
Subject: Re: circle plot symbol
Posted by [Craig Markwardt](#) on Fri, 19 May 2000 07:00:00 GMT
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refik@rsmas.miami.edu (Refik Orhun) writes:

- > Hi Folks,
- >
- > First of all, you have quite an impressive news group.
- > Well, I Have a simple question. How do I code a circle as a symbol in a
- > plot ? All the symbols in my plots so far are squares, diamonds and
- > triangles, i.e. codes 2, 3, 4, etc...
- >
- > Can anybody tell me the number or code for a "simple circle" to use
- > in PSYM= ?

I don't think a circle symbol exists, but I'm sure I will be corrected. You can use the following procedure to define a circle as the "user" symbol, symbol 8. You call it either as plain "circsym" or as "circsym, /filled" to get a filled circle. Then you can say, "plot, ..., psym=8"

```
pro circsym, _EXTRA=extra
  theta=findgen(26)*0.251327412
  usersym, cos(theta), sin(theta), _EXTRA=extra
end
```

I believe somebody has a big library of these kinds of user-defined symbols.

Good luck,
Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: circle plot symbol
Posted by [Martin Schultz](#) on Mon, 22 May 2000 07:00:00 GMT
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As an example library of extra symbols, please find attached my sym.pro which provides you with a series of filled and open symbols. Use simply as in

```
plot,x,y,psym=sym(1)
or
plot,x,y,psym=-sym(6) in case you want connecting lines
```

If you type
.r sym
showsym
you will get an overview of the defined symbols, and with
showsym,/ps
you can print them and paste them onto your monitor for reference

Cheers,
Martin

Refik Orhun wrote:

```
>
> Hi Folks,
>
> First of all, you have quite an impressive news group.
> Well, I Have a simple question. How do I code a circle as a symbol in a
> plot ? All the symbols in my plots so far are squares, diamonds and
> triangles, i.e. codes 2, 3, 4, etc...
>
> Can anybody tell me the number or code for a "simple circle" to use in PSYM= ?
>
> Thanks
>
> Refik
>
> P.S. I am a biology graduate student and trying to get rid some of the
> Excel graphs from my dissertation. I have used IDL 3.6 on Alpha UNIX for
> 1.5 years, and I am starting to use it again at home on the demo 5.3 until
> I get the student 4.0 comes in. I like it for multi-panel graphs,
> contour-plots, and histograms. Well, no circles yet...
>
```

--

```
[[ Dr. Martin Schultz Max-Planck-Institut fuer Meteorologie  [[
[[ Bundesstr. 55, 20146 Hamburg [[
[[ phone: +49 40 41173-308 [[
[[ fax: +49 40 41173-298 [[
[[ martin.schultz@dkrz.de [[
; $Id: sym.pro,v 1.10 1999/01/22 20:12:17 mgs Stab $
;-----
;+
```

```

; NAME:
;   SYM
;
; PURPOSE:
;   define a standard sequence of plotting symbols
;
; CATEGORY:
;   utility
;
; CALLING SEQUENCE:
;   PLOT,X,Y,PSYM=SYM(NUMBER)
;
; INPUTS:
;   NUMBER  ->  symbol number
;
;       0 : dot
;       1 : filled circle
;       2 : filled upward triangle
;       3 : filled downward triangle
;       4 : filled diamond
;       5 : filled square
;       6 : open circle
;       7 : open upward triangle
;       8 : open downward triangle
;       9 : open diamond
;      10 : open square
;      11 : plus
;      12 : X
;      13 : star
;      14 : filled rightfacing triangle
;      15 : filled leftfacing triangle
;      16 : open rightfacing triangle
;      17 : open leftfacing triangle
;
; KEYWORD PARAMETERS:
;
; OUTPUTS:
;   function returns the symbol number to be used with PSYM= in the
;   PLOT command
;
; SUBROUTINES:
;   SHOWSYM : Can be used to produce a symbol chart for reference
;   (Type .r sym, then showsym, optionally with the /PS option).
;   Extra keywords are passed to PLOTS, so you can e.g. choose
;   a fancy color for your chart.
;
; REQUIREMENTS:
;

```

```

; NOTES:
;   This function produces a side effect in that the USERSYM procedure
;   is used to create a symbol definition. It's meant for usage within
;   the PLOT, OPLOT, etc. command
;
; EXAMPLE:
;   PLOT,X,Y,PSYM=SYM(0),SYMSIZE=3
;   produces a plot with dots (standard symbol 3)
;   FOR I=0,17 DO OPLOT,X+1,Y,PSYM=SYM(I),COLOR=I
;   overplots 17 curves each with its own symbol
;
; MODIFICATION HISTORY:
;   mgs, 22 Aug 1997: VERSION 1.00
;   mgs, 10 Sep 1999: - added SHOWSYM procedure
;
;-
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; kept with any copy of this software. If this software shall
; be used commercially or sold as part of a larger package,
; please contact the author to arrange payment.
; Bugs and comments should be directed to mgs@io.harvard.edu
; with subject "IDL routine sym"
;-----

```

```
pro showsym,ps=ps,_EXTRA=e
```

```
FORWARD_FUNCTION SYM
```

```

psflag = keyword_set(PS)
if (psflag) then begin
  olddev = !D.NAME
  set_plot,'PS'
  device,/COLOR,bits=8,xsize=8,ysize=5,yoffset=3,/INCHES, $
  filename='symbols.ps'
endif

plot,findgen(18),/NODATA,xstyle=4,YSTYLE=4
for i=0,17 do begin
  plots,1,18-i,PSYM=SYM(i),_EXTRA=e
  xyouts,0.5,18-i-0.2,strtrim(i,2),align=1.
endfor

if (psflag) then begin

```

```
device,/close
set_plot,olddev
print,'Symbolist created as symbols.ps.'
endif
```

```
return
end
```

```
; ~~~~~
```

```
function sym,number
```

```
on_error,2 ; return to caller
```

```
if(n_elements(number) eq 0) then return,1 ; default
```

```
result=8 ; default: return psym=8, i.e. user defined symbol
```

```
; define some help variables for
```

```
; circle :
```

```
phi=findgen(32)*(!PI*2/32.)
```

```
phi = [ phi, phi(0) ]
```

```
case number of
```

```
0 : result = 3 ; dot
```

```
1 : usersym, cos(phi), sin(phi), /fill
; filled circle
```

```
2 : usersym, [ -1, 0, 1, -1 ], [ -1, 1, -1, -1 ], /fill
; filled upward triangle
```

```
3 : usersym, [ -1, 0, 1, -1 ], [ 1, -1, 1, 1 ], /fill
; filled downward triangle
```

```
4 : usersym, [ 0, 1, 0, -1, 0 ], [ 1, 0, -1, 0, 1 ], /fill
; filled diamond
```

```
5 : usersym, [ -1, 1, 1, -1, -1 ], [ 1, 1, -1, -1, 1 ], /fill
; filled square
```

```
6 : usersym, cos(phi), sin(phi)
; open circle
```

```

7 : usersym, [ -1, 0, 1, -1 ], [ -1, 1, -1, -1 ]
    ; open upward triangle

8 : usersym, [ -1, 0, 1, -1 ], [ 1, -1, 1, 1 ]
    ; open downward triangle

9 : usersym, [ 0, 1, 0, -1, 0 ], [ 1, 0, -1, 0, 1 ]
    ; open diamond

10 : usersym, [ -1, 1, 1, -1, -1 ], [ 1, 1, -1, -1, 1 ]
    ; open square

11 : result = 1 ; plus

12 : result = 7 ; X

13 : result = 2 ; star

14 : usersym, [ -1, 1, -1, -1 ], [1, 0, -1, 1 ], /fill
    ; rightfacing triangle, filled

15 : usersym, [ 1, -1, 1, 1 ], [1, 0, -1, 1 ], /fill
    ; leftfacing triangle, filled

16 : usersym, [ -1, 1, -1, -1 ], [1, 0, -1, 1 ]
    ; rightfacing triangle, open

17 : usersym, [ 1, -1, 1, 1 ], [1, 0, -1, 1 ]
    ; leftfacing triangle, open

else : begin
    print,'invalid symbol number - set to 1'
    result = 1
end

```

```
endcase
```

```
return,result
end
```

File Attachments

1) [sym.pro](#), downloaded 108 times
