Subject: Re: MP4/Animated GIF/JPEG woes....(Windows, IDL 8.1) Posted by Michael Galloy on Mon, 11 Jul 2011 16:29:26 GMT

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On 7/11/11 9:59 AM, Daft Pict wrote:

- > I've just started collaborating with some planetary astronomers who
- > tend to use very different tools compared to us traditional
- > observational astronomers :-) It's fun but I'm trying to generate
- > products that they use (and I typically don't) and having some teeth-
- > gnashing moments and screaming at the IDL help pages....

- > 1). Creating an MP4 file from a stream of images seems easy
- > according to the help pages and I duplicated the example code. The
- > resulting file is playable on my windows box using media player, but
- > not when using QuickTime on either windows or their Mac systems.

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- > 2) Animated GIFs again seem straightforward, except that write gif
- > appears to reset my color table so I lose the color in overlays over
- > images. I pass in the current RGB values from the common block after
- > setting my tables but the gif file is B&W and the RGB arrays are all
- reset!

- > 3) Even tried animated JPEG since the help pages describes how to do
- > it, but the sample code doesn't work as I get an error when trying to
- > use the unit option even though it is described in the help....

>

- > Venting over if anyone has some suggestions as to what causes any of
- > these problems or have solved these issues, are please let me know
- > cheers Brian

Have you checked out the IDLffVideoWrite class in IDL 8.1? I occasionally do animations, but haven't had to since IDL 8.1 was released. The What's New says:

"High-quality Video Animations

The IDLffVideoWrite class allows you to write images to a video file, with an optional soundtrack. You can create .avi or .mp4 video files with the IDLffVideoWrite class. By default, video streams in .mp4 files use the MPEG-4 codec, and audio streams in .mp4 files use the AAC codec."

It uses FFmpeg which I have used in the past with great results.

Mike

Michael Galloy www.michaelgalloy.com

Modern IDL, A Guide to Learning IDL: http://modernidl.idldev.com

Subject: Re: MP4/Animated GIF/JPEG woes....(Windows, IDL 8.1) Posted by Haje Korth on Mon, 11 Jul 2011 17:16:14 GMT View Forum Message <> Reply to Message

I second, IDLffVideoWrite is the way to go. I recently used it to create Quicktime-comptatible MP4 files fro a NASA Press Conference. The example code (with some customization of course) worked flawlessly. Haje

```
On Jul 11, 12:29 pm, Michael Galloy <mgal...@gmail.com> wrote:
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>
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> Mike
> Michael Galloywww.michaelgalloy.com
> Modern IDL, A Guide to Learning IDL:http://modernidl.idldev.com
> Research Mathematician
> Tech-X Corporation
Subject: Re: MP4/Animated GIF/JPEG woes....(Windows, IDL 8.1)
Posted by Daft Pict on Mon, 11 Jul 2011 17:30:10 GMT
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I am using IDLffVideoWrite in 8.1 and I tweaked the example code from
the help file.
I'm sure it's something silly I'm doing due to lack of sleep - it's a
FUN project!!!!
here's a code snippet...
<complicated display construction in a loop through all images</p>
omitted>
; Read back display
  rgbFrame=tvrd(/true)
  frame=tvrd()
; First image initialises everything
```

if (i eq 0) then begin
t=size(rgbFrame)

width = t[2] height = t[3] frames = nFiles

```
fps = 2
```

```
; Create object and initialize video/audio streams (make sure earlier
file deleted)
    file_delete,movFile,/allow_nonexistent
    oVid = IDLffVideoWrite(movFile)
    vidStream = oVid.AddVideoStream(width, height, fps)
  endif
; Add display frame to output streams
  time = oVid.Put(vidStream, rgbFrame)
  write_gif,gifFile,frame,R_curr, G_curr, B_curr,/
multiple, delay_time=100
  write_ipeg,jpgFile,rgbFrame,/true
endfor
·_____
; Close the files
oVid.Cleanup
write_gif,gifFile,/close
```

Subject: Re: MP4/Animated GIF/JPEG woes....(Windows, IDL 8.1) Posted by Juggernaut on Mon, 11 Jul 2011 18:25:14 GMT

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```
On Jul 11, 11:59 am, Daft Pict <br/>
strianjmcl...@gmail.com> wrote:
```

- > I've just started collaborating with some planetary astronomers who
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- > these problems or have solved these issues, are please let me know
- > cheers Brian

For anyone who doesn't have IDL 8.1 and would like to create high quality videos...just look at the ffmpeg toolset. It lets you create a wide variety of encoded video formats and takes something as simple as a series of images or you can delve into their C++ API to write vour own video creation code.

Subject: Re: MP4/Animated GIF/JPEG woes....(Windows, IDL 8.1) Posted by AndrewM on Tue, 12 Jul 2011 20:51:56 GMT View Forum Message <> Reply to Message

On Jul 11, 11:30 am, Daft Pict

strianimcl...@gmail.com> wrote: > I am using IDLffVideoWrite in 8.1 and I tweaked the example code from > the help file. > I'm sure it's something silly I'm doing due to lack of sleep - it's a > FUN project!!!! > here's a code snippet... > > < complicated display construction in a loop through all images > omitted> <u>'------</u> ; Read back display > rgbFrame=tvrd(/true) frame=tvrd() > ; First image initialises everything > if (i eq 0) then begin > t=size(rgbFrame) > width = t[2]> height = t[3]> frames = nFiles > fps = 2> ; Create object and initialize video/audio streams (make sure earlier > file deleted) file delete, movFile, /allow nonexistent > oVid = IDLffVideoWrite(movFile) > vidStream = oVid.AddVideoStream(width, height, fps) >

```
> ; Add display frame to output streams
>
    time = oVid.Put(vidStream, rgbFrame)
>
     write_gif,gifFile,frame,R_curr, G_curr, B_curr,/
>
> multiple,delay_time=100
     write_jpeg,jpgFile,rgbFrame,/true
> endfor
> ; Close the files
>
> oVid.Cleanup
> write_gif,gifFile,/close
```

I did the development of IDLffVideoWrite. I just did some experimentation to try and reproduce your problem, and I think I've got it figured it out. If I modify the IDLffVideoWrite help sample code to output at any framerate less than 5 fps, Windows Media Player still works fine but Quicktime just displays solid green. Increase the framerate to 5 fps or higher, and it works fine again. If that doesn't do it for you, I'll be happy to do some more

investigation.