Subject: Re: Multiple Plots in PostScript Posted by Paul Van Delst[1] on Mon, 06 Jul 2009 21:34:35 GMT View Forum Message <> Reply to Message

David Fanning wrote:

> Eventually, I discovered that I had to set !Y.OMargin before > *every page* of PostScript output, or it would not take effect. > I have *no* idea why this would be the case. I'm only > reporting what I have observed this morning. :-)

For stuff like this where I do it over and over again, I stick all the bits in an object along with the !p, !x, and !y sysvars. My philosophy has become one of: "If in doubt save, and then restore, EVERYTHING" :0)

The only reason I mention this here is that I was similarly surprised when the following worked (for both onscreen and PS output):

I've gotten into the habit of doing the following when I do p.multi plots with objects,

```
PRO myobj Define
 void = { myobj, $
       ...other obj data....
       The following components are PRIVATE to the class
       : ...Variables for plotting
       xsysvar : PTR_NEW(), $ ; X-axis system variable
       ysysvar : PTR_NEW(), $ ; Y-axis system variable
       psysvar: PTR NEW() }; Plotting system variable
END
```

and then have myobj::save_plotvars and myobj::restore_plotvars methods to save and/or restore them in the myobj::plot and myobj::oplot methods. E.g. in the Plot method for a particular object I'm working on now I do:

```
: Set plotting parameters
self->Get_Property, n_Bands=n_Bands, Channel=Channel
!P.MULTI = [0,n] Bands,1]
!X.OMARGIN = [6,0]
; Begin band response plots
FOR i = 0L, n_Bands-1L DO BEGIN
 self->Get_Property, $
  i, $
  Frequency = f, $
  Response = r
 PLOT, f, r, $
    TITLE='Ch.'+STRTRIM(Channel,2)+', band #'+STRTRIM(i+1,2), $
```

```
XTITLE='Frequency', $
    XMARGIN=[2,3], $
    XRANGE=xrange,/XSTYLE, $
    CHARSIZE=charsize, $
    EXTRA = Extra
self->Save_PlotVars, i ; <--- SAVE AFTER PLOTTING
ENDFOR
```

and then if I want to overplot a different instance's data (with congruent dimensions of course, I check for that) I just do the following in my oplot method:

```
; Loop over bands
FOR i = 0L, n_Bands-1L DO BEGIN
 osrf->Get_Property, $
  i, $
  Frequency = f, $
  Response = r
 ; Plot it
 self->Restore_PlotVars, i ; <--- RESTORE BEFORE PLOTTING
 OPLOT, f, r, _EXTRA = Extra
ENDFOR
```

Not terribly scalable, I admit, but it works and no need for using OG that may log me out of my computer.....: o)

cheers,

paulv