
Subject: Yet another bug??

Posted by [phil](#) on Wed, 17 May 1995 07:00:00 GMT

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

Sorry to keep posting but I've just started developing some useful tools in IDL and it seems I run across a new 'bug' every day. Could someone tell me the sense behind the following:

IDL> print, not 0

-1

IDL> print, not 1

-2

Shouldn't (not 0) = 1 and (not 1) = 0 or am i just missing something?
Is there somehting in the manuals that describes this logic?

Just wondering.

--

/*****

Phil Williams

Postdoctoral Researcher

MRI Facility

The Ohio State University

email: phil@peace.med.ohio-state.edu

URL: <http://justice.med.ohio-state.edu:1525>

/*****

"One man gathers what
another man spills..."

-The Grateful Dead

Subject: Re: Yet another bug??

Posted by [sjt](#) on Wed, 24 May 1995 07:00:00 GMT

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

Phil (phil@peace.med.ohio-state.edu) wrote:

: Sorry to keep posting but I've just started developing some useful
: tools in IDL and it seems I run across a new 'bug' every day. Could
: someone tell me the sense behind the following:

: IDL> print, not 0

: -1

: IDL> print, not 1

: -2

: Shouldn't (not 0) = 1 and (not 1) = 0 or am i just missing something?
: Is there somehting in the manuals that describes this logic?

: Just wondering.

The answers are perfectly correct 0 is in hex 0000 and so (not 0) is ffff which is -1, and not 1 will be fffe or -2. It's a bitwise operation, often useful but occasionally infuriating (e.g. if you want to use the negation of something you've just calculated as a value of a set/unset keyword) if you want the logical operation then you should and the entire expression with 1
e.g.

```
IDL>print, (not 0) and 1
1
IDL>print, (not 1) and 1
0
```

```
: --
: /*****
: Phil Williams
: Postdoctoral Researcher          "One man gathers what
: MRI Facility                    another man spills..."
: The Ohio State University        -The Grateful Dead
: email: phil@peace.med.ohio-state.edu
: URL: http://justice.med.ohio-state.edu:1525
: *****/
```

```
--
+-----+-----+-----+-----+
| James Tappin,          | School of Physics & Space Research | O__ |
| sjt@star.sr.bham.ac.uk | University of Birmingham      | -- V |
| Ph: 0121-414-6462. Fax: 0121-414-3722 | |
+-----+-----+-----+-----+
```