Subject: memory leak with HDF5?
Posted by peter.albert@gmx.de on Thu, 21 Jul 2005 14:30:29 GMT
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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 appro. 400k in each loop, which means that after a sufficent large number of files I get the follwoing 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
