
Subject: Defining Integer Field in a Structure

Posted by [sailfalmouth](#) on Thu, 01 Nov 2001 21:07:58 GMT

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Is there a way to define a field within a structure whose type is integer? In my case, I want the field to be any integer from 0 to 4. I know you can assign an actual integer to the field, but I don't want to do this because I want the field value to change within certain procedures and to return that value to the procedures calling it. I would appreciate any help you might be able to offer.

Thanks,

Brian

Subject: Re: Defining Integer Field in a Structure

Posted by [David Fanning](#) on Wed, 07 Nov 2001 01:30:35 GMT

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Harvey Rarback (rarback@slac.stanford.edu) writes:

```
>> If you wish to create a stucture definition without
>> actually creating an instance of a structure, you
>> put the structure definition in a file, like this:
>>
>> PRO newstruct__define.pro
>>   struct = {NEWSTRUCT, a:0, b:0.0, c:fltarr(10)}
>> END
>
> This is something that has always confused me. It seems like the variable
> "struct" is created (at least help will tell you that it exists). So, does
> IDL
> "actually create an instance of a structure" with this mechanism or not?
```

Well, of course, I was speaking metaphorically. :-)

Certainly an instance of this structure gets created in this routine, but its existence is fleeting. In fact, it exists only as long as it takes to establish the structure definition in IDL. Once that done, the struct variable goes out of scope and the memory that was allocated for its definition can be reused by the real structure you are trying to create. Think of it as smoke and mirrors.

Does that clear up the confusion?

Cheers,

David

P.S. Harvey, it is good to hear from you again. I was afraid you had found something more productive than IDL to do. :-)

--

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

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Subject: Re: Defining Integer Field in a Structure

Posted by [Harvey Rarback](#) on Wed, 07 Nov 2001 02:09:33 GMT

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"David Fanning" <david@dfanning.com> wrote in message
news:MPG.16523ca91d6c3e4a989757@news.frii.com...

> Harvey Rarback (rarback@slac.stanford.edu) writes:

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> Does that clear up the confusion?

Yes. It's what I thought was happening. What bothered me was the overhead in creating the temporary structure.

--Harvey

Subject: Re: Defining Integer Field in a Structure
Posted by [Mark Hadfield](#) on Wed, 07 Nov 2001 03:07:42 GMT
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From: "Harvey Rarback" <rarback@slac.stanford.edu>
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> Yes. It's what I thought was happening. What bothered me
> was the overhead in creating the temporary structure.

First, the overhead is very small unless there are large amounts of data in the structure. (And it's generally bad practice to include large amounts of data in a named structure, because this is inflexible, so one generally uses pointers instead.)

Second, the NEWSTRUCT__DEFINE procedure is normally run only once, when IDL is asked to create a named structure and doesn't have a definition for it. Of course, you can run it yourself as often as you like but this doesn't achieve a great deal...

Mark Hadfield
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National Institute for Water and Atmospheric Research

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Posted from clam.niwa.cri.nz [202.36.29.1]
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