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Subject: Memory allocation problem

Posted by [kodark](#) on Wed, 26 Nov 2008 15:56:50 GMT

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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 ittviz

% 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?

Thank you.

Kodark

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