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Subject: Re: Postscript device coordinates  
Posted by [Foldy Lajos](#) on Thu, 31 Aug 2006 17:49:15 GMT  
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On Thu, 31 Aug 2006, greg michael wrote:

```
>
> I'm trying to make a plot with an exact print-size - 2 cm per tick mark
> - using the PS device.
>
> Setting up the plot window works ok:
>
> set_plot,'PS'
>
> xrange=[-3,1]
> yrange=[-4,2]
> xticks=xrange[1]-xrange[0]
> yticks=yrange[1]-yrange[0]
>
>
> device,/encapsulated,filename="test.eps",/helvetica,xsize=xticks*2.+3.,ysize=yticks*2.+3.
>
> Then I hoped to be able to specify the plot region in centimetres using
> 'position':
>
>
> plot,[0],[0],/nodata,xrange=10.^xrange,/xlog,yrange=10.^yran ge,/ylog,/isotropic,$
>   position=[2.,2.,2.+xticks*2.,2.+yticks*2.],/device,$
>   xticks=xticks,yticks=yticks
>
> device,/close_file
>
> Seems the device coordinates are not cm, since all I get is a spot in
> the bottom left corner. By trial and error, I find that if I multiply
> the position array by 1000, I get more or less something which fills
> the window. But I don't know where this 1000 figure comes from: does
> anyone know what it means? And how I can calculate the exact value?
>
> many thanks,
> Greg
>
>
```

```
IDL> set_plot, 'ps'
IDL> help, !d, /str
** Structure !DEVICE, 17 tags, length=84, data length=84:
  NAME      STRING  'PS'
  X_SIZE    LONG    17780
```

Y_SIZE	LONG	12700
X_VSIZE	LONG	17780
Y_VSIZE	LONG	12700
X_CH_SIZE	LONG	222
Y_CH_SIZE	LONG	352
X_PX_CM	FLOAT	1000.00
Y_PX_CM	FLOAT	1000.00
N_COLORS	LONG	256
TABLE_SIZE	LONG	256
FILL_DIST	LONG	1
WINDOW	LONG	-1
UNIT	LONG	0
FLAGS	LONG	266807
ORIGIN	LONG	Array[2]
ZOOM	LONG	Array[2]

regards,  
lajos

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Subject: Re: Postscript device coordinates  
 Posted by [mchinand](#) on Thu, 31 Aug 2006 17:51:06 GMT  
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In article <1157045037.993836.3160@e3g2000cwe.googlegroups.com>, greg michael <greg.michael@gmail.com> wrote:

```
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> the window. But I don't know where this 1000 figure comes from: does
> anyone know what it means? And how I can calculate the exact value?
>
> many thanks,
> Greg
```

```
IDL> set_plot,'PS'
IDL> print, !D.X_PX_CM
    1000.00
IDL> print, !D.Y_PX_CM
    1000.00
```

IDL help says these variables are the approximate number of pixels per centimeter in the X and Y directions.

--Mike

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Subject: Re: Postscript device coordinates  
Posted by [greg michael](#) on Thu, 31 Aug 2006 17:59:47 GMT  
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Oh - that's nice. Looks like 1000's just right. Now that doesn't happen often!

many thanks,  
Greg

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