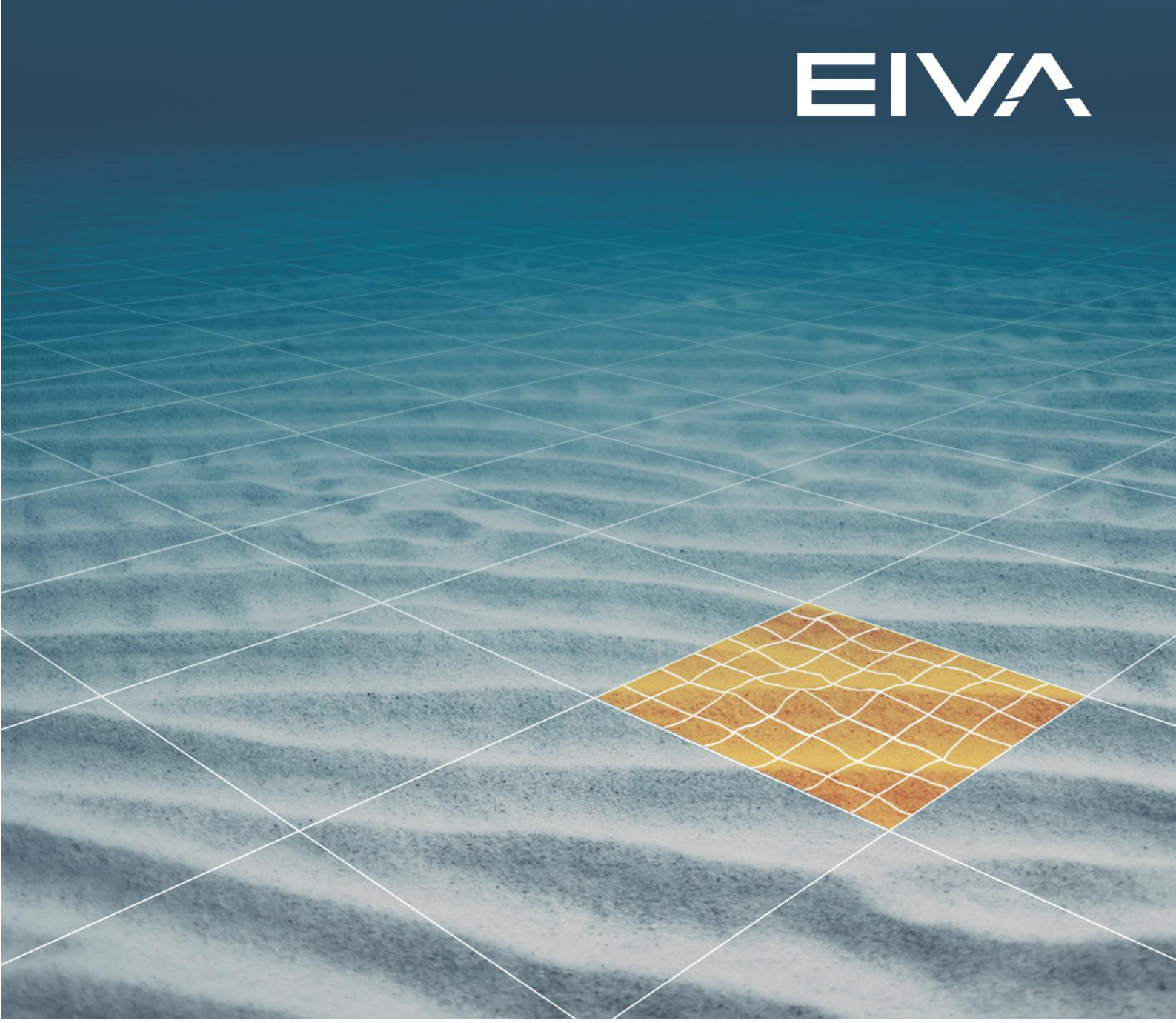

# NAVIEDIT

## INSTALLATION

Last update: 22/07/2022
Version: 8.6

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# 1 Introduction

This document explains different installation methods for NaviEdit.
It is based on a pc running the operating system Windows 10 Pro. NaviEdit runs also on Windows11.
The term **server computer** is in the following used for a computer having an SQL server installed. A client computer has no SQL server installed but connects to one running on a second remote server computer.

# 2 Download NaviEdit

Download NaviEdit here, https://download.eiva.com/

There are two versions available:

- **NaviEdit** version
  - Includes the Microsoft® SQL Server® 2019
    Direct link to the SQL download: https://www.microsoft.com/en-us/download/details.aspx?id=49996
  - The database size on the free version of the SQL Server Express, is limited to 10GB. There is no size limit on a locally hosted SQL Server. If you install a SQL Server Standard version on the local computer, you don't have this size limit.
  - The full installer will never install the embedded SQL Server 2019 Express version, if another SQL Server installation is found.

- **NaviEdit - Minimal** version
  - Is 80% smaller in installer file size, because it excludes the SQL Server software and the NaviEdit demo database.
    Does not install or configure a SQL Server (eg leaves existing SQL Server configurations alone).
  - Requires that the NaviEdit full version has already been installed **once**
  - Can be installed on top of the existing NaviEdit installation.
  - Upgrades the existing NaviEdit version.

# 3 Upgrading NaviEdit

When upgrading NaviEdit to a more recent version, the NaviEdit installer searches for existing SQL Server installations on the computer. If an SQL Server is found, this one will be used, and no other SQL Server is installed.

Eg when upgrading from NaviEdit_8.4 (includes Microsoft SQL Server 2012) to NaviEdit – 8.6 (includes Microsoft SQL Server 2019), the SQL Server 2012 will be used, and no SQL Server 2019 will be installed.

# 4 Simple NaviEdit installation on a local computer

The standard scenario is to install NaviEdit together with NaviModel on the local computer for post-processing purpose. Download the full NaviEdit version in which case the installer runs the embedded SQL Server program with the parameters required by NaviEdit.
It is advisable to uninstall previous SQL components before running the NaviEdit installer.

The default SQL server is the default instance (named MSSQLSERVER) running on the local computer.

In the rare case that you need a separate SQL Server Express installer to install the program manually, follow the instructions:

https://www.microsoft.com/en-us/download/details.aspx?id=100809

https://eiva.freshdesk.com/support/solutions/articles/43000526242-ms-sql-server-2016-installation

**Preconditions**

- Ideally the user has Administrator rights (password-protected)
- Ideally there is no previous SQL server is installed
- The database files must be on a local file system on the server, eg it is not possible to attach a file like \\some-server\some-path\NaviEditDB.mdf.

If the above preconditions are met, start by running the NaviEdit.EXE file.
The NaviEdit Setup wizard starts, as shown in the screenshot below.

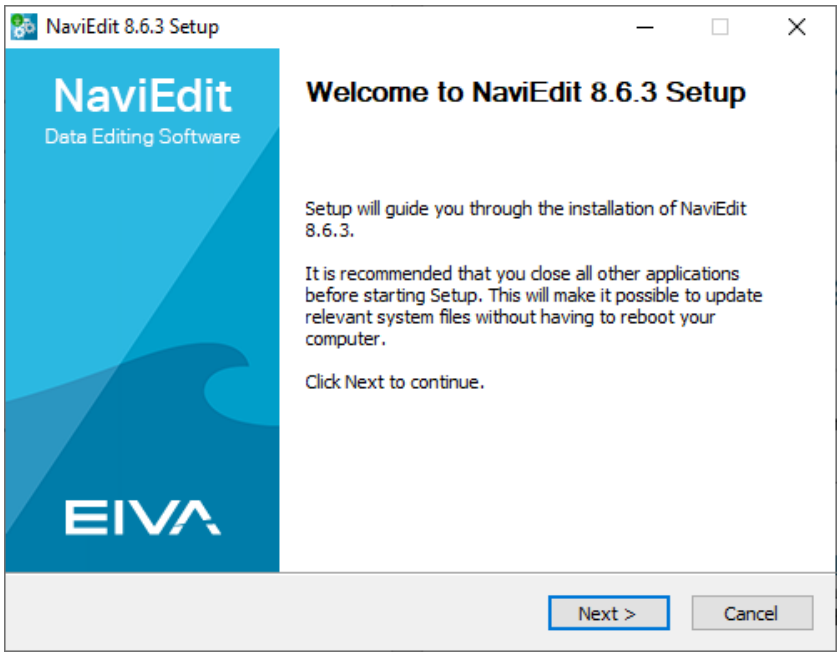



Figure 1 NaviEdit Setup Wizard

To continue through the steps of the installation, click **Next**.

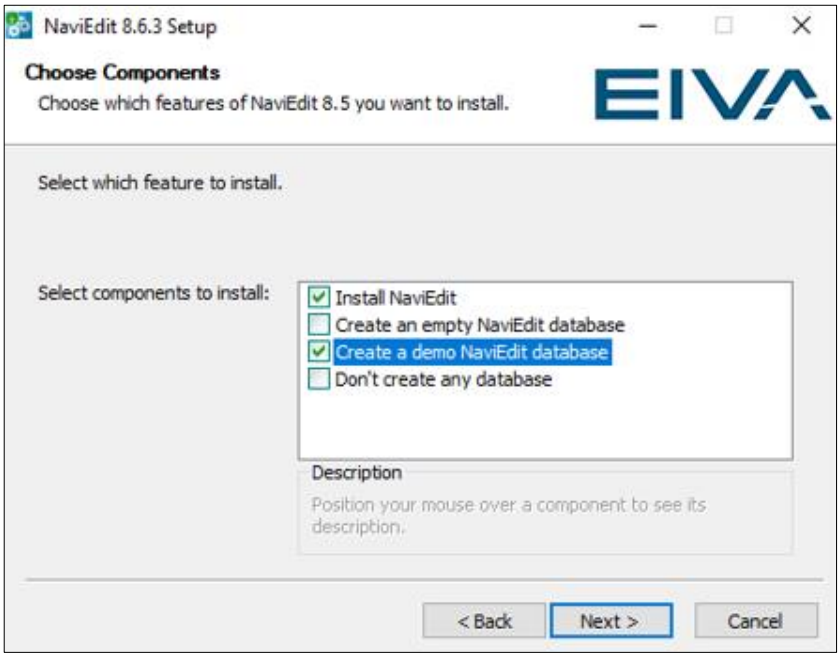



Figure 2 NaviEdit Setup Wizard: Components

4 options are presented:

- **Install NaviEdit**
  This option is mandatory.
  Additionally select one of the following components depending on the circumstance:

  - **Create an empty NaviEdit database**
    Installs NaviEdit with SQL server setup.
    The default database name is NaviEditDB (Two database files NaviEditDB.MDF respectively NaviEditDB_Log.LDF). The database is empty.
    The **ODBC connections** (LocalSQLServer and JPAdmin) are created automatically. See 7.3.1Automatically created ODBC connections

  - **Create a demo NaviEdit database**
    Installs NaviEdit with SQL server setup.
    The default database name is NaviEditDB.The demo database includes 4 folders with sample data, that can be used without having an EIVA licence.
    The **ODBC connections** (LocalSQLServer and JPAdmin) are created automatically. See 7.3.1 Automatically created ODBC connections

  - **Don't create any database**
    Installs NaviEdit without SQL server.
    Meant for client computer setup with the SQL Server running on a remote server computer.
    The ODBC connections must be configured manually. See 7.3.2 Manually configured ODBC connections on a client pc to a remote SQLServer
    The ODBC connection must be working before NaviEdit can be run.

Proceed with the installation.

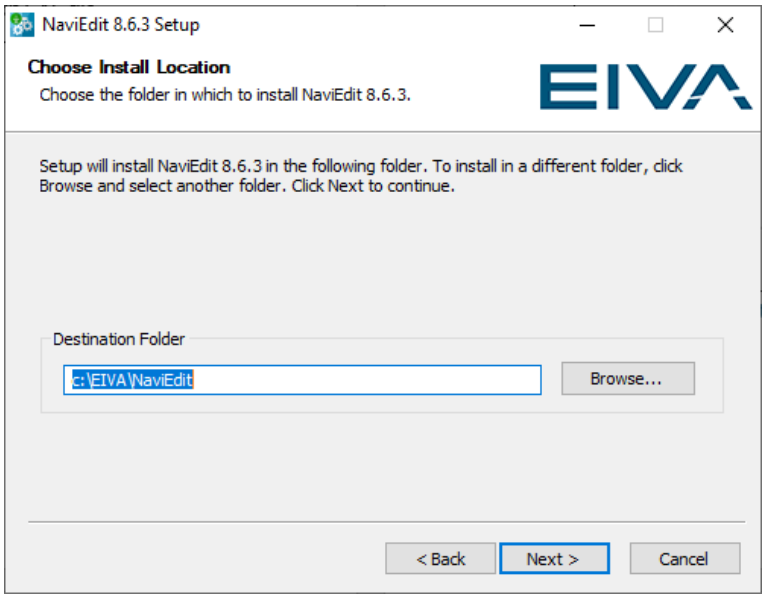



Figure 3 NaviEdit Setup Wizard: Destination folder on default installation path

By default, NaviEdit uses C:\EIVA\NaviEdit\Database\ for databases. Once you have selected a path, click **Next** to proceed.

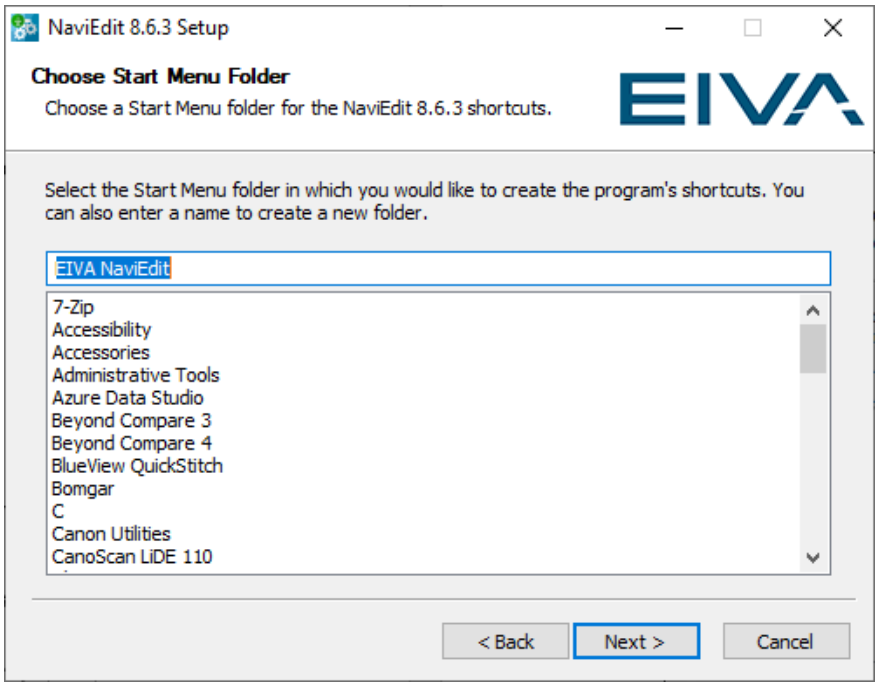



Figure 4 NaviEdit Setup Wizard: Start Menu Folder

The SQL server is installed automatically.

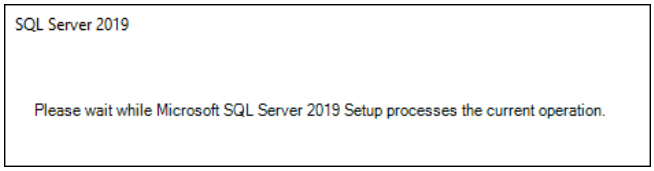



Figure 5 Installation of the SQL server

When installation is completed, click **Next**.

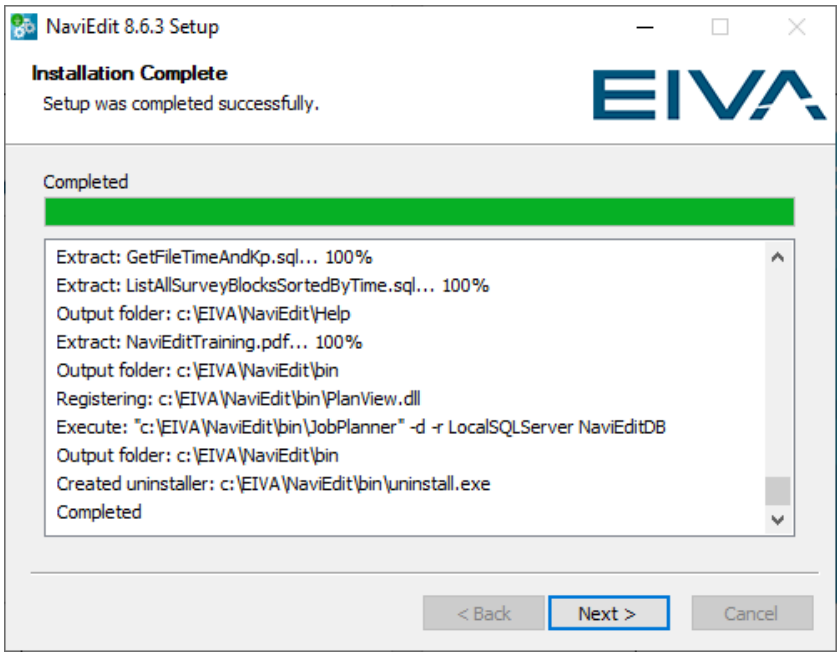



Figure 6 NaviEdit Setup Wizard: Installation process completed

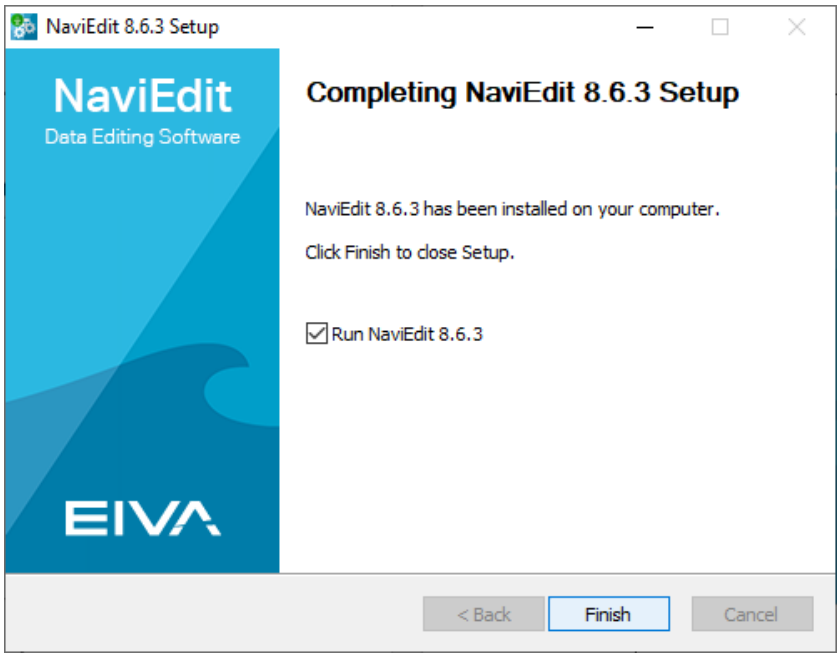



Figure 7 NaviEdit 8.5 Setup Wizard: Finish

Click **Finish** and launch NaviEdit, it can also be launched via the desktop shortcut.

The following screenshot shows NaviEdit when launched with the demo NaviEdit database NaviEditDB.

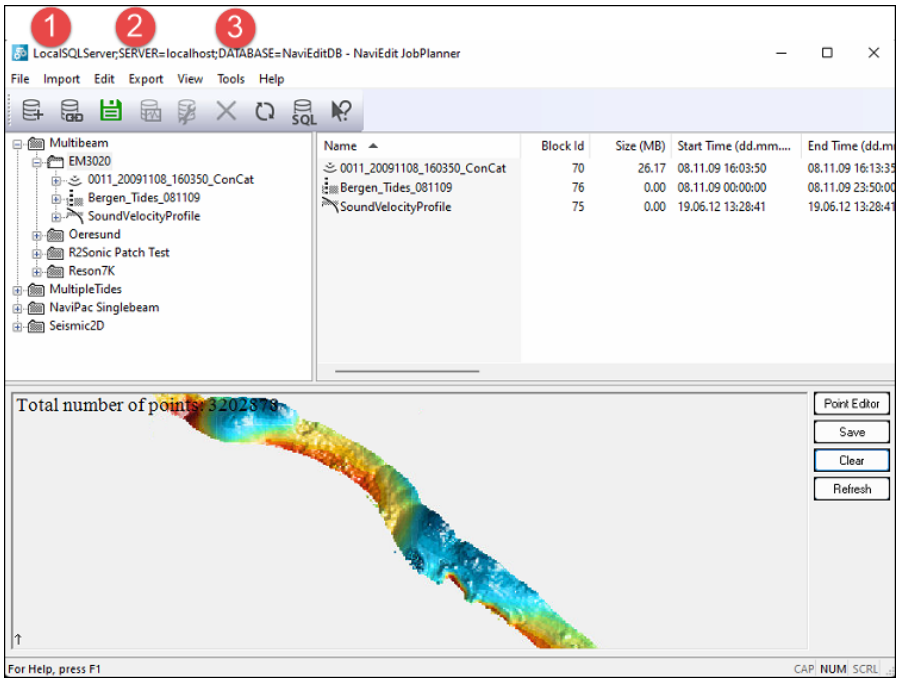



Figure 8 NaviEdit connected to the demo database NaviEditDB.

The JobPlanner title shows the (1) ODBC connection name, (2) the server's name and the (3) database name. NaviEdit is connected to the NaviEditDB database on the server localhost which is the SQL server is installed on the local pc.

Go to File / Database and enable **Open default** to start with the NaviEditDB automatically when NaviEdit is restarted.

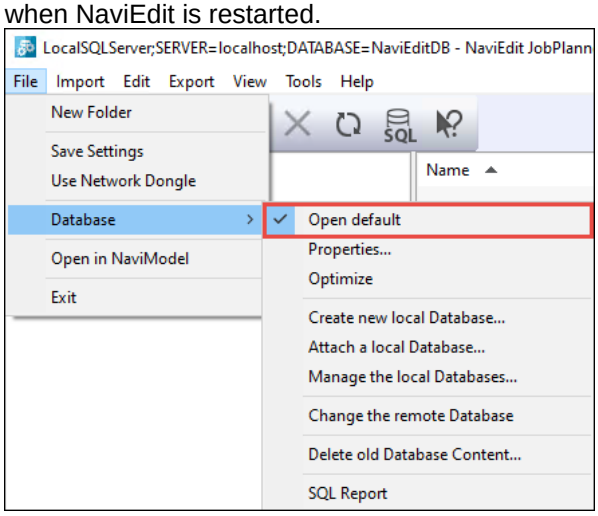



Figure 9 Set default database

To check the NaviEdit version that is installed, go to the JobPlanner/Help, **About JobPlanner** tab.

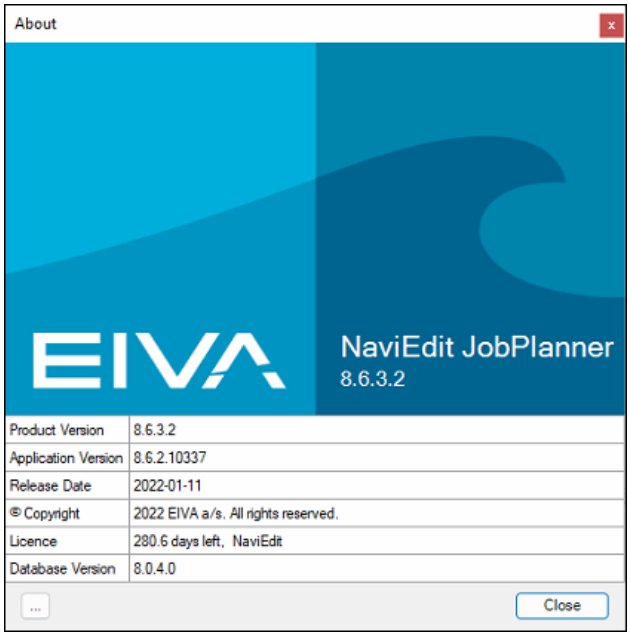



Figure 10 NaviEdit JobPlanner version from the About box.

## 4.1 Automatically created ODBC data sources

During installation the **ODBC connections** (LocalSQLServer and JPAdmin) used by NaviEdit are automatically created and configured. You can check them like this:

Type **ODBC** in the Windows search field and open the ODBC Data Source (32-bit). The 64-bit version is not used by NaviEdit, please ignore it.

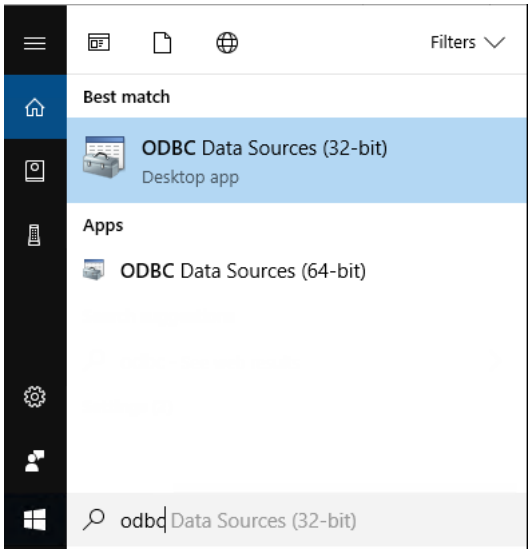



Figure 11 ODBC Data Sources (32 and 64-bit)

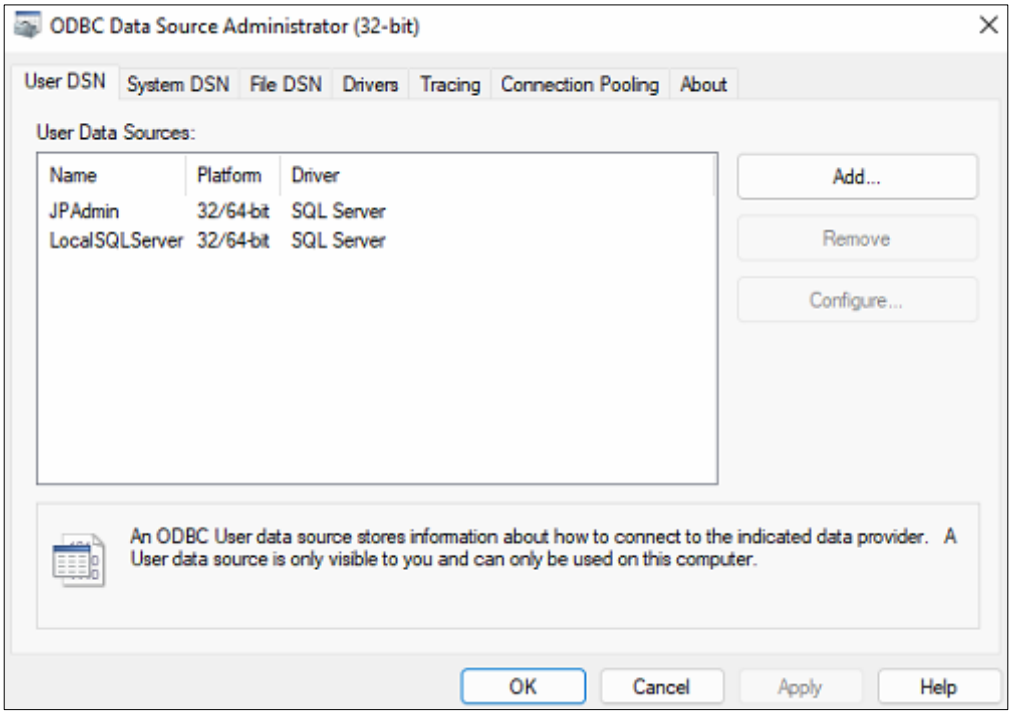



Figure 12 ODBC connections

For more details see the Appendix: ODBC connections

Automatically created ODBC connections

## 4.2 Test the ODBC connection

To check that the ODBC setup is correct, test it the following way:

- Create a new local Database (eg test.DB) or switch to a different database.

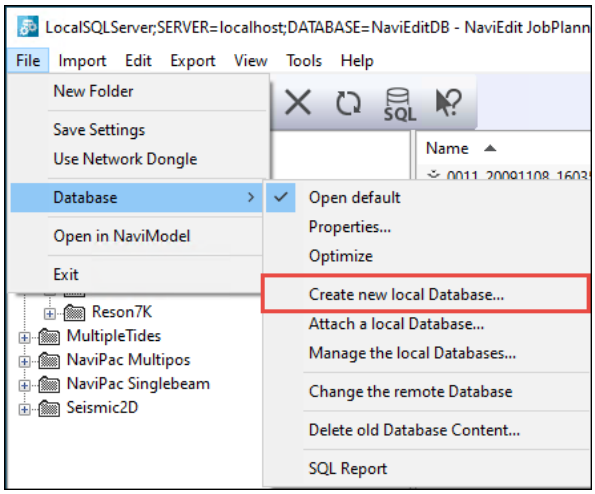



Figure 13 Test by creating a new database in NaviEdit

- Create a new test data base. Be sure to select a name not yet used for an existing database.

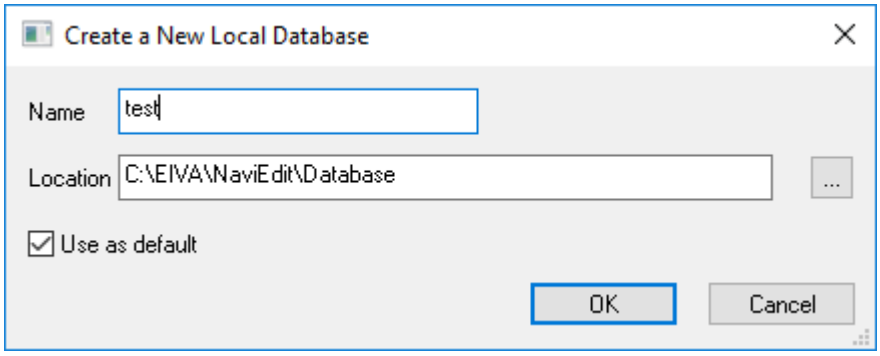



Figure 14 Create a test database

- Type **ODBC** in the program field of the Windows Start menu.
- Go to LocalSQLServer and press Configure

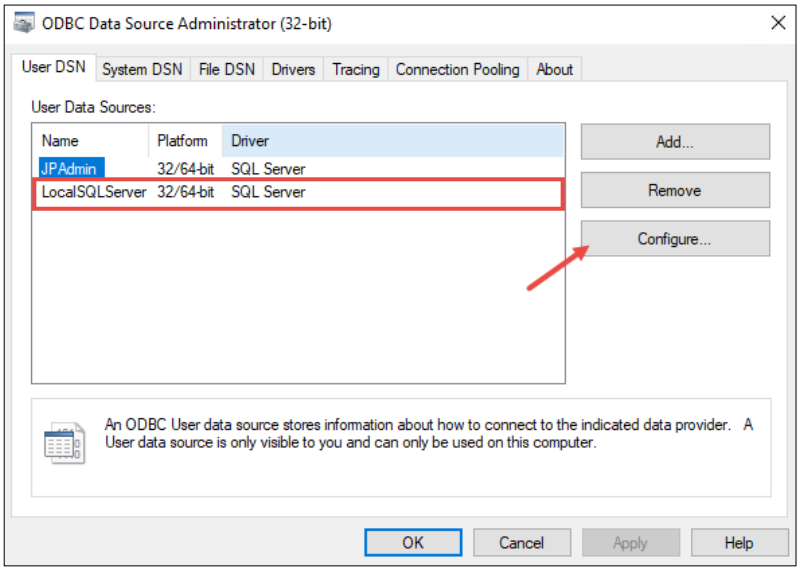



Figure 15 Configure the LocalSQLServer

- On the 5th page of the Connection wizard, you should be able to change the default database by opening the Dropdown menu.

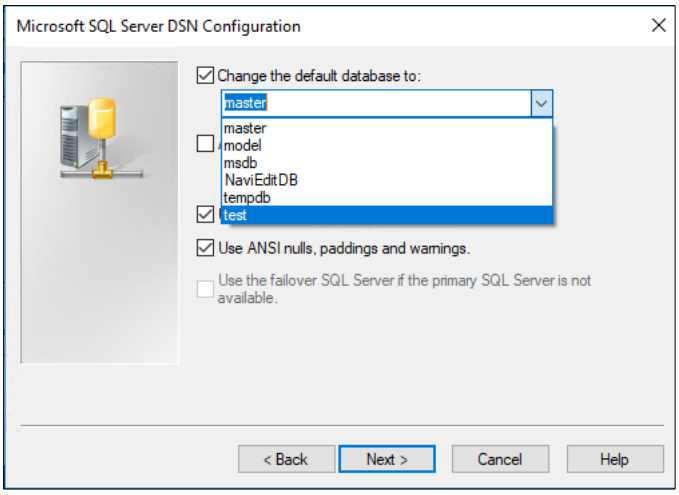



Figure 16 Microsoft SQL Server DSN Configuration with test database and NaviEditDB default database

Once done, click **Finish**.
When opening NaviEdit, the test.DB should be active.

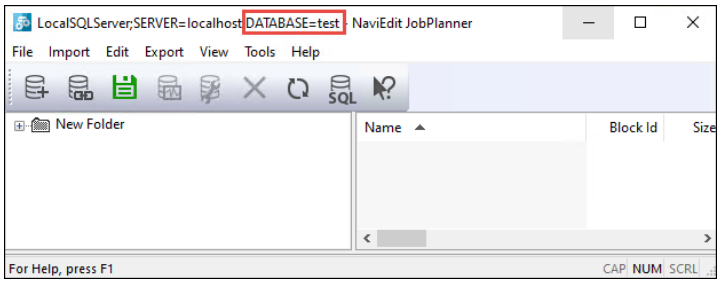



Figure 17 JobPlanner opens the new test database.

# 5 Install NaviEdit on a computer acting as client

This section describes the installation of the NaviEdit on a client computer connecting to a network-based (remote) SQL server.

**Preconditions**

- SQL server installed on a different computer acting as server on the same network
- NaviEdit licence
- User account requirements
  - Either the same user name or a domain login
  - Administrator rights
  - Password protected
- Firewall settings on the server pc are opened.

It is not recommended that the client computer has an SQL Server installed, please uninstall if it the case.

Install NaviEdit and select the component **Don't create any database** when a client computer will be logging in to a remote database.

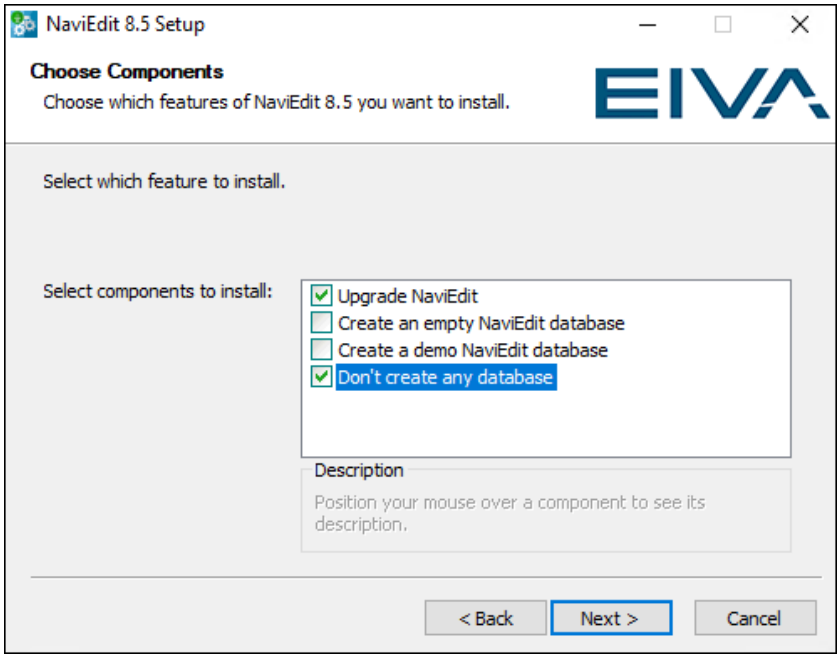



Figure 18 Client installation

- After you are finished, configure the ODBC connection to connected to the server computer's database.
  See Appendix Manually configured ODBC connections on a client pc to a remote SQLServer

## 5.1 Limitations in the client/server configuration

Some of the database management features are limited for use from a remote client computer. The following restrictions apply to any client connected to a remote NaviEdit database:

- The **Create/Attach/Delete/Detach** functions only work on the locally installed SQL Server (if any)

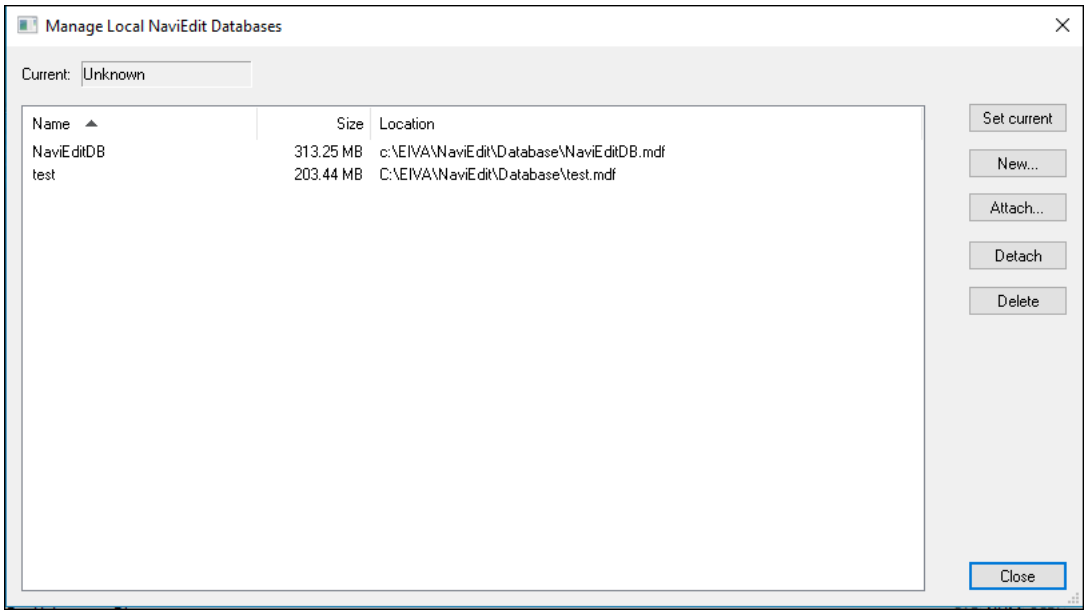



Figure 19 Database Management options that don't work on the client computer

- Switch database (**Set Current** function): can only switch from a remote database to a local database.
- This implies that a new database must be created on the server via the JobPlanner on the server pc.

# 6 Install NaviEdit on a Windows domain

If you are running a Windows computer in a Windows domain, different user accounts are used, eg an ADMIN user for setting up the system and a USER account operating the system not having ADMIN rights.

You or your admin might need to add some rights on the USER accounts on SQL.
This can be done with the program **SQL Server Management Studio** (SSMS)(free from Microsoft).

**Preconditions**

Access rights to login from the local NaviEdit computer on the remote SQL Server.
This could involve the

- **SQL Server Configuration**
  SSMS should be installed on the server pc to configure the remote user.

- **Firewall settings**
  On the server pc the firewall settings needs to be opened.

- And/or Windows login.

**How does NaviEdit handle a domain-based network with MS SQL Server?**

The locally installed SQL Server normally runs under the Local System Account, which means that the access is restricted to locally defined users only. When a PC is member of a windows domain, and the users are logged in as domain users, the accounts are not local anymore. In this case domain users are denied access to the SQL Server/NaviEdit database.

Two solutions exist:

- Make the domain user a local administrator.
- Create a login for the domain user within the SQL Server and grant domain users access to the SQL Server.

In the following two different ways are given to grant the domain user administrative rights to the SQL Server:

## 6.1 Use the SQL Server Management Studio

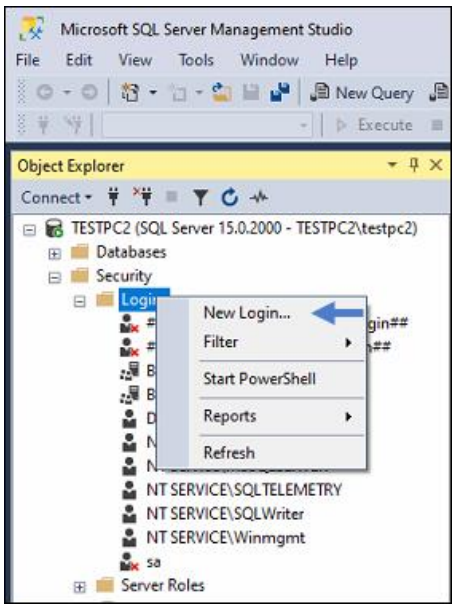



Figure 20 SSMS: New Login

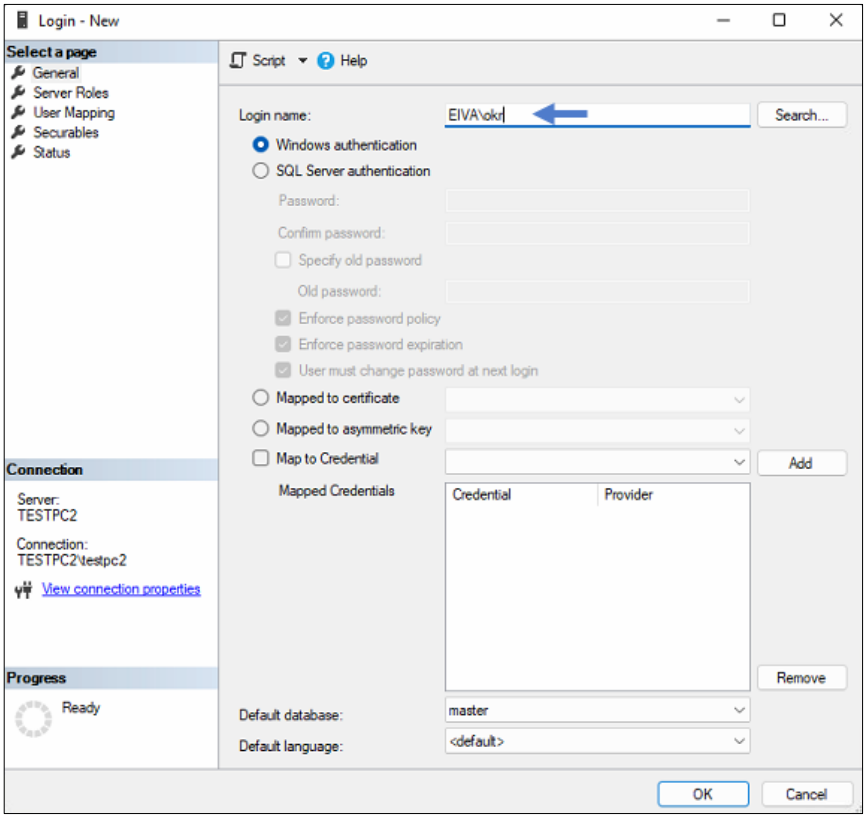



Figure 21 New login name

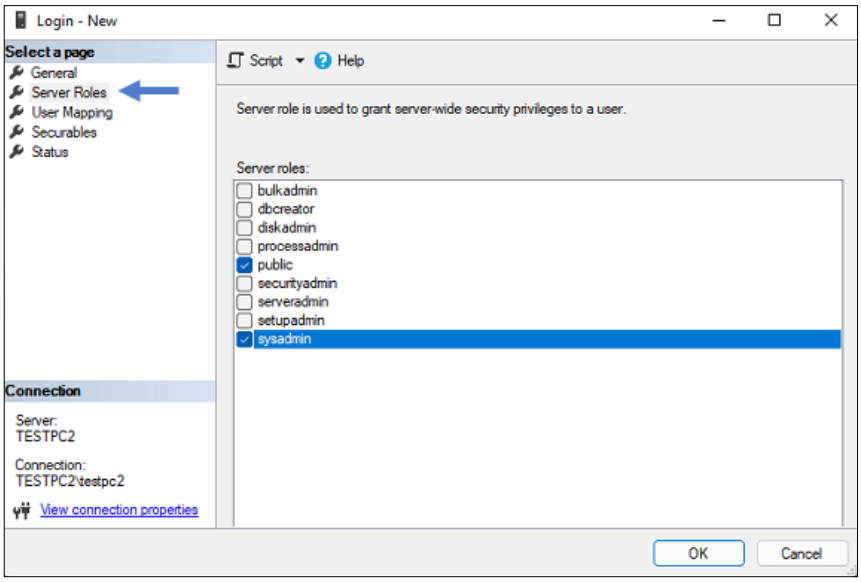



Figure 22 Give the user administrative rights to the SQL Server

This can also be done by a command line from Microsoft SQL Server Management Studio, after DomainName and DomainUser have been substituted with your domain name and user names:

```
EXEC sp_grantlogin 'DomainName\DomainUser'
EXEC sp_addsrvrolemember 'DomainName\DomainUser', sysadmin
```

## 6.2 Use a bat file

A sample script has been provided. It demonstrates how to open access from the command line. To run the sample script, rename the script file extension from 'txt' to 'cmd'. The script should first be changed to reflect your domain name and user names.

A description of the commands needed to grant domain users access to the SQL Server:

To enable user **DomainUser** on the domain **DomainName** access to the SQL Server, without full access to all of the server computer, you should issue the following commands on the server where the SQL Server is installed. To do this you or your domain administrator should have administrative rights to the server where the SQL Server is installed:

```
osql -E -S (local) -Q"EXEC sp_grantlogin 'DomainName\DomainUser'"
osql -E -S (local) -Q"EXEC sp_addsrvrolemember 'DomainName\DomainUser',
sysadmin"
```

This will grant the **DomainUser** administrative access to the SQL Server without granting the **DomainUser** administrative access to the rest of the server.

## 6.3 Remote SQL setup firewall settings

No **Special policies** should be added to the firewall by your IT Dep.
By default access via port 1433 must be open.

You could test it by creating a dedicated connection to the remote database.
Follow these instructions:

- Create a new text file with the extension udl (eg NEConnectionTest.udl)
- Double click on the file to launch the Data Link Properties dialog:

- Enter server name, login information and database and test the connection subsequently, by clicking Test Connection.
- If the connection fails, you must look deeper into firewall settings, DNS (try specifying IP number) etc.

## 6.4 Several SQL Servers

In a setup where several SQL Servers are used, bat-files can be used to control which server to access. These bat files can change which SQL Server NaviEdit connects to, but they might also just change which database NaviEdit connects to.

See two batch file examples here:

This bat-file creates a DSN named **LocalSQLServer** and points it to a database named **NaviEditDB** on the local host, and start NaviEdit using this connection:

NaviEditLocal.bat:

```
C:\EIVA\NaviEdit\bin\JobPlanner.exe -d -r LocalSQLServer NaviEditDB
(local)
START C:\EIVA\NaviEdit\bin\JobPlanner.exe
exit
```

This bat-file creates a DSN named **RemoteSQLServer** and points it to a database named **RemoteDataBaseName** on the server **RemoteServerName** and start NaviEdit using this connection:

NaviEditServer.bat:

```
C:\EIVA\NaviEdit\bin\JobPlanner.exe -d -r RemoteSQLServer
RemoteDataBaseName RemoteServerName
START C:\EIVA\NaviEdit\bin\JobPlanner.exe
Exit
```

The flag **-r** or **registerdsn** command line argument creates a new ODBC data source.

The flag **-d** or **default** command line argument sets this new odbc connection as the default (this implies both the selected SQL Server and Database).

# 7 Appendix

## 7.1 Terminology

The table below includes the basic terminology used in these processes.

| Name | Explanation |
|---|---|
| ODBC | Open DataBase Connectivity |
| DSN | Data Source Name |
| SQL | Structured Query Language |
| Server, Server PC | Computer where the SQL Server is installed and database files are located |
| Client PC, Remote client PC | Computer connecting to the Server PC where the SQL Server is installed |
| *.udl | Use Data Link file |

Table 1 Terminology

## 7.2 Troubleshooting

Question:
Error message: Microsoft SQL Server Login: SQL State: ‘01000’. What can I do?

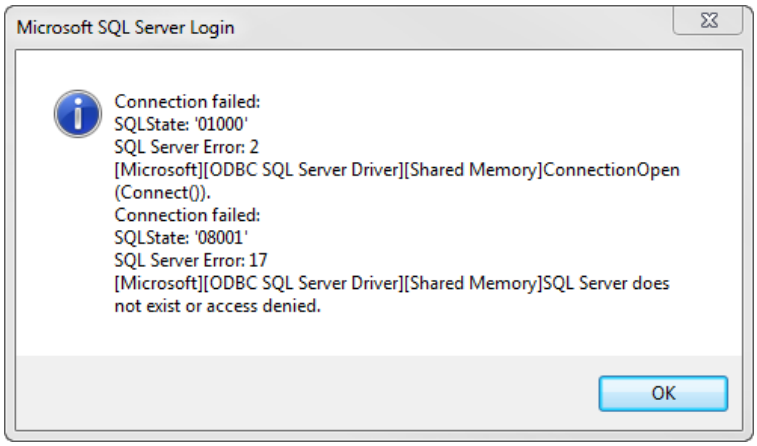



Figure 23 Microsoft SQL Server Login: SQL State: '01000'

Answer:
The SQL Server Services are not started.
To start the services, open the SQL Server Configuration Manager by typing SQL in the Windows search bar. Make sure the **Auto-start service when OS start** checkbox is checked.

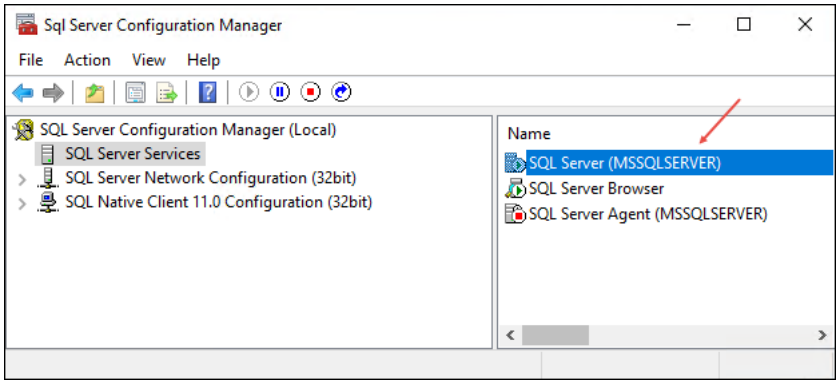



Figure 24 SQL Services

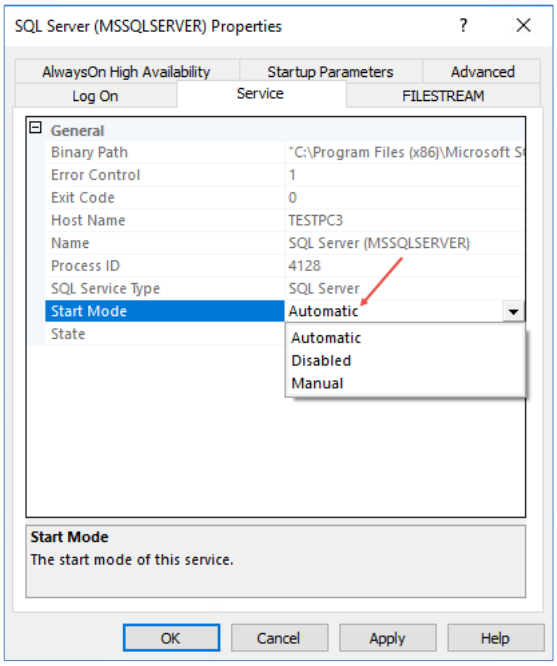



Figure 25 SQL Server (MSSQLServer) Properties

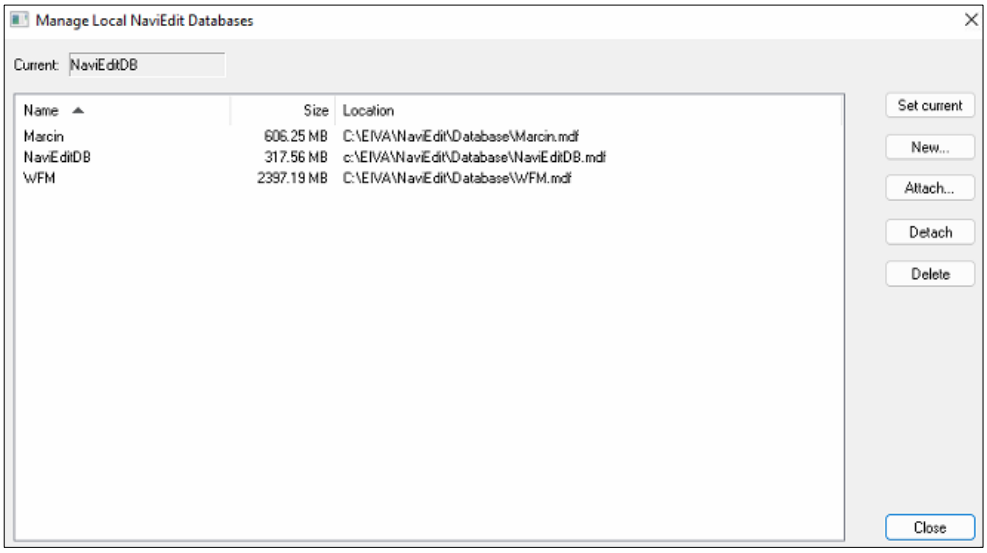
Question:
Connection failed, SQLState 08004. Server rejected the connection. What does this message mean?

Answer:
The message could be caused by:

- The SQL Server was not started during the NaviEdit install procedure causing the initial database creation to fail.
- The Windows user login is different from the login used to install NaviEdit
- The database was detached or deleted from another program than JobPlanner.

Question:
Error messages**:** Error retrieving CONNECT from registry
No default connect string Use JobPlanner to set default connect string

Answer:
Dismiss all messages until the following dialog appears:




- If the database for NaviEdit is in the list, select it and press the button **Set current**. Then press **Close**. Possibly restart JobPlanner.
- If no database is present, either create an empty one (**New…**) or attach an existing database (**Attach…**). When creating or attaching a new database, check the **Use as default** box. Then press **Close**. Possibly restart JobPlanner.

Question:
SQL Server setup if NaviEdit is slow

Answer:
If NaviEdit performs poorly and is slow, this could be caused by a default configuration in the Microsoft SQL Server.

A symptom of the problem could be that the updating of min KP and max KP in JobPlanner is very slow, even though the sqlserver-process in the TaskManager only is using a few percentages of the CPU power.

To change the default value of the SQL Server, start the SQL Server Configuration Manager.

Enable the TCP/IP protocol and disable all other protocols for the **SQL Server Network Configuration** and optional for the **SQL Native Client Configuration**.

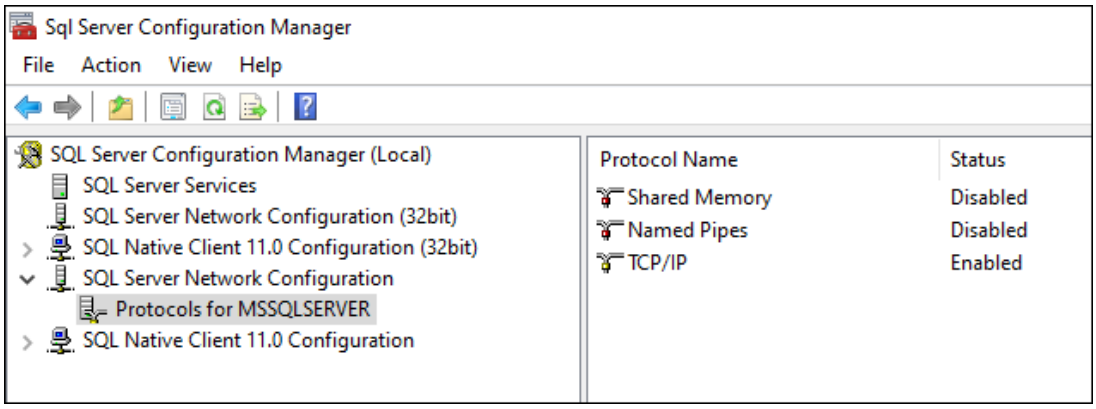



Figure 26 SQL Server Network Configuration

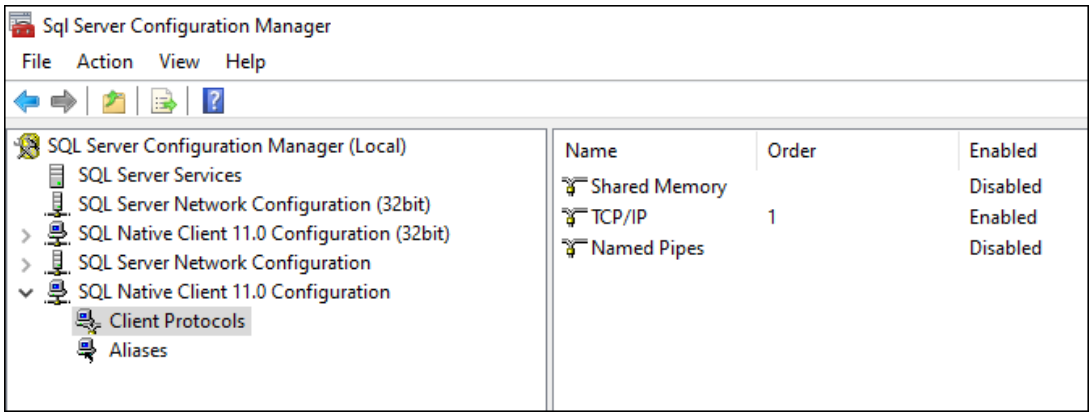



Figure 27 SQL Native Client Configuration

Question:
Remote/client pc cannot log onto the server pc SQL database

Answer:

1. Uninstall EIVA software on main and remote computer
2. Uninstall all SQL packages including SQL server
3. Uninstall C++ redistributable
4. Remove C:\EIVA folder
5. Reboot computer
6. Re-install NaviEdit

## 7.3 ODBC connections

### 7.3.1 Automatically created ODBC connections

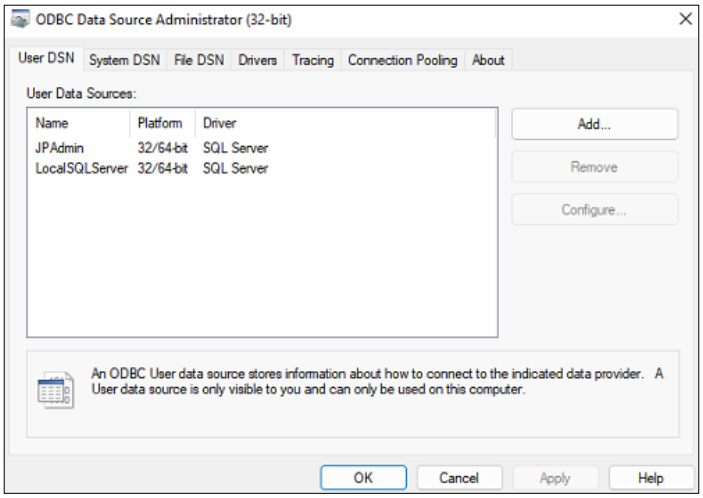



Figure 28 ODBC connections

#### 7.3.1.1 Automatic ODBC connection: LocalSQLServer

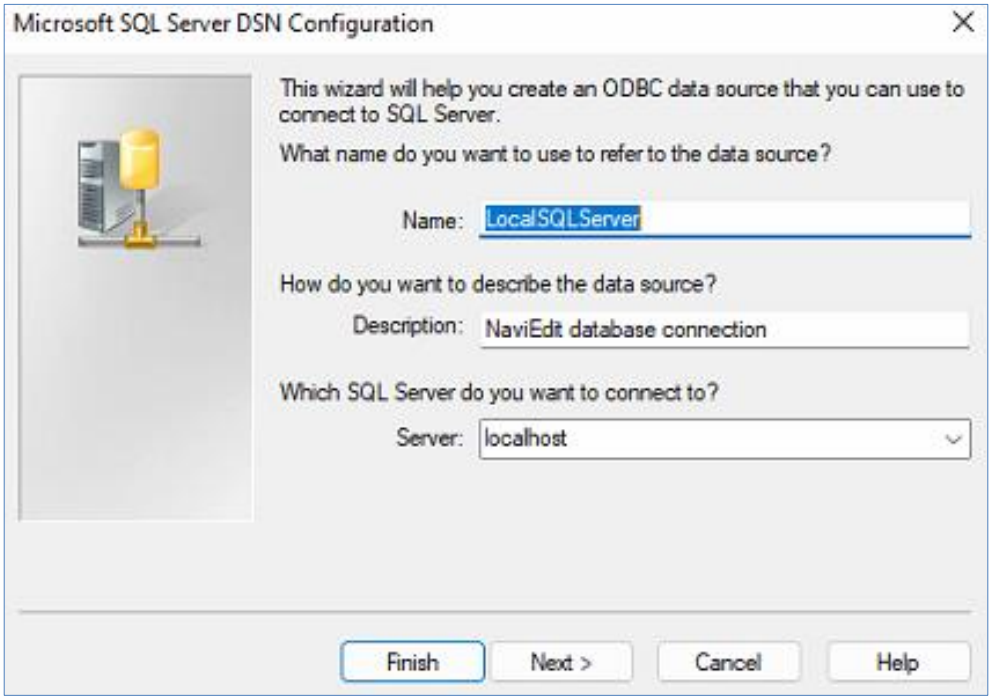



Figure 29 ODBC connection LocalSQLServer: Page 1, Name: LocalSQLServer, Server: localhost

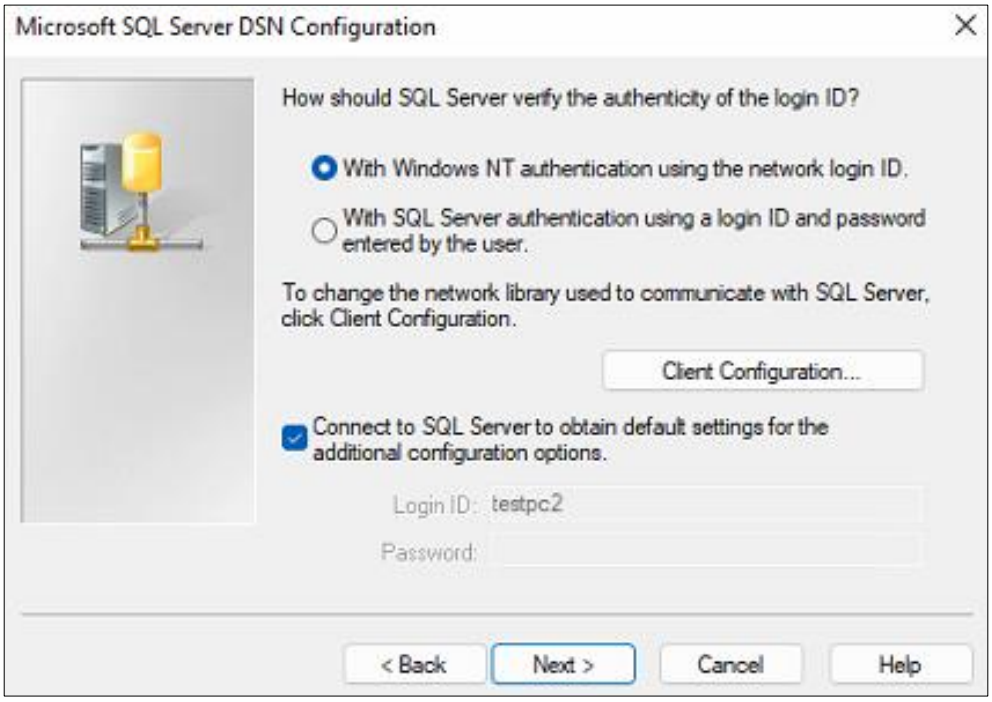



Figure 30 ODBC connection LocalSQLServer: Page 2, Login ID with user name testpc2

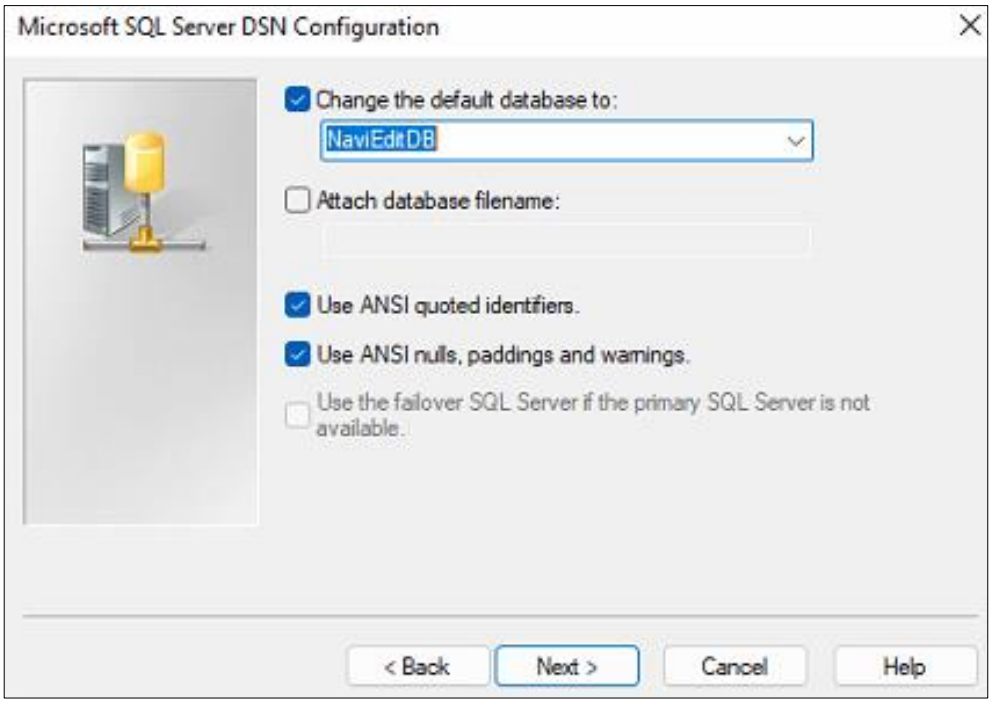



Figure 31 ODBC connection LocalSQLServer: Page 3

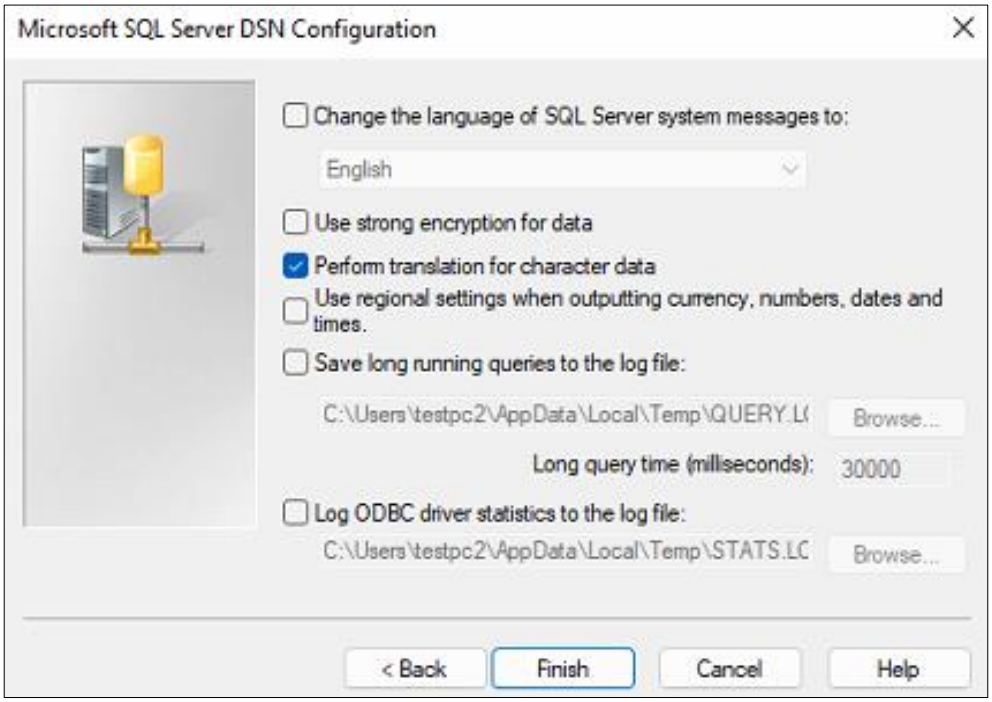



Figure 32 ODBC connection LocalSQLServer: Page 4

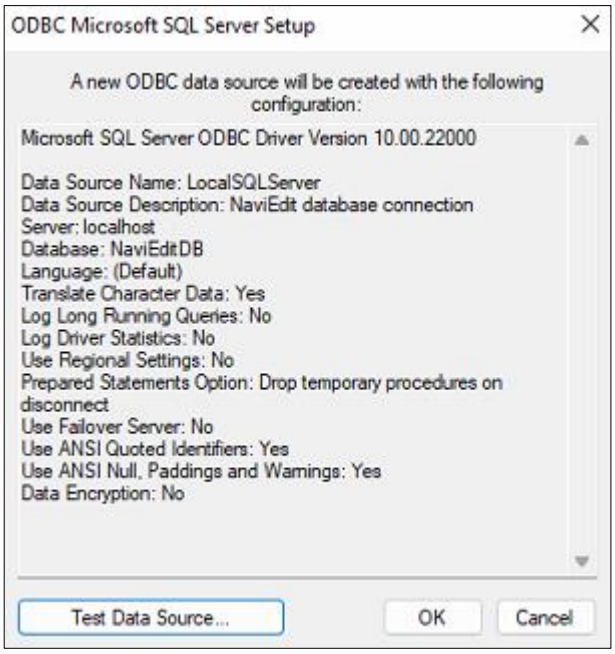



Figure 33 ODBC connection LocalSQLServer: Page 5

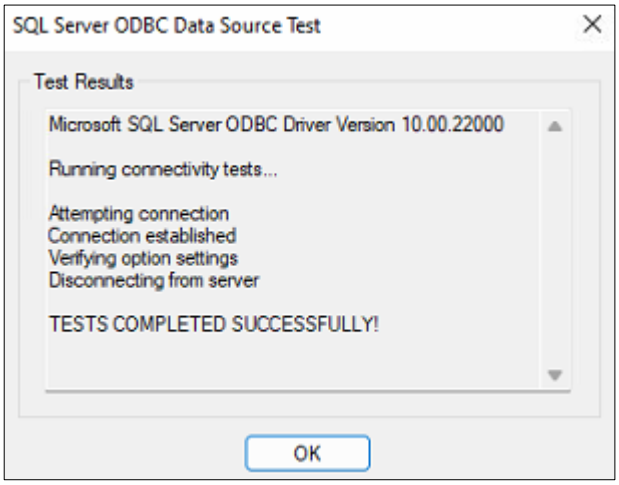



Figure 34 ODBC connection LocalSQLServer: Page 6

#### 7.3.1.2 Automatic ODBC connection: JPAdmin

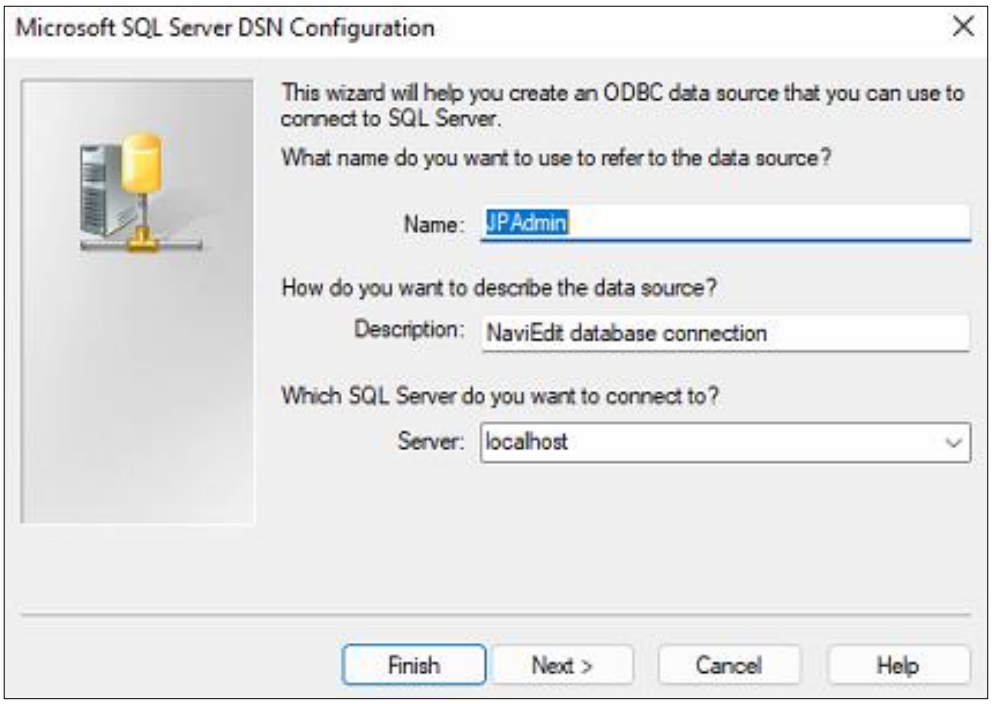



Figure 35 ODBC connection JPAdmin: Page 1, Server: localhost

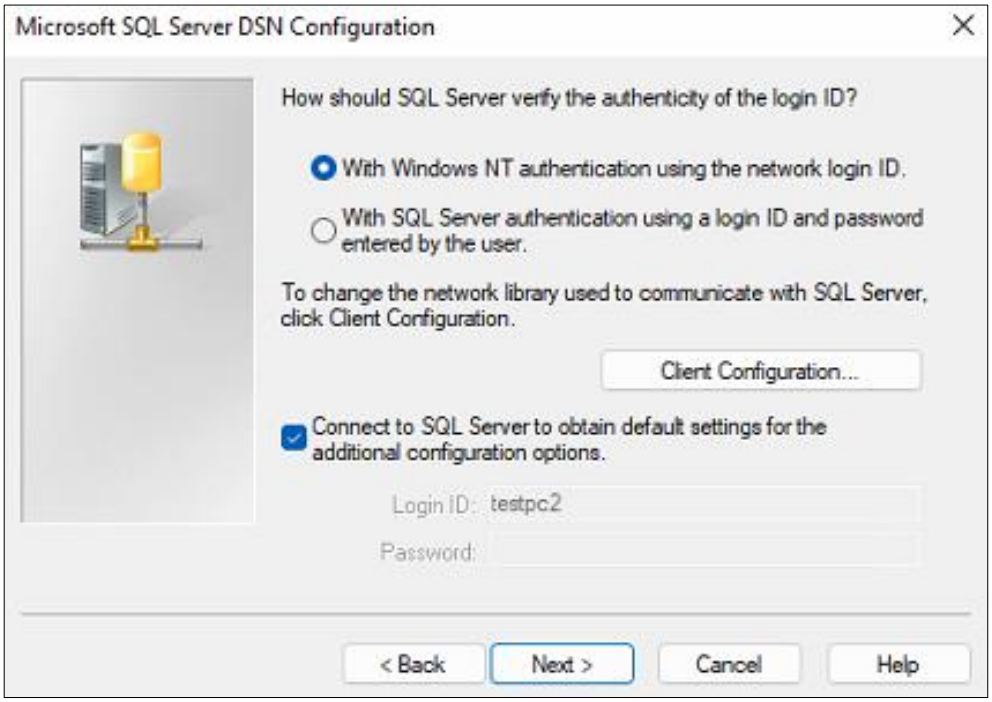



Figure 36 ODBC connection JPAdmin: Page 2

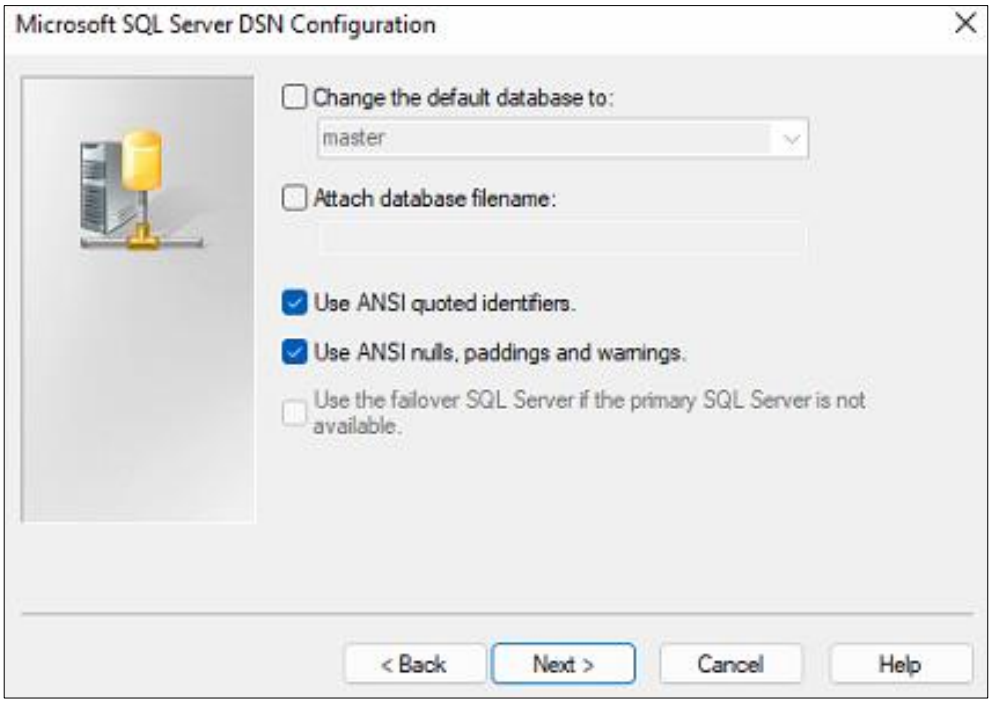



Figure 37 ODBC connection JPAdmin: Page 3

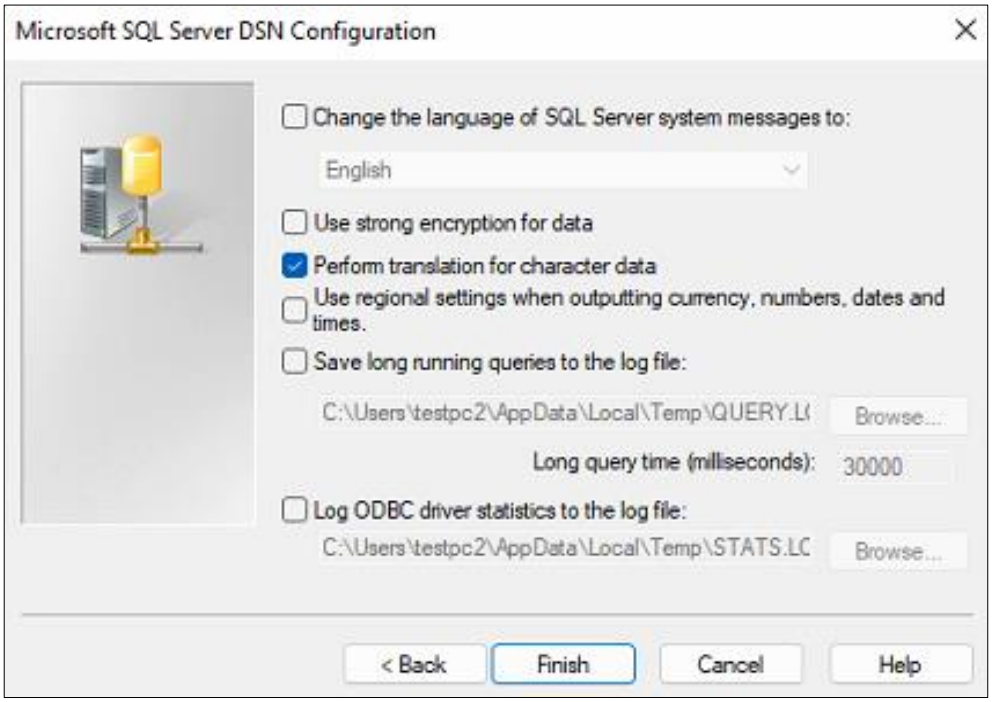



Figure 38 ODBC connection JPAdmin: Page 4

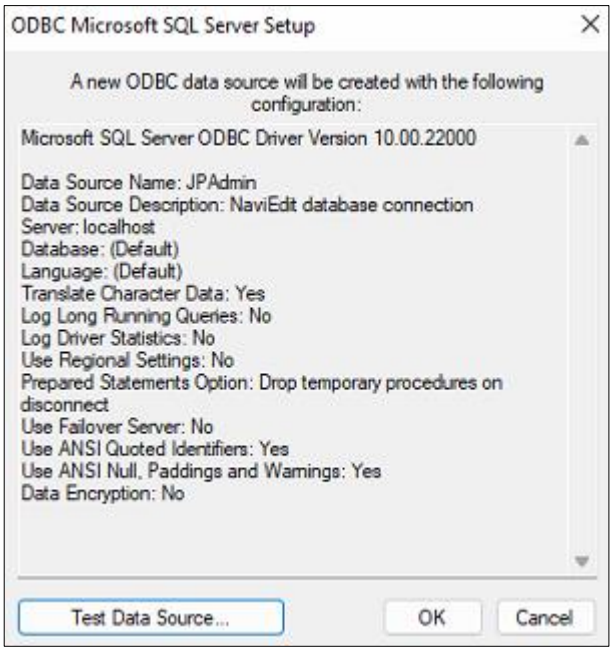



Figure 39 ODBC connection JPAdmin: Page 5

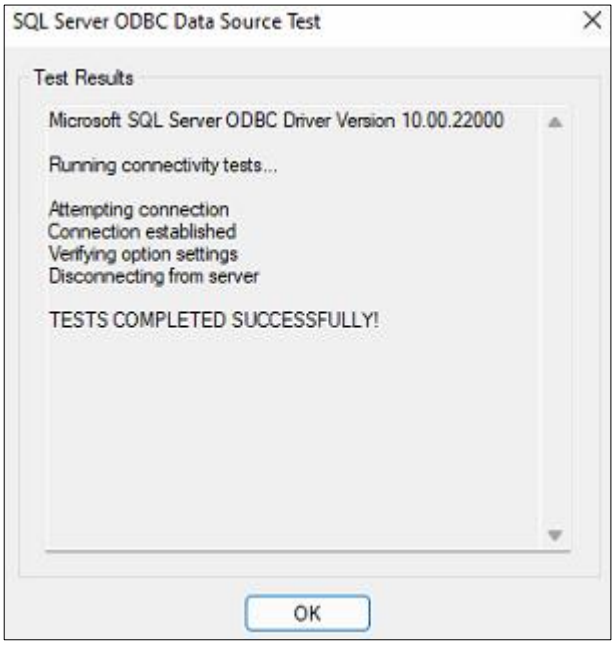


Figure 40 ODBC connection JPAdmin: Page 6

### 7.3.2 Manually configured ODBC connections on a client pc to a remote SQLServer

This section shows how to setup an ODBC data source name for connecting NaviEdit to a remote SQL Server.

#### 7.3.2.1 RemoteSQLServer

- Open the Data Sources (ODBC) entry found under **Administrative Tools** in the Windows Control Panel and select **Add** a new User DSN.
  You might want to consider making this a **System DSN** if several windows users are going to use this computer:

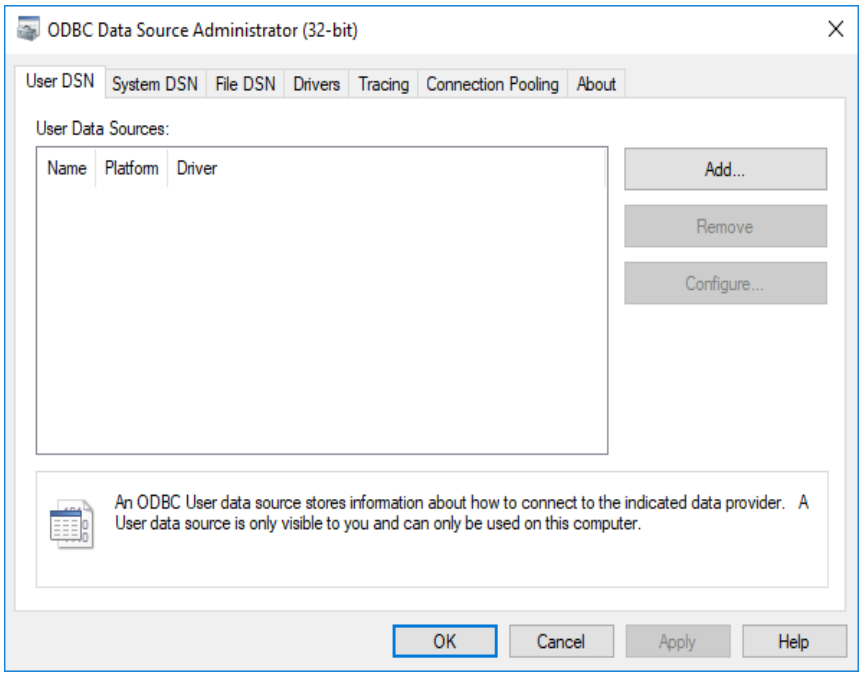



Figure 41 ODBC Data Source Administrator, Add User Data Sources

- Scroll down and select **SQL Server**

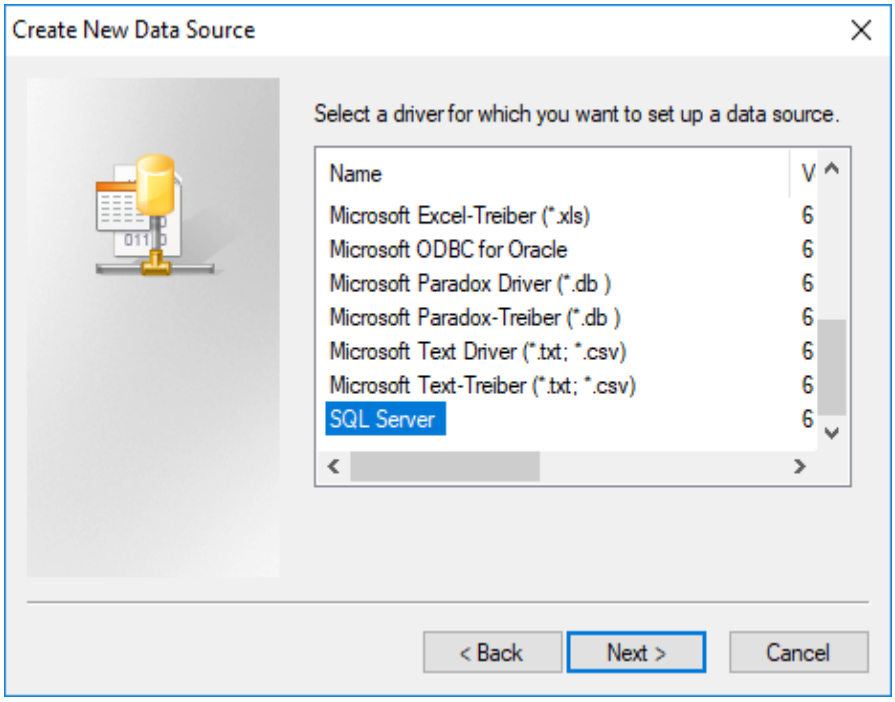



Figure 42 Create New Data Source, SQL Server

- Name the new Data Source **RemoteSQLServer** and click the drop-down box to select the remote SQL Server you want to connect to, in the screenshot the client connects to the SQL server called training5.

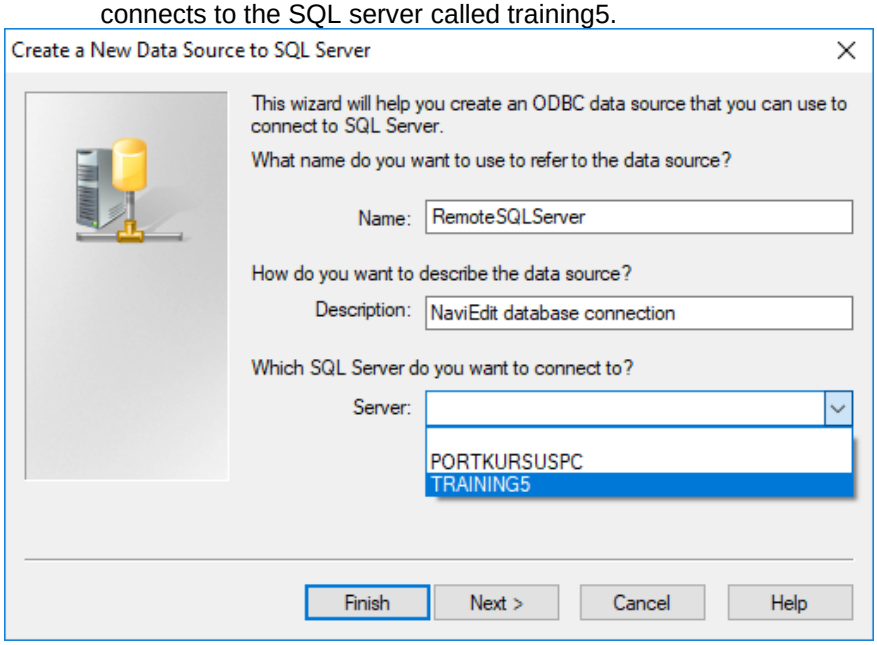



Figure 43 Manual created ODBC connection, connecting to a remote SQL Server

- Be sure **Windows Authentication** is selected and hit **Next**:

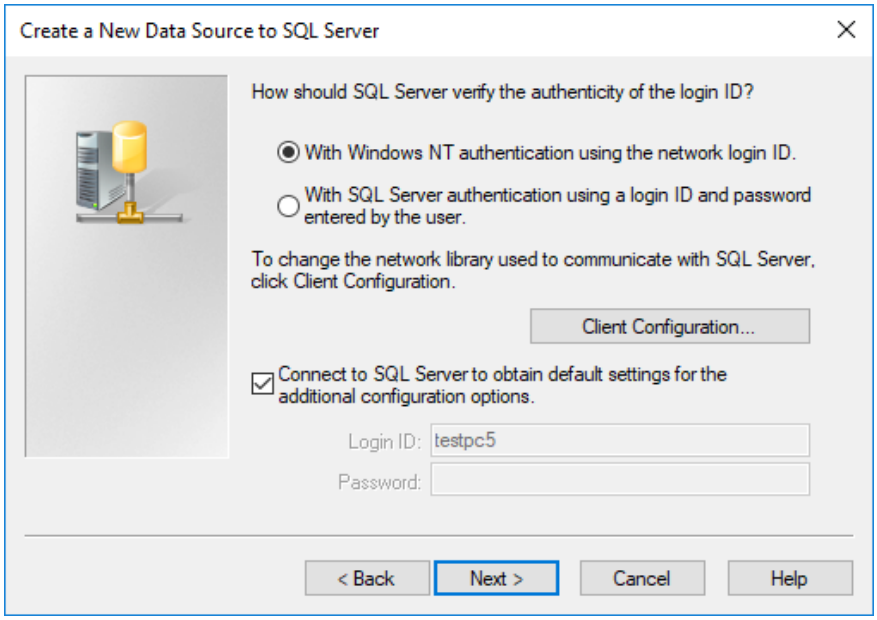



Figure 44 Create a New Data Source to SQL Server, With NT authentication using remote login ID

Set the check mark in **Change the default database to** and selected the database on the remote SQL Server you want to connect to:

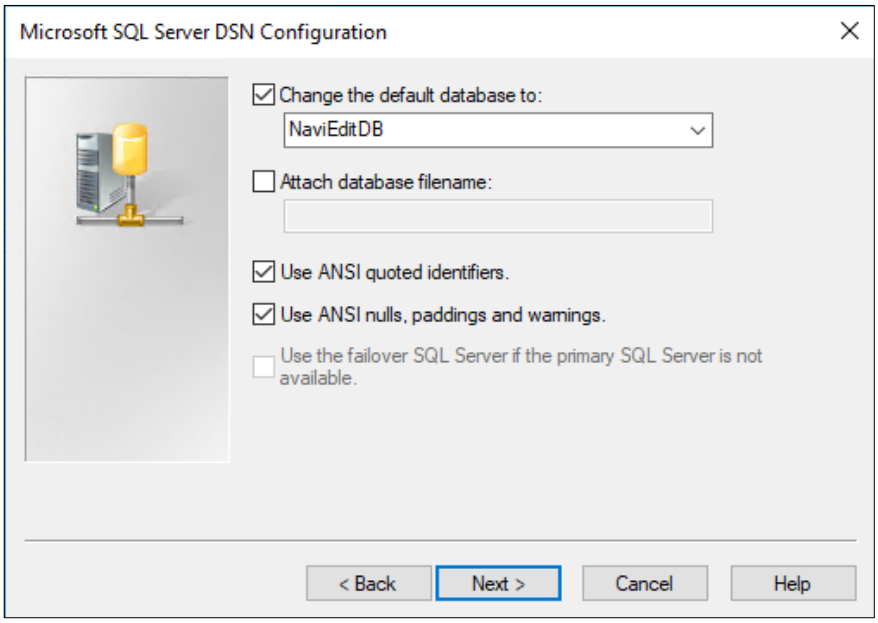



Figure 45 Create a New Data Source to SQL Server, NaviEditDB

Hit the **Finish** button:

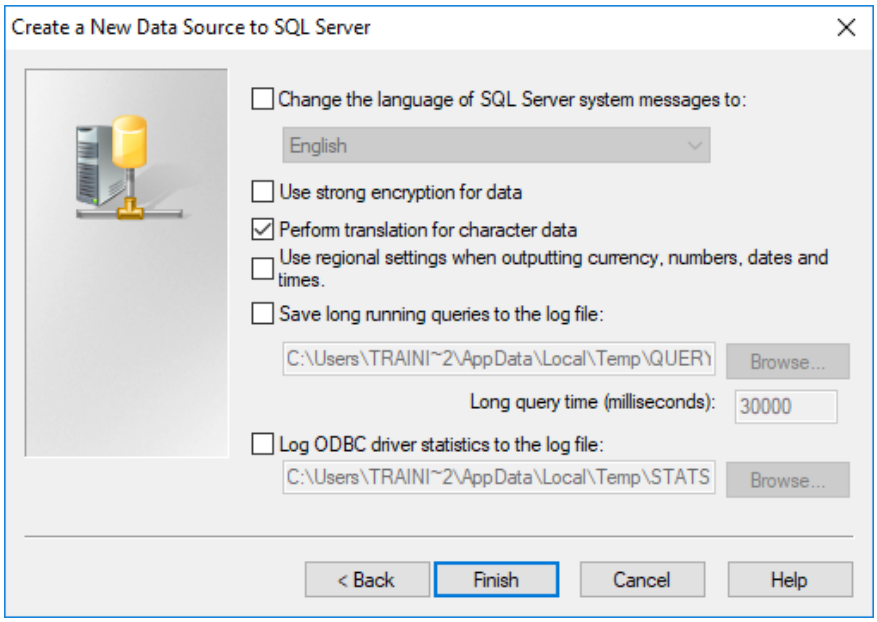



Figure 46 Create a New Data Source to SQL Server, final page

Be sure to test the new ODBC connection:

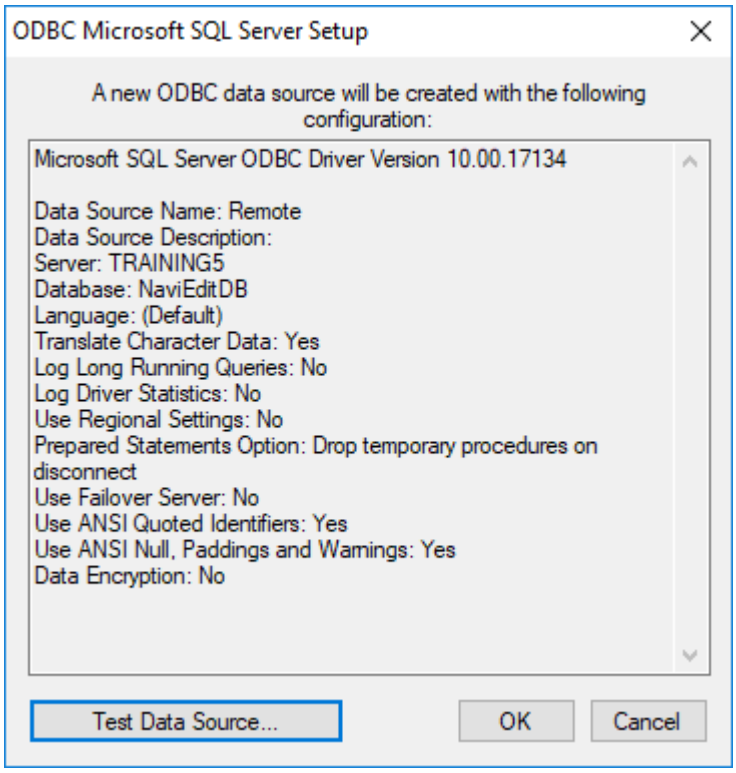



Figure 47 ODBC Microsoft SQL Server Setup, Test Data Source

This test must complete successfully. If it does not you must check your firewall settings, your Windows security policy settings and your SQL Server configuration settings as mentioned in the prerequisites section.

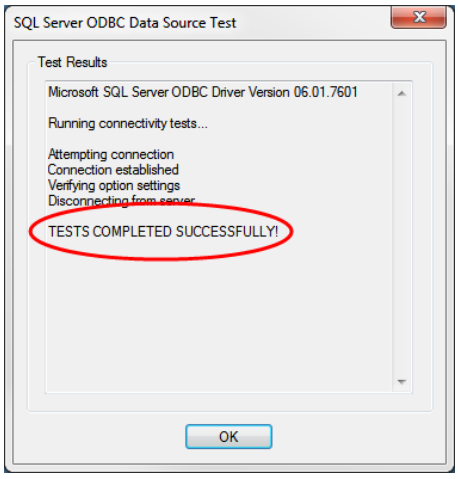



Figure 48 SQL Server ODBC Data Source Test

Now select **OK** to close the newly created Data Source Name:

You should now start the NaviEdit JobPlanner application and select the **Machine Data Source** tab on the **Select Data Source** dialog and select the newly created Data Source Name **RemoteSQLServer**:

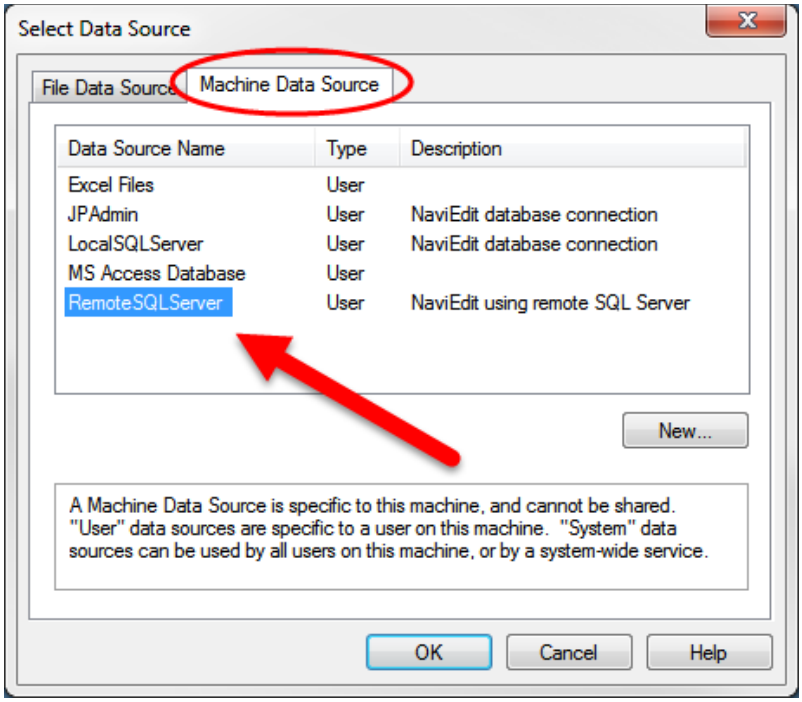



Figure 49 Select Data Source, Remote SQLServer

Now NaviEdit should be connected to the remote SQL Server:

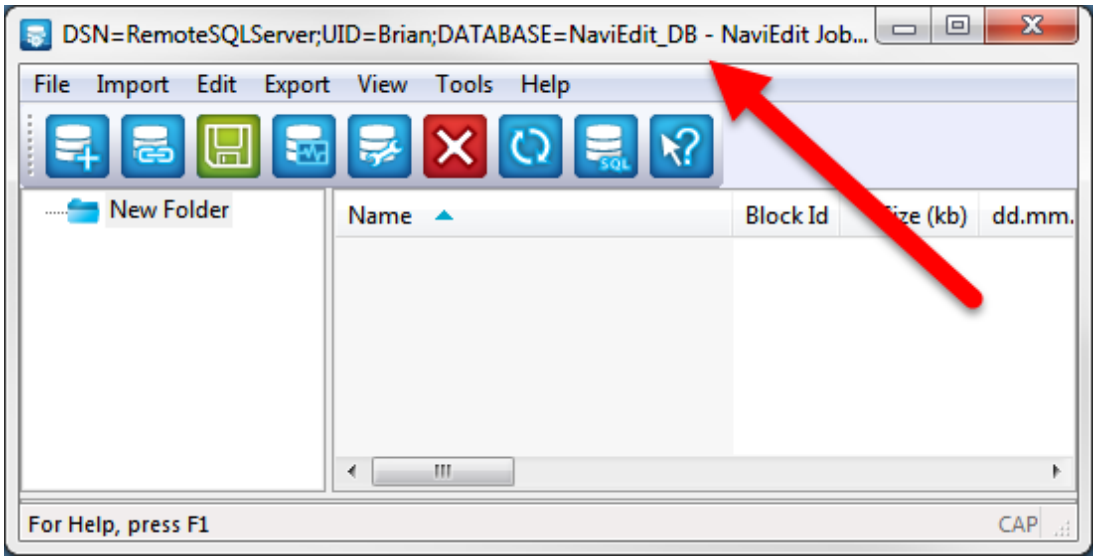
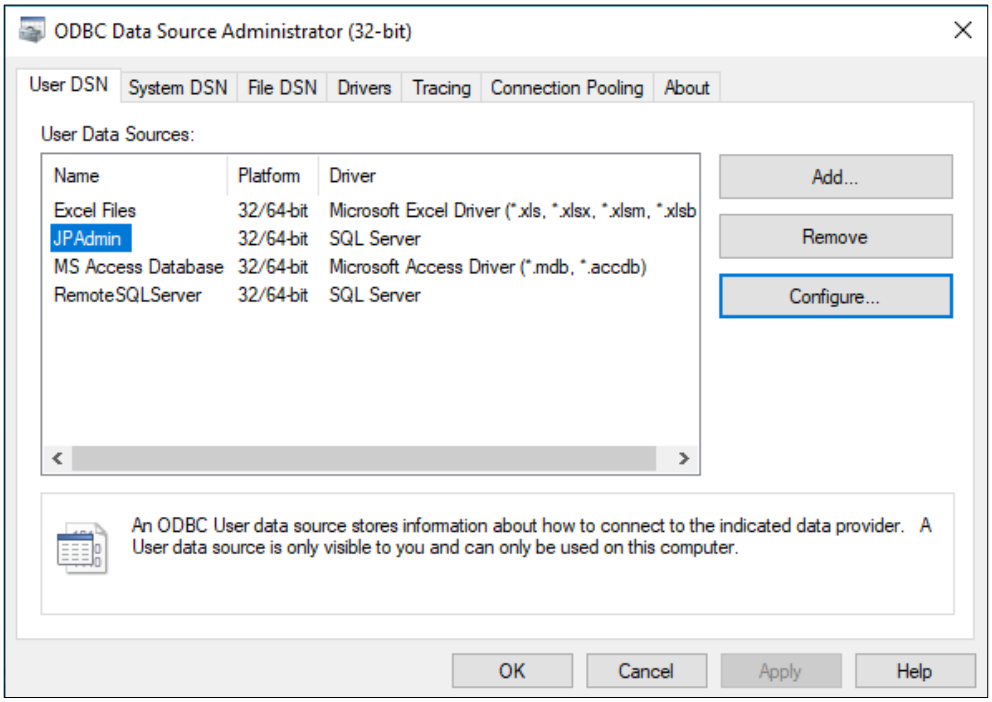



Figure 50 DSN – RemoteSQLServer UID-Brian: DATABASE-NaviEdit_DB – Jobplanner

#### 7.3.2.2 JPAdmin

The JobPlanner Administration (**JPAdmin**) is used when creating a new database, deleting, detaching databases, and showing the overview of the possible databases.
From a client pc, it is only possible to show the overview of the databases and to change between them.

Here is the ODBC Data Source Administrator dialog:




Figur 1 ODBC DataSource Administrator for JPAdmin

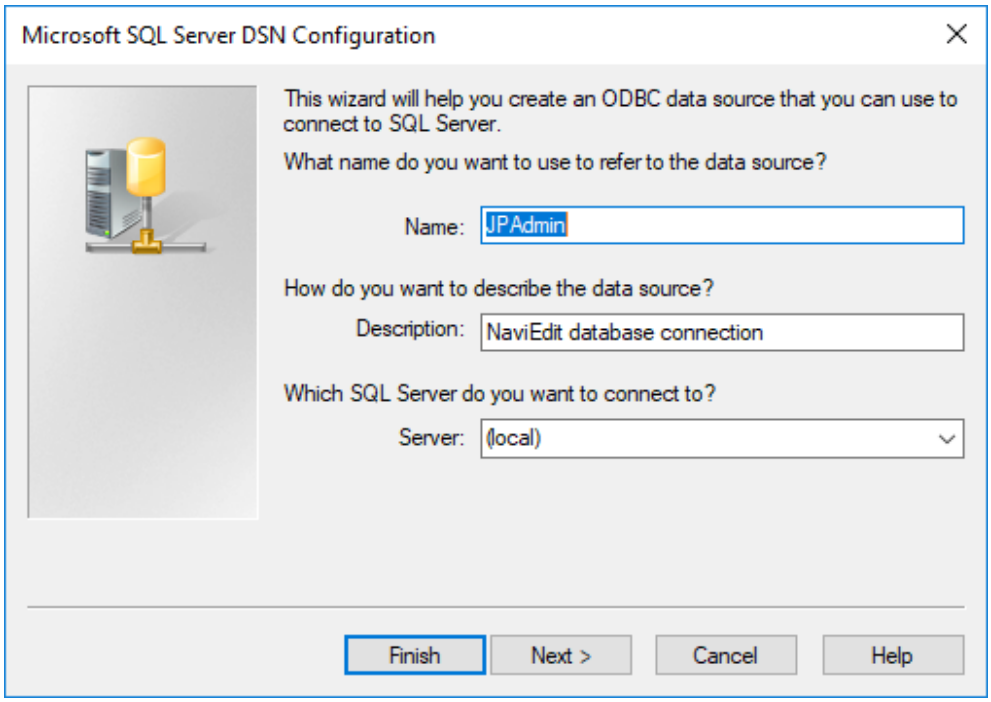
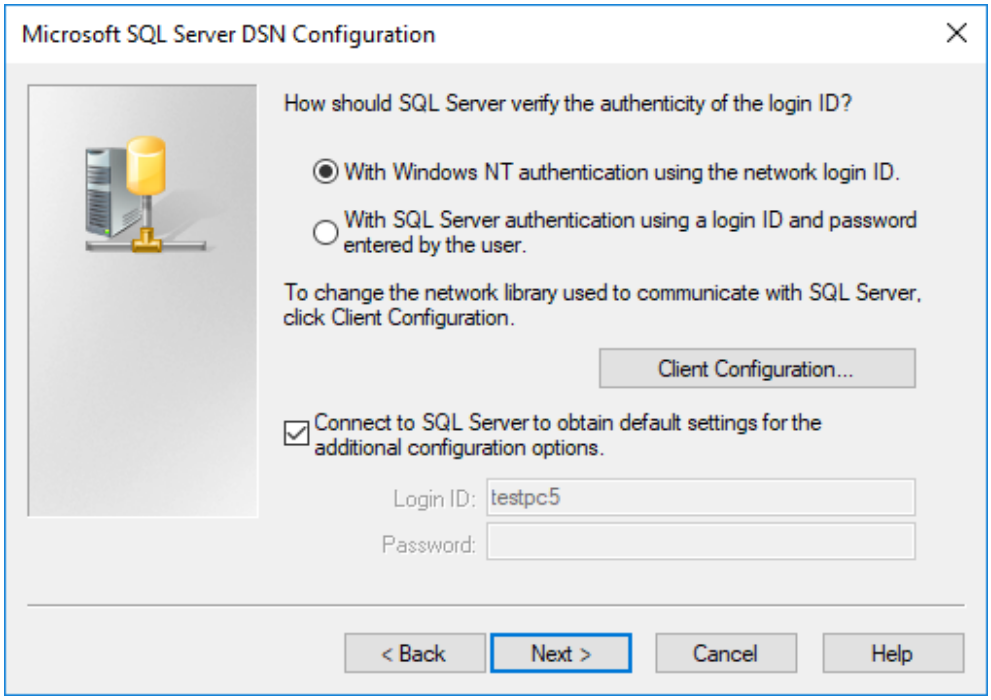



Figure 51 JPAdmin on client pc



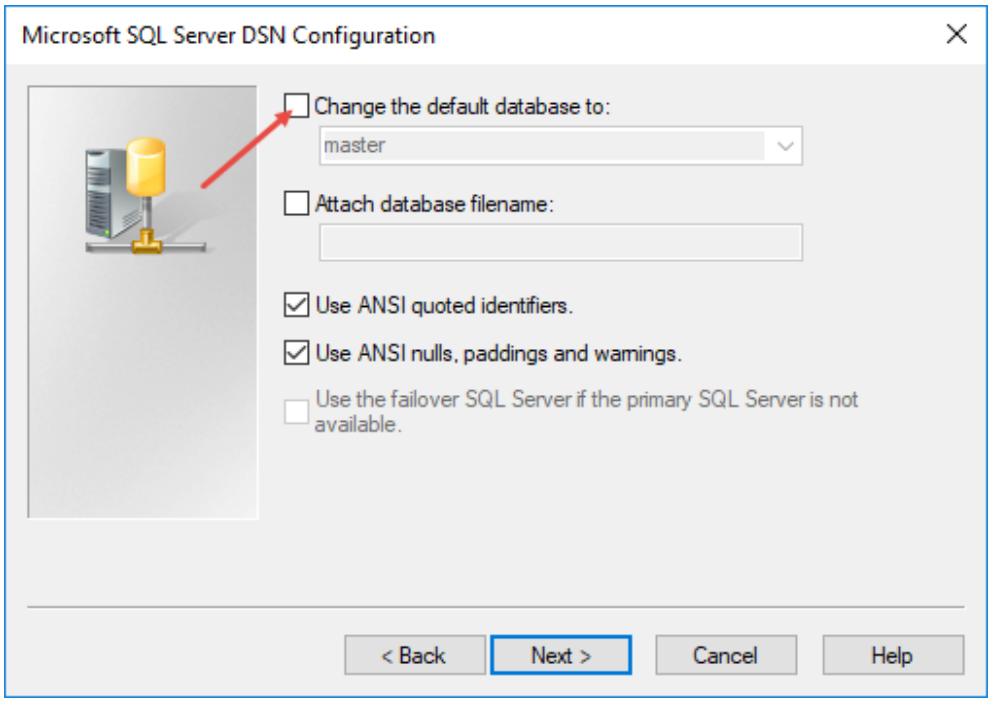




Figure 52 JPAdmin ODBC connection on client

Leave the tickbox **Change the default database to** empty, to get full access on the databases on the SQL server.

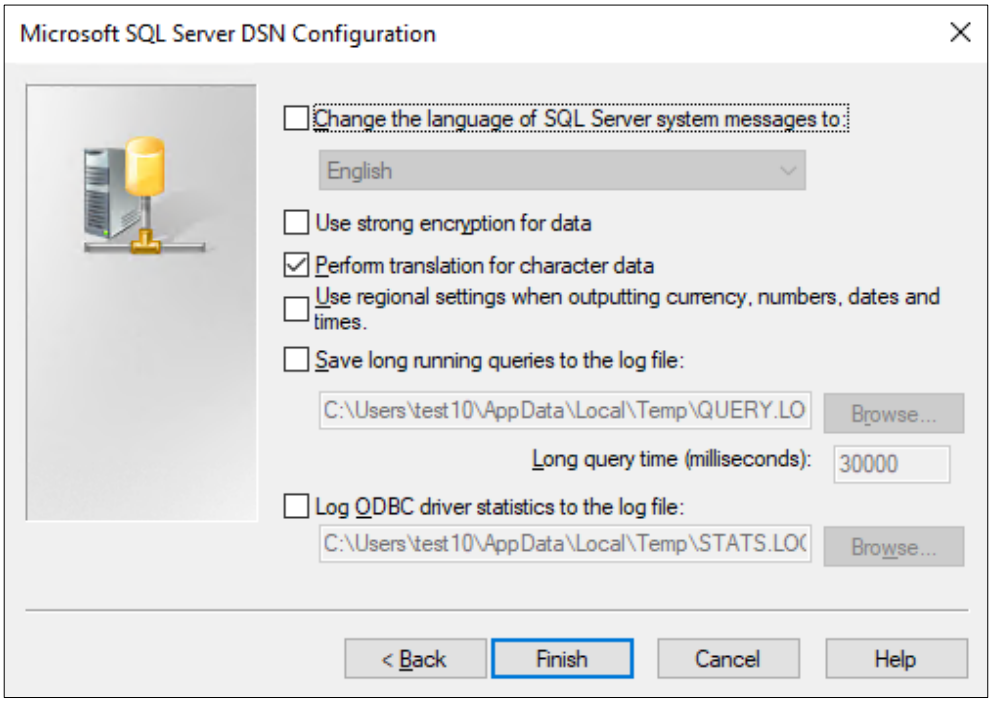



Figure 53 Finish the JPAdmin ODBC connection

# 8 Version descriptions

| Version | Date | Author | Description |
|---|---|---|---|
| 7 | 19.03.2007 | HKP | Created. |
| 8.1 | 3.11.2016 | ANS | Updated screenshots, missing 2 with remote database |
| 8.4 | 16.01.2020 | ANS | Added flag explanation in chapter 5.3. |
| 8.5 | 11.03.2020 | ANS | Updated 4.1 Preconditions |
| 8.5 | 24.04.2020 | ANS | Added database limitation chapter 2 |
| 8.6 | 22.07.2022 | ANS | Reviewed document |