
Subject: Re: Problems with system variables
Posted by [davidf](#) on Tue, 27 Jul 1999 07:00:00 GMT
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Brad L. Fisher (fisher@trmm.gsfc.nasa.gov) writes:

> This problem requires a little bit explanation. I am extracting data
> from an image window with the cursor command, which I am using to
> generate two different windows (the cursor coordinates are used to
> select the central pixel in one of two windows). One window is
> displayed with TV; the other with PLOT (draws a simple graph). The idea
> is for user to be able to select different points in the main data
> window and carry out analysis on the data selected within the other two
> windows. Consequently, the program was designed to interact with the
> main data image multiple times using the cursor command.
>
> Before adding the PLOT window everything was fine, but after generating
> a PLOT, which was drawn in a unique window opened by the program, it
> seems that the window system info from the main image is getting lost or
> replaced. For instance, when I select a point with the cursor the first
> time through everything is fine, for at first, there is only one window
> drawn, but the second time through the cursor return bogus data
> coordinates. It turns out that the data selected from the main window
> was actually data in my PLOT window. I did notice that the system
> values in !p were getting changed. I then tried just saving the
> original !p and reassigning it after generating the PLOT, but that
> solution did not rectify the problem I described above. Can anyone help
> with this? If so, please send responses to fisher@trmm.gsfc.nasa.gov.

In doing this kind of thing with data coordinates (and I'm NOT sure that is such a good idea with images, by the way, since images don't work in a data coordinate system, but in a DEVICE coordinate system), then you have to save the proper plot system variables for each graph you want to draw on. I've never bothered to figure out exactly *which* system variables these are, because I always save !P, !X, and !Y as a matter of course. Then, I always restore these before I draw something on the graph.

```
Plot, data  
p = !P  
x = !X  
y = !Y
```

Then, sometime later...

```
WSet, plotWindow
```

!P = p
!X = x
!Y = y
OPlot, moredata

Cheers,

David

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