Subject: Extracting pixel values from large image using RasterIterator
Posted by lefsky@gmail.com on Mon, 22 Jul 2013 14:49:27 GMT
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I often have the problem of extracting a large number of pixel values from an image, given each point's real world coordinate (in geographic, utm, albers, etc). Normally I accomplish this by reading in the image (usually a tif) and the associated geotiff, calculating the row and column indices and then using a simple lookup to extract each pixel value at once (e.g image(column_index,row_index)). I've written a program to automate this simple task.

My problem now is that I have very large files (>5gb) and I don't want to keep them around in uncompressed form nor do I want to load them into memory. Fortunately, these files are mostly background values and compress well. So, storage is no longer the problem- accessing them is.

It would seem that raster iterator would do the trick- read in one tile at a time, check for an intersection of points with the tile and extract the relevant data.

I haven't found a packaged version of this type of routine, but perhaps someone has solved this problem? Or is there a problem here that I am not seeing?

M