

Use MPEG2 footage in iDVD

I wanted to use iDVD to author a new DVD containing a slide show and three movies from two existing DVD's. If you've ever tried to do this, you already know there is no straightforward means of re-authoring existing footage without losing quality.

The well-written instructions at <http://www.macosxhints.com/article.php?story=20060416162333377> seemed to be exactly what I needed. But as hard as I tried, I burned coaster after coaster.

In the long run, I learned more than I ever wanted to know about DVD formats. And after finally achieving what I wanted, everything that went wrong on all of my failed attempts started to make perfect sense. I'm sure Wazzoo's procedure works well when the conditions are just right. If that's not the case for you, what I learned from my experience may help.

Coaster #1

Step #9 of Wazzoo's post describes how you replace the DVD content produced by iDVD with your original footage. Obviously, the whole point of this step is to prevent quality loss: even if you used full-length AVI's in step #1, the quality won't be remotely close to the original footage.

However, replacing the VOB's and IFO's created by iDVD with the ones I created with ffmpegX in step #6 had an undesirable side-effect: I believe the IFO's contain information that control how menus work. And I believe that when I executed step #6, I replaced my more sophisticated menu structure created in iDVD with a much simpler one created by ffmpegX.

I could play the DVD in my commercial player, but the menu system was toast. Since the whole point of using iDVD was to get nice themes and menus, I needed to find a way to eliminate this step.

Coaster #2

In order to preserve the nice menus I created in iDVD, I decided to try replacing only the VOB's, leaving the IFO's in tact.

Again, I was able to play the DVD and the menus worked. But the audio was complete static and the video abruptly ended after a minute or two.

This is where I really had to do some deep digging to figure out what was wrong. Bear in mind that I'm not an expert on DVD formats and encoding, but I'm pretty sure the issue was caused by a combination of the following factors:

- My original footage contained ac3 audio.
- The dummy AVI's I used in step #1 were 1-2 minutes in length.
- The VOB's I created in iDVD contained PCM audio.

In a nutshell, I believe there's length and encoding information stored in the IFO that doesn't match the the original VOB.

As luck would have it, the tool I used to figure out what was wrong (myDVDEdit) turned out to be the biggest part of the solution.

How I got around the issues...

I decided to use full-length AVI's instead of 1-2 minute stubs. I was hoping that this would get me past the length issue (which it did)... but I've now concluded that using short stubs should work just fine with my modified procedure.

My environment and tools:

- Mac OS X 10.5.4 (Leopard)
- iDVD 6.0.4
- myDVDEdit 0.9.10 (<http://www.mydvdedit.com>)
- ffmpegX 0.0.9y (<http://homepage.mac.com/major4>)
- VLC 0.8.6h (<http://www.videolan.org>)

I don't in any way want to take credit for Wazzoo's work, so I'm not going to duplicate any of that article here. What I've tried to do is give you instructions on how to work through Wazzoo's instructions (<http://www.macintoshhints.com/article.php?story=20060416162333377>), with my tweaks shown indented at the places where you need to diverge.

Follow steps #1 through #4. You can try using short AVI's in step #1. If that doesn't work for you, try full-length AVI's.

Mount the image created by iDVD and make sure it works in both DVD Player and VLC. In the course of experimenting, I found that certain issues would only show up in one or the other and I couldn't be sure I had a good image until it worked flawlessly in both.

Skip steps #5 through #7. We're going to use myDVDEdit in a bit to eliminate the need to demux and remux.

Read – I repeat, **only read** -- through steps #8 and #9 to make sure you understand how the DVD is structured. However, **do not** replace the IFO files as suggested. I'm pretty sure that's how my menu got corrupted in coaster #1.

Create a new folder somewhere on your hard drive to use as a staging area, e.g., ~/Documents/stage and copy the entire contents of the mounted image to your staging folder, including the empty AUDIO_TS folder. Your staging folder should now contain AUDIO_TS and VIDEO_TS folders, as well as any extras you added to your DVD (like photos).

Open a terminal window, *cd* to your staging folder and type the following command to make all of the directories and files writable:

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chmod -R +w *
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If you're uncomfortable using terminal, you can change the permissions in Finder as suggested by Wazzoo. Just make sure you change the permissions of the directories as well as the files. Otherwise, the steps where we *repair* your DVD below won't work.

As instructed by Wazzoo, overwrite the VOB's in your staging area with the appropriate VOB from your original DVD, but leave the IFO's and BUF's alone. If your DVD contains more than one video, write down which VOB is which because you'll need this information later.

Verify that the permissions on the VOB's you just copied are still read-write. If they aren't, repeat the *chmod* step above to make them that way.

Launch myDVDEdit, click File->Open and select your staging directory. If you get any

warnings about some directories or files not being writable, close myDVDEdit and return to the chmod step above. All of the files and directories absolutely must be writable for this to work.

If you don't get any permission warnings, but you do get a message about the sectors not being the correct length, that's good. When prompted, allow myDVDEdit to adjust the sectors for you. If you don't do this, your videos will be the wrong length and you'll have the problem I described in coaster #2. It would be pretty amazing if you don't get the sector warning, but if that happens just continue with the next step.

Leave myDVDEdit open – you're not done yet.

Launch VLC and open the original VOB from your original DVD. Open the Controller window if it isn't already open (Window->Controller). Right-click on the VOB in the Controller window and select Information. Click on the Advanced Information tab and locate the audio stream (usually Stream 1). Make a note of the codec.

Go back to myDVDEdit, click All PGC's in the upper left pane and select the corresponding VTS (VTS 1 = VTS_01_1.VOB, VTS 2 = VTS_02_1.VOB, etc.).

Click Parameters in the bottom middle pane, then click the VTS tab to the left (VTS 1, VTS 2, etc). Under Audio, confirm that the Coding Mode matches the codec of the original VOB. If it doesn't match, change it. Otherwise, you'll have the sound problem I had with coaster #2.

Note that myDVDEdit only support AC3, MPEG-1, MPEG-2, LPCM and DTS. Unless your original media came from a really odd source, one of these should match your original VOB's.

Repeat this step for each of the VOB's you copied above.

Save all of the changes you made in myDVDEdit. This will update the IFO's and BUF's to match your VOB's.

Continue with steps #10 and #11.

Mount the final image and test it using both DVD Player and VLC. If it works, you should be able to burn and play it in a commercial player.