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Subject: God save me!

Posted by [zbjiang803109](#) on Thu, 16 Jan 2014 01:21:04 GMT

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I am using IDL 8.2. I wrote the codes below:

```
if keyword_set(colorbar) then cb = COLORBAR(TARGET = img, ORIENTATION=1, $  
    POSITION=[0.925,0.25,0.945,0.75], $  
    border=1,textpos=1)
```

The system says "Syntax Error" when it is compiled. Even if I retype above lines it doesn't work. But a while later when I add and delete some lines, without changing any part of the codes, this message is gone. This kind of things happen again and again when I restart the IDLDE.

What happened!

Please help me. Thanks, Zhibo

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Subject: Re: God save me!

Posted by [David Fanning](#) on Thu, 16 Jan 2014 01:46:21 GMT

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zbjiang803109@gmail.com writes:

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>

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> POSITION=[0.925,0.25,0.945,0.75], \$

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> But a while later when I add and delete some lines, without changing any part of the codes, this message is gone. This kind of things happen again and again when I restart the IDLDE.

>

> What happened!

I've seen this! What you have to do is find a newt, and the lair of a dragonfly. And, then, when the moon is full...Oh, the wife is calling. Have to go. Sorry!

Cheers,

David

P.S. I'm guessing an invisible character has gotten stuck in the file. Try opening the file in a basic text editor and see if something jumps out at you. ;-)

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

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Subject: Re: God save me!  
Posted by [Heinz Stege](#) on Thu, 16 Jan 2014 03:22:09 GMT  
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On Wed, 15 Jan 2014 17:21:04 -0800 (PST), [zbjiang803109@gmail.com](mailto:zbjiang803109@gmail.com)  
wrote:

> I am using IDL 8.2. I wrote the codes below:  
>  
> if keyword\_set(colorbar) then cb = COLORBAR(TARGET = img, ORIENTATION=1, \$  
>     POSITION=[0.925,0.25,0.945,0.75], \$  
>     border=1,textpos=1)  
>  
> The system says "Syntax Error" when it is compiled. Even if I retype above lines it doesn't work.  
But a while later when I add and delete some lines, without changing any part of the codes, this  
message is gone. This kind of things happen again and again when I restart the IDLDE.  
>  
> What happened!  
>  
Do you specify the compile option "compile\_opt strictarr" or  
"compile\_opt idl2" to use square brackets for array indexing?

If not IDL will be irritated by using "COLORBAR(...)" for a function  
and "colorbar" for a variable (your keyword). Rename your keyword  
"colorbar" to "colorbar\_keyword" or something else.

Cheers, Heinz

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Subject: Re: God save me!  
Posted by [zbjiang803109](#) on Thu, 16 Jan 2014 13:58:28 GMT  
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>  
> wrote:  
>  
>  
>  
>  
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```

>
>>
>
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>
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>> What happened!
>
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> Do you specify the compile option "compile_opt strictarr" or
>
> "compile_opt idl2" to use square brackets for array indexing?
>
>
>

```

Thank a lot, Heinz. Adding compile\_opt idl2 works. But I wonder why sometimes the compilation passes even without the option. And later when I remove the line (compile\_opt idl2) the compilation also passes.

David: I tried open the file with Uedit and emacs, and didn't find any fancy characters.

Cheers, Zhibo

```

> If not IDL will be irritated by using "COLORBAR(...)" for a function
>
> and "colorbar" for a variable (your keyword). Rename your keyword
>
> "colorbar" to "colorbar_keyword" or something else.
>
>
>
> Cheers, Heinz

```

Subject: Re: God save me!

Posted by [Heinz Stege](#) on Thu, 16 Jan 2014 22:08:19 GMT

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On Thu, 16 Jan 2014 05:58:28 -0800 (PST), ??? wrote:

> Thank a lot, Heinz. Adding compile\_opt idl2 works. But I wonder why sometimes the compilation passes even without the option. And later when I remove the line (compile\_opt idl2) the compilation also passes.

>

Zhibo, it is nothing wrong with not using the compile option. However, if you allow round brackets for array indexing (i.e. no compile option), the IDL compiler or interpreter has to find out if "colorbar(...)" is a variable or a function.

I have never read (or investigated) how IDL is doing this. (Because for me it is convenient, to use square brackets for arrays.) I think, IDL makes it's decision on basis of it's lists of defined variables and compiled functions. But I don't really know.

You can try to find it out. Does the compilation pass without an error message, when the colorbar function is already compiled? (You can check this with "help,/routines".)

If you allow round brackets for arrays, then you must not use the same name (in this case "colorbar") for a variable as well for a function. (This is meant for inside of one routine. You may use "colorbar" for a function within one routine and for a variable within another routine.)

If you use the said compile option, everything is simple: "y=colorbar(...)" is a function call, and "y=colorbar[...]" is array subscripting. Note that "y=colorbar[0]" and "y=colorbar[\*]" are allowed also for scalar variables.

Hope this helps.

Cheers, Heinz

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Subject: Re: God save me!

Posted by [Yngvar Larsen](#) on Fri, 17 Jan 2014 14:30:02 GMT

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On Thursday, 16 January 2014 23:08:19 UTC+1, Heinz Stege wrote:

> On Thu, 16 Jan 2014 05:58:28 -0800 (PST), ??? wrote:

>

>> Thank a lot, Heinz. Adding compile\_opt idl2 works. But I wonder why sometimes the

compilation passes even without the option. And later when I remove the line (compile\_opt idl2) the compilation also passes.

>  
> Zhibo, it is nothing wrong with not using the compile option. However,  
> if you allow round brackets for array indexing (i.e. no compile  
> option), the IDL compiler or interpreter has to find out if  
> "colorbar(...)" is a variable or a function.

You can help the IDL interpreter figuring this out:

[http://www.exelisvis.com/docs/FORWARD\\_FUNCTION.html](http://www.exelisvis.com/docs/FORWARD_FUNCTION.html)

That being said, it is highly recommended that you use the idl2 compile option. Personally, I think it also more human readable with [] instead of () for the same reason as for the compiler: array indexing vs function call. And using round brackets for array indexing has been deprecated since IDL 5.0 (March 1997!). I'm not sure why this compile option is not default in 2014, almost two decades later. FUD regarding breaking of old code?

--  
Yngvar

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Subject: Re: God save me!

Posted by [zbjiang803109](#) on Sun, 26 Jan 2014 14:02:33 GMT

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> On Thu, 16 Jan 2014 05:58:28 -0800 (PST), ??? wrote:  
>  
>  
>  
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> subscripting. Note that "y=colorbar[0]" and "y=colorbar[\*]" are  
>  
> allowed also for scalar variables.  
>  
>  
>  
> Hope this helps.  
>  
>  
>  
> Cheers, Heinz

Yes, you're right. When I use the previous option, the error message appears again. When I run .compile COLORBAR and then compile the program, it passes.

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