
Subject: Map_Proj_Inverse Bug?

Posted by [David Fanning](#) on Mon, 29 Dec 2008 20:48:06 GMT

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Folks,

I've been fooling around with map coordinates today, and
I've run into a strange result with Map_Proj_Inverse.

Here is the sequence of commands:

```
IDL> mapStruct = Map_Proj_Init(109) ; Transverse Mercator
IDL> Print, mapStruct.uv_box[[0,2]], mapStruct.uv_box[[1,3]]
      -6411813.8    6411813.8    ; longitude
      -9997887.3    9997887.3    ; latitude
```

Looks good here, what I expect.

```
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
```

The longitude values are in the first column and the latitude
values in the second column. I had expected to see -180 and 180
in the first column, but I guess I can understand 0, 0 well enough.

```
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
```

Whoa! What happened here!? The longitude values depend on latitude?

```
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
```

The other way around seems to be OK.

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?

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.")
