
Subject: Re: cgAxis labels in different orientation in PS than on screen

Posted by [David Fanning](#) on Thu, 15 Sep 2011 21:46:01 GMT

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Brian J. Daniel writes:

- > David, your code is too good. I've been lulled in to a false sense
- > of security that all of the cg tools will work perfectly every time,
- > and all my frustrations with dg will all fade away. I'm creating 3D
- > scatter plots in a cgWindow using cgSurf to create the 3D space,
- > cgAxis to create the axes where I want them, and cgPlotS to plot the
- > data. Using cgWindow, I programmatically save these plots to image
- > files via ImageMagick. The resulting postscript features the axis
- > labels in either horizontal or vertical orientations, not the nice
- > orientations in the direct graphics output on my screen.
- >
- > Via postscript w/ vertical and horizontal text orientations:
- > http://dl.dropbox.com/u/20212184/usernet_example.png
- >
- > without using postscript with nice text orientations but blocky text:
- > http://dl.dropbox.com/u/20212184/usernet_example_dg.png
- >
- > Is there a way to get the orientations to be "pretty" in postscript?

Well, the problem is that PS_START sets !P.FONT=0 when configuring the PostScript device. You need it to be set to 1, to do True-Type fonts, which can rotate in 3D space. (Hershey fonts, !P.FONT=-1 can do this, too, but they suck in PostScript.)

This is trickier than it looks, because *which* True-Type font you choose is really, really machine dependent, and I don't like to make this choice for the user. It probably is something that should be controlled by cgControl.

What I usually do is control this in the graphics command I am loading into cgWindow, by putting something like this in my code:

```
IF !D.Name EQ 'PS' THEN BEGIN
  thisFont = !P.Font
  !P.Font=1
ENDIF ELSE thisFont = !P.Font
```

Then, when finished with the graphics display, !P.Font = thisFont.

I'll give this some more thought this afternoon and see if there is a better way to do this.

As it happens PSConfig (which is ultimately what is being used to control the PostScript device here) is already able to collect font information from the user. The problem is that there is just no absolutely reliable way to DEAL with font information! You are always guessing about what the user intended.

```
keywords = PSConfig(/FONTINFO)
```

Cheers,

David

--

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.")

Subject: Re: cgAxis labels in different orientation in PS than on screen

Posted by [David Fanning](#) on Thu, 15 Sep 2011 22:20:55 GMT

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David Fanning writes:

- > Well, the problem is that PS_START sets !P.FONT=0 when
- > configuring the PostScript device. You need it to be
- > set to 1, to do True-Type fonts, which can rotate in
- > 3D space. (Hershey fonts, !P.FONT=-1 can do this, too,
- > but they suck in PostScript.)
- >
- > This is trickier than it looks, because *which* True-Type
- > font you choose is really, really machine dependent, and
- > I don't like to make this choice for the user. It probably is
- > something that should be controlled by cgControl.

Oh! Already done! Who programmed these wonderful tools anyway? ;-)

Try something like this before you create your cgWindow:

```
IDL> cgWindow_SetDefs, PS_FONT=1, PS_TT_FONT='Helvetica'
```

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: cgAxis labels in different orientation in PS than on screen
Posted by [David Fanning](#) on Thu, 15 Sep 2011 22:27:01 GMT
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David Fanning writes:

> Oh! Already done! Who programmed these wonderful tools
> anyway? ;-)

Coyote tells me he put this in there a month or so ago
when I was off arranging for another bank loan to keep
the sheriff from throwing us out of the office. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: cgAxis labels in different orientation in PS than on screen
Posted by [David Fanning](#) on Thu, 15 Sep 2011 22:33:25 GMT
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David Fanning writes:

> Try something like this before you create your cgWindow:
>
> IDL> cgWindow_SetDefs, PS_FONT=1, PS_TT_FONT='Helvetica'

Geez, these are even in cgControl, just out of alphabetical
order for some reason, which is why I missed them. So,
use the above command for all cgWindows and use this
command for any particular window.

IDL> cgControl, PS_FONT=1, PS_TT_FONT='Helvetica'

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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Subject: Re: cgAxis labels in different orientation in PS than on screen

Posted by [Brian Daniel](#) on Fri, 16 Sep 2011 13:03:01 GMT

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Perfect! Thanks so much.

-B
