
Subject: Re: Passing an array from IDL to MPI

Posted by [Miska Le Louarn](#) on Mon, 21 Jan 2002 15:38:08 GMT

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>
> You might want to consider another solution to obtain rapid 2-D FFTs taking
> advantage of multiple CPUs. This is to use the Intel Math Kernal Library
> (MKL) routines. These are free, highly optimized for Intel CPUs, and take
> advantage of multiple CPUs if they are present. I have written tomography
> reconstruction code that is accessed via CALL_EXTERNAL from IDL, and uses
> this library. The MKL speeded things up a factor of 3-4 compared to non-MKL
> FFT routines. The latest version of the MKL is available for Linux as well
> as Windows.
>

Yes, that is a solution. Another one is to use IDL 5.5 which includes
some parallel processing support (FFT is threaded).

MKL is also nice but not really portable. Even AMD processors (which
provide a cheaper way to build fairly fast machines) are not MKL
compatible...

However, these approaches allow "only" a gain of a factor of 2 with
"cheap architectures". More than 2 CPUs on one motherboard is usually
really expensive.

I was planning to use 5-10 CPUs, so threading is not really an option.

Thanks for your help thought.

Miska

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