Subject: Input line too long???
Posted by David Bowman on Wed, 19 Jul 2000 07:00:00 GMT
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Greetings all,

I have a data file that essentially contains a very long vector of floating point numbers. The file (written by a trusty old FORTRAN program) gives the number of elements in the record on the first line. The second line contains all the data, with each element separated by two spaces. For example:

.123348 .126664 .130130 .133735 .137486 and so on.

Now in the past I've read this data with no problem simply using

```
x=fltarr(n)
readf,1,x,format='(nF0)'
```

where n is the number of elements in the vector. However, I've recently tried to read in a much larger vector, and IDL chokes, saying:

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

The datafile in question contains 5856 elements (five of which are in my little example above). All told, there are 55278 characters in the line in question.

Nothing I've tried works... Reading in elements by element, with formatting, without formatting... I've even tried using the BUFSIZE keyword to OPEN, with no result. The IDL help says that I'm limited to reading in files smaller than 2^31 bytes, but I'm certainly well below that.

I'd love to simply rewrite the I/O section of the program that made the file to begin with, but I didn't write it and I don't have the source code.

Any Ideas? I'm using version 5.3 on a Mac G3 with 128 Mb RAM.

Thanks in advance...
David

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=- =-=-=-=-=-=-=-=-=-=
David Bowman "Smash forehead on keyboard to continue."
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Subject: Re: Input line too long???
Posted by Kenneth P. Bowman on Wed, 19 Jul 2000 07:00:00 GMT
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In article <19072000152308598 9%bowman@ipgp.jussieu.fr>, David Bowman
<bowman@ipgp.jussieu.fr> wrote:

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

We have this problem when the CR/LF translation isn't done correctly.

Ken Bowman

Subject: Re: Input line too long???
Posted by promashkin on Thu, 20 Jul 2000 07:00:00 GMT
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David Bowman wrote:
>
> [[This message was both posted and mailed: see
> the "To," "Cc," and "Newsgroups" headers for details.]]
>
> Pavel,
> Thanks, that worked like a charm! Is there any way of doing the
> same operation when the records are not all of the same length? Just
> curious.

David,
I tried to play with different byte lengths per record and it seems
pretty simple, as long as you know when the record length changes and
those changes are repetitive. Then, you could read the long string in
increments, like this:

;if a string is like:
;.1111 .2222 .3333 .4444 .55 .66 .1111 .2222 .3333 .4444 .55 .66 ... etc,

;then
x = strarr(4)
x[*] = '123456' ; 6-byte field, 4 of them
y = ['1234', '1234'] ; 4-byte field, 2 of them

```
while not EOF(unit) do begin
 readu, unit, x
 readu, unit, y
; Reassign X and Y to permanent array(s) to take them out of the loop
endwhile
```

If varying field lengths were not regularly distributed in the string,
I'd probably just open that file in a word processor and save it as text
with line breaks, then read formatted (READF) as floating point values.
Good solution for a lazy IDLer :-)
Cheers,
Pavel

Subject: Re: Input line too long???
Posted by David Bowman on Thu, 20 Jul 2000 07:00:00 GMT
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[[This message was both posted and mailed: see
the "To," "Cc," and "Newsgroups" headers for details.]]

Pavel,
Thanks, that worked like a charm! Is there any way of doing the
same operation when the records are not all of the same length? Just
curious.

david

In article <3975D9F7.7B28AC1B@cmdl.noaa.gov>, Pavel Romashkin
<promashkin@cmdl.noaa.gov> wrote:

> Hi David,
> I played with your example and I think I have a solution. The input
> buffer limitation is only in effect if you read formatted. I made a file
> by repeating your example line 2000 times, obtaining 10000 element line.
> Each record in your line is 8 bytes long, including a space. Try reading
> unformatted and it works perfectly:
>
> ; Make fake data file with 1 line
> ; with 10000 data entries and open it.
> openr, unit, 'test.txt', /get_lun
> ; Since you know the number of data points, make X:
> x = strarr(10000)
> ; Fill X with 8 byte strings.
> x[*] = '12345678'

> readu, unit, x
>
> Now you can convert X into float and use it.
> Cheers,
> Pavel
>

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=- =-=-=-=-=-=-=-=-=-=

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