Subject: Re: Latitude/longitude, contours, map_set, iMap?
Posted by Kenneth P. Bowman on Wed, 04 May 2005 03:05:07 GMT
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In article <1115172826.358757.121050@z14g2000cwz.googlegroups.com>,
"jamiesmyth_uni@yahoo.ca" <jamiesmyth_uni@yahoo.ca> wrote:

> The first
> problem I have is that the longitude data goes from 0-360 degrees.

That should not be a problem with MAP_SET. There is no reason to change the coordinates.

> map_set, /continents, /mercator, /isotropic

This could be a problem, however, as the Mercator projection maps the poles to +/- infinity in the y-direction. You might want to try the cylindrical equidistant projection instead.

> contour, transpose(data.pv[*,*,0]), data.xlon, data.xlat, /overplot,
> nlevels=12
>
> The first command brings up a dialog box for the 'gridding wizzard' but
> when I click ok, nothing happens. The second looks 'more-or-less' ok
> but there seems to be a gap at 0 degrees. The gap is rather apparent
> when I fill the contours... Do I need to re-grid or triangulate the
> data? Is there a quick way to do any of this?

You just need to copy data on the Greenwich meridian to the "other end" of the data array to make it contiguous, e.g,

```
pdata = TRANSPOSE(REFORM(data.pv[*,*,0]))
CONTOUR, [pdata, pdata[0,*]], [data.lon, 359.99], data.lat
```

That should work with either MAP_SET or iMAP (but I have never used iMAP).

> Any ideas and help would be much appreciated... I'm supposed to be
> putting these figures (along with some polar stereographic projections)
> into a talk for thursday! Reaching for brown-paper bag... taking
> deep-breaths...
>
> Thanks
> Jamie
>

I can never make MAP_GRID work right with cylindrical equidistant projections, so send me an e-mail and I'll send you a routine that draws

gridlines correctly. (k-bowman_AT_tamu.edu ... replace the _AT_)

Ken Bowman
