
Subject: Re: IDL Array with mixed formatting
Posted by [Paul Van Delst\[1\]](#) on Thu, 20 Aug 2015 18:50:12 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello,

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

```
> 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 ?
```

```
$ 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
