Subject: Re: () and execution speed
Posted by Ken Mankoff on Fri, 29 Jul 2005 16:27:27 GMT
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On Fri, 29 Jul 2005, Gert wrote:
> I just played with and array of structures, each structure
> containing a (float) images. If i do
>
> SomeProc, psData[NumStruct].flIm[1:1000]
>
> or
>
> SomeProc, (psData[NumStruct].flIm)[1:1000]
>
> then the result is the same, but the second runs much slower.
> Anyone knows why this is so? My guess is that in the second run, a
> copy of the array is made.

Sounds like a good guess. A compiler optimization might be able to catch the above special case, but () changes the precedence. You could have (x[y].z +1)[42] so direct memory access won't work.

> I would be interested to find out if there are more 'pitfalls' out
> there.
TVSCL? The decompose keyword to DEVICE?

-k.

Subject: Re: () and execution speed
Posted by David Fanning on Fri, 29 Jul 2005 16:41:31 GMT
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"Gert" <Gert.VandeWouwerNO @ SPAM.com> writes:

> I just played with and array of structures, each structure containing a
> (float) images.
> If i do
>
> SomeProc, psData[NumStruct].flIm[1:1000]
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> then the result is the same, but the second runs much slower. Anyone knows
> why this is so? My guess is that in the second run, a copy of the array is
> made.

Yes, the parentheses are creating a temporary copy to be
subscripted, I think.

> I would be interested to find out if there are more 'pitfalls' out there.

Oh, goodness. Then I would make a daily practice out of
consulting this newsgroup. You will be surprised what you
learn. :-)

Here are some examples:

http://www.dfanning.com/code_tips/asterisk.html
http://www.dfanning.com/code_tips/slowloops.html
http://www.dfanning.com/tips/forloops.html
http://www.dfanning.com/tips/forloops2
http://www.dfanning.com/ographics_tips/slowrendering.html

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
