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Subject: Re: memory leak with HDF5?

Posted by [eddie haskell](#) on Mon, 25 Jul 2005 20:59:25 GMT

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Hello Peter,

I tried the same experiment here but got slightly different results.

Running IDL 6.1.1 on both 32- and 64- bit AIX I did see an increase in process size (as indicated by the spawned ps command) but only after every 5-10 files instead of every file, and then it was not as much as you are seeing. I tested it with 1000 different files but I did not appear to be in danger of running out of memory anytime soon.

Whilst not an immediate solution, waiting a little bit for IDL 6.2 (which is shipping any minute now) might solve your problem. When I run the test in IDL 6.2 I see a small increase in process size for the first 5-10 files then no increase after that.

Cheers,  
eddie

peter.albert@gmx.de wrote:

```
> Hi everybody,
>
> I am new to this group, and I am experiencing a strange memory leak
> when reading HDF5 files with IDL 6.1 (on a IBM-AIX machine). If I am
> running the following code fragment, with "files" being an array with
> filenames of HDF5 files, which all contain a "Data/Data1" dataset:
>
>
> for i = 0, n_files - 1 do begin
>   file_id = h5f_open(files[i])
>   nd = h5g_get_nmembers(file_id, "Data")
>   dataset_id = h5d_open(file_id, "Data/Data1")
>   dataset = h5d_read(dataset_id)
>   h5d_close, dataset_id
>   h5f_close, file_id
> endfor
>
> then the core image of the IDL process increases by approx. 400k in each
> loop, which means that after a sufficient large number of files I get
> the following error
>
> % Unable to allocate memory: to make array.
>   Not enough space
```

>  
>  
> I have to admit that I do not exactly know what "core image of the IDL  
> process" actually means, but that's what the manpage of the Unix "ps"  
> command tells me ... :-) I did put the following line before the  
> "endfor" statement:  
>  
> spawn, "ps axu | grep palbert | grep idl | grep -v grep"  
>  
> which actually showed me, among other info, well, the size of the core  
> image. And it just constantly increased.  
>  
> I also put a "help, /memory" there, of course, but this number kept  
> constant, so it is not IDL saving more and more variables or so.  
>  
> Now, the funny thing is, if I exclude the  
>  
> nd = h5g\_get\_nmembers(file\_id, "Data")  
>  
> command, then the core size increases much more slowly.  
> I have no idea what is going on here.  
>  
> Moreover, if I open the same file again and again, nothing happens.  
>  
> ??? I am completely lost.  
>  
> I would really like to run my code without crashing after a few hundred  
> files, so if anyone has an idea what is happening here, any comment  
> would be greatly appreciated.  
>  
> Best regards,  
>  
> Peter  
>

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