Subject: Re: Readu, Writeu Causing Segmentation Fault
Posted by Wout De Nolf on Fri, 11 Sep 2009 08:51:35 GMT

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On Wed, 9 Sep 2009 14:41:58 -0700 (PDT), "A.R." <alromens@gmail.com>
wrote:

> In response to Wox (post below) I can also writeu that file, but for
> some reason when I have a large number of actual ELEMENTS in the
> volume (apparently not file size) is when I get the segmentation
> fault. And the magic number seems to be ~2,300,000,000 (~2^32) . . .
> coincidence? Doubtful. But how do I fix it?

data=make_array(4600000000LL,value=1b)
openw,lun,'c:\test.dat',/get_lun
writeu,lun,data
free_lun,lun

The memory allocation is fine (~4GB in memory), however the filesize
obtained is: 305032704 bytes = 4600000000LL-2LL^32 =
long(4600000000LL)

So there is indeed a 32bit limitation on the number of elements
written by writeu even on a 64bit system (IDL 7.1 doesn't crash
however).

Btw, reading the file doesn't crash either, it just reads the
305032704 available bytes and puts them in the 305032704 first
elements, no crashing or error messages:

data=make_array(4600000000LL,value=0b)
openr,lun,'c:\test.dat',/get_lun
readu,lun,data
free_lun,lun
print,total(data) eq long(4600000000LL)

I'd say: send ITTVIS a bug report.