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Subject: Parallelise FOR loop in IDL

Posted by [Robin Wilson](#) on Mon, 19 Sep 2011 12:55:15 GMT

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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

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Robin Wilson  
A PhD student studying complexity in remote sensing  
[www.rtwilson.com/academic](http://www.rtwilson.com/academic)

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Subject: Re: Parallelise FOR loop in IDL

Posted by [Kenneth P. Bowman](#) on Tue, 20 Sep 2011 14:21:27 GMT

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In article <j57e3h\$9sv\$1@speranza.aioe.org>,  
Robin Wilson <[robin@rtwilson.com](mailto:robin@rtwilson.com)> wrote:

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> independent) and then use a reduction to join all of the records of  
> where the rays end up together.
```

If it is trivially parallel, why not run, for example, ten separate IDL jobs with

```
FOR i = 0, 99 DO BEGIN ...
```

Simple minded, but probably much easier to implement than a true parallel solution.

Ken Bowman

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