AVID - Creating Subtitle Deliverables for Film Festivals and Packages

The purpose of this wiki is to demonstrate how to export your title media in Avid Media Composer and re-purpose them into a valid SubRip (.srt) subtitle file used as a standard for many video media playback software.

This you tube video will help here too

and this

https://gotranscript.com/subtitle-converter

NOTE use the above two tools for making a .srt the information after this text is old and will only work on AVID Versions 2019 and older.

This information after this for archival information only.

The Problem: Avid Media Composer is a powerful non-linear editor which allows you to create professional audio and video content which can be exhibited via a variety of media venues. As these venues continue to evolve digitally, new deliverables types such as DCP, H.264 MP4, and auxiliary metadata are being required from the content creator. However, generating Avid metadata that can act as suitable subtitle information can be exhausting and time-consuming. Often, users mistake subtitle data with open captioning data (.stl) files using the AVX SubCap Generator Effect. Though this is extremely useful for the broadcast television and video-on-demand markets, it is not the type of file we need for video media players like VLC Media Player. VLC Media Player is often the choice for media playback for many new festivals as it can both easily detect and playback SubRip (.srt) text files [which essentially are compromised of two values: timecode and text.]

The Solution: In just a few simple steps, we can step out of the Media Composer and use the scripting abilities in Adobe After Effects to generate a perfectly timecoded SubRip (.srt) file.
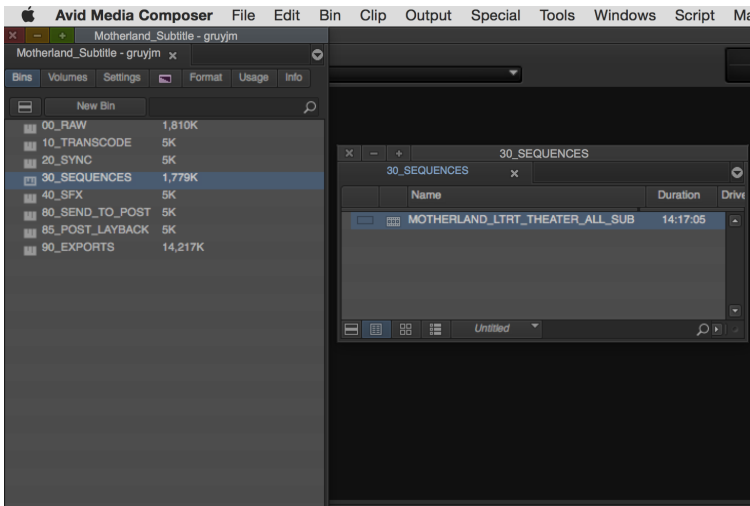
Disclaimer: You will need to utilize several sets of tools to achieve this workflow. The Moody College of Communication has already pre-installed these in many of our digital media labs. However, if working elsewhere, you will need to have administrative access in order to complete the steps in this wiki.

We will need the following software:

- Avid Media Composer Application (version 7 and up)
- Avid Media Composer - a locked, completed Master Sequence with all rendered VIDEO and EFFECTS on Track V1 and all TITLE MEDIA (created with either the TITLE TOOL or the AUTO TITLER TOOL) on Track V2. AUDIO is typically a Dolby Stereo LtRt Downmix on Tracks A1 and A2. Don't forget to PAN those MONO audio tracks to LR!!
- Adobe After Effects (version 5.0 and up) - Click here to sign-up for a limited free trial version of Adobe Creative Cloud which includes After Effects CC
- A copy of the Text Generating AE Script - Click here to download the script file (.jsx)
- The latest version of the VideoLAN VLC Media Player for your operating system

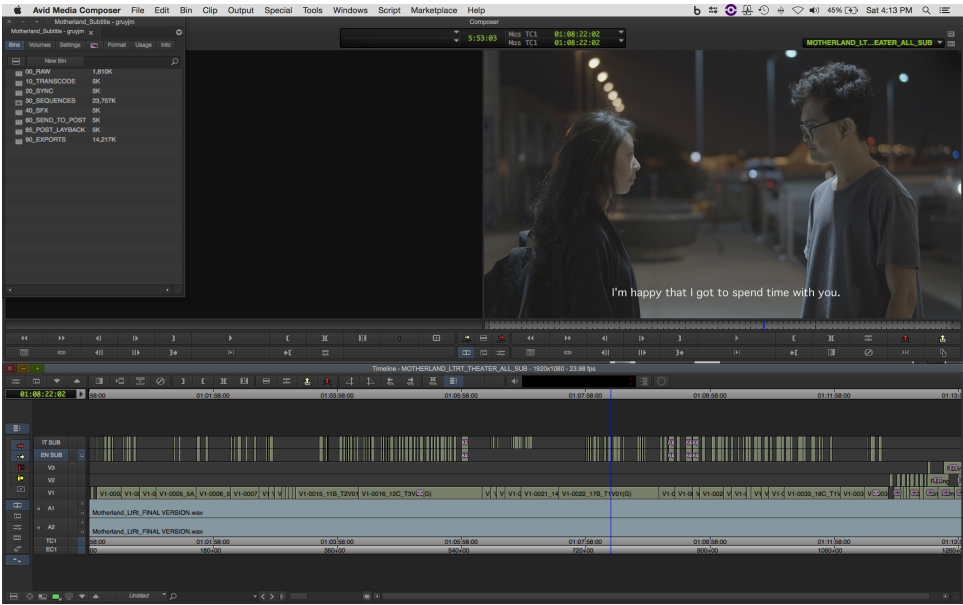| PART ONE: AVID MEDIA COMPOSER - PREPARING SEQUENCES AND TITLES TO EXPORT	

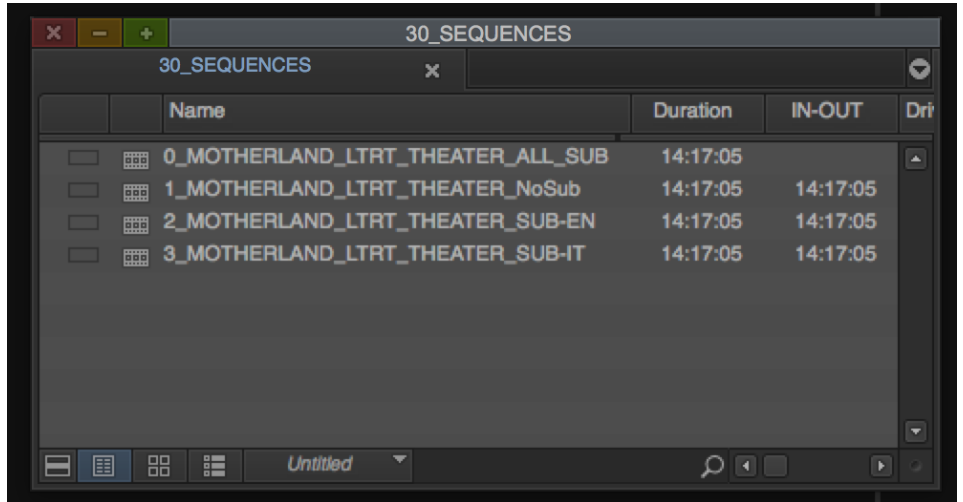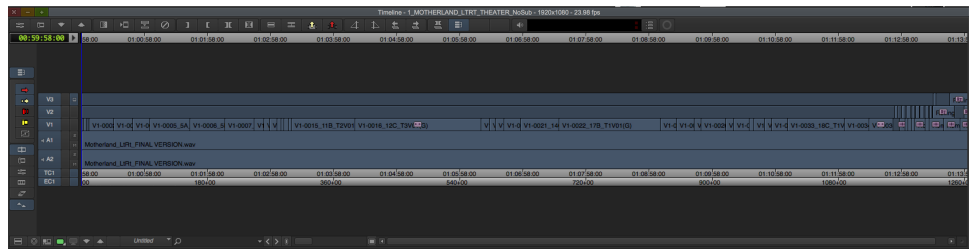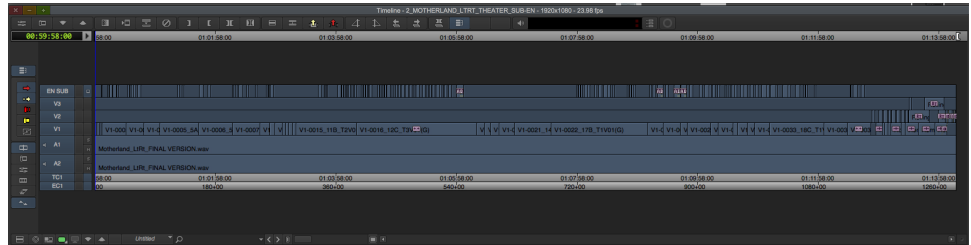|	
1.) In Avid Media Composer, OPEN the BIN containing your fully rendered MASTER SEQUENCE we need to export as the screening deliverable.	
2.) Notice how I have everything fully rendered and organized, especially in regards to my Title Media Tracks. In this instance, I have two language tracks - one for English and one for Italian. The Festival has asked me for three deliverables: 1. a textless master Quicktime movie 2. a separate English SubRip (.srt) subtitle file 3. a separate Italian SubRip (.srt) subtitle file I'm going to start by DUPLICATING this MASTER SEQUENCE for each deliverable	
3.) I have 4 sequences now. I will rename each one to make sense of each one of my deliverables. I'll also include numbers to chronicle the order in which I export them.	
3.) Now that I have my logic, I need to remove content from Sequences 1-3. I'll delete unnecessary tracks per the parameter of each deliverable. See below:	

1. MY TEXTLESS MASTER	
2. MY ENGLISH SUBTITLES	
3. MY ITALIAN SUBTITLES	
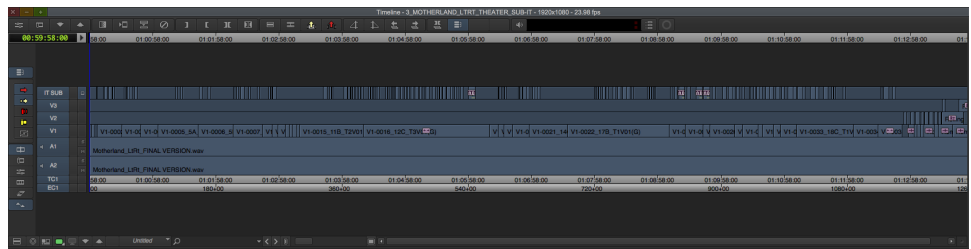
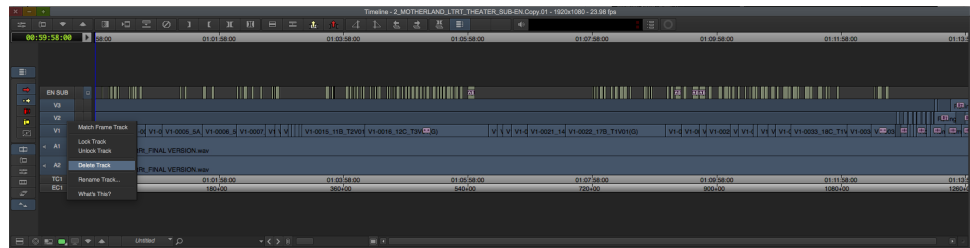|	
4.) Firstly, let's export a Master Intermediate Quicktime Movie (if you don't already have one!) Most MASTERS should be TEXTLESS. Click here to review documentation on how to export a DNxHD Quicktme Movie. ***Regarding Colorspace ranges (709-Legal vs RGB-Full) contact either the Festival or the entity requesting the deliverable so they may provide you with the correct technical specifications of what they want/need! Never assume!!**	 MOTHERLAND_LTRT_DNXHD_TEXTLESS.mov QuickTime movie - 160 KB Created Today, 5:02 PM Modified Today, 5:02 PM Last opened Today, 5:02 PM Dimensions 1920 × 1080 Duration 14:18 Add Tags…
5.) Now that we have video to work with let's concentrate on EXPORTING our ENGLISH subtitle media. DUPLICATE the MASTER SEQUENCE with the ENGLISH subtitles. CREATE a NEW BIN and MOVE the DUPLICATE into the new bin.	
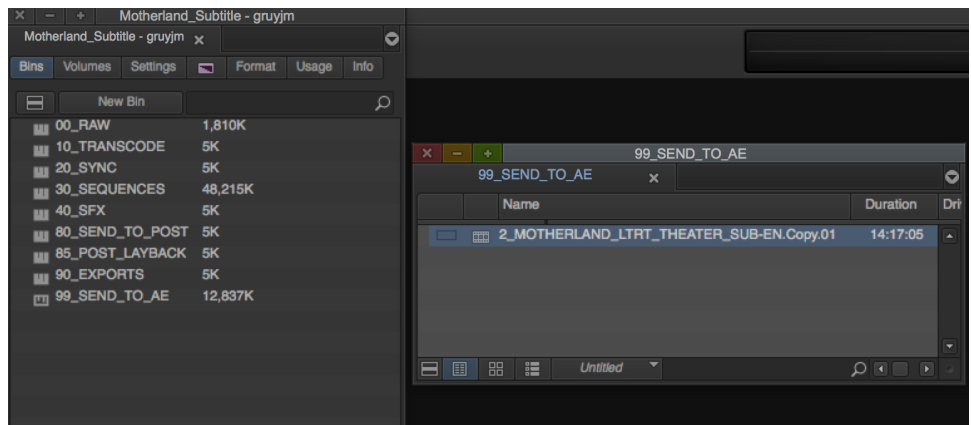
6.) I'll PREP the DUPLICATE SEQUENCE to only contain my ENGLISH SUBTITLE MEDIA. I'll DELETE TRACKS V1-V3 and A1-A3.	
BEFORE:	
AFTER:	
7.) Now it's time to EXPORT the AAF (Advanced Authoring Format) we'll be bringing into After Effects. Making sure I have an INPOINT and an OUTPOINT at the beginning and end of my sequence, I'll **SELECT ALL MY TRACKS** in my Timeline Window (CMD + A) and go to **FILE->EXPORT**	
8.) In the **Export As** window select **UNTITLED** from the **EXPORT SETTINGS** dropdown menu	
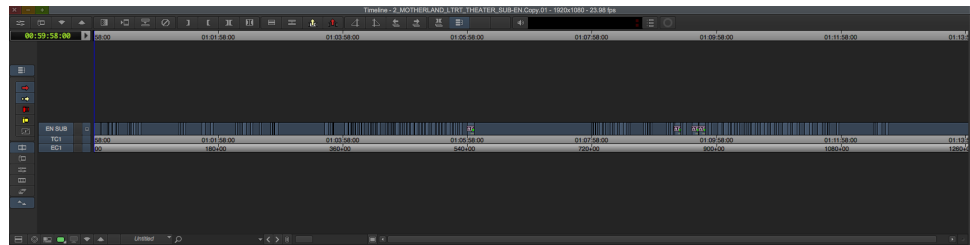
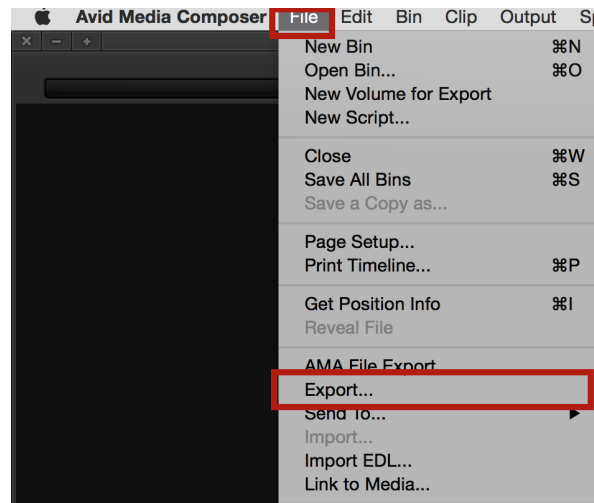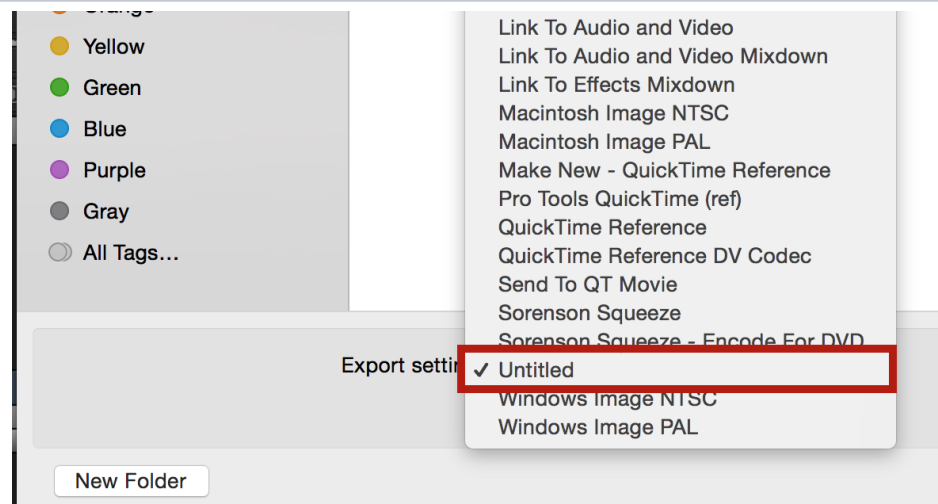|	
9.) Click the Export Settings **OPTION BUTTON**	Export setting Untitled Options...
10.) The Export Settings As Dialogue Box will pop up. Make your settings look like those in the screen shot Export As: AAF • Use Marks • Selected Tracks • AAF Edit Protocol • Include All Video/Data Tracks in Sequence Video/Data Details • Consolidate Media Media Destinations • Video/Data: Embedded in AAF	Export Settings - AAF SUBTITLE TO AE Export As: AAF ☑ Use Marks ☑ Use Selected Tracks ☐ Include Inactive Audio Tracks ☑ AAF Edit Protocol ☑ Include All Video / Data Tracks in Sequence ☐ Include Audio Tracks in Sequence All Tracks Video / Data Details Export Method: Consolidate Media Handle Length: 0 Frames ☐ Render Video Effects ☐ Mixdown Video / Effects to V1 ☐ Transcode Video To: AVC-Intra 100 MXF Media Destinations: Video/ Embedded in AAF Data: Save As... Save Cancel

If you receive an **AAF export involving ProRes media** error after Step 12 you'll need to **TRANSCODE** your title media to a codec native to Avid. I recommend transcoding to **DNxHD 36** in the AAF Export Setting As Dialogue Box
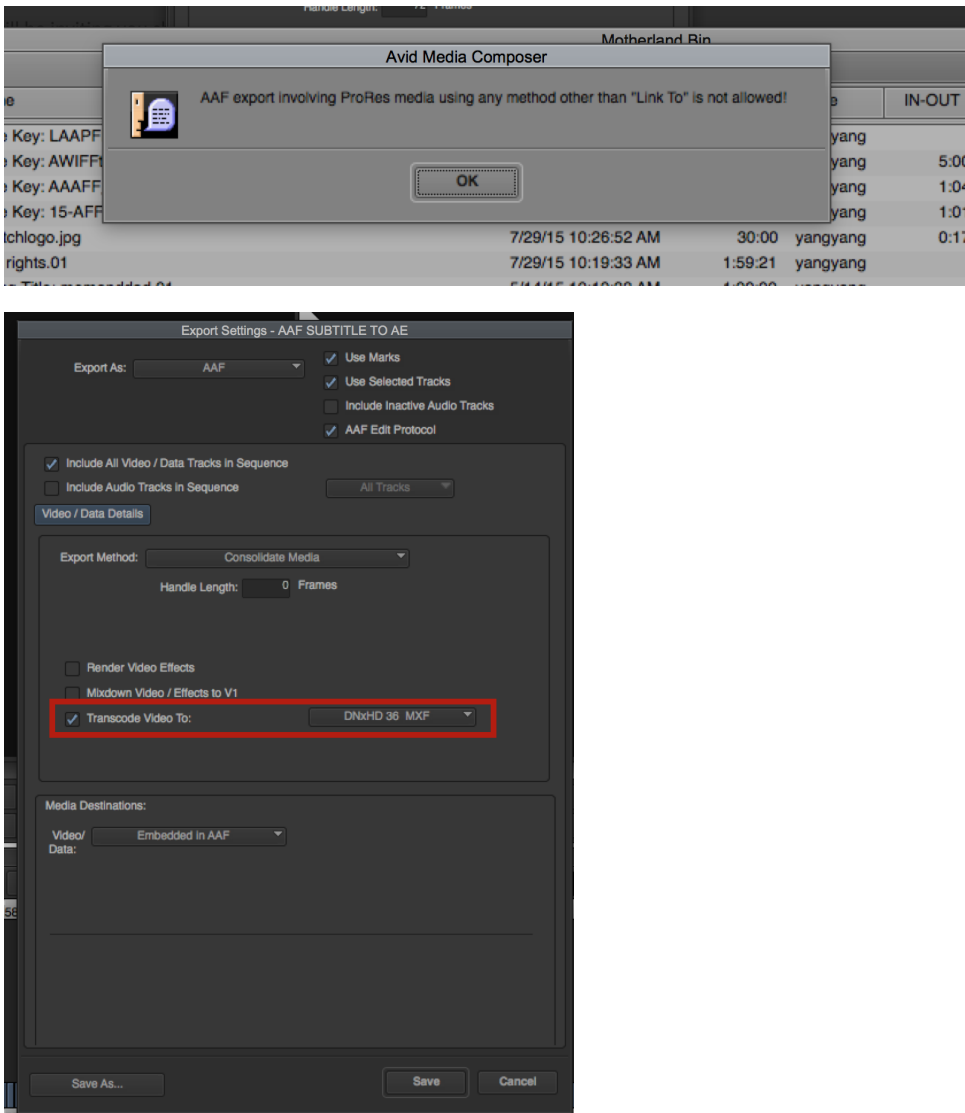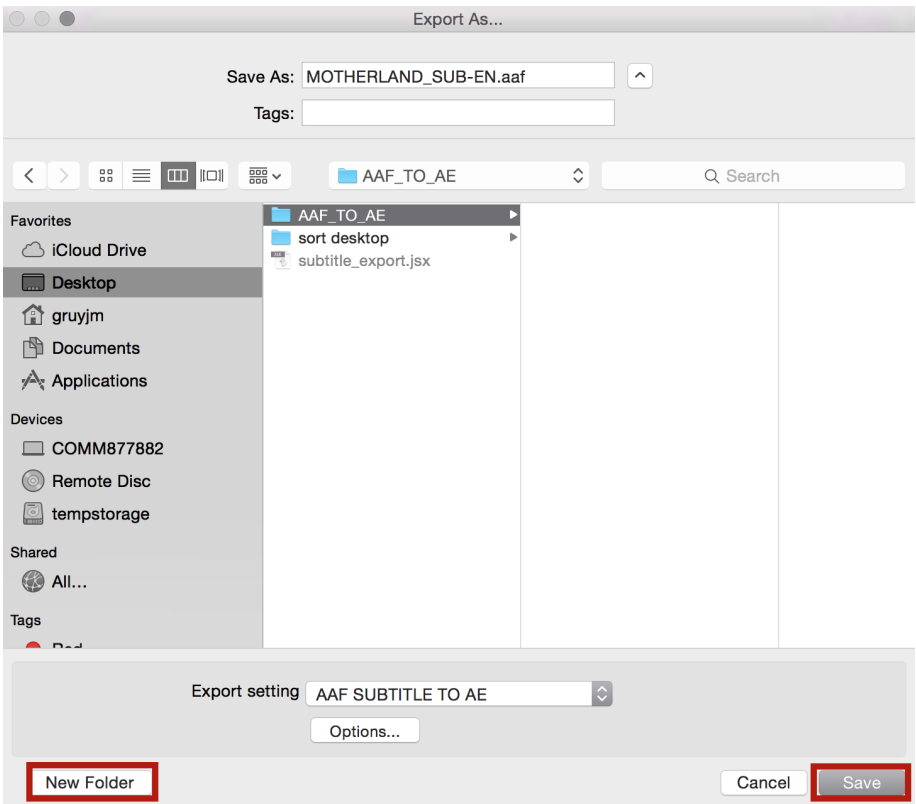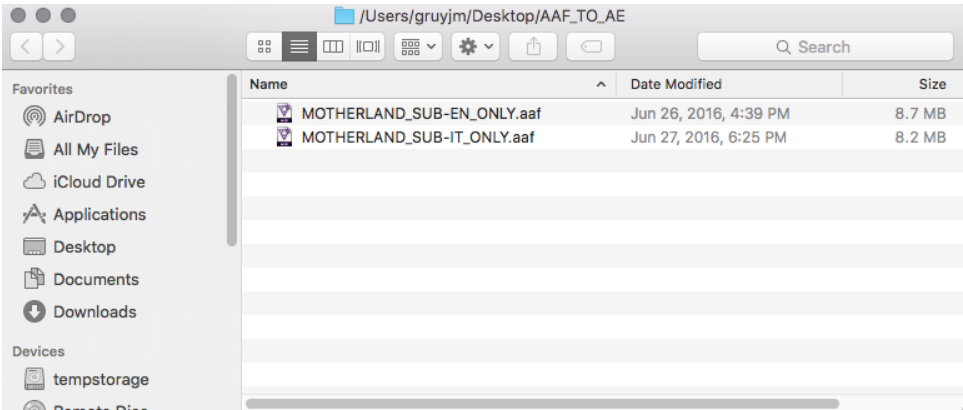

11.) Press the **SAVE AS... BUTTON** and name the new Export Setting as *AAF SUBTITLE TO AE* and press the **OK BUTTON.** Close the Export Settings As Dialogue Box by pressing the **SAVE BUTTON**
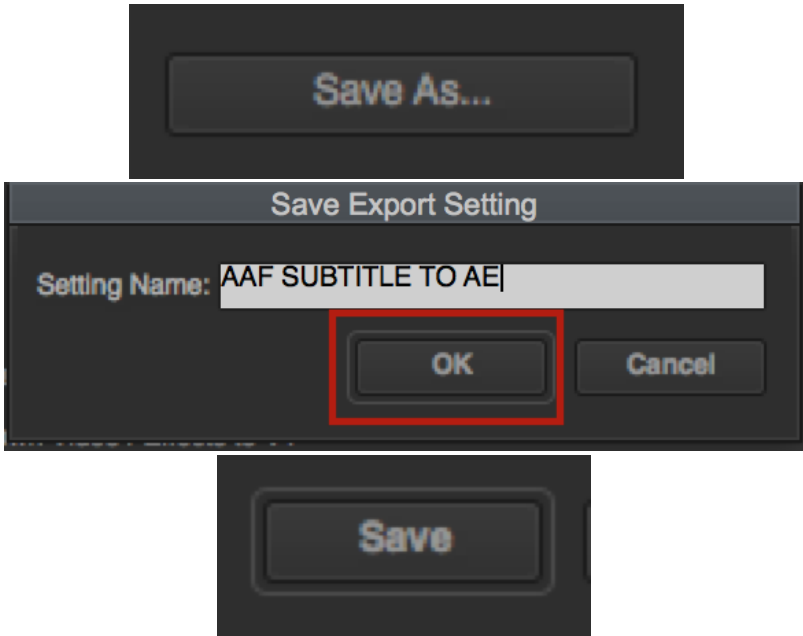
|	
12.) Choose a Destination path with sufficient hard drive space and name the export accordingly. **Create a New Folder** to store the AAF file. In this instance, I am saving the AAF export to my **DESKTOP** in a folder called **AAF_TO_AE**	
13.) I'll repeat Steps 5-12 to EXPORT an AAF for our ITALIAN subtitle media	
PART TWO: ADOBE AFTER AFFECTS - IMPORTING AAF TO GENERATE SUBTITLE TEXT	
14.) We are now have our AAF subtitle media assets; I am finished with Avid Media Composer and I can SAVE my project and QUIT the application. Now we'll LAUNCH /OPEN the Adobe After Effects CC application to complete the last few steps	
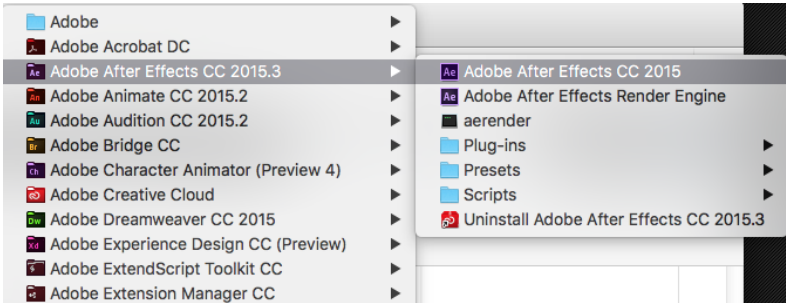
15.) Once After Effects opens, I'm ready to import my AAF subtitle media file. To do this, click **FILE->IMPORT->PRO IMPORT AFTER AFFECTS**. This will utilize a special plugin designed by Automatic Duck to import and translate project sequences and media from other applications such as Avid Media Composer, Final Cut Pro, etc. This plugin should already be included in After Effects (version 5.0 and up) - no installation is necessary
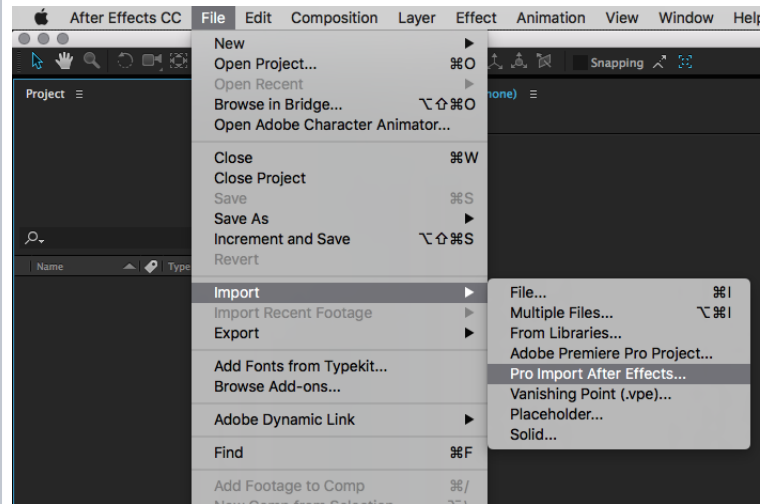
16.) Navigate to the location you saved your AAF subtitle media exported from Avid Media Composer. In this instance, I have saved my subtitle media to a folder on my Desktop called AAF_TO_AE. I'll select my MOTHERLAND_SUB-EN_ONLY.aaf file and will then click on the **Modify Settings** button in the lower left-hand corner of the window
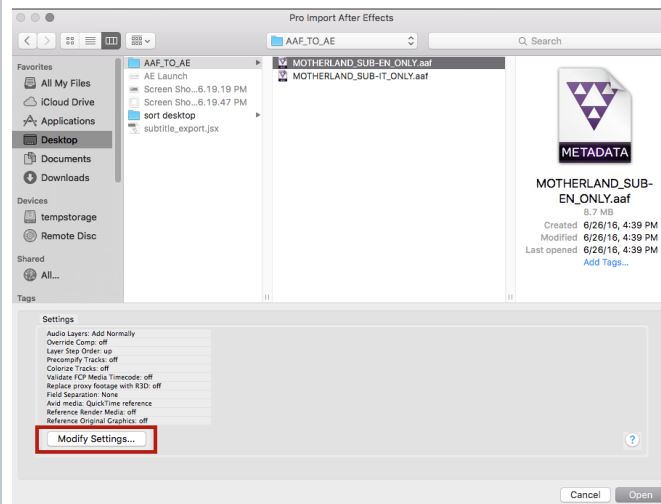
17.) A new pop-up window will appear. Select the **Comp and Layers** tab. Under the **Layer Organization** section be sure to select **Layers step down in comp.** Click **OK** and then click **OPEN** to import the selected AAF file into After Effects	
18.) Depending on the number of titles you created in your editing project, the import and translation of the sequence may take several minutes to complete. Once import has completed, you'll see a new Composition has been created as well as a Folder containing the associated title media. **OPEN** the Composition by **DOUBLE-CLICKING** on the **Composition icon**	
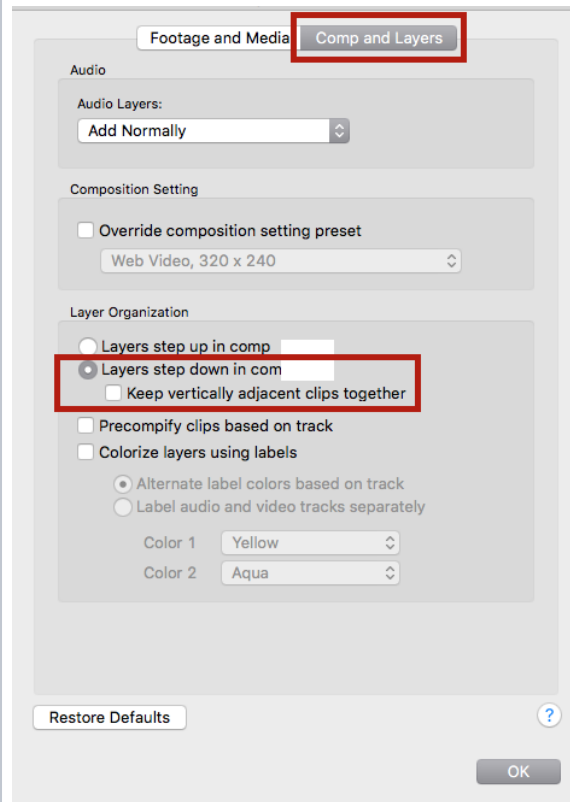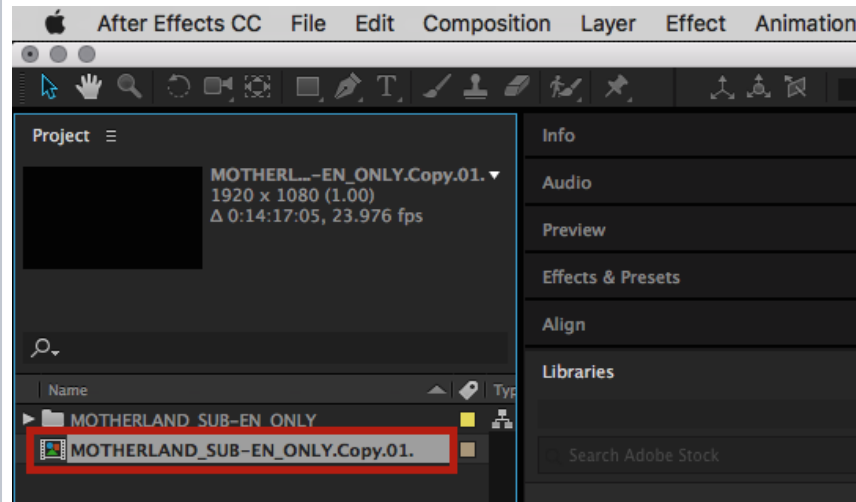
19.) We can now see that our sequence appears in our Timeline window. Each title has been converted to it's own separate layer and represents the exact timecode and duration values from the Avid Media Composer project. We can review the individual titles in the Timeline window by scrolling the playhead forward in time over the layers and reading the title(s) in the Composition window.

It is import to note the font type and size displayed in the Composition window are not relevant to our final SubRip text file. It is NOT NECESSARY to adjust any scale, position, or any other layer properties!

Select **ALL** layers by either clicking **EDIT->SELECT ALL** or by using the shortcut **COMMAND + A**

20.) Now that we have selected all of the layers we'd like to export out of After Effects, it's time to run our script which will compile all of the layers and their timecode values to a single text file. If you haven't downloaded the script file yet you may do so here. SAVE the JSX script file somewhere easy to find like the DESKTOP. To RUN the SCRIPT FILE, click **FILE->SCRIPTS->RUN SCRIPT FILE**
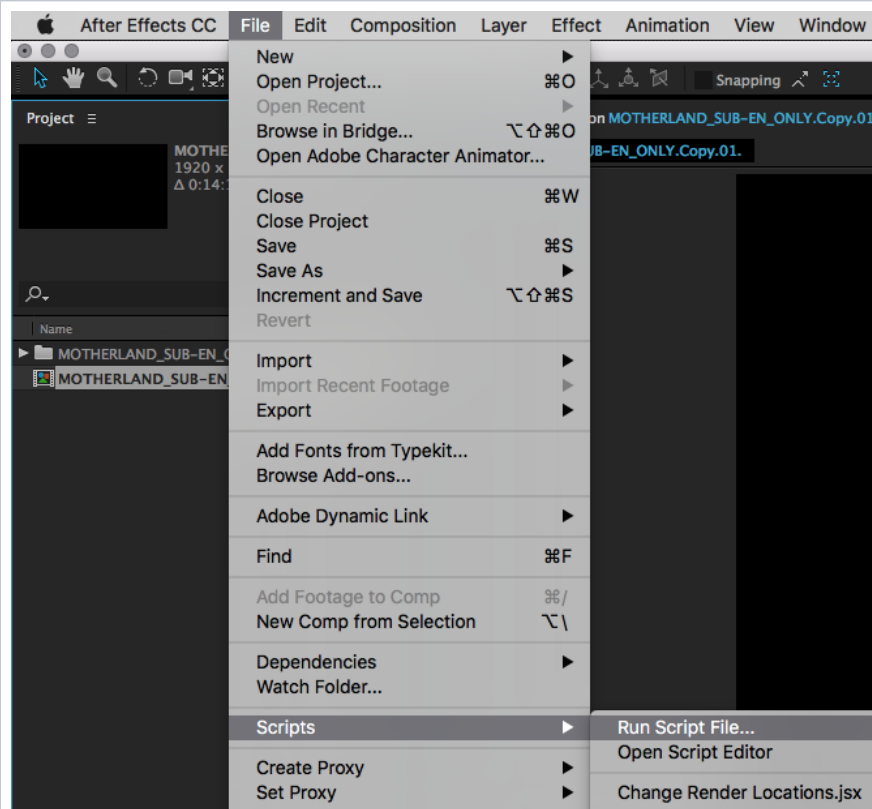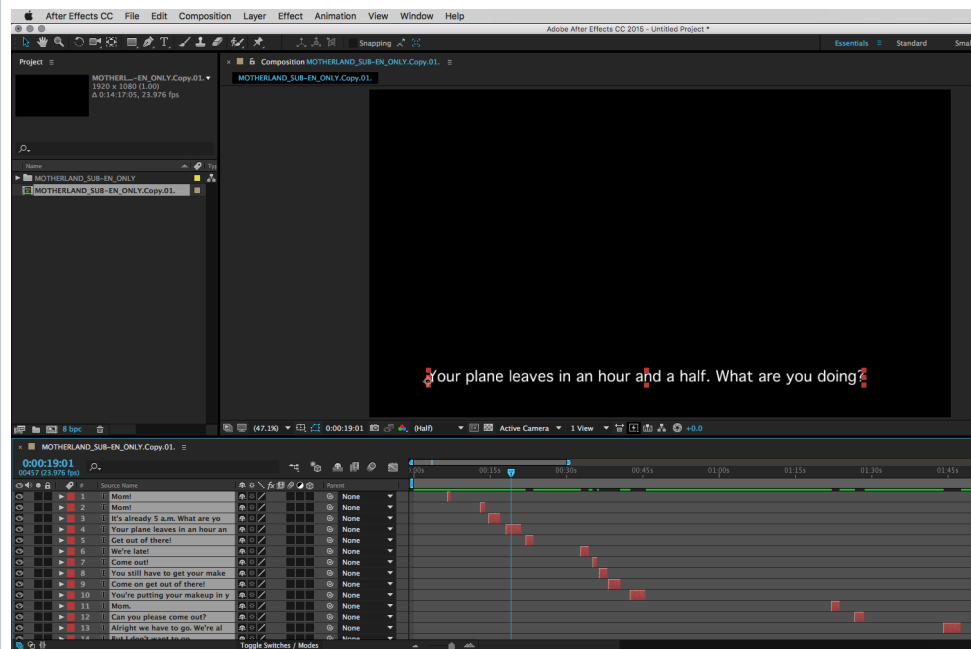
21.) A new pop-up window will appear. Navigate to the location you saved the **SUBTITLE_EXPORT.JSX** script files. **SELECT** the **SUBTITLE_EXPORT.JSX** script file and click **OPEN**	
22.) A new pop-up window will appear. Choose a Location to **SAVE** the outputted text file and **NAME** the file. In this instance, I have named my text file **MOTHERLAND-SUB-EN** and am saving it to a subfolder named **99_DELIVER.** Click SAVE to run the script and begin exporting process	
23.) Once finished, a TextEdit window will pop-up with all of your subtitle character and timecode values	
Repeat Steps 15-22 for additional AAF subtitle media. In my scenario, I will need to repeat these steps for my Italian subtitle media (MOTHERLAND_SUB-IT_ONLY.aaf)	
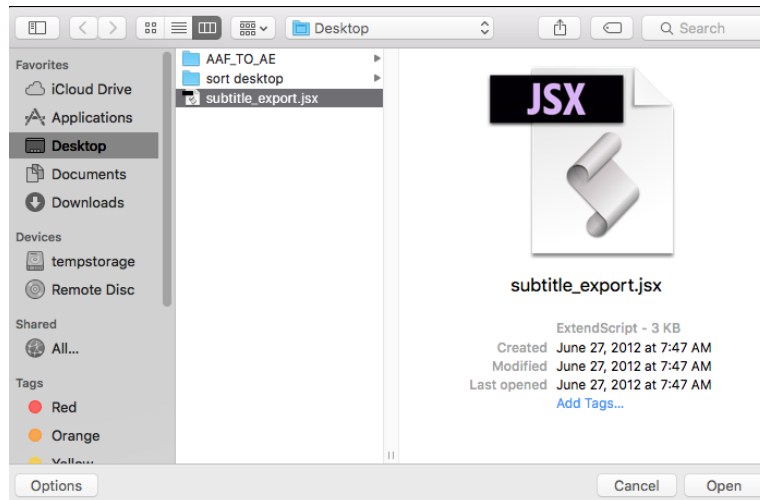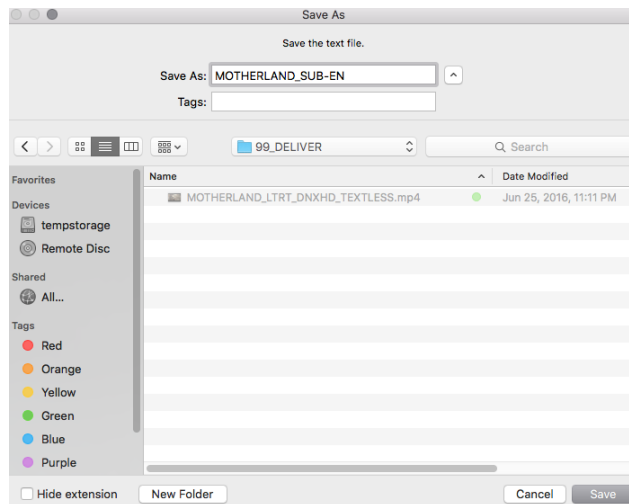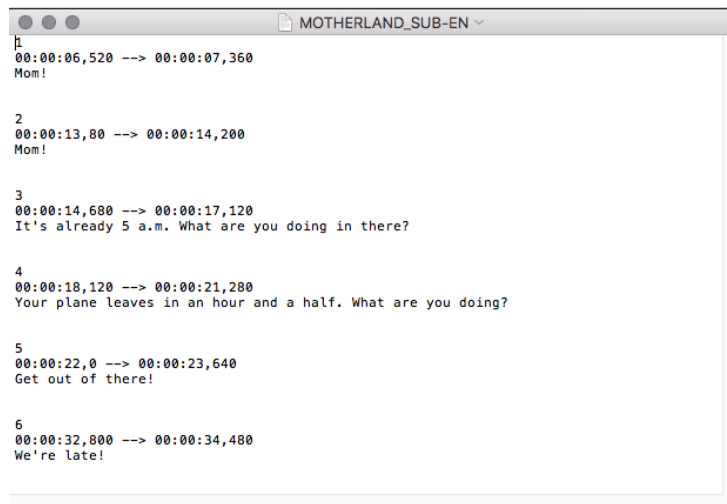
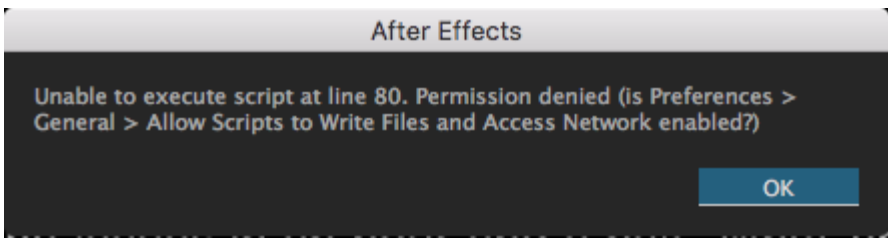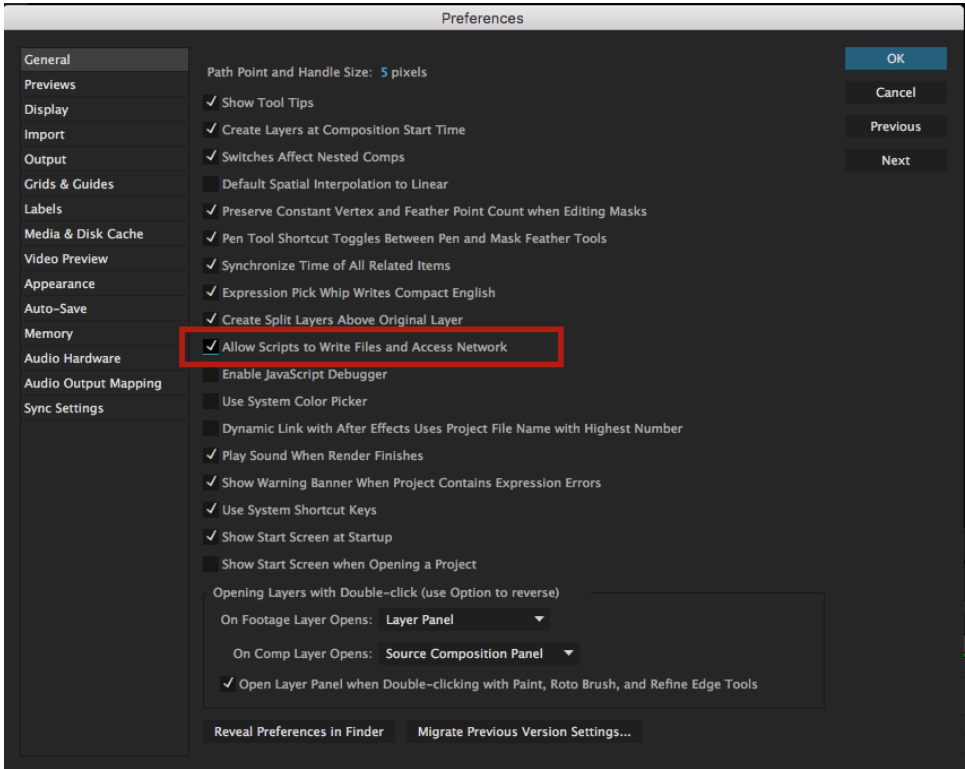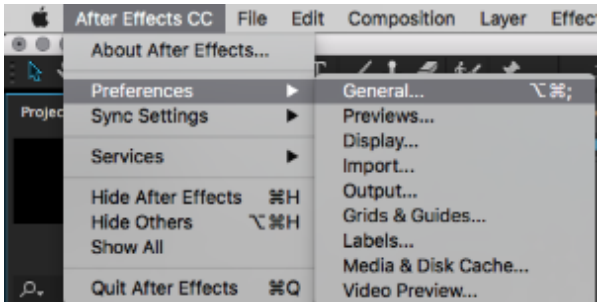|	
24.) If you encounter a **AFTER EFFECTS ERROR (LINE 80)** in Step 22, this is a result of default permission preferences being turned off. Hit **OK** to clear the error.	**After Effects** Unable to execute script at line 80. Permission denied (is Preferences > General > Allow Scripts to Write Files and Access Network enabled?) **OK**
25.) Click **After Effects CC -> Preferences -> General** In the Preferences menu, locate the **ALLOW SCRIPTS TO WRITE FILES AND ACCESS NETWORK** in General preferences section. Be sure to check the box to allow scripts to write files. Hit **OK** Note: If you are an After Effects Power User and worried about malicious scripts, you can always enable this preference for just this task and then disable again upon completion	After Effects CC File Edit Composition Layer Effec About After Effects... Preferences ▶ General... ⌥⌘; Sync Settings ▶ Previews... Services ▶ Display... Import... Hide After Effects ⌘H Output... Hide Others ⌥⌘H Grids & Guides... Show All Labels... Media & Disk Cache... Quit After Effects ⌘Q Video Preview... Preferences General Path Point and Handle Size: 5 pixels OK Previews ✓ Show Tool Tips Cancel Display ✓ Create Layers at Composition Start Time Previous Import ✓ Switches Affect Nested Comps Next Output Grids & Guides Default Spatial Interpolation to Linear Labels ✓ Preserve Constant Vertex and Feather Point Count when Editing Masks Media & Disk Cache ✓ Pen Tool Shortcut Toggles Between Pen and Mask Feather Tools Video Preview ✓ Synchronize Time of All Related Items Appearance ✓ Expression Pick Whip Writes Compact English Auto-Save ✓ Create Split Layers Above Original Layer Memory **✓ Allow Scripts to Write Files and Access Network** Audio Hardware Enable JavaScript Debugger Audio Output Mapping Use System Color Picker Sync Settings Dynamic Link with After Effects Uses Project File Name with Highest Number ✓ Play Sound When Render Finishes ✓ Show Warning Banner When Project Contains Expression Errors ✓ Use System Shortcut Keys ✓ Show Start Screen at Startup Show Start Screen when Opening a Project Opening Layers with Double-click (use Option to reverse) On Footage Layer Opens: Layer Panel On Comp Layer Opens: Source Composition Panel ✓ Open Layer Panel when Double-clicking with Paint, Roto Brush, and Refine Edge Tools Reveal Preferences in Finder Migrate Previous Version Settings...
26.) Once this script has generated your your text files, we need to add a SubRip extension modifier to our text file name. Navigate and locate where you saved the output from Step 22.	Name ^ MOTHERLAND_LTRT_DNXHD_TEXTLESS.mov MOTHERLAND_SUB-EN
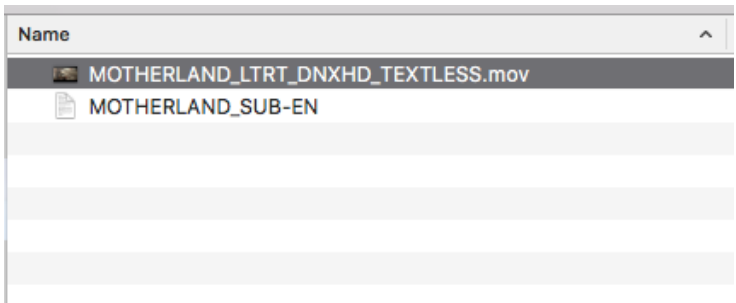
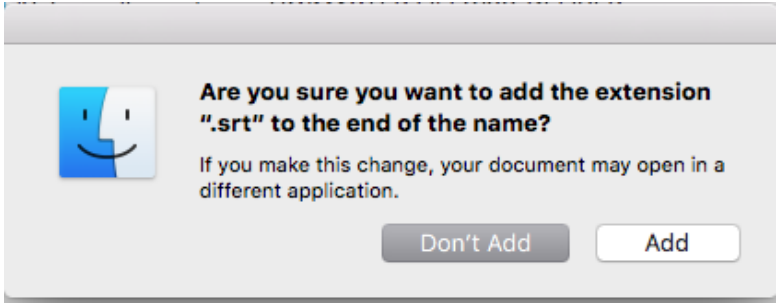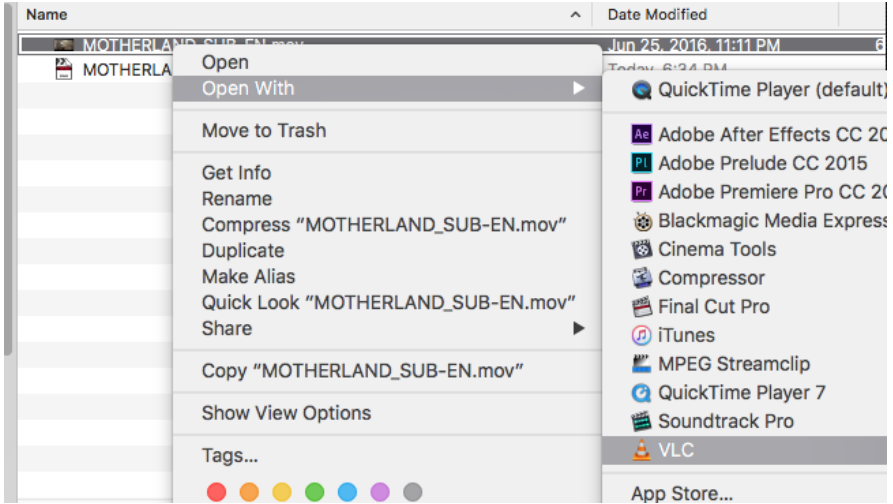|	
I'll add/type **.SRT** to the end of my **MOTHERLAND_SUB-EN** file and press the **ENTER/RETURN** key.	**Name** ∧ 🎬 MOTHERLAND_L...D_TEXTLESS.mov 📄 MOTHERLAND_SUB-EN.SRT
You will receive a pop-up window warning. Hit **ADD**.	**Are you sure you want to add the extension ".srt" to the end of the name?** If you make this change, your document may open in a different application. [Don't Add] [Add]
We need to also **CHANGE** the **NAME** of our textless **MASTER QUICKTIME MOVIE** to **MATCH** the **SRT** (SubRip text) **FILE**. It is **CRUCIAL** that the **MOVIE NAME** of the deliverable and the After Effects generated SubRip text file **(.SRT) NAMES MATCH!** **AS LONG AS THE NAMES MATCH AND BOTH ARE LOCATED IN THE SAME FOLDER, EVERYTHING SHOULD WORK PROPERLY!!**	**Name** ∧ 🎬 MOTHERLAND_SUB-EN.mov 📄 MOTHERLAND_SUB-EN.srt
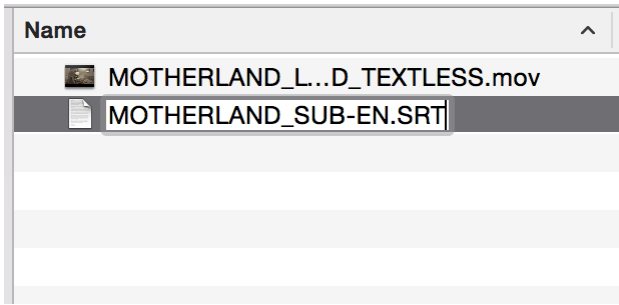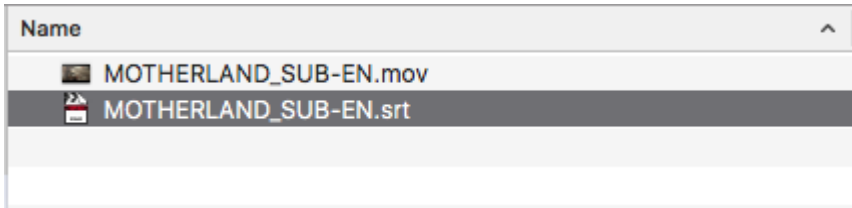
27.) Lastly, we should test our files to ensure they are playing correctly. To test the **SRT** (SubRip text) file, **RIGHT-CLICK** on your movie file and choose to **OPEN WITH VLC**	**Name** ∧ **Date Modified**
	MOTHERLAND_SUB-EN.mov — Jun 25, 2016, 11:11 PM
	MOTHERLA... — Today, 6:34 PM
	Open
	Open With ▶ QuickTime Player (default)
	Move to Trash Adobe After Effects CC 20
	   Adobe Prelude CC 2015
	Get Info Adobe Premiere Pro CC 20
	Rename Blackmagic Media Express
	Compress "MOTHERLAND_SUB-EN.mov" Cinema Tools
	Duplicate Compressor
	Make Alias Final Cut Pro
	Quick Look "MOTHERLAND_SUB-EN.mov" iTunes
	Share ▶ MPEG Streamclip
	   QuickTime Player 7
	Copy "MOTHERLAND_SUB-EN.mov" Soundtrack Pro
	   VLC
	Show View Options
	Tags... App Store...

Playback should begin, and our subtitles should play automatically. Watch the movie in its entirety to ensure the subtitles sync properly with our Quicktime movie deliverable.