
Subject: IDL Array with mixed formatting
Posted by [lucsmm](#) on Thu, 20 Aug 2015 18:10:32 GMT
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Hello All

I have a.txt that I am trying to read, and put into an array but it has mixed formats within the data (floats, and integers)

example of the line:

```
243.828293 133.196523 19.764000 0.030571 2 0.046510 7 0.149040 14 0.214297 12
```

This is how I am trying now to read it, but it doesn't work

```
OPENR, lun, file_name, /GET_LUN
nlines = FILE_LINES(file_name)
data=fltarr(11, nlines, /NOZERO)
line=[]
```

```
while not EOF(file_name) do begin & $
  READF,lun, line, FORMAT='( 3(F+10.6, X), $( F+8.6, 1X, I3))'
  data=[[data],[line]]
endwhile
```

Any suggestions ?

thanks

Subject: Re: IDL Array with mixed formatting
Posted by [Paul Van Delst\[1\]](#) on Thu, 20 Aug 2015 18:50:12 GMT
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Hello,

On 08/20/15 14:10, lucsmm@gmail.com wrote:

```
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>   data=[[data],[line]]
> endwhile
>
>
> Any suggestions ?

```

```

$ more test.dat
243.228293  2 0.046510 10 0.949040 14 0.114297
243.328293  3 0.046510 4  0.189040 24 0.214297
243.428293  6 0.046510 9  0.148040 34 0.314297
243.528293  7 0.046510 1  0.549040 44 0.414297
243.628293  9 0.046510 5  0.249040 54 0.514297

```

Suggestion #1

I use "ddread" (by Fred Knight) for this sort of thing:

```

IDL> x=ddread('test.dat',type=4)
% Compiled module: DDREAD.
% Compiled module: NLINES.
% Compiled module: TYPEOF.
% DDREAD: Read 5 data lines selecting 7 of 7 columns; skipped 0 comment
lines.

```

```

IDL> print, x
 243.228  2.00000  0.0465100 10.0000  0.949040 14.0000  0.114297
 243.328  3.00000  0.0465100 4.00000  0.189040 24.0000  0.214297
 243.428  6.00000  0.0465100 9.00000  0.148040 34.0000  0.314297
 243.528  7.00000  0.0465100 1.00000  0.549040 44.0000  0.414297
 243.628  9.00000  0.0465100 5.00000  0.249040 54.0000  0.514297

```

Suggestion #2

You can use ASCII_TEMPLATE and READ_ASCII:

```

IDL> q=ascii_template('test.dat')
% Compiled module: ASCII_TEMPLATE.

```

This starts up a gui that allows you to define a template with which to read the datafile in question

```
IDL> help, q
** Structure <2615468>, 10 tags, length=232, data length=229, refs=1:
  VERSION      FLOAT      1.00000
  DATASTART   LONG       0
  DELIMITER    BYTE      32
  MISSINGVALUE FLOAT      NaN
  COMMENTSYMBOL STRING    "
  FIELDCOUNT  LONG       7
  FIELDTYPES   LONG      Array[7]
  FIELDNAMES   STRING    Array[7]
  FIELDLOCATIONS LONG    Array[7]
  FIELDGROUPS  LONG      Array[7]
```

```
IDL> x=read_ascii('test.dat',template=q)
```

```
IDL> help, x
** Structure <25b6ee8>, 7 tags, length=140, data length=140, refs=1:
  FIELD1      FLOAT  Array[5]
  FIELD2      LONG   Array[5]
  FIELD3      FLOAT  Array[5]
  FIELD4      LONG   Array[5]
  FIELD5      FLOAT  Array[5]
  FIELD6      LONG   Array[5]
  FIELD7      FLOAT  Array[5]
```

```
IDL> print, x.field1
  243.228    243.328    243.428    243.528    243.628
```

```
IDL> print, x.field2
    2        3        6        7        9
```

```
IDL> print, x.field3
  0.0465100  0.0465100  0.0465100  0.0465100  0.0465100
```

cheers,

paulv

Subject: Re: IDL Array with mixed formatting
Posted by [lucsmm](#) on Mon, 24 Aug 2015 16:31:00 GMT
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I ended up doing something like this and it looks like it's working fine

```
OPENR,lun,file_name,/GET_LUN
nlines = FILE_LINES(file_name)
```

```
array= strarr(1,nlines)
data=[]
line=[]

READF,lun,array
close, /all
for i=0,nlines-1 do begin
  lines=float(strsplit(array(i), /EXTRACT))
  data=[[data],[lines]]
endfor
```
