Subject: Re: update variable in structure
Posted by Michael Galloy on Tue, 16 Jun 2009 16:19:59 GMT
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M. Suklitsch wrote:

```
> Hi everybody!
>
>
> Today I have a question regarding the update of variables within a
> structure, which does not work as I would expect.
>
> Say we have a very simple program:
>
> ===============
> PRO update_value, input
>
> input = input MOD 5
>
> END
> ===============
>
> [In reality, this subroutine/program does some more sophisticated
> things, but this is sufficient to prove my point. ;-) ]
>
> Okay, now we call this routine with a variable holding an integer
> value.
> IDL> my_value = 8
> IDL> update_value, my_value
> IDL> help, my_value
> MY_VALUE        INT     =      3
>
> So far, so good. Now we do exactly the same, but this time the
> variable is embedded in a structure:
> IDL> my_struct = {my_value:8}
> IDL> update_value, my_value
> IDL> help, my_struct, /STRUC
> ** Structure <8220044>, 1 tags, length=2, data length=2, refs=1:
>    MY_VALUE      INT            8
>
> And now the rather simple question: how come this doesn't work?
> Normally IDL is eager to overwrite variables of any kind. On some
> occasions, I've seen it overwriting the "parental" variable of a
> duplicated one. And more important: is there a way to get the above
> thing working?
```

Well, I assume you mean to refer to the field in the structure you just created, as in:

```
IDL> update_value, my_struct.my_value
IDL> help, my_struct.my_value
<Expression>    INT       =        8
```

The reason my_struct.my_value was not modified is that only "named variables" are passed by reference, so changes to them by the called routine will still be in effect at the caller level. The expression "my_struct.my_value" is not a named variable (named variables are just the name of a variable like "my_value" was in your previous examples), so modification to it inside update_value are only to a local variable.

> Maybe important, maybe not: I'm working with IDL 7.0 and have tried it
> on Solaris and Linux.

Should not matter for this.

Mike
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