Subject: Meaning of the expression
Posted by Suresh Negi on Tue, 20 Sep 2016 06:05:17 GMT
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exp = 'BYTE(B1 NE 0)*1'

What is the meaning of this expression???

Subject: Re: Meaning of the expression
Posted by Helder Marchetto on Tue, 20 Sep 2016 08:05:59 GMT
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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)

Helder

Subject: Re: Meaning of the expression
Posted by Markus Schmassmann on Tue, 20 Sep 2016 09:39:38 GMT
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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)'

Subject: Re: Meaning of the expression
Posted by Helder Marchetto on Tue, 20 Sep 2016 09:54:45 GMT

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:
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> 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)'

Hi Markus,
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

Cheers,
Helder

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:
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>   "OS_FAMILY": "Windows",
>   "OS_NAME": "Microsoft Windows",
>   "RELEASE": "8.5.1",
>   "BUILD_DATE": "Nov 14 2015",

>   "MEMORY_BITS": 64,
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> <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)
1

Subject: Re: Meaning of the expression
Posted by Suresh Negi on Wed, 21 Sep 2016 06:10:01 GMT
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On Tuesday, September 20, 2016 at 11:35:22 AM UTC+5:30, Sanu wrote:
> exp = 'BYTE(B1 NE 0)*1'
>
> What is the meaning of this expression???

What is meaning of *1