
Subject: Re: fix(4.70*100) is... 469
Posted by [Paolo Grigis](#) on Fri, 20 Apr 2007 08:04:14 GMT
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David Fanning wrote:

> Jean H. writes:
>
>> What is being displayed is a bit different than what is being stored..
>> IDL> print, 470.0 - (4.70*100)
>> 3.05176e-005
>
> I guess I would argue that what is being displayed is EXACTLY
> what is being stored:

Is it?

I always wondered if the garbage after the 16th digit does
correspond indeed to the exact decimal representation of the
double stored in memory in binary format, or is just a meaningless
side product of the binary to decimal conversion...

```
IDL> print,!DPi,format='(f68.64)'  
3.1415926535897931159979634685441851615905761718750000000000 000000  
  ~~~~~
```

Ciao,
Paolo

>
> IDL> print, 470, format='(f18.14)'
> 470.0000000000000000
> IDL> print, 4.70*100, format='(f18.14)'
> 469.99996948242187
> IDL> print, 470.000000000000000D - 469.99996948242187D, format='(f18.14)'
> 0.00003051757813
>
> Cheers,
>
> David
