Subject: Re: To PVM or not to PVM

Posted by Craig Markwardt on Tue, 07 Dec 2004 05:06:05 GMT

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Robert Barnett <retsil@zipworld.com.au> writes:

- > Hi.
- >
- > This post is about Parallel Virtual Machine (PVM). PVM is useful for
- > creating distributed computing clusters. Using clusters a high
- > computational load can be split up amongst many processors on a
- > network. More information about PVM is avilable from
- > http://www.csm.ornl.gov/pvm/pvm_home.html.

My question is simple. Why would you spend your valuable time changing from a system that works (I gather), to a system that you'd have to learn from scratch, and that may or may not work? I'm not trying to be facetious. Some people like a challenge, but there has to be some other reward, no?

Craig

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: To PVM or not to PVM

Posted by Liam Gumley on Tue, 07 Dec 2004 15:30:04 GMT

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The following site may be of interest:

http://www.txcorp.com/products/FastDL/

Cheers,

Liam.

Practical IDL Programming

http://www.gumley.com/

Subject: Re: To PVM or not to PVM

Posted by Robert Barnett on Tue, 07 Dec 2004 22:44:10 GMT

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I guess I don't know much about parallel computing. I think the better question to ask is:

Is playing musical chairs with IDL save files a good idea, or is it plagued with concurrency, scalability and usability issues?

Having a quick look at the FastDL site, they have made quite a nice application which also plays musical chairs with sav files. It appears to work fine and probably is not a bad way to approach the problem.

I like my own solution better than FastDL because I'm very vigilant about cross platform issues. I also don't need or want a GUI because I'll probably incorporate the distributed part into the end product.

I should probably start releasing code before I talk any more about this.

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Subject: Re: To PVM or not to PVM
Posted by ronn on Thu, 09 Dec 2004 12:09:15 GMT
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Hi Robbie.

I am the one that wrote the IDL to PVM interface and I use it on a mixed network everyday. I decided to use PVM since it had a book on the how to use it and making a dll for IDL was fairly simple.

You are right about having to compile PVM on each platform and having to use rsh on windows. But once you do it, it is done and you can forget about it.

As far as IDL not being multithreaded, that is true. But you aren't doing multi thread with IDL_PVM, you are doing multitasking which works

fine. In fact using my IDL interface to PVM is actually a bit easier than standard PVM since IDL always knows the type of data that is being sent back and forth. In standard PVM code you have a separate call for each data type. Finally, with IDL_PVM your slave processes can either be IDL save files or C executables.

Ronn Kling

KRS, inc.

email: r...@rlkling.com

Use these books to upgrade your IDL skills.

"Application Development with IDL"

"Calling C from IDL, Using DLM's to extend your IDL code". SECOND

EDITION includes C++ and debugging!

"Power Graphics with IDL, A Beginner's Guide to Object Graphics",