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Subject: Any alternatives of "circle" ('o') symbol using New Graphics?

Posted by [stpjhj](#) on Wed, 30 Jul 2014 07:16:14 GMT

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Hello,

I've been using DG for a couple of years, but recently I began to use NG.

Today, I needed to save a scatter plot of 20K data points in eps format. I marked each point with circular symbol, 'o'. IDL generated 54MB eps file in about 5 to 10 minutes.

I soon realised that this is due to the fact that each circular symbol has too many vertices, and if I change symbol into '+' it would yield a simple small 1.4MB eps file instantly.

So, would there be any alternative circular symbol that I can use like "p=plot(..., sym\_object=foo(),...)" that does not make my plot file as large as a high-def music video?

Thanks in advance.

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Subject: Re: Any alternatives of "circle" ('o') symbol using New Graphics?

Posted by [Paul Van Delst\[1\]](#) on Wed, 30 Jul 2014 16:38:20 GMT

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On 07/30/14 03:16, stpjhj@gmail.com wrote:

> Hello,

>

> I've been using DG for a couple of years, but recently I began to use

> NG.

>

> Today, I needed to save a scatter plot of 20K data points in eps

> format. I marked each point with circular symbol, 'o'. IDL generated

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>

> So, would there be any alternative circular symbol that I can use

> like "p=plot(..., sym\_object=foo(),...)" that does not make my plot

> file as large as a high-def music video?

>

> Thanks in advance.

What about a really thick dot?

E.g.

```
IDL> x=randomu(seed,20000)
```

```
IDL> y=randomu(seed,20000)
```

```
IDL> p=plot(x,y,linestyle='none',symbol='dot',sym_thick=4)
IDL> p.save,'test.eps'
IDL> $ls -l test.eps
-rw-r--r--. 1 wd20pd wd4 2532131 Jul 30 12:34 test.eps
```

Using a circle produces a 4-5x larger file:

```
IDL> p=plot(x,y,linestyle='none',symbol='circle')
IDL> p.save,'test.eps'
IDL> $ls -l test.eps
-rw-r--r--. 1 wd20pd wd4 11658936 Jul 30 12:34 test.eps
```

But use of + still wins for size:

```
IDL> p=plot(x,y,linestyle='none',symbol='+')
IDL> p.save,'test.eps'
IDL> $ls -l test.eps
-rw-r--r--. 1 wd20pd wd4 1506428 Jul 30 12:34 test.eps
```

cheers,

paulv

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Subject: Re: Any alternatives of "circle" ('o') symbol using New Graphics?  
Posted by [Fabzi](#) on Thu, 31 Jul 2014 08:21:44 GMT  
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Hi,

On 30.07.2014 09:16, stpjhj@gmail.com wrote:  
> scatter plot of 20K data points in eps format

In a scatter plot of 20K+ points, a huge majority will probably not even be visible. I know that it feels like "manipulating" data, but in this case a random sample of e.g. 2000 points of data might look exact same than the 20K points. Alternatively, you could also use pdf instead of eps:

```
IDL> x=randomu(seed,20000)
IDL> y=randomu(seed,20000)
IDL> p=plot(x,y,linestyle='none',symbol='o',sym_thick=4)
IDL> p.save,'test.eps'
IDL> p.save,'test.pdf'
IDL> $ls -lh test.eps
-rw-r--r-- 1 mowglie mowglie 12M Jul 31 10:19 test.eps
IDL> $ls -lh test.pdf
```

-rw-r--r-- 1 mowglie mowglie 5,1M Jul 31 10:19 test.pdf

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