Subject: Re: Format codes for comma separated data
Posted by David Fanning on Thu, 20 Dec 2007 20:13:30 GMT

Brian Larsen writes:

> What I normally do is create a struct array and read a file into that
> with each column having a structure tag so I can stay organized. But
> I can't figure out the format codes to do that this time...

Why not? Because they vary from line to line?

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: Format codes for comma separated data
Posted by Brian Larsen on Thu, 20 Dec 2007 20:17:26 GMT

On Dec 20, 3:13 pm, David Fanning <n...@dfanning.com> wrote:
> Brian Larsen writes:
>> What I normally do is create a struct array and read a file into that
>> with each column having a structure tag so I can stay organized. But
>> I can't figure out the format codes to do that this time...
>
> Why not? Because they vary from line to line?
>

No the fields are the same line to line, readf is not breaking up the
line.

When you do
IDL> dat = strarr(134,3)
IDL> readf, lun, in, dat
you dont get one number per array element, you get one line per
element.

Brian

-- -------------
Brian Larsen
Boston University
Center for Space Physics

Here is a simple example of the issue:

I made a test file called test_dat.txt that has a bunch of lines of
a, b, 0, 1, 2, 3
a, b, 0, 1, 2, 3
a, b, 0, 1, 2, 3
a, b, 0, 1, 2, 3
a, b, 0, 1, 2, 3
a, b, 0, 1, 2, 3
a, b, 0, 1, 2, 3

IDL> file = 'test_dat.txt'
IDL> openr, lun, file, /get_lun
IDL> a = strarr(6)
IDL> readf, lun, a
IDL> print, a
a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a,
b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3

What I would hope to get would be:
a, b, 0, 1, 2, 3

Issue make sense?

Brian

-- -------------
Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Format codes for comma separated data
Posted by David Fanning on Thu, 20 Dec 2007 20:22:57 GMT

Brian Larsen writes:

> No the fields are the same line to line, readf is not breaking up the
> line.
>
> When you do
> IDL> dat = strarr(134,3)
> IDL> readf, lun, in, dat
> you dont get one number per array element, you get one line per
> element.

Well, why not use a FORMAT statement, then?

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: Format codes for comma separated data
Posted by Brian Larsen on Thu, 20 Dec 2007 20:25:26 GMT

> Well, why not use a FORMAT statement, then?

Exactly, how do you include commas in the format statement? They seem
to just be separators, or I am really slow today... I hope its not
really slow, or maybe that ok as xmas is close :)

Brian

 --- -------------
Brian Larsen
Boston University

Subject: Re: Format codes for comma separated data
Posted by David Fanning on Thu, 20 Dec 2007 20:30:03 GMT
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Brian Larsen writes:

> Exactly, how do you include commas in the format statement? They seem
> to just be separators, or I am really slow today... I hope its not
> really slow, or maybe that ok as xmas is close :)

I usually use an "x" to represent commas. ;-)

Unless, of course, you want to read them as something.
But I usually just ignore them.

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: Format codes for comma separated data
Posted by Brian Larsen on Thu, 20 Dec 2007 20:35:58 GMT
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> I usually use an "x" to represent commas. ;-)
>
> Unless, of course, you want to read them as something.
> But I usually just ignore them.

OK, but none of my format attempts are working... for my simple
example above it seems that format='(2A0,4I0)' should work, but it
doesn't.

IDL> dat = {a:'', b:'', c:0, d:0, e:0, f:0}
IDL> openr, lun, file, /get_lun
IDL> readf, lun, dat, format='(2A0,4I0)'
% End of input record encountered on file unit: 101.
% Execution halted at: $MAIN$

Brian

--- --------------

Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Format codes for comma separated data
Posted by Brian Larsen on Thu, 20 Dec 2007 21:08:57 GMT

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OK, I got it but I'm not sure it makes sense.

for the simple example above the format code:
IDL> readf, lun, dat, format='(2(A,x), 4(I,x))'
% End of input record encountered on file unit: 101.
% Execution halted at: $MAIN$
does not work, while the code:
IDL> readf, lun, dat, format='(2(A2,x), 4(I,x))'
does work
IDL> help, dat, /str
** Structure <1eaa8c4>, 6 tags, length=32, data length=32, refs=1:
```
   A            STRING    'a,'
   B            STRING    'b,'
   C            INT          0
   D            INT          1
   E            INT          2
   F            INT          3
```

So if you don't specify the length of the first string it takes
everything?!?!

Brian

--- --------------

Brian Larsen
Boston University
Center for Space Physics

Subject: Re: Format codes for comma separated data
Posted by TFE on Thu, 20 Dec 2007 21:32:29 GMT
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Brian Larsen wrote:
> Here is a simple example of the issue:
>
> I made a test file called test_dat.txt that has a bunch of lines of
> a, b, 0, 1, 2, 3
> a, b, 0, 1, 2, 3
> a, b, 0, 1, 2, 3
> a, b, 0, 1, 2, 3
> a, b, 0, 1, 2, 3
> a, b, 0, 1, 2, 3
> a, b, 0, 1, 2, 3
>
>
> IDL> file = 'test_dat.txt'
> IDL> openr, lun, file, /get_lun
> IDL> a = strarr(6)
> IDL> readf, lun, a
> IDL> print, a
> a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a, b, 0, 1, 2, 3 a,
> b, 0, 1, 2, 3 a, b, 0, 1, 2, 3
>
>
> What I would hope to get would be:
> a, b, 0, 1, 2, 3
>

Brian,
this looks correct-
print, a[0] ;for the first line

Tom