Subject: Re: xyouts character size to scale with the size of the plot window
Posted by davidf on Sat, 04 Mar 2000 08:00:00 GMT
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Kristian Kjaer (kristian.kjaer@risoe.dk) writes:

> I hope this is not a too FAQ:
>
> IDL> !p.multi=0
> IDL> plot,indgen(10)
> IDL> xyouts,7,3,'A string',/data,charsize=.7 ; Gives text reasonably
> sized for my purpose
> IDL> !p.multi=[0,3,7]
> IDL> plot,indgen(10)
> IDL> xyouts,7,3,'A string',/data,charsize=.7 ; Gives text which is too
> large for the window.
>
> How to get the xyouts character size to scale with the size of the plot
> window?

I've always had pretty could luck using my Str_Size program,
which I wrote to size the annotation of plots in resizeable
graphics windows. Your application is different from what I had
in mind, although I think Str_Size can be adapted for it. I'm
not sure there is any reliable way to *always* get correctly
sized characters. Too much depends on such other factors, such as
the size of the window, personal aesthetics, etc.

Str_Size works by specifying a string and a "target width"
of that string in the display window. The target width is
given in normalized coordinates. I thought dividing the
target width by the number of columns in the multi-plot
worked reasonably well:

```
 ********************************************************** *******
PRO EXAMPLE
window, xsize=500, ysize=500
!p.multi=0
plot,indgen(10)

   ; Normal target size.

largeCharsize = Str_Size('A String', 0.15)
xyouts,7,3,'A string',/data,charsize=largeCharsize
!p.multi=[0,3,7]
window, 1, xsize=500, ysize=500

   ; Target size divided by number of columns.
```

```
smallCharsize= Str_Size('A String', 0.15/!p.multi[1])
for j=0,20 do begin
  plot,indgen(10)
  xyouts,7,3,'A string',/data,charsize=smallCharsize
endfor
!P.multi=0
END
 ********************************************************** *******
```

You can find Str_Size here:

  http://www.dfanning.com/programs/str_size.pro

Cheers,

David

--
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: xyouts character size to scale with the size of the plot window
Posted by Ralf Srama on Mon, 06 Mar 2000 08:00:00 GMT
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Kristian,

I think you need to know how many plots you have on
one page. You can access this by

```
a=!p.multi[1]  ;i.e. 3 in your example
b=!p.multi[2]  ;i.e. 7 in your example
c=a*b  ;21
factor=0.01
xyouts,7,3,'STRING',/data,charsize=.7-factor*c  ;results in a
;smaller character depending on your number of plots on
;the screen
```

You can now play with the factor for your needs.

Alternatively you could use the system variable !p.clip. It
contains the coordinates of the last plot on the device.
In the example below you have for the first plot the numbers
30 and 290. This is a difference of 260 for the x-size of
your last plot. This difference is constant for the following
plots (e.g. 329 and 589).

!P.CLIP

The device coordinates of the clipping window, a 6-element vector of the
form [(x0, y0, z0), (x1, y1, z1)], specifying two opposite corners of
the volume to be displayed. In the case of two-dimensional displays, the
Z coordinates can be omitted. Normally, the clipping window coordinates
are implicitly set by PLOT, CONTOUR, SHADE_SURF, and SURFACE to
correspond to the plot window. You may also manually set !P.CLIP if you
want to specify a different rectangular clipping window or if the
clipping coordinates have not yet been set in the current IDL session.

```
IDL> plot, indgen(200)
IDL> print,!p.clip
       30       704       290       811         0      1000
IDL> plot,indgen(200)
IDL> print,!p.clip
      329       704       589       811         0      1000
```

Ralf Srama

Kristian Kjaer wrote:
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> large for the window.
>
> How to get the xyouts character size to scale with the size of the plot
> window?

>
> Thanks for any help.
> Best regards, Kristian Kjï¿½r

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