

Video Production Guide

A Manual on Video Production Custom Made for LAES

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by Andrew Mai

Liberal Arts and Engineering Studies
California Polytechnic State University
San Luis Obispo
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Abstract

A guide in video production using the Liberal Arts and Engineering Studies Program's main work space, also known as the Expressive Technologies Workshop. Includes a detailed instructional on video production from camera rentals to basic shooting to editing and distribution. Also introduces other tools in the workshop related to video production such as audio production tools and projection mapping.

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Introduction

The purpose of this Video Production Guide is to empower students in the LAES (Liberal Arts and Engineering Studies) program to be better prepared in the fields of filmmaking or video production. Whether your sole interest is to eventually work in the video entertainment industry or you are simply collaborating with LAES students on a video project, this guide is written for your use. The number of tools offered by the LAES program and the level of expertise needed to use the tools can be daunting for some, but by knowing how to use them, video projects can be created with astounding results. The guide is useful for people just starting off in learning the craft of video production as well as seasoned veterans who want more tips on making their video look better.

In the Expressive Technologies Workshop (the main work space for LAES students) and around Cal Poly, there are many free resources to help students get started. Real, large-scale projects have been made solely through LAES equipment, including background theatre projections, documentaries, lobby installations, and narrative short films. Hopefully after reading this guide, you can have the ability to build quality video projects as well. See below for examples of what past students have achieved.

***Julius Caesar* Live Projection**



Figure 1 - LAES students collaborate with the Theatre & Dance department to create a dazzling live video projection.

In 2010, students in LAES collaborated with the Theatre and Dance department to create a live video projection for their spring play, *Julius Caesar*. Students took advantage of the equipment available including professional camcorders, projectors and high-end editing software to create a spectacular display. The live projection and pre-recorded visuals added a more grandeur atmosphere and accentuated the darkness and heavy mood of *Julius Caesar*. Students used

camcorders donated to the program and edited in the LAES workspace.

Orchesis' *Shift* Background Visuals

Before winter 2011, students spent one quarter filming with the dancers of Orchesis to produce a 15-minute video projection for their tango-inspired finale. The project was no small task, as 3 screens were to be projected simultaneously. Students borrowed camcorders from MDS (Media Distribution Services) and LAES, often shooting with six cameras simultaneously. Editing took



Figure 2 - 15-minute abstract video display for the background of outstanding Orchesis' *Shift*

weeks and over one hundred hours to complete and was done all in the LAES workspace. As you can see, many great projects can be made through the equipment available throughout campus and from the LAES program. Although students were able to bring projects to completion in the past, they faced many problems and common roadblocks that set back the project or gave students great stress. However, you can change how projects are handled by avoiding the same problems. With new equipment that has grown significantly in the past years and the help of this guide, projects in the future can be even bigger, more technically polished, and intuitive than before. It is very possible and it begins with you. So without further ado, let us begin.

Shooting Basics

Renting a Camera

The first step is to find access to a camera and learn how to use it. Camera equipment can be borrowed from MDS (Media Distribution Services), located in the Agriculture (Bldg. 10, Rm. 125) or Education (Bldg. 2, Rm. 9) buildings or directly from LAES. MDS offers plenty of equipment for video production including camcorders, tripods, and laptops with editing software. For a list of equipment offered, check here:

http://mds.calpoly.edu/mds_equipcheckout/index.htm

Camcorders: http://mds.calpoly.edu/mds_equipcheckout/digital_camcorders.htm

LAES offers much more advanced cameras for shooting. If you already have some experience in shooting video, it is suggested you dive into these cameras right away. Don't fiddle with the amateur camcorders unless you are a beginner- you will learn faster with LAES equipment. The 2 professional camcorders that LAES offers are **Canon XH-A1** and **Canon GL-2**. There are 2 XH-A1 camcorders and they are the default for shooting video. The XH-A1 shoots in full 1080p HD, shoots at different frame rates (24fps, 30fps, and 60fps), and comes with high-end lens (\$1500 a piece, made of glass). The GL-2 is not as well equipped, but is used as a good back up. Although not nearly as impressive as an XH-A1, the GL-2 is still much higher-end than a consumer camcorder and is made for more professional video productions. Check below for tutorials on each camera.

Camera Rentals

Cameras can be borrowed from MDS or LAES. LAES offers much more advanced camcorders with other high-end accessories. To check out equipment from LAES, go to the LAES lab and ask a lab manager during lab hours.

Tutorials for XH-A1:

Watching the videos in order will help you learn the XH-A1 step by step.

How to Shoot Outdoors: <http://www.youtube.com/watch?v=STkNz2OI0xE>

How to Shoot Low Light Settings: http://www.youtube.com/watch?v=LQ9Wj_6urLk

Focus Options: <http://www.youtube.com/watch?v=kFyHdEjyXo>

How to Shoot in HD: <http://www.youtube.com/watch?v=dljKEGMEMo4>

Setting up Lavalier Microphones: <http://www.youtube.com/watch?v=7HJ6CqWEwH4>

Setting up Shotgun Microphones: <http://www.youtube.com/watch?v=gd2CLqFqA1A>

Video Recording Playlist: <http://www.youtube.com/playlist?list=PL424CED454DD26E6F>

Audio Recording Playlist: <http://www.youtube.com/playlist?list=PL55C15FCC1F893693>

Tutorials for GL-2:

The setup for most of the features on the GL-2 are similar to those of the XH-A1, but to see the specifics of the GL-2, look into these sources:

Video Overview: <http://www.youtube.com/watch?v=jCdAkrpS6qo>

eHow: http://www.ehow.com/about_5251191_tutorial-using-canon-gl2.html

Comparison of XH-A1 and GL-2

Canon XH A1



Canon GL 2



HD Recording?	Yes	No
Recording Speeds	24fps, 30fps, 60fps	30fps
Lens Type	Detachable, High-End	Fixed
Zoom Speeds	16 kinds, variable	Fixed
Quantity	2	1

Don't Forget

Tripods, extra tapes, extra batteries, and shotgun microphones are also supplied by LAES. A shotgun microphone improves sound quality quite a bit so be sure to include it.

Before you go out and shoot...

Shooting for the first time, many students go through the same errors that are often irreparable and have to spend extra time reshooting. Unfortunately, these errors are impossible to fix in post-production. So, be sure to understand the errors most students go through before you shoot.

The Common Roadblocks

Grainy Footage

Your footage is most likely grainy because the ISO is set high or there is not enough adequate lighting. When shooting, make sure firstly that your surroundings are well-lit and secondly that your ISO is set on manual, low. ISO 800 is the highest you should go.

For more tips, watch this video going over ISO settings:

DSLR Film Noob: <http://www.youtube.com/watch?v=hEERMUgUyXE>

On an XH A1, you might also have to press the “Peaking” button to adjust graininess.

This button is found next to the large “Mode” wheel on the left body of the camera.

Overexposure

Not everything can be corrected in post-production. If you see big, white areas in your video footage that means they cannot be fixed, no matter how you alter it. This problem can be fixed by lowering your ISO (which should be at 100 in a bright setting), adjusting the aperture and adjusting shutter speed. Basically doing anything you can to lower the brightness without compromising the picture. Learn more about these settings from these articles:

Camera Exposure: <http://www.cambridgeincolour.com/tutorials/camera-exposure.htm>

Basic Photo Tips: <http://photo.net/learn/basic-photo-tips/aperture-shutterspeed-iso/>

Distorted/Inaudible Sound

If you record with an external microphone or built-in microphone, there will be settings for how sensitive you want the microphone readings to be. If you set it on auto, it will adjust to sound levels, but this takes time and some parts will be distorted. Set it on manual, and make sure to test it to check the readings. When you set it on manual, usually a meter will pop up detecting sound. You want to keep the meter between -12dB and 0dB. The meter turns from white to yellow to red. If it is white, then the sound is too quiet, if it is red the sound is loud and distorted. Keep it in the yellow section for best sound. If sometimes the sound meter hits red, don't be afraid to make it quieter- the quiet sound can be fixed later, but distorted sound can't. To learn more, refer to this tutorial:

<https://www.youtube.com/watch?v=kyuOmWXOR74>

Wrong Frame Rate

This usually applies when doing slow-motion. This is why you need to utilize the 60fps option on an XH-A1. Recording like this allows for smoother slow-motion clips. If you edit in 24fps, the 60fps footage can be slowed down 2.5 times as much and still look smooth.

Purchasing Your Own Equipment

The key to having great footage is to mix the different kinds of cameras you use. Different cameras each have a specific purpose. For starting off on your own, great footage can be achieved using a DSLR. Many pros and amateurs recently have started using DSLRs because they are inexpensive but make footage look great. This is usually because DSLR lenses are large and offer great *depth of field*. This is what helps you get a focused subject and blurry background.

A great DSLR that I recommend for video recording is any of the Canon Rebel T-series. T2i, T3i, and T4i are all great for recording video and cost very little (\$600+ including body and lens). If you want to enhance your sound, you can buy a [RODE VideoMic](#) (\$150) or [Opteka Shotgun Microphone](#) (\$80). A decent, low-price DSLR and shotgun microphone setup is the most common among new videographers but also quite effective.

If you realize you want to spend much of your time shooting video and want to use your own equipment, please see this nifty guide that popular filmmaker Zach King created:

Zach King Camera Guide: <http://finalcutking.com/camera-buying-guide-dslr-vs-camcorder/>
(“Download” button below video.)

Getting Practice

Now that you've seen where to get camera equipment and how to shoot footage, it is time to practice and shoot your own video. Nothing prepares you better than to practice; it is best to learn the tricks before going on an LAES shoot.

You can start off by taking on a solo project. Shoot a video done entirely by yourself or get help from a roommate. Websites such as Vimeo offer great projects you can practice with. See them here:

<http://vimeo.com/categories/vimeoprojects/groups>

Click on any of the groups to get started.

The best are "5 Vignettes" (<http://vimeo.com/groups/fivebyfive>), "Vimeo Weekend Project" (<http://vimeo.com/groups/weekendproject>), and "Make it Interesting" (<http://vimeo.com/channels/makeitinteresting>).

Follow the instructions in the projects and try out a few. By bringing a short project from beginning to end, you can really prepare yourself when you are needed on a shoot.

Vimeo vs. YouTube

You can also use YouTube to share videos. However, Vimeo is a better learning environment for posting videos since you get more positive, constructive feedback than on YouTube (since most people on Vimeo are filmmakers or videographers). Also, Vimeo has a "Video School" and great projects for learning so you exercise many aspects of your skills. If you do want to post videos on YouTube, you can do that as well, there is no wrong way to practice.

Post-Production

Now that you've shot all your video and gave it a good look, it's time to import the footage into the computer and edit it into a beautiful, seamless piece. Before you bring it into a program however, there may be a couple steps to take.

If you import footage onto the desktop directly, usually through a memory card, the format might be unrecognizable by your editing program. If you use the MiniDV tape to store footage, you may be able to simply open the editing program and it can read your format with no problem. By recording with memory card however, you will likely need an encoding program to change the format. Try using **Hand Brake** installed in the computer to change the clips or **MPEG Streamclip**. Both are easy to use and reliable. See below for tutorials and info on each.

Best Format?

The best format to encode into is .mov, specifically h.264. This is the highest quality format and the most versatile for editing and distributing on web. Be sure to deinterlace your footage and set the highest quality.

Hand Brake and MPEG Streamclip:



HandBrake

Installed in the computers, HandBrake is a thorough formatting software that lets you convert to almost any codec you need. For more details, please see their website: <http://handbrake.fr/details.php>

Tutorial: <http://www.youtube.com/watch?v=EWIBgVqk7Jc>



MPEG Streamclip

A free, very thorough video converting program. Many professionals and amateurs alike are boggled as to why it is free, because it is so good. If HandBrake does not have the format you are looking for, MPEG Streamclip might have it.

More info and download: <http://www.squared5.com/>

Tutorial on encoding multiple files:

<http://www.youtube.com/watch?v=9oPAxKNMIKg>

Editing Software

Hopefully by now you've managed to get the footage encoded to a software-readable format. It's time to choose the program to edit with. The only two real choices are iMovie and Final Cut Pro since they are the only ones installed in the lab. If you haven't had much experience in editing and are trying to figure out which program to use, here are the strengths and weaknesses in both:



iMovie

Overview- Consumer-level program for beginner editors. Surprisingly great features for an easy editing platform.

Strengths- No need for technical know-how in editing. Video files don't need to render when editing. Built-in features/effects/titles with easy customization.

Weaknesses- Clunky timeline design. Difficult to get exact image of what you want. Only exports in 720 resolution, interlaced.



Final Cut Pro

Overview- A much more advanced program for serious editors. Many features with precise customization.

Strengths- Does everything iMovie can't. Able to cut to exact frame and can export in various formats and 1080 resolution, progressive. Easier to get the look you want.

Weaknesses- Videos have to render each time it is edited. Customization may be too advanced for people who just want a quick edit.

Same Software, Same Platform

When editing, always try to stick to the same software and same platform. If you start on a Mac with iMovie, finish on a Mac with iMovie. Don't move onto Final Cut Pro and don't try Windows, or else different formats will be introduced and your editing workflow will become a disaster.

For iMovie, tutorials in getting started can be found when you open the software. Go to Help > Video Tutorials.

For Final Cut Pro, watch these videos by Virtual Training Company:

<http://www.vtc.com/products/Apple-Final-Cut-Pro-7-Tutorials.htm>

Watch:

“Interface Overview”

“Working with Sequences”

“Import”

“Logging”

“Capturing”

Other Tutorials

Color Correcting: <http://www.youtube.com/watch?v=c0Fdyf2tbA8>

Stabilization: http://www.youtube.com/watch?v=SaVT_7Udfog

Creating a Scratch Disk and Storing Footage

It’s important to know how to create a Scratch Disk for the footage you use to edit in Final Cut Pro. This is the area in which rendered files, autosave files, and audio files are stored. The best place to create the scratch disk is on a dedicated external hard drive where you will be storing your footage. To do this, follow the instructions:

1. Open Final Cut Pro. Once in, click on “Final Cut Pro” at top, then click “System settings...” and it will lead you to a separate window.
2. In that window, the first tab you should see is “Scratch Disks”. For the first option, click “Set” and this is where you can set the footage on.
3. Select the destination for either “Tweedledee” or “Tweedledum”. You can also use your own personal external hard drive. Do NOT save on the main hard drive.

Also, be sure to dedicate a hard drive space for storing footage. This should be the same as where you keep the scratch disk, but could be different. Again, use a wired hard disk drive to store footage. Do not use the Drobo, as it will take a very long time to store your footage this way.

Organization is Key

It is vital to know where you keep your scratch disk and storage for editing. You will learn that the scratch disk alone can possibly build up to 20-30 GB depending on your projects. Be sure to save it in a place with plenty of space and delete the scratch disk files and footage you no longer need. It is also a good idea to organize your clips in a way to make it easier to reference. Name the clips and put them in specified folders.

Saving on Drobo

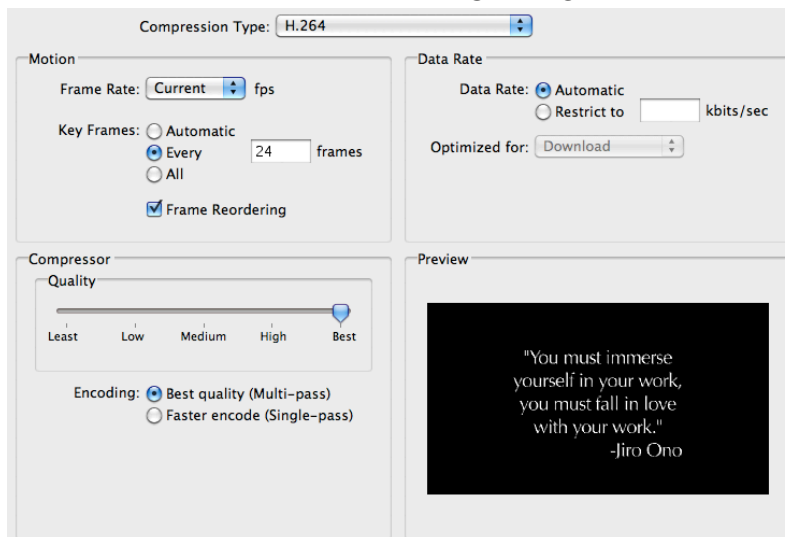
If you would like to save other files on the Drobo, such as pictures or Word documents, refer to the following instructions:

1. In a "Save As" window, navigate to the Drobo device, named "TheGRID" from the location options along the left side of the window. (It should read "Connected as Student" at the top of this window)
2. If you do not see the location options along the left side, look for a downward-pointing arrow next to the file title box and click that to reveal more options.
3. In TheGRID, you may choose either "LAESProjects" or "Public" for the save location. Please create a sub folder for your project (within one of these two folders). You are welcome to create multiple sub folders for the sake of greater organization (i.e. folders for individual assignments within a project folder). There should be one designated folder for each project or student.
4. If you saved a file on the desktop and it is missing, check on TheGRID. Be warned that to reduce clutter, files saved on the desktop may be cleared without warning.

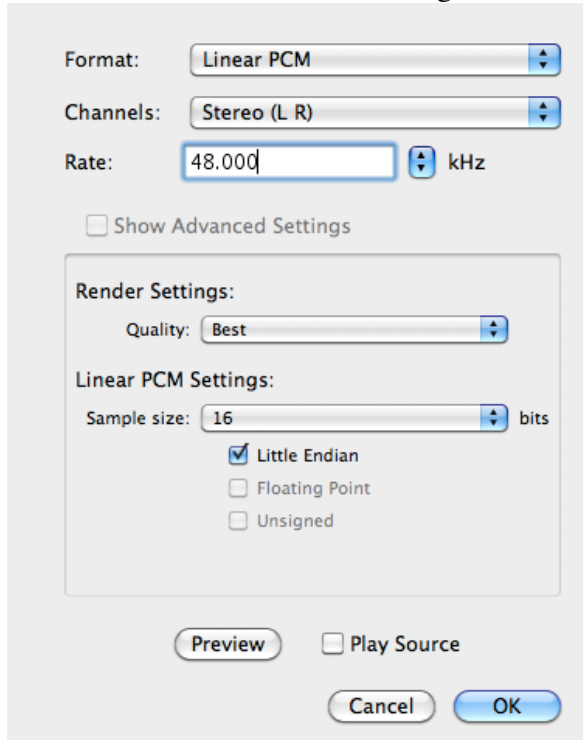
Exporting Footage

Exporting footage from Final Cut Pro can be tricky. There are many ways in doing so, some ways producing better results than others. If you use the automatic option, (File>Export...>QuickTime Movie...) the video will turn out to be not at its best quality. Instead, you want to choose the option "Using QuickTime Conversion". For the best quality, here are the settings to use:

1. After clicking "Using QuickTime Conversion...", a menu should come up. Click "Options".
2. Turn off "Prepare for Internet Streaming". This lowers the quality of the video.
3. Under Video, click "Settings". For compression type, use "H.264". Rate should be "Current" fps, key frames can be automatic or every 24 frames. For "Quality", scroll to "Best". Data rate can be automatic. Click "OK".



4. Under Video, click “Size”. Change size to 1920 x 1080 HD or 1280 x 720 HD, depending on what you shot with. You can also choose your own size, if you want a different ratio (like 4:3 for example). Check “Deinterlace Source Video”. Click “OK”.
5. Under Sound, change quality to “Best”. This should be the only change you need to make. Refer below for more changes. Click “OK”.



6. Click “OK” to close options, then in the main menu, choose your destination folder and click “Save”. Your video should now export in the best settings!

To bring into perspective what can be done with the tools in LAES for a finished video, I want to present to you the first video in my online portfolio, “Sanctuary”:

<https://www.youtube.com/watch?v=XFOfKADqI8A>

(for a more detailed description of how this was done, see page 13)

The video was shot entirely by myself with a very similar setup to the one above. I used a Canon Rebel T3i, a DSLR, to shoot it but an XH-A1 can work great as well. So even if you have no one to shoot with, practice with what is available and you can make great stuff. The piece did take practice to have the developed cinematography, but here is a simpler example I also made myself titled “10,000 Punches”:

https://www.youtube.com/watch?v=_HsKm79u1u0&feature=plcp

Other Post-Production Software

If after you edit your video with Final Cut Pro or iMovie you realize you want to add more, use the following software. These are good for further color correction, special effects, and sound. Most of these programs are integrated with Final Cut Pro so you can import your footage to them directly.



Apple Color

A program separate from Final Cut Pro for advanced color-correction. Most of the time, the color correction tools built into Final Cut Pro are sufficient for color correcting, but Color allows you to go further in customizing your image.

Tutorials:

Using Color First Time

http://library.creativecow.net/articles/biscardi_walter/apple_color1/video-tutorial

Bringing Final Cut Pro to Color

http://library.creativecow.net/articles/biscardi_walter/fromfcp2color/video-tutorial

Basic Color Correction

<http://vimeo.com/user341495/videos>

More Tutorials

<http://library.creativecow.net/video-tutorials/applecolor>



LiveType

A stand-alone program used for advanced titling. It is not as updated, so I suggested using Motion to create titles. If you want a quick, animated title though, this is the best program. “My God” by Jason Chu

Tutorials: http://www.youtube.com/watch?v=xdA_nujH0UY



Motion

A powerful program for creating visual effects. Though not as thoroughly built as Adobe After Effects, Apple Motion still offers serious effects on a professional level. I even made a kinetic typography entirely in Motion, see it here: http://www.youtube.com/watch?v=xdA_nujH0UY (“My God” by Jason Chu)

For a more detailed overview of how I put the video together, see the “Projects Overview” section. For the best tutorials on Motion, check here:

<http://www.youtube.com/playlist?list=PL222E8F8361E926EE> (playlist)

<http://library.creativecow.net/video-tutorials/applemotion> (Creative Cow)



Soundtrack Pro

A soundtrack program that is integrated with Final Cut Pro so that tracks can be made directly with the footage you edit. The best soundtrack software for composing for a video.

Tutorial Playlist: <http://www.youtube.com/playlist?list=PL432D3C32C0547B6E>

Other Lab Equipment

You have learned all the equipment for making videos, but there is more to explore in the LAES lab. This includes equipment for other kinds of projects as well as equipment that can enhance your video. Take a look at how to use the other equipment. You never know if it can help you or not, whether it is for a video project or an internship position you are interested in.

Audio Equipment

Sound Booth

There is a sound booth installed in the lab that is used for recording sound and is portable for other surroundings. The booth is double padded with carpet and foam to make it strongly soundproofed. To understand how a microphone is set up for sound recording, take a look at this tutorial. It goes over how a microphone with XLR inputs (higher quality than USB) can be connected to a computer:



Figure 3 - Soundbooth in LAES Lab. Attached are pop filters for cleaner sound and Shure Dynamic Microphone.





http://www.ehow.com/video_4442502_connecting-microphone-pro-tools.html

Voice & Narration, not ADR

The sound booth can be used to beautifully record instruments, singing, and narration. However, it is not recommended for re-dubbing a video (ADR). Remember, when you shoot with dialogue at a specific location, you pick up the surrounding noise with it as well. Make sure a similar surrounding noise is recorded when you re-dub, so if you shot at a park and need to re-record it, do it outdoors.




Microphones

All microphones are high-quality and are great for use in the booth.

	 AKG C214	 Perception 420	 Shure Dynamic Microphone	 Blue Yeti
Overview	Most pricey and has a 1-inch diaphragm for incredibly crisp sound.	Also has large diaphragm, but unidirectional.	Not as large of diaphragm but good for portability and interviews.	Cheapest of the microphones but able to switch to different recording modes.
Phantom Power	Yes	Yes	Yes	No. Uses USB.
Strength	Recording vocals	Recording instruments	Portability and interviewing	Quick recording

Beat Machines

If you would like to use synthetic sounds instead of recording an instrument, the lab also has plenty of electric instruments to choose from. All connect to the mac and can be used with software installed.

	 M-Audio Oxygen 49	 MASCHINE	 Akai APC40
Overview	Great for people with a strong piano background and can lay out tracks with different textures. Can't work alone so needs to be plugged into Logic or Garageband to work. Good starter for people with an acoustic background and are trying to transfer into synthetic sound.	More advanced than the Oxygen 49, this board is still used to make sounds from scratch. You plug it into the Maschine program and press the buttons to make the sounds yourself. The 4x4 pad is velocity-sensitive so it works like an instrument itself. Good for making beats and looping.	Completely different from the Oxygen 49 and Maschine. This board is meant for compiling loops together- the buttons each correspond to a melody or loop, you do not create the sounds organically. Good for composing full tracks or remixing songs.
Purpose	Creating songs with the scale laid out. Velocity-sensitive keys.	Creating beats and loops.	Mixing tracks together
Not Good For	Mixing tracks together	Full compositions of songs	Creating organic sounds
Software	Logic Pro and Pro Tools	Maschine	Ableton Live

The Akai APC40 is very similar to other instruments in the lab such as the Livid OHM. Both are used as a pad to compile tracks together. However, it is suggested to play with all the instruments to understand what suits you best.

More Software

Compressing

Programs made to fix a video codec for editing or to compress for different formats for different devices.



DVD Studio Pro

The all-around video converting software for Mac. No matter what program you are using to edit, Prism is great for converting footage. If your editing program does not read your format, put it through Prism to encode it so it can be edited or presented. More info: <http://www.nchsoftware.com/prism/index.html>



Compressor

Compressor is custom-made to work with Final Cut Pro to export your video. It is designed to export in different quality settings for better load speed or to make compatible with tablets and smart phones.

More info: <http://www.apple.com/finalcutpro/compressor/>

Tutorials: <http://filmmakingcentral.com/fmc2/2009/12/apple-compressor-tutorials/>

Projection Mapping

Sometimes, you need a little boost to your video presentation. This is when you are projecting for a concert or fancy lobby installation. These programs are great for just that.



CellDNA

Software used for “video DJ’ing”, being able to display multiple videos at once from a single projector or to switch easily from one clip to another. What’s cool about it is you can use it with Livid OHM to switch between video clips.

Overview/Demos: http://lividinstruments.com/software_celldna.php



Modul8

Similar to CellDNA, but able to do more with a single feature. It allows you to have 3D projection mapping, meaning you can shine it on any object, such as a cylinder or tilted wall, and map the video so it projects along the object itself. Great for displays, as we used in our lobby installation for Orchesis 2011.

Blog: <http://www.modul8.us/>

Tutorials: <http://www.modul8.us/?cat=11>

Uploading for the Web

Now that you have seen how videos can be made using the lab equipment, maybe you want to dive deeper into videography and upload for the web. Below are some projects I made for a web audience. Please read more to learn how these projects were made and tips on uploading video for the web.

Promotional: “Sanctuary”

Link: <https://www.youtube.com/watch?v=XFOfKADql8A&feature=plcp>



Shot with: Canon Rebel T3i

Edited with: Final Cut Express

Additional equipment: tripod, shotgun mic

“Sanctuary” was entirely shot by myself. I used a Canon Rebel T3i; although it’s not available for renting from the LAES program, you can still use an XH A1 and your shots will look great. The editing was done in Final Cut Express; you can use Final Cut Pro in the lab. You can borrow a tripod from MDS and a shotgun mic from LAES for stabilization and sound.

Although the video was only 1-minute long and had limited room for story, the project turned out great. Because of its aesthetics, it was able to place in Kennedy Library’s 3rd Annual Video Contest for “Most Cinematic”.

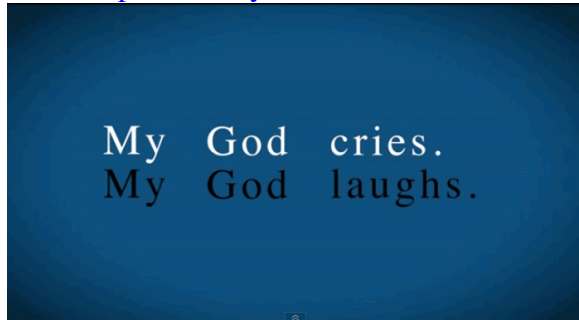
How it was made:

I knew I wanted to make a narration out of the video since I only had 1 minute. Because of the short time limit, I first scripted what I was going to say then went through about 20 recordings to see if the time would work. I finally got the narration down and started video recording to match it. In the shot where I’m physically seen narrating, I went to a hardware store to buy a daytime light because I wanted a nice, isolating spotlight. In the shots where it appeared the camera was moving, I edited it in Final Cut Pro by zooming into the video and moving it however I wanted to. For the time lapse, it took only about 45 minutes to record (15 minutes before sunset time and 30 minutes after), then I fast-forwarded it later, no fancy tools were needed for it other than recording.

Kinetic Typography: “My God”

by Jason Chu

Link: <https://www.youtube.com/watch?v=d5bQgR9Jb5c>



Animated in: Apple Motion

Image modification: GIMP (free software)

Exported in: Final Cut Pro

How it was made:

It was the first time I made a kinetic typography video so I had to invest a lot of time learning Motion software. I used this tutorial as a starter then kept learning as I made my video:

http://library.creativecow.net/articles/smith_stephen/Apple-Motion_Kinetic-Typography/video-tutorial

For more tutorials on Motion, check this playlist:

<http://www.youtube.com/playlist?list=PL33DAA11A7D74165D&feature=plcp>

The kinetic typography video was 4 minutes long, so I knew it would be a large file to export. Because of this, I decided to break the video down into 4 different sections and compile them together later. Most of the animations were done similarly, but I developed basically the same workflow as each line was spoken:

1. Type out each word shown on the same screen. Don't worry about positioning, timing, or resizing.
2. Resize the words, change the font.
3. Put the words together in how you want the words to appear.
4. Adjust each word on the timeline so it appears when the word is spoken. This takes a lot of time and precision so be patient.
5. You can choose to add an animation once the words are placed and timed correctly.

As I went from one group of words to another, I made sure to put each group in a folder so it's easier to fix each screen if I needed to. Here's a tutorial to better see how it's done:

<http://ae.tutsplus.com/tutorials/motion-graphics/design-rhythmic-motion-typography-in-after-effects/>

Short Film: “Hungree No More”

Link: <http://www.youtube.com/watch?v=Tm0TqQkiBiw>



Shot with: Panasonic SDR-H40

Edited in: iMovie

This video was done with a simple set-up. No tripods or microphones necessary. The camera used was of the same quality as the cameras you can borrow from MDS. It was one of the first videos I did, and my first-ever serious attempt at a short film.

How it was made:

My friends and I got together to plan how the story would work. We had only 5 minutes to work with, so it had to be simple and short. I knew our sound would not be too strong, so I purposely wrote the story so it had almost no dialogue in it. I took about 1 week to write the story, and when I figured out what we were going to do, I called people I knew and asked if they could help and be extras. With a few days away from shooting, I drew out my envisioned shots on notecards so filming would go smoothly. It turned to work out, as we saved plenty of time filming. Recording took about 4-5 separate days over two weeks and the clips were edited in one week.

Distributing Your Work

If you are creating works to share outside of school, here is an overview of the different platforms to distribute on.

On YouTube:

- Very popular; you are likely to receive many more hits here than on other platforms.
- YouTube has a great variety. Not just for filmmakers and videographers but also for vloggers, gurus, musicians, dancers, etc.
- Casual audience- won't comment on your videos based on reasoned criticism, but to express however they feel on a video.
- Strong money potential. Able to make significant amount (\$500/month) with at least 500,000 monthly views.
- For more information on networks, visit these sites:
<http://fullscreen.net/>
<http://www.makerstudios.com/>
<http://rpmnetwork.com/>
<http://tgn.tv/>
<http://broadbandtvcorp.com/>
<http://www.machinima.com/>
- Strategies in audience growth on YouTube:
<http://www.youtube.com/yt/creators/playbook.html>

On Vimeo:

- Much smaller audience
- Built more for just filmmakers and videographers. Not many vloggers, musicians, or other performers typically found on YouTube.
- Audience will likely only comment on a video to compliment or give constructive feedback.
- Made for more serious filmmakers, although not much money potential.
- Includes many tools, groups, lessons to help one become a better filmmaker/videographer:
Vimeo Video School: <http://vimeo.com/videoschool>
Forums: <http://vimeo.com/forums>
Projects: <http://vimeo.com/categories/vimeoprojects/groups>

Personal webpage:

- Fully custom website- include only the things you want professionals to see, while keeping your "viral" videos on YouTube.
- Display videos that aren't on your YouTube channel, but are on someone else's (like a musician you made a music video for)
- Include your biography, ambitions, description of each video in one place. They can also be more detailed (like including pictures for behind-the-scenes description)

Conclusion

Hopefully after reading this manual, you are better prepared to use the tools available to you in the LAES lab and across campus. With stronger knowledge of how to use the equipment, you are more likely to create more beautiful, technically polished, and groundbreaking works of art. However, keep in mind that the document you have just read is only a guide. It is only a jumpstart to help you discover what can be done with the tools given to you. Nothing can replace long hours of practice with a certain instrument or craft – this guide is no different.

As LAES develops in the next few years, many more changes will take place as it had the past two years, hopefully in your benefit. Because of this, I encourage you to update this guide as much as you can. Hopefully, as each person updates this guide, more students can benefit off of it. I created this guide with a vision to help future and current LAES students. May it be the same for you.

Further Readings

If filmmaking or videography interests you, be sure to read these books.

Mascelli, Joseph V. *The 5 C's of Cinematography*. N.p.: n.p., n.d. Print.

Murch, Walter. *In the Blink of an Eye: A Perspective on Film Editing*. N.p.: Silman-James Pr, 2001. Print.

Rodriguez, Robert. *Rebel Without a Crew: Or How a 23-year-old Filmmaker with \$7,000 Became a Hollywood Player*. New York: Faber, 1995. Print.

Simens, Dov S. -S. *From Reel to Deal: Everything You Need to Create a Successful Independent Film*. New York: Warner, 2003. Print.

Snyder, Blake. *Save the Cat!: The Last Book on Screenwriting You'll Ever Need*. Studio City, CA: M. Wiese Productions, 2005. Print.

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Apple. Apple Inc., n.d. Web. 13 Nov. 2012.

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Canon USA. Canon USA, Inc., n.d. Web. 17 Oct. 2012.

GARAGECUBE. Garage Cube, n.d. Web. 29 Nov. 2012.

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Shure. Shure Inc., n.d. Web. 02 June 2012.

Squared 5 - MPEG Streamclip Video Converter for Mac and Windows. Squared 5 Srl., n.d. Web. 12 Nov. 2012.