
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'  
> nrow = file_line(file) ; to estimate the number of rows  
> data = replicate(datastruct, nrow)  
> 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!
```
