Subject: EOS_GD_INTERPOLATE
Posted by James Kuyper on Mon, 23 May 2005 16:25:03 GMT
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I'm having what is probably a trivial problem using
EOS_GD_INTERPOLATE(), but I don't know what it is. Here's my code:

```
; Set the map projection
utmproj = MAP_PROJ_INIT("Transverse Mercator", ROTATION=-9.68, $
   CENTER_LONGITUDE=-7, LIMIT=[30,-14,40,0])

; Determine the U-V coordinates of the corners of the projection.
uv_box = MAP_PROJ_FORWARD([-14,0],[30,40], MAP_STRUCTURE=utmproj)

; Calculate evenly spaced U-V coordinates within the box
rows=100L
cols=100L
du = (uv_box[0,1]-uv_box[0,0])/cols
u = (0.5+INDGEN(cols))*du+uv_box[0,0]
dv = (uv_box[1,1]-uv_box[1,0])/rows
v = (0.5+INDGEN(rows))*dv+uv_box[1,0]

; Convert to latitude/longitude

latlon = MAP_PROJ_INVERSE(u#REPLICATE(1,rows), $
   REPLICATE(1,cols)#v, MAP_STRUCTURE=utmproj)

; Access the data
fileid =  EOS_GD_OPEN('MOD11A1.A2002049.h17v05.005.2005047174816.hdf')
gridid = EOS_GD_ATTACH(fileid, 'MODIS_Grid_Daily_1km_LST')
status = EOS_GD_INTERPOLATE(gridid, rows*cols, $
   latlon[1,*], latlon[0,*], ['LST_Day_1km'], interpval)
```

The status value comes out as -1, and interpval is left as a scalar
with a value of 0.0D. Can anyone suggest a reason why? I think it's a
simple conceptual problem, rather than a complex data-driven one, but
if you need the input file to help investigate this problem I can send
you a copy.