Subject: Re: GPULib on my 64-bit WinXP machine
Posted by Vince Hradil on Wed, 29 Oct 2008 02:23:45 GMT
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On Oct 28, 8:58 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> In article <MPG.23702f206ddb6fc998a...@news.giganews.com>,
> David Fanning <n...@dfanning.com> wrote:
>
>> b_...@hotmail.com writes:
>
>>> I also see that the GTX200 series supports limited double precision
>>> operations, which might be another trump card.
>
>> The point was made at the User's Group meeting that almost
>> all of the double precision stuff, on any processor, is much
>> slower than floating point operations. The suggestion was
>> made to keep everything in floating values if at all possible.
>
>> Cheers,
>
>> David
>
> Do GPUs do IEEE arithmetic (single precision)?
>
> Ken Bowman

I believe that is what Peter Messmer said at the user meeting. Of course, we're talking specific the CUDA tools on the NVIDIA cards.

More details at: http://en.wikipedia.org/wiki/CUDA

including this "limitation"
Various deviations from the IEEE 754 standard. Denormals and signalling NaNs are not supported; only two IEEE rounding modes are supported (chop and round-to-nearest even), and those are specified on a per-instruction basis rather than in a control word (whether this is a limitation is arguable); and the precision of division/square root is slightly lower than single precision.