"What turns me on about the digital age, what excited me personally, is that you have closed the gap between dreaming and doing. You see, it used to be that if you wanted to make a record of a song, you needed a studio and a producer. Now, you need a laptop."

Bono

Digital

Tools

Tutorials

"Style used to be an interaction between the human soul and tools that were limiting. In the digital era, it will have to come from the soul alone."

Jaron Lanier



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P H O T O M E C H A N I C

getting your photos from the camera to the computer http://www.camerabits.com



Photo Mechanic is an image browser.

With it you can:

- I. Look at your digital photos
- 2. Import them from the camera onto a computer or harddrive
- 3. Caption
- 4. Sort
- 5. Edit

Using the features of Photo Mechanic is the first step to staying organized and sane as you work with large numbers of digital images.



USING PHOTO MECHANIC

Getting Photos There To Here

(or, how do I get photos from my camera to the computer?)

- I. Insert your digital card (SD card) into a card reader
- **2.** Open Photo Mechanic
- **3.**Select 'Ingest' from the 'File' Menu (or **₩**G)
- 4. You should see the screen below.

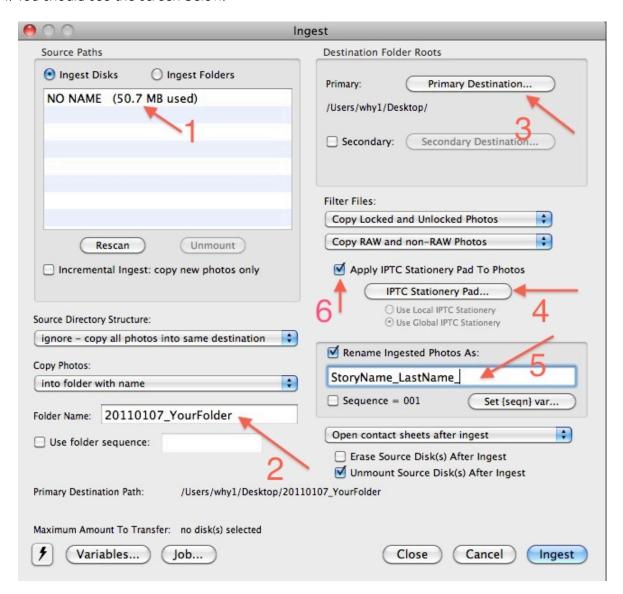


Photo Mechanic

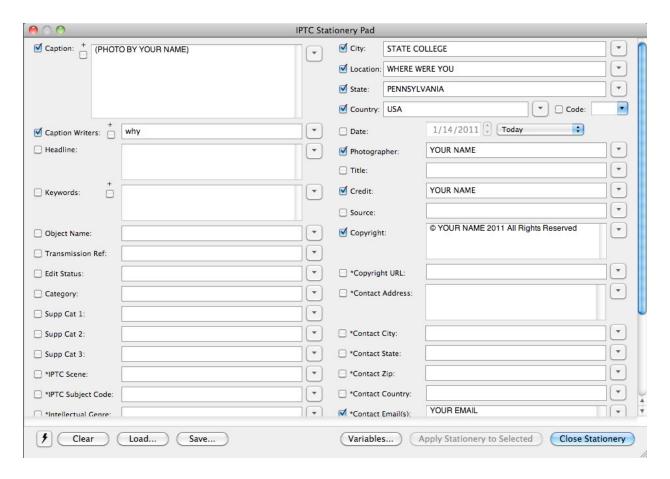
- 1. **Select** and highlight your card in the box in top left. **DON'T** select other drives that might appear such as external hard drives.
- 2. Change 'Copy Photos:' drop down to 'into folder with name'. Name your folder
- 3. Select 'Primary Destination': I suggest either desktop or your external drive when in the lab.
- 4. Enter **caption** info using 'IPTC Stationary Pad' (see below)
- 5. Click 'Rename Ingested Photos As' to rename all your files
- 6. Check the' Rename Ingested Photos As' box to apply your captions to your images
- 7. Click 'Ingest' to begin.

IPTC Stationary Pad

You can add a bulk caption to all your images at one time (returning later to add specifics to individual images)

Why Do This?

- I. Will save you **LOTS** of time later on
- 2. Makes all your images immediately **searchable**



Caption:

Enter the basic facts of the assignment and your photo credit.

City, Location, State, Country

All of this is searchable later and can be useful

Date

Date the assignment was shot. Change this from 'Today' if necessary.

Photographer, Credit, Copyright

Extremely important to have your name attached to your images.

TIP

'option G' will create the copyright logo

Email and URL

scroll down and enter your email and website if you have one

TIP

IF you use an external drive you can save this information and load it each time you use Photo Mechanic. (Unfortunately the lab computers erase data each night so you can't save it on the

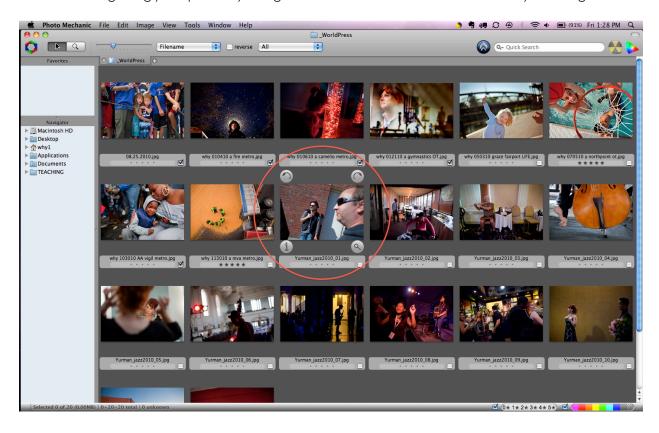
Photo Mechanic

computers)

Click 'Save...' at the bottom to save a caption. Click 'Load...' to install a previously save caption

Working With Your Photos

After ingesting your photos, you'll get a Photo Mechanic 'contact sheet' of your images.



Rolling your mouse over an image will reveal the tools as shown in the circled photo

Photo Mechanic Basics

Photo Mechanic can do many things for you. This tutorial will cover the basics; browsing, organizing and captioning your images

- I. A contact sheet shows you the images in one folder. You can have multiple contact sheets open at the same time.
- 2. Select an image in a contact sheet by clicking on it:

TIP

Use Shift key to select multiple photos. Use the Command key to select non-contiguous photos

Photo Mechanic



Curved arrows rotate the photo **"i"** opens the caption dialogue box (more about that soon) **Magnifying glass** shows a larger version of the image

In contact sheet mode you can:

'tag' photos - click the small box in the lower right of each image

'rate' photos – add one to five stars by clicking on the circles at the bottom center of each image Assign color code to photo(s):

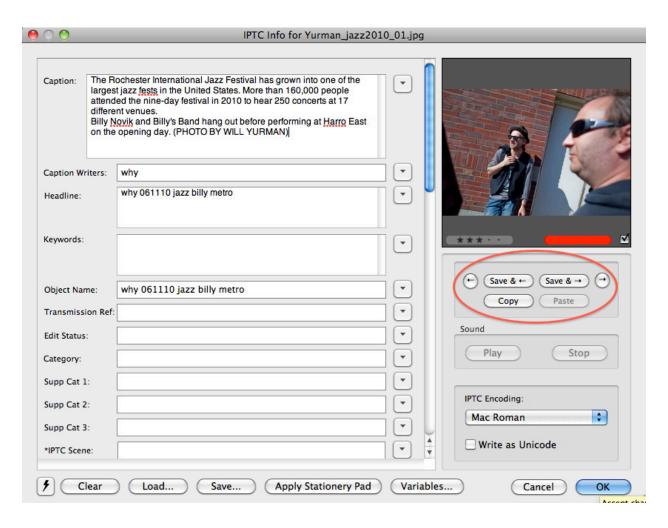
select image(s) and go to the tool bar: Image/Set Color Class

TIP

#1, #2, ... #8 will assign different colors. #0 will remove a color

CAPTIONS

Click the 'i' button to view the caption



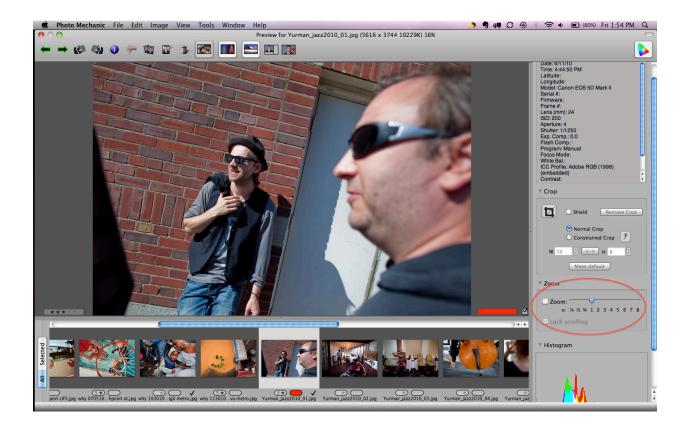
In this field you can change/edit/expand your captions for this individual photo.

TIP

Note the red circle If you are captioning multiple photos you can copy this caption, click 'Save &...' and then paste the same caption in the next photo. This can save you a LOT of time.

PREVIEW

Click the magnifying glass under an image in a contact sheet to enlarge the view:



From this view you can scroll through a contact sheet

TIP

Use the left and right arrow keys on the keyboard to scroll

Tag and star images in this field as well.

TIP

The 't' key will tag a photo control 1, control 2....control 5 will add the equivalent number of stars

Click the 'zoom' box and use the slider to examine details in a photo

While you can crop in Photo Mechanic, it's generally easier to save this step for PhotoShop

Finally

Photo Mechanic

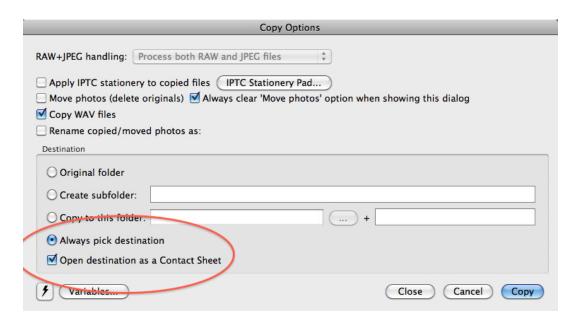
- You've used Photo Mechanic to view, edit and caption your images.
- You've selected the ones you want to use.
- Now What?

Create a folder of Edited Images by copying your selects:

IMPORTANT:

ALWAYS WORK ON COPIES OF YOUR ORIGINALS - NEVER TONE OR CROP OR SIZE THE ORIGINAL FILE

From Menu: File/copy photos or %Y



TIPS

Click 'Always pick destination' to create a new folder for the images

Click Open destination as a Contact Sheet to immediately see the new folder

Opening in Photoshop

You can open images in Photoshop directly from Photo Mechanic for toning/cropping Select images from your new folder

Photo Mechanic

REMEMBER:

NEVER TONE OR CROP ORIGINALS. ALWAYS WORK ON COPIES

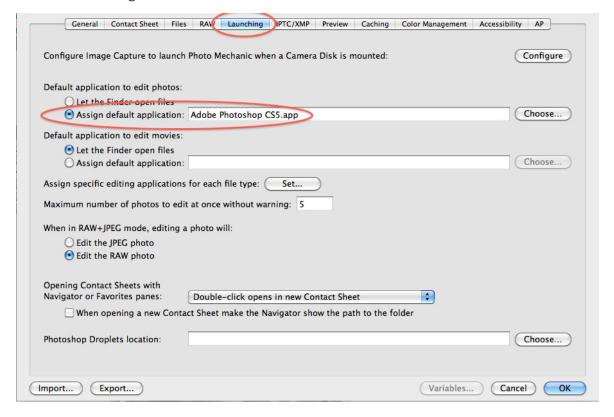
From menu: Image/Edit Photos or #E to open the images in Photoshop

TIP

If the Image(s) open in some other program, change the preferences in Photo Mechanic

Menu: Photo Mechanic/Preferences or \(\mathbb{H}, \)

Click on 'Launching' tab



Questions? Just ask.

P H O T O S H O P

An introduction to image processing http://www.adobe.com



Photoshop is a sophisticated image processor and more. It is extremely powerful.

"Power corrupts, and absolute power corrupts absolutely"

There are many stories of journalists losing their jobs and ending their careers because they abused the power of Photoshop

Just because you CAN do something, doesn't mean you should. The rules and standards of journalistic ethics apply to our use of Photoshop



With Photoshop you can:

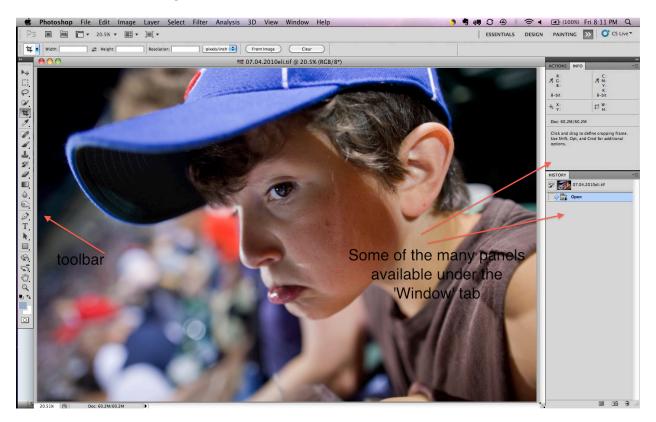
- I. Look at your digital photos
- 2. Adjust their tone/color/contrast
- 3. Crop
- 4. Resize
- 5. Caption

An understanding of the basics of Photoshop will give you control of your images

USING Photoshop

Basic Tools:

Open photos from Photo Mechanic or by using File/Open (#O) You should see something like this screen



TIP

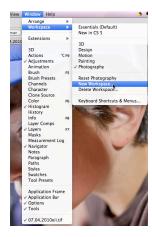
You can arrange Photoshop in a variety of ways. And you can save arrangements by going: Window/Workspace/New Workspace...

Photoshop

marquee tool (M) - allows you to select an area of an image by clicking and dragging lasso tool (L) - select an area of an image by drawing a shape around it quick selection (W) - Photoshop selects an area of similar tone automatically crop tool (C) - click and drag a box to crop the image eye dropper (i) - use with info panel to measure tone and density in an image healing brush (I) - use with care to remove sensor dust

clone tool (S) - use with care to remove sensor dust history brush (Y) - use with history panel as a toning tool.

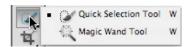
burn tool (O) - lighten and darken selective areas of an image type tool (T) - apply type over an image. NOT for daily use.



TIP

The small arrow in the corner of each tool icon indicates a submenu of similar tools.

Click and hold the icon to see that menu



Photoshop

ToolBar:

Photoshop has MANY tools. We will only explore a few of the ones that are commonly used for our purposes



Photoshop 10_(ish) Steps

Properly exposed and photographed images should NOT require extensive toning.

Photoshop is NOT the fix-it tool for lazy and bad photography.

If you get it right in the field, it should take less than **IO minutes** to tone a photograph

Steps towards a quick, accurate and repeatable method for toning digital images:

ALWAYS WORK ON A COPY - NEVER YOUR ORIGINAL FILE!!

- I. Analyze
- 2. Rotate and Crop
- 3. Basic Tonal Adjustment using Levels
- 4. Color Cast Correction
- 5. Midtone Adjustment
- 6. Dodge and Burning Use History Brush
- 7. Selective Color
- 8. Correct Detail Loss
- 9. Caption
- 10. Save File
- 11. Format Card in Camera

Step I - Analyze overall image Contrast, tonal qualities, and sharpness. Check tonal values for faces in info palette: ~36% K Value for front lit Caucasian skin and up to 70% for African American skin tones



TIPS

Select the eyedropper tool, and then set the 'sample size' at the top left to 3 by 3



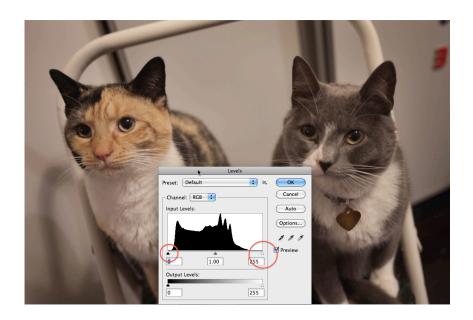
Photoshop

In the info palette set second 'eyedropper' to grayscale Read the skin tone with the eyedropper - avoid highlights or shadows when looking for skin values

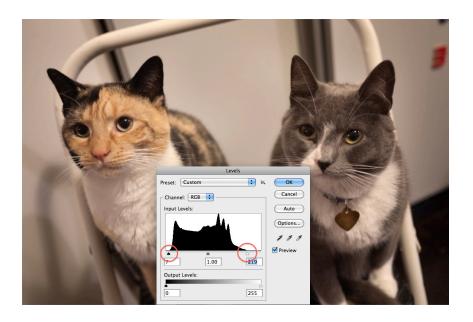
Step 2 - Rotate and Crop (C)

Step 3 - Basic Tonal Adjustment Use Levels (**%**L) to adjust Black and White points Drag the black and white points to the base of the curve

BEFORE



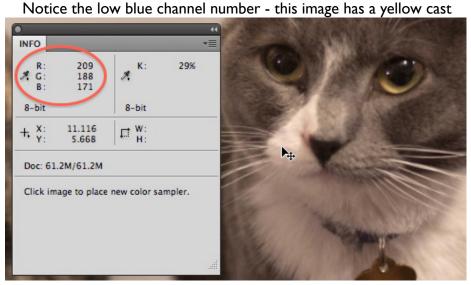
AFTER



Photoshop

Step 4 - Check for Color Cast

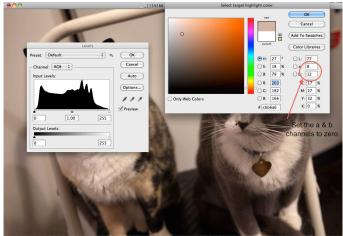
Check for color cast using the Info Palette and RGB numbers. Select a clean neutral or gray with a K value between 8-35% The RGB values should be within 10-15 points from high to low.



If not: Use the Correct Color Cast method below

Correct Color Cast

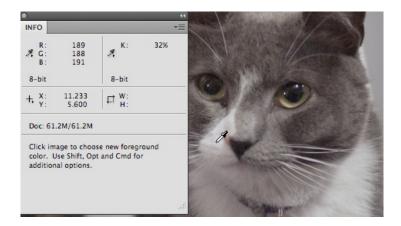
- Open Levels #L.
- Double click white eye dropper and place over a clean neutral or gray with a K value between 8-35%
- Click once at this spot and don't move the mouse.
- Click the Tab button to move through to the a and b values and change both to zero.
- Click Return
- .Click the Mouse (without moving it) to set the new white
- This should bring you close to a neutral scene



Photoshop

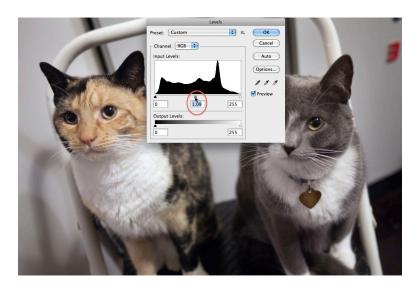
After setting white.

Notice the colorcast is gone and the rgb numbers are nearly equal



Step 5 - Midtone Adjustment

Use Levels **\mathbb{H}**L to adjust the tonal range by adjusting the middle grey tab, and the black and white points if necessary.



TIP

You can also use curves (#M) to adjust the midtones. Curves offer more control

Step 6 - Local adjustments - brighten or darken specific areas of the image using the burn/dodge tool and/or Levels combined with the history palette.

Step 7 - Selective Color (Image/Adjust/Selective Color) Use with care. You don't want to suck all the color out of an image.

Photoshop

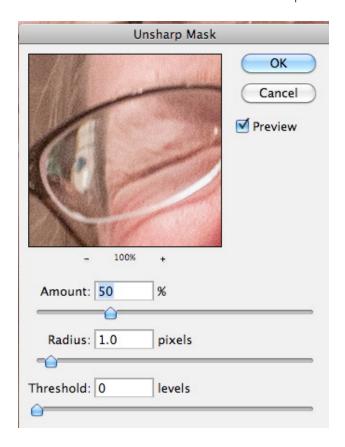
You use this to remove color casts – NOT change the color.

This subject's face had a lot of red in it. Add cyan and yellow to the red channel to fix



Step 8 - Correct Detail Loss Using Photoshop's Unsharp Mask Filter/Sharpen/Unsharp Mask

TIP
You can't fix an out of focus photo. Sharpening just brings out detail that is already there
DON'T oversharpen since it can't be undone.



Photoshop

Step 9 - Caption if you didn't use Photo Mechanic – caption in Photoshop: File/File Info

Step 10 - Save as

Use a naming convention to create a unique name for every file

TIP

Be Organized. Use a naming convention that will allow you to find images.

A common method is to start all files with yyyymmdd - 20110115 - this way images sort by year. followed by a one or two word slug: 20110115_feature_cats (avoid spaces, use underscores)

But use any method that makes sense to you.

How much is a \$100 bill worth? How much is it worth if you can't find it?

Step II – Format the Card in Camera Use the camera to format the card, never delete files off a card from the computer.

DON'T reformat until you are SURE you have properly saved your images.



Using sound

by

Will Yurman Senior Lecturer Penn State University www.willyurman.com/links

"Long before I wrote stories, I listened for stories. Listening for them is something more acute than listening to them.

Eudora Welty



Why Sound?

For some of us the answer is easy - because our bosses say so.

But audio offers chances to tell stories in ways that just aren't possible with images alone. Great audio is engaging, emotional and informative.

For years, we have given our photographs context by adding words – captions, text blocks, essays, etc. – and that can be a powerful combination. Sound does the same thing, only **better**. A viewer can look and listen at the same time. They no longer need to turn away from the image to read the context.

A well-edited audio track with strong images – video or stills – is a compelling way to tell stories. And gathering sound while photographing makes us better journalists by forcing us to spend more time and thought on a story.

It is also hard work, which requires **more** time, **more** energy, and **more** skills.

Sound has become a crucial part of storytelling on the web. Adding a soundtrack to your images gives depth to your storytelling. Good sound can make a story. Bad sound will send your audience running – to someone else's website.

Audio will almost always drive the story. Imagine watching your local news tonight. Would you rather turn off the picture and listen, or try to figure out what is going on by looking at the video without sound? We have become **storytellers** not 'just' photographers.

Hardware

There has been a boom in portable, affordable recording equipment. There are increasing numbers of digital solid-state recorders that offer the potential of dependable, easy-to-use, high-quality audio.

In the past few years a number of new recorders have been released. All offer various combinations of quality, ease of use, size and price. There is, unfortunately, not one perfect recorder. You will need to decide based on which best suits your needs and pocketbook.

Based on price, recorders seem to fall into three categories:

- I. Low-end under \$100
- 2. mid-range \$200 \$600
- **3.** high-end \$1000 and up

Low-End

You get what you pay for, but on a limited budget there are a few choices. Sound quality will range from poor to decent, depending on the recording conditions.

Olympus makes a line of inexpensive digital recorders for dictation. These are **not** to be confused with their more expensive audio recorders.

Olympus WS-600S ~\$80 records compressed audio. Small, easy to use. Built in USB connector makes it plug and play. Decent audio in quiet environments. Not a professional tool

Zoom HNI ~ \$99 the newest and smallest recorder from Zoom. Uncompressed audio. Reviews are good for the money. Small form factor means many controls are buried in on screen menus.

Tascam DR-07MKII ~\$149. OK, it's not under \$100. **New** from Tascam, certainly in the low-end price range, with uncompressed audio, and small form factor.

Mid-Range

It is the mid-range that probably is of interest to most of us – offering the best compromise of quality versus price. And luckily it is possible to get very good sound quality from these machines.

This list is not intended to be complete, just an introduction to the possibilities.

This list has gotten long. Great gear reviews (and other info) at www.transom.org (I have only used the Marantz 660.The other info comes from various reviews and websites.)

Marantz PMD 661 ~\$599 The latest update from Marantz. Very good sound, XLR connections. larger than some of the others.

Marantz PMD 620 ~ \$379 Small, good sound, no XLR.

Zoom H4N ~ \$299 some complain of hiss but very popular with DSLR users for it's small size. XLR connections

Fostex FR-2LE ~\$599 great sound, XLR inputs. Larger and more expensive than others in this category. Flimsy battery cover

SONY PCM -D50 ~\$499 Good sound with built-in mics, but sensitive to wind. Very good sound with external mic. No XLR

SONY PCM-MIO ~\$220 Baby brother to the D50 above, smaller, a few less features

Olympus LS-II ~ \$299 Good sound, decent built-in mics, No XLR.

Tascam DRI00 ~ \$290 XLR inputs. Well reviewed. Transom recommends higher output mics for this recorder

Microphones

Audiophiles argue about microphones the way photographers argue about lenses.

And just like the camera/lens marriage, if your funds are limited, it's probably better to spend on a good microphone and cut costs on the recorder.

Microphones come in various styles. They can be broken down into several categories:

Dynamic vs Condenser

Dynamic microphones need NO external power and tend to be pretty tough. They tend to be less sensitive than condenser mics.

Condenser microphones do require power, some use a battery some draw from the recorder. They tend to be slightly more fragile. (**Marantz** recommends condenser mics for the PMD 660, **Transom.org** recommends condenser mics for the Tascam units for example because of the higher output of condenser mics. Check the specs of your recorder before purchasing a microphone)

Pick-up patterns

This is analogous to the angle of coverage in a lens. Different patterns will be appropriate in different situations. Though there are also very good mics that can be used in a variety of situations for those of us on a limited budget.

cardioid - maximum sensitivity in front of the mic. Sounds to the sides and especially to the rear of the mic are largely rejected, or at least attenuated.

shotgun mics - these are basically extreme cardioid mics – The equivalent of a telephoto lens. Useful when the subject is far away. Keep in mind though, microphones don't magnify sound the way a telephoto lens magnifies the image. Shotguns simply reject sounds off to the side, isolating sounds from further away. The best sound quality will always happen when you are close to the source

omnidirectional - pick up sounds in all directions equally. Because off-axis sounds are picked up more accurately and naturally, the mics create a more realistic sound. Good from crowd noises, not so good when you're trying to interview someone in a noisy environment and want to reduce the distractions of the background.

Lavalier mics

Small mics that clip onto a shirt or collar. They can be inexpensive. Any small movement by the subject can create noise in the mics - so be careful with them. Videographers use them for interviews because they are unobtrusive. I prefer a good handheld for straight audio interviews.

Wireless mics

A great option for getting natural sound. Hook up your subject and let them loose. They come in all price ranges. You get what you pay for.

The **Sennheiser** - Evolution G3 100 Series ~\$600, is probably a best buy – often recommended as the best 'inexpensive' wireless. But there are many many options out there.

Wireless mics can be great when you want natural sound of someone doing something, or just to be cord free. **BUT** they can also fail at the worst possible times – batteries die, interference from outside sources can wreak havoc, the subject can pull off the mic accidentally – have a backup plan.

A starter list of microphones

Various mics in no particular order that have been recommended by different sources. Transom.org among others has reviewed many of the mics below as well:

- I. Sony ECM-CR120 an inexpensive lav mic that works well with the Olympus dictaphone style mics \sim \$75
- 2. Senheisser ME-66 a short shotgun mic very good quality. Part of the Senheisser modular system. With the K-6 power supply ~ \$500. (The power supply can then be used with other mics)
- 3. Audio-Technica AT825 Cardioid stereo condenser mic. ~\$350
- 4. Audio-Technica AT897 a short shotgun condenser mic. ~\$250
- 5. Audio Technica 8010 inexpensive omni mic with high output. A good choice for the less expensive recorders which need higher output mics
- 6. Shure SM58 A dynamic cardioid mic. Known as a workhorse. ~ \$100
- 7. Electrovoice 635A A dynamic omnidirectional mic. ~ \$100
- 8. Sennheiser Evolution G3 100 Series wireless ~\$600

Software

IF you record to a solid-state device like a compact flash recorder, getting sound on to your computer is as easy as connecting the card and dragging over the files.

Once the sound is on your machine you'll want to edit what you've got.

There are several software programs available for editing sound. Commercial programs can be quite expensive, though they offer the most features. Final Cut Pro comes with its own standalone audio editor – Soundtrack Pro.

For photographers on a budget, the program that offers the most bang for the buck is probably **Audacity**. NOT because it is the greatest program, but because it is **free**.

Available for Mac, PC and Linux, Audacity allows basic and some advanced editing features. It is an open source program, so support is limited to the forums and the goodwill of volunteers. It is occasionally buggy, but does work.

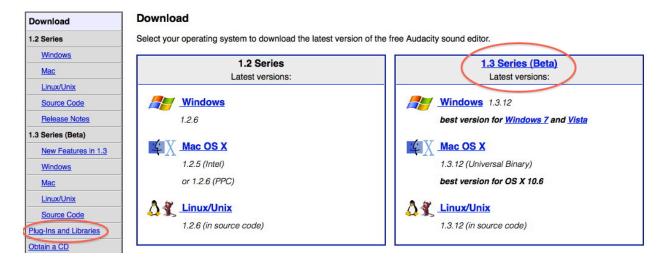
AUDACITY

Download at http://audacity.sourceforge.net/

Audacity currently is available in two versions

- 1.2 their 'stable' version
- **1.3** their beta version. This version has many more features, and seems to be as stable as 1.2. It is **recommended** for the latest operating systems (Windows 7 and newer Mac OS). Some companies won't allow you to install a beta version.

In addition to the program itself, you should download the free LAME plug-in for creating mp3 files from the plug-in page.

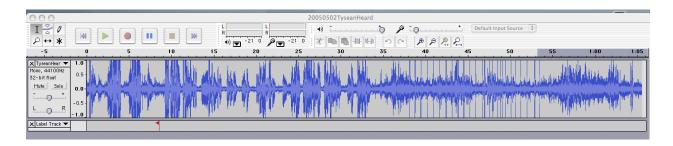


Editing sound is very similar to editing text - you cut, copy and paste pieces of the sound together to create a compelling narrative. Often you will combine natural sound with interviews and your own narration.

Audacity's interface is pretty simple.

Open your sound file, Audacity recognizes all common file types.

A single track, mono recording will look something like this: (stereo recordings will have two waveforms)



The waveform represents your sound. Audacity's tools and controls are above.

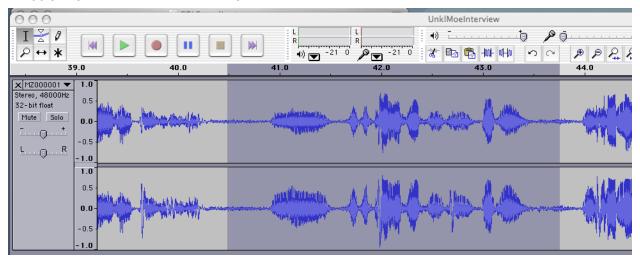
TOOLS

- I.Selection Tool This is the main tool you use to select audio.
- 2. Envelope Tool The envelope tool gives you detailed control over how tracks fade in and out, right in the main track window.
- 3. Draw Tool Enables the user to draw in to the actual waveforms to try and fix pops and other noises.
- 4 Zoom Tool This tool allows you to zoom in or out of a specific part of the audio.
- 5. Time Shift Tool This tool allows you to change the relative positioning of tracks.
- 6. Multi Tool lets you access all of these tools at once depending on the location of the mouse and the keys you are holding down.

You will use the Selection and Time Shift tools the most. 'D' on your keyboard lets you scroll between the tools.

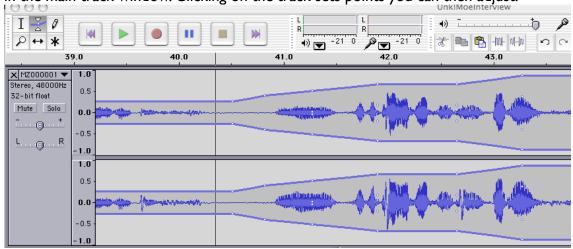
I Selection Tool

Click and drag over an area of the waveform to select it. Now you can cut, copy or paste as well as apply any of the filters in Audacity to the selection.



Envelope Tool

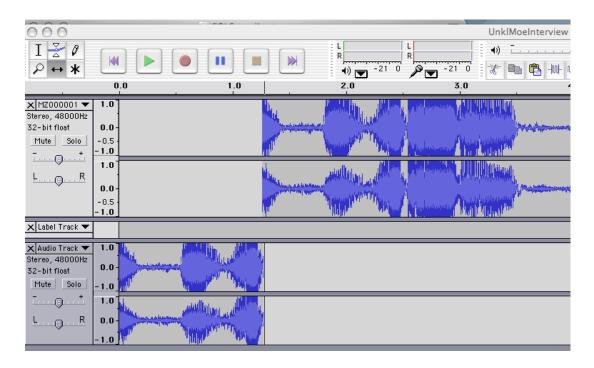
The envelope tool gives you detailed control over how tracks fade in and out, right in the main track window. Clicking on the track sets points you can then adjust.



For simple fades, you can also select a small section of audio, and use the fade in or fade out effect from the drop down menu.

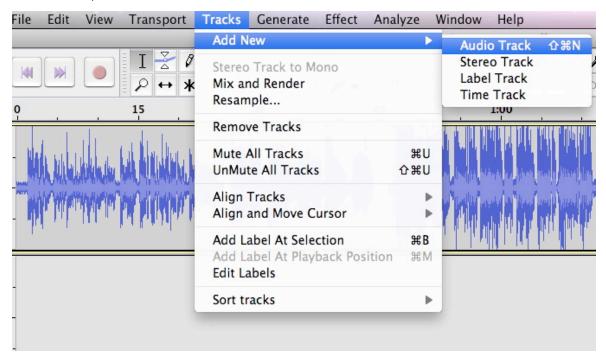
Time Shift (or move) Tool

This tool allows you to change the relative positioning of tracks. Simply click on a track to slide it along the timeline.



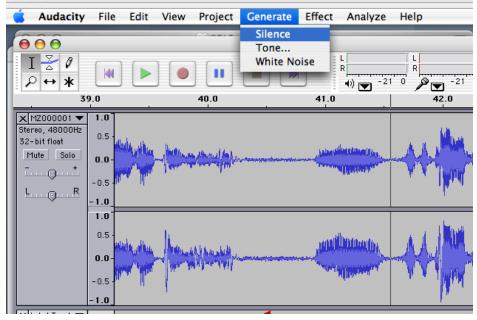
New Track

Allows you to create multiple tracks for overlapping sound and transitions. If your file is a stereo track, select New Stereo Track.



Generate > Silence

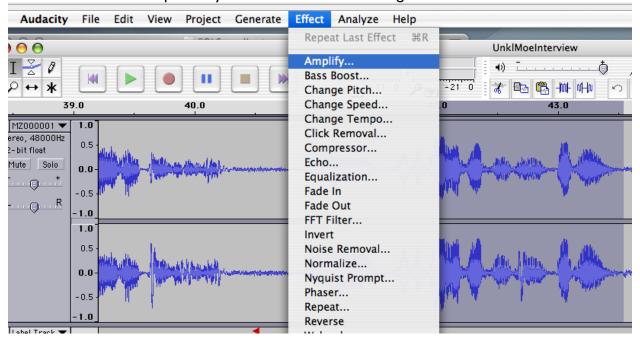
Allows you to create silence of any length - useful for transitions. Though better to use background sound gathered on location. It will sound more natural.



Effects

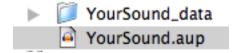
Audacity offers many filters and effects. Amplify allows you to raise or lower the volume.

Fade in and Out are quick ways to create natural sounding transitions.



Exporting your sound

Audacity creates it's own file type. Keep all these files together. Moving them or changing their names **will** create **problems** for Audacity. (and you)



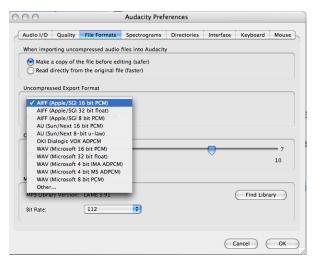
The .aup is the sound file and it is not recognized by other programs. So after finishing editing, the sound must be exported for use. If your final use allows, export in an uncompressed format:

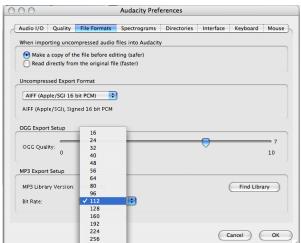
.aiff for Macintosh and .way for PC

If you must export as an mp3 use Audacity preference settings to select a high quality setting. You will need to have **installed** the free **LAME** plug-in to export as an mp3.

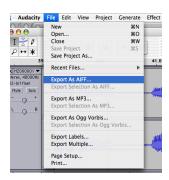
Audacity settings for output:

Go to preferences to set your output - aif for Mac, .wav for PC. Also select a high bit rate for mp3 export.





To Export:



this will say wav or aiff depending on preference settings

Sound Gathering

Many of the skills that make us photographers will help us gather sound. You need to pay attention, be patient, stop and listen to the world around you.

There are a lot of great resources on the web for learning how to gather sound. Check my links page for some.

A few thoughts:

Just because audio is new to us, doesn't make it interesting. Don't get too attached to your audio...be creative getting it, and then edit!

Get close – physically and emotionally. Audio is an intimate medium. Not all your subjects will trust you with their feelings right away – you have to earn that privilege.

If you're not enthused about your story, why should anyone else care about it?

"If something is boring after two minutes, try it for four. If still boring, then eight. Then sixteen. Then thirty-two. Eventually one discovers that it is not boring at all." —John Cage.

TECHNIQUE

Interview your subject in as **quiet** an environment as you can. Take a moment to listen. - hear that fan? that clock ticking? the cars outside?

Find an empty office, unplug the fan if you can, move to the quiet side of the house. A car makes a decent studio in a pinch. Carpet, couches, curtains, are all your friends – muffling the sound in the room, reducing echoes.

Get your microphone as **close** to your subject as you can – ideally about four inches (the width of your fist) from their mouth. (a little further away with a shotgun mic) Keep it in roughly the same place throughout the interview, and try to keep it as steady as possible.

If you move too much, the microphone may pick up the sounds of your motion or your hands rubbing on the mic.

Some subjects get nervous when the mic gets close. Your job is to put them at ease. You do this by looking them in the eye and showing them with your face that you are attentive. **Look at them**, not your recorder.

Get them engaged and interested and they will forget about the microphone.

- Wear headphones so you can hear what your recorder is hearing.
- Don't let your subject hold the microphone.

- **Listen carefully** as your subject talks. Having prepared questions is a good thing. But don't be rigid. Follow up on what they say, go where the interview takes you.
- Listen not only to the content of what he or see is saying, but the quality of sound and how their words may or may not work for your story.
- You CAN'T talk unless you want your voice on tape. Nod and use body language to uphold your part of the conversation.
- Don't interrupt (unless the interview is going nowhere. But better to get something useless than step on a great thought).
- Don't say "uh, huh" or "hmmm," don't laugh out loud. Nothing is worse than having a great quote with your voice stepping on it.
- Phrase your questions so they can be answered as a complete thought.
 - "Describe for me...."
 - "Give me a sense of...."
 - •Silence is your friend. Wait...watch...let people think and talk.

MOST people are **not** storytellers. They aren't so good at describing the process. But people CAN talk about their **feelings** and **emotions** and thoughts. If you find a great storyteller, bless you. You can let them tell their story. But generally you'll get the **best audio** by getting people to describe how something felt, NOT how it happened. Use captions, text blocks, a narrator to get the basic facts on the table. **Less is more**

Most journalists who start to gather audio fall in love with it. And they tend to be **terrible editors** at first. Just because it is new and cool to you, doesn't mean your audience will be equally enthralled. Your competition isn't other photographers any longer — it is NPR, broadcast TV, anyone and everyone on the web with a homepage and recorder.

EDIT TIGHTLY. Keep it interesting and compelling. And have fun.

FINAL CUT PRO

An introduction to Video Editing http://www.apple.com

"We realized that the important thing was not the film itself but that which the film provoked."

—Fernando Solanas ("Cinema as Gun")



"Every cut is a lie. It's never that way. Those two shots were never next to each other in time that way. But you're telling a lie in order to tell the truth."

-Wolf Koenig

FINAL CUT PRO (FCP for short) is a non-linear video editor.

You can edit your video in any order you want, and access the beginning, middle and end of your video simply and quickly.

It is also **non-destructive**. This means you can cut, delete, move, change and adjust your video and audio happy in the knowledge you haven't destroyed anything.

*This is designed as a get-started tutorial NOT a complete Everything You Always Wanted To Know About Final Cut Pro And Were Afraid To Ask tutorial.

IT is specifically written for Final Cut Pro 7



GET READY

Setting up yourself and FCP

Before you even open the program though, it's **extremely** important to get organized. FCP is complicated. Video is complicated. There are many files and folders and it is very easy to 'lose' stuff.

Get Organized. Stay Organized.

you will thank me later.

TIP

Many of the terms we use

in video editing come from

the days of film and razor

blades and linear, 'do it by

hand' editing.

Create a Project Folder for every, er, project.

This folder will hold **everything** associated with your project. Here is a sample system - the exact naming convention is less important than being consistent and logical:

20110401_YourName_ProjectName ► a _Audio _ _FCPsequences ▶ ☐ _Graphics Output RenderAndCache StillPhotos

Some folders will hold the content you create:

Audio, stills, video files, graphics will go into their appropriate folders.

FCP generates render and cache files, sequences, etc and we will 'direct' FCP to place files in these folders.

DO THIS. And your project will exist in a single place. You can copy it to another drive, give it to another person to edit.

DON'T DO THIS and files will get lost. projects won't work, your harddrive will fill up and you will go crazy.

NOW, **open** the Final Cut Pro application.

Final Cut Pro

You **may** get this warning screen:

TIP

IF you are using a tape
camera, connect it to your
computer and turn it on

Unable to locate the follow Apple FireWire NTSC (72)

Your system configuration may be disconnected or some the computer of the configuration of the configuration may be disconnected or some the configuration may be d

before starting Final Cut

Pro

Unable to locate the following external devices:

Apple FireWire NTSC (720 x 480)

Your system configuration may have changed, or your deck/camera may be disconnected or turned off.

Please check your connections and click "Check Again", or click "Continue" to set external device selection to None.

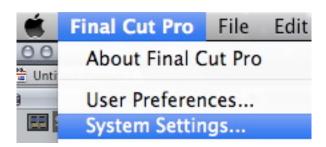
Do not warn again

Continue

Check Again

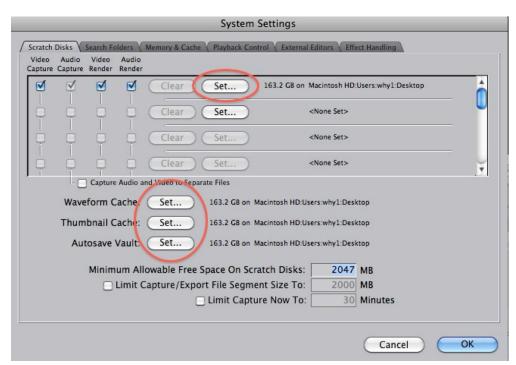
By default, FCP looks to see if a video camera is connected. **Click 'Continue'** unless you want a camera connected at this point and it isn't.

- I. Save your Project: name it the same as your Project folder: Date_YourName_ProjectName Save it into the _FCPsequences folder inside your Project Folder
- **2**. In FCP, go to Final Cut Pro/**Systems Settings**: (this is where you'll tell FCP where to save all the files it creates.



3. Set the paths for the render and cache files to the **RenderAndCache folder** you created:

IF you don't set up your project folder properly, important files will be stored in the wrong place. On the school computers these files will be **deleted** overnight and you will be very sad.

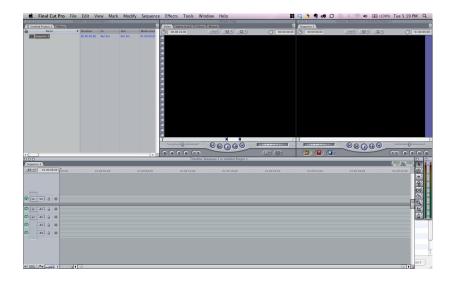


Click the four 'Set' buttons and direct EACH to the project's RenderAndCache File.

NOTE: You **must** do this each time you open a project, especially on a new or shared computer. Without these files you may not be able to re-open a project.

Click OK

FCP will continue, and your screen should look like this:

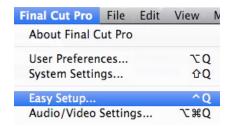


Final Cut Pro

GETTING VIDEO INTO FCP

First, we need to tell FCP what kind of video we will be using. The exact settings will vary depending on which camera you were using

Go to: Final Cut Pro/Easy Setup



You will see this dialogue box:

We typically will shoot HD so set the **format** to HD

For most of the sameras we use **1090i60** is the appropriate of

For most of the cameras we use, **1080i60** is the appropriate setting (but double check in class - the Nikon D90 is one exception)



Click 'Setup'

What happens next depends on what type of camera you are using:

- 1. Tape Cameras
- 2. Hard drive or card based devices

Final Cut Pro

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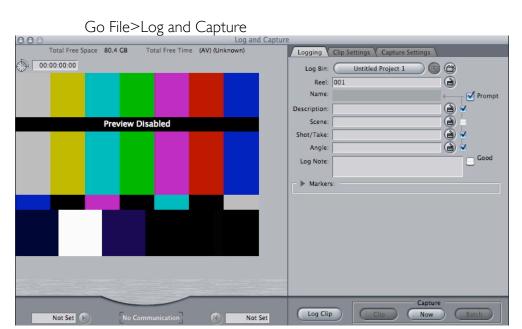
Ingesting tape is a realtime experience.. Shoot 30 minutes, wait 30 minutes to ingest. Make sure you plan accordingly

TIP

IF your camera uses a card, make sure to copy the whole file structure into your 'video' folder - not just the movie files. FCP needs the various folders to properly recognize the video

Tape Cameras

The camera must be plugged in and turned on **before** opening Final Cut. Rewind your camera to the start of the video you wish to ingest



With some cameras, FCP will automatically begin to play the tape and 'capture' it. Sit back, relax, **wait**.

With some cameras you'll get this window and have the option of naming your files. Then click the 'Now' button, sit back, relax, **wait**

When FCP is done, **save** your project, turn off the camera and disconnect it. It's important to disconnect the camera so you don't confuse FCP.

Hard Drive cameras

If your camera records to a solid state drive or SD card:

Use a card reader to copy the digital files to the 'video' folder in your project folder. The exact workflow will depend on which camera you are using.

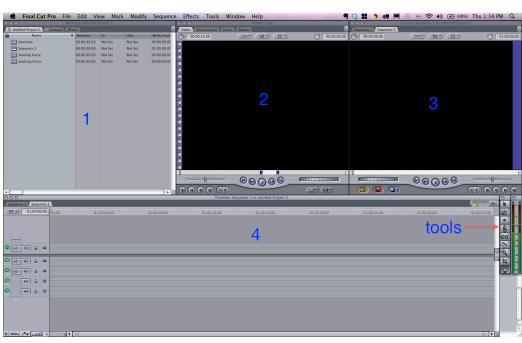
For some cameras use the Log and Transfer function in FCP. Some camera files can be imported directly in FCP by going flie/import

Check in class for which method to use

EDITING

phew....all that work and we haven't even begun to edit video!

At this point you should have a project window that looks something like this: The standard arrangement of windows



There are four panels and a variety of controls and tools. Here are some basics:

- I. **Browser** it shows all the media (video, stills, etc.) that you have imported into your project. It's the file cabinet.
- 2. **Viewer** from here you look at what is in your Browser. Double click on a video clip in the browser and it will appear in the Viewer window. From here you can play the clip and set in and out points and drag it to the Timeline. You can also view what is on the Timeline here to edit, color correct, etc. Double click on video on the timeline and it will show here AND in the canvas.
- 3. **Canvas** This window shows what is on the timeline. as you play the movie on the timeline it will play in this window.
- 4. **Timeline** this is where you edit and build your movie. By placing clips and then cutting them up and rearranging them into a compelling story. You can have multiple video and audio tracks and create very complex effects.
- 5.**Tools** you can access tools from the tool bar or thru keyboard shortcuts . Roll over a tool to see its name and quickkey. **To start**, rely on the **Selection tool** (a), the top arrow, for selecting and dragging around clips and the **Blade**

Final Cut Pro

TIP

IF you rearrange your windows and want to return to this standard view go to Window>Arrange>Standard or 'control U' on the keyboard

TIP

You can import all sorts of media into FCP — still photos, audio, graphics. FCP prefers uncompressed media so save your photos as tiffs and your audio as an aif or way file for best results.

•

tool (b) for cutting up clips into pieces.

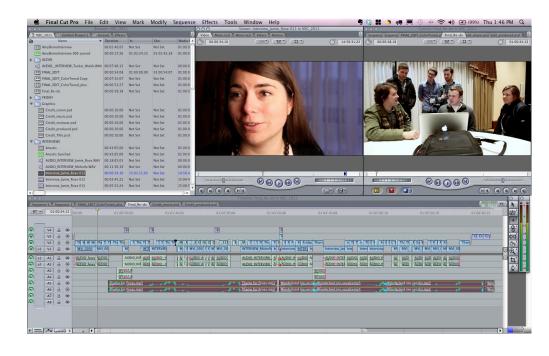
Here's an example of a relatively simple project:



To control the scrubber and play your timeline:
The space bar will stop and start the movie.
The keys J, K, & L will rewind, stop and start the movie, in that order.
Double clicking the J or L keys will speed up the play, either forward or in reverse.

The more keyboard shortcuts you learn, the faster editing video becomes.

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The timeline contains multiple tracks of audio and video. Note the **scrubber** in the timeline. It is the thin grey vertical line with the yellow triangle tab.

The scrubber shows the current play position for the video. So wherever the scrubber is on the timeline, shows in the Canvas window, top right. You can drag the scrubber by clicking in the grey bar where the yellow tab is. You CAN NOT grab the scrubber in the middle.

Typically, you'll look at video clips from your Browser in the Viewer and decide which parts you want to use.

So, for example, you would double click on a video clip in the browser, and it would appear in the viewer window. You can click play or use the keyboard shortcuts j,k,&l to play the clip.

Set 'In' and 'Out' points to select a portion of this clip and then simply drag that portion onto your timeline.

For Example:



The arrows show the 'in' and 'out' points set on a clip in the Viewer. As you click and drag the clip down to the timeline notice the arrow circled in red.

As you drag the clip to the timeline you can either overlay it on top of other clips. or insert it, splitting them apart.

If the arrow is down, as it is here, it will overlay. If you move the clip up a bit before releasing it, the arrow will become a horizontal arrow, which indicates it will insert itself, splitting the clip. Try it – it's easier to do, than to explain.

TIP common keyboard shortcuts:

I – In point

O - Out Point

J- plays clip backwards

K – Stops playback

L –plays clip forward

B - Blade tool

A – Selection tool

N – Snapping

¥ Z − Undo

¥ S − Save

Space Bar – Play / Pause

¥8 − Capture

Ctrl G – Closes gap in Timeline

Left and Right Arrow

Keys – Move backward and forward one frame

Ctrl U – Returns the windows to the standard setting

Setting "In" and "Out" Points

In and out points set the starting and stopping points in an edit. Most of the time you'll be setting "In" and "Out" points in the Viewer window.

Set an 'ln' point by using the letter 'l' key. Use 'O' to set the 'Out' point. Play the video in the Viewer and click 'l' at the start of a portion of video you are interested in using. Clicking 'l' again will reset the 'ln' point. Click 'O' to set the end of that clip.

Perhaps you need the first three seconds of a video clip. Set those In and Out points, drag that three-second clip to the timeline. Return to the Viewer and perhaps grab another four seconds from the middle of that clip by setting new In and Out points.

As you edit your video your timeline will accumulate a selection of clips that you can move and rearrange by using the select tool. Simply click on a clip on the timeline to highlight it - click delete to remove it, click and drag to move it on the timeline.

Editing a video clip

Once a video clip is on the timeline, you can still edit it:

- I. Move it using the selection tool. Click and drag.
- 2.**Cut** it using the blade tool. Place the blade tool wherever you like, and click to splice that clip into two pieces.
- 3. **Shorten or lengthen** a clip by using the selection tool. Click on the end of a clip and drag it to shorten or lengthen it.

NOTE that, for example, you can splice a clip, delete one piece, and then restore your cut by simply dragging out the length of the shortened clip.

Understand the notion that shortening a clip by dragging in one end is exactly

Final Cut Pro

the same as cutting a clip and deleting one piece. And both can be undone easily.

TRACKS

You can have as many tracks as you like. By default FCP opens a timeline with one video and four audio tracks (two stereo tracks).

To add a track:

Sequence>Insert tracks

OR

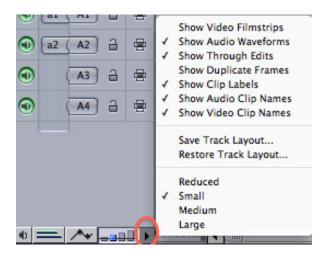
simply drag audio or video onto the timeline above or below an existing track. FCP will automatically create a new track for you.

AUDIO

Generally, you'll want to see the **audio waveforms.** this can help you find good edit points and let you 'see' your sound.

TO display the waveform:

Click the small arrow at the bottom, left, of the timeline and select Show Audio Waveforms



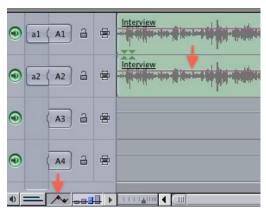
TO adjust the audio **levels**, you need to display the "Clip Overlays" button. Turn this on, and then you can adjust the audio by raising or lowering the pink line displayed in the audio track.

Cleaning up your audio - adjusting the levels of each clip - is part of the polishing of a video. One of the last steps you should do when editing is play your piece and just watch the audio levels.



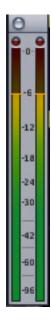
You can fade video in the same way. Use the pen tool to set points on the black line at the top of the video track. OR go Effects>Video Transitions>Dissolve>Fade In And Out Dissolve

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You want your audio to be, most of the time, around -6 decibels, visible in the meters on the right as you play the timeline. Never let your audio 'peak out' by hitting zero. If your audio is too quiet, it will be hard to hear.

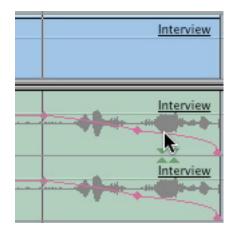
And if it is inconsistent, viewers will be driven crazy adjusting their volume levels.



Adjust the audio of individual clips by dragging up or down that pink line.

FADE Audio

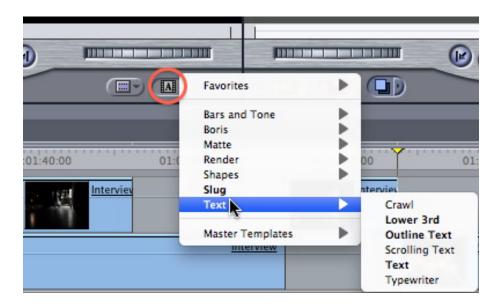
To fade audio in or out, use the Pen Tool, at the bottom of the toolbar, to set points, on the pink clip overlay line, then drag those points down to create a gentle fade in or out of your sound



TEXT and LOWER THIRDS

Final Cut has its own **text tool.** You can also create title slides in Photoshop and import them into Final Cut. Photoshop offers more controls over design.

Final Cut's text tool is at the bottom of the Viewer window:



Lower Thirds is a specific text tool. It refers to the common practice of identifying someone by placing their name and title on the 'lower third' of the screen as they speak.

IF you want to edit your

text AFTER you have placed it on the timeline, you need to make sure you are editing the clip you've created.

Put the scrubber over your text so you see it in the Canvas. THEN double click so it also appears in the Viewer. Changes you make in the viewer should appear in the Canvas.

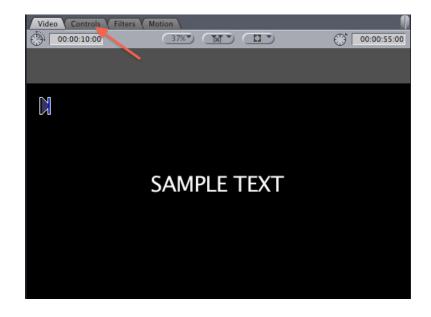
An easy mistake is to try and edit the version in the Viewer after you've placed it on the Timeline. IF you don't select the text on the timeline by double clicking, you're not editing

it.

Sample Text 1
Sample Text 2

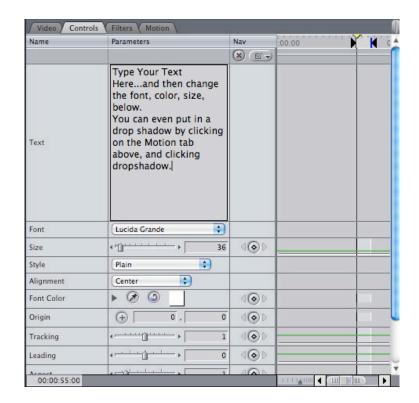
Click on Controls to enter text for line one and two. You can set the font and size independently of each other. Typically we make Line 2 smaller than Line 1.

Text is a more general tool that gives a single text box



Again, the Control tab will allow you to enter text.

Rendering is just for looking at your video while editing. FCP will re-render the whole project again automatically when you export. So no need to render if everything is working.



Once you have your text written. Go back to the video tab and drag it on to your timeline. Place it on its own track **above** your video. Text is transparent, so your video will show through.

RENDERING

IF the the thin grey line at the top of the timeline is any color other than grey, you may need to render. Certain file types, slower computers, lots of effects, can require rendering.

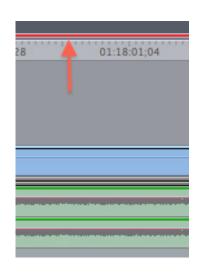
Rendering is Final Cut's way of processing the information so it can handle it easily and quickly and in real-time.

IF the line is green you're probably still ok. But if the video playback is jerky or you get a 'dropped frame' warning, then render.

IF the line is orange or red you'll probably need to render:

By default FCP will export the whole timeline. You can set 'In' and 'Out' points to export part of a timeline. ALWAYS double check there are no extra clips hidden down the timeline before exporting.

Click on your timeline and use the **Shift-Z** shortcut to reveal your entire timeline to make sure.



TO RENDER: Sequence>Render All> Both

EXPORTING

When you are done editing, you need to export your video - creating a standalone **movie file**.

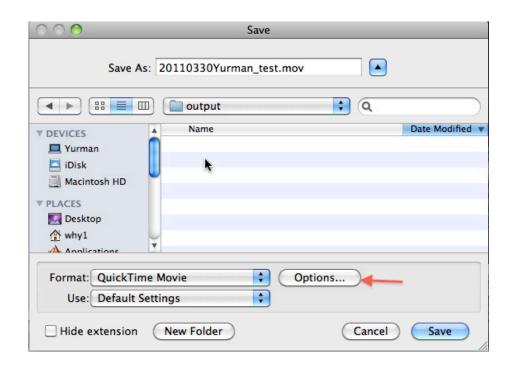
There are several ways to export, and MANY settings to adjust depending on your final needs.

To create a **basic** quicktime movie that you can use:

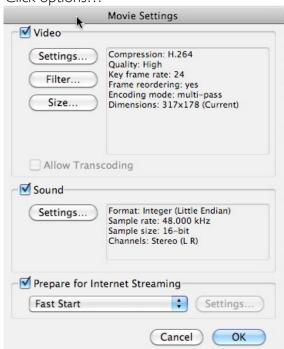
File>Export>Quicktime Conversion:



Enter the name of your movie, and place it in the output folder in your project folder.







The exact settings will depend on what you want. Check with your instructor. But...if you shot HD....and as a starting point

- | Settings:
- i. Change 'Compressor Settings' to best, leave everything else the same
- 2. Filter:
- i. don't touch
- 3. Size:
- i. set to 1920x1080 for full HD IF your camera shoots this resolution. (The Nikon D90's only shoot 1280x720)
- ii. Check Deinterlace video for most cameras (Leave unchecked for DSLR cameras such as the D90)

4. Sound:

- i. Make sure 'Sound' is checked
- ii Change Render settings to Best

Click OK, then Save, then sit back and wait. Exporting time depends on how long the video is, and how much rendering is required.

When FCP is done, you should see a .mov file in your Output folder inside your project folder.

WATCH your video. Make sure everything is working and the way you want.

IS there sound?

DOES the video start at the beginning and finish where it is supposed to? Any editing mistakes, or audio problems that need fixing?

IF you need to change anything, you will need to go back to your Final Cut project, make changes, save and re-export.

And now you're a filmmaker.

"If you want to tell the untold stories, if you want to give voice to the voiceless, you've got to find a language. Which goes for film as well as prose, for documentary as well as autobiography. Use the wrong language, and you're dumb and blind."

Salman Rushdie

Sound Slides

creating audio slideshows

http://www.soundslides.com



by

Will Yurman

Senior Lecturer College of Communications Penn State University willyurman.com/links

"It's all storytelling, you know. That's what journalism is all about."

-Tom Brokaw, NBC News



SoundSlides is a simple-to-use, fast method, for creating audio slideshows for the web.

•The program is available at www.Soundslides.com It comes in two flavors(for both PC and Mac): Soundslides for \$39.95 Soundslides Plus for \$69.95

This handout is based on Soundslides Plus. Its additional features are worth the money. Though all the basics are possible with the regular version.

Here we go:

Before you can create your Soundslides show, you must prepare your content. Soundslides does NOT edit photos or audio. A folder of jpegs and a single, edited, sound file is required BEFORE using Soundslides.

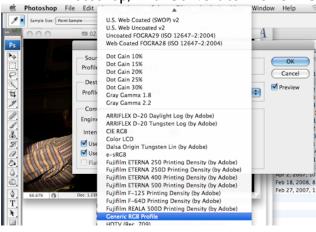
PREPARING YOUR PHOTOGRAPHS AND AUDIO

I. THE PHOTOS

A. Toning -

First, convert your images to the generic color profile.

In Photoshop, Edit>Convert to Profile > Generic RGB



Images should be toned for display on the web. Slightly contrasty images seem to work best. Mac users should tone their images to look a little bit light for their PC brethren. PC users should think the reverse.

If you want to check your monitor, I suggest surfing to a good photo site and look at the images. If they look good on your computer, than you're probably in good shape to tone by appearance on your screen. I have used the Best of Photography competition's test image: http://bop.nppa.org/calibration+image.jpg

B. Sizing -

Soundslides **WILL** resize your images. BUT, you will have more control and have better quality if you size them close to your final output size at 72dpi.

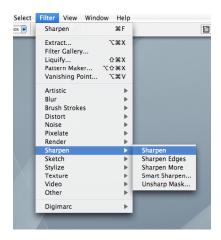
If you know the precise size of your show, I recommend resizing your photos exactly.

If you are looking to develop a workflow for a department, size all photos to, for example, 1000 pixels across the long dimension at 72dpi. And let Soundslides do the final resizing. (assuming that's larger than any show you might produce – you **don't** want Soundslides **upsizing** your images)

Image Size Pixel Dimensions: 665.0K (was 1.07M) OK Width: 585 pixels Cancel Height: 388 pixels Auto... Document Size: Width: 8.125 inches Height: 5.384 inches Resolution: 72 pixels/inch Scale Styles Constrain Proportions + Resample Image: Bicubic Sharper

When downsizing in Photoshop use Image Size>Bicubic Sharper.

AFTER sizing, I sharpen the image using the Photoshop 'sharpen' filter. * Underexposed, heavily toned, noisy images, may look better with unsharp mask.



I have also had good luck using unsharp mask to increase local contrast. This is NOT a sharpening technique, but rather a way to increase the apparent contrast of the image with less chance of losing highlight and shadow detail. Google 'local contrast' for more info. It's pretty amazing. Try these settings in Photoshop's Unsharp Mask dialogue box



C. Saving – Save your files as jpegs at the **highest** quality setting.
 * Soundslides can only import jpegs (NOT progressive). The program WILL recompress your images. So save at the highest quality for the least jpeg artifacting.

D. Naming & Captioning -

- IF you name your photos in sequence, 01, 02, 03..., SoundSlides will import them in order.
- You will be able to rearrange your images manually in Soundslides.
- **Captions** Soundslides will import caption information entered into the IPTC caption field in Photoshop or other programs such as Photo Mechanic.
- Captions CAN also be entered or edited from within Soundslides.

YOUR PHOTOS ARE NOW READY FOR SOUNDSLIDES.....YEA!

2. THE AUDIO

Audio must be edited in a separate editing program such as Audacity(free), GarageBand (cheap, Mac only), PEAK, Soundtrack Pro etc.

All your sound **must** be in ONE sound file. A Soundslide show can only have one track. Audio files must be 16bit and have a sample rate of 44.1khz or 22.05khz.

For **best** quality SAVE your audio file in an umcompressed format.

On a Mac use the .aif format

On a PC use the .wav format

*NOTE - To use aif or wav files Soundslides requires the **free LAME** audio encoder. (The same free encoder can be used for Audacity to create mp3 files). In Soundslides, under the HELP menu, use the LAME audio encoder button. You can either download it and install it automatically, OR locate the file on your computer if it is already installed.

You'll only need to do this once.

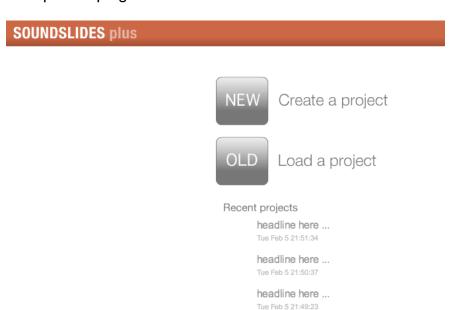
Soundslides can also import an mp3 file. But since the program compresses the sound into an mp3, using an uncompressed format will avoid compressing your file twice.

If you do use an MP3 file, it must be encoded to 32kbps, 48kbps, 56kbps, 64kbps, 128kbps, 160kbps or 256kbps.

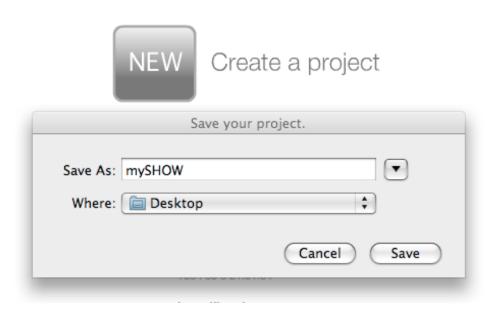
NOW YOU HAVE ALL THE PIECES TO CREATE YOUR VERY OWN SOUNDSLIDES AUDIO SLIDESHOW

3. USING SOUNDSLIDES

A. Open the program.



Select 'New' – Name and Save your project (or select 'old' for works in progress) I use 'SHOW' as a tag. But you can name it anything. It is **this** folder you select if you need to reopen and reedit the show at a later date.

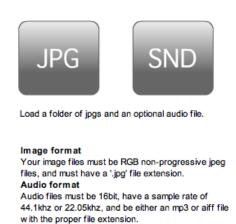


B. **Select an output size**. This CAN be changed later.

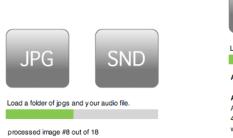
The size depends on your use – custom allows you to set an exact size to fit a particular website design.

SOUNDSLIDES plus





C. Click on JPG and browse to and select the folder with your prepared images.





D. Click on SND and browse to and select your audio file.



Your screen should look something like this:

SOUNDSLIDES plus

SLIDE SLIDE INFO TEMPLATE PROJECT INFO AUDIO

+ ADD IMAGE

Dray thumbnale (above) to recorder.

Bin 0

0:15 0:50 0:46 1:00 0ray to adjust timing 1:30 1:45 2:00 2:00 2:00 1:45 0:000.00 1:45 0

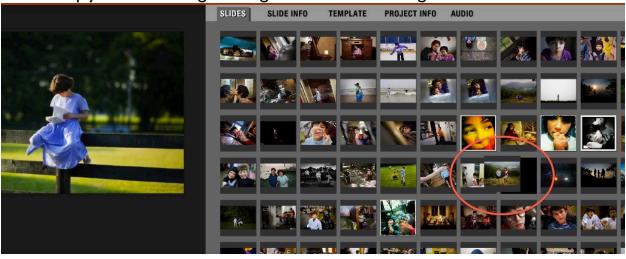
EDITING IN SOUNDSLIDES

Soundslides TABS:

SLIDES TAB - This is where the bulk of your editing will occur. You can change the order of images, and their timing from this tab

REARRANGING PHOTOS

Simply click and drag an image thumbnail to change the order.



ADJUSTING THE TIMELINE

Change how long a photo is displayed by clicking and dragging in the timeline at the bottom. Click on the bar BETWEEN the images, not the images themselves.

When you click and drag, a time marker will be displayed.

You can adjust the timeline WHILE the audio is playing.



Two other ways to change the timing:

- I. Manually adjusting the "in point" via the Slide Info tab
- 2. Drag-and-drop timing. You can drag a thumbnail down to the timeline. This will insert the file without altering any of the other image timings.

Zooming in for a closer look

With version 1.9.4 you can zoom in on the timeline for easier editing - especially if you have a lot of images in your show. Use the slider at the far right of the timeline.



Also:

I. click on the white dashes under a photo to change an individual transition. (fade in, cross fade, straight cut)

2. Under the menu Timeline you can spread all the images equally, or spread the remaining images, from where the cursor is, equally.

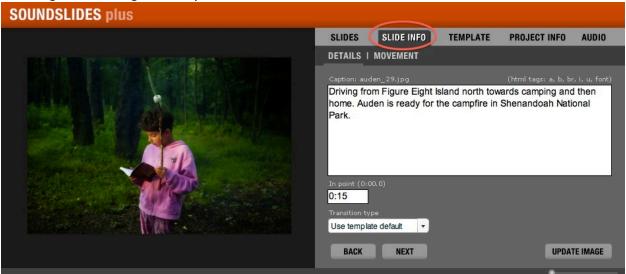
3

SLIDE INFO TAB - Edit captions and use the dreaded Ken Burns effect.

CAPTIONS

Double click on a thumbnail on the right OR select SLIDE INFO to edit or input caption information:

New to Plus - Under SLIDE INFO - set the In Point for this image - the time the photo appears. Also new to Plus, the Movement option - this allows the Ken Burn-like affect of panning and zooming on still images. Perhaps the most **overused** feature of Soundslides.



TEMPLATE TAB - allows you to set various parameters for the show:

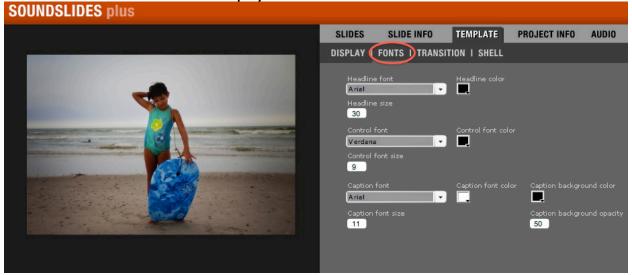
Display

Select options for color and controls



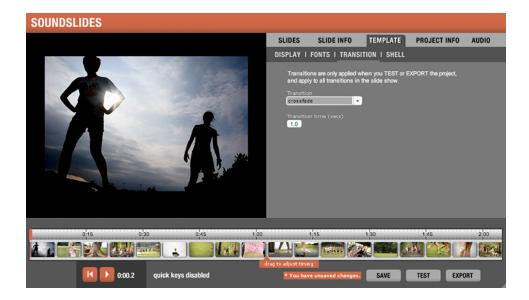
Fonts





Transition

Set the style and length of transitions between images

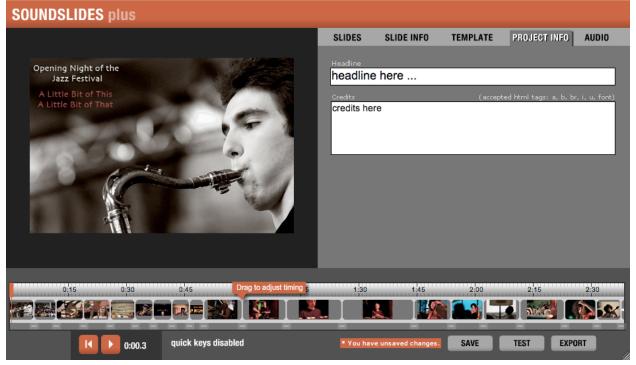


Shell

Select one of several 'shells' that can customize the show's appearance and functionality.



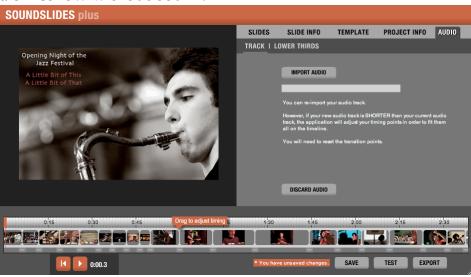
PROJECT INFO TAB - Enter the headline and credits for the show



PLEASE - don't leave the headline or credit as the default. The headline will also appear as the name of the page in your browser.

AUDIO TAB - Re-import audio file.

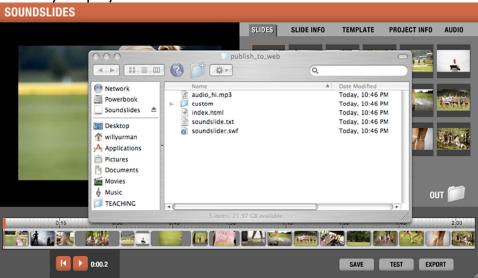
This will automatically replace the current audio track. Discard Audio to change to a slideshow without sound.



Think You're Done?

- To preview your show, use the "TEST" button.
- To save your show, use the "SAVE" button.
- When you **are** done, use the "EXPORT" button to create the files you will need for your website.

Clicking "EXPORT" will create, and open, a publish_to_web folder INSIDE your project folder.



This folder CAN be renamed. But the entire folder must be uploaded to your site. This often confuses people. Your overall project folder is what you edit and build. The publish_to_web folder is what you post. Every time you click export, you overwrite your publish_to_web. (Unless you've renamed or moved it.)

DO YOU WANT PEOPLE TO SEE YOUR WORK?

The next step is getting your show on the web.

Once you have your publish_to_web folder created, and renamed, you have many options for getting it on the web.

This will depend on what system you use for displaying your work:

- self-hosted and custom-built website
- self-hosted using Wordpress.org
- one of many blogs such as, blogger, tumblr, etc.
- a hosted site such as Wordpress.com

Other things to consider:

Multiple platforms – computers, phones, tablets

This is not a comprehensive list, but may help get you started.

A few terms:

Domain Name: This is the URL of your site – http://www.WillYurman.com for example.This can be an address anywhere. You buy your Domain Name, but still need to **point** it somewhere – to your blog, tumblr, personal site, etc.

FTP: (file transfer protocol) -- an application that allows users to send and receive files between remote computers. This is a common way of getting your work from your computer on to the Internet. Applications range from free (FireFTP for Firefox) to inexpensive (Transmit for example @ \$34)

Host – The computer or computer company that acts as a server for your website. Also used as a verb as in 'to host a site.'

When you have your own website you contract with a company to 'host' your files. I use **Dreamhost**, there are many many many others.

Things to know:

By default, Soundslides exports a series of files designed to play in a browser, using the Flash plug-in.

The **newest** version of Soundslides offers an additional option of creating a HTML5 compliant package that will play on the iPad.

To create this option in Soundslides go to Template>Shell and select html5_compatible.



Create a link to the index.html page inside the publish_to_web folder OR consult with your company's web folk for a method specific to your system.

You're Done!

"The universe is made of stories, not of atoms."

– Muriel Rukeyser