

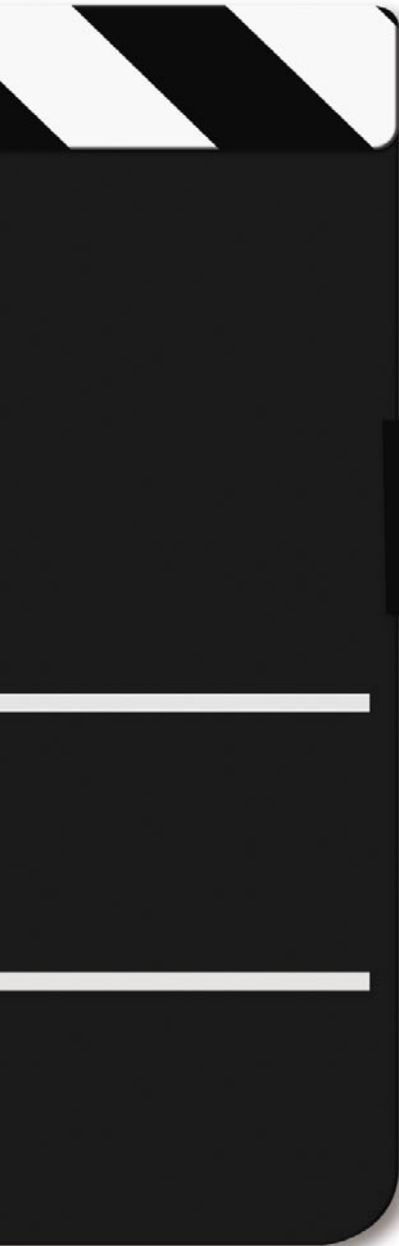


DIGITAL VIDEO AND THE POWER OF MACINTOSH



In today's world of video production, there are a lot of choices to be made. While browsing the average computer store, Mac users may become discouraged by the seemingly endless supply of video tools available exclusively for PC users. But if you know where to look (or just keep reading), you're in luck. The Macintosh user, whether professional or hobbyist, has vast power easily within reach.

The crazy thing is, Macs were making professional video long before sound cards were even a standard item on the average PC. Many video professionals agree that the most important step to digital video was the release and standardization of QuickTime in 1991. This laid the groundwork for video pros to be able to create multimedia content with a variety of tools. In fact, such powerhouses as Avid, Media 100, and Adobe After Effects were all initially developed as Macintosh-only programs.



As such, the most experienced video pros have a high likelihood of being Mac users.

In the early 1990s, I decided to take my two greatest professional interests and combine them; thus began my career of using Macs to produce video and multimedia. Along the way, I've found ways to use my Macs at all stages of video production. I've gathered some of the best practices in place at my video production company and share them below.



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PRE-PRODUCTION

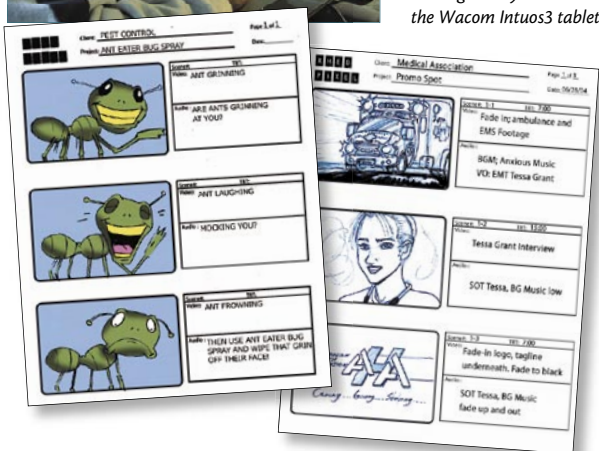
Successful video projects are born during preproduction. This is where you create the concept, pitch the idea, figure out the budget, and build the plan. Following are some ways we use Macs to get our projects off to a great start.

Storyboards: This is the visual plan for your project. Storyboards closely resemble comic books, and they're ideal for presenting your concept to your client and team. We enlist Wacom tablets (www.wacom.com) and draw our ideas right into the computer. Thanks to Ink, tablets are native on Macs. You can, of course, load drivers and use them with all sorts of programs, such as Photoshop or Painter.

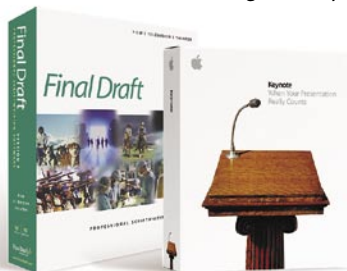


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Creating a storyboard with the Wacom Intuos3 tablet



Presentations: At some point in your career, you'll need to stand up and present your ideas. For this, we use Apple's Keynote (www.apple.com). You can drop in a full-quality DV clip and play it back with no issues. You also have incredible support for Photoshop files with transparency and beautiful anti-aliased type. Be sure to check out Final Draft (www.finaldraft.com), a great script-writing program. It can even output your script to a Keynote file so you can combine script with picture for a storyboard presentation. You might also want to pick up the Monster iTV Link for PowerBook

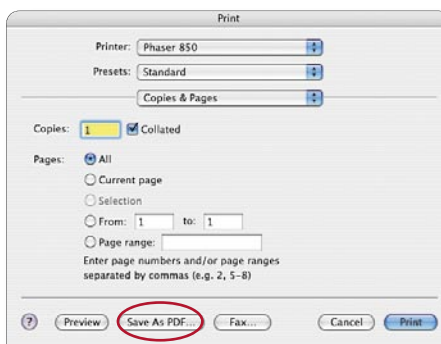


(www.monstercable.com), so that you can easily plug into a client's television.



DVD demo reel: We keep our demo reels close at hand. Just copy your DVD project (usually a folder with a VIDEO_TS and AUDIO_TS folder inside) to your hard drive. Why? Because you can run a DVD without having it loaded. Launch the built-in DVD Player and choose File>Open VIDEO_TS Folder. Navigate to the appropriate demo reel and click OK. This is perfect on a laptop if you want to show off your work (plus you get smoother playback for higher bit rates and better battery life!).

Important Paperwork: When sending scripts and budgets, don't risk formatting errors. Send a PDF file to ensure that you're both



looking at the same document. From the Print dialog window, just click Save As PDF for a cross-platform PDF document that's ready for email.

PRODUCTION

Once the field production starts, don't leave your Mac at home. While a PowerBook or iBook is very mobile, even a tower system can be useful on set.

Teleprompter: Need to give your talent something to read? News anchors rely on a prompter, which goes in front of the camera and displays their script as scrolling text reflected on a special mirror. Depending on your budget, you can buy a system for \$500-3,000.



If money is an issue, though, just use your laptop and get presentation software. Our favorite is Presentation Prompter because it works great and only costs \$25 (www.nextforcesw.com/presentationprompter.html). Use the S-video port or video adapter with your laptop to go out to a television that's placed next to the camera. A quick Web search will reveal dozens of plans for the build-it-yourself crowd.



On-Set Monitoring—Do what the pros do: check your work onsite. Don't be afraid to capture footage on set. You can easily feed video out of your camera to a monitor and loop it into your laptop via a DV converter. This way you can make sure the shots are working. We do this if timing is important (such as a commercial) or if we're doing special effects shots, such as a chroma key. Better to take the time and make sure you have what you need than to find out later and have to come back.

Field Audio—Your PowerBook may be ready to go with an audio line-in port. If not, check out the iMic from Griffin Technology (www.griffintechnology.com), which gives you a port via USB. Then fire open your software of choice: GarageBand, Felt Tip Sound Studio, or even Final Cut Pro's Voice Over Tool. Feel free to gather those sound effects you need or run a voice-over session right to your hard drive. With instant playback and editing, you can record with confidence.



As a Prop—Well, those Hollywood pros are onto something. LCD panels, especially laptops, don't flicker when you shoot them on camera. So unlike a clunky CRT or television, you can use them on set. (Plus, this is a great way to make the rest of the world think Macs are cool.)

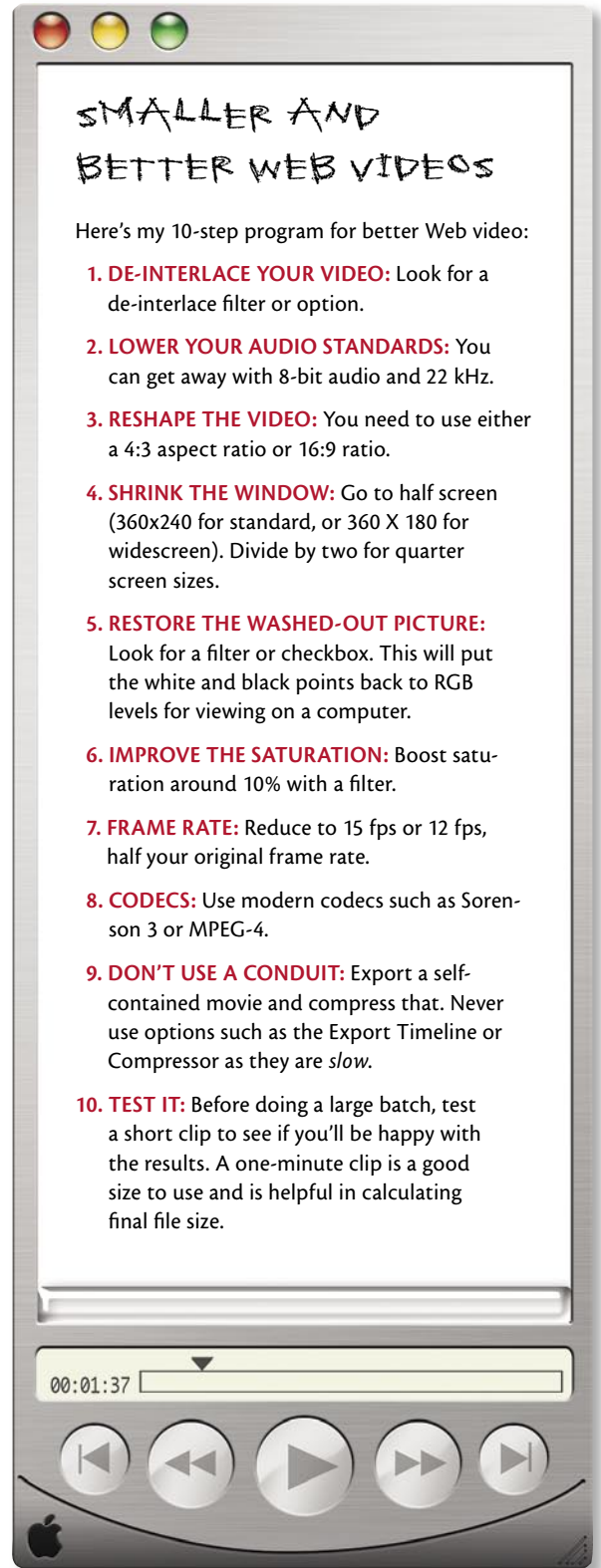
POST-PRODUCTION

This is where all of the pieces come together. Depending on how well you planned and executed the fieldwork, this stage can be a joy or a nightmare. Macs are well known for their ability to solve

SMALLER AND BETTER WEB VIDEOS

Here's my 10-step program for better Web video:

1. **DE-INTERLACE YOUR VIDEO:** Look for a de-interlace filter or option.
2. **LOWER YOUR AUDIO STANDARDS:** You can get away with 8-bit audio and 22 kHz.
3. **RESHAPE THE VIDEO:** You need to use either a 4:3 aspect ratio or 16:9 ratio.
4. **SHRINK THE WINDOW:** Go to half screen (360x240 for standard, or 360 X 180 for widescreen). Divide by two for quarter screen sizes.
5. **RESTORE THE WASHED-OUT PICTURE:** Look for a filter or checkbox. This will put the white and black points back to RGB levels for viewing on a computer.
6. **IMPROVE THE SATURATION:** Boost saturation around 10% with a filter.
7. **FRAME RATE:** Reduce to 15 fps or 12 fps, half your original frame rate.
8. **CODECS:** Use modern codecs such as Sorenson 3 or MPEG-4.
9. **DON'T USE A CONDUIT:** Export a self-contained movie and compress that. Never use options such as the Export Timeline or Compressor as they are *slow*.
10. **TEST IT:** Before doing a large batch, test a short clip to see if you'll be happy with the results. A one-minute clip is a good size to use and is helpful in calculating final file size.





problems. Here are a few more ways to get the most out of your Macintosh video software:

Streaming video with iChat AV: Do you need to share a video with someone else? You could, of course, compress it and put it online, or you could take advantage of real-time, hardware-based video streaming. iChat AV works with any FireWire camera or video device, including decks and cameras. All you need to do is record your show to tape, then fire open iChat. Make sure the deck or camera with playback ability is plugged in. Initiate a video chat with a peer and press play. Real-time review and approval—down the hall or around the globe.

Post video on .mac: Looking to share your work with others online? Then take advantage of a .mac membership (www.mac.com). You can place movies on your iDisk, then log in to your homepage. It's very easy to select from the template pages for movies and set up online viewing. You can even turn on a button so clients can click to send feedback. This is a really easy way to start saving money on shipping *and* speed up the review process.

QuickTime Pro for email video: Looking for a ridiculously small file format to email? Take advantage of the .3gp format, which is designed for cell phone playback but plays back fine on computers as well.

STEP 1: Open the movie you need to compress in QuickTime Pro.

STEP 2: Press Command-E to invoke the Export dialog.

STEP 3: Set the Export drop-down menu to Movie to 3G.



There are lots of settings that can be modified, but we only need to change one.

STEP 4: Click the Options button, then in the Size pop-up menu, set the file to 128x96 to preserve a television's 4:3 aspect ratio.

STEP 5: Set the Destination and Click OK.

VIDEO FOR THE MASSES

Apple has led the way in desktop video. Besides inventing QuickTime, the video standard, Apple has helped establish several other important technologies.

FIREWIRE—In the mid-1980s, Apple developed a high-speed data transfer method that they called FireWire. The official name is IEEE 1394, but you may also see it called iLink. The bottom line: Apple made it, and without it the DV revolution would have had a *really* hard time (USB 1.0?). The newer version, FireWire 800, offers even more power to pros that need it.

iMOVIE—Leave it to Apple to bring affordable video editing as a standard to all users. What started as a bundled option on all iMac DVs in 1999 would become a free download a year later. Video storytelling soon became commonplace in schools around the world.

FINAL CUT PRO—Launched in 2000, this important program has gained many fans and converts. You can't help but find numerous articles and incidents of pros using this program. And thanks to Apple's support and many passionate users, Final Cut Pro user groups have popped up around the world. Check for one in your area: www.apple.com/software/pro/resources/usergroups.html.





Useful Video Freeware and Shareware

AUDIO HIJACK PRO—

This useful utility can capture audio from any application on your computer. I use it for tough spots like getting embedded audio from Flash files or websites. (\$32; www.rogueamoeba.com)



BBDOMUX—If you ever need to work with MPEG-1 files, you'll notice that Final Cut Pro can import them but loses the audio track. This freeware app will split the audio out into a separate file. (Free; www.versiontracker.com)

COLOR THEORY—This handy application lets you pick screen friendly color combinations for your graphics. It even allows you to import a file to sample colors and you can send the colors out via FireWire to test on a television.

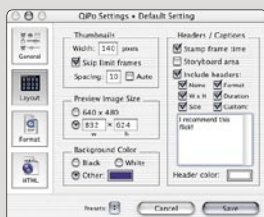


(\$25 Standard/\$99 pro; www.digitalanarchy.com)

DVDXDV—If you've ever needed to get video back off a DVD (the ones you've made or given to you from a client, not from Blockbuster) then this utility is for you. It allows you to extract the video data back into a QuickTime movie. (\$25; www.dvxdv.com)

HIQUAL—If you've ever opened up a DV file in QuickTime, you're in for an ugly surprise. By default, clips open into a low-quality preview mode. This helpful piece of freeware allows you to drop a QuickTime movie on it, and it will optimize its playback settings for the best onscreen appearance. (Free; www.synthetic-ap.com)

QIPO—This helpful application takes a QuickTime movie (or folder of movies) and quickly builds a thumbnail sheet or webpage. This is an easy way to examine footage without having to open every file. (\$20; www.bebosoft.com)



XINEMA—Want a way to present your movies full-screen? Well there's always QuickTime Pro, but this piece of freeware does the trick and adds some nice enhancements. Features such as easy access to player controls and looping set this program apart. (Free; www.lighthousew.com)



Window Burns in FCP: Video pros rely on Timecode so that they can accurately identify every frame of video. One method involves putting a box with the sequence's timecode over the client's review copy. While this used to require expensive hardware, Final Cut Pro users can now take advantage of this cool tool.

STEP 1: Create a new sequence that has the same settings as the one you need to show your client.
STEP 2: Drop your approval sequence into the new sequence.
STEP 3: Highlight the clip and choose Effects>Video Filters>Video>Timecode Reader.



STEP 4: Size and position the box with the effect controls.
STEP 5: Render and output. You can now discuss the sequence via email or the phone and know exactly what each of you is talking about. This is a huge time saver.

Self-Playing DVD in DVD Studio Pro: If your client wants a DVD that starts playing automatically and just keeps looping—with no menus and no fuss—try this:

STEP 1: Import your MPEG-2 and audio file into DVD Studio Pro or just import a self-contained QuickTime movie.
STEP 2: Add the files to a video track and name it.
STEP 3: In the Outline tab, click on your disc and name it, then switch to the Inspector.
STEP 4: Set the First Play action to be the video track. Be sure to navigate First Play>Tracks & Stories>Track Name>[Track].
STEP 5: If you'd like the disc to loop, select your track in the outline view. Then, in the Inspector, set the End Jump so the track jumps back into itself. This is great to make DVDs that are for kiosks or entryways.
STEP 6: Click Burn.

THE FINAL CUT

Apple computer has revolutionized the video industry for everyone from cutting-edge pros who depend on Apple for their tools to students and hobbyists who are discovering a new medium. Take full advantage of the tools you have: while they may be easy to use, there's a lot of power in there that you can learn to access. Harness the incredible resources of the Macintosh community as well, whether it's through websites, user groups, or formalized training.

Video is still fun and exciting for me, even 15 years later. Let your Mac help you become a better storyteller.