Subject: Finding nearest grid point-reg
Posted by shambhu on Tue, 20 Dec 2011 05:35:33 GMT
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Hi all,

Please go through the following code & please tell me whether it is
printing correct nearest grid points & plot.
File used. NCEP data "air.2000.nc"

```
IDL>print,size(air)
          4         144          73          17        1464
2
   261622656
IDL>print,size(air[lon])
          1         144           2         144
IDL> print,size(air[lat])
          1          73           2          73


;To find nearest grid point
PRO ex_grid1

fid=ncdf_open('air.2000.nc')
airid=ncdf_varid(fid,'air')
lonid=ncdf_varid(fid,'lon')
latid=ncdf_varid(fid,'lat')

ncdf_varget,fid,airid,air
ncdf_varget,fid,lonid,lon
ncdf_varget,fid,latid,lat

mlat=make_array(n_elements(lon),type=size(lon,/type))
mlat[0]=lat

nlon=lon
nlat=mlat

; A 2 degree grid with grid dimensions.
;delta = 1
dims = [144, 73]

PRINT,size(lon)
PRINT,size(mlat)

; The lon/lat grid locations
lon_grid = 72
lat_grid = 49
```

```
; Create a dependent variable in the form of a smoothly varying
; function.
f = SIN(2*lon*!DTOR) + COS(mlat*!DTOR) ;

; Initialize display.
WINDOW, 0, XSIZE = 512, YSIZE = 768, TITLE = 'Spherical Gridding'
!P.MULTI = [0, 1, 3, 0, 0]

; The following example requires triangulation.
TRIANGULATE, lon, mlat, tr

z = GRIDDATA(lon,mlat, f, /DEGREES, START = 0, DELTA = delta, $
    DIMENSION = dim, /NATURAL_NEIGHBOR, TRIANGLES = tr)

PLOT,z,psym=1

;CONTOUR, z, /OVERPLOT, NLEVELS = 5, /FOLLOW


; Set system variable back to default value.
!P.MULTI = 0

CLOSE,fid

END
```