Subject: Re: Reading complicated ASCII data
Posted by R.Bauer on Thu, 01 Jul 2010 08:35:16 GMT
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Tone M R schrieb:
> Hi!
>
> I've been racking my brains and the web for the best part of a day,
> but have not managed to find anything useful to solve my problem,
> which is this:
>
> I've got an automatically generated .txt file of rainfall measurements
> which I need to read. I'm having trouble with the format of the file,
> which looks more or less like this:
> ------------------------------------------------------------ -----
> [block of not-so-interesting information]
>
>      Date  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep
> Oct  Nov  Dec
>         1  0.5  1.4    .  4.7    .    .
> 0.1    .    .    .    .
>         2  0.6  0.3  3.9    .    .    .    .    .
> 4.0    .    .
>         3  5.8  1.6  4.9  0.1  3.1  3.4  4.4  0.2  0.9
> 1.4    .
>         4  2.0  5.1  1.9  0.2  0.5  6.7  3.3    .  1.1
> 0.1    .
>         5  6.8  0.6  9.7    .  2.7  0.8  1.6  2.4
> 0.7    .    .
> ... and so forth, for an entire year. - a 13x31 table of floats.
>
> [new block of non-helpful stuff]
>
> [new block of data for another year]
> ------------------------------------------------------------ ------------
> etc..., for a total of ten years.
>
> The table of figures is actually in straight columns, a column per
> month, with a dot wherever a measurement is zero. (There are also
> blank spaces at the bottom of each table, for dates such as feb 30th.)
> I've managed to work around the headers and identify where a table
> starts, and what I wanted to do was to read the entire thing into a
> nice structure array I've prepared. However, when using READF, IDL
> stops when trying to convert a dot to a float (understandably), and I
> haven't managed to solve it with a format code. I have thought about
> using STRSPLIT and WHERE to replace them, but then I have to go one
> line at a time, and I was rather hoping to make something a little
> more elegant.

>
> Does anyone see a way around these dots?
>

```
a=read_data_file('data.txt',/vst)

IDL> help,a,/str
** Structure <a26218>, 4 tags, length=768, data length=693, refs=1:
   FILE            STRING    'data.txt'
   SEPARATOR       STRING    ' '
   DATA            STRUCT    -> <Anonymous> Array[5]
   HEADER          STRING    Array[1]
IDL> help,a.data,/str
** Structure <7f0fd8>, 12 tags, length=144, data length=129, refs=2:
   VAR0            BYTE         1
   VAR1            FLOAT        0.500000
   VAR2            FLOAT         1.40000
   VAR3            STRING    '.'
   VAR4            FLOAT         4.70000
   VAR5            STRING    '.'
   VAR6            STRING    '.'
   VAR7            FLOAT        0.100000
   VAR8            STRING    '.'
   VAR9            STRING    '.'
   VAR10           STRING    '.'
   VAR11           STRING    '.'

IDL> print, a.data.var0
   1   2   3   4   5
```

http://www.fz-juelich.de/icg/icg-1/idl_icglib/idl_source/idl_html/dbase/read_data_file_dbase.pro.html

it may need postprocessing if the first entry was a string.

```
e.g. print, float(a.data.var8)
      0.00000      0.00000     0.200000      0.00000      2.40000
```

cheers
Reimar