Subject: Re: Q: square plots in IDL
Posted by sjt on Mon, 28 Nov 1994 17:57:34 GMT
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Giuseppe Vacanti (gvacanti@estsa2.estec.esa.nl) wrote:

: Hello-

: I would like to plot data so that the aspect ratio of the plot is
: equal to 1 (a circle would actually be a circle on paper, and not
: an ellipse, as it is in my IDL documentation). I have played with
: various key-words but I don't seem able to get it right.

: Any input is welcome.
: Thanks,

An initial point:
Unless you have made a square page with the WINDOW procedure or a DEVICE call (depending on your device) avoid using procedures which set up data coordinates implicitly (e.g. PLOT, SURFACE etc.).

Instead you will need to create your own plot transform.

1) Determine size of device each way in cm
xcm = !d.x_size/float(!d.x_px_cm)
ycm = !d.y_size/float(!d.y_px_cm)

2) Determine your scaling factor (user unit/cm)(assume xr, yr are the ranges of x and y that you need).

xscl = xr/xcm
yscl = yr/ycm
scl = xscl > yscl

3) Define your plot transform (assume xm, ym are the minimum x and y you want to plot)

!x.s = [-xm, 1.]/(scl*xcm)
!y.s = [-ym, 1.]/(scl*ycm)

This seemed to work when I tested it to plot a unit circle in an 800x437 pixel window using PLOTS

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James Tappin,	School of Physics & Space Research	O__
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"If all else fails--read the instructions!"	
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