
Subject: Re: How to allocate memory for an array of more than 2G

Posted by [Nigel Wade](#) on Thu, 15 Jul 2010 08:18:27 GMT

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On 14/07/10 23:14, NEW-IDL-USER wrote:

```
> Hi Bob,
>
> Thanks a lot!
>
> I cannot do this:
> IDL> a=bytarr(1024,1024,1024)
> IDL> b=bytarr(1024,1024,1024)
> IDL> c=bytarr(1024,1024,1024)
> IDL> d=bytarr(1024,1024,1024)
> IDL> help,/mem
> on my system. It is a 64 bit linux system and the memory is 64G.
> Is there a limitation of the virtual memory which is related to this
> one? If so, how can I do it?
>
```

What other processes is the system running? Just because there's 64GB of system RAM doesn't mean that anything like that is available to you. Other processes could have already used most of it.

Also, what per-process limits has the sys. admin. placed on you? Have a look at your ulimits to see.

```
-bash-3.00$ ulimit -a
core file size          (blocks, -c) 0
data seg size           (kbytes, -d) unlimited
file size               (blocks, -f) unlimited
pending signals         (-i) 1024
max locked memory       (kbytes, -l) 32
max memory size         (kbytes, -m) unlimited
open files              (-n) 1024
pipe size               (512 bytes, -p) 8
POSIX message queues    (bytes, -q) 819200
stack size              (kbytes, -s) 10240
cpu time                (seconds, -t) unlimited
max user processes      (-u) 150
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited
```

The "virtual memory" limit is the most likely one.

--

Nigel Wade
