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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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Ronn Kling  
KRS, inc.

email: [ronn@rlkling.com](mailto:ronn@rlkling.com)

"Application Development with IDL" ½ programming book updated for IDL5.5!

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