

---

Subject: Re: Latitude/longitude, contours, map\_set, iMap?  
Posted by [David Fanning](#) on Wed, 04 May 2005 02:40:50 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

jamiesmyth\_uni@yahoo.ca writes:

> I should caveat this by saying I need to plot data on maps about twice  
> a year and every time it is more difficult than I expect it to be.

I suspect most of it is figuring out how to get EMACS installed  
again. :-)

> I have some atmospheric model data for temperature (originally grib data)  
> on a latitude/longitude grid and I'm having quite a difficult time  
> plotting it with the iMap and/or the map\_set routines. The first  
> problem I have is that the longitude data goes from 0-360 degrees. So  
> I have:

```
>  
> LAT      FLOAT   Array[73]  
> LON      FLOAT   Array[96]  
> PRESSURE  FLOAT   Array[22]  
> TEMPERATURE  FLOAT   Array[73, 96, 22]
```

>  
> where the latitudes go from -90 to +90 in 2.5 degree steps and the  
> longitudes go from 0 to +360 in 3.75 degree steps. I've read some past  
> messages on how to re-work the longitude to -180 to 180 degrees and  
> have:

```
>  
> lon_new = lon - (long(lon)/180L)*360.0
```

>  
> Do I have to also alter the temperature array to reflect this change or  
> can I simply plot the data with:

```
>  
> imap, transpose(data.pv[:,*,0]), data.lon, data.lat
```

No, you don't have to change your temperature values.  
They will be fine.

> or  
>  
> map\_set, /continents, /mercator, /isotropic  
> 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 need to specify the center of your map projection on the MAP\_SET command. Here is an article that explains what the problem is:

[http://www.dfanning.com/tips/map\\_center.html](http://www.dfanning.com/tips/map_center.html)

- > I'd much prefer to use imap here as it makes figures that look much
- > better in powerpoint.

Yeah, well, I don't know anything about iTools. (My tutorials don't seem to be arriving anymore. I don't know why.) But a quick look at a half dozen graphics keywords would probably improve your direct graphic results. In particular, I would have a look at FONT, THICK, CHARTHICK, and maybe CHARSIZE.

- > 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...

Oh, you are almost there! Just a few more minutes. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

---