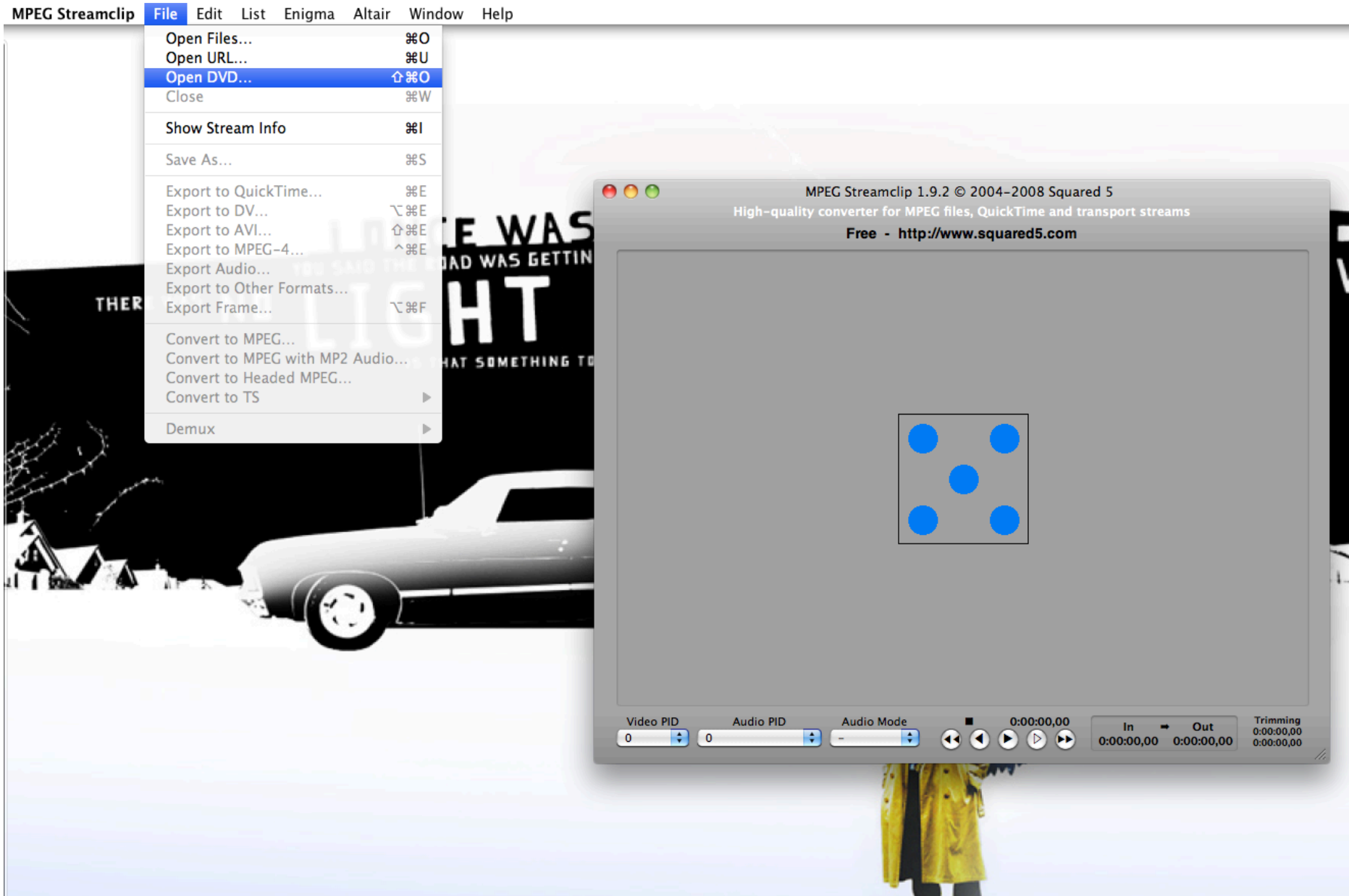
Macs & Aspect Ratios: A Resource

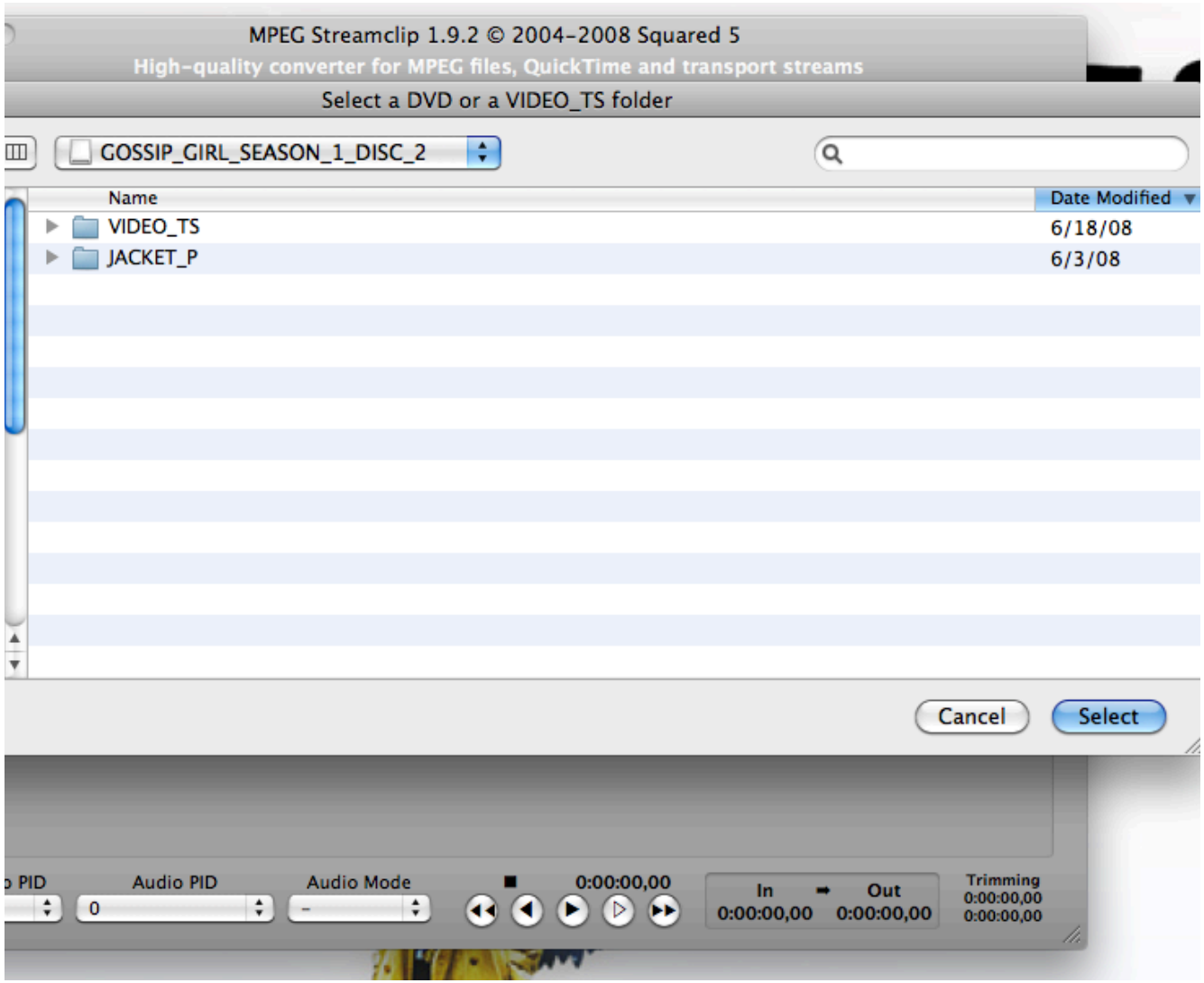
- The following is a slide show with an overview of a mac editing workflow, using Fairmount, Mpeg Streamclip, Final Cut Pro, and FFMPEGX, and Compressor. This is meant to be a resource and a work in progress. If you have suggestions/additions/questions, please feel free to email me at lolal23@gmail.com.

It’s not exactly about aspect ratio, but: fairmount (a free & open source software) allows you to clip directly from your DVDs, saving energy for your coming aspect ratio endeavors.

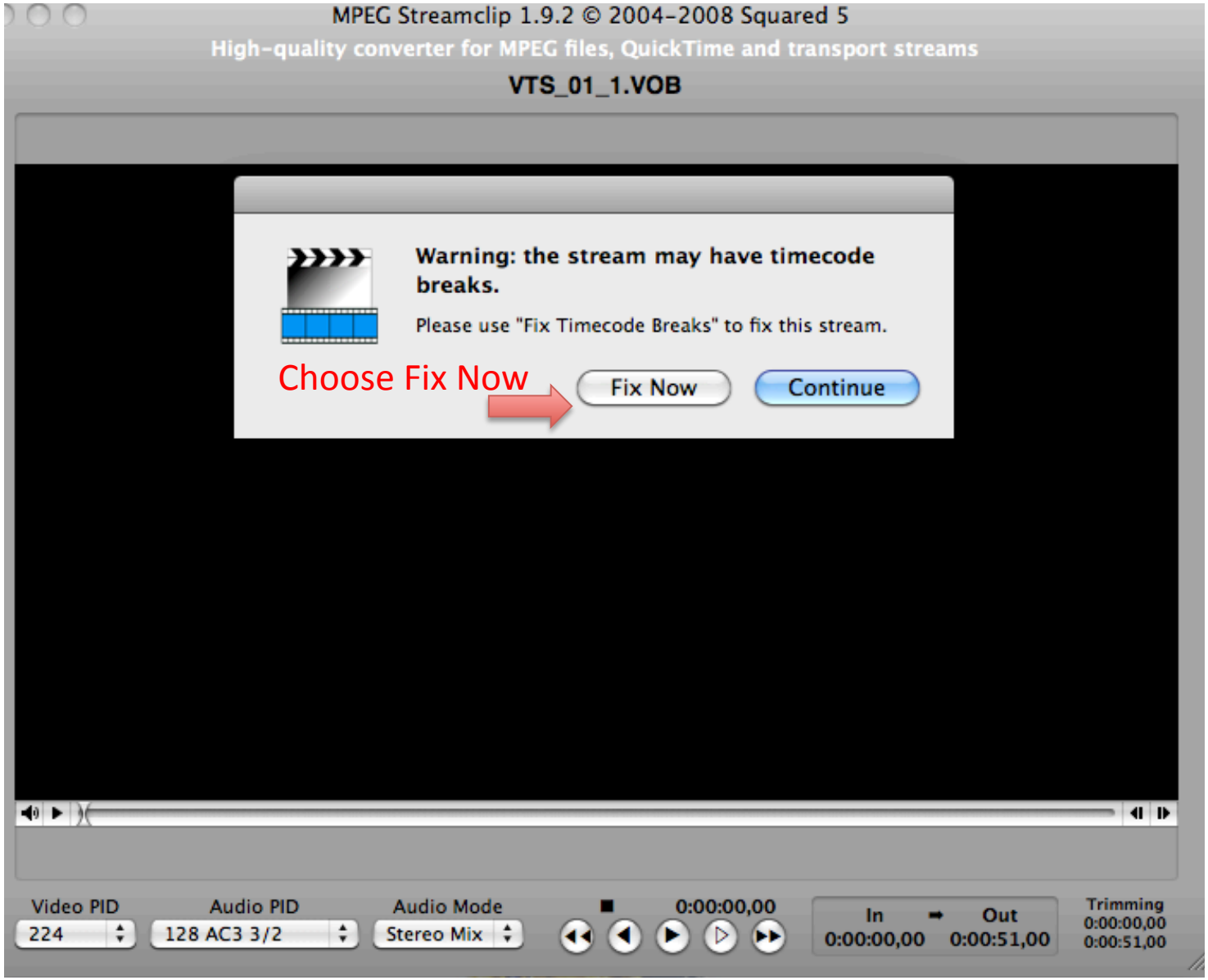
So now you simply open your mounted DVD directly through MPEG Streamclip:

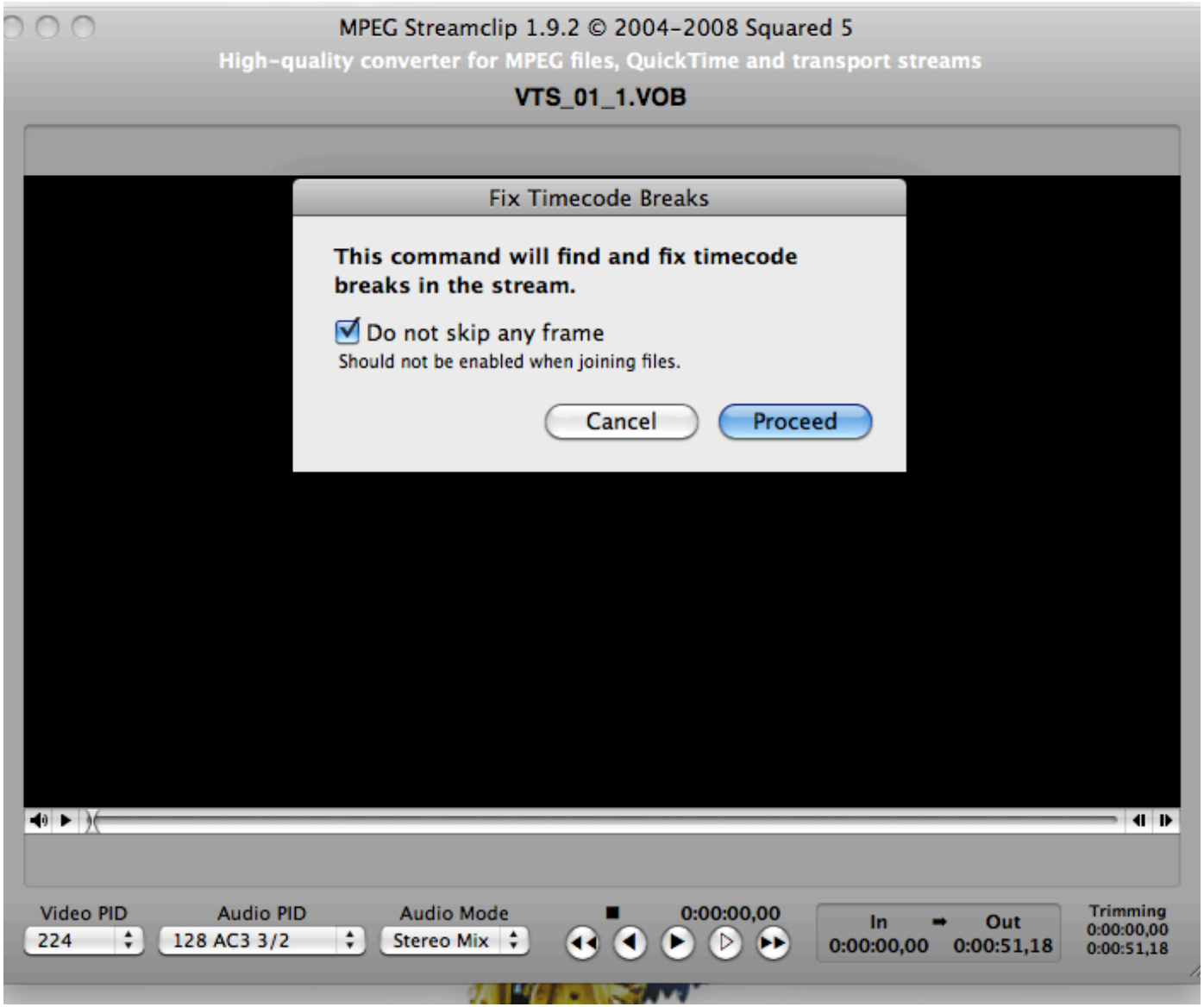


No more storing whole VOB files to clip later…

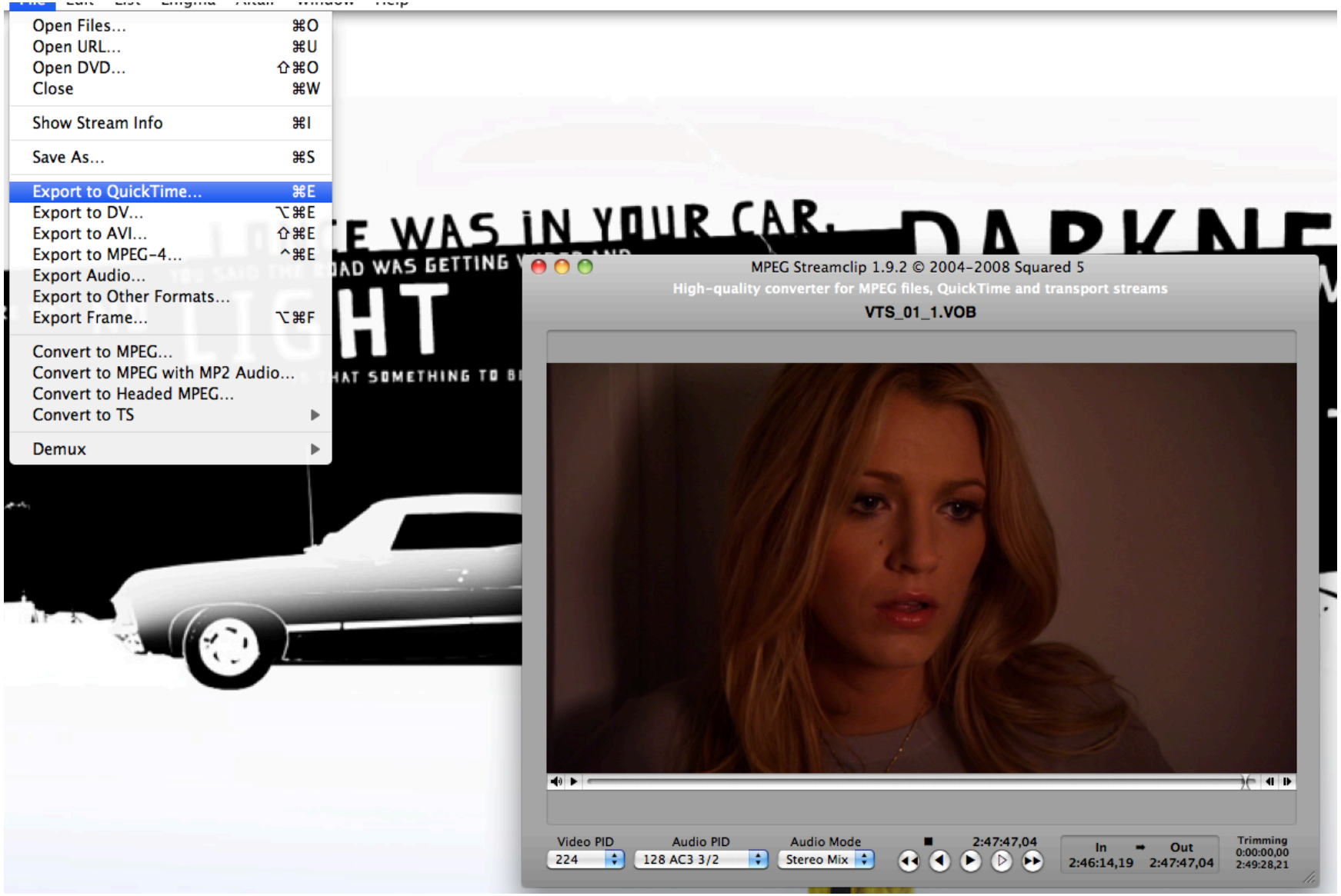


Do: fix timecode breaks, even if it takes a while

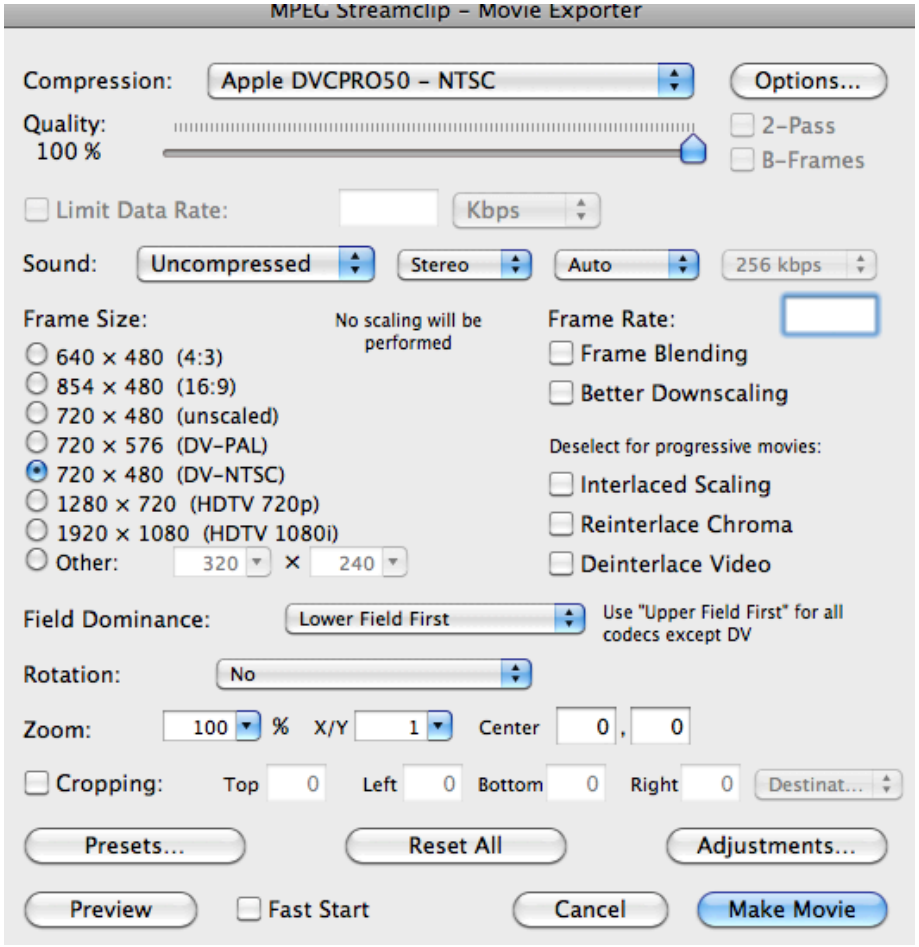


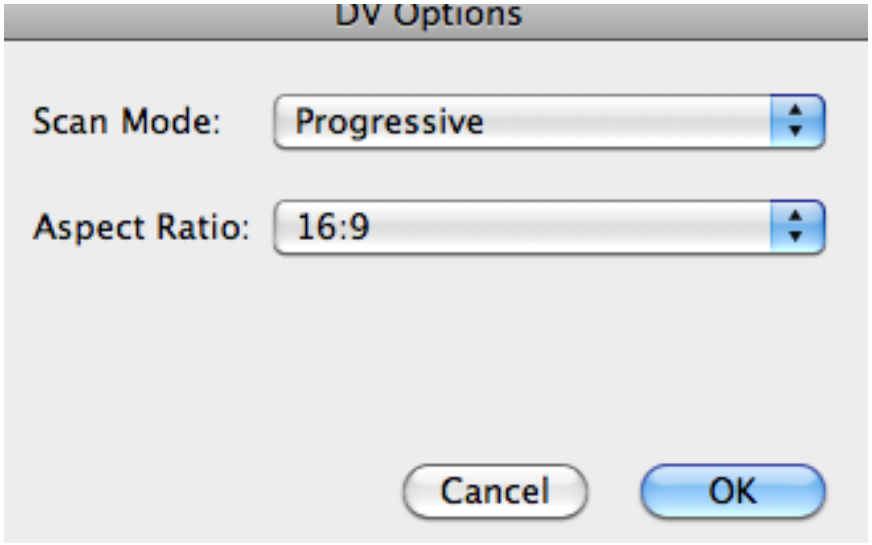

MPEG Streamclip 1.9.2 © 2004-2008 Squared 5
High-quality converter for MPEG files, QuickTime and transport streams
VTS_01_1.VOB
Fix Timecode Breaks
This command will find and fix timecode breaks in the stream.
Do not skip any frame
Should not be enabled when joining files.
Cancel
Proceed
Video PID
224
Audio PID
128 AC3 3/2
Audio Mode
Stereo Mix
0:00:00,00
In
0:00:00,00
Out
0:00:51,18
Trimming
0:00:00,00
0:00:51,18

Once the file is ready, find your clip, and choose “Export to QuickTime.”

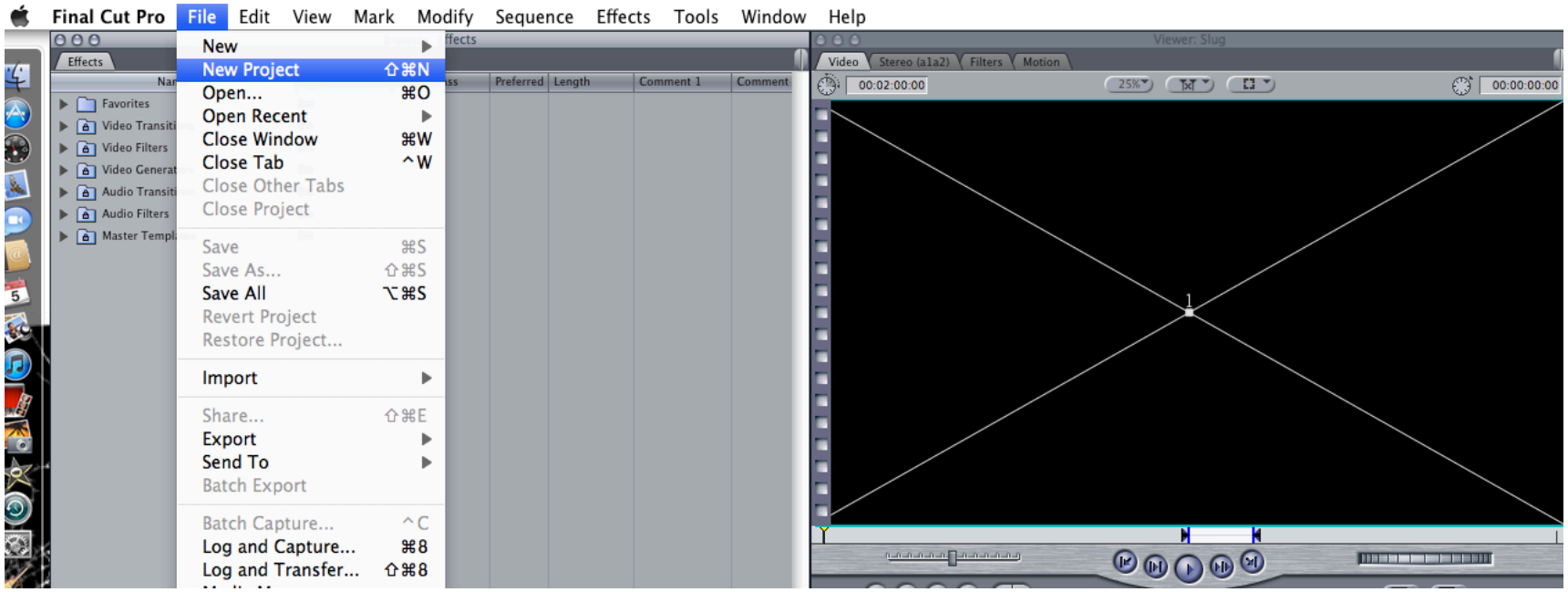


Here are the settings for DV.
DV for NTSC is ***always*** 720 x 480. And be sure to click "Options" and choose the appropriate aspect ratio. Here, I chose 16:9.

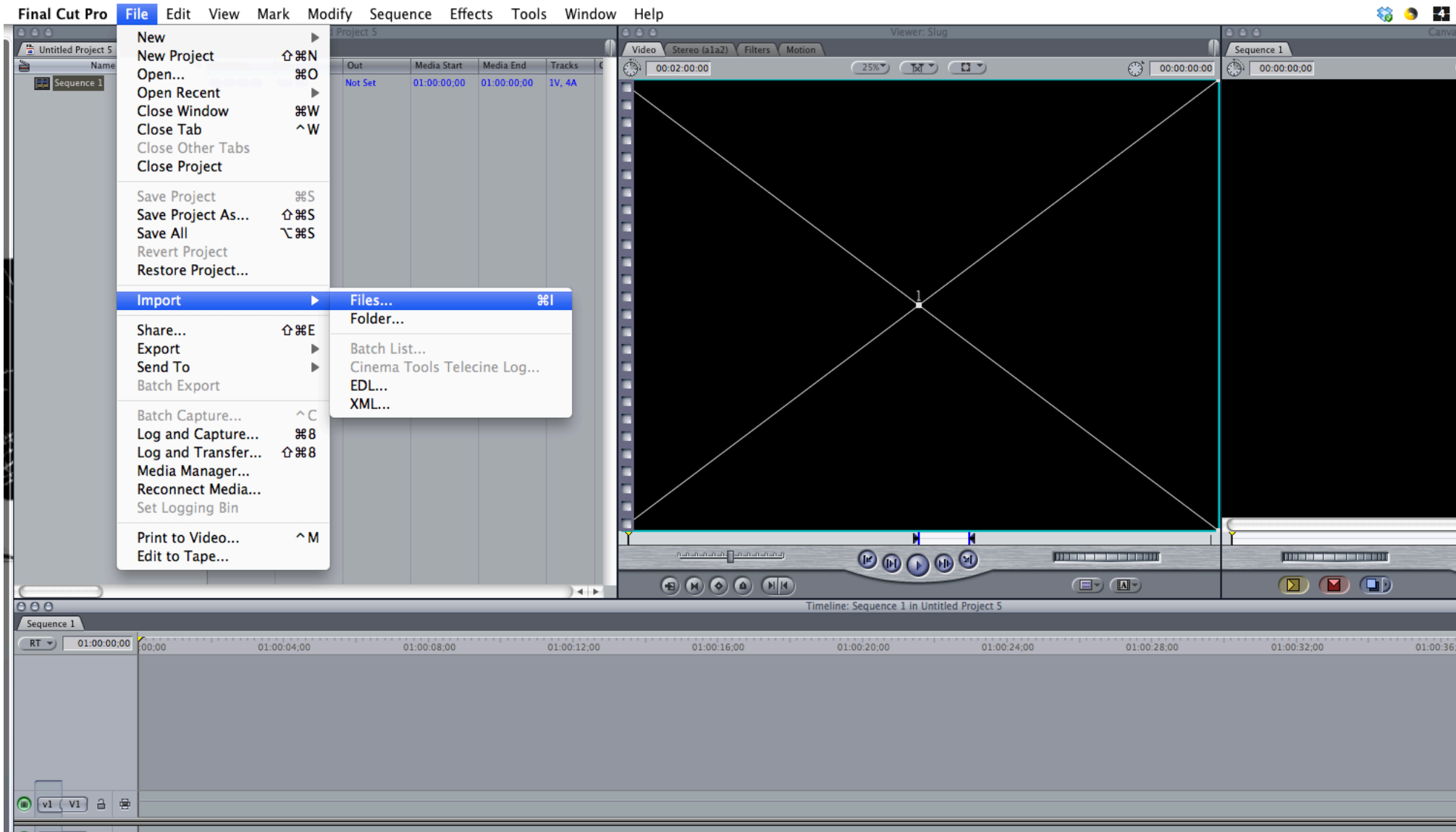




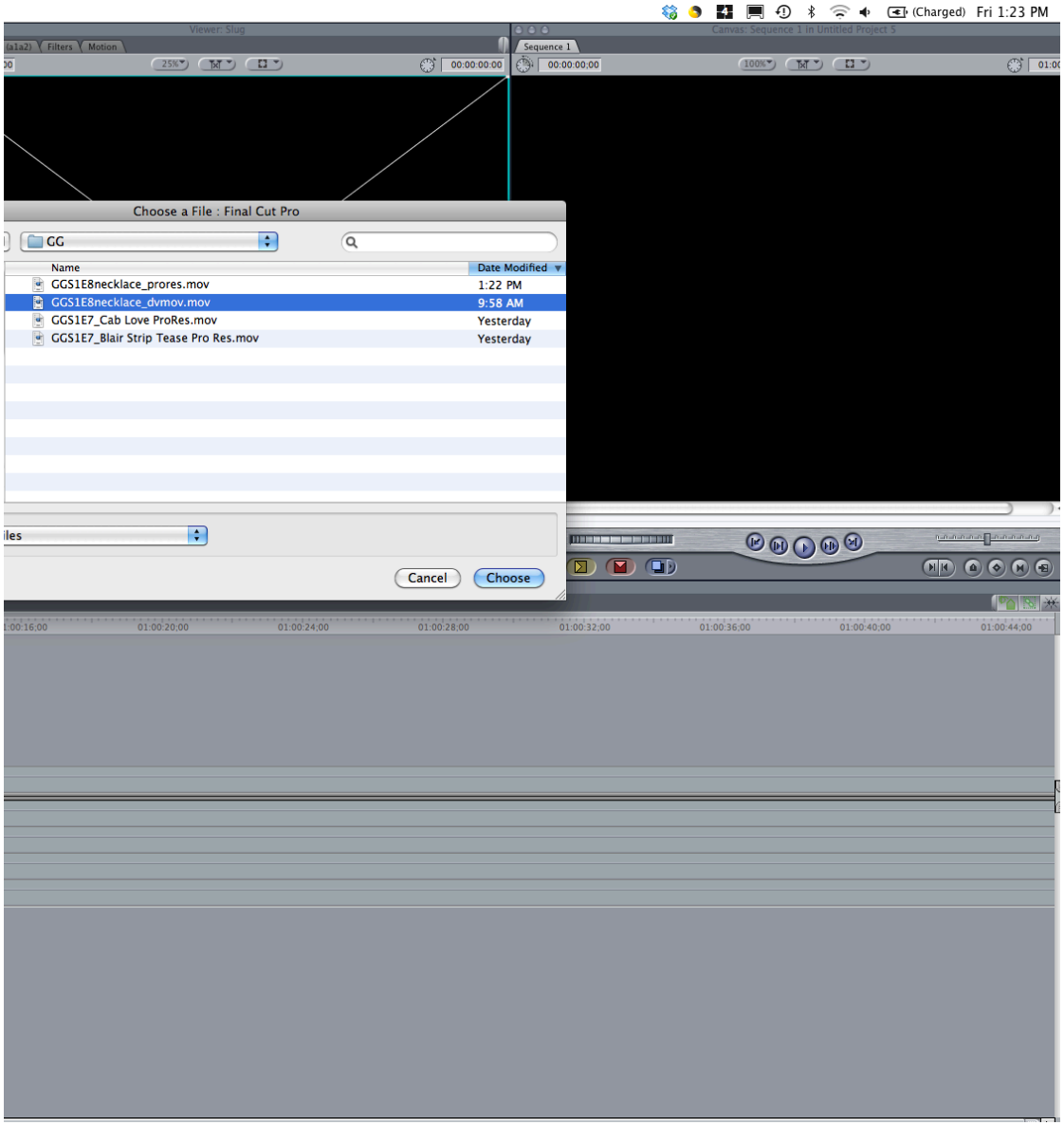
Head over to FCP and create a new project.



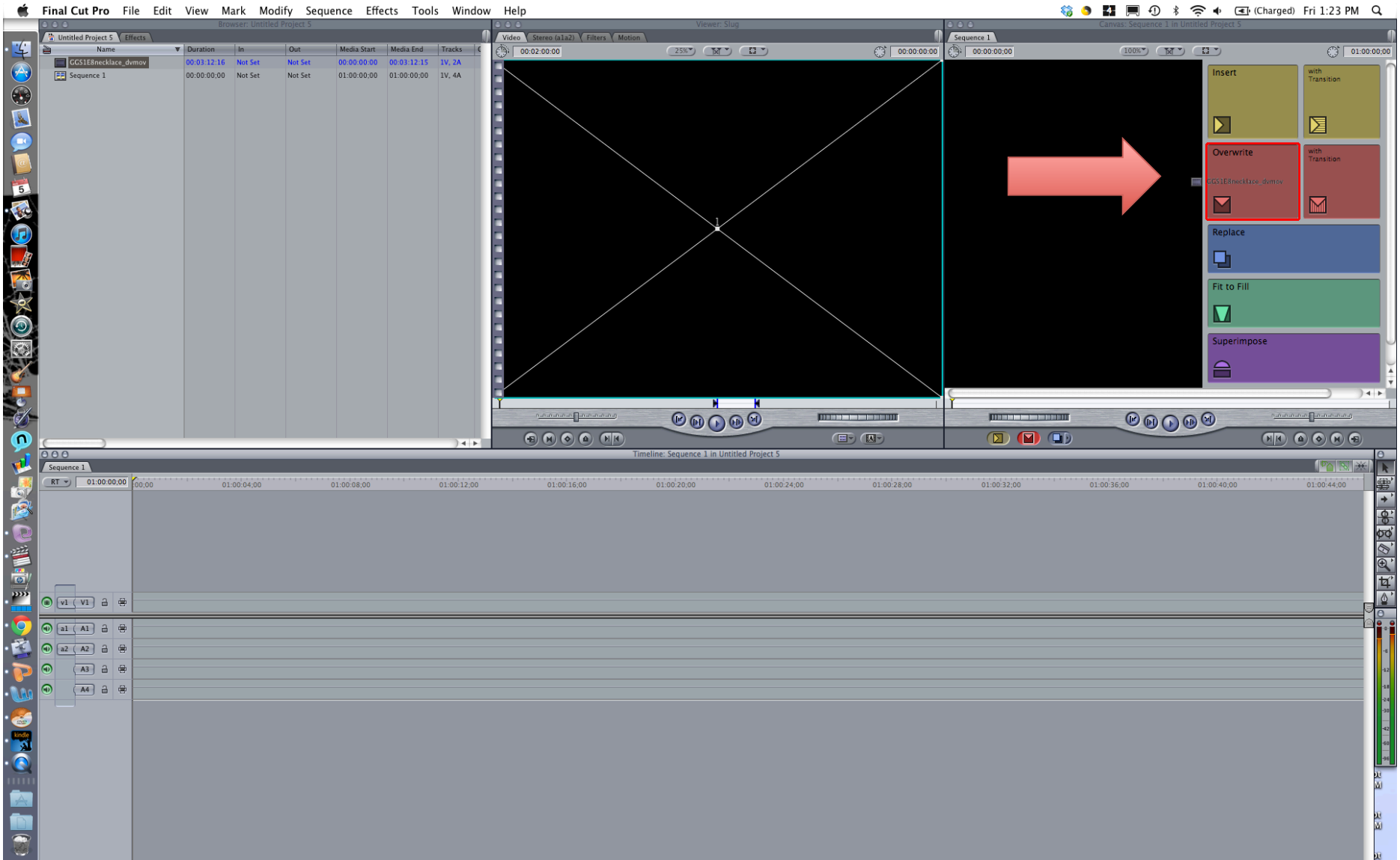
And once Mpeg Streamclip has done its business, import your file.



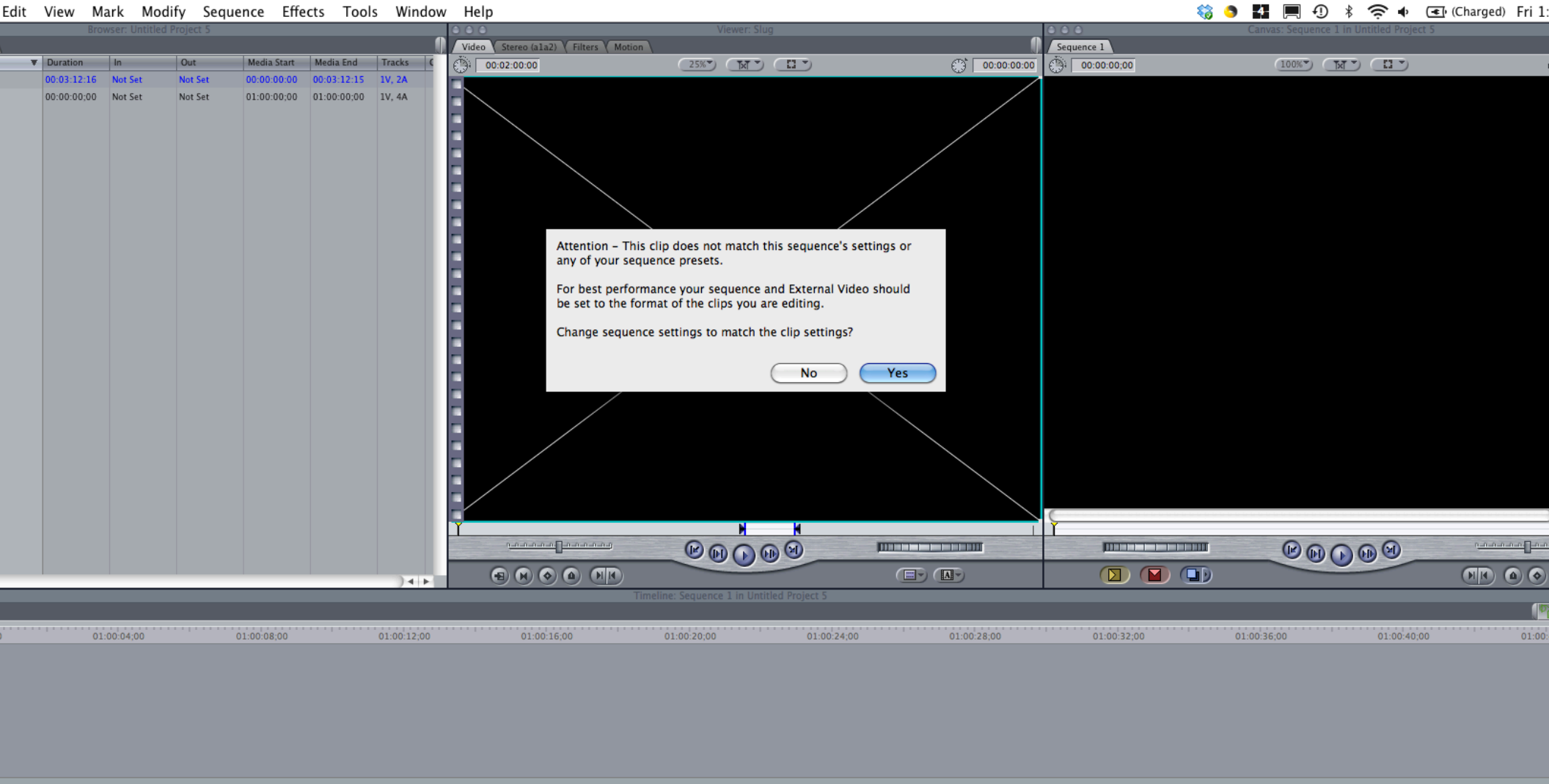
Choosing the file…



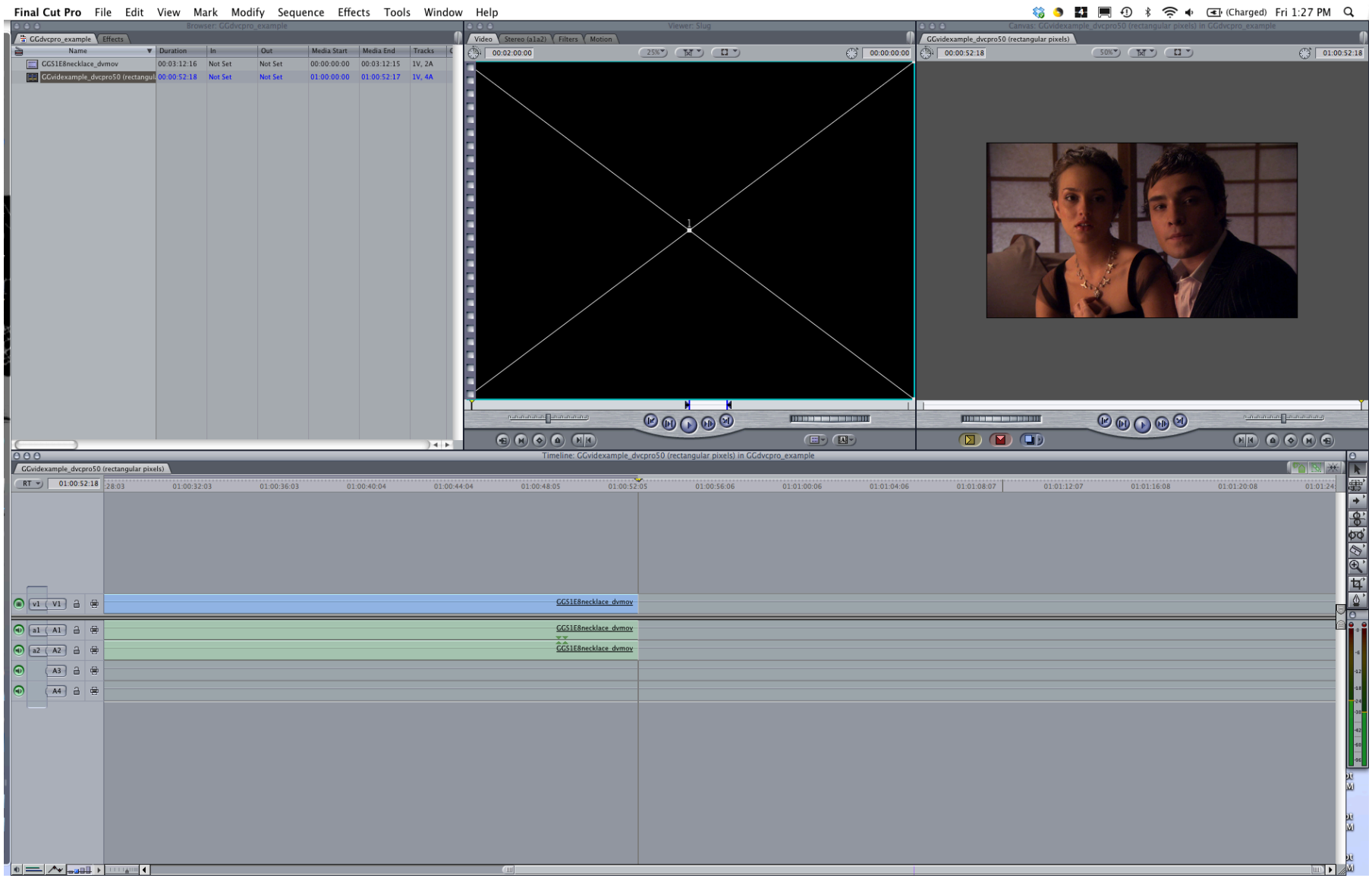
Now drag the file over to the red “overwrite” box



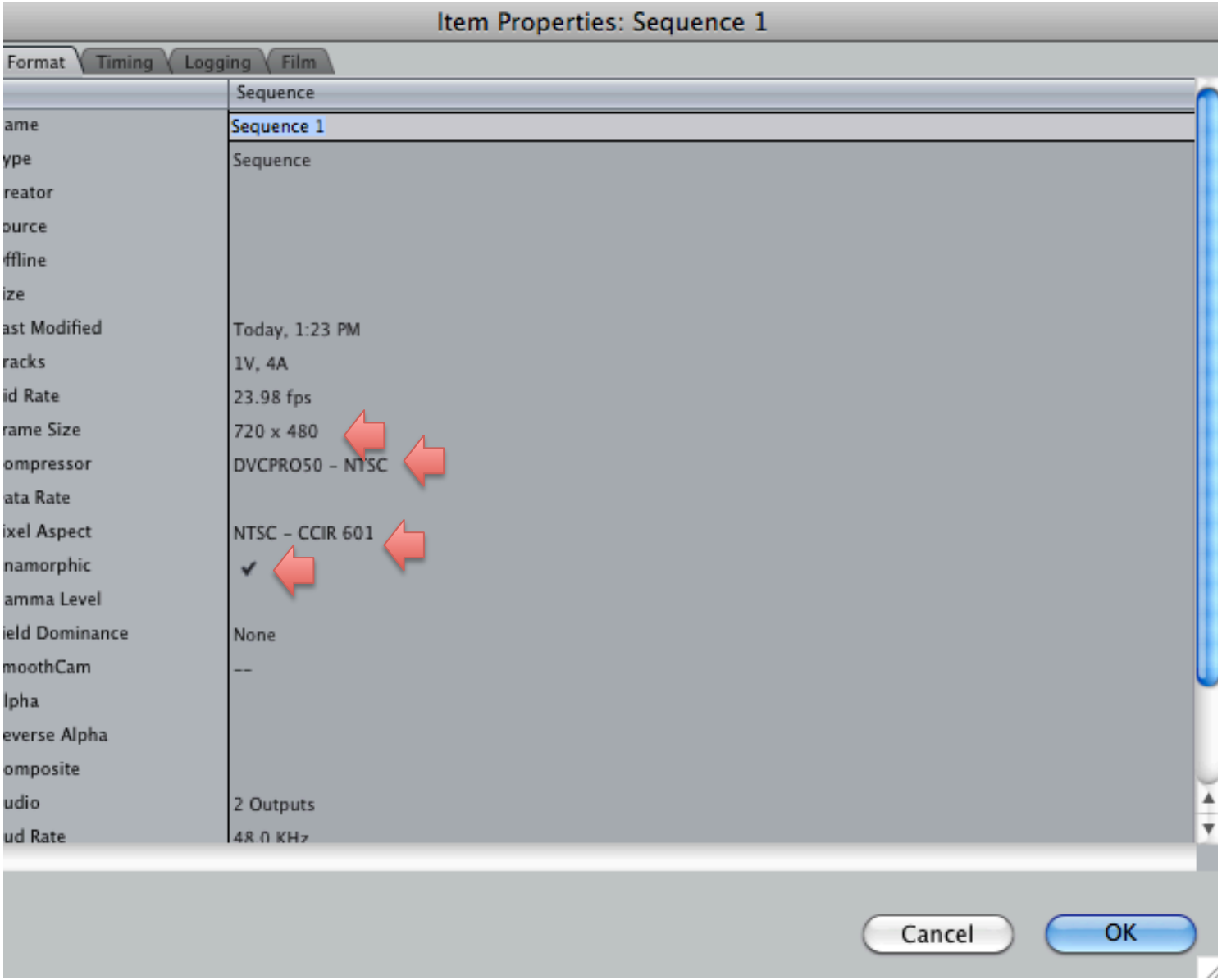
Final Cut should politely inquire whether it can set your sequence to match with the file. Say yes!



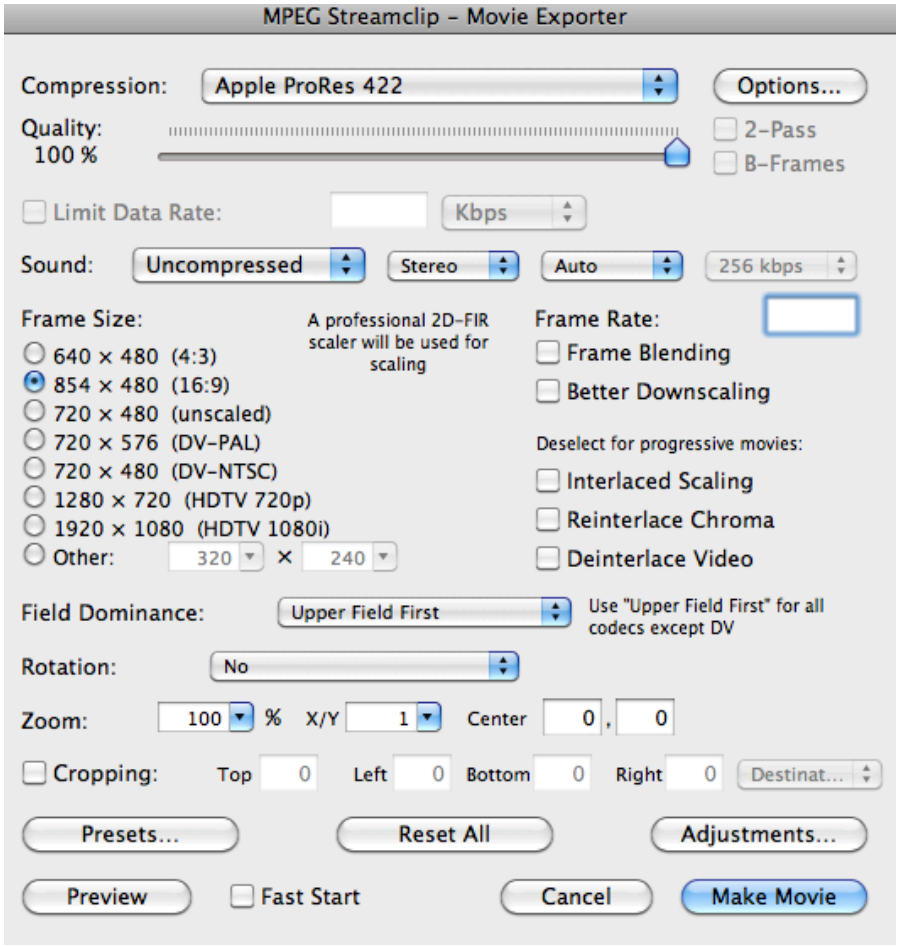
And lo and behold, there it is, ready to edit, no red bar of doom



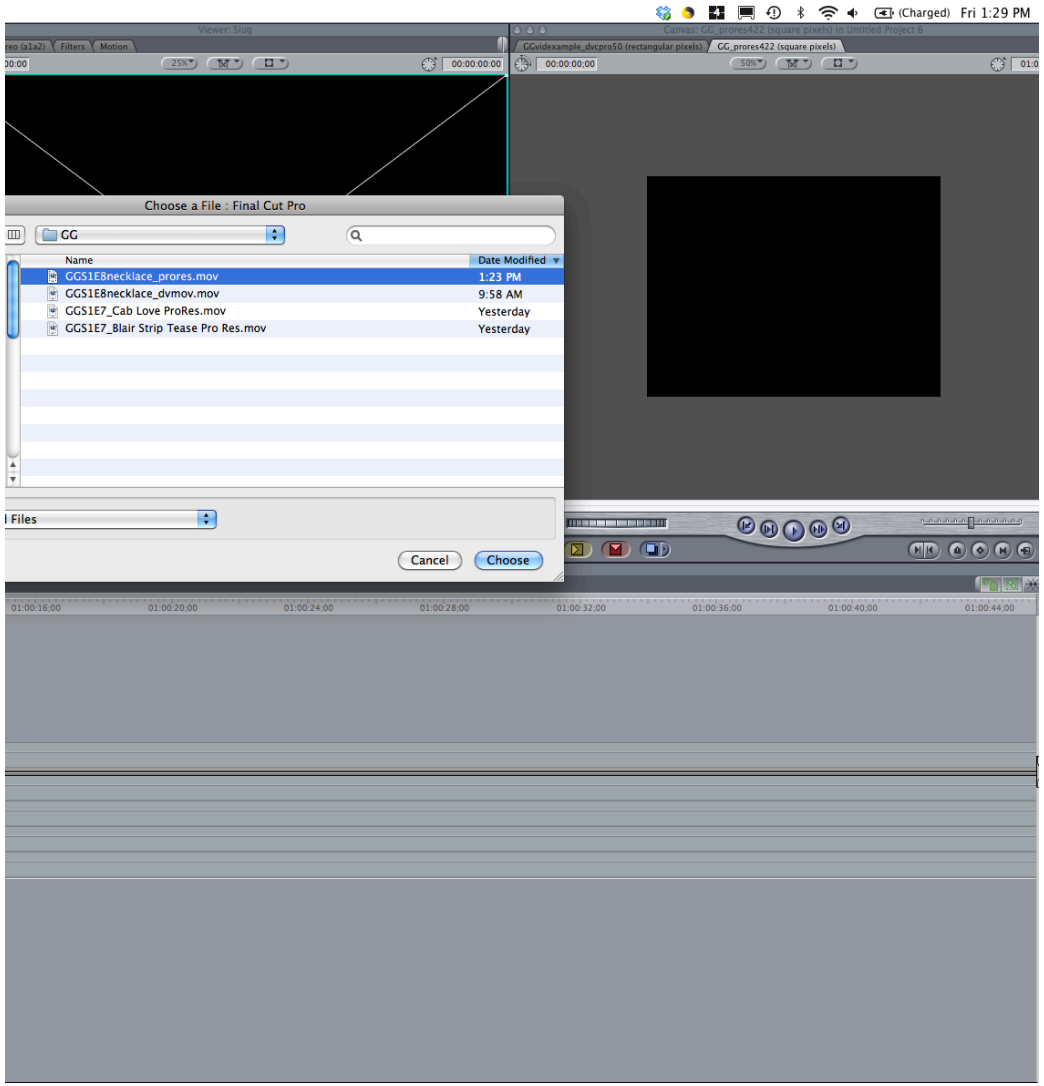
Just to double check that FCP changed the sequence settings correctly (in this case, for DV) we should have rectangular pixels, 720x480, and anamorphic…



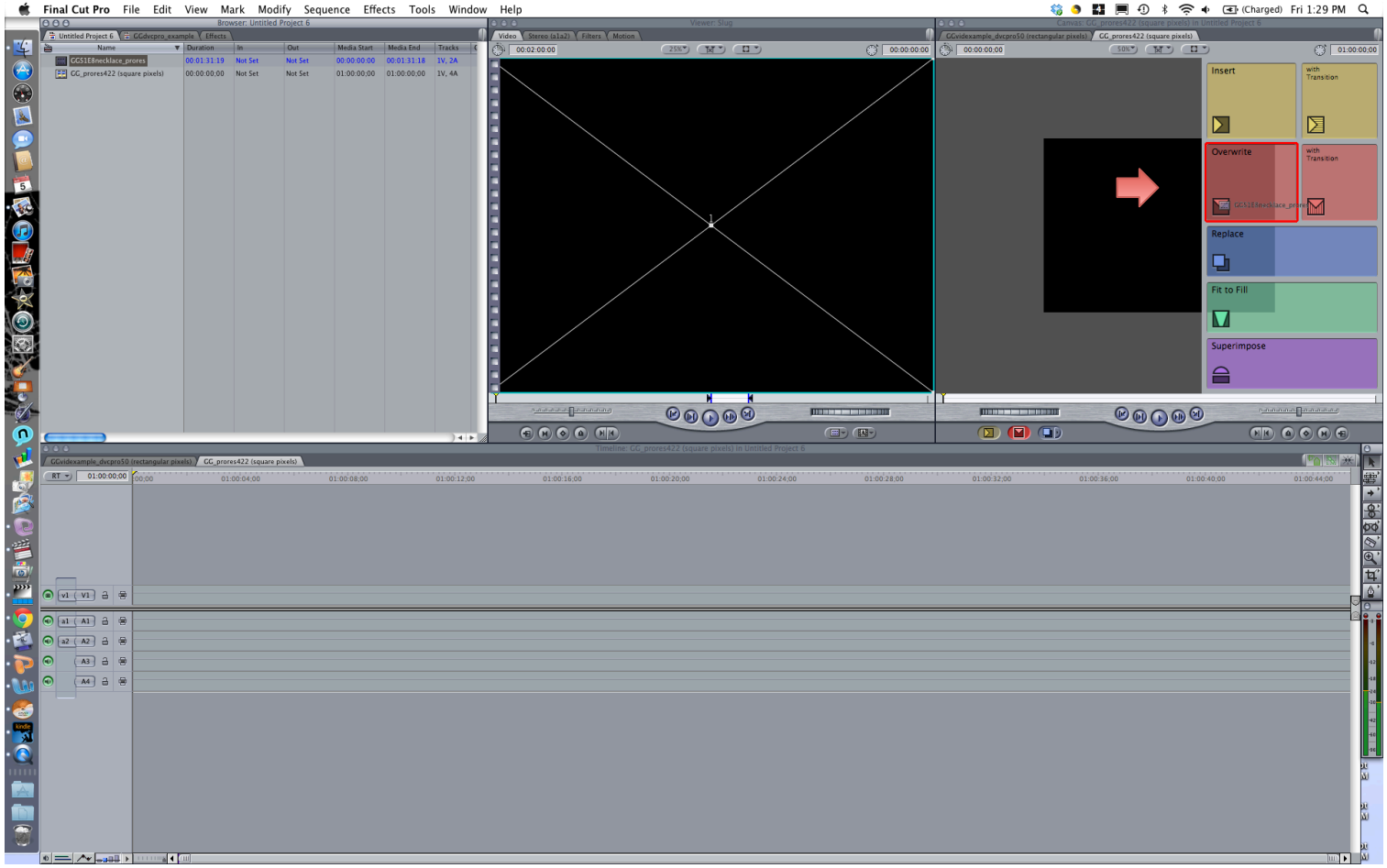
Alternately, you can choose a different compression format in Mpeg Streamclip. I like AppleProRes 422. This means you'll be working with square rather than rectangular pixels from this point on, and a 16:9 pixel ratio (rather than an anamorphic file that unpacks to 16:9).



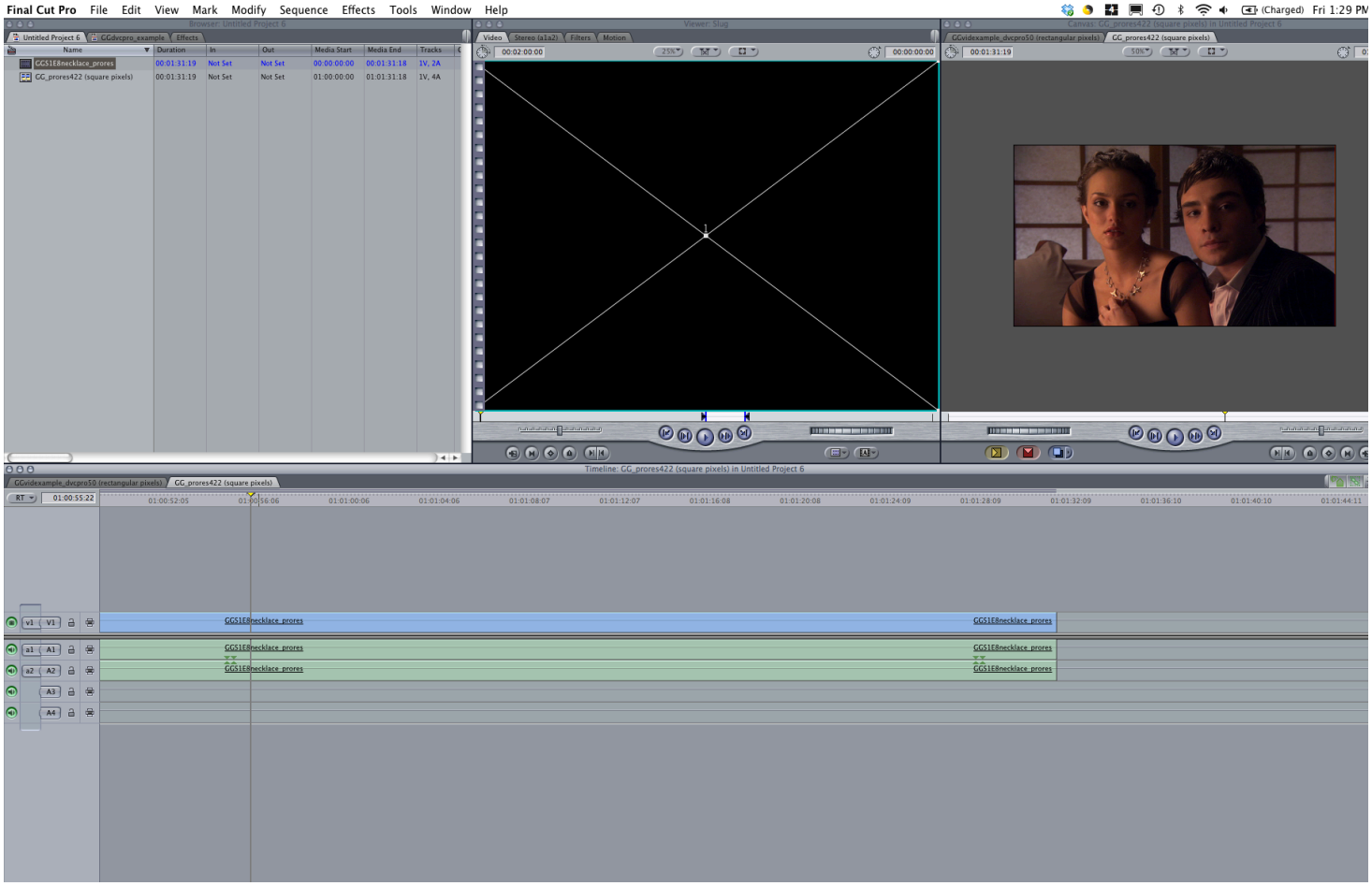
Again, import your file to a new project in FCP.



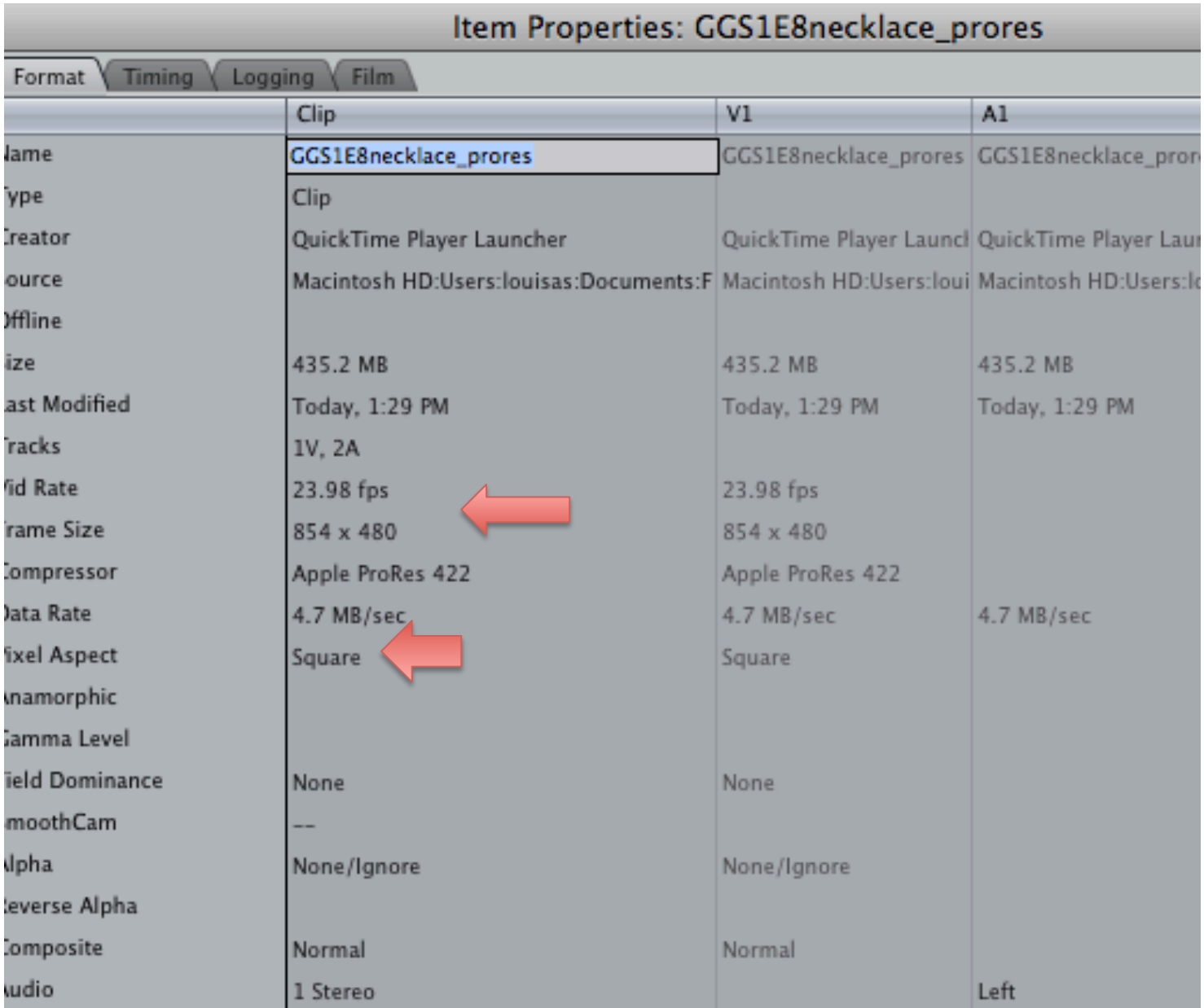
And drag over to Overwite, just as before.



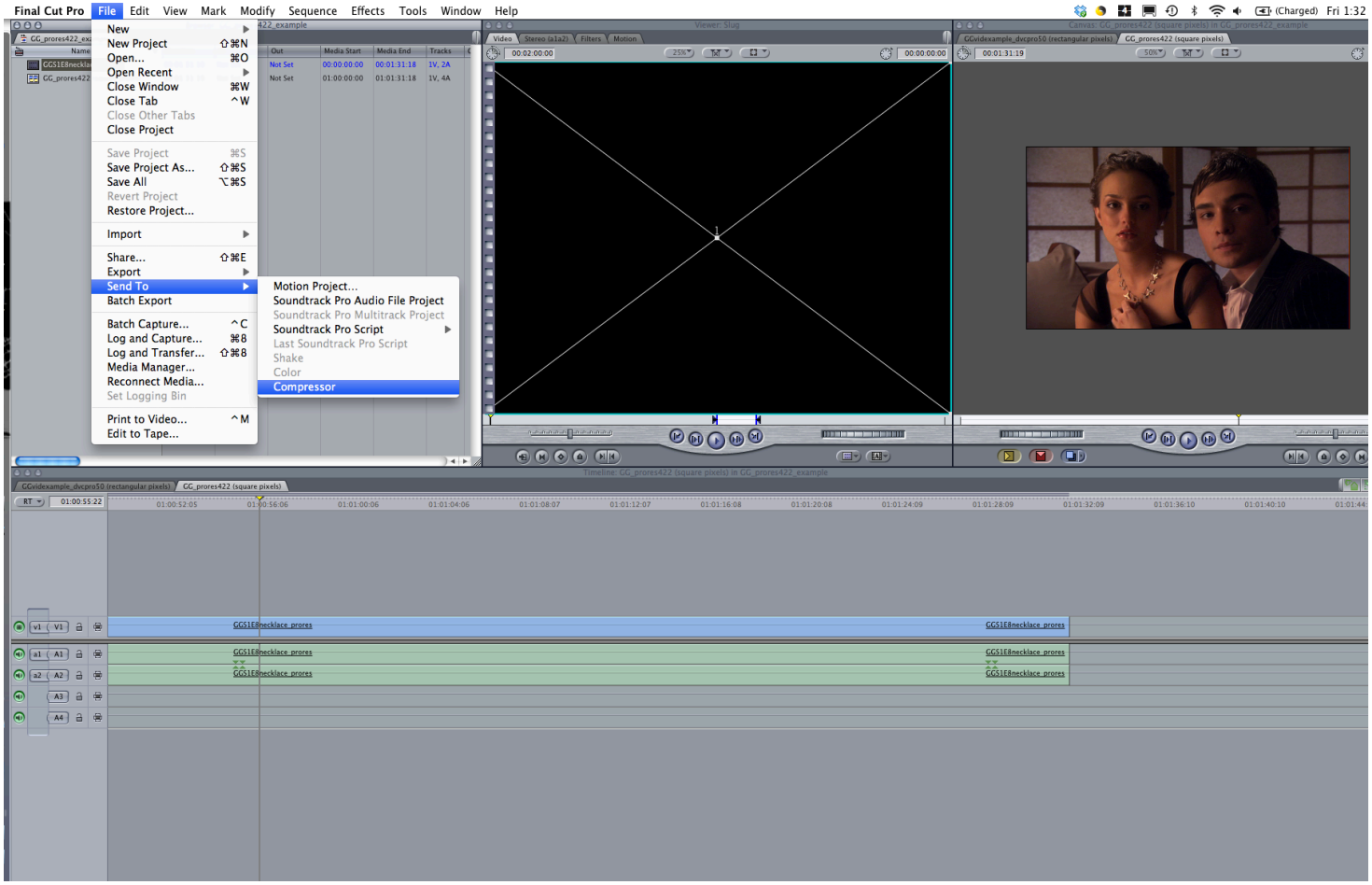
Looks good, no red bar of doom



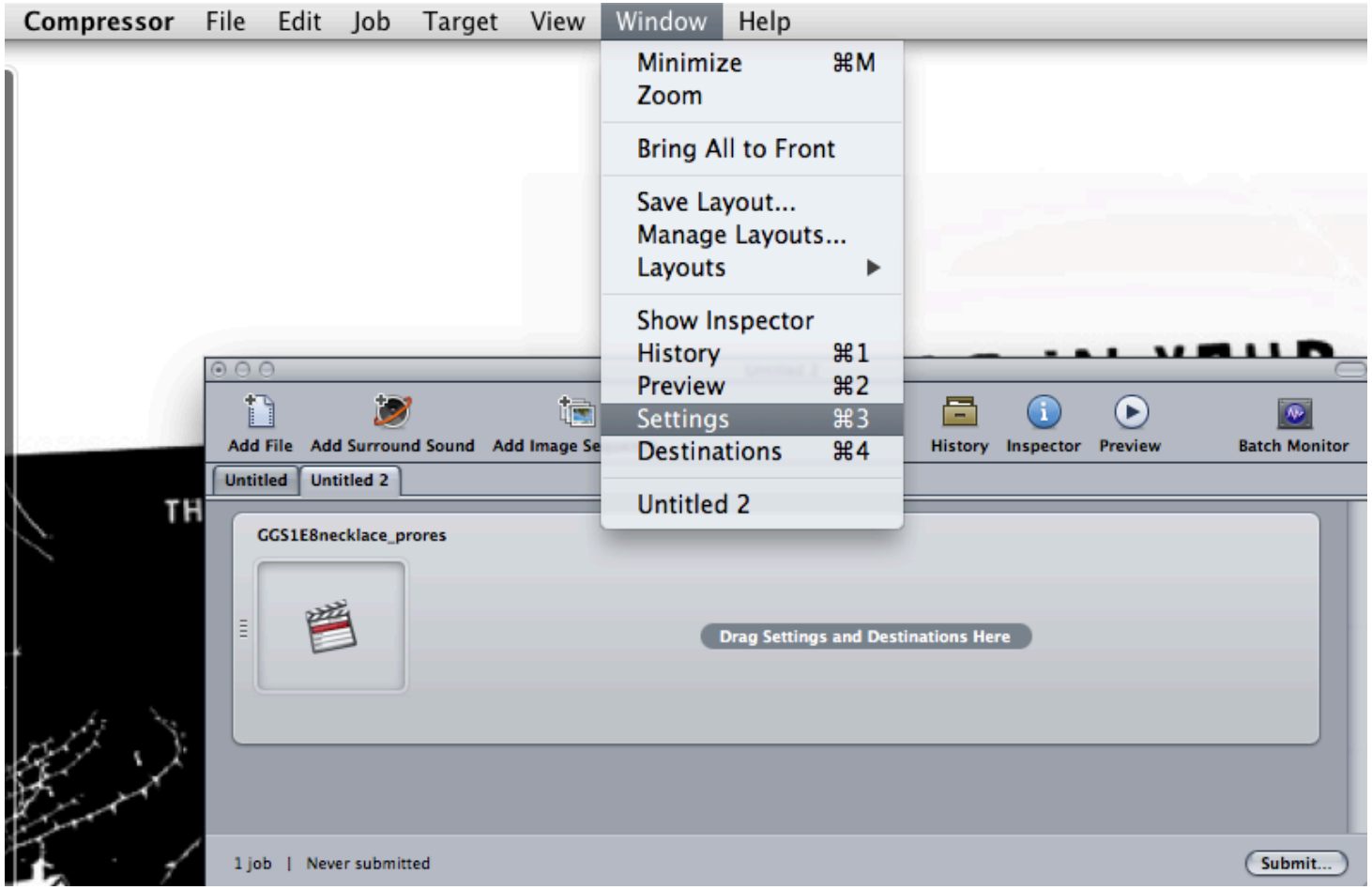
Settings this time indicate square pixels and a frame size of 854x480 (note that anamorphic is not checked)



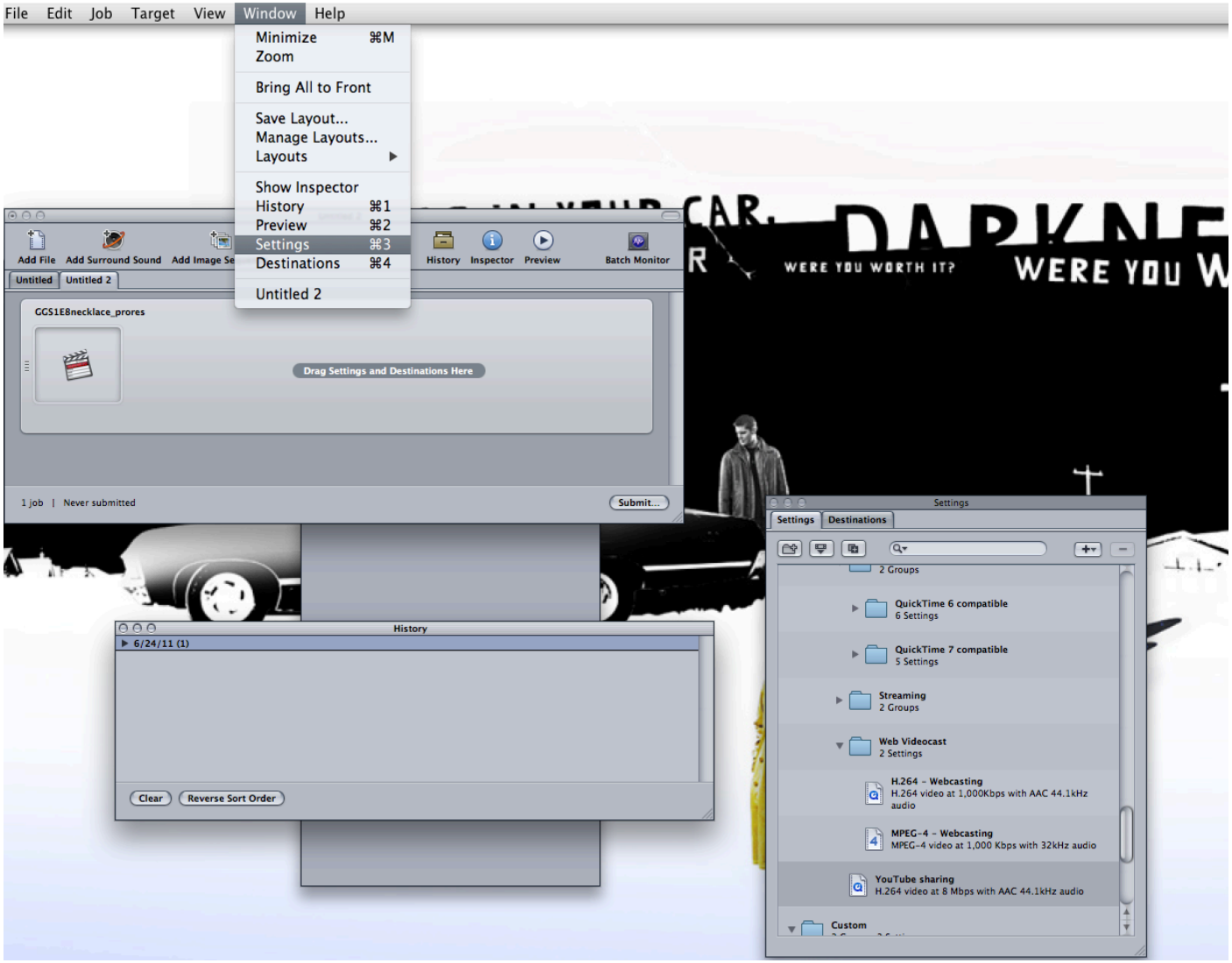
Now, for the next step; getting ready to share your video. Send to compressor…



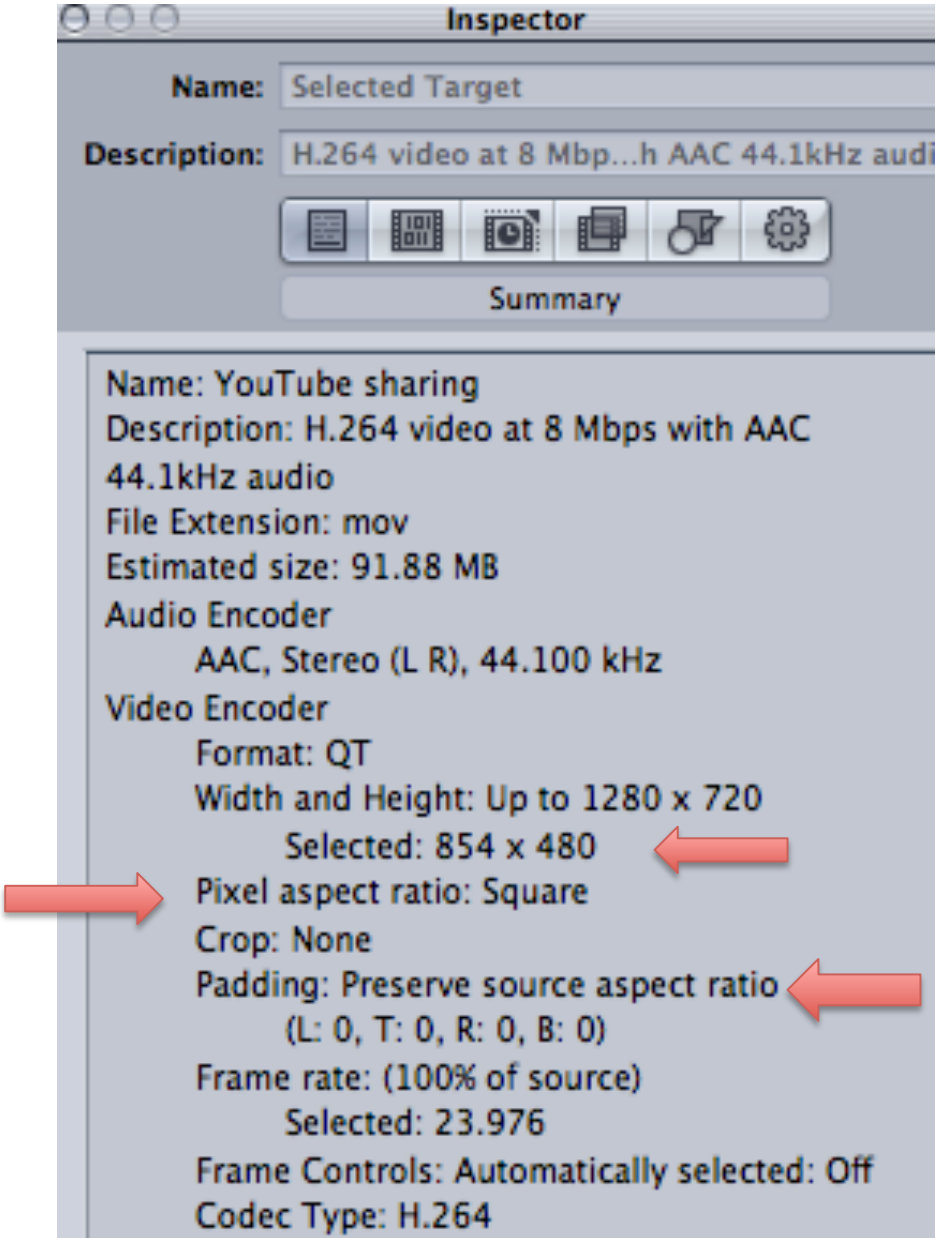
Choose settings for compressor



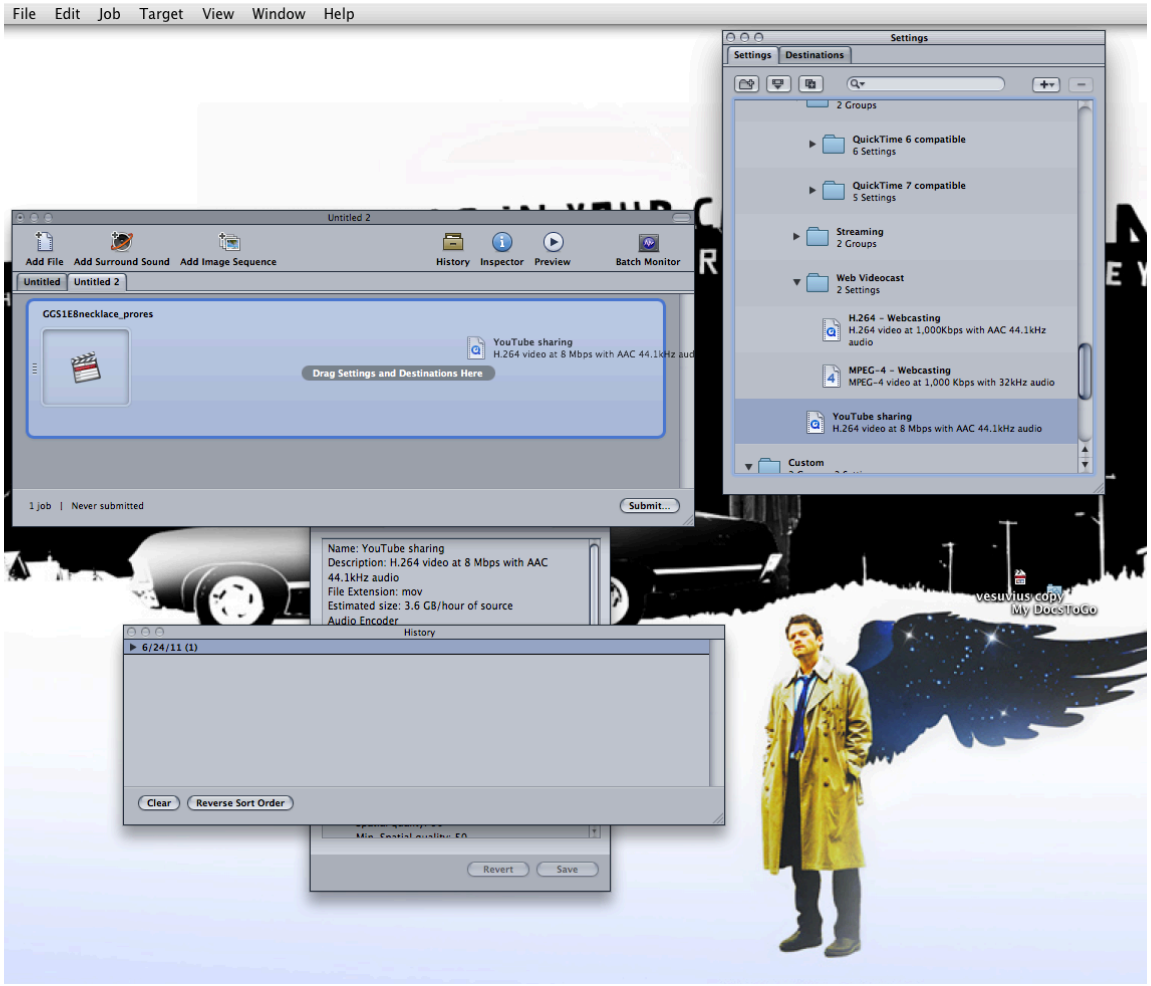
Many options will work (and indicate that they will replicate source settings). I've had good success with "Youtube Sharing."



Here you can see it replicates width and height, and square pixel aspect ratio

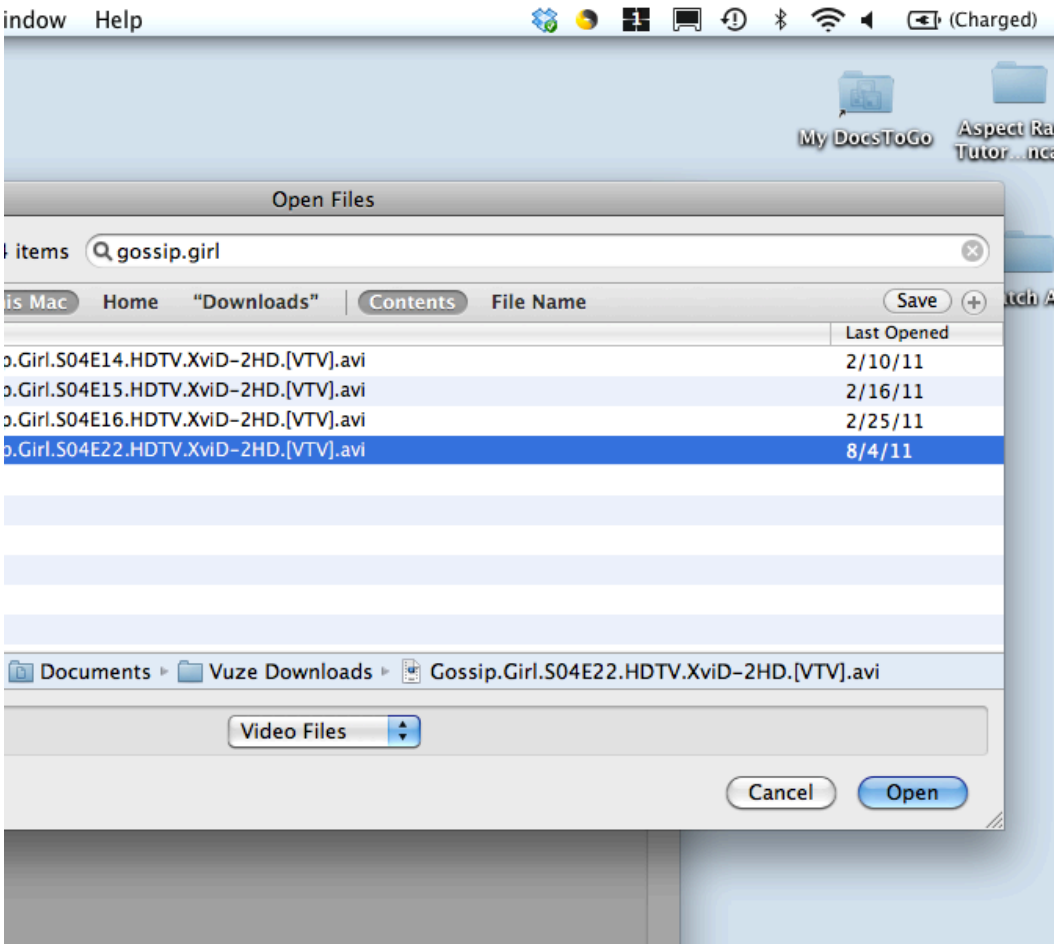


So you just drag the youtube option (or whatever option you're planning on using) into the main Compressor dialogue, and hit submit.

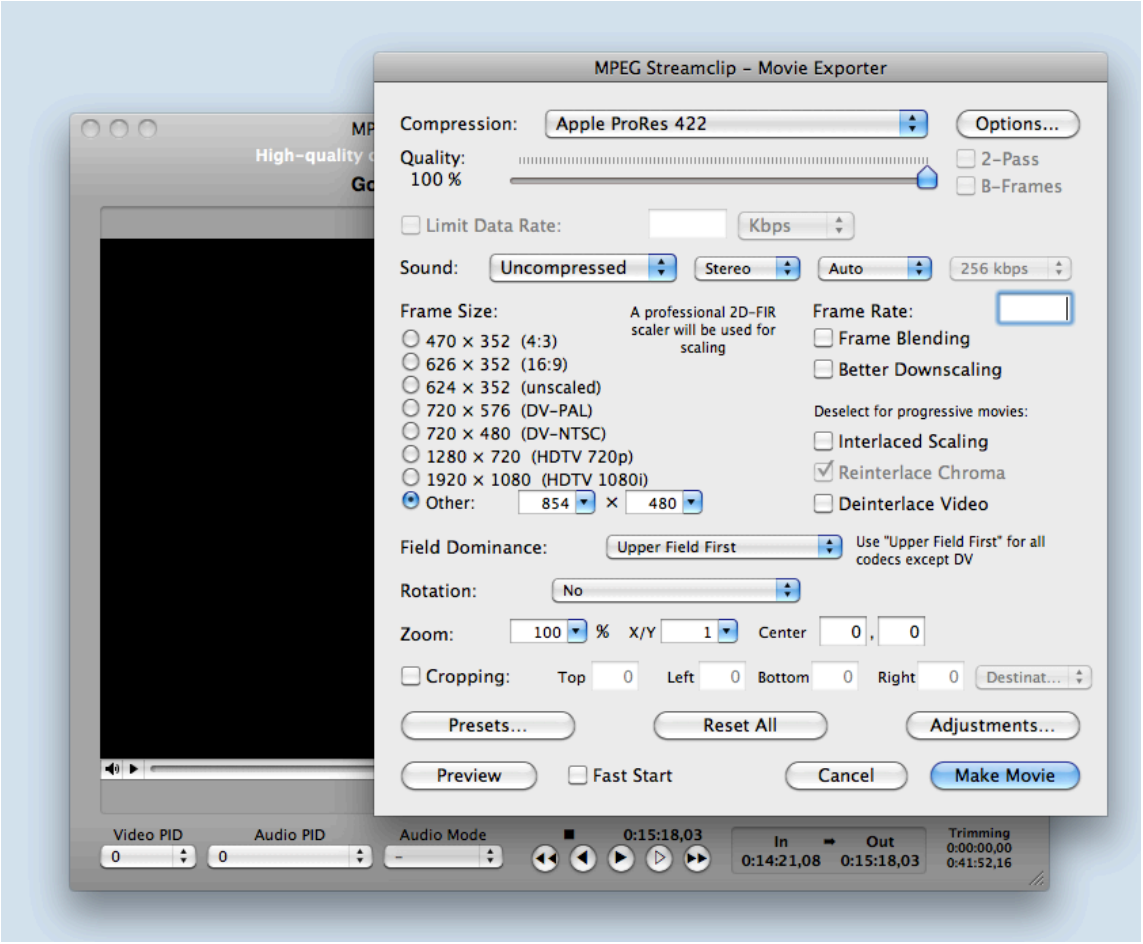


And the result...

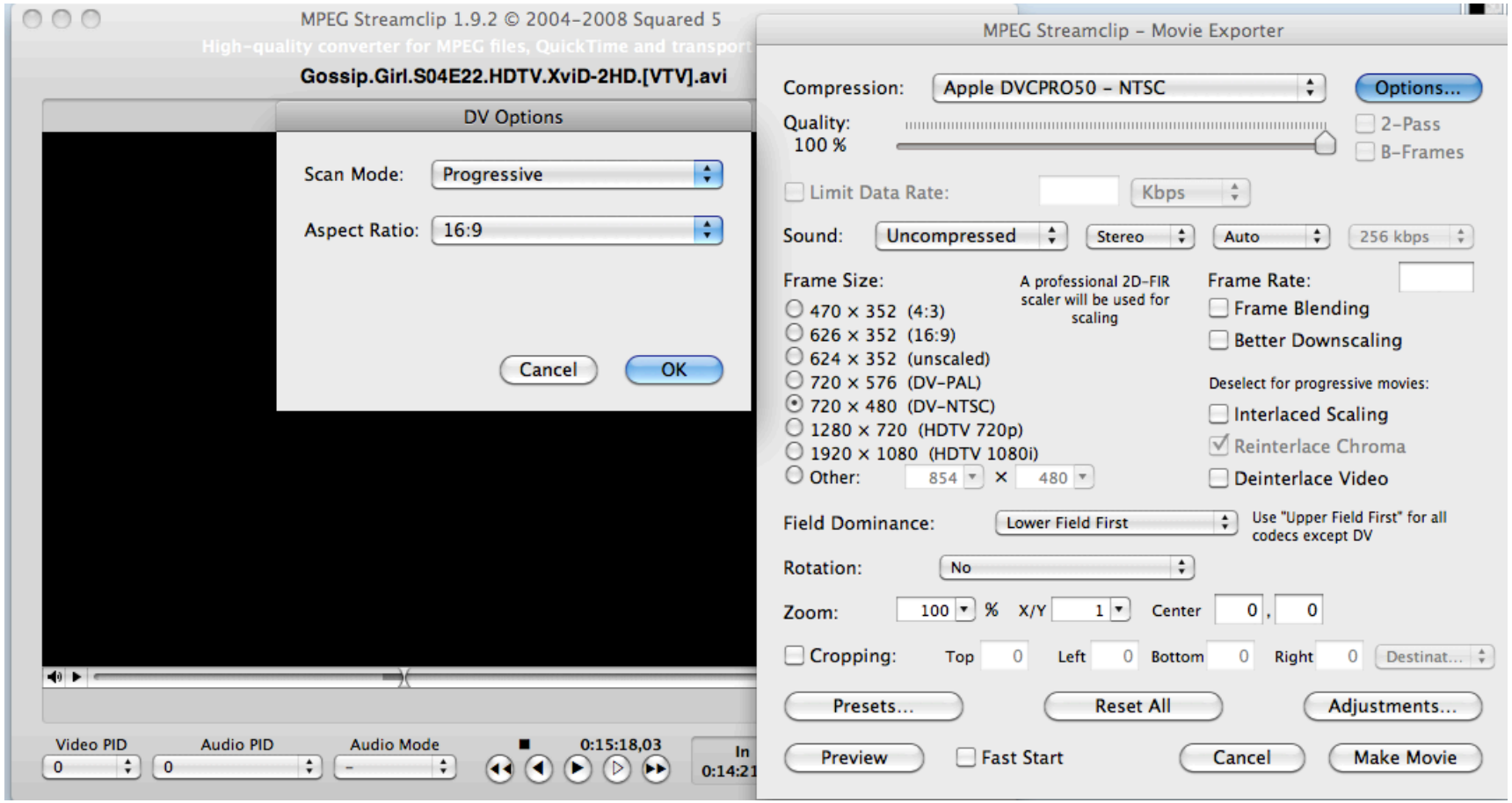
But say you want to work with a DL file… divx (the horror). Don't fret! Convert to DV on mpeg streamclip.



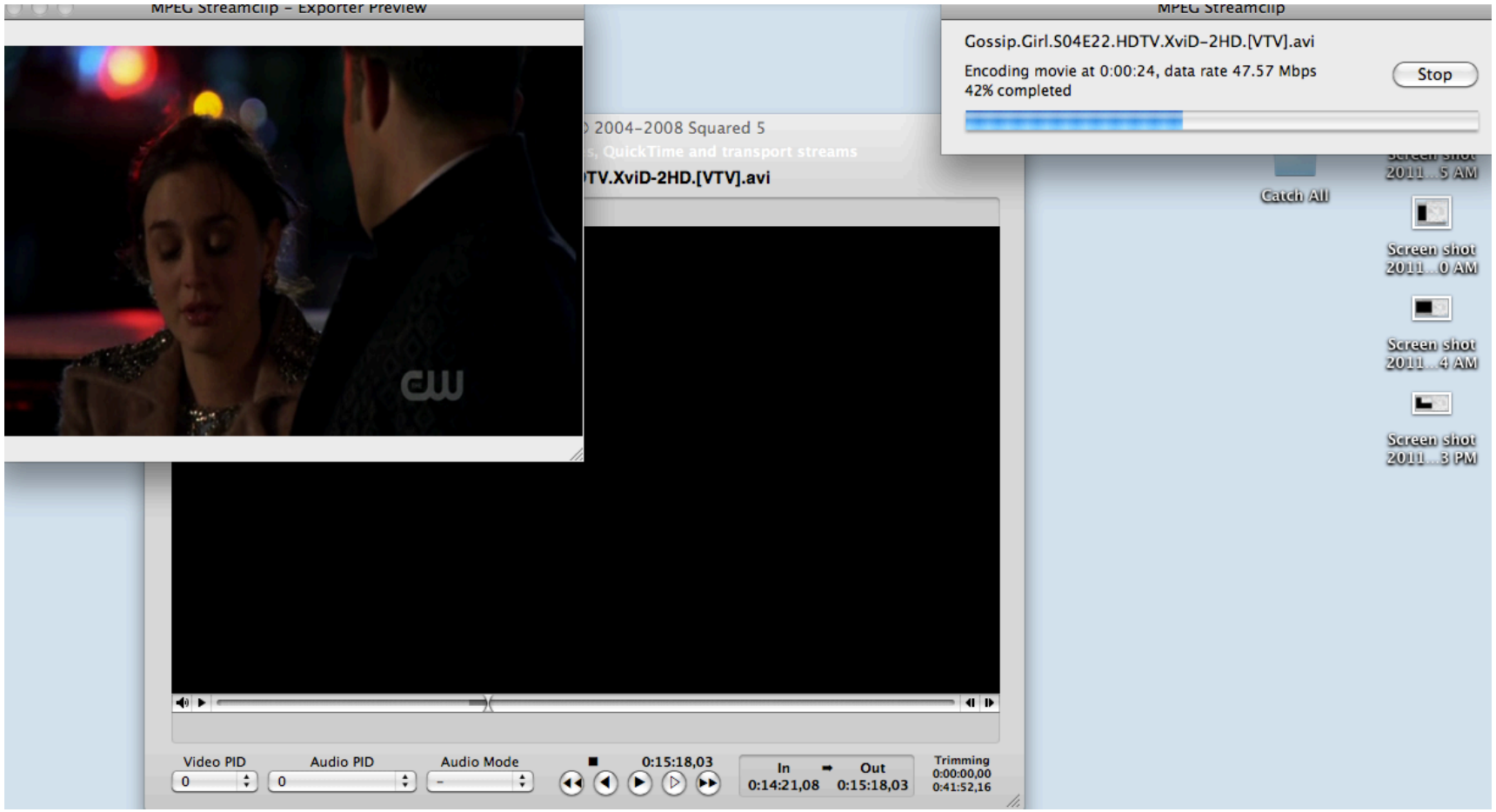
Use the prores422 compression, but change the frame size to align with your DVD footage



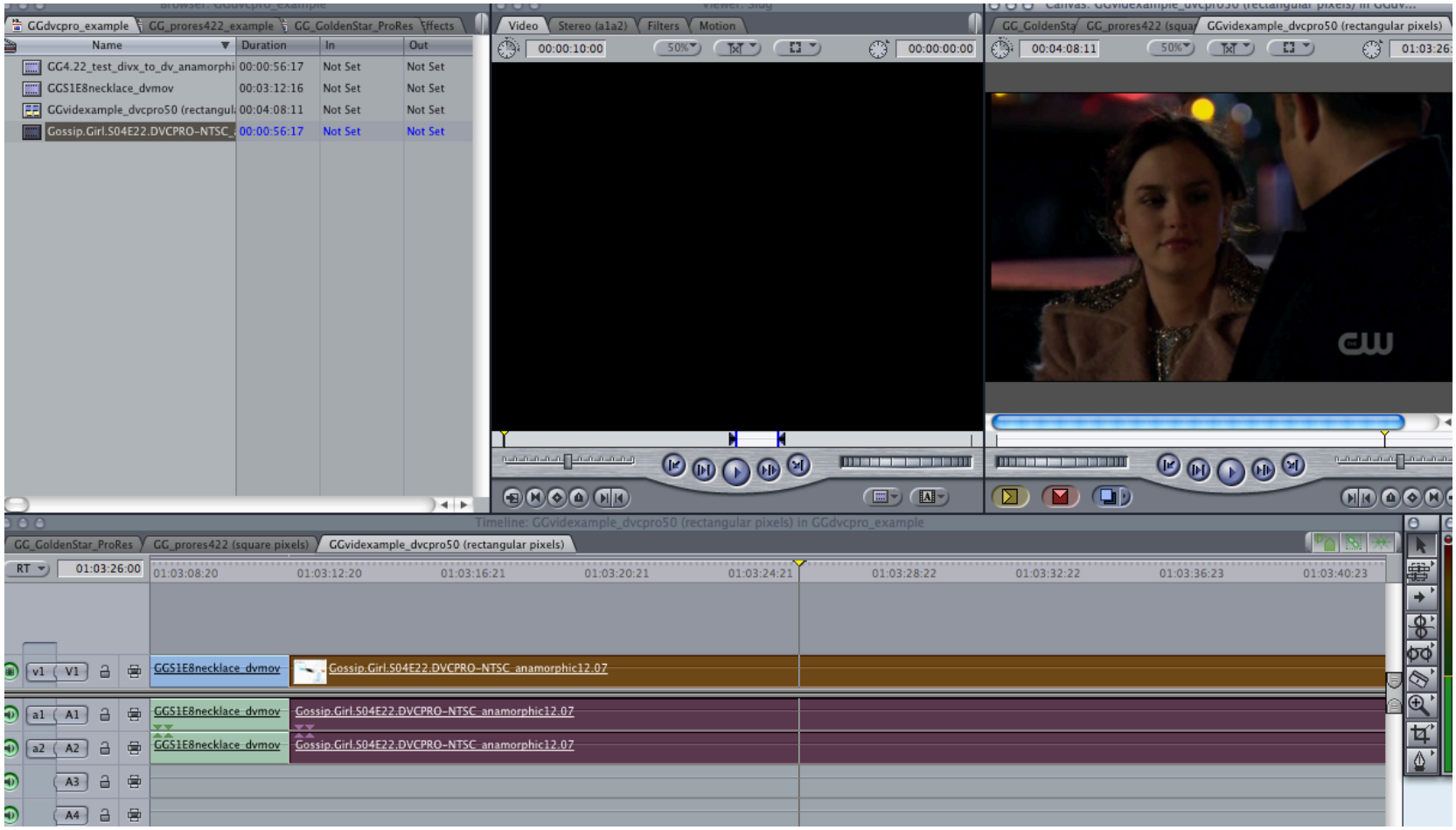
Or convert to DV (which, remember, must *always* be 720x480) being sure to check the 16:9 option



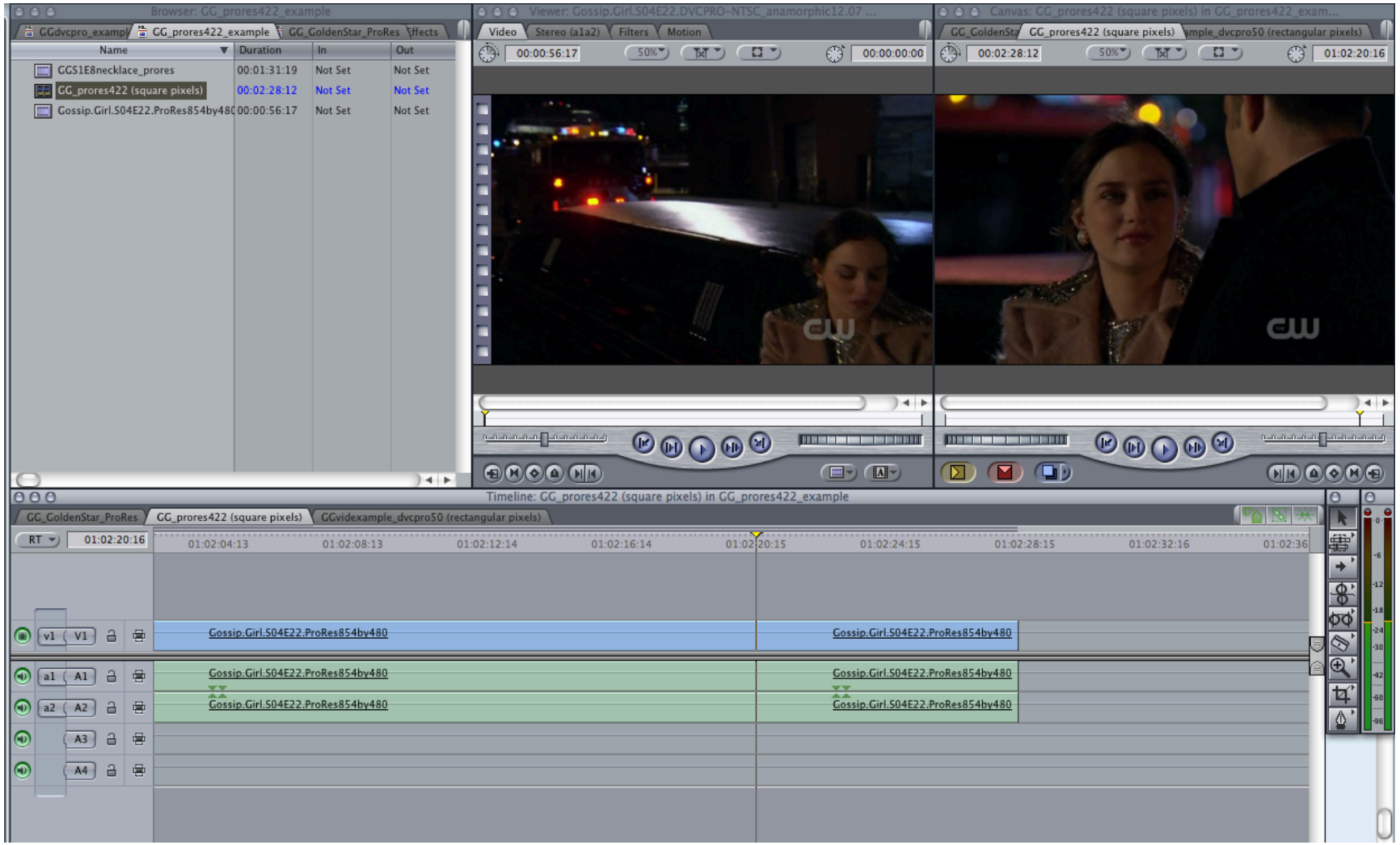
Weirdness alert: in mpeg streamclip, the preview may look wrong (can anyone explain this to me?)



But (much) more importantly, all is right in FCP



Just as it is if you're using prores422

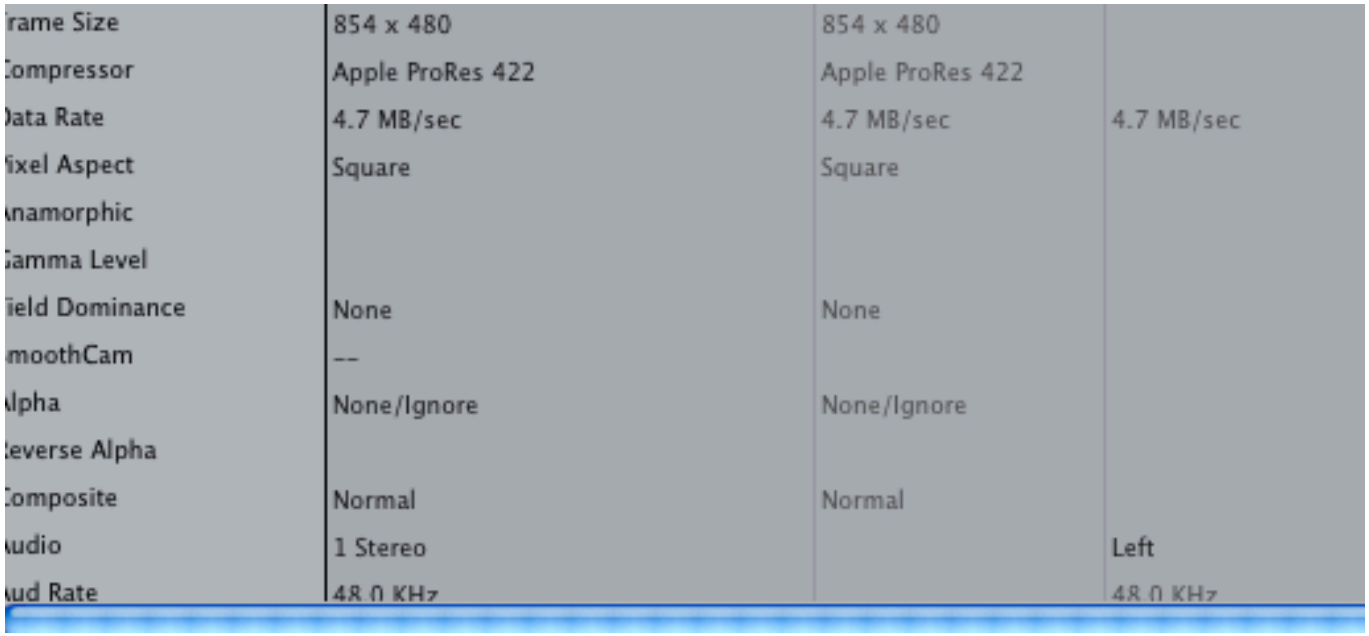


Working with multiple aspect ratios

- Say you want to combine *Gossip Girl* with Alfred Hitchcock's *Spellbound*. (Because I'm sure this is on everyone's to-do-list…)

Let's use the FCP sequence I've already set up, because it creates a fruitful pickle.

- We'll start with the ProRes422 version. If you recall, we've got square pixels, an aspect ratio of 16:9, and a frame size of 854x480.



rame Size	854 x 480	854 x 480	
ompressor	Apple ProRes 422	Apple ProRes 422	
ata Rate	4.7 MB/sec	4.7 MB/sec	4.7 MB/sec
ixel Aspect	Square	Square	
namorphic			
amma Level			
ield Dominance	None	None	
moothCam	--		
lpha	None/Ignore	None/Ignore	
everse Alpha			
omposite	Normal	Normal	
udio	1 Stereo		Left
ud Rate	48.0 KHz		48.0 KHz

Now, *Spellbound* is 4:3, and Mpeg Streamclip tells us it should be 640x480 (after resizing…)
BUT we want it to fit seamlessly in with our 854x480 already-existing frame size. This means we have to do math. (I hate math…)

- 4:3 = 1.33 (the video's aspect ratio)
- Width / aspect ratio = Height

So

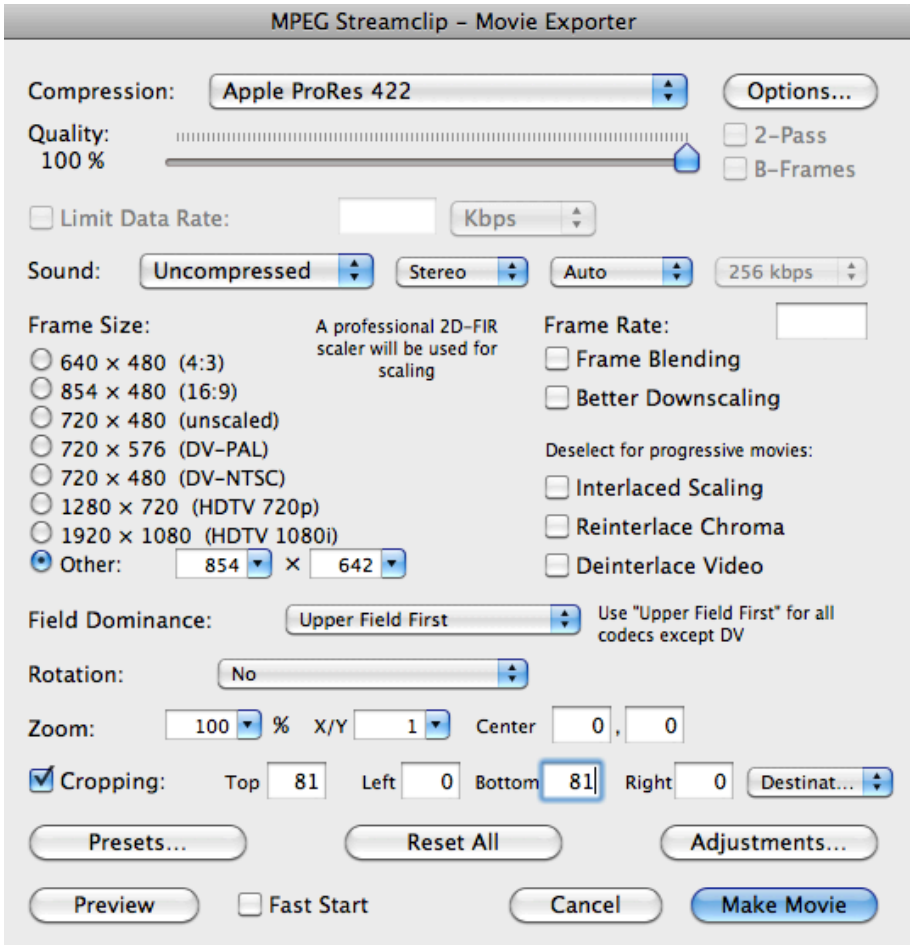
854/1.33 = 642

Our desired frame size (before cropping) is 854x642

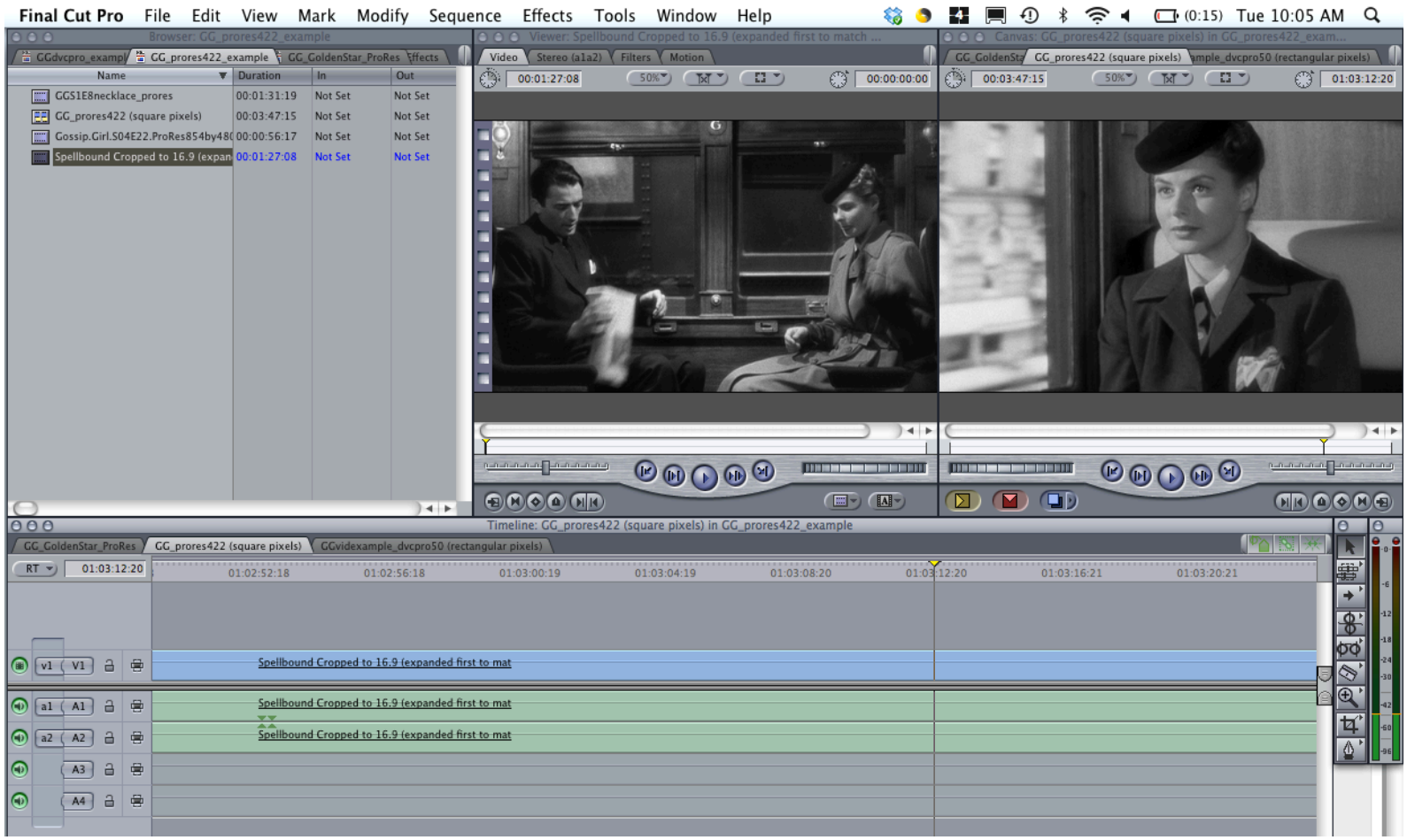
Now we need to figure out how much to crop

- Our too tall *Spellbound* video has a height of 642 pixels
- Our final cut sequence has a height of 480
- 642-480 = 162 (so we need to resolve a 162 pixel difference)
- 162/2=81
- So, we'll crop 81 pixels from the top and bottom

In Mpeg Streamclip:

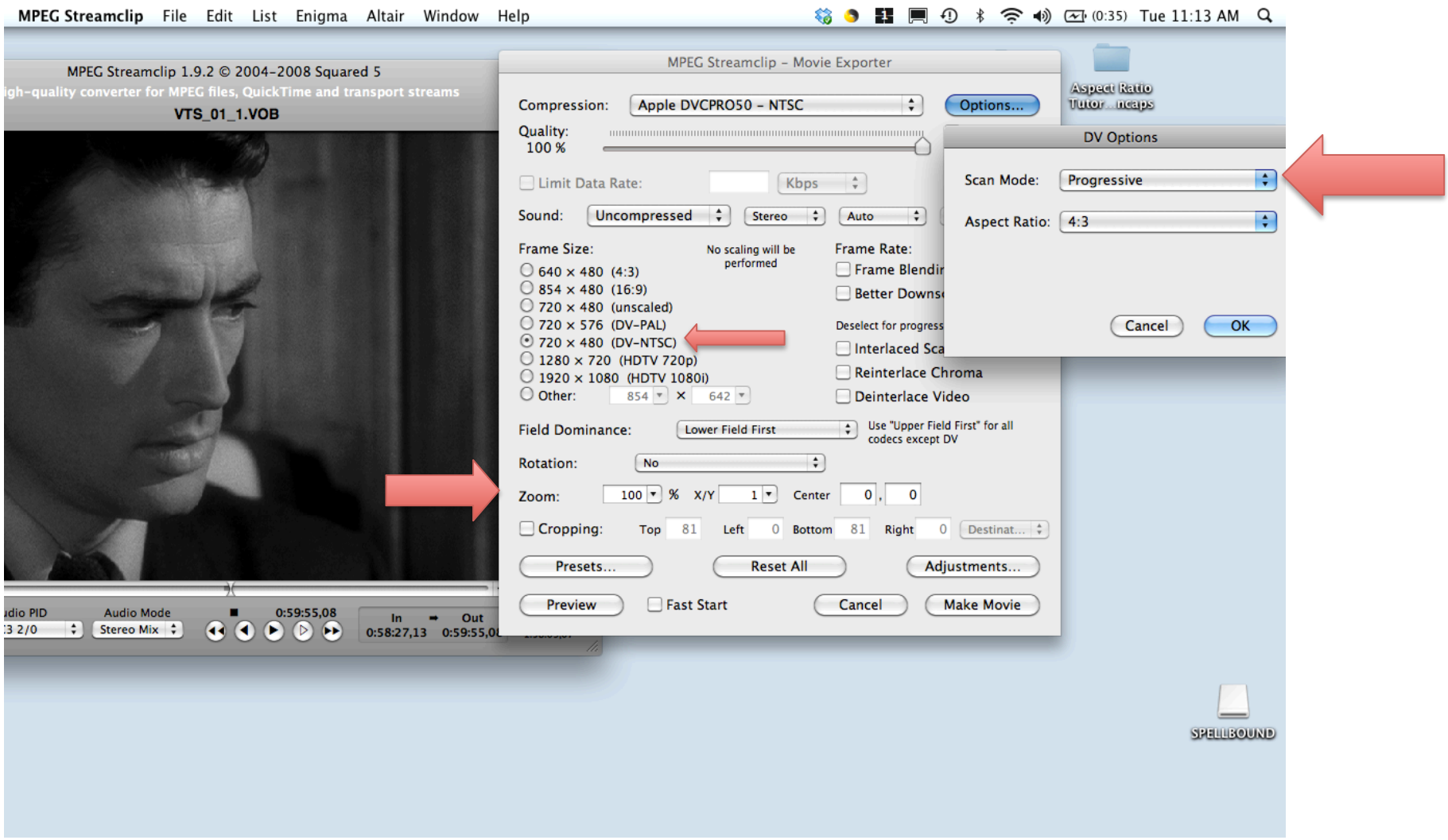


In FCP: Success!

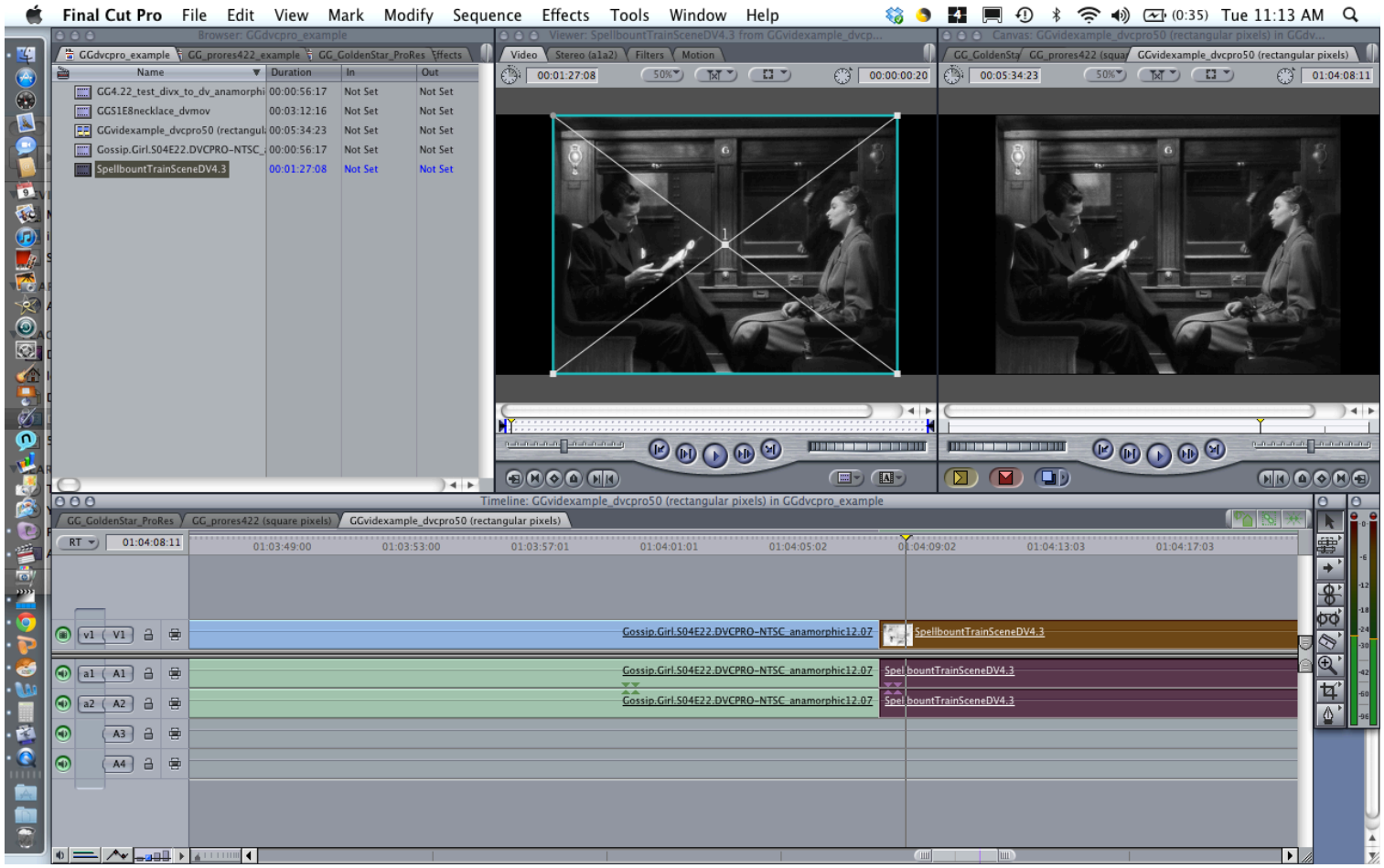


We’ve made Ingrid Bergman very happy.

But what about for our DV sequence? (remember, DV (NTSC) is always 720x480)



In this case, rather than crop in Mpeg Streamclip, I expand the image in final cut using the wireframe

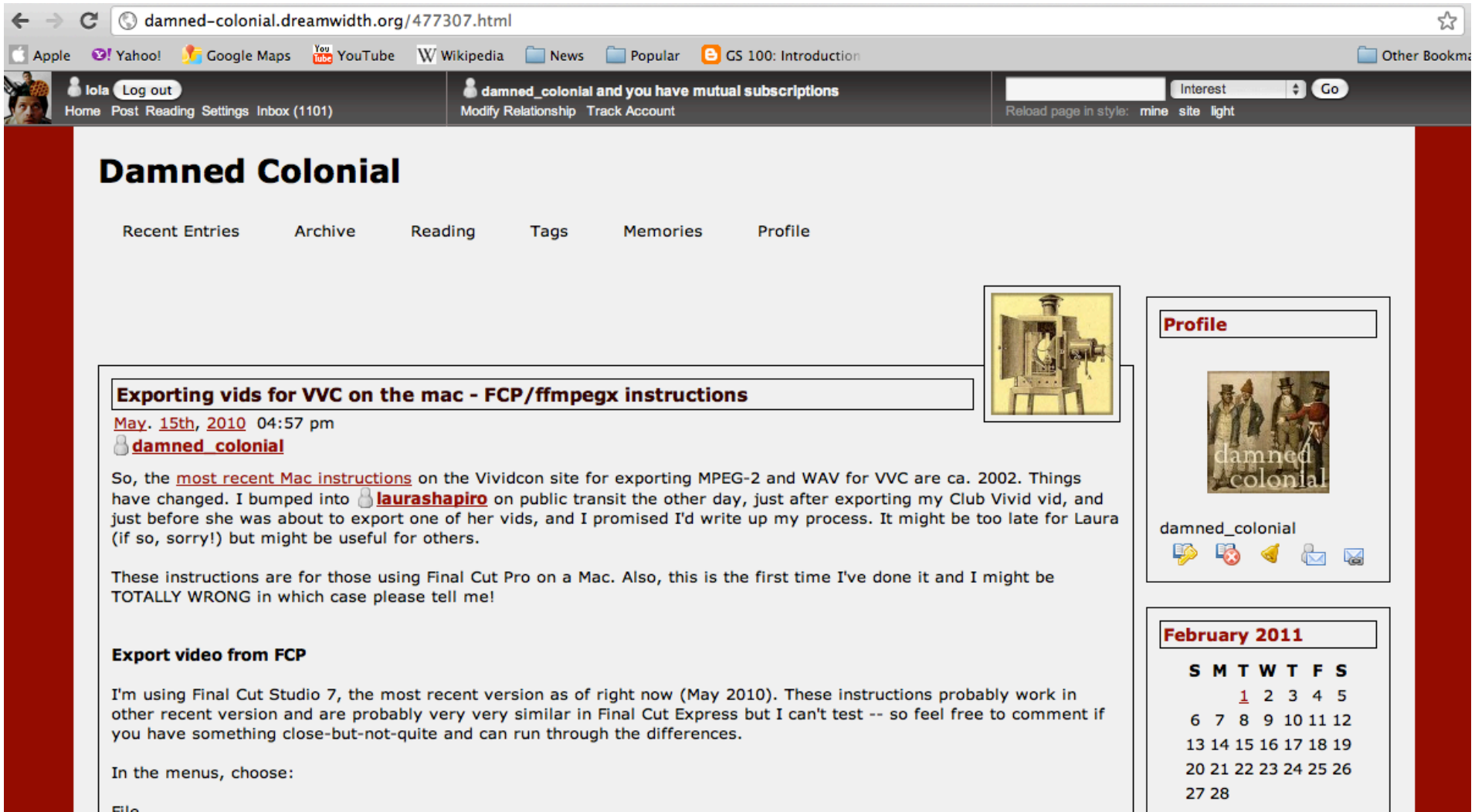


This might not be totally kosher, but it does seem to work in a pinch…

And Ingrid is happy with us in DV too.

Preparing a vid for a con.
A: for square pixels

- You can follow damned_colonial's instructions



B: for rectangular pixels (so, DV)

- follow thingswithwings' step by step in the comments

(no subject)
Date: 2011-02-13 03:20 pm (local)
From: **thingswithwings**

K, I'm leaving this comment here for three reasons. One, other people might be having the same issue that I'm having and need a fix; two, other people might know a better fix to this issue than I do and stop by to enlighten me; and three, I might forget how to fix this issue and need to come back here to find my own advice.

Basically, my deal is, I was exporting a vid from final cut that was in a 16:9 aspect ratio; when I export it normally, there are no letterbox black bars - it's in 16:9, not the required 4:3. Exporting it using the advice listed here doesn't work, because when I export it in 720x480 4:3 I naturally get a compressed squooshy file. Exporting as 16:9 made a .mov file that looked fine in Quicktime (16:9, not letterboxed) but not in MPEG Streamclip (4:3, squooshed, not letterboxed) due to the rectangular pixels problem. So my attempts to use the 16:9 mov file and letterbox it were also not working, because ffmpegx, like MPEG Streamclip, has trouble recognizing rectangular pixels.

So what I ended up doing was:

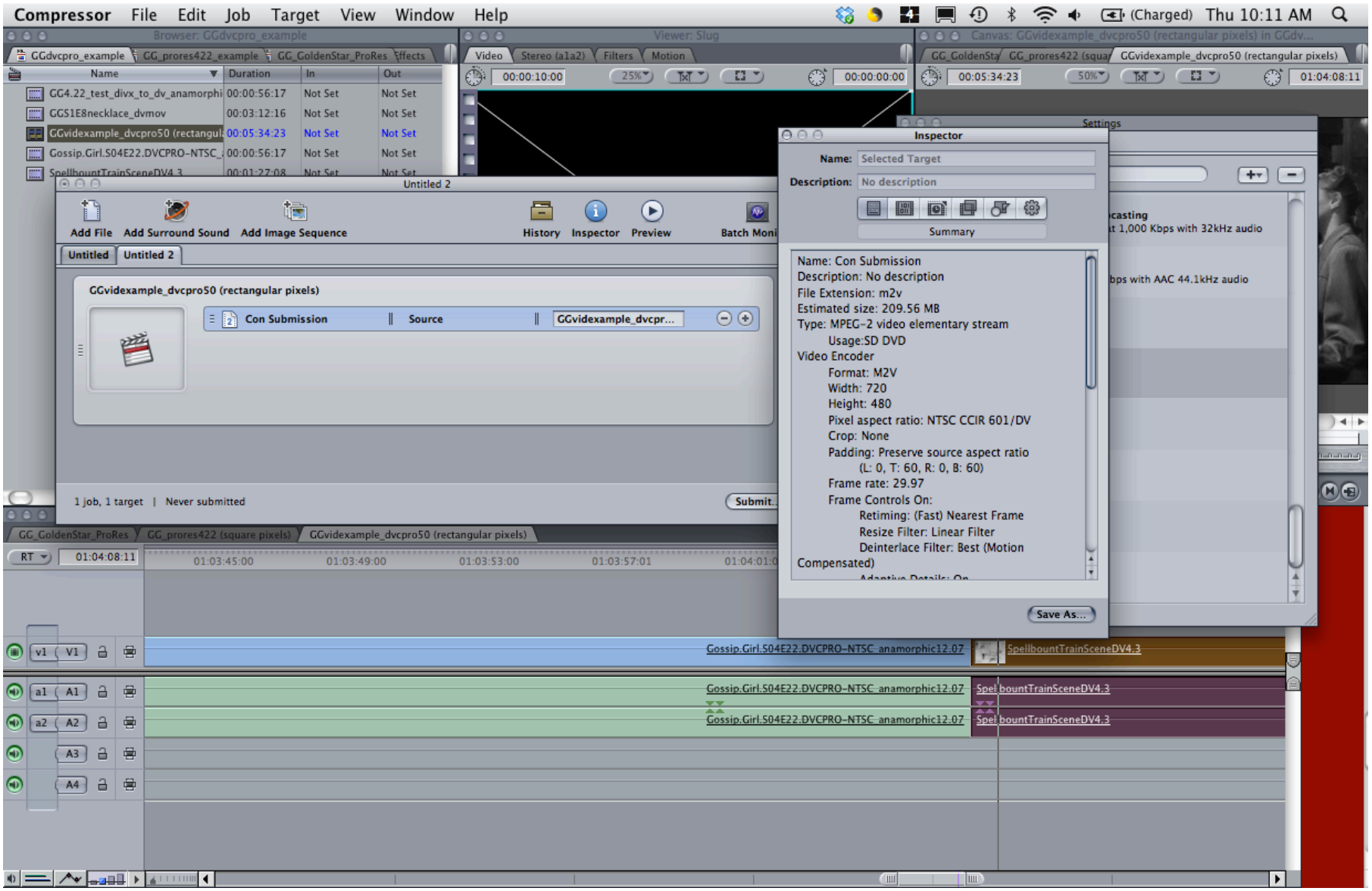
-export from Final Cut as a 720x480 16:9 .mov file
-open that file in MPEG streamclip, and reexport (using File-Export to Quicktime - Apple Component Video codec) to an 854x480 16:9 .mov file
-open that file in ffmpegx and follow all the usual instructions, making sure that "letterbox" is on under the "options" tab in ffmpegx.

This yielded a proper 4:3 letterboxed file in which my 16:9 aspect ratio was preserved. Without the middle step, in which I used MPEG Streamclip to re-export the file (so that it ended up with square pixels instead of rectangular pixels), my final .m2v file was showing up with some letterboxing, but not enough to de-squoosh it.

If anyone knows a way to fix this rectangular pixel problem without having to go through an extra encoding step (and thus degrading the video quality a bit) I'd love to hear about it!

Track This Link Reply Thread

Or, to avoid image degradation, use compressor



Confirming it came out right via VLC & Photoshop