Paolo wrote:
> David Fanning wrote:
>> Folks,
>>
>> If you've already had a beer, you may want to work
>> on this one. Should we be concerned? Or is this just
>> one more example for the Sky is Falling article?
>> I've voiced my opinion, but it didn't satisfy the
>> complainant. What say you?
>>
>> curly=[-1.912,-1.852,-1.386,-0.818,-0.343,-0.343,-1.233]
>> larry=[-1.912,-1.852,-1.386,-0.818,-0.343,-0.343,-1.233]
>> curly = curly*!PI/180.
>> larry *= !PI/180.
>
> I'd argue that you are multiplying curly bi pi and dividing the result
> by 180
> in the first line, and dividing pi by 180 first and multiplying larry
> by the result
> in the second line. Therefore, you are performing two different set of
> floating
> point operations, therefore I am not surprised they give slightly
> different results.

In other words, (a*b)/c is different than a*(b/c) with floats

Paolo

>
> Ciao,
> Paolo
>
>> diff=curly-larry
>> print,diff
>>
>> curly=[-1.912,-1.852,-1.386,-0.818,-0.343,-0.343,-1.233]
>> larry=[-1.912,-1.852,-1.386,-0.818,-0.343,-0.343,-1.233]
>> curly = curly*!PI/180.
>> larry = larry*!PI/180.
>> diff=curly-larry
>> print,diff
>>
>> curly=[-1.912,-1.852,-1.386,-0.818,-0.343,-0.343,-1.233]
>> larry=[-1.912,-1.852,-1.386,-0.818,-0.343,-0.343,-1.233]

```
>> curly *= !PI/180.
>> larry *= !PI/180.
>> diff=curly-larry
>> print,diff
>>
>> The results:
>>
>> -3.72529e-009    0.000000    0.000000-9.31323e-010    0.000000
>> 0.000000    0.000000
>>      0.000000    0.000000    0.000000    0.000000    0.000000
>> 0.000000    0.000000
>>      0.000000    0.000000    0.000000    0.000000    0.000000
>> 0.000000    0.000000
>>
>>
>> Why aren't the first set of differences (where the assignment
>> is made with the *= operator) *exactly* zero?
>>
>> Cheers,
>>
>> David
>>
>>
>> --
>> David Fanning, Ph.D.
>> Fanning Software Consulting, Inc.
>> Coyote's Guide to IDL Programming: http://www.dfanning.com/
>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
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