Subject: Re: Help: Coding iterative algorithm elimimating loops in IDL/PV~WAVE
Posted by thompson on Fri, 11 Sep 1992 14:41:00 GMT
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In article <BuBCF5.IEC@breeze.rsre.mod.uk>, jvb@uk.mod.hermes writes...

> Has anyone got an idea how to implment the following algorithm in IDL/PV~WAVE
> that DOESN'T use for loops. The reason for the avoidance of for loops is
> because, as everyone should know, for loops are slow. ...

I haven't put the time in to entirely understand your application, but when you say ...

> 4) Repeat steps 1 to 3 until the total error is acceptably small, or doesn't
> change significantly

and

> 2) Is there a fast way to implement iterations in IDL/PV~WAVE, ie one that
> avoids do loops?

I would have to say no. At some point you have to decide whether or not you've converged, or whether you have to reiterate. At that point you have to loop. IDL does have tricks to avoid explicite loops in certain common vector manipulations, but when you add a completeness test, then you can't avoid looping for each reiteration.

I'm assuming that you have a large number of reiterations to process, but that the code has been optimized so that you're not looping within the iteration, or otherwise have inefficient code.

Bill Thompson