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Larry Jordan's Monthly Newsletter

Editor: Larry Jordan
Issue #57 -- June, 2009

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

The goal of this newsletter is to provide information helpful to the serious user of Final Cut Pro. This newsletter publishes each month, past issues are available in my store. All software references are to Final Cut Studio 2 unless otherwise noted.

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

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WRAP-UP

WELCOME

It's good to be back...

Summer is finally here, Apple's released new laptops, detailed what we can expect in Snow Leopard, and there's a ton of interesting Final Cut news and gossip.

First, a quick note at the start. I truly enjoy all the comments and questions you send in. I share those that seem relevant to a larger audience, but without your feedback this newsletter would be a lot less interesting.

While I am very grateful for all your compliments and kind words, I also appreciate when you point out errors. I try to make these newsletters as accurate as possible, and with your help, we can. (By the way, I update each issue for several days after its initial release, so be sure to check back every few days to see what others have to say.)

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APPLE DETAILS SNOW LEOPARD - WHAT DO WE NEED TO KNOW?

On Monday last week, Apple detailed the new features in [Snow Leopard](#) - also known as OS X 10.6.



While there has been lots of press coverage on this, I want to highlight a few points that are

relevant for Final Cut Pro users. This was sparked by a question from **Andreas Schmidt**, who wrote:

Yesterday Apple announced Snow Leopard and Quicktime X. Do you know or have an idea if Final Cut Studio 2 will run under that OS or will it be necessary in order to run Snow Leopard to buy Final Cut Studio 3 once its announced?

Larry replies: First, Snow Leopard runs on Intel-Mac systems only, so if you are using a G-5 or G-4, you won't be able to run the new operating system. (In fact, for G-4 systems, I'd suggest staying with OS X 10.4.11.)

Second, Snow Leopard uses a (relatively) new language called Cocoa. However, much of Final Cut Studio is written in an earlier language called Carbon. So, if you want to run Snow Leopard, you'll need to upgrade Final Cut to the latest version - which has not yet been announced.

(Cocoa, in general, is a good thing. For instance, Carbon limits the total amount of memory that an application can access to 4 GB; Snow Leopard supports TERAbytes of RAM.)

Finally, in answer to when a new version of Final Cut will be released, Apple does not tell me the ship date of new versions of FCP before they announce it to the world. But if I were to GUESS, I would say that we won't learn of a new Final Cut Studio version until Snow Leopard is shipping. So, for me, I'm expecting an FCS upgrade in the October time-frame.

Jonathan Tyrell reminds me that Snow Leopard will still support many 32-bit applications, so that you won't necessarily need to update everything when you move to Snow Leopard.

I am really looking forward to this version of the OS -- however, keep in mind that there's still a ways to go before release. And no client has ever paid extra for us to edit on the latest version of anything.

UPDATE - June 16, 2009

Tom Wolsky adds:

An important feature in Snow Leopard for video pros is the change of the default screen gamma.

Larry replies: Thanks, Tom, I forgot that.

UPDATE - June 23, 2009

My recent thoughts about the relationship between Snow Leopard and the next version of Final Cut Studio generated a lot of comments -- especially on other forums. For instance, here's an example from KenStone.net:

<http://www.kenstone.net/discussions/read.php?3,13183,13183#msg-13183>

Thanks for all your comments and thoughts on this. My information for my posting was based on talking with both programmers and knowledgeable engineers at a variety of different companies. However, I would be foolish to ignore the expertise of Philip Hodgetts and others. My goal in both my blogs and newsletters is to be as accurate as possible and, when errors exist, to correct them quickly.

Philip Hodgetts did a detailed analysis of this issue in his blog a couple of days ago that I strongly encourage you to read:

My bigger point was two-fold: to explain why I felt the next version of FCP would not ship until after Snow Leopard and to begin to explore the impact Snow Leopard may have on Final Cut editors. The reality is that we won't know the impact until both products are announced and shipped. Until then, I'm grateful for everyone's comments.

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SPEND A DAY LEARNING WITH LARRY

One of the most frequent requests I get is to present a Final Cut seminar that covers material not presented as part of the traditional Apple training classes.

So, in answer to these requests we've created two new seminars - at a **GREAT LOW PRICE - \$79 for the entire day!**

- Wednesday, June 24 - **Woodland Hills, CA**
- Tuesday, July 28 - **Santa Ana, CA**

Now is the best time to improve your skills -- while the economy is slow and clients are scarce. Because when we are busy working there's no time left to study.

A full day of training with LOTS of time for questions and discussion and **ONLY \$79!** Frankly, we are doing a test to see if lowering our prices makes it easier for more people to attend.

[Click here for the agenda and registration.](#)

We only have about 15 seats left in Woodland Hills - please register soon to reserve your seat.

BREAKING NEWS! Bruce Nazarian joins us in Santa Ana to discuss creating Blu-ray Discs.

Note: Due to many requests, we are currently working on creating a seminar in **Northern California** for late July - early August. We'll send you a note when we get this finalized. Thanks to Silverado Systems for helping to set this up!

Great training at a great low price! Now's the perfect time to learn something new.

[Click here to learn more!](#)

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TECHNIQUE: CREATING A PICTURE-IN-PICTURE EFFECT THAT MOVES USING MOTION TAB KEYFRAMES

One of the fun things about teaching is helping students discover concepts I've known about for



a while, but are still new to them.

That thought is the foundation for this technique - getting a piece of video to move around the frame. Along the way, I'll try to illustrate some techniques that some experienced users may have forgotten.

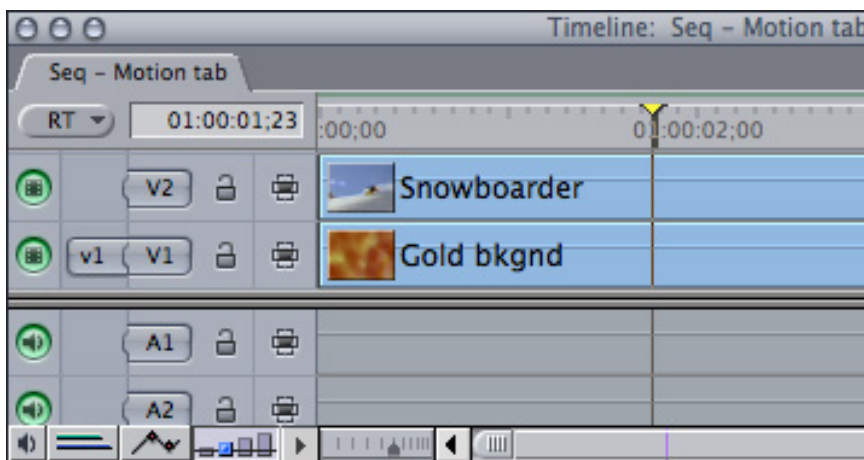
This tutorial has several parts:

- Setting up your clips
- Changing the size of a clip
- Positioning a clip
- A discussion of Action and Title Safe
- Getting an image to move
- Adding curves

SETTING UP YOUR CLIPS

When you are building an effect in the timeline, the order in which you stack clips makes a difference.

Clips on higher tracks are in front of clips on lower tracks. In other words, the stacking order of your clips determines foreground and background.



For instance, here I have a gold background clip on V1 and a foreground clip of a snowboarder on V2.

By default, all clips in Final Cut are 100% full screen and 100% opaque. This means that when two clips are stacked, the upper clip totally blocks the clip(s) below it.

Therefore, if we want to see any background (lower track) clips, we need to adjust the highest level clip first. This can be done using a variety of tools (such as cropping), filters (such as mattes), or settings in the Motion tab.

CHANGING THE SIZE OF A CLIP

Probably the easiest way to see both clips at once is to change the size of the top (V2) clip.



Note: By the way, the reason I refer to clips using **V1** or **V2** is that is the label of the track on the left side of the Timeline. I refer to tracks based on the right-hand track labels in the Patch Panel.

So, to change the size of a clip, double-click it to load into the Viewer, and click the Motion tab. There are ten different setting groups in the Motion tab. However, the three that get used the most are:

- **Scale** - the size of the clip
- **Rotation** - the angle of the clip
- **Center** - the position of the clip

There are several ways to change the size of a clip:

- Move the Scale slider
- Type in a value in the Scale data entry box
- Adjust the size of the image in the Canvas (more on this in a minute)

In this case, we'll make the V2 clip smaller by changing its Scale to **40%**.

Important note: The highest quality of any video clip is when it is scaled to 100% or smaller. Scaling above 100% very quickly degrades image quality -- especially for standard-def images. Try really, really hard not to enlarge clips beyond 100%.

POSITIONING A CLIP

To change the position of a clip within the frame, you need to know how Final Cut positions it in the first place. Final Cut positions clips based upon the **CENTER** of the image. And it uses as its starting point the exact center of the frame - a point it labels **0,0**.

Putting an image at a Center of 0,0, means that the center of the image is exactly in the center of the frame. And, if the image has a scale of 100%, that means that the image will be centered in the frame and fill the frame.

Note: It is possible to move the Center point to a different location than dead center by altering the Anchor Point. The Anchor point is the point around which an image rotates or scales. By default, this is at the center of the frame (0,0). However, moving the anchor point is a subject for a future tutorial. For now, we'll leave it at its default setting of 0,0.



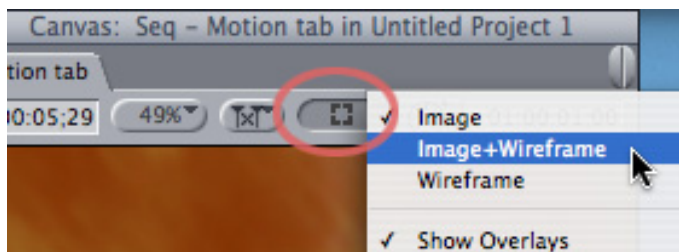
So, to change the position of a clip, we can enter new values in the Center data entry box. The left-hand box controls horizontal position, and the right-hand box controls vertical position.

Negative numbers in the left-hand box move an image **left**. Positive numbers move the image **right**. Negative numbers in the right-hand box move an image **up**. Positive numbers move the image **down**.

So, to place a 4:3 NTSC DV image so that the center of the image sits in the middle of the far left edge of the frame, the Center would be **-360, 0**. To place the center of the image in the middle of the bottom edge of the frame, the Center would be **0, 240**. Up and left are negative numbers, down and right are positive numbers.

Note: For those of you following along at home, I'm working with 4:3 NTSC DV - because it allows me to use screen captures small enough to fit into this newsletter. A 4:3 NTSC DV image is 720 x 480 pixels.

For our example, let's tuck it in the top left corner of Action Safe by moving the image to **-180, -120**.

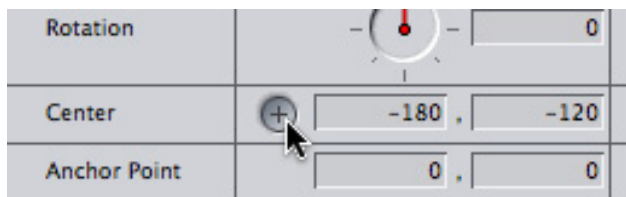


Here's an easier way to move an image. Go to the far right pop-up menu at the top center of the Canvas, and switch it to **Image+Wireframe**. This allows you to grab an image in the Canvas and drag it where you want it to go.

Other things you can do with Arrow tool in the Canvas in Image+Wireframe mode include:

- **Scale** an image - grab a corner and drag
- **Rotate** an image - grab NEAR a corner and drag.
- **Move** an image - grab inside an image and drag

Note: Using tools from the Tool palette, you can also Crop and Distort an image. In fact, the Distort tool also allows you to move the Anchor point by simply clicking and dragging.

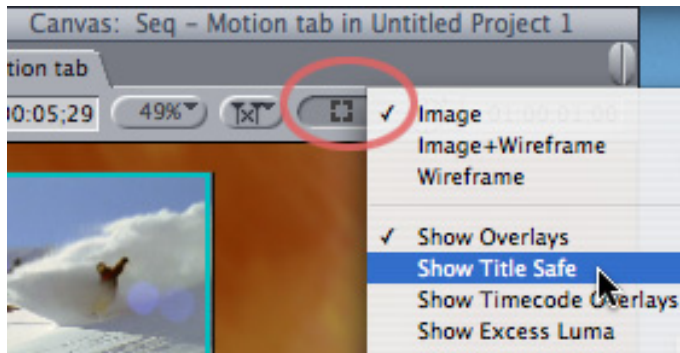


However, for me, the *easiest* way to move an image is to click the cross-hairs next to the Center data entry boxes. Notice how it turns a darker shade of gray?

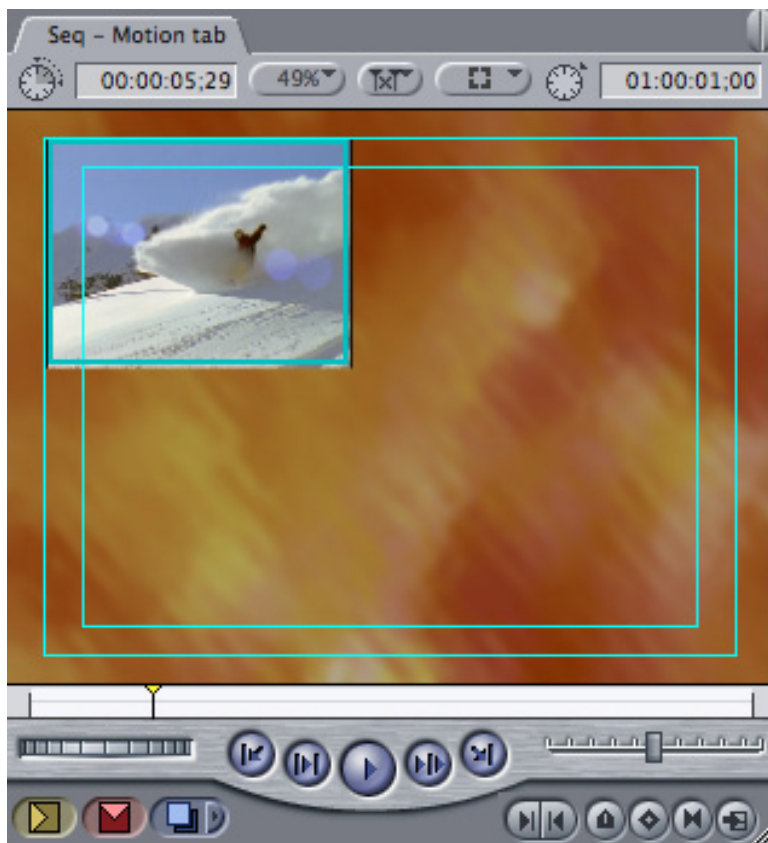
Now, simply click, hold, and drag the image in the Canvas where you want it to go. This way, I don't need to worry about the Canvas pop-up menu setting. I can move the image and see the numeric read-out in the viewer as I move the image. Plus, many other filters and settings use this same icon to set position.

A SIDEBAR - WHAT ARE THESE STUPID RECTANGLES??

Um, wait a minute. What's Action Safe and what are these blue rectangles doing here?



To display both Action and Title Safe, go back to that same far right pop-up menu in the Canvas and select "Show Title Safe."



Action Safe - the outer rectangle - is 5% in from all edges of an image and represents that portion of the frame that is often lost when images are displayed to an analog device, such as CRT televisions and projection systems (both digital and film).

Title Safe - the inner rectangle - is 10% in from all edges of an image and represents that portion of an image that is often lost on older CRT televisions, which tend to enlarge images as the TV set ages.

It is considered good practice to keep all essential action (actors and movement) within the Action Safe boundary. Further, it is considered REALLY good practice to keep all essential text (titles and logos) within the Title Safe boundary.

But wait just a minute, I hear you saying. This is the new world of digital television -- LCD and LED displays -- and the Internet; surely we don't need to worry about this stuff now.

Well, much as we would all like to believe that we are past all this, it just ain't true. There are BILLIONS of older TV sets still in use where the rules of Action Safe and Title Safe still apply. Also, anything which is projected needs to allow for edges of the image to shoot off the screen.

So, for many, many years to come we are in the worst of all situations: we need to create perfect images edge to edge for the web and digital TV sets, while keeping essential text and logos within Title Safe so that older sets can still display them.

You are welcome to grumble, those of us in the industry have been complaining about this since the dawn of television... not that complaining will do any good, but it may make you feel better.

GETTING AN IMAGE TO MOVE

Now that we have our image scaled and positioned, we need to get it to move. In order to do that, I need to define a term: Keyframe.

A **Keyframe** is a point of change during playback -- and we always use keyframes in pairs.

If nothing changes during playback, you never need keyframes. For instance, in this example, if we want to leave this image parked in the upper left corner, we would set it there and be done with it.

We only need to use keyframes if we want an image to move, say, from the upper left corner to the upper right corner during the playback of our sequence. And, just as you need to know both where you are starting from and where you are going when you leave on a trip, you also need a starting keyframe and ending keyframe when you want something to move during playback.

So, let's animate a change in position for this image by setting two Center keyframes -- one where we want it to begin moving and the other where we want it to end.



First, we may need to make the Motion tab wider so we can see the Keyframe section. To change the size of a window, grab the lower right corner, on the three diagonal lines, called the Thumb, and drag to the size you need.

Notice that the Motion tab divides into two sections: the settings side, on the left, and the keyframe side, on the right. The light gray area on the right represents the portion of the clip in the Timeline.

Position the playhead in the Motion tab where you want to set your first keyframe. In our case, we want the keyframe at the start of the clip. So, make sure the Motion tab is selected and type **Shift+I** -- this jumps the playhead to the In of the clip.

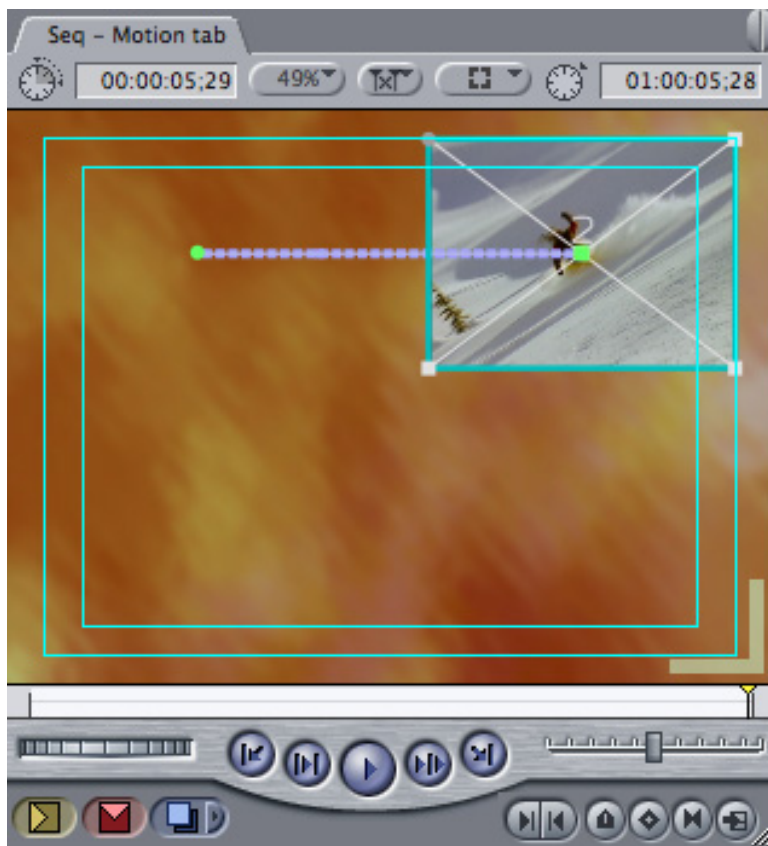


Click the open diamond to set a keyframe. When the playhead is parked on a keyframe, the diamond becomes solid green. Click it again, and it will delete the keyframe it is parked on.

Then, press **Shift+O** to jump the playhead to the out of a clip.

We can either set a keyframe first, then move the clip to a new position. Or, simply move the clip and FCP will create a keyframe automatically at the position of the playhead. I generally create a keyframe first, which reminds me that I WANT to create a keyframe at that position. But either way works great.

In this case, with the playhead at the end of the clip, click the Center cross-hairs to select them and drag the image to the top right corner of Action Safe. (The Center numbers are **180, -120**.)



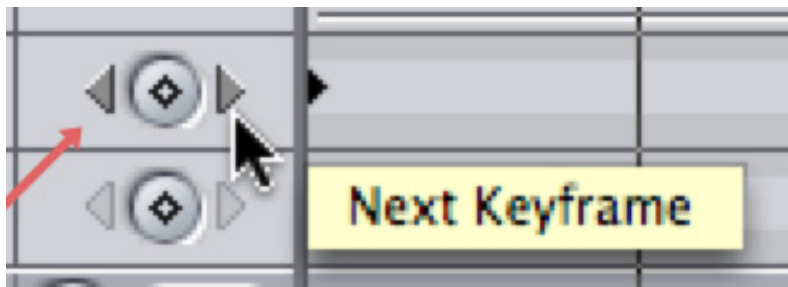
What Final Cut has done, invisibly, is to create a motion path -- that is, a connection between the two keyframes. You can see this path by switching the display of the Canvas to either **Image +WireFrame** or **Wireframe** in the far right pop-up menu.

When you play your sequence, your clip moves along the motion path, starting at the first

keyframe and ending at the second.

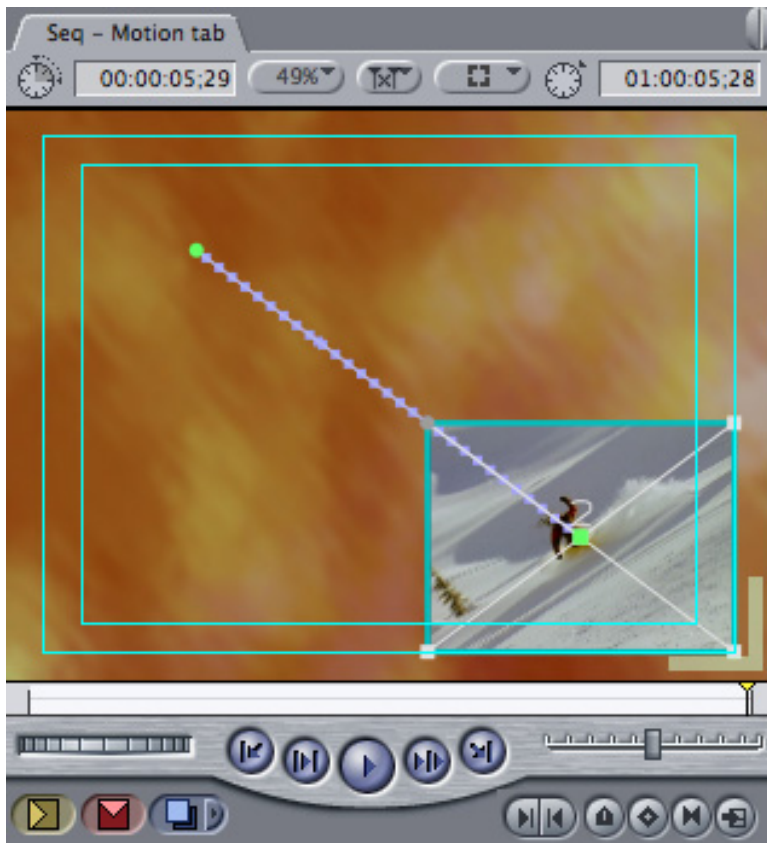
While there is no practical limit to the number of keyframes you can add to a clip, in general, try to keep the number of keyframes as low as possible. This tends to keep movement smoother.

THROWING A CURVE

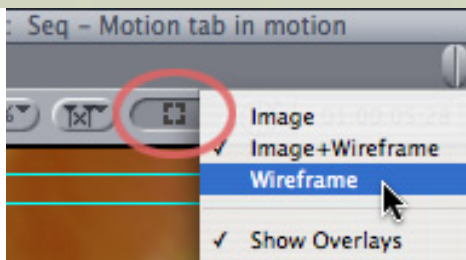


The best way to move between keyframes is using the small left- and right-pointing arrows on either side of the diamond. Dragging your playhead between keyframes raises the possibility of placing the playhead close to, but NOT on, a keyframe, which means when you change something you are creating a new keyframe, which can be really, REALLY confusing.

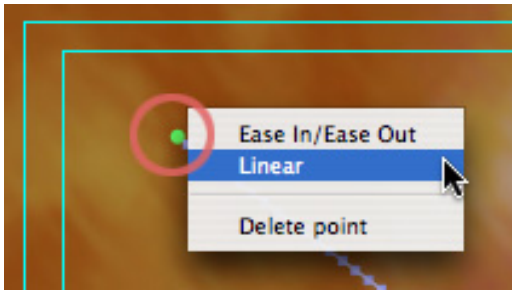
Instead, click the small arrows for navigation. You can also try the keyboard shortcuts **Shift+K** (*next keyframe*) and **Option+K** (*previous keyframe*).



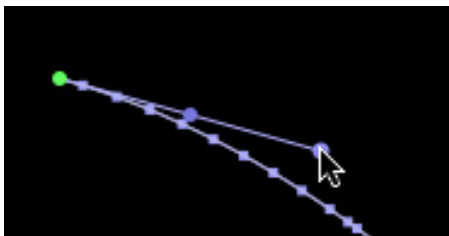
Anyway, put your playhead on the last keyframe and drag the image down to the lower right corner. Notice the new Center numbers are **180, 120**? Are you starting to see a pattern here? Many times, we can easily and symmetrically move an image by just changing the Center number from positive to negative.



To make this next section easier to see, I'm going to switch to **Wireframe** mode. This just displays the frame of an image, without the picture. This can often make creating effects much faster - as this doesn't require rendering - and easier to see - since you are watching objects move, rather than the images themselves.

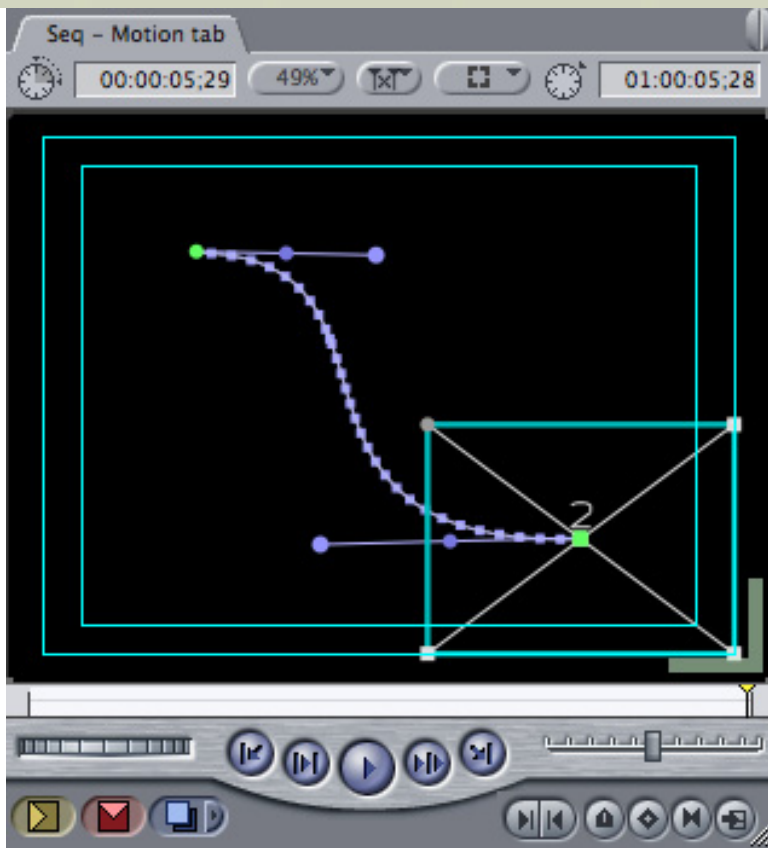


Now, **Control+click** the small green circle (which is the indicator for a starting keyframe) and select **Linear**. This creates a Beziér control point and adds two small dots to the motion path - both darn-near-impossible-to-see blue dots.



Grab the dot farthest from the keyframe and drag and you'll turn the motion path into a curve. Drag the control point around and watch what happens to the shape of the curve.

Do the same thing - control-click and select **Linear** - for the lower keyframe and drag to set a curve for the lower keyframe.

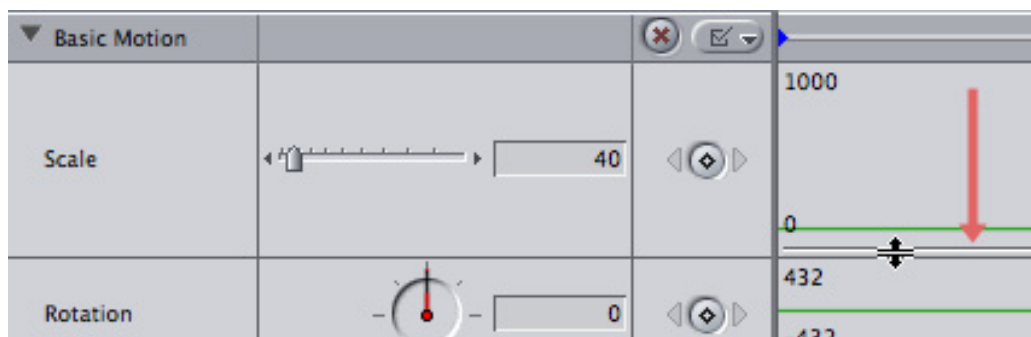


In this case, I created an image in the shape of an S. You can use keyframes and Beziér control points to create an almost unlimited number of shapes.

This same technique can be used to have something fly from off-screen to on-screen -- or make an exit by flying off-screen.

The techniques shown here are simple to learn. Yet the combinations are almost endless.

Have fun.



Note: By the way, many Filter and Motion tab parameters allow their height to be adjusted. If you see a thin double-line separating two parameters, drag it down to increase the height of a parameter setting. For instance, both the Scale and Rotation parameters have adjustable heights.

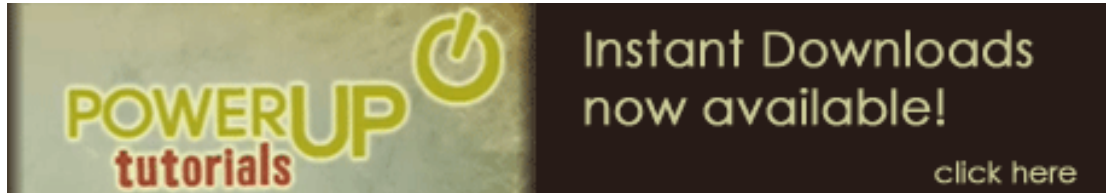
UPDATE - June 16, 2009

Tom Wolsky also points out:

For the PIP (Picture-in-Picture) effect I'd like to mention Piero Fiorani's free plugins. He's primarily an FCE user and some of them are really for that application, but he has a Quarter PIP filter as well as an easy-to-use motion control (Ken Burns) filter. http://web.mac.com/piero.fiorani/PieroF_FCE_Effect

Larry replies: Thanks, Tom.

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LARRY RELEASES ELEVEN NEW VIDEO TUTORIALS -- PLUS THREE BUNDLES!

I just released **ELEVEN** new video tutorials on Final Cut Studio -- PLUS a new [Soundtrack Pro bundle](#) that **saves you 30%** on the titles purchased separately.

I was surprised at the high level of interest in Soundtrack Pro, so I made a point to create several more STP titles this month. My newest tutorials are:

- [Learning how to read the video scopes in Final Cut Pro](#)
- [Automatic Color Correction in Seven Steps Inside Final Cut Pro](#)
- [Introduction to the Particle System in Motion 3](#)
- [Creating Flash Movies Using the Adobe Media Encoder](#)
- [Converting an FCP Project to an Earlier Version of FCP using XML](#)
- [Sending Files to Soundtrack Pro from Final Cut Pro](#)
- [Getting Different Mics to Sound the Same Using EQ Matching](#)
- [Using Busses, Sends, and Reverb In Soundtrack Pro 2](#)
- [Using Submixes to Group and Control Tracks](#)
- [Editing Problem Frequencies Using the STP Spectrum Tool](#)
- [Improve Audio Levels with SoundTrack Pro's Limiter Filter](#)

You can find the [complete list of all my video tutorials here](#).

My most popular tutorials this month were:

- [Preparing Still Images](#)
- [Larry's Favorite Tutorials Bundle](#)
- [Retouching Video in Photoshop Extended](#)
- [Minimizing the Spinning Beach-ball](#)
- [Exporting an H.264 Movie from FCP or QuickTime](#)
- [Soundtrack Pro Bundle #1](#)

With 40 tutorials to choose from, and **priced at only \$4.99 each**, there's sure to be at least a

couple that can help you solve the problems you're having.

[Click here](#) for a list of all my tutorials.

[Click here](#) for a list of bundles and **SAVE 30%**

NOTE: Each title is a QuickTime movie that runs 6-12 minutes and can be instantly downloaded. Keep in mind that the best time to learn is when things are slow. More titles coming every week!

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BLOG POST: TAKING THE PRO OUT OF THE MACBOOK PRO

[**Note:** *I posted this to my blog June 12, but this is important for all of us, so I wanted to share it with you here.*]

Apple this week announced revisions to their 13" and 15" MacBook Pro laptop line.



Most of the time, when these sorts of things get announced, I just nod my head, acknowledge the new release and move on. I'm not buying laptops all the time, so this stuff doesn't affect me.

However, in the last two laptop releases Apple is starting to reveal a trend which is very troubling to me as someone who uses Mac gear to edit audio and video — they are taking away the ports I need to connect my stuff.

This began with the laptop update prior to the most recent one with the removal of FireWire 400 ports. Now, in itself, this isn't a bad thing. FireWire 400 is slow, with a limited cable length. The problem was that they didn't replace the port with a second FireWire 800 port.

This means that I can't connect a camera and a second hard drive to my computer without purchasing a FireWire hub. And a hub always runs at the speed of the slowest device connected to it. As well, there are legions of problems with editing video on a single hard drive, unless you are resigned to only editing DV or HDV. ProRes certainly can't be edited on a single-drive system. Nor can any audio projects with more than a few tracks. Nor can many other HD video formats.

Then, in the latest laptop release for both the 13" and the 15" laptop, Apple removed the high-speed Express 34 card and replaced it with the much, Much, MUCH! slower SD card port. The SD card ports runs, according to Apple, at a MAXIMUM of 30% of the speed of an Express 34 card.

How can Apple call a laptop a **PROFESSIONAL** system when it has fewer ports and the ports it has are slower? They create computers with great software, blindingly fast CPUs, great graphics

cards, then reduce the ways to connect external gear!

This is foolish and short-sighted.

Yes, Apple needs lower cost systems to meet the needs of the broader market. But, they also need systems that meet the needs of video and audio professionals. It makes no sense to buy a system that - out of the box - is inadequate for day-to-day video production. Yet Apple describes this as their "Pro" line of laptops.

Apple would say that they have the 17" laptop. True, but disingenuous. The 17" is too big to easily travel with, has a screen resolution that exceeds most video projectors which makes it totally impractical for training, and costs more than the 15" which, up until the latest releases, met our needs for ports and speeds.

Apple might also counter saying that they offer the fully expandable Mac Pro line of computers. While true, this misses the whole point of having a PORTABLE computer for video editing in the field.

If you feel that Apple is short-changing its professional market, feel free to share this - or write your own - or contact Apple.

For me, though I need a new laptop, none of the current models are attractive for video editing. I'm going to hold off buying until Apple releases a system I can use or I'll just buy an older MacBook Pro - used.

UPDATE - June 18, 2009

Having read my concerns about the latest MacBook Pro versions, **Steve** sent me a link that we can use to send feedback to Apple.

Feel free to share your thoughts and concerns with them - more importantly, share this link with your friends and associates. The more people that Apple hears from, the more likely they are to improve the next version of the MacBook Pro.

<http://www.apple.com/feedback/macbookpro.html>

UPDATE - June 16, 2009

Zak Ray writes:

Larry, in regards to the new Macbook Pros, let's not forget a few important facts:

1. FireWire is back with the new MBPs, so the lack of Express34 doesn't hurt as much.
2. Less than 10% of the Mac user base was utilizing the Express34 slot, according to Schiller. Apple is a company, in it for the money just like any other; if only a small percentile of their users are utilizing an expensive component, it just doesn't make sense to keep it.
3. The reduction of the SATA interface will have very little effect on most users, as most internal HDDs can't get past the 1.5 Gb/s barrier anyways. The only people who might take a performance hit are those who use SSDs-- which, while you are correct that they are much more expensive right now than standard HDDs, you are mistaken in regards to speed-- they are actually faster than standard HDD.

Larry replies: Thanks, Zak for your thoughts.

My concerns are that the number of FireWire ports on the computer have been reduced from two to one, making life difficult for editors acquiring from FireWire cameras and decks.

Second, while it is true that the majority of laptop users did not use Express34 gear, my feeling is that the 10% Schiller referenced were all high-end media producers (audio and video) that need the performance.

I don't object to creating low end systems -- I object to making a computer slower and less configurable and calling it "Pro."

Peter Neill writes:

You mention the demise of Firewire ports on the new MacBook Pros.

Here in the UK it is becoming increasingly difficult to source firewire disc drives. I'm not saying it's impossible, but if you walk into any High St computer shop or warehouse, you'll be hard pressed to find one.

Is there anything wrong with using USB drives? I know that it's more likely that a firewire drive can be powered by the computer, but we probably wouldn't want to power one from a laptop for any period.

Larry replies: Thanks, Peter, for writing.

The problem with using USB is that when compared to the speed of a FireWire drive, USB drives on the Mac are much, MUCH slower. This differs from the PC, where USB is quite quick.

Tom Wolsky adds:

Rather than a hub, most cameras, except for the stupid Canons, work better for capture when they're daisy-chained through a drive rather than on a hub or even another port on the same bus. The SD slots are for ingest of video and stills which is being shot on these cards. Currently [SD is] the most popular recording media for both.

Larry replies: Thanks, Tom.

UPDATE - June 23, 2009

After sharing my concerns about the latest round of Apple MacBook Pro laptops, yesterday Apple released:

MacBook Pro EFI Firmware Update 1.7 addresses an issue using drives based on the SATA 3Gbps specification with the MacBook Pro introduced in June 2009. This update allows drives to use transfer rates greater than 1.5Gbps, however Apple has not qualified or offered these drives for Mac portable computers, and their use remains unsupported. All previous and current Apple portables with a SATA drive interface include a SATA 1.5Gbps hard drive.

iMac EFI Firmware 1.4 Update addresses issues where iMac computers with ATI Radeon HD 4850 graphics intermittently stop responding and addresses wake-from-sleep issues in Boot Camp.

Here's the link to learn more: <http://support.apple.com/kb/HT3561>

REMINDER: BOOKMARK MY BLOG

By the way, if you haven't visited my blog recently, [click here](#) to take a look. While I don't write every day, I do try to keep you informed on our news, plus gossip in the industry.

It's also on our [RSS feed](#), so feel free to bookmark it. Plus, you are ALWAYS welcome to add a comment.



THE TEN [AUDIO] RECORDING COMMANDMENTS

During NAB, when I was interviewing people for my podcast, the [Digital Production BuZZ](#), I had a chance to talk with **Ric Viers**. Ric is an acknowledged sound effects recording master, president of [Blastwave FX](#), and the author of *The Sound Effects Bible*.

During the interview he gave me a copy of the book to look over. Recently, I found myself with some spare time and starting dipping into it.

Almost immediately, I discovered his chapter titled The Ten Recording Commandments which contain rules so helpful that I want to share them with you here.

Ric writes:

These ten commandments have proved irrefutable over the years. They are each equally important as individual rules, but even more powerful when used together. The use of these commandments will result in top-notch, professional recordings.

1. Thou Shalt Have a Pre-Roll and Post-Roll of Two Seconds on Each Recording.
2. Thou Shalt Record More Than You Need.
3. Thou Shalt Slate Every Take with as Much Information as Possible.
4. Thou Shalt Check Thy Levels Often.
5. Thou Shalt Listen to Thy Work by Always Wearing Headphones.
6. Thou Shalt Eliminate All Background Noise.
7. Thou Shalt Not Interrupt a Take.
8. Thou Shalt Point the Microphone at the Sound.
9. Thou Shalt Check Thy Equipment Before Going Into the Field.
10. Thou Shalt Remember the Copyright Laws to Keep Them Unbroken.

Larry continues: If creating professional-grade sound effects is of interest to you, you need to check out this book. Its filled with solid, practical suggestions and lots of great examples taken by someone who has spent years in the field.

Even better, its fun to read.

The Sound Effects Bible, Ric Viers, Published by Michael Wiese Productions, 2009.
(ISBN 978-1-932907-48-3)

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TECHNIQUE: USING SUBMIXES IN SOUNDTRACK PRO 2

A submix is a special track inside Soundtrack Pro that collects audio from one or more other tracks for additional processing or output.

Think of a submix as a way to group tracks.

By default, there is always at least one submix in every multi-track project. Labeled **Submix 1**, it's at the bottom of all the tracks in a project. Most of the time, we treat Submix 1 as the master output of our mix. But it really isn't, and that's what I want to talk about in this technique.

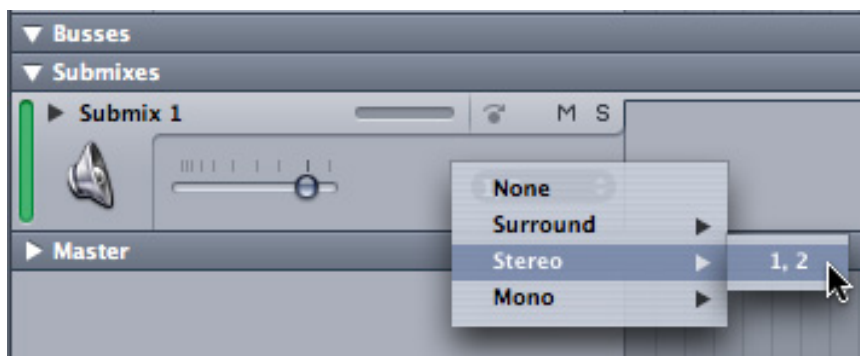
WHERE IS A SUBMIX?



Wedged in between **Busses** (which is empty by default) and **Master**, which is hidden by default, is **Submix 1**. It has a header similar to a track, except that you can't record to it.

The way that STP is normally wired, all the outputs from the tracks above Submix 1 automatically channel their audio into Submix 1. This essentially means that Submix 1 acts as the final assembly stage before output.

And, unlike the Master output, which only allows you to control final output volume, submixes can hold filters, change panning, levels, and can be set to output from one to six tracks of audio.



However, and this is a big gotcha', Apple defaulted the output of Submix 1 to six channels (that is, surround sound), with no way to change the default. This means that if you only need one or

two channels output, you MUST remember to change the output to the appropriate number of channels.

Note: I'm REALLY hoping Apple allows us to set this as a default in the next version of Soundtrack. This surround default just drives me nuts.

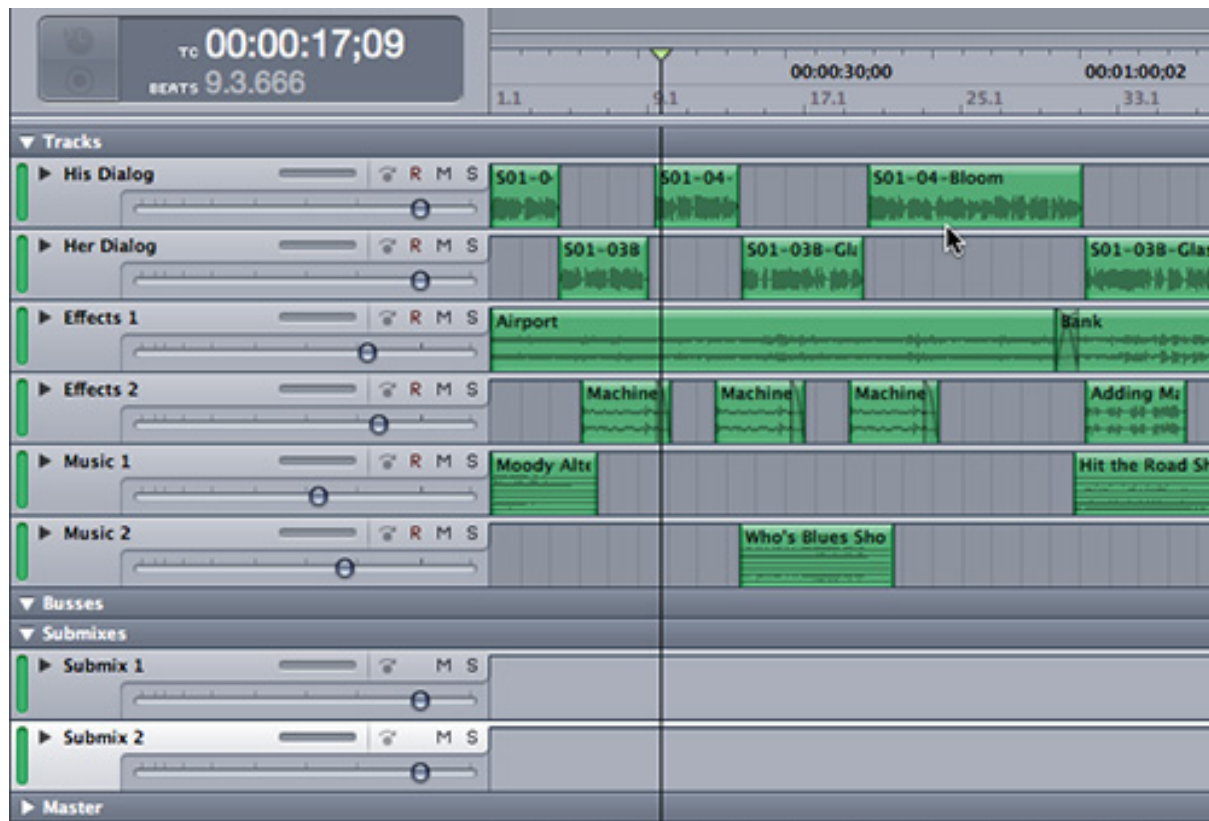
WHY USE MULTIPLE SUBMIXES

Just as we use folders to group layers in Photoshop or Motion, we can use submixes to group tracks. For example, if we want to fade a group of tracks at the same time, we could either do so one track at a time, which makes it really hard to make changes quickly, or group all the tracks together into a submix, then fade the submix.

Or, instead of applying effects to individual tracks, we can apply an effect to the entire group; for example, this works really well for reverb.

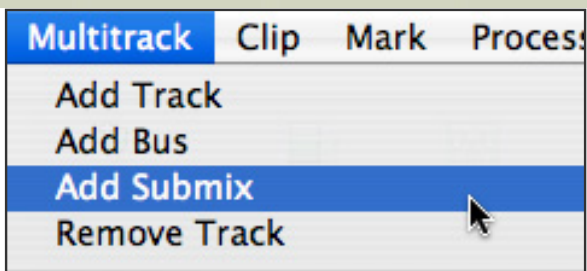
Or, we can use submixes to create multiple outputs of our mix; such as a dialog mix, effects mix, and music mix. These discrete mixes are sometimes called "stems."

EXAMPLE 1 - USING A SUBMIX TO FADE A GROUP OF TRACKS AT THE SAME TIME



Here's a six track mix I've assembled for this example. It has two tracks of dialog, two tracks of effects, and two tracks of music. There's no magic to this number of tracks, the process is the same regardless of the tracks you use.

Let's say we want to fade all our effects tracks to black at the same time. Here's how.



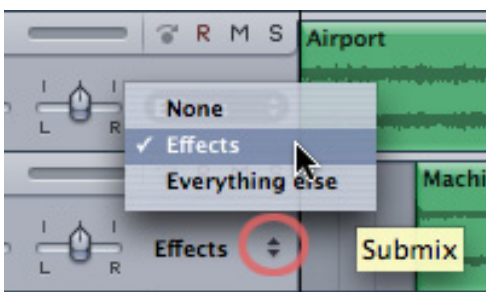
1. Because we want some tracks grouped and filtered, while other tracks are not filtered, we need two submixes. So, go to **Multitrack > Add Submix**.



2. Be sure your track height is **not** set to the smallest setting, otherwise you won't see the controls I'll be writing about.

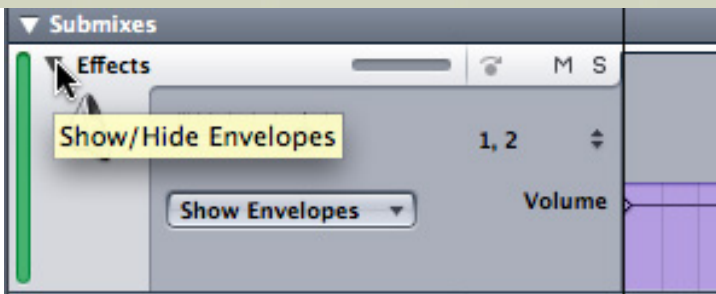


3. While not required, it is very helpful to label your tracks and submixes. In this case, I clicked the name of the track to select it, then changed Submix 1 to **Effects**, and Submix 2 to **Everything Else**.

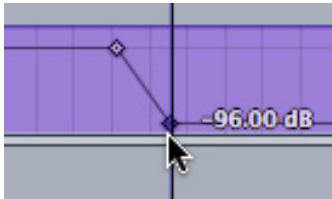


4. Now, we need to assign each track to a submix. Because we want all our effects tracks to be grouped together, we'll assign all our effects tracks to the Effects submix, and the other four tracks to the Everything Else submix. To do this, click the double-pointed arrow in the lower right corner of the track header and assign each track to the appropriate submix.

5. Once all the tracks are assigned, as a test play the mix and slide the Effects submix volume slider back and forth. Notice how this changes the volume of your effects without changing the volume of anything else.



6. Click the small right-pointing triangle in the upper-left corner of the track header to reveal the volume envelopes for this submix. This is exactly the same as, but a different color from, the red rubber bands that we can adjust in a Final Cut timeline.



7. Scroll to the end of your mix and add two keyframes, one where you want your fade to start and one where you want your fade to end. You add keyframes by double-clicking on the purple line. As with Final Cut, set a keyframe by dragging it.

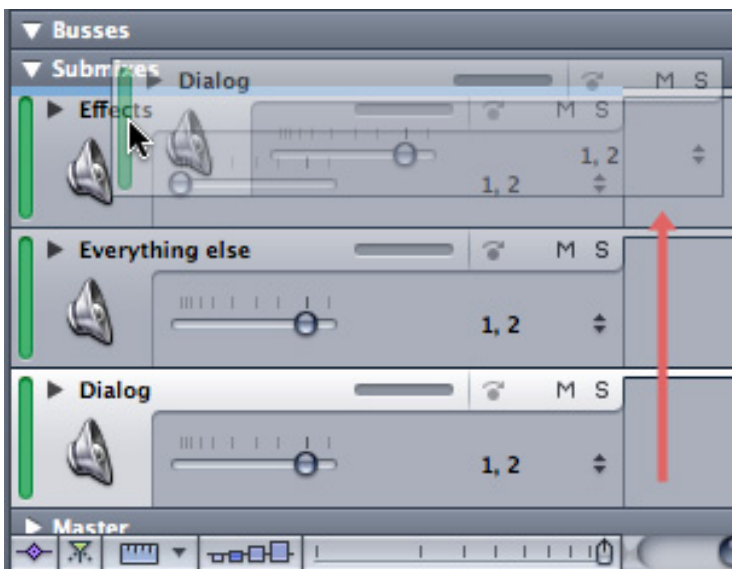
Ta-DAH! Done.

You have now faded all your effects tracks to black at the same time. While you would not generally do this if you only had one effects track, as soon as you start creating multiple tracks, this becomes a VERY useful technique.

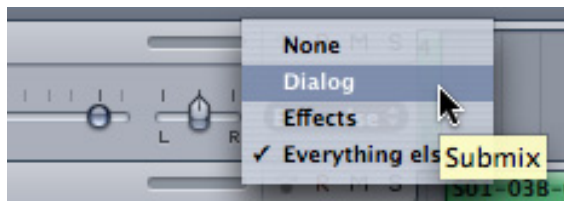
EXAMPLE 2 - USING A SUBMIX TO APPLY A FILTER TO A GROUP OF TRACKS

Next, let's say that we want to apply a limiter filter to all the dialog tracks. I could apply the filter to each track, but, it is faster, and less computer-intensive, to group all the dialog tracks, send them to a submix, then put the filter on the submix.

1. Since we now need to separate dialog from the other tracks, let's create another submix (type **Option+Command+T**) and rename this new submix **Dialog**.



2. Then, and this is not necessary but, I like having my submixes emulate my general layout, and I always put my dialog tracks on top. So drag the green vertical bar of the Dialog submix track header up until a faint blue bar appears above the Effect submix. It is easy to change the stacking order of submixes by simply dragging them. However, unlike video clips, the stacking order of audio tracks has no impact on final output.



3. Here, too, we need to assign tracks to submixes. So, click the double-headed arrow on the right side of the track header and assign the two dialog tracks to the Dialog submix.

4. Select the Dialog submix by clicking the track header. (See how it turns to a light gray, indicating it is selected?)

5. From the Effects tab (in the Left Pane) select **Dynamics > Limiter**. You've now applied a Limiter filter to the submix of the dialog tracks, but none of the others.

Note: Some filters work better when you route them through a Send, which allows you to vary the amount of audio going to the submix. Reverb would be a good example of this. However, this technique is just focused on showing how submixes work, so I'm ignoring sends for the moment.

Here's a [video tutorial](#) that shows you how to use the Limiter filter.

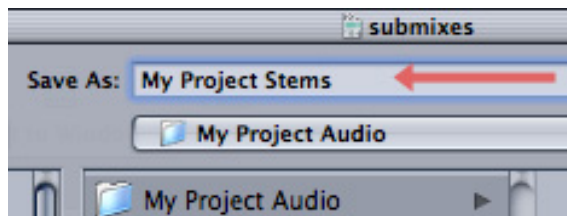
Here's a [video tutorial](#) that shows you how to use submixes to add reverb.

EXAMPLE 3 - CREATING SEPARATE STEMS OF YOUR MIX

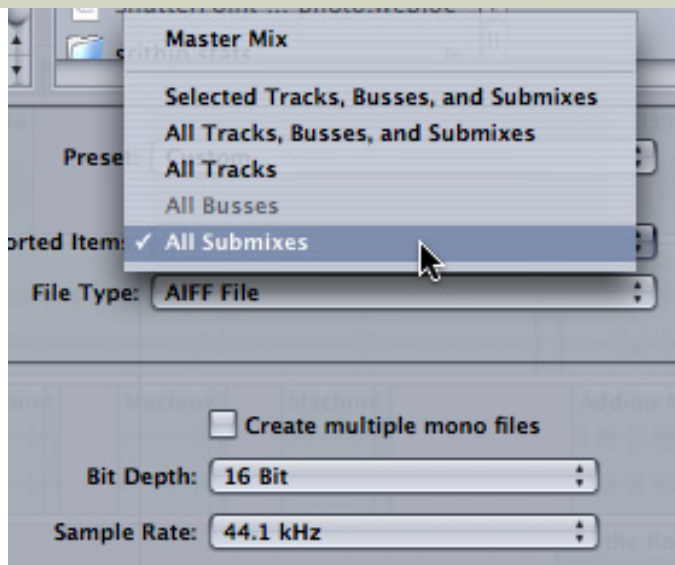
In this example, I want to illustrate how to create separate mixes for each of your main elements - dialog, effects, and music.

You are already organized for this by creating a submix for each group. The only question now is how to output them -- and that is surprisingly easy. Here's how.

1. Once your mix is complete, save your Soundtrack Project file (**Command+S**).
2. Go to **File > Export** (or press **Command+E**).

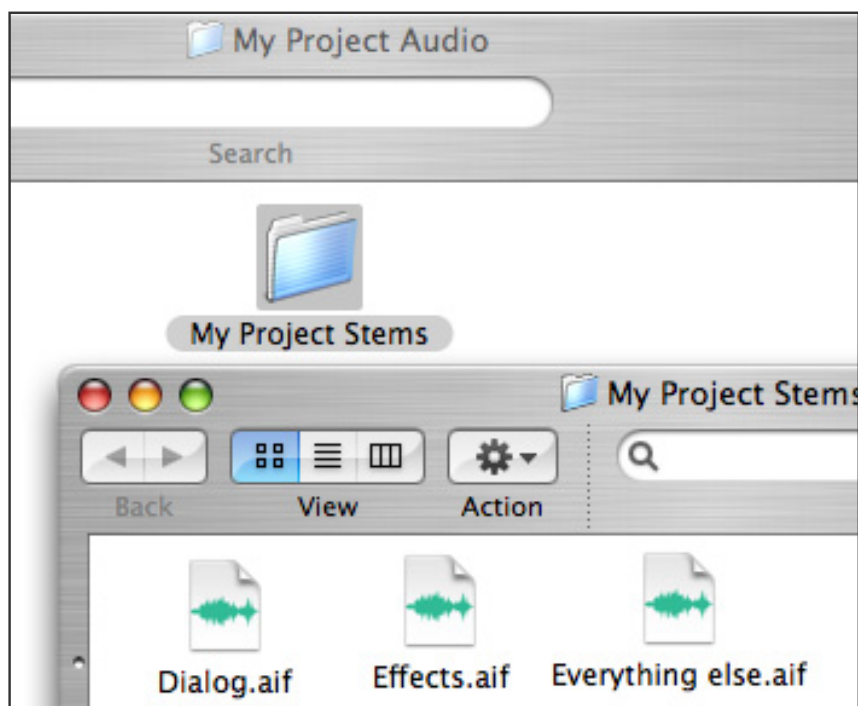


3. Locate a folder to hold your audio files. There will be one file for every submix. In this case, I created a folder called "My Project Audio" and named the files "My Project Stems."



4. Lower in this same dialog, change the output from Master Mix to **All Submixes**. This will output each submix to its own file. Set other key settings to output as **AIFF, 16-bit, 48 kHz** sample rate.

5. Click **Export** to output your project.



6. Open up the My Project Audio folder, inside it is a folder named My Project Stems and inside that are files for each submix.

CONCLUSION

I don't use submixes for every project I create, only for the more complex ones. But, as you've seen here, submixes can provide a tremendous amount of control, which makes mixing really complex projects reasonably straight-forward and very easy.

Note: By the way, I've created a video tutorial illustrating the concepts in this article. You can [learn more about it here](#).

ANOTHER TECHNIQUE FOR RESTORING FADING HARD DISK DATA

Last summer, I learned and shared with you that when a hard disk is unplugged and stored on a shelf a process called "bit flux" will slowly let the magnetic data stored on the hard disk fade away. (Here's the [original article](#).)

While the time this fading takes varies, it can be as short as one year or as long as three. What is sure is that your data will slowly disappear until the hard drive is no longer useable. (**Note:** if your hard disk is always, or mostly always, powered on and attached to your computer, this is non-issue.)

The way to prevent this problem is to connect your hard disk to your computer about once a year and refresh all the sectors on the drive.

Recently, **Dave Fix**, Senior Systems Administrator at Mr. X, Inc. sent me the following which can help with this restoration process.

In your article about refreshing hard disk storage, I thought I'd let you know that another way you can refresh storage is to run the **badblocks** command on a hard drive. This should be 100% safe, as it does NO writing to the drive (unless a bad sector is detected, at which point it will re-write the bad-sector map on the disk).

The command is: **sudo badblocks -b 4096 -p 1 -c 32768 /dev/rdisk0**

I asked Dave to explain what the various parameters did. He replied:

-b 4096 : Sets the block size to 4096 bytes. This can improve the speed at which the tool operates.

-p 1 : Tells it to perform one pass. If you want to perform more than one pass, set this number higher.

-c 32768 : Tells it to test 32768 blocks at a time. The default is 10. Telling it to test more at once can take up more memory, however. If you're running a lower-memory system (less than 2GB RAM), set this to **8192**.

/dev/hda : is the hard drive to be tested.

I then said that I am always VERY reluctant to advise running terminal commands due to the potential for complete disaster. Does this command, as written, have the potential to do any harm?

Dave replied:

badblocks, by default, will perform a read-only non-destructive test of the hard drive, and we don't add any parameters that could affect that operation, so this should be perfectly safe. :)

Larry adds: This command is run from the Terminal. If you have never run a terminal command before, show this to a friend who has and work on this together.

IMPORTANT NOTE: The phrase `/dev/rdisk0` is the name of the hard drive you are refreshing. To determine what to enter here, go into Disk Utility (in your Applications/Utilities directory). You will see all your mounted disks in the left column. This list is indented. It will say something like "232.9 GB Hitachi" and underneath that will be your volume name indented, like "Macintosh HD".

- Click on the top line (the "232.9 GB Hitachi" line in my example)
- Click on the Info button
- Read the "Disk Identifier" line. It will say something like "disk0".

Where Disk Utility is saying "disk0" or "disk1" or "disk2", ... put an "r" in front. This is the name you use in the command (`/dev/rdisk0` in this case).

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REFLECTION: THE END OF TELEVISION AS WE KNOW IT

OK. This isn't really technical, and has nothing to do with Final Cut, but I was thinking about this last week and wanted to share this with you...

Last Friday, June 12, marked the end of analog television broadcasting in the US. Tomorrow, all over-the-air transmission becomes digital. I'm all in favor of technology and change, but I wanted to say good-bye to an era.

I got my start in broadcast television, but even before then, growing up in small towns in Wisconsin, I remember how magical TV seemed. First, in the days of black and white, being able to pull images out of the air with thin pieces of wire - and family rituals developed around EXACTLY how those rabbit ears should be pointed to get the best signal, NOT that my brothers were EVER right, of course - then, came color.

When color television first appeared, the TV set was the size of a bookcase laid on its side. More than entertainment, it was a sizable piece of very expensive furniture. Filled with strangely glowing tubes, it radiated both heat and a sense of unlimited power.

I still remember, as a small child, the first color television that came into our small community of Sturgeon Bay, Wisconsin. The TV was displayed in a local furniture store and was four feet high, three feet deep, and eight feet wide. It had about a 15 inch screen and weighed about 800 pounds. The store owner, Katie Malvetz, was a friend of the family and, when NBC announced they would be playing the Wizard of OZ in COLOR for the first time on network television, Katie decided to turn this into a social event.

She and a team of men moved the TV from her showroom to her living room, then she invited her friends to watch with her. When the movie started, there must have been 30 people - adults and kids - in the room. And when Dorothy opened the door to step from black-and-white Kansas into colorful Oz... well, there wasn't a dry eye in the house.

To this day I remember how stunned I was to see color images invisibly coalescing on a TV screen. I think, from that moment, I wanted to learn more about how it was done. I was hooked on media.

Fast-forward fifty or so years to last Friday.

The switch from analog to digital won't have the same poignancy as the switch from black-and-white to color. Nor will families gather in living rooms across the country to admire the transition.

The world has changed... and so have we.

But I didn't want the switchover to occur without reflecting back on where we've been.

Television has the power to spark emotions - and memories - with the stories it tells. And, sometimes, the stories we tell about it.

UPDATE - June 16, 2009

Ian Hart writes:

Regarding your reflection "The end of television as we know it", where you wax lyrical about getting your start in broadcast television... You must be a young man. I got my start working on 35mm and 16mm film at the London Film School in the mid 1960s. I wonder whether the the constant "high" I experienced at that time was due to my discovery of this exciting new art form or just the effects of sniffing the film glue! I clearly remember the day that our Editing lecturer, David Gladwell, brought in the big new thing: our first guillotine tape splicer! Prior to that we had all had to master the black art of cement splicing (where you lost a frame in 16mm) and calculating "build-up" if you changed your mind about the cut.

Like everyone else in the 1970s I had to learn video editing with its 10 second roll-ups and loss of quality every time you made an edit and (pre-computer) having to re-edit everything from a hand-written EDL if you wanted to change a shot near the beginning... For me, video editing was a 20 year stretch in purgatory, an aberration. It turned the art of editing into a mechanical process. So you can imagine my joy in the mid-1990s on discovering digital editing, first with Premier 1.0 and then Final Cut Pro 1.0. All the metaphors related to film editing. It was like coming home again.

I'm thankful to you for all the tips and tricks and shortcuts in your workshops. They make my "super tape splicer" work faster, but I'm very pleased to find that the Wardour St. training I got 45 years ago in logging rushes, making work prints, filing trims, marking up opticals; not to mention laying sound tracks, marking music cues, recording Foley tracks, audio sweetening and mixing, etc. are all transferable to digital editing.

Life is good again.

Tom Wolsky adds:

I so resemble this. I think I may have been to the same film school a couple of years before or after him. When I was there it was the London School of Film Technique.

Larry replies: Thanks, Ian and Tom, for sending these.

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PASSING THOUGHTS

I get a lot of comments from folks passing along interesting things they've found. Up until now, I haven't had a good place to put them. Now I do - **Passing Thoughts**.

CORRECTION

In the "correcting my errors" category, when the RED camera first came out, it shot video-only; audio needed to be recorded to a second system. I thought this was still the case and it wasn't until last week that **Eric Harnden** corrected my misunderstanding.

RED cameras record both video and up to four channels of audio. Here's a forum posting that explains this: <http://reduser.net/forum/showthread.php?t=31583>

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MORE ABOUT RED

David Wakeling sent me the following:

If you're not familiar with transcoding Red footage, here's a workflow for using Color (but does not take into account any effects on the clips):

<http://www.reduser.net/forum/showthread.php?p=416890>

Larry replies: Thanks to both David and Eric.

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FREE PLUG-INS

Jeff Brenes writes:

Recently I found this site with some nice free plug-ins for FCP, and I thought that maybe you would like to taste them and/or publish in your monthly newsletter for others to use them....

<http://alex4d.wordpress.com/finalcut/>

Larry replies: I had the pleasure of meeting with **Alex Gollner** on my recent seminar trip to London. He is great fun to talk with and has a very interesting website.

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FILM AND VIDEO BUDGETING

At the recent one-year birthday of the [LA Post Production User Group](#), I had the pleasure of meeting **Deke Simon**, author of the *Film and Video Budgets* book.

First, I was interested to learn this book existed (you can find it here: http://www.amazon.com/Film-Video-Budgets-Revised-Updated/dp/1932907106/ref=sr_1_1?ie=UTF8&s=books&qid=1245090054&sr=1-1)

Second, I was even more interested to learn about Deke's projects. As he says, "For the last dozen years I have focused on docs specifically for and about people in recovery from addiction and crime...an interesting niche."

Check out his latest work at: www.methinsideout.com

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LAYING BACK TO VIDEO TAPE

Ben Balsler and I got into a discussion this last month on laying back to video tape. During which, I realized that many new editors have not had the experience of work with tape. So, just to put this into writing before it becomes as archaic as how to churn butter, here it is.

Most final deliveries for high-end productions are output to video tape, either HDCAM or HDCAM SR and not delivered as a file. When outputting to tape, you need to allow room for leader material which the engineering types use to make sure the tape playback matches the spec of when the tape was recorded.

Traditionally, this leader material is:

Timecode	Content
00:58:30:00	Bars and tone
00:59:30:00	Black audio and video
00:59:40:00	Program slate
00:59:50:00	Black audio and video
01:00:00:00	Program start

A program slate consists of:

- Program Title Producer / Director / Agency responsible
- Date output to tape
- Running time (Never include frames and always round up)
- Audio mix format (stereo, mono, multi-track)
- Timecode format (Drop-frame or non-drop-frame)

To create these leader materials in Final Cut you can either use **File > Print to Video**, or build them yourself in the Timeline. If you create them in the Timeline, go to **Sequence > Settings > Timeline tab** and change the sequence timecode to 58:30.

That way, the timecode of your sequence will match the timecode on your tape. Note, to make sure all your program times are correct, use File > Edit to Tape to record to video tape.

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MORE ISSUES WITH STORAGE

Robin Harris sent me a recent blog posting about configuring a video infrastructure. He writes:

There's an interesting discussion of configuring a 100 TB 2k and 4k video system. The original question came from a small Hollywood production house.

Lots of discussion by smart storage people and thought your readers might be interested.

You can read it here: <http://storagemojo.com/2009/06/07/configure-a-100-tb-hd-video-infrastructure/>

Larry adds: While I disagree with the numbers in his chart of video data rates, the fact that video files are HUGE I agree with. I think his post is interesting.

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8 MM CAPTURE

A while ago, **Martin Weiss** wrote asking:

You've had a couple of posts on 8mm film transfer of late. Talking of which, there is one thing I have been looking for. We do a number of transfers from film to video, using a custom-built projector which allows us to film straight from the film gate. This, naturally, means that all pictures are upside down.

Do you know of any tool that lets you flip the video during capture?

Recently, Martin sent me the following update:

I finally found a tool that lets me do this and take care of the interlacing. It is even free-ware. The name is "JES deinterlacer" over at <http://www.xs4all.nl/~jeschot/home.html>

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CREATING VIDEO CREDITS

Adrian writes:

I was just reading your article on making scrolling movie credits with livetype, and I was wondering if you have ever tried Video Tagger?

http://www.ElectricHappiness.com/VideoTagger_Home.jsp

Larry adds: I've never used this, but I'm happy to spread the word.

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DENOISE FILTERS

Jeff Brenes sent me this:

I was reading your last newsletter and saw that someone was asking for some denoise filters. I don't know if you already have hear or write about this filters, but if not let me tell you, I found them on this website

<http://www.mattias.nu/plugins/>

And I think they are very helping and useful, by the way they are free.

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QUICK ZOOM TIP

John Thomas sent this in:

I was working on a project and doing my usual zooming in and out and always having to adjust to get in on my markers etc. when I thought I would try a photoshop trick of drawing an area with the zoom tool and see if it worked the same as PS. Wow, it did! This will save me a ton of time. So I thought I would pass it along as I never saw this tip anywhere else.

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CONVERTING FLIP CAM FOOTAGE

Dustin Young sent this in:

First off I wanted to say that I really enjoy your newsletter, and your workshops as well. This is a response to a question you recently answered in your May Newsletter in regards to working with Flip Cam Footage.

I recently finished up a reality series that I was the online editor on, and was given the task of converting about 30 hours of this FLIP footage to files that would work in FCP - As they don't work in FCP in their native MPEG-4 Format. While MPEG Streamclip is great, you can actually convert using Compressor by itself. Simply import them in to a compressor project, set your destination, then apply the of your choice.

These are the video compression settings I used:

- Apple ProRes 422, 23.98, 1280x 720
- Audio Settings

- Stereo, 48khz, 16 bit, and select the audio compressor of your choice.

After I did I batch process, the files they imported into FCP flawlessly. Special Note: Converting the audio is equally critical, since the Flip HD cameras record Mono, 44.1 khz, and when brought into FCP our editing team ran into issues with sync on long clips in the time line. Hope this is helpful to everyone, and with the relative inexpensiveness, and ease of use of those cameras more and more productions are using them for self recorded OTF interviews.

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WORKING WITH MXF MEDIA

If you are working with MXF media in Final Cut Pro - such as P2 and XDCAM EX - check out this site: <http://mxf4mac.com>

Björn Adamski is a regular reader and his company makes products that can simplify your MXF life.

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COPYING AND PASTING TEXT INTO FCP TEXT CLIPS

Andy Lindsay sent me this:

OK, I think I've figured something out. Using TextEdit, I went into the preferences where, by default, the text format was Rich Text, and I changed it to Plain Text. After that I was able to copy and paste into FCP and the formatting was intact.

Just for the heck of it I then tried copying and pasting from Adobe InDesign into FCP but it did not work. Copy from InDesign then paste into TextEdit then copy and paste into FCP and it does work.

Larry replies: Andy discovered the secret. FCP expects all text to be plain, with no hidden formatting codes. That's why Text Edit is necessary. It creates plain vanilla text.

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READER MAIL

WHAT WILL THIRD-PARTIES DO?

Eric Mittan sent in a question I got from a number of people:

A question I have after the Apple announcements is whether or not AJA, BlackMagic, Matrox, etc., will be able to make capture boxes or devices that interface with the SD card slot on the new 15" and 13" MacBook Pros. With your

industry contacts, can you put out the word to those in the know and ask whether that's even technically possible?

No need to reply to me directly, simply put the answer in a Pick Our Brains segment of the Digital Production BuZZ, or ask it directly to a guest you have on the buzz.

Larry replies: Eric, the SD slot is NOT the friend of the video editor. At BEST, it runs at 30% of the speed of an Express34 slot (30 MB/sec vs. 95 MB/sec). The short answer is that there is no reason to create capture cards that support the SD slot when, as currently configured, the SD slot can barely handle a single stream of ProRes HQ HD video.

In fact, the whole MacBook Pro "upgrade" has me deeply concerned. Here's a blog posting I wrote that goes into more detail:

http://www.larryjordan.biz/app_bin/wordpress/archives/692

Plus, I'm now reading that the internal speed of the SATA drives has been cut in half! While not as debilitating as the SD port, this is also not a trend that make me feel warm and fuzzy.

Barefeats.com ran an article on this same subject:

<http://www.barefeats.com/wwdc09a.html>

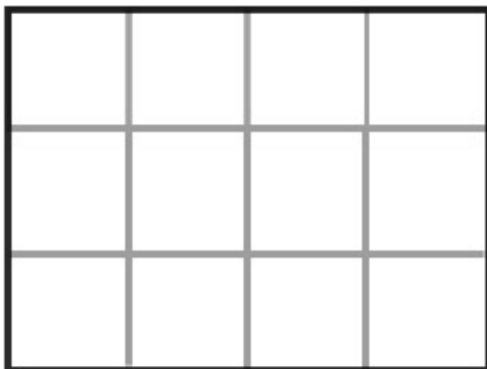
I'm **REALLY** disappointed in this latest round of Pro laptop updates and am hoping that we can all let Apple know they are moving in the wrong direction!

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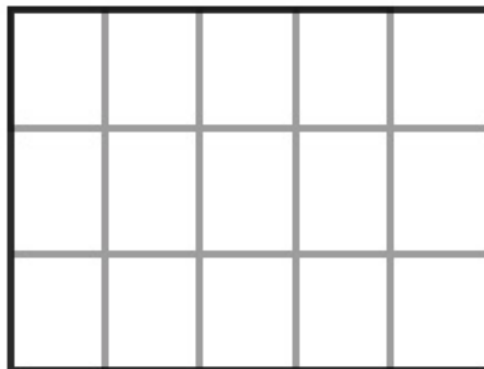
PIXEL PUZZLEMENT

Michael Freedman asks:

Just a quick question if you have time... I was wondering why when I set my final cut timeline to 720/576 it says in sequence settings that it is 5:4 when it's really 4:3?



4:3 Square Pixels



4:3 Rectangular Pixels

Larry replies: This is often a hard concept for people to understand.

The answer is that 720 x 576 is 4:3 - because the image pixels are not squares, they are rectangles. In the case of PAL 4:3, each pixel is tall and thin.

As this image illustrates, both black boxes are 4:3. However, the left box is filled with 12 square pixels, while the right box is filled with 15 rectangular pixels. Converting the aspect ratio of the pixels between square and rectangular does not change the 4:3 aspect ratio, but DOES change the number of pixels needed to describe the shape.

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SOME ELEMENTARY QUESTIONS

George Godfrey writes:

I'm new to Mac and FCP worked with windows mostly anyway I've just registered at your site and have two questions if you don't mind. Excuse me if you find them elementary.

1. When I make a QT movie from my timeline in 16.9 and then reimporting the file, I end up getting it 4.3 format and is it suppose to be so? I've looked everywhere to find the box to tick in for the correct format but alas.
2. When capturing a full dv tape I see in the capture map later that several files appear, the captured film file or files, plus QT symbol files that can't be opened, but if trashed the film file won't open either. What is this file and why is it splitting into separate files when using capture now?

Larry replies: Thanks for writing, George! These are two great questions.

1. After importing the QT clip into the Browser, but BEFORE editing it to the timeline, scroll right in the Browser until you find the Anamorphic column. Check it ON for all 16:9 QT clips.
2. You have an incorrect capture setting. Go to **Final Cut Pro > System Settings > Scratch disk** tab and UNcheck the second checkbox from the bottom - **Limit File Size to ...**

Also, it is bad form to capture an entire tape unless you have a continuous performance. FCP works better when you capture shorter clips.

UPDATE - June 16, 2009

Tom Wolsky also points out:

This [also] happens when the capture drive is incorrectly formatted usually FAT32, which has a file size limit.

Larry replies: Thanks, Tom, I forgot that.

UPDATE - June 16, 2009

Ian Hart writes:

Regarding your reply to George Godfrey about capturing the entire tape vs individual scenes. Since moving into HD (MiniDV) I've found it much more difficult to accurately find shots, spool through the tape, set In/Out points and log the shots, due to the fact that HDV is encoded as a MPEG-2 sequence of I, P & B-frames rather than individual frames as in DV. These days I find it more convenient to capture the entire tape with the "Create new clip on start/stop" checked and "Limit capture to 62 mins". I then use a tool such as Adobe Bridge to review and notate the captured clips, rename them, throw away NG takes, etc. I then trash the clips in the browser and re-import the logged clips from the project's Capture folder. Perhaps it's because I'm an old film editor and this sits more comfortably with my workflow (see below).

Larry replies: I agree, keeping clips short is a good idea. And I, too, am a fan of Adobe Bridge -- so much so that I created a [video tutorial](#) explaining how to use it.

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TIPS TO FASTER RENDERING

Ed Dadulak, a cinematographer I enjoyed working with in Boston television when both of us were MUCH younger, recently asked:

I have become a user of FCP just this past January. Your tutorials are great, clear and fun as are all the tutorials on Lynda.com.

I have a Sony F900 HDCAM which I don't capture into FCP since I do not have a deck. Let my clients do that. Moreover, I have the Canon 5D Mark II that records 1080P 30 frame video as you are probably aware.

I have tried transcoding using the Apple ProRes 422 codec in FCP, however it takes an incredibly long time for just a few minutes of video. Would I be better off using Compressor? I would rather be editing than watching that blue line moving at a snail's pace.

Larry replies: It is always good to hear from you. Your file sizes are way past HUGE with the Canon camera, so transcoding will take a while.

Yes, Compressor will speed things up because it runs in the background -- allowing you to do other things, like edit.

Things you can do to speed the transcoding process are not cheap, but include using a computer with:

1. An Intel chip - ProRes was not designed for a G-5
2. A computer with a faster clock speed
3. More processors in your computer

At a minimum, though, try using Compressor to convert your images to ProRes HQ.

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FROM MOTION TO COLOR TO FCP

David Wakeling writes:

I have a workflow question regarding going from FCP to Motion to Color. I've searched the many forums online, but have yet to find a clear answer, hope you can help.

I'm editing a short film shot on the Red camera and have converted everything to ProRes 2K, and now most of the scenes have been built in FCP. In every scene there are effects and transitions that I would like to create in Motion. After all these effects are done, we planned on sending the project to Color for grading. As Color does not accept Motion files, and the colorist will shoot me if I send him a self-contained quicktime file of the entire film, what is the workflow here?

As an added curve ball to contend with, I'm editing an "offline" version now and it's recommended to convert the raw files back into the Red codec before color correcting.

Larry replies: Color only wants to work with actual video files - not LiveType or Motion project files. Whether you use After Effects or Motion, the workflow is the same.

Create your effects in Motion. Export each effect as a single SELF-CONTAINED QuickTime movie. If you need to retain transparency information, export using the Animation codec. Import these movies into FCP and edit into the Timeline. This would be the same workflow when creating effects in After Effects. You need to create a self-contained QT movie.

Ideally, only create the Motion effects when you are in the final on-line stage - that way you are working with native RED files. On the other hand, the time needed may cost too much.

Then, bring the entire project to your colorist as a Final Cut project - using final resolution media - with the self-contained QuickTime movies of your Motion effects. They will then color correct everything at once.

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POWERPOINT (AND KEYNOTE) IN FCP

Barry Drennan asks:

Could you please tell me whether it is possible to add a PowerPoint presentation into a FCP sequence?

Larry replies: Yup!

Whether you use PowerPoint or Keynote, you can bring that info into FCP by exporting it as a QuickTime movie, then import that QuickTime movie into Final Cut.

However, people design for PowerPoint differently than for video, and you'll have problems if you don't take a few extra points into consideration:

- Create, or resize, your PowerPoint to be as close to the final video resolution as possible. Generally, a size of 1024 x 768 , for SD, or 1280 x 720, for HD, works best.
- Reduce the amount of text on the page.
- Increase the point size of the text.
- Pay attention to all the design constraints we've always worked with in video. Even when presenting on HD, we don't have as much resolution as our computer screen.
- Transitions should export, however, slides will only output as a single frame, which you'll need to lengthen in FCP.
- Embedded movies will probably not export correctly. Generally, audio and video lose sync during export. Plan to replace these with the original movies.
- Any music in the PowerPoint file will not export, you'll need to add it again manually.

UPDATE - June 18, 2009

Cal Deal writes:

I'm away on vacation, but I saw your newsletter. I think you're in error about exporting one Keynote slide frame. As long as the timings are programmed in, I believe they will export and play normally.

Sharon Sobel adds:

Just to follow up from your most recent newsletter. Larry, I import powerpoints all the time into FCP. The only thing that gets sacrificed with my method is animated transitions.

Here's how I do it:

1. Open powerpoint, and open the file.
2. Click "View slideshow"
3. Wait for a few seconds until the slide transition icon in the bottom corner disappears.
4. Click **Shift + Command + 3** on the slide---you're doing a screen capture. Do this with each slide in the file. If there is a "build" on the page, do a screen capture between the "builds" on the page, and add dissolve transitions through Final Cut.
5. You'll end up with a bunch of .jpgs on your desktop.
6. Make a new folder to put them all in, and then move the folder to your project's folder to stay organized.
7. Import the folder into Final Cut. All of the slides will be in this folder. You shouldn't have to do any re-sizing of the images in a 4:3 project.

Still need to bring movies in separately, as you indicated, but this process works for 95% of the powerpoint presentations I get, and is a pretty fast method.

Larry replies: Thanks, Cal and Sharon, for writing. I appreciate the update.

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BETTER IMAGES THROUGH BETTER CODECS

John Foster writes:

Here's a question: My wife and I have been shooting and producing natural science documentaries for public TV in Canada and Japan, and for the Discovery

Channel in Canada, for more years than we care to admit to. Because we are also still photographers and present public slide shows we are keenly interested in using FCP to fine tune music, dissolves, and the precise positions and length of each image -- and we want to be sure that FCP will also give us the quality we want on an 8 foot screen in front of a couple of hundred people.

Right now we are using Keynote, which gives us decent quality and the ability to include music and video -- but the adjustment of each image to the music is a little clunky.

Our images in Keynote are 1024x683. This displays full-frame 35mm slides.

So two basic questions: will FCP produce the quality we need when projected through a video projector -- possibly as a QuickTime file? And what do we need to do to import a full frame 35mm image into FCP? Is it just a question of sizing? OK that was three questions.... A good slide show may have stills, Betacam, XDCAM HD, HDV and DDV, all with music and SFX. For us, the easiest place to do that is in FCP -- but only if it projects at good quality.

Larry replies: Well, the answer is yes and no.

This isn't a Final Cut problem, it all depends upon which video codec you decide to use.

The absolute highest quality is the Animation codec, however this requires very large image sizes and a fast computer to play back.

Second, would be to use the ProRes 422 codec at 720p image size. This would be much smaller files, excellent quality, but you would need to scale your images to 1280 x 720 x 72 dpi.

So, will FCP create great quality? Yes - provided you use the right codec.

Can you play a QuickTime file directly to a projector: Yes

You import a 35 mm slide the same as any other digital image: **File > Import > File(s)**. If, however, the slide has not yet been digitized, you'll need to do that first.

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MORE ON SMOOTHCAM

Tony Fleming writes:

Since I wrote to you on this subject, I have completed two additional 30 minute projects, each of which had significant number of clips to which I applied smooth cam. I did the export and re-import trick as I went so it wasn't too burdensome.

I had no trouble at all with either project and I continue to say that SC is just magic and saves clips which would otherwise be unusable. I even applied it to shots of small whales swimming in choppy waters shot from a moving boat where there was no stable reference in the frame and it even worked on those.

Larry replies: SmoothCam is an image stabilization feature in Final Cut Pro 6. While I don't have a specific article on how to use SmoothCam, I do have some tips to make it work better:

http://www.larryjordan.biz/articles/lj_making_motion_move_faster.html

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OK, WHERE ARE MY FILES?

Nicolas Nilsen sent this in:

I went to a friend of mine to record his voice for a FCP project. I went there with my laptop (MacBook Pro with Final Cut Studio). I made the recording (SoundTrack Pro), saved the .stmp file and went back home to work on the FCP project...

OK.

Then I copied this .stmp file on my other computer and I got this warning message !
"Missing files" ! STP can't find the files ? which files ? what missing files ? There's just one .stmp file ... !

If I click "ignore", it doesn't work - the wave forms are missing !

WHAT FILES AM I SUPPOSED TO FIND to make it work ? where are they ?

If you could explain that, perhaps I wouldn't lose a few hours of hard work :-)))
thanks for your kind help Larry

Larry replies: The problem is that you didn't copy all the files you needed. You need to think of the STMP project as similar to a Final Cut project. The project file contains pointers that POINT to the media on your hard disk, but the media is NOT included in the project file.

What you need to do is go back to your friend's system, reconnect the same hard drives, then do a Save As on your file and COLLECT all the different audio files that you recorded.

What I do for all my Soundtrack work is create a folder ("Larry Jordan project) then, inside save the STP Project file ("Larry Jordan intv") and Collect all audio files. This puts a media folder in the project folder. Once I have both the project file and the media folder, I can take it anywhere.

(Also, Nicolas, I apologize for getting your name wrong on my email back to you. I wasn't paying proper attention. Sorry.)

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CREATING WMV FILES

Kevin Worthington asks:

I have a 7 minute video clip that needs to be converted from a Quicktime movie to Windows Media. I first exported using Quicktime conversion but the process stalled at about 35% completed. I then exported from Final Cut as a regular

Quicktime movie but, using Quicktime Pro, the conversion to wmv still hangs up at about 35% completed each time. Any ideas what I may be doing wrong or if there is a better way to do this?

Larry replies: Kevin, I'm amazed you could even get QuickTime to start. Worse, this is creating a very old version of WMV.

It would be MUCH easier to create a high-quality QuickTime movie, then use either Adobe Premiere (on Mac or PC) to create the WMV, or just move it to a PC and create it there.

There are a number of Mac applications that also create WMV files - [Flip4Mac](#) is the first one that comes to mind. I'm happy to list others if readers want to suggest them.

UPDATE - June 16, 2009

Stuart Page writes:

I like [Autodesk Cleaner](#) for creating WMV files.

Larry replies: Thanks, Stuart!

UPDATE - June 18, 2009

Bob Hirschfeld writes:

I've been using Cleaner for years and it works very well, although it is far more expensive (around \$600) than Flip4Mac. The advantage is that it does an excellent job compressing video files, whether or not you are asking it to also change the clip's file type. The product has had several changes of ownership, and is now sold by Autodesk in PC and Mac flavors. There is a 30-day free trial.

I shoot a lot of HDV video, edit it for non-streaming use on our website, so the files need to be relatively small so they can be downloaded reasonably fast. Our intranet is standardized for Quicktime, but for external use, I need to also create WMV versions. Cleaner is perfect, although I've also tried Sorenson Squeeze, which also works well and is priced about the same.

<http://usa.autodesk.com/adsk/servlet/index?id=5562025&siteID=123112>

<http://www.sorensonmedia.com/video-encoding/>

Larry replies: Thanks, Bob, for writing.

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NOT ALL HARD DISKS RUN AT THE SAME SPEED

Brian Seegmiller writes:

I have a Sony HDRsr12 camera. It uses AVCHD. When I log and transfer the footage it works OK. I have FCS 6.0.5. I am capturing using prores. When I bring it in the timeline it asks do you want to use the format of the clip and I say Yes.

But when I play it back It looks like it skips frames. I'm using a Western Digital FireWire 800 drive. What can I do?

Larry replies: Brian, ProRes requires a hard disk with a MINIMUM of 28 MB / sec data transfer. This is more than a FireWire 400 drive can support. My guess is that you are using either your boot disk, or an external FireWire 400 drive -- neither of which is fast enough.

Here's how to find out.

- Run **Utilities > Activity Monitor**.



- Click the **Disk Activity** tab at the bottom.
- Copy a very large (larger than 1 GB) file to and from that hard disk and watch the Data Read and Data Write speeds. Both need to be well in excess of 35 MB/sec.

If so, then, doing a Safe Boot / Repair permissions is probably in order. If not, the hard disk is too slow. Here's an article that describes how: http://www.larryjordan.biz/articles/lj_trouble.html

Brian sent the following update:

You were right. That 800 drive is too slow. But my internal SATA drive is not. Thanks!



Larry, again: This is a good opportunity to mention my tutorial on Picking the Right Hard Disk and Video Format. This 60 minute tutorial goes into all the detail you need to avoid problems like Brian just discovered. [Click here to learn more.](#)

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EXPORTING BROWSER COLUMNS

Richard Day writes:

Following your tip in May's newsletter, I tried exporting clip data from the Browser by selecting the clips and choosing **Export>Batch List** but ALL my clips were exported, not just the selected ones. Or I should say, the entire bin of clips. I wonder if your tip only applies to individual selected clips if they are at the "root" level of the Browser item/bin hierarchy?

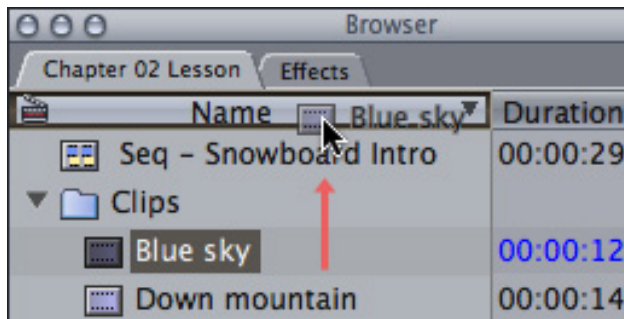
And if so, how do I move a clip "up" so that it moves out of its bin to that root level? I've never figured this one out. It seems, once in a bin, never out of it (except to another bin).

Supplementary question: I was labeling parts of clips with markers, and I was hoping to export the marker names (and their column info) as well as the clip column info. Can this be done? Export > Batch List only exported clips, not markers.

Thanks for your great work. After a time one gets more into working with FCP than learning things one didn't know, and you are an antidote for that...

Larry replies: Yeah, I got it wrong.

File > Export > Batch List exports everything in the Browser. To only export a selected group, probably the easiest way to work around this is to create a new project then just drag the clips you want to export into the new project. Not ideal, but it works.



As for how to move a clip out of a Bin, grab the clip, or clips, you want to move and drag then on top of the NAME column header. When you let go, they will move to the top level of the Browser.

As for exporting marker info, FCP doesn't handle that natively, but here's an Automator script that can accomplish this:

<http://www.creative-workflow-hacks.com/2007/08/11/automator-action-final-cut-pro-xml-to-tape-log-via-markers/>

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FASTER COMPRESSION

A couple issues ago, **Jason Brooks** wrote:

I am writing in response to Don Smith's tip on using 'virtual' clusters on one machine to speed up the FCP exporting process. As almost all of the footage I edit is HDV, it is obviously very exciting to hear that my export times could be (even slightly) reduced!

Unfortunately, when I tried (and checked, reset, and re-tried) this setup, my cluster showed as 'Selected Service On' in system preferences, but did not show up in the submit dialog in compressor when I ran it.

So, I sent Jason's comment over to **Don Smith**, who graciously spent some time figuring out the problem. Here's Don's update:

I meant to update you that Jason Brooks solved his problem following my

"Reducing Rendering Time" tip. He simply did it again and this time he followed the instructions... for the most part. All of this was for nothing, however, because Jason ignored the part of needing 4GB of RAM and two instances for it to work on a MacBook Pro. He had only 2GB of RAM and each instance takes up 1GB. After his two instances, he had nothing left over for the OS so it had to page to the hard drive and the result was that his rendering was slightly longer than if he didn't use virtual processors.

Larry replies: Thanks to both Jason and Don for their questions and followup.

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SSD HARD DRIVES

Adam Connell asks:

Great newsletter this month. In the next one, any chance you could give an opinion on the positives and negatives of SSD hard drives for editors?

Larry replies: In general, I try to avoid computer system and hard drive testing - I don't have a good testing system.

However, based on what I'm reading, at this point, SSD hard drives are designed for environments with a LOT of shaking and physical movement. At this point in time, SSD drives are slower and smaller than standard hard drives. And they are almost double the cost.

If you are bouncing across the wilds of America, recording to your computer which is strapped to the back of a bouncing jeep, then an SSD hard drive makes perfect sense.

However, if you are not in a high-abuse situation, stay with standard hard drives.

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ORGANIZING FILES

Michael Loftus asks:

You recommend that on the boot disk, create a folder called, "FCP Projects." This folder will hold all your non-timecode-based project files.

Is there a technical advantage to placing these files on the boot disk? e.g. will the file run smoother with less dropped frames, etc. I'm currently editing on a laptop with 4TB of external storage space where I keep the media files. I'm usually editing 2-4 projects at a time so I put all files, timecode and non-timecode, on the external drives to keep from loading up my 180G boot disk.

Larry replies: Nope -- your system is fine.

I taught this organizational system back when everything originated on video tape. Now, as we go tapeless, and with the speed and size of today's hard disks, I'm thinking about my opinion. I'm

holding off doing anything formal until we see the next version of FCP, but in the future, I'll still recommend creating two folders - one for media, the other for project - but suggest they both be kept on the second drive.

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ANOTHER FCP ORGANIZATIONAL SYSTEM

Tom Mountford, senior editor of the JMS Group, sent this in:

Hi Larry - I was reading Anna B's question on 'Where to store files' and thought I would share my filing system. Being extremely paranoid about keeping my data both organized and safe I've always operated the procedure of a single directory for each job - even though some may consider that placing all my eggs in one basket it is a basket I can mirror each evening to an external drive, or copy to my thumb drive to take home with me - all using a single drag and drop.

To begin with I create a folder on my RAID with the client and job name. I then create an FCP project, save it in the folder I just created, then I switch the scratch discs to also reference this folder (the only snag, but one I have got used to, is making sure I remember to change the scratch disc preferences each time I move between projects). Now that I have a client/job directory containing an FCP project, and the automatically created Capture Scratch and Render Files/Audio Render Files directories I go on to add a few extra folders of my own. These are: 'AE' for After Effects work relating to the edit - within this folder I have sub-directories named 'Sources' (very handy place for housing client-supplied artwork and logos etc) 'Workspaces' and 'Renders'. I create a folder named 'DVD' in which I can place the .m2v files and DVD Studio projects for the inevitable final client copies of the job. Lastly I create an 'Imported Audio' folder - where I can place the music tracks, voiceover and final mix which have been produced elsewhere and sent to me as files. I am now working for the most part tapeless so don't capture anything directly into the capture scratch directory - but I manually place my XDCAM footage into this folder, with the added benefit of being able to split it up into scenes/shoot days using the Finder/Quicklook - and then just use 'Import Folder' in FCP to import the pre-arranged footage bins.

I use an identical file system for every job - so I can go back to work I was doing three or four years ago and not have to refresh my mind where anything is. It makes archiving easier too - knowing 100% that everything relating to a project is in the one directory eliminates the possibility of 'could not locate media' warnings later on.

Hope that's of help to a few people!

Larry replies: Thanks, Tom, for sending this in!

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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, please put the free player on your website!

- [Visit our store and buy a couple of our latest tutorials.](#)
- [Or, check out my latest video about picking the right HD format for your project.](#)

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

Until next month, take care, and edit well.

Larry

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