Subject: Re: How to read data with format codes?
Posted by Adam Solomon on Sun, 14 Mar 2010 01:20:44 GMT
View Forum Message <> Reply to Message

```
On Mar 13, 8:04 pm, David Fanning <n...@dfanning.com> wrote:
> Adam Solomon writes:
>> Hi all, I've been pulling my hair out over using readf with a format
>> code. So I have a data file with three columns of floats, all
>> separated by a |. Here's an example:
>
    | 355.9559189095| -79.4625574877| 0.279817
>>
    | 355.5057979042| -79.4067330132| 0.189663
>>
    | 359.5215546187| -79.7976864503| 0.161308
>>
    | 357.7890741750| -79.6427829568| 0.026100
>>
    | 354.7163524970| -79.3099884939| 0.026578
>>
    | 354.6329916471| -79.3061286761| 0.025486
>>
    | 0.0561720211 | -79.8234642170 | 0.025670
    | 357.3786228505| -79.5728335169| 0.000030
>>
    | 356.7569554568| -79.5138546776| 0.199416
>>
    | 355.0388858964| -79.3264538270| 0.190393
    | 354.8099356150| -79.2912157538| 0.026006
>>
    | 352.5968356937| -79.0184276231| 0.207497
    | 352.4362834602| -79.0094360366| 0.217226
    | 0.1800716026 | -79.8081762850 | 0.091767
>>
    | 359.0525340400| -79.7227001135| 0.205676
    | 354.7045386126| -79.2652363648| 0.119250
>>
>
>> So every format code I've used which has even come close to working
>> runs into issues at one point or another, probably because of the
>> variable spacing. I want to read this file into three arrays, or a
>> 3xlots array, or whatever - just any way to read in this data!! It's
>> unbelievable that such a simple task is proving to be so difficult.
>
>> I won't bore you with all the format codes I've tried (none of which
>> have worked) but here's the most recent example:
>
>> data=fltarr(3,rows-100);the 100 is so i don't run into EOF issues yet,
>> just for testing
>> readf,lun,data,format='(3(2x,F0.0))'
>> The problems with this particular one are that when the first column
>> is longer (as in most of these examples), the minus sign doesn't get
>> read in the second column, and there may be issues reading the third
>> column (not sure; will look into it some more).
>> What's the appropriate way to read these data in?
> If you really want a format code, I'm not your man.
```

```
> They always totally confuse me. :-)
>
> I would read this "irregular" file like this.
>
    rows = File_Lines('example.dat')
>
>
    data = DblArr(3,rows)
    oneLine = ""
>
    OpenR, lun, 'example.dat', /GET_LUN
>
    FOR j=0,rows-1 DO BEGIN
>
       ReadF, lun, oneLine
>
      parts = StrSplit(oneLine, '|', /EXTRACT)
>
      data[*,i] = Double(parts[1:3])
>
    ENDFOR
>
    Free_Lun, lun
>
>
> 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.")
```

Thanks! I was going to do that but I read on this website - dfanning something or other - to avoid for loops in IDL:) Figured a format code would save time since there's on the order of 10<sup>6</sup> data points here, but I guess that's nothing compared to all the time I'm spending writing the damn code!

Adam