
Subject: Re: Reading large Ascii files

Posted by [Martin Downing](#) on Tue, 30 Oct 2001 15:01:12 GMT

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Isa,

I cant reproduce your problem,

here is the output I get from the code below which does output/input of
12500 floats in one line

print, !version

{ x86 Win32 Windows Microsoft Windows 5.5 Beta Jun 20 2001 32 64}

IDL> ascii_io_large_test

values read incorrectly = 0

line length read = 100000

regards

Martin

```
=====
pro ascii_io_large_test
```

```
fn = !fpaths.tmp + "aio_test.txt"
```

```
; create output
```

```
a = findgen(12500)/1000
```

```
; write test file
```

```
openw, lun, fn, /get_lun, width = 500000L
```

```
; write two lines worth
```

```
printf, lun, a, format='(12500F8.3)'
```

```
printf, lun, a, format='(12500F8.3)'
```

```
close, lun
```

```
; define input variables
```

```
b= fltarr(12500)
```

```
line = ""
```

```
; read test file
```

```
openr, lun, fn, /get_lun, width = 10000L
```

```
readf, lun, format='(12500F8.3)', b
```

```
readf, lun, line
```

```
close, lun
```

```
; analyse data
```

```
ids = where(a ne b, count)
```

```
print, "values read incorrectly =", count
print, "line length read =", strlen(line)
```

```
end
```

```
=====
```

```
--
```

```
-----
```

Martin Downing,
Clinical Research Physicist,
Grampian Orthopaedic RSA Research Centre,
Woodend Hospital, Aberdeen, AB15 6LS.

"Isa Usman" <I.Usman@rl.ac.uk> wrote in message
news:9rma6a\$gbk@newton.cc.rl.ac.uk...

> Hello,

>

> I am trying to read a single row from a large file. The amount of numbers
per

> row is about 12500. So in IDL i have the following lines;

>

> readf, lun, format='(500F8.3)', ch1_val_s

>

> so that i only read 500 values at a time and it gives me the error;

>

> % Input line is too long for input buffer of 32767 characters.

>

> From what i can gather, IDL is trying to read the whole line first before
it

> puts it into the array. Can anybody suggest a way round this please.

>

> Thanks

>

> Isa Usman

>

>

>

Subject: Re: Reading large Ascii files

Posted by [Pavel A. Romashkin](#) on Tue, 30 Oct 2001 16:28:39 GMT

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How is ch1_val_s defined? Is it defined as a string?

There have been at least two times when READF buffer overflows were
brought up. Search Google newsgroup for "input buffer of 32767". In
brief, one solution is to use READU.

Cheers,

Pavel

Isa Usman wrote:

>
> Hello,
>
> I am trying to read a single row from a large file. The amount of numbers per
> row is about 12500. So in IDL i have the following lines;
>
> readf,lun,format='(500F8.3)',ch1_val_s
>
> so that i only read 500 values at a time and it gives me the error;
>
> % Input line is too long for input buffer of 32767 characters.
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> From what i can gather, IDL is trying to read the whole line first before it
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>
> Thanks
>
> Isa Usman

Subject: Re: Reading large Ascii files

Posted by [Med Bennett](#) on Tue, 30 Oct 2001 16:30:41 GMT

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Isa Usman wrote:

> Hello,
>
> I am trying to read a single row from a large file. The amount of numbers per
> row is about 12500. So in IDL i have the following lines;
>
> readf,lun,format='(500F8.3)',ch1_val_s
>
> so that i only read 500 values at a time and it gives me the error;
>
> % Input line is too long for input buffer of 32767 characters.
>
> From what i can gather, IDL is trying to read the whole line first before it
> puts it into the array. Can anybody suggest a way round this please.
>
> Thanks
>
> Isa Usman

Yes - I think in this situation you will have to use readu to read the whole

file in to a very long byte array and then use where and the various string commands to extract the data.

Subject: Re: Reading large Ascii files

Posted by [Isa Usman](#) on Tue, 30 Oct 2001 16:48:31 GMT

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Martin,

I decided to run your code on my machine with the only change being the file path and it is giving me a buffer error. This means that probably the problem is machine specific. See below

Thanks

Isa

{ x86 Win32 Windows 5.3.1 Feb 23 2000 }

```
IDL> .COMPILE "D:\Idl readfile\Programs\ascii_io_large_test.pro"
```

```
% Compiled module: ASCII_IO_LARGE_TEST.
```

```
IDL> ascii_io_large_test
```

```
% Format fills output buffer. Re-write as multiple I/O statements.
```

```
% Execution halted at: ASCII_IO_LARGE_TEST 11 D:\Idl  
readfile\Programs\ascii_io_large_test.pro
```

```
% $MAIN$
```

"Martin Downing" <martin.downing@ntlworld.com> wrote in message
news:ojzD7.29678\$GA.3999822@news2-win.server.ntlworld.com...

> Isa,

> I cant reproduce your problem,

> here is the output I get from the code below which does output/input of

> 12500 floats in one line

> print, !version

>

> { x86 Win32 Windows Microsoft Windows 5.5 Beta Jun 20 2001 32 64 }

>

> IDL> ascii_io_large_test

> values read incorrectly = 0

> line length read = 100000

>

>

> regards

>

> Martin

```

>
> =====
> pro ascii_io_large_test
>
> fn = !fpaths.tmp + "aio_test.txt"
>
> ; create output
> a = findgen(12500)/1000
>
> ; write test file
> openw, lun, fn, /get_lun, width = 500000L
> ; write two lines worth
> printf, lun, a, format='(12500F8.3)'
> printf, lun, a, format='(12500F8.3)'
> close, lun
>
> ; define input variables
> b= fltarr(12500)
> line = ""
>
> ; read test file
> openr, lun, fn, /get_lun;, width = 10000L
> readf, lun, format='(12500F8.3)', b
> readf, lun, line
> close, lun
>
> ; analyse data
> ids = where(a ne b, count)
> print, "values read incorrectly =", count
> print, "line length read =", strlen(line)
>
> end
> =====
> --
> -----
> Martin Downing,
> Clinical Research Physicist,
> Grampian Orthopaedic RSA Research Centre,
> Woodend Hospital, Aberdeen, AB15 6LS.
>
> "Isa Usman" <I.Usman@rl.ac.uk> wrote in message
> news:9rma6a$gbk@newton.cc.rl.ac.uk...
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>> readf,lun,format='(500F8.3)',ch1_val_s
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>>
>> Thanks
>>
>> Isa Usman
>>
>>
>>
>
>
>
>
```

Subject: Re: Reading large Ascii files

Posted by [Craig Markwardt](#) on Tue, 30 Oct 2001 17:24:11 GMT

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"Martin Downing" <martin.downing@ntlworld.com> writes:

```
> Isa,
> I cant reproduce your problem,
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> 12500 floats in one line
> print, !version
>
> { x86 Win32 Windows Microsoft Windows 5.5 Beta Jun 20 2001 32 64}
>
> IDL> ascii_io_large_test
> values read incorrectly = 0
> line length read = 100000
```

Hi Isa--

Your problem is definitely the lack of ability of your IDL version to read strings longer than 32767 characters. If you are stuck with your existing version of IDL, then you will have to do something else, like READU to read the data in, and then parse it in memory.

The reason Martin's example worked was that he was using IDL 5.5. According to the release notes for IDL 5.5, the 32767 character limit for strings was lifted, so you wouldn't have that particular problem if you upgraded. Now if you have a Mac and need long strings then you might be in trouble...

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
