Subject: Re: Readu, Writeu Causing Segmentation Fault
Posted by Maarten[1] on Mon, 07 Sep 2009 08:10:03 GMT
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On Sep 7, 6:21 am, "A.R." <alrom...@gmail.com> wrote:

> I have created rather large volumes (3-D binary arrays) in IDL that I
> save as unformatted data (i.e. writeu). When the volume gets above a
> certain size (around 2.2 GB) when I attempt to writeu or readu the
> volume, I am kicked out of IDL with a segmentation fault. I don't
> think it's a memory issue, I'm running 64-bit IDL on a 64-bit linux
> running redhat enterprise with 12 GB of ram.

Could it be a file-system issue? Or perhaps IDL uses 32-bit integers
somewhere for the internal file pointer, you never know...

> One workaround I've used for 'writeu' is to write to the file in
> chunks, by using a for loop to write each slice of the volume
> individually. This works for saving the volume, but then I have no
> way to re-open the volume in IDL without the readu segmentation fault!
>
> Anyone have any ideas for what could be causing this? I'm running IDL
> Version 6.2.
>
> I appreciate any suggestions/ideas you smart people might have! In
> the meantime, I'll continue banging my head against the wall over this
> one.

IDL 6.2 can just do this: use HDF-5 as an alternative to writeu/readu.
It will allow you to selectively write and read chunks of data,
without size limitations (note before you run out of 12 GB main
memory). HDF-4 won't let you write file of the size you apparently
need to use, neither will netcdf.

Be aware though that IDL 6.2 is the first version with write support
for HDF-5, and if I recall correctly, you may encounter some funny
features that have since been removed...

Best,

Maarten