

You've locked picture. That's great, you're on your way. Now it is time for intensive sound editing and design. You need to get sound and picture out of Final Cut Pro X.

You will create two files out of Final Cut Pro X

- A Quicktime Movie optimized for working in Pro Tools
- An XML file to create an AAF using the program X2Pro Audio Convert

An AAF, or Advanced Authoring Format, is a multi media file format that allows the interchange of media and editorial metadata between compliant applications such as Final Cut Pro X and Pro Tools.

For our purposes, we will be creating an AAF that contains your sound edit in addition to a copy of the source media. Unlike the OMF file format, an AAF does not have a maximum file size. You may export all audio and editorial work as a single file.

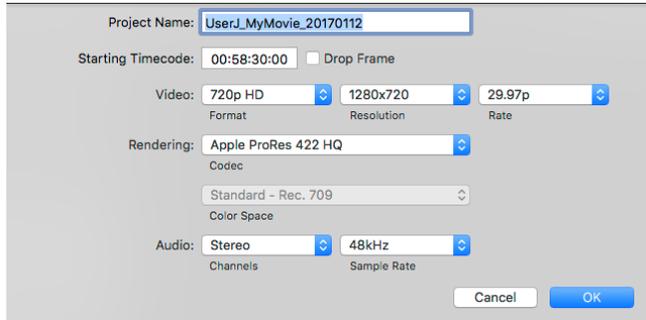
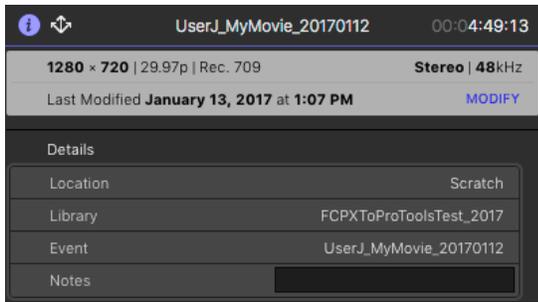
Before You Begin

1. In order to maintain sync throughout this process, ensure that you are using 1:30-long head leader and that your project timeline begins at **00:58:30:00**. Your leader also **MUST** include a 2-pop at **00:59:58:00**.

 FV Tech has created 1:30 leader files to match various project settings. They can be found in **fvcentral > Support > Leader [ProResHQ]**.



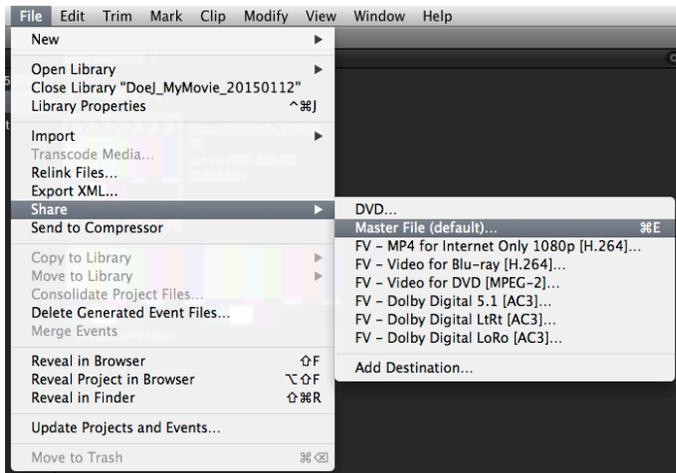
- To check your start time, select your project in the Browser. Click on the Inspector button () in the toolbar above the timeline to show the Info Inspector. Under the Info tab, click **Modify**. If your start time is not 00:58:30:00, adjust it here and click **OK**.



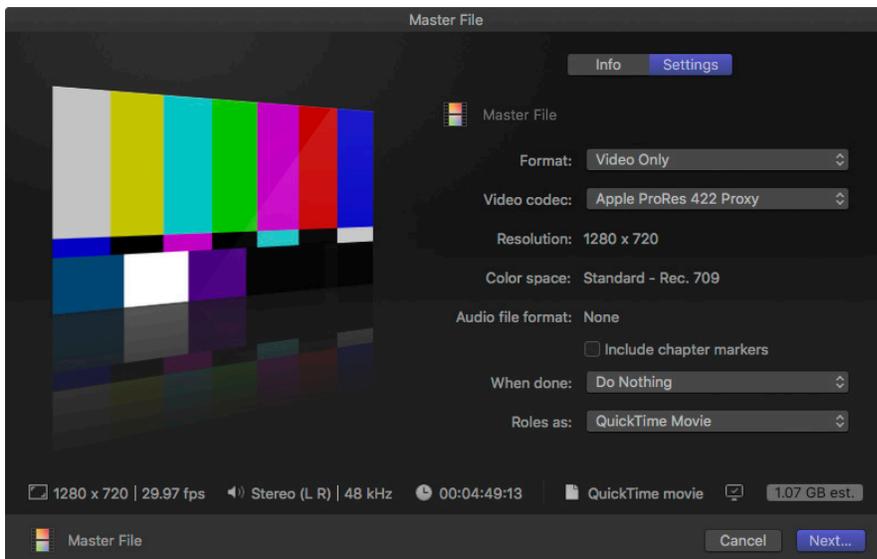
 If you modified the starting timecode of your project, make sure your picture begins at **01:00:00:00**. No picture or sound should be before **01:00:00:00**!

Exporting Image

- Select your project and go to **File > Share > Master File**.



- Click on the **Settings** tab in the Master File dialogue box. Select **Video Only** under Format, **Apple ProRes 422 Proxy** as the Video Codec. Uncheck **Include Chapter Markers**. Select **Do Nothing** under Open With (it will then change to When Done) and **QuickTime Movie** under Roles As. Click **Next**. Set the destination of your export and click **Save**.



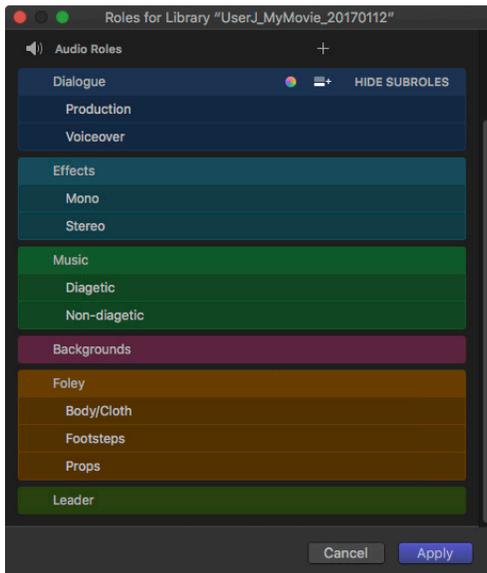
Exporting Sound

An XML file has to be exported from FCPX to then create an AAF file in another program, X2Pro Audio Convert. There are a few steps to make sure all audio will be included in the AAF.

 Audio effects will not carry over in the XML file to the AAF. Only edits and volume changes will be properly included in the AAF. Fades are preserved in Pro Tools as volume automation; expect to have to recreate any specific choices. Panning choices do not carry over. Reversed audio clips do not carry over. Re-timed audio clips carry over only at normal speed. It is recommended to do the bulk of sound editing and design in Pro Tools, rather than in FCPX.

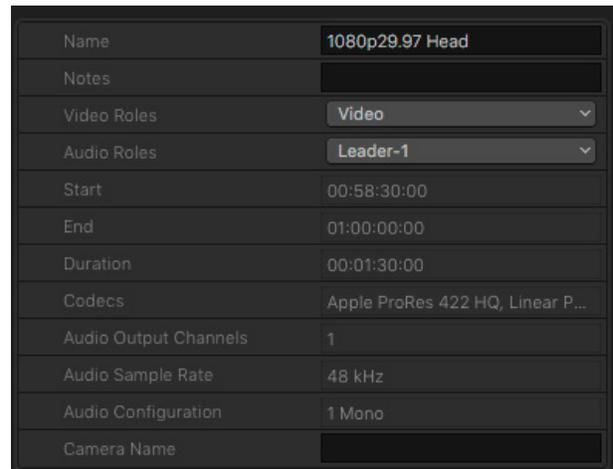
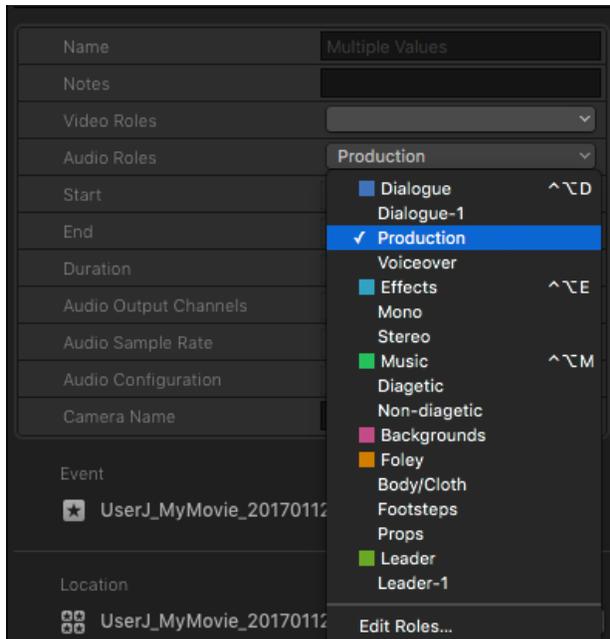
 In order to create the AAF file, X2Pro must reference your FCPX library via the same filepath used when exporting the XML file. In other words, DO NOT move your FCPX library during this process!

1. It is recommended to group audio using Roles in FCPX. This will allow for easier organization during and after the transfer to Pro Tools. The default audio roles in FCPX are **Dialogue**, **Music**, and **Effects**. Additional roles and/or subroles can be created if needed (for example if your film has multiple characters with dialogue, you can make a role for each, or a dialogue subrole for each). Audio roles effectively translate into track names and clip placement in those tracks in Pro Tools. This will make things much easier when moving these clips into the FV Edit Template tracks.
2. To make additional roles, go to **Modify > Edit Roles...** In the Role Editor window, click on the plus button next to Audio Roles. Name the new audio role and repeat as necessary. To add subroles, hover to the right of the roles and click on Show Subroles. Then click on the small box with a plus sign to add a subrole. When done, click **OK**.



 Don't forget to make a new role for the head leader!

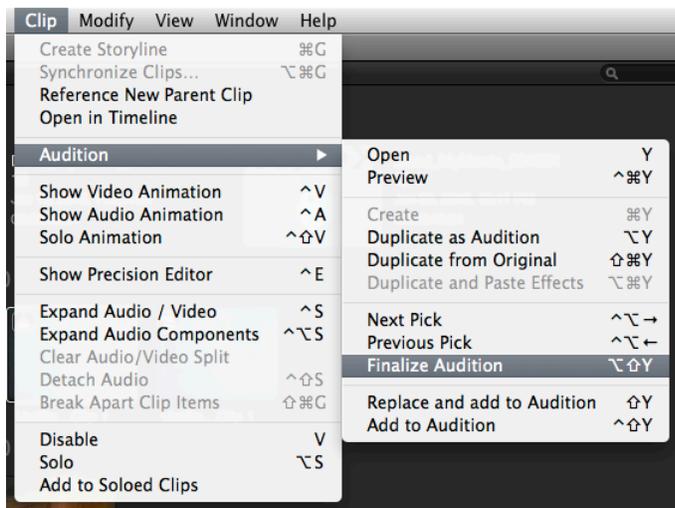
- In the timeline, select all the audio clips that need to be assigned to a specific role. Click on the **Info** tab in the Info Inspector and choose a role to assign them to. Be sure to assign your leader audio to its role.



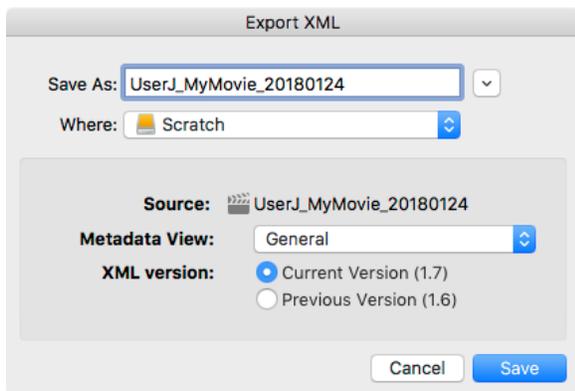
 If your video clips have audio attached to them, be sure to assign audio roles to them as well!

- Make sure to finalize any auditioned clips. If clips are left in auditioned, they will not transfer correctly in the XML file. To finalize auditioned clips, select the audition in the timeline and go to **Clip > Audition > Finalize Audition**.

 You can double check that all your auditioned clips are finalized by selecting all clips and when you go to Clip > Audition, Finalize Audition is greyed out.



- Now it is time to finally export the XML file. Select the project. Go to **File > Export XML...** The Export XML dialogue box will open. Set the destination and choose the **General** option for Metadata view. Click **Save**.



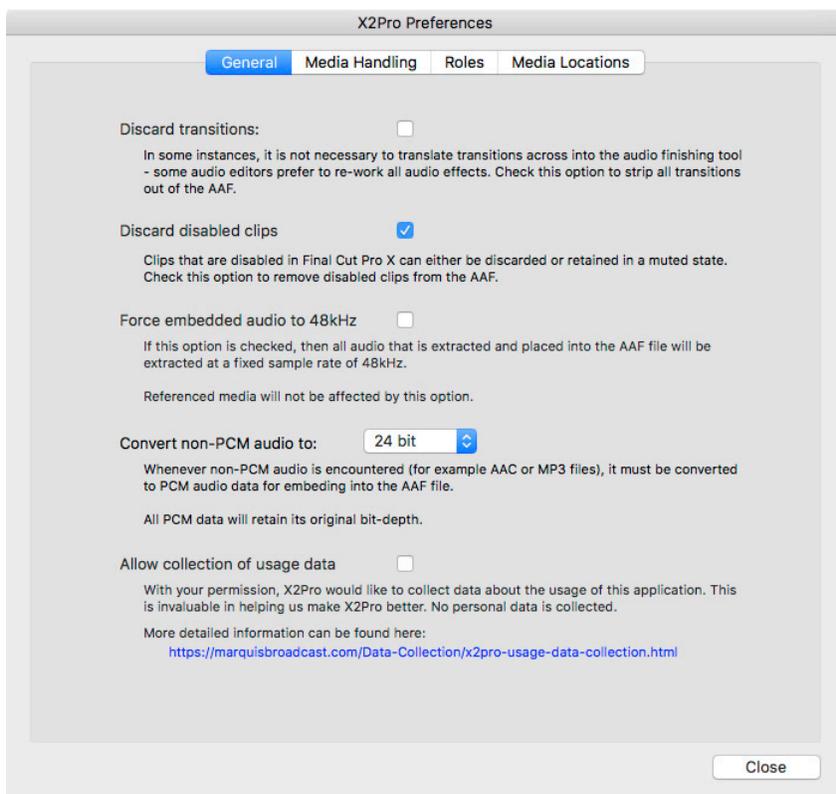
! DO NOT move your FCPX library after the XML export and before the X2Pro conversion process. X2Pro looks for the specific filepath associated with your FCPX library and connected media at the time of XML export; if the filepath(s) do(es) not match, X2Pro will be unable to find your media, even if it is contained entirely in your FCPX library.

Making an AAF in X2Pro Audio Convert

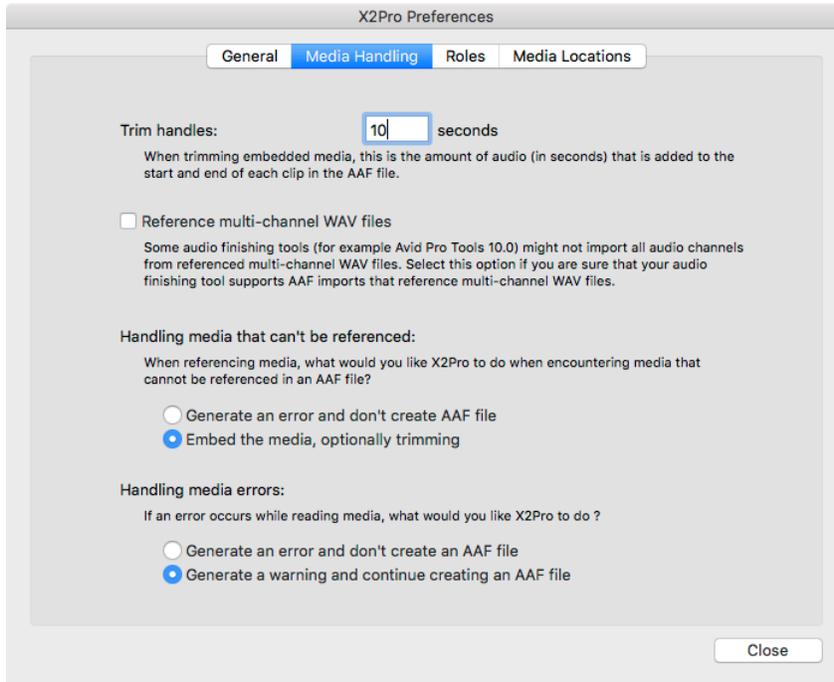
- Launch X2Pro Audio Convert. Go to **X2Pro Audio Convert > Preferences**.

☀ X2Pro Audio Convert has been installed on only a few systems: E49, E55, E104 Mac 1 & 2, and E105 Mac B, O, & Q (the teaching station). Plan accordingly.

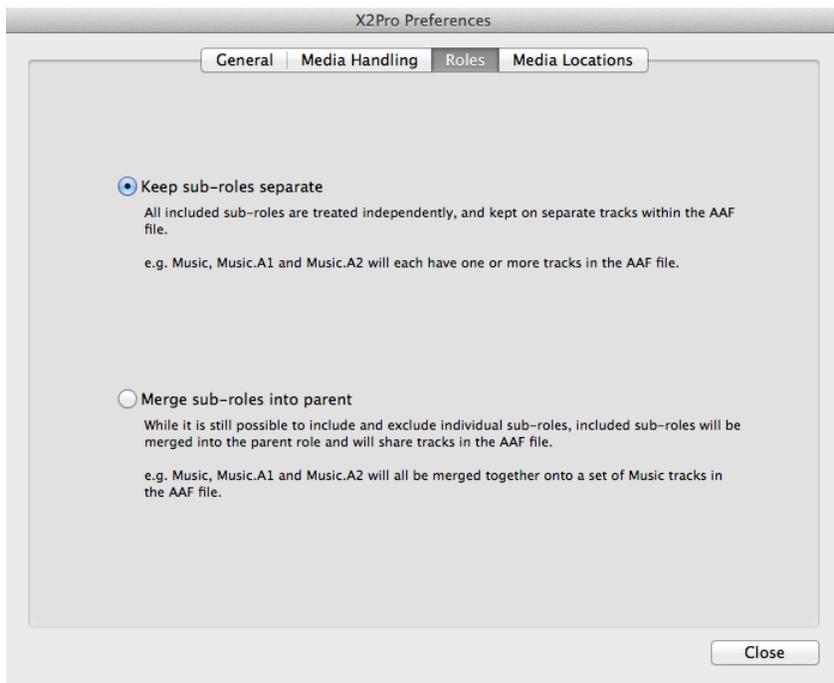
- In the General Tab, make sure **Discard disabled clips** is checked and change the Convert non-PCM audio to **24 bit**.



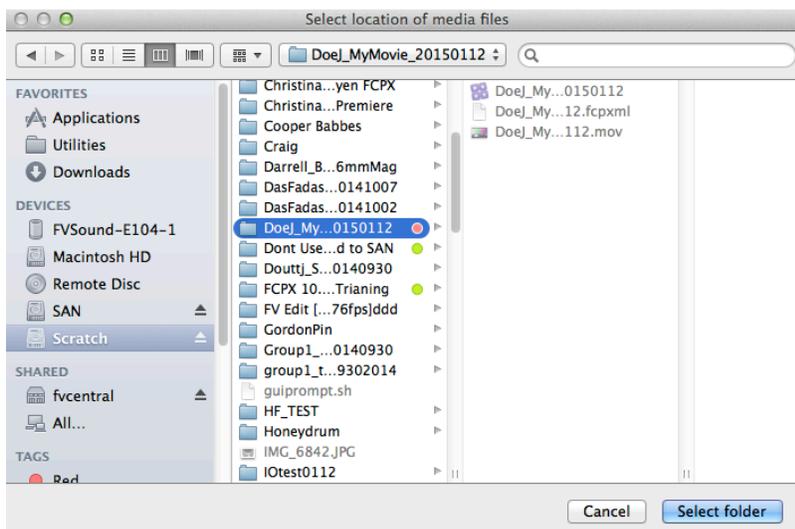
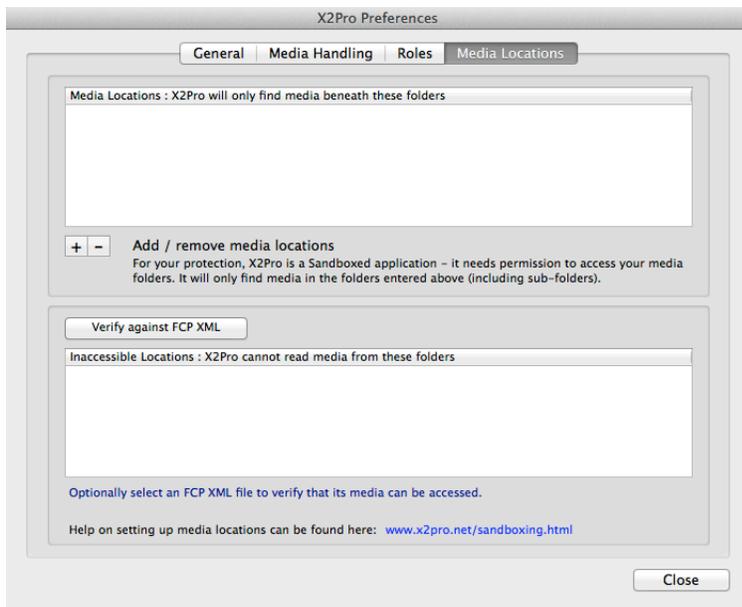
3. In the Media Handling tab, change the trim handles to **10** seconds. Make sure **Reference multi-channel WAV files** is unchecked and **Embed media, optionally trimming** is checked under Handling media that can't be referenced. Under Handling media errors, check **Generate a warning and continue creating an AAF file**.



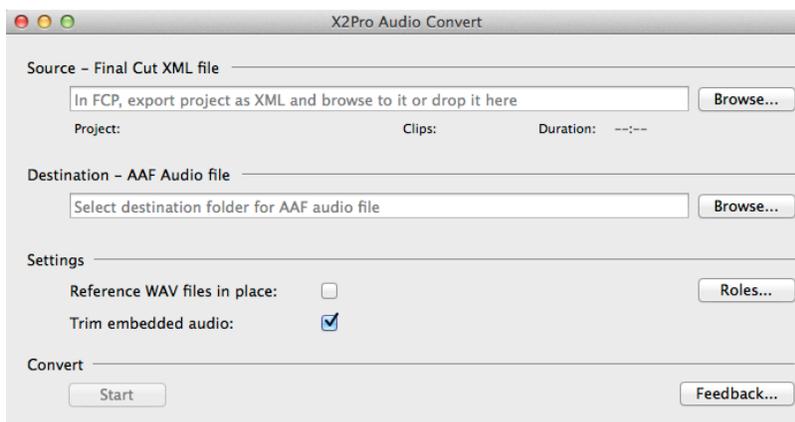
4. In the Roles tab, make sure **Keep sub-roles separate** is selected.



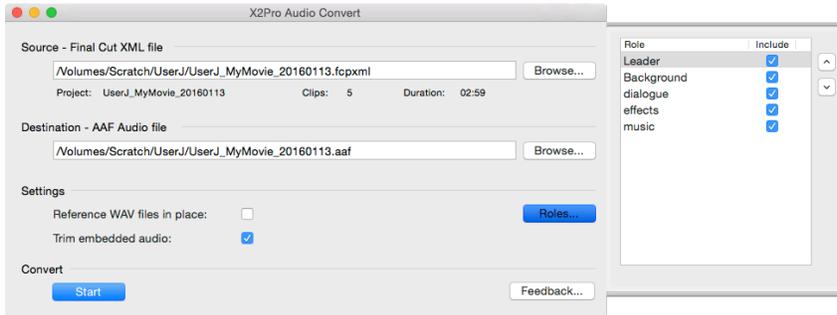
- In the Media Locations tab, the media location has to be added. Click on the + button and find the folder with your FCPX library. Click **Select Folder**. This will give X2Pro Audio Convert access to the audio files.



- Click **Close**.
- In the X2Pro Audio Convert dialogue box, select the source by clicking **Browse**. Find the XML file and click **Open**. Set a destination for the AAF. Under the settings, check **Trim embedded audio**.



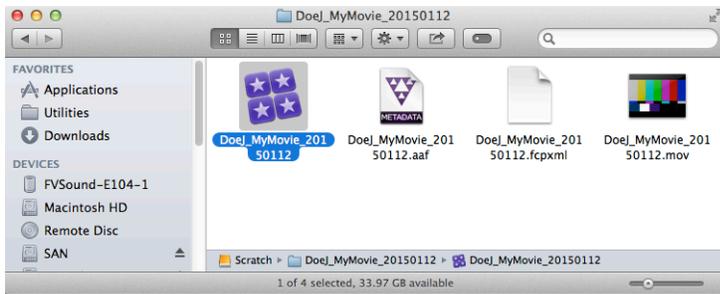
- To check what Roles are in the XML, click on **Roles**. A side menu will pop out with a list of the Roles that will be carried over to the AAF. To close this list, click on **Roles** again.



- To convert the XML to AAF, click **Start**.

⚠ A window listing the details or errors during the conversion process will pop up. It may be useful to copy and paste or screenshot the details in case you need to return to FCPX and make changes.

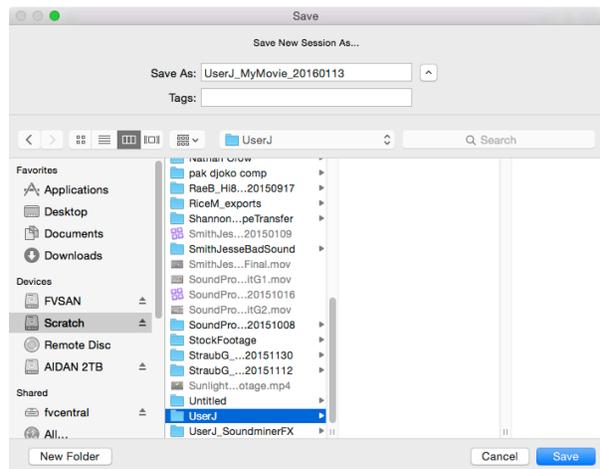
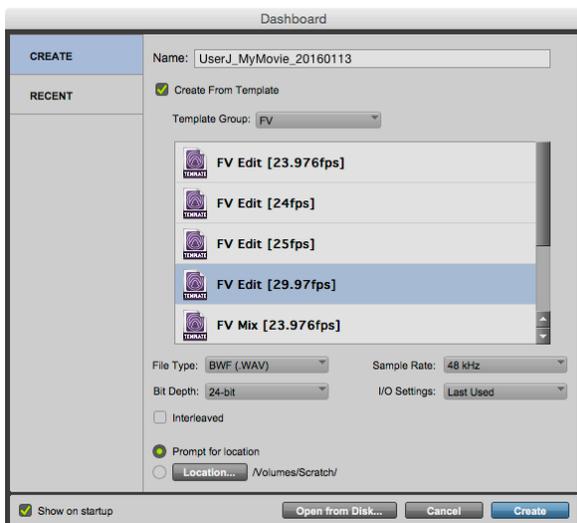
- X2Pro will create an AAF in the folder destination.



Importing AAF File into Pro Tools

- Launch Pro Tools. Check **Create from Template**. Choose an FV Edit template which matches your project frame rate. Ensure that File Type is set to **BWF (.WAV)**, Sample Rate is set to **48kHz**, and Bit Depth is set to **24 Bit**. Leave I/O Settings on **Last Used**. Make sure **Interleaved** remains unchecked and **Prompt for Location** is checked. Click **Create** and select a destination for your Pro Tools Session folder, then click **Save**.

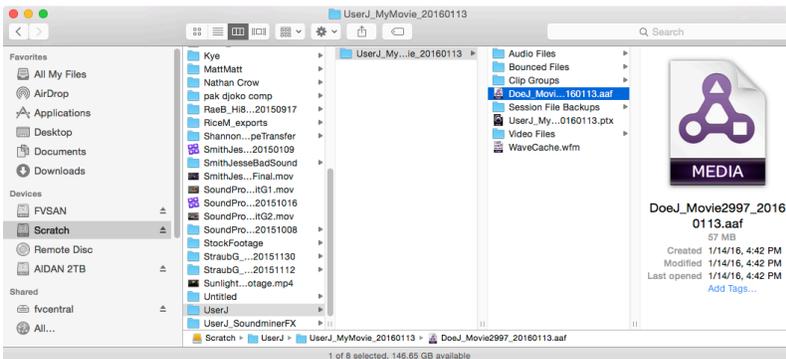
⚠ Be sure to save your session onto the scratch drive or your external drive. Remember, home folders are deleted at log out!



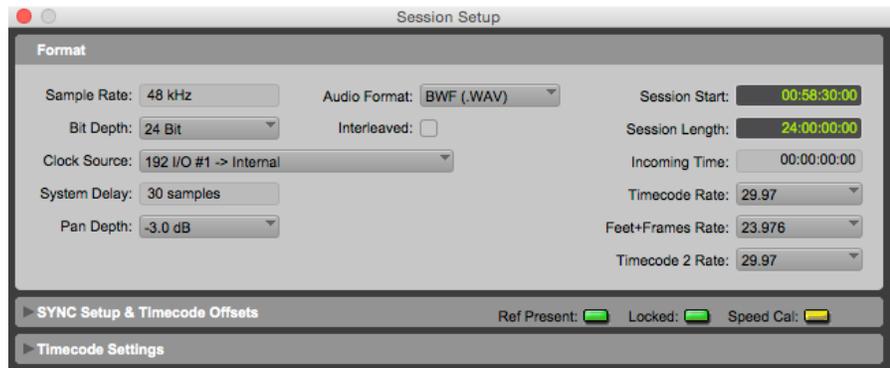
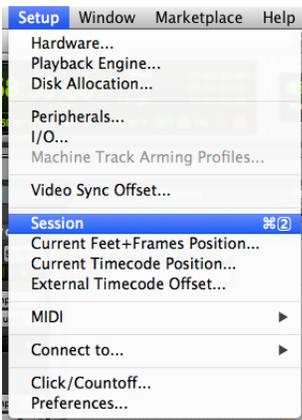
- The Edit window of your Pro Tools session will come up. Take a moment to look over the track organization of the FV Edit template.



- Before importing your AAF file, copy it from the location you specified during the export into your newly created Pro Tools Session Folder. This ensures that the media for your Pro Tools Session is always in the same location.



- Now go to **Setup > Session** and check that the Session Start reads **00:58:30:00** and the Timecode Rate matches your project frame rate.

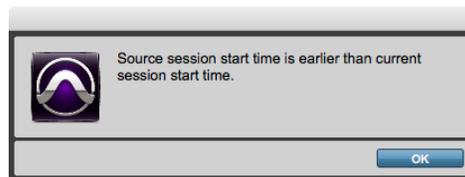


5. Click on the name of the **Sync Pop** track to select it. This way, the imported tracks from your AAF file will appear directly between **Sync Pop** and **Dlog 1**.

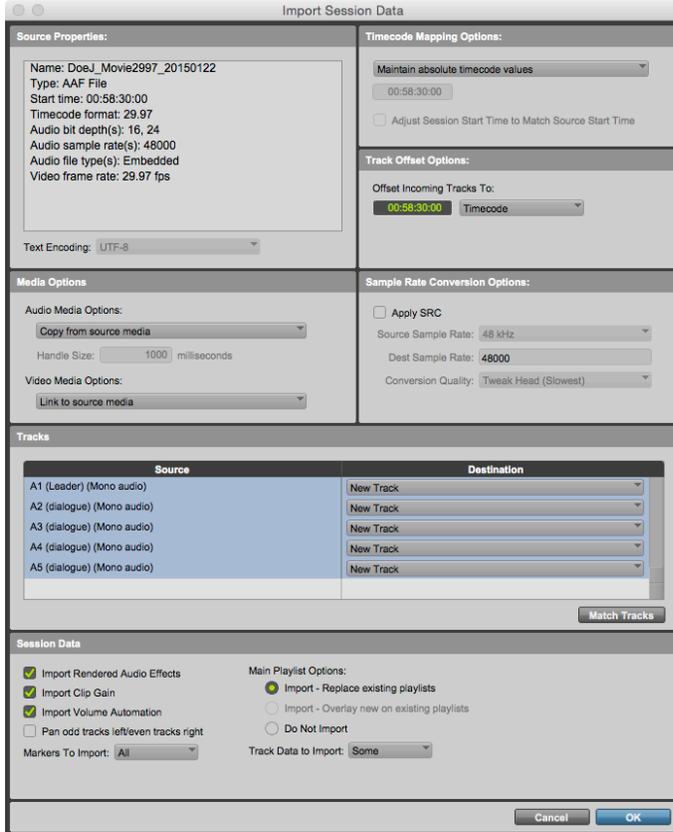


☀ Imported tracks appear directly below whatever track you have selected prior to import. If you need to move a track, click on its name and drag it to the desired location.

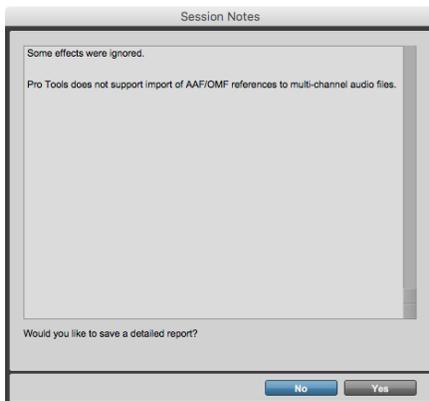
6. Now to import your copied AAF file. Go to **File > Import > Session Data**. Select the AAF file from your Pro Tools Session Folder. Click **Open**. You may get a message saying that the source start time is earlier than the current session start time. This is not a problem as long as your FCPX timeline begins at 00:58:30:00, matching the Pro Tools session start time.



- The Import Session Data window will open. Review Sources Properties. Then Set Timecode Mapping Options to **Maintain absolute timecode values**, unless it is grayed out, in which case select **Maintain relative timecode values**. Note that maintaining relative values will only work properly if you are using 1:30-long head leader. Set Audio Media Options to **Copy from source media**. Then check **Import Rendered Audio Effects, Import Clip Gain, and Import Volume Automation**. Click **OK**.



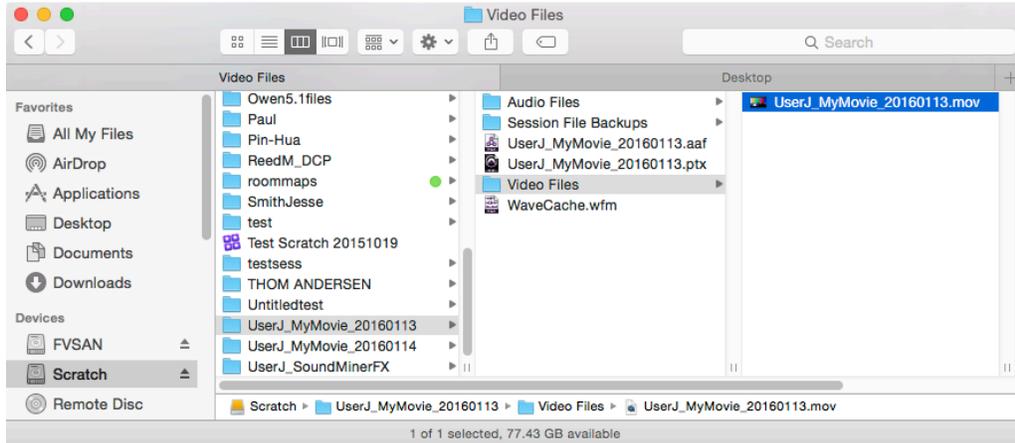
- A Session Notes window may open saying “Some effects were ignored.” and “Pro Tools does not support AAF/OMF references to multichannel audio files”. This is fine; audio effects have already been rendered into new clips and any multichannel audio files you exported have been split into mono. Do not save a detailed report: click **No**.



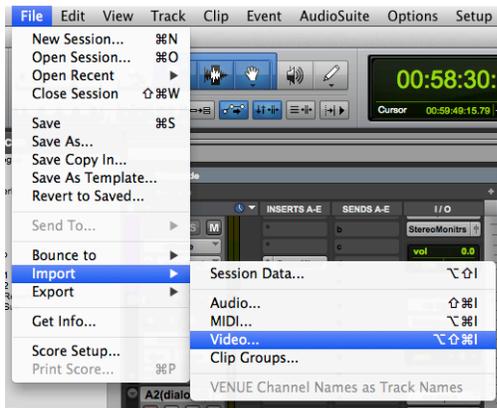
- Your Protools Session Edit window will now display your imported tracks and clips. Pro Tools will link the clips to the media in the AAF and then draw their waveforms. This may take several minutes to complete, depending on the size of your project.

Importing Video into Pro Tools

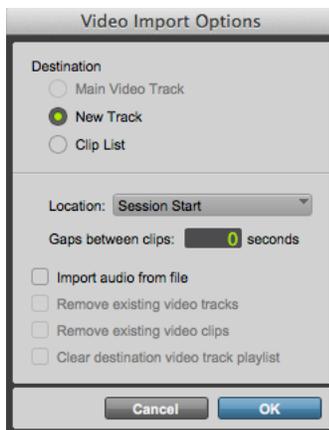
1. In the Finder, locate the video reference file that FCPX generated. Copy it into the Video Files folder in your Pro Tools session folder.



2. In Pro Tools, go to **File > Import > Video** and select the video reference file that you just copied into the Video Files folder in your Pro Tools session folder. Click **Open**.



3. The Video Import Option window will open. Ensure that Destination is set to **New Track**, Location is set to **Session Start**, **Import audio from file** is unchecked. Click **OK**.



4. Your video will appear in the Protools Session Timeline. To ensure sync, you must check that the 2 frame of your video leader lines up exactly with the 2 Pop from your AAF. Click on the Main Counter and type in **00595800**. Press **Enter**.



 You can also get to the 2 pop by simply clicking on the yellow diamond **2 Pop** marker.

5. Zoom into the waveform of the leader. If the 2 frame and the sync pop from the leader align, you're in business.

