
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 transferred into a table.

; Code to read the data file and put the data into a structure

```
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 array of records
for i=0,nrec-1 do begin      ; read each record from file
    data(i) = d(i) ; into the array structure
endfor
```

; Code to transfer 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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