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Subject: Re: Cool and Bizzare error in IDL 5.2.1

Posted by [R.G. Stockwell](#) on Tue, 20 Jun 2000 07:00:00 GMT

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Actually this turned out to be just the result of calling a function with a keyword being sent in my reference and the same thing being passed as a parameter (doh). Ah, the perils of recursion. It was pretty cool anyway though.

-bob

R.G. Stockwell <stockwell@co-ra.comremove> wrote in message news:0dN35.38\$482.32405@den-news1.rmi.net...

```
> Well, I've spent the last hour or so tracking down an error,
> and finally found the culprit. Check out the result of the following
> commands
>
> IDL> help,current_mean
> CURRENT_MEAN  DOUBLE  =   -1.0853418
> IDL> help,newmean
> CURRENT_MEAN  DOUBLE  =   -1.0853418
>
>
> I have two variables, current_mean and newmean. There are no pointers
> used, and the code is very straightforward (just iteratively calculating
the
> mean).
> Note how IDL>help,newmean give the result of current_mean, is that weird
or
> what??
>
> The error is that when newmean was calculated, current mean was being
> modified.
> The code fragment that demonstrates this is:
>
> print,'current mean: ',current_mean
> newmean = (current_mean*npoints+newpoint)/(npoints+1)
> print,'current mean: ',current_mean
>
> And the resulting output is:
> current mean:   -1.0853418
> current mean:   -0.13970473
>
>
> I'm not sure how I was able to do this, but if it's repeatable, I think I
```

> smell  
> some obfuscated IDL code in my future!  
>  
> better get back to work, I just thought it was cool. If any one can  
explain  
> this,  
> I'd be interested to hear it. But I'm guessing it will be difficult to  
> reproduce.  
>  
> Cheers,  
> bob  
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Subject: Re: Cool and Bizzare error in IDL 5.2.1  
Posted by [promashkin](#) on Tue, 20 Jun 2000 07:00:00 GMT  
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I have a strong suspicion that the answer is in the rest of the code that we did not get a chance to see. I have never seen IDL alter a variable that it is not supposed to alter. It is likely that `current_mean` gets passed to a function as a reference and then it may get altered to `NEWMEAN` inside that function. Certainly, if you enter the code provided on command line, nothing unpredictable happens:

```
IDL> current_mean = 175.05
IDL> npoints = 531
IDL> newpoint = 168.24
IDL> newmean = (current_mean*npoints+newpoint)/(npoints+1)
IDL> print, newmean, current_mean
    175.037    175.050
```

No surprises at all (same IDL 5.2.1). Let us see the rest of the code, the fluke is got to be there.

Cheers,  
Pavel

"R.G. Stockwell" wrote:

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> Well, I've spent the last hour or so tracking down an error,  
> and finally found the culprit. Check out the result of the following  
> commands  
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> IDL> help,current\_mean  
> CURRENT\_MEAN DOUBLE = -1.0853418  
> IDL> help,newmean  
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> I have two variables, current\_mean and newmean. There are no pointers  
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