How to play DivX video files with MacOS X ? v1.9

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Version 1.9.0
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Abstract

This document explains how to view DivX movies on MacOS X and how to fix the sound problems (synchro, and gliches) that often occur when trying to play such files.

Another release before the 2.0... I was expecting to release the version 2.0 of this HowTo with the release of QuickTime 6 which is supposed to change the way we use video on the Mac. The QuickTime 6 provided with the Jaguar Developer Preview is just so disapointing while you're talking about new formats: while I kinda understand that they have removed the MPEG 4 support, the only reason to remove the MPEG2 support would be licensing prices... And yes, paying for a decoding is lame, I hope the MPEG

guys will understand this some day :-(

REQUIREMENTS : MacOS X 10.1 (or better). For a better experience, you should also have the PRO version of QuickTime 5.0 (or better)

1. Important changes

Some important changes since the release of the version 1.8 of this howto : 2 really nice open source apps from the Unix world to Mac OS X: Mplayer and VideoLanClient, also known as VLC. These products are very welcome on the Mac OS platform, since we only had QuickTime until now... And QuickTime only meant a lot of simplicity for developers and end-users, but also a lot of limitations, one of the best examples of which is the existence of this HowTo.

That's why the DivX Howto definitely needed to be updated. And there it is, you are reading the guide. I had planned to release the updated version when QuickTime 6 would have been released, but it's been too long. I can't wait for those greedy guys to make their decision...

2. for OpenDivX users

First, I will assume that you don't want to play OpenDivX movies but DivX movies.If you want to play OpenDivX movies, you should beam to the site of ProjectMayo (http://www.projectMayo.com) and check there the documents and files that will help you to do so.

The complete URL is, on the 4th of October 2001 : OpenDivX (http://www.projectmayo.com/projects/detail.php?projectId=6)

OK, now we'll assume you want to play DivX movies.

3. Required Software

- First, you need to upgrade to OS X 10.1 if you have not done it yet.

- Second (optional but highly recommended) , you need to get Quicktime 5 Pro for OS X (which is equivalent to entering a valid serial number in the Quicktime Preference Panel).

- 'divx for X' which is a really cool QuickTime component based on the ffmpeg source code available under GPL. You can download the archive from here : the mpeg4 section of Jamby.net (http://mpeg4.jamby.net/)

- 'DivX 5 for MacOS' which is the official QuickTime component from DivX.com. You can download the archive here : the official Divx website. (http://www.divx.com/divx/) .

- '3ivx Delta 4 for MacOS' which is the official 3ivx component from 3ivx.com. You can download the archive here : the official 3ivx website (http://www.3ivx.com/)

  'Divx Doctor II for MacOS' from 3ivx.com too. You can download the archive here : the DivX Doctor website (http://doctor.3ivx.com/)

  Maybe your wondering what 3ivx has to do your DivX movies ? Well, you'll get my point really soon, don't worry :-)

4. The QuickTime plug-in installation

4.1. divosx version prior to 1.1.4

NB : FOR THOSE WHO CAN'T OR DOESN'T WANT TO USE THE TERMINAL, READ THE SECTIONS 5 and 6.

You will need to know the VERY basic use of the terminal.app program to do the remaining stuff. The terminal.app is in the /Applications/Utilities folder.

If you don't know anything about the UNIX Shells, please follow precisely the next few steps. Remember that the manual is your friend. You'll only need the 'ls' and 'cd' commands. When you're totally lost, simply type 'man ls' or 'man cd' to get the help about these commands.

1. put the divx os x archive in your home folder (and not a subfolder of the home folder !!)

2. open the terminal.app application

3. type the following command : pejvan% cd ~

OK, now, in order to install divx ffmpeg for Mac OS X, follow these simple steps, as explained in the readme file that come in the archive file :

1. extract the archive in your home directory (or wherever ;-) : pejvan% tar zxf divosx.tgz ~/

2. copy the ffmpeg.component from the Finder into the /Library/Quicktime folder

3. copy the **getMp3** and **Avi2Mov** programs in /usr/local/bin . To do so, change the directory to where you have decompressed the divx for x archive. You can then copy paste this command line in the terminal application :

```
sudo cp ./getMp3 /usr/bin/ sudo cp ./Avi2Mov /usr/bin/
```

Here is what you get on your terminal :

```
pejvan% cd divosx/
```

```
pejvan% ls Avi2Mov Better_Readme.rtf ffmpeg.component getMp3
pejvan% sudo cp getMp3 /usr/bin/
Password:

pejvan% sudo cp Avi2Mov /usr/bin/
```

4.2. DivOSX 1.1.4 and above

the new version brings many cosmetic improvements :

- the QuickTime component is now a `.pkg` which means that installing it is much more easier since you can install it with the standard installer app from Apple.

- **avi2mov** is now a graphical application, which means that you don't need command line tools and the terminal to do it but **getMp3** is still a command line tool, so you'll need the terminal to install and use it (please refer to the previous section for that)

That's it ! Now, you're ready to enjoy the cool divx movies... *if you're LUCKY* you can simply double click on a divx movie and it'll play smoothly in QuickTime Player. I said lucky, because you'll have to be really lucky to play a movie and get cool audio. Here is the explanation :

" The quicktime player currently doesn't play the mp3 sound format in an avi file correctly. That's way we added the command line tool getMp3 to extract the mp3 from an avi. Apple will probably correct this in the near future (Pejvan: "or not, since I've been told that the bug isn't fixed in QuickTime 6 yet :-(") " (from the readme file)

4.3. Installing DivX 5

Simply copy the `DivX.component` into the `/Library/QuickTime` folder.

4.4. Installing 3ivX delta 4

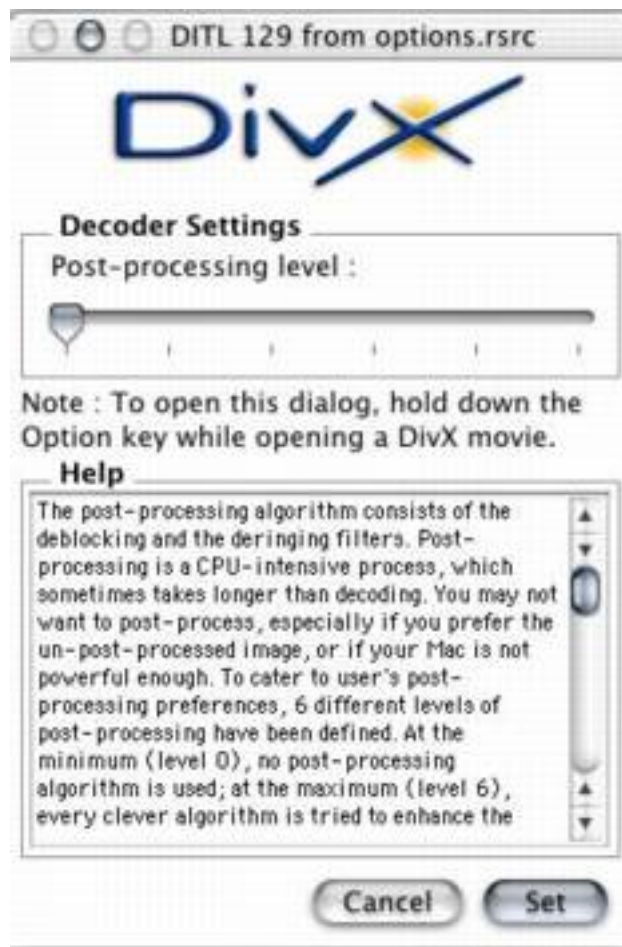Simply copy the `3ivx D4 PR1 Decoder OSX` into the `/Library/QuickTime` folder.

> Those components ARE COMPATIBLE, so you don't have to
> choose one, nor worry about conflicts. :-)

4.5. So, which one to choose ?

Note that you should not install both of the component if you don't like software conflicts. So ? Which one will you have to choose ? I will not give you the answer to that question but rather give you some elements and ask you to try for yourself to chose.

- the official DivX codec won't fix the sound problem since it seems it's a bug in QuickTime so you'll have to get Avi2Mov from Jamby anyway

- the official DivX codec lets you chose the level of postprocessing to get better performance (take a look at the screenshot) or better image quality. Note that on my G4/400, I have to turn it off to get enough fps.

- it seems that, sometimes, you have to reboot when you change the post-processing level to be effective in QuickTime (don't blame the divx file if you still get poor results without rebooting ;-). Anyway, I suggest turning off the postprocessing unless you have a 800MHz or better processor.

But, as surprising as it could be, my advice could be : " none of those two" :-) In fact the best way to watch a divx movie on Mac OS X could be the solution provided by a third party...

DivX postprocessing setting window

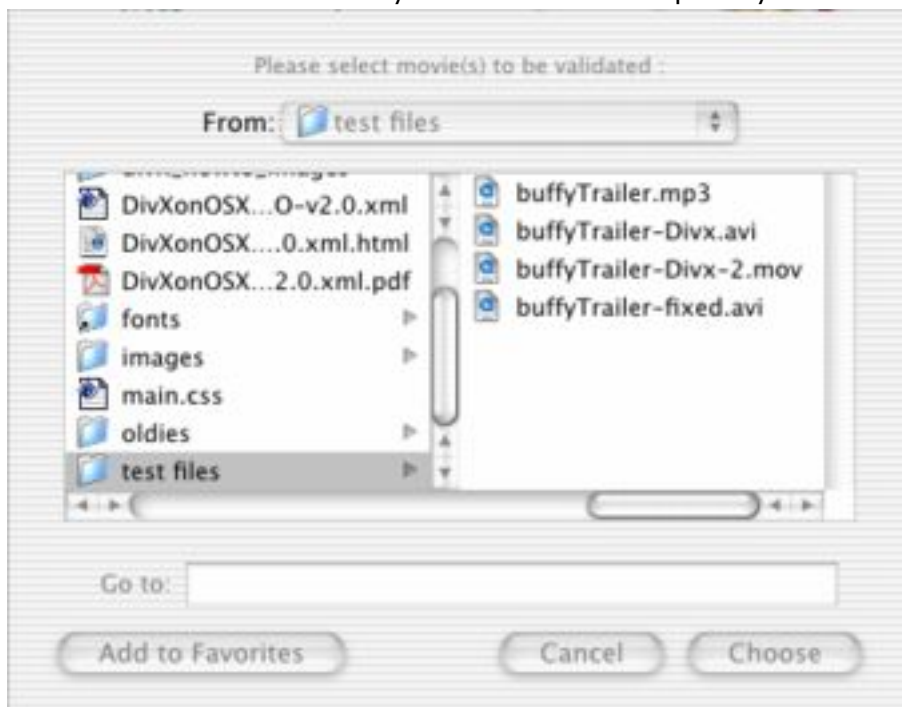## 5. How to get nice audio output

Before the release of DivX 5 and Divx Doctor II, there was several solutions, all based on the avi2mov and getMp3 tools from Jamby. What's the deal now ?

5.1. the DivX Validator

The DivX 5 package for Mac OS X comes with a tiny application called DivX Validator. Since Apple doesn't seem to want to fix their avi problem in QuickTime, the DivX Network has decided to include their own audio decoder in their divx.component. And to decode the audio part of the divx avi file, they have added the DivX Validator which will change the type of the file. Thus, the QuickTime player will not try to read the audio track (something it can't do, obviously) but rather let the DivX codec take it in charge.

Changing the type of the file will take you less than a second, that's why this is the fastest way to get the audio work. Don't forget that you can use this trick only on MP3 audio tracks, and you still cannot get the sound to play if it's the wma (or Windows Media Audio) codec which is used.

So ? How do you use it ? It's really easy, you just choose the divx file in the navigation dialog, and that's it. But the problem I had this validator is that you often get a video track and a sound track that are not synchroneous. But I hope they'll fix this soon.

fig

5.2. DivX Doctor II and the 3ivx QuickTime plug-in

Name: 3ivx D4 PR1 Decoder OSX
Kind: Document
Size: 272 KB
Created: 3/04/02
Modified: 3/04/02
Version: 4.0PR1

fig : the 3ivx component

Not only has the 3ivx team released a new version of their MPEG4 codec, but they have also released a their second version of DivX Doctor.

The DivX Doctor app will help you to watch your movies, with a really good sound quality. BUT, contrarily to what you could imagine, the Doctor will not cure your DivX file, but rather convert it to the 3ivx format, which is an MPEG 4 format based on the QuickTime `.mov` format, which will, fortunately, be recognized by the QuickTime player.

Its usage is really straightforward. I suggest that you create a self contained movie, as shown in the screenshot below :
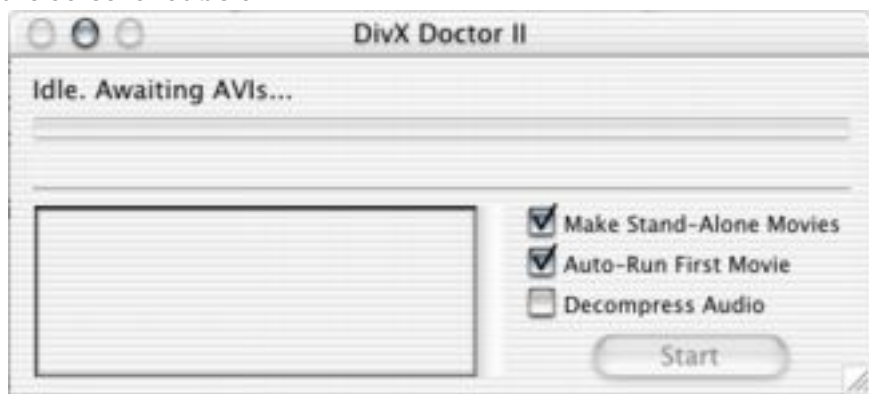

fig : DivX Doctor II

As a matter of fact, you should get a really nice 3ivx movie, without any problem audio problems.

5.3. getMp3, or what to do if the others fail

We have many tools to fix this problem, all based on getMp3 or Avi2Mov. Here is the trick I have found in order to play divx movies with nice sound and without using

avi2mov which has a too long processing time.

IN THIS PART, YOU WILL NEED QUICKTIME PRO :–((and the sound part of the divx movie should be in MP3 format an not Windows Media Audio. Luckily, most of the divx you can find or encode will have MP3 audio.

FOR THOSE WHO CAN'T OR DON'T WANT TO USE THE TERMINAL, READ THE SECTIONS 5 and 6.

Here are the simple steps you have to follow in order to make the sound work :

1. extract the audio track (we will use the getMp3 binary) :

```
[localhost:~/DivX on OS X HOWTO] pejvan% ls
A DivX Movie.avi         DivX on OS X HOWTO.rtf
[localhost:~/DivX on OS X HOWTO] pejvan% getMp3 "A DivX Movie.avi" MP3Track.mp3
Input #0, avi, from 'A DivX Movie.avi':
        Stream #0.0: Video: msmpeg4, 360x270, 24.99 fps
        Stream #0.1: Audio: mpegaudio, 48000 Hz, stereo, 128 kb/s
```

[some processing time is skipped here ;–)]

```
[localhost:~/Documents/DivX on OS X HOWTO] pejvan% ls
A DivX Movie.avi         DivX on OS X HOWTO.rtf         MP3Track.mp3
```

2. now open both the divx movie and the MP3 audio track in QuickTime player (see the screenshots : fig1 and fig2)

fig1

fig2

3. select the window of the QuickTime player in which you have opened the DivX, and choose **Enable Tracks...** in the Edit Menu. Then disable the Sound Track (fig 3.1 and 3.2)

fig3.1

fig3.2

4. now you can close the **Enable Tracks** window by clicking on **OK**

5. finally, click on the MP3 Track player, type **apple-A** to select all the track, then type **apple-C** to copy it in the clipboard. (fig4)
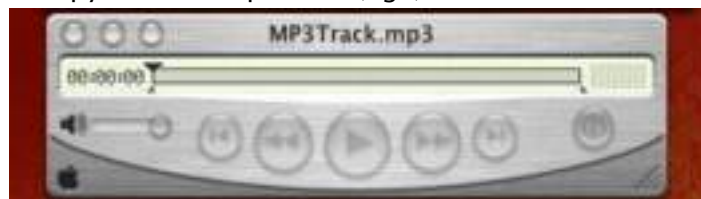

fig4

6. now click back to the movie player to activate the window. Then type **apple shif alt V** to add it in the movie (fig 5).

this is the **ADD SCALED…** command, not the simple **ADD…** .

fig5

THAT'S IT !!! You can now enjoy your movie with high quality sound, without any glitch !

5.4. Avi2Mov v1.1.6 and above

I have the regret to announce you that the GUI of avi2mov is rather primitive (but that's not really important anyway ;–))

I did not manage to make the 1.1.5 version to work : it quits and saves me a 132kB file which is useless.

Fortunately, this seems to have been fixed in the 1.1.6, and it works with my DivX4.02 test files almost as good as the 'manual getMp3 and paste audio track' trick. The progress bar works fine too. Conclusion : Again, really good job ;–)
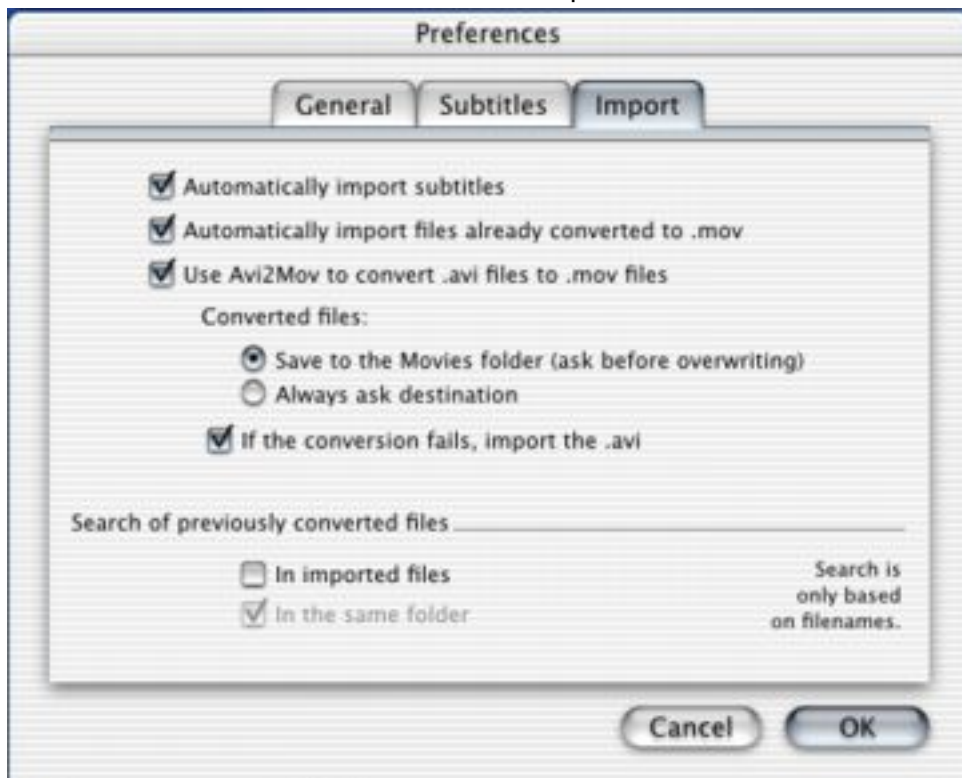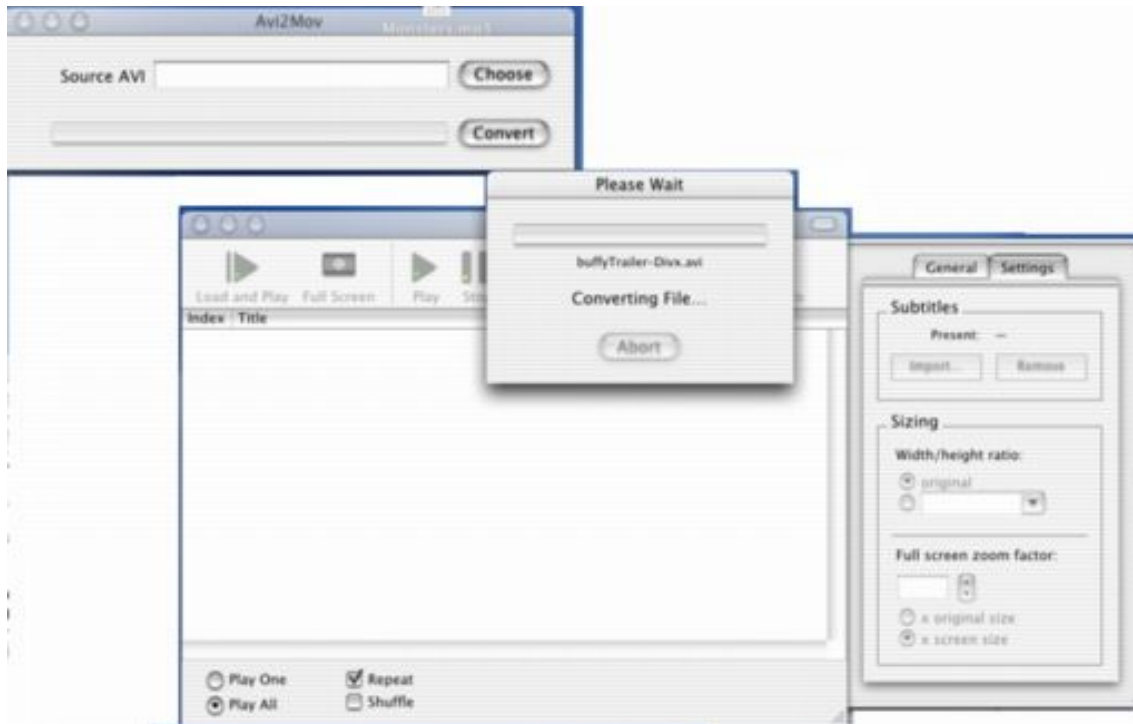
fig6

5.5. Cellulo

Cellulo is a nice movie player based on QuickTime, with interesting features such as playlist, avi2mov integration, and subtitle options. The current version is 1.1 (it's the one i'll be talking about here).

To play a DivX Movie with Cellulo, make sure you have checked the 'Use Avi2Mov to convert .avi files to .mov files' in the Preferences panel.

cellulo 1.1 pref panel

Then, simply add your DivX file to the playlist, and Cellulo will automatically launch Avi2Mov to convert it.

avi2mov integration in Cellulo

Here, I got a little problem : I don't know if it's a bug in the program or no, but Cellulo kept opening the `.avi` instead of the `.mov`, which gave me sound problems, as you can imagine. So, I guess that in such a situation, you should use avi2mov before adding the files in Cellulo, or adding the converted file in Cellulo, once it has con-verted it.

I hope this will be fixed soon...

Tip : if you can't upgrade from the 1.0 version, because cellulo is acting weird, try to remove the preference file : pejvan%   `rm ~/Library/Preferences/fr.atvaark.cellulo.plist`.

5.6. MPlayerOSXGui

MPlayerOSXGui installs an AppleScriptStudio application and the MPlayer CLI binaries in a nice Mac OS X package. MPlayer is one of the best video player out there. It plays al-most any format, from MPEG to Quicktime, DVD, and WindowsMedia files. Seeing a Mac OS X port (even if it's still an early port) is very apealing. MPlayer works for a while on Mac OS X thanks to work of many teams, and you could install it with Fink. But now, it works without X-Window, so it's more fun for those of you how are not Unix geeks :-). Of course, runing without X-Window has some drawbacks here. The major one is that you can play movies only in fullscreen mode with the current version of the OSXGui.

MPlayerOSXGui

What's really nice when you have a player which is not based on QuickTime, it's that you won't be annoyed by the QuickTime which makes the sound in DivX files won't work. Thus, you don't need to try to fix the file, and will not waste time with that :-))

While you can play lots of different formats with MPayer, as you can see in the screen-shot, I have had some performance and quality issues on my Titanium 500MHz : the movie files was not running at full frame rate, and the quality was not perfect. Let's just hope that these will be fixed in a next released.

5.7. VideoLanClient (a.k.a. vlc)

Like MPlayer, vlc is the port of a multi format video player from the linux world. But while MPlayerOSXGui seems to be a hack to make it work on Mac OS X, vlc is an offi-cial and native port.

VideoLanClient

As for MPlayer : what's really nice when you have a player which is not based on Quick-Time, it's that you won't be annoyed by the QuickTime which makes the sound in DivX files won't work. Thus, you don't need to try to fix the file, and will not waste time with that :-))

vlc is probably the best way to watch DivX movies (or any format supported by vlc like MPEG2 movies). The main drawback I've encoutered is that vlc seems to not work on some configurations... While vlc is totally independant of QuickTime, it seems that it won't work properly when QT 6 is installed. A friend of mine, and I, have both had this problem. While I have to computers, one running 10.1 and a 10.1 with QT6 and the other running Jaguar DP (which comes with QT6 too), vlc only runs with the one with-out QT6... weird... It maybe something else, but I couln't find what... I hope this will be fixed soo...

5.8. DivOSXTool

IF YOU DONT WANT TO USE THE TERMINAL, YOU CAN FOLLOW THESE INSTRUCTIONS : You can install the **ffm-peg.component** QuickTime plug-in by draging it into the /Library/Quicktime folder, then you use one graphical tools.

DivOSX Tool is what we call a Graphical Frontend. It is a program that depends on Avi2Mov and getMp3 (but they are bundled in the application package). Its interface is pretty, and its use straightforward. You open an avi with the **Open…** dialog and then choose to save the mp3 or the quicktime movie thanks to Avi2Mov.

People who can't use the terminal can use this cool application. But you should know that shell programs allow you to have shell scripts that allow a lot of automation that you wont be able to do with DivOSXTool (because it's not AppleScript savvy yet, but fortunately, the author will soon add this feature to DivOSXTool).

The 1.1 version brought the ability to open multiple movies as you can see on the screenshot below :

fig7

The new 1.2 version is now a GPL application. It brings AppleScript support (not tested), a slider to preview the Movie and have some info (only size for the moment...) and live feedback from the CLI Task. You can take a look at the screenshots ;–) .

fig8

fig9

It worked fine on my computer. I hope it will on yours ;-) Anyway, I'll keep on using the command line tools. But this tool is helpfull for those who don't know anything about the terminal.

5.9. ConvertToQt

IF YOU DONT WANT TO USE THE TERMINAL, YOU CAN FOLLOW THESE INSTRUCTIONS : You can install the **ffm-peg.component** QuickTime plug-in by draging it into the /Library/Quicktime folder, then you use one graphical tools.

ConvertToQT is the exact same thing as DivOSXTool. In fact, both of them appeared on VersionTracker the very same day. Those guys had the same idea !

Personally, I prefer the GUI (graphic user interface) of DivOSXTool, but with Convert-ToQT, you can download the sources, and I find this is a really good idea. For example those who want to learn programming on OS X can have nice practical examples.

The new 1.1b version bring the ability to convert the movie without extracting the mp3 audio track first. Plus, you can choose this method if you even if you don't have Quick-Time Pro. This is a great feature, even if it seems too me to me really slower that simply extracting the audio track and adding it to the movie.

Here is what the GUI looks like :

fig10

5.10. EasyDivX

IF YOU DONT WANT TO USE THE TERMINAL, YOU CAN FOLLOW THESE INSTRUCTIONS: You can install the **ffm-peg.component** QuickTime plug-in by draging it into the `/Library/Quicktime` folder, then you use one graphical tools.

EasyDivX is a graphical application, but it's not like other graphical programs that are graphical frontends for avi2mov and getMp3. This one works differently. It seems that it uses getMp3 to..., believe it or not, get the MP3 track, but then it uses AppleScript to create a new movie file and then to copy paste (as explained earlier) the MP3 track into it. Thus, it's faster, and IT WORKS WITH DIVX4.x files ! It creates a folder with, like it or not, your previously 'non-working' movie, its MP3 track, and the 'patched' movie... Another neat stuff about EasyDivX is that it uses the Drag-and-Drop, much more easier than a dialog window...

fig11

6. Links

- this HOWTO (http://www.projectomega.org/)

- the DivOSX archive: (current version 1.1.9) (http://divx.jamby.net/)

- the official DivX 5 decoder for QuickTime (alpha) (http://www.divx.com/divx/)

- the official 3ivx site : (delta 4) (http://www.3ivx.com/)

- the official DivX Doctor site : (current version 2.1) (http://doctor.3ivx.com)

- the official VideoLanClient site : (current version 0.4.0) (http://www.videolan.org)

- the official MPlayerOSXGui site : (current version 0.2) (http://www.fi.muni.cz/~xp ridal/mplayerosx/)

- the official Cellulo site : (current version 1.1) (http://www.cellulo.info)

- the DivX Tool homepage : (current version 1.1) (http://homepage.mac.com/colle ctivesw/)

- the ConvertToQT web site: (current version 1.1b) (http://homepage.mac.com/cg odefroy/macosxdev/index.html)

- the DivOSXTool: (current version 1.2) (http://homepage.mac.com/grousseau/Fil eSharing2.html)

- the EasyDivX: (current version 1.2) (http://www.abyssoft.com)

7. FAQ (Frequently Asked Questions

First of all, I would like to thank the guys who sent me feedback and asked questions :-)

7.1. Question 1

```
Input #0, avi, from 'SMG.avi':
Stream #0.0: Video: msmpeg4, 320x240, 29.97 fps
Stream #0.1: Audio: pcm, 11025 Hz, stereo, 176 kb/s
Error while opening codec for stream #0.0 - maybe incorrect parameters
such as bit_rate, rate, width or height
```
Q : Why am I getting those errors? A : The answer is quite simple ;-) You can see that your audio stream is not an mp3, but pcm. That's why getMp3 won't work...

7.2. Question 2

```
> Whenever I paste the new sound track into the AVI using your directions,
> it doesn't paste in place of the old sound track as your figures
> indicate. Instead the new sound track is placed at the front of the
> movie.  This results in a movie that is twice as large - first half just
> sound track and second half just video track.  Any help would be
> appreciated!
>
```

Did you really tried to do the 'add' action ? If yes, you should try to the 'add scaled', it's little complicated on the keybord : apple-alt-shif-V

8. History

v1.0 -- 12 October 2001 : initial release

v1.02 -- 13 October 2001 : corrected some typos, but there should be many more left ;-) added a little help for the shell newbies

v1.1 -- 14 October 2001 : added the 'links' section added reviews of 'DivOS X Tool' and 'ConvertToQT'

v1.2 -- 16 October 2001 : added a new FAQ section updated the document (release of DivOSXTool 1.1) added a new TO DO section many many typos corrected

v1.2.3 -- 19 October 2001 : updated the document (release of DivOSXTool 1.2, and ConvertToQT 1.1b) a few cosmetic changes

v1.3 -- 28 October 2001 : updated the document (DivOS X 1.1.4, EasyDivx 1.x, DivX 4.x decoders) *never publicly released*

v1.3.1 -- 31 October 2001 : updated the document (DivOS X 1.1.6 - new GUI Avi2Mov)

v1.4 -- 12 December 2001 : updated the document (official DivX 4 decoder) miscellaneous changes

v1.5 -- 23 December 2001 : totally converted the document into DocBook XML using the package available on our website projectOmega's download section (http://www.projectomega.org/contents/en/php/downloads.php). Removed the TODO section...

v1.8 -- 19 April 2002 : updated the document (official DivX 5 decoder), 3ivx Delta 4, and DivX Doctor II

v1.9 -- 26 Mai 2002 : updated the document : added Cellulo, MPlayer, VideoLan-Client to the applications.

9. Thanks

All the guys who work on DivX

All the guys who work on the ports of DivX for Unices, specially on GNU/Linux

All the guys who work on the ports of DivX for MacOS X