
Subject: map projection / poly fill bug

Posted by [Ian E. Sprod](#) on Wed, 19 Apr 1995 07:00:00 GMT

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I have found a bug in IDL when plotting polygons onto a map projection. If the polygon is on the edge of the map then streaks of color are drawn from the edge of the map to the edge of the screen. Clearly the coordinate mapping has gone awry in this case.

the following code demonstrates the problem :

```
-----  
pro poly_plot  
  
; set co-ords for polygon in degrees  
  
lat = [0,10,0,-10,0]  
lon = [-10,0,10,0,-10]  
  
map_set,10,0,/ortho,/cont,/noborder  
loadct,5  
  
; plot polygon  
polyfill,lon,lat,color=50  
  
; now put polygon at edge of plot  
  
lon = lon + 85.0  
  
polyfill,lon,lat,color=100  
  
stop  
  
end  
  
-----
```

Note I posted this one about 18 months ago and got a few replies with ideas to filter out the "edge" polygons and not plot them. This is not really a fix as the edge of the Earth on some tilted Orthographic plots is not a simple meridian but some ill-defined line I would rather not have to calculate.

Anyone else hit this problem?

Any answers? RSI?

Thanks,

Ian Sprod

Subject: Re: map projection / poly fill bug

Posted by [Ian E. Sprod](#) on Tue, 02 May 1995 07:00:00 GMT

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stevep@rsinc.com (Steve Penton) wrote:

>
> In article <3n3clr\$ng3@post.gsfc.nasa.gov> "Ian E. Sprod"
> <Ian.Sprod@gsfc.nasa.gov> writes:
>> I have found a bug in IDL when plotting polygons onto
>> a map projection. If the polygon is on the edge of the
>> map then streaks of color are drawn from the edge of
>> the map to the edge of the screen Clearly the coordinate
>> mapping has gone awry in this case.
>> Anyone else hit this problem?
>>
>> Any answers? RSI?
>>
> Yes, We are here.
>
> Indeed this is a problem. IDL4.0 gets around this polyfill
> limitation with a horizon clipping algorithm added to
> map_continents (maps in IDL4 include continents as polygons).
>
> Steve Penton
> stevep@rsinc.com

Well this is one IDL user eagerly awaiting his CDROM in the mail
with IDL 4.0 on it!

Could you post a list of _all_ the bug-fixes in IDL 4.0?

ian
