

EDITING VIDEO PRESENTATIONS FOR NANO HUB

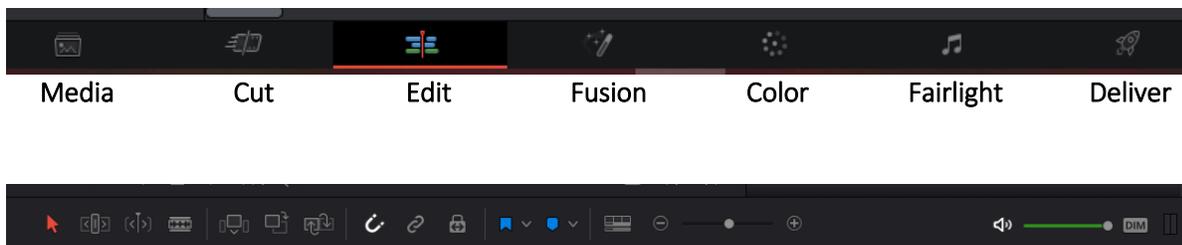
Setting up the Project

If there is not one already, create a unique folder for the project.

Use the nanoHub format of Year.Month.Day-Name-Series (EX: 2017.11.27-Strachan-BIRCK) to name the folder. *****This naming format is very important. We use it for files and folders associated with each individual project, so it must remain consistent*****

A capture footage video file and Powerpoint file for the project should be placed in the folder.

Open DaVinci Resolve and go to the **Media** tab, the right most tab on the bottom.



From left most to right most:

Selection Mode – A

Trim Edit Mode – T

Dynamic Trim Mode (Slip) – W

Blade Edit Mode – B

Insert Clip – F9

Overwrite Clip – F10

Replace Clip – F11

Snapping – N

Linked Selection – Ctrl + Shift + L

Position Lock

Flags – G

Markers – M

Timeline View Options

Zoom In/Out

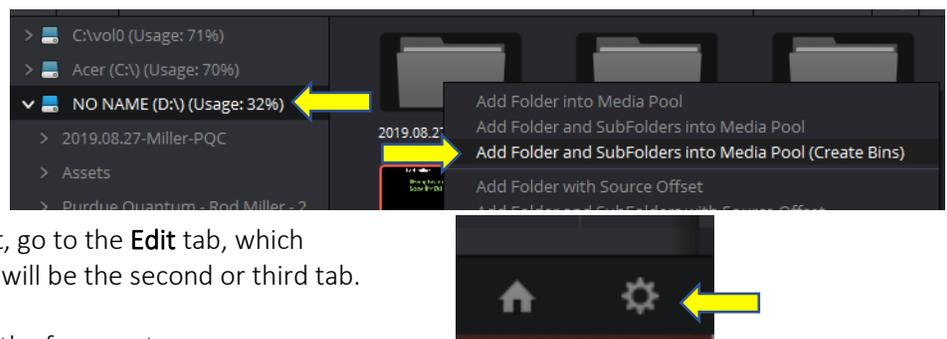
Volume

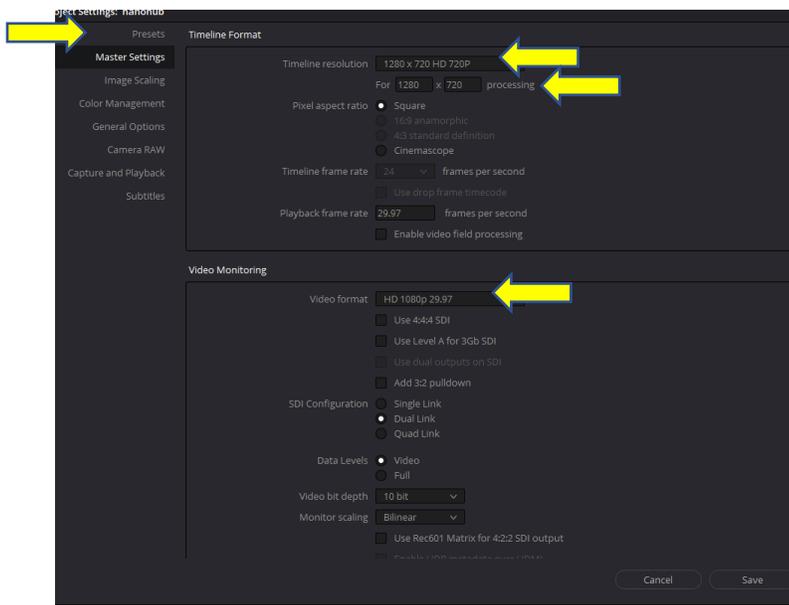
In the top left, go to the folder with the footage/assets/etc and choose

Add Folder and SubFolders into Media Pool (Create Bins). Once all

the media is imported into the project, go to the **Edit** tab, which depending on your version of Davinci, will be the second or third tab.

If a text box appears asking to change the frame rate, DO NOT change the timeline framerate.





Click the **Project Settings** button (Gear) and use the following settings.

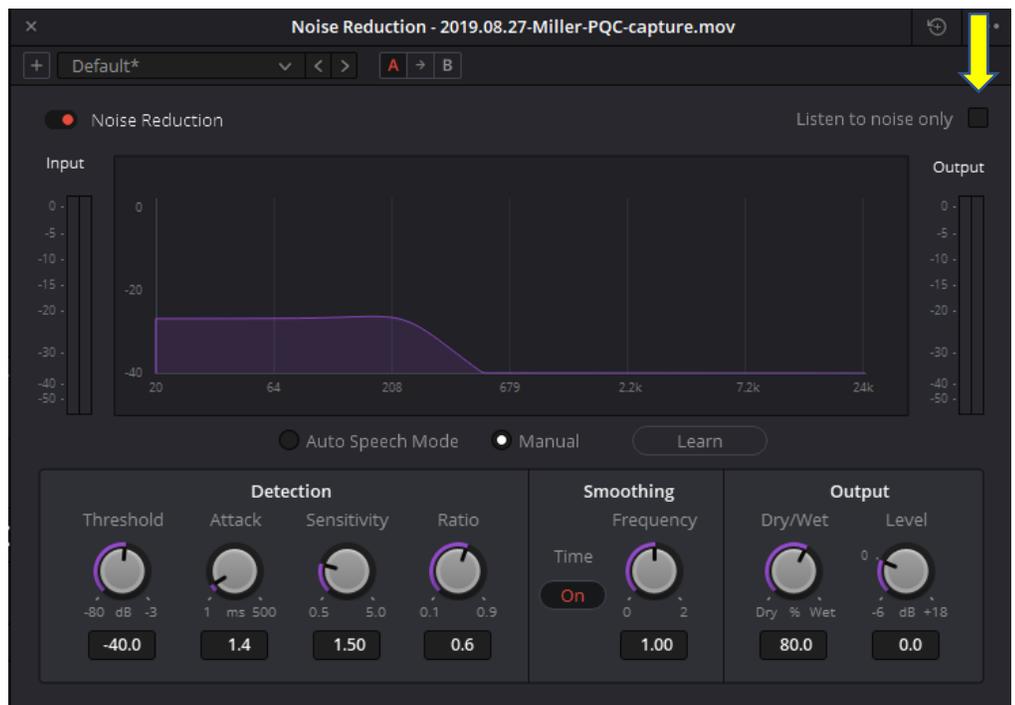
If you have not already, after choosing the settings, go to Presets at the top right, select **Current Project**, click **Save As...** and save it as **Nanohub 1280x720**. In the future, instead of changing all the settings, simply go to presets, select the **Nanohub 1280x720** and hit **Load**.

Select **Save** at the bottom of the window. Now either press **Ctrl + s** or go to **File > Save project As...** and name the project the same as the video capture but with the video dimensions instead.

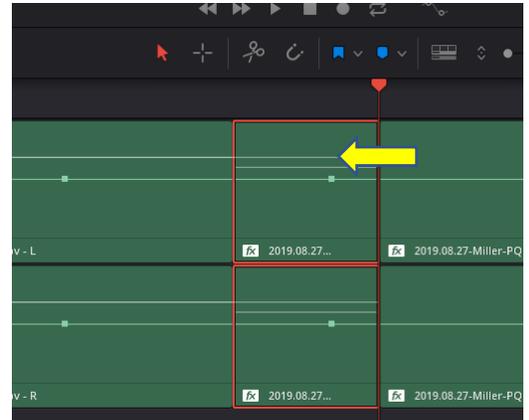
Editing Audio Track

In DaVinci, Under the filter box on the bottom right, go to **Audio FX > FairlightFX** and drag the **Noise Reduction** effect onto the audio track.

The following window will show up, either click **Auto Speech Mode** or choose **Listen to noise only** and manipulate the dials so that only a buzz or background hum is heard. If you make a mistake press **Ctrl + z** to undo the last action.



Next, go through the audio tab and locate coughs, door slams, lip smacks, or other noises that can be isolated and removed. To remove the audio, position the scrubber before the noise and cut, and then after the noise and cut. Grab the thin white line and drag it down until the audio can't be heard anymore. Apply approximately -12dB to soften noises, -48dB to eliminate unwanted sounds.



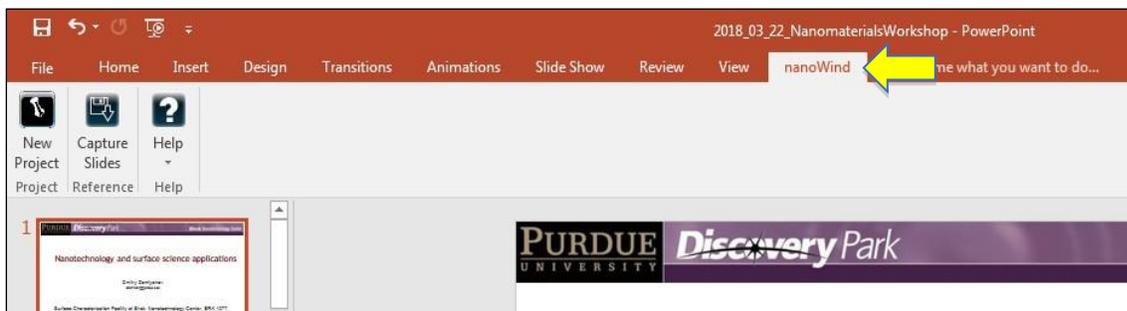
Preparing Presentation Slides for DaVinci

To Capture Slides from a Powerpoint File (PPT):

Copy the PPT file to a flash drive and drag it to the desktop on the laptop computer.

Open the PPT Presentation. Briefly review the PPT to ensure it appears visually as it should (aspect ratio, images, fonts, formulas, etc)

Under the nanoWind tab click on Capture Slides.



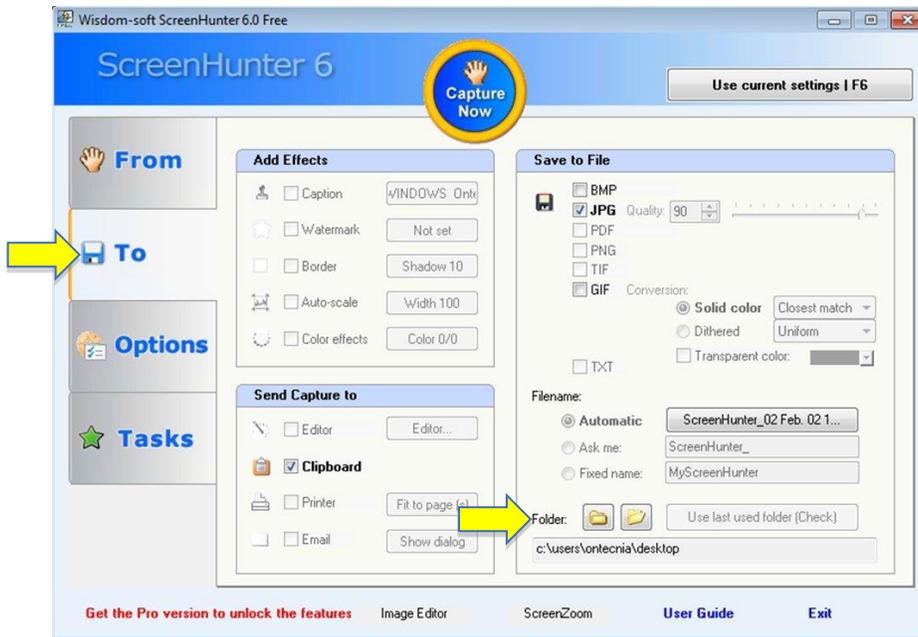
Select Manual Capture.

Press "P" to capture and advance each slide. Be sure to let any slide animations finish before advancing. The slides will be saved as image files in a newly created folder on the desktop.

To Capture Slides from a PDF File:

Copy the PDF file to a flash drive and drag it to the desktop on the laptop computer. Create a folder on the desktop with the exact same name as the PDF file.

Make sure the screen resolution is set to 1024x768, and then open ScreenHunter. Click on the "To" tab and set the save location to your folder.



Open the PDF in Adobe Acrobat/Reader and view in Full Screen Mode. Use F6 to capture each slide and then click the arrow to advance to the next. When you're done, the folder will be full of images. You may need to rename them to our standard slide name format (EX: 001.01.jpg).

Once you've got a folder of slide images, copy it to the flash drive. Delete it and the presentation file from the laptop.

Copy the image folder from the flash drive to the project folder on your computer.

Drag the slide images folder from the Finder into the Davinci media window where your assets are located. Now you can double-click on each image as you watch through the presentation to make sure you have the correct corresponding slides.

**If a presentation requires a reordering or removal of slides you may have to edit the presentation file and repeat the steps above. Do not delete or write-over the original presentation file. Save a new version with "-Edit" at the end of the file name. Lastly, wide aspect ratio slide images will need to be photoshopped to fill in the blank space on the top and bottom. **

Placing Slides into the Timeline

Watch the whole presentation and place a marker on the video and audio tracks of the capture clip for when each slide transition should occur. Placement should occur in consideration of the dialogue of the speaker, which may not be exactly when they advance their slide. Typically, you should let the speaker finish their last words on the slide before advancing to the next one. Try to place slide transitions in the middle of a pause.

To place markers, make sure the video and audio tracks of the capture are selected. Press "M" on the

keyboard when you've positioned the scrubber at the transition point. To delete a marker, select it with your cursor and press **Delete** or **Backspace**.

While watching for slide placement continue to listen for any coughs, loud breaths, door slams, or questions that can be edited from the audio track in either the audio tab or the edit tab. In addition, make any necessary cuts to the audio and video tracks (Press the **Splice** icon to use the splice tool) – starting point, ending point, technical difficulties or “dead time”. Make the cuts, and **Ripple Delete** or just **Delete** them.

Make sure that there is no empty or black footage in the video timeline and to line up the video if there is.

Creating nanoHUB Title Slide and Corner Image

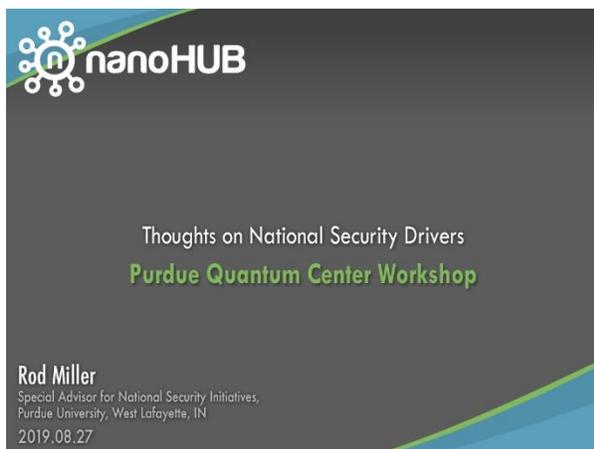
From the assets folder open [nanoHUB-corner.psd](#) and [nanoHUB-title.psd](#) in Photoshop.

Edit each image with appropriate Title, Series, Name, and Date information.

Save each as a jpeg in the project folder.

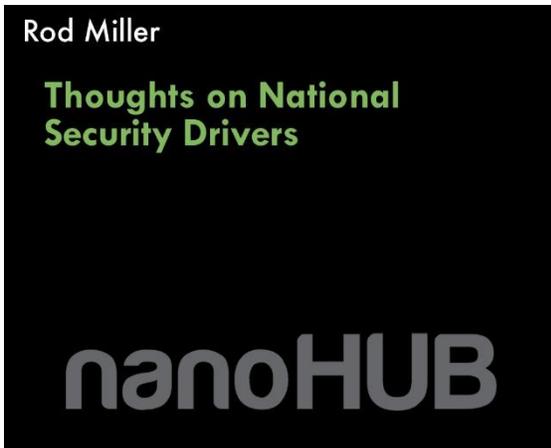
Name the jpegs with the nanoHub format, for example: [2017.11.27-Strachan-BIRCK.jpeg](#). For the corner image add “-corner” to the end of the file name.

In Davinci, drag the slides into the media tab or go to **File > Import File...** and choose the slides through that menu.



Drag the corner image to its own video track above the slides in the timeline and extend the duration of the image to the end of the capture.

TITLE IMAGE GOES TO THE FRONT OF TIMELINE
FILE NAME [2019.08.27-Miller-PQC-cover.jpeg](#)

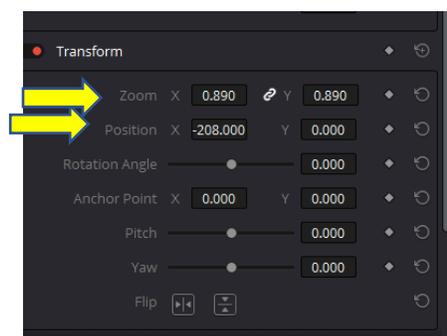
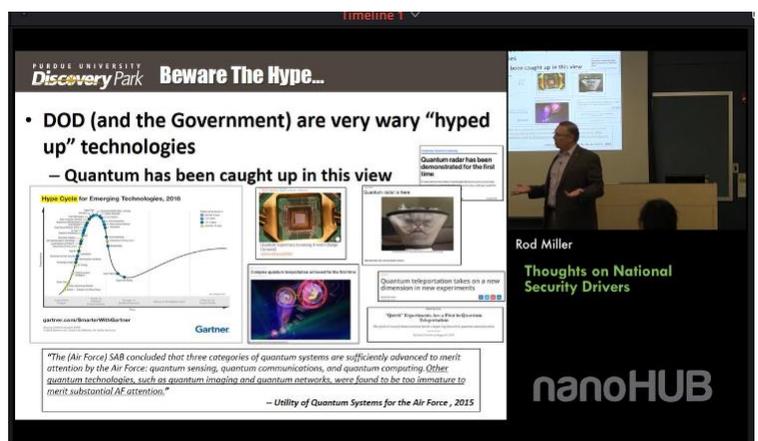


CORNER IMAGE GOES ACROSS ENTIRE TIMELINE
 FILE NAME 2019.08.27-Miller-PQC-corner.jpeg

Positioning and Resizing Clips

Now that all the necessary elements are on the timeline, they need to be sized and positioned to fit next to each other within the canvas to look like this:

The placement would be flipped horizontally if the presenter in the video were standing to the right of the projection in the video. If possible, the capture footage can be scaled and cropped to maximize the size of the presenter.



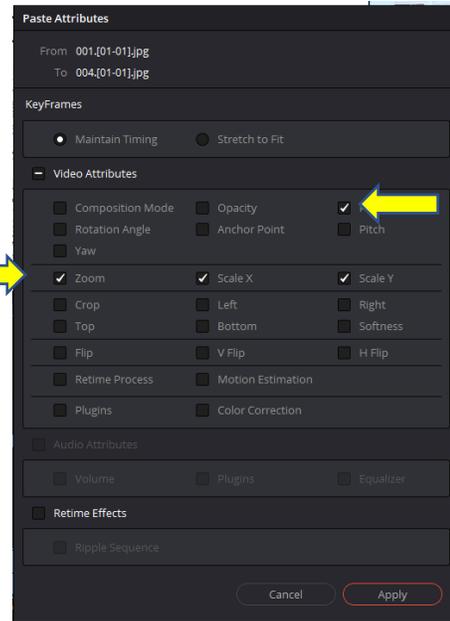
These are the settings for the slide position.

Once the settings for one slide have been made, right click and copy the slide with the attributes and select all the other slides and select **Paste Attributes** and the following window will pop up.

Select the **Position** and **Zoom** boxes and make sure that under the zoom section that **Scale X** and **Scale Y** are selected.



The main video clip should be in the aspect ratio of 3:4.



Creating Freeze Frame for Introduction

At the very beginning of the video track there should be a gap in front of the capture footage which matches the duration of the introduction audio. A freeze frame has to be created to fill the gap while the audio plays.

Find a suitable place to take a freeze frame (Mouth closed, looking at camera, full body in frame) and make two cuts on either side of it with the **Blade Edit Tool**, then move to the frame and either go to **Clip > Freeze Frame** or hit **Shift + R**. This will replace the small cut you made with a freeze frame, copy the freeze frame and hit **Ctrl + Z** until the cuts are undone. Now go to the start of the video track and either right click and paste the freeze frame or press **Ctrl + V**.



Inserting Beeps at Slide Transitions

A beep is inserted into the audio tracks to indicate each slide transition.

In Davinci, import the audio file iPod_nav_short-new.wav from your Assets folder.

At each new slide transition put the audio file under the original audio track. You can either drag it from the media bin or copy and paste it at each transition.

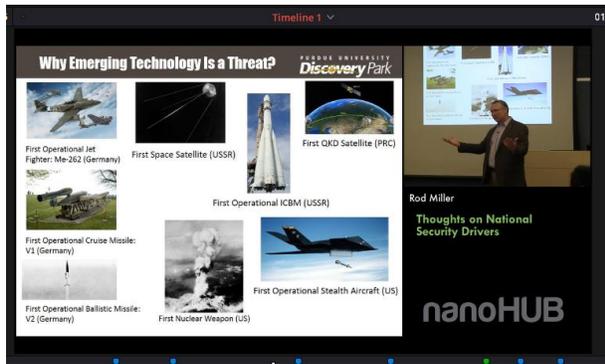
DO NOT PUT BEEPS FOR SLIDE ANIMATIONS OR STEP SLIDES, ONLY ON TRANSITIONS (1.01 to 2.01, not 1.01 to 1.02 to 1.03 to etc...)

While placing the beeps it is beneficial to zoom-in and do a quality check for gaps as well as the timing of the slide transitions.

Specialty Edits

Adding Go-Back Slides

Add a go-back slide if the presenter returns to a previous slide.

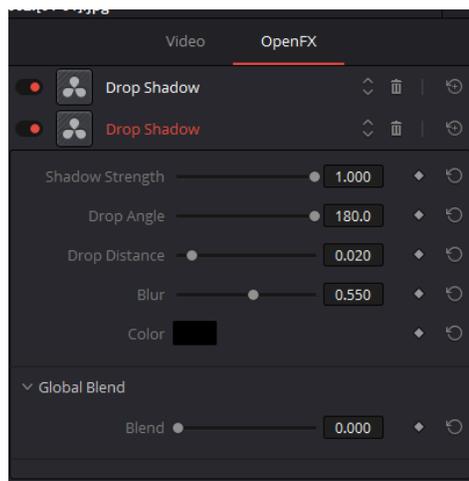
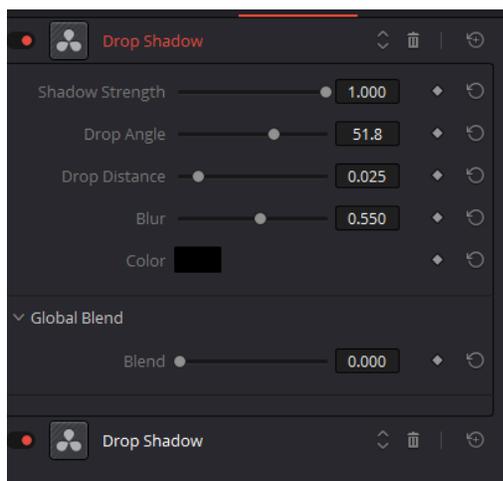


Without the go-back slide



With the go-back slide

Add two **Drop Shadow** filters under the **Open FX** tab and drag it to the go back slide twice. Now click the go-back slide twice and in the clip information window at the top right go from **Video** to **OpenFX**. To change drop shadows double click their name and use the following settings.



Capture Video

From Powerpoint Slides

Open the PPT file and use ScreenFlow to video capture the screen as the videos from the slides play. (If

you don't have ScreenFlow, you may be able to expand the PPT file as a ZIP file to extract some of the video files used in the PPT. Copy the PPT file and change the extension to .zip and then expand.)



Open ScreenFlow.

When you press the red record button, ScreenFlow will start recording your computer screen. If you need the video's sound, be sure to check the box for Record Computer Audio.



Go through the slide presentation in Powerpoint and stop on any individual slides that contain video clips. Press Shift+Command+2 to stop the recording. The footage you captured from your screen will open automatically in ScreenFlow.

Go to FILE > EXPORT. Use Preset Web-High and Dimensions Scale 50% (Scale depends on how many pixels you actually need). Uncheck audio if not needed.

Create a new folder titled "Slide Videos" for the project. Save each clip with a name that numerically will correspond to its placement within the Powerpoint presentation.

Import the videos folder into Davinci.

Adding Video Clips

If the PPT presentation had video files that were captured with ScreenFlow they can be added in their own video track on top of the slides in Davinci. If there is already a track for go-back slides, the track for the slide videos should sit on top of that.

Drag each video clip from the Media Bin to its corresponding slide in the Timeline. Match up the duration of the clip so it is synced as closely as possible to what is seen in the original capture footage. Crop, scale, and position the video clip so it seamlessly blends into the static jpeg image of the slide that is behind it. Access this menu by double clicking a clip and using the clip information window to crop, move and scale the video.

Making the Wind Version

Now that the 1280x720 is complete it can be converted to a second video sized to 400x300. The smaller video will be used in conjunction with data from the Timeline to create an interactive version of the presentation. Here is a link to a completed presentation posted on nanohub.org, click on View Presentation to see the interactive version.

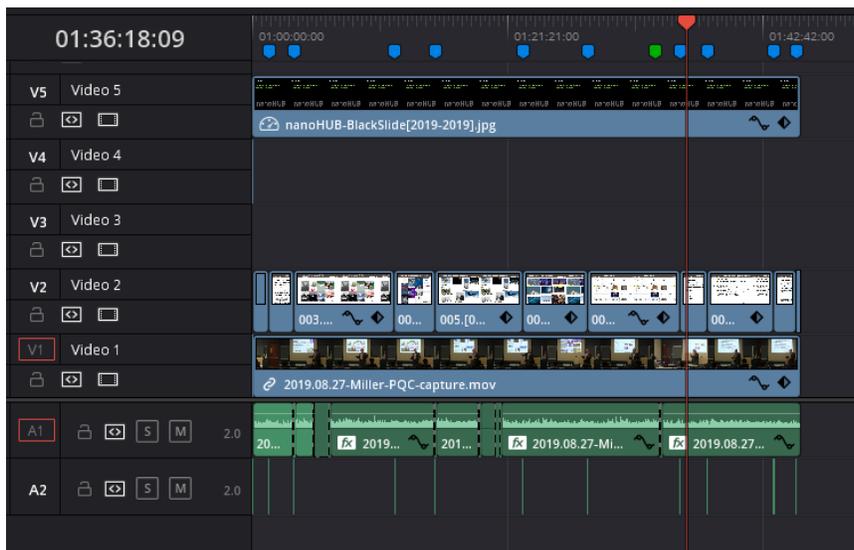
<http://nanohub.org/resources/27743>

In the media bins, right click under **Master** and select **Timelines > Create New Timeline...** and name the timeline wind.

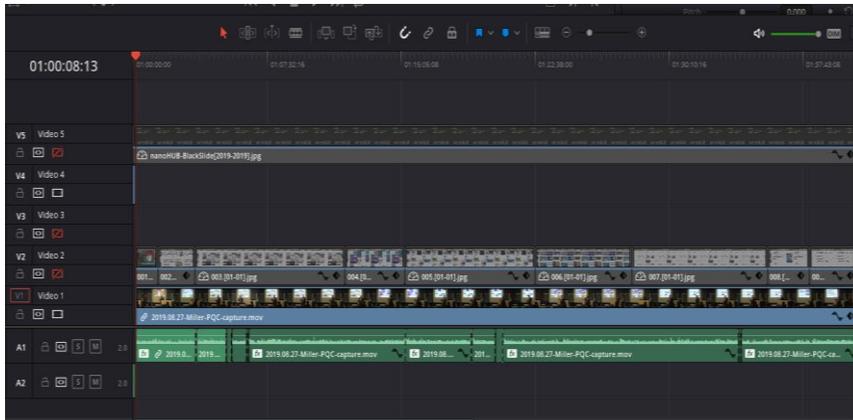
Once the timeline is created click the **Project Settings** button, change the timeline resolution to 400x300 and the framerate to 29.97.

Save this as a wind preset. **You will have to change presets each time you switch timelines!**

Copy the whole project from the 1280x720 version and paste it in the new timeline. Turn off all layers except the cover slide, main video track and all audio tracks. Remove all beeps. Scale the capture footage to fit the whole screen. Remove cover slide and then but it back in to resize it.



Completed 1280x720 timeline



Completed wind timeline

Making Wind Versions of Slide Videos

If your project had any slide videos you need to make a 1024x768 sequence for each of those videos. The slide jpegs are 1024x768, so essentially you are creating a video version of that static jpeg image.

Make a new timeline with the settings 1024x768, drag the video clip into the timeline and render it out as an .MOV.

Exporting Completed Sequences

Once each sequence is completed, they need to be rendered from Davinci in a few different formats.

Go to the **Deliver** tab and rename the clip with the appropriate name, ex 2019.08.27-Miller-PQC-1280x720. Always put the dimensions at the end of the clip like -1280x720 or -720x576-wind.

Change the format to **Quicktime**

Make sure the resolution is **1280x720** and the framerate is **30(3:2)** or **400x300** with **30(3:2)** framerate, **YOU NEED TO MANUALLY CHANGE THESE, THE TIMELINE SETTINGS WILL NOT CARRY OVER.**

Go to the **File** tab and make sure the name is the same with naming protocol.

Once done select **Add to Render Queue** at the bottom of the Render Settings window and select start render at the bottom of the Render Queue window, you need to do this for both the 1280x720 and the wind. **Make sure to change timeline settings when you switch timelines.**

If there are any slide videos rename the clip with the suffix **-1024x768** and change the pixel ratio to **1024x768**.

To make the pixel aspect ratio custom, select **Custom** as an option and change the ratio to 1024x768. Make sure the frame rate is 30 and add to render queue.

Now go to the wind timeline, select **File > Export AAF/XML** and export it with the proper name -720x576-wind. Make sure you choose the option that just has the XML extension and not FCPXML.