
Subject: Drawing satellite pixels on maps?

Posted by [Philippe Peeters](#) on Tue, 19 Nov 1996 08:00:00 GMT

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I've already posted this question some time ago but did not get any answer. Here I go again:

I want to draw satellite data on a map. Each ground pixel is defined by the latitude and longitude of the 4 corners. It is not a regular rectangle or square and depend on the viewing geometry of the satellite instrument.

I have tried a simple polyfill, long, lat but I have serious problems with orthographic maps when the pixel is partly off the map. I got strange filled polygons from the edge of the map to the corner of the window. Someone on the net advice me to use a new polyfill routine which checks polygons boundaries before drawing it. Though slower than the original polyfill, it solved the problem.

But I still have another problem with several maps when the pixel to be drawn is at the edge, i.e. when one or several pixel corner is on one side of the map (lon > -180) and the other on the other side (lon < -180) of the map.

example longitude=[-179,-181,-179.5,-180.5] or [179,181,179.5,180.5]

The pixel is drawn from one side to the other of the map which is pretty ugly. Obviously this is a 'normal' way of drawing that kind of pixel, polyfill is not supposed to know that it has to cut the pixel into two. Does anybody know how to solve this problem.

And now a question related to the same topic. How can I resample the irregular ground pixels onto a regular (square or rectangle) grid?

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