Subject: Re: Cool and Bizzare error in IDL 5.2.1
Posted by promashkin on Tue, 20 Jun 2000 07:00:00 GMT
View Forum Message <> Reply to Message

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:
>
> Well, I've spent the last hour or so tracking down an error,
> and finally found the cuplrit. 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 straighforward (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 obsfucated 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