

---

Subject: Odd behavior with NaNs

Posted by [whdaffer](#) on Tue, 09 Aug 2016 16:28:36 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

At least, I think it's odd.

```
IDL> print,sqrt(!values.f_nan>0.0)
0.00000
```

```
% Program caused arithmetic error: Floating illegal operand
```

```
IDL>
```

```
-- while --
```

```
IDL> print,sqrt(!values.f_nan)
NaN
```

I was trying to protect against taking the sqrt of a negative number. I guess I could just remove the >0.0 and live with

```
DL> print,sqrt(-1)
-NaN
```

```
% Program caused arithmetic error: Floating illegal operand
```

whenever there are negative numbers in my data.

What does the community think? Bug? Feature?

whd

---

---

Subject: Re: Odd behavior with NaNs

Posted by [Craig Markwardt](#) on Tue, 09 Aug 2016 23:42:38 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Tuesday, August 9, 2016 at 12:28:40 PM UTC-4, whdaffer wrote:

```
> At least, I think it's odd.
```

```
>
```

```
>
```

```
> IDL> print,sqrt(!values.f_nan>0.0)
> 0.00000
```

```
> % Program caused arithmetic error: Floating illegal operand
```

```
> IDL>
```

```
>
```

```
> -- while --
```

```
>
```

```
> IDL> print,sqrt(!values.f_nan)
```

```
> NaN
```

>  
> I was trying to protect against taking the sqrt of a negative number. I guess I could just remove the >0.0 and live with  
>  
> DL> print,sqrt(-1)  
> -NaN  
> % Program caused arithmetic error: Floating illegal operand  
>  
> whenever there are negative numbers in my data.  
>  
> What does the community think? Bug? Feature?  
>  
> whd

I'd usually use WHERE() to protect against that kind of input range issue. But you're right, it's strange that this happens. It's also documented to be platform-dependent!

[http://www.harrisgeospatial.com/docs/Minimum\\_and\\_Maximum\\_Oper.html](http://www.harrisgeospatial.com/docs/Minimum_and_Maximum_Oper.html)

Craig

---