Subject: Re: Extracting pixel values from large image using RasterIterator
Posted by David Fanning on Mon, 22 Jul 2013 14:58:23 GMT
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lefsky@gmail.com writes:

>
> 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?

I've never tried this, and don't have any idea if it would be faster or
not, but what about using the SUB_RECT keyword to READ_TIFF to read
individual pixel values out of the file? I suppose it depends on how
this functionality is implemented internally as to whether you will gain
speed or not.

Cheers,

David

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Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")