Subject: Re: readf help!
Posted by Paul Van Delst[1] on Tue, 14 Feb 2006 17:04:30 GMT
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```
vorticitywolfe@gmail.com wrote:
> Hello,
>
> I need a little help with the readf procedure. I have a few large data
> files that I am trying to make run faster by reading directly from the
> file into variables rather than reading them as a string and splitting
> them eventually placing them into their representative files; however,
> I'm running into a problem with converting the time which is in seconds
> since 1970 to a long #... I've tried numerous format codes and none
> have been successful. My data simplified data file is as follows:
>
> 001,1137369600,0000000,00.00,00002.22,-00.3,009.3,09.4*27AE
 001,1137369601,0000000,00.00,00002.22,-00.3,009.2,09.4*9AA9
  001,1137369602,0000000,00.00,00002.32,-00.3,009.3,09.4*1DA3
>
  My program looks like this:
>
> openr, lun, fname, /GET_LUN
> for i=0l, vs-1 do begin
  readf, lun, a,b,c,d,e,f,q,h
  print,a,long(b),c,d,e,f,g,h
> endfor
> FREE_LUN, lun
 end
>
  My output looks like this:
    1.00000 1137369600
                                                      2.22000
                             0.000000
                                         0.000000
  -0.300000
                9.30000
                           9.40000
      1.00000 1137369600
                              0.000000
                                           0.000000
                                                       2.22000
>
  -0.300000
                9.20000
                           9.40000
      1.00000 1137369600
                              0.000000
                                           0.000000
                                                       2.32000
>
  -0.300000
                9.30000
                           9.40000
> See how the seconds do not increment, but everything else does. This
> leads me to believe that it is something wrong with the formatting. Can
> anyone help or explain how to overcome this? Thanks! Jon
pro test_read
 openr,lun,'data.asc',/get_lun
 a=0L
 b=0L
 c=0L
 d = 0.0
 e = 0.0
```

```
f=0.0
g=0.0
h=0.0
while not eof(lun) do begin
readf, lun, a, b, c, d, e, f, g, h
print, a, b, c, d, e, f, g, h
endwhile
free_lun, lun
end
```

When I used the above on the three lines you provided (in data.asc), I got the following output:

```
IDL> test_read
% Compiled module: TEST_READ.
      1 1137369600
                                        2.22000
                         0
                              0.00000
                                                  -0.300000
                                                              9.30000
   9.40000
      1 1137369601
                         0
                              0.00000
                                         2.22000
                                                  -0.300000
                                                              9.20000
   9.40000
      1 1137369602
                         0
                              0.00000
                                         2.32000
                                                  -0.300000
                                                              9.30000
   9.40000
```

Now, if I comment out the b=0L, I get the following output:

```
IDL> .run test_read
% Compiled module: TEST READ.
IDL> test read
      1 1.13737e+09
                          0
                               0.00000
                                         2.22000 -0.300000
                                                               9.30000
   9.40000
      1 1.13737e+09
                          0
                               0.00000
                                         2.22000
                                                   -0.300000
                                                               9.20000
   9.40000
      1 1.13737e+09
                          0
                               0.00000
                                         2.32000 -0.300000
                                                               9.30000
   9.40000
```

So with "b" in this case you're dealing with a default real that doesn't have the precision to handle 10 digits. It's probably my Fortran background, but I always type variables in IDL before reading them from a file.

paulv

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