Subject: aggregate pixel values within shapes or another raster
Posted by ivitseva on Thu, 14 Jan 2010 09:54:05 GMT
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Dear All,
I have a time series of images (yearly data) on 1km spatial resolution and I have a systematic grid in an ArcGIS shapefile format or a ArcGIS grid format or envi BIL format, whatever suits best that has a 25km spatial resolution. I need to calculate the mean and standard deviation of all pixels within 1 grid zone, for all years and write them out in a new image. Thus, in case of 26 input years on 1km spatial resolution I need to have 26 output images on 25km spatial resolution, where in each 25km cell the mean and/or the standard deviation of the 1km cells within the respective grid is written. Besdies opening and reading the files (at least that I have no problems with) any clue please how to start it? Thank you very much in advance, Eva.

Subject: Re: aggregate pixel values within shapes or another raster
Posted by wita on Mon, 18 Jan 2010 08:06:00 GMT
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Dear Itiseva,

Have a look at: ftp://sc:image1@ftp.alterra.nl/pub/adewit/cgi_zonal_stats.pr o

It is basically as simple as:

result = cgi_zonal_stats(zones, data)

Results is a structure which contains the zone_id, mean, count, stdev and median of the values in 'data' (each layer in your time-series) for each unique zone in 'zones' (your 25km grid). A requirement is that 'zones' and 'data' are on the same grid, so resample your 25km grid to your 1km data grid.

The function leverages the power of HISTOGRAM module by looping over the reverse indices returned by HISTOGRAM and is therefore maybe faster then David's solution. Moreover, my routine can aggregate data over arbitrary shaped zoned and not just within kernel.

My guess is that this is exactly what you need.

Hope this helps

Allard