Subject: Cylindrical Equal Area projection
Posted by envi35@yahoo.ca on Wed, 16 May 2012 03:41:32 GMT

Hi, I'm trying to draw grids on some maps I downloaded from NSIDC in EASE-grid (northern hemisphere 25km). I set up the EASE-grid map projection in IDL8.0 as:

```
  ; Set up the EASE-grid map projection.
   mapStruct = Map_Proj_Init("Cylindrical Equal
Area",semimajor_axis=6371228,$
     semiminor_axis=6371228,CENTER_LONGITUDE=0.0,
standard_parallel=60.0,$
     false_easting=0.0,false_northing=0.0)

 ; Convert the corner lat/lon points to XY coordinates.
   lonCorners = [lons[0,0], lons[459,0], lons[459,534], lons[0,534]]
   latCorners = [lats[0,0], lats[459,0], lats[459,534], lats[0,534]]
     xy = Map_Proj_Forward(lonCorners, latCorners,
MAP_STRUCTURE=mapStruct)

   ; Find the x and y scale from one pixel to the next.
   xscale = Abs((xy[0,1] - xy[0,0]) / (s[0]-1))
   yscale = Abs((xy[1,3] - xy[1,0]) / (s[1]-1))
   print,xscale,yscale
```

The xscale and yscale should both be 25000m, but I got
12.413577   172.70326. I tried to change the standard_parallel,
such as 90.0, 70.0, 45.0... but none seems to give the correct xscale/
yscale. What is problem? Anybody have success with this newly added
projection?

Thanks in advance!
Jenny