Subject: animated gif speed
Posted by Paul Levine on Sat, 15 Feb 2014 23:41:44 GMT
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So far, when it comes to animations, my needs have been very simple, and I have been able to accomplish what I want (using new graphics) with the /APPEND keyword to the write method and the GIF file suffix, which gives me a nice little animated gif.

Now I would like to be able to control the "playback speed" of the animated gif, which if I understand correctly, is basically a delay (in 1/100th of a second) specified for each frame that it waits before advancing to the subsequent frame. But it seems my rather simple method is too limited for this, as there is no DELAY_TIME keyword in new graphics as there is in the WRITE_GIF procedure.

I have looked at http://www.idlcoyote.com/tips/howmovie.html but as I am an IDL neophyte with a less-than-rudimentary understanding of how to use objects, it will take some substantial learning on my part to figure out how to actually implement any of that advice. Of course, learning is never a bad thing, but with the limited time I have, I am trying to figure out whether I would be better served learning the ins and outs of the IDLffVideoWrite object (and object oriented programming in general) or whether there is an easier way to take the output of my already-existing function graphics and create an animated GIF (or otherwise) with control over the playback speed

Thanks in advance!

Subject: Re: animated gif speed
Posted by David Fanning on Sat, 15 Feb 2014 23:53:13 GMT
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Paul Levine writes:

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> already-existing function graphics and create an animated GIF (or
> otherwise) with control over the playback speed

I'm guessing it might take 5 or 10 seconds to learn how to use
IDLffVideoWrite, assuming you have GIF files sitting around somewhere.

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: animated gif speed
Posted by Paul Levine on Sun, 16 Feb 2014 00:15:07 GMT

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On 2014-02-15 23:53:13 +0000, David Fanning said:

> Paul Levine writes:
>
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>
> I'm guessing it might take 5 or 10 seconds to learn how to use
> IDLffVideoWrite, assuming you have GIF files sitting around somewhere.
>
> Cheers,
>
> David

Thank you for the suggestion. Though I must admit, I'm unsure how
having GIF files will help with learning about IDLffVideoWrite; doesn't
the IDLffVideoWrite object deal directly with movie files (AVI, MP4)
rather than GIF files?

It seems the conceptual hurdle I am having a hard time getting over is
not the actual use of IDLffVideoWrite itself, but how to get my data in
the form that feeding it to IDLffVideoWrite::Put will give me a video
that appears how I want it.

My data is a sequence of 2D floating point arrays; I am using the
function graphics (am I supposed to call them "new" graphics?) to
byte-scale the data to a color table, warp it to a map projection, draw
continents, map grids, and color bar, etc. Is the trick simply to
follow the equivalent steps from
http://www.idlcoyote.com/gallery/avi_movie.pro where each frame is
created (with map grid, continents, etc.), saved to a file, then read
back in from the file to be loaded into the video stream?

Thanks!

Subject: Re: animated gif speed
Posted by David Fanning on Sun, 16 Feb 2014 00:23:53 GMT
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Paul Levine writes:

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> http://www.idlcoyote.com/gallery/avi_movie.pro where each frame is
> created (with map grid, continents, etc.), saved to a file, then read
> back in from the file to be loaded into the video stream?

This is probably too much work. Why not just do it like in the example
in the IDLffVideoWrite documentation and take a snapshot of your display
window. Do your thing in the display window, take a snapshot, and
display that in your video stream. My example writes files because
that's the only way I can get great looking fonts. You won't have that
problem. (Although you could have others, I suppose, depending upon
which version of IDL you are using.)

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: animated gif speed
Posted by Paul Levine on Sun, 16 Feb 2014 03:22:23 GMT

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On 2014-02-16 00:23:53 +0000, David Fanning said:

> Why not just do it like in the example
> in the IDLffVideoWrite documentation and take a snapshot of your display
> window

That should work quite well for my purposes, thank you for the suggestion!

> (Although you could have others, I suppose, depending upon
> which version of IDL you are using.)

Using 8.3, so fingers crossed that I will not end up with others. So far so good...

Subject: Re: animated gif speed
Posted by Fabzi on Sun, 16 Feb 2014 09:55:21 GMT

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On 16.02.2014 00:41, Paul Levine wrote:

> animated GIF (or otherwise) with control over the playback speed

You should check the "animate" tool in ImageMagick:

http://www.imagemagick.com/www/animate.html

Cheers,

Fabien

Subject: Re: animated gif speed
Posted by Dick Jackson on Mon, 17 Feb 2014 22:36:46 GMT

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Paul Levine wrote, On 2014-02-15, 3:41pm:

> So far, when it comes to animations, my needs have been very simple, and I have
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> specified for each frame that it waits before advancing to the subsequent frame.
> But it seems my rather simple method is too limited for this, as there is no
> DELAY_TIME keyword in new graphics as there is in the WRITE_GIF procedure.

(I'll guess you meant the Save method, not Write :-)

If you really need a GIF, and really need the DELAY_TIME (which Graphic.Save
doesn't support), then instead of using:

```
   myGraphic.Save('myfile.gif', /APPEND)
```

... I'd suggest you copy the image data and use WRITE_GIF with DELAY_TIME. For
the GIF, you'll need to quantize colours down to 256 (which Graphic.Save seems
to do automatically).

```
   imageRGB = myGraphic.CopyWindow()
```

```
    image8bit = Color_Quan(imageRGB, 1, r, g, b, Colors=256)
    Write_GIF, 'file.gif', image8bit, r, g, b, /Multiple, Delay_Time=myDelay
```

I did just this kind of thing (using XObjView instead of IDL 8 Graphics) for the animated logo on my web pages. The Write_GIF business is at the bottom of this source file:

    http://www.d-jackson.com/images/djsclogo.pro

A Feature Request to Exelis to add DELAY_TIME (or GIF_DELAY_TIME, perhaps) to Graphic.Save might bear fruit. It seems to me a small request.

Hope this helps!

Cheers,
-Dick

Dick Jackson Software Consulting Inc.
Victoria, BC, Canada
www.d-jackson.com

Subject: Re: animated gif speed
Posted by Paul Levine on Wed, 19 Feb 2014 00:17:43 GMT

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On 2014-02-17 22:36:46 +0000, Dick Jackson said:

```
>  Paul Levine wrote, On 2014-02-15, 3:41pm:
>>  So far, when it comes to animations, my needs have been very simple, and I have
>>  been able to accomplish what I want (using new graphics) with the /APPEND
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>
>  (I'll guess you meant the Save method, not Write :-)
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> request.
>
> Hope this helps!
>
> Cheers,
> -Dick
>
> Dick Jackson Software Consulting Inc.
> Victoria, BC, Canada
> www.d-jackson.com

Thank you, indeed, that does help

Subject: Re: animated gif speed
Posted by Paul Van Delst[1] on Wed, 19 Feb 2014 21:32:06 GMT
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On 02/16/14 04:55, Fabien wrote:
> On 16.02.2014 00:41, Paul Levine wrote:
>> animated GIF (or otherwise) with control over the playback speed
>
> You should check the "animate" tool in ImageMagick:
>
> http://www.imagemagick.com/www/animate.html

Yes.

Or, how I do it, using just regular old convert in imagemagick with the
"-delay value" argument for a list of generated png files (via FG save
method), e.g.

```
$ convert -delay 100 *.png my_animated.gif
```

Compare to no delay

```
$ convert *.png my_animated.gif
```

Much much easier than mucking about with actual animation stuff in IDL.
(IMO)

cheers,

paulv