
Subject: Re: Create a structure in IDL

Posted by [wlandsman](#) on Tue, 07 Mar 2017 00:00:51 GMT

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You can make repeated calls to the intrinsic CREATE_STRUCT() function to build up your structure. For example, to make a structure with 10 tags of scalar floats

```
IDL> name = 'col' + strtrim(indgen(10),2)
IDL> struct = create_struct(name[0],0.)
IDL> for i=1,9 do struct= create_struct(temporary(struct),name[i],0.0)
IDL> help,/str,struct
** Structure <23013f8>, 10 tags, length=40, data length=40, refs=1:
COL0      FLOAT      0.00000
COL1      FLOAT      0.00000
COL2      FLOAT      0.00000
COL3      FLOAT      0.00000
COL4      FLOAT      0.00000
COL5      FLOAT      0.00000
COL6      FLOAT      0.00000
COL7      FLOAT      0.00000
COL8      FLOAT      0.00000
COL9      FLOAT      0.00000
```

You can also use https://idlastro.gsfc.nasa.gov/ftp/pro/structure/mrd_struct.pro which is a wrapper for building a structure this way, e.g.

```
IDL> str = mrd_struct(name,replicate('0.',10),1)
IDL> help,/str,str
** Structure <2216d78>, 10 tags, length=40, data length=40, refs=1:
COL0      FLOAT      0.00000
COL1      FLOAT      0.00000
COL2      FLOAT      0.00000
COL3      FLOAT      0.00000
COL4      FLOAT      0.00000
COL5      FLOAT      0.00000
COL6      FLOAT      0.00000
COL7      FLOAT      0.00000
COL8      FLOAT      0.00000
COL9      FLOAT      0.00000
```

--Wayne

On Monday, March 6, 2017 at 2:53:55 PM UTC-5, Francisco wrote:

> Hello everyone:

>

> I would like to create a structure in IDL and put the information from my ASCII file. The problem is that I have several ASCII files and always the number of columns and rows are different. For example, I have the ASCII file "data.dat" and has 50 lines and 2040 columns. I know that we can

define the data structure (if we assume I have only 5 columns):

```
>
> datastruct = { col1:0L, col2:0.0, col3:0.0, col4:0.0, col5:0.0}
>
> I can read my file and then replicate the structure:
>
> file = 'data.dat'
> nrows = file_line(file) ; to estimate the number of rows
> data = replicate(datastruct, nrows)
> openr, lun, file, /GET_LUN
> readF, lun, data
> free_lun, lun
>
> I can do: print, data.col1 or print, data.col2 and so on... but this will give me only the first 5
columns. How I can do the same but for 2040 columns and also when we don't know in advance
the number of columns in the file. Thanks for your help!
```
