Subject: Moving array of data into a table
Posted by JH7 on Thu, 25 Jul 1996 07:00:00 GMT
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I need to be able to convert an array of structures to a table so that I can do a query on it.

The build_table function can not do this since it does not accept variables that are a part of a structure it only accepts 1D vectors of data.

Ex. This code shows that a data file of unknown structure has been read into an array of structures. Which should then be transfered into a table.

```
; Code to read the data file and put the data into a stucture

 nfields = 50       ; this value is read from ascii file header
 nrec = 20          ; this is calculated from file length
; The names of the fields in the record are given in the header as
; well the structure of the each record
; It looks like the following
 data_rec = {struct, time:0.0, frame:0L, var:fltarr(nfields-2)}
 d =assoc(unit,struct,offset) ;use assoc to read records from the file
 data = replicate(struct,nrec)  ; create an arrary of records
 for i=0,nrec-1 do begin            ; read each record from file
    data(i) = d(i)  ; into the arrary structure
 endfor

; Code to tranfer data from structure to the table

; Create a string to be used by build_table to relate the data in the
; data structure to the columns of data in the table. This string is
; actually generated from a description header that describes the file
; format.  One would assume data.time, data.frame, etc... would be a
; 1-D array but pv-wave does not see it  that way
table_str = 'data.time TIME, data.frame FRAME, &
       data.var(0) POSX, data.var(1) POSY, ..., &
       data.var(49) SIZE'
; I get an error on the next line because data.time is not
; considered to be a pv-wave variable
table = build_table(table_str)
```

Or even better... is there a better way to read a file as shown above directly or indirectly into a table and have the names assigned to each column of data appropriately? However, the structure of the file(table) is unknown until the description header has been read.

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