
Subject: Re: Errorbar plot with max-min boundaries and bar plot with !P.Multi
Posted by [David Fanning](#) on Fri, 29 Nov 2013 14:54:21 GMT
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Madhavan Bomidi writes:

> I was attempting to make 2 plots in 1 column using !P.Multi=[0,1,2]. My intention was to obtain:
(1) top panel plot - Error estimation plot with mean, standard deviation as background and
min-max as boundaries for a time-series data of a variable, (2) below panel plot - Bar plot showing
the frequency of observations respectively at each time-step corresponding to the above plot. I
started using the examples of colored line plots (for two row plotting), Error-estimate
plot (for top panel plot), and Bar plot without errorbars (for below panel plot).

>
> I made the following code, which is resulting in crazy errors and the plots are exchanging their
positions (i.e., top panel <-> below panel). I got an error for bar plot as "CgAxis - Keyword array
parameter XTICKNAME must have from 1 to 60 elements". I don't have any clue where I am
actually going wrong, probably I have not understood properly the Coyote's library graphic
routines. Can someone provide me assistance to achieve my desired plot?

When you are doing multiple plots with the **system variable** !P.MULTI
you can get into all kinds of problems when things don't go as they are
suppose to. In particular, if you have errors in your code, and you are
not using an error handler that restores !P.MULTI to its "normal" value,
then plots will jump around, etc. Remember, !P.MULTI is a **SYSTEM
VARIABLE**. It is **always** in effect in EVERY program you write!

I would take out the CLOSE, /ALL statement at the beginning of your code
(which marks you as a novice programmer, by the way) and replace it with
an error handler that looks like this:

```
Catch, theError
IF theError NE 0 THEN BEGIN
    Catch, /Cancel
    void = cgErrorMsg()
    !P.Multi=0
    RETURN
ENDIF
```

That should solve the plots "jumping around" problem. :-)

The "XTICKNAME must have from 1 to 60 elements" problem comes from a
limitation in IDL in which you can have no more than 59 labels on an
axis. cgBoxPlot tried to label each "box" it draws, so I presume you
have more than 60 of them.

If you have a LOT of boxes, it probably makes more sense to display them
differently than using a box plot. If you really need a box plot, you
could try creating your axes, then **overplotting** your boxes less than

60 at a time. I think I would prefer the first solution. Maybe using just a line instead of a box to indicate the usual values.

Cheers,

David

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

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