Subject: Re: x*x versus x^2
Posted by Bruce Bowler on Wed, 09 Jul 2008 16:57:13 GMT
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On Wed, 09 Jul 2008 09:43:27 -0700, Conor wrote:

> On Jul 9, 12:32 pm, Conor <cmanc...@gmail.com> wrote:
>> So I've been looking at execution time for various algorithms, and I
>> found this interesting result:
>>
>> bigarr = fltarr(1000,1000)
>>
>> t1 = systime(/seconds)
>> t = bigarr^2.0
>> t2 = systime(/seconds)
>> t = bigarr*bigarr
>> t3 = systime(/seconds)
>>
>> print,t2-t1
>> print,t3-t2
>>
>> IDL prints:
>>
>> 0.024163008
>> 0.010262012
>>
>> Apparently multiplying an array by itself is twice as fast as using the
>> carat operator! Anyone know why this is? Is it a memory issue or
>> something?
>
> This also holds true for array's smaller than the multi-threading
> minimum size, so it isn't because multi-threading is being used in one
> case but not the other...

Digging into the deep dark recesses of my brain...

exponentiation with a real exponent generally uses the log function to do it's thing. *some* language implementations are smart enough that if the exponent is an integer, they decompose the exponentiation into multiplication.

It might be worth trying your experiment with t=bigarr^2 and see how the results change.

Bruce