Subject: Re: map_proj_inverse and map_proj_init IDL 6.2
Posted by enod on Sat, 03 Dec 2005 07:02:28 GMT
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As far as I know, map_proj_inverse and map_proj_forward functions are only supposed to derive the longitude and latitude coordinates from map projection coordinates, and vice versa. I don't think it can be used to register an image without projection.

Regards,
Tian

Liberum wrote:
> Hi everyone,
>
> I am sure someone has the answer to this question:
> I am trying to georegister an array using map_proj_inverse and
> map_proj_init in IDL 6.2. Since this is the first time I have done
> this, I have made some mistakes but I got IDL to execute the program
> without error. The problem is that the results look, well, wacky. The
> array is a Meteosat 8 image slice in satellite projection. My function
> looks like this:
> ********** **********
> FUNCTION xy2deg, data
> x = (size(data,/dimensions))[0]
> y = (size(data,/dimensions))[1]
>
> ; map projection info
> map_info = MAP_PROJ_INIT('satellite',datum=8, $
> SPHERE_RADIUS=6378169.0, $
> HEIGHT=42164000.0,SAT_TILT=0, $
> CENTER_LONGITUDE=0,CENTER_LATITUDE=0, $
> ROTATION=0)
> indices = indgen(2,x*y)
> ind = 0L
> for i=0, y-1 do begin
> for j=0, x-1 do begin
> indices[0,ind] = j
> indices[1,ind] = i
> ind = ind + 1
> endfor
> endfor
> result = MAP_PROJ_INVERSE(indices,MAP_STRUCTURE=map_info)
> return, result
> end
> ********** **********
> IDL> res = xy2deg(data)
> IDL> print, res(*,500) ; for example

> 0.0044915539 0.0000000
> IDL>
> IDL> print, size(res,/dimensions)
> 2 690000
> ---------- ----------

> Can anyone give me some tips here? I wonder if I need to know more
> about the region the array covers. I am not 100% sure on the SAT_TILT
> nor the ROTATION but these should not have such a large effect.
>
> Sincerely,
> Sheldon
