
Subject: Re: Rounding off

Posted by [David Fanning](#) on Wed, 21 Apr 2010 20:49:27 GMT

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bala murugan writes:

```
> Suppose i have the following,
>
> r = RANDOMU(SEED,1)
>
> and if the result is Float(.
>
>
> How do i round it off to 0.42 ??
```

```
Print, Float(Long(r*100))
```

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.")

Subject: Re: Rounding off

Posted by [David Fanning](#) on Wed, 21 Apr 2010 20:50:56 GMT

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David Fanning writes:

```
> Print, Float(Long(r*100))
```

Whoops! You said "round it off".

```
Print, Float(Round(r*100))
```

Cheers,

David

--

David Fanning, Ph.D.

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Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Rounding off
Posted by [cgguido](#) on Wed, 21 Apr 2010 21:20:32 GMT
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On Apr 21, 3:50 pm, David Fanning <n...@dfanning.com> wrote:

```
> David Fanning writes:  
>> Print, Float(Long(r*100))  
>  
> Whoops! You said "round it off".  
>  
> Print, Float(Round(r*100))  
>  
> 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.")
```

perhaps this will do it?

```
print, round(f*100.)/100.
```

Subject: Re: Rounding off
Posted by [Carsten Lechte](#) on Wed, 21 Apr 2010 21:39:01 GMT
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David Fanning wrote:

```
> Print, Float(Round(r*100))
```

Maybe he also wants to divide by 100 again, to get to 0.42.

It should also be noted, that this method, or indeed anything that involves rounding, does not work if the number to round does not fit into a 32bit or 64bit integer (you will get an exception and the result will be garbage). If that happens, you are probably trying to round at a position waaaaay past the last significant digit anyway,

so the whole rounding step should be skipped. But you have to test for it.

chl

Subject: Re: Rounding off
Posted by [David Fanning](#) on Wed, 21 Apr 2010 21:48:42 GMT
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Gianguido Cianci writes:

```
> perhaps this will do it?  
>  
> print, round(f*100.)/100.
```

Oh, the hell with it. *Something* like that! ;-)

Cheers,

David

P.S. Why I try to answer a question when I have about 10 different things going on is a mystery to me!

--

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.")

Subject: Re: Rounding off
Posted by [David Fanning](#) on Wed, 21 Apr 2010 21:52:12 GMT
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Carsten Lechte writes:

```
> It should also be noted, that this method, or indeed anything that  
> involves rounding, does not work if the number to round does not fit  
> into a 32bit or 64bit integer (you will get an exception and the  
> result will be garbage). If that happens, you are probably trying to  
> round at a position waaaaay past the last significant digit anyway,  
> so the whole rounding step should be skipped. But you have to test for
```

> it.

If you are looking for people with recent experience to testify to how much trouble you can get into by not testing data type bounds, I'm available at my professional rate of \$0.25/hour.

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.")

Subject: Re: Rounding off

Posted by [Paul Van Delst\[1\]](#) on Thu, 22 Apr 2010 16:37:36 GMT

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bala murugan wrote:

> Suppose i have the following,

>

> r = RANDOMU(SEED,1)

>

> and if the result is 0.423832.

>

>

> How do i round it off to 0.42 ??

```
IDL> r = RANDOMU(SEED,1)
```

```
IDL> print, r
```

```
0.447645
```

```
IDL> print, r, format='(f4.2)'
```

```
0.45
```

I presume you meant "only print two digits after the decimal point" when you said "round it off".

?

cheers,

paulv

Subject: Re: Rounding off

Posted by [Bob\[3\]](#) on Thu, 22 Apr 2010 16:59:33 GMT

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On Apr 21, 4:17 pm, bala murugan <bala2...@gmail.com> wrote:

> Suppose i have the following,

>

> r = RANDOMU(SEED,1)

>

> and if the result is 0.423832.

>

> How do i round it off to 0.42 ??

When considering the all the answers given, it might be a good chance to review the differences between ROUND, FLOOR, and CEIL.

```
try: print, round(r*100.)/100., floor(r*100.)/100., ceil(r*100.)/100.
```
