
Subject: Unable to allocate memory
Posted by [Haje Korth](#) on Fri, 19 Nov 2010 14:47:58 GMT
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The message "unable to allocate memory" has become a frequent visitor in my console output on IDL 8.0.1 for Windows. Highly frustrating...

Subject: Re: unable to allocate memory
Posted by [greg.addr](#) on Tue, 22 May 2012 12:33:12 GMT
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Insert a line:

```
ec3=0
```

just before the problem line

Subject: Re: unable to allocate memory
Posted by [Russell Ryan](#) on Wed, 23 May 2012 00:10:50 GMT
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On May 22, 8:33 am, greg.a...@googlemail.com wrote:

```
> Insert a line:
>
> ec3=0
>
> just before the problem line
```

This is because you don't have enough memory (RAM) on your computer to do this. Roughly speaking a 10k x 10k image is around 0.5 Gb. You're loading a 1k x 1k x 300 image into memory (which is roughly 3 10k x 10k images in size), then you're allocating two more variables that is equal in size. Then you need at least ~4.5 Gb of memory.

Do you really need all that data in memory? I'm an astronomer, and it looks like you're reading a dark image and a bunch of images (presumably to reduce). If so, then let me suggest you work on each image in serial. So read the calib files (darks, flats, biases, etc.). Then load image 1, do the processing on that image, write it out, goto next image.

Russell

Subject: Re: Unable to allocate memory
Posted by [sivan](#) on Tue, 10 Sep 2013 20:43:13 GMT
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Thanks for the information.
I have missed the point.

On Tuesday, September 10, 2013 11:02:01 PM UTC+3, suicida...@gmail.com wrote:

> On Tuesday, September 10, 2013 1:57:48 PM UTC-6, sivan wrote:

>
>> Hi all,
>
>>
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>>
>
>>
>
>> I know there are plenty of topics corresponding to this problem but I did not find a clear answer.
>
>>
>
>> I wrote:
>
>>
>
>>
>
>>
>
>> IDL> logage=dblarr(1259200)
>
>>
>
>> IDL> number=91
>
>>
>
>> IDL> ologlum=9.0d*(findgen(number))/(number-1)-3
>
>>
>
>> IDL> loglm=dblarr(1259200)
>
>>
>
>> IDL> likelihood=dblarr(1259200)
>

```

>>
>
>> IDL> g1=transpose(ologlum##replicate(1d,n_elements(logage)))
>
>>
>
>> IDL> g2=loglm#replicate(1d,n_elements(logage))
>
>>
>
>> % Unable to allocate memory: to make array.
>
>>
>
>> Cannot allocate memory
>
>>
>
>> % Execution halted at: $MAIN$
>
>>
>
>>
>
>>
>
>> I also tried these:
>
>>
>
>>
>
>>
>
>> IDL> g1=transpose(temporary(ologlum##temporary(replicate(1d,n_elements(logage))))
>
>>
>
>> IDL> g2=temporary(loglm)#temporary(replicate(1d,n_elements(logage )))
>
>>
>
>> % Unable to allocate memory: to make array.
>
>>
>
>> Cannot allocate memory
>

```

```
>>
>
>> % Execution halted at: $MAIN$
>
>>
>
>>
>
>>
>
>> It doesn't change anything.
>
>>
>
>>
>
>>
>
>> I use Ubuntu 12.04.03 (amd64), 8GB RAM and IDL 7.1.1.
>
>>
>
>>
>
>>
>
>> I hope there is a solution to this problem.
>
>>
>
>> Thanks in advice,
>
>>
>
>> Sivan.
>
>
>
> The error message is pretty self-explanatory...you don't have enough memory.
>
>
>
> "#" performs a matrix multiplication. The number of elements in the result is the product of the
number of elements in the inputs. Your g2=loglm#replicate(1d,n_elements(logage)) command
would result in a 1259200x1259200 = 1585584640000 element array as the output. At double
precision (8 bytes per element), that would require nearly 12 TB (yes, terabytes) of RAM to hold.
```
