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Subject: Re: Making a square plot  
Posted by [davidf](#) on Mon, 23 Feb 1998 08:00:00 GMT  
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Carsten Dominik ([dominik@strw.LeidenUniv.nl](mailto:dominik@strw.LeidenUniv.nl)) writes:

> Why do simple things turn out difficult in IDL, sometimes?

Yes. And I have also noticed that difficult things sometimes turn out to be trivial! It's a strange world. :-)

> I am trying to make a plot with a square plot window. It has to be  
> square since it is a map and the map data is a square matrix.

>

> Here is what I did.

>

> [Mistaken assumptions clipped.]

>

> If I am not mistaken, it should give me a 10cm by 10cm plot. However,  
> I get 9.5x10.8 or something along those lines. Sure I can fiddle with  
> xsize and ysize until it fits, but there should be a better way.  
> Which? What am I doing wrong?

The basic thing you are doing wrong is allowing IDL to position the axes of the plot using it's rules for plot margins, which are based on character size. Far better in this case to position the axes yourself with the POSITION keyword. For example, your code would give you a square plot just by making your contour command like this:

```
contour,a,levels=x,/follow,min_value=-19,$
    c_charsize=1.5,c_charthick=3, $
    position=[0.2, 0.2, 0.8, 0.8]
```

There are a number of articles in the 2D Graphics Tips section of my web page about this, along with programs (e.g., ASPECT) that can be used to give you a plot of any aspect ratio in any kind of window, whether display or PostScript. Information like this is also covered extensively in my IDL Programming Techniques book.

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

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