

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

Source: <http://coding.derkeiler.com/Archive/Perl/perl.dbi.users/2005-02/0188.html>

From: Martin J. Evans (martin.evans_at_easysoft.com)

Date: 02/22/05

Date: Tue, 22 Feb 2005 14:57:13 -0000 (GMT)

To: dbi-users@perl.org

On 22-Feb-2005 Walter Obermiller wrote:

> *Martin,*

>

>

>

> *Martin J. Evans wrote:*

>> *The DontDlClose was a suggestion to stop the seg faulting on exit.*

>>

>> *When I said you can use DSN=emanuel-sbart;UID=*;PWD=*, I did of course mean*

>> *to*

>> *say you need to keep the 'dbi:ODBC' on the front. i.e.*

>>

>> *'dbi:ODBC:DSN=emanuel-sbart;UID=*;PWD=*;'*

>

> *blush :-)*

>

> *I have fixed that now.*

You haven't actually shown your DBI->connect now. With DBD::ODBC 1.13 if I do:

```
perl -e 'use DBI;my $dbh =
```

```
DBI->connect("dbi:ODBC:DSN=test;UID=Martin_Evans;PWD=easysoft;");'
```

omitting the username/password arguments

OR

```
perl -e 'use DBI;my $dbh =
```

```
DBI->connect("dbi:ODBC:DSN=test;UID=Martin_Evans;PWD=easysoft;","","");'
```

specifying empty username/password arguments

it works fine:

```
Str In = [DSN=test;UID=Martin_Evans;PWD=*****;][length = 39]
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

Looking at the code in DBD::ODBC it just passes the string straight through if it finds a DSN/UID/PWD. I compared DBD::ODBC 1.13 and 1.06 and I can't see this has changed but you never know. Running with:

```
DBI_TRACE=8=dbitrace.log perl myscript.pl
```

will provide a trace which should show what DBD::ODBC is using.

I'd still like to see your DBI->connect call though.

```
> Ok, got one step further.
>
> Now the test program no longer segfaults, but seems to go into an
> endless loop, trying to connect WITHOUT UID and password, and it gets
> snubbed by the Adabas library for that (see sql.log below).
>
> Window Hdl = (nil)
> Str In =
> [DSN=emanuel-sbart;UID=walter;PWD=***;;UID=;PWD=;][length = 48]
>
> It seems, as if additional empty UID and PWD fields contents get tacked
> at the end of the connection string so that UID and PWD get passed onto
> the ADABAS-Driver empty. The question now is: what is doing such an
> ungodly thing ?
>
>
> Furthermore the programs size grows constantly (memleak).
```

I'd guess this is a bug in your adabas driver – it needs to return SQL_NO_DATA when there are no more diags left and it looks as though it doesn't. We have a recollection of this being found in PHP on a PHP mailing list somewhere.

BTW, I spoke to Nick Gorham and he reminded me what the mixing thread/non-thread applications, drivers and driver managers problem on Linux is. We think the problem is that the internal structure used by dlopen is bigger when built threaded. You can reproduce this with an ODBC app built without -D_REENTRANT and without linking with pthreads (e.g. without gcc -pthread) and then run it against a unixODBC built threaded.

Martin

```
--
Martin J. Evans
Easysoft Ltd, UK
Development
> -----sql.log-----
>
> now things look better. However, it seems to appear
>
> [ODBC][17879][__handles.c][421]
>             Exit:[SQL_SUCCESS]
>             Environment = 0x82ce7c8
> [ODBC][17879][SQLSetEnvAttr.c][182]
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>
>          Entry:
>          Environment = 0x82ce7c8
>          Attribute = SQL_ATTR_ODBC_VERSION
>          Value = 0x3
>          StrLen = -6
> [ODBC][17879][SQLSetEnvAttr.c][349]
>          Exit:[SQL_SUCCESS]
> [ODBC][17879][SQLAllocHandle.c][346]
>          Entry:
>          Handle Type = 2
>          Input Handle = 0x82ce7c8
> [ODBC][17879][SQLAllocHandle.c][464]
>          Exit:[SQL_SUCCESS]
>          Output Handle = 0x82ced58
> [ODBC][17879][SQLDriverConnect.c][666]
>          Entry:
>          Connection = 0x82ced58
>          Window Hdl = (nil)
>          Str In =
[DSN=emanuel-sbart;UID=walter;PWD=***;;UID=;PWD=;][length =
> 48]
>          Str Out = 0xbfffe020
>          Str Out Max = 2048
>          Str Out Ptr = 0xbfffe01e
>          Completion = 0
>          UNICODE Using encoding ASCII 'ISO8859-1' and UNICODE 'UCS-2LE'
>
>          DIAG [08001] [SOFTWARE AG][ODBCLIB A][ADABAS]Client unable to
> establish connection;-715 MISSING USERNAME OR PASSWORD FOR CONNECT.
>
>          DIAG [08001] [SOFTWARE AG][ODBCLIB A][ADABAS]Client unable to
> establish connection;-715 MISSING USERNAME OR PASSWORD FOR CONNECT.
>
> *****his message is repeated about a zillion
> times*****
> -----
>
>
>> Martin
>> --
>> Martin J. Evans
>> Easysoft Ltd, UK
>> Development
>>
>>
>> On 22-Feb-2005 Walter Obermiller wrote:
>>
>>>Martin, thanks.
>>>
>>>I checked. my unixodbc is indeed threaded.
>>>
>>>The driver library however, is not:
>>>
>>> /usr/local/lib/odbc.lib.so
>>> /lib/libNoVersion.so.1 => /lib/libNoVersion.so.1 (0x400a9000)
>>> linux-gate.so.1 => (0xffffe000)
>>> libsqlrte.so => /usr/local/lib/libsqlrte.so (0x400ce000)
>>> libm.so.6 => /lib/tls/libm.so.6 (0x40109000)
>>> libc.so.6 => /lib/tls/libc.so.6 (0x4012c000)
>>> /lib/ld-linux.so.2 => /lib/ld-linux.so.2 (0x80000000)
>>>
>>>
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>>>Even with dontDLclose=1 set, I get the dreaded:
>>>
>>> Can't connect to data source DSN=emanuel-sbart;UID=*;PWD=*; , no
>>> database driver specified and DBI_DSN env var not set at
>>> odbc-emanuel-test.pl line 17
>>>
>>>message. In particular, do you have any idea how I should interpret the
>>>'no database driver' specified part of the message; is this the result
>>>of an earlier failure or does it mean something?
>>>
>>>
>>> -walt
>>>
>>>
>>>
>>>>Quoting Walter Obermiller <obermiller@schweizerbart.de>:
>>>>
>>>>
>>>>
>>>>Martin,
>>>>
>>>>thanks for your reply.
>>>>
>>>>as to the version of unixodbc, I use what is part of SuSe 9.2:
>>>>
>>>> Name : unixODBC Relocations: (not relocatable)
>>>> Version : 2.2.9 Vendor: SUSE LINUX AG, Nuernberg, Germany
>>>> Release : 4 Build Date: Mo 04 Okt 2004 22:49:44
>>>>
>>>>Is there a way other than recompiling to check whether threading is
>>>>enabled in this build ?
>>>>
>>>>Try running ldd on libodbc.so and if it mentions pthread library it is
>>>>probably built with --enable-threads=yes.
>>>>
>>>>Changing the connect string to
>>>>
>>>> my $dbh = DBI->connect('DSN=emanuel-sbart;UID=***;PWD=***;')
>>>>
>>>> || die "can't connect to $data_source: $DBI::errstr";
>>>>
>>>>as you suggested results in the message:
>>>>
>>>> Can't connect to data source DSN=emanuel-sbart;UID=***;PWD=***;,
>>>> no database driver specified and DBI_DSN env var not set at
>>>> odbc-emanuel-test.pl line 17
>>>>
>>>>You asked about the driver I am using:
>>>>
>>>>-----/etc/unixODBC/odbcinst.ini-----
>>>>[AdabasD]
>>>>Description = AdabasD -Treiber
>>>>Driver = /usr/local/lib/odbclib.so
>>>>
>>>>this .so is from the adabas11-06 distribution.
>>>>
>>>>-----/etc/odbc.ini
>>>>[emanuel-sbart]
>>>>Description = Adabas 11.06 on emanuel
>>>>Driver = AdabasD
>>>>Server = emanuel
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>>>>Database = sbart
>>>>
>>>>
>>>>
>>>>Try adding DontDLClose=1 to your driver entry in the odbcinst.ini
>>>>file. It stop unixODBC calling dlclose. Sometimes drivers install atexit
>>>>handlers and once the driver manager has unloaded the .so they are invalid
>>>>at exit time.
>>>>
>>>>Martin
>>>>
>>>>
>>>>
>>>>>Martin Evans wrote:
>>>>>
>>>>>
>>>>>>I might be wrong - my info is well out of date... but on Linux, Perl
>>>>>>built
>>>>>>multithreaded always segfaulted with unixODBC. I think this happened even
>>>>>>
>>>>>>if
>>>>>>
>>>>>>
>>>>>>>unixODBC was built threaded (--enable-threads=yes - the default for
>>>>>>>
>>>>>>>unixODBC's
>>>>>>>
>>>>>>>
>>>>>>>configure but I'd check your unixODBC was built threaded). I can't
>>>>>>>remember
>>>>>>>
>>>>>>>the
>>>>>>>
>>>>>>>
>>>>>>>exact reason I'm afraid. isql is not threaded.
>>>>>>>
>>>>>>>The data source not found message may be related to what DBD::ODBC does.
>>>>>>>It first tries to call SQLDriverConnect with (in your case) emanuel-sbart
>>>>>>>
>>>>>>>and
>>>>>>>
>>>>>>>
>>>>>>>>when that fails calls SQLConnect(emanuel-sbart) - you can see this in
>>>>>>>>your
>>>>>>>>
>>>>>>>>log.
>>>>>>>>
>>>>>>>>
>>>>>>>>>You can get around this by making the DBI connect string
>>>>>>>>>"DSN=emanuel-sbart;UID=db_user;PWD=db_pass;". See
>>>>>>>>>
>>>>>>>>>>http://www.easysoft.com/products/9999/faq\_answer.phtml?ID=97&product=2002
>>>>>>>>>>
>>>>>>>>>>>but it won't make the segfault go away. I'd rebuild your Perl without
>>>>>>>>>>>
>>>>>>>>>>>threads if
>>>>>>>>>>>
>>>>>>>>>>>
>>>>>>>>>>>>I were you.
>>>>>>>>>>>>
>>>>>>>>>>>>>You can also see from your log that the SQLConnect succeeds.
>>>>>>>>>>>>>>
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database 5

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>>>>>BTW, you did not mention which driver you were using.
>>>>>
>>>>>Martin
>>>>>
>>>>>Quoting Walter Obermiller <obermiller@schweizerbart.de>:
>>>>>
>>>>>
>>>>>
>>>>>Hi, all
>>>>>
>>>>>I am experiencing a puzzling problem while trying to get an DBD::ODBC
>>>>>connection (via unixODBC) working from a client machine A (Suse linux)
>>>>>to a an ADABAS-D-11 database running on a remote machine (B, also Suse
>>>>>linux)
>>>>>
>>>>>
>>>>>----- Machine A (client)
>>>>> Linux 2.6.8-2
>>>>> Perl : 5.008005 (i586-linux-thread-multi)
>>>>> OS : linux (2.6.8.1)
>>>>> DBI : 1.43
>>>>> DBD::Proxy : install_driver(Proxy) failed: Can't locate
>>>>>RPC/PlClient.pm in @INC
>>>>> DBD::ODBC : 1.06
>>>>>-----
>>>>>
>>>>>
>>>>>>Connections using isql (unixODBC) from machine A to machine B run
>>>>>>smoothly, hence I reckon, unixodbc and prima facie odbc-configuration
>>>>>>blotches are not the problem.
>>>>>>
>>>>>>
>>>>>>When I try to trivially connect with DBD::ODBC to the very same DSN
>>>>>>that I could connect to using isql without a problem, I get a
>>>>>>segmentation fault.
>>>>>>
>>>>>>-----trivial-connect-----
>>>>>>#!/usr/bin/perl
>>>>>>use DBI;
>>>>>>my $dbh = DBI->connect('dbi:ODBC:emanuel-sbart', '***','***') ||
>>>>>> die "can't connect to $data_source: $DBI::errstr";
>>>>>>$src = $dbh->disconnect;
>>>>>>exit();
>>>>>>-----
>>>>>>
>>>>>>>and inspection of the sql.log (of unixodbc) reveals the error message:
>>>>>>>
>>>>>>>-----
>>>>>>>Message Text = [[unixODBC][Driver Manager]Data source name not found,
>>>>>>>and no default driver specified]
>>>>>>>[ODBC][13206][SQLException.c][424]
>>>>>>>-----
>>>>>>>
>>>>>>>
>>>>>>>Can anybody give me an idea which direction could be pursued to solve
>>>>>>>this problem ?
>>>>>>>
>>>>>>>What beats me is that isql can connect to my remote database, but an
>>>>>>>dbd::odbc connection to the same DSN utterly fails.
>>>>>>>
>>>>>>>Any hints welcome.
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database 6

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>>>>>>
>>>>>>  -walter
>>>>>>
>>>>>>
>>>>>>
>>>>>>-----sql.log-----
>>>>>>--
>>>>>>--
>>>>>>
>>>>>>[ODBC][13206][__handles.c][421]
>>>>>>      Exit:[SQL_SUCCESS]
>>>>>>
>>>>>>
>>>>>>  Environment = 0x82ce928
>>>>>>
>>>>>>
>>>>>>
>>>>>>[ODBC][13206][SQLSetEnvAttr.c][182]
>>>>>>      Entry:
>>>>>>
>>>>>>  Environment = 0x82ce928
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>  Attribute = SQL_ATTR_ODBC_VERSION
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>  Value = 0x3
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>  StrLen = -6
>>>>>>
>>>>>>
>>>>>>
>>>>>>[ODBC][13206][SQLSetEnvAttr.c][349]
>>>>>>      Exit:[SQL_SUCCESS]
>>>>>>[ODBC][13206][SQLAllocHandle.c][346]
>>>>>>      Entry:
>>>>>>
>>>>>>
>>>>>>  Handle Type = 2
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>  Input Handle = 0x82ce928
>>>>>>
>>>>>>
>>>>>>
>>>>>>[ODBC][13206][SQLAllocHandle.c][464]
>>>>>>      Exit:[SQL_SUCCESS]
>>>>>>
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>>>>>
>>>>> Output Handle = 0x82ceeb8
>>>>>
>>>>>
>>>>>
>>>>>[ODBC][13206][SQLDriverConnect.c][666]
>>>>> Entry:
>>>>>
>>>>>
>>>>> Connection = 0x82ceeb8
>>>>>
>>>>>
>>>>>
>>>>>
>>>>> Window Hdl = (nil)
>>>>>
>>>>>
>>>>>
>>>>> Str In = [emanuel-sbart][length = 13]
>>>>>
>>>>>
>>>>>
>>>>>
>>>>> Str Out = 0xbffdfc0
>>>>>
>>>>>
>>>>>
>>>>> Str Out Max = 2048
>>>>>
>>>>>
>>>>>
>>>>>
>>>>> Str Out Ptr = 0xbffdfbe
>>>>>
>>>>>
>>>>>
>>>>> Completion = 0
>>>>>
>>>>>
>>>>>
>>>>>[ODBC][13206][SQLDriverConnect.c][998]Error: IM002
>>>>>[ODBC][13206][SQLError.c][424]
>>>>> Entry:
>>>>>
>>>>>
>>>>> Connection = 0x82ceeb8
>>>>>
>>>>>
>>>>>
>>>>>
>>>>>
>>>>> SQLState = 0xbffdf60
>>>>>
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

```
>>>>>
>>>>>
>>>>>>
>>>>>
>>>>> Native = 0xbffffd58
>>>>>
>>>>>
>>>>>
>>>>>>
>>>>>
>>>>> Message Text = 0xbffffd60
>>>>>
>>>>>
>>>>>
>>>>>>
>>>>>
>>>>> Buffer Length = 511
>>>>>
>>>>>
>>>>>>
>>>>> Text Len Ptr = 0xbffffd5e
>>>>>
>>>>>
>>>>>>[ODBC][13206][SQLError.c][461]
>>>>>>         Exit:[SQL_SUCCESS]
>>>>>>
>>>>>
>>>>> SQLState = IM002
>>>>>
>>>>>
>>>>>
>>>>>>
>>>>>
>>>>> Native = 0xbffffd58 -> 0
>>>>>
>>>>>
>>>>>>
>>>>>
>>>>> Message Text = [[unixODBC][Driver Manager]Data source name not found,
>>>>>
>>>>>
>>>>>
>>>>>>and no default driver specified]
>>>>>>[ODBC][13206][SQLError.c][424]
>>>>>>         Entry:
>>>>>>
>>>>>
>>>>> Connection = 0x82ceeb8
>>>>>
>>>>>
>>>>>
>>>>>>
>>>>>
>>>>> SQLState = 0xbffffdf60
>>>>>
>>>>>
>>>>>>
```

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

perl.dbi.users: Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database

>>>
>>>

Re: [dbi] Re: Problem with DBD::ODBC (via unixODBC) connection to remote ADABAS-11 database