

Assignment 03 - Final Cut Pro X: Import & Sync

Due **April 20** at the beginning of class.

You will hand in your Final Cut Pro X library itself - not exported video clips.

1. Create a Library

- Open Final Cut Pro X
 - If you are greeted with a startup screen offering you to create a new library, choose that option, and skip the next 3 bullet points in the instructions
 - If the application opens to someone else's library (or libraries), close them. You should be left with a completely blank environment.
 - To close an open Library, right click on it in the Browser and choose "Close Library *"Library Name"*"
 - From the **File** menu, choose '**New > Library...**'
 - Use the class convention for your library name **(/1)**
 - Example: 646-007_A_Assignment03_Ardagh_Mike
 - Save the library in an appropriate location. Your personal hard drive would be ideal, if its performance will allow for editing video smoothly. If you can't work from your own drive, work on the local hard drive but be sure to copy your library to you own drive afterwards.
 - Final Cut will create your Library, and within your Library it will create an event. The event will automatically be assigned today's date. All of this is visible in the Browser at the top left of the Final Cut environment.
 - You can rename your event by clicking on it in the browser and pressing Return on the keyboard. Rename your event to '**Assignment 03 - Sync**'. **(/1)**
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2. Import Media

- Click on the **Import Media** icon in the browser, or on the Import icon on the far left of the main toolbar. This will open the Media Import window.
- Using the **Devices** area on the left side of the window, and the file browser in the bottom of the window, navigate to wherever you downloaded your Assignment 03 files to.
- Double click on the 'Media' folder. You should now see two folders, one called 'Classical' and one called 'Pop'. Do not navigate inside of these folders, just leave the browser as-is.
- Click **Import All**
- A window will pop up offering you some import options - Final Cut has some useful features available to us here:
 - At the top of this area you can choose which Event to import your media into. It should default to your '**Assignment 03 - Sync**' event but if not, choose this event from the dropdown menu. **(/1)**
 - Below this, choose **Copy to library** **(/1)**
 - This step is critical, and ensures that your files will stay with your library as you move it around between drives and eventually hand it in
 - Under *Transcoding*, select '**Create proxy media**'
 - This should help your editing run more smoothly, especially if working on a slower drive
 - Under *Keywords*, choose **From folders** **(/1)**

- This will generate a keyword (or tag) called 'Classical' for all of the files within the 'Classical' folder and a keyword called 'Pop' for all of the files within the 'Pop' folder. Keywords are a form of metadata, and help with searching for media in Final Cut.
- Press **Import**

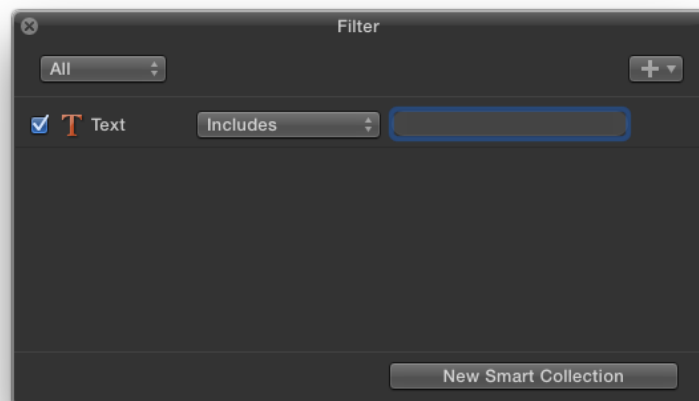
3. Organize Media

Once you have imported your media, it will appear in the browser. You'll notice that the 'Assignment 03 - Sync' event has a disclosure triangle next to its name. Click on this to reveal the items within this event. Here you will find your 'Classical' and 'Pop' Keywords that Final Cut created on import. By clicking on either of these Keywords you can filter your media to show only results which contain that keyword. We are going to further organize our media by adding some more metadata to the clips we just imported.

- Open the **Keyword Editor** by clicking on the key-shaped icon in the main toolbar
- Select a clip in the browser, and you will see any keywords associated with this clip
 - To add a Keyword to a clip, place your cursor after any existing Keywords, type your Keyword and hit Return/Enter
- Tag all **video and audio** clips based on the number of people in the ensemble: (**/2**)
 - Solo, Duo, Quintet, or Orchestra

Another way to search and organize media in the Browser is via **Smart Collections**. Smart Collections are a feature included in many Mac applications and are a way of searching files by certain criteria. What makes them 'Smart' is that they can be based on multiple criteria and they auto-update their results as soon as new matches are found. We are going to create four Smart Collections based on the locations that these clips were created. This information is already part of each clip's file name.

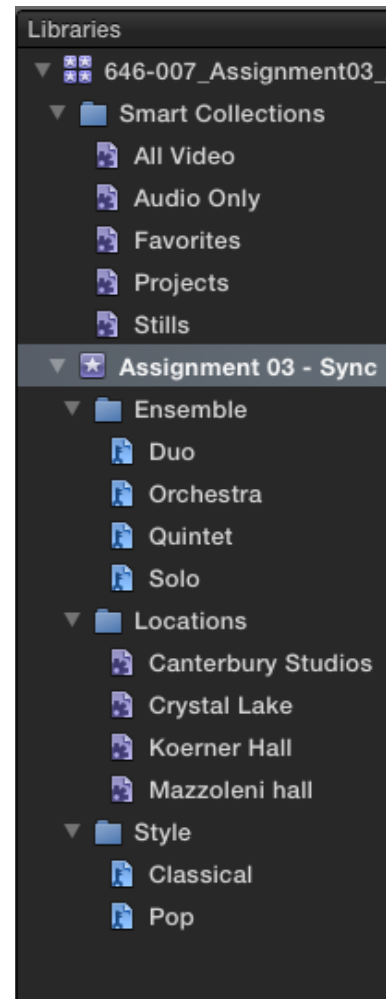
- To create a Smart Collection, click on the magnifying glass icon in the search field at the top right of the Browser window. This will open the Filter window (shown below).



- Type your first search; 'Crystal Lake'
- This should return the Bass Video and Audio clips, since 'Crystal Lake' is part of their file name
 - You could add more filter categories to this search by clicking the + button in the top right corner, but for our purposes this is enough information
- Click '**New Smart Collection**' in the bottom right corner to turn this search into a Smart Collection
- Give your Smart Collection a name (in this case, 'Crystal Lake')
- Repeat this process, creating Smart Collections for "Mazzoleni Hall", "Koerner Hall" and "Canterbury Studios" (/2)
 - Note: Make sure that your **Event** is selected before you start a new search. If one of your Keyword Collections or Smart Collections are selected, you will only be searching within that collection

Now that you have created your Smart Collections and Keyword Collections, let's clean things up a little by placing these collections in their own folders. (/1)

- With your Event selected, choose **File > New > Folder** from the main menu, or press **shift + command + N**
- Call this folder '**Locations**'
- Drag and drop all of your Smart Collections into this folder
- Repeat this process, creating a folder called '**Style**', containing your 'Classical' and 'Pop' Keyword Collections, and a folder called '**Ensemble**', containing your 'Solo', 'Duo', 'Quintet' and 'Orchestra' Keyword Collections.



When you are done organizing your media, the left side of your Browser should look like the screenshot above. Note: Make sure that these folders are at the same level of hierarchy within your Event, not sub-folders of each other.

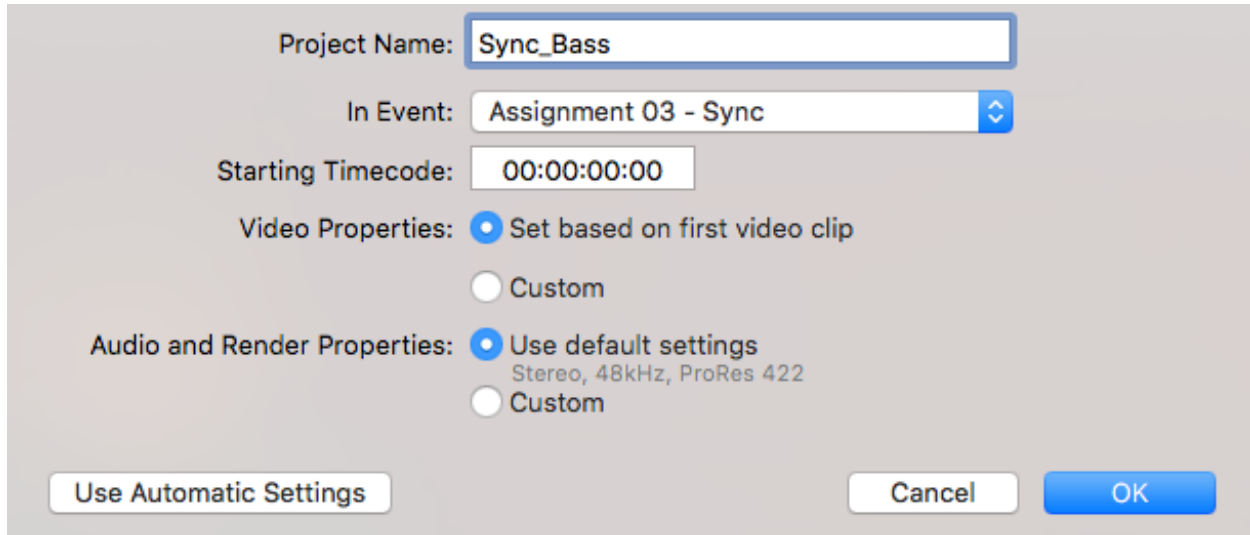
4. Create a Project

A **Project** is what we create in the timeline of Final Cut. It is like our 'Final Edit' from previous Pro Tools assignments. We are going to create **one project per video clip**.

- In the timeline area (the bottom of the Final Cut environment), click **New Project** (or press **command + N**)
- Give your project a name based on the following convention: (/5 per Project)
 - Sync_Instrument/Ensemble (as given in the file name)
 - i.e. 'Sync_Bass', 'Sync_RCO', 'Sync_BrassQuintet', 'Sync_ElectricGuitar'
- Choose **Use Custom Settings**

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- Match your settings to those in the following screenshot, changing the Project Name to whatever is appropriate for the clip you are working on (following the above naming convention)
- You will use these settings for every project in your Assignment



- Add a **video** clip to your Project by selecting it in the Browser and pressing **E**, or by dragging it into the Timeline.
- Your clip should start at the beginning of your timeline, with the exception of the 'Bass' clip. For this clip, the audio starts before the video. To account for this, add your video to the timeline as usual, then switch to the Position Tool (**P**) and drag the video clip so that it starts sometime after 20 seconds. Switch back to the Select Tool (**A**) to resume work
- Drag the related audio clip into the timeline as well, and drop it *below* the video clip
- You will need to manually sync the audio and video by shifting the audio in time relative to the video

5. Sync Audio and Video

The following is a suggested workflow for manually syncing audio and video:

- Select the video clip by single-clicking on it in the timeline (it will become outlined in yellow)
- Skim the video clip by passing the mouse over it in the timeline. This will give you a frame-by-frame preview of the video in the viewer window
- Find a frame where you can see the attack of a note. This could be a finger plucking a string, a stick hitting a drum head, inflated cheeks compressing, etc.
- Place the playhead exactly on this frame
- Drop a **Marker** by pressing **option + M**
- Call this marker '**V**'
- Now select the audio clip by single-clicking on it in the timeline (it will become outlined in yellow)
- Play back the audio and listen for the same note you marked in the video

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- While you're listening, watch the waveform preview and try to find the transient which corresponds to the note.
- When you find the note, place the playhead there and drop another Marker (**option + M**)
 - Call this marker '**A**'
- Drag the audio clip left or right in the timeline until your two markers line up
- Tweak the audio as necessary until you have good sync

Once you are satisfied with your sync, press **Shift + Z** to 'zoom to fit' your clips, and the **home** key to move the playhead to the beginning of your timeline. Press spacebar and check your work!

If everything checks out, choose **File > New > Project** from the main menu (or press **command + N**) and repeat the whole syncing process for each of the remaining clips (refer to the previous settings screenshot for subsequent Projects) (**/2 per Project**).

As you start each new Project, your previous Project will be saved automatically, and you can return to it at any point by double clicking on it in the browser.

When you are completely finished the Assignment, close your library and *then* quit the application. Make sure to backup your library to your own hard drive if you have been working locally! You will hand in your library file in class on April 20.

(Total /30)

Additional Tips:

Zoom!

- You will want to zoom in close for this work (**command + / -**)
- Remember that the resolution of our audio is far greater than that of our video. Frames are much longer than samples so you can move an audio clip many places *within* one frame

Adjusting Clip Appearance in the Timeline

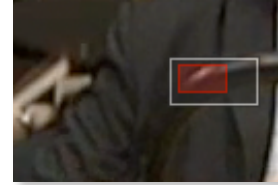
- It helps to keep your audio and video clips tall in the timeline for visual reference



- To do this, access the **Clip Appearance** Window in the bottom right corner of the Timeline (screenshot above)
- In this window you can adjust the clip heights and the ratio between video/audio

Zooming the Viewer

- You may also want to zoom the Viewer window itself to get a better look at a bow/hand/stick, etc.
- To zoom the Viewer, click on the Viewer Zoom Level dropdown menu (in the top right corner of the Viewer window. The higher the percentage, the further in you will zoom
- To refine the area of focus, move the small red box around within the white frame (as shown in the image to right)



Nudging Clips

You can 'nudge' (shift in tiny increments) any clip in the Timeline by selecting it and using the < and > keys (comma and period). This will move the clip one frame in either direction. Keep in mind that although this is our smallest video resolution, moving audio a whole frame is a relatively 'big' move

Navigating in the Timeline

There are a few handy keyboard shortcuts for navigating in the Timeline:

home: moves playhead to start of Timeline (also works in the browser)

end: moves playhead to end of Timeline (also works in the browser)

J, K and L control playback (both in the timeline and in the Browser).

- Press **L** to play forwards at 1X speed. Pressing it again makes it 2X, 3X, etc.
- Press **J** to play backwards at 1X speed. Pressing it again makes it 2X, 3X, etc.
- Press **K** to pause
- Press and hold **L** or **J** while holding **K** to play forwards or backwards in slow motion
- Tap **L** or **J** while holding **K** to move forward or backwards a single frame

You can also move the playhead one frame at a time by pressing the **left** and **right arrow keys**.

Snapping



Turning on snapping will *magnetize* your clip movements in the timeline. When dragging a clip in this mode, it will want to 'snap' to main events like markers, edits, etc. This is useful when trying to line up your editing markers. Turn on snapping by pressing **N** or by clicking the icon in the top right corner of the timeline.

Ins and Outs

In either the browser or the timeline, placing the cursor overtop of a clip and pressing **I** or **O** will create an In point or an Out point. This makes a range selection within your clip (as shown below). This can be useful for editing, or for pulling-in smaller sub-clips from the browser.



If you make one of these selections in the browser by mistake, press **home** to return the cursor to the beginning of your clip, then press **I**. Your In point will be reset to the start of the clip. Now press **end**, followed by **O**. This resets the end of your selection to the end of the clip. Now you can just click outside the clip to deselect it entirely.



Move Playhead to Markers

You can make the playhead jump to the next marker by pressing **control** + **'**. You can make the playhead jump to the previous marker by pressing **control** + **;**. This can be very useful when working with your editing markers as the playhead will jump down the timeline every time you press stop. By pressing **control** + **;**, you can jump back to your edit without having to zoom back out to find your sync point.

Play Around

Another way to help with auditioning edits is to use the 'Play Around' feature (**Shift** + **?**). This will play from 2 seconds before your playhead position, through to 2 seconds after it. If you combine this with Loop Playback (**Command** + **L**) the playhead will return to its initial position after you stop playback! This is very handy.

Nudge Markers

You can nudge your markers back and forth after you create them. To nudge a marker, first click on it to select it, then press 'control + comma (,)' to nudge it one frame left, or 'control + period (.)' to nudge it one frame right.