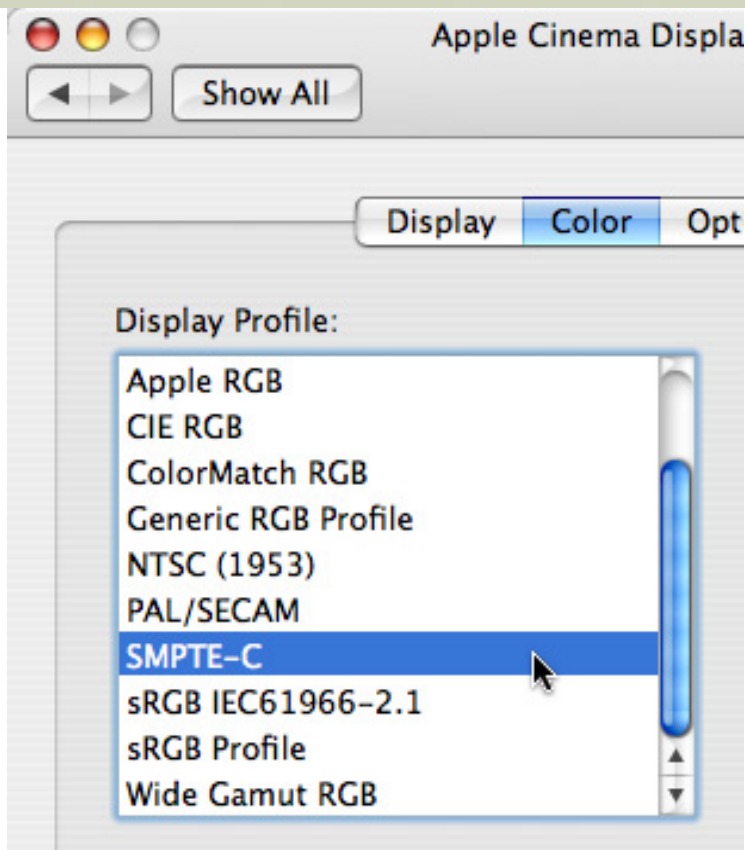
When you want to display video with the correct gamma, select SMPTE-C (PAL users can select PAL/SECAM). When you want to go back to your standard Mac gamma, select Apple RGB, or the setting that was selected when you entered this screen.

Simple - once you know why.

UPDATE - Aug. 30, 2009

Luca Immesi adds:

> About installing Snow Leopard: Although, as you said, it's always recommended to wait for a system upgrade, the change to gamma 2.2 in SL is a huge advantage to consider. It's the first time I have a gamma consistency on my mac between applications without tweaking here and there.

Larry replies: Thanks, Luca! The gamma change is huge, but I'm already getting emails from pepole with problems. It won't hurt to wait a bit longer.

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TECHNOLOGY: A QUEST FOR AN ARCHIVING CODEC

Kim Rowley, from Rome, started this discussion between Philip Hodgetts and myself. Kim began by asking me:

> Our in-house production team has just purchased a server and is planning on ingesting our vast tape library which is entirely in DigiBeta PAL. (We have, over

the years, transferred all footage from past decades onto this format since we had everything from 1" to Umatic to BetaSP.) Now for our digital library we are leaning towards capturing all material and storing it in the IMX50 codec having heard that this is the most "universal" and is decent quality. These IMX50 files will be wrapped in MFX with lots and lots of Metadata. What do you all think of the IMX50 codec?

Larry replies: Codecs are Philip Hodgetts' area of expertise, so I punted the question over to him.

Philip answered:

> I do not agree with the advice you've been given. The IMX codec family is Long GOP MPEG-2 and a great acquisition format for field work, but I would never consider SD IMX codecs for archive (or even delivery). In SD the IMX codecs deleted large amounts of information in the blacks and highlights before compression making this a very difficult codec to do color correction with as it lacks most of the original detail.
>
> If the future was going to be all Apple then ProRes 422 (standard) would be a great match for Digibeta. Second best would be DVCPRO 50 but that's also from only one manufacturer (Panasonic). A vendor-independent choice would be Photo-JPEG with the codec set to 100% quality.

Philip's reply sent Kin scurrying to learn more. A couple weeks went by, then I got this message from **Kim**:

> My codec quest independently of who I asked, led me to the nonproprietary codec called JPEG2000 (used much in digital cinema). All reputable organizations concerned about long term digital archives seem to be implementing strategies using this codec. Since we are interested in long term archiving of our files BUT ALSO repurposing archive material using FCP I wanted to ask Philip (since he lives in all worlds!):
>
> 1) Are we going to have problems getting those JPEG2000 (wrapped in MFX format) into FCP? What intermediary hardware or software is necessary?
>
> 2) What is the difference between Photo JPEG (as Philip first suggested) and JPEG2000?
>
> 3) Would there be advantages of one over another?

Time to send this over to **Philip**, who replied:

> 1. Absolutely there will be problems. FCP does not support MXF natively (Raylight Tools helps) and does NOT support JPEG2000 at all. It's a Wavelet codec and has zero support in FCP. I doubt it will play in the viewer, although it might. It will need rendering for every frame in any timeline.
>
> 2. Photo-JPEG is widely supported. JPEG2000 is has minimal support. Photo-JPEG will play in FCP, JPEG2000 will need conversion of format and probably codec to use in *any* editing application.
>
> 3. One is widely supported and works in FCP. One is not widely supported and does NOT work in FCP. I think advantage Photo-JPEG by a big margin.

Kim then asked:

> Last exchange if I'm not pushing my luck:

1) What do you suppose these big entities do with these JPEG2000 files? They're not much use if they are not accessible...

2) Is Photo JPEG lossless? We treasure our material now housed on Digital Betacam and this ingestion stage is THE most important one. Whatever we throw away today is gone forever. Would this codec be the best non proprietary choice as far as quality retention and ability to "play" with FCP?

Philip answered:

1. They're archiving, not using. There's a difference. I agree that if you want a long term archive then JPEG2000 *might* be a reasonable choice. But one that is converted to whatever you want to use to edit, when it needs to be edited. There's a difference between storage and use. When you put a car into long term storage you change the oil for a different type than you'd use, you drain the gas and remove the battery. This is not a working vehicle, it's a vehicle stored for long term stability. To make it workable you have to "convert" to a different format.

2. Photo-JPEG at 100% is lossless. Digital Betacam is NOT lossless. This is the best non-proprietary codec for retention of quality and the ability to play in FCP.

Kim wrapped up by writing:

Thanks both to Larry and to you Philip. If either of you are ever in Rome, a big plate of spaghetti con le vongole and a good wine is in order on me!

Larry and Philip both added: This sounds VERY good to us! Thanks.

UPDATE - Aug. 31, 2009

Cave Peter writes:

Just read in your latest newsletter about the JPG2000 codec not being supported in FCP. This is untrue.

I have been using this codec for upscaling SD graphics to HD sizes. JPG2000 also supports alpha channels and has a reasonable data rate.

Björn Adamski, from MXF4Mac, is a very knowledgable developer whom I respect a great deal. He takes issue with a few of Philip Hodgetts' comments:

IMX is NOT Long-GOP, even if it's MPEG-2 based it's I-Frame Only. HDV, XDCAM HD and XDCAM EX are Long-GOP.

D-10/IMX has become the major world standard at broadcasters for SD. Entire archives are D-10 based, therefore it is a good choice [for archving].

ProRes is an Apple manufacturer standard. Compared to IMX or DV50 it can only be wrapped into MOV whereas IMX and DV can be wrapped to various container formats such as MOV, AVI, MXF, MPEG, DV.

MXF4mac will add MXF JPEG2000 support with the upcoming 2.0 release of MXF Import QT. Internal tests show that FCP can playback our 2k test files in realtime on a Mac Pro. JPEG2000 is more CPU demanding than Photo-JPEG. Both codecs don't provide realtime effect support in FCP but in general they behave the

same.

Philip Hodgetts responds:

[Regarding Björn's comments,] OK. All I-frame MPEG-2. I accept the point.

[D-10MX is a good choice.] Do not agree. It is an incredibly lossy format. I would not recommend it for archives. (Just ask anyone who has to color correct IMX).

[IMX provides more flexibility in wrapping a movie.] True, but comparing DV and IMX in the one sentence when we're talking about archive codecs... come on. I wouldn't recommend DV as an archive codec (unless the source was DV). To store as IMX would require conversion every time you want to edit in FCP.

My comment was conditional "If it's an all Apple future..." and FCP only works with MOV so what's the point [of using IMX] in this context?

[JPEG2000 is more CPU-intensive.] I think that supports my use of Photo-JPEG, which does not require third party add-ons to work with FCP and is less demanding than JPEG2000.

James Benyshek adds:

Here, at Walter J. Brown Media and Peabody Awards Archives, we use MXF files with JPEG2000 as our archival masters, and then write them to LTO3 tapes using a tar utility.

Secondly, we produce an FCP user file as a MOV file using Photo-JPEG as the compressor.

Larry replies: Thanks to everyone for contributing to this debate!

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PASSING THOUGHTS

Here are some interesting ideas that floated in recently.

RECOMMENDED COMBINATIONS OF FINAL CUT AND QUICKTIME

As you know, most versions of Final Cut Pro are tied to certain versions of QuickTime, but as time passes, it gets harder and harder to remember all the different permutations. I can't remember if I wrote about this already, but **Mark Besh** sent me this:

FYI: Found this chart of suggested configurations at <u>Digital Rebellion.com</u>

Larry replies: Thanks Mark for pointing this out, and Digital Rebellion for putting it together.

UNINSTALLING FINAL CUT STUDIO

Another note from the "Friends of the Rebellion Committee," **Eric Jabouille** writes:

> I had to uninstall Final Cut Studio and I found this which seems really great. Perhaps some of your readers will be interested to hear about it in your next newsletter?
>
> www.digitalrebellion.com/fcs_remover.htm
>
> And there's a couple of other amazing utilities (including trash preferences) at www.digitalrebellion.com

Larry adds: Digital Rebellion has been doing this for a while. Thanks for reminding us about them.

IPHONE BIT-BUDGETER

Ron Diamond, head of Edit Groove and makers of UserMatic, released a new iPhone App.

The DVD Bit Budget Assistant, brand-new from EditGroove Software. This is a handy, portable, more user-friendly alternative to the Excel spreadsheet typically used for allocating the finite disc space available on a Video DVD.

And while it is the first Professionally-featured bit budgeting app for the iPhone -- it's also designed with Educational features as well, to facilitate understanding of the whole process in Layman's terms. List price is $3.99, and there's a special Introductory price of $1.99 for a limited time.

Lots more info from EditGroove Software at www.editgroove.com

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FREE FCP PLUG-INS

Alex Gollner has created a series of Final Cut Pro plug-ins that you can check out at: www.alex4d.com.

- Closing Credits - a better way to create scrolling credits
- Move - a way to create scrolling logos
- Crawl - A better way to crawl text along the bottom of the screen
- Scrolling text - works just like Apple, except it symbols and high-ASCII characters
- Font Access - Allows Final Cut to access more fonts
- 8-point Matte - Garbage mattes you can scale and rotate
- Vignette - A way to add depth to flat lighting

I met Alex at one of my UK seminars. His website is fun to visit and his plug-ins are definitely worth checking out.

CAMERA STABILIZATION SYSTEM

Kevin Brumfield writes:

> Wanted to pass along this article about a new experimental camera
> stabilization software being developed at the University of Wisconsin,
> Madison, and Adobe.
>
> www.newscientist.com/article/dn17456-shaky-home-movies-get-a-big-budget-feel.
> html
>
> Check out the video. The results are pretty amazing. It makes handheld
> footage look like it's being flown on a Steadicam.

Larry replies: Thanks, Kevin.

PANASONIC INTRODUCES NEW REFERENCE VIDEO MONITOR

Panasonic has introduced a range of new reference video monitors for HD, increasing the range
and accuracy of colors it can display.

Click here to learn more:

SOLVING DVD BURN ERRORS

Dennis Rosenblatt writes:

> Hi Larry. Thanks fro another informative news letter. I recently had a really odd
> problem that I thought I'd share with you and your readers.
>
> DVD PRO and iDVD burn errors:
>
> I've never had a problem burning DVD's on either my quad core mac pro, or intel
> macbook pro until the other day (both running 10.5.7). All of a sudden, media
> errors started popping up and the media was ejected before the completion of
> burning the disc.
>
> I then tried burning from a burn folder to verify that the problem wasn't DVD Studio
> Pro or idvd related. Problem persisted so i hit the message boards.
>
> There are many opinions about DVD brands and Apple has a lengthy list of
> troubleshooting tips but nothing seemed to work until I found one odd note posted
> by someone who admitted that this was a really odd fix to what appeared to be the
> same problem.

In a fairly recent software update, Apple must have messed with the international settings. Here's the fix in my situation:

1) Open the international tab in the system preferences,
2) Move "english" from first position, then putting it back in first position
3) Order for sorted lists is probably already correct: English
4) Set word break to: English (US, Computer)

The sun came out, birds sang, and my DVDs burned!

I'm not exactly a newbie but i never would have thought to look to this system preference for the fix as it's never before been an issue. If other people are having this same problem, someone ought to let Apple know about it.

Larry replies: Thanks!

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DIGITAL ASSET MANAGEMENT

Eric Jacobs, from OnStream Media Corp., sent me this link to their Digital Media Services Platform.

The Onstream Digital Media Services Platform is specifically designed for the delivery of rich-media communications, which facilitates the integration of data, video, and voice to offer true media management and online communication services across multiple geographies and platforms.

Learn more here: www.onstreammedia.com/digital-media-services-platform.php

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USING AUTOMATOR'S WATCH ME FUNCTION

Dustin Lau sent me this:

I thought you might find this interesting. I've been using Automator to automate repetitive keystrokes inside Final Cut Pro since April 2008 and I have just gotten around to doing a video demonstrating it.

I've always enjoyed reading your blogs, in many ways the aggregation of knowledge from all of you have made me much more well informed about editing in general.

Just thought I'd share this with you.

www.youtube.com/watch?v=NsjRSHmJZLM

Larry replies: Thanks!

BATCH RENAMING FILES

Nicolas Nilsen had a problem. He needed to rename hundreds of files to get them in the correct order. After a bit of searching, he found the answer and sent it to me.

> Larry, I've found this incredible tool to batch rename the files. It's simple, clean and easy to manage; It's free and it works. Fast. Didn't know if you knew it or if it might be useful.
>
> Just in case it's here :
> web.mac.com/mickeyroberson/MRR_Software/NameChanger.html
>
> I've batch renamed all my hundred files and it works! Such a relief :-)

Larry replies: Thanks!

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READER MAIL

HOLDING LARRY'S FEET TO THE FIRE

Of all the subjects I've wrestled with, nothing is harder to pin down than an efficient system for working with still images. I've been wrestling with this subject for years.

In my recent article, and video tutorial, on working with stills I divided still images into two categories: those without transparency, such as JPEGs, PNGs, and TIFFs; and those with transparency, such as PSDs.

This provided a simple and consistent way to create stills in Photoshop and import them into Final Cut with all their geometry and image quality intact. The system works, reliably, and consistently. So I published it.

At which point, **Mark Spencer** - who is the most knowledgeable person on Apple Motion that I've ever met - sent me the following:

> I'm sure you'll get a lot of email on this one.
>
> "Transparent images (that is, PSD files)"
>
> What about TIFFs and PNGs (and PICTs) that have an alpha channel? How should those be treated?

Larry replies: Sigh... I didn't even know PNGs and PICTs *had* alpha channels.

My honest answer is "I don't know." If FCP opens a TIFF with transparency as a sequence then it needs to be sized as you would a PSD.

On the other hand, most people (I'm guessing) use PSDs for transparency, while PNGs and TIFFs are used for non-transparent images, in which case my article works.

If you have a better way to classify these images, I am COMPLETELY happy to hear it. For now, though, I think these classifications work, in general, for most people. I hope.

Mark then wrote back:

> I don't think transparency has any impact on how FCP interprets the file - I think all that matters is whether it comes in as a single file or a sequence - if it comes in as a sequence, you need to resize ("squish") first.

Larry adds: On this I agree. The bigger question, though, is what criteria Final Cut uses to determine whether to open an image as a graphic or as a sequence. My suspicion is that transparency is the determining factor.

UPDATE - Aug. 31, 2009

Ryan Mast writes:

> A PNG with or without transparency will be treated as an image, not a sequence, in a Final Cut timeline (at least as of Studio 2).
>
> Unless I'm doing animations or effects with layers, I'll usually export a Photoshop file into PNG if I'm bringing it into Final Cut or Motion. I'm probably doing it wrong, but I can't reliably get the TIFF's alpha channel to be recognized by Final Cut.

Lee Berger adds:

> I use PNG as it supports transparency and imports into FCP as a graphic and not a sequence.
>
> I often use Motion for titles instead of Title 3D because it's better at soft shadows. The one thing I don't like is the long renders at the high quality setting. To avoid this I export the title from Motion as a PNG. When imported and added as a key the PNG file requires no rendering. The downside is that you cannot use the "Open in Editor" function if you need to update the title, but it's worth it to avoid the long Motion file render.

Larry replies: Thanks!

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HERE'S ANOTHER REASON I HATE DISCUSSING STILLS

JJ - whom I don't hate - wrote this follow-up to my still article:

> It is my understanding that SD NTSC is 720x486 so to work on stills in square pixel aspect ratio one will use 720x540.
>
> DV is using 720x480 because of codec related computation and disregards 6 lines that are added back in black when played out in analog.
>
> I would then use 720x534 for square PAR for stills when in a DV project and scale down to 720x480 before going to FCP.

This is the first time I read about 720 x 547 used for stills in video and had to ask for a verification.

Larry replies: Yes, SD NTSC is 720 x 486.

However, according to Apple, and the way they calculate pixel aspect ratio, they recommend 720 x 547 for SD and 720 x 540 for DV.

You only need to use 720 x 534 when working with a DVD Studio Pro project.

Yes, it would make sense if different groups in Apple used the same math, but they don't.

JJ wrote back:

We can both agree that for SD 4:3 720x540 is the correct size for square pixels. 720/540=4/3=1.33333333

DV being a subcategory of SD with pure math from 720x480 non-square pixels we get 720x533.33333 square pixel.

Since we do not have fractional pixel we can round up or down for the closest approximation, seems like I always rounded up.

I would take what Apple says with grain of salt and maybe consult Trish & Chris Meyer for this matter, they have a lot of experience in this subject.

IMHO, 720x547 seems way off for SD square pixel, this is the number that made me write to you in the first place.

Larry replies: Chris & Trish are excellent, informed people. However, they work more with After Effects, not Final Cut.

The problem is that Adobe and Apple calculate pixel aspect ratios differently. Adobe Photoshop custom video presets are close, but when you use them for Final Cut, circles come in slightly egg-shaped. Photoshop works perfectly for Premiere Pro, but not for Final Cut. Worse, Apple does not follow the SMPTE spec, which sets the pixel count at 720 x 531.

You are welcome to use whatever pixel numbers you want. I'm just letting you know what numbers yield the most accurate images.

JJ replied:

Got it, I will give this a shot.

I was thinking of the Meyer's because I usually do all motion graphics in AE and often use still images.

Somehow they all interact to end up in FCP for output in my workflow.

Larry finishes: Once a still image has been converted to video, the pixel aspect ratio is fixed. The problems occur during the conversion from still image to video.

Thanks for taking the time to write. This is very confusing stuff.

Loren Miller wrote in to say that his <u>NeoTron Scan Guides</u> provide an easy way to figure out how to size images. I've worked with Loren's handy guides before, and in fact sell them in my store. I should have mentioned these. Sorry, Loren.

[<u>Go to Top.</u>]

SPEEDY RENDERS

John Rodgers asks:

> In your December 2008 Newsletter titled, "What Does It Take To Speed Up Rendering?", you mentioned that the key to fast rendering is a fast CPU. My dilemma is that I have a G5 with a Quad-Core and 6.5GB of memory and FCP 5. When I bring in a 1 hour AVI file I must render it before I can work with it. When I start the render it tells me it will take up to 36 hours. And sure enough, it does. I have had a 1 hour AVI file render in as little as 5 hours. What am I doing wrong? I have gone through your training on Lynda.com, but I did not see anything about this. Please advise.

Larry replies: John, thanks for writing.

You will have more success converting the AVI file BEFORE you bring it into Final Cut. Try converting it using Compressor or <u>MPEG Streamclip</u> - both of which are MUCH faster than FCP.

UPDATE - Sept. 5, 2009

Zak Ray adds:

> In regards to John Rodgers' question in this month's newsletter, AVI is a wrapper, not a codec (similar to MOV). It's true that he should convert it to a more manageable format prior to use in FCP, but the reason he's experiencing varying render times is likely because the AVIs contained different codecs.

Larry replies: Thanks, Zak. I don't know as much as I would like about WMV files.

---

OOPS! NOW WHAT???

Matt Richmond writes:

> I have an emergency and need your advice if possible.
>
> Is there any way you know of to undo a "Revert to Saved". I just reverted, then realized I hadn't ever actually hit save. Everything, even the log and capture, was lost. Can I go back in time?

Larry replies: Yup. That's what **File > Restore Project** does ... go back in time.

The secret is **Final Cut Pro > User Preferences > General Tab ... AutoSave Vault**.
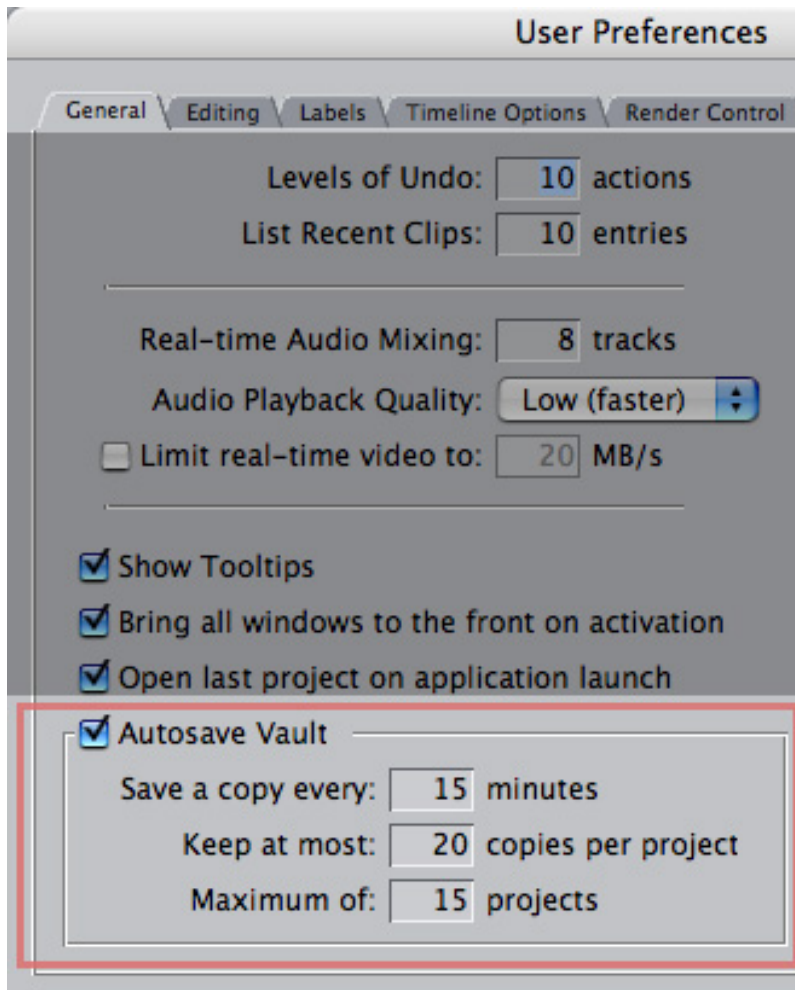
When AutoSave Vault is turned on, FCP automatically saves a copy of your currently open sequence to the location you specify - generally, this is your scratch disk. In this example, for instance, I'm saving a copy every **15** minutes.

Then, I've told it to only keep the **20** most recent backup copies of my project.

Finally, because I don't do that many projects at the same time, I've asked it to only keep backups of my 15 most recent projects.
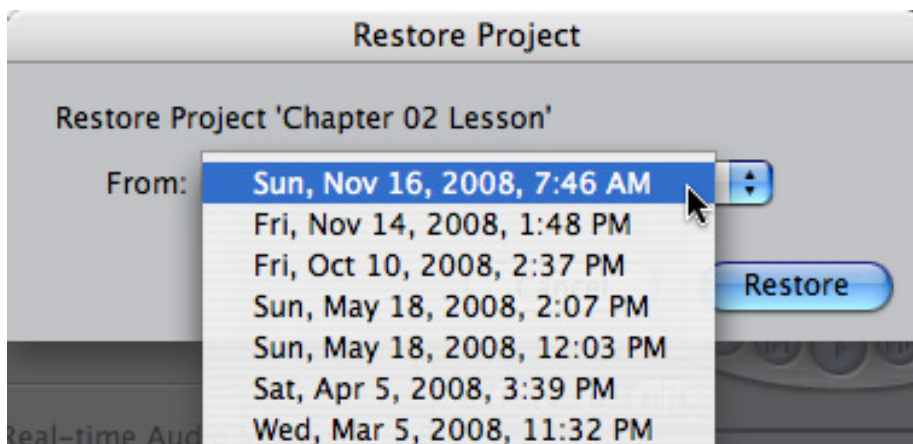
Here, for instance, I opened an old project where the AutoSave files go back several years.

You can set these parameters however you want. The files themselves are fairly small. Then, when you need to go back in time to find a project that was accidentally erased, use **File > Restore Project** and select the time and date you want to return to from the pop-up menu.

UPDATE - Aug. 30, 2009

Ben Balser adds:

> A quick comment on the Auto Save feature in FCP. I always teach the standard "File > Restore" function to my students, but I also teach them to look in System Prefs to see where that [AutoSave] folder is, and memorize it. Using the Restore function loses all your current work permanently.
>
> If you're in a situation where you want to go back to an earlier version, but not loose your current work, you can simply open one of those Auto Save files with the Open command in FCP, or by double clicking it, and it will be handled as a separate project, and not permanently destroy your recent version of the project. I prefer having two versions, rather than losing everything in one. I feel it's safer, and more flexible.

Larry replies: Thanks, Ben.

CAPTURING RGB 4:4:4 MEDIA

Two issues ago, **Paul Fiore** sent me a question I couldn't answer. He wrote:
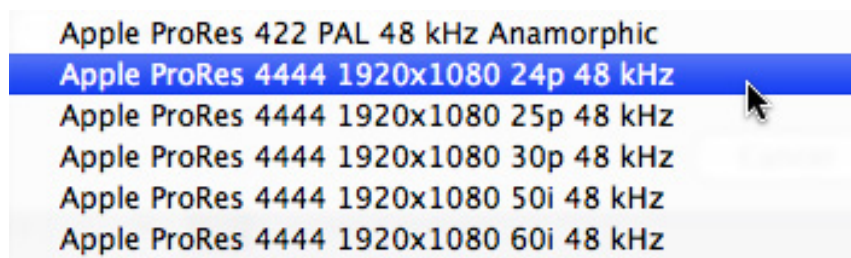
> Real Quick. What is the proper Easy Set up for capturing an HDSR 4:4:4 master to sustain that quality? I assure you all my dual link cabling and Kona 3 control panel set ups are in check, just not sure what Easy Set up to use once I get in FCP.
>
> I don't see one for 10-bit 4:4:4 - I read online the RGB set up is 4:4:4 - I've attached a scene grab. I think I've narrowed it done to 2 options.

Leigh Jewell then supplied an answer:

> I can answer this question. There is an Easy Setup, but it isn't exactly obvious. The Easy Setup is called "1080psf 23.98 DL 10 Bit Uncompressed RGB". The "DL" in the name stands for Dual-Link. Paul says that he has the cabling on the control panel all setup, so I won't go into detail about that.

Larry adds: At the time both Paul and Leigh wrote, FCP 7 had not been released. Now, Leigh's answer is correct for all versions of FCP except 7. For FCP 7, use ProRes 4444.


```
Apple ProRes 422 PAL 48 kHz Anamorphic
Apple ProRes 4444 1920x1080 24p 48 kHz
Apple ProRes 4444 1920x1080 25p 48 kHz
Apple ProRes 4444 1920x1080 30p 48 kHz
Apple ProRes 4444 1920x1080 50i 48 kHz
Apple ProRes 4444 1920x1080 60i 48 kHz
```

In the example Paul was asking about, use **Apple ProRes 4444 1920 x 1080 24p 48kHz**.

CREATING AN SD CENTER CUT FROM HD FOOTAGE

Eric Mittan, from WSIL-TV, writes:

> If I have footage shot by the new JVC HM700 (720p60 - we're an ABC affiliate) and I need to do a center cut of the footage to get it into a 4:3 format, what exact scale number should the footage be set to in the Motion tab of Final Cut Pro to have the footage fill the screen exactly? My Sequence preset is NTSC-DV. I can eyeball it, but I'd rather have an exact number, and I don't know a formula to figure it out.
>
> The situation: I'm in a newsroom at a television station and our production switcher is not yet HD, and likely won't be for a few years. However, the mandate came down from management (and I agree) that there should be no more standard definition cameras purchased by news or any other department. When one of our DVCAM cameras went bad, we ordered an HM700, which we love, but it only shoots 16:9. We can only broadcast 4:3 footage out of our news switcher. We cannot letterbox the footage, as most fullscreen graphics coming from the graphics department will still be 4:3 format, and I've been told to find a solution that does NOT have us switching back and forth between letterbox and 4:3 content within the same package (they also weren't too keen on moving back and forth across the whole newscast in general.) The solution is that anything shot with this camera will be still be cut in FCP just like all our other footage, but it must be blown up to fill the screen and crop off the sides.

Larry replies: Eric, thanks for writing. I got my start in TV news, so I always have a soft spot in my heart for the folks in the newsroom.

I loaded a 720p clip into the Timeline and starting playing. After fiddling, I discovered that if I set **Motion tab > Scale** to **100%,** it was a perfect center cut. However, this number will be different for 1080i footage.

Try this and let me know what you discover - I'll add this to the next newsletter and see if people smarter than me a better way to do this.

Also, be sure to set your render files to **ProRes** - up to 40% faster render times. **Sequence > Settings > Render Settings** (you can also set this in **System Preferences**).

Eric then wrote back:

> Thanks for all your help! When I put the footage in a timeline, the perfect scale seems to be about 74.5% to do a center cut. I'll probably round to 75% as our standard. But I just found out I'm meeting with Keith Tomiser from JVC today, so if he has a specific answer, I'll pass on the knowledge!
>
> I did some tests on rendering formats, and I think in a true production environment, you're likely right. We've got a few mitigating circumstances, though. First and foremost being that as a newsroom, we simply don't do that much rendering. Our longest pieces are 2 minutes, and they are mostly straight cuts with a few crossfades. The second being that because of our short-form content and quick turnaround, editors themselves are NOT responsible for cleaning out capture scratch and render scratch themselves after an edit. As Chief Editor and Mac Specialist, that falls to me, and I get to it about once a week. With render set

to DV (the same as our output) I don't feel like we loose any quality on our output, and I don't have issues with hard drives filling up.

Larry replies: Thanks!

UPDATE - Aug. 31, 2009

Eric Mittan, adds this update to his comments:

A quick follow up to our discussion of center-cutting HD footage to SD footage included in this month's newsletter:

Our ultimate solution was to go ahead and edit in an HD timeline. Our footage is all shot at the 19Mbps setting for 720p60 on the HM700, so I've simply told our photographers and editors to start with a fresh timeline, and answer yes when Final Cut asks if you'd like to match the sequence to the footage. Then we export at the same format. The final step before being sent to our playout server (which only takes Standard Def DV) is to drop the finished quicktime onto a Compressor droplet set to center cut the footage and convert from HDV to DV. It means less rendering during editing (since our footage matches our timeline) and if need be, the droplet can be set so that the destination automatically sends the file to our playout server. It eliminates a lot of steps.

It also means that even if we intercut between standard def and high def, while the SD footage is pillar-boxed in the timeline, the black pillars are cut off in the droplet, resulting in a delieverable that manages to keep the same 4:3 aspect ratio the whole time.

The Compressor droplet then can also be used to convert raw footage to DV to be cut on our edit bays that are still running Final Cut 5 and do not support footage from the HM700. (a temporary step - we'll be upgrading all editors running FCP 5 to FCP 7 sometime before the end of the year.)

Larry replies: Thanks for the follow-up.

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INTERCUTTING SD AND HD FOOTAGE

Brian Galford writes:

I am creating a dance recital DVD with two cameras. One is an SD interlaced camera, the other the Sony EX-1, set to its lower 25 Mb/sec rating so I could get more time on the cards. This footage was recorded at 1080i/60. What I am seeing on the DVD that I burned is, I believe called "judder." This manifests as sort of a shuddering, or ghosting repetition, of the moving parts of the image. Not the entire frame, just the parts that move quickly.

The sequence settings in FCP are set to DV NTSC, to match the SD camera, my lowest common denominator, as it were. I'm not sure that even matters, as I did not render the entire sequence before compressing. The total time of the program is 99 minutes, so I used the Best Quality 120 minutes setting inside Compressor.

Is there anything I can do to mitigate this judder?

Larry replies: Here are some initial thoughts you can try:

1. Convert your HD footage to SD using Compressor prior to editing

2. Try deinterlacing your files during compression.

3. Be SURE to compress in compressor, not DVD Studio Pro

4. See if increasing the data rate makes a difference - the judder may be caused by a data rate that's too low. This may mean that you'll need to do this on a dual-layer disc, or supply two discs.

The problem is that dance is all movement, which is VERY hard to compress to small sizes.

Brian then wrote back:

I did try your suggestion of converting to SD footage, and that did help. But then I had to figure out how to keep the footage from looking squished when HD 16:9 was turned into 4:3 SD. I finally found some cropping settings of 240 left and right, 120 top and bottom that worked.

But then I discovered something else. And part of it came in a letter to you from another person who changed his field dominance when compressing HDV to DVD, Bill Koepnick. However, he was only using HDV footage, and I am mixing SD and HD. I looked at his article again and wondered, could it be as easy as making sure the field dom was set to bottom upon choosing Best Quality 90 minutes? I tried that and saw that the field dominance was already set to bottom, and so that could not be my solution.

I noticed that when I dragged a copy of my original HDV camera file into Compressor, (before bringing any settings to bear) a look at the Inspector window revealed the A/V Attributes Native Field Dominance as Top First. I changed that to Bottom First, then clicked Save. I then chose the HD setting DVCPro1080i60 which I thought would best match the 60i frame setting of the original footage. (I also thought to create all I-frames while I am recompressing, instead of leaving the footage in HDV form.) Next I imported the newly encoded HD file into FCP, threw it onto a timeline with my SD footage, (replicating the environment in which I had the problem) and went back to Compressor to make a Best Quality 90 minutes DVD setting.

The DVD that ensued had no judder.

I wasn't sure this would work, because when I examined the field dominance of my newly created footage in the FCP Browser window, it said Top, not Bottom.

So I could do this all one more time, this time turning on the Frame Controls, and setting everything for Best, but perhaps most importantly, setting the Output Fields to Bottom First. I do notice the Deinterlace setting cannot be turned off, which bothers me since I am working with interlaced footage and would prefer not to change that—otherwise I might as well choose a Progressive Frame setting like DVCPro HD 720p60. I actually started this type of compression, but noticed it took considerably longer than the previous method, which as I said, looked good upon output to DVD. So in the interests of time saving, since I am already late with this project, I think I'll go with what works and takes the least amount of time. And chalk up this experience to "what doesn't kill me makes me stronger." Oh, and I

bought another SxS card so I will never have to choose the 25Mb/s setting on my camera again. The whole reason I did it was because this show seemed extra long and the lower setting gave me more time on the cards.

One final note about the DVCPro1080i60 method, is that there's no need to crop, as the footage starts and ends in 16:9.

Did I mention I hate HDV?

Larry adds: Thanks for all your great feed-back!

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EXPORTING -- REPORT FROM THE FIELD

Peter Sturken writes:

I do volunteer video work for an international NGO (directrelief.org) - and we get video material in all sorts of formats, plus stills.

As a production format in FCP, I use (quality vs. storage space), non-interlaced, Apple Pro-Res 422 at 1440x1080. Almost all of our material is seen on the web (DRI website and YouTube) as well as the CNN site - and CNN has used some of our footage in a news broadcast (the fires here in Santa Barbara). Flash video playback has almost 100 % market penetration, so that is the final production format goal.

Exporting from FCP from the ProRes timeline directly through the ON2 FLV plugin (I got it on a trial basis, but DRI can't afford to buy it at $ 199) has given me the best results for the web so far - since we have Adobe CS4 I can use the Adobe Media Encoder to produce either FLV (on2 compression algorithm) or F4V (using H.264) with decent resolution, no chatter on pans, reasonable file size. I believe that the higher native processor demands for playback of the H.264 format may more than offset the file size gains.

Larry replies: Thanks for sharing your system.

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BETTER DVD COMPRESSION

David Scott writes:

I export my eight minute, animated-stills-and-video FCP shows as straight Quicktimes, as per your recommendation. I project the QT version to an audience via a laptop and it looks good. I also use the QT file via DVD Studio Pro to produce DVDs. These generally are excellent except for annoying "artifacting" in scenes combining movement (zooming) AND transition (Fade In Fade Out Dissolve). Is there any way to eliminate this distracting stuff - perhaps through a different compression scheme? Or am I asking too much from a combination of very, very detailed, high res stills (1800x1350x72) that are then subjected to both

motion and transition, all mushed down to several hundred megabytes of DVD info?

These artifacts seem absent from the QT version. They get introduced in DVD Studio Pro and show up on the DVD. I'm guessing the conversion to DVD (which produces a much smaller file) exacerbates these artifacts which probably actually are in the QT version but not as noticeable.

Larry replies: David, image quality in compression is directly tied to data rate.

Yes, highly detailed images will get a bit mushy when compressed, but you should not see artifacts. The solution is to increase your compression data rate. For instance, if you compressed using an average data rate of 5.5 mbps, try using 6.0 or 6.2. Just compress the portion of your project that showed the artifacts - that way, you won't waste time compressing material that you know works.

You may need to do this a few times to figure out what data rate is best. If you need to increase the data rate past about 7.2, then something else is causing the problem, as that rate is starting to get too high.

Also, if file size is an issue, you can divide your movie into sections. Compress everything at a lower data rate to save space, then compress the section with artifacts at a higher data rate to clean up the image. Build those different movies to different tracks in DVD Studio Pro, then link them using End Jumps so your entire movie plays sequentially.

You could even build all the differently compressed clips into a single track. DVD Studio Pro requires all video on the same track to have the same image size frame rate, and compression codec, but not the same compression data rate.

Increasing the data rate should make your artifacts go away.

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ADDING SLUGS IN DVD STUDIO PRO

David Scott came back with a second question:

Is it possible to add simple slugs before and after video tracks in DVD Studio Pro? This would be a nice time saver on those occasions when, in a rush, one has forgotten to add a few moments of black before and after material produced in FCP, exports the file and then discovers the omission while trying to produce a DVD. Seems to me I once did this in DVDSP but, maybe not.

Larry replies: Yes, provided you create the slug in Final Cut and export it as a video clip.

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SENDING TO SOUNDTRACK PRO

Pete Clark sent me a dialog he had with Steve Szabo in Honolulu about Sending files to Soundtrack Pro. Pete asked:

Is it possible to send just the clip used in the FCP TimeLine to STP or does it have to send the entire MASTER CLIP that could be quite long depending on the capture. I had a thought that I could export the clip out of the TL as a QT mov (not sure if reference would work or would it have to be self contained) and then re import it and lay that in the TL before the round trip. That is cool but it would eliminate any handles on the clip and that is a bummer. what do you think.

Steve Szabo pointed out that when you send a clip, the entire clip is sent, unless you check "Send only referenced audio." At which point, only the selected clip, plus the handles you specify gets sent. When you check this option, handles default to 10 seconds, which is a pretty good number to use.
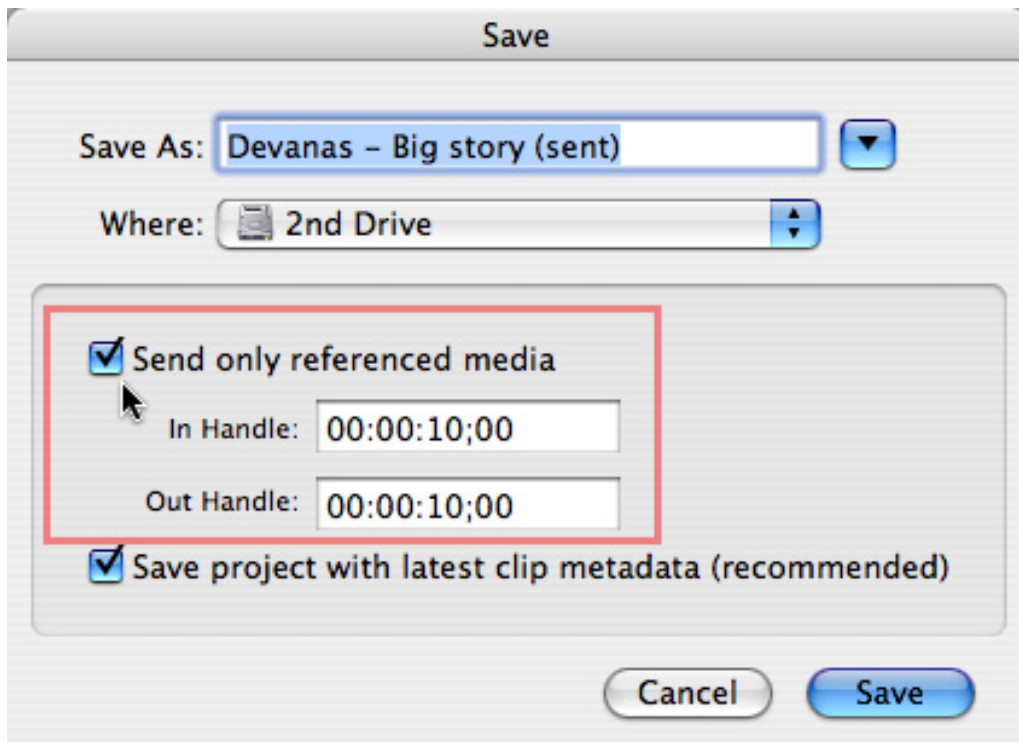

This option is normally not selected, which means the entire clip gets sent to STP. Be sure to always leave the bottom check box checked. This makes sure FCP and STP properly reference the same media.

Remember, also, when you **Send** a file to a Soundtrack Pro Audio File project, you **Save** it to get it back automatically into Final Cut.

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MISSING AUDIO WAVEFORMS

Philip Bast writes:
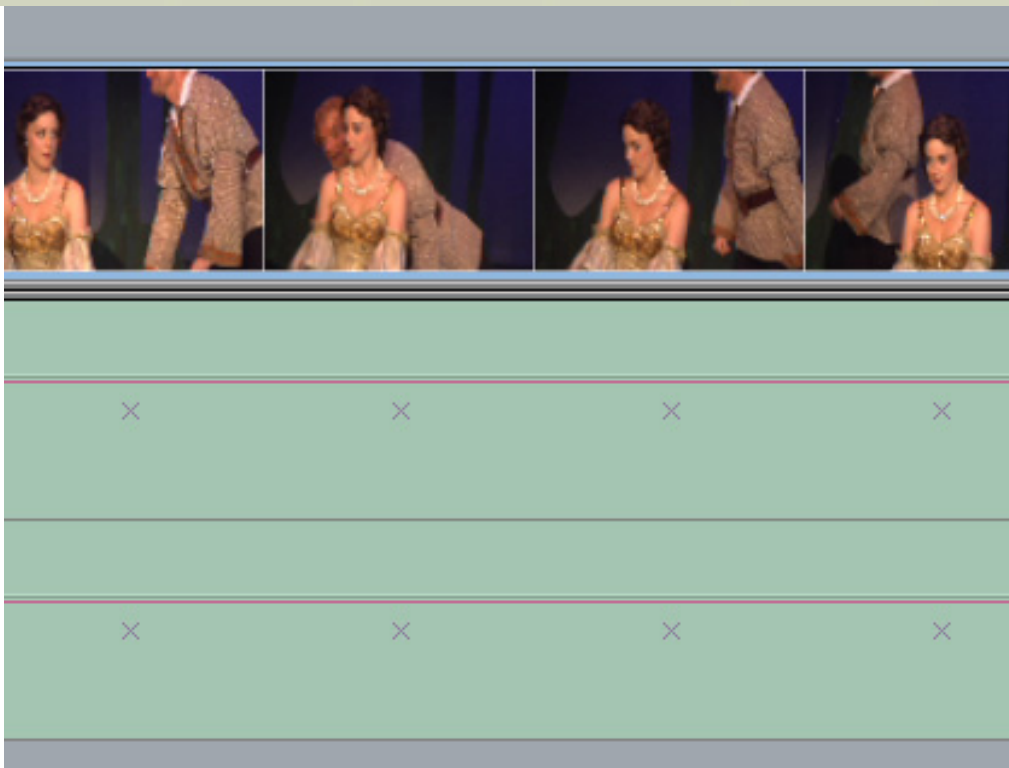
I'm back with another audio wave question. Occasionally I find audio wave forms won't register when they should. Hitting option-apple-W simply brings up a series of Xs instead of a soundwave.

I've had this occur previously when working in FC Express with videotape, but have recently upgraded to Studio 2 and am now working Hi-Def with P2 cards (Panasonic HVX200). And I hoped that going tapeless would cure this problem, however it has just recurred on this project.

I don't know if this is a common problem worth addressing in your tip of the day or if it just happens to be my fluky curse. It's a curse because I find sound waves incredible valuable for precise editing. I should note that the sound wave will show up when I have zoomed in to the max (with about a second or so of frames showing in the timline), and of course with just a second or two in the timeline, you can't see the forest for the trees. What I normally find useful for fairly proficient editing is about 15-16 seconds in the timeline. That allows me very clean rough cuts, and I only zoom in to a second in the timeline if I really trying to hone an edit.

So, two questions:

1) What causes this?
(Which is obviously less important than ...)

2) How do I get my soundwaves back?
(Short of re-inputting my raw files from the P2 cards?)

Larry replies: Yeah, I've had this problem from time-to-time, too.

The problem is caused by Final Cut thinking the waveforms already exist when they don't. So it can't display what doesn't exist. We need to force FCP to recalculate the missing waveforms for the clip.
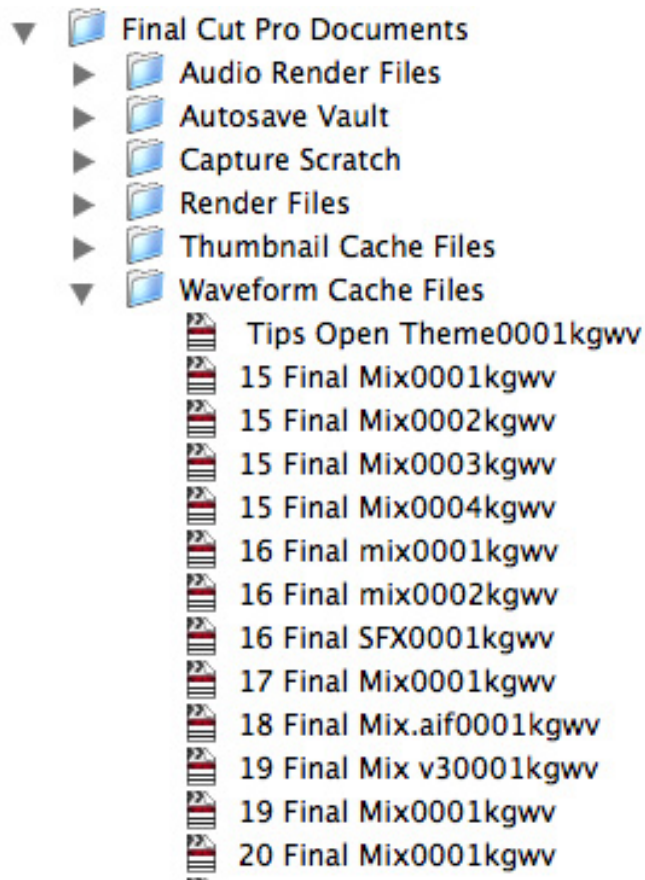
Fixing this problem is not hard, but not documented.

It may not be necessary, but write down the name(s) of the clips with missing waveforms, then quit Final Cut.

Go to the hard drive you are using for your scratch disks. Look for the folder named "Final Cut Pro Documents" -- assuming you follow my system of setting up Scratch disks. Open it to reveal a folder named: Waveform Cache Files.

[Here's an article that talks about my system for setting up Scratch disks.]

If you don't use my system, look for a folder named **Waveform Cache Files**. Do a search for this file name - if your scratch disks are disorganized you can have several of these on multiple hard disks.

▼ 📁 Final Cut Pro Documents
  ▶ 📁 Audio Render Files
  ▶ 📁 Autosave Vault
  ▶ 📁 Capture Scratch
  ▶ 📁 Render Files
  ▶ 📁 Thumbnail Cache Files
  ▼ 📁 Waveform Cache Files
      📄 Tips Open Theme0001kgwv
      📄 15 Final Mix0001kgwv
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      📄 16 Final mix0002kgwv
      📄 16 Final SFX0001kgwv
      📄 17 Final Mix0001kgwv
      📄 18 Final Mix.aif0001kgwv
      📄 19 Final Mix v30001kgwv
      📄 19 Final Mix0001kgwv
      📄 20 Final Mix0001kgwv

Inside the Waveform Cache Files folder, look for a file that starts with the name of the clip that has the missing waveforms, then delete the file(s).

When Final Cut reopens, it will go to display the cached waveforms for the clip, discover they aren't there and recreate them.

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CREATING A CARTOON LOOK

Leo Fountila writes:

> I was wondering if you could tell me how to create cartooning in FCP or direct me

to the plug in that will do this easily. Also is there an easy plug in for green screen use.

Larry replies: There are several to choose from:

ToonIt, from Red Giant Software

Studio Artist, from Synthetik Software

And a Google search on "cartooning software" turns up a variety of free software to choose from.

[As a note, Leo wrote back to say he purchased ToonIt and it worked great.]

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WORKING WITH SONY ZIU FOOTAGE

Rytis Januska writes:

I am working with HDV footage in SD project. Footage was shot with Sony Z1U. We had to frame some shots that is why I did not downsized the footage while capturing. Final delivery is SD DVD. What I have noticed in some of the scenes, that image is jittering in compressed m2v file. FCP automatically puts shift+1 frame in filters tab. I have tried changing it to 0 or -1, but had no luck. Mostly I see the effect in scenes where video is enlarged by about 30% and comes between 80-90% in SD size. Is there a solution, how to stabilize the footage.

[Rytis adds:] I am editing in SD timeline. I have tried prores HQ codec and standardt dvntsc codec. Didn't help. I've tried rendering in rgb and 8bit precision codecs it didn't change. Previous project with exactly the same settings didn't have any issues. It looks fine in FCP, but it is bad after compressed to mpeg. I ahave also tried adobe encoder instead of compressor, but results are the same.

Larry replies: Generally, the Sony Z1U shoots 1080i HDV footage. How are you editing this - as an SD timeline or an HD timeline?

If you are editing in HD, try doing the down-conversion in Compressor, rather than FCP.

If you are editing in SD, the **Field Shift +1** is appropriate because SD interlacing is the opposite of HD interlacing, in terms of which field comes first.

Rytis then sent me the solution:

I have removed all filters in filters tab. Some of "field shift+1" were duplicates from pasting the attributes. Later a have copied one of the filters from another timeline and applied to all the clips. I have changed the compressor setting in timeline to Apple ProRes422 HQ, and rendered everything in 10 bit-material high precision YUV.
I have used standard preset in compressor for 90 min DVD best quality with dual pass. The result was perfect.

I think in some clips double effect was causing a problem, but most of them got just one filter in it. Can it be codec issue? Rendering issue? I just guess.

Thank you for you help.

Larry replies: You're welcome!

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PROBLEMS WITH CANON CAMERAS

In a discussion between myself and **Ken Stone**, **Madeline Yakimchuk** writes:

> It seems that Canon cameras demand the full FireWire bus to be recognized by FCP. People are pulling their hair out. The common denominator seems to be this weird Canon characteristic (hint, it is not a FCP problem exactly). that FCP will not recognize the camera, even if you have a brand new tower, a brand new camera and a brand new cable. If you also have a brand new, or old, external drive connected, even if you don't really need it for now, you will not be able to digitize from your camera.
>
> It seems that built-in FireWire jacks, no matter how many you have, actually share the same bus so the only solution in the short term is to unplug all other external firewire devices and restart. Very easy and 100% effective, unless you need to digitize to that external.

Larry replies: Madeline, you are correct in that all the FireWire jacks on your computer are connected to the same bus. But DV and HDV require less than 20% of total FireWire 400 bandwidth. I don't think this is an issue of bus-contention, I suspect something else is involved.

Ken Stone added:

> If you'll recall back in the day, we could not capture from the Canon XL1 to an external FW hard drive. People had to capture to the internal drive and then, after capture, drag everything across to the Firewire hard drive, to their capture scratch.
>
> The GL1 could capture to an external FW HD, but needed Firewire Basic.

Larry adds: Madeline, I suspect, as Ken points out, that you may have better luck capturing by setting you Device Control to FireWire Basic.

To do this, go to **Final Cut Pro > Audio/Video Settings**.
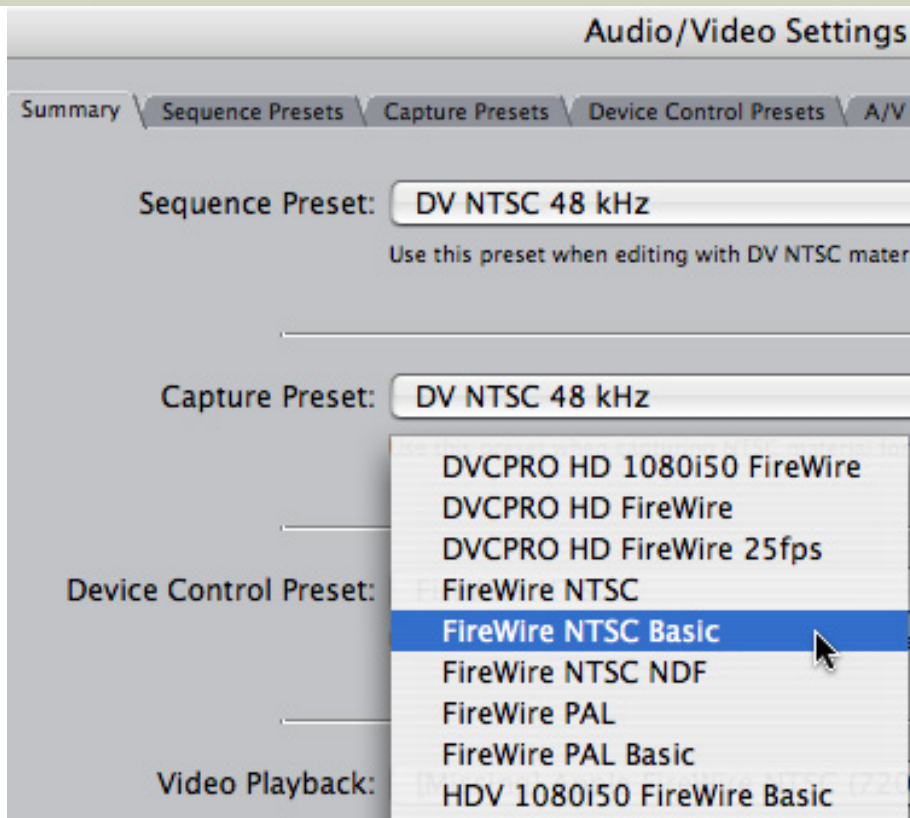
Change the Device Control pop-up from FireWire NTSC (or FireWire PAL) to **FireWire NTSC Basic** (or **FireWire PAL Basic**).

This device control setting was designed specifically for Canon cameras and may solve the problem.

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PUTTING EX1 ON AN SD TIMELINE

Jon Freedman writes:

> I am a big fan of you and your work and a regular listener to your production buzz program. I'm grateful for all the knowledge that you dispense on a regular basis. I have a question about a puzzling situation I have run into.
>
> I've been editing HDV (and more recently HD ExCam footage shot on the Sony EX-1) for a number of years in Final cut pro by setting up a standard definition NTSC project in FCP and upon importing the footage FCP automatically adjusts the HD footage to fit in the SD timeline (I've noticed that it is at 40% in the motion tab under the scale parameter and there is some adjustment applied in the distortion parameter). Because these finished projects are going to DVD this saves a lot of processor work and has the added benefit of allowing me to "zoom into a closeup" on certain shots with no distortion by simply resetting the scale parameter to 100%.
>
> I've recently moved to New Zealand and am about to start a freelance edit project with a client here in Auckland. They shot the project with the Sony EX-1 (In HQ @ 50i - a PAL friendly setting) and are editing in FCP at HD quality. I've made the

suggestion of creating a new timeline in PAL at an SD setting and pasting the project into the SD timeline to realize the benefits mentioned above but when we tried to do so we ran into a lot of problems - one of which is it seems that the only SD PAL setting I can find winds up representing the pasted footage as 16:9 letterboxed in 4:3 SD frame. What am I doing wrong? How can I fix it?

Larry replies: Jon, your method should work.
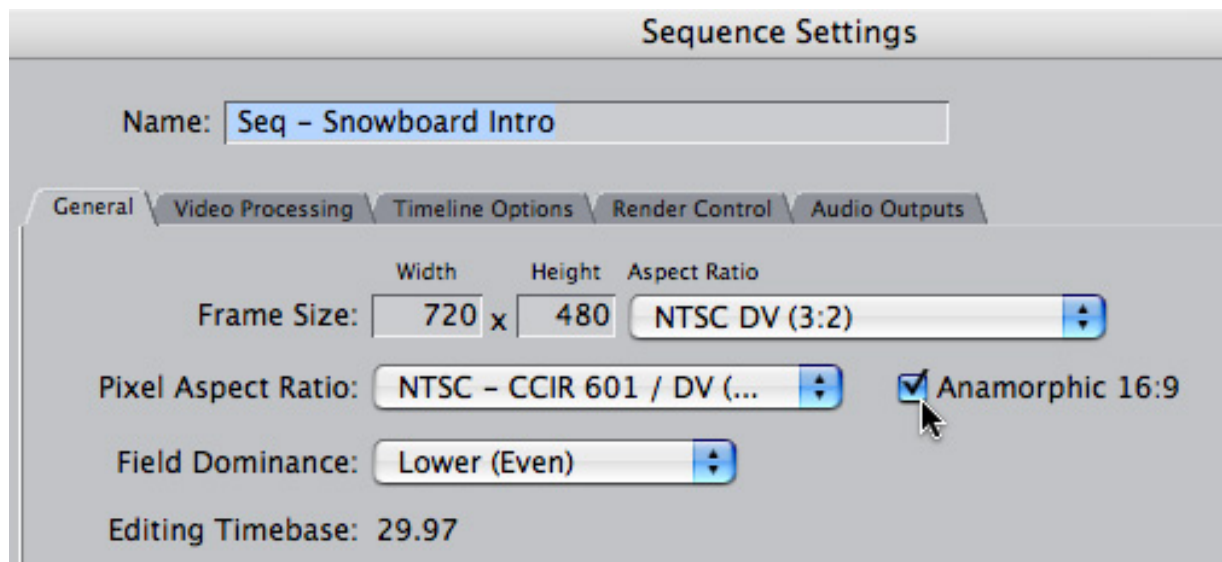
Be sure, BEFORE you add any clips to your new PAL sequence, to go to **Sequence > Settings** and be sure the anamorphic check box is checked.

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DOWN-CONVERTING VIDEO

Michael writes:

> Had the pleasure of attending a 2 day seminar of yours a couple years ago. Very much enjoyed it!
>
> I read in your latest newsletter that you recommend using compressor to downconvert HD or HDV material for use in DVD studio pro.
>
> I was wondering if that method had any advantages over the one I've been using for a few years: I output the HD or HDV sequence as a .mov quicktime file (self-contained), then I import that file into my project, start a new sequence (DV NTSC setting), drop the clip onto that sequence and don't let it change the sequence to match the clip settings. This gives me a letterboxed SD version of the file which I then export as a .mov quicktime.
>
> Is there a difference in quality between the two methods? I work in a film department in which the students are constantly asking me about downconverting. I tell them this method due to the ease of staying within Final Cut. But if compressor yields a better quality product, I'll change my ways!

Larry replies: Michael, your system will work fine.

I prefer using Compressor for three reasons:

1. It runs in the background, meaning I can do other stuff while its compressing
2. It does a better job handling interlacing
3. I would argue the quality is better.

If you are happy with your process, stay with it. If not, you may like mine better.

UPDATE - Aug. 31, 2009

Eric Mittan, adds:

I would like to point out to Micheal that his method of letterboxing the video by using a DV-NTSC timeline means that the black bars on the top and bottom wil now be a part of his output video file, and as a result, will have to be encoded for the DVD he ultimately plans to burn. This means that of all the bits used to encode his video, a significant number of zeros and ones are used up just to make those black bars on the top and bottom!

It's a drag on your bit budget and the quality of your image WILL suffer.

If your footage is 16:9 - even if it's not HD, say, like 16:9 DV footage - you should edit in a 16:9 timeline and encode the video in compressor using a 16:9 setting for DVD. The DVD player will then add the black bars on top and bottom to display on a 4:3 television as the very last step. If you're viewing the 16:9 DVD on an upconverting DVD player on a HD monitor, it will fill the screen. Viewing a DVD that has been letterboxed in your timeline on an upconverting DVD player and HD television would result in the now-4:3 image with black bars on top and bottom having black bars added to the sides to fit a 16:9 screen. Your new "Postage Stamped" image will have black all the way around and will be a smaller image in the center of the screen.

Larry replies: Thanks!

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PROBLEMS RECONNECTING MEDIA

Dominic Reynolds, from Glasgow, writes:

I have Final Cut Pro 5.1 installed on a G5 Mac. I captured footage for a project I was working on to an external hard drive and left it for about five weeks.

When I came back an opened the project I was told I had to reconnect the files. I attempted this, found the files on a capture scratch folder I had specifically created for the project. The files were unselectable (i.e. 'greyed out' in the reconnect window) so I unticked the 'Matched Name Only' box, selected the first matching file and hit choose.

Unfortunately this hasn't fixed the problem. Final Cut still says the footage is offline even though I found it and selected it.

What am I doing wrong? It took about four hours to capture everything from the video deck and I used the exact same procedures I do with every other project.

There are other projects on this hard drive. I selected another project that was captured to the same drive a day later and it's working just fine.

Larry replies: Hmmm.... grayed out files means that either the file name, the path name, or the Reel ID don't match what Final Cut stored in the Browser when you captured your file. Unchecking the Match Name checkbox is the appropriate thing to do when this situation arises.

Final Cut only makes the new links permanent when you save your project file. So, if you relink, then don't save the file, all your relinking is lost.

Normally, I would assume bad FCP preference files -- except you said that other projects were connecting properly. Again, normally, trashing your preference files, relinking the media, and saving the file would be the best solution.

In this case, I recommend trashing your FCP preference files (here's an article that explains how), relinking SOME of your media - no sense spending four hours to test this - then do a SAVE AS on your project to save it under a different name. Then, open the newly saved project to see if the files reconnect properly. If so, you can now reconnect everything. If not, there may be a bigger problem lurking inside this project.

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TWO HARD QUESTIONS - CHANGING BACKGROUNDS AND DROPPED FRAMES

Farrah F. asks:

> 1. I have recorded a film using a digital video camera in a room. Now I am editing the film and as most characters have the same wall or curtain behind them it does not look very good to me I need to learn how I can change the background to a pure white and just have the face of the characters. (In a way that it does not show up that all the filming has happened in the same room with the same curtain behind them).
> 2. The other problem I come across from time to time is that a message pops up saying (dropped frames) and then it stops playing. How can I repair this so that I do not get the dropped frames problem anymore and to be honest I do not know what causes it.

Larry replies: Farrah, thanks for writing.

1. If you shot your video against a green or blue screen, changing the background is easy. Use FCP or Motion to replace the background color. Here's a DVD that explains the process.

If you shot your video against a white background, this, too, is easy. Apply the Color Corrector 3-way filter and raise the white level to even out the background. You should probably also apply the broadcast safe filter AFTER you apply the Color Corrector 3-way filter to make sure your white levels stay safe.

If you shot your video in an ordinary room, with a variety of objects, colors, and gray scales in the background, replacing it with white, while possible, is going to be very, very difficult. This is because you will need to manually separately the people in the foreground from the background for each frome of your video. Possible, but very time-consuming.

Here's a video tutorial that gives you a sense of what needs to be done.

2. Dropped frames are caused by a hard disk that is too slow to keep up with your video playback.

Here's an article that explains more.

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QUESTIONS LARRY CAN'T ANSWER

CONVERTING M2T FILES IN COMPRESSOR

Sajid Farooq asks:

> I enjoyed - and learned from - your article regarding m2t and compressor (http://
> www.larryjordan.biz/articles/lj_converting_M2T_mov.html#book). The problem is
> compressor wont let me import m2t files at all. All files with an m2t extension are
> grayed out in the 'add file' dialogue box!
>
> Could it be that Compressor 3.5 is different? I haven't used the old compressor.

Larry replies: I know that MPEG Streamclip can convert these. I don't know if Compressor can.

If a reader has any ideas, please let me know.

UPDATE - Aug. 31, 2009

Alan Day adds:

> Just reading your newsletter and came across the bit about MT2 conversions. I
> had this problem in January while working on a program shot entirely on a Sony
> HDD camcorder. These files were all M2TS format and NOTHING would play
> them. I discovered a report that even Sony Vegas wouldn't read them (Sony are
> well known for keeping their "Domestic" and "professional" stuff separate ... and
> this seems to be another one of those.
>
> There is however a Solution: A reasonably priced program (35 US dollars) called
> Voltaic. There is a new version called "VoltaicHD" which I have not tried yet but it's
> worth checking out as you can use the demo a limited number of times on files up
> to a certain length. Voltaic solved my problem.

UPDATE - Aug. 31, 2009

Darryl Yee adds:

> For converting M2T files, I recommend Clipwrap: http://www.clipwrap.com/
>
> It's just about as fast as copying the M2T files from a CF card to your hard drive. It
> also has some other transcoding options like DVCPRO-HD, DV, AIC and ProRes.

Larry replies: Thanks!

CONVERTING AUDIO FILES FROM VIDEO SPEED TO FILM SPEED

Christian Dolan writes:

> I just finished my first 5.1 feature mix in Soundtrack Pro. For the most part, it did what I needed, until we got to lay-back. I cut and mixed everything at video speed, but now need to pull up my tracks to film speed, and apparently, STP can't do that (this was confirmed today by Apple tech support).
>
> So, I have (6) feature-length monophonic 48k/24bit WAVs that all need to be pulled up to film speed. I'm open to any and all suggestions.

Larry replies: Christian, I have no idea.

Perhaps a reader can help?

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. In fact, you can put the free player on your website!

- Visit our store and buy some of our latest tutorials.
- Or, sign up for one of my monthly workshops.

Also, please continue sending 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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