
Subject: Inconstant log(-1) handling

Posted by [gsh7w](#) on Tue, 27 Apr 1993 01:15:01 GMT

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I strongly get the idea that this is one of those "Doctor, it hurts when I do this." "Don't do that." type posts, but here it goes. In IDL v3.0.0 on a sparcstation 10, running 4.0.3b there seems to be an inconsistency with how logarithms of negative numbers are done. Don't suggest that I shouldn't be doing this in the first place, I know I shouldn't, however what IDL is giving me seems a tad bit weird. I do know that if I do a

```
IDL>tmp=check_math(trap=0) & delvar,tmp
```

in my startupfile, IDL returns NaN's for the illegal values, but it does not seem to do so by default.

Greg Hennessy

> idl

IDL. Version 3.0.0 (sunos sparc).

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```
% Compiled module: CINIT.
```

```
SUNIDL>x=findgen(6)-3
```

```
SUNIDL>print,x
```

```
  -3.00000  -2.00000  -1.00000   0.00000   1.00000   2.00000
```

```
SUNIDL>print,alog10(x)
```

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

```
% Detected at $MAIN$ (ALOG10).
```

```
% Program caused arithmetic error: Floating divide by 0
```

```
% Detected at $MAIN$ (ALOG10).
```

```
  200000.  200000.  200000.   0.00000   0.00000   0.301030
```

```
SUNIDL>print,alog10(x)
```

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

```
% Detected at $MAIN$ (ALOG10).
```

```
% Program caused arithmetic error: Floating divide by 0
```

```
% Detected at $MAIN$ (ALOG10).
```

```
   1.00000   1.00000   1.00000   0.00000   0.00000   0.301030
```

```
SUNIDL>
```

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-Greg Hennessy, University of Virginia

USPS Mail: Astronomy Department, Charlottesville, VA 22903-2475 USA

Internet: gsh7w@virginia.edu

UUCP: ...!uunet!virginia!gsh7w
