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Subject: Re: UTM map

Posted by [SSO](#) on Fri, 30 Jul 2004 08:16:30 GMT

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Ben Tupper <[btupper@bigelow.org](mailto:btupper@bigelow.org)> wrote in message  
news:<2mps37Fq1sctU1@uni-berlin.de>...

> Sverre Solberg wrote:

>> Is there any possibility to draw a rectangular grid (with typically  
>> 30x40 grid cells in XxY direction) on a standard UTM map in idl? What  
>> I'm looking for is a standard plot presenting numerical model results  
>> with the grid cells coloured according to the values. The map itself  
>> is easy enough to make but when overplotting squares with fixed  
>> distance (in meters) the grid lines get "zig-zaged" when converted to  
>> lat/lon. Do I e.g. have to split the grid lines into an extremely dens  
>> row of UTM coordinates and then convert to lat/lon? A bit awkward. As  
>> far as I know, idl hasn't any functionality for UTM map coordinates,  
>> or am I wrong?

>>

>

> Hi,

>

> Starting with IDL 5.6, the handy MAP\_PROJ\_\*\*\*\* routines have made life a lot  
> easier to deal with map coordinate conversions. These should help you with the  
> forward and backward coordinate transformations. I'm not sure if this will help  
> answer your question... which is ... well, what is your question again?

>

> Someday I'm gonna write a guide to mapping in IDL and throw in a nice GUI  
> interface to the MAP\_PROJ\_INIT function. Just as soon as I figure it all out.  
> Considering that I have frequently fussed with mapping in IDL for a long time  
> and still have to start from scratch each time, it could be a while.

>

> Ben

Thanks. We are still using the 5.5 version so upgrading will be good then. The problem which is now partly solved, was the following: I have a rectangular UTM grid with a grid spacing of 5km in x- and y-direction. I use your `utm_to_ll` routine to convert (each grid cell) to geo. coordinates. However, when plotting this on top of the map produced by the `map_set/trans` routine the grid looks like it's handdrawn with "bumpy" grid lines. I thought this was due to the UTM->geo conversion but discovered that it was only seen on the screen or if printed to a bitmap file. When making e.g. a cgm (or PS) file the lines are perfectly straight. So this helps a lot, but still I'm confused why the lines are not straight on the screen, and since this is part of widget system with a clickable map, it's still a slight problem.

Sverre

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