
Subject: Re: Memory allocation problem

Posted by [Foldy Lajos](#) on Wed, 26 Nov 2008 16:20:38 GMT

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On Wed, 26 Nov 2008, kodark@gmail.com wrote:

> Hi all,
>
> I am a beginner-level user of IDL. Recently I run into the memory
> allocation problem: 'unable to allocate memory'. I loaded a large
> image (11820*11820, float, about 530M) into an array. Then when I
> tried to create two new arrays of the same size, the program said
> 'unable to allocate memory'.
>
> I have read a lot of articles about this problem on the net, but I
> still cannot solve this problem. My computer runs 32-bit Windows XP
> with 4GB RAM and I have assigned 10GB from hard drive to Virtual
> Memory. The virtual memory looks contiguous in the Disk Defragmenter
> program. I am curious about the following output.
>
> IDL> help,/memory
> heap memory used: 681301, max: 681324, gets: 765,
> frees: 413
>
> Then I executed the MemTest program provided by itvis
>
> % Compiled module: MEMTEST.
> Memory block # 1: 806 Mb (total: 806 Mb)
> Memory block # 2: 390 Mb (total: 1196 Mb)
> Memory block # 3: 214 Mb (total: 1410 Mb)
> Memory block # 4: 143 Mb (total: 1553 Mb)
> Memory block # 5: 66 Mb (total: 1619 Mb)
> Memory block # 6: 59 Mb (total: 1678 Mb)
> Memory block # 7: 56 Mb (total: 1734 Mb)
> Memory block # 8: 40 Mb (total: 1774 Mb)
> Memory block # 9: 27 Mb (total: 1801 Mb)
> Memory block #10: 23 Mb (total: 1824 Mb)
>
> It is obvious that the second largest block is less than 530M.
>
> Then
> IDL> help,/memory
> heap memory used: 685533, max: 1913289245, gets: 789,
> frees: 433
>
> The heap memory max increased from 681324 to 1913289245.
>
> I want to know why the virtual memory is not recognized and used? why

> the heap memory max changed?

>

A process can use at most 2 GByte memory on a 32-bit Windows system.
10 GByte virtual memory means that you can run five 2 GByte process in parallel.

regards,
lajos
