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Subject: Re: Passing an array from IDL to MPI  
Posted by [ronn](#) on Mon, 14 Jan 2002 12:18:15 GMT  
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in article 3C428D26.1080405@eso.org, Miska Le Louarn at lelouarn@eso.org  
wrote on 1/14/02 2:47 AM:

> Hi all IDL / parallel computing experts !  
>  
> I am trying to integrate a piece of MPI-code written in C into my IDL  
> program.  
> I have a cube of data produced in the IDL code, which needs to be  
> Fourier transformed. So I want to write a little MPI program (in C)  
> which uses several CPUs to compute the FFT of each plane in the cube.  
> My problem is that I need to pass the data cube to the MPI program. This  
> would not a problem with a plain C program (a simple call\_external would  
> do the trick), but MPI likes to be launched with the "mpirun" command  
> which initializes all the parallel stuff.  
>  
> Any ideas ?  
> Of course I could write the data cube to a file from IDL. I could then  
> spawn the mpirun process from IDL and have the MPI code read the file.  
> But I think there is a significant loss of time doing that. Plus it's  
> not very elegant...  
>  
> I hope someone has an idea...

Hi Miska,

I have written an IDL interface to PVM (another parallel processing system)  
so it is possible to do. PVM must also be initialized with a function call  
that returns some parameters. You then spawn off the child processes with  
these parameters as part of the call.

What this means is that you have to write a multi-function dll that contains  
all the interface routines that you need.

Hope this helps.

-Ronn

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"Application Development with IDL" 1½ programming book updated for IDL5.5!

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