
Subject: Re: Using SYMCAT with LEGEND

Posted by [David Fanning](#) on Thu, 25 Oct 2007 23:07:08 GMT

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willettk@gmail.com writes:

```
> I have a small problem using two programs that are pretty much
> everyday for me when I'm plotting in IDL; David's excellent SYMCAT
> program and the LEGEND program in the Goddard astro library. The
> problem is that, when trying to put my user defined symbols in the
> legend, it will display the _last_ symbol used for all of my user-
> defined symbols using SYMCAT.
>
> For example, say I'm scatter plotting three data sets with a legend:
>
> ;;
>
> x1 = findgen(10) & x2 = findgen(10)*2 & x3 = findgen(10)/2
> y1 = x1 & y2 = x2 & y3 = x3
>
> plot, x1, y1, psym = symcat(14)
> oplot,x2, y2, psym = symcat(15)
> oplot,x3, y3, psym = symcat(16)
>
> legend, ['Data1','Data2','Data3'],
> psym=[symcat(14),symcat(15),symcat(16)], /top, /right
>
> ;;
>
> When I execute this, however, LEGEND plots all three datasets as
> filled circles (SYMCAT(16)), when it should go [filled diamond, filled
> square, filled circle]. There are ways around this (making my own
> legend by hand, for a start), but I'd like to know if anyone has a
> quick solution for making these two programs work with each other.
```

The problem, I'm afraid, is that SYMCAT nearly **always** returns a value of 8. That is, a user-defined symbol. And only one user-defined symbol can be loaded at any time in IDL.

I think the LEGEND command might need to be modified so that it could call SYMCAT directly with numbers that are supplied to it. It would probably be more complicated than this, but in the LEGEND code, if the value of PSYM was GE 8 THEN use SYMCAT to provide the value, otherwise, do what you are doing now. Since this **should** be compatible with values you are now using for LEGEND, you might be able to just change any PSYM=??? code

in LEGEND with PSYM=SYMCAT(???) and things might work normally.

I'm not in the position to check it right now, since game two of the World Series is about to begin. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Subject: Re: Using SYMCAT with LEGEND

Posted by [David Fanning](#) on Fri, 26 Oct 2007 05:10:27 GMT

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willettk@gmail.com writes:

> When I execute this, however, LEGEND plots all three datasets as
> filled circles (SYMCAT(16)), when it should go [filled diamond, filled
> square, filled circle]. There are ways around this (making my own
> legend by hand, for a start), but I'd like to know if anyone has a
> quick solution for making these two programs work with each other.

OK, to make this work, I commented out lines 411 and 412:

```
; if (psym[I] eq 8) and (N_elements(usersym) GT 1) then $  
;     usersym,usersym,fill=fill,color=colors[I]
```

This means you won't be able to specify your own symbol in legend anymore. (Why would you need to if you are using SYMCAT!?)

Then, on line 422 I found the PSYM keyword and changed it from "psym=psym[I]" to "psym=SYMCAT(psym[I])".

Done.

Then, I tried this:

```
IDL> items = ['Filled Square', 'Hourglass', 'Filled Star']  
IDL> sym = [15, 21, 46]  
IDL> Legend, items, PSYM=sym
```

For a quick and dirty solution, it's not so bad. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Using SYMCAT with LEGEND

Posted by [willett](#) on Fri, 26 Oct 2007 20:32:22 GMT

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That'll do just fine for quick and dirty. Thanks, David.

Perhaps at 5280 ft., the Rockies will find their stroke again.
