
Subject: Re: How do you access a field in a struct?
Posted by [Karri Kaksonen](#) on Wed, 15 Dec 1999 08:00:00 GMT
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Thank you Martin,

I had never used the WHERE function before.
That was a neat solution.

--

Regards,

Karri Kaksonen

Subject: Re: How do you access a field in a struct?
Posted by [m218003](#) on Wed, 15 Dec 1999 08:00:00 GMT
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In article <38573DF7.39E554F9@twins.dna.fi>,
Karri Kaksonen <karri@twins.dna.fi> writes:
> Hi,
>
> I have a small problem with accessing my structs.
>
> The complete program (that does not work) looks like:
> pro beer
> a = { \$
> beer: 1, \$
> icecream: 2 \$
> }
>
> b = { \$
> milk: 0.60, \$
> beer: 1.25, \$
> icecream: 0.75, \$
> tea: 0.50 \$
> }
>
> totalsum = 0.0
> selection = tag_names(a)
> for i=0,n_tags(a)-1 do totalsum=totalsum + a.(i) * b.(selection)
> print, totalsum
> end
>
> When I run this program I get:
> IDL> beer
> % Type conversion error: Unable to convert given STRING to Long.

```
> % Detected at: BEER          16 C:\RSI\IDL52\mri\beer.pro
> % Type conversion error: Unable to convert given STRING to Long.
> % Detected at: BEER          16 C:\RSI\IDL52\mri\beer.pro
>      1.80000
>
> The funny thing is that it obviously replaced "beer" and "icecream"
> with "milk" as it could not understand that b.('beer') is the same
> as b.beer
>
```

Sure enough, IDL complains. Insert a
HELP, selection
statement, and you'll see that selection is of type string.
The "tag selector" b.(i) requires an integer, however. The solution to your
problem is the WHERE function. The core statement is
bind = WHERE(tag_names(b) eq selection[i])
However, for reasons of efficiency and user-tampering-protection, the code
would rather look like:

```

totalsum = 0.0
selection = tag_names(a)
bnames = tag_names(b)
for i=0,n_tags(a)-1 do begin
    bind = WHERE(bnames eq selection[i],count)
    if (count eq 1) then begin
        totalsum=totalsum + a.(i) * b.(bind[0])
    endif else begin
        print,'No matching tag in b for ',selection[i]
    endelse
endfor
print, totalsum

```

BTW: the answer is 2.75 ;-)

Cheers,
Martin

```

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```

Subject: Re: How do you access a field in a struct?
Posted by [Volker.Mertens](#) on Wed, 15 Dec 1999 08:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

Karri Kaksonen <karri@twins.dna.fi> writes:

```
> Hi,  
>  
> I have a small problem with accessing my structs.  
>  
> The complete program (that does not work) looks like:  
> pro beer  
>   a = { $  
>     beer: 1, $  
>     icecream: 2 $  
>   }  
>  
>   b = { $  
>     milk: 0.60, $  
>     beer: 1.25, $  
>     icecream: 0.75, $  
>     tea: 0.50 $  
>   }  
>  
>   totalsum = 0.0  
>   selection = tag_names(a)  
>   for i=0,n_tags(a)-1 do begin  
i = execute('b_num = b.' + selection[i])  
>   ; if i ne 0 then ...  
totalsum=totalsum + a.(i) * b_num  
>   ;>totalsum=totalsum + a.(i) * b.(selection[i])  
>   print, totalsum  
> end  
>
```

However, you should check if b really contains all a tags.

--

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