
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
```
