## Subject: Re: more bugs in envi !!!
Posted by marc schellens[1] on Sun, 13 Jul 2003 13:29:56 GMT

View Forum Message <> Reply to Message

> 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 therfore 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