
Subject: Coyote Library Updated

Posted by [David Fanning](#) on Tue, 14 Jan 2014 22:34:36 GMT

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Folks,

I updated several programs in the Coyote Library today to make it easier to compare output between Coyote Graphics routines and function graphics routines. Mostly this included changing the default font size very slightly in Coyote Graphics (when in PostScript) to match the function graphics font size. I also changed the algorithm I was using in `cgPS2Raster` to one that works correctly in all cases. It is simpler now and involves a second `ImageMagick` command. Doing it this way makes it much easier to create properly sized raster files from the encapsulated PostScript files created by function graphics routines. (Well, it would have, had the function graphics PostScript files not had bugs in them. I've since learned these have been corrected in IDL 8.3.) Just be sure to set the `Portrait` keyword (all encapsulated PostScript files are in portrait orientation) when you are using `cgPS2Raster` with PostScript files created with function graphics routines.

```
window.save, 'myfile.ps'  
cgPS2Raster, 'myfile.ps', /PNG, Width=600, /Portrait
```

You can find updated Coyote Library files here:

http://www.idlcoyote.com/zip_files/coyoteprograms.zip

GoogleCode, as of today, is no longer allowing downloads of zip files, so you can always find the latest files at the above location. They are also available in the Coyote Store as a free software download:

<http://www.idlcoyote.com/coyotestore/>

If you have an SVN client, you can continue to get Coyote Library routines from the GoogleCode repository. I continue to use this as the source of all my library routines.

If you want to see an example of Coyote Graphics verses Function Graphics output, download the new Library and then visit the multiple axes plot example in the Coyote Plot Gallery:

http://www.idlcoyote.com/gallery/index.html#ADDITIONAL_AXES_PLOT

If anyone wants to contribute function graphics code to the plot gallery, please have at it. I'll do this as I can, but it is not my highest priority.

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: Coyote Library Updated

Posted by [Fabzi](#) on Wed, 15 Jan 2014 09:53:10 GMT

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Hi David,

On 14.01.2014 23:34, David Fanning wrote:

- > It is simpler now
- > and involves a second ImageMagick command.

thanks for the news. Does that mean that producing raster output is slower than before? I always felt that producing raster images out of the EPS plots was quite slow (I know this has nothing to do with coyote but with imagemagick).

Thanks!

Fab

Subject: Re: Coyote Library Updated

Posted by [Haje Korth](#) on Wed, 15 Jan 2014 12:55:49 GMT

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Hi David,

could you check the link for the zip file? I get an error clicking the link.

Thank you,
Haje

On Tuesday, January 14, 2014 5:34:36 PM UTC-5, David Fanning wrote:

- > Folks,
- >
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- >
- > I updated several programs in the Coyote Library today to make it easier

>
> to compare output between Coyote Graphics routines and function graphics
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> If anyone wants to contribute function graphics code to the plot
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> highest priority.
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>
> Cheers,
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>
> 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: Coyote Library Updated
Posted by [David Fanning](#) on Wed, 15 Jan 2014 13:37:34 GMT
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Haje Korth writes:

> could you check the link for the zip file? I get an error clicking the link.

Oh, sorry:

[http://www.idlcoyote.com/programs/zip_files/coyoteprograms.z ip](http://www.idlcoyote.com/programs/zip_files/coyoteprograms.zip)

Cheers,

David

--

David Fanning, Ph.D.
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Subject: Re: Coyote Library Updated
Posted by [David Fanning](#) on Wed, 15 Jan 2014 13:47:35 GMT
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Fabien writes:

> Does that mean that producing raster output is
> slower than before? I always felt that producing raster images out of
> the EPS plots was quite slow (I know this has nothing to do with coyote
> but with imagemagick).

I haven't timed it. I presume it is marginally slower since the file has to be written to disk twice. It certainly isn't slow enough to bother me yet. On the other hand, having to open Photoshop or Hypersnap or some other piece of software to resize gigantic PNG files really gets my blood boiling. :-)

Cheers,

David

--

David Fanning, Ph.D.
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Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Coyote Library Updated
Posted by [Haje Korth](#) on Wed, 15 Jan 2014 15:33:35 GMT
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Thank you, David! Haje

On Wednesday, January 15, 2014 8:37:34 AM UTC-5, David Fanning wrote:

> Haje Korth writes:

>

>

>

>> could you check the link for the zip file? I get an error clicking the link.

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>

> Oh, sorry:

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>

>

> [http://www.idlcoyote.com/programs/zip_files/coyoteprograms.z ip](http://www.idlcoyote.com/programs/zip_files/coyoteprograms.zip)

>

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>

> Cheers,

>

>

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> David

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> --

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> David Fanning, Ph.D.

>

> Fanning Software Consulting, Inc.

>

> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

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Subject: Re: Coyote Library Updated
Posted by [David Fanning](#) on Wed, 15 Jan 2014 16:17:55 GMT
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Fabien writes:

- > Does that mean that producing raster output is
- > slower than before? I always felt that producing raster images out of
- > the EPS plots was quite slow (I know this has nothing to do with coyote
- > but with imagemagick).

OK, this was much slower (2.25 seconds verses about 1.35 seconds). The huge advantage of the two-command solution is that I could easily get the dimensions of the image, which is required if I want to use the HEIGHT keyword in addition to the WIDTH.

So, in order to do this correctly, I need the dimensions of the PostScript file. These are available in the Bounding Box values that are written into every PostScript file, as far as I know. Anyway, I had to write a program, cgPSDims, to get these values so I can do the resizing correctly when the HEIGHT keyword is used.

I think it is all working correctly now. Some sampling timings:

No resizing at all. 1.85 sec.
Normal resizing to 25%: 1.36
Resizing with WIDTH keyword: 1.32
Resizing with HEIGHT keyword: 1.33

Incidentally, I forgot to mention this yesterday. I also added an IM_COMMAND keyword to cgPS2Raster that will return the exact ImageMagick command I use for creating the raster file. If the keyword is used, the command is returned, but the SPAWN of the command doesn't happen. I thought this might help the Mac guys who for God only knows what reason can't spawn ImageMagick commands, although the same command works perfectly at the UNIX command line.

Coyote Library here:

http://www.idlcoyote.com/programs/zip_files/coyoteprograms.zip

Cheers,

David

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