
Subject: Re: Am I having a blackout?

Posted by [Mark\[2\]](#) on Thu, 28 May 2009 21:34:17 GMT

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-> due to the line wraps the layout is somewhat disturbed: the d2 is after the d1 and also the negative values are in fact after the other items on the line.

On May 28, 11:27 pm, Mark <Mark.Saven...@gmail.com> wrote:

> Hi all,

>

> I'm trying to read a very simple file with very basic commands, but it

> reads the wrong values for the last variable (d2): readf does not see

> it are negative values and reads only the last five digits. The first

> five items it reads OK. I guess I'm making a very trivial mistake

> here, but I don't see it. Anyone having a clearer mind than me?

> Thanks!

>

> Mark

>

> sum1 = 0.0

> sum2 = 0.0

> sum3 = 0.0

> sum4 = 0.0

> count = 0

> dummy1=""

> openr, unit, /get_lun, 'sunny_days.fits'

> while ~eof(unit) do begin

> readf, unit, format='(A8,F,F,F,F,F)', dummy1, dummy2, A, beta, d1,

> d2

> help, dummy1, dummy2, A, beta, d1, d2

> sum1 += A

> sum2 += beta

> sum3 += d1

> sum4 += d2

> count++

> end

> print, sum1/count, sum2/count, sum3/count, sum4/count

> end

>

> part of sunny_days.fits:

>

> 20050206 0.386216 1286.08 1.34860 0.133876

> -0.695917

> 20050207 0.391236 1080.36 1.19682 0.285981

> -0.127826

> 20050402 0.685645 1137.82 1.20061 0.112449

> -0.716363

```
> 20050411    0.727419    1096.23    1.21388    0.134878
> -0.556709
> 20050421    0.768319    1110.19    1.19086    0.136384
> -0.636537
> 20050422    0.772067    1133.38    1.26480    0.214946
> -0.528211
> 20050423    0.775750    1115.85    1.26544    0.196289
> -0.642749
> 20050614    0.878818    1109.71    1.21778    0.140585
> -0.640095
> 20050618    0.879916    1055.35    1.16299    0.103695
> -0.706452
> 20050619    0.880047    1071.56    1.15538    0.0915420
> -0.690452
>
> Full file at: http://www.markjoe.com/tmp/sunny\_days.fits
```

Subject: Re: Am I having a blackout?

Posted by [rogass](#) on Fri, 29 May 2009 07:27:32 GMT

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On 28 Mai, 23:34, Mark <Mark.Saven...@gmail.com> wrote:

```
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```
>
```

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```

```
>
```

```
>
```

```
>
```

```
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```

```
>
```

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>> here, but I don't see it. Anyone having a clearer mind than me?
>> Thanks!
```

```
>
```

```
>> Mark
```

```
>
```

```
>> sum1 = 0.0
>> sum2 = 0.0
>> sum3 = 0.0
>> sum4 = 0.0
>> count = 0
>> dummy1=""
```

```

>> openr, unit, /get_lun, 'sunny_days.fits'
>> while ~eof(unit) do begin
>>   readf, unit, format='(A8,F,F,F,F,F)', dummy1, dummy2, A, beta, d1,
>>   d2
>> help, dummy1, dummy2, A, beta, d1, d2
>>   sum1 += A
>>   sum2 += beta
>>   sum3 += d1
>>   sum4 += d2
>>   count++
>> end
>> print, sum1/count, sum2/count, sum3/count, sum4/count
>> end
>
>> part of sunny_days.fits:
>
>> 20050206    0.386216    1286.08    1.34860    0.133876
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>> -0.706452
>> 20050619    0.880047    1071.56    1.15538    0.0915420
>> -0.690452
>
>> Full file at:http://www.markjoe.com/tmp/sunny\_days.fits- Zitierten Text ausblenden -
>
> - Zitierten Text anzeigen -

```

Dear Mark,
no idea, what's going wrong there, but did you try the following?

```

data=fltarr(6,file_lines('sunny_days.fits'),/nozero)
openr, unit, /get_lun, 'sunny_days.fits'
readf, unit, data
free_lun, unit

```

etc...

Regards
Chris

Subject: Re: Am I having a blackout?
Posted by [Mark\[2\]](#) on Fri, 29 May 2009 08:25:11 GMT
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Hi Chris,

Thanks for replying. Thanks for your suggestion, but it's more a matter of why this particular piece of code does not work as intended. (And the first field is a date, which, I guess, can be more appropriately stored in a string).
Well, a new day has begun, new chances...

Mark

On May 29, 7:27 am, rog...@googlemail.com wrote:

> On 28 Mai, 23:34, Mark <Mark.Saven...@gmail.com> wrote:

>

>

>

>> -> due to the line wraps the layout is somewhat disturbed: the d2 is
>> after the d1 and also the negative values are in fact after the other
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>> On May 28, 11:27 pm, Mark <Mark.Saven...@gmail.com> wrote:

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>>> five items it reads OK. I guess I'm making a very trivial mistake
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>>> Thanks!

>

>>> Mark

>

>>> sum1 = 0.0

>>> sum2 = 0.0

>>> sum3 = 0.0

>>> sum4 = 0.0

>>> count = 0

```

>>> dummy1=""
>>> openr, unit, /get_lun, 'sunny_days.fits'
>>> while ~eof(unit) do begin
>>>   readf, unit, format='(A8,F,F,F,F,F)', dummy1, dummy2, A, beta, d1,
>>>   d2
>>>   help, dummy1, dummy2, A, beta, d1, d2
>>>   sum1 += A
>>>   sum2 += beta
>>>   sum3 += d1
>>>   sum4 += d2
>>>   count++
>>> end
>>> print, sum1/count, sum2/count, sum3/count, sum4/count
>>> end
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>>> part of sunny_days.fits:
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>>> Full file at:http://www.markjoe.com/tmp/sunny\_days.fits-Zitierten Text ausblenden -
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>
> Dear Mark,
> no idea, what's going wrong there, but did you try the following?
>
> data=fltarr(6,file_lines('sunny_days.fits'),/nozero)
> openr, unit, /get_lun, 'sunny_days.fits'
> readf, unit, data

```

> free_lun, unit
> etc...
>
> Regards
> Chris

Subject: Re: Am I having a blackout?

Posted by [Allan Whiteford](#) on Fri, 29 May 2009 09:14:30 GMT

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Mark wrote:

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> Thanks!
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> Mark
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> sum1 = 0.0
> sum2 = 0.0
> sum3 = 0.0
> sum4 = 0.0
> count = 0
> dummy1="
> openr, unit, /get_lun, 'sunny_days.fits'
> while ~eof(unit) do begin
> readf, unit, format='(A8,F,F,F,F,F)', dummy1, dummy2, A, beta, d1,
> d2

Mark,

My understanding of simply using 'F' as a format code doesn't mean "read a floating point number in a smart way" it means "use the default values for a floating point number". These are (according to the manual) equivalent to 'F15.7'.

So, when you write:

```
format='(A8,F,F,F,F,F)'
```

this is equivalent to:

```
format='(A8,F15.7,F15.7,F15.7,F15.7,F15.7)',
```

A cursory glance at your file seems to explain what is happening, all your whitespace are being slowly eaten until finally things go wrong at the last column.

The behaviour of 'F' doesn't seem to be as useful as you would reasonably expect it to be.

You probably want to use:

```
format='(A8,5F13)'
```

but when reading data in like this it's usually better not to supply a format code at all - then IDL will try to do something smart for you based on the types of variables you're using.

Thanks,

Allan

Subject: Re: Am I having a blackout?

Posted by [Brian Larsen](#) on Fri, 29 May 2009 12:31:10 GMT

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I always have to remind myself each time exactly the right way to do this but I am a big fan of reading in text files into a structure all in one go.

Give something like this a try, for my brain this is the best way.

```
file='idl.dat'
lines=file_lines(file)
dat={date:0L, data:fltarr(5)}
dat=replicate(dat, lines)
openr, lun, file, /get_lun
readf, lun, dat
free_lun, lun
print, dat.date
; 20050206 20050207 20050402 20050411 20050421
20050422
; 20050423 20050614 20050618 20050619
print, dat.data[0]
; 0.386216 0.391236 0.685645 0.727419 0.768319
0.772067
; 0.775750 0.878818 0.879916 0.880047
```

Cheers,

Brian

Brian Larsen
Boston University
Center for Space Physics
<http://people.bu.edu/balarsen/Home/IDL>
