Subject: Latitude/longitude, contours, map_set, iMap?
Posted by jamiesmyth_uni@yahoo. on Wed, 04 May 2005 02:13:46 GMT
View Forum Message <> Reply to Message

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 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 latitdes 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
```

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?

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

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