
Subject: Re: Dynamically create variable from header when reading in ascii data
Posted by [Gray](#) on Mon, 09 May 2011 12:12:57 GMT

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On May 9, 7:59 am, Rob <rj...@le.ac.uk> wrote:

```
> I'm sat here defining a huge list of variables to be read in from an
> ascii file and I'm sure there must be an easier way...
>
> I have an ascii file with multiple columns of data, each column has
> the column name on the first row. There are then thousands of rows of
> data.
>
> I started off with just a few columns but as things have progress I
> now have a lot (hundreds) of columns and doing it this way is getting
> frustrating.
>
> This is what I'm doing:
>
> header=strarr(1)
> data=strarr(file_lines(summary_file)-n_elements(header))
> openr, lun, summary_file, /get_lun
> readf, lun, header
> readf, lun, data
> free_lun, lun
>
> col_titles=strsplit(header, ' ', /extract)
>
> ap_pres_01=fltarr(n_elements(data))
> ap_pres_02=fltarr(n_elements(data))
> ap_pres_03=fltarr(n_elements(data))
> ap_pres_04=fltarr(n_elements(data))
> ap_pres_05=fltarr(n_elements(data))
> ap_pres_06=fltarr(n_elements(data))
> etc etc
>
> for i=0L,n_elements(data)-1 do begin
>   ap_pres_01[i]=(strsplit(data[i], ' ', /extract))
>   [where(strmatch(col_titles, 'ap_pres_01'))]
>   ap_pres_02[i]=(strsplit(data[i], ' ', /extract))
>   [where(strmatch(col_titles, 'ap_pres_02'))]
>   ap_pres_03[i]=(strsplit(data[i], ' ', /extract))
>   [where(strmatch(col_titles, 'ap_pres_03'))]
>   ap_pres_04[i]=(strsplit(data[i], ' ', /extract))
>   [where(strmatch(col_titles, 'ap_pres_04'))]
>   ap_pres_05[i]=(strsplit(data[i], ' ', /extract))
>   [where(strmatch(col_titles, 'ap_pres_05'))]
>   ap_pres_06[i]=(strsplit(data[i], ' ', /extract))
>   [where(strmatch(col_titles, 'ap_pres_06'))]
```

> etc etc
> endfor
>
> What I'd like to do is dynamically create the variables from the
> col_titles variable and then populate them. I wrote something that did
> this using the execute command to create the variables but it was a
> bit messy and I believe I'm right in saying that execute won't work in
> the virtual machine (not that I necessarily need it to but possibly
> might in the future so I'm reluctant to build the whole code around it
> if there's a nicer alternative).
>
> Thanks in advance

You could make a hash where the keys are the column names, and then
have each value be an array or list that you populate.
