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Subject: Re: AVIs for the Mac

Posted by [David Fanning](#) on Mon, 17 Nov 2008 22:31:03 GMT

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Dan Larson writes:

- > I have a virtual machine application that generates AVI movies. I use
- > the library from:
- > <http://www.kilvarock.com/freesoftware/dlms/avi63plus.htm>.
- >
- > Should these same routines work to generate AVIs which play on a Mac?
- > My other problem is that I don't have access to a Mac, so it is almost
- > impossible for me to tinker with this stuff.

Maybe we could all pony up \$10-\$15 to buy a Mac that we can pass around to solve some of these problems.

Cheers,

David

--

David Fanning, Ph.D.

Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: AVIs for the Mac

Posted by [Rick Towler](#) on Tue, 18 Nov 2008 01:09:27 GMT

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Dan Larson wrote:

- > Hi-
- >
- > Should these same routines work to generate AVIs which play on a Mac?

Yes, as long as a compatible codec to the one you used in windows is available in quicktime.

A decent codec supported in Quicktime since version 3 is the indeo video codecs (version 4.4). You would need to install these codecs on your windows machine and encode using the version 4.4 codec. These used to be free for windows (and can still be found for free) but it seems that the company that now owns them is charging for them:

<http://www.ligos.com/index.php/home/products/indeo/>

Cinepack is standard in windows and is supported by quicktime although it is a fairly poor codec.

If your Apple users can handle adding codecs to Quicktime then you can use XVID. Quite a good codec. You would need to install on your windows machine to encode file using it.

Windows download

<http://www.xvid.org/Downloads.15.0.html>

Quicktime component:

<http://www.xvid.org/Software.83.0.html>

Another option is to buy QuickTime Pro for windows and transcode your animations into quicktime format. This would guarantee that they would be compatible. In this case simply create uncompressed AVI's and then run thru quicktime pro. When I did this last I quite liked the Sorenson codec output but there are many to choose from in quiktime pro.

-Rick

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Subject: Re: AVIs for the Mac

Posted by [M. Katz](#) on Tue, 18 Nov 2008 14:40:43 GMT

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If you post a link to one of your AVI files, then you could ask Mac users to try to view it. Not everyone will have the same codecs installed, and some of us could try an 'out of the box' Mac installation.

-M

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Subject: Re: AVIs for the Mac

Posted by [Dan Larson](#) on Tue, 18 Nov 2008 23:25:53 GMT

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On Nov 18, 9:40 am, "M. Katz" <MKatz...@yahoo.com> wrote:

> If you post a link to one of your AVI files, then you could ask Mac  
> users to try to view it. Not everyone will have the same codecs  
> installed, and some of us could try an 'out of the box' Mac  
> installation.  
> -M

Thanks Rick, I will try those suggestions. Since you don't mention uncompressed AVIs, except for use in Quicktime Pro, I assume the Quicktime freeware doesn't like them? i.e. is it always safer to use

some kind of codec?

And, just for kicks, I posted the movie (uncompressed AVI) on an FTP site if any mac users want to give it a go :-)

dan

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Subject: Re: AVIs for the Mac

Posted by [Dan Larson](#) on Tue, 18 Nov 2008 23:27:40 GMT

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On Nov 18, 6:25 pm, Dan Larson <dlar...@aecom.yu.edu> wrote:

> On Nov 18, 9:40 am, "M. Katz" <MKatz...@yahoo.com> wrote:

>

>> If you post a link to one of your AVI files, then you could ask Mac

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>> installation.

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> And, just for kicks, I posted the movie (uncompressed AVI) on an FTP

> site if any mac users want to give it a go :-)

>

> dan

whoops, forgot the FTP address:

ftp://depot.aecom.yu.edu/pub/kWqdn381V3pquQlVI624

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Subject: Re: AVIs for the Mac

Posted by [Rick Towler](#) on Wed, 19 Nov 2008 01:14:06 GMT

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Dan Larson wrote:

> On Nov 18, 9:40 am, "M. Katz" <MKatz...@yahoo.com> wrote:

>> If you post a link to one of your AVI files, then you could ask Mac

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>> installation.

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- > Thanks Rick, I will try those suggestions. Since you don't mention
- > uncompressed AVIs, except for use in Quicktime Pro, I assume the
- > Quicktime freeware doesn't like them? i.e. is it always safer to use
- > some kind of codec?

Well, I believe that Quicktime can play uncompressed AVI files but I don't think most people would appreciate downloading the extremely large files you'll generate. The reason you would generate uncompressed .avi files is that you don't want to lose image quality when re-encoding the video in QuickTime (or whatever program you ultimately use).

Your original file was 180 MB. Compressed in Windows Media Encoder (free) as a 5Mbps "Hi-def" video you end up with a file that is 84 KB. KILOBYTES! 0.04% of the original videos size. And it looks great. I also ran it thru the Indeo Video 4.5 and 5 encoders. The output file was ~280 KB. 0.15% of the original. Still not bad but I couldn't avoid some ghosting around the red box in the video so it may not be the best choice. Neither of these codecs are playable in Quicktime but you get an idea of how much you can compress your animation. I also noticed that I didn't have Indeo 4.4 on my machine so it may not be available anymore.

My guess would be that with Quicktime Pro you could get results similar to the .wmv. If you have \$30 to spend I would do that as it is by far the simplest way. If not, there are opensauce programs that you can cobble together to encode your uncompressed AVI (check out ffmpeg).

- > And, just for kicks, I posted the movie (uncompressed AVI) on an FTP
- > site if any mac users want to give it a go :-)

Case in point, it took ~10 minutes to download.

-Rick

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Subject: Re: AVIs for the Mac  
Posted by [Michael Galloy](#) on Wed, 19 Nov 2008 01:48:36 GMT  
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On Nov 18, 6:14 pm, Rick Towler <[rick.tow...@nomail.noaa.gov](mailto:rick.tow...@nomail.noaa.gov)> wrote:

- > Dan Larson wrote:
- >> On Nov 18, 9:40 am, "M. Katz" <[MKatz...@yahoo.com](mailto:MKatz...@yahoo.com)> wrote:
- >>> If you post a link to one of your AVI files, then you could ask Mac
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>> Quicktime freeware doesn't like them? i.e. is it always safer to use  
>> some kind of codec?

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> Well, I believe that Quicktime can play uncompressed AVI files but I  
> don't think most people would appreciate downloading the extremely large  
> files you'll generate. The reason you would generate uncompressed .avi  
> files is that you don't want to lose image quality when re-encoding the  
> video in QuickTime (or whatever program you ultimately use).

I downloaded your AVI file and viewed it with Quicktime successfully.

> Your original file was 180 MB. Compressed in Windows Media Encoder  
> (free) as a 5Mbps "Hi-def" video you end up with a file that is 84 KB.  
> KILOBYTES! 0.04% of the original videos size. And it looks great. I  
> also ran it thru the Indeo Video 4.5 and 5 encoders. The output file  
> was ~280 KB. 0.15% of the original. Still not bad but I couldn't avoid  
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> to the .wmv. If you have \$30 to spend I would do that as it is by far  
> the simplest way. If not, there are opensauce programs that you can  
> cobble together to encode your uncompressed AVI (check out ffmpeg).

I converted your original to H.264 using Quicktime Pro, the result is  
193K (but settings could probably be tweaked to get better  
compression). I couldn't see a difference, but here is the converted  
animation:

[http://michaelgalloy.com/wp-content/uploads/2008/11/utr0810\\_001.mp4](http://michaelgalloy.com/wp-content/uploads/2008/11/utr0810_001.mp4)

Mike

--

www.michaelgalloy.com  
Tech-X Corporation  
Associate Research Scientist

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Subject: Re: AVIs for the Mac

Posted by [Jeremy Bailin](#) on Wed, 19 Nov 2008 14:36:03 GMT

On Nov 18, 6:27 pm, Dan Larson <dlar...@aecom.yu.edu> wrote:

> On Nov 18, 6:25 pm, Dan Larson <dlar...@aecom.yu.edu> wrote:

>

>

>

>> On Nov 18, 9:40 am, "M. Katz" <MKatz...@yahoo.com> wrote:

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>> And, just for kicks, I posted the movie (uncompressed AVI) on an FTP

>> site if any mac users want to give it a go :-)

>

>> dan

>

> whoops, forgot the FTP address:ftp://depot.aecom.yu.edu/pub/kWqdn381V3pquQIVl624

Plays fine on my PowerBook G4, OS X 10.5.5, QuickTime 7.5.5 (990.7).

But it is absurdly large.

-Jeremy.

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Subject: Re: AVIs for the Mac

Posted by [Vince Hradil](#) on Wed, 19 Nov 2008 16:40:13 GMT

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On Nov 18, 5:27 pm, Dan Larson <dlar...@aecom.yu.edu> wrote:

> On Nov 18, 6:25 pm, Dan Larson <dlar...@aecom.yu.edu> wrote:

>

>

>

>> On Nov 18, 9:40 am, "M. Katz" <MKatz...@yahoo.com> wrote:

>

>>> If you post a link to one of your AVI files, then you could ask Mac

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>  
> whoops, forgot the FTP address:ftp://depot.aecom.yu.edu/pub/kWqdn381V3pquQIVI624

FWIW - I was able to convert your original avi into an mp4 file using MeGUI and AviSynth on my Windows XP PC. The resulting mp4 is about 376 Kb (a bit larger than Mike's) but it plays in Quicktime - and MeGUI and AviSynth are free!

It wasn't \_exactly\_ straightforward, but I figured it out in about a half hour. Let me know if you want more details on the re-encoding.

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Subject: Re: AVIs for the Mac  
Posted by [Dan Larson](#) on Fri, 21 Nov 2008 15:11:09 GMT  
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Thanks to all those who downloaded the movie, ran it on their Mac, and then proceeded to outdo one another with compression efficiency ;-)  
In my defense, the reason why I return the uncompressed movie is that my collaborators often (despite my best efforts) choose to treat the AVI output as raw data and do other analyses on it. However, the posts have given me some ammo when I say these movies can run on a Mac.

Now I have a general follow up question: if the software which GENERATES the AVIs works fine on PC and Linux and doesn't work on the Mac, is there a way for the Virtual Machine to return the specific errors that are being encountered? In other words, if I am not running a full version of IDL on the Mac, is there some way to debug this program remotely? For the life of me, I cannot figure out why my distributed app is not working in this one specific way (AVI generation) on one specific platform.

thanks,  
Dan

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