Subject: 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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Hi,

In article <Pine.SO4.4.03.9809141531430.9709-100000@sukak>,
Karl Krieger <kak@ipp.mpg.de> wrote:
>
> It really depends on the application. I wrote a LINKIMAGE wrapper for the
> FFTW package (http://theory.lcs.mit.edu/~fftw) and compared the speed to
> IDL's native FFT routine. The speed gain for single precision
> real->complex 2d transforms is about 2.5 on a SUN Ultra/170 and about 2.3
> on a Pentium/133 under WinNT, so it's really worth the effort if you want
> to do FFT of large data sets.
>

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.

This raises a few questions:

- Does there exist any optimized versions of IDL for the PII and
  PPro with W95 and Win-NT?

- Does anybody know what the performance gain is using an optimized
  version compared to the standard version?

- Is the IDL performance operating system dependent for the INTEL
  platform?

- What's the main differences of version 5.1.1 and 5.1 ?

- Are there any benchmarks of numerical performance for IDL
  compared to other software packages, like Matlab?

- If the FFTW (which is free) outperforms the native FFT in IDL,
  why don't RSI use that implementation? Is this a silly question?

- RoyH