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Subject: Z-buffer and plot/oplot issues

Posted by [acvsaraiva](#) on Mon, 01 Dec 2014 18:08:38 GMT

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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

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