
Subject: envi_convert_file_coordinates

Posted by [woods1](#) on Mon, 03 Aug 2009 16:17:47 GMT

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Hi,

i have with envi. i try to convert the lat/lon coordinates to Pixel values, but my results are negative and big.

this is my program:

the number of samples are 36800 and the number of lines are 57600.

Pro news, ego

```
filename = envi_pickfile(title = 'DeMarine-DEKO')
if(filename eq "")then return
```

```
envi_open_file, filename, r_fid=De_fid
```

```
envi_file_query, De_fid, ns=ns, nl=nl, nb=nb, pos=pos,$
dims=dims, data_type=type, sname=sname
```

```
dims = [-1L, 0, ns-1, 0, nl-1]
```

```
pos = lindgen(nb)
```

```
map_info = envi_get_map_info(fid =De_fid)
print, map_info
```

```
proj_u = map_info.proj; Auszug Projektion von Struktur $ MAP
proj_dd = envi_proj_create(/geographic);Projektion fuer lat/lon
Daten
```

```
proj_aa = envi_proj_create(/utm, zone= 37, /south, datum=8,
units=meters )
```

```
xf = [0, ns-1]
yf = [0, nl-1]
```

```
; Establish file coordinate system
fwest_p=1; NW corner of file is 0,0
fnorth_p=1; NW corner of file is 0,0
feast_p=fwest_p+ns
fsouth_p=fnorth_p+nl
; Establish map coordinate system
fxcent_p=map_info.mc[0]; UTM coordinates defined from center
```

```

fycent_p=map_info.mc[1]; UTM coordinates def. from center
fxcent_u=map_info.mc[2]
fycent_u=map_info.mc[3]
xpxsz_u=map_info.ps[0]
ypxsz_u=map_info.ps[1]
fwest_u=fxcent_u+(long(fwest_p-fxcent_p)*xpxsz_u)
feast_u=fxcent_u+(long(feast_p-fxcent_p)*xpxsz_u)
fnorth_u=fycent_u+(long(fycent_p-fnorth_p)*ypxsz_u)
fsouth_u=fycent_u+(long(fycent_p-fsouth_p)*ypxsz_u)

print, 'fxcent_p:',fxcent_p      ; the result is 0.00000000
print, 'fycent_p:',fycent_p      ; the result is 0.00000000
print, 'fxcent_u:',fxcent_u      ; the result is 296999.38
print, 'fycent_u:',fycent_u      ; the result is 5039000.6
print, 'fwest_u:',fwest_u        ; the result is 297000.63
print, 'feast_u:',feast_u        ; the result is 343000.63
print, 'fnorth_u:',fnorth_u      ;-----is
5038999.4
print, 'fsouth_u:',fsouth_u      ;-----is 4966999.4

;convert map coordinate boundaries to DD
envi_convert_projection_coordinates,[fxcent_u,feast_u,fxcent_u,
feast_u], $

[fsouth_u,fsouth_u,fycent_u,fycent_u],proj_aa,fcornerx_dd,fcornery_dd,proj_dd

print,fcornerx_dd    ; the latitude is :36.405251
36.992822    36.434432    37.015407
print,fcornery_dd    ; the longitude is :-45.423007
-45.434850    -44.775521    -44.787101

envi_convert_file_coordinates, De_fid, xmap, ymap, fcornerx_dd,
fcornerx_dd
print, xmap    ; -237635.84    -237635.85    -237635.32
-237635.33
print, ymap    ; 4031171.4    4031170.9    4031171.4
4031170.9

```

i think xmap and ymap are false, but i don't where is the error.
my intention is to convert to pixel values.

please, can somebody help me.

thanks
end