Subject: Re: How to allocate memory for an array of more than 2G
Posted by R.G.Stockwell on Wed, 14 Jul 2010 03:45:28 GMT
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"NEW-IDL-USER" <mchen911@gmail.com> wrote in message
 news:c5a17126-f507-41bf-84d9-6260b9f0ec33@i18g2000pro.google groups.com...
> Hi,
> I have a trouble to read a .h5 file which is about 3G.
> I am using {x86_64 linux unix linux 7.1.1 Aug 21 2009 64 64} IDL. So
> you see, my system is 64 bit and IDL is also 64 bit. The problem I
> cannot allocate a memory for an array more than 2G. I do not know why?
> Can someone help me?
> Thanks a lot!
>
> IDL> help,/memory
> heap memory used: 818394, max: 1074560678, gets: 1069,
> frees: 258
> IDL> a=bytarr(1024,1024,1024)
> IDL> help,/memory
> heap memory used: 1074560268, max: 1074560367, gets: 1081,
> frees: 269
> IDL> a=bytarr(1024,1024,1024)
> % Unable to allocate memory: to make array.
> Cannot allocate memory

Hello New,
I have no idea why you cannot allocate that memory.
In fact, you call a = bytarr() twice, so it looks like you can
only allocate one gig. How much memory is on your machine?

And are there quotas involved on the IDL process (perhaps you should
ask your sys admin).

for instance, you should be able to 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
heap memory used: 4303438407, max: 4303438540, gets: 107997, frees:
98790
IDL> e=bytarr(1024,1024,1024)
IDL> f=bytarr(1024,1024,1024)
IDL> help,/mem
heap memory used: 6450922396, max: 6450922529, gets: 108015, frees:
98806

cheers,
bob

Subject: Re: How to allocate memory for an array of more than 2G
Posted by Karl[1] on Wed, 14 Jul 2010 19:14:16 GMT
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On Jul 13, 9:45 pm, "R.G. Stockwell" <noem...@please.com> wrote:
> "NEW-IDL-USER" <mchen...@gmail.com> wrote in message
>
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> cheers,
> bob

Quotas are a good thing to check. Also, check the page file size. A
small RAM size and small page file size will restrict the amount of
virtual memory your process can allocate. Increasing RAM would give
you the best-performing improvement. But you could theoretically add
a page file or expand an existing page file and still (slowly) solve
the problem.

Subject: Re: How to allocate memory for an array of more than 2G
Posted by minchen on Wed, 14 Jul 2010 22:14:19 GMT
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Hi Bob,

Thanks a lot!

I cannot do this:
IDL> a=bytarr(1024,1024,1024)
IDL> b=bytarr(1024,1024,1024)
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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?

Thanks a lot!

On Jul 13, 8:45 pm, "R.G. Stockwell" <noem...@please.com> wrote:
> "NEW-IDL-USER" <mchen...@gmail.com> wrote in message
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> bob- Hide quoted text -
>
> - Show quoted text -