Subject: Box Axes with Map Function
Posted by David Fanning on Sun, 02 Dec 2012 16:53:58 GMT
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Folks,

I *finally* discovered a way to create box axes with the function graphics Map function that are labeled in the way we expect box axes to be labeled. There are two keys.

First, make sure you use a LIMIT keyword on your map projection and make sure the LATITUDE limits do not touch -90 or 90 degrees. Without this, you will get extraneous labels on your map.

Second, use two map projections so you can label the axes appropriately.

Here is the code.

```
  mp1 = map('Equirectangular', CENTER_LONGITUDE=180, $
    POSITION=[0.1,0.1,0.90,0.75], $
    LABEL_POSITION = 0, BOX_AXES=1, $
    GRID_LATITUDE = 30, GRID_LONGITUDE = 45, $
    /CURRENT, ASPECT_RATIO=0, LIMIT=[-89.99, 0, 89.99, 360])
  mp1['Latitudes'].label_angle=90
  mp1['Longitudes'].label_angle=0

  ; A second map projection is required to create the
  ; box axes correctly.
  mp2 = map('Equirectangular', CENTER_LONGITUDE=180, $
    POSITION=[0.1,0.1,0.90,0.75], $
    LABEL_POSITION = 1, BOX_AXES=1, $
    GRID_LATITUDE = 30, GRID_LONGITUDE = 45, $
    /CURRENT, ASPECT_RATIO=0, LIMIT=[-89.99, 0, 89.99, 360])
  mp2['Latitudes'].label_angle=270
  mp2['Longitudes'].label_angle=0

  ; Something to see on the map.
  c = MapContinents(Color=cgColor('tomato', /Triple, /Row))
```

I believe this requires IDL 8.2.1 to work correctly, although I am not certain of this.

Cheers,

David

--
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")
