
Subject: Re: Get Latitude and Longitude from Tiff files

Posted by [Lucia](#) on Wed, 04 Jul 2007 03:08:29 GMT

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According to David Fanning's instruction, I have found a method that can obtain latitude and longitude of each of point of GeoTIFF.

The source code is as follows.

```
pro get_latlon
filename='F:\data\A2007098.0235\mod43.Albedo_BSA_Band1.tif'

image = Read_Tiff(filename, GEOTIFF=geotag) ; GeoTIFF info in
"geotag" structure.
image = Reverse(image, 2) / 10000 ; Reverse Y direction, divide by
10000 to give correct values

; Find the image dimensions. Will need later.
s = Size(image, /Dimensions)
UTM_Map = MAP_PROJ_INIT('UTM', CENTER_LAT=0.0,
CENTER_LON=0.0,ZONE=50,datum=8,/gctp)
; Calculate corner points from GeoTIFF structure obtained from file.
xscale = geotag.ModelPixelScaleTag[0]
yscale = geotag.ModelPixelScaleTag[1]
tp     = geotag.ModelTiePointTag

xOrigin = tp[3]
yOrigin = tp[4]

lon=fltarr(s[0])
lat=fltarr(s[1])
lat[0]=xorigin
lon[0]=yorigin

for i=1,s[0]-1 do begin
lon[i]=xorigin+xscale*i
endfor

for i=1,s[1]-1 do begin
lat[i]=yorigin-yscale*i
endfor

lat=transpose(lat)
lat=rebin(lat,s[0],s[1],/sample)
lon=rebin(lon,s[0],s[1],/sample)
latitude=fltarr(s[0],s[1])
longitude=fltarr(s[0],s[1])

for i=0,s[0]-1 do begin
```

```
lat1=lat[i,*]
lon1=lon[i,*]
a = MAP_PROJ_INVERSE(lon1,lat1,map_structure=UTM_Map)
longitude[i,*]=a[0,*]
latitude[i,*]=a[1,*]
endfor
```

```
filename='F:\data\A2007098.0235\latitude.dat'
openw,lun,filename,/get_lun
writeu,lun,latitude
free_lun,lun
filename='F:\data\A2007098.0235\longitude.dat'
openw,lun,filename,/get_lun
writeu,lun,longitude
free_lun,lun
```

```
end
```

```
^^
```
