Subject: Re: Support for image formats

Posted by mgs on Thu, 10 Sep 1998 07:00:00 GMT

View Forum Message <> Reply to Message

In article <35F794DA.2F92CC81@aber.ac.uk>, Gary Beard <agb@aber.ac.uk> wrote:

- > Are there any routines for outputing plots in standard image formats
- > such as .gif or .jpg etc. The .cgm implementation doesn't seem to work
- > properly
- > on our system, leaving me with only the PostScript option. This is
- > fine, but although encapsulated PS can be included in MS Word, it cannot
- > be viewed. Yes, I could use third party format conversion packages, but
- > these
- > invariably yield poor results. Yes, I could use another WP (please no
- > Bill
- > Gates rants), but Word is standard in our department.
- > The lack of IDL support for output in standard graphic formats seems a
- > glaring
- > omission in a package geared towards imaging work. Are there any plans
- > for
- > improvements in this area in future releases?

The only glaring omission is in seeing the write\_gif and write\_jpg procedures :-) Check your reference manual or online help for these procedures, as well as several others such as write\_srf, write\_pict, write\_bmp, etc.

--

Mike Schienle mgs@ivsoftware.com

Interactive Visuals http://www.ivsoftware.com

Subject: Re: Support for image formats
Posted by Liam Gumley on Thu, 10 Sep 1998 07:00:00 GMT
View Forum Message <> Reply to Message

## Gary Beard wrote:

- > Are there any routines for outputing plots in standard image formats
- > such as .gif or .jpg etc. The .cgm implementation doesn't seem to work
- > properly on our system, leaving me with only the PostScript option. This is
- > fine, but although encapsulated PS can be included in MS Word, it cannot
- > be viewed. Yes, I could use third party format conversion packages, but
- > these invariably yield poor results.

Gary,

There are basically two ways to capture IDL graphics output to a file.

# High quality raster/vector graphics

You can use one of the standard IDL graphics devices to capture the graphics as they are created, e.g. Postscript, HPGL, CGM, PCL. Of these formats, Postscript is the one I use most often to capture high-quality graphics from IDL. See the on-line help for 'Graphics Devices'. Postscript output from IDL can be imported into Microsoft Word on the PC (however you won't see a preview image). If you want to create a preview image that Word will understand, I recommend the GSView package (http://www.cs.wisc.edu/~ghost). Here's what I do:

## (1) Create the graphic in IDL:

(this example requires http://www.dfanning.com/programs/tvimage.pro and http://www.dfanning.com/programs/aspect.pro)

;- Create a color image in Postscript set plot, 'PS' device,/helv,/color,bits=8,file='image.ps' loadct,39 !p.font=0 pos=aspect() tvimage,bytscl(dist(256),top=!d.table\_size-1),pos=pos plot,[0],/nodata.title='My Image in IDL',pos=pos,/noerase device./close exit

# (2) Start GSView and do the following:

File, Open, (select 'image.ps')

File, PS to EPS, Yes (Check 'Automatically calculate Bounding Box')

Save the file as 'image.eps'

File, Close

File, Open, (select 'image.eps')

Options, (select 'EPS Clip')

Edit, Add EPS Preview, Windows Metafile

Save the file as 'image.eps'

# (3) Start MSWord (I use Word97)

Insert, Picture, From File (select 'image.eps')

You should see a color preview of the image on-screen. If you print to a Postscript printer, you will get the Postcript version of the graphic. If you print to a non-Postscript printer, you will get the preview version of the graphic.

#### Bitmap images

You can use an IDL routine to save a graphic from a current window to an image (bitmap) file. The relevant routines (in IDL 5.1) are WRITE\_BMP, WRITE\_GIF, WRITE\_JPEG, WRITE\_NRIF, WRITE\_PICT, WRITE\_PPM, WRITE\_SRF, WRITE\_TIFF, WRITE\_WAVE. See the on-line help for 'Alphbetical List of Routines'. Note that this method saves bitmap images only. To improve image quality when importing into MSWord, a common tactic is to display the graphic in a huge window (say 1024x1024 pixels) with large characters, and save that to a GIF/JPEG/etc. Then the image will retain decent resolution when imported into MSWord.

Cheers, Liam.

Subject: Re: Support for image formats
Posted by Matthew J. Sheats on Thu, 10 Sep 1998 07:00:00 GMT
View Forum Message <> Reply to Message

- > Are there any routines for outputting plots in standard image formats?
- > such as .GIF or .JPG etc. The .CGM implementation doesn't seem to work
- > properly on our system, leaving me with only the PostScript option.

Well what you could do, (Or at least what I would end up doing), is once you have your plot displayed in your window as you want it, just do a:

write\_gif, pickfile(), tvrd()

(I don't know how much experience you have, sorry if I insult you here). But

that will pop up a file dialog to pick where you want to save the image and by what name.

and then it will read your plot off the window and store it in that gif.

Sometimes if you are using a speacial color table, the colors won't stick in the

gif. (At least in 5.0, I haven't played with it a whole lot in 5.1 or 5.2). You may

also need to get the color table and send it to write\_gif explicitly. Like:

TVLCT, R, G, B, /GET write\_gif, pickfile(), tvrd(), R, G, B

Does this help any? (btw, there is support for jpg's, tif's and others using the same method). Just look up the write\_ functions.

Hope this helps.

**Matt Sheats** Los Alamos National Laboratory sheats@lanl.gov