SQL Server connection strings

.NET libraries

- .NET Framework Data Provider for SQL Server
- Context Connection

OLE DB providers

- SQL Server Native Client 11.0 OLE DB Provider
- SQL Server Native Client 10.0 OLE DB Provider
- SQL Native Client 9.0 OLE DB Provider
- Microsoft OLE DB Provider for SQL Server
- SQLXML 4.0 OLEDB Provider
- SQLXML 3.0 OLEDB Provider

ODBC drivers

- SQL Server Native Client 11.0 ODBC Driver
- SQL Server Native Client 10.0 ODBC Driver
- SQL Native Client 9.0 ODBC Driver
- Microsoft SQL Server ODBC Driver

Wrappers and others

- MSDataShape
- .NET Framework Data Provider for OLE DB
- .NET Framework Data Provider for ODBC

.NET Framework Data Provider for SQL Server

Standard Security

```
Server=myServerAddress; Database=myDataBase; User Id=myUsername;
Password=myPassword;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 2012 SQL Server 7.0

Trusted Connection

```
Server=myServerAddress;Database=myDataBase;Trusted_Connection=True;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 2012 SQL Server 7.0

Connection to a SQL Server instance

The ***server/instance*** name syntax used in the ***server*** option is the same for all SQL Server connection strings.

```
Server=myServerName\myInstanceName;Database=myDataBase;User Id=myUsername;
Password=myPassword;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 2012 SQL Server 7.0

Trusted Connection from a CE device

A Windows CE device is most often not authenticated and logged in to a domain but it is possible to use SSPI or trusted connection and authentication from a CE device using this connection string.

```
Data Source=myServerAddress;Initial Catalog=myDataBase;Integrated Security=SSPI;
User ID=myDomain\myUsername;Password=myPassword;
```

Note that this will ***only*** work on a CE device.

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 2012 SQL Server 7.0

Connect via an IP address

```
Data Source=190.190.200.100,1433;Network Library=DBMSSOCN;
Initial Catalog=myDataBase;User ID=myUsername;Password=myPassword;
```

DBMSSOCN=TCP/IP is how to use TCP/IP instead of Named Pipes. At the end of the Data Source is the port to use. 1433 is the default port for SQL Server. Read more here .

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 2012 SQL Server 7.0

Enable MARS

```
Server=myServerAddress;Database=myDataBase;Trusted_Connection=True;
MultipleActiveResultSets=true;
```

SQL Server 2005 SQL Server 2008 SQL Server 2012

Attach a database file on connect to a local SQL Server Express instance

```
Server=.\SQLExpress; AttachDbFilename=C:\MyFolder\MyDataFile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005 SQL Server 2008 SQL Server 2012

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Server=.\SQLExpress; AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005 SQL Server 2008 SQL Server 2012

User Instance on local SQL Server Express

The ***User Instance*** feature is deprecated with SQL Server 2012, use the ***SQL Server Express LocalDB*** feature instead.

SQL Server 2012

LocalDB automatic instance

```
Server=(localdb)\v11.0; Integrated Security=true;
```

The first connection to LocalDB will create and start the instance, this takes some time and might cause a connection timeout failure. If this happens, wait a bit and connect again.

SQL Server 2012

LocalDB automatic instance with specific data file

```
Server=(localdb)\v11.0; Integrated Security=true;
AttachDbFileName=C:\MyFolder\MyData.mdf;
```

SQL Server 2012

LocalDB named instance

To create a named instance, use the **SqlLocalDB.exe** program. Example `SqlLocalDB.exe create MyInstance` and `SqlLocalDB.exe start MyInstance`

```
Server=(localdb)\MyInstance; Integrated Security=true;
```

SQL Server 2012

LocalDB named instance via the named pipes pipe name

The *Server=(localdb)* syntax is not supported by .NET framework versions before 4.0.2. However the named pipes connection will work to connect pre 4.0.2 applications to LocalDB instances.

```
Server=np:\\.\pipe\LOCALDB#F365A78E\tsql\query;
```

Executing `SqlLocalDB.exe info MyInstance` will get you (along with other info) the instance pipe name such as "np:\\.\pipe\LOCALDB#F365A78E\tsql\query".

SQL Server 2012

LocalDB shared instance

Both automatic and named instances of LocalDB can be shared.

```
Server = (localdb)\.\MyInstanceShare; Integrated Security = true;
```

Use **SqlLocalDB.exe** to share or unshare an instance. For example execute `SqlLocalDB.exe share "MyInstance" "MyInstanceShare"` to share an instance.

SQL Server 2012

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Data Source = myServerAddress; Failover Partner = myMirrorServerAddress;
Initial Catalog = myDataBase; Integrated Security = True;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

SQL Server 2005 SQL Server 2008 SQL Server 2012

Asynchronous processing

A connection to SQL Server that allows for the issuing of async requests through ADO.NET objects.

```
Server = myServerAddress; Database = myDataBase; Integrated Security = True;
Asynchronous Processing = True;
```

See also the List of all SqlConnection connection string properties

SQL Server 2005 SQL Server 2008 SQL Server 2012

Using an User Instance on a local SQL Server Express instance

The User Instance functionality creates a new SQL Server instance on the fly during connect. This works only on a local SQL Server instance and only when connecting using windows authentication over local named pipes. The purpose is to be able to create a full rights SQL Server instance to a user with limited administrative rights on the computer.

```
Data Source = .\SQLExpress; Integrated Security = true;
AttachDbFilename = C:\MyFolder\MyDataFile.mdf; User Instance = true;
```

To use the User Instance functionality you need to enable it on the SQL Server. This is done by executing the following command: sp_configure 'user instances enabled', '1'. To disable the functionality execute sp_configure 'user instances enabled', '0'.

SQL Server 2005 SQL Server 2008

Specifying packet size

```
Server = myServerAddress; Database = myDataBase; User ID = myUsername;
Password = myPassword; Trusted_Connection = False; Packet Size = 4096;
```

By default, the Microsoft .NET Framework Data Provider for SQL Server sets the network packet size to 8192 bytes. This might however not be optimal, try to set this value to 4096 instead. The default value of 8192 might cause ***Failed to reserve contiguous memory*** errors as well, read more here .

SQL Server 2000 SQL Server 7.0

Problems connecting?

Get answer in the SQL Server Q & A forum

Context Connection

Context Connection

Connecting to "self" from within your CLR stored prodedure/function. The context connection lets you execute Transact-SQL statements in the same context (connection) that your code was invoked in the first place.

```
C#
 using(SqlConnection connection = new SqlConnection("context connection=true"))
 {
     connection.Open();
     // Use the connection
 }

VB.Net
 Using connection as new SqlConnection("context connection=true")
     connection.Open()
     ' Use the connection
 End Using
```

SQL Server 2005 SQL Server 2008 SQL Server 2012

SQL Server Native Client 11.0 OLE DB Provider

Standard security

```
Provider=SQLNCLI11; Server=myServerAddress; Database=myDataBase; Uid=myUsername;
Pwd=myPassword;
```

Are you using SQL Server 2012 Express? Don't miss the server name syntax Servername\SQLEXPRESS where you substitute Servername with the name of the computer where the SQL Server 2012 Express installation resides.

When to use SQL Native Client?

SQL Server 2012

Trusted connection

```
Provider=SQLNCLI11; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

Equivalent key-value pair: "Integrated Security=SSPI" equals "Trusted_Connection=yes"

SQL Server 2012

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Provider=SQLNCLI11; Server=myServerName\theInstanceName; Database=myDataBase;
Trusted_Connection=yes;
```

SQL Server 2012

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Provider=SQLNCLI11;Server=myServerAddress;DataBase=myDataBase;"
```

SQL Server 2012

Enable MARS

```
Provider=SQLNCLI11; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; MARS Connection=True;
```

SQL Server 2012

Encrypt data sent over network

```
Provider=SQLNCLI11; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; Encrypt=yes;
```

SQL Server 2012

Attach a database file on connect to a local SQL Server Express instance

```
Provider=SQLNCLI11; Server=.\SQLExpress; AttachDbFilename=c:\asd\qwe\mydbfile.mdf;
Database=dbname; Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2012

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Provider=SQLNCLI11; Server=.\SQLExpress;
AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2012

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Provider=SQLNCLI11; Data Source=myServerAddress;
Failover Partner=myMirrorServerAddress; Initial Catalog=myDataBase;
Integrated Security=True;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

SQL Server 2012

SQL Server Native Client 10.0 OLE DB Provider

Standard security

```
Provider=SQLNCLI10; Server=myServerAddress; Database=myDataBase; Uid=myUsername;
Pwd=myPassword;
```

Are you using SQL Server 2008 Express? Don't miss the server name syntax Servername\SQLEXPRESS where you substitute Servername with the name of the computer where the SQL Server 2008 Express installation resides.

When to use SQL Native Client?

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Trusted connection

```
Provider=SQLNCLI10; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

Equivalent key-value pair: "Integrated Security=SSPI" equals "Trusted_Connection=yes"

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Provider=SQLNCLI10; Server=myServerName\theInstanceName; Database=myDataBase;
Trusted_Connection=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Provider=SQLNCLI10;Server=myServerAddress;DataBase=myDataBase;"
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Enable MARS

```
Provider=SQLNCLI10; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; MARS Connection=True;
```

SQL Server 2005 SQL Server 2008

Encrypt data sent over network

```
Provider=SQLNCLI10; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; Encrypt=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Attach a database file on connect to a local SQL Server Express instance

```
Provider=SQLNCLI10; Server=.\SQLExpress; AttachDbFilename=c:\asd\qwe\mydbfile.mdf;
Database=dbname; Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005 SQL Server 2008

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Provider=SQLNCLI10; Server=.\SQLExpress;
AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005 SQL Server 2008

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Provider=SQLNCLI10; Data Source=myServerAddress;
Failover Partner=myMirrorServerAddress; Initial Catalog=myDataBase;
Integrated Security=True;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

SQL Server 2005 SQL Server 2008

SQL Native Client 9.0 OLE DB Provider

Standard security

```
Provider=SQLNCLI; Server=myServerAddress; Database=myDataBase; Uid=myUsername;
Pwd=myPassword;
```

Are you using SQL Server 2005 Express? Don't miss the server name syntax Servername\SQLEXPRESS where you substitute Servername with the name of the computer where the SQL Server 2005 Express installation resides.

When to use SQL Native Client?

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Trusted connection

```
Provider=SQLNCLI; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

Equivalent key-value pair: "Integrated Security=SSPI" equals "Trusted_Connection=yes"

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Provider=SQLNCLI; Server=myServerName\theInstanceName; Database=myDataBase;
Trusted_Connection=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Provider=SQLNCLI;Server=myServerAddress;DataBase=myDataBase;"
```

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Enable MARS

```
Provider=SQLNCLI; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; MARS Connection=True;
```

SQL Server 2005

Encrypt data sent over network

```
Provider=SQLNCLI; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; Encrypt=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Attach a database file on connect to a local SQL Server Express instance

```
Provider=SQLNCLI; Server=.\SQLExpress; AttachDbFilename=c:\mydbfile.mdf;
Database=dbname; Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Provider=SQLNCLI; Server=.\SQLExpress;
AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Provider=SQLNCLI; Data Source=myServerAddress;
Failover Partner=myMirrorServerAddress; Initial Catalog=myDataBase;
Integrated Security=True;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

SQL Server 2005

Microsoft OLE DB Provider for SQL Server

Standard Security

```
Provider=sqloledb; Data Source=myServerAddress; Initial Catalog=myDataBase;
User Id=myUsername; Password=myPassword;
```

SQL Server 2000 SQL Server 7.0

Trusted connection

```
Provider=sqloledb; Data Source=myServerAddress; Initial Catalog=myDataBase;
Integrated Security=SSPI;
```

Use serverName\instanceName as Data Source to use a specific SQL Server instance. Please note that the multiple SQL Server instances feature is available only from SQL Server version 2000 and not in any previous versions.

SQL Server 2000 SQL Server 7.0

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Provider=sqloledb; Data Source=myServerName\theInstanceName;
Initial Catalog=myDataBase; Integrated Security=SSPI;
```

SQL Server 2000 SQL Server 7.0

Prompt for username and password

This one is a bit tricky. First set the connection object's Provider property to "sqloledb". Thereafter set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Provider = "sqloledb"
oConn.Properties("Prompt") = adPromptAlways
```

```
oConn.Open "Data Source=myServerAddress;Initial Catalog=myDataBase;"
```

SQL Server 2000 SQL Server 7.0

Connect via an IP address

```
Provider=sqloledb; Data Source=190.190.200.100,1433; Network Library=DBMSSOCN;
Initial Catalog=myDataBase; User ID=myUsername; Password=myPassword;
```

DBMSSOCN=TCP/IP. This is how to use TCP/IP instead of Named Pipes. At the end of the Data Source is the port to use. 1433 is the default port for SQL Server. Read more in the article How to define which network protocol to use .

SQL Server 2000 SQL Server 7.0

Disable connection pooling

This one is usefull when receving errors "sp_setapprole was not invoked correctly." (7.0) or "General network error. Check your network documentation" (2000) when connecting using an application role enabled connection. Application pooling (or OLE DB resource pooling) is on by default. Disabling it can help on this error.

```
Provider=sqloledb; Data Source=myServerAddress; Initial Catalog=myDataBase;
User ID=myUsername; Password=myPassword; OLE DB Services=-2;
```

SQL Server 2000 SQL Server 7.0

SQLXML 4.0 OLEDB Provider

Using SQL Server Native Client provider (SQLNCLI11)

```
Provider=SQLXMLOLEDB.4.0; Data Provider=SQLNCLI11; Data Source=myServerAddress;
Initial Catalog=myDataBase; User Id=myUsername; Password=myPassword;
```

SQL Server 2012

Using SQL Server Native Client provider (SQLNCLI10)

```
Provider=SQLXMLOLEDB.4.0; Data Provider=SQLNCLI10; Data Source=myServerAddress;
Initial Catalog=myDataBase; User Id=myUsername; Password=myPassword;
```

SQL Server 2008

Using SQL Server Native Client provider (SQLNCLI)

```
Provider=SQLXMLOLEDB.4.0; Data Provider=SQLNCLI; Data Source=myServerAddress;
Initial Catalog=myDataBase; User Id=myUsername; Password=myPassword;
```

SQL Server 2005

SQLXML 3.0 OLEDB Provider

Using SQL Server Ole Db

The SQLXML version 3.0 restricts the data provider to SQLOLEDB only.

```
Provider=SQLXMLOLEDB.3.0;Data Provider=SQLOLEDB;Data Source=myServerAddress;
Initial Catalog=myDataBase;User Id=myUsername;Password=myPassword;
```

SQL Server 2000 SQL Server 7.0

.NET Framework Data Provider for OLE DB

Use an OLE DB provider from .NET

```
Provider=any oledb provider's name;OledbKey1=someValue;OledbKey2=someValue;
```

See the respective OLEDB provider's connection strings options. The .net OleDbConnection will just pass on the connection string to the specified OLEDB provider. Read more here .

SQL Server Native Client 11.0 ODBC Driver

Standard security

```
Driver={SQL Server Native Client 11.0};Server=myServerAddress;
Database=myDataBase;Uid=myUsername;Pwd=myPassword;
```

Are you using SQL Server 2012 Express? Don't miss the server name syntax Servername\SQLEXPRESS where you substitute Servername with the name of the computer where the SQL Server 2012 Express installation resides.

When to use SQL Native Client?

SQL Server 2012

Trusted Connection

```
Driver={SQL Server Native Client 11.0};Server=myServerAddress;
Database=myDataBase;Trusted_Connection=yes;
```

Equivalent key-value pair: "Integrated Security=SSPI" equals "Trusted_Connection=yes"

SQL Server 2012

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Driver={SQL Server Native Client 11.0};Server=myServerName\theInstanceName;
Database=myDataBase;Trusted_Connection=yes;
```

SQL Server 2012

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Driver={SQL Server Native Client 11.0};Server=myServerAddress;Database=myDataBase;"
```

SQL Server 2012

Enable MARS

```
Driver={SQL Server Native Client 11.0}; Server=myServerAddress;
Database=myDataBase; Trusted_Connection=yes; MARS_Connection=yes;
```

SQL Server 2012

Encrypt data sent over network

```
Driver={SQL Server Native Client 11.0}; Server=myServerAddress;
Database=myDataBase; Trusted_Connection=yes; Encrypt=yes;
```

SQL Server 2012

Attach a database file on connect to a local SQL Server Express instance

```
Driver={SQL Server Native Client 11.0}; Server=.\SQLExpress;
AttachDbFilename=c:\asd\qwe\mydbfile.mdf; Database=dbname; Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2012

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Driver={SQL Server Native Client 11.0}; Server=.\SQLExpress;
AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2012

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Driver={SQL Server Native Client 11.0}; Server=myServerAddress;
Failover_Partner=myMirrorServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

Please note if you are using TCP/IP (using the network library parameter) and database mirroring, including port number in the address (formed as servername,portnumber) for both the main server and the failover partner can solve some reported issues.

SQL Server 2012

SQL Server Native Client 10.0 ODBC Driver

Standard security

```
Driver={SQL Server Native Client 10.0}; Server=myServerAddress;
Database=myDataBase; Uid=myUsername; Pwd=myPassword;
```

Are you using SQL Server 2008 Express? Don't miss the server name syntax Servername\SQLEXPRESS where you substitute Servername with the name of the computer where the SQL Server 2008 Express installation resides.

When to use SQL Native Client?

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Trusted Connection

```
Driver={SQL Server Native Client 10.0}; Server=myServerAddress;
Database=myDataBase; Trusted_Connection=yes;
```

Equivalent key-value pair: "Integrated Security=SSPI" equals "Trusted_Connection=yes"

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Driver={SQL Server Native Client 10.0}; Server=myServerName\theInstanceName;
Database=myDataBase; Trusted_Connection=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Driver={SQL Server Native Client 10.0};Server=myServerAddress;Database=myDataBase;"
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Enable MARS

```
Driver={SQL Server Native Client 10.0}; Server=myServerAddress;
Database=myDataBase; Trusted_Connection=yes; MARS_Connection=yes;
```

SQL Server 2005 SQL Server 2008

Encrypt data sent over network

```
Driver={SQL Server Native Client 10.0}; Server=myServerAddress;
Database=myDataBase; Trusted_Connection=yes; Encrypt=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 2008 SQL Server 7.0

Attach a database file on connect to a local SQL Server Express instance

```
Driver={SQL Server Native Client 10.0}; Server=.\SQLExpress;
AttachDbFilename=c:\asd\qwe\mydbfile.mdf; Database=dbname; Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005 SQL Server 2008

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Driver={SQL Server Native Client 10.0}; Server=.\SQLExpress;
AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005 SQL Server 2008

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Driver={SQL Server Native Client 10.0}; Server=myServerAddress;
Failover_Partner=myMirrorServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

Please note if you are using TCP/IP (using the network library parameter) and database mirroring, including port number in the address (formed as servername,portnumber) for both the main server and the failover partner can solve some reported issues.

SQL Server 2005 SQL Server 2008

SQL Native Client 9.0 ODBC Driver

Standard security

```
Driver={SQL Native Client}; Server=myServerAddress; Database=myDataBase;
Uid=myUsername; Pwd=myPassword;
```

Are you using SQL Server 2005 Express? Don't miss the server name syntax Servername\SQLEXPRESS where you substitute Servername with the name of the computer where the SQL Server 2005 Express installation resides.

When to use SQL Native Client?

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Trusted Connection

```
Driver={SQL Native Client}; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

Equivalent key-value pair: "Integrated Security=SSPI" equals "Trusted_Connection=yes"

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Connecting to an SQL Server instance

The syntax of specifying the server instance in the value of the server key is the same for all connection strings for SQL Server.

```
Driver={SQL Native Client}; Server=myServerName\theInstanceName;
Database=myDataBase; Trusted_Connection=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Driver={SQL Native Client};Server=myServerAddress;Database=myDataBase;"
```

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Enable MARS

```
Driver={SQL Native Client}; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; MARS_Connection=yes;
```

SQL Server 2005

Encrypt data sent over network

```
Driver={SQL Native Client}; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=yes; Encrypt=yes;
```

SQL Server 2000 SQL Server 2005 SQL Server 7.0

Attach a database file on connect to a local SQL Server Express instance

```
Driver={SQL Native Client}; Server=.\SQLExpress; AttachDbFilename=c:\mydbfile.mdf;
Database=dbname; Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005

Attach a database file, located in the data directory, on connect to a local SQL Server Express instance

```
Driver={SQL Native Client}; Server=.\SQLExpress;
AttachDbFilename=|DataDirectory|mydbfile.mdf; Database=dbname;
Trusted_Connection=Yes;
```

Why is the Database parameter needed? If the named database have already been attached, SQL Server does not reattach it. It uses the attached database as the default for the connection.

SQL Server 2005

Database mirroring

If you connect with ADO.NET or the SQL Native Client to a database that is being mirrored, your application can take advantage of the drivers ability to automatically redirect connections when a database mirroring failover occurs. You must specify the initial principal server and database in the connection string and the failover partner server.

```
Driver={SQL Server Native Client 10.0}; Server=myServerAddress;
Failover_Partner=myMirrorServerAddress; Database=myDataBase;
Trusted_Connection=yes;
```

There is ofcourse many other ways to write the connection string using database mirroring, this is just one example pointing out the failover functionality. You can combine this with the other connection strings options available.

Please note if you are using TCP/IP (using the network library parameter) and database mirroring, including port number in the address (formed as servername,portnumber) for both the main server and the failover partner can solve some reported issues.

SQL Server 2005

Microsoft SQL Server ODBC Driver

Standard Security

```
Driver={SQL Server}; Server=myServerAddress; Database=myDataBase; Uid=myUsername;
Pwd=myPassword;
```

SQL Server 2000 SQL Server 7.0

Trusted connection

```
Driver={SQL Server}; Server=myServerAddress; Database=myDataBase;
Trusted_Connection=Yes;
```

SQL Server 2000 SQL Server 7.0

Prompt for username and password

This one is a bit tricky. First you need to set the connection object's Prompt property to adPromptAlways. Then use the connection string to connect to the database.

```
oConn.Properties("Prompt") = adPromptAlways

oConn.Open "Driver={SQL Server};Server=myServerAddress;Database=myDataBase;"
```

SQL Server 2000 SQL Server 7.0

.NET Framework Data Provider for ODBC

Use an ODBC driver from .NET

```
Driver={any odbc driver's name}; OdbcKey1=someValue; OdbcKey2=someValue;
```

See the respective ODBC driver's connection strings options. The .net OdbcConnection will just pass on the connection string to the specified ODBC driver. Read more here .

MSDataShape

MSDataShape

```
Provider=MSDataShape; Data Provider=SQLOLEDB; Data Source=myServerAddress;
Initial Catalog=myDataBase; User ID=myUsername; Password=myPassword;
```

See also the List of all SqlConnection connection string properties

SQL Server 2000 SQL Server 7.0

Connect

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