
Subject: MySql, boolean values and SqlArray
Posted by [Giorgio](#) on Wed, 27 Jan 2016 09:00:12 GMT
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Hi there,

MySql rdbms do not have a boolean value type. According to the current documentation BOOL or BOOLEAN "types are synonyms for TINYINT(1). A value of zero is considered false. Nonzero values are considered true" and that should be used to store boolean values. I noticed that this introduce a little problem. For instance, I have a table containing machinists IDs and a bunch of tinyint fields: if the field is "true" (i.e. nonzero value) the machinist can operate a certain machine. I tested it putting some values:

```
ID Name M1 M2 M3
'001' 'Titus' '1' '0' '2'
'002' 'Caius' '0' '1' '1'
'003' 'Sempronius' '1' '0' '0'
```

According to the documentation the following query should return 001 and 002: "Select ID, From MACHINISTS Where M3 = true;", but actually it returns only 002. If I use the following query: "Select ID, From MACHINISTS Where M3 is true;" I get correct results, i.e. 001 and 002. So MySql is picky, but is coherent.

Get back to Ultimate++ now. I have a SqlArray control that manages that table. I need to edit the M1, M2, M3 fields. So I used lines like the following:

```
EditInt m01abil, m02abil, m03abil;
[...]
tblMachinist.AddColumn(M1, "Abil. M01",10).Edit(m01abil);
```

And that's fine, but when I query the db:

```
query * Select(ID, NAME).From(MACHINISTS).Where(M! == true);
while (query.Fetch())
{
  Oper1.Set(i, (String)query[ID], (String)query[NAME]);
  i++;
}
```

I get just 002. So if the user puts 2 instead of 1 there are problem. To solve that I modified the code managing the SqlArray. Now it reads (note the type of variables):

```
Option m01abil, m02abil, m03abil;
[...]
```

```
tblMachinist.AddColumn(M1, "Abil. M01",10).Edit(m01abil);
```

I tried to declare in the .sch files the M1 fields both as BOOL and INT, but every time I have problem querying the db: if M3 is not 1 it is considered false.

Using an option type to me solved the issue, as users can not put values different from zero or one.

I do not know if ultimate++ can manage this kind of issue, but as I spent some time to figure this out I decided to share my solution.

Regards,
Giorgio

Subject: Re: MySql, boolean values and SqlArray
Posted by [deep](#) on Thu, 28 Jan 2016 05:24:18 GMT
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Giorgio wrote on Wed, 27 January 2016 14:30Hi there,
According to the documentation the following query should return 001 and 002: "Select ID, From MACHINISTS Where M3 = true;", but actually it returns only 002. If I use the following query: "Select ID, From MACHINISTS Where M3 is true;" I get correct results, i.e. 001 and 002. So MySql is picky, but is coherent.

Have you tried this which you have stated. Which is working.

```
query * Select(ID, NAME).From(MACHINISTS).Where(M1 is true);
```

It may be good idea to check first with "select *" and confirm your table is updated.

Subject: Re: MySql, boolean values and SqlArray
Posted by [Giorgio](#) on Thu, 28 Jan 2016 07:58:51 GMT
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deep wrote on Thu, 28 January 2016 06:24
Have you tried this which you have stated. Which is working.

```
query * Select(ID, NAME).From(MACHINISTS).Where(M1 is true);
```

Uhm, it does not compile, I get an error.

error C2146: syntax error: ')' missing before the identifier 'is'

Regards,
Gio

Subject: Re: MySql, boolean values and SqlArray
Posted by [deep](#) on Thu, 28 Jan 2016 17:21:19 GMT
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Try some thing like this

```
query.Execute( select ID, NAME from MACHINISTS where M1 is true);
```

Subject: Re: MySql, boolean values and SqlArray
Posted by [mirek](#) on Sun, 31 Jan 2016 19:29:40 GMT
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bool types in SQL are bit of mess. That is why I am usually using single char value there.

However, this should work fine. I believe that the issue here is that

```
query * Select(ID, NAME).From(MACHINISTS).Where(M1 == true);
```

gets converted to

```
query * Select(ID, NAME).From(MACHINISTS).Where(M1 == 1);
```

Fix is easy, use

```
query * Select(ID, NAME).From(MACHINISTS).Where(M1 > 0);
```

(Note that when developing SQL, it is always a good idea to have activated SQL log at least in debug mode - `SqlSession::SetTrace()`)

Subject: Re: MySql, boolean values and SqlArray
Posted by [Giorgio](#) on Mon, 01 Feb 2016 07:59:31 GMT
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Hi Mirek,
thank you for your answer; my humble proposal is that Ultimate++ converts automatically "Where(M1 == True)" to "Where(M1 > 0)" in case the variable is defined as boolean in the .sch file.
Regards,
Gio

Subject: Re: MySql, boolean values and SqlArray
Posted by [mirek](#) on Mon, 01 Feb 2016 17:31:50 GMT
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I understand this is frustrating, unfortunately there does not seem to be a good way around SQL bools at the moment. What you suggest would likely bomb other expression forms.
