Subject: Re: 2D FFT Slow. Any ideas?
Posted by Richard French on Mon, 08 Dec 2003 20:17:16 GMT
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On 12/8/03 3:02 AM, in article 64b518634e4a83f7473363b5cd15989d@news.teranews.com, "Brian" <brian.huether@NOdlrSPAM.de> wrote:

```
> Hi,
>
> The IDL code is
>
> A=dcomplex(randomn(seed,2048, 2048,/DOUBLE), randomn(seed,2048,
> 2048,/DOUBLE))
> t=systime(1)
> FA=fft(A,-1)
> print, systime(1)-t
>
> The corresponding matlab code is
>
> A = randn(2048,2048) + i*randn(2048,2048);
> tic; FA=fft2(A); toc
>
> I get around 10.4 sec in IDL, and around 3.7 sec in MATLAB 6.5
>
> -brian
>
```

I got FFTW working on a SUNBLADE 1000

```
IDL> print,!VERSION
{ sparc sunos unix Solaris 6.0 Jun 27 2003      32      64}
```

(I had to run IDL in 32-bit mode)

For a REAL FFT, 1024x1024, IDL took 2.9 times as long as FFTW
For 2048 x 2048, IDL took 3.4 times as long as FFTW.

On a Dec/HP/Compaq Alpha, the speedup was a factor of 4 for 1024x1024 and about a factor of 5 for 2048x2048.

If you have lots of FFT's to compute, it is worth taking the trouble to build a DLM for the FFTW routines. However, I did not find this easy to do, I used the help from Stein Haugan, and I had to fiddle with the Makefile to get everything working.

I am going to see if I can get fftw to work under MAC OS X, and to build a DLM for that. If anyone has already succeeded in doing this, I'd be interested in knowing how you did it.

Dick French