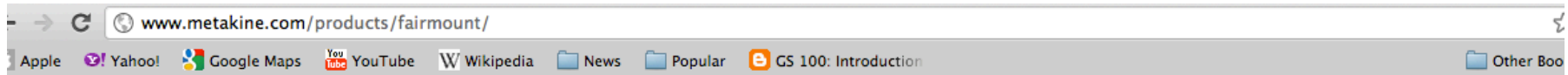


# Macs & Aspect Ratios: A Resource

- 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.



Mac DVD Ripper Pro  
The best way to get movies on your Mac!

Free trial!

Mac Universal

metakine

HOME PRODUCTS STORE SUPPORT ABOUT

# Fairmount

Free & open-source DVD decryption

Latest version: v.1.1

Download try it, it's free

Get Support we're here to help

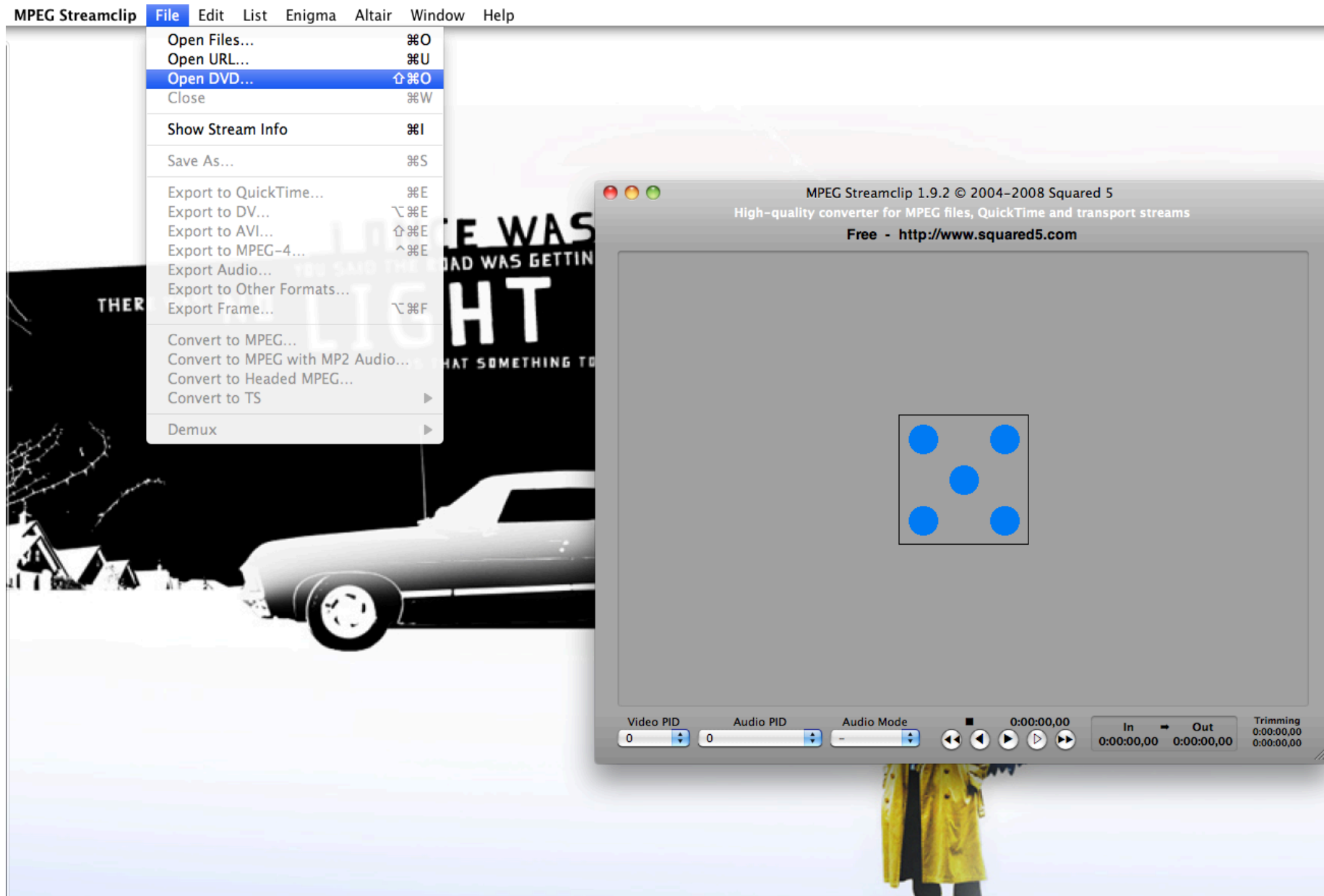
### On-the-fly DVD decryption

No need to worry about disk space. The DVD is decrypted on-the-fly directly from the DVD drive as the information is being required by other applications.

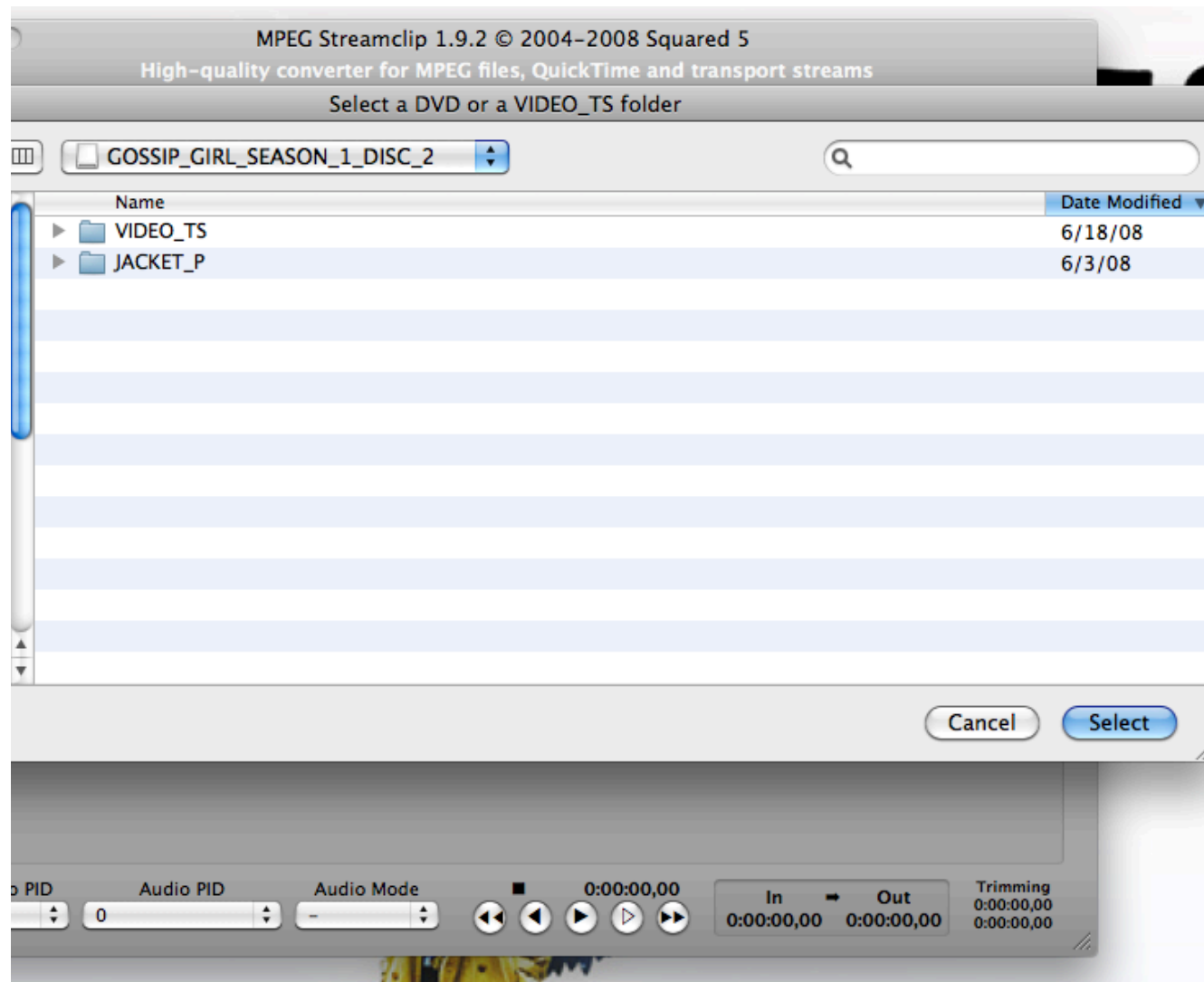
### Free and open-source

Delighted to give back to the community. If you are a developer and have an amazing idea for a new feature or just a bug fix we appreciate your contribution.

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

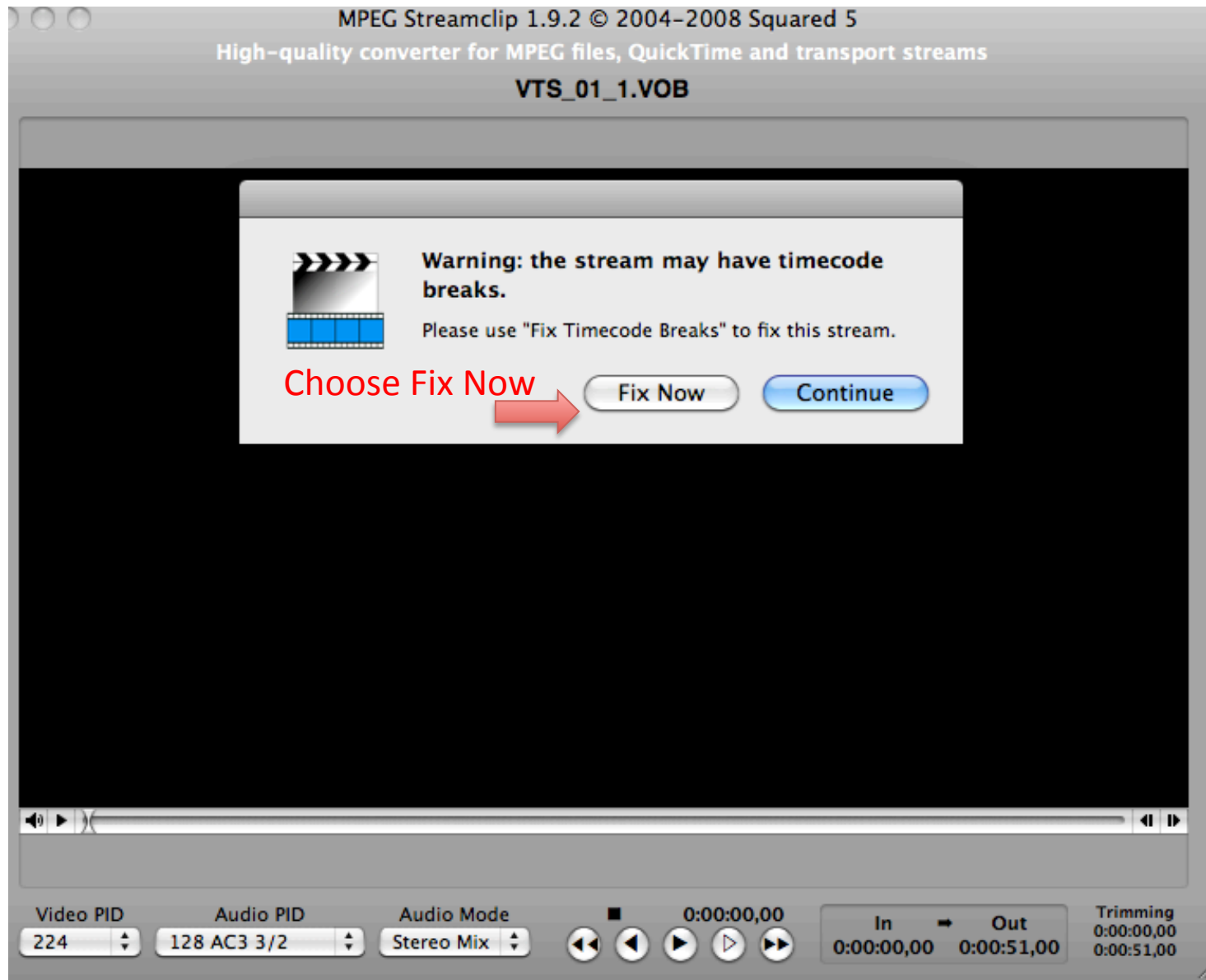


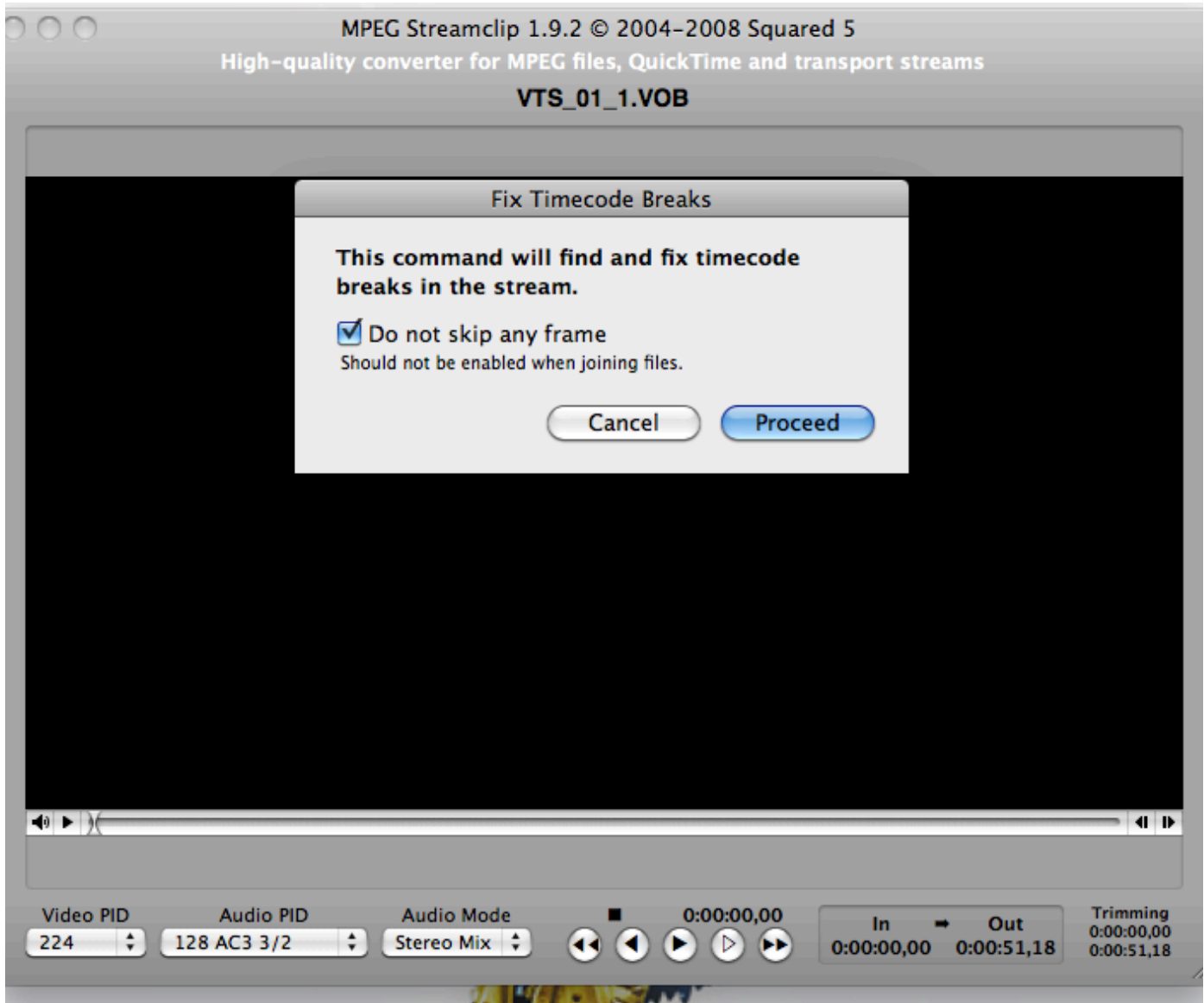
# No more storing whole VOB files to clip later...



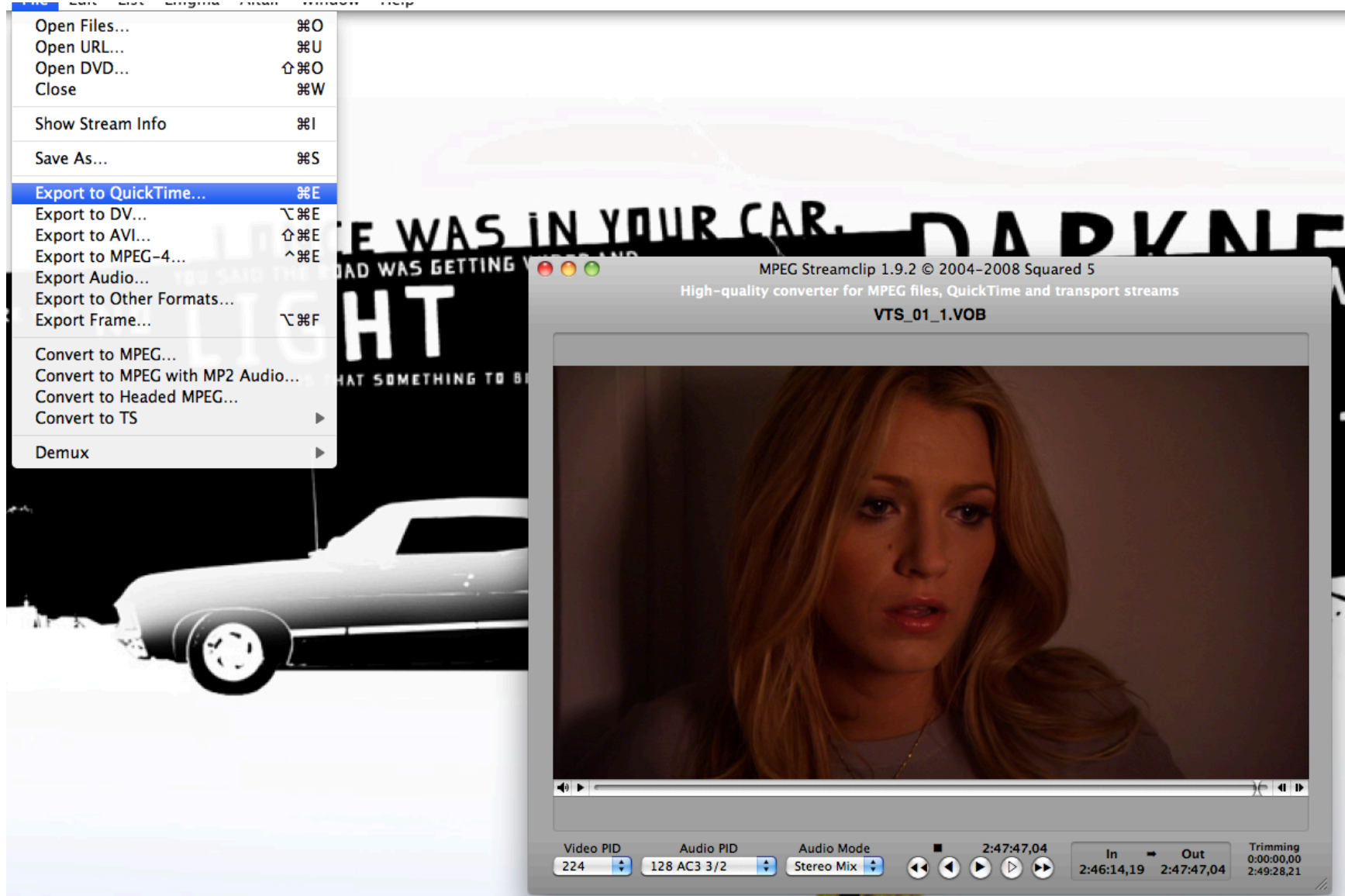


# Do: fix timecode breaks, even if it takes a while



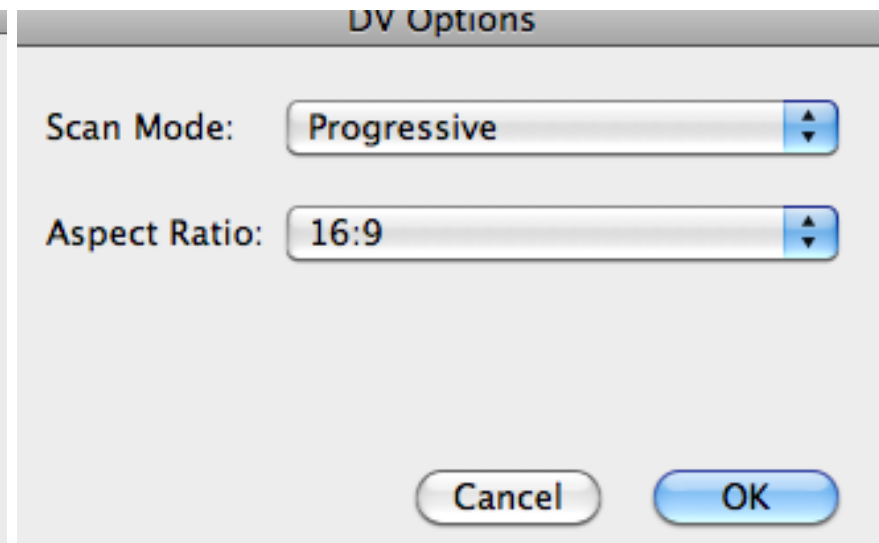
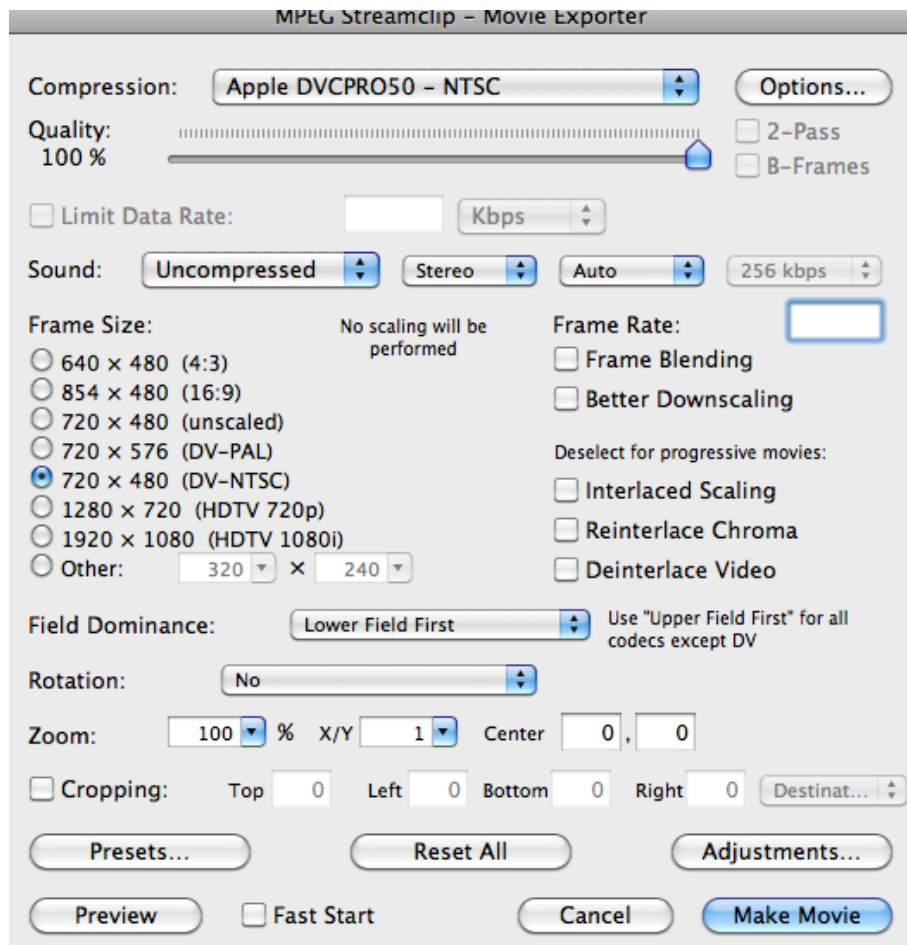


Once the file is ready, find your clip, and choose “Export to QuickTime.”

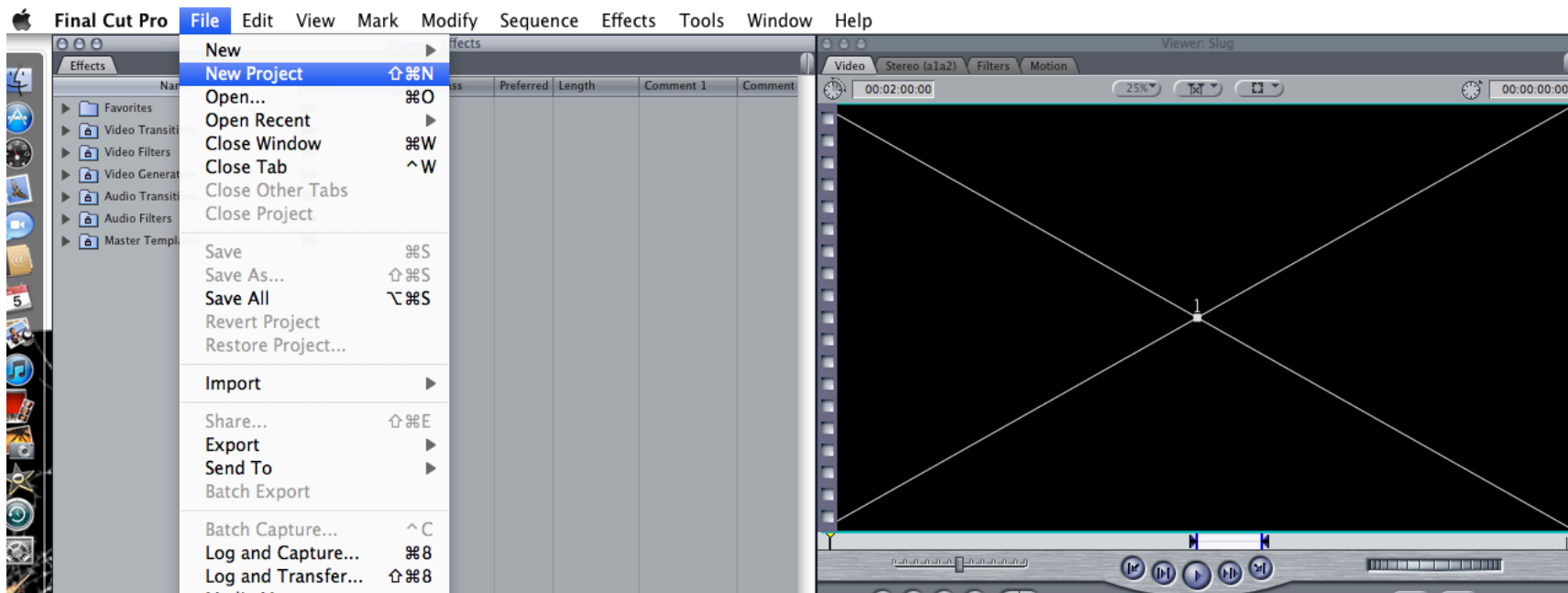


Here are the settings for DV.

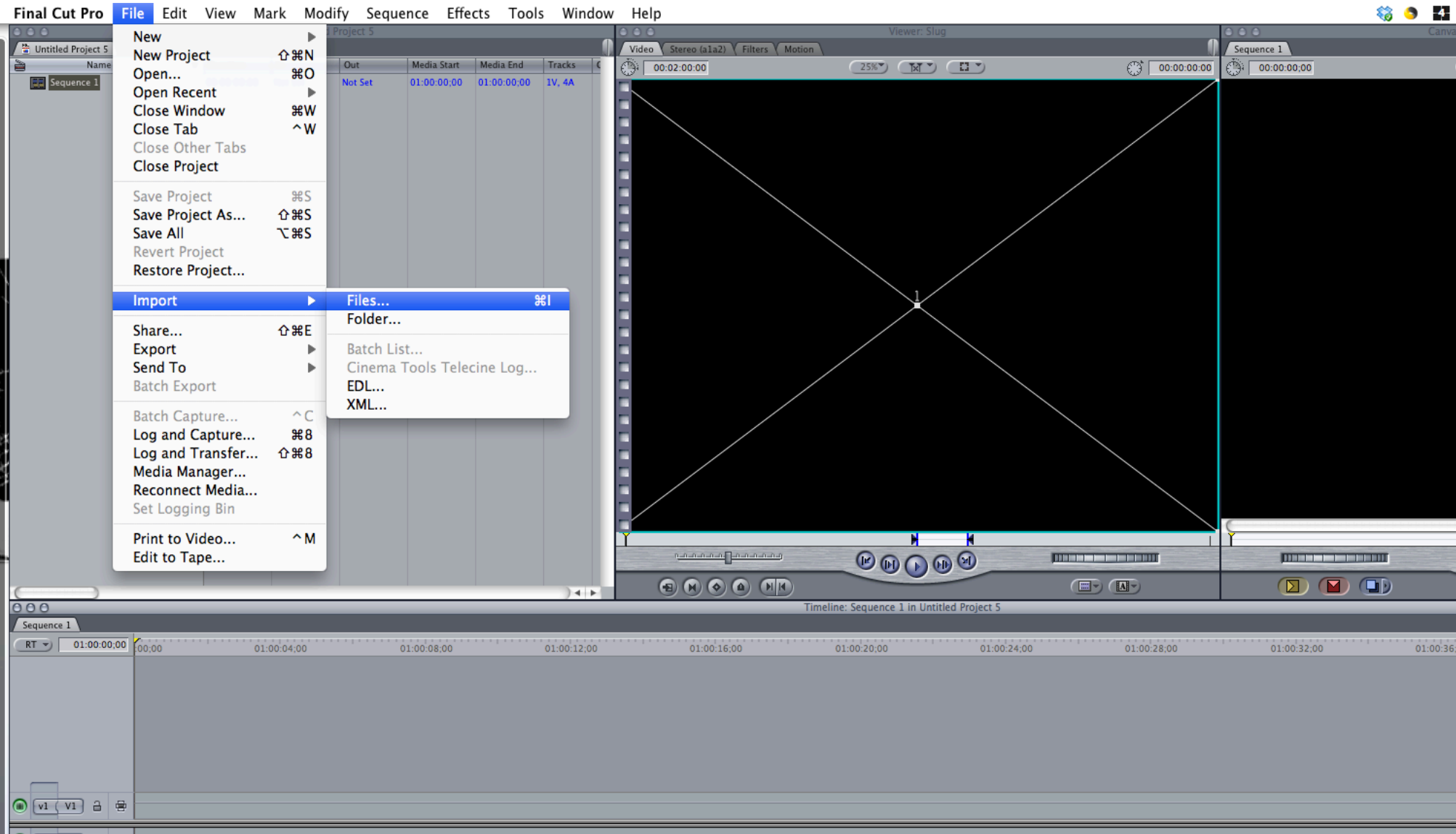
DV for NTSC is ***always*** 720 x 480. And be sure to click “Options” and choose the appropriate aspect ratio. Here, I chose 16:9.



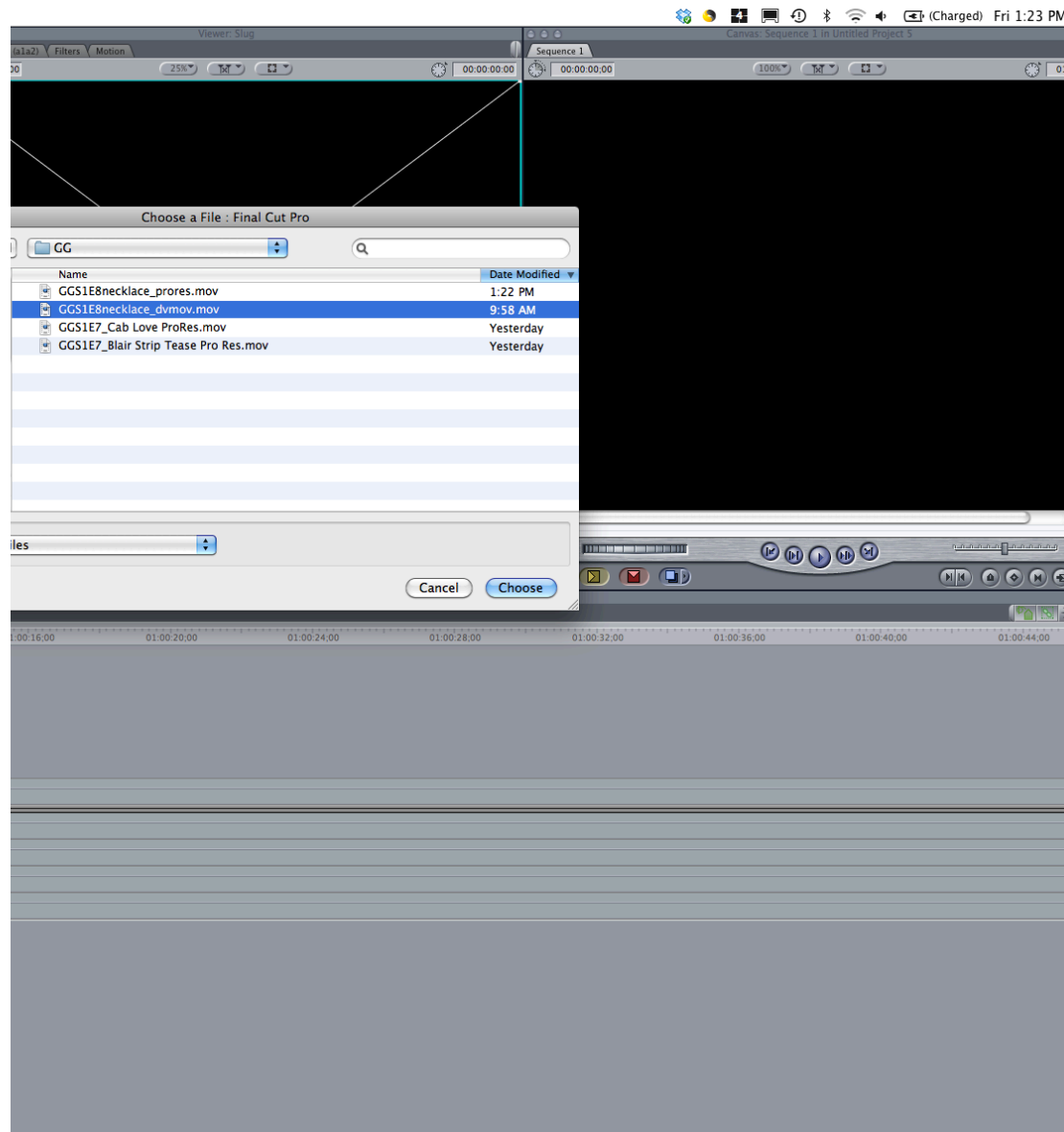
# Head over to FCP and create a new project.



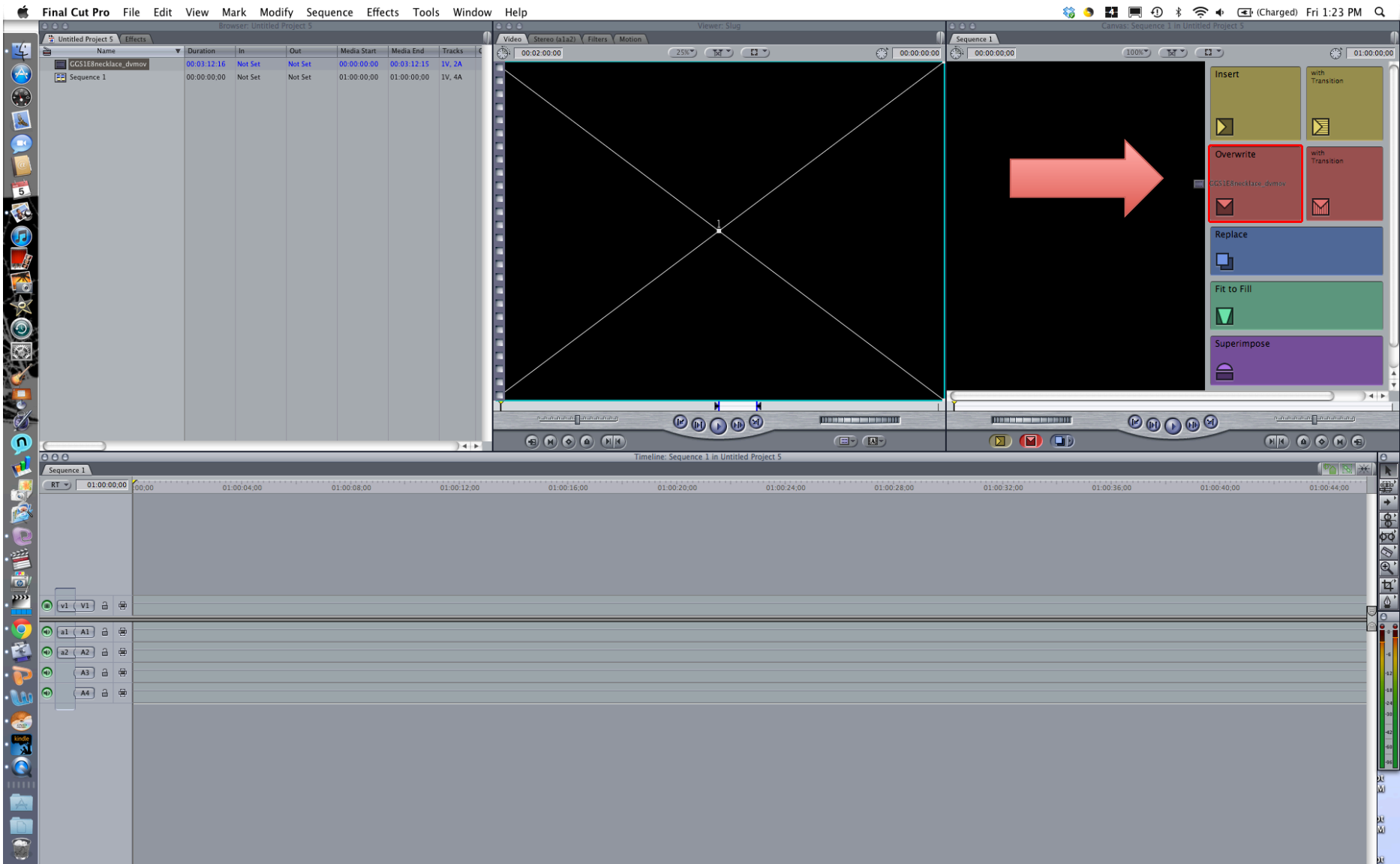
And once Mpeg Streamclip has done its business,  
import your file.



# Choosing the file...

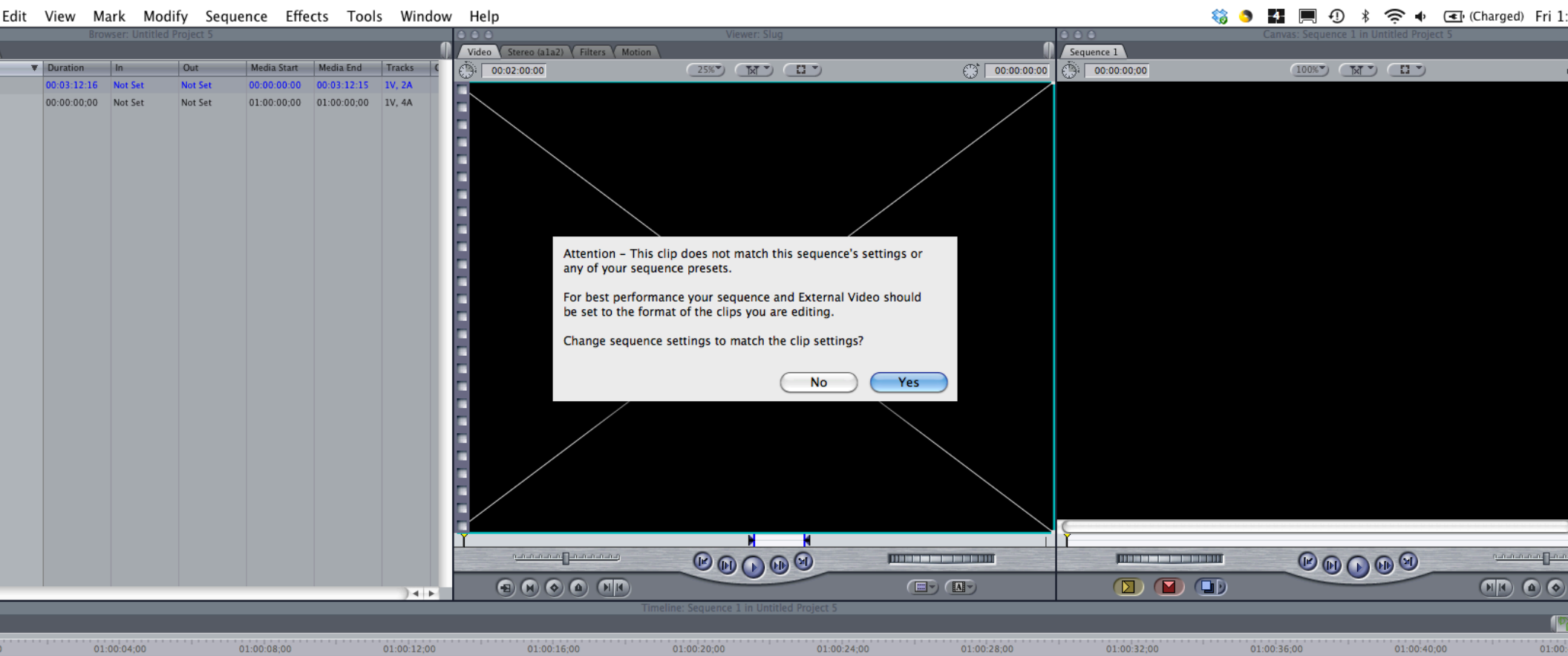


# Now drag the file over to the red “overwrite” box

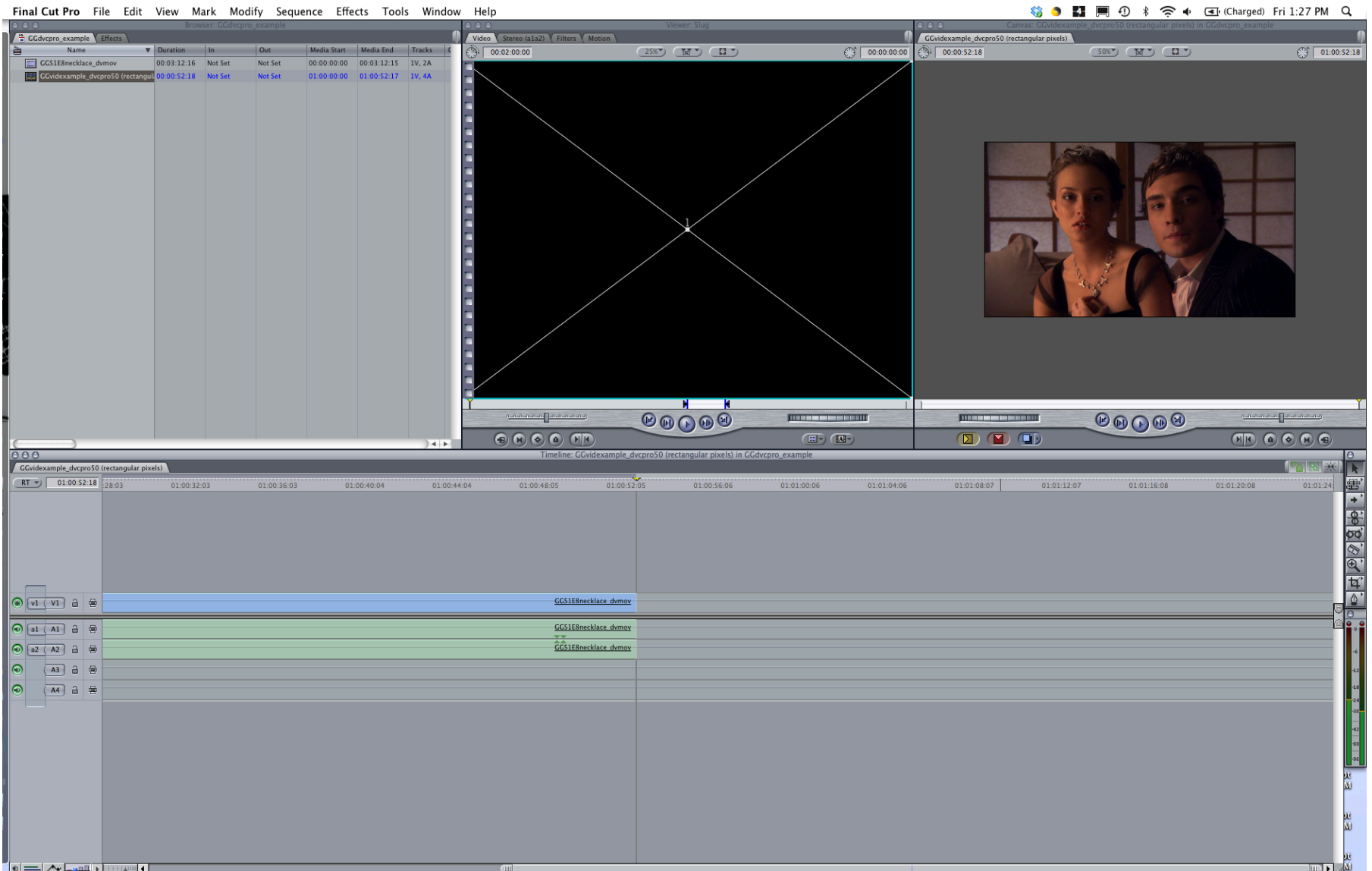




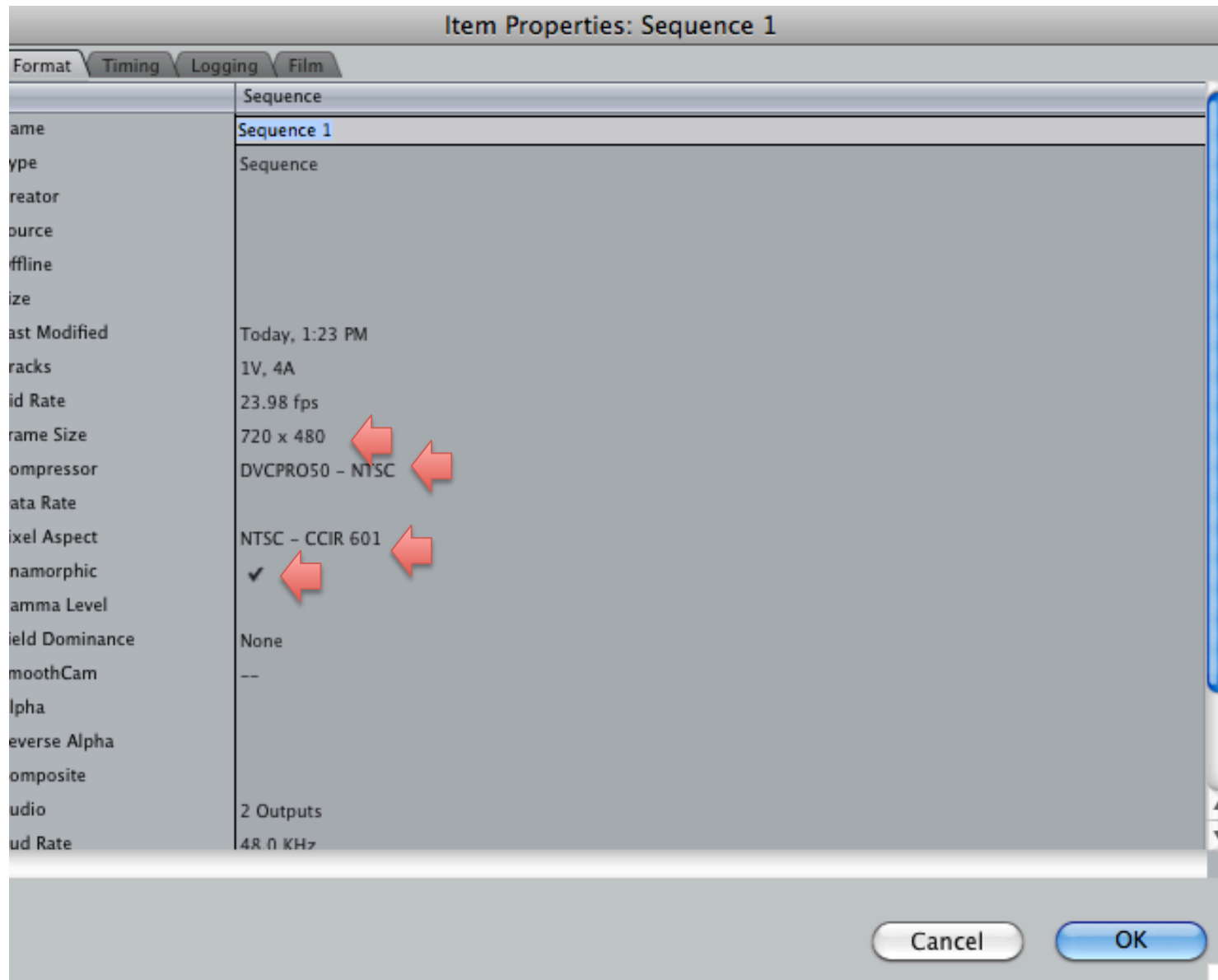
Final Cut should politely inquire whether it can set your sequence to match with the file. Say yes!



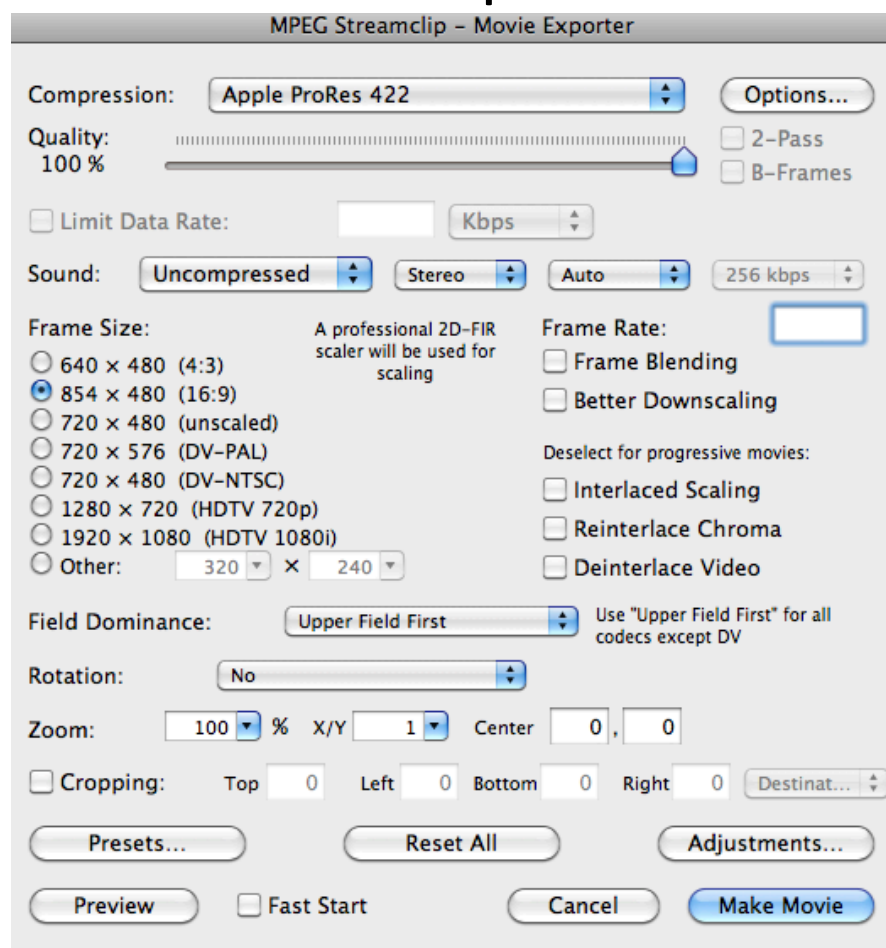
And lo and behold, there it is, ready to edit, no red bar of doom



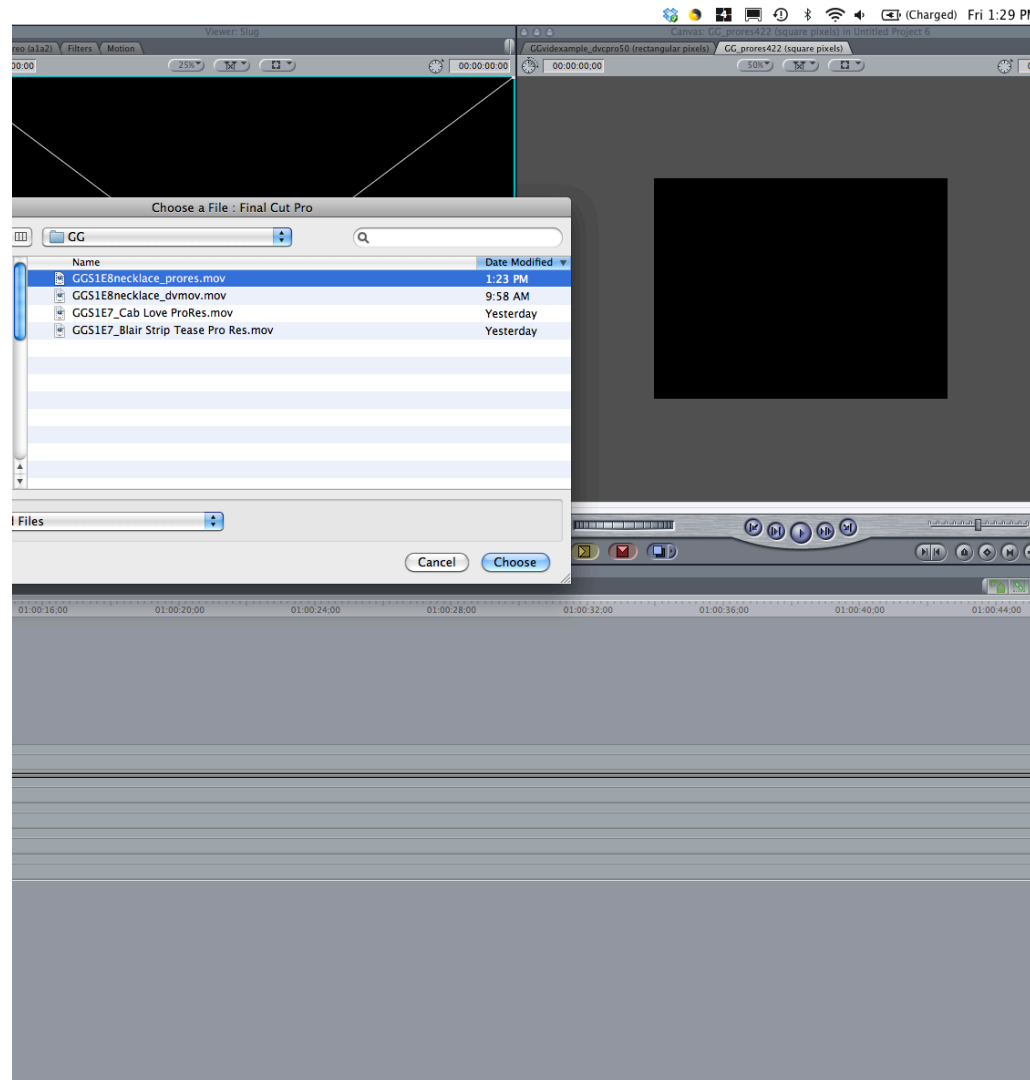
Just to double check that FCP changed the sequence settings correctly (in this case, for DV) we should have rectangular pixels, 720x480, and anamorphic...



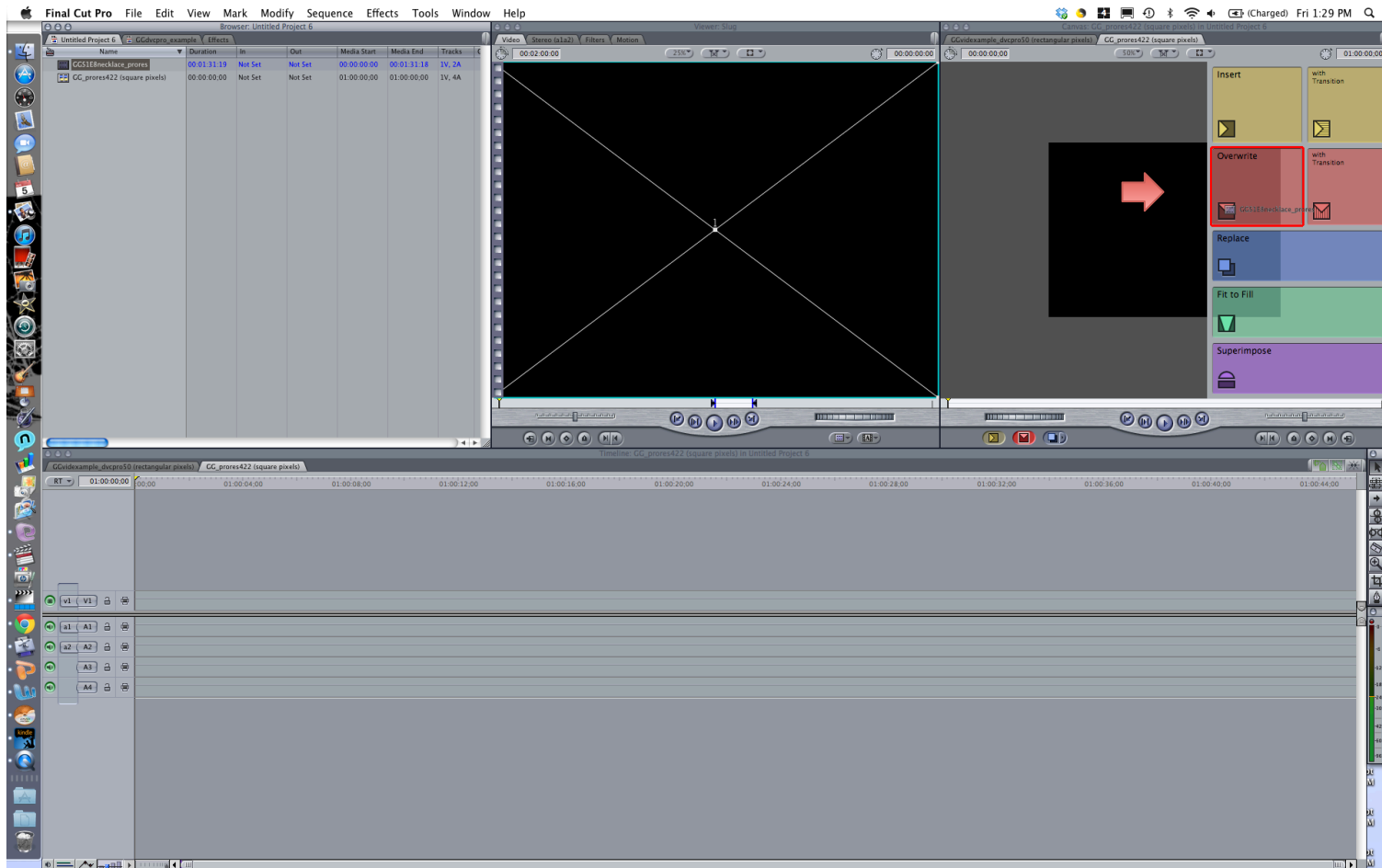
Alternately, you can choose a different compression format in Mpeg Streamclip. I like AppleProRes 422. This means you'll be working with square rather than rectangular pixels from this point on, and a 16:9 pixel ratio (rather than an anamorphic file that unpacks to 16:9).



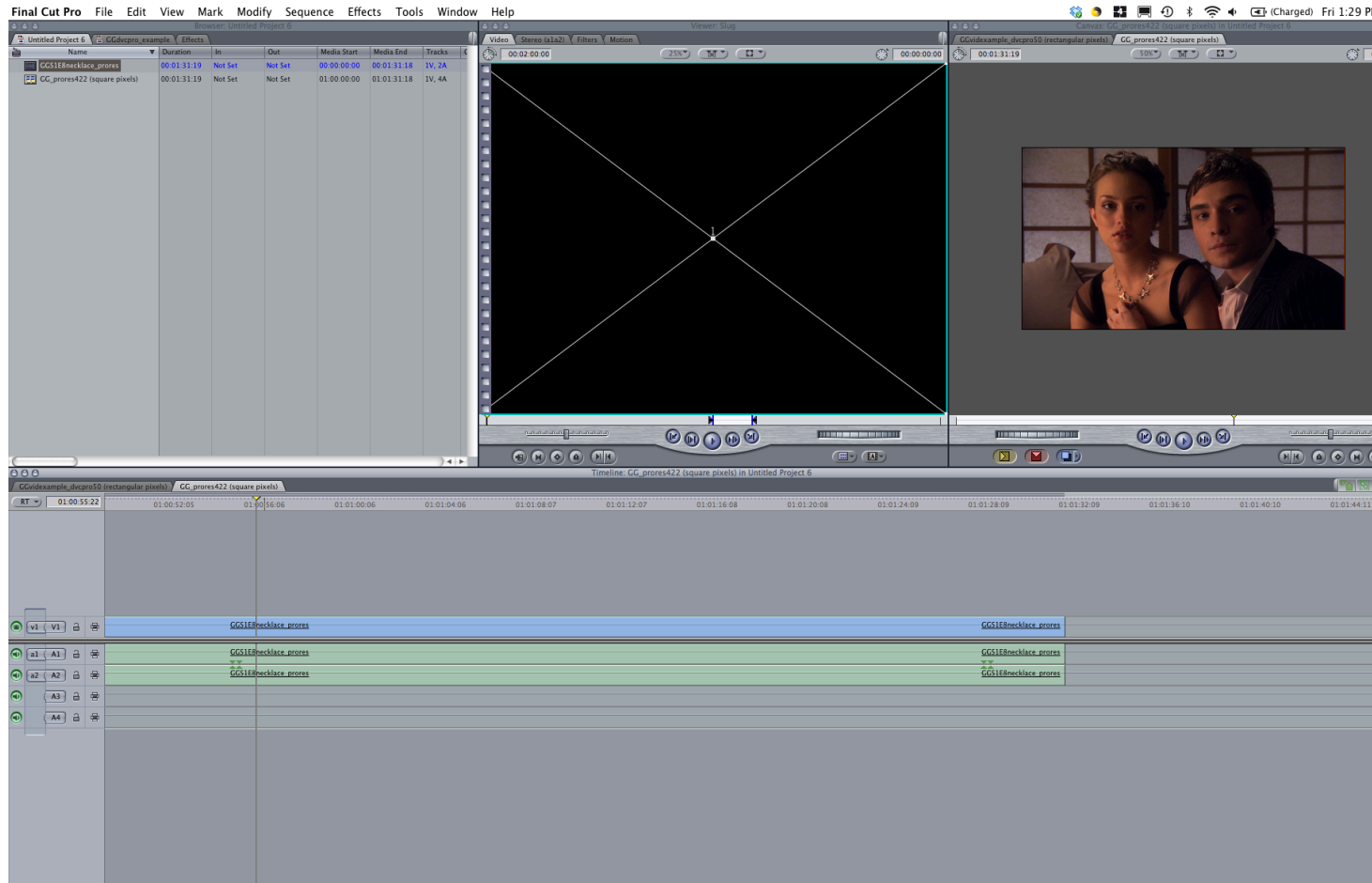
Again, import your file to a new project in FCP.



# And drag over to Overwrite, just as before.



# Looks good, no red bar of doom

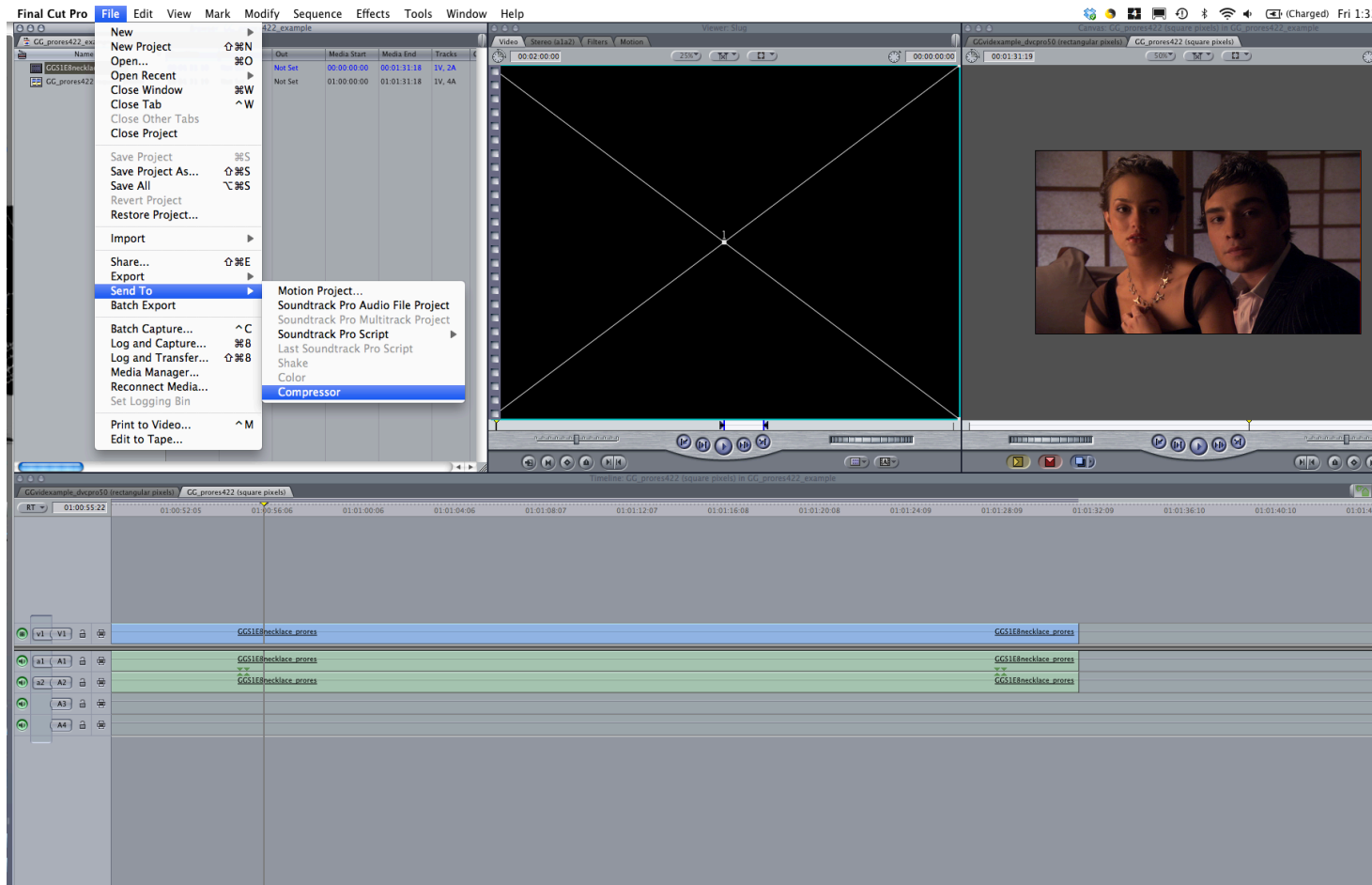


Settings this time indicate square pixels and a frame size of 854x480 (note that anamorphic is not checked)

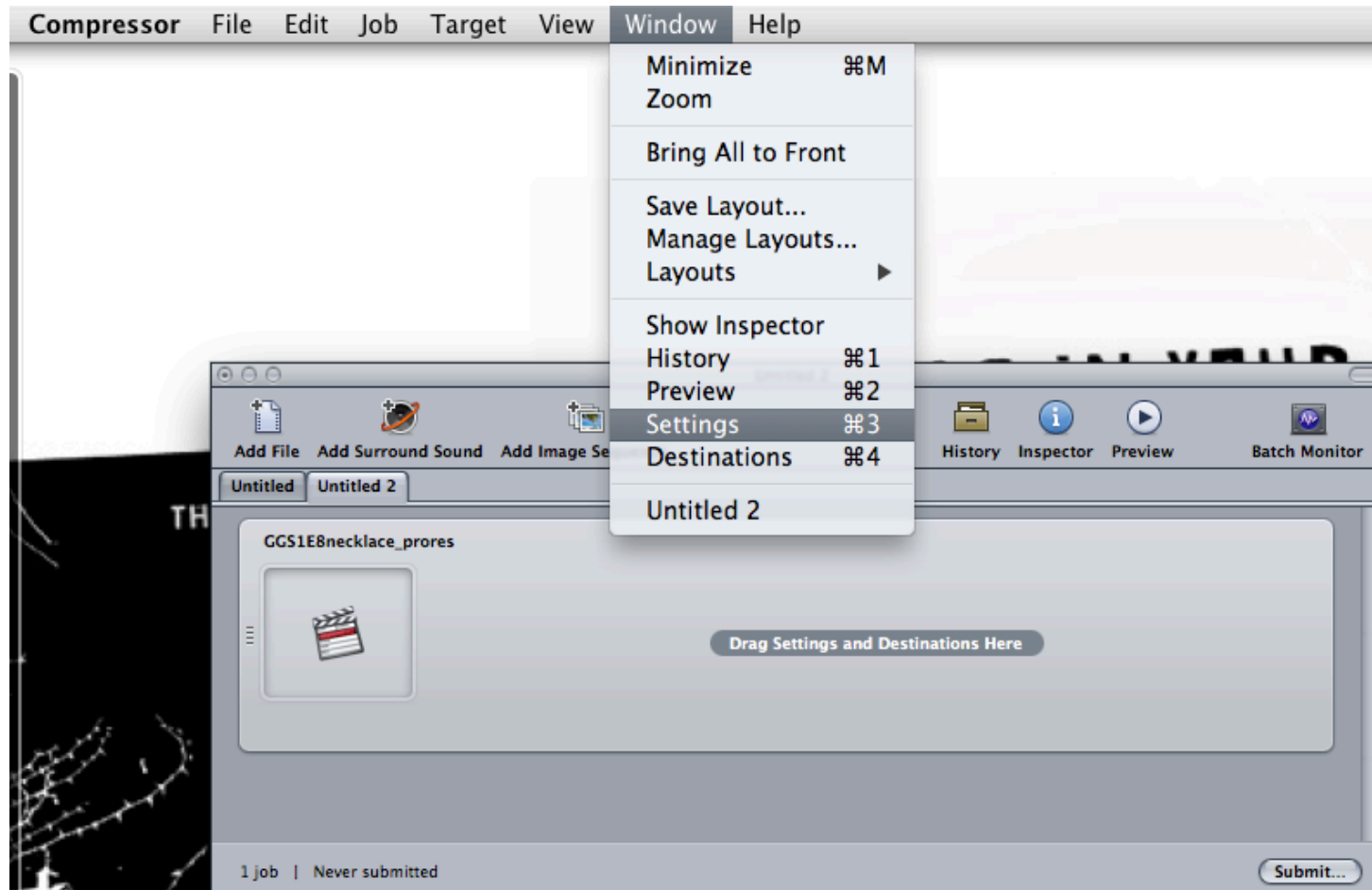
Item Properties: GGS1E8necklace_prores			
Format	Timing	Logging	Film
	Clip	V1	A1
Name	GGS1E8necklace_prores	GGS1E8necklace_prores	GGS1E8necklace_prores
Type	Clip		
Creator	QuickTime Player Launcher	QuickTime Player Launcher	QuickTime Player Launcher
Source	Macintosh HD:Users:louisas:Documents:F	Macintosh HD:Users:louisas:Documents:F	Macintosh HD:Users:louisas:Documents:F
Offline			
Size	435.2 MB	435.2 MB	435.2 MB
Last Modified	Today, 1:29 PM	Today, 1:29 PM	Today, 1:29 PM
Tracks	1V, 2A		
Field Rate	23.98 fps	23.98 fps	
Frame Size	854 x 480	854 x 480	
Compressor	Apple ProRes 422	Apple ProRes 422	
Data Rate	4.7 MB/sec	4.7 MB/sec	4.7 MB/sec
Pixel Aspect	Square	Square	
Anamorphic			
Gamma Level			
Field Dominance	None	None	
SmoothCam	--		
Alpha	None/Ignore	None/Ignore	
Inverse Alpha			
Composite	Normal	Normal	
Audio	1 Stereo		Left



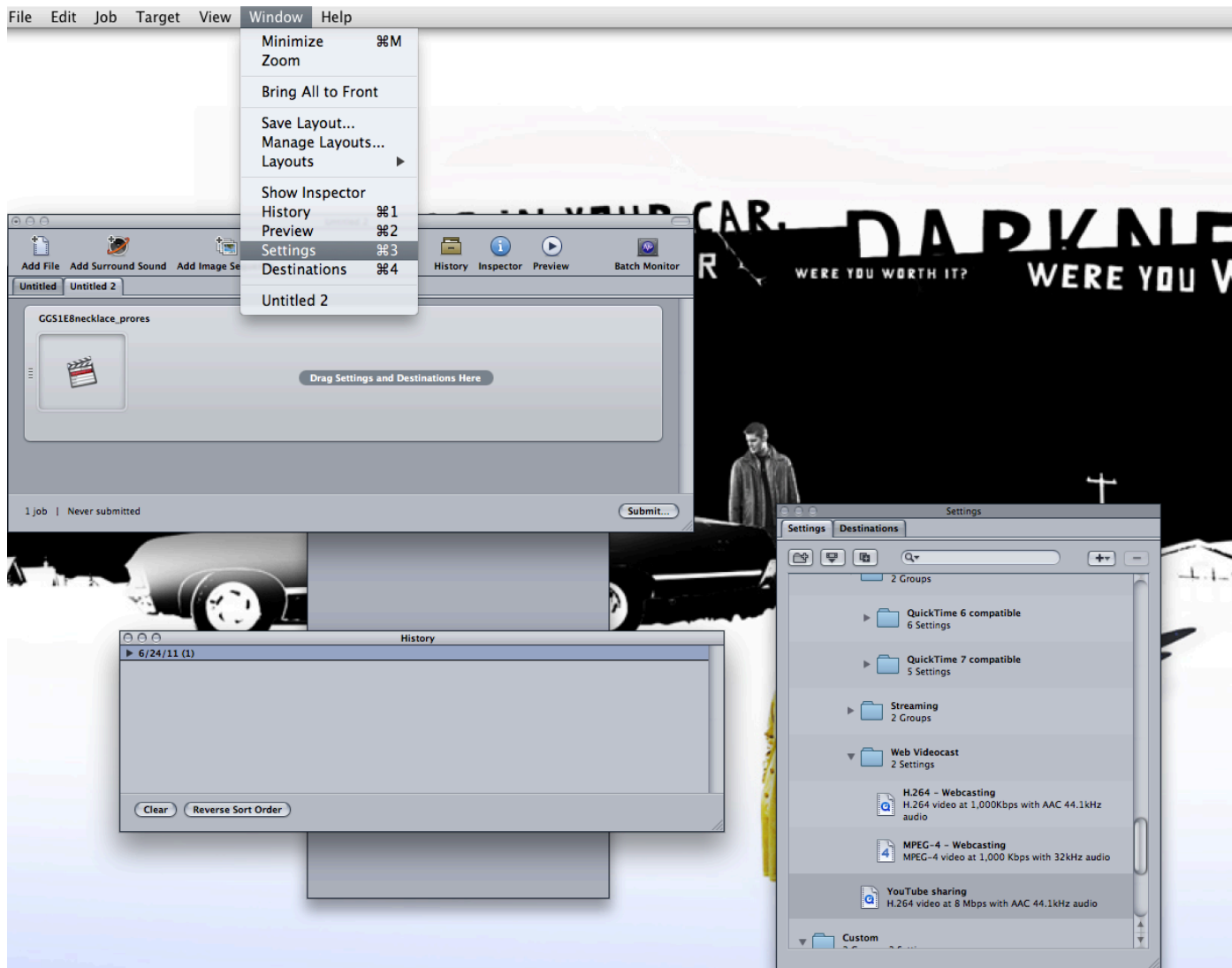
Now, for the next step; getting ready to share your video. Send to compressor...



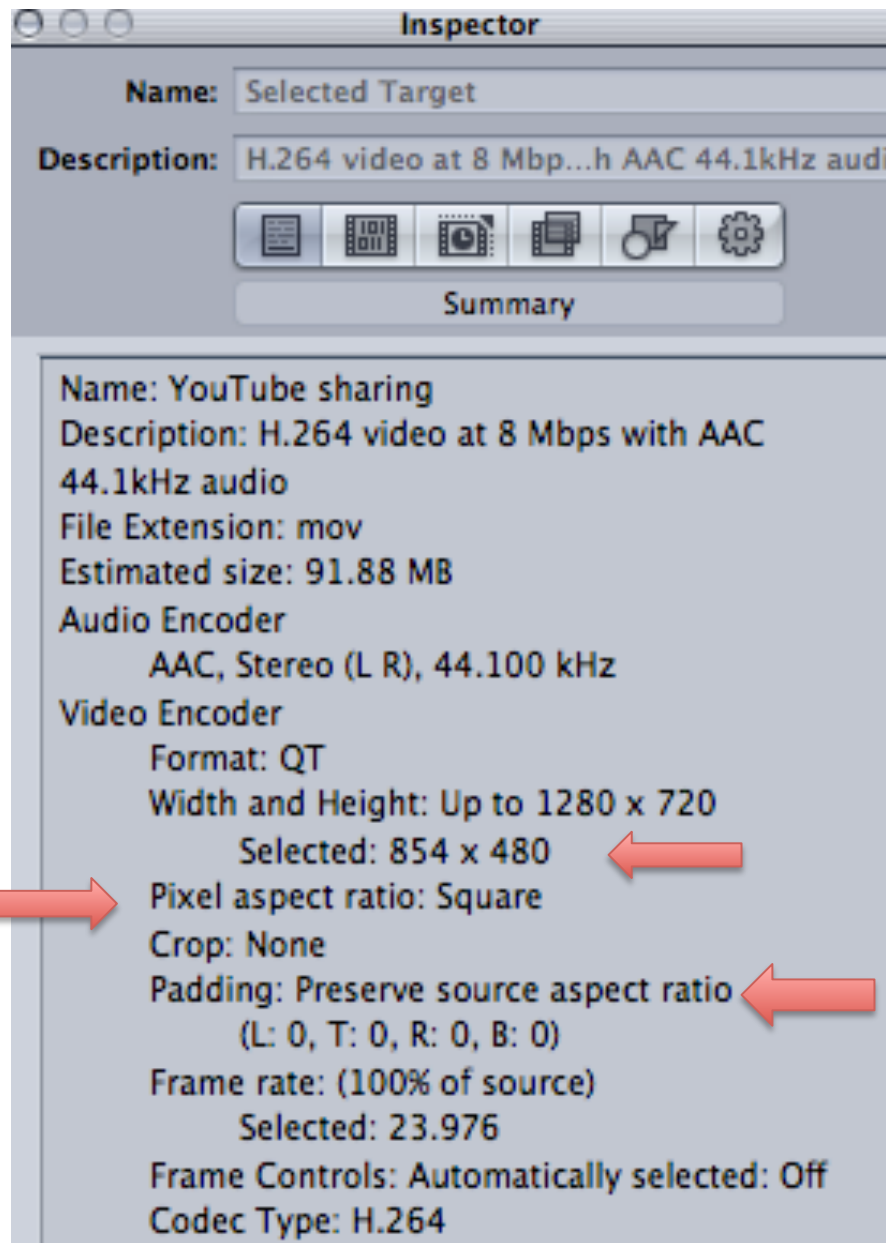
# Choose settings for compressor



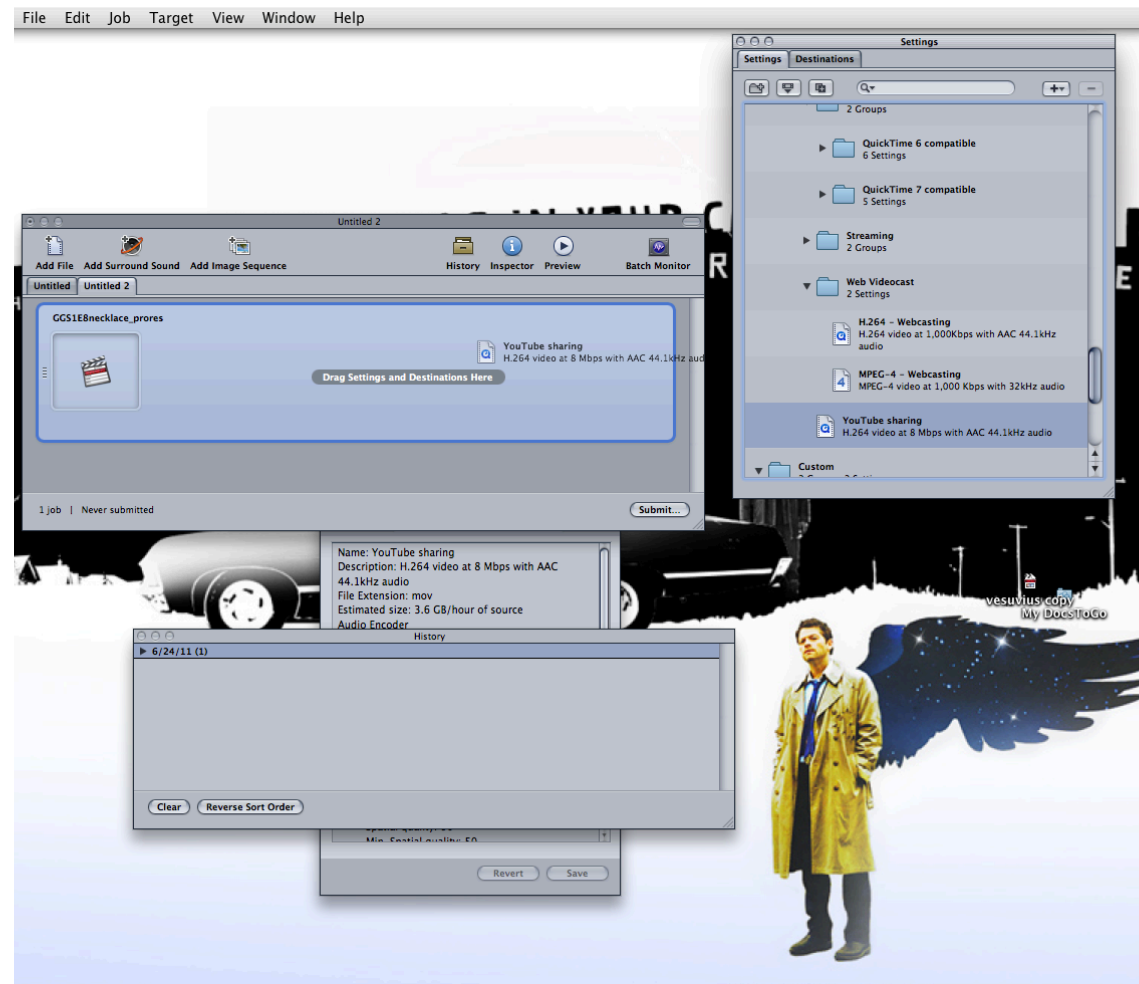
Many options will work (and indicate that they will replicate source settings). I've had good success with "Youtube Sharing."



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



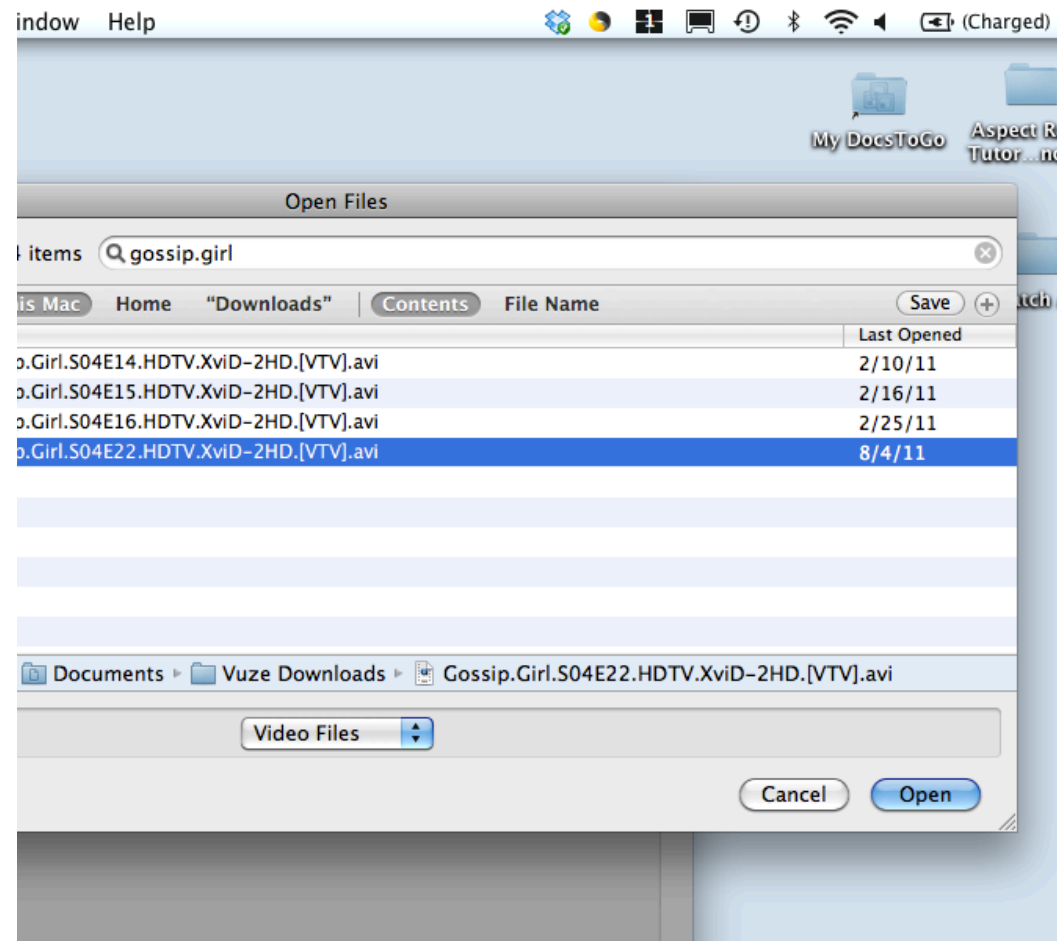
So you just drag the youtube option (or whatever option you're planning on using) into the main Compressor dialogue, and hit submit.



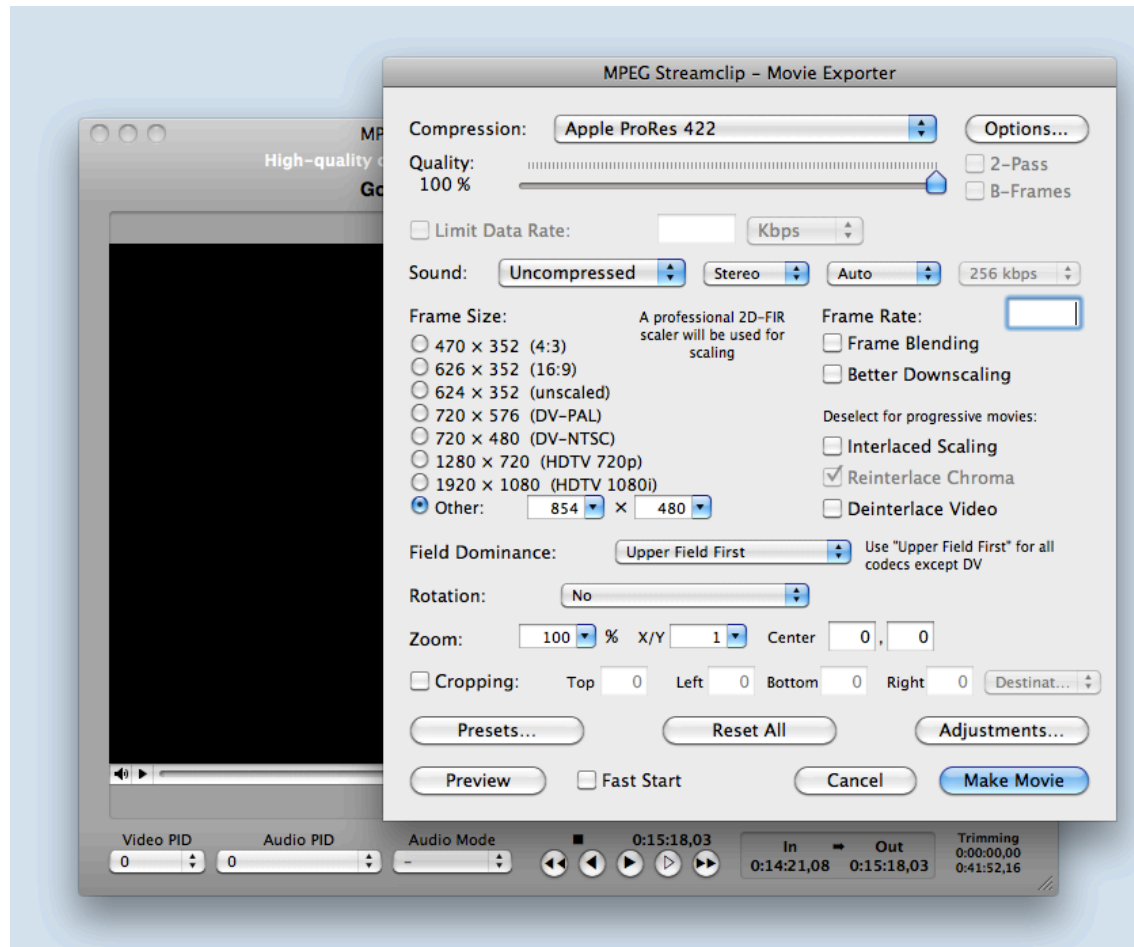
And the result...



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

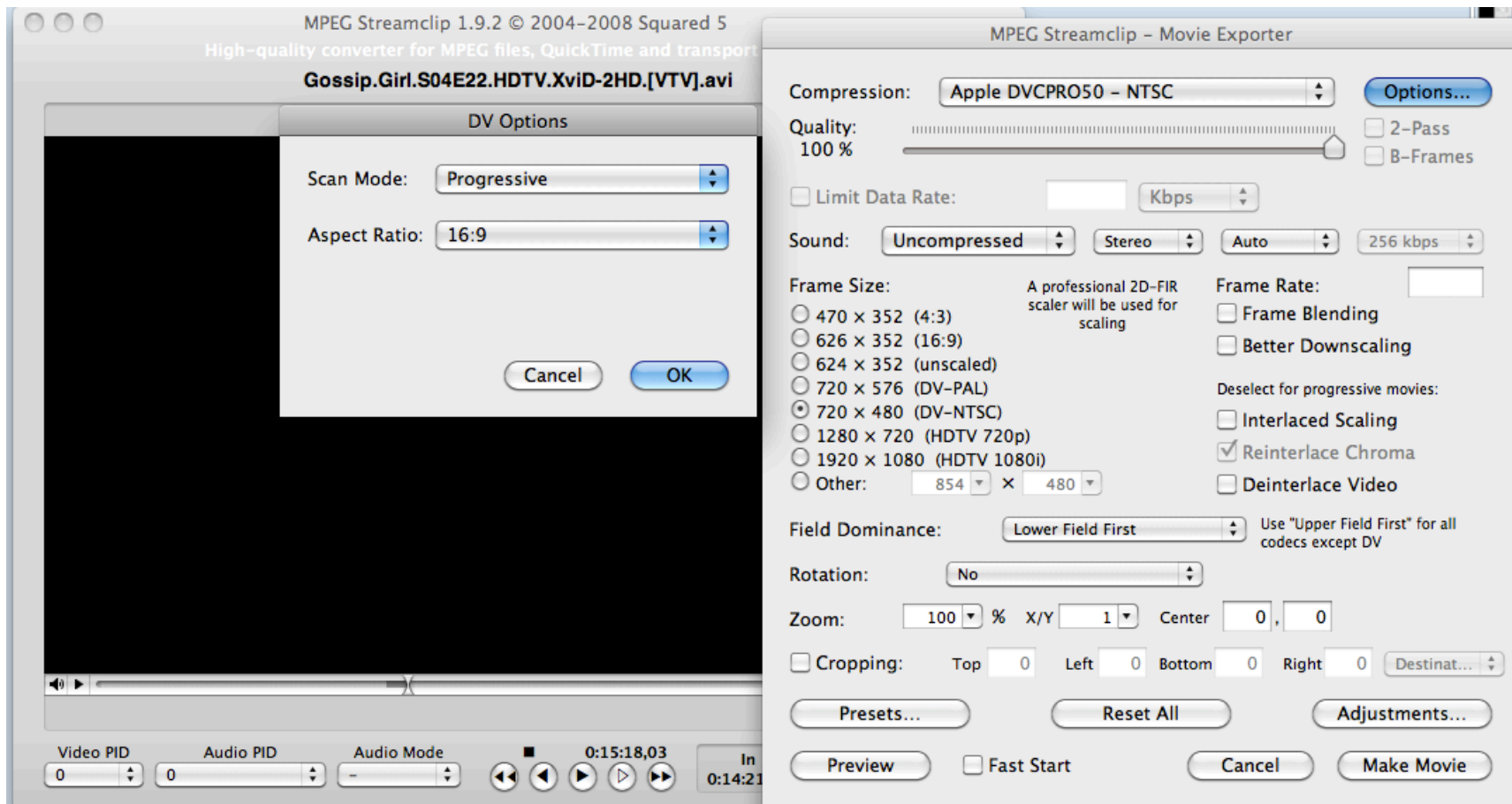


Use the prores422 compression, but  
change the frame size to align with  
your DVD footage

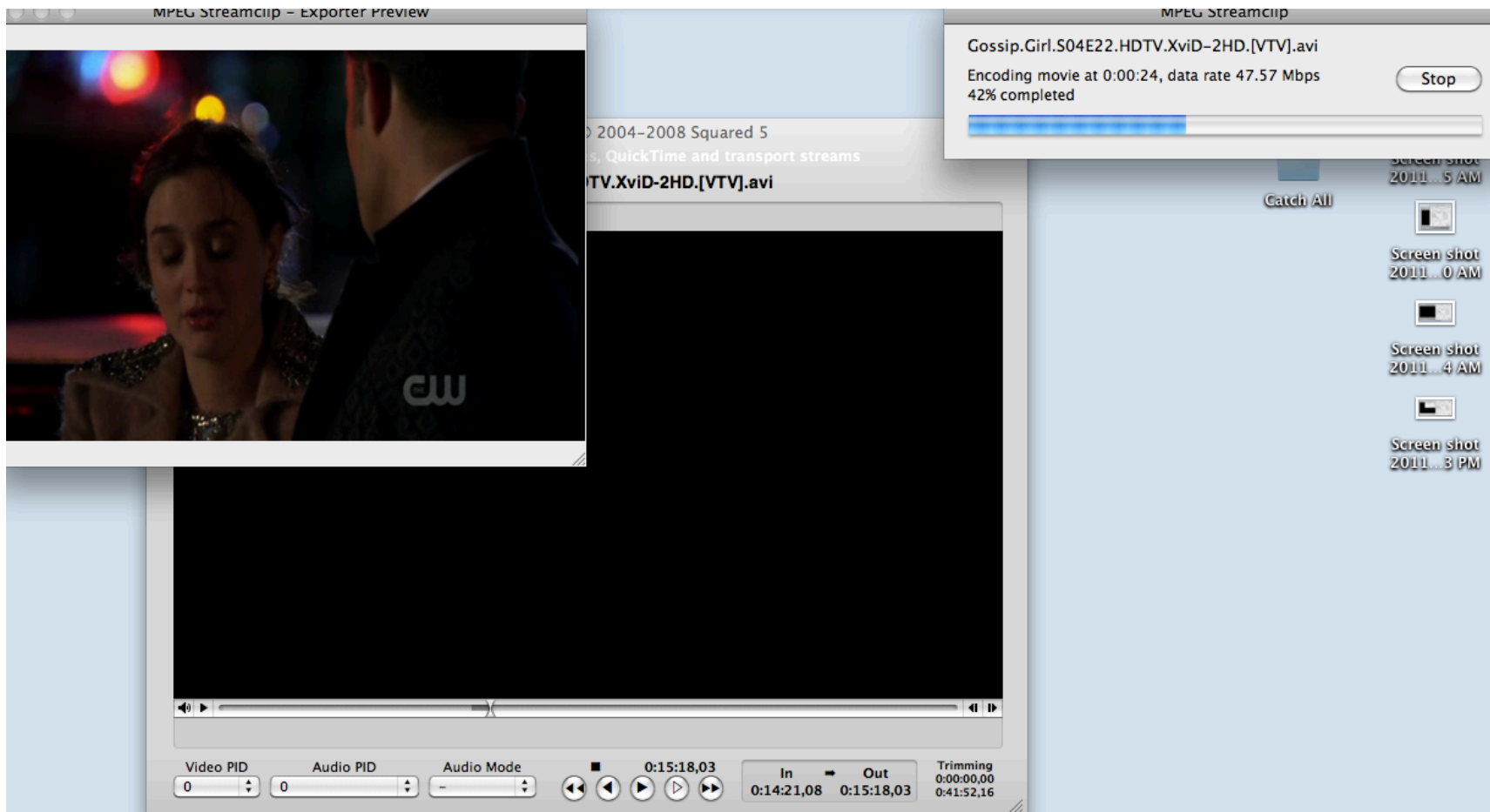




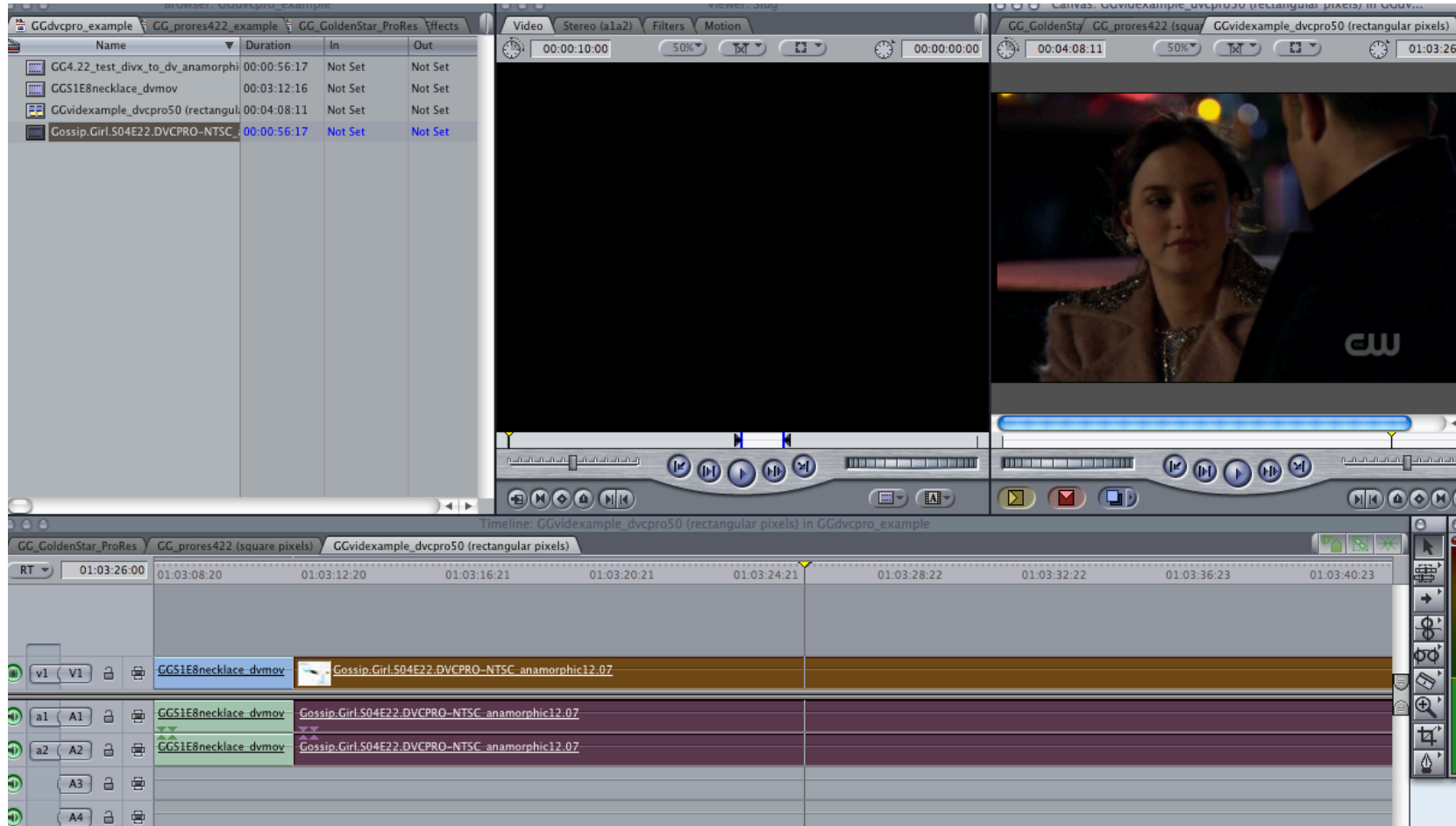
Or convert to DV (which, remember, must *\*always\** be 720x480) being sure to check the 16:9 option



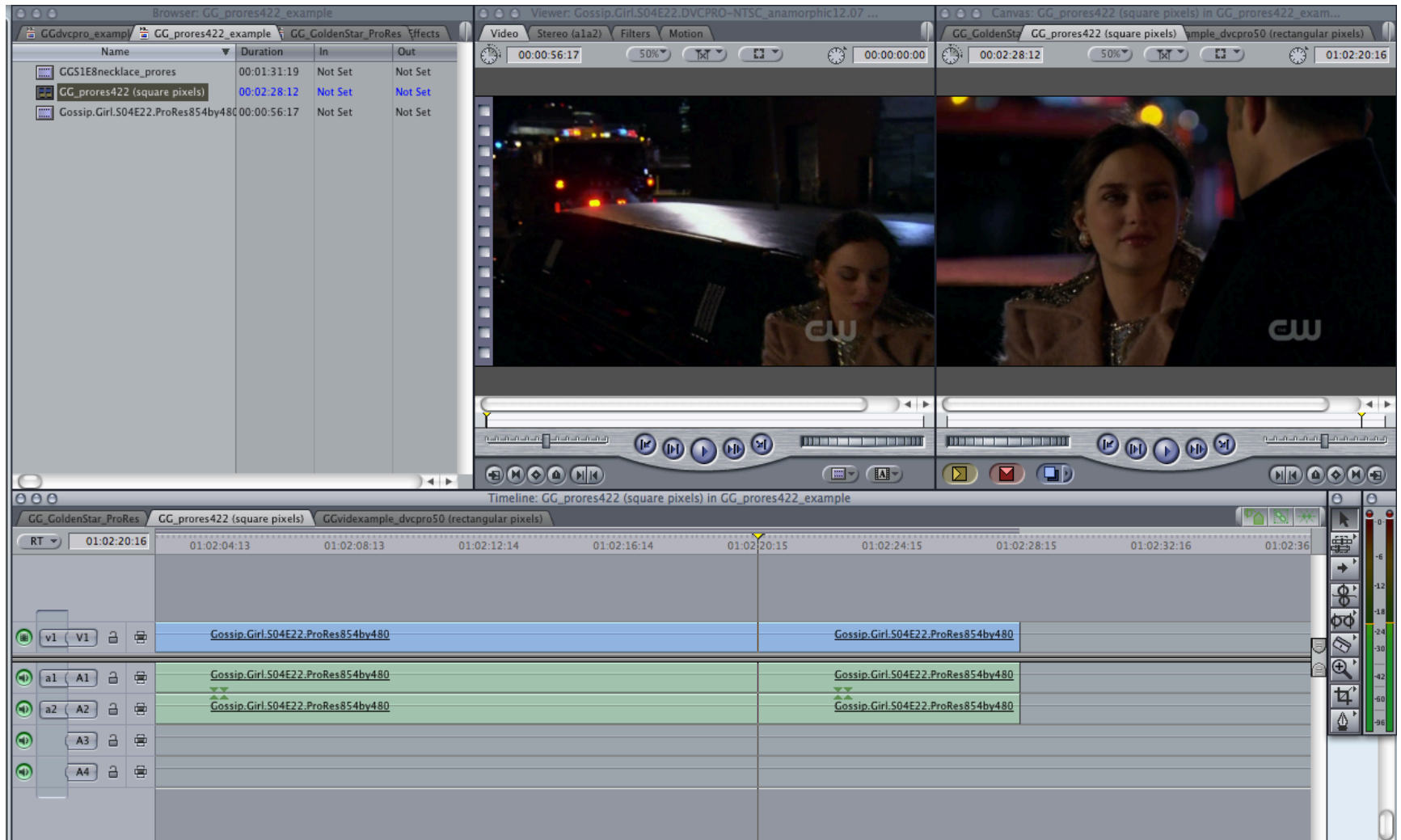
Weirdness alert: in mpeg streamclip, the preview may look wrong (can anyone explain this to me?)



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.

Frame Size	854 x 480	854 x 480	
Compressor	Apple ProRes 422	Apple ProRes 422	
Data Rate	4.7 MB/sec	4.7 MB/sec	4.7 MB/sec
Pixel Aspect	Square	Square	
Anamorphic			
Gamma Level			
Field Dominance	None	None	
SmoothCam	--		
Alpha	None/Ignore	None/Ignore	
Inverse Alpha			
Composite	Normal	Normal	
Audio	1 Stereo		Left
Audio 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)
- $\text{Width} / \text{aspect ratio} = \text{Height}$

So

$$854 / 1.33 = 642$$

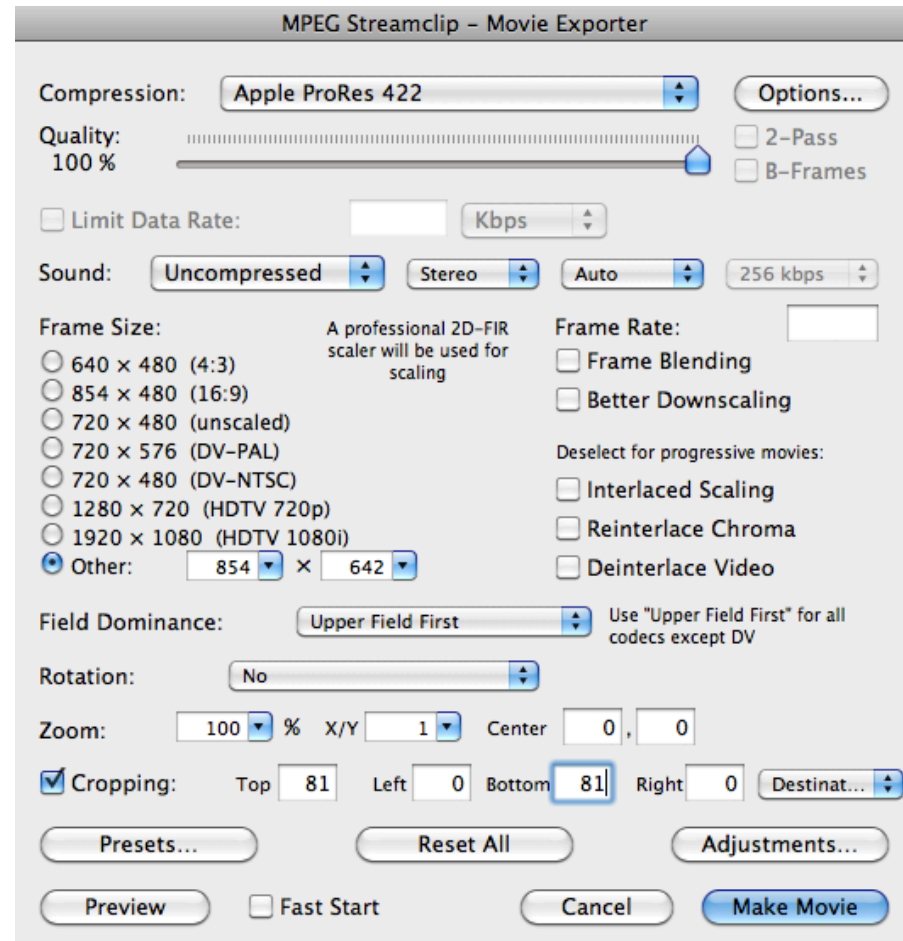
Our desired frame size (before cropping) is 854x642

# Now we need to figure out how much to crop

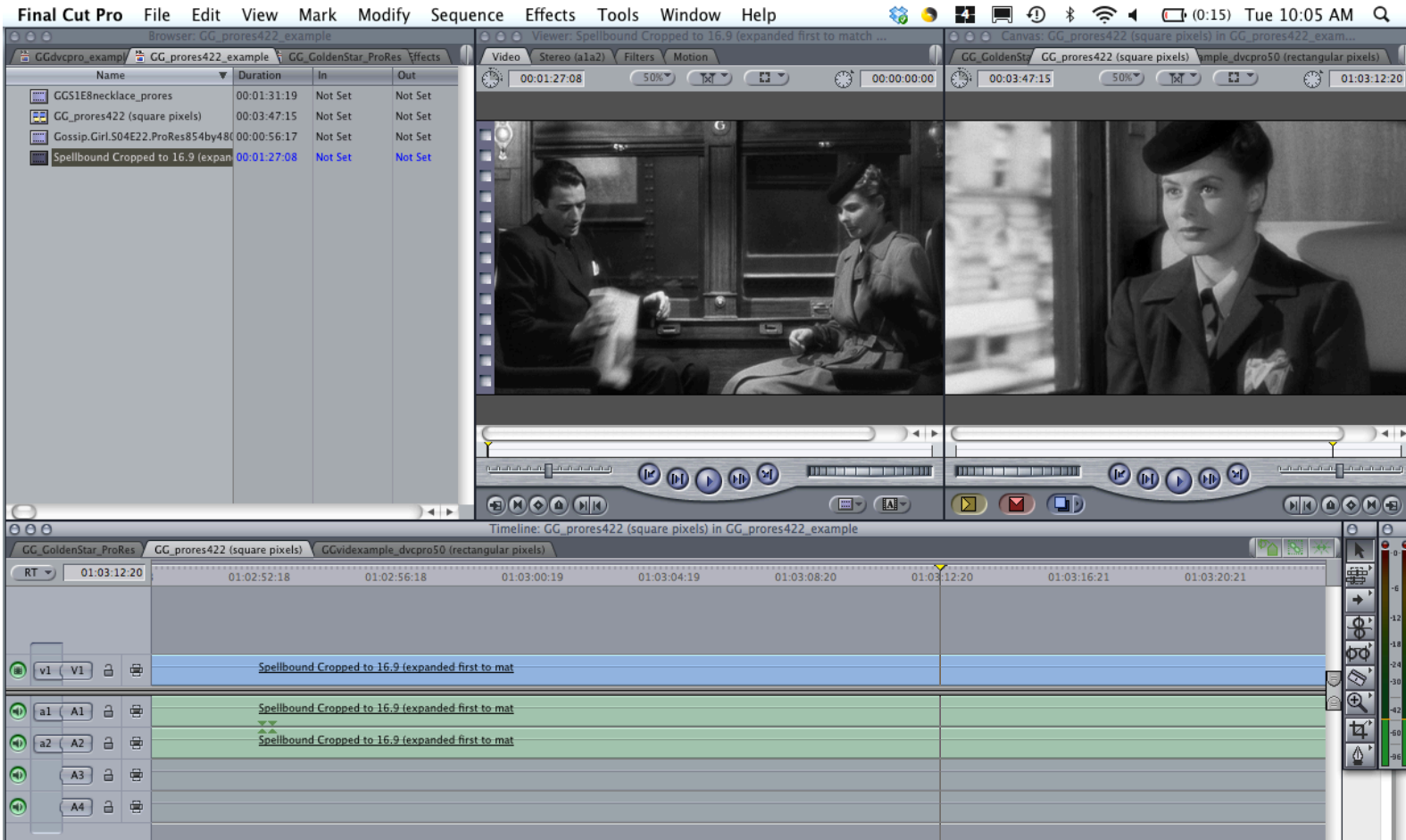
- Our too tall *Spellbound* video has a height of 642 pixels
- Our final cut sequence has a height of 480
- $642 - 480 = 162$  (so we need to resolve a 162 pixel difference)
- $162 / 2 = 81$
- So, we'll crop 81 pixels from the top and bottom



# In Mpeg Streamclip:



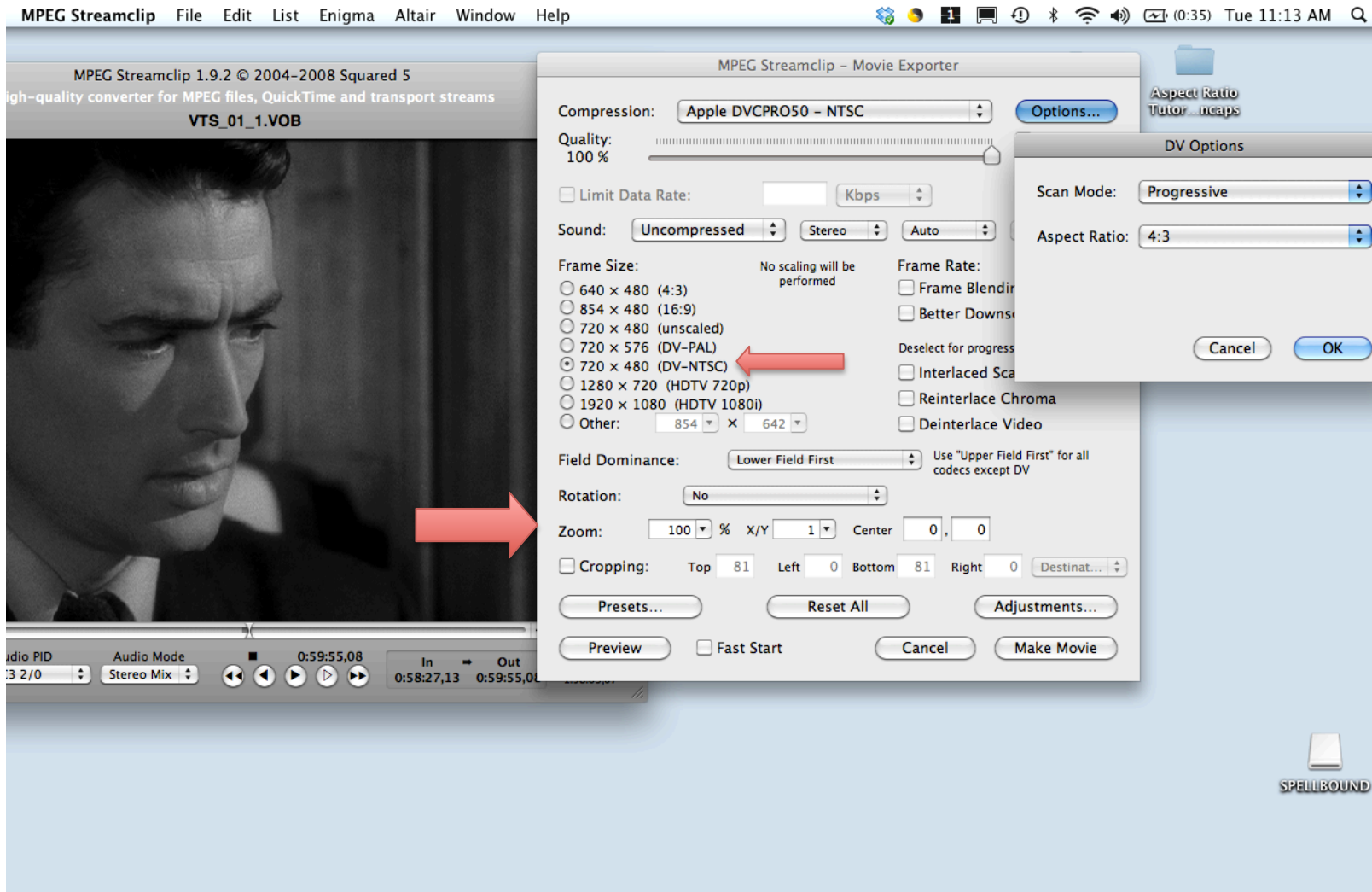
# In FCP: Success!



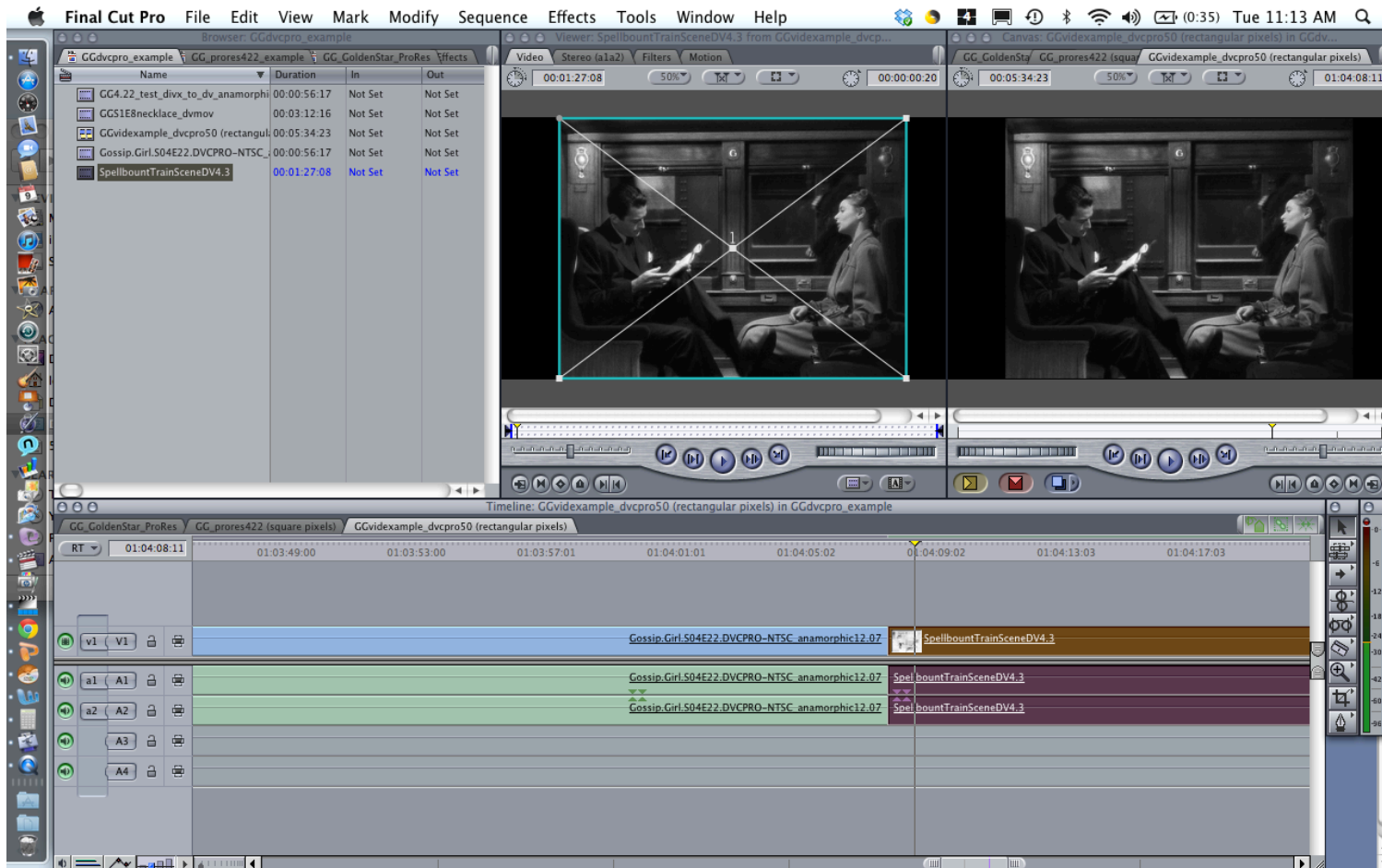
We've made Ingrid Bergman very happy.



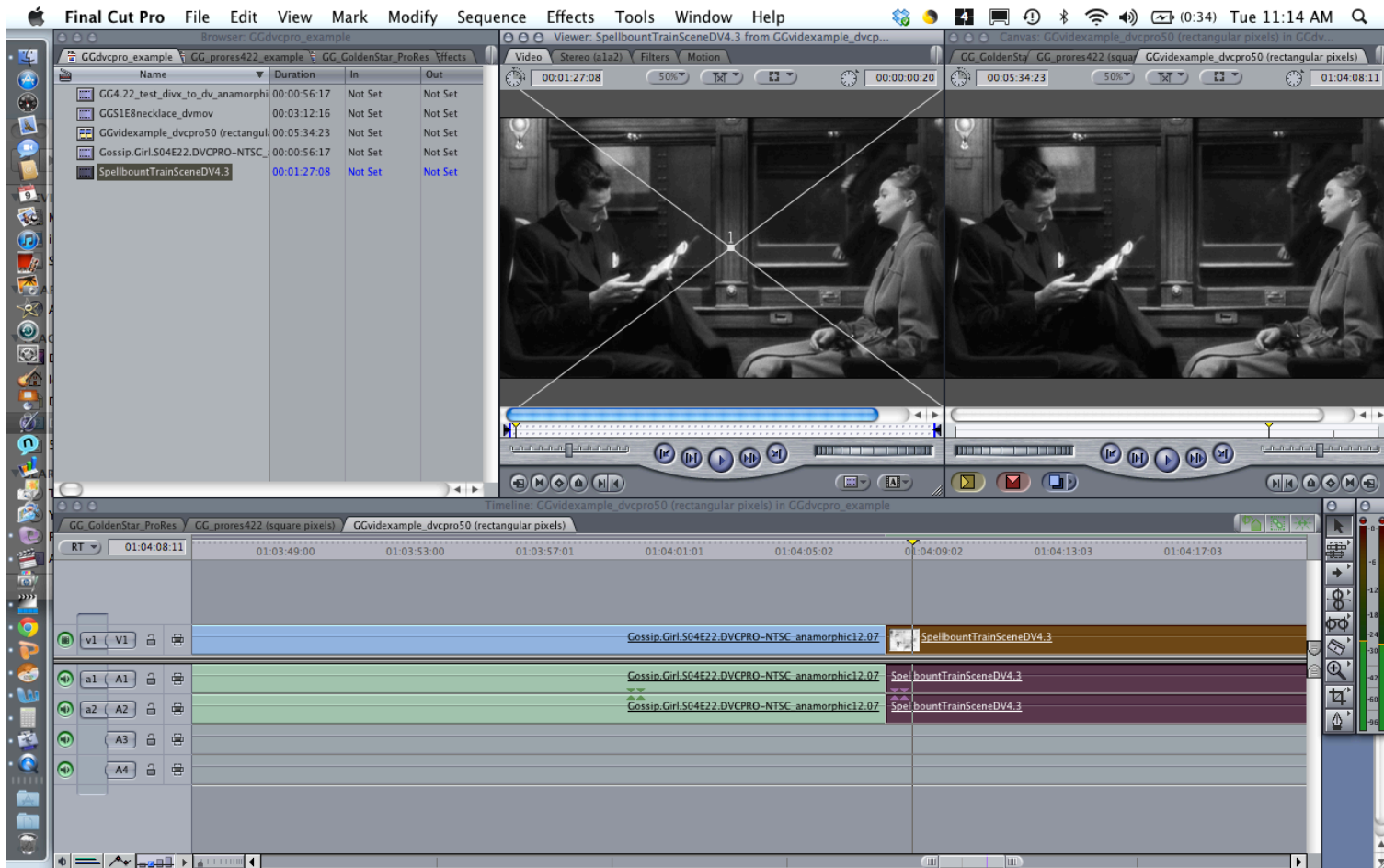
But what about for our DV sequence?  
(remember, DV (NTSC) is always 720x480)



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

The screenshot shows a web browser window displaying a blog post on the site [damned-colonial.dreamwidth.org/477307.html](#). The browser's address bar and tabs are visible at the top. The page header includes the user's name 'lola', a 'Log out' button, and a notification that 'damned\_colonial and you have mutual subscriptions'. The main content area features the blog title 'Damned Colonial' and navigation links for 'Recent Entries', 'Archive', 'Reading', 'Tags', 'Memories', and 'Profile'. The featured post is titled 'Exporting vids for VVC on the mac - FCP/ffmpeg instructions' and is dated 'May. 15th, 2010 04:57 pm'. The post text discusses the author's experience with exporting videos for VVC on a Mac using Final Cut Pro, mentioning a helpful tip from 'laurashapiro'. A sidebar on the right contains a 'Profile' section with a user picture and a 'February 2011' calendar.

damned-colonial.dreamwidth.org/477307.html

Apple Yahoo! Google Maps YouTube Wikipedia News Popular CS 100: Introduction Other Bookmarks

lola Log out Home Post Reading Settings Inbox (1101)

damned\_colonial and you have mutual subscriptions Modify Relationship Track Account

Interest Go Reload page in style: mine site light

## Damned Colonial

Recent Entries Archive Reading Tags Memories Profile

### Exporting vids for VVC on the mac - FCP/ffmpeg instructions

May. 15th, 2010 04:57 pm

[damned\\_colonial](#)

So, the [most recent Mac instructions](#) on the Vividcon site for exporting MPEG-2 and WAV for VVC are ca. 2002. Things have changed. I bumped into [laurashapiro](#) on public transit the other day, just after exporting my Club Vivid vid, and just before she was about to export one of her vids, and I promised I'd write up my process. It might be too late for Laura (if so, sorry!) but might be useful for others.

These instructions are for those using Final Cut Pro on a Mac. Also, this is the first time I've done it and I might be TOTALLY WRONG in which case please tell me!


#### Export video from FCP

I'm using Final Cut Studio 7, the most recent version as of right now (May 2010). These instructions probably work in other recent version and are probably very very similar in Final Cut Express but I can't test -- so feel free to comment if you have something close-but-not-quite and can run through the differences.

In the menus, choose:

File

### Profile



damned\_colonial

### February 2011

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					




# 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:

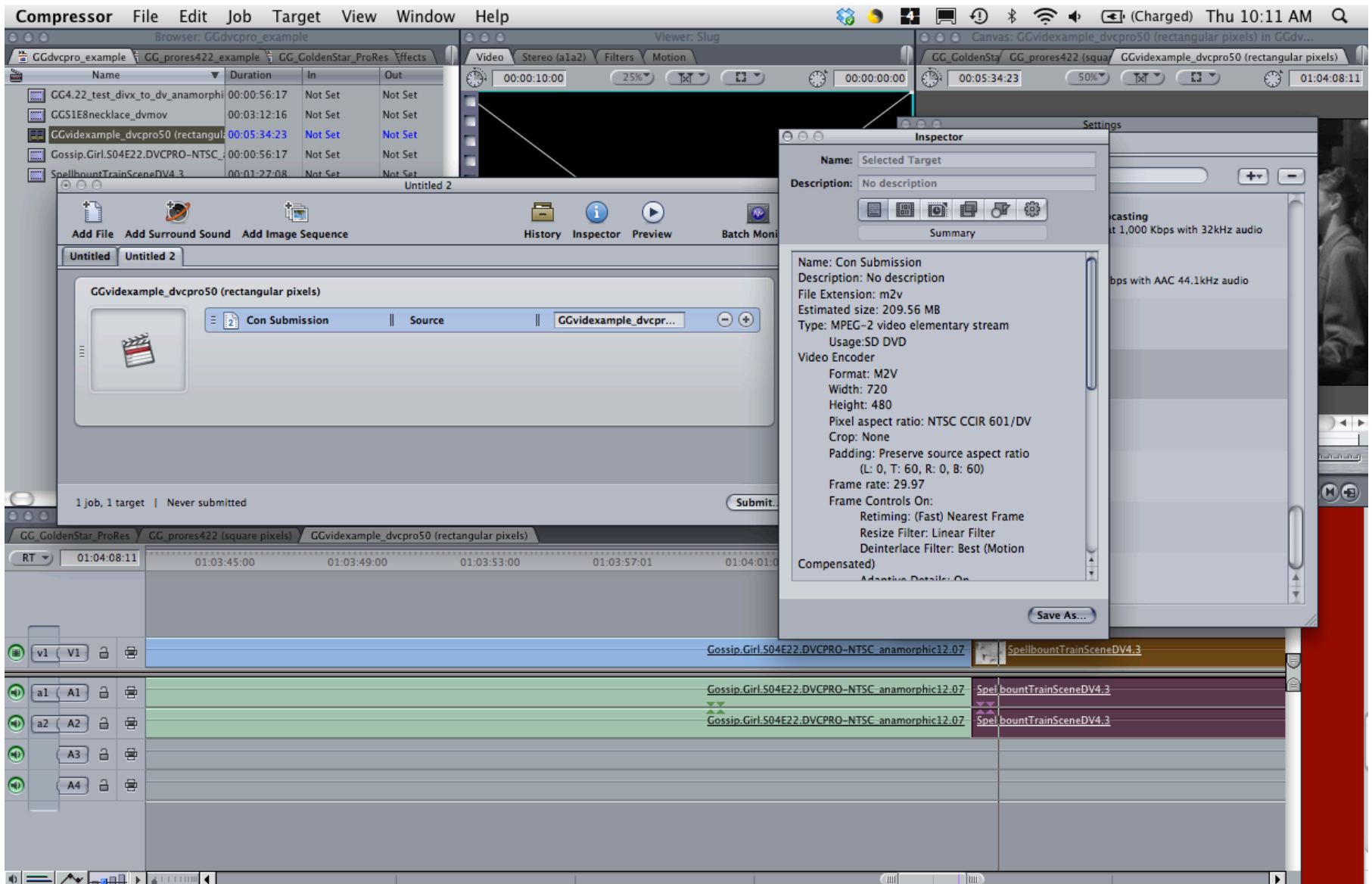
- export from Final Cut as a 720x480 16:9 .mov file
- open that file in MPEG streamclip, and reexport (using File-Export to Quicktime - Apple Component Video codec) to an 854x480 16:9 .mov file
- open that file in ffmpegx and follow all the usual instructions, making sure that "letterbox" is on under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

The screenshot shows the Adobe Photoshop interface with a measurement log at the bottom. A red curved arrow points from the measurement log to the selected image area. The measurement log contains the following data:

or	Count	Area	Perimeter	Circularity	Height	Width	Gray Value (Minimum)	Gray Value (Maximum)	Gray Value (Mean)	Gray Value (Median)	
0001	000	1	387714.00...	2518.000000	0.768440	537.000000	722.000000	0.000000	239.000000	59.308712	35.000000
0002	000	1	293854.00...	2258.000000	0.724258	407.000000	722.000000	0.000000	239.000000	78.130265	61.000000