
Subject: Re: Unsolved indexing problem 2 weeks ago.
Posted by [Brian Larsen](#) on Tue, 11 Sep 2007 15:14:40 GMT
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As another solution, it is my style to pretty much always use `read_ascii()` and `ascii_template()` to read in data files. This has the advantage of making a structure for each column making indexing easier (at least for me). The down side of this is that you have to take the time to hard code (or save and recall) the output from `ascii_template()` but that is not too hard (I will put an example here as well).

This is a 14 column data file

```
doy.frac ut lt edge(1) edge(2) n_he Tperhe Tparhe
theta_he theta_hp n_lp effective_kp minkp[100ev] maxkp[50kev]
107.75080 18.01830 18.58810 0.000E+00 0.000E+00 9.623E-02
6.189E+02 7.768E+02 1.714E+02 8.068E+01 3.206E+00 2.300E+00
2.469E+00 1.003E+01
107.75180 18.04220 18.61200 0.000E+00 0.000E+00 1.133E-01
5.728E+02 4.715E+02 8.667E+01 7.945E+01 5.591E+00 2.300E+00
2.445E+00 9.961E+00
107.75280 18.06610 18.63590 0.000E+00 0.000E+00 1.316E-01
5.405E+02 4.477E+02 8.490E+01 8.091E+01 2.121E+00 2.300E+00
2.428E+00 9.920E+00
107.75380 18.09000 18.65970 0.000E+00 0.000E+00 1.560E-01
4.614E+02 3.598E+02 8.758E+01 8.014E+01 1.730E+00 2.300E+00
2.414E+00 9.881E+00
107.75474 18.11390 18.68360 0.000E+00 0.000E+00 1.566E-01
5.184E+02 3.616E+02 8.700E+01 7.947E+01 1.704E+00 2.300E+00
2.403E+00 9.842E+00
107.75573 18.13770 18.70750 2.941E+04 0.000E+00 1.572E-01
4.514E+02 3.012E+02 8.971E+01 8.268E+01 2.751E+00 8.317E+00
2.394E+00 9.803E+00
```

and the hard coded `ascii_template()` output is:

```
template = create_struct('version', 1.0, $
    'datastart', 1l, $
    'delimiter', 32b, $
    'missingvalue', !values.f_nan, $
    'commentsymbol', ", $
    'fieldcount', 14l, $
    'fieldtypes', lonarr(14), $
    'fieldnames', strarr(14), $
    'fieldlocations', lonarr(14), $
    'fieldgroups', lonarr(14) )
template.fieldnames = ['doy', 'ut', 'lt1', 'edge1', 'edge2', $
    'n_he', 'tperp_he', 'tpar_he', 'theta_he', $
```

```
        'theta_hp', 'n_lp', 'eff_kp', 'minkp_100ev', $  
        'maxkp_50kev']  
template.fieldtypes[*] = 4  
template.fieldlocations =  
[2,14,23,33,44,55,66,77,88,99,110,121,132,143]  
template.fieldgroups = lindgen(14)
```

While annoying, you only have to do it once.

Cheers,

Brian

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