Subject: Re: Problems reading binary files - pointer at 4096 gives EOF
Posted by davidf on Wed, 22 Mar 2000 08:00:00 GMT
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David Fanning (davidf@dfanning.com) writes:

> This is that same old file pointer bug Wayne Landsman
> alerted us to on at least two occasions now. I have
> *got* to make time to write some more articles for my
> web page. I'm forgetting more IDL these days than I
> have learned. :-(

Whoops! In digging through my old notes on this subject
I see that it was really Peter Mason who first reported
this to us about a year ago. My apologies to Peter,
along with my thanks to both Peter and Wayne for their
(apparently vain) attempt to keep us all up to date.

Cheers,

David

P.S. Just for the record, on Windows machines reading
binary data, the EOF function can cause weird file pointer
errors. The work-around is to add the /BINARY keyword to
the OPENR statement.

--
David Fanning, Ph.D.
Fanning Software Consulting
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Problems reading binary files - pointer at 4096 gives EOF
Posted by davidf on Wed, 22 Mar 2000 08:00:00 GMT
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Liam Gumley (Liam.Gumley@ssec.wisc.edu) writes:

> A simple test case worked fine for me in IDL 5.3 / Windows98:
>
> IDL Version 5.3 (Win32 x86). (c) 1999, Research Systems, Inc.
>
> IDL> openw, 1, 'zzz.dat' & writeu, 1, bytarr(16384) & close, 1
> IDL> openr, lun, 'zzz.dat', /get_lun
> IDL> point_lun, lun, 4096L

> IDL> print, eof(lun)
>   0
> IDL> info = fstat(lun)
> IDL> print, info.cur_ptr
>   4096
>
> Am I missing something?

You know what this is? It just occurred to me.

This is that same old file pointer bug Wayne Landsman alerted us to on at least two occasions now. I have *got* to make time to write some more articles for my web page. I'm forgetting more IDL these days than I have learned. :-(

Anyway, this program can be fixed by adding a BINARY keyword to the OPENR statement when you are reading the data.

Cheers,

David
--
David Fanning, Ph.D.
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Subject: Re: Problems reading binary files - pointer at 4096 gives EOF
Posted by Liam E. Gumley on Wed, 22 Mar 2000 08:00:00 GMT
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David Fanning <davidf@dfanning.com> wrote in message news:MPG.1342aea03d2e7a00989aa3@news.frii.com...
> Oliver Smith (osmith@dera.gov.uk) writes:
>
>> I'm working on a program which loads data from a structured binary file.
>> Each
>> file contains many sets of different data types, each data field is
>> preceeded by a header(int) and fieldlength (long) before the data
itself.
>> In order to read the files, I use a WHILE NOT EOF(file) loop as there is
no
>> indication of the last field in the file. I've hit a major problem with
>> this, the EOF test reports end of file whenever the file pointer is at

4096.
>
> Yikes! And I find the same problem in IDL 5.1, IDL 5.2.1, and IDL 5.3.1.
> I even find it if I use FSTAT to report the file pointer position.
>
> Please let us know what you find out, Oliver.

A simple test case worked fine for me in IDL 5.3 / Windows98:

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```
IDL> openw, 1, 'zzz.dat' & writeu, 1, bytarr(16384) & close, 1
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IDL> point_lun, lun, 4096L
IDL> print, eof(lun)
      0
IDL> info = fstat(lun)
IDL> print, info.cur_ptr
       4096
```

Am I missing something?

Cheers,
Liam.
PS: You might want to check out my binread and binwrite programs for reading
and writing binary data:
http://cimss.ssec.wisc.edu/~gumley/binarytools.html

Subject: Re: Problems reading binary files - pointer at 4096 gives EOF
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Oliver Smith (osmith@dera.gov.uk) writes:

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> preceeded by a header(int) and fieldlength (long) before the data itself.
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> indication of the last field in the file. I've hit a major problem with
> this, the EOF test reports end of file whenever the file pointer is at 4096.

Yikes! And I find the same problem in IDL 5.1, IDL 5.2.1, and IDL 5.3.1.
I even find it if I use FSTAT to report the file pointer position.

Please let us know what you find out, Oliver.

Cheers,

David

--
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Subject: Re: Problems reading binary files - pointer at 4096 gives EOF
Posted by Martin Schultz on Thu, 23 Mar 2000 08:00:00 GMT
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David Fanning wrote:

> P.S. Just for the record, on Windows machines reading
> binary data, the EOF function can cause weird file pointer
> errors. The work-around is to add the /BINARY keyword to
> the OPENR statement.
>

... and for the sake of platform independent programming, even Unixers
should
add this keyword (it doesn't hurt). And don't forget to include it if
you are opening F77_UNFORMATTED files.

Martin
--
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