
Subject: read a multi-line string in IDL? or, read numeric values sequentially without automatic <CR>?

Posted by [pcoelho.astro](#) on Fri, 31 Jan 2014 19:00:07 GMT

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hello everyone,

here is the problem. I need to read numeric values from an ASC file which doesn't have any predefined format. The only thing I know is the number of values I'm supposed to read. FORTRAN will read it as:

```
READ(12,*) (NV(J),J=1,NUMBER)
```

(the ASC file is like that because it is used by an old FORTRAN code)

The values can be in a multi-line string or not (example below). READF will read one number per line only. Read the whole line as a string and use STRSPLIT doesn't work because the whole data set might be multi-line. The number of values per line may also change (the format also).

Messy I know. Any tip or tricks?

many thx
Paula

For example, I need to read 197 than 33 numbers from a file like below:

```
0.00 2042.39 4058.52 6048.34 8011.79 9948.83 0.00 2042.39 4058.52 6048.34
8011.79 9948.83 11859.39 0.00 2042.39 4058.52 6048.34 8011.79 9948.83 11859.39
13743.42 0.00 2042.39 4058.52 6048.34 8011.79 9948.83 11859.39 13743.42 15600.88
2042.39 4058.52 6048.34 8011.79 9948.83 11859.39 13743.42 15600.88 17431.69 4058.52
6048.34 8011.79 9948.83 11859.39 13743.42 15600.88 17431.69 19235.81 21013.18 6048.34
8011.79 9948.83 11859.39 13743.42 15600.88 17431.69 19235.81 21013.18 22763.76 8011.79
9948.83 11859.39 13743.42 15600.88 17431.69 19235.81 21013.18 22763.76 24487.47
9948.83
11859.39 13743.42 15600.88 17431.69 19235.81 21013.18 22763.76 24487.47 26184.28
9948.83
11859.39 13743.42 15600.88 17431.69 19235.81 21013.18 22763.76 24487.47 26184.28
27854.12
11859.39 13743.42 15600.88 17431.69 19235.81 21013.18 22763.76 24487.47 26184.28
27854.12
29496.95 13743.42 15600.88 17431.69 19235.81 21013.18 22763.76 24487.47 26184.28
27854.12
29496.95 15600.88 17431.69 19235.81 21013.18 22763.76 24487.47 26184.28 27854.12
29496.95
31112.70 32701.31 17431.69 19235.81 21013.18 22763.76 24487.47 26184.28 27854.12
29496.95
31112.70 32701.31 34262.75 19235.81 21013.18 22763.76 24487.47 26184.28 27854.12
29496.95
```


> On Friday, January 31, 2014 8:00:07 PM UTC+1, pcoelh...@gmail.com wrote:

>>

>> READ(12,*) (NV(J),J=1,NUMBER)

>> (the ASC file is like that because it is used by an old FORTRAN code)

>>

>> ... READF will read one number per line only. ...

>

> False.

>

> NV=fltarr(NUMBER)

>

> openr, unit, filename, /get

> readf, unit, NV

> free_lun, unit

Don't you just love IDL! ;-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: read a multi-line string in IDL? or, read numeric values sequentially without automatic <CR>?

Posted by [Phillip Bitzer](#) on Fri, 31 Jan 2014 19:33:14 GMT

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And if you don't know the number of values in the file a priori, you can do this:

```
file = 'test.txt'
```

```
nLines = FILE_LINES(file)
```

```
strA = STRARR(nLines) ;define an array to hold the "raw" data
```

```
OPENR, lun, file, /GET_LUN
```

```
READF, lun, strA ;read in the "raw" data, i.e., the data as it is in the file
```

```
FREE_LUN, lun
```

```
strJ = STRJOIN(strA) ;join all the data to one line
```

```
nVal = N_ELEMENTS(STRSPLIT(strJ)) ;number of values
```

```
arr = FLTARR(nVal) ;an array to hold the numbers
```

READS, strJ, arr ;read 'em in

cgPlot, arr ;or whatever

Notice that this does not give the same number of elements that you provide. For example, I get 230 values....

Subject: Re: read a multi-line string in IDL? or, read numeric values sequentially without automatic <CR>?

Posted by [paulartcoelho](#) on Wed, 19 Feb 2014 12:33:24 GMT

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i was away from this since then. many thanks folks, will try it later today.
