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Subject: Re: map\_proj\_inverse and map\_proj\_init IDL 6.2  
Posted by [David Streutker](#) on Fri, 02 Dec 2005 17:08:41 GMT  
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Can you explain what you mean by "wacky"? I'm not sure I see anything wrong.

I think the problem may be your coordinate units. It looks like MAP\_PROJ\_INIT and MAP\_PROJ\_INVERSE convert to degree coords from meter coords (not data indices). The result you got was converting the physical location (500 m, 0 m) to lon/lat, and not the pixel at [500,0].

Essentially, I think you need to include the spatial resolution of Meteosat somewhere in your code.

-Dave

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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
```

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Subject: Re: map\_proj\_inverse and map\_proj\_init IDL 6.2

Posted by [Liberum](#) on Mon, 05 Dec 2005 07:41:44 GMT

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Hi,

Thanks. I think you are right. I will look into that.

Sheldon

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