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Subject: Re: More cgmplot, ps\_start, ps\_end problems  
Posted by [David Fanning](#) on Sat, 19 Feb 2011 18:03:45 GMT  
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Gray writes:

```
> Weird... I just used PS_START and PS_END to create .eps files... but
> ImageMagick can't find the .eps files to convert to PNGs when I have
> PS_END, /PNG set. Here's the output from PS_END:
>
> PostScript output will be created here: ~/Desktop/BrGamma_known.eps
> ImageMagick CONVRT command:
> convert -alpha off -density 300 "~/Desktop/BrGamma_known.eps" -resize
> 25% -flatten -rotate 90 "PNG24:~/Desktop/BrGamma_known.png"
> convert: unable to open image `~/Desktop/BrGamma_known.eps': No such
> file or directory @ error/blob.c/OpenBlob/2584
> convert: missing an image filename `PNG:~/Desktop/BrGamma_known.png' @
> error/convert.c/ConvertImageCommand/2949
>
> I get the .eps file on the desktop, and the image size is correct, but
> the plot isn't centered, it runs off the end, and the rotation is
> wrong.
>
> My last CG update is from a couple of days ago. Here's the routine
> that produces the plots:
>
> PRO knownplot, filt, nb, res, id, typ
>   ps_start, file='~/Desktop/'+filt+'_known.eps',$
>   /encapsulate,/inches,xsize=10,ysize=10
>   cgmplot, nb, res-nb, psym=1, xtitle=filt+' NB mag',$
>   ytitle=filt+' Diff mag - NB mag',title+'Known WRs in '+$
>   filt, charsize=1.25
>   cgtext, nb, res-nb, typ, charsize=0.7, charthick=2, /data
>   ps_end, /png
> end
```

OK, let me try this again.

The purpose of PS\_Start is to allow you to create PostScript output that matches the output you see in a display window. So, by default it looks at the current graphics window, determines that window's aspect ratio (or uses the default aspect ratio, if a graphics window isn't open), and then creates a window with that aspect ratio, centered, on a PostScript "page". If the graphics window is wider than it is tall, the PostScript "page" is assumed to be in landscape mode. Otherwise, it assumes the page is in portrait mode.

Now, you don't \*have\* to use PS\_Start in default mode. You can choose to override this default behavior. If you do, you MUST set the NOMATCH keyword, so it does not match the aspect ratio of the current graphics window. And, if you choose to override this default behavior, I presume (maybe you are reading my new book!) you know something about how the PostScript device works. In other words, you know how to set sizes and offsets that get your PostScript "window" somewhere where you will actually be able to see it when you "print" the PostScript page. (Presumably this is the point of making a PostScript file.)

If you don't know much about how the PostScript device works, then I recommend you set the GUI keyword on PS\_Start and use PSConfig to set up your PostScript page. If you did that in this case, you would see pretty clearly that a 10 inch by 10 inch square does NOT fit on an 8.5 by 11 inch PostScript page with the default offsets! In other words, you would have to select some other page size to fit the size of the window you want to create.

So, if fooled around long enough with PSConfig to get what you wanted, then PS\_End would know \*exactly\* what it is you are trying to do, know that what you chose was "legal" in the sense that something sensible could result from it, and I have great confidence that the PNG file made from such a sensible PostScript file would also look pretty darn good. :-)

Something like this would work:

```
ps_start, file=~'/Desktop/' + filt + '_known.eps', $  
  /encapsulate,/inches,xsize=10,ysize=10, $  
  pagetype='ledger', xoffset=0.5, yoffset=13.5, $  
  /landscape, /gui
```

Well, actually, it appears ImageMagick is struggling a bit with encapsulated PostScript files. I'll have to look into this some more. I've never tried to turn encapsulated PostScript files into raster files, so I don't know what that problem might be.

While I am investigating, I think I'll add more error handling to PSConfig to warn users that what they are trying to do is not likely to work. :-)

I'll get back to you about ImageMagick and conversion of encapsulated PostScript files.

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

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