Subject: problems converting to Cylindrical (longitude-latitude)
Posted by Jeff DLB on Mon, 07 Feb 2005 15:06:34 GMT
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I'm having trouble converting images to Cylindrical (longitude-latitude) coordinates. My input data are in Albers Equal-Area and cover the western US. When I convert to lon-lat coordinates I get output images and bounds that are clearly wrong. I must be misusing MAP_PROJ_INIT and MAP_PROJ_IMAGE, but am not sure how. Any suggestions would be welcome.

Here's what I have tried:

```
; Data are in Albers Equal-Area; output is to be Cylindrical.
; Albers projection parameters
spar1 = 20
spar2 = 60
clon = -103
clat = 45
; Corners of images (in meters) as stated in metadata.
xmin = -1567000.0
xmax = 277000.0
ymin = -1760000.0
ymax = 694000.0
xyrange = [xmin, ymin, xmax, ymax]

; Compute !MAP structure for each projection.
mapIn = map_proj_init('Albers Equal Area', datum='Clarke 1866', $
                  standard_par1=spar1, standard_par2=spar2, $
                  center_longitude=clon, center_latitude=clat)
mapOut = map_proj_init('Cylindrical', datum='Sphere')

; Input image is imgIn. Compute output image.
imgOut = map_proj_image(imgIn, xyrange, image_structure=mapIn, $
               map_structure=mapOut, uvrange=latLonRange)
print, lonLatRange
  -14014183.       3207349.0      -10991525.       5658023.0
```

The resulting UVRANGE values are clearly not within +/-360 E-W, +/-180 N-S.
The image metadata states the lon-lat bounds are
  lower left lat   28.8444, lon -119.7528
  upper left lat   49.2565, lon -126.0326
  upper right lat   50.8321, lon   -98.8492
  lower right lat   30.0061, lon -100.0084

Thanks for any suggestions,

Jeff DLB
Reprojection newbie