
Subject: Re: ROT is ROTTEN

Posted by [Richard French](#) on Wed, 21 Nov 2001 06:06:05 GMT

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Bhautik Jitendra Joshi wrote:

```
>
> MOO>a=findgen(5,5) & print, a
>   0.00000   1.00000   2.00000   3.00000   4.00000
>   5.00000   6.00000   7.00000   8.00000   9.00000
>  10.0000   11.0000   12.0000   13.0000   14.0000
>  15.0000   16.0000   17.0000   18.0000   19.0000
>  20.0000   21.0000   22.0000   23.0000   24.0000
>
> MOO>print, total(a)
>   300.000

> MOO>print, total(rot(a,360))
>   262.000
>
```

Well, this is interesting! In IDL5.5, I get 262.000 on Windows98 and Tru64.

In IDL5.4 on Windows, I get 247.000, but 262.000 on Tru64.

Anyone with earlier versions want to weigh in

here? It is hard to see why a rotation of 360 would not give you what you started with, unless I am really missing something fundamental...

(I just compared the source code on the 5.4 and 5.5 lib versions of rot and they are identical except in the comment fields...)

Now if you do:

```
IDL> print,total(rot(dindgen(5,5),360.d0))
      242.00000
```

```
IDL> print,!version
```

```
{ alpha OSF unix Compaq Tru64 5.5 Aug 28 2001    64    64}
```

```
IDL> print,total(rot(dindgen(5,5),360.d0))
      282.00000
```

```
IDL> print,!version
```

```
{ x86 Win32 Windows Microsoft Windows 5.5 Aug 28 2001    32    64}
```

and here is a nice one... if you put the angle in integer degrees, you get

one answer, in double precission, you get another...

```
IDL> print,total(rot(dindgen(5,5),360))
      262.00000
```

```
IDL> print,total(rot(dindgen(5,5),360.d0))
```

242.00000

IDL> print,!version

{ alpha OSF unix 5.4 Sep 25 2000 64 64}

I modified rot.pro to do things in double precision but it did not make any difference. I agree that when you turn on /cubic you don't get 300.00, but something close to it. I have not displayed the images to see what they look like, but it surely is not doing what we think it should!

Dick
French
