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Subject: Re: TEXT Function

Posted by [David Fanning](#) on Thu, 09 Jun 2011 18:00:08 GMT

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Kim writes:

```
>
> Hello,
> I am having trouble with the TEXT function when I put multiple plots
> on the same figure (in a FOR loop). In the following example, the
> text is written in the same location on the first plot instead of each
> subsequent plot. Any advice would be greatly appreciated.
> Thank you,
> Kim
>
>
> W = WINDOW(DIMENSIONS=[1024,1024])
> FOR N=0,3 DO BEGIN
>   Y = SIN((N+1)*FINDGEN(201)*!PI/25.0)
>   P = PLOT(Y,/CURRENT,LAYOUT=[1,4,N+1])
>   T = TEXT(0.18,0.94,'N = '+STRING(N+1),/NORMAL,TARGET=P)
> ENDFOR
```

I have no idea how to do this with function graphics.

Here is how I would do it with Coyote Graphics.

```
;-----
cgWindow, WXSize=800, WYSize=800, WMULTI=[0,1,4]
FOR N=0,3 DO BEGIN
  Y = SIN((N+1)*FINDGEN(201)*!PI/25.0)
  cgWindow, 'Plot', y, /LOAD, COLOR=cgColor('black'), $
    BACKGROUND=cgColor('white')
  cgWindow, 'XYOUTS',!X.CRange[0]+10, !Y.CRange[1]-0.5,$
    'N = '+STRTrim(N,2), /LOAD, COLOR=cgColor('red')
ENDFOR
cgWindow, /EXECUTE
;-----
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thue. ("Perhaps thos speakest truth.")

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Subject: Re: TEXT Function

Posted by [Gray](#) on Thu, 09 Jun 2011 21:27:18 GMT

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On Jun 9, 11:00 am, David Fanning <n...@dfanning.com> wrote:

> Kim writes:

>

>> Hello,

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>> text is written in the same location on the first plot instead of each

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>> Thank you,

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>> T = TEXT(0.18,0.94,'N = '+STRING(N+1),/NORMAL,TARGET=P)

>> ENDFOR

>

> I have no idea how to do this with function graphics.

> Here is how I would do it with Coyote Graphics.

>

> ;-----

> cgWindow, WXSize=800, WYSize=800, WMULTI=[0,1,4]

> FOR N=0,3 DO BEGIN

> Y = SIN((N+1)\*FINDGEN(201)\*!PI/25.0)

> cgWindow, 'Plot', y, /LOAD, COLOR=cgColor('black'), \$

> BACKGROUND=cgColor('white')

> cgWindow, 'XYOUTS',!X.CRange[0]+10, !Y.CRange[1]-0.5,\$

> 'N = '+STRTrim(N,2), /LOAD, COLOR=cgColor('red')

> ENDFOR

> cgWindow, /EXECUTE

> ;-----

>

> Cheers,

>

> David

>

> --

> David Fanning, Ph.D.

> Fanning Software Consulting, Inc.

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

> Sepore ma de ni thue. ("Perhaps thos speakest truth.")

You would use XYOUTS and not CGTEXT??

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Subject: Re: TEXT Function

Posted by [Gray](#) on Thu, 09 Jun 2011 21:28:53 GMT

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On Jun 9, 9:41 am, Kim <kimh...@gmail.com> wrote:

```
> Hello,  
> I am having trouble with the TEXT function when I put multiple plots  
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> text is written in the same location on the first plot instead of each  
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>   T = TEXT(0.18,0.94,'N = '+STRING(N+1),/NORMAL,TARGET=P)  
> ENDFOR
```

The reason is that you're putting the text in with NORMAL coords set, so it's relative to the window. Everything is in the same window, so the normal coords don't change when you change plots. You'll need to change to DATA coords, I think, or figure out some algorithm to define your normal coord placement for each plot. Or do it by hand. :)

---

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Subject: Re: TEXT Function

Posted by [David Fanning](#) on Thu, 09 Jun 2011 21:44:56 GMT

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Gray writes:

```
> You would use XYOUTS and not CGTEXT??
```

Well, in this particular instance, I had to use PLOT and not cgPlot, so it made a little more sense to me to use XYOUTS rather than cgText. The "problem" with Coyote Graphics (and, I suspect, with function graphics too, is that the "objects" have to be self-contained to work properly. With Coyote Graphics this means setting and then restoring system variables, which you would like to NOT be set back if you are going to depend on them to position the \*next\* graphics command.

Fortunately, the Coyote Graphics system is flexible enough to be able to handle these somewhat contradictory

requirements. I'm already thinking about how to overcome these difficulties in Coyote Graphics 2.0.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thue. ("Perhaps thos speakest truth.")

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Subject: Re: TEXT Function

Posted by [Kim](#) on Fri, 10 Jun 2011 13:39:28 GMT

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On Jun 9, 5:28 pm, Gray <[grayliketheco...@gmail.com](mailto:grayliketheco...@gmail.com)> wrote:

> On Jun 9, 9:41 am, Kim <[kimh...@gmail.com](mailto:kimh...@gmail.com)> wrote:

>

>> Hello,

>> I am having trouble with the TEXT function when I put multiple plots

>> on the same figure (in a FOR loop). In the following example, the

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>

> The reason is that you're putting the text in with NORMAL coords set,

> so it's relative to the window. Everything is in the same window, so

> the normal coords don't change when you change plots. You'll need to

> change to DATA coords, I think, or figure out some algorithm to define

> your normal coord placement for each plot. Or do it by hand. :)

That makes sense. I thought if I specified TARGET=P that the

coordinate set would be associated with the plot and not the window.

Thank you,

Kim

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