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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]
xpsz_u=map_info.ps[0]
ypsz_u=map_info.ps[1]
fwest_u=fxcent_u+(long(fwest_p-fxcent_p)*xpsz_u)
feast_u=fxcent_u+(long(feast_p-fxcent_p)*xpsz_u)
fnorth_u=fycent_u+(long(fycent_p-fnorth_p)*ypsz_u)
fsouth_u=fycent_u+(long(fycent_p-fsouth_p)*ypsz_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,fc ornery_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, fcornery_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

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