
Subject: Re: Meaning of the expression

Posted by [Markus Schmassmann](#) on Tue, 20 Sep 2016 13:55:46 GMT

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On 09/20/2016 11:54 AM, Helder wrote:

> On Tuesday, September 20, 2016 at 11:39:39 AM UTC+2, Markus Schmassmann wrote:

>> On 09/20/2016 10:05 AM, Helder wrote:

>>> On Tuesday, September 20, 2016 at 8:05:22 AM UTC+2, Sanu wrote:

>>>> exp = 'BYTE(B1 NE 0)*1'

>>>>

>>>> What is the meaning of this expression???

>>> It's not an expression, it's an assignment.

>>> It assigns a string to the variable exp.

>>> However, the math displayed in the string is somewhat strange:

>>> - b1 NE 0 will always give a byte result, so there is no need for the byte function

>>> - the *1 will convert the result to an integer or long (depending on the compiler options)

>> - B1 NE 0 is of type BYTE with the Boolean flag set, the BYTE() function

>> removes that flag

>> - the only difference the Boolean flag makes, is to HELP,

>> ISA(XXX,/boolean) and implied print

>> - once *1 is applied, this does not matter

>>

>> if compile_opt idl2 or defint32 is set, the math in the string could be

>> shortened to 'LONG(B1 NE 0)', otherwise 'FIX(B1 NE 0)'

> what version of IDL do you use?

> I get very different results:

> IDL> help, 0 NE 0

> <Expression> BYTE = 0

> IDL> help, isa(0b NE 0b, /boolean)

> <Expression> BYTE = 0

> IDL> !version

> {

> "ARCH": "x86_64",

> "OS": "Win32",

> "OS_FAMILY": "Windows",

> "OS_NAME": "Microsoft Windows",

> "RELEASE": "8.5.1",

> "BUILD_DATE": "Nov 14 2015",

> "MEMORY_BITS": 64,

> "FILE_OFFSET_BITS": 64

> }

>

> The only way I can create a boolean is with the boolean function.

> IDL> help, isa(boolean(0b NE 0b), /boolean)

> <Expression> BYTE = 1

> Even this does not return a boolean:

> IDL> help, isa(boolean(0b) NE boolean(0b), /boolean)

> <Expression> BYTE = 0

Hi Helder,

your right, IDL logical operators give back BYTE and not BOOLEAN, which doesn't seems very sensible to me. My answer reflects what I thought should be instead of what is. Sorry for the confusion.

Cheers, Markus

PS: IDL> isa(!true,/boolean)

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