Subject: Formatted read of text file
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I have a file that contains row and column data like the following:

```
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# 0 3.512799e-05 3.512799e-05 0.000000e+00 0.000000e+00 3.512799e-05
1 1.445887e-05 1.445921e-05 0.000000e+00 0.000000e+00 1.445921e-05
2 7.363944e-06 7.364333e-06 0.000000e+00 0.000000e+00 7.364333e-06
.
.
.
```

So my question is a two-parter.

First, how to I skip the first two lines of this file?

Second, what is proper way to do a formatted read of each of the 6 columns in
the remaining rows? I would like to have each column value put into its
own array so I can then plot/print out each column individually.

My guess is that I have to use and OPENR first to open the file, but that
may not even be the best way to do it.

Much Thanks,

```
--
 +------------------------------------------------------- -----------------+
Matthew Cheselka, Philomat         Center for Astronomical Adaptive Optics
internet: dione@as.arizona.edu                 Steward Observatory
wk: (520) 621-1624                          hm: (520) 575-0992
              http://aquarius.as.arizona.edu:8080
```

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Matt Cheselka wrote:
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>

```
; ------------------------------------------------------------
pro read_formatted_file

file_name='test.dat'   ; change if you want

dummy=' '
openr,unit,file_name,/get_lun
readf,unit,dummy,format='(/a20)'
print,dummy    ; only to check the result of        ; readf

on_ioerror,io_error
a=fltarr(5)    ; define input
num=0
numb_of_lines=2
numb=intarr(numb_of_lines)
array=fltarr(5,numb_of_lines)  ; define result

 ; if you don't know the number of lines you can also use the    ;
"while" command
for i=0,numb_of_lines do begin
 readf,unit,num,a,format='(i2,5g13.6)'
 array(*,i)=a
endfor

io_error:
plot_io,array(0,*)

end
; -------------------------------------------------
```

Harald Frey
Space Sciences Laboratory
University of California

Berkeley, CA 94720
hfrey@ssl.berkeley.edu

Subject: Re: Formatted read of text file
Posted by Marty Ryba on Thu, 12 Jun 1997 07:00:00 GMT
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Matt (and any others):

  You should really check out Fred Knight's DDREAD.PRO (available from
one of the FTP archives). It automatically parses the file, skips
comments, and loads the data in either a 2-d array or a array of
structures. You can pre-define the structure if you wish (so it will
have mneumonic names and the correct data types). Truly a must-have
general-purpose function.

--
Dr. Marty Ryba | Of course nothing I say here is official
  MIT Lincoln Laboratory | policy, and Laboratory affililaton is
    ryba@ll.mit.edu | for identification purposes only,
                       | blah, blah, blah, ...

Subject: Re: Formatted read of text file
Posted by Andy Bristow on Thu, 12 Jun 1997 07:00:00 GMT
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> own array so I can then plot/print out each column individually.
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> My guess is that I have to use and OPENR first to open the file, but that
> may not even be the best way to do it.
>

Okay. You hit the nail with the OPENR guess. You don't really need a
FORMAT statement or anything - the data will read in fine without one as
long as there is at least 1 space between each column. Something like
this should work.

```
;+++
rubbish="
; open the file
openr,1,filename
; read the 2 first lines to get to the data
readf,1,rubbish
readf,1,rubbish
; num is number of rows of data
; set up a data array for floating numbers - don't worry about the
integer in the
; 1st column, it will work
data=fltarr(6,num)
; read the data
readf,1,data
;close the file
close,1
;+++
```

You would then have a 6 x num array. You could split this up into 6
individual arrays with:

```
array1=reform(data(0,*))
array2=reform(data(1,*))
```

etc

The first column is a integer, so if you want it in integer form just do

```
array1=fix(array1)
```

Hope this helps

Andy

P.S. If you don't know how may rows are in the file (for the num
variable, above), then start the same, declare a temporary array
(temp=fltarr(6)) and a main data array big enough to hold the maximum
amount of data yuo will read in (data(fltarr(6,maxnum)). Then

```
count=0
while NOT(EOF(1)) do begin
  readf,1,temp
  data(*,count)=temp(*)
  count=count+1
endwhile
```

Then reform the data according to how many records there actually were:

```
data=reform(data(*,0:count-1))
```


--
Andy Bristow   ajbristow@taz.dra.hmg.gb
DERA Ocean Modelling   Tel: +44 (0) 1305 212323
Winfrith Technology Centre   Fax: +44 (0) 1305 212103
Dorchester, DT2 8XJ, UK.

Subject: Re: Formatted read of text file
Posted by Vibor Paravic on Sun, 15 Jun 1997 07:00:00 GMT
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Matt Cheselka wrote:

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> 2 7.363944e-06 7.364333e-06 0.000000e+00 0.000000e+00 7.364333e-06
> .
> .
> .
>

Matthew,

I do not program in IDL but in Pv-Wave I would use the following code:

st = DC_READ_FREE(filename, col_1, col_2, col_3, col_4, col_5, col_6,
/col, Resize=[1,2,3,4,5,6], NSkip = 2)

you can also add a parameter which tells the function wha teh delimiter
is in you data
for example

Delim = [','] .. for comma delimited files

Vibor Paravic
Research Engineer
Institute of Orthopedic Research and Education
vparavic@bcm.tmc.edu