

In general, the process is like this:

The first stage in getting your video ready for DVD is to compress it into the MPEG-2 format that DVD requires. This can be easily done by exporting from Final Cut Pro using the File > Export Using Compressor command. Other programmes such as Premiere also have similar commands to export an MPEG-2 file.

You can also export a QuickTime movie and then import that into compressor.

Another way is to import the QuickTime straight into DVDSP or Encore. Both packages are capable of creating the required files and you can adjust the compression settings in the preferences – however I don't really like doing things this way since I really like to feel in control, and since I know that I'll be pushing the machine to its limit in the authoring stages I don't want it to be trying to encode video in the background. So I always encode the video prior to authoring, so that I have m2v and AC3 files to work with. Often, for larger jobs, I'll leave the machine encoding at night when I go to bed.

VBR and CBR

When the compressor does a two pass variable bit rate encode it looks through the file and works out what frames need the most compression, and assigns the compression accordingly. It takes at least twice as long as a single pass, but the quality is better without increasing the file size.

The other way, Constant Bit Rate (CBR), will result in information being effectively wasted in some areas, while other frames that really need more bits have insufficient.

The real world

Many of you will be burning your material to DVD-Rs and playing those back in standard DVD players. The players find it harder to read the burned discs than the commercially made 'replicated' discs that you find Hollywood titles on, so you need to keep your data rates even lower. That's why I recommend setting your average bit rate to 4Mbps. The fact of the matter is that when you are compressing this much you won't get much advantage from a VBR compression, and if you're in a hurry you might as well use CBR. I still use VBR (and leave it running overnight) since I want to get the best quality I can – but I doubt if many people could tell the difference.

If you are doing a job that will be professionally mastered for replication you can use data rates as high as 10.08 Mbps, but you might be wise to keep everything below 9 Mbps (or even as low as 8 Mbps to be on the safe side) to allow for cheaper playback machines. In theory every DVD player should be able to handle 10.08 Mbps, but it's not always the case.

Now there's one more trap for the unwary when it comes to burning a DVD-R. If you have software that allows it, make sure that the burn speed matches the rating on the blank media. For example – if you have an 8X DVD-R and you burn it at 16X you might get playback problems on some DVD players. Make sure you set the burn speed to 8X (or whatever the rating of your media is). Some people advocate setting it one step lower, just to be safe (for example, burning 16X media at 12X).