Subject: Re: How to make large array
Posted by renjie on Wed, 28 Mar 2001 18:33:05 GMT
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<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
<html>
I can make array around 1GB in WIN2000 as below:
<p>IDL> b=bytarr(1024,1024,512)

IDL> a=bytarr(1024,1024,512)

IDL> c=bytarr(1024,1024,512)

% Unable to allocate memory: to make array.

% Execution halted at: $MAIN$

IDL> help,/mem

heap memory used: 1074113975, max: 1074114003,
gets:
448, frees: 209

IDL> a=0

IDL> b=0

IDL> a=bytarr(1024,1024,1000)

IDL> help,/mem

heap memory used: 1048948020, max: 1074113975,
gets:
454, frees: 216

<p>renjie wrote:
<blockquote TYPE=CITE>The results below are obtained in WIN98, in WIN2000
I can make single array of 512MB, can someone explain it.
<p>renjie wrote:
<blockquote TYPE=CITE>
<blockquote TYPE=CITE>
<pre></pre>
</blockquote>

<p>
Below are my tests, though the heap memory can be increased till
the maximum of RAM+VM (my machine is 512MB+2GB), the

maximum size for a single arrary can not be larger than 256MB, I really
need to make array around 1GB, if anyboy can config out

what is wrong with my system. Thanks.
<blockquote TYPE=CITE>
<pre>IDL> b=bytarr(1024,1024,255)
IDL> help, /mem
heap memory used: 267652748, max: 535039712,
gets: 395, frees: 148
IDL> b=bytarr(1024,1024,256)
% Unable to allocate memory: to make array.
% Execution halted at: $MAIN$ &amp
;nbsp;   &amp ;nbsp;
IDL> help, /mem

heap memory used: 267652748, max: 267652776,
gets: 398, frees: 151
IDL> c=bytarr(1024,1024,255)
IDL> help, /mem
heap memory used: 535039699, max: 535039727,
gets: 402, frees: 154
IDL> d=bytarr(1024,1024,255)
% Unable to allocate memory: to make array.
% Execution halted at: $MAIN$ &amp
;nbsp;   &amp ;nbsp;
IDL> help, /mem
heap memory used: 535039699, max: 535039727,
gets: 405, frees: 157
IDL> d=bytarr(1024,1024,125)
IDL> help, /mem
heap memory used: 666111805, max: 666111833,
gets: 409, frees: 160</pre>
</blockquote>
Alex Schuster wrote:
<blockquote TYPE=CITE>renjie wrote:
<p>> I tried to make large array, however, in Windows,

> the largest I can made is 256MB, and in Unix is 1 GB,

> it's supposed that the limitation is 2GB, do you have any

> idea about the largest array in IDL?
<p>We habe encountered a problem with IDL and NT, where IDL is only able
to

allocate 800 MB of memory in one step, even if it can allocate more

memory afterwards. But 256 MB is much too low, presuming there is enough

physical+virtual memory.
<p>In Unix, I can allocate more than 1 GB:
<p>--> idl

IDL Version 5.2.1 (sunos sparc). (c) 1999, Research Systems, Inc.

Installation number: 80864-0.

Licensed for use by: MPI Forschung
<p>IDL> b=bytarr(1024,1024,1200)

IDL> help, /mem

heap memory used: 1258497902, max: 1258497930,
gets:
227,

 frees: &amp ;nbsp; 89
<p>The limit command tells you about the datasize you are allowed to

allocate, maybe this is set too low for you. And maybe there's a similar

setting for Windows?
<p>   Alex

--

  Alex Schuster   Wonko@weird.cologne.de

PGP Key available

alex@pet.mpin-koeln.mpg.de</blockquote>
</blockquote>
</blockquote>
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