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Subject: Re: IDL is giving me a syntax error out of nowhere  
Posted by [David Fanning](#) on Mon, 15 Sep 2008 19:31:49 GMT  
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Ryan. writes:

> Any insights into this problem would be greatly appreciated,

Well, long integers don't have an decimal points in them:

```
IDL> print, 12345.678L
```

```
print, 12345.678L
```

```
      ^
```

Syntax error.

When you cast the float to a LONG, it becomes a long,  
but the value cannot be determined the way you are  
trying to use it, hence the error.

Cheers,

David

--

David Fanning, Ph.D.  
Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: IDL is giving me a syntax error out of nowhere  
Posted by [Jean H.](#) on Mon, 15 Sep 2008 19:40:11 GMT  
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Hi,

maybe you should check the descriptions of Integers, Longs, Floats and  
Double... there is nothing wrong with your program:

```
> IDL> getoccid, 1228694696.289  
> The occultation with ID 1.22869e+09 is:  
> -999
```

max float is 10<sup>38</sup> (fine), with 7 decimal places of significance. The  
result you expect has more than 7 decimal digits.

```
> IDL> getoccid, 1228694696.289L  
> getoccid, 1228694696.289L
```

> % Syntax error.

Long is a 32 bits INTEGER... no places for decimals. It is a normal behavior. Try `a = 1.2L` ... it will give you the same error!

```
> IDL> getoccid, long(1228694696.289)
> The occultation with ID 1228694656 is:
> -999
```

Same problem as the first one. Your number is, by default, a float. The result you get (ending in 656) is well within the float accuracy. Also, by making it a long, you do trim the decimals.

```
> IDL> getoccid, 1228694696.289UL
> getoccid, 1228694696.289UL
> % Syntax error.
```

Same as above. No decimals in an Unsigned Long.

```
> I know what is wrong with the first command, but the last 3 should not
> have any problems, especially syntax problems. If you see the third
> call to the procedure (with the long(...) argument), the display at the
> end of the routine has the wrong number so it is not taking in the
> correct value for the argument. I used this routine last year and it
> was working fine, but I can't remember the trick to get it to work.
>
> Any insights into this problem would be greatly appreciated,
> Ryan.
```

So, what you really want is, I guess, to pass a DOUBLE. Try `getoccid, 1228694696.289D`

doubles have up to 14 decimal places of significance.

Of course, it also depend on what you are doing in your function with that value... don't type cast it anymore!

Jean

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Subject: Re: IDL is giving me a syntax error out of nowhere  
Posted by [Ryan](#). on Tue, 16 Sep 2008 12:47:49 GMT  
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```
> maybe you should check the descriptions of Integers, Longs, Floats and
> Double... there is nothing wrong with your program:
```

Thanks Jean and David,

I guess the trick I used before was that I actually remembered what a Long Integer, Float and Double were! I must have been too frustrated with it not working to stop and think about it for a moment.

Thanks again,  
Ryan.

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Subject: Re: IDL is giving me a syntax error out of nowhere  
Posted by [David Fanning](#) on Tue, 16 Sep 2008 12:56:02 GMT  
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Ryan. writes:

> I guess the trick I used before was that I actually remembered what a  
> Long Integer, Float and Double were! I must have been too frustrated  
> with it not working to stop and think about it for a moment.

Yeah, try to remember that programs, like children, usually  
do what we have programmed them to do. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: IDL is giving me a syntax error out of nowhere  
Posted by [ben.bighair](#) on Tue, 16 Sep 2008 14:28:16 GMT  
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On Sep 16, 8:56 am, David Fanning <n...@dfanning.com> wrote:

> Ryan. writes:

>> I guess the trick I used before was that I actually remembered what a  
>> Long Integer, Float and Double were! I must have been too frustrated  
>> with it not working to stop and think about it for a moment.

>

> Yeah, try to remember that programs, like children, usually  
> do what we have programmed them to do. :-)

>

Wow! Your boys must be from Lake Woebegone!

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Subject: Re: IDL is giving me a syntax error out of nowhere  
Posted by [David Fanning](#) on Tue, 16 Sep 2008 14:37:43 GMT  
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ben.bighair writes:

> Wow! Your boys must be from Lake Woebegone!

Did I say "like children"? I meant "unlike children". :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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