Subject: Re: IDL performance and FFTs (was: call external speed)
Posted by roy.hansen on Wed, 16 Sep 1998 07:00:00 GMT
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In article <6to8cubgm1@readme.uio.no>, steinhh@ulrik.uio.no (Stein Vidar Hagfors Haugan) wrote:
>
> In article <35ff8db4.0@d2o203.telia.com> roy.hansen@triad.no
> (Roy E. Hansen) writes:
>> We did a small comparison of the FFT performance in IDL 5.1.1
>> compared with the Matlab 5.2 version for a PII-400 with Win-NT,
>> and found that Matlab was approx 4 times faster. We also found
>> that the FFT in IDL 5.1.1 was faster than in IDL 5.1 on an other
>> PII-400 with Win95.
>
> I'm surprised the difference to Matlab 5.2 was so large.

Well, we have now done a sligthly more accurate test with the
following time results for the double precision FFT:

	1D	2D
IDL 5.1.0	9.9	2.58
IDL 5.1.1	5.9	1.91
Matlab 5.2	3.6	1.0

This means that Matlab is 1.9 times faster for 2D FFTs and
1.6 times faster for 1D FFTs than IDL 5.1.1 for this specific case.

The most surprising is the difference between IDL 5.1.0 and
IDL 5.1.1 - a performance gain of 1.68 for 1D FFTs.

There were less than 5% difference between Win-NT and Win95.

The numbers in the table is the execution time of (without the declaration)
1D: x = dcomplexarr(4096) & for i=0,999 do fft(x,-1,/DOUBLE)
2D: x = dcomplexarr(256,256) & for i=0,9 do fft(x,-1,/DOUBLE)