
Subject: projections in idl

Posted by [gis_learner](#) on Mon, 19 Feb 2007 11:47:06 GMT

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Dear All,

This may be a simple question but would be happy if you can find time to give advice to a beginner...

I read the map projections section in the manual Using IDL. I also searched the web to find a step by step procedure... But I am not still clear as how to define the projection to the satellite images that I have at hand. Since there are numerous images I have to do it in IDL with a bit I believe.

Any help is appreciated.

Best regards

Subject: Re: Projection

Posted by [woods](#) on Fri, 17 Jul 2009 14:57:25 GMT

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On 17 Jul., 13:09, woods <coupecl...@yahoo.de> wrote:

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> Hi,
> i want to project the map on an image. My file is not a shapefile
> I have a Problem. My Image is so big (ns = 36800, nl = 56700) .
> this is the beginning of my program:
>
> filename = envi_pickfile(title = 'title')
> 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]
> map_info = envi_get_map_info(fid = De_fid)
> proj_dd = envi_proj_create(/geographic)
> proj_aa = envi_proj_create(/utm, zone= 37, /south, datum=8,
> units=meters )
>
>   xf = [0, ns-1]
>   yf = [0, nl-1]
>   fwest_p=0
>   fnorth_p=0
```

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> feast_p=fwest_p+ns
> fsouth_p=fnorth_p+nl
> 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)
>
> envi_convert_projection_coordinates,[fwest_u,feast_u,fxcent_u,
> fxcent_u], $
>
> [fycent_u,fycent_u,fnorth_u,fsouth_u],proj_u,fcornex_dd,fcornery_dd,proj_d-d
> envi_convert_file_coordinates, De_fid, xf, yf, xmap, ymap, /
> to_map
> print, 'UL corner:',xmap[0], ymap[0]
> print, 'LR corner:',xmap[1], ymap[1]
> print, 'UR corner:',xmap[0], ymap[1]
> print, 'LL corner:',xmap[1], ymap[0]
>
> utmMap = map_proj_init('UTM', DATUM=8, ZONE=37)
> help, utmMap, /struct
> xcenter = (xmap[1]-xmap[0])/2.0 +xmap[0]
> ycenter = (ymap[1]-ymap[0])/2.0 +ymap[0]
> lonlat = map_proj_inverse([xmap[0],xmap[0],xmap[1],xmap[1],
> xcenter], $
>
> [ymap[0],ymap[1], ymap[1],ymap
> [0],ycenter], $
>
> MAP_STRUCTURE=utmMap)
> print, 'Latitude: ', reform(lonlat[1,0:3])
> print, 'Longitude: ', reform(lonlat[0,0:3])
> minLat = Min(lonlat[1,*], Max = maxlat)
> minLon = Min(lonlat[0,*], Max = maxLon)
> limit = [minLat, minLon, maxLat, maxLon]
>
> utmMap = MAP_PROJ_INIT('UTM', DATUM = 8, ZONE = 37,
> LIMIT=limit )
> help, utmMap
>
> A = 6370997.0d
> eccsq = 0.00669439d
> k0 = 0.9996d
>
> map_set, 0, 39.0,0, /trans, position=[0.0 , 0.0, 1.0,

```

```

> 1.0],LIMIT=limit, $
>     ellipsoid = [A, eccsq, k0]
>
>     map_continents,/coast, /usa, /hires, thick = 1
>     map_grid, /box_axes, /clip_text, charsize=1.5, charthick=1
>     roi_id = envi_create_roi(name=name, ns=ns, nl=nl)
>
>     envi_define_roi, roi_id,/point, xpts=reform(xmap), $
>     ypts=reform(ymap)
>
>     xpts=reform(xmap)
>     ypts=reform(ymap)
>
>     roi_addr = envi_get_roi(roi_id)
>     roi_data = envi_get_roi_data(roi_id, fid=De_fid, pos =
> [0])
>     envi_get_roi_information, roi_id, ns=ns, nl=nl
>     min_x=min(xpts)
>     max_x=max(xpts)
>     min_y=min(ypts)
>     max_y=max(ypts)
>
>     imgdata=bytarr(ns,nl)
>
>     imgdata[roi_addr] = 1
>
>     envi_enter_data, roi_data, map_info=map_info
>     window, 0, /free, xsize=ns, ysize=nl
>     tv, imgdata
>
> end
>
> my problem is with imgdata=bytarr(ns,nl), and i want to create a mask,
> but i don't how i am doing.
>
> can somebody help me

```

i have found, that my file is a shapefile.
but, when i try envi_doit, 'envi_glt_doit', my program blocked.
where is the problem?
