Subject: Re: Strange problems with IDL on my PC (memory allocation and 3d rendering)
Posted by karo on Tue, 26 Apr 2005 15:43:50 GMT
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Interesting:
My Win XP Laptop (1GB RAM) shows
memtest
    1048576 2146435072
Memory block # 1: 1005 Mb (total: 1005 Mb)
Memory block # 2: 186 Mb (total: 1191 Mb)
Memory block # 3: 156 Mb (total: 1347 Mb)
Memory block # 4: 133 Mb (total: 1480 Mb)
Memory block # 5: 116 Mb (total: 1596 Mb)
Memory block # 6:   63 Mb (total: 1659 Mb)
Memory block # 7:   37 Mb (total: 1696 Mb)
Memory block # 8:   26 Mb (total: 1722 Mb)
Memory block # 9:   23 Mb (total: 1745 Mb)
Memory block #10:   23 Mb (total: 1768 Mb)

My PowerMac (2.5GB RAM) shows
memtest
;   1048576 2146435072
;Memory block # 1: 1878 Mb (total: 1878 Mb)
;Memory block # 2: 767 Mb (total: 2645 Mb)
;Memory block # 3: 254 Mb (total: 2899 Mb)
;Memory block # 4: 130 Mb (total: 3029 Mb)
;Memory block # 5: 119 Mb (total: 3148 Mb)
;Memory block # 6:   70 Mb (total: 3218 Mb)
;Memory block # 7:   49 Mb (total: 3267 Mb)
;Memory block # 8:   35 Mb (total: 3302 Mb)
;Memory block # 9:   26 Mb (total: 3328 Mb)
;Memory block #10:   22 Mb (total: 3350 Mb)
(copied from Journal, since there where lots of error messages!)

Also a quite strange behaviour!

Concerning the rendering:
I think there is anywhere a note that software rendering is quicker
than hardware rendering (or I have heard it from the German RSI
support). Strange too however

Regards
Karsten

Subject: Re: Strange problems with IDL on my PC (memory allocation and 3d

rendering)
Posted by R.G. Stockwell on Tue, 26 Apr 2005 16:13:28 GMT
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"Roberto Ricci" <riccioberto@gmail.com> wrote in message
news:1114523827.506471.68020@f14g2000cwb.googlegroups.com...
> Dear all,
...
> 1. Despite, as I said, I can theoretically take advantage of plenty of
> RAM (4GB, but I think each different application can exploit only up to
> 2
>
> GB under Windows XP), my application happens to go frequently out of
> memory, especially when I try to allocate large arrays. Since I've
> always
>
> been making my best to limit memory leakage, I got suspicious and
> started experimenting with some memory allocation test IDL applications
> I found
>
> here and there - this newsgroup included. The results are discouraging:
> I found that I cannot achieve to allocate more than approximately 700
> MB

Roberto,
I have found the exact same problems. You are right, winxp has a
"theoretical"
max RAM allocation of 2gb for a process. However, there are randomly loaded
DLLs and other functions that badly fragment the ram. This seems to be a
characteristic of windows, not specifically IDL. Thus, the maximum single
array
you can get (under windows) is in the ballpark of 700 to 900 mb. (and
remaining arrays
are smaller still).
I have a similar machine (4gb ram), so I switched over to linux and use
Fedora core 3.
(you may have to set a flag to use the full 4gb of ram, I can dig up the
details if you need them)
There I can access almost the full 4 gb of ram, and there is still a
fragmenting problem,
but I can usually make 3 arrays of 1gb each.
Other than that, your only choice is to move to a 64 bit operating system.

Cheers,
bob

PS There has been some interestings posts on this subject.
see:

http://www.dfanning.com/fileio_tips/lgfiles.html

Subject: Re: Strange problems with IDL on my PC (memory allocation and 3d rendering)
Posted by R.G. Stockwell on Tue, 26 Apr 2005 16:16:38 GMT
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"R.G. Stockwell" <no@email.please> wrote in message
news:wMtbe.45$aA2.959@news.uswest.net...
...
> Cheers,
> bob
>
> PS There has been some interestings posts on this subject.
> see:
> http://www.dfanning.com/fileio_tips/lgfiles.html

Also see the thread titled
memory issues redux

http://groups-beta.google.com/group/comp.lang.idl-pvwave/bro
wse_thread/thread/3b71bac1190da7b/367589e9ce0bb0d4?tvc=2&amp
;q=r.g.+stockwell&hl=en#367589e9ce0bb0d4

Subject: Re: Strange problems with IDL on my PC (memory allocation and 3d rendering)
Posted by George White on Tue, 26 Apr 2005 17:18:49 GMT
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There has been discussion of Win32 memory management on the R-project
lists (if you don't already know, R is a very nice implementation of the S
stats language build on a lisp engine). R version 1.9.0 implemented a
new memory manager to deal with some of the Win32 issues allocationg large
objects.

What does GDL do?

--
George White <aa056@chebucto.ns.ca> <gnw3@acm.org>
189 Parklea Dr., Head of St. Margarets Bay, Nova Scotia B3Z 2G6

Subject: Re: Strange problems with IDL on my PC (memory allocation and 3d

rendering)
Posted by Rick Towler on Wed, 27 Apr 2005 16:41:50 GMT
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Roberto Ricci wrote:
> 2. The second problem is even more obscure... I noticed that I obtain
> better performances (half rendering times) by using software OpenGL
> (RENDERER=1) than hardware acceleration (RENDERER=0)!!!

A Quadro FX3000 is essentially an Geforce FX5900U which is quite a capable card. As you presume, you should see quite a difference between hardware/software rendering both in quality and speed.

> Please note that RETAIN is correctly set to 0

FWIW, I have a Geforce FX6600 GT and I have retain set to 1 (IDL default for win32), have always had it set to 1, and have never had issues with hardware rendering performance (except with ATI cards but that is another thread). I would try changing this.

Are you running dual screens? In the nVidia performance and quality control panel there should be an option for "Hardware acceleration" which if you are running dual screens you'll want set to "Multi-display performance mode). You may have to check "Show advanced settings" to reveal this option.

Have you installed the latest nVidia Quadro drivers? Generally the reference drivers from nVidia are the best way to go unless you have very specific driver requirements.

HTH,

-Rick