
Subject: Re: How to rotate a 2-D plot and fit in the same view area ?

Posted by [gfu](#) on Fri, 27 Sep 1996 07:00:00 GMT

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In article <davidf-ya023080002609962158590001@news.fortnet.org>, davidf@fortnet.org (David Fanning) writes:

Hi,

The example given by David will not rotate the labels for x and y axes.
I think to solve the problem need to use T3D. However I did some tests and cannot figure out how to set keywords ROT and TRANS to get the correct plot and position for the plot. Please use the following example as the base for testing on different conditions.

```
x=[0,1]
y=[0,2]
T3D, /RESET, ROT=[0,0,-90], TRANS=[-1.0, 0.0, 0.0]
PLOT, x, y, /T3D
```

```
T3D, /RESET, ROT=[0,0,-90], TRANS=[-0.9, 0.0, 0.0]
PLOT, x, y, /T3D, POSITION=[0.5,0.5,0.8,0.8]
```

```
T3D, /RESET, ROT=[0,0,-90], TRANS=[-1.2, 0.0, 0.0]
PLOT, x, y, /T3D, POSITION=[0.5,0.5,0.8,0.8]
```

```
T3D, /RESET, ROT=[0,0,-90], TRANS=[-1.3, 0.0, 0.0]
PLOT, x, y, /T3D, POSITION=[0.5,0.5,0.8,0.8]
```

Gary

|> Gary Fu (gfu@shark.gsfc.nasa.gov) is trying to trip us up with

|> a trick question when he writes:

|>

|> > Does any one know how to rotate a 2-D plot 90 degree (clockwise) so that

|> > the result still displays on the same viewing area defined by !p.position ?

|>

|> Uh, *any* plot you draw with the POSITION keyword set the same is going to go

|> into the same position into the window.

|>

|> > For example, how do I rotate the result of

|> > 'PLOT, [0,1], position=[0.5,0.5,0.9,0.9]' 90 degree and still displays in

|> > the [0.5,0.5,0.9,0.9] viewing area ?

|>

|> Well, this is a tricky example. Try this one (so you can see the rotation).

|>

```

|> a = FINDGEN(11)
|> b = a * 30
|>
|> ; Regular plot.'
|>
|> WINDOW, 0
|> PLOT, a, b, POSITION=[0.5,0.5,0.9,0.9]
|>
|> ; Plot rotated by 90 degrees.
|>
|> WINDOW, 1
|> PLOT, b, a, POSITION=[0.5,0.5,0.9,0.9]
|>
|> Same position in window. Axes rotated by 90 degrees (?!).
|>
|> Or (it just occurs to me!) to *really* rotate the first plot
|> by 90 degrees, do this:
|>
|> PLOT, b, a, POSITION=[0.5,0.5,0.9,0.9], YRANGE=[10,0]
|>
|> Alright, I give up! What's the answer? :-)
|>
|> David
|>
|> --
|> David Fanning, Ph.D.
|> Phone: 970-221-0438
|> Fax: 970-221-4728
|> E-Mail: davidf@fortnet.org

```

--

```

*****
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*****

```