
Subject: Re: Shaded circles request.

Posted by [davidf](#) on Mon, 27 Jan 1997 08:00:00 GMT

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David Kennedy <D.Kennedy@qub.ac.uk> writes:

- > Hi, apologies in advance for an almost 'do my work' question, but
- > I'm a bit stumped as to where to start with something.
- >
- > I wish to draw a plot with North-South and East-West axes upon which is
- > drawn an incomplete grid of points. For each point I wish to have
- > a circle drawn which is filled with a colour indicating the strength
- > of the data point.
- > Problems with this:
- > (1) I want to label the axes with a minimum of fuss, so I'd like to
- > preserve their values (not 0->array size) from the start.
- > (2) How can I draw filled circles?
- > (3) How can I get the filled circles to automatically scale according to their
- > value?

Hi David. I can't write this code for you (that is, unless you want to *pay* me! :-), but here is a function named circle that will get you started. Be sure your plot has a square aspect ratio or your circles will be ellipses. (I use the program ASPECT, which you can download from my web page.)

Here is how I would use it:

```
; Load yellow circle color and set up plot.
```

```
TVLCT, 255, 255, 0, 1  
PLOT, Findgen(100), Position=ASPECT(1.0), /NoData
```

```
; Draw some circles. Radius and circle center in DATA coordinates.
```

```
POLYFILL, CIRCLE(20, 40, 5), /FILL, COLOR=1  
POLYFILL, CIRCLE(40, 20, 10), /FILL, COLOR=1  
POLYFILL, CIRCLE(70, 30, 15), /FILL, COLOR=1  
POLYFILL, CIRCLE(20, 80, 12), /FILL, COLOR=1
```

This might give you some ideas.

David

```
*****
```

```
FUNCTION CIRCLE, xcenter, ycenter, radius  
step = (radius/24.0)  
x = FLTARR(25)
```

```
y = FLTARR(25)
```

```
; Construct a circle
```

```
FOR j=0,24 DO BEGIN
```

```
  x(j) = j*step
```

```
  y(j) = SQRT(radius^2 - x(j)^2)
```

```
ENDFOR
```

```
x = [x, Reverse(x)]
```

```
y = [y, -Reverse(y)]
```

```
x = [-Reverse(x), x]
```

```
y = [y,y]
```

```
; Center the circle at the specified coordinates.
```

```
x = x + xcenter
```

```
y = y + ycenter
```

```
points = FLTARR(2, 100)
```

```
points(0,*) = x
```

```
points(1,*) = y
```

```
RETURN, points
```

```
END
```

```
*****
```

```
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David Fanning, Ph.D.
```

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