Subject: Re: Different FFT times for same array size ?
Posted by jcami on Wed, 24 Aug 2005 18:01:38 GMT
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Hi Bob,

Thanks for the reply. Memory should not be the issue -- I have 2 Gb of
RAM, and it seems like I'm using only about 10% of it.

> Off hand, the factor of 50 increase I would say is due to a
> memory "leak" issue. Perhaps at that point, you start to swap to
> disk or something. This is just a guess, but often a huge step in
> execution time means your process has had to go to the hardrive.
> [by leak, it may not be a real leak, but just the fact that
> you are running low on memory, and are swapping to disk
> to get the rest of the data]

Thanks for the reply. Memory should not be the issue -- I have 2 Gb of
RAM, and it seems like I'm using only about 10% of it. The funny part
is that for about 90% of the arrays I use, it goes OK, but only in a
few cases it goes wrong. Again, array sizes are always the same...

> How does it look if you run the same code on the same input
> time series (i.e. always fft the same array by
> commenting out " input = [input[blen-p+1:blen-1], signal[lower:upper]]").

All short times.... about 0.03 seconds.

> One thing that i notice is that you are concatenating your new array each
> loop.
> That may a bit wasteful in memory, although I usually do that with no
> problems.

Maybe true, but if the FFT execution time only depends on the size of
the arrays, I should get the same type of timing for my different
arrays, right ?

> What are the values you use (k, p blen, etc)? Could you include the initial
> values that you have just before the loop?

IDL> help, k, blen, ip, p, z_filter, input, output
K LONG = 151
BLEN LONG = 65536
IP LONG = 11974
P LONG = 53563
Z_FILTER DCOMPLEX = Array[65536]
INPUT DOUBLE = Array[65536]
OUTPUT DCOMPLEX = Array[65536]

> I can run the same code (on a fake signal) and see if I reproduce your
> problems.

I could also send you two different arrays of the same size, where one causes problems and the other doesn't....

Thanks,

Jan
