Subject: Re: HELP: IDL Aspect problem on contour plots Posted by landers on Thu, 22 Sep 1994 13:05:51 GMT

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iotov@cco.caltech.edu (Mihail S. lotov) writes:
> This is a seemingly trivial question that we could not solve by poking into the
l> manuals.
|>
> The contour plot comes fine, but the scale on the x axis is twice that on the y
> axis. So the whole picture is stretched in one direction.
> Is there a way to fix this.
|>
> Thanks a lot,
       Mihail lotov
|>
|>
To make a plot come out square on your paper or display, you do some thing(s)
like this:
```

; First, you must make a plot to establish the plot coordinates Use NoData, and [XY]Style=4 to keep from drawing anything ; The NoErase is there to prevent an extra blank sheet of paper if you are using a paper-based device

plot, [0], /Nodata, XStyle=4, YStyle=4, /NoErase

; Now you can determine where this plot is: ; these are 2-element vectors in device coords

```
px = !x.window * !d.x vsize
py = !y.window * !d.y_vsize
: and it's size
```

$$sx = px(1) - px(0)$$

 $sy = py(1) - py(0)$

; now shrink the larger one to force the plot area to be square ; with a bit more thought, you could come up with any aspect ratio

```
WX = SX < SY
wy = wx
```

; figure the center of the plot space

; well, twice the center location

$$cx = px(0) + px(1)$$

```
cy = py(0)+py(1)

; Set a position vector
; re-center the plot in the available area

pos = [ cx-wx, cy-wy, cx+wx, cy+wy ] / 2.

; now you can make your plot, contour, etc...

plot, whatever, Position=pos

contour, things, Position=pos

; etc...

--
;Dave
```