Subject: Z-buffer and plot/oplot issues
Posted by acvsaraiva on Mon, 01 Dec 2014 18:08:38 GMT

Hello folks,

I'm working with Google tiles generation using IDL and I'm facing a weird problem with the Z-buffer device.

Background: As some of you should know, but others don't, google tiles is the way Google maps/Earth and other map servers draw maps on the screen. A series of images are posed side by side and on top of each other in order to assemble a mosaic of the desired image/data. I believe they do things that way to maximize speed. Every tile is georeferenced, usually in Mercator coords and WGS84 Datum.

My problem: I'm using IDL to create tiles to show lightning data over a given region. To maximize speed I'm using 256x256 tiles and the lightning data is expressed as filled square polygons. I use very simple commands like map_set to set the map coords on my tile and plot or oplot procedures to plot the lightning data. After that I just copy the tile to a variable using tvrd and save as png.

Using the X window device everything is perfect, but when I use the Z-buffer device there is an artifact on the final figure that I cannot remove, and that only happen when I plot filled symbols with plot or oplot (the same doesn't happen with plots procedure). The artifact is a blank like on top of the tile. However if I use an open square symbol, or anything "open", there is no such artifact. If I use plots there is no artifact as well, but it take forever to plot the data and I can't afford that. The problem is that some tiles share portions of the same "lightning" and when I put one figure on top of the other, there is a line cutting the filled square.

I'm mostly sure that I'm setting the z-buffer correctly because some procedures work as they should and plot (and oplot) produce that blank line at the top when using special filled symbols.

Any help is welcomed.

Cheers,
Antonio

Subject: Re: Z-buffer and plot/oplot issues
Posted by Phillip Bitzer on Wed, 03 Dec 2014 14:49:27 GMT

On Monday, December 1, 2014 12:08:40 PM UTC-6, Antonio Carlos Varela Saraiva wrote:
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> Cheers,
> Antonio

Can't say I've ever seen this happen. Do you have some sample code (MWE) that illustrates the issue?