

RE: [dbi] Re: MsSQL DBD::ODBC IsNull and undef

Source: <http://coding.derkeiler.com/Archive/Perl/perl.dbi.users/2005-07/msg00208.html>

- *From:* martin.evans@xxxxxxxxxxxxx (Martin J. Evans)
 - *Date:* Tue, 26 Jul 2005 11:49:39 +0100 (BST)
-

Brian,

OK, I've found this now. It is rather more complicated than it looks.

I did this in odbctest (directly to MS SQL Server driver):

```
create table mjenull(a varchar(20))
insert into table values ('AAA')
select * from table where a = isnull(NULL, 'AAA')
```

correctly returns 1 row.

now:

```
SQLPrepare(select * from table where a = isnull(?, 'AAA')
SQLBindParameter(stmt, 1, SQ_C_CHAR, SQL_VARCHAR, 1, 0, NULL, 0, ptr)
NOTE the 1 for ColumnSize
*ptr = SQL_NULL_DATA
SQLExecute
```

no rows returned.

repeat with ColumnSize = 20

```
SQLBindParameter(stmt, 1, SQ_C_CHAR, SQL_VARCHAR, 20, 0, NULL, 0, ptr)
*ptr = SQL_NULL_DATA
SQLExecute
```

1 row correctly returned.

now insert:

```
insert into table values ('A')
```

repeat with ColumnSize = 1 (as DBD::ODBC does):

```
SQLPrepare(select * from table where a = isnull(?, 'AAA')
SQLBindParameter(stmt, 1, SQ_C_CHAR, SQL_VARCHAR, 1, 0, NULL, 0, ptr)
NOTE the 1 for ColumnSize
*ptr = SQL_NULL_DATA
SQLExecute
```

1 row returned and it is the row containing 'A'

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I'd guess this is because the SQL Server ODBC driver is looking at your SQLBindParameter call to determine the type and size (1) and hence is saying isnull is going to return 1 character -> 'A' in this case, even though we said 'AAA'.

The solution is to make sure the ColumnSize is what SQLDescribeParam returns. The diff to DBD::ODBC 1.13 below is a total hack to make this work - it is not complete because it doesn't handle drivers that don't have SQLDescribeParam (and it is a hack). I'm afraid I don't have time right now to do this properly.

```
---- dbdimp.h Mon Oct 11 20:20:55 2004
+++ dbdimp.h.mine Tue Jul 26 10:57:05 2005
@@ -139,6 +139,7 @@
SWORD tgt_sql_type; /* the PH SQL type the stmt
expects */
SDWORD tgt_len; /* size or precision the stmt expects */
SDWORD cbValue; /* length of returned value OR
SQL_NULL_DATA */
+ UDWORD cbColDef; /* ColumnSize returned from
SQLDescribeParam */
SDWORD *indics; /* ptr to indicator array for param
arrays */
int is_array; /* TRUE => parameter array */
```

```
---- dbdimp.c Fri Nov 5 03:19:36 2004
+++ dbdimp.c.mine Tue Jul 26 11:25:41 2005
@@ -2532,6 +2532,7 @@
/* fall through */
/* return 0; */
} else {
+ phs->cbColDef =
> try it here.
>
> Martin
>
>>
>> -----Original Message-----
>> From: Martin J. Evans [mailto:martin.evans@xxxxxxxxxxxxx]
>> Sent: Monday, July 25, 2005 12:59 PM
>> To: dbi-users@xxxxxxxxx
>> Subject: RE: MsSQL DBD::ODBC IsNull and undef
>>
>> Brian,
>>
>> I presume by "Easysoft" you mean Easysoft ODBC-ODBC Bridge?
>>
>> If so, can you run your test script again but creating an OOB log file
>> which
>> you can do by:
```

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```
>>
>> 1. cd /tmp
>> 2. create odbc.ini file containing only:
>>
>> {Settings}
>> Logging = 0xfffff
>>
>> NOTE, they are curly braces.
>>
>> 3. WITHOUT changing directory, run you Perl script
>>
>> perl /path_to_my_script/xxx.pl
>>
>> 4. send me the resulting esoobclient.log_<PID> which will appear in /tmp
>> (where
>> <PID> is the process ID).
>>
>> Martin
>> --
>> Martin J. Evans
>> Easysoft Ltd, UK
>> Development
>>
>>
>> On 25-Jul-2005 Brian Becker wrote:
>>
>>>I am trying to bind an undef into an IsNull on a varchar field. When
>>
>> I
>>
>>>write the query binding directly into the IsNull I get no records, yet
>>>if I create a SQL variable, bind the undef to that, and then use the
>>
>> SQL
>>
>>>variable – I get results. I have created a test script that
>>
>> duplicates
>>
>>>the problem (sorry the test is not the best but it does illustrate the
>>>problem). The test script is done off of the Northwind database for
>>
>> SQL
>>
>>>Server 2000.
>>>
>>>Software:
>>>Easysoft
>>>unixODBC-2.2.11
>>>perl, v5.8.6 built for sun4-solaris
>>>DBD-ODBC-1.13
```

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```
>>>DBI-1.48
>>>SQL Server 2000
>>>
>>>Test Script:
>>>
>>>#!perl -w -I./t
>>>
>>>use Test::More;
>>>$| = 1;
>>>
>>>use_ok('DBI', qw(:sql_types));
>>>use_ok('ODBCTEST');
>>>
>>># to help ActiveState's build process along by behaving (somewhat) if a
>>>dsn is not provided
>>>BEGIN {
>>> if (!defined $ENV{DBI_DSN}) {
>>> plan skip_all => "DBI_DSN is undefined";
>>> } else {
>>> plan tests =>4;
>>> }
>>>}
>>>
>>>
>>>#DBI->trace(2);
>>>my $dbh = DBI->connect();
>>>unless($dbh) {
>>># BAILOUT("Unable to connect to the database ($DBI::errstr)\nTests
>>>skipped.\n");
>>> exit 0;
>>>}
>>>
>>>$dbh->{AutoCommit} = 1;
>>>
>>>#### testing a simple select
>>>
>>>my $rc = 0;
>>>my $CustomerID;
>>>my $sql="
>>> Declare \@CustomerID varchar(20)
>>> SET \@CustomerID=?
>>> select * from Orders where CustomerID =
>>>isnull(\@CustomerID,'VINET')
>>> ";
>>>my $sth = $dbh->prepare(qq{$sql});
>>>$sth->bind_param(1,$CustomerID);
>>>$sth->execute();
>>>my $RowCount=0;
>>>while(my $row = $sth->fetchrow_hashref())
>>>{
>>> $RowCount
```