
Subject: Re: Parallelise FOR loop in IDL

Posted by [Vincent Sarago](#) on Mon, 19 Sep 2011 13:58:35 GMT

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Hi Robin,

You may have a look on : <http://www.ittvis.com/Default.aspx?tabid=1540&id=1306>

I never used it, but it might works.

You can also look to :

http://www.ittvis.com/portals/0/whitepapers/IDL_MultiThread.pdf

<http://slugidl.pbworks.com/w/page/29199259/Child%20Processes>

Cheers,

Vincent,

On 19 sep, 14:55, Robin Wilson <ro...@rtwilson.com> wrote:

```
> Hi,
>
> I have some IDL code like the following, which implements a Monte Carlo
> ray-tracing model:
>
> FOR i = 0, 1000 DO BEGIN
>     ; Start a new ray from source
>     ; Do all sorts of complicated processing on it
>     ; Record where it lands
> ENDFOR
>
> I want to be able to run it for more iterations while still keeping it
> fairly fast. If I was writing this in C I'd use OpenMP to split the
> iterations of the loop between the available cores (as they are
> independent) and then use a reduction to join all of the records of
> where the rays end up together.
>
> Is there any way to do anything like this in IDL? I've seen FastDL but
> that seems to use MPI instead (not quite what I want...) and
> unfortunately doesn't appear to be available free for academics.
>
> Any ideas?
>
> Robin
>
> -----
> Robin Wilson
```

> A PhD student studying complexity in remote sensing www.rtwilson.com/academic

Subject: Re: Parallelise FOR loop in IDL

Posted by [H. Evans](#) on Tue, 20 Sep 2011 14:29:37 GMT

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On Sep 19, 3:58 pm, Vincent Sarago <vincent.sar...@orange.fr> wrote:

> Hi Robin,

>

> You may have a look on :<http://www.ittvis.com/Default.aspx?tabid=1540&id=1306>

>

> I never used it, but it might works.

>

yes, this can be used in this context. It creates multiple bridge objects that can run on different cores of a machine.

The memory is shared between the bridge processes, and so you are limited to simple data structures (no objects or structures, but you can use arrays of int, real, double, etc.). Although for the complex data structures, it is possible to save the input/output data structures in a save file, restore them in the bridge session, run the processing on it, save the outputs in save files and restore them back in the main session.

I've used it many times, but since a cock up in the installation of IDL v8.0, it no longer works on our main CPU machines (32 core machines). Although it does still work on the IDLv7.2 on these machines. I have not been able to work out why IDL v8.0 doesn't start the Bridge process.

H.

Subject: Re: Parallelise FOR loop in IDL

Posted by [MarioIncandenza](#) on Mon, 26 Sep 2011 05:48:56 GMT

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On Sep 20, 10:29 pm, "H. Evans" <bloggs...@googlemail.com> wrote:

> I've used it many times, but since a cock up in the installation of

> IDL v8.0, it no longer works on our main CPU machines (32 core

> machines). Although it does still work on the IDLv7.2 on these

> machines. I have not been able to work out why IDL v8.0 doesn't start

> the Bridge process.

I don't have anything to add about this problem, but I was wondering, can someone explain the software license implications of using the IDL:IDL bridge for parallelization? Can I spawn as many IDL as I want with my single license?

Thanks,

--Edward H.
