Subject: 3-D & 2-D plots simultaniously
Posted by jabarone on Thu, 12 Aug 1993 17:56:56 GMT
View Forum Message <> Reply to Message

Hi,

I've been trying to plot a 3-D image and two 2-D images in the same plot window. These images are the surface plotted from arrays z, x, y and the 2-D plots of x vs z and y vs z. I do this by first plotting the surface plot using the save keyword and then excanging the axis and using plot with the T3D and NOERASE keywords set for the other two plots.

Here is an example:

```
a = shift(dist(15), 5, 5)
a = exp(-(a/4)^2)
pos = [.1, .1, .95, .95, 0, 1]
pos(0) = pos(0) + .2
pos(2) = pos(2) - .2
pos(1) = pos(1) + .2
pos(3) = pos(3) - .2
x1 = pos
x1(1) = x1(4)
x1(3) = x1(5)
x1(4) = pos(1) - .1
x1(5) = pos(1) - .1
y1 = pos
y1(0) = y1(1)
y1(2) = y1(3)
y1(1) = y1(4)
y1(3) = y1(5)
y1(4) = pos(0) - .1
y1(5) = pos(0) - .1
surface, a, /save, charsize = 2, position = pos, title = "Surface"
temp = pos
temp(4) = temp(5)
;contour, a, /t3d, position = pos, /noerase, charsize = 2
z = fltarr(225)
for i = 0, 14 do $
 z(i*15:i*15+14) = a(i, *)
x = fltarr(225)
for i = 0, 14 do $
 x(i*15:i*15+14) = indgen(15)
y = x
tmp = !P.t
t3d, /yzexch
plot, x, z, /t3d, charsize = 2, psym = 2, position = x1, /noerase, $
```

```
  title = "X vs Z Plot"
t3d, /xzexch
plot, y, z, /t3d, charsize = 2, psym = 4, position = y1, /noerase, $
  title = "Y vs Z Plot"
!p.t = tmp
```

The problem I'm having is that if I use the position keyword to scale and reposition the plots the data for the 2-D plots seems to be "disembodied" from their respective axis. The above example demonstrates this. What I mean by "disembodied" is that the data that is associated with an axis seems to be plotted behind the axis and not "on" the axis.

Does anyone have any idea how to top this from happening?

You may wonder why I'm trying to shrink and then move these images. Well I would like to be able to plot more than one of these images on one page in which case I need to be able to control where they are positioned. However, if I do this using the POSITION key word the data gets disembodied from its axis as discribed above.

Any suggestions would be greatly appreciated.

Thanks in advance.

John Barone
jabarone@athena.mit.edu
