
Subject: Re: round to x number of decimals within floating point value?

Posted by [David Fanning](#) on Thu, 13 Jan 2011 19:35:57 GMT

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Snow53 writes:

- > I need to round the values within a file to three decimal places. For
- > example, 0.00053335 would become 0.001.
- > I also have many NaNs within the file.

```
goodval = where(array EQ Finite(), count)
if count gt 0 then begin
    array[gooval] = Float(Round(array[goodval]*1000)/1000.)
endif
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

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

Subject: Re: round to x number of decimals within floating point value?

Posted by [Snow53](#) on Thu, 13 Jan 2011 19:40:32 GMT

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On Jan 13, 12:35 pm, David Fanning <n...@dfanning.com> wrote:

- > Snow53 writes:
- >> I need to round the values within a file to three decimal places. For
- >> example, 0.00053335 would become 0.001.
- >> I also have many NaNs within the file.

```
>
> goodval = where(array EQ Finite(), count)
> if count gt 0 then begin
>     array[gooval] = Float(Round(array[goodval]*1000)/1000.)
> endif
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> Cheers,

>

> David

>

> --

> David Fanning, Ph.D.

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

Sweet! Thanks :)

Subject: Re: round to x number of decimals within floating point value?

Posted by [penteado](#) on Thu, 13 Jan 2011 23:55:14 GMT

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On Jan 13, 5:35 pm, David Fanning <n...@dfanning.com> wrote:

> Snow53 writes:

>> I need to round the values within a file to three decimal places. For

>> example, 0.00053335 would become 0.001.

>> I also have many NaNs within the file.

>

> goodval = where(array EQ Finite()), count)

> if count gt 0 then begin

> array[goodval] = Float(Round(array[goodval]*1000)/1000.)

> endif

Is this a non-default finite()? The one I know takes an argument, returning whether the elements are finite numbers (not infinity or NaN).

Subject: Re: round to x number of decimals within floating point value?

Posted by [David Fanning](#) on Fri, 14 Jan 2011 00:07:04 GMT

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Paulo Penteado writes:

> Is this a non-default finite()? The one I know takes an argument,

> returning whether the elements are finite numbers (not infinity or

> NaN).

Sorry, totally asleep at the wheel. :-(

```
goodval = where(finite(array) EQ 1, count)
```

This is the way I usually screen for NaNs. Keywords can add specificity, but this typically works for me. I don't usually care *why* a value is bad. I just want to work with good values.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: round to x number of decimals within floating point value?

Posted by [Kenneth P. Bowman](#) on Fri, 14 Jan 2011 15:16:19 GMT

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In article <MPG.279941936212ce0e98992d@news.giganews.com>,
David Fanning <news@dfanning.com> wrote:

```
> goodval = where(finite(array) EQ 1, count)
```

The equality test is unnecessary, so you can write

```
goodval = where(finite(array), count)
```

to find the good values and

```
badval = where(~finite(array), count)
```

to find the bad values. And of course you can do both
with a single WHERE and appropriate keywords.

Cheers, Ken
