
Subject: Re: PLOT() function THICK keyword in v8.2 just a guideline?

Posted by [David Fanning](#) on Thu, 06 Sep 2012 22:19:50 GMT

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Paul van Delst writes:

> It's as though the first super-thick line uses up all the thick,
> starving subsequent lines.

After exhaustive testing, I have come to the conclusion that
this is **exactly** what is happening! ;-)

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: PLOT() function THICK keyword in v8.2 just a guideline?

Posted by [Paul Van Delst\[1\]](#) on Thu, 06 Sep 2012 22:39:30 GMT

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Oh boy. Further investigations reveal that, for plot with the incorrect
line thickness problem, when I give focus to a plot that has a
non-existent (or very thin) line and zoom in, the line thickness in
all the plots in the window suddenly appear as they should be.

When I click the "undo" button, the line thicknesses return to their
previous pear shaped wrongness. Unbelievable.

Did somebody at Excelis bury a whack-a-mole game inside the function
graphics byte code? (ha ha)

But, seriously: sigh.

cheers,

paulv

On 09/06/12 18:14, Paul van Delst wrote:

> Hello,

```

>
> I just got IDL v8.2 installed,
> IDL> print, !version
> { x86 linux unix linux 8.2 Apr 10 2012 32 64}
>
> I have a piece of code like that shown below (it's within a loop over
> index "i"). It simply reads some "new" data and some "old" data, then it
> plots the two of them together (the "pn" and "po" plots), and then it
> plots the difference (the "pd" plot):
>
> ; Create window to hold plots
> w = WINDOW( $
> WINDOW_TITLE = rts_file_list[i], $
> DIMENSIONS = [800,900], $
> BUFFER = buffer )
> ; ...Initialise layout index
> index = 0
>
>
> ; Loop over data items
> FOR j = 0, n_items-1 DO BEGIN
>
> ; Extract the current data item from the RTS objects
> new_data = new_rts.Get_Data(item_name[j], Profile=1)
> old_data = old_rts.Get_Data(item_name[j], Profile=1)
>
> ; Plot the two data sets
> index++
> yrange = [MIN(new_data)<MIN(old_data), $
> MAX(new_data)>MAX(old_data)]
> pn = PLOT( $
> new_data, $
> TITLE = item_name[j], $
> YRANGE = yrange, $
> LAYOUT = [ n_col, n_row, index ], $
> COLOR = 'red', $
> THICK = 2, $
> CURRENT = w )
> po = PLOT( $
> old_data, $
> COLOR = 'green', $
> OVERPLOT = w )
>
> ; Plot the difference
> index++
> pd = PLOT( $
> new_data-old_data, $
> TITLE = item_name[j]+" difference", $

```

> LAYOUT = [n_col, n_row, index], \$
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>
> ENDFOR
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>
> Now, *most* of the time this code works fine. However, every now and
> again the line that is plotted by the "pn" plot, that is the one that
> has the keyword
> THICK=2
> plots the line with what looks like the equivalent of a thickness of
> about 10, and then some subsequent lines with a thickness of zero (i.e.
> not there, or hardly visible).
>
> It's as though the first super-thick line uses up all the thick,
> starving subsequent lines.
>
> Here's an example of the wrong result, with incorrect line thicknesses:
> <http://tinyurl.com/bnchou4>
>
> And here's an example of the expected result, with correct line
> thicknesses throughout:
> <http://tinyurl.com/d394vsy>
>
> I have the red line be twice as thick so I can see it behind the green
> one when the data are the same (too many points to use symbols).
>
> Is this a bug in IDL v8.2? Has anyone seen this behaviour before and
> (fingers crossed) discovered a solution?
>
> cheers,
>
> paulv

Subject: Re: PLOT() function THICK keyword in v8.2 just a guideline?
Posted by [David Fanning](#) on Thu, 06 Sep 2012 23:11:39 GMT
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Paul van Delst writes:

> But, seriously: sigh.

Instead of a user's group, maybe we should form a support group.

"Hi, my name is David and I'm an IDL graphics user."

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: PLOT() function THICK keyword in v8.2 just a guideline?

Posted by [Craig Markwardt](#) on Thu, 06 Sep 2012 23:58:13 GMT

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On Thursday, September 6, 2012 7:11:38 PM UTC-4, David Fanning wrote:

> "Hi, my name is David and I'm an IDL graphics user."

"Hi David."

Subject: Re: PLOT() function THICK keyword in v8.2 just a guideline?

Posted by [Russell Ryan](#) on Fri, 07 Sep 2012 02:57:26 GMT

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On Thursday, September 6, 2012 7:11:38 PM UTC-4, David Fanning wrote:

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>

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

This basically sums up how I look and feel after a day with function graphics...

<http://www.youtube.com/watch?v=ND31PWVW-TQ&feature=related>

russell

Subject: Re: PLOT() function THICK keyword in v8.2 just a guideline?
Posted by [Paul Van Delst\[1\]](#) on Fri, 07 Sep 2012 14:18:06 GMT
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O.k., I promise this is the last post (by me) on this since I have actual work work to do... I just can't help trying to figure out the level of busted-ness.

Anyhoo, what I found out was:

- 1) the line thickness weirdness in the very first left-hand plot only manifests itself when the 4th left-hand plot (7th overall) is drawn.
- 2) if I comment out the use of the YRANGE keyword in the "pn" plot, everything works (except that sometimes the overplots extend beyond the plot boundaries since the plot range is determined by the first plot).

So, somehow the yrange settings in the 4th left-hand plot is affecting the line thickness settings of the 1st left-hand plot, as well as all the remaining left-hand plots (where the yrange keyword is used).

I'm going to burn some incense and hop in a counter-clockwise direction (on my left foot), all whilst mumbling oaths to the gods of gondwanaland.

Maybe that'll fix it. :o)

cheers,

paulv

On 09/06/12 18:14, Paul van Delst wrote:

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Subject: Re: PLOT() function THICK keyword in v8.2 just a guideline?
Posted by [David Fanning](#) on Fri, 07 Sep 2012 14:23:20 GMT
[View Forum Message](#) <> [Reply to Message](#)

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> (on my left foot), all whilst mumbling oaths to the gods of gondwanaland.
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> Maybe that'll fix it. :o)

You will recall my prediction that the function graphics system
is so ungodly and overly complicated that it will never work
properly. Fixing one thing breaks another.

I'm not saying this is what is happening here. But, as they say
about climate change, this pattern is consistent with what we would
expect IF that were happening! ;-)

Cheers,

David

P.S. I think the incantation requires you to also hold your nose
while you are hopping around.

--

David Fanning, Ph.D.

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