Subject: Re: GPULIB and ENVI 4.8
Posted by rogass on Mon, 14 Feb 2011 12:18:04 GMT
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On 14 Feb., 09:01, mort canty <m.ca...@fz-juelich.de> wrote:
> Am 14.02.2011 08:37, schrieb chris:
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>
>> Hi folks,
>> if someone wants to use GPULib and Envi 4.8 commonly, then I have an
>> installation hint for you (which mostly of you will know) . On my
>> Windows 7 x64 machine I have to change (or to set) the path variables
>> from:
>> IDL_PATH = +C:\Program Files\Tech-X\GPULib to:
>> IDL_PATH = +C:\Program Files\Tech-X\GPULib;<IDL_DEFAULT>
>
>> as well as from:
>
>> IDL_DLM_PATH = +C:\Program Files\Tech-X\GPULib\lib to:
>> IDL_DLM_PATH = +C:\Program Files\Tech-X\GPULib\lib;<IDL_DEFAULT>
>
>> As Michael stated here (https://groups.google.com/group/comp.lang.idl-
>> pvwave/browse_thread/thread/89a871c7693bd71e/070b65fe34f70c3 b?
>> hl=de&lnk=gst&q=gpulib#070b65fe34f70c3b) there is a preferences
>> hierarchy. These path variables are not set by an ENVI 4.8
>> installation, so it's important to give IDL and ENVI the specific
>> directories in the same hierarchy level since GPULib won't work
>> properly if these setting were not made.
>
>> Regards
>
>> Chris
>
> Hi Chris,
>
> I've installed it with ENVI 4.8/IDL 8.0 too and it runs like a charm.
> I'd be interested to know how you're using it, e.g., area of
> application, speedups, etc.
>
> Cheers
>

> Mort

Hi Mort,
I'm using it in Remote Sensing and Image Processing, e.g. convolving a 2000x2000 sized image by a 100x100 sized kernel is 6 times faster by GPU FFT compared to 'classic' FFT on my Dell Precision M4400 laptop. Besides, the time consumption for the GPU FFT on my laptop is similar to one of our server with about 40 GHz :)
Unfortunately, I have always to decide beforehand whether it will fit in the GPU memory or not. So, if you have large matrices where you really benefit GPU computing you are limited to available GPU memory. To overcome this limitation, we bought something like a 'GPU supercomputer' which has 2 very fast TESLA cards and 6 GB GPU memory. We will test next time, what speedups we can achieve if we simulate, e.g., spectra or sensors - here at GFZ Potsdam. I hope, that ITT and Tech-X will integrate GPU computing facilities in future ENVI and IDL versions, so we don't have to care on GPU related programming syntax.

BTW, I also use some of your well programmed remote sensing routines.

Cheers,

CR