

Introduction to Video Editing

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Introduction to Video Editing

Many of us would not release a photograph straight out of our camera without some editing, and for video, that need for editing is even more important. While we all have equipment to record video, many of us have not released videos because we have not had the training on how to turn them into a quality product.

This session is designed to resolve that by taking you through that process with a hands-on, instructor-led example. You will be provided with source raw material and be able to follow along as the instructor turns it into a video which he has actually sold.

During this fast-paced session, you will set up an editing environment, remove background noise from audio recordings, synchronize separate audio and video clips, obtain and add free music (commercially licensed with no fees or requirements for attribution), create transitions between video clips, add video watermarks, apply Lightroom-type corrections to video clips, including transitions that vary over time via key frames, and learn about recommended file types.

Just listening to this presentation will be helpful, or you can follow along with your own computer. We will use Adobe Premiere Pro. While it is a fee-based licensed software

offering, free evaluation editions may be downloaded from Adobe's website. Installation of this software will not be covered in this session; however, the instructor will be available at least a half-hour before the start of the session to help anyone with installation problems. In addition, written step-by-step instructions and presentation material and resource guides will be available for download to help with editing your own videos.

At the end of the session, you should be aware of commonly used video editing techniques and where to find additional information. While the actual demonstrations will use Adobe products, references to other products, including free ones which perform similar functions, will be provided. Everyone should learn some new and useful editing information and be able to do basic video editing.

Items to be provided by the club/facility:

Computer projector

Internet connection

Room with tables (for participant computers) set up in a classroom style

Items Needed to Start

- ▶ Video and Audio Editing Software
 - ▶ We will use Adobe Premiere Pro
 - ▶ Other Options include YouTube, Corel, Photoshop Elements & Premiere
 - ▶ Video File (.MP4 most common); Apple likes .MOV
 - ▶ Audio File (.WAV or .MP3 most common); Apple likes .AAC
 - ▶ Background Music (if used)
 - ▶ Sound effects (if used)
-
- ▶ Scripted presentation at:
 - ▶ <https://hsykesphoto.com/tools>

.WAV files are uncompressed and can be thought of as a “RAW” audio file in that you can do more editing to it.

.MP3 files are compressed and in that sense more like a JPEG file.

Creating the File Structure

- ▶ Recommendation: Place all files for a given project within the same directory structure
- ▶ CHCCvideo
 - ▶ Audio
 - ▶ Images
 - ▶ Master
 - ▶ Video
- ▶ Place the source video, audio and images into these subdirectories

We will cover performance considerations shortly.

Per se, files do not need to be organized like this; however, Premiere Pro and most other NLE's (Non-Linear-Editors) do not modify the original files but do keep their addresses. So if files move when disk maintenance is done using operating system problems, Premiere Pro will not be able to find them when you reopen a project for future editing.

You could keep a common set of master files for things such as lead ins; however, if one of those files got updated, problems can occur when opening any project that was based on an older version of the file.

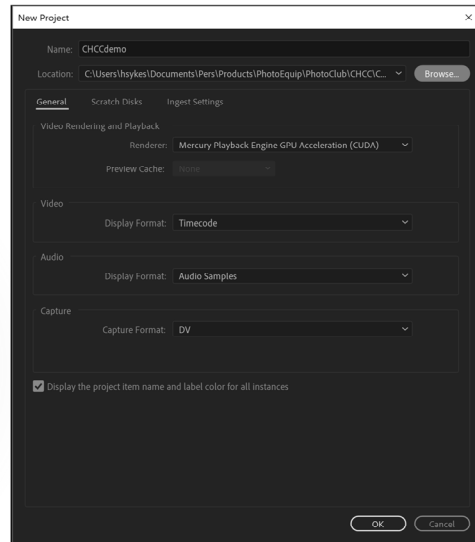
Open Premiere Pro

- ▶ File/New/Project
 - ▶ Name the Project
 - ▶ Set the location to the Master subdirectory you created
 - ▶ Click OK

Note: Premiere Pro will default to whatever directories were used for the previous project.

“Render” will need to be set the first time you use Premiere, after that, it will default to your previous setting. The “software only” option works on all systems; however, since it is the slowest, most compute-intensive option, it should only be selected if the other options don’t work on your system. Most Windows and Nvidia systems have a CUDA compatible graphics accelerator, and most Apple and AMD systems have an OpenCL compatible graphics accelerator. If you select an incompatible option, all that will happen is that your video will not display correctly. The option can then easily be changed by selecting File/Project Settings.

Premiere Pro Screen Capture



Note: Location remembers the last location used. If you are working on a different project, you may want to change this location.

Set Up Your Timeline

- ▶ Use the "Editing" (Alt+Shift+5) workspace (Window/Workspaces/Editing)
- ▶ From the "Media Browser" navigate to the video directory
- ▶ Drag the "P1020052.MP4" video clip to the timeline
- ▶ In "Media Browser" change to the audio directory and import the .wav files.
- ▶ Drag the "HSYKES..." audio file from the project window to A2 on the timeline
- ▶ Highlight all three items on the timeline (Shift plus right click)
- ▶ Click Clip/Synchronize Select Audio track 1 and press OK
- ▶ Mute Audio track 1 by pressing the M

By default, the project takes the attributes of the first video dragged to the timeline. The first video you drag to the timeline should be the highest resolution video you will use for this project. Dragging a video from the Media Browser to the timeline will also import it.

Workspaces and Panels

- ▶ Workspaces, like in Photoshop, are just a collection of panels, remembering their locations and sizes.
- ▶ Each user may have multiple workspaces and switch between them based on what's easiest for a given task.
- ▶ Common editing panels include:
 - ▶ Source, Effect Controls, Audio Clip mixer, Metadata
 - ▶ Program
 - ▶ Project, Media Browser, Info, Effects, Markers, History
 - ▶ Timeline
- ▶ Right click the icon after the panel name to change panel defaults

Use the ~ key to switch a panel group between a window and full screen

Source Monitor – Preview and prepare clips before adding to the timeline.

Effects Controls – Add effects to the selected clip(s) on the timeline

Audio Mixer – Adjust relative volumes of individual tracks

Metadata – properties of individual files

Program Monitor – Playback and preview of timeline content

Project Panel – List of inputs which are nondestructively edited

Media Browser – Access and preview files on your computer

Info Panel – Info on the currently selected item in the Project Panel or Timeline

Effects Panel – Repository of all available video and audio effects

Markers – Displays detailed marker information for the active clip

History – Allows for undos of recent actions

Tools – Icons for quick sections of editing tools

Timeline – Is where the majority of video editing is done

More details on panels may be found at: <https://www.agitraining.com/adobe/premiere-pro/tutorials/understanding-the-workspace>

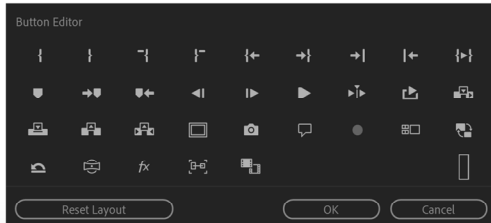
Timeline Screen Capture



The top line of Premiere Pro information has the names of available workspaces. Premiere Pro provides a number of different workspaces for different editing functions and you can add your own to fit your particular work flow. Workspaces determine which panels are displayed, their position and relative size. You may change between workspaces at any time for different panel layouts, resize panels by dragging the boundary, switch the active panel between full screen and tiled by pressing the “~” key or close a panel or group by clicking on the hamburger icon for the panel group.

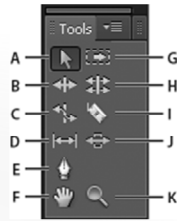
The active panel group is surrounded by a blue rectangle. Panel groups may contain multiple panels with the panel names displayed on the top line of the panel group. Additional panels may be opened by clicking their name in the “Window” Drop down menu.

Premiere Pro Monitor Buttons



- | | | | |
|--------------------------|----------------------|-------------------|-----------------------|
| ▶ Mark In | ▶ Add Marker | ▶ Overwrite | ▶ Revert Trim Session |
| ▶ Mark Out | ▶ Go to Next Marker | ▶ Lift | ▶ Toggle VR Display |
| ▶ Clear In | ▶ Go to Prior Marker | ▶ Extract | ▶ Global Mute |
| ▶ Clear Out | ▶ Back One Frame | ▶ Safe Margins | ▶ Snap Graphics |
| ▶ Go to In | ▶ Forward One Frame | ▶ Export Frame | ▶ Comparison View |
| ▶ Go to Out | ▶ Play/Stop Toggle | ▶ Closed Captions | |
| ▶ Go to Next Edit Point | ▶ Play Around | ▶ Record | |
| ▶ Go to Prior Edit Point | ▶ Loop Playback | ▶ View | |
| ▶ Play In to Out | ▶ Insert | ▶ Toggle Proxies | |

Premiere Pro Tool Names



- A.** Selection tool
- B.** Ripple Edit tool
- C.** Rate Stretch tool
- D.** Slip tool
- E.** Pen tool
- F.** Hand tool
- G.** Track Select tool
- H.** Rolling Edit tool
- I.** Razor tool
- J.** Slide tool
- K.** Zoom tool

More info on the use of each tool is at <https://helpx.adobe.com/premiere-pro/using/panels.html>

Remove Background Audio Noise

- ▶ Click the A2 audio clip to highlight it on the timeline
- ▶ From the Effects panel drag Audio Effects\DeNoise to the A2 audio segment

Alternatively, Audio clips may be edited in Audition by right clicking the clip and selecting “Edit Clip in Adobe Audition”.

Clicking the “M” on the audio track line in the timeline panel will mute the selected track.

Clicking the “S” on the audio track line in the timeline panel will put the selected track in “Solo” mode, meaning it will be the only audio track that plays. When many tracks are involved, this is quicker than muting all the other tracks.

Import Closing Logo

- ▶ Using Media Browser, import ClosingLogo.jpg from Images
- ▶ Drag the image from Project Panel to **V3** at 31:18 on the timeline
- ▶ Change its length on the timeline so it extends past audio end
- ▶ Add a cross dissolve to the beginning of the logo
 - ▶ From the Effects Panel
 - ▶ Drag Video Transitions/Dissolve/Cross Dissolve to the start of the logo
 - ▶ Adjust the dissolve length to 5 frames

Cross Dissolve is the most common effect that I use. It can only be added to the beginning or end of a clip and you may need to zoom in (using the slider at the bottom of the timeline) to see this effect on a clip. Once you zoom in, you can click on the effect in the timeline and then set its length in the Effect Controls window.

The 31:18 indicates 31 seconds and 18 frames into the project. I selected this location by playing the video and picking a point just before the speaker started to give the contact information, which is shown on the closing logo slide.

Add a Magnify Special Effect

- ▶ Right Click the Logo JPEG on the Timeline to select it
- ▶ Move the play head to 33:24 by typing it into the timecode
- ▶ In the Effects Panel double click Magnify under Video Effects/Distort
- ▶ In the Effect Controls Panel set "size" to 125
- ▶ In the Effect Controls Panel set "Magnification" to 150%
- ▶ In the Effect Controls Panel set "Center" to 1260 and 1654 and click the clock to set a key frame.
- ▶ Move the play head to 41:05 By typing it into the timecode
- ▶ Set a second key frame by clicking the "0"
- ▶ In the Effects Control Panel set "Center" to 2703 and 1654.

The Magnify special effect is like placing a magnifying glass over a part of the frame. The magnification is the percent bigger the magnified area will become. 100 is no change in size. Size is the size in pixels of the area to be magnified and center is the pixel address of the center of the magnified area. Values are determined by using the slider to position the magnified area. For this example, the start and end points are placed in solid blue areas before and after the text to be magnified so the magnification does not show prior to or after the effect.

I chose the timeline locations based on playing the video and noting the time when the speaker said the information which I wanted to highlight. I chose the center number based on moving the Magnify up and down the screen till it was centered on the line of text I wanted it to apply to. I also adjusted its size and magnification so that it did not affect surrounding lines.

Add a Second Special Effect

- ▶ Move the play head to the second key frame by clicking the right arrow
- ▶ Move the play head forward one frame by clicking the Frame Forward icon
- ▶ Set a third key frame by clicking the "0"
- ▶ In the Effects Control Panel set "Center" to 850 and 1875 and click the clock to set a key frame.
- ▶ Move the play head to 47:07 by typing it into the timecode
- ▶ Set a fourth key frame by clicking the "0"
- ▶ In the Effects Control Panel set "Center" to 2960 and 1875.

This is included to show that effects can be used multiple times within a clip. Since we want the effect to start at a different location than the ending of the prior effect, we advance a single frame, create an additional key frame, enter the new location, go to the end time, create a fourth key frame and enter a final location. Alternatively, the Magnify effect could be dragged to this clip a second time. The approach shown is more efficient.

Add a Title

- ▶ Switch to the Graphics workspace which opens Essential Graphics
- ▶ Scroll down to the "Classic Lower Third Two Lines" Title Template
- ▶ Drag the template to 08:16 on the V2 timeline
- ▶ Highlight the Title clip in the timeline (it gets a grey box around it)
- ▶ On the Program Panel, double click and highlight "ADD TITLE HERE"
- ▶ Replace the title by typing "Sales Representative"
- ▶ On the Program Panel, double click and highlight "Insert Name Here"
- ▶ Replace the title by typing "John Doe"

Note: Georgia is a good font for video

Scaling Video Clips

- ▶ Select P1020052 in the Timeline
- ▶ Expand Motion in the Effects Control panel
- ▶ Scale to 160
- ▶ Change position to 2020 1400

Scaling video is similar to cropping a still image. The position option lets you decide the portion and location of the displayed image. The anchor point indicates where commands are relative to. Common anchor points are the center of the frame or a frame corner.

To avoid pixilation, it's best not to upscale video such that the exported video will be larger than the source video; however, if the source video is at a higher resolution than the final video, scaling allows very smooth scrolls and crops without pixilation as long as it is limited in scope.

Scaling Video with Key Frames for Pan and Zoom Effects

- ▶ Move the play head to 22:02 by typing it into the timecode
- ▶ Select P1020052 in the Timeline
- ▶ Expand Motion in the Effects Control Panel
- ▶ In the Effects Control Panel click both Position and Scale clocks to set a key frame for both attributes.
- ▶ Move the play head to 26:22 by typing it into the timecode
- ▶ Set a 2nd Scale key frame and set the value to 141
- ▶ Set a 2nd position key frame and set the value to 1288 1510
- ▶ Add ClosingLogo to V2 ending at 26:24
- ▶ Set ClosingLogo scale to 50 and Position to 2774 628
- ▶ Add a cross dissolve to the closing logo

To avoid pixilation, it best not to upscale video such that the exported video will be larger than the source video; however, if the source video is at a higher resolution than the final video, scaling allows very smooth scrolls and crops without pixilation as long as limited in scope.

Lumetri Color: Basic Image Corrections

- ▶ Select P1020052 in the Timeline
 - ▶ Drag Video Effects/Color Correction/Lumetri Color from the Effects Panel to P1020052 on the Timeline
 - ▶ Expand Lumetri Color/Basic Correction in the Effects Control Panel
 - ▶ Change Shadows to 75
-
- ▶ Set the time code to 07:27, Type I
 - ▶ Set the time code to 47:10, Type O
-
- ▶ Save Project

The Lumetri Color effect allows making Lightroom like changes to video clips.

I set the In Point by finding where speech starts and then backing up frame by frame until I find a frame where I like the speaker's pose. While YouTube selects a key frame for use as an icon based on its analysis of the project, many applications just use the first frame so I want to make sure it looks good.

I select the Out Point just after the speaker finished talking. Since this video ends with a contact banner showing I leave it that way. On other videos, I use a fade to black effect at the end.

Adding Background Music

- ▶ Import exhale.wav to the project from the audio directory using Media Browser
- ▶ Drag exhale.wav from the Project Panel to the in point on the timeline
- ▶ Select exhale.wav on the timeline and set level to -15db in Effect Controls
- ▶ Add level keyframes at 43:05 and 47:04
- ▶ Set the level to -287 at the second keyframe

Background music and sound effects are extremely effective in setting mood and keeping viewer attention. They are also very helpful in hiding low level background noise that may exist in the primary audio track.

Setting the level to -15 lowers the volume of the music so it's in the background and not competing with the primary voice message.

Setting two key frames and an even lower level causes the music to fade out at the end even though the clip continues.

Performance Recommendations

- ▶ File: Project Settings / General / Renderer
For AMD use OpenCL; for Nvidia use CUDA (most common)
- ▶ Use different scratch disks
- ▶ Use Ungest / Create Proxies 1024x540 H.264
Add toggle proxies icon
- ▶ Use Global Fx Mute
- ▶ Set program scale to a low number

Some types of edits, such as switching which clip is displayed, are processed very quickly by video editors. Other types of edits, such as changing the contrast level, require the video editor to re-render every frame of the video, or typically 30 frames from each second of video. Since several such adjustments may be required per frame, these can easily exceed the capabilities of even fast CPUs and result in dropped frames during preview on the program monitor. Use of a powerful GPU (Graphics Processor Unit) and a display card can provide significant help, and the problem is resolved when playing the final rendered video since all of the processing occurred at the time of rendering and does not need to occur during playback. However, playing a video with too much resolution and limited compression may still cause dropped frames.

Demo final segment with and without GPU (i.e., Software only)

Demo final segment with different scale numbers

NOTE: These settings can be changed using File/Project Settings/General/Renderer

The recommendations on the slide do not affect "Export" which will use full quality.

Export the File

- ▶ With the Program Monitor or Timeline highlighted (blue boarder) select File/Export/Media...
 - ▶ Set Source Range to Sequence In/Out
 - ▶ Set Format to H.264
 - ▶ Set Preset to YouTube 1080P Full HD
 - ▶ Set the Output Name to where you want your file saved
 - ▶ Set "Loudness Normalization to ATSC A/85
 - ▶ Click Export
- ▶ Play the output file to confirm everything looks good

Queue may also be used for background rendering with Adobe Media Encoder.

Note: Premiere Pro will default to using the directory that was used the last time a project was closed. Premiere Pro will default to using the filename of the first imported clip for the filename when exporting.

Before exporting, select either the timeline window or the monitor. Export will not function if some other windows are the currently active window.

Resources

- ▶ Video Editors
 - ▶ Premiere Pro \$\$ and/or Premiere Rush
 - ▶ Photoshop \$\$
 - ▶ Lightroom \$\$
 - ▶ Photoshop Elements Premiere \$
 - ▶ Corel VideoStudio \$
 - ▶ DaVinci Resolve (lite)
 - ▶ iMovie
 - ▶ Windows Photo and Movie Editor
 - ▶ YouTube
 - ▶ Apps from your camera manufacturer

\$\$ indicates a monthly license fee

\$ indicates a one-time license fee

Blank indicates a free item

Free Resources

- ▶ Sound Effects

- ▶ https://offers.adobe.com/en/na/audition/offers/audition_dlc/AdobeAuditionDLCSEFX.html
- ▶ <https://freesound.org/>
- ▶ <https://www.youtube.com/audiolibrary/soundeffects>

- ▶ Music

- ▶ <https://www.youtube.com/audiolibrary/music>
- ▶ NoCopyrightSounds – YouTube
- ▶ https://www.youtube.com/results?search_query=100+copyright+free+music
- ▶ Some may require attribution. None require a fee.

Additional Commonly Used Effects

- ▶ Sound Effects
 - ▶ DeHummer, Graphic Equalizer, Reverb and Mute
- ▶ Video Effects
 - ▶ Gaussian Blur
 - ▶ Warp Stabilizer – to fix handheld camera shake problems
 - ▶ Dust and Scratches
 - ▶ Wipe – to transition between scenes
 - ▶ Dip to Black

Questions