Subject: Re: Postscript line thickness
Posted by David Fanning on Mon, 19 May 2003 13:34:07 GMT
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Haje Korth (haje.korth@jhuapl.edu) writes:

> Does anyone know how the value of the line thickness keyword translates to
> points in the Postscript device. I am getting so tired of having to change
> all my graphics by hand for publication. Your help out of my misery is
> greatly appreciated!

I don't know anything about how thickness keywords
translate into points, but I do know that doing things
by hand is a bit passe in the computer world. :-)

A little bit of foresight goes a long way when writing
IDL programs. For example, if you know you have a graphics
display program that you are going to want to make a
PostScript file of (and aren't *all* of them this way?),
then something like this works well:

```
  PRO NicePlot, data

  IF !D.Name EQ 'PS' OR !D.Name EQ 'PRINTER' THEN BEGIN
    psthick = 3
    thick = !P.Thick
    xthick = !X.Thick
    ythick = !Y.Thick
    zthick = !Z.Thick
    font = !P.Font
    !P.Thick = psthick
    !X.Thick = psthick
    !Y.Thick = psthick
    !Z.Thick = psthick
    !P.Font = 0 ; or 1, your choice
  ENDIF

  ; Your normal graphics here. For example,
  Plot, data

  IF !D.Name EQ 'PS' OR !D.Name EQ 'PRINTER' THEN BEGIN
    !P.Thick = thick
    !X.Thick = xthick
    !Y.Thick = ythick
    !Z.Thick = zthick
    !P.Font = font
  ENDIF
  END
```

If 3 is not the right value, then--at worst--you only
have to make a single change in your file. And you
could even put the value in as a keyword! :-)

Cheers,

David

--
David W. Fanning, Ph.D.
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Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Postscript line thickness
Posted by David Fanning on Tue, 20 May 2003 13:16:12 GMT
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Haje Korth (haje.korth@jhuapl.edu) writes:

> Actually, this was quite simple: do any plot with the thickness=1 and find
> the point size to be 0.283. The mapping is then the "thickness=point/0.283".

How did you do this? With a micrometer!?

This is a good tip, but I would like to know how
this relationship was established in more detail.
Once my curiosity is satisfied, I'll write it up. :-)

Cheers,

David

P.S. Let's just say I have a ruler marked in points,
inches, and agate for laying out graphical designs,
but either my eyes are really old or those points are
very small. In either case, I don't think I can make
out 0.283!!

--
David W. Fanning, Ph.D.
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Subject: Re: Postscript line thickness
Posted by K. Bowman on Tue, 20 May 2003 13:33:35 GMT
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In article <MPG.1933d88ba6f49739989ba4@news.frii.com>,
David Fanning <david@dfanning.com> wrote:

> Haje Korth (haje.korth@jhuapl.edu) writes:
>
>> Actually, this was quite simple: do any plot with the thickness=1 and find
>> the point size to be 0.283. The mapping is then the "thickness=point/0.283".
>
> How did you do this? With a micrometer!?
>
> This is a good tip, but I would like to know how
> this relationship was established in more detail.
> Once my curiosity is satisfied, I'll write it up. :-)

When you open a Postscript file in Illustrator and select a line, it
displays the properties of the line, including its width.

Ken

Subject: Re: Postscript line thickness
Posted by Haje Korth on Tue, 20 May 2003 16:35:07 GMT
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David,
Ken got it right. I loaded the postscript file into CorelDRAW and checked
the properties of the line. The software gives you the thickness with 3
digit precision. thick=1 gives you 0.283, thick=2 gives you 0.567, however.
So you now the number is rounded/truncated. But the precision is accurate
enough for the purpose. Does this satisfy your curiosity? :-)

Haje

"David Fanning" <david@dfanning.com> wrote in message
news:MPG.1933d88ba6f49739989ba4@news.frii.com...
> Haje Korth (haje.korth@jhuapl.edu) writes:
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> --
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Subject: Re: Postscript line thickness
Posted by mchinand on Tue, 20 May 2003 19:12:34 GMT
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In article <badlgmgpc1@houston.jhuapl.edu>,
Haje Korth <haje.korth@jhuapl.edu> wrote:
> David,
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> the properties of the line. The software gives you the thickness with 3
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> So you now the number is rounded/truncated. But the precision is accurate
> enough for the purpose. Does this satisfy your curiosity? :-)
>
> Haje
>
>

Looking at a IDL generated postscript file in a text editor, it looks like
it's 0.283465. Not that the extra precision matters much. I don't really
know much about postscript programming, just enough to change line
thickness and colors.

--Mike
