
Subject: more bugs in envi !!!

Posted by [gauravjn123](#) on Fri, 11 Jul 2003 12:41:33 GMT

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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 : $\text{result} = b1 * 100 / \text{avgb1}$

```
  print, result
```

, the answer that i get is a negative array.

Whereas if i use the formula : $\text{result} = b1 / \text{avgb1}$

```
  print, result * 100
```

, then i get a positive array

I hope to hear the answers to these questions soon. Thnxx

Byee

Gaurav

Subject: Re: more bugs in envi !!!

Posted by [marc schellens\[1\]](#) on Sun, 13 Jul 2003 13:29:56 GMT

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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 from
-32768 to
32767

anything larger (or smaller) cannot be represented and therefore you
observe an 'overflow', resulting in a negative number.
IDL evaluates your expression 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

Subject: Re: more bugs in envi !!!
Posted by [marc schellens\[1\]](#) on Mon, 14 Jul 2003 16:30:47 GMT
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Would be helpful if you post WHAT they output also.
And then of course the context from which you call them...
(Two functions with the same name cannot live in one (IDL-) program)

Gaurav wrote:

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>
> Gaurav Jain
> ENST-Bretagne
>
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> Marc Schellens <m_schellens@hotmail.com> wrote in message
news:<3F115ED4.6040200@hotmail.com>...
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```
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>> 1/2 equals 0.
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>> hdh,
>> marc
>
```

Subject: Re: more bugs in envi !!!
Posted by [gauravjn123](#) on Mon, 14 Jul 2003 20:07:29 GMT
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>>   help,b1
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>> 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> wrote in message
news:<3F115ED4.6040200@hotmail.com>...

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>> 2.function example,b1,b2

>> help,b1

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Subject: Re: more bugs in envi !!!

Posted by [marc schellens\[1\]](#) on Wed, 16 Jul 2003 00:17:16 GMT

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Could you post the COMPLETE stuff?

I mean the calling procedure or function?

Try to delete everything which is irrelevant.

I hardly assume, that the mistake lies somewhere there.

Maybe another subroutine changes some of its arguments?

Regards,

marc

Gaurav wrote:

> Hi!
> Okay...i shall give u the outputs also. Here are the functions:
>
> 1.;Stored in file trash.pro
> function ex,b1
> print,' This is the function ex,b1'
> print,size(b1)
> help,b1
> end
> 2.;Stored in file trash2.pro
> function ex2,b1,b2
> print,'This is the function ex2,b1,b2'
> print,size(b1)
> help,b1
> end
> The outputs of these functions are :
>
> ENVI>
> % Compiled module: TRASH.
>
> ENVI>
> % Compiled module: TRASH2.
>
> ENVI>
> This is the function ex,b1
> 2 5 5 4

```

> 25
> B1          FLOAT   = Array[5, 5]
> This is the function ex,b1
>      2      5      5      4
> 25
> B1          FLOAT   = Array[5, 5]
> This is the function ex,b1
>      2      5      5      2
> 25
> B1          INT     = Array[5, 5]
> This is the function ex,b1
>      2      568     653     2
> 370904
> B1          INT     = Array[568, 653]
>
> ENVI>
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>      2      5      5      2
> 25
> B1          INT     = Array[5, 5]
> This is the function ex2,b1,b2
>      2      568     326     2
> 185168
> B1          INT     = Array[568, 326]
> This is the function ex2,b1,b2
>      2      568     327     2
> 185736
> B1          INT     = Array[568, 327]
>
> ENVI>
>
> Hope this helps you in finding out the answer to my question.
>
> Gaurav Jain
>
>
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> Marc Schellens <m_schellens@hotmail.com> wrote in message
news:<3F12DAB7.607@hotmail.com>...
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>> (Two functions with the same name cannot live in one (IDL-) program)
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>>>> Maybe you want to use FLOAT or DOUBLE.
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>>>> hdh,
>>>> marc
>>>>

```

Subject: Re: more bugs in envi !!!
 Posted by [gauravjn123](#) on Wed, 16 Jul 2003 07:33:17 GMT
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```

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```

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help,b1
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The outputs of these functions are :

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ENVI>

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ENVI>

```

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370904
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>>> hdh,
>>> marc
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```

Subject: Re: more bugs in envi !!!

Posted by [David Lopez Pons](#) on Fri, 25 Jul 2003 09:45:20 GMT

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Answer to your second problem:

I think that yours is an overflow problem. The result of the operation $b1 * 100$ is too big for an integer (integer, I suppose) and returns the negative value.

Maybe the operation `'b1/avgb1*100'` (all together, in the same line) works fine.

Another solution is to force the float operation with a dot: `'b1*100./avgb1'`

DLo.

Gaurav wrote:

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