
Subject: Re: shapefile not in lat/lon

Posted by [David Fanning](#) on Thu, 28 Nov 2013 16:22:48 GMT

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nata writes:

> I have a set of shapefiles defining some regions but the content is not in lat/lon coordinates. I guess I should use the projection defined in the prj file but I don't exactly know how to do it.
> I am hoping for some help here.
>
> This is the content of the prj file:
> PROJCS["NAD_1983_MTM_8",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983", SPHEROID["GRS_1980",6378137.0,298.257222101]], PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Transverse_Mercator"], PARAMETER["False_Easting",304800.0],PARAMETER["False_Northing",0.0], PARAMETER["Central_Meridian",-73.5],PARAMETER["Scale_Factor",0.9999],PARAMETER["Latitude_Of_Origin",0.0],UNIT["Meter",1.0]]
>
> Using this information how could I get the lat/lon values of the area defined as:
>
> xx=[314000.00,314000.00,315000.00,315000.00,314000.00]
> yy=[4987000.0,4988000.0,4988000.0,4987000.0,4987000.0]

I would set it up like this:

```
map = cgMap('UTM', Ellipsoid='GRS 1980', CENTER_LONGITUDE=-73.5, $
  CENTER_LATITUDE=0, FALSE_EASTING=304800.0)
```

```
lonlat = map -> Inverse(xx, yy)
lon = Reform(lonlat[0,*])
lat = Reform(lonlat[1,*])
```

If you use the Shapefile tools in the Coyote Library it won't matter much whether your shapefile uses lat/lon values or projected meter values, as this one does.

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")
