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Subject: Re: symsize in data units

Posted by [Craig Markwardt](#) on Mon, 04 May 2009 01:21:55 GMT

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On May 1, 5:42 pm, ianpaul.free...@gmail.com wrote:

> Does anyone know a way to set the plotting symbol size in terms of  
> data units? In particular, I'd like to make the plotting symbol a  
> circle with diameter 4.3 data units. Then I'd like to do it both on-  
> screen and output to postscript.

I think it's impossible to do with PSYM or SYMSIZE.

On the other hand, it's simple enough to write a small procedure that  
OPLOT's what you want, in the units you want. For example, a circle  
could be done like this,

```
pro plot_circle, xcent, ycent, symsize=radius, _EXTRA=extra
  th = 2*!dpi/100*dindgen(101)
  if n_elements(radius) EQ 0 then r = 1 else r = radius(0)
  x = r*cos(th) & y = r*sin(th)
  for i = 0, n_elements(xcent)-1 do $
    oplot, xcent(i)+x, ycent(i)+y, _EXTRA=extra
end
```

Then you can call PLOT\_CIRCLE, x, y, symsize=4.5

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Subject: Re: symsize in data units

Posted by [pyoachim](#) on Mon, 04 May 2009 21:31:01 GMT

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>

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>   for i = 0, n_elements(xcent)-1 do $
>     oplot, xcent(i)+x, ycent(i)+y, _EXTRA=extra
> end
```

>

> Then you can call PLOT\_CIRCLE, x, y, symsize=4.5

Thanks Craig, that works great. I replaced your oplot with a polyfill

so I could get solid points. I was also surprised that I can get this to make smaller postscript files than using the plotsym procedure. I thought for sure your routine would make giant output.

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Subject: Re: symsize in data units

Posted by [Craig Markwardt](#) on Tue, 05 May 2009 02:29:26 GMT

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On May 4, 5:31 pm, pyoac...@gmail.com wrote:

```
> > I think it's impossible to do with PSYM or SYMSIZE.
>
>
>
>> On the other hand, it's simple enough to write a small procedure that
>> OPLOT's what you want, in the units you want. For example, a circle
>> could be done like this,
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>>   for i = 0, n_elements(xcent)-1 do $
>>     oplot, xcent(i)+x, ycent(i)+y, _EXTRA=extra
>> end
>
>> Then you can call PLOT_CIRCLE, x, y, symsize=4.5
>
> Thanks Craig, that works great. I replaced your oplot with a polyfill
> so I could get solid points. I was also surprised that I can get this
> to make smaller postscript files than using the plotsym procedure. I
> thought for sure your routine would make giant output.
```

Heh, if you want a bigger postscript file, you could change the 100 above to 1000 :-)

It's strange you say PLOTSYM makes bigger files, since it seems to use only 50 points instead of 100 to construct a circle.

Craig

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