Subject: Re: array multiplying (for a change)
Posted by JD Smith on Tue, 17 Feb 2004 20:18:47 GMT
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On Tue, 17 Feb 2004 10:21:04 -0600, Craig Markwardt wrote:

>
> "Christopher Lee" <cl@127.0.0.1> writes:
>> What I want is result = a * b'
>> where b' = rebin(reform(b, [1,20,1]), 10,20,30)
>> , which (clearly :) I know how to do in principle.
> ...
>> Are there any functions, buit-in or otherwise, that I can use? I found
>> CMAPPLY, which I can beat into a form which works. (I use a similar
>> function now but it's very _VERY_ bad code).
>>
>> A quick test using loops versus rebin/reform of the shows loops to be
>> slower (for a matrix 72,36,31,200) which I'm not really surprised by. Is
>> this a case where a DLM would be faster?

I can think of almost no case where a DLM wouldn't be faster; the real questions is, is a DLM faster by a large enough margin to make it worth it?

> My philosophy is that DLMs are almost always bad, unless you are
> developing an embedded system. They tie you to a particular version
> of IDL and a particular OS and architecture. They are rather difficult
> to debug, and making changes is rather laborious. DLMs = bleccchhh.

That may be true to some extent, but I have a method for calling compiled C code automatically within IDL which is, as far as I can tell, as portable as possible. The MAKE_DLM routine allows you to invoke a standard compiler to produce a shared executable library. A few other tricks then check that the compilation succeeded, and execute the compiled code (I usually just use CALL_EXTERNAL). Is this guaranteed to work? No, of course not. The compiler could be mis-configured or missing. But it does provide a decent degree of portability, and completely relieves the end-user from having to know which end of a compiler is up. The AUTO_GLUE functionality makes it easy to call existing functions (e.g. N.R.) without too much trouble. In my case, I include an equivalent but slow version of the algorithm coded in IDL, which I use as a fall-back if the compilation fails.

JD