Subject: Re: how to sort data based on other sorted data
Posted by placebo on Thu, 10 Jan 2008 20:51:42 GMT
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> try Craig Markwardt's multisort
>
> http://astrog.physics.wisc.edu/~craigm/idl/arrays.html#MULTI SORT

Brian,

The multisort method works quite well.

I compared my "nested FOR loop method" to the MULTISORT method and here are some comments:

As it stands now, my FOR loop procedure works with 3 columns, no more no less. The MULTISORT method can take 1 to 9 columns. MULTISORT is more robust, flexible, and user friendly. So, MULTISORT wins in this category.

As far as runtime is concerned, I used SYSTIME at the beginning and end of each routine to benchmark. I ran the program a couple of times for each sorting routine. The benchmarks are listed below:

FOR loop runtimes (seconds):
0.078000069
0.077999830
0.062999964
0.078000069

MULTISORT runtimes (seconds):
0.094000101
0.092999935
0.108999970
0.094000101

As you can see, the FOR loop method is "slightly" faster than the MULTISORT method.
Both routines sorted the same data set containing 931 lines of x,y,z coordinates.
I performed the calculation on my HP WinXP (SP2) laptop with an Intel T2050 and 1 gig ram.
As far as I am concerned, the robustness of MULTISORT definitely outweighs the few milliseconds of lost time.

It would be interesting, however, to compare the benchmarks of larger files and also files with more columns. My guess is MULTISORT would eventually outperform my FOR loop if calculations involved 4 or more

columns, since each column requires you to nest an additional FOR loop in my code.

If anyone is interested in pursuing this task, I'd be happy to post my FOR loop for you guys to play with.

Thanks wlandsman for the MULTISORT tip!
