
Subject: "Unable to allocate memory" when using H5_parse iteratively

Posted by [robindesvolcans](#) on Mon, 21 Apr 2014 21:59:48 GMT

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Hi all,

I'm Robin, a new member on this group, using IDL to process satellite images for volcano monitoring.

I've written a code to process large number of data from the ozone monitoring instrument. These are HDF5 files weighing 28 Mb each.

The code interactively calls the H5_parse function to open the files and extract the necessary variables, which undergo some basic processing (gridding, mapping and calculating the total SO2 mass) The variables are overwritten at each loop iteration. However after 30-40 iterations the H5_parse function returns me the unable to allocate memory error message. It looks as if the H5_parse function was not emptying its temporary memory use, but when i look at the task manager's display of the memory use, it stays constant and low (20%).

Does someone have an idea of how to solve the problem?

Thanks a lot

robin

Subject: Re: "Unable to allocate memory" when using H5_parse iteratively

Posted by [David Fanning](#) on Mon, 21 Apr 2014 22:09:24 GMT

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robindesvolcans@gmail.com writes:

> I'm Robin, a new member on this group, using IDL to process satellite images for volcano monitoring.

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> Does someone have an idea of how to solve the problem?

You may be overwriting the variables, but it is extremely unlikely you are cleaning up all the pointers and other heap variables returned by the H5_Parse function. I would try doing this at the end of each file processed:

```
for j=0,whatever do begin
  h5data = HD_Parse(file[j])
  ...
```

```
Heap_Free, h5data
endfor
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: "Unable to allocate memory" when using H5_parse iteratively
Posted by [robindesvolcans](#) on Mon, 21 Apr 2014 23:40:50 GMT

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Hi David and Thank You for your reply.

I added this line in my code but unfortunately the problem remains. Indeed the memory use increases with time, and the error occurs when it reaches about 350 Mb (on a total of 2000) I tried processing the data by smaller bunches, but it happens that after processing without problem a smaller bunch of 05 files, the program bugs when i run it for processing the next one, for the same error.

Le lundi 21 avril 2014 17:09:24 UTC-5, David Fanning a écrit :

> robindesvolcans@gmail.com writes:

>

>

>

>> I'm Robin, a new member on this group, using IDL to process satellite images for volcano monitoring.

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>> I've written a code to process large number of data from the ozone monitoring instrument. These are HDF5 files weighing 28 Mb each.

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> Heap_Free, h5data
>
> endfor
>
>
>
> Cheers,
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
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> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: "Unable to allocate memory" when using H5_parse iteratively

Posted by [james.n.sweet](#) on Tue, 13 May 2014 15:20:24 GMT

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On Monday, April 21, 2014 5:40:50 PM UTC-6, robinde...@gmail.com wrote:

> Hi David and Thank You for your reply.

>

> I added this line in my code but unfortunately the problem remains. Indeed the memory use increases with time, and the error occurs when it reaches about 350 Mb (on a total of 2000)

>

> I tried processing the data by smaller bunches, but it happens that after processing without problem a smaller bunch of 05 files, the program bugs when i run it for processing the next one, for the same error.

>

> Hi,

I've had a possibly similar problem. When using h5 parse, the memory usage would increase as more files were processed. I informed envi but the didn't follow up. My solution was to use the h5 open/read/close functions explicitly rather than using h5 parse. It's a pain but it is faster than parse (in my case anyway) and the memory problem is gone.

Hope this helps!

Jim

>

> Le lundi 21 avril 2014 17:09:24 UTC-5, David Fanning a écrit :

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>> robindesvolcans@gmail.com writes:

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>
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>> endfor
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>> Cheers,
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>> David
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>> --
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>> David Fanning, Ph.D.
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