Subject: map projection / poly fill bug Posted by lan 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 lan E. Sprod on Tue, 02 May 1995 07:00:00 GMT View Forum Message <> Reply to Message

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stevep@rsinc.com (Steve Penton) wrote:
>
> In article <3n3clr$ng3@post.gsfc.nasa.gov> "lan E. Sprod"
> <lan.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
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with IDL 4.0 on it!

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

ian