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Subject: Re: Array structure--in a structure  
Posted by [John-David T. Smith](#) on Thu, 02 Nov 2000 23:17:49 GMT  
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Marianne wrote:

>  
> I want to define a structure containing arrays of structures. Is this  
> possible without using pointers?  
>  
> E.g..  
>  
> tmp1={AA,a:1,b:2}  
> tmp2={BB,CC:AA(12)}  
>  
> I realize this is not correct code, but what is?

tmp2={BB,CC:replicate({AA,a:1,b:2},12)}

then you can do

tmp2.cc.a=findgen(12)

etc. But you'd better hope you don't later want 11 or 13 AA's, because  
without pointers, you're stuck.

JD

--  
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Subject: Re: Array structure--in a structure  
Posted by [R.Bauer](#) on Fri, 03 Nov 2000 10:17:34 GMT  
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Marianne wrote:

>  
> I want to define a structure containing arrays of structures. Is this  
> possible without using pointers?  
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> E.g..  
>  
> tmp1={AA,a:1,b:2}  
> tmp2={BB,CC:AA(12)}  
>

> I realize this is not correct code, but what is?

>  
> Newbie-ly,  
> Marianne

Dear Marianne

In our library are lots of routines for structures and their tags.

```
; NAME:  
; reform_struct  
http://www.fz-juelich.de/icg/icg1/idl\_icglib/idl\_source/idl\_html/dbase/download/reform\_struct.tar.gz  
http://www.fz-juelich.de/icg/icg1/idl\_icglib/idl\_source/idl\_html/dbase/download/reform\_struct.sav  
;  
;  
; PURPOSE:  
; This function is used to reform a structure as tag array or  
; struct array  
;  
;  
; CATEGORY:  
; PROG_TOOLS/STRUCTURES  
;  
;  
; CALLING SEQUENCE:  
; result=reform_struct(structure,dim1,[dim2],[dim3],[dim4],$  
;   [dim5],[dim6],[dim7],[dim8],[/struct_array],[/tag_array])  
;  
;  
; EXAMPLE:  
; data=create_struct('A',FINDGEN(15),'B',SIN(FINDGEN(15)))  
; result=reform_struct(data,15,/struct_array)  
; HELP,result  
; RESULT      STRUCT  = -> <Anonymous> Array[15]  
  
tmp={a:findgen(15)}  
tmp=reform_struct(tmp,15,/struct_array)  
tmp2={a:tmp,b:1}  
help,tmp2,/str  
** Structure <1353068>, 2 tags, length=64, refs=1:  
 A      STRUCT  -> <Anonymous> Array[15]  
 B      INT      1
```

The following routines are useful for non arrayed structures.

```
http://www.fz-juelich.de/icg/icg1/idl\_icglib/idl\_source/idl\_html/dbase/download/replace\_tagvalue.tar.gz  
http://www.fz-juelich.de/icg/icg1/idl\_icglib/idl\_source/idl\_html/dbase/download/replace\_tagvalue.sav
```

html/dbase/download/replace\_tagvalue.sav

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/add\\_tag.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/add_tag.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/add\\_tag.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/add_tag.sav)

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/delete\\_tag.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/delete_tag.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/delete\\_tag.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/delete_tag.sav)

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/rename\\_tag.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/rename_tag.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/rename\\_tag.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/rename_tag.sav)

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/shift\\_tag.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/shift_tag.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/shift\\_tag.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/shift_tag.sav)

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/tag\\_position.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/tag_position.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/tag\\_position.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/tag_position.sav)

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/text2tagname.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/text2tagname.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/text2tagname.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/text2tagname.sav)

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/get\\_tagnname.tar.gz](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/get_tagnname.tar.gz)  
[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_source/idl\\_html/dbase/download/get\\_tagnname.sav](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_source/idl_html/dbase/download/get_tagnname.sav)

For further routines and copyright and licence.

[http://www.fz-juelich.de/icg/icg1/idl\\_icplib/idl\\_lib\\_intro.h.html](http://www.fz-juelich.de/icg/icg1/idl_icplib/idl_lib_intro.h.html)

regards

Reimar