



DIVISION OF
DIGITAL CONTENTS
DONGSEO UNIVERSITY

Database

OTL v4 Database Test

jintaeks@dongseo.ac.kr

April 24, 2019

SELECT

```

#include "otlv4.h" // include the OTL 4.0 header file

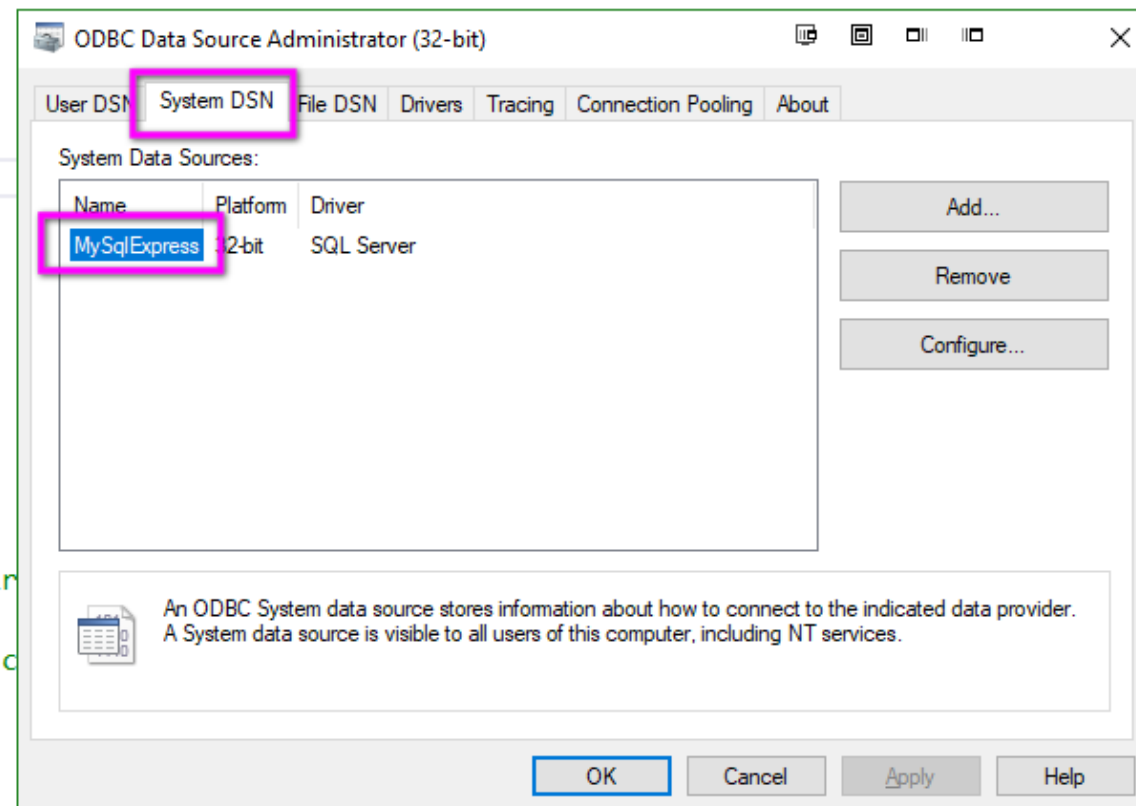
otl_connect db; // connect object

void select()
{
    otl_stream i(50, // buffer size
        "select loginName from MyUser",
        // SELECT statement
        db // connect object
    );

    // create select stream
    char f2[31];
    while (!i.eof()) { // while not end-of-data
        i >> f2;
        std::cout << "f2=" << f2 << std::endl;
    }
}

int main()
{
    otl_connect::otl_initialize(); // initialize ODBC environ
    try {
        db.rlogon("UID=sa;PWD=1234;DSN=MySqlExpress"); // c
        select(); // select records from table
    }
    catch (otl_exception& p) { // intercept OTL exceptions
        std::cerr << p.msg << std::endl; // print out error message
        std::cerr << p.stm_text << std::endl; // print out SQL that caused the error
    }
}

```



SQLQuery1.sql - JINTAEKS2-PC\SQLEXPRESS.Customer (sa (52))* - Microsoft SQL Server Management Studio

File Edit View Query Project Debug Tools Window Help

Customer Execute Debug

Object Explorer

Connect JINTAEKS2-PC\SQLEXPRESS (SQL Server 12.0.2000 - sa)

Databases

System Databases

Customer

Security

Server Objects

Replication

Management

XEvent Profiler

SQLQuery1.sql - JIN...Customer (sa (52))*

```
select * from MyUser
```

194 %

Results Messages

| | loginName | nickName | age | creationDate |
|---|-----------|---------------|-----|-------------------------|
| 1 | jintaeks | jintaeksNick | 51 | 2019-04-12 22:45:39.863 |
| 2 | jintaeks2 | jintaeksNick2 | 51 | 2019-04-12 23:23:23.907 |

Properties

Current connection parameters

Aggregate Status

Connection failure:

Elapsed time 00:00:00.315

Finish time 4/15/2019 9:17:35 PM

Name JINTAEKS2-PC\SQLEXPRESS

Rows returned 2

Start time 4/15/2019 9:17:34 PM

State Open

Connection

Connection name JINTAEKS2-PC\SQLEXPRESS

Connection Details

Azure Active Direct

Connection elapsed 00:00:00.315

Connection encrypt Not encrypted

Connection finish t 4/15/2019 9:17:35 PM

Connection rows re 2

Connection start ti 4/15/2019 9:17:34 PM

Connection state Open

Display name JINTAEKS2-PC\SQLEXPRESS

Login name sa

Server name JINTAEKS2-PC\SQLEXPRESS

Server version 12.0.2000

Session Tracing ID

SPID 52

Name

The name of the connection.

Query executed successfully. JINTAEKS2-PC\SQLEXPRESS (12... sa (52) Customer 00:00:00 2 rows

Ready Ln 1 Col 1 Ch 1 INS

The image shows a Visual Studio IDE with a C++ project named OtlTest. The code in OtlTest.cpp is as follows:

```
4  #include "otlv4.h" // include the OTL 4.0 header file
5
6  otl_connect db; // connect object
7
8  void select()
9  {
10     otl_stream i(50, // buffer size
11                 "select loginName from MyUser",
12                 // SELECT statement
13                 db // connect object
14             );
15
16     // create select stream
17     char f2[31];
18     while (!i.eof()) { // while not end-of-data
19         i >> f2;
20         std::cout << "f2=" << f2 << std::endl;
21     }
22 }
23
24 int main()
25 {
26     otl_connect::otl_initialize(); // initialize
27     try {
28         db.rlogon("UID=sa;PWD=1234;DSN=MySqlExpre
29         ...
```

The Microsoft Visual Studio Debug Console shows the following output:

```
f2=j intaeks
f2=j intaeks2
C:\Svn\j intaeks\DiconServer\DatabaseProject\Debug\OtlTest.exe
Press any key to close this window . . .
```

Calling Stored Procedure

SQLQuery2.sql - JINTAEKS2-PC\SQLEXPRESS.Customer (sa (54)) - Microsoft SQL Server Management Studio

File Edit View Query Project Debug Tools Window Help

Customer Execute Debug

Object Explorer

Connect

JINTAEKS2-PC\SQLEXPRESS (SQL Server 12.0.2000 - sa)

- Databases
 - System Databases
 - Customer
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - dbo.Character
 - dbo.MyUser
 - dbo.User2
 - Views
 - Synonyms
 - Programmability
 - Stored Procedures
 - System Stored Procedures
 - dbo.CreateUser
 - dbo.spECHO
 - dbo.spEcho2
 - dbo.spGetAllUser
 - dbo.spUpdateAge
 - Functions
 - Database Triggers
 - Assemblies
 - Types
 - Rules
 - Defaults
 - Sequences
 - Service Broker
 - Storage

SQLQuery2.sql - JIN...Customer (sa (54)) SQLQuery1.sql - JIN...Customer (sa (53))

```
1 /***** Script for SelectTopNRows command from SSMS *****/
2 SELECT TOP (1000) [loginName]
3     ,[nickName]
4     ,[age]
5     ,[creationDate]
6     ,[id]
7 FROM [Customer].[dbo].[User2]
```

Results

| | loginName | nickName | age | creationDate | id |
|---|-----------|---------------|------|-------------------------|----|
| 1 | jintaeks | jintaeksNick | 50 | 2019-04-23 00:00:00.000 | 1 |
| 2 | jintaeks2 | jintaeks2Nick | 50 | 2019-04-23 00:00:00.000 | 2 |
| 3 | jintaeks3 | NULL | NULL | 2019-04-23 15:26:52.167 | 3 |

100 %

Query executed successfully. JINTAEKS2-PC\SQLEXPRESS (12... sa (54) Customer 00:00:00 3 rows

Properties

Current connection parameters

Aggregate Status

Connection failure:

Elapsed time 00:00:00.339

Finish time 4/24/2019 2:12:20 PM

Name JINTAEKS2-PC\SQLEXPRESS

Rows returned 3

Start time 4/24/2019 2:12:20 PM

State Open

Connection

Connection name JINTAEKS2-PC\SQLEXPRESS

Connection Details

Azure Active Direct

Connection elapsed 00:00:00.339

Connection encrypt Not encrypted

Connection finish time 4/24/2019 2:12:20 PM

Connection rows returned 3

Connection start time 4/24/2019 2:12:20 PM

Connection state Open

Display name JINTAEKS2-PC\SQLEXPRESS

Login name sa

Server name JINTAEKS2-PC\SQLEXPRESS

Server version 12.0.2000

Session Tracing ID

SPID 54

Name

The name of the connection.

SQLQuery4.sql - JINTAEKS2-PC\SQLEXPRESS.Customer (sa (54)) - Microsoft SQL Server Management Studio

File Edit View Query Project Debug Tools Window Help

Customer Execute Debug

Object Explorer

Connect

JINTAEKS2-PC\SQLEXPRESS (SQL Server 12.0.2000 - sa)

- Databases
 - System Databases
 - Customer
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - dbo.Character
 - dbo.MyUser
 - dbo.User2
 - Views
 - Synonyms
 - Programmability
 - Stored Procedures
 - System Stored Procedures
 - dbo.CreateUser
 - dbo.spEcho
 - dbo.spEcho2
 - dbo.spGetAllUser
 - dbo.spUpdateAge
 - Functions
 - Database Triggers
 - Assemblies
 - Types
 - Rules
 - Defaults
 - Sequences
 - Service Broker
 - Storage

SQLQuery4.sql - JIN....Customer (sa (54))

```
1 USE [Customer]
2 GO
3 /***** Object: StoredProcedure [dbo].[CreateUser]    Script Date: 4/24/2019 2
4 SET ANSI_NULLS ON
5 GO
6 SET QUOTED_IDENTIFIER ON
7 GO
8 ALTER Procedure [dbo].[CreateUser]
9     @loginName varchar(50),
10     @id bigint OUTPUT
11 As
12     Set NOCOUNT On;
13     if EXISTS (SELECT * From User2 Where loginName = @loginName)
14     begin
15         Select id from User2 Where loginName = @loginName;
16         Return 0 -- return false, loginName is already exist
17     end
18     else
19     begin
20         Insert into User2(loginName, creationDate)
21             values (@loginName, getdate());
22         Select @id = id from User2 Where loginName = @loginName;
23         Return 1 -- return true, loginName is created
24     end
```

Properties

Current connection parameters

Aggregate Status

| | |
|---------------------|-------------------------|
| Connection failure: | |
| Elapsed time | |
| Finish time | |
| Name | JINTAEKS2-PC\SQLEXPRESS |
| Rows returned | 0 |
| Start time | |
| State | Open |

Connection

Connection name JINTAEKS2-PC\SQLEXPRESS

Connection Details

| | |
|---------------------|-------------------------|
| Azure Active Direct | |
| Connection elapsed | |
| Connection encrypt | Not encrypted |
| Connection finish t | |
| Connection rows re | 0 |
| Connection start ti | |
| Connection state | Open |
| Display name | JINTAEKS2-PC\SQLEXPRESS |
| Login name | sa |
| Server name | JINTAEKS2-PC\SQLEXPRESS |
| Server version | 12.0.2000 |
| Session Tracing ID | |
| SPID | 54 |

Name

The name of the connection.

100 %

Connected. (1/1)

JINTAEKS2-PC\SQLEXPRESS (12... | sa (54) | Customer | 00:00:00 | 0 rows

Ready

Ln 10 Col 20 Ch 20 INS

DatabaseProject - All - Microsoft Visual Studio

File Edit View VAssistX Project Build Debug Team Tools Test Analyze Window Help

Debug Any CPU

OtlTest.cpp

OtlTest

```
8 // invoking stored procedure
9 void stored_proc(void)
10 {
11     otl_stream o(1, // buffer size should
12                 "{call CreateUser("
13                 " :A<char[50],in>, "
14                 " :B<int,out>"
15                 ")}",
16                 // stored procedure call
17                 db // connect object
18            );
19
20     o.set_commit(0); // set stream auto-c
21                     // the stream does n
22     std::string strLogin = "jintaeks4";
23     o << strLogin.c_str(); // assigning :
24
25     int id;
26
27     o >> id;
28     std::cout << "A=" << strLogin.c_str() << ", B=" << id << std::endl;
29 }
30
31 void select()
32 {
33     otl_stream i(50, // buffer size
34                 "select loginName from User2",
35                 // SELECT statement
```

Microsoft Visual Studio Debug Console

```
f2=jintaeks
f2=jintaeks2
f2=jintaeks3
A=jintaeks4, B=4
C:\Svn\jintaeks\DiConServer\DatabaseProject\Debug\OtlTest.exe (proces
Press any key to close this window . . .
```

SQLQuery3.sql - JINTAEKS2-PC\SQLEXPRESS.Customer (sa (56)) - Microsoft SQL Server Management Studio

File Edit View Query Project Debug Tools Window Help

Customer Execute Debug

Object Explorer

Connect

JINTAEKS2-PC\SQLEXPRESS (SQL Server 12.0.2000 - sa)

Databases

System Databases

Customer

Database Diagrams

Tables

System Tables

FileTables

dbo.Character

dbo.MyUser

dbo.User2

Views

Synonyms

Programmability

Stored Procedures

System Stored Procedures

dbo.CreateUser

dbo.spEcho

dbo.spEcho2

dbo.spGetAllUser

dbo.spUpdateAge

Functions

Database Triggers

Assemblies

Types

Rules

Defaults

Sequences

Service Broker

Storage

SQLQuery3.sql - JIN...Customer (sa (56))

```
1 /***** Script for SelectTopNRows command from SSMS *****/
2 SELECT TOP (1000) [loginName]
3     ,[nickName]
4     ,[age]
5     ,[creationDate]
6     ,[id]
7 FROM [Customer].[dbo].[User2]
```

100 %

Results Messages

| | loginName | nickName | age | creationDate | id |
|---|-----------|---------------|------|-------------------------|----|
| 1 | jintaeks | jintaeksNick | 50 | 2019-04-23 00:00:00.000 | 1 |
| 2 | jintaeks2 | jintaeks2Nick | 50 | 2019-04-23 00:00:00.000 | 2 |
| 3 | jintaeks3 | NULL | NULL | 2019-04-23 15:26:52.167 | 3 |
| 4 | jintaeks4 | NULL | NULL | 2019-04-24 14:15:09.320 | 4 |

Query executed successfully. JINTAEKS2-PC\SQLEXPRESS (12... sa (56) Customer 00:00:00 4 rows

Properties

Current connection parameters

Aggregate Status

Connection failure:

Elapsed time 00:00:00.056

Finish time 4/24/2019 2:17:57 PM

Name JINTAEKS2-PC\SQLEXPRESS

Rows returned 4

Start time 4/24/2019 2:17:57 PM

State Open

Connection

Connection name JINTAEKS2-PC\SQLEXPRESS

Connection Details

Azure Active Direct

Connection elapsed 00:00:00.056

Connection encrypt Not encrypted

Connection finish time 4/24/2019 2:17:57 PM

Connection rows returned 4

Connection start time 4/24/2019 2:17:57 PM

Connection state Open

Display name JINTAEKS2-PC\SQLEXPRESS

Login name sa

Server name JINTAEKS2-PC\SQLEXPRESS

Server version 12.0.2000

Session Tracing ID

SPID 56

Name

The name of the connection.

MY **BRIGHT** FUTURE

DSU Dongseo University
동서대학교