
Subject: Re: passing structure elements... by value?
Posted by [david\[2\]](#) on Fri, 13 Jul 2001 16:53:41 GMT
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Randall Skelton writes:

```
> I am seem to be somewhat confused on passing structure... this *almost*
> seems like one of those dreaded 'pass by reference/pass by value'
> problems...
>
> I have a simple routine that increments the value of a structure:
>
> pro test, mod_struct
>   for i=0, n_tags(mod_struct)-1 do begin
>     mod_struct.(i) = mod_struct.(i) + 1
>   endfor
> end
>
> As expected, this will increment all of the values in a passed structure.
>
> IDL> struct = {A:0, B:0} & big = replicate(struct,3)
> IDL> print, big
> {  0  0}{  0  0}{  0  0}
> IDL> test, big
> IDL> print, big
> {  1  1}{  1  1}{  1  1}
>
> But, when I try and increment a single element in the structure it fails?
>
> IDL> struct = {A:0, B:0} & big = replicate(struct,3)
> IDL> test, big[0]
> IDL> print, big
> {  0  0}{  0  0}{  0  0}
> ^^^^^^^^^^^^^^^^^
>
> I expected the ^^ element above to be ones? Is there any way to force IDL
> to pass this by reference instead of passing by value? It would be nice if
> you could put brackets around the thing you want to pass by reference...
> something like '(big[0])'
```

You could easily add the field you want to change as
a second positional parameter:

```
pro test, mod_struct, fieldno
  IF N_Elements(fieldno) EQ 0 THEN BEGIN
    for l=0, n_tags(mod_struct)-1 do begin
      mod_struct.(l) = mod_struct.(l) + 1
    endfor
```

```
ENDIF ELSE mod_struct.(fieldno) = mod_struct.(fieldno) + 1  
end
```

Cheers,

David

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