Subject: Re: Errorbar plot with max-min boundaries and bar plot with !P.Multi
Posted by atmospheric physics on Fri, 29 Nov 2013 16:45:27 GMT
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Hello,

I have rectified the positioning by correcting the defined positions 1 & 2.

```
  position1 = [0.15, 0.40, 0.95, 0.90]
  position2 = [0.15, 0.10, 0.95, 0.30]
```

I see 'sky blue' color applied to the background for the error-estimate plot. I want the area covering lower_error and high_error be represented in 'sky blue' color. What is going wrong? I don't see any extreme standard deviations in my data (i.e., the standard deviations are always less than corresponding mean values). I have replaced the lines for box / bar plot to make as line plot.

I have changed the statements in the code as below:

```
  !P.Multi=[0,1,2]

 ; Draw the first plot
 cgPlot, xtime, var_data, Title=title, XTitle=xtitle, YTitle=ytitle1, $
    XStyle=8, Position=position1,/NoData, YRange=[0,900], $
 XRange=[86.0, 88.0], YStyle=1

 ; Fill in the error estimates
 cgColorFill, [xtime, Reverse(xtime), xtime[0]], $
 [high_error, Reverse(low_error), high_error[0]], $
 Color=colors[1], Position=position1

 ; Draw the line plot with no data
 cgPlot, xtime, var_data, linestyle=0, thick=2,Color=colors[3],/OVERPLOT
 cgPlot, xtime, var_min, linestyle=2, thick=2, Color=colors[2],/OVERPLOT
 cgPlot, xtime, var_max, linestyle=2, thick=2, Color=colors[2],/OVERPLOT

 ; Draw the bottom plot without a top axis
 cgPlot, xtime, npoints, PSYM=16, Color=colors[0], $
    SYMSIZE=0.5,Position=position2, $
    YTitle=ytitle2, XTitle=xtitle, XRange=[86.0,88.0], YRange=[0,100]

 ; Clean up.
 !P.Multi = 0
```

Please suggest...

Thanks in advance.

On Friday, November 29, 2013 3:54:21 PM UTC+1, David Fanning wrote:
> 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 that 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
>
> --
>

> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")