

The Tower of Babel and Digital Video - Peas in a Pod?

It seems that this month we are focusing on video with the release of our video transfer kit. Okay, then so be it. Let's learn a bit more about video and answer one of the common questions we get about DC Six at the same time. First, the question:

"I used Diamond Cut to extract the audio portion of a video file. I've now cleaned up and enhanced the audio nicely, but I can't figure out how to put it back into the video. What's up with that?"

Welcome to the world of digital video. If you thought audio offered a confusing array of choices, you ain't seen nothing yet. If you do a search for video files on your computer, you'll likely only come up with a few types. You'll maybe find WMV (windows media video), or mpg (mpeg2 which is used on commercial movie dvds), or AVI.

Hmm - only three file types. That doesn't sound so bad, does it? You may have a couple more, but still, it shouldn't be all that difficult to handle. But here's the problem - that nice looking AVI extension doesn't mean a single thing. There are literally dozens of DIFFERENT and INCOMPATIBLE video file formats that all end in .avi.

"OK", I can hear you say, "I'll just figure out what I have and get a program designed for my type of file". Good idea, but no, it won't work. First, it's not easy to figure out what you have, and second, video programs don't normally care what you have. They depend on you to have installed the specific Codec you need for the file you are trying to use.

A Codec stands for compressor/decompressor. This is a little piece of software magic that is something like a device driver for hardware. It runs in the background and doesn't show up much, but without it, your hardware won't work at all. In the case of a Codec, it just sits around waiting until you try to use a video file that it was designed for. Then it springs into actions and lets your file be used by the video program.

Basically, you need a Codec for every file type you use - and remember, these all end in .avi.

So where does one get these codecs? One good place is here: <http://www.cole2k.net/>. You should choose to install the "Advanced Silent Install Gui". This will give you a whole host of Codecs which will let you both play and compress many different video types including Divx, Xvid, etc. One suggestion for you - the installer will suggest you install the Cole toolbar. We suggest you not do that as it's a handy search tool, but we hate these toolbars in general.

So How Do I Put my Audio I Cleaned up with DC Six BACK into the Video?

Now that you have a variety of Codecs, you are part way there. Next you will need a program which can be used to create video on the PC. There are many of them available, but many computers already have Microsoft Movie Maker on them, so we'll use it to

explain the concepts. If you don't have movie maker, you can download it here:
<http://www.microsoft.com/windowsxp/downloads/updates/moviemaker2.msp>

To put your cleaned up audio back into the video we need to start by putting our original video file on the timeline. You can just drag and drop this. This gives you a video AND the resulting original audio file with all the noise. Remember, DC Six doesn't remove the audio from your video, it just makes a copy of it as a wave file.

Now play the video. It's just like it originally was with the bad audio. Now use the Import Audio function and bring in your CLEANED audio file. Drop it onto the timeline labeled Audio/Music. Next, right click on the original audio track and choose "Mute". Now your original audio is gone and it's been replaced with your new audio.

Now you can make a DVD or other type of video file and it'll be just what you want!!

So Why is Video so Non-Standard? Can't They Agree on a Single Standard?

The answer is, "no, they can't". And there is even a good reason for this. You see, the problem with video is that it results in digital files that are so darn large. Uncompressed audio might be big, but uncompressed video is much, much, mucho bigger. So, with video, being able to compress it is a necessity.

Compression of video has been in its early stages for quite some time. As such, there have been many "better" ideas all with the goal of creating smaller file sizes while maintaining video quality. Some compression schemes are owned by companies, others are in the public domain and others are somewhere in between. Add to this all the new devices that need video and it gets even more complex. The algorithm that makes good video for your TV screen probably isn't optimized for your MP4 player or video I-pod or cell phone.

The result is the Tower of Babel that we are faced with when we decide to get started with video. It'll probably get better with time.