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Subject: Re: Shared memory between several IDL processes  
Posted by [Richard French](#) on Sat, 23 Dec 2006 21:13:45 GMT  
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In answering part of my question, I see that the IDL\_IDLBridge will go a fair way towards my goal, but as I understand it, it is restricted to separate IDL processes on a single machine. What would be ideal would be to have the IDL\_IDLBridge be set up in such a way that one could initiate IDL sessions on other machines as well. Of course, one couldn't use shared memory in such a case, but it would make it much easier for people with several licensed machines in their labs to tie them together. Does anyone know of a way to do this now? Xgrid on OSX allows machines to work together, but not within IDL. PVM works on OSX and in IDL, and I'm thinking of a hybrid system of having each remote host spawn several IDL bridges locally, equal to the number of processors on the machine. Thoughts on this, anyone? In my case, it could lead to a factor of 10 increase in overall speed, if I can get it to work.

Thanks for any suggestions or cautions!

Dick French

On 12/23/06 1:39 PM, in article C1B2E202.9B83%rfrench@wellesley.edu, "Richard G. French" <rfrench@wellesley.edu> wrote:

> I'm searching for a way to take advantage of the multiple processors on my  
> new OSX Xserve box (4 processors) and MacPro workstation (another  
> 4-processor box) to speed up some lengthy calculations. I've started looking  
> into using PVM ( [http://www.epm.ornl.gov/pvm/pvm\\_home.html](http://www.epm.ornl.gov/pvm/pvm_home.html)) using Ronn  
> Kling's nifty IDLtoPVM interface  
> (<http://www.kilvarock.com/software/idltopvm.htm>) that I now have working  
> under OSX (both the old chips and intel), but I'm trying to find a way to  
> avoid having to pass lots of data across the connections.  
>  
> Has anyone set up a system with, say, four separate IDL processes on a  
> single machine with 4 processors, and found a convenient way to share memory  
> and tasks between them? What I'd like to do is to find an easy way to  
> communicate between the 4 IDL processes (perhaps using PVM) without having  
> to send lots of data across the pipes. Suggestions, anyone?  
>  
> I'm also looking into FastDL, but I want a bit more experience with the less  
> expensive alternatives first.  
>  
> Thanks,  
>  
> Dick French  
>

Subject: Re: Shared memory between several IDL processes

Posted by [Pierre V.](#) on Sun, 24 Dec 2006 01:37:22 GMT

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You might try using sockets for interprocess communication. Have a look at this thread:

[http://groups-beta.google.com/group/comp.lang.idl-pvwave/browse\\_thread/thread/ec990d0d671264c9](http://groups-beta.google.com/group/comp.lang.idl-pvwave/browse_thread/thread/ec990d0d671264c9)

One of the entries mentions an undocumented feature of IDL 6.3 where you can listen on a socket as a server. The nice thing about sockets is they work the same whether your processes are on the same machine or on multiple machines. Like you say, shared memory and the IDL bridge are only useful if you are staying on the same machine.

-Pierre

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