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Subject: Re: more bugs in envi !!!

Posted by [gauravjn123](#) on Mon, 14 Jul 2003 20:07:29 GMT

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Hi all!

Thanx for the help...well u both were right...i was under the wrong impression that i had defined it as a long integer...but i hadn't. But i still cant find out why these 2 functions are producing different outputs :

Please go through the 2 functions:

```
>>
>> 1.function example,b1
>>   help,b1
>>   end
>> 2.function example,b1,b2
>>   help,b1
>>   end
>>
>> Now could anyone tell me why these 2 codes are producing different
>> final answers??? I just cant find any reason for it.
```

Gaurav Jain  
ENST-Bretagne

Marc Schellens <[m\\_schellens@hotmail.com](mailto:m_schellens@hotmail.com)> wrote in message  
news:<[3F115ED4.6040200@hotmail.com](mailto:3F115ED4.6040200@hotmail.com)>...

```
>> Hi folks!
>> Sorry to trouble u again....but envi seems to be just going above my
>> head...there is another problem that i am facing:
>> Please go through the 2 functions:
>>
>> 1.function example,b1
>>   help,b1
>>   end
>> 2.function example,b1,b2
>>   help,b1
>>   end
>>
>> Now could anyone tell me why these 2 codes are producing different
>> final answers??? I just cant find any reason for it.
>>
>> One more problem :
>>
>> 'b1' is a positive array and 'avgb1' is a positive number but when i
>> use the formula : result=b1*100/avgb1
>>     print, result
>> , the answer that i get is a negative array.
```

```
>>
>>   Whereas if i use the formula : result=b1/avgb1
>>                                     print, result * 100
>> , then i get a positive array
>>
>
> Even without knowing ENVI, the second problem isn't a bug in ENVI.
>
> A integer occupies (in IDL) 16-bit, and therefore covers a range form
> -32768 to
> 32767
>
> anything larger (or smaller) cannot be represented and therefore you
> observe an 'overflow', resulting in a negative number.
> IDL evalutates your expressinon from left to right, the
> overflow occurs after the multiplication with 100.
> In the second case the division is done first and thus the value seems
> to be small enough not to overflow in the later multiplication.
>
> The solution is to convert your b1 array to LONG.
> But did you notice that you do an integer division?
> 1/2 equals 0.
> Maybe you want to use FLOAT or DOUBLE.
>
> hdh,
> marc
```

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