Subject: UTM to LatLon conversion in libraries?
Posted by Ferdinando Iavarone on Sat, 06 Jun 1998 07:00:00 GMT
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I'm looking for a UTM to Lat-Lon conversion function.

I need it to convert a Digital Elevation Model given in UTM coordinates
to Geographic coordinates, so that it can be related with satellite
positions.

Anybody heard of an IDL function implemented somewhere that can help?

best regards,
/NaN do
--
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Subject: Re: UTM to LatLon conversion in libraries?
Posted by wcapehar on Wed, 17 Jun 1998 07:00:00 GMT
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In article <3578F459.C11E6BCF@axpba0.ba.infn.it>,
<iavarone@axpba0.ba.infn.it> wrote:
> I'm looking for a UTM to Lat-Lon conversion function.

> I need it to convert a Digital Elevation Model given in UTM coordinates
> to Geographic coordinates, so that it can be related with satellite
> positions.

> Anybody heard of an IDL function implemented somewhere that can help?

I have a PVWAVE function that does goes from Lambert Conformal Conic to LL and it works in IDL. It was easy enough to write since UTM is more straight forward than LCC you should have a better time. It's hamfisted but it gets the job done.

There are good sites our there esp at
ftp://mapping.usgs.gov/pub/software/current_software/gctpc/ and

http://astsun.astro.virginia.edu/~eww6n/math/MapProjection.h tml

that can help with the UTM conversions

 == ====
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Rapid City, SD 57701-3995 Fax: +1-605-394-6061
=============== http://sky.ias.sdsmt.edu/~wjc ==================


```
 ..................................................................... .........
 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;; ;;;;;;;;
;
;   Georeferencing data
;
;   World Meteorological Organization Grid #212 (Lam Conf Con)
;
pi4    = !dpi / 4.0;
radius = 6371000.0;
;
dy     = 40.63525*1000.;
dx     = 40.63525*1000.;
;
centlat  =  35.0000  * !dpi / 180.00;
centlon  = -95.0000  * !dpi / 180.00;
centralx = 105-1
centraly = 49-1
;
reflat1 =  25.0000  * !dpi / 180.00;
reflat2 =  25.0000  * !dpi / 180.00;
;
ycorner = -(centraly)*dy;
xcorner = -(centralx)*dx;
;
eastings  = xcorner + dindgen(nx)*dx
northings = ycorner + dindgen(ny)*dy
;
latitude  = dblarr(nx,ny)
longitude = dblarr(nx,ny)
;
;   Projection Specific Area Begins
;
;     [UTM Conversion info goes here]
;
   Projection Specific Area Ends
;
centlat = centlat / !dpi * 180.00;
centlon = centlon / !dpi * 180.00;
```

```
;
reflat1 = reflat1 / !dpi * 180.00;
reflat2 = reflat2 / !dpi * 180.00;
;
print, 'Grid 212 Addresses' print, ' LLC:
',latitude(0,0), longitude(0,0), $
            northings(0),     eastings(0)
print, '  ULC: ',latitude(0,ny-1),   longitude(0,ny-1),    $
            northings(ny-1),   eastings(0)
print, '  URC: ',latitude(nx-1,ny-1),longitude(nx-1,ny-1), $
            northings(ny-1),eastings(nx-1)
print, '  LRC: ',latitude(nx-1,0),   longitude(nx-1,0),    $
            northings(0),     eastings(nx-1)
print, ' '
print, '  CPt: ',latitude(centralx,centraly),          $
            longitude(centralx,centraly),          $
            northings(centraly), eastings(centralx)
;
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;; ;;;;;;;;;
```