Subject: Re: find max in 3D array -- slow
Posted by JDS on Mon, 12 Apr 2010 17:48:48 GMT
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On Apr 10, 12:03 pm, "Timothy W. Hilton" <hil...@meteo.psu.edu> wrote:
> Hello IDL users,
>
> I have a 1200x1200x2900 array of floats. The dimensions correspond to
> latitude x longitude x time. I need to find the maxium at each
> location -- that is, I need the 1200x1200 array containing the max
> along the 3rd dimsion. IDL takes almost 3 minutes to do this on my
> system. This seemed slow. I compared it with Matlab, which took ten
> seconds. Is there a better way to search for the maxima using IDL?

It would be of interest to run your IDL vs. MATLAB test again with an array size which can easily fit in memory (e.g. 500MB worth). I'd guess that most of that 3 minutes is spent hitting the disk for page faults. The data ordering of IDL vs. MATLAB could easily come into play, though both are column-major. I get about 1s for 500MB, which should scale to ~30s for your data set (and I'll guess your machine is faster than mine).