In article <thompson.770999856@serts.gsfc.nasa.gov>, thompson@serts.gsfc.nasa.gov (William Thompson) writes...
> super295@pop.uky.edu (Robert G. Buice, Jr.) writes:
>
>> I have a demo of IDL an am considering buying it. I currently use
>> Speakeasy and Mathematica and am very happy with Speakeasy, but not
>> with support from the Speakeasy company. I want to replace Speakasy
>> with Mathematica, Matlab, or IDL and was wondering if I could get some
>> opinions. I want to do number crunching and I hear that IDL is mostly
>> imaging software. Actually I am very happy with Mathematica, but it
>> seems to solve the same preoblems as speakasy 100X more slowly on the
>> same machine. Thanks
>
> It depends on what you mean by "number crunching". I don't think it's fair to
> say that IDL is mostly for imaging, although it does it very well. It would
> fairer to say that IDL is designed and optimized for working with scientific
> data in all forms. It's highly flexible and easy to program in.
>
> I've never run across Speakeasy, but my impression of Mathematica and Matlab
> are that they are more optimized for expressing mathematical relationships than
> IDL is, but less for working with real (i.e. grungy) data. It all depends on
> the kinds of problems you want to solve.
>
> In terms of performance, in my experience IDL puts very little overhead on a
> calculation AS LONG AS ONE PROGRAMS IT PROPERLY. The secret is avoiding loops.
> Under many circumstances one can avoid explicit loops completely.
>
> Hope this helps,
>
> Bill Thompson

I agree with Bill's post. However, I would add the caveat that one area
in which IDL has problems is memory management. You can get bitten by
memory fragmentation if you are manipulating many large arrays.

Rich Isaacman