

MPEG Append

A Simple DVD SP Helper

MPEG Append is a simple drop-on application that will take one or more MPEG-2 files and give them correct and consistent time code information.

This allows you to encode your files in smaller chunks, to make the uninterrupted encode time manageable or to allow you to use different quality parameters for different scenes.

If it becomes necessary to change any of the scenes, you only need to encode that scene, then re-append the files for the whole film. This turns a multi-hour operation into one that takes just a few minutes.

Why

MPEG Append is useful because DVD Studio Pro (a product and trademark of Apple Computer Inc.) needs to see a single logical file as the input to a track. If you use multiple files and link them together in the application, there will always be a video and audio break between them when played on a DVD player.

DVD SP does have a facility to use several smaller files as if they were laid end to end as one larger one. However, if they are to work properly, they must meet rigorous timecode requirements. That is, after the first file, the first frame of the next file must have the time code of the last frame of the previous file plus one.

If these conditions are not met, you cannot place markers in the file or preview it successfully.

Since it is rare for an encoder to offer any control over the timecode in the file it produces to the user (the Apple encoder starts each file at zero), the DVD SP requirement is a difficult condition to meet when doing separate encodes.

Also, when producing the DVD you may be supplied with already encoded files (from a service bureau perhaps) and your job is just to put them together.

Quick Start:

Choose the first file to append, for example “MudPie.m2v”

Rename each of the additional files the same as the first with a numeric suffix, like “MudPie.m2v.1” and put them in a folder with the first.

So a Finder list will contain:

MudPie.m2v, MudPie.m2v.1, MudPie.m2v.2, MudPie.m2v.3 etc.

Drag MudPie.m2v onto the MPEG Append application.

Specify a file name and location. Click Save.

When it is done, you will have one large file with continuous timecode.

In either case, you would like to take already encoded files and string them together seamlessly in the final product.

MPEG Append will do that for you.

MPEG Append can also be useful if you have only one file. Many people have observed that DVD SP previews get out of sync with the audio in long tracks. One cause of this is the use of Non-Drop-Frame timecode in the MPEG track.

Running the MPEG file through MPEG Append will convert any existing timecode (or create it if necessary) to Drop Frame timecode. DVD Studio Pro previews works much better with this type of timecode.

MPEG Append transfers markers originating in Final Cut Pro and encoded with compatible encoders then adds new markers at the junction of files. These markers will appear, pre-placed, when you use the asset in DVD Studio Pro.

If you will be placing markers in DVD Studio Pro, using timecode from the original tape, you can use set the correct starting timecode before you append the files using the 'Reset Initial Timecode' option.

How

When you give MPEG Append a collection of files, it needs to know what order you intend them to have in the final file.

This could be done in several ways, but the way chosen is that used by DVD SP itself. That is, begin with a single file. Each additional file must have the same name as the first with the addition of a digit suffix (no more than two digits) beginning with 1 and continuing to a maximum of 99 (100 total files).

So, if the first file is "Mojo.m2v" first additional file would be either "Mojo.m2v.1" or "Mojo.m2v.01". The second additional file must be named either "Mojo.m2v.2" or "Mojo.m2v.02", and so on.

Note that you have the choice of use either one or two digit suffixes for the first 9 appended files. You cannot, however, mix one and two digit suffixes in a single run.

If you have a large number of files (greater than 10) you should use the 2 digit suffix because it will sort correctly in a Finder list view.

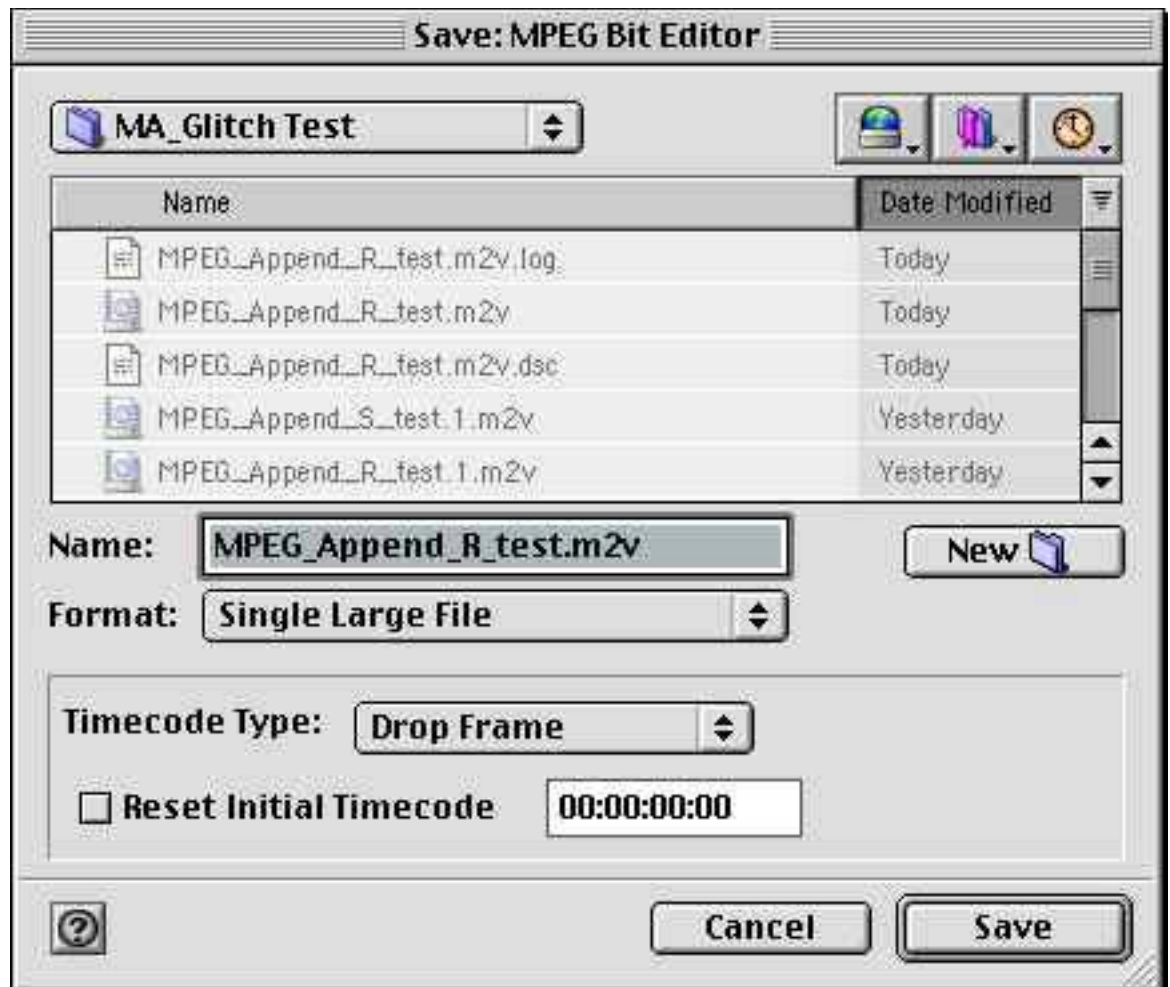
It may be inconvenient to rename all of your existing files to the numbered scheme above. For one thing, it becomes very hard to determine which file contains what (assuming the original name was descriptive).

While the first file in the list must be a real MPEG data file, each of the additional files can be an alias to the original file. Then, you just change the names of the aliases to match the numbering conventions above.

You can always find the original of the alias, or look at its Get Info box to see what file it represents.

Once you have a collection of sequentially named files in a folder, take the first file (the one with no numeric suffix) and drag it on top of the MPEG Append application icon. It is usually most convenient if the MPEG Append application is located on your desktop.

MPEG Append will open and present you with a standard Save dialog. Choose the location where the appended file will go.



Note: It is not possible to convert files in place. A new copy will be made. This means that you must have enough space on the destination drive for another full copy of the MPEG files that you are appending.

At the bottom of the Save dialog, there is a pop-up menu that offers three choices: ‘Single Large File’, ‘From Original Files’ and ‘Copy Safe (<2GB)’.

Single Large File is the default and indicates that the source files will be placed together in a single file with continuous timecode.

From Original Files indicates that you want the files placed in a numbered sequence, like the input files (each corresponding output file the same size as the input file with the same numeric suffix) with continuous timecode throughout the number sequence.

Copy Safe keeps all the files produced at sizes less than 2 Gigabytes so that they can be easily transferred over networks or to volume types that may not support very large file sizes. FCP markers encoded into MPEG video may not be recognized by DVD SP when the MPEG file size exceeds 2GB. Copy Safe avoids this problem (since the QuickTime MPEG encoder can have problems writing the markers for files larger than 2 GB, you need to keep the segments you encode relatively small).

Most times, it is easier to deal with the single file.

You can choose to have the output file use Non-drop Frame timecode, or whatever timecode the first file uses using the pop-up at the bottom of the ‘Save As’ dialog.

For almost all cases, the default Drop Frame timecode is preferred because it avoids a persistent bug in DVD Studio Pro which causes audio synchronization problems during preview.

However, if you are using subtitles with markers in your authoring you may encounter another DVD Studio Pro bug which causes it to generate errors indicating that the subtitles cross a marker point when Drop Frame timecode is used. You can avoid this problem by using Non-drop Frame timecode (but your audio may seem to be out of sync).

Normally, the timecode written to the appended MPEG video file is based on the value first encountered, that is the beginning value from the first file.

You can use the ‘Reset Initial Timecode’ option to specify a different value. This is useful, for example,

when you have known locations where you want to place markers based on the timecode from the original tape.

To change the initial timecode used, first click the checkbox. Then enter the timecode in the standard format (hh:mm:ss:ff). For example, 1 hour exactly would be 1:00:00:00. You can also use the simple short cut of omitting the zeros as long as you type the colons, i.e., one hour is also ‘1:::’, one minute ‘1::’ and so on.

The timecode that you enter will ultimately be interpreted according to the timecode type you specify in the pop-up. Do not try to indicate drop or non-drop frame time code by using any character other than numbers or colons in the timecode field.

The value you enter will appear in the log file produced by MPEG Append as the starting time of the first file processed.

Enter the name you want the output file(s) to have, navigate to the location where you want them stored and press the ‘Save’ button.

MPEG Append will display a small progress window with a bar that advances in proportion to the data converted.

You can abort the operation by pressing the ‘Stop’ button. All the output files will be deleted and the program will quit.

MPEG Append does its simple job quickly. It will take less time to write the appended files to the destination than it would if you used the Finder to copy them there.

Output Files

MPEG Append will, of course, generate the appended MPEG files that are its primary purpose. In addition, it creates two text files in the same location, to help smooth your workflow.

The first text file has the same name as the primary output file with the suffix ‘.log’.

The log file contains the timecodes of the first frame in each segment processed. The timecodes are presented

in both drop-frame (DF) and non-drop-frame (NDF) formats.

You can use this information to set chapter points in the movie once you have added it to a DVD SP project.

The second text file has the same name as the primary output file with the suffix '.dsc'.

The dsc (description) file contains a simple DVD SP project description using the output MPEG file as its only asset.

A DVD SP description file is a textual representation of the content of a DVD SP project. You can create one from an existing project using the 'Save Description...' item in DVD SP's file menu.

Similarly, you can load a description file into DVD SP using the 'Load Description...' option in the File menu. This option is only enabled when you have closed any existing project files.

If you select 'Load Description...', navigate to the .dsc file produced by MPEG Append and open it, you will get a simple project in DVD Studio Pro that use the output file as its first video asset. The settings will be set from the characteristics of the MPEG file (16x9, PAL or NTSC, etc.) and the track in the display will be marked with the start points of each of the segments you appended.

If you add a single audio file to the video track, you can build and burn a working DVD immediately from the project.

About Audio

MPEG Append only deals with MPEG Video files. It knows nothing about the various audio formats used on DVDs.

To add audio to an appended file, the audio must be exactly the same length in time as the video. There are several ways to accomplish this.

If you encoded your video in segments from something like FCP or Premiere, just export the audio from the whole project.

Alternatively, if you allowed the Apple MPEG encoder to extract the audio from each clip as it encoded the MPEG file, you can append each of the audio chunks in the QuickTime Player application or other audio editing tool to create a single output file.

Once you have a single PCM file, you will likely want to use the A.Pack encoder to convert it into a space saving AC-3 file.

Cautions

MPEG Append makes the bold assumption that you have some idea what you are doing (boy, does that simplify the programming).

If you give it a collection of files that are named appropriately, it will process them.

If you supply a combination of spreadsheet files, application files and your laundry list, you will not get anything useful on the output. But MPEG Append will happily do it for you.

MPEG Append for Mac OS 9 is free. MPEG Append for Mac OS X is a paid product and part of the MPEG Append Suite for Mac OS X.