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Subject: Re: Is there any way to change the dimension of a field in a structure?

Posted by [Maarten\[1\]](#) on Tue, 22 Jan 2008 13:47:45 GMT

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On Jan 22, 6:11 am, Hongkai <wang.hong...@gmail.com> wrote:

```
> This is reasonable because IDL dose not allow to change the dimensions
> of the fields in the structure.
>
> I can solve this problem by redefining another structure S1 with the
> same tag names of S:
> S1 = {Dog:lindgen(3,118), Cat:'cc', Horse:[1,2,4]}
> S = S1
>
> However, the question is, if I only know the tag name of the field
> Dog, and I don't know the tag names of other fields in S, how can I
> change the dimension of Dog?
>
> I've tried this:
> aa = tag_names(S1)
> S = {aa(0):lindgen(3,118), aa(1):S.(1), a a(2):S.(2)}
```

Although David pointed to pointers as a solution, that does require extensive changes to the rest of your code. The following dirty code may be of help.

```
tnames = tag_names(S1)
tmp = create_struct(tnames[0], lindgen(3,118))
for ii=1,n_elements(tnames)-1 do tmp = create_struct(tmp, tnames[ii],
S.(ii))
S = tmp
```

Maarten

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Subject: Re: Is there any way to change the dimension of a field in a structure?

Posted by [Hongkai](#) on Tue, 22 Jan 2008 14:45:09 GMT

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Thanks, David and Maarten! Really nice solutions! While i was waiting for your answers, I wrote a dirtier code to solve this problem using the EXECUTE function :)

```
;Modify a single tag in a structure when we need to change the data
type or dimension of this tag
pro Structure_Modify, Structure, TagName, newValue
```

```
NAMES = TAG_NAMES(Structure)
```

```
cmdline = 'S1={'  
  
for i_tag = 0,N_TAGS(Structure)-1,1 do begin  
  
    if strcmp( STRUPCASE(TagName), NAMES(i_tag) ) ne 1 then begin  
        cmdline = cmdline + NAMES(i_tag) + ': Structure.  
('+strtrim(string(i_tag),2)+')'  
    endif else begin  
        cmdline = cmdline + NAMES(i_tag) + ': newValue'  
    endelse  
  
    if i_tag lt N_TAGS(Structure)-1 then begin  
        cmdline = cmdline + ', '  
    endif else begin  
        cmdline = cmdline + ' }'  
    endelse  
  
endfor  
  
result = EXECUTE(cmdline);  
  
Structure = S1  
  
end
```

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