Subject: IDL and MPI
Posted by Karl Young on Mon, 10 May 1999 07:00:00 GMT

I've been making various attempts at "parallelizing" IDL (maybe an oxymoron forevermore !) with no luck. E.g. I tried using a callable IDL program as the interface to a multiprocessor program (written with MPI library calls) on a Sun HPC 3500 system. The program compiled but didn't run because of an apparent incompatibility between the multiprocessor environment and the shareable library containing the callable IDL functions. Since a lot of the people that participate in this group are a lot more clever than I am I thought I'd ask the general question: Has anybody been able to use IDL in conjunction with MPI (or PVM or any other parallel library), and if so how did they do it ? Thanks for any suggestions (and I'll be happy to summarize any replys)

-- KY

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Subject: Re: IDL and MPI
Posted by Nathaniel Livesey on Fri, 14 May 1999 07:00:00 GMT

Ah a like mind!

  I have written a set of IDL wrappers for PVM3. I considered posting to this group and the pvm group to say I had done so, but decided people would just think I must be mad, and should be using Fortran or whatever (which I know I should, but I guess I'm lazy and too used to IDL.)

  As well as wrapping the PVM calls, I also wrote a higher level `SendIDLVariable' routine which decomposes any IDL variable (structures, nested structures etc.) and sends it to another IDL process by PVM. If people are interested I could knock these routines into shape and send them out.

  I've not looked into MPI, though I may do so in the future.

Feel free to contact me if you want these.

Nathaniel

-- -------
Nathaniel Livesey - Microwave Limb Sounder group.
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          4800 Oak Grove Drive, Pasadena, California 91109.
    Telephone: [+1] (818) 354 4214 (+voice mail),
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        Email: livesey@mls.jpl.nasa.gov
-- -------

Subject: Re: IDL and MPI
Posted by Liam Gumley on Mon, 17 May 1999 07:00:00 GMT
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David Fanning wrote:
> Uh, could someone tell the oldsters in the group what PVM is!?

Well, http://www.pvm.org ain't it.

http://www.hpc.gatech.edu/Emily.Crawford has a nice introduction.

Cheers,
Liam.

Liam E. Gumley
Space Science and Engineering Center, UW-Madison
http://cimss.ssec.wisc.edu/~gumley

Subject: Re: IDL and MPI
Posted by davidf on Mon, 17 May 1999 07:00:00 GMT
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Liam Gumley (Liam.Gumley@ssec.wisc.edu) writes:

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>> `SendIDLVariable' routine which decomposes any IDL variable (structures,
>> nested structures etc.) and sends it to another IDL process by PVM. If
>> people are interested I could knock these routines into shape and send them
>> out.
>

> I for one would like to encourage you to make these routines available.

Uh, could someone tell the oldsters in the group what PVM is!?

:-(

David
--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: IDL and MPI
Posted by Liam Gumley on Mon, 17 May 1999 07:00:00 GMT
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Nathaniel Livesey wrote:
>   I have written a set of IDL wrappers for PVM3. I considered posting to
> this group and the pvm group to say I had done so, but decided people would
> just think I must be mad, and should be using Fortran or whatever (which
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> out.

I for one would like to encourage you to make these routines available.

Cheers,
Liam.

Liam E. Gumley
Space Science and Engineering Center, UW-Madison
http://cimss.ssec.wisc.edu/~gumley

Subject: Re: IDL and MPI
Posted by davidf on Wed, 19 May 1999 07:00:00 GMT
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Larry Busse (ljb@ljbdev.com) writes:

> BTW...I guess your only as old as you feel.

Oh, please, Larry. Don't be telling me that. :-(

Cheers,

David

P.S. Let's just say that with the nice weather I've been
playing more tennis and I'm *feeling* older than ever.
On the other hand, my young pup of a son is having a hell
of a time with my serve. :-)

--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: IDL and MPI
Posted by Larry Busse on Wed, 19 May 1999 07:00:00 GMT

David Fanning wrote:
>
> Liam Gumley (Liam.Gumley@ssec.wisc.edu) writes:
>
>>>   As well as wrapping the PVM calls, I also wrote a higher level
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>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting
> Phone: 970-221-0438 E-Mail: davidf@dfanning.com
> Coyote's Guide to IDL Programming: http://www.dfanning.com/

> Toll-Free IDL Book Orders: 1-888-461-0155

David,

PVM stands for Parallel Virtual Machine. It's a way to use a bunch of
networked computers to work on your problem in parallel. Check out
http://www.epm.ornl.gov/pvm/ for the official doctrine.

BTW...I guess your only as old as you feel.

--
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