
Subject: Re: Map_Proj_Inverse Bug?

Posted by [David Fanning](#) on Mon, 29 Dec 2008 20:57:11 GMT

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David Fanning writes:

> Any explanation for why my longitude values are depending on
> the latitude values I use in Map_Proj_Init? Do you think this
> could be a bug?

The results seem to be more what I expect if I use a Mercator project, rather than a Transverse Mercator:

```
IDL> mapStruct = Map_Proj_Init(105) ; Mercator
IDL> Print, mapStruct.uv_box[[0,2]], mapStruct.uv_box[[1,3]]
-20037726.    20037726.
-88943645.    88943645.
IDL> Print, Map_Proj_Inverse(mapStruct.uv_box[[0,2]], $
IDL>                      mapStruct.uv_box[[1,3]], $
IDL>                      MAP_STRUCTURE=mapStruct)
-180.00000    -89.999900
 180.00000     89.999900
IDL> Print, Map_Proj_Inverse(mapStruct.uv_box[[0,2]], $
IDL>                      [0,0], $
IDL>                      MAP_STRUCTURE=mapStruct)
-180.00000     0.00000000
 180.00000     0.00000000
IDL> Print, Map_Proj_Inverse([0,0], $
IDL>                      mapStruct.uv_box[[1,3]], $
IDL>                      MAP_STRUCTURE=mapStruct)
 0.00000000    -89.999900
 0.00000000     89.999900
```

Verses this:

```
IDL> mapStruct = Map_Proj_Init(109) ; Transverse Mercator
IDL> Print, mapStruct.uv_box[[0,2]], mapStruct.uv_box[[1,3]]
-6411813.8    6411813.8
-9997887.3    9997887.3
IDL> Print, Map_Proj_Inverse(mapStruct.uv_box[[0,2]], $
IDL>                      mapStruct.uv_box[[1,3]], $
IDL>                      MAP_STRUCTURE=mapStruct)
 0.00000000    -90.000000
 0.00000000     90.000000
IDL> Print, Map_Proj_Inverse(mapStruct.uv_box[[0,2]], $
IDL>                      [0,0], $
IDL>                      MAP_STRUCTURE=mapStruct)
-50.317650     0.00000000
```

```
50.317650    0.00000000
IDL> Print, Map_Proj_Inverse([0,0], $
IDL>          mapStruct.uv_box[[1,3]], $
IDL>          MAP_STRUCTURE=mapStruct)
0.00000000   -90.000000
0.00000000    90.000000
```

Cheers,

David

--

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

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