Subject: Re: PlotS and symbol characteristics
Posted by Ben Tupper on Thu, 15 Nov 2001 14:11:07 GMT
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Hi,

Here's my stab at it. I had the bright idea of using the name PlotSym. After I peeked at Eric D's database of IDL routines, I realized that was a well worn path and wasn't such a bright idea after all. So here's oPlotS which should work as a drop in replacement for PlotS.

Ben

David Fanning wrote:

>
>
> P.S. For what's its worth, you can always
> write BT_PLOTS, which works the way PLOTS
> *should* work. That's what we do for TV
> with TVIMAGE, IMGDISP, PLOTIMAGE, and the
> like. :-)
>
>

```
;----START
;+
; NAME:
; OPLOTS
;
; PURPOSE:
; This procedure serves as a wrapper around the PLOTS
procedure.
; Symbol charcteristics PSYM, COLOR, THICK and SYMSIZE maybe
; specified as scalars, vectors or not at all.  The default for
each is the contents
; the relevent !P field.  If there are more data points than
elements in anyone
; of these keywords, then values of the keyword are cyclically
repeated.
;
; CATEGORY:
; Direct graphics
;
; See online help for PLOTS for details.
```

```
;
; EXAMPLE:
;
;IDL> tek_color
;IDL> num = 50
;IDL> x = findgen(num)
;IDL> y = x^2
;IDL> PLOT, X, Y, /noData
;IDL> Color = Indgen(5)+3
;IDL> Psym = [1,2,4,5,6]
;IDL> SymSIze = [0.5, 1.0, 2.0]
;IDL> Thick = [0.5, 1.0, 2.0]
;IDL> oPlotS, X, Y, Color = Color, Psym = Psym, Thick = Thick,
SymSize = SymSize, /Data
;
; MODIFICATION HISTORY:
; 14 NOV 2001
; Goaded into doing it by David Fanning.
; Ben Tupper
; pemaquidriver@tidewater.net
;
;-

PRO oPlotS, X, Y, Z, $
 PSym = Psym, Color = Color, $
 SymSize = SymSize, Thick = Thick, $
 _Extra = extra

n = n_elements(X)
nc = n_elements(color)
 If nc EQ 0 Then Begin
  Color = !P.Color
  nc = 1L
  EndIf

ns = n_elements(SymSize)
 If ns EQ 0 Then Begin
  SymSize = !P.symsize
  ns = 1L
  EndIf

np = n_elements(Psym)
 If np EQ 0 Then Begin
  Psym = !P.PSym
  np = 1L
  EndIf

nt = n_elements(Thick)
```

```
 If nt EQ 0 Then Begin
  thick = !P.Thick
  nt = 1L
 EndIf

Case n_params() of

 2:For i = 0L, n-1 Do PlotS, X[i], Y[i], $
   Color = Color[i MOD nc], $
   Psym = Psym[i MOD np], $
   Thick = Thick[i MOD nt], $
   SymSize = SymSize[i MOD ns], $
   _Extra = extra

 3:  For i = 0L, n-1 Do PlotS, X[i], Y[i], Z[i], $
   Color = Color[i MOD nc], $
   Psym = Psym[i MOD np], $
   Thick = Thick[i MOD nt], $
   SymSize = SymSize[i MOD ns], $
   _Extra = extra

 ELSE: Message, 'Must provide 2 or 3 arguments!'

EndCase

Return
END
;----END
```

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