Subject: idl readf error
Posted by rollo.tomasi on Thu, 12 Feb 2009 19:50:17 GMT
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I have a file with 5 columns that looks like this (except for the column labels):

T/F I/U Time Blocks Volume
T I 7.12 227 11145.6
F U 16.34 227 10914.9
T I 21.43 232 11151.9
T U 25.99 224 11364.1
F I 37.13 199 7566.9

Essentially I want to calculate the median for each time, blocks, and volume for the entire file, and then depending on T/F and I/U.

I've gotten the script to work with the first three columns, but when I add the last two columns (blocks and volume) it returns an error. Can anyone tell me what I am doing wrong?

Here is the first part of the script that works fine with the first 3 columns:

```
pro  metrics1, xmed
xx=fltarr(9999)  &  x1= strarr(9999)  &  x2= strarr(9999)

i= 0   &  x1i= '~'  &  x2i= '~'
openr,67, 'file1.out'
;
while not eof(67)  do BEGIN
 readf, 67, x1i, x2i, xxi, format='(2A2, G7.2)'
 x1(i)= x1i   &  x2(i)= x2i   &  xx(i)= xxi
 i = i + 1
 ENDwhile
 PRINT, ' last record was: ',  x1i, x2i, xxi

ind= where(xx gt 0.0)
yy= xx(ind)
s=size( yy )
xm  = median(yy)
print ,s(1), xm, ' total'

ind= where(xx gt 0.0  and  x1 eq 'T     ')
 z= max(ind)  &  IF  z gt 0  then BEGIN
yy= xx(ind)  &  s=size( yy )  &  xm  = median(yy)
```

```
print ,s(1), xm, ' All with True'  &  END
```

Here is the script when I tried to add the last two columns, it
doesn't work:
The errors I get are:
1. Type conversion error: Unable to convert given STRING to Float. (at
the readf line)
2. Attempt to subscript XX with IND is out of range. (at the yy=xx
(ind) line)

```
pro  metrics1test, xmed
xx=fltarr(9999)  &  x1= strarr(9999)  &  x2= strarr(9999)  &
x3=fltarr(9999)  &  x4=fltarr(9999)

i= 0   &  x1i= '~'  &  x2i= '~'
openr,68, 'file1.out'
;
while not eof(68)  do BEGIN
 readf,68, data, x1i, x2i, xxi, x3i, x4i, format='(2A2, G7.2)'
 x1(i)= x1i   &  x2(i)= x2i   &  xx(i)= xxi  &  x3(i)= x3i  &
 x4(i)= x4i
 i = i + 1
 ENDwhile
 PRINT, ' last record was: ',  x1i, x2i, xxi, x3i, x4i

ind= where(xx gt 0.0)
yy= xx(ind)
s=size( yy )
xm  = median(yy)
ind3= where(x3 gt 0.0)
y3= x3(ind3)
s3=size( y3 )
xm3 = median(y3)
ind4= where(x4 gt 0.0)
y4= x4(ind4)
s4=size( y4 )
xm4 = median(y4)
print ,s(1), xm, xm3, xm4, ' Total'

ind= where(xx gt 0.0  and  x1 eq 'T     ')
 z= max(ind)  &  IF  z gt 0  then BEGIN
yy= xx(ind)  &  s=size( yy )  &  xm  = median(yy)
print ,s(1), xm, ' All with True'  &  END
```

Subject: Re: idl readf error
Posted by Vince Hradil on Sat, 14 Feb 2009 15:04:05 GMT
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On Feb 14, 8:52 am, David Fanning <n...@dfanning.com> wrote:
> Vince Hradil writes:
>> This thread makes me think... Can anyone compare and contrast this
>> approach with the approach I usually use - that is:
>> read each line into a string buf: buf =3D '' $ readf, lun, buf
>> then use strsplit(buf,/extract) to chop up the buf
>> then use fix, float, etc. to get the values.
>
>> I don't usually use format statements for reading, just writing.
>
> Can you spell S-L-O-W? ;-)
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Of course that's all relative. If I have to spend 2 days to figure
out how to read in a file that takes 2 seconds to parse (instead of
the normal 10 seconds) then I don't think it's worth it. Like wise if
I read a file 5 seconds faster as part of a 2 hour simulation run, I
don't think it's worth.

Just sayin'...

I guess what I what I really want to know is whether the accuracy (in
terms of round-off errors, or anything else) is any different in the
two approaches. I'm guessing not.

Thanks,
Vince

Subject: Re: idl readf error
Posted by David Fanning on Sat, 14 Feb 2009 15:08:55 GMT
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Vince Hradil writes:

> Of course that's all relative. If I have to spend 2 days to figure

> out how to read in a file that takes 2 seconds to parse (instead of
> the normal 10 seconds) then I don't think it's worth it. Like wise if
> I read a file 5 seconds faster as part of a 2 hour simulation run, I
> don't think it's worth.
>
> Just sayin'...

I hear you. I use your method most of the time myself,
just for the reason you mention: it takes me about 10 times
as long to get the format statement right. But, my ASCII files
are a couple of hundred lines, not a couple of hundred thousand
lines.

> I guess what I what I really want to know is whether the accuracy (in
> terms of round-off errors, or anything else) is any different in the
> two approaches. I'm guessing not.

I don't think so, either.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: idl readf error
Posted by rollo.tomasi on Thu, 19 Feb 2009 18:17:51 GMT
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Thanks for your help. Even after using format='(2
(A1,7x),F5.2,3x,I3,5x,G8.2)' , I'm still getting the same error:
"Type conversion error: Unable to convert given STRING to Float"

I'll keep playing around with it to see what format its asking for.

Subject: Re: idl readf error
Posted by David Fanning on Thu, 19 Feb 2009 19:41:45 GMT
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rollo.tomasi@hotmail.com writes:

> Thanks for your help. Even after using format='(2
> (A1,7x),F5.2,3x,I3,5x,G8.2)' , I'm still getting the same error:
> "Type conversion error: Unable to convert given STRING to Float"
>
> I'll keep playing around with it to see what format its asking for.

Well, I would *definitely* learn how to put a breakpoint
in your program, and I would have a look around just before
and after you read this line. Maybe just read bits of
the line. The answer is probably there. Assuming, of course,
that this is where the problem is. It isn't always. :-)

Cheers,

David

--
David Fanning, Ph.D.
Coyote's Guide to IDL Programming (www.dfanning.com)
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
