Subject: Re: map_proj_init
Posted by marit on Mon, 09 Apr 2007 13:56:06 GMT
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> Interestingly, in research preparatory to writing an article
> about this for my web page, I discovered that if you use
> the map projection *index*, instead of the map projection
> name and GCTP keyword, then all is well:
>
> IDL> south_proj=MAP_PROJ_INIT(106, semimajor_axis=6378273.0,$
> IDL> semiminor_axis=6356889.4, center_lon=0,center_lat=-70.0,$
> IDL> false_easting=0,false_northing=0)

> IDL> north_proj = MAP_PROJ_INIT(106, semimajor_axis=6378273.0,$
> IDL> semiminor_axis=6356889.4,center_lon=0,center_lat=-70.0,$
> IDL> false_easting=0,false_northing=0)

You have a typo in the north projection that sets lat of true scale
(which map_proj_init confusingly calls center_lat) to -70, so in this
case both south_proj and north_proj are the same.

At any rate, I looked into map_proj_init.pro and found these two
internal routines: MAP_PROJ_GCTP_FORINIT and MAP_PROJ_GCTP_REVINIT.
If you call them with the proper parameters for each projection before
any call to map_proj_forward or map_proj_inverse the calculations are
correct. I guess there's an internal structure somewhere that can only
hold parameters for 1 GCTP projection at once?

Anyway, thanks for your thoughts on the problem. I did submit a
support incident Saturday, but since the weekend is barely over
haven't heard anything back yet.