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Subject: Conversion Between UTM and Lat/Lon Coordinates  
Posted by [David Fanning](#) on Tue, 15 Jan 2008 18:35:51 GMT  
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Folks,

I have a geoTiff image in a UTM projection. And I have the corners and center of the image in UTM coordinates. To put political boundaries on this image, I need to create the proper UTM map projection space. In order to do that, it seems to me, I need to know the center of the map projection (or image) in latitude and longitude space. (Since MAP\_PROJ\_INIT seems to require this.)

Therefore, it seems to me I need to convert my UTM coordinates to lat/lon coordinates. I have found JAVA applets on the Internet to do that, but it would be nice to have a little IDL program to do it. Does anyone have such a thing? Would you like me to publish it on my web page so you can become famous? :-)

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

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Subject: Re: Conversion Between UTM and Lat/Lon Coordinates  
Posted by [KRDean](#) on Wed, 16 Jan 2008 22:27:41 GMT  
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On Jan 16, 3:17 pm, "ben.bighair" <ben.bigh...@gmail.com> wrote:

> On Jan 15, 2:37 pm, David Fanning <n...@dfanning.com> wrote:

>

>

>

>

>

>> APound writes:

>>> I found a fairly straight forward website on the formulas, but it is a

>>> bit over my head... Maybe you'll be able to glean something from

>>> that...

>

>>> <http://www.uwgb.edu/dutchs/UsefulData/UTMFormulas.HTM>

>  
>> Thanks for this. Someone just reminded me of those lovely  
>> routines Ben Tupper made available at one time or another.  
>> I'm just trying UTM\_to\_LL now.  
>  
>> I looked at that web site earlier today and had much the  
>> same reaction you did. Good thing Ben wasn't deterred.  
>> His code looks so similar that I think he must have  
>> cribbed it from here. :-)  
>  
> Hi David,  
>  
> Wow - I am impressed someone did it using a spreadsheet. Must be like  
> trying to walk a dog with two legs - you just have to pull real hard.  
> The reference cited in my code and on that website (Snyder, J. P.,  
> 1987; Map Projections - A Working Manual. U.S. Geological Survey  
> Professional Paper 1395, 383 p.) is probably one of the better  
> purchases I have ever made. I haven't done much map stuff in a long  
> time, but I fondly remember that great book.  
>  
> Cheers,  
> Ben- Hide quoted text -  
>  
> - Show quoted text -

USGS is making this reference - Map Projections: A Working Manual -  
available as a download in the PDF format.

<http://pubs.er.usgs.gov/usgspubs/pp/pp1395>

Kelly Dean  
Fort Collins, CO

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Subject: Re: Conversion Between UTM and Lat/Lon Coordinates  
Posted by [David Fanning](#) on Wed, 16 Jan 2008 22:50:17 GMT  
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kBob writes:

> USGS is making this reference - Map Projections: A Working Manual -  
> available as a download in the PDF format.  
>  
> <http://pubs.er.usgs.gov/usgspubs/pp/pp1395>

And other than the fact that it looks like it was scanned  
from a mimeographed sheet, it is excellent! :-)

Cheers,

David

P.S. Plus, it has, uh, lots of equations in it. :-(

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))

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Subject: Re: Conversion Between UTM and Lat/Lon Coordinates

Posted by [David Fanning](#) on Thu, 17 Jan 2008 04:02:52 GMT

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David Fanning writes:

> P.S. Plus, it has, uh, lots of equations in it. :-(

I've been learning some amazing things about map projections in the past couple of days. Look for an article soon that will show you how to duplicate all Ben's great work (and all those equations) in one or two lines with the MAP\_PROJ\_\* functions. An not one equation to be found in the lot of it! :-)

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: Conversion Between UTM and Lat/Lon Coordinates

Posted by [David Fanning](#) on Sun, 20 Jan 2008 17:55:45 GMT

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David Fanning writes:

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> JAVA applets on the Internet to do that, but it would  
> be nice to have a little IDL program to do it. Does  
> anyone have such a thing? Would you like me to publish  
> it on my web page so you can become famous? :-)

Uh, well... It seems IDL is already set up to do this. :-(

Here is an article that describes how:

[http://www.dfanning.com/map\\_tips/utm\\_to\\_ll.html](http://www.dfanning.com/map_tips/utm_to_ll.html)

Cheers,

David

--

David Fanning, Ph.D.

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