



## **Guide to Capturing 720p24 HDV from the JVC HD-100 or JVC BR-HD50**

By Graeme Nattress

Final Cut Pro does not natively support JVC's 720p24 HDV format but can be made to capture it. Apple's initial support for HDV was through iMovie and Final Cut Express, via use of an intermediate codec called "AIC" or Apple Intermediate Codec. When Final Cut Pro gained HDV support with version 5.0, AIC was supplemented with "native" HDV support.

As of FCP 5.03, there is still no native support for 720p24 HDV, but there is a work-around that allows use of 720p24 via AIC. This document outlines the simple work-around using Cinema Tools, an application bundled with Final Cut Pro. Due to the 24p being embedded in a 720p60 MPEG2 stream, once captured via AIC, the video plays very fast. By using the "conform" feature in Cinema Tools, we can make the video once again run at 23.98fps and hence work for 24p editing.

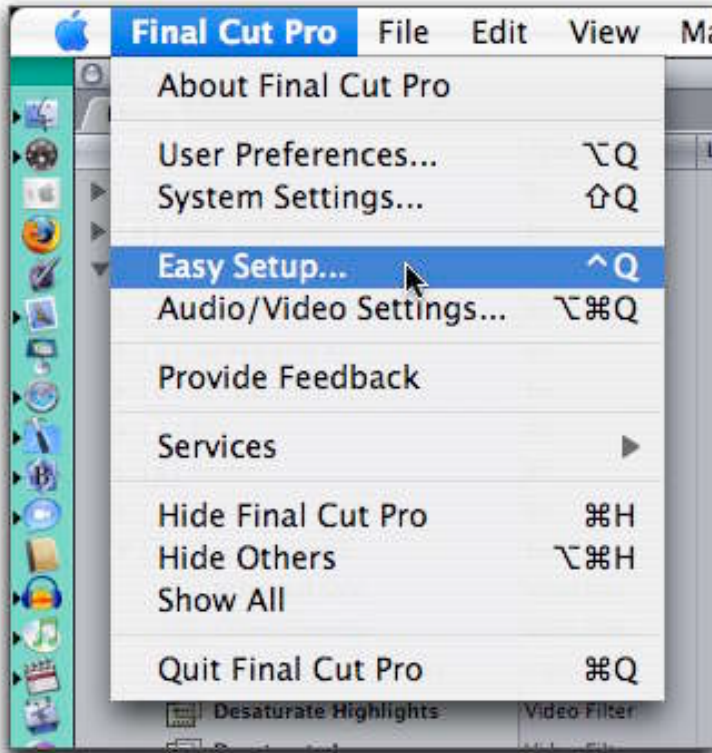
AIC has improved its quality since its initial release and is now suitable, although not the best online codec for editing HDV non-natively. AIC capturing does not support timecode or batch capture.

This is how to do it:

### **Set up Final Cut Pro**

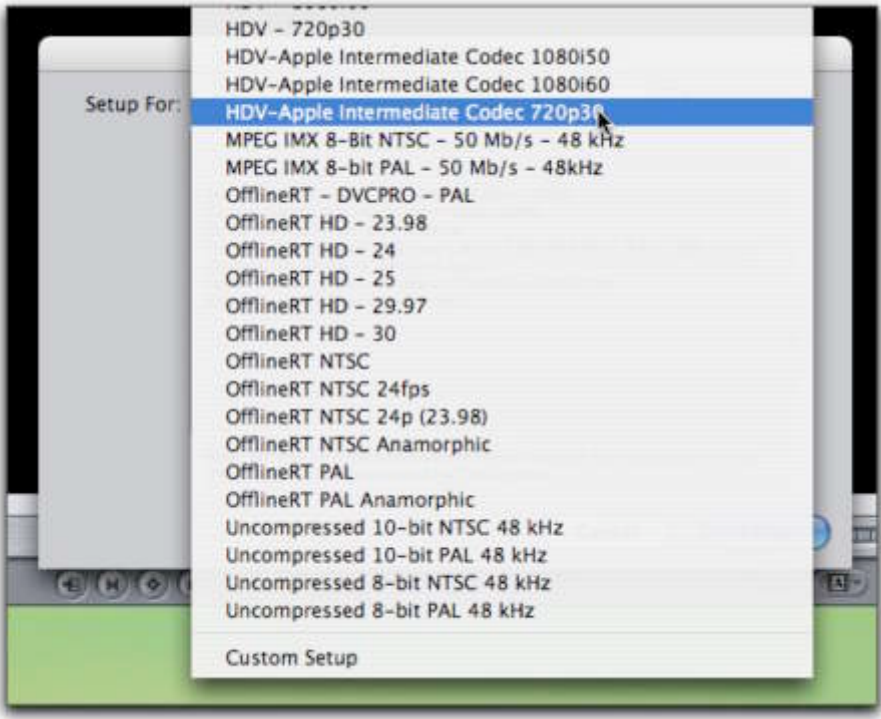
#### **1 Easy Preset**

Easy presets represent the easiest way to set up Final Cut Pro for any task. It's best to select the easy preset before making your new project, to be sure that project conforms to the settings you've chosen.

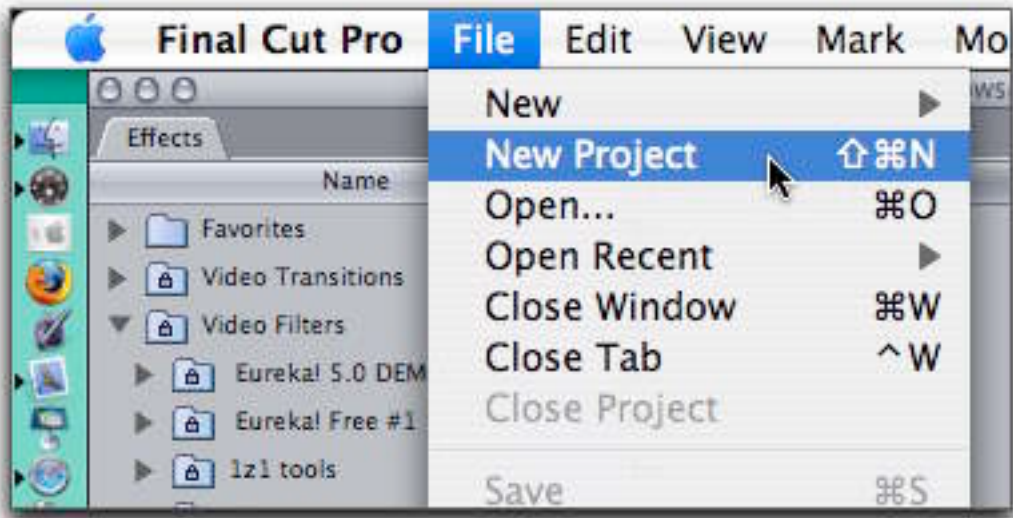


## 2 Select HDV-Apple Intermediate Codec 720p30

There is no option for 720p24, but 720p30 does capture each and every 24p frame, but wrongly assigns a frame rate of either 59.94fps or 29.97fps to the captured files. We will convert to the correct 23.98fps frame rate in Cinema Tools as a batch conform.



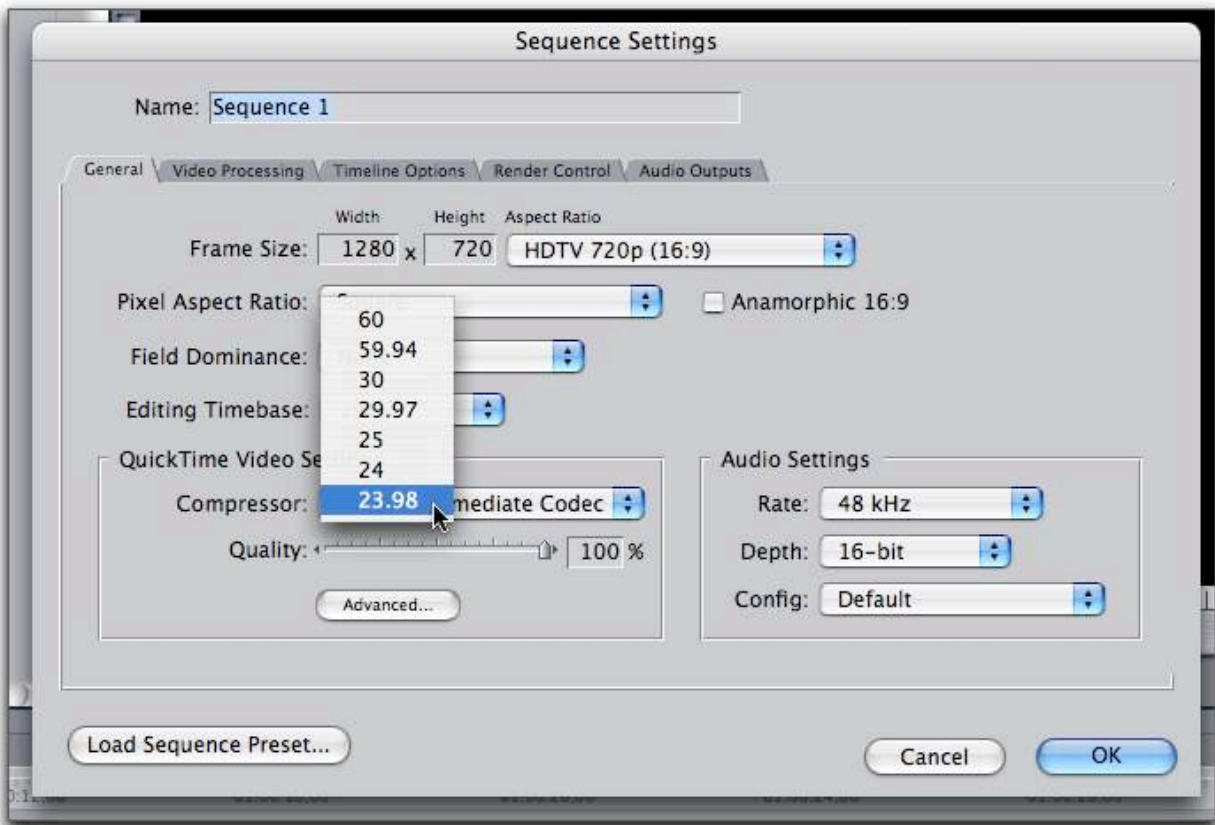
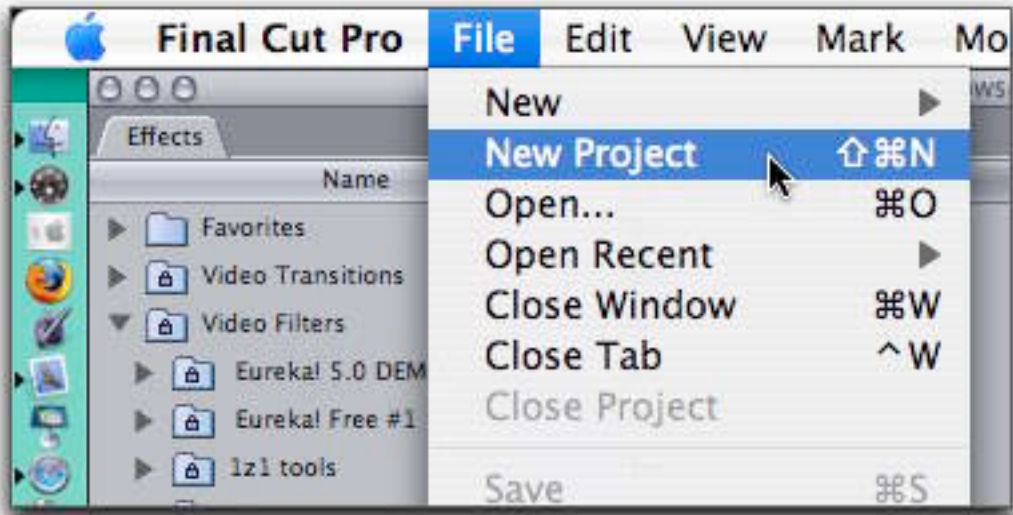
**3 Make a New Project**



**4 Adjust Sequence Settings to 24p**

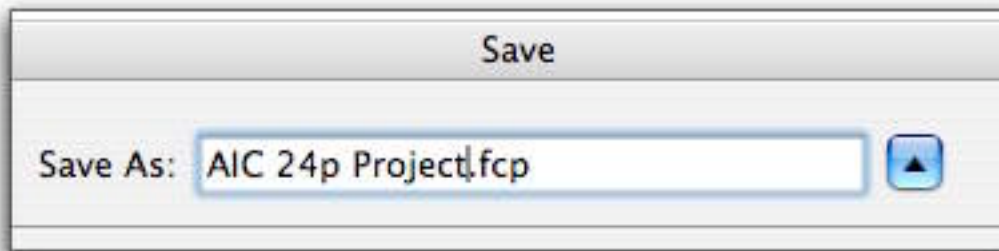
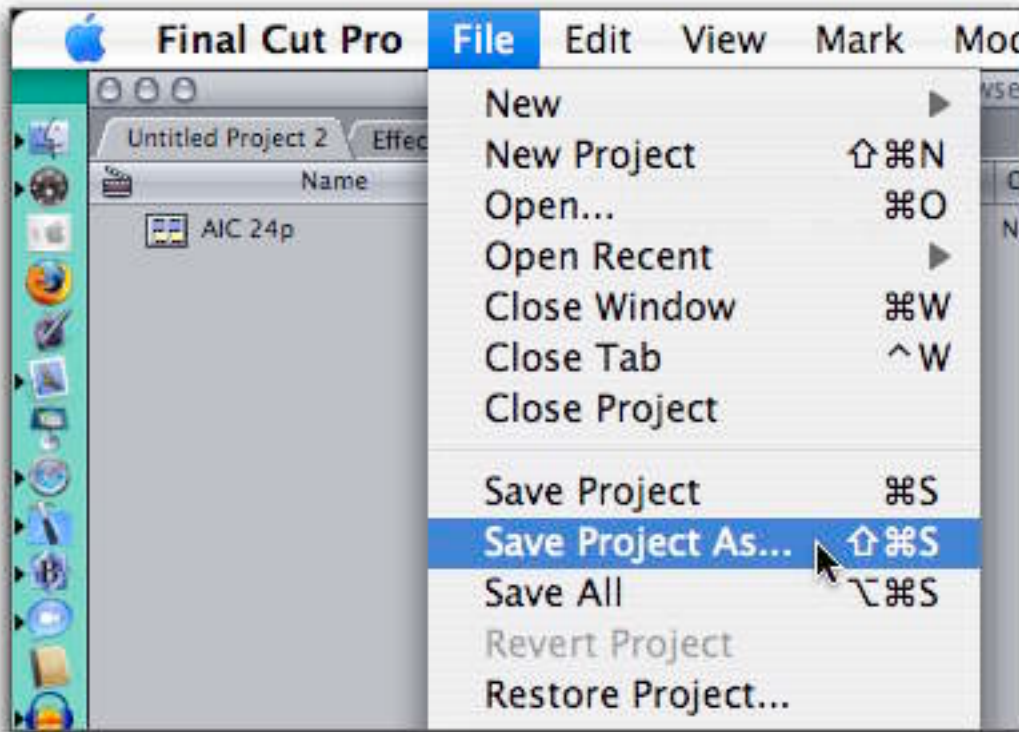
The timeline we've just created in the project has a timebase of 29.97, which must be changed to 23.98fps before we edit any footage. You must do this for every new sequence you create, or make your own preset for this kind of project.





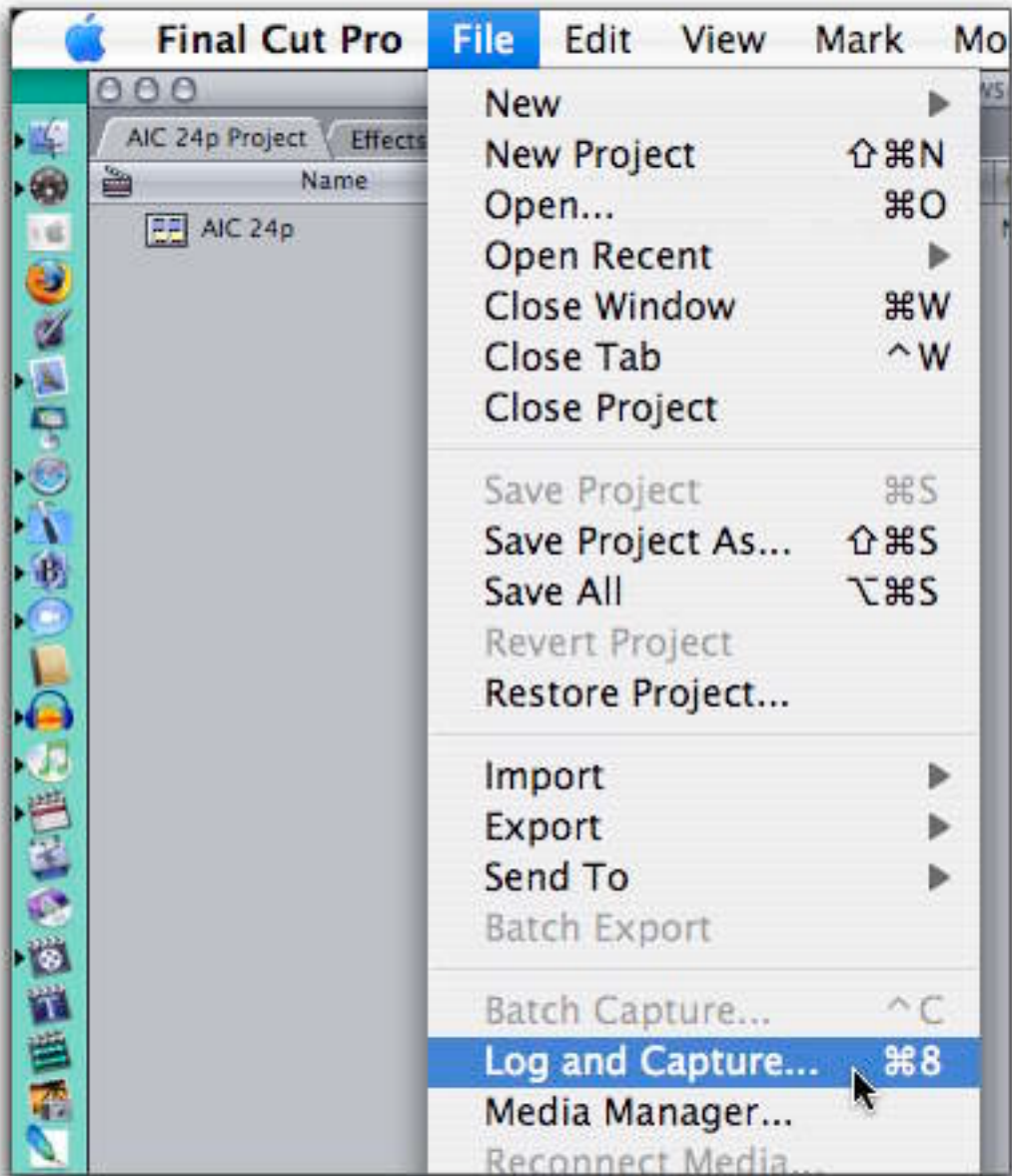
## 5 Save Project

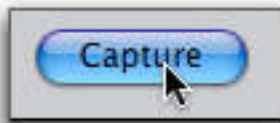
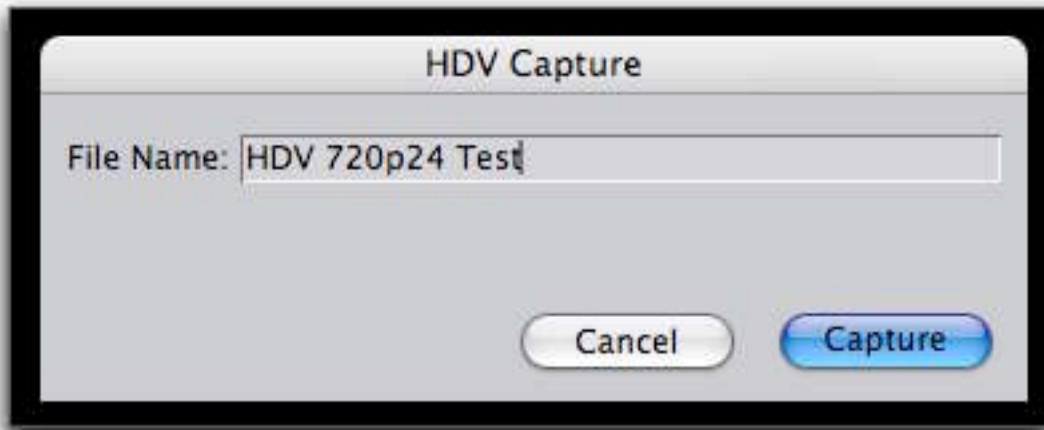
To ensure the captured media goes into a named project folder, it's wise to save the project now.



## 6 Capture 720p24 HDV to AIC

Initiating "Log and Capture" will start the capture process. You don't get deck controls in FCP, so be sure to connect your deck or camera to a monitor so that you can see what is happening. You will have to cue the video manually using the controls on the deck or camera. You must also assign a capture name before capture commences.

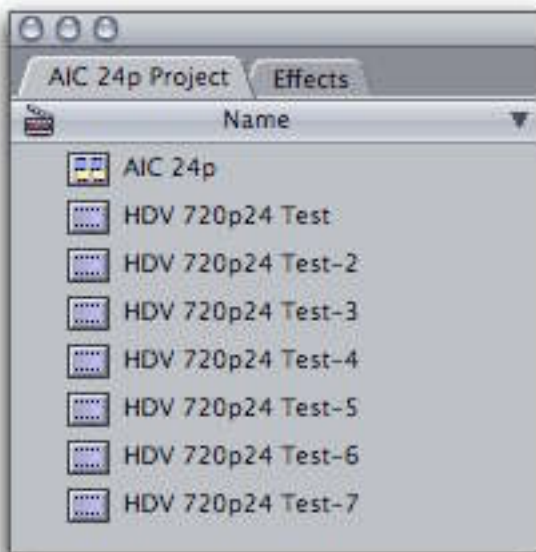


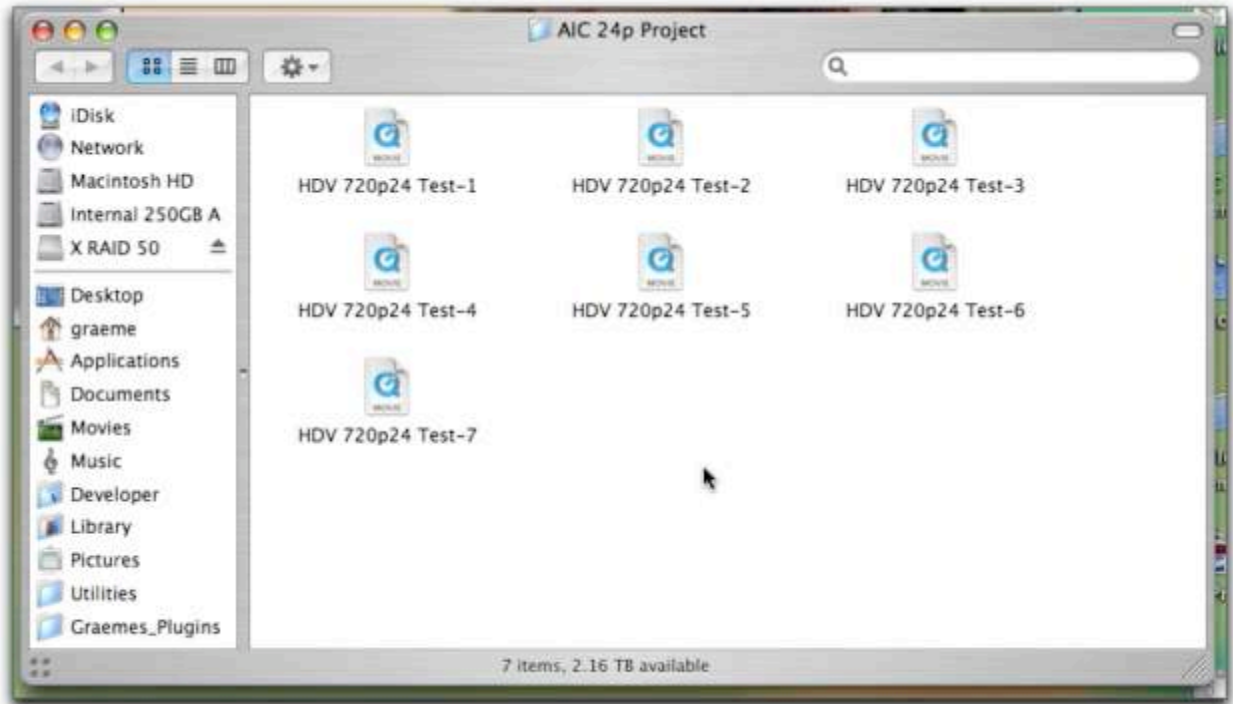


When the capture button is pressed, whatever video is currently playing will be captured. Press “escape” to stop capturing.

### **7 FCP splits the capture into a sequence of clips**

Due to the MPEG2 GOP structure, all captures are split into clips upon capture. We will use a batch process to convert them all to 24p at once.





## Conform 59.94fps to 23.98fps in Cinema Tools

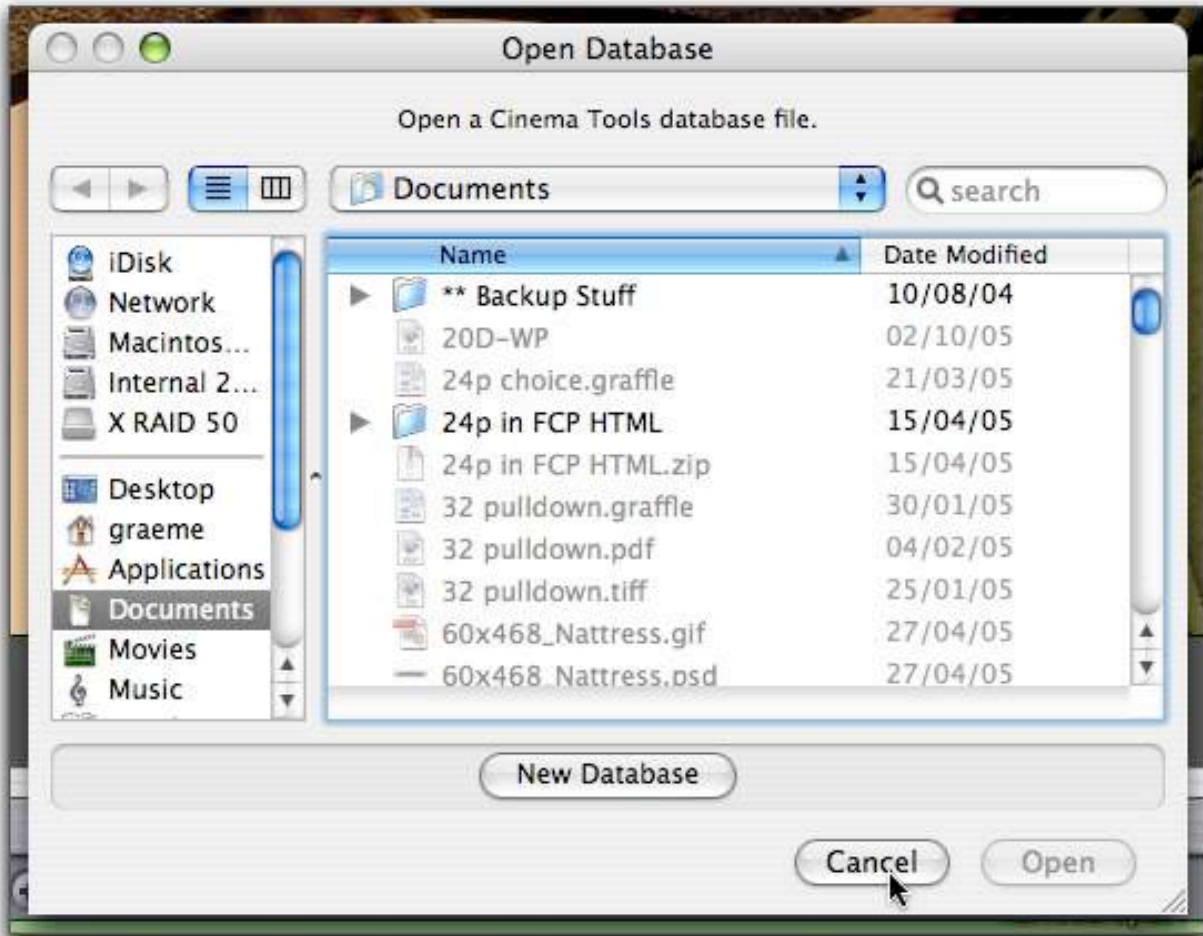
### 1 Open Cinema Tools

Cinema Tools has many features for dealing with 24p media. We will only using it's "Batch Conform" feature.



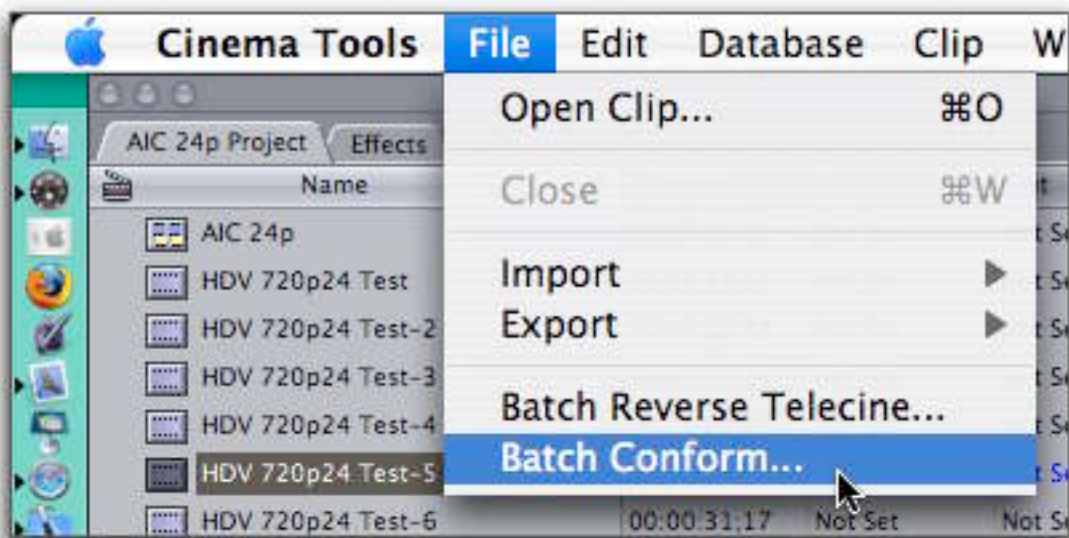
### 2 Cancel request for Database

We don't have or need a database, so hit cancel.

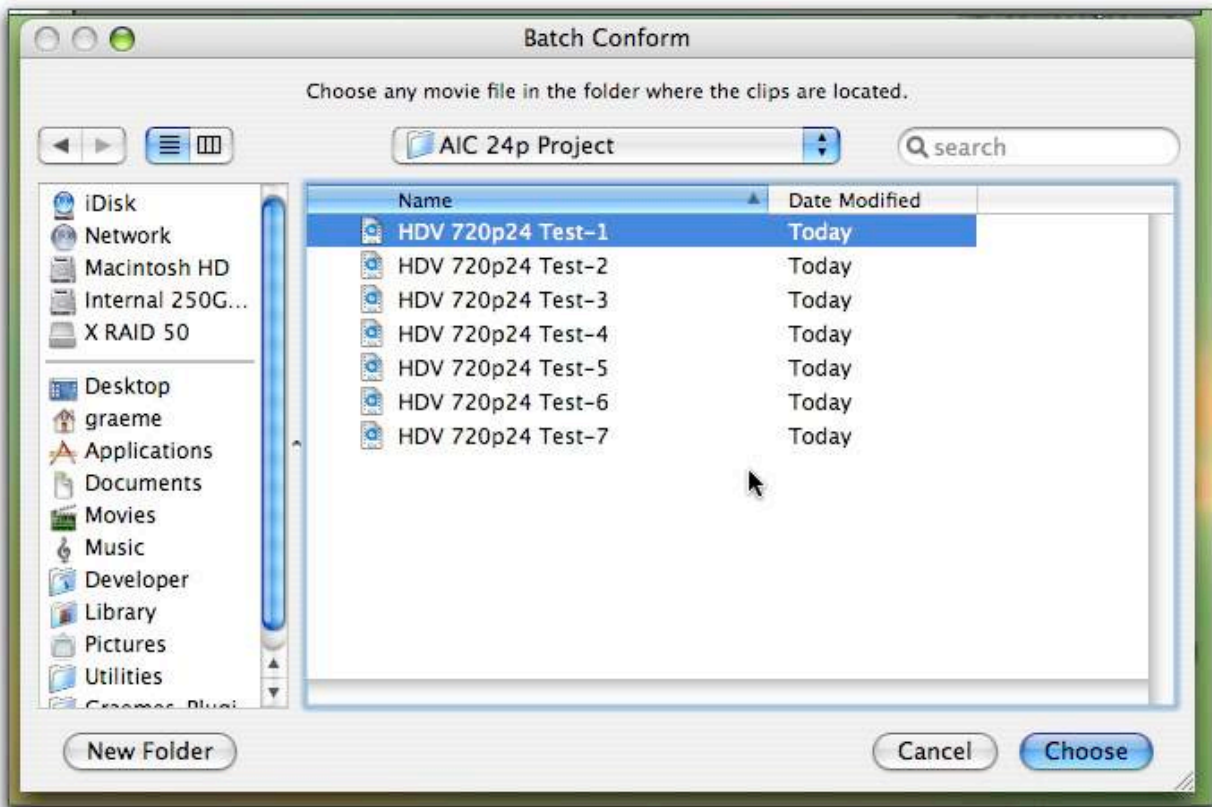


### 3 Batch Conform to 23.98fps

Select "Batch Conform".

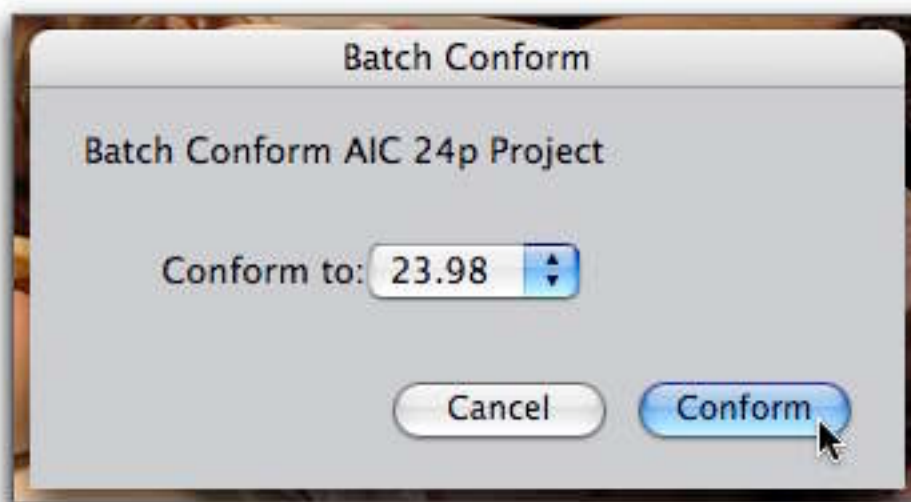


#### 4 Select a the Capture folder



#### 5 Conform to 23.98fps

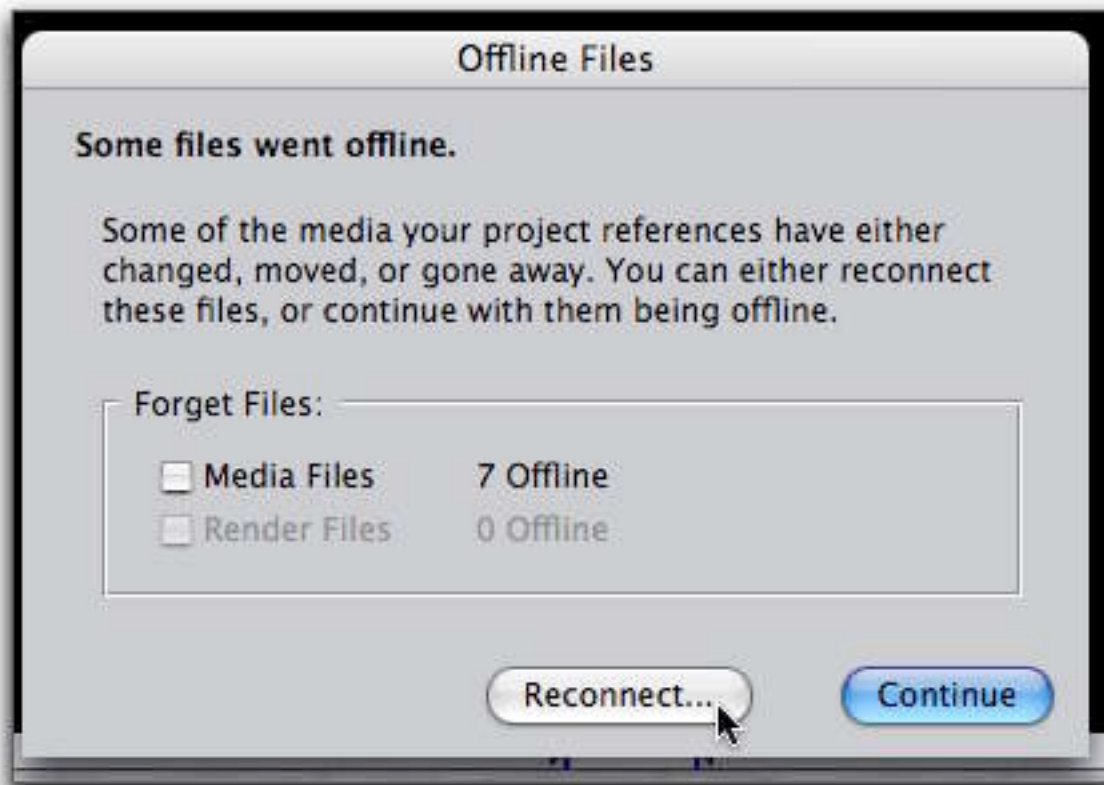
The precise video rate of 24p is actually 23.98fps.



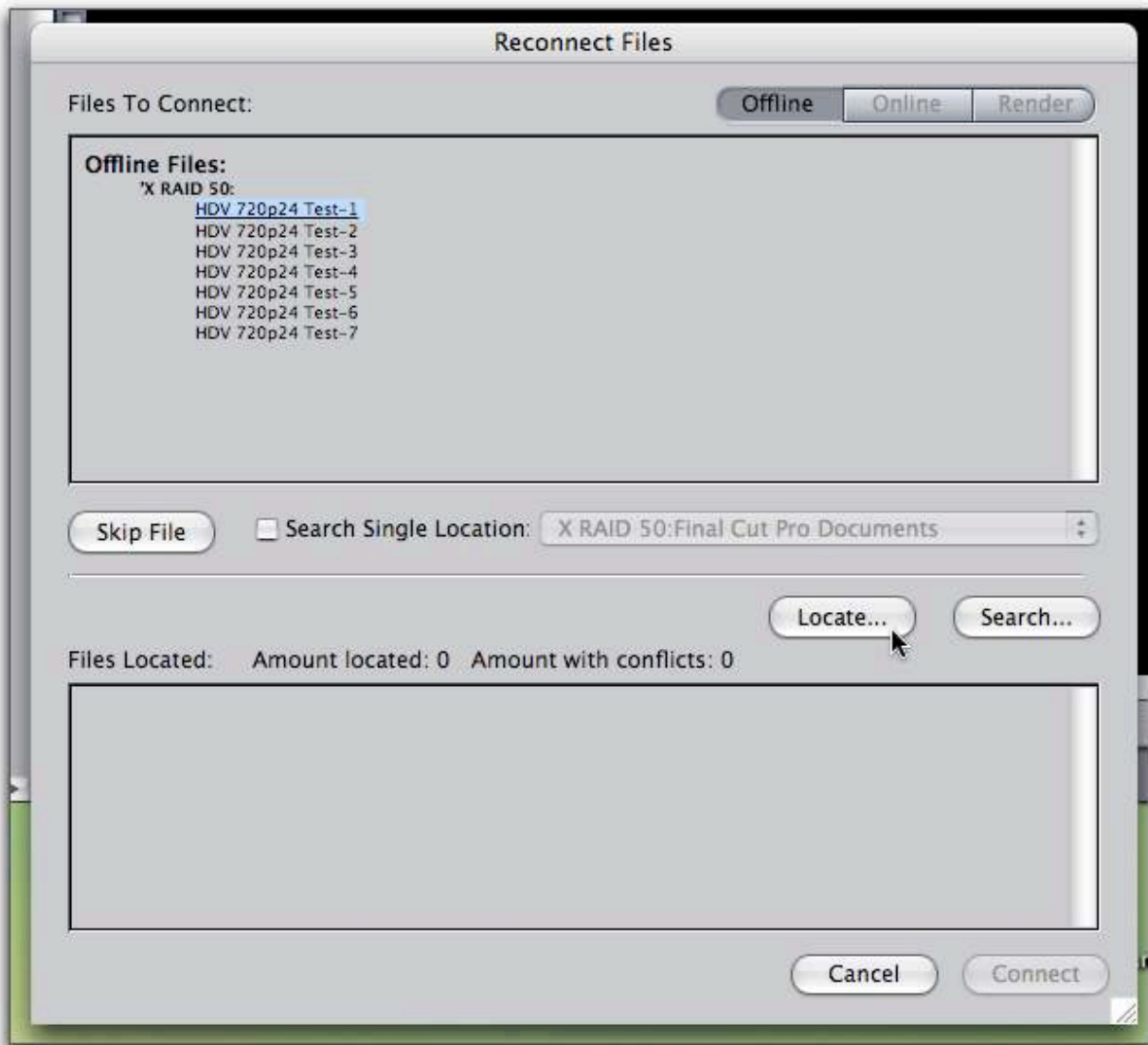
# Re-Link Media in FCP

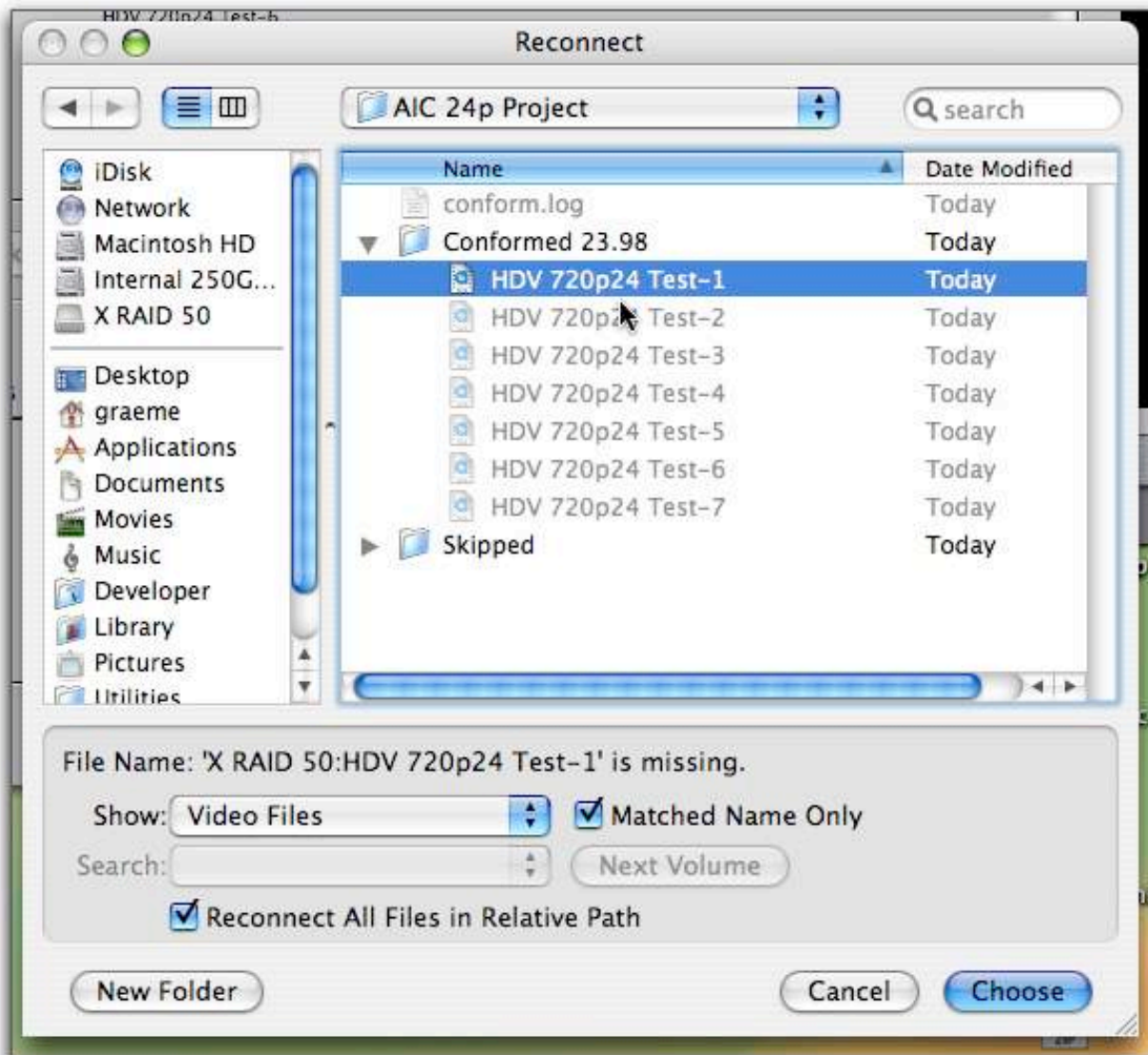
## 1 FCP says media is now offline

Because Cinema Tools moves the media in the conform process, we must re-link it in FCP.



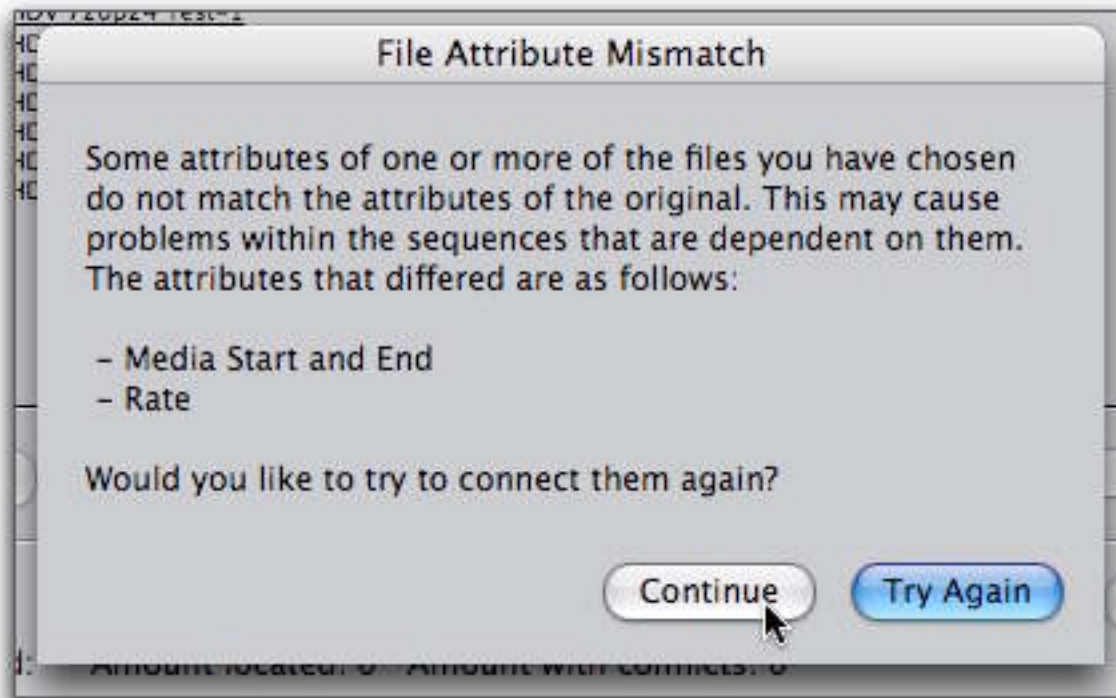
## 2 Ask FCP to reconnect



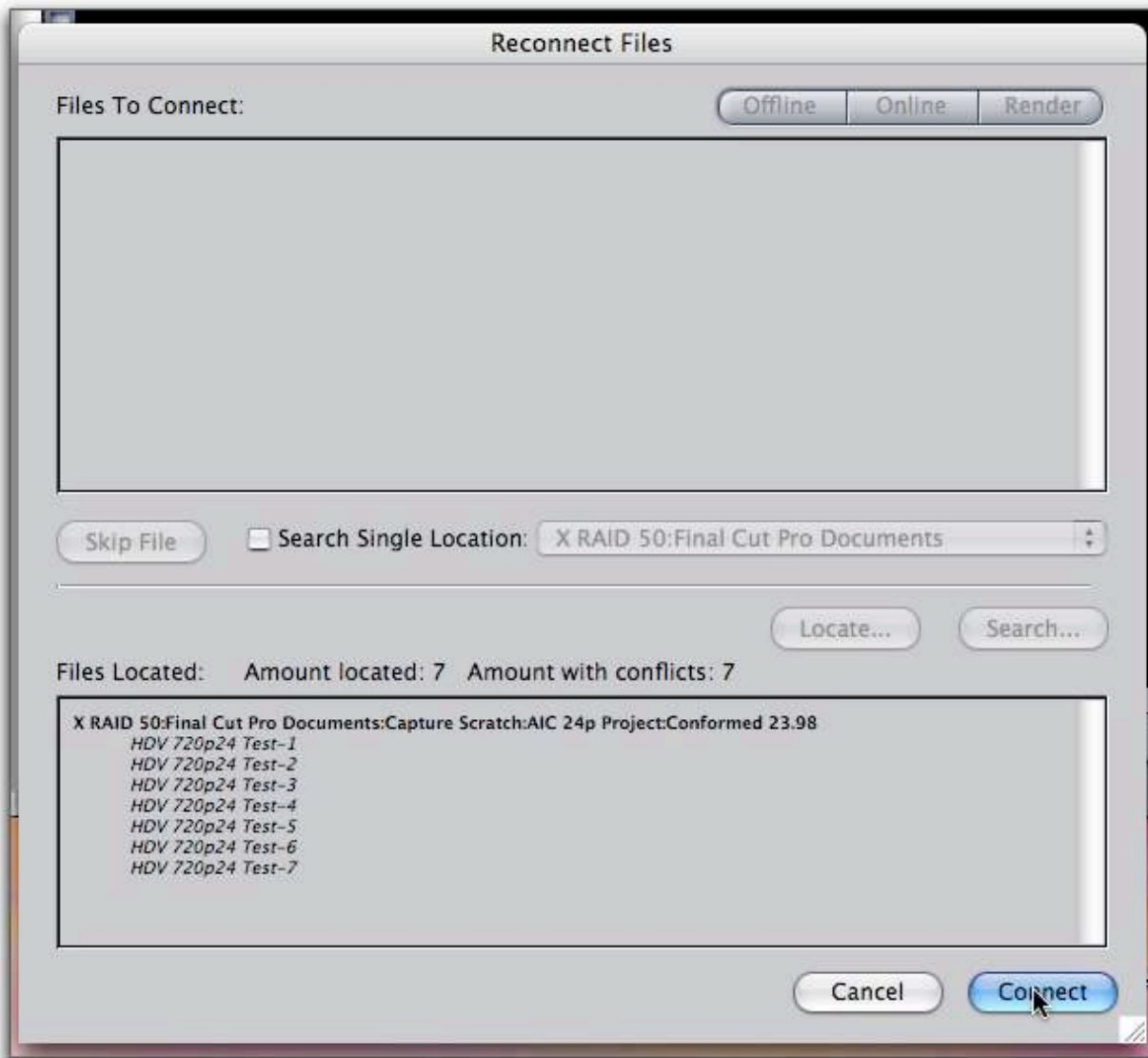


### 3 Mismatch due to now 23.98fps

Because the media was previously not at 23.98fps, FCP asks are we sure we want to reconnect them? Yes we are!



### 3 All files now reconnected



### 4 Now able to edit in 23.98fps timeline

You can now edit your 24p media on your 24p timeline.

