Table of Contents

1   What's New

New features in ODBC Driver for NexusDB 1.9

- Added support for NexusDB 4.75.17

- Improved compatibility with Node.js

- Improved compatibility with Tableau

- Improved compatibility with Vectorworks

New features in ODBC Driver for NexusDB 1.8

- Added support for NexusDB 4.75.10

New features in ODBC Driver for NexusDB 1.7

- Fixed connection timeout setting before opening connection

- Now passwords are stored in an encrypted form in the DSN record

New features in ODBC Driver for NexusDB 1.6

- Added support for NexusDB 4.75

New features in ODBC Driver for NexusDB 1.5

- Added support for SQL_ATTR_MAX_ROWS attribute

- Improved compatibility with Visual Basic in Visual Studio

New features in ODBC Driver for NexusDB 1.4

- Added option to set Remote Thread Priority

- Added support for working with tables protected by a password

- Added support for table extension in embedded mode

- Improved compatibility with Tableau Prep Builder

- Improved compatibility with Crystal Reports

- Improved the SSH connection establishment

- Reduced number of metadata calls

New features in ODBC Driver for NexusDB 1.3

- Added support for Windows 11

- Improved fetch performance

- Improved compatibility with FICO Mosel

- Improved compatibility with FileMaker

- Improved support for an ODBC installer on Windows 2000

- Added a MinFetchBlockSize connection parameter

New features in ODBC Driver for NexusDB 1.2

- MSI installer for deploying through GPO is added

New features in ODBC Driver for NexusDB 1.1

- Support for the Pipe protocol is added

- Support for the Secure Pipe protocol is added

- Support for the Secure TCP protocol is added

- Now an #INMEM alias is created automatically when it is specified in the Database property

New features in ODBC Driver for NexusDB 1.0

- First release of ODBC Driver for NexusDB

- Windows 32-bit is supported

- Windows 64-bit is supported

2   General Information

1. [Overview](#)
2. [Features](#)
3. [Compatibility](#)
4. [Requirements](#)

2.1   Overview

Overview

Devart ODBC Driver for NexusDB is a high-performance connectivity solution with enterprise-level features for accessing NexusDB databases from ODBC-compliant reporting, analytics, BI, and ETL tools on both 32-bit and 64-bit Windows. Our ODBC driver fully supports standard ODBC API functions and data types and enables easy and secure access to live NexusDB data from anywhere.
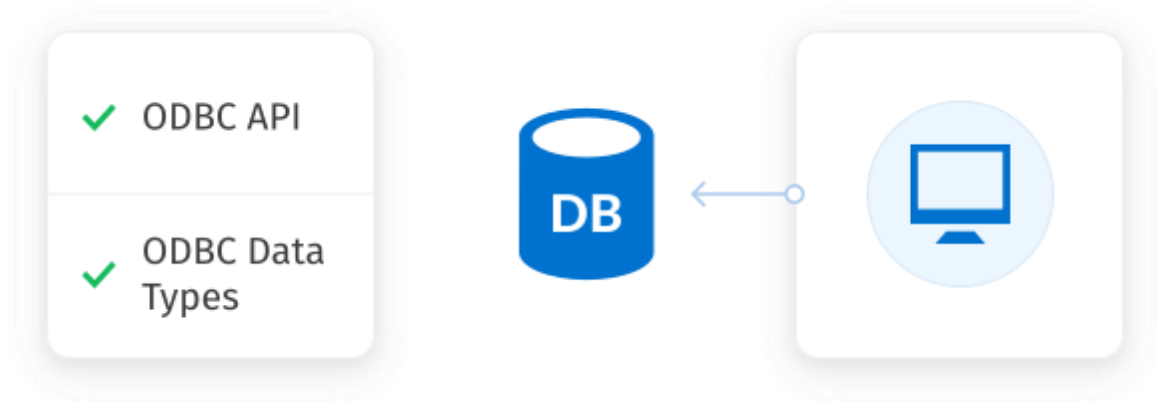
Direct Connection

Our data connector enables various ODBC-aware applications to establish a direct connection to NexusDB via TCP/IP to eliminate the need for NexusDB client. A direct connection increases the speed of data transmission between an external application and NexusDB for real-time analytics. It also streamlines the deployment process, since there is no need to distribute any additional client software with the driver.
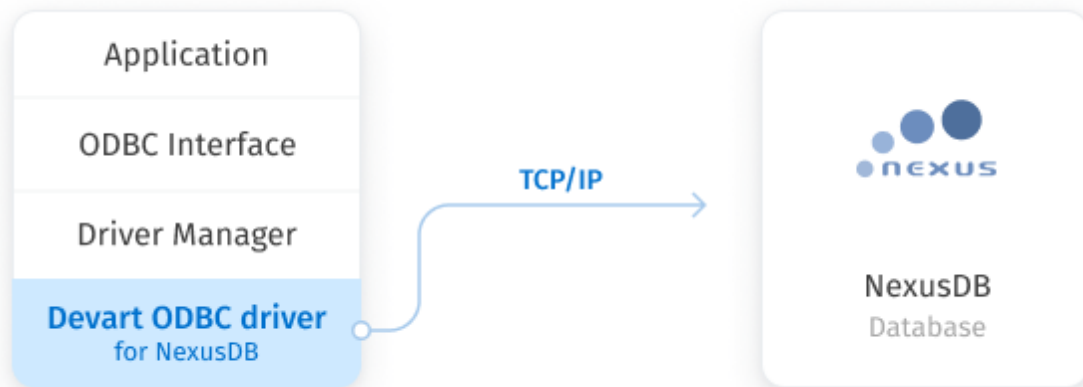
Compatibility

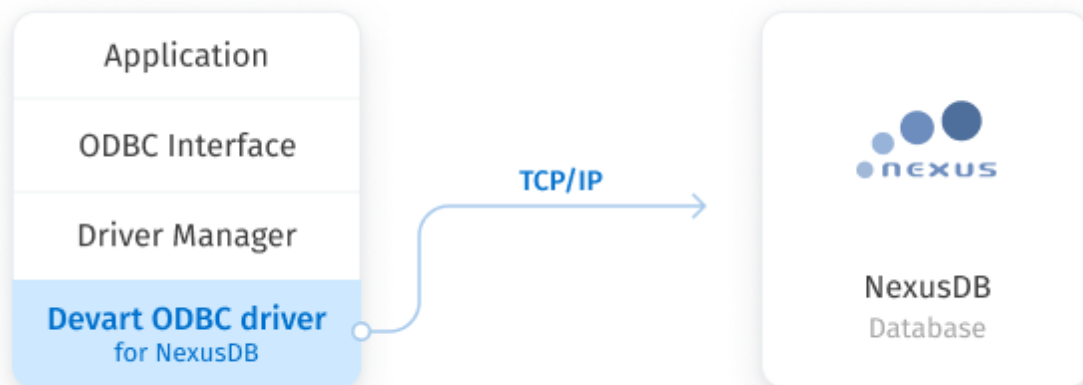ODBC Driver for NexusDB supports supports NexusDB Server 3.10 and higher.

2.2   Features

Direct Connection

Database applications that use our driver can establish a direct connection to NexusDB without any dependencies. Direct Connection gives your applications an unrivaled advantage - connection to NexusDB databases directly via TCP/IP. That improves performance of your applications, their quality, reliability and especially the deployment process, since there is no need to supply additional client software together with your application.
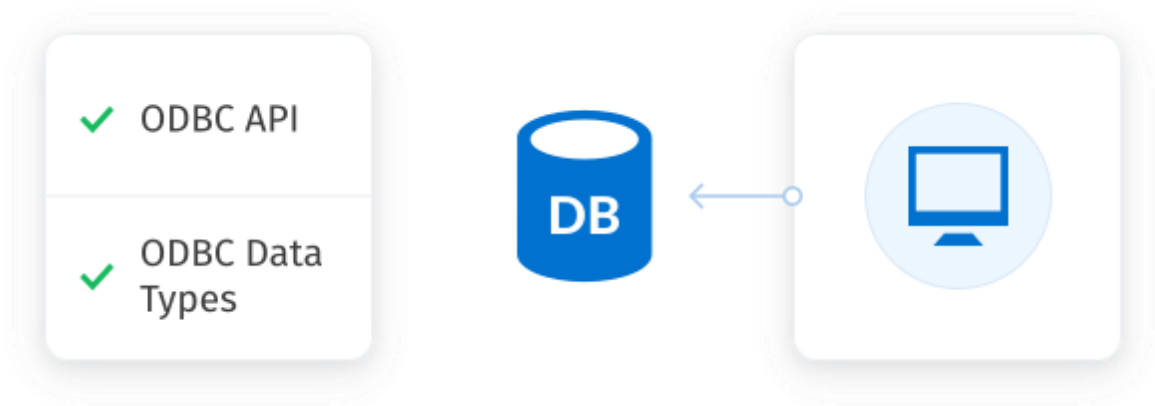
ODBC Conformance

Our ODBC driver provides full support for common ODBC interface:

- ODBC Data Types support

- ODBC API Functions support

In addition, we provide support for Advanced Connection String parameters. Thus allowing any desktop and web applications to connect to NexusDB from various environments and platforms, that support ODBC.
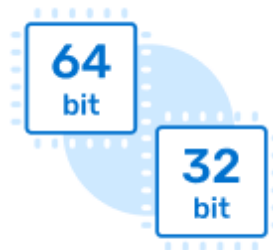
Development Platforms Variety

Devart ODBC Driver for NexusDB can be used with 32-bit and 64-bit applications on both x32 and x64 platforms, so there is no need to additionally configure the driver, applications or environment.

Database Compatibility

ODBC Driver for NexusDB supports the following database servers:

- NexusDB servers: 3.10 and higher

High Performance

All our products are designed to help you write high-performance, lightweight data access layers, therefore they use advanced data access algorithms and techniques of optimization.

Support

Visit our Support page to get instant help from knowledgeable and experienced professionals, a quick resolution of your problems, and nightly builds with hotfixes.

2.3   Compatibility

NexusDB Compatibility

ODBC Driver for NexusDB supports the following database servers:

NexusDB Servers	Support
3.10 and higher	✔

Supported Platforms

- Windows 32-bit and 64-bit (including Windows Terminal Server)

- Compatible with all Windows versions (Windows Vista and higher) that support .NET Framework 4.5.

Compatibility with Third-Party Tools

Application Development Tools

Adobe ColdFusion	✔
Embarcadero Delphi & C++Builder UniDAC, FireDAC, dbGo (ADO), BDE and dbExpress	✔
FileMaker	✔
Lazarus	✔
Microsoft Visual FoxPro	✔
Microsoft Visual Studio Server Explorer and ADO.NET ODBC Provider	✔
Omnis Studio	✔
PHP	✔
PowerBASIC	✔
Python	✔

Database Management

Aqua Data Studio	✔
dbForge Studio	✔
dBeaver	✔
EMS SQL Management Studio	✔
Informatica Cloud	✔
RazorSQL	✔
SQL Server Data Tools	✔
SQL Server Management Studio	✔
SQL Server Reporting Services	✔

BI & Analytics Software

Alteryx	✔
DBxtra	✔
Dundas BI	✔
IBM SPSS Statistics	✔
MicroStrategy	✔
Power BI	✔
Qlik Sense	✔
QlikView	✔
RStudio	✔
SAP Crystal Reports	✔
SAS JMP	✔

Tableau	✔
TARGIT	✔
TIBCO Spotfire	✔

Office Software Suites

LibreOffice	✔
Microsoft Access	✔
Microsoft Excel	✔
OpenOffice	✔
StarOffice	✔

2.4   Requirements

The following requirement must be met for ODBC Driver for NexusDB:

- Only one version of [ODBC Driver for NexusDB](#) is installed on your system.

No additional client software is required on your system.

2.5   Licensing

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(either an individual person or a single legal entity) and Devart, for the use of the ODBC Driver software application, demos, intermediate files, printed materials, and online or electronic documentation contained in this installation file. For the purpose of this Agreement, the software program(s) and supporting documentation will be referred to as the "Software".

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2.6   Getting Support

This document lists several ways you can find help with using ODBC Driver for NexusDB describes the Priority Support program.

Support Options

There are a number of resources for finding help on installing and using ODBC Driver for NexusDB:

- You can find out more about ODBC Driver for NexusDB installation or licensing by

consulting Installation and License articles of this manual respectively.

- You can get community assistance and technical support on the Community Forum.

- You can get advanced technical assistance by ODBC Driver for NexusDB developers through the ODBC Driver for NexusDB Priority Support program.

Subscriptions

The ODBC Driver for NexusDB Subscription program is an annual maintenance and support service for ODBC Driver for NexusDB users.

Users with a valid ODBC Driver for NexusDB Subscription get the following benefits:

- Product support through the ODBC Driver for NexusDB Priority Support program

- Access to new versions of ODBC Driver for NexusDB when they are released

- Access to all ODBC Driver for NexusDB updates and bug fixes

- Notifications about new product versions

Priority Support

ODBC Driver for NexusDB Priority Support is an advanced product support service for getting expedited individual assistance with ODBC Driver for NexusDB-related questions from the ODBC Driver for NexusDB developers themselves. Priority Support is carried out over email and has a two business day response policy. Priority Support is available for users with an active ODBC Driver for NexusDB Subscription.

To get help through the ODBC Driver for NexusDB Priority Support program, please send an email to support@devart.com describing the problem you are having. Make sure to include the following information in your message:

Your ODBC Driver for NexusDB Registration number.

- Full ODBC Driver for NexusDB edition name and version number. You can find the version number in DLL version information.

- Versions of the NexusDB server and client you are using.

- A detailed problem description.

- If possible, ODBC Administrator Log, scripts for creating and filling in database objects, and

the application using ODBC Driver for NexusDB.

If you have any questions regarding licensing or subscriptions, please see the FAQ or contact sales@devart.com.

3　Using ODBC Driver

1. Installation
2. Connecting to NexusDB
3. Connection String Parameters
4. Sandboxed Apps on macOS
5. Using with iODBC
6. Enabling ODBC Tracing
7. Supported Data Types
8. Supported ODBC API Functions

3.1　Installation

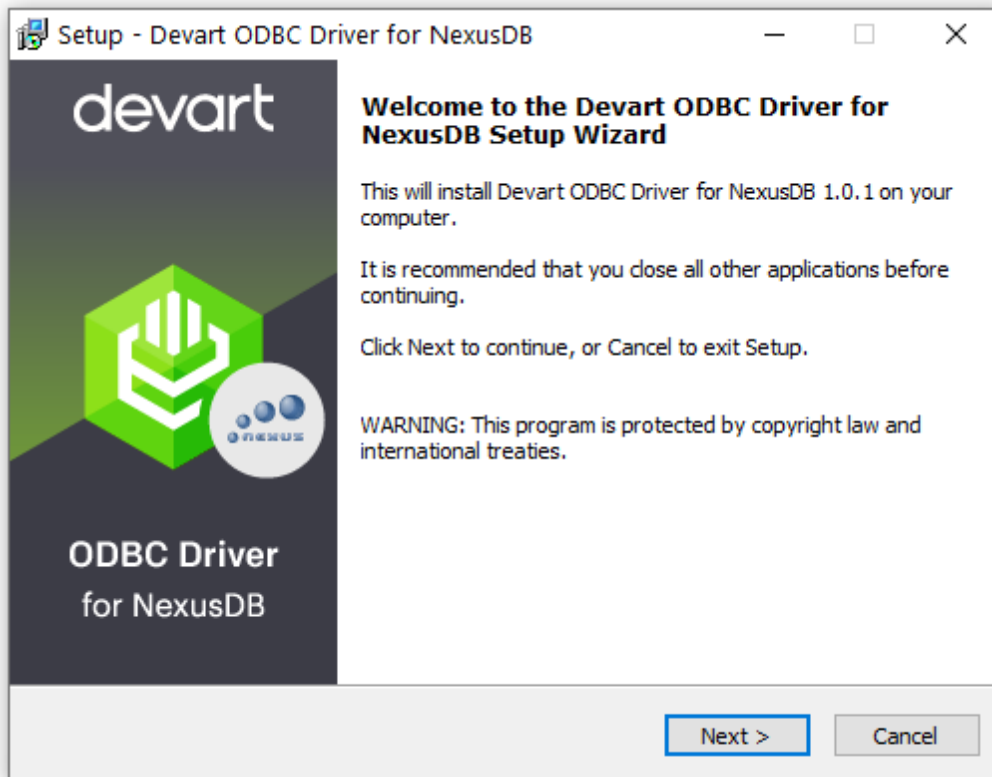ODBC Driver for NexusDB currently supports the Windows platform, both 32-bit and 64-bit.

See how to install Devart ODBC Driver for NexusDB:

- Windows
- Windows Silent

3.1.1　Windows

Installation

1. Download and run the installer.

2. Follow the instructions in the wizard.

3. If you already have the specified installation folder on the PC or another driver version is installed, you will get a warning. Click **Yes** to overwrite the old files with the current installation, but it is recommended to completely uninstall the previous driver version first, and then install the new one.

4. On the **Select Components** page, you can choose whether to install the **64-bit** version of the driver. Clear the checkbox if you do not need a 64-bit installation. There is also a checkbox on this page that allows you to choose whether to install Help and Manual.
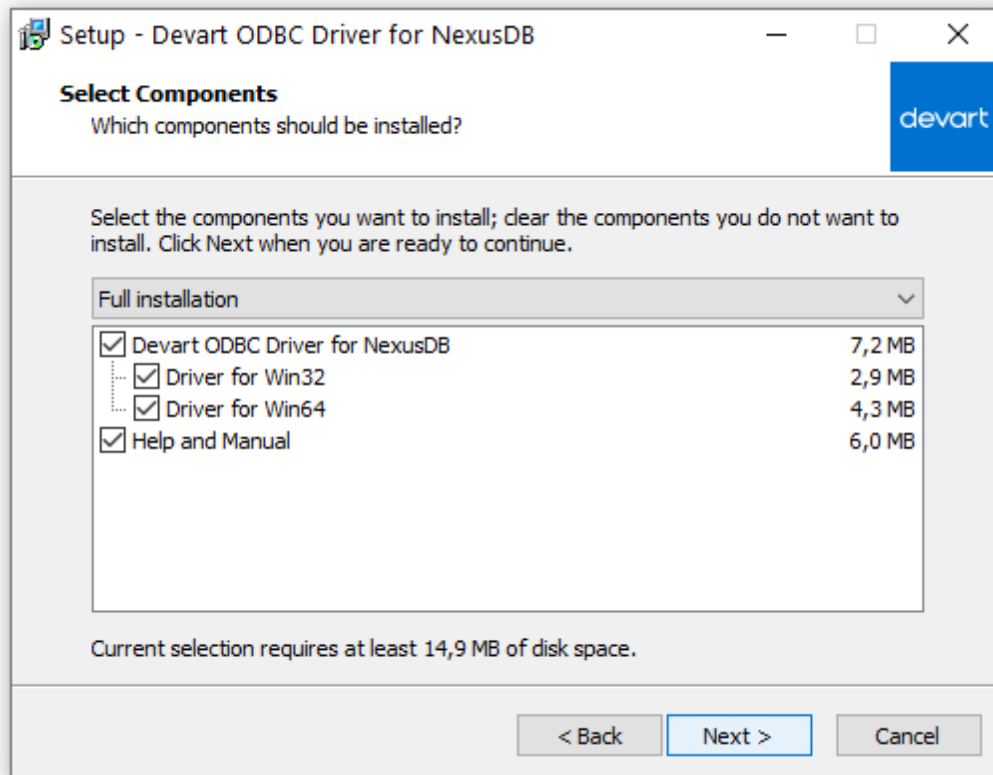
5. On the **License Information** page, select when you want to activate the driver:

- **Immediately after installation:** Select **Input Purchased or Trial activation key** and

  enter your key in the provided box, or click **Load Activation Key** and select the file

  containing your key.

- **Any other time:** Select **Activate product later**.

You need to activate the driver even for the trial version.

You can find your activation key in the registration email or your Customer Portal account.

To open the Customer Portal, click **Get Purchased or Trial Activation Key**.
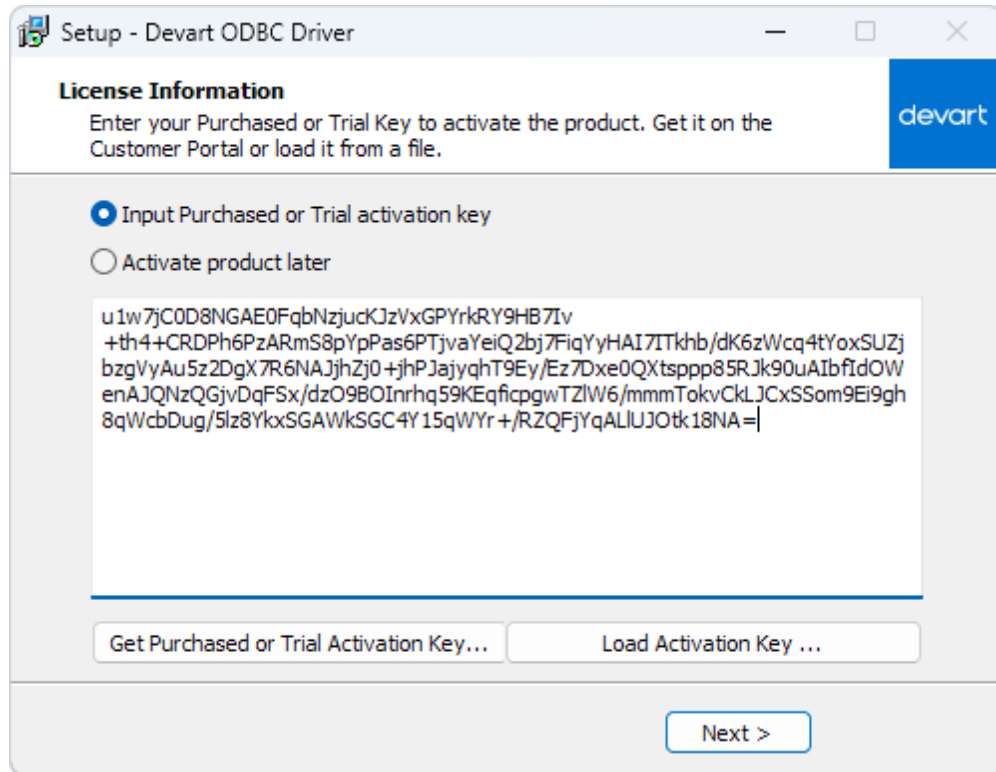
6. Click **Next** to complete the installation.

7. Click **Finish** to exit Setup.

8. After the installation is completed, you need to configure the driver.

3.1.2   Windows Silent

Silent Installation with OEM license on Windows

1. Run the Command Prompt as an administrator.

2. Use the following command-lines to perform the driver silent/very silent installation:

```
DevartODBCNexusDB.exe /SILENT /ActivationKey=y1c7nmgdu234laszxcvONGurjfhxm90
```

```
DevartODBCNexusDB.exe /VERYSILENT /ActivationKey=ekhdh765mh09ukr237gfHRtrilw
```

Note: The installation is performed by entering a license key.

```
DevartODBCNexusDB.exe /SILENT /ActivationFile=d:\lic.key
```

```
DevartODBCNexusDB.exe /VERYSILENT /ActivationFile=d:\lic.key
```

Note: The installation is performed by specifying the path to a license key file with any name.

When /SILENT is used, the installation progress is displayed, but no user interaction is required during installation.

When /VERYSILENT is used, the installation wizard dialog is hidden and the installation process is performed without user interference.

3.2   Remote Installation

One of the key advantages of Group Policy is the ability to deploy software remotely using MSI files. This section explains how to use Group Policy to remotely install the ODBC Driver for NexusDB on client computers.

The information is organized into the following sections:

- Creating the MST File Using Orca

- Remote Deployment and Activation

- Upgrading Driver Version and License Key

3.2.1   Package Transformation

Creating the MST File Using Orca

To customize the installation of the ODBC Driver for NexusDB, you first need to edit the Windows Installer Package (MSI) by creating an MST file. This will allow for customized installation of an original Windows Installer (MSI) Package.

An MST file, or Windows Installer Setup Transform file, contains program configuration settings. In our case, the MST file for the ODBC Driver for NexusDB will include the correct license information. This MST file is used together with the original MSI package in the Group Policy software distribution system.

There are many tools available for customizing MSI file settings, so you can choose the one that best suits your needs. In this example, we'll be using **Orca**, which is available as part of the Windows SDK Components for Windows Installer Developers. For more information about Orca, visit the official Microsoft website.

To start the process of MST file generation using the Orca editor, follow the steps below:

1. Launch the Orca application, then open the required MSI file by selecting **Open** in the **File**

   menu or click the **Open** icon on the toolbar below.
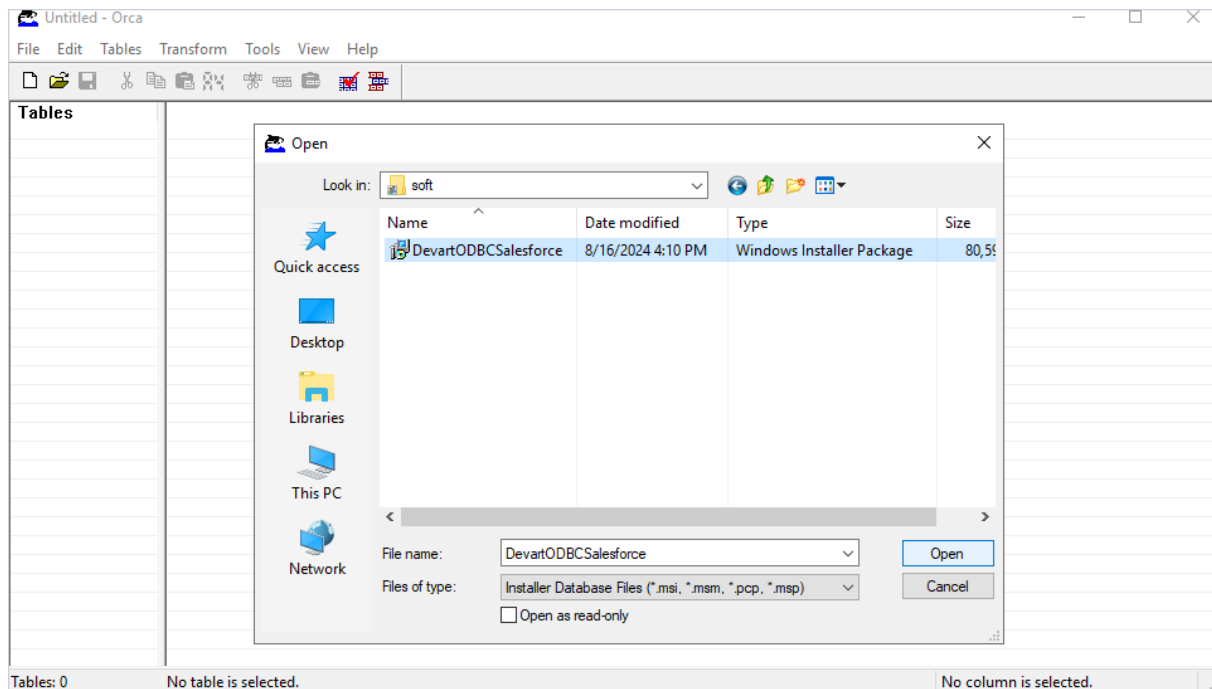
The MSI file for the ODBC Driver for Salesforce is taken as an example to illustrate the Group
Policy installation process. Use the same steps described in this section when installing the
ODBC Driver for NexusDB.

2. As a result, the **Tables** menu on the left side of the main application window will display the

   properties of the selected MSI file.

3. Next, navigate **Transform** -> **New Transform**.
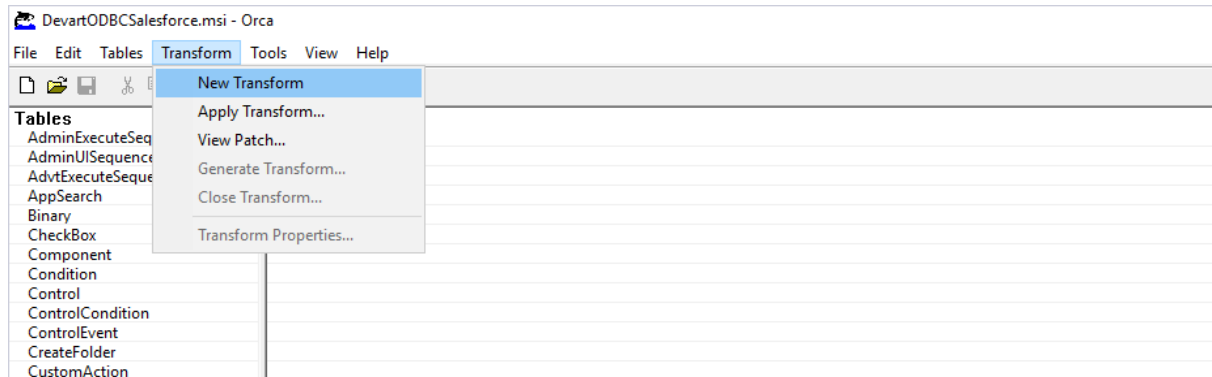
4. To proceed, select **Property** from the **Tables** menu, then double-click any empty row on

the right side of the application window.
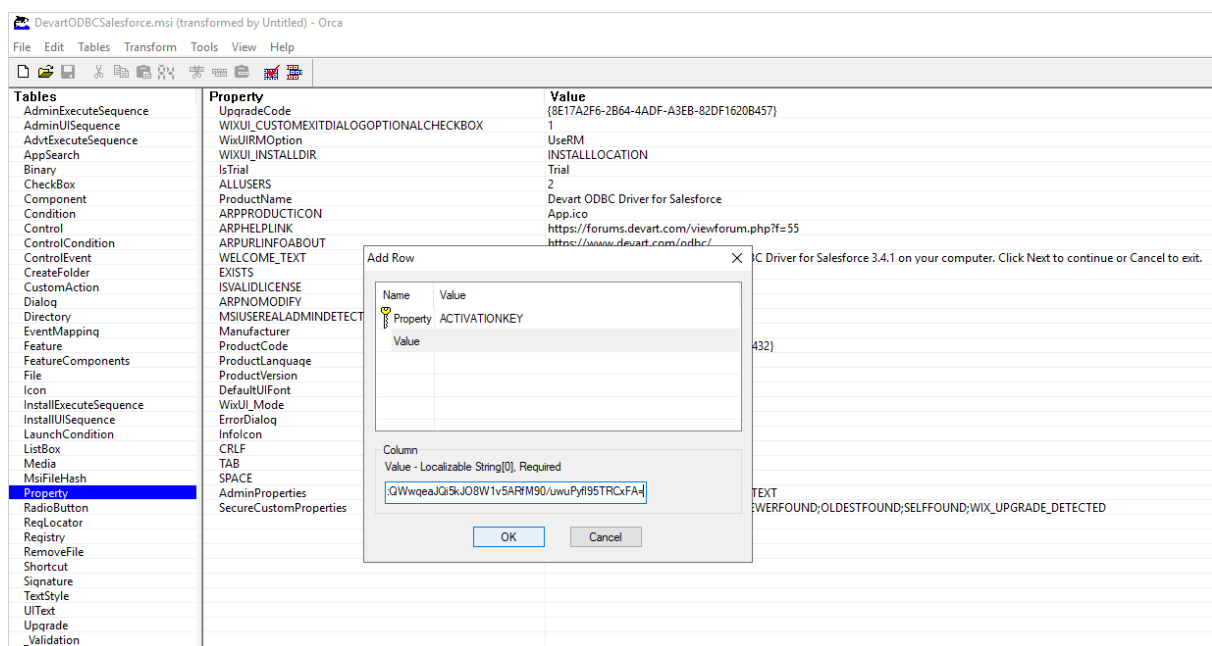
In the **Add Row** dialog that opens, make the following settings and press **OK** to apply the

changes:

- **Property** - enter **ACTIVATIONKEY** with capital letters only.

- **Value** - enter the valid OEM license key for the ODBC Driver for NexusDB.

As shown in the following screen, a new property, **ACTIVATIONKEY**, has been added, with

the license key displayed in the value column next to it.

5. Once the configuration changes have been made, select **Transform** -> **Generate**

   Transform.
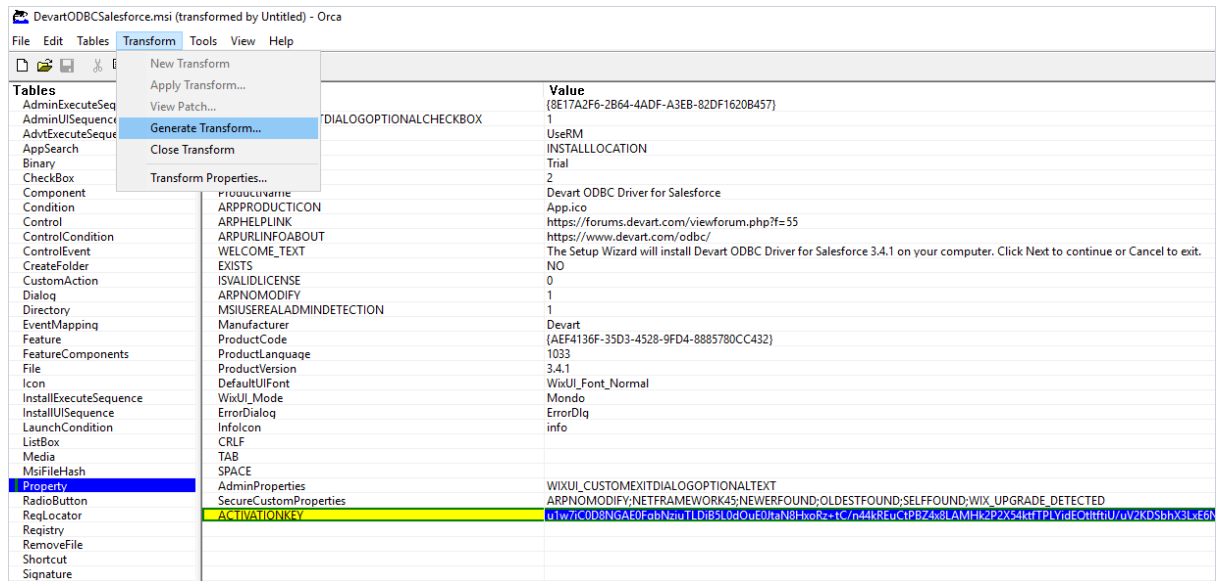
6. In the **Save Transform As** dialog that appears, enter a suitable name for the new MST file

   and click **Save** to apply your settings.
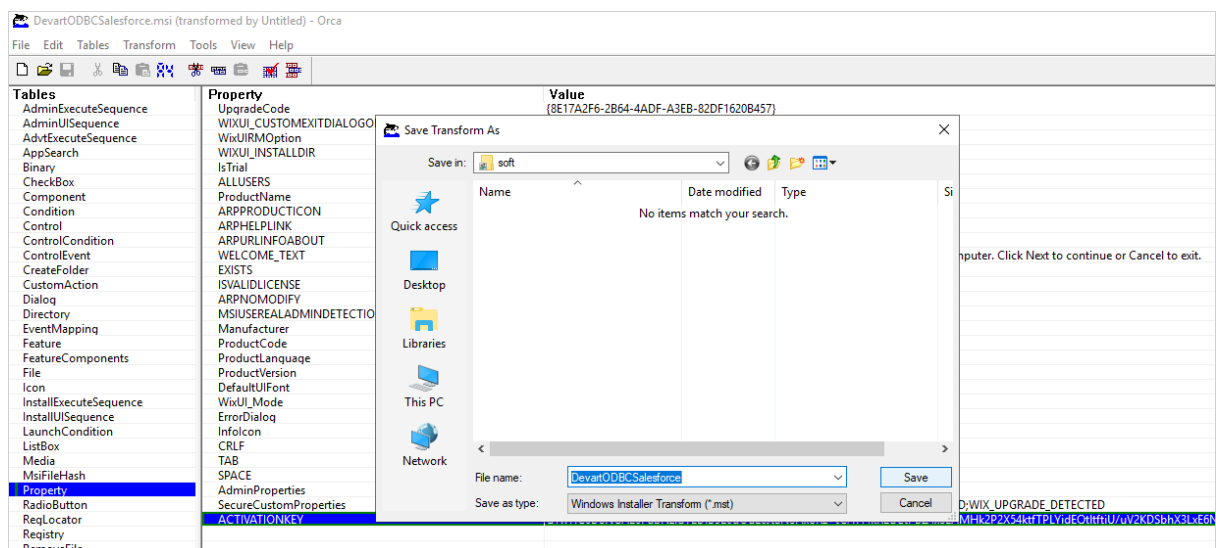
7. If successful, the encryption message *DevartODBCSalesforce.msi (transformed by DevartODBCSalesforce.mst) - Orca* will be displayed at the top of the Orca application window.
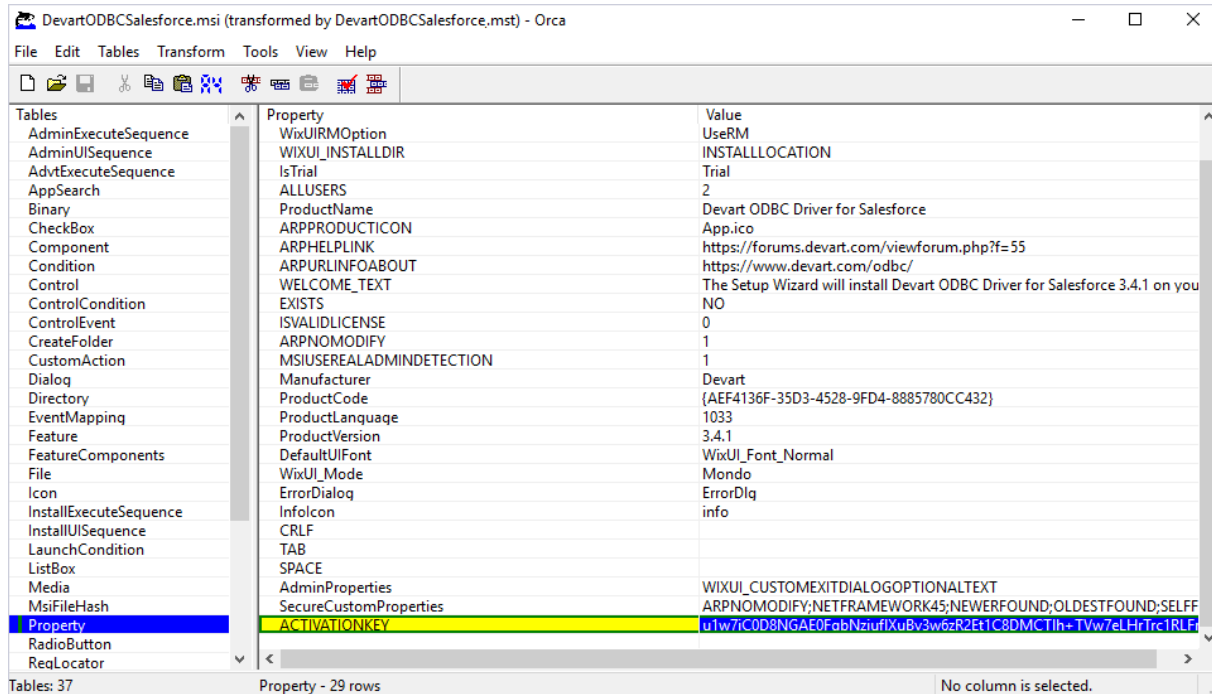
In case of a positive outcome, the newly created MST file will be located in the folder you specified, alongside the MSI file.

3.2.2 Deployment and Activation

Installing and Activating Software Remotely

Group Policy automated-program installation is specifically designed for deploying Windows Installer packages (MSI files). Therefore, when deploying the ODBC Driver for NexusDB using Group Policy, be sure to use the corresponding MSI file for the ODBC Driver for NexusDB.

Prerequisites: Locating the MSI Installation File

Prior to making configuration settings in the Group Policy, you'll need to create a distribution folder:

1. Create a shared network folder on the publishing server.

2. Set the appropriate sharing permissions on this folder to allow read access to the driver

   installation package for all domain users.

3. Download the ODBC Driver for NexusDB MSI file, and place it in the network folder.

The MSI file for the ODBC Driver for Salesforce is taken as an example to illustrate the Group

Policy installation process. Use the same steps described in this section when installing the

ODBC Driver for NexusDB.

Further in this section, you'll find more detailed information on how to deploy and activate the
ODBC Driver for NexusDB on remote client computers using Group Policy.

Server-Side Actions

1. Open the **Group Policy Management** desktop application.

2. In the **Group Policy Management** window, navigate to the desired forest node, then

   expand the appropriate option under the **Domains** node. For this example, we'll select

   devart-test.test. Right-click the Domains node, and from the context menu, select **Create**

   a GPO in this domain, and Link it here.
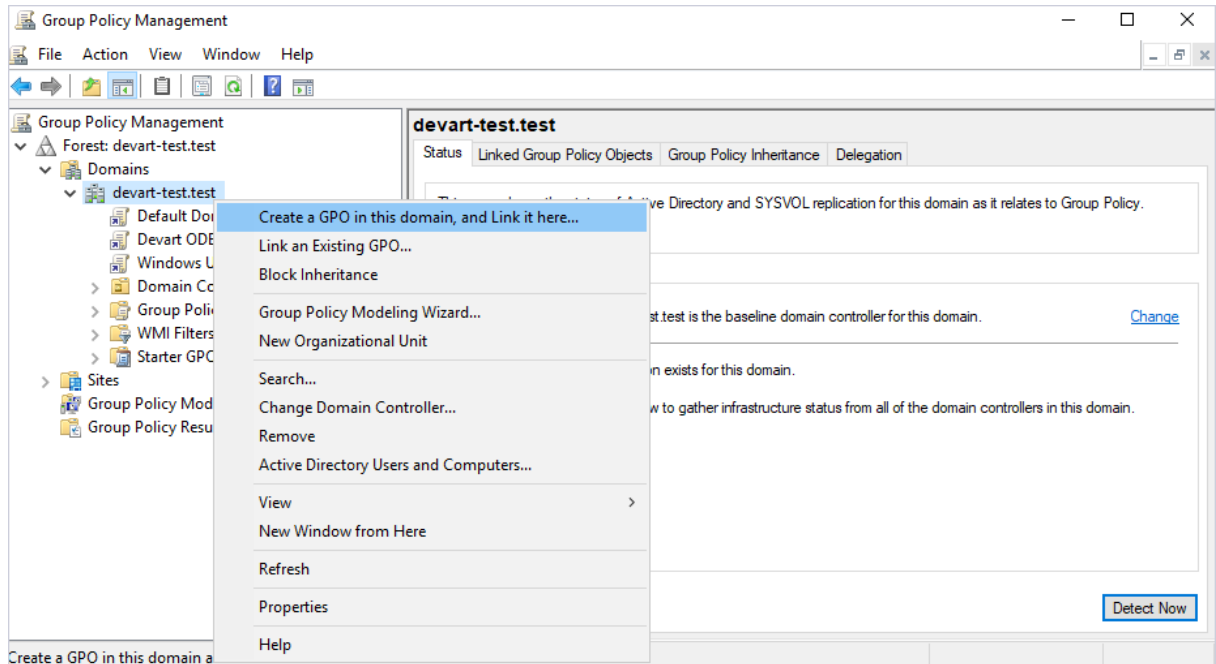
3. You can now create a New Group Policy Object. In the **New GPO** dialog enter a name for

the new object and click **OK**. The new GPO will then appear within the **Group Policy**

Management container.

For example, let's create a GPO named after the ODBC driver name.
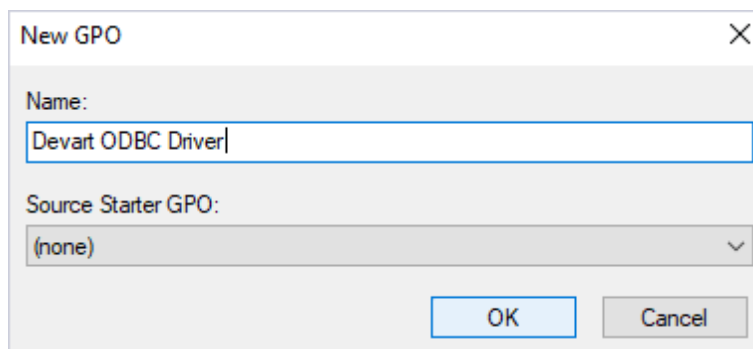
Keep in mind that each ODBC Driver for NexusDB Windows installation package
corresponds to one Group Policy Object (GPO), which is important for managing future
software upgrades. To install multiple drivers using Group Policy, you need to create a
separate GPO for each driver you want to deploy.

4. Right-click the new object and select **Edit** from the context menu.
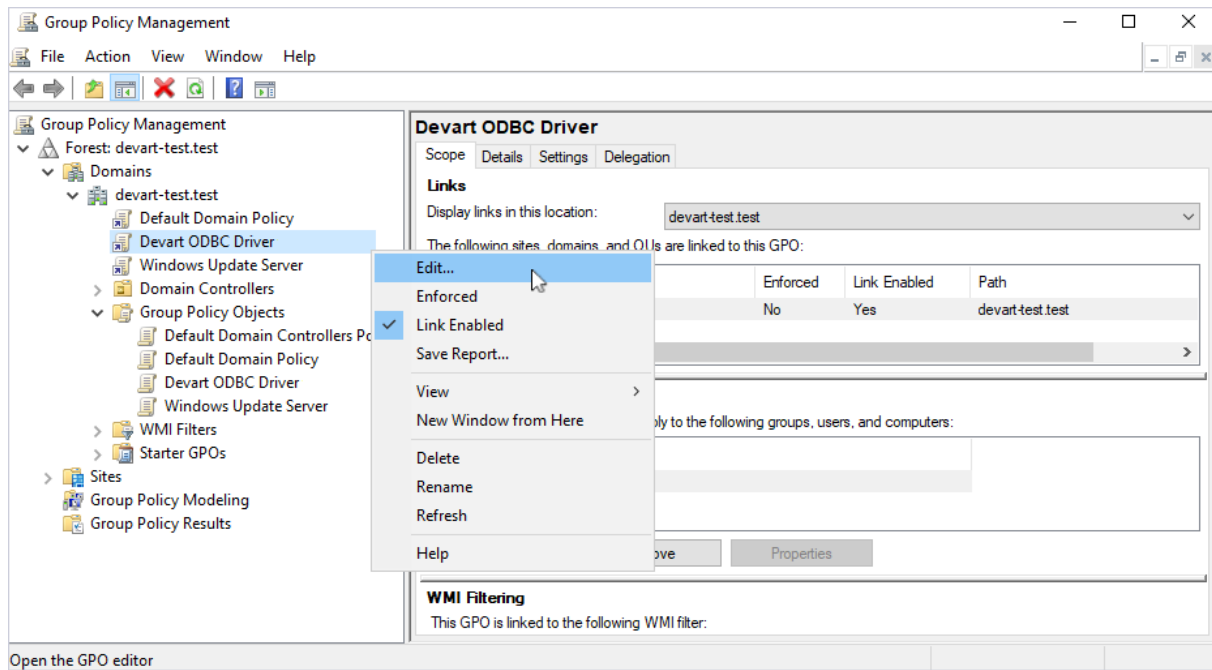
5. In the left pane of the **Group Policy Management Editor**, navigate to **Computer Configuration** --> **Policies** --> **Software Settings** --> **Software installation**. Your current deployment package will appear in the right pane. Right-click **Software installation**, then select **New** --> **Package**.
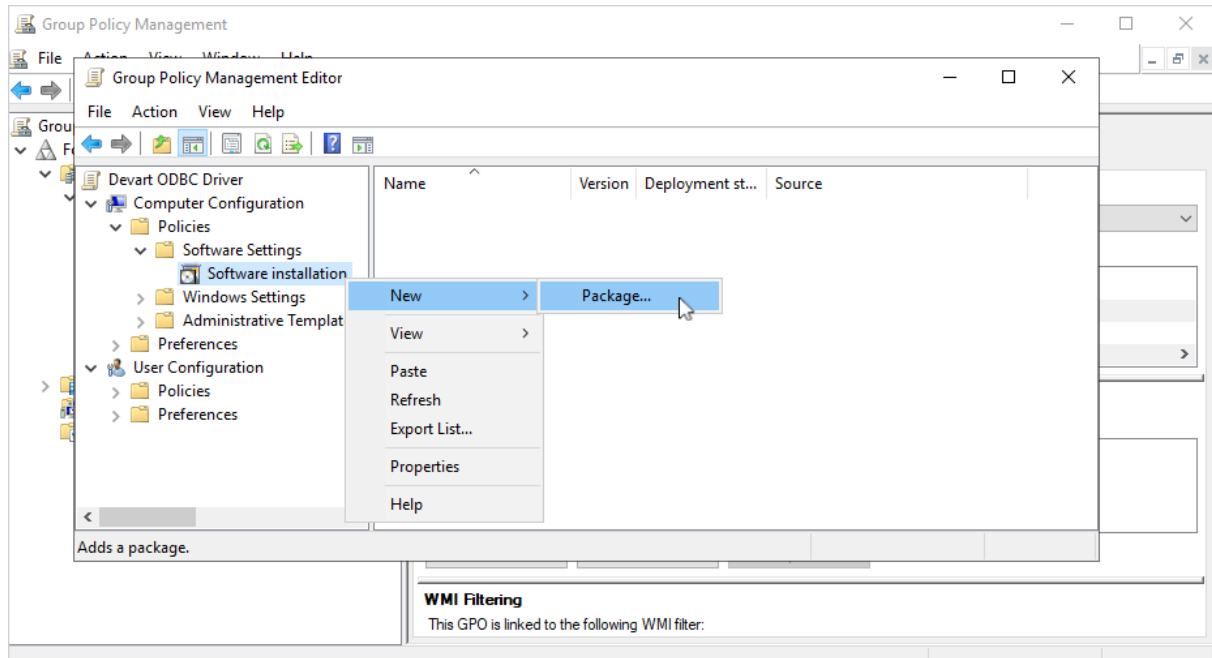
6. In the **Group Policy Management Editor** dialog that opens, select the desired MSI

installation file and click **Open**.
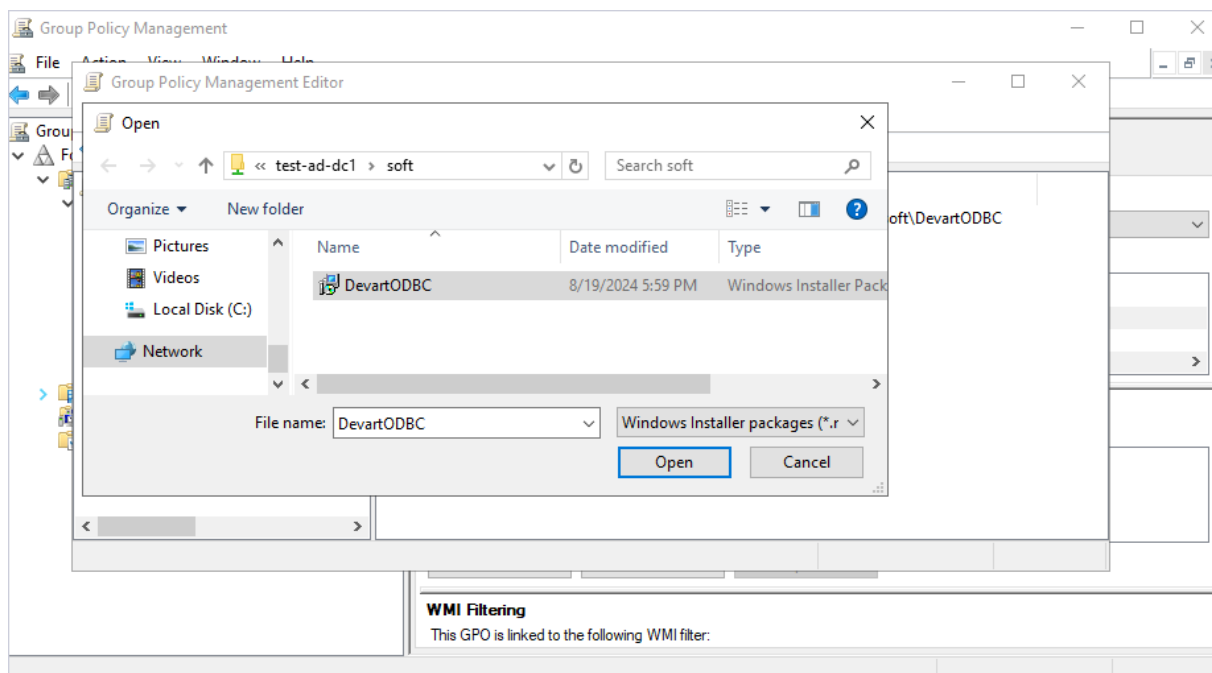
7. In the **Deploy Software** dialog, select **Advanced** to specify the software deployment method. The **Advanced** deployment method allows you to make necessary modifications to the MSI file, such as creating the MST file in Orca.
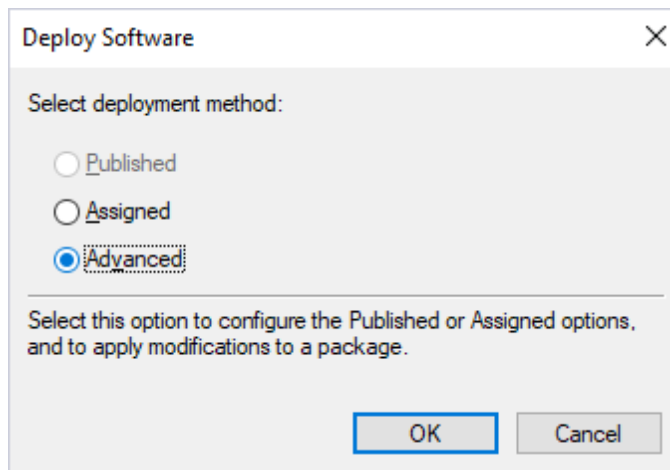
8. In the **Properties** dialog of the installation package that opens, go to the **Modifications** tab and select **Add**. Browse for the corresponding MST file, select it, and click **Open** to apply the settings.
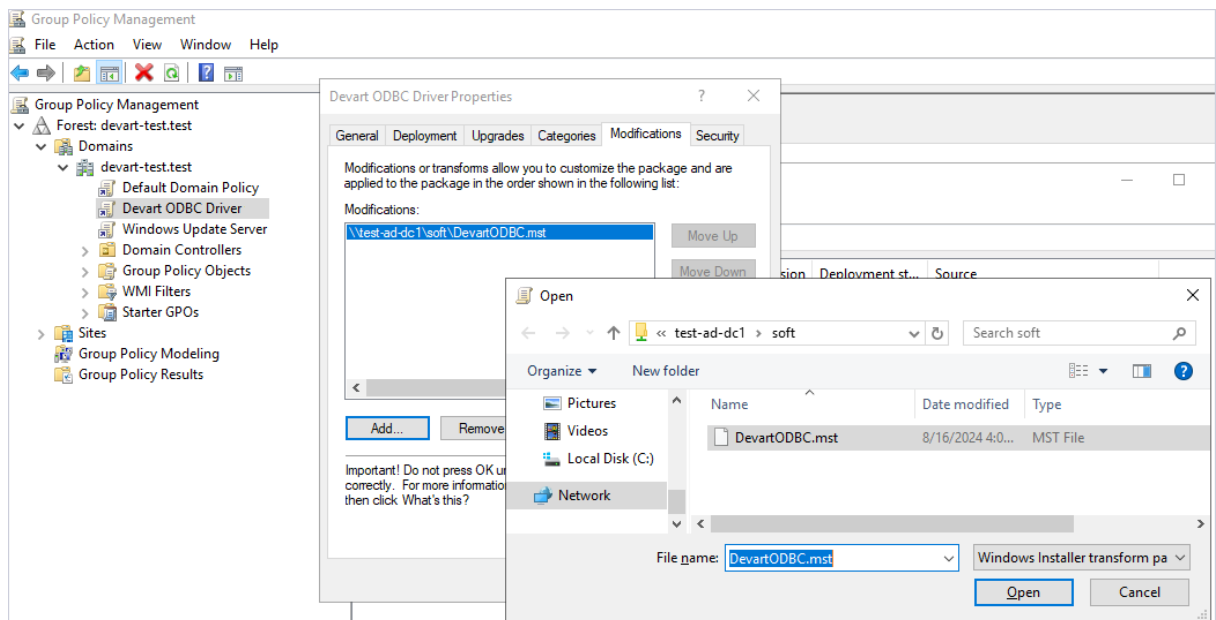
9. If configured correctly, the **Group Policy Management Editor** window should look as

follows:
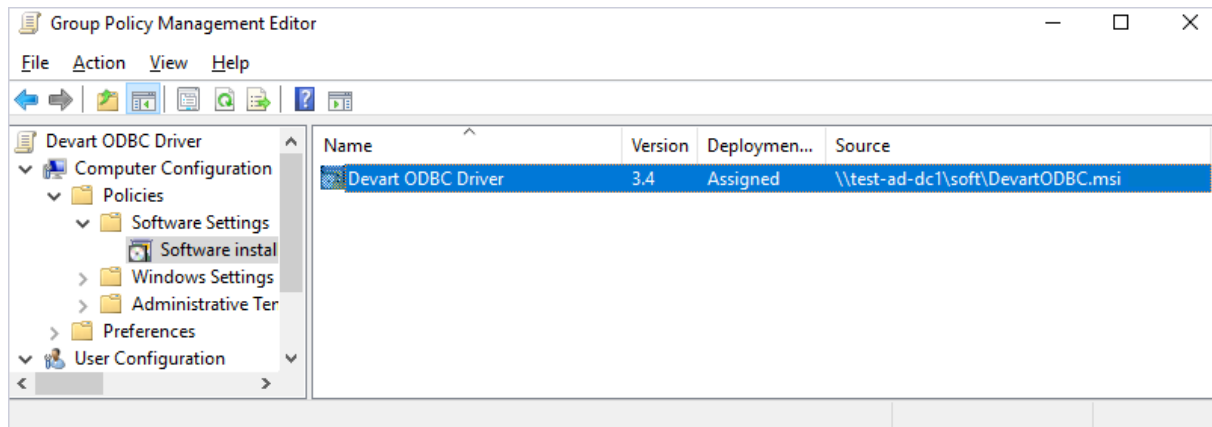
Client-Side Actions

For the ODBC Driver for NexusDB to be successfully installed on remote client machines, all
domain users must restart their computers after logging in for the first time.

In case of successful deployment, the ODBC driver will be installed on the client's computer.
To verify, open the ODBC Data Source Administrator on the client's machine and add the
deployed ODBC driver.
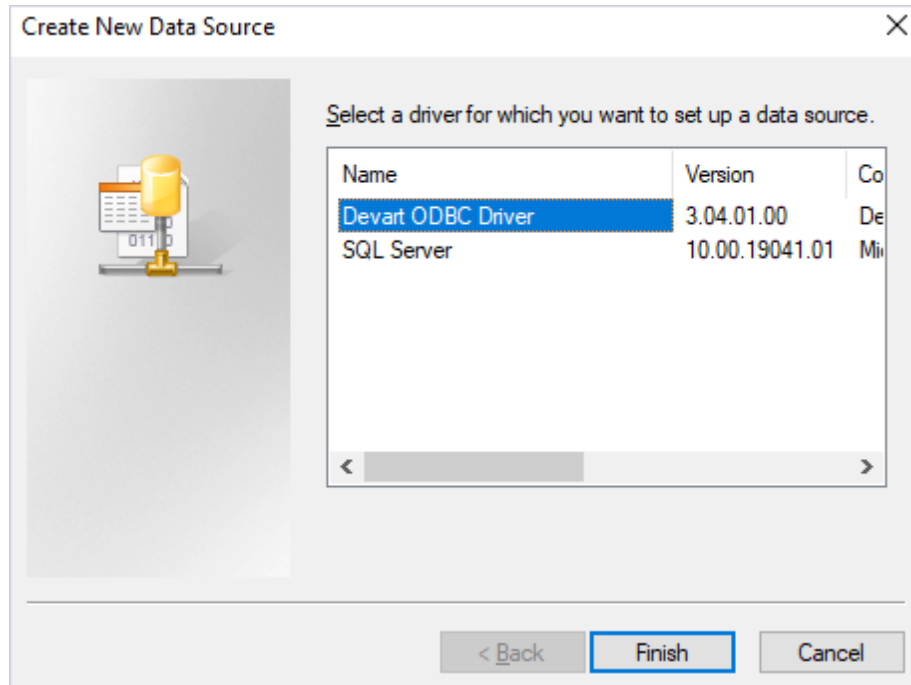
All information on the deployed driver is accessible upon clicking the **About** tab.

Similarly, the valid license key will be automatically activated after the successful installation of the ODBC Driver for NexusDB.

Devart ODBC Driver Configuration   ✕

General | Advanced Settings | Security Settings | Tracing | License | About

License Information

> Company:
> Devart
>
> User name:
> ODBC Account
>
> License number:
> 299E-2C8-001
>
> Licensed for:
> 1 Desktop
>
> Subscription for free updates expires on 12/31/2029

Get Purchased or Trial Activation Key...

Input Activation Key...

Deactivate Product

Test Connection   ...   OK   Cancel
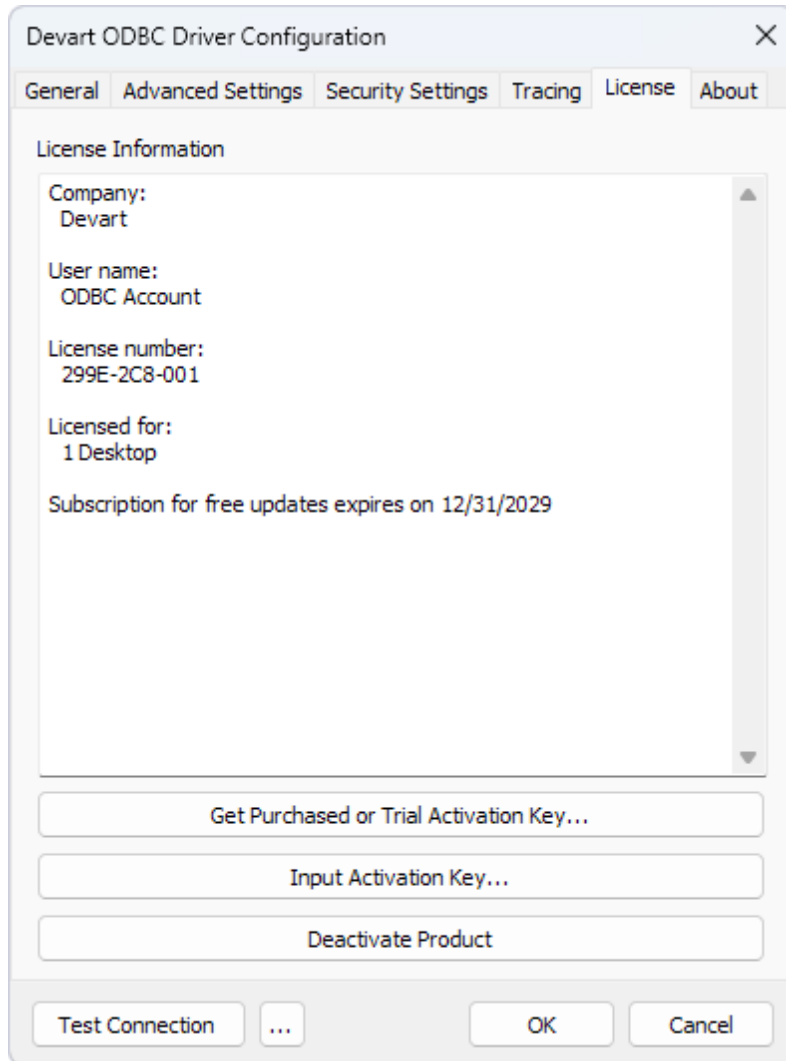
See Also
- Creating the MST File Using Orca

- Activating on Windows - ODBC Driver for NexusDB

- License Information - ODBC Driver for NexusDB

3.2.3   Software Upgrade

Automatic Software Update Using Group Policy

If the ODBC Driver for NexusDB was initially deployed through Group Policy, it can be easily updated to a newer version. Follow the steps below to update both the ODBC Driver for

NexusDB and the license to newer versions on all remote computers in the domain.

1. Download the ODBC Driver for NexusDB installation MSI file of a newer version and place

   it in the shared network folder.

2. Create a new MST file with a new license key using Orca.

If your license is still valid, there's no need to create a new MST file. Use the current MST file instead.
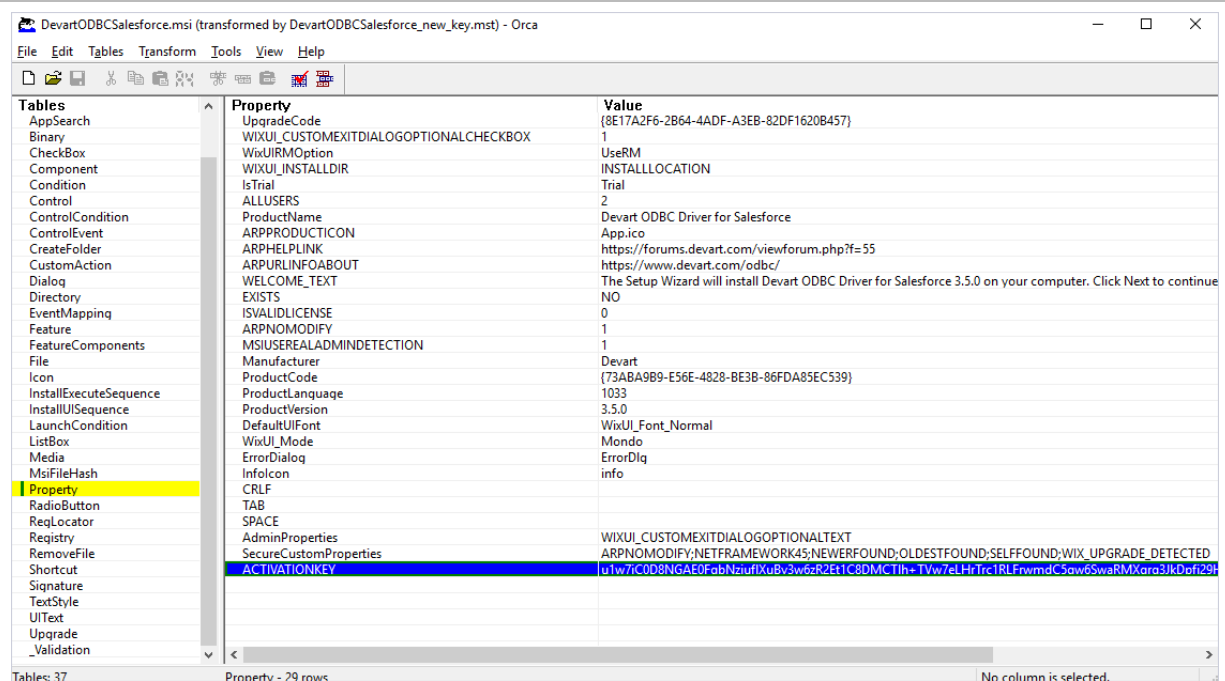
The MSI file for the ODBC Driver for Salesforce is taken as an example to illustrate the Group Policy installation process. Use the same steps described in this section when installing the ODBC Driver for NexusDB.

3. Follow the same workflow as outlined in Step 4 to Step 7 of the ODBC Driver for NexusDB

   Remote Deployment and Activation section.

4. In the **Properties** dialog that appears after selecting the **Advanced** deployment method,

   go to the **Upgrades** tab and click **Add**.
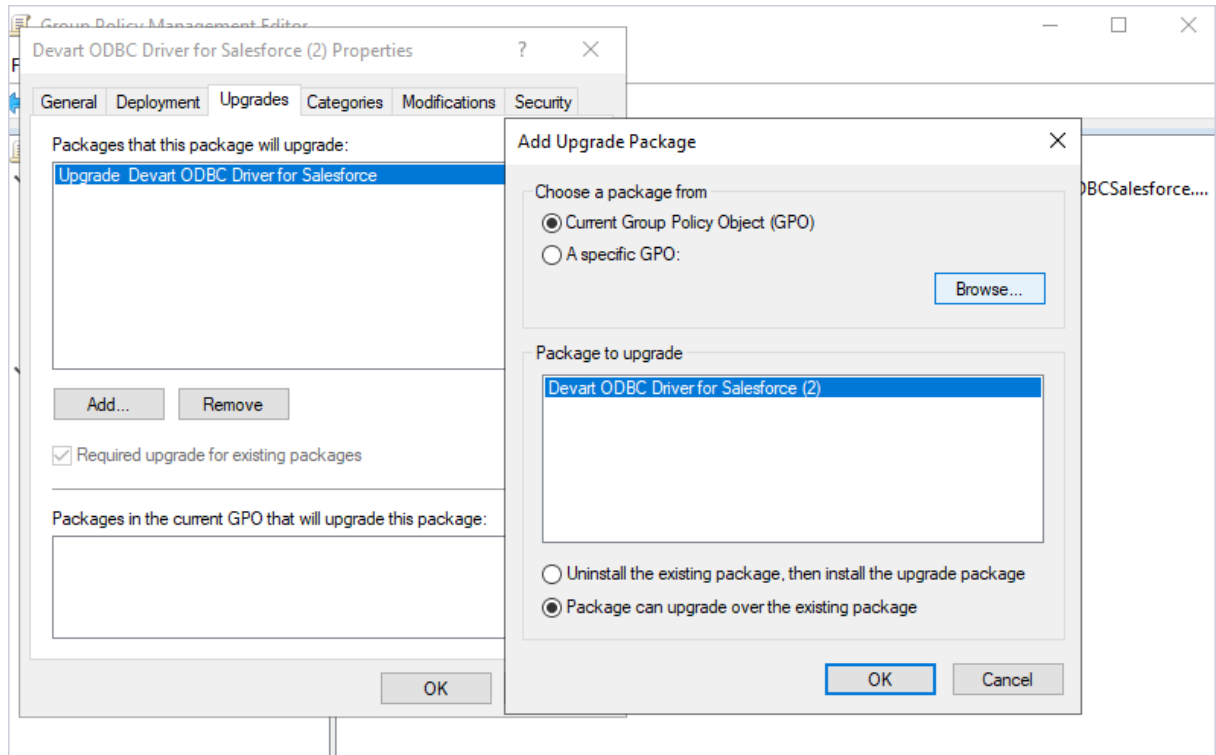
Make sure to select the following check boxes while adding the package:

- **Current Group Policy Object**

- **Package can upgrade over the existing package**

5. Browse for the corresponding GPO object and click **OK** to apply the settings.
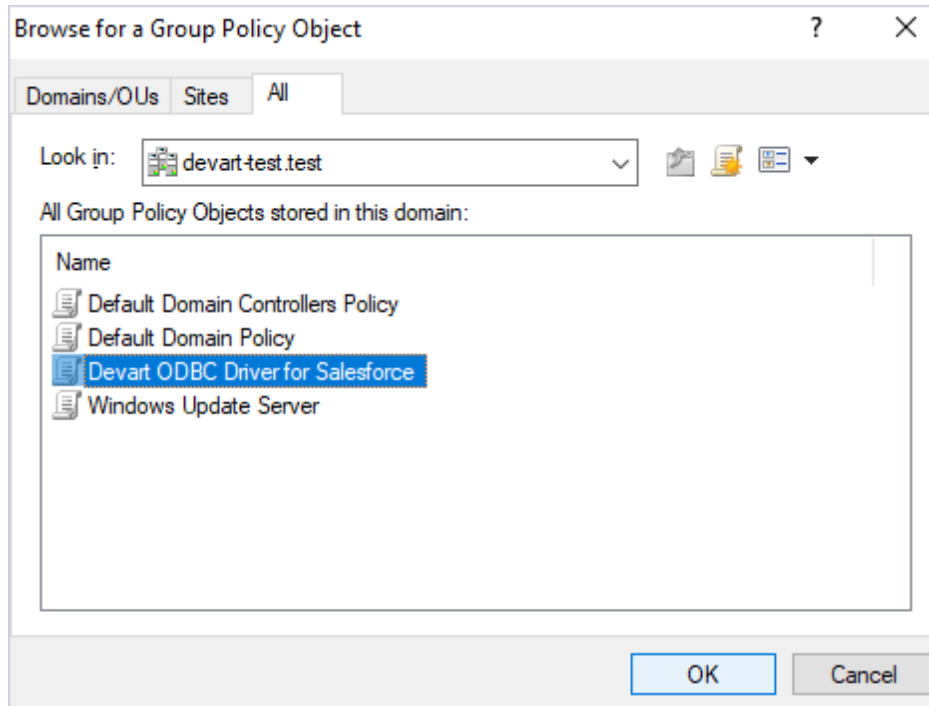
6. Now the **Upgrades** tab of the **Properties** dialog will list a new package with a newer

version.
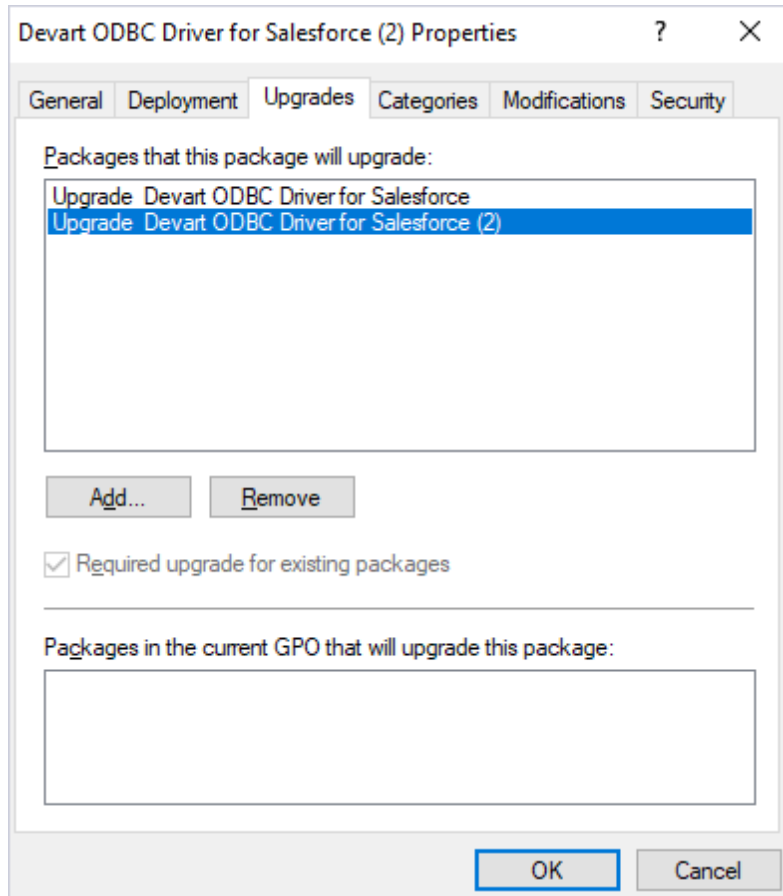
7. Go to the **Modifications** tab in the same properties dialog, click **Add** and browse to the

MST file.

We have already created a new MST file with a new license key in Step 2.
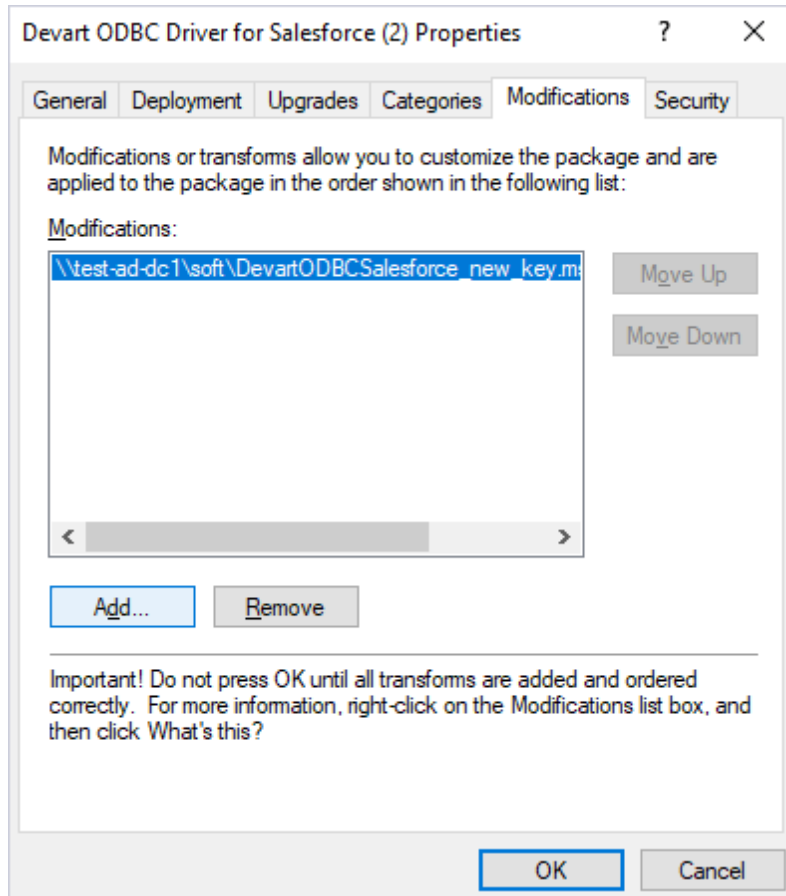
8. In case of a positive outcome both the old and new versions of the driver package will be

displayed in the Group Policy Management Editor.
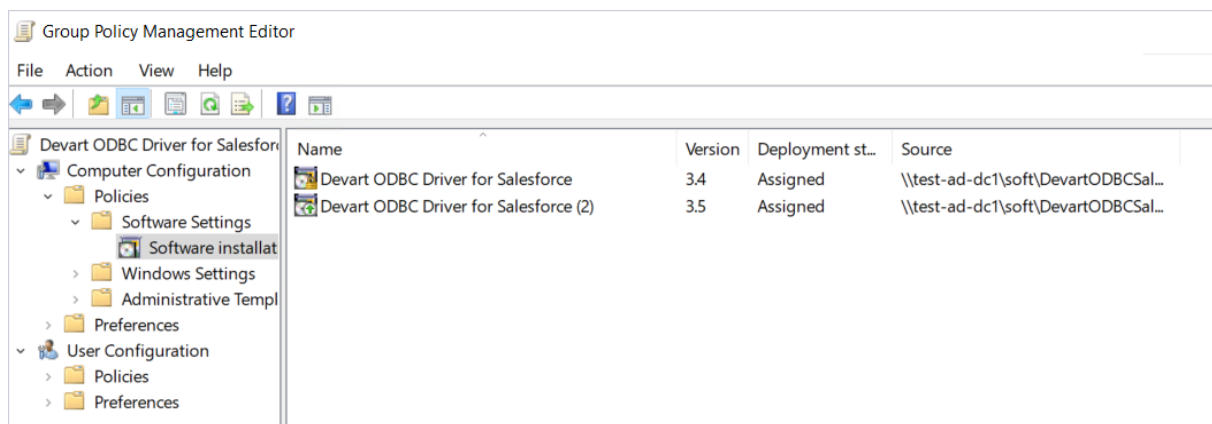
Once the GPO configuration on the server is complete, the ODBC Driver for NexusDB will

automatically update to the latest version each time a client computer restarts.

Client-Side Actions

To update the ODBC Driver for NexusDB to a newer version on remote client machines, all domain users must restart their computers after their first login.

If successful, both the driver and the license key will be automatically updated to the new version on remote computers. For detailed instructions on how to view the technical details of the ODBC Driver for NexusDB after upgrading, refer to Client-Side Actions.

See Also
- Creating the MST File Using Orca
- Remote Deployment and Activation - ODBC Driver for Microsoft Access
- Activating on Windows - ODBC Driver for NexusDB
- License Information - ODBC Driver for NexusDB

3.3   Product Activation

See how to activate Devart ODBC Driver for NexusDB:
- Obtaining Activation Key
- Activation on Windows
- Where to see the license information

3.3.1   Obtaining Activation Key

Follow these steps to obtain your product activation key:
- **From the Customer Portal:**

  1. Open the Customer Portal and sign in.

  2. On the **Product licenses** page, select the driver.

  3. Click **Copy to clipboard** to copy the activation key.

- **From the registration email:**

    1. Locate the registration email you received from Devart after installing the driver. This email contains a Purchased or Trial activation key.

    2. Copy the activation key.
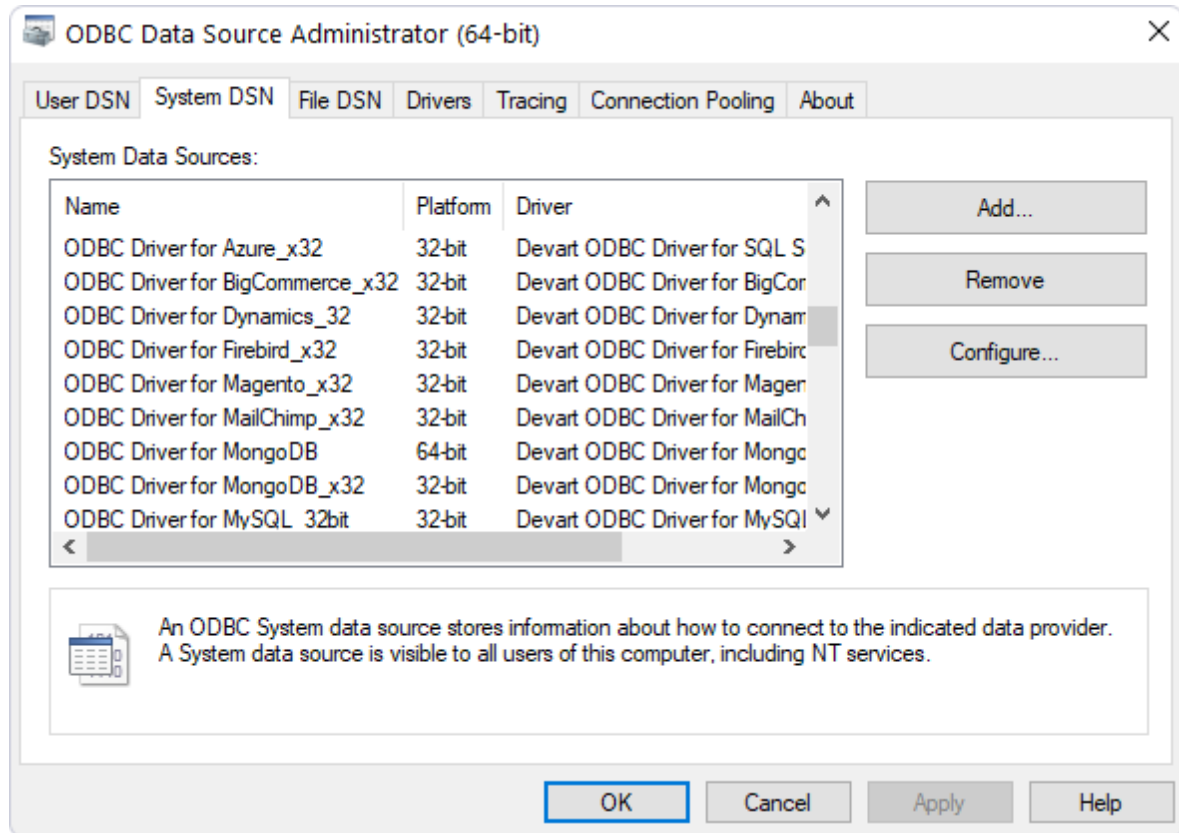
See also:

- Activation on Windows

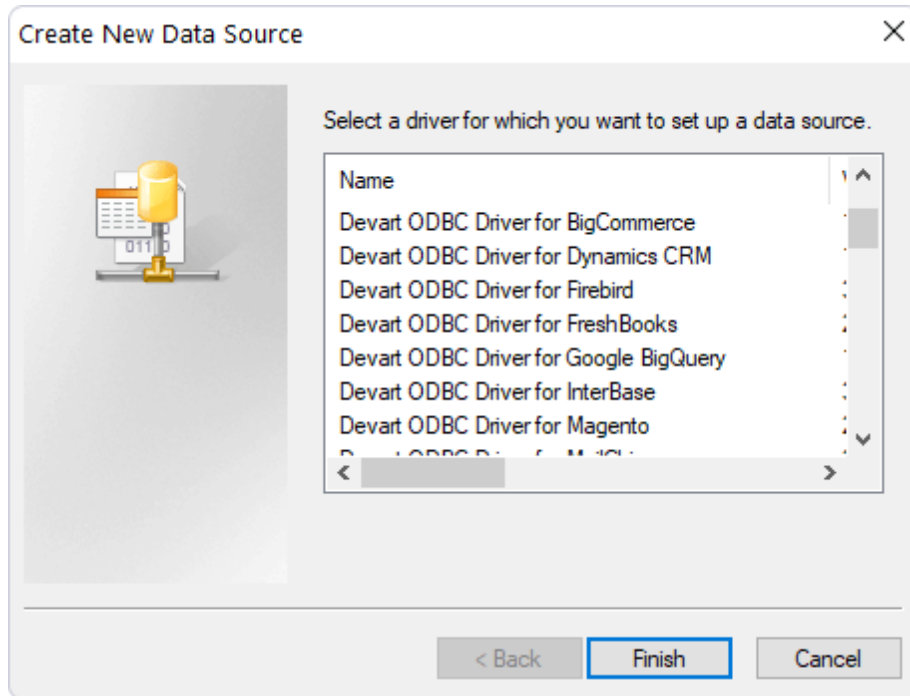## 3.3.2 Activation on Windows

Driver Activation After Installation

To activate your installed driver, perform the following steps.

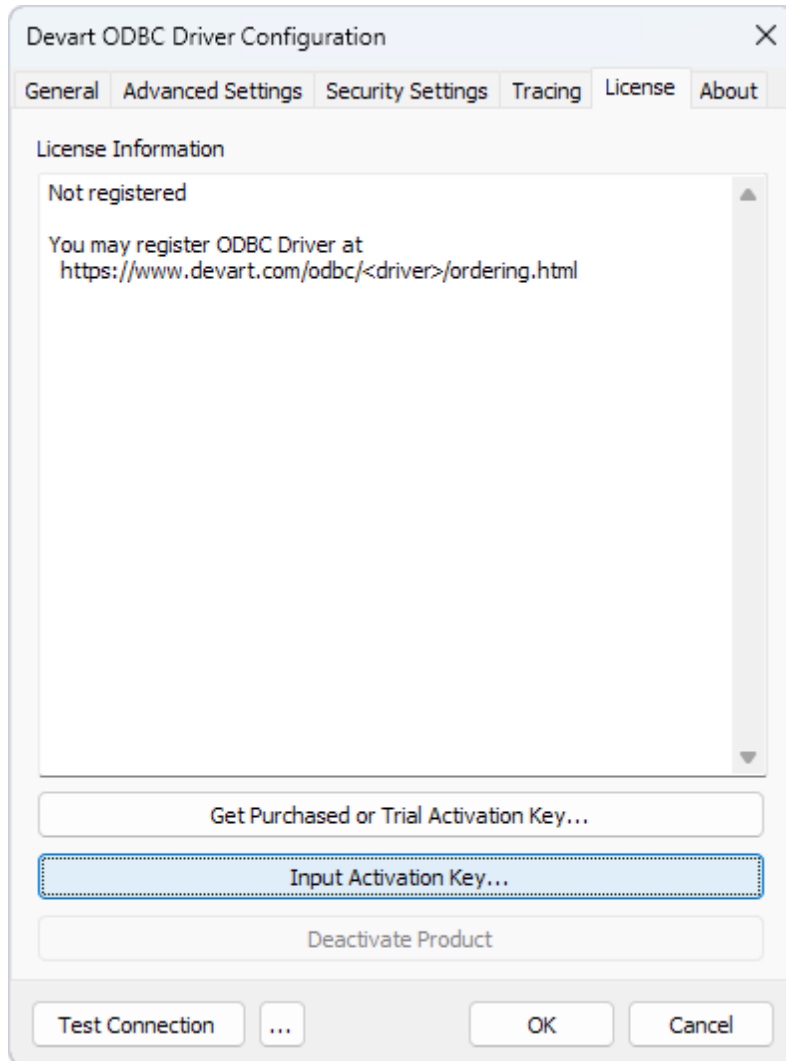You need to activate the driver even for the trial version.

1. Open the ODBC Data Source Administrator.

2. On the **System DSN** tab, click **Add**.

3. In the **Create New Data Source** dialog, select the installed driver, then click **Finish**.

4. In the configuration dialog, navigate to the **License** tab, and click **Input Activation Key**.

5. Here, you can activate the driver using one of the following methods:

- **Enter an activation key:** Paste your activation key into the corresponding box.

- **Load an activation file:** Click **Load Key** and select the file that contains the activation

  key.

You can find your activation key in the registration email or your Customer Portal account.

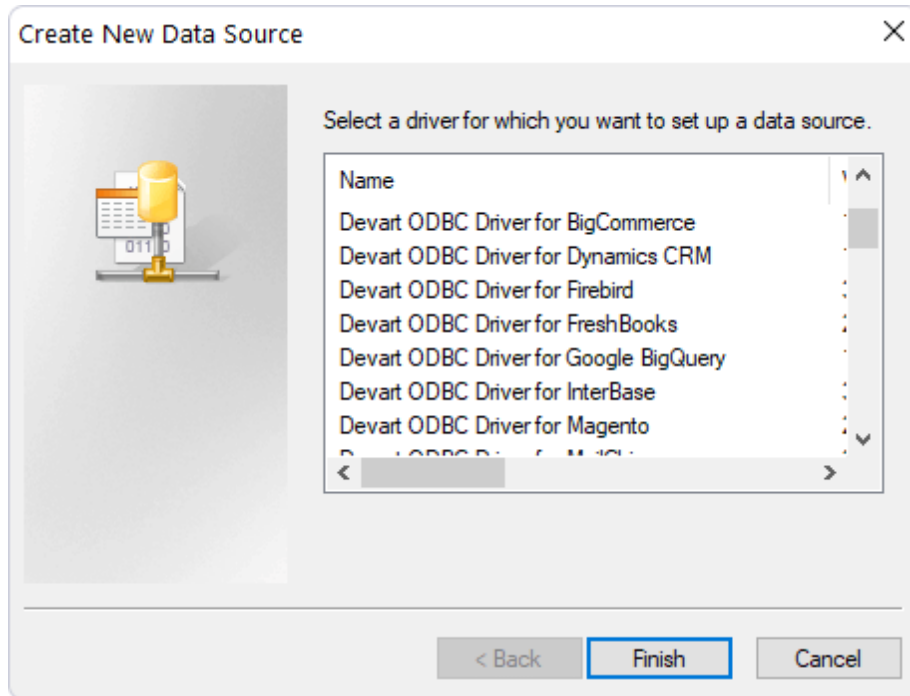To open the Customer Portal, click **Get Purchased or Trial Activation Key**.
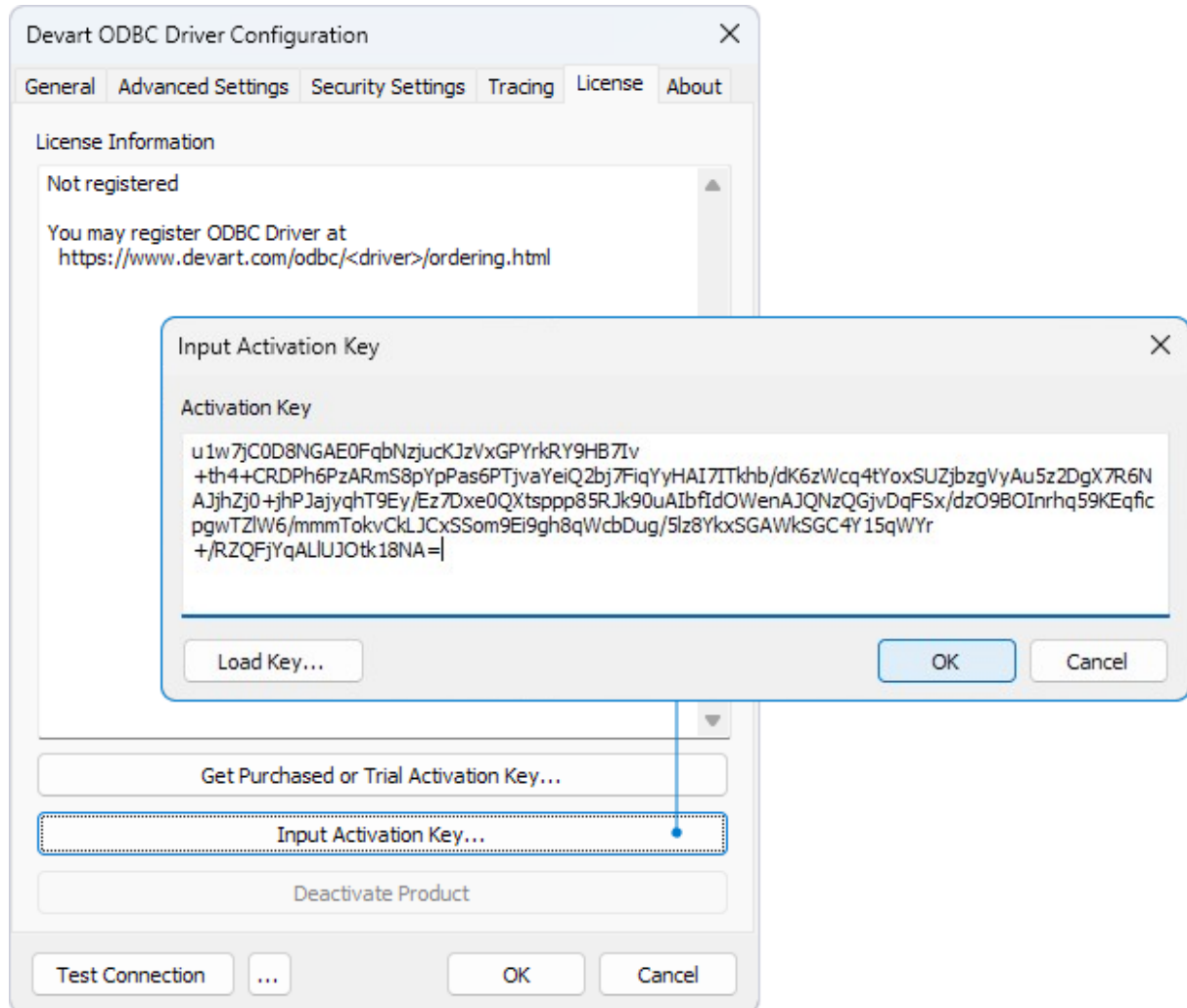
6. Click **OK**.

3.3.3   Where to See the License Information?

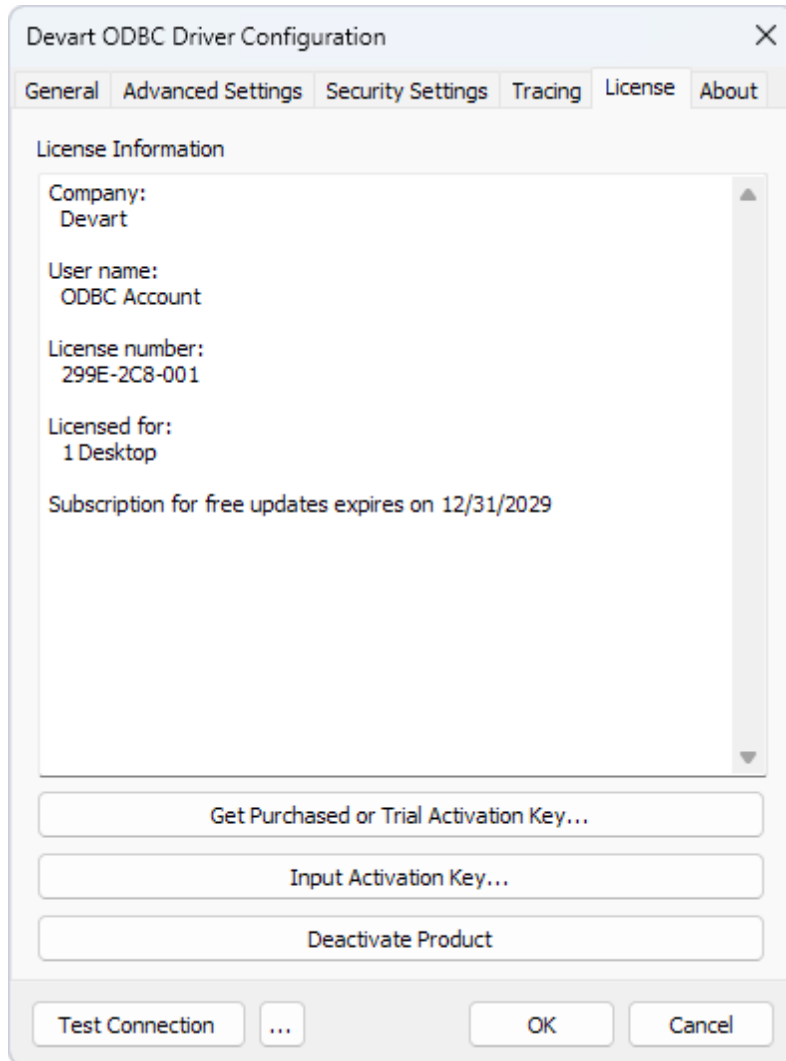To see the license information of your installed driver, do the following:

1. Open the ODBC Data Source Administrator.

2. On the **System DSN** tab, click **Add**.
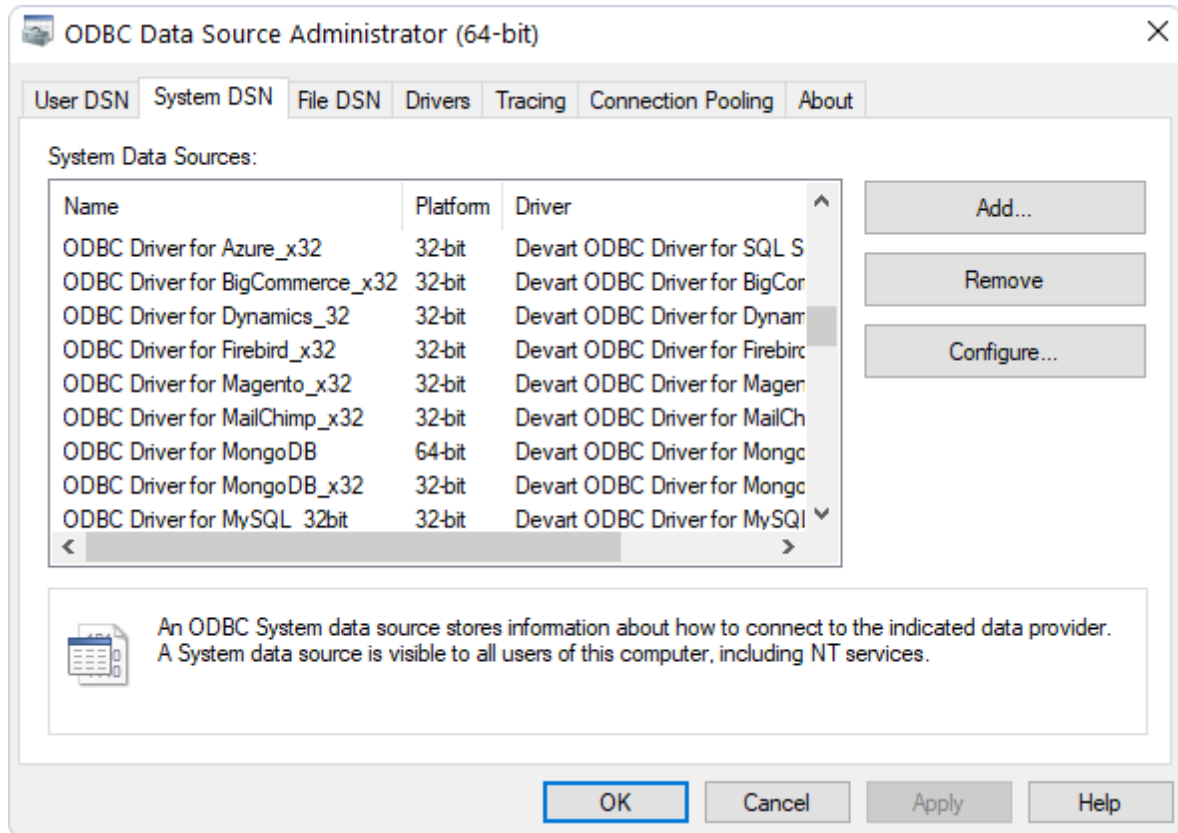
3. Select the driver, then click **Finish**.

4. In the configuration dialogue, navigate to the **License** tab to view the license details.

3.4   Connecting to NexusDB

Windows DSN Configuration

After installing the driver, create a DSN for NexusDB in the ODBC Data Source Administrator.

1. Open the ODBC Data Source Administrator.

- Type `ODBC Data Sources` in the Windows search box and choose the application that matches the bitness of the third-party application (32-bit or 64-bit). You can also open **ODBC Data Sources** from **Control Panel** > **Administrative Tools**. Note that before Windows 8, the icon was named **Data Sources (ODBC)**.

- Alternatively, you can run `C:\Windows\SysWOW64\odbcad32.exe` to create a 32-bit DSN or `C:\Windows\System32\odbcad32.exe` to create a 64-bit DSN.

2. Select the **User DSN** or **System DSN** tab. Most applications work with both types, yet some applications require a specific type of DSN.

3. Click **Add**. The **Create New Data Source** dialog will appear.

4. Select **Devart ODBC Driver for NexusDB** and click **Finish**. The driver setup dialog will open.

5. Enter the connection information in the appropriate fields.

6. You may test the connectivity by clicking **Test Connection**.

7. Click **OK** to save the DSN.

See Also

Connection Options

3.5   Connection String Parameters

NexusDB ODBC Connection String Parameters

The following table lists the connection string parameters for NexusDB.

Parameter	Description
Database	Used to specify the path to the Embedded database. Used to specify the database name (alias) of the Remote database.
DatabaseReadOnly	Used to prevent users from modifying data in the database. The default value is False.
Password	Used to specify the password for the NexusDB database user.
Port	Used to specify the port for connection to the database server, 16000 by default.
Server	Used to specify the NexusDB server address.
User ID	Used to specify the NexusDB database user.

Advanced Settings

Allow NULL strings	To retrieve metadata, not all parameters according to MSDN can accept a null value. If NULL, the driver should return an error. But some 3rd-party tools pass NULL to the parameters. These options should be enabled for compatibility with such tools.
Empty strings as NULL	
Command Timeout	Used to specify the amount of time in seconds before an attempt to execute a command is considered unsuccessful. The default value is 15.
Connection Timeout	The time (in seconds) to wait for a connection to open before terminating an attempt. The default value is 15.
HeartbeatInterval	Used to specify how often the client will send a hearbeat message to the server. The default value is 10.

ODBC Behavior	Used to set the behavior corresponding to the ODBC specification version that a third-party tool expects. The behavior of ODBC driver can be changed by setting a value for the SQL_ATTR_ODBC_VERSION attribute by calling the SQLSetEnvAttr function. But some third-party tools expect the driver to exhibit ODBC 2.x behavior, but forget to call SQLSetEnvAttr with the specified version or pass an incorrect value there. In this case, the required behavior can be explicitly specified in the Connection String by setting the ODBC Behavior parameter. The possible values are: • Default - default ODBC behavior determined by a third-party tool. • Ver 2.x - ODBC 2.x behavior is explicitly set. • Ver 3.x - ODBC 3.x behavior is explicitly set.
RegionalNumberSettings	Enables the use of local regional settings when converting numbers to strings.
RegionalDateTimeSettings	Enables the use of local regional settings when converting dates and times to strings.
String Types	Sets the string value types returned by the driver as Default, Ansi or Unicode. • Default - the driver defines the string types. • Ansi - all string types will be returned as SQL_CHAR, SQL_VARCHAR and SQL_LONGVARCHAR. • Unicode - all string types will be returned as SQL_WCHAR, SQL_WVARCHAR and SQL_WLONGVARCHAR. The parameter value should be changed if any third-party tool supports only Ansi string types or Unicode ones.
WatchdogInt	Used to to specify how often the client will check all connections. The

erval	default value is 10.
MinFetchBlockSize	Specifies the minimum number of rows fetched from the server in a single block during query execution.
Passwords For Tables	Indicates whether the application should use or store individual passwords for specific tables, typically in encrypted or protected databases.
Remote Thread Priority	Sets the priority level of the thread handling remote database connections.
LostConnectionTimeout	Defines the timeout period (in seconds) after which a lost connection is assumed if no response is received from the server.

Sample NexusDB ODBC connection string for the Embedded database.

```
DRIVER={Devart ODBC Driver for NexusDB};Database=D:\NexusDB
```

Sample NexusDB ODBC connection string for the Remote database.

```
DRIVER={Devart ODBC Driver for
NexusDB};Server=myserver;Port=myport;Database=mydatabase;User
ID=myuser;Password=mypassword
```

3.6   Sandboxed Apps on macOS
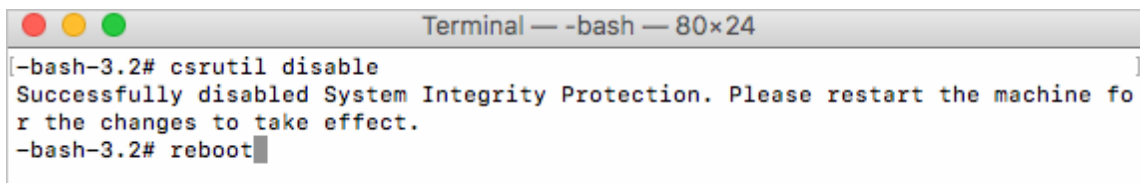
Sandboxed Apps on macOS

Sandboxed applications don't have permission to access iODBC Driver Manager on macOS. This is caused by the System Integrity Protection (SIP) technology on macOS which protects your files and folders from potentially malicious software by locking the application. When accessing a data source from an application like Excel through the ODBC driver for NexusDB, you may get an error message saying that the driver is unable to create a file.

Note: All third-party applications distributed through the Mac App Store are sandboxed.

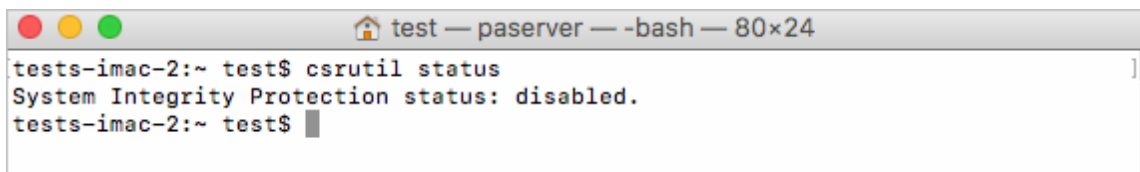# Disabling System Integration Protection (SIP) on macOS

To resolve the issue, you should turn off SIP on your computer:

1. Restart your computer in **Recovery mode** (hold down **Command + R** until you see the Apple logo).

2. Select **Utilities** > **Terminal**.

3. In the Terminal window, enter `csrutil disable`.

```
●  ●  ●              Terminal — -bash — 80×24
[-bash-3.2# csrutil disable
Successfully disabled System Integrity Protection. Please restart the machine fo
r the changes to take effect.
-bash-3.2# reboot
```

4. Restart your computer.

5. Enter `csrutil status` to check the status of SIP.

```
●  ●  ●            🏠 test — paserver — -bash — 80×24
tests-imac-2:~ test$ csrutil status
System Integrity Protection status: disabled.
tests-imac-2:~ test$
```

Enable SIP after you finish working with an ODBC data source. To turn on SIP, enter `csrutil enable` and restart your computer.

3.7   Using with iODBC

Using the Driver with iODBC

Among known issues with iODBC driver manager is incorrect handling of the following ODBC data types:

- SQL_WCHAR

- SQL_WVARCHAR

- SQL_WLONGVARCHAR

For this reason, we recommend using the following data types instead:

- SQL_CHAR

- SQL_VARCHAR

- SQL_LONGVARCHAR

If you have to work with the SQL_WCHAR, SQL_WVARCHAR, and SQL_WLONGVARCHAR data types, we recommend that you use the unixODBC driver manager rather than iODBC.

3.8   Enabling ODBC Tracing

Creating an ODBC Trace Log on Windows

When you start or stop tracing in the 64-bit ODBC Administrator, the tracing is also enabled or disabled in the 32-bit ODBC Administrator, and vice versa.

If the ODBC client application you need to trace runs under Local System account or any other user login than your own, select `Machine-Wide tracing for all user identities`. For example, this option may be necessary for SSMS.

To generate a trace file using ODBC Source Administrator on Windows, follow the steps below.

1. Type `ODBC Data Sources` in the Windows 10 search box (in earlier versions of Windows, open `Control Panel` > `Administrative Tools`) and choose the application of the needed bitness.

2. Select the `Tracing` tab.

3. If necessary, change the default `Log File Path`. Make sure that the path is writable by the application, then click `Apply`.

4. Click `Start Tracing Now`.

5. Restart all application processes.

6. Click `Test Connection` in the DSN settings to make sure the driver is able to connect.

7. Reproduce the issue.

8. Click `Stop Tracing Now` on the `Tracing` tab.

9. Send us the obtained log file (for example, devart.log).

Creating an ODBC Trace Log on macOS

To enable the trace option on macOS, use the Tracing tab within ODBC Administrator.

1. Open the ODBC Administrator.

2. Select the `Tracing` tab.

3. If necessary, change the default `Log file path`.

4. Select `All the time` in the `When to trace` option.

Creating an ODBC Trace Log on Linux

To trace the ODBC calls on Linux, set the `Trace` and `TraceFile` keyword/value pairs in the `[ODBC]` section of the `/etc/odbcinst.ini` file, for example:

```
[ODBC]
Trace=Yes
TraceFile=/home/test/devart.log
```

Make sure to disable logging after obtaining a log file since it affects the read/write speed.

3.9   Usage Statistics

Usage Statistics

ODBC Driver for NexusDB can collect anonymous usage statistics. This data helps us improve product quality, resolve issues faster, and better understand how our products are used.

The collected data is anonymous and does not include personal information. The amount of transmitted data is minimal and is used only for diagnostic and product improvement purposes.

Collected Data

The driver collects the following data:

• Product name and version.

• Name of the process (application) using the driver.

• License information: license type, license number, and license status.

- Operating system name and version, number of processor cores.

- An anonymous user identifier.

The user identifier is an internal ID generated only for statistical purposes. It is not the operating system user name and cannot be used to identify the actual user.

- An anonymous hardware identifier.

The hardware identifier is an internal ID generated only for statistical purposes. It does not contain any data that can identify specific hardware.

- Database server name and version.

- Names of connection parameters used to connect to the database server.

Only parameter names are collected. We do not collect parameter values such as database name, user name, or password.

- Connection result: success, or a numeric error code if the connection fails.

Only the numeric error codes are collected. We do not collect full error messages, which might contain sensitive data (for example, database or user names).

Default Settings

Usage statistics is enabled by default when you install the driver.

To disable usage statistics, follow the instructions for your operating system:

- Enable or Disable Usage Statistics on Windows

3.9.1   Enable or Disable on Windows

Enable or Disable Usage Statistics on Windows

Usage statistics is enabled by default when you install the driver. You can disable it in one of the following ways:

- **During installation**: In the installation wizard or from the command line.

- **After installation**: By editing the Windows Registry.

Disable Usage Statistics in the Installation Wizard

To disable usage statistics in the installation wizard, clear the **Improvement Program** checkbox on the last page of the wizard. The checkbox is selected by default.

Disable Usage Statistics From the Command Line

When you install the driver from the command line, you can disable usage statistics by adding the `/NOUSAGESTATISTICS` parameter to the command.

Silent and Very Silent Mode

To disable statistics during silent or very silent installation with the EXE installer, run one of the following commands:

```
DevartODBCNexusDB.exe /NOUSAGESTATISTICS /SILENT
DevartODBCNexusDB.exe /NOUSAGESTATISTICS /VERYSILENT
```

Quiet Mode

To disable statistics during quiet installation with the MSI installer, run the following command as an administrator:

```
msiexec /i DevartODBCNexusDB.msi /q NOUSAGESTATISTICS=true
```

Change Usage Statistics Settings in the Windows Registry

To enable or disable usage statistics for an installed driver, edit the Windows Registry as follows:

1. Open the Registry Editor. To do this, press **Win+R**, type `regedit` in the **Run** dialog, and press **Enter**.

2. Depending on your driver version, navigate to one of the following keys:

   - 64-bit driver: `HKEY_LOCAL_MACHINE\SOFTWARE\ODBC\ODBCINST.INI\Devart ODBC Driver for NexusDB`

   - 32-bit driver: `HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\ODBC\ODBCINST.INI\Devart ODBC Driver for NexusDB`

3. Set the value of the `UsageStatistics` parameter to `False` to disable statistics, or `True` to enable statistics.

3.10   Supported Data Types

Data Type Mapping

The Devart ODBC Driver for NexusDB supports all NexusDB data types.

The following table describes how the NexusDB data types are mapped to the ODBC data types.

NexusDB Data Types	ODBC Data Types
CHARACTER CHAR NULLSTRING SHORTSTRING CHARACTER VARYING CHAR VARYING VARCHAR	SQL_VARCHAR
SINGLECHAR	SQL_CHAR
CHARACTER LARGE OBJECT	SQL_LONGVARCHAR

CHAR LARGE OBJECT CLOB TEXT	
NATIONAL CHARACTER NATIONAL CHAR NCHAR NATIONAL CHARACTER VARYING NATIONAL CHAR VARYING NCHAR VARYING NVARCHAR	SQL_WVARCHAR
NSINGLECHAR	SQL_WCHAR
NATIONAL CHARACTER LARGE OBJECT NCHAR LARGE OBJECT NCLOB	SQL_WLONGVARCHAR
BINARY LARGE OBJECT BLOB IMAGE	SQL_LONGVARBINARY
NUMERIC	SQL_NUMERIC
DECIMAL DEC MONEY	SQL_DECIMAL
BYTE TINYINT SHORTINT	SQL_TINYINT
SMALLINT WORD	SQL_SMALLINT
AUTOINC INTEGER	SQL_INTEGER

INT DWORD RECREV	
LARGEINT BIGINT	SQL_BIGINT
FLOAT	SQL_REAL
REAL DOUBLE PRECISION EXTENDED	SQL_DOUBLE
BOOLEAN BOOL	SQL_BIT
TIME	SQL_TYPE_TIME
TIMESTAMP DATETIME	SQL_TYPE_TIMESTAMP
GUID	SQL_GUID
BYTEARRAY	SQL_BINARY

3.11   Supported ODBC API Functions

Supported ODBC Functions

The SQLGetInfo function returns information about the driver and data source. To find out whether a specific function is supported in the driver, call SQLGetFunctions.

For more information about the ODBC interface, see the ODBC Programmer's Reference.

ODBC Driver for NexusDB supports all deprecated functions for backward compatibility.

The following table lists the currently supported ODBC functions.

Function Name	Support	Standard	Purpose
SQLAllocHandle	✔	ISO 92	Obtains an environment,

			connection, statement, or descriptor handle.
SQLConnect	✔	ISO 92	Connects to a specific driver by data source name, user ID, and password.
SQLDriverConnect	✔	ODBC	Connects to a specific driver by connection string or requests that the Driver Manager and driver display connection dialog boxes for the user.
SQLAllocEnv	✔	Deprecated	Obtains an environment handle allocated from driver.
SQLAllocConnect	✔	Deprecated	Obtains a connection handle

ODBC API Calls for Obtaining Information about a Driver and Data Source

Function Name	Support	Standard	Purpose
SQLDataSources	✔	ISO 92	Returns the list of available data sources, handled by the Driver Manager

SQLDrivers	✓	ODBC	Returns the list of installed drivers and their attributes, handles by Driver Manager
SQLGetInfo	✓	ISO 92	Returns information about a specific driver and data source.
SQLGetFunctions	✓	ISO 92	Returns the functions supported by the driver.
SQLGetTypeInfo	✓	ISO 92	Returns information about supported data types.

ODBC API Calls for Setting and Retrieving Driver Attributes

Function Name	Support	Standard	Purpose
SQLSetConnectAttr	✓	ISO 92	Sets a connection attribute.
SQLGetConnectAttr	✓	ISO 92	Returns the value of a connection attribute.
SQLSetConnectOption	✓	Deprecated	Sets a connection option
SQLGetConnectOption	✓	Deprecated	Returns the value of a connection option
SQLSetEnvAttr	✓	ISO 92	Sets an environment

			attribute.
SQLGetEnvAttr	✓	ISO 92	Returns the value of an environment attribute.
SQLSetStmtAttr	✓	ISO 92	Sets a statement attribute.
SQLGetStmtAttr	✓	ISO 92	Returns the value of a statement attribute.
SQLSetStmtOption	✓	Deprecated	Sets a statement option
SQLGetStmtOption	✓	Deprecated	Returns the value of a statement option

ODBC API Calls for Preparing SQL Requests

Function Name	Support	Standard	Purpose
SQLAllocStmt	✓	Deprecated	Allocates a statement handle
SQLPrepare	✓	ISO 92	Prepares an SQL statement for later execution.
SQLBindParameter	✓	ODBC	Assigns storage for a parameter in an SQL statement.
SQLGetCursorName e	✓	ISO 92	Returns the cursor name associated with a statement handle.
SQLSetCursorName e	✓	ISO 92	Specifies a cursor name.

			Sets options that control cursor behavior.
SQLSetScrollOption s	✓	ODBC	Sets options that control cursor behavior.

ODBC API Calls for Submitting Requests

Function Name	Support	Standard	Purpose
SQLExecute	✓	ISO 92	Executes a prepared statement.
SQLExecDirect	✓	ISO 92	Executes a statement
SQLNativeSql	✓	ODBC	Returns the text of an SQL statement as translated by the driver.
SQLDescribeParam	✓	ODBC	Returns the description for a specific parameter in a statement.
SQLNumParams	✓	ISO 92	Returns the number of parameters in a statement.
SQLParamData	✓	ISO 92	Used in conjunction with SQLPutData to supply parameter data at execution time. (Useful for long data values.)
SQLPutData	✓	ISO 92	Sends part or all of a data value for a

			parameter. (Useful for long data values.)

ODBC API Calls for Retrieving Results and Information about Results

Function Name	Support	Standard	Purpose
SQLRowCount	✔	ISO 92	Returns the number of rows affected by an insert, update, or delete request.
SQLNumResultCols	✔	ISO 92	Returns the number of columns in the result set.
SQLDescribeCol	✔	ISO 92	Describes a column in the result set.
SQLColAttribute	✔	ISO 92	Describes attributes of a column in the result set.
SQLColAttributes	✔	Deprecated	Describes attributes of a column in the result set.
SQLFetch	✔	ISO 92	Returns multiple result rows.
SQLFetchScroll	✔	ISO 92	Returns scrollable result rows.
SQLExtendedFetch	✔	Deprecated	Returns scrollable result rows.
SQLSetPos	✔	ODBC	Positions a cursor within a fetched

			block of data and enables an application to refresh data in the rowset or to update or delete data in the result set.
SQLBulkOperations	✔	ODBC	Performs bulk insertions and bulk bookmark operations, including update, delete, and fetch by bookmark.

ODBC API Calls for Retrieving Error or Diagnostic Information

Function Name	Support	Standard	Purpose
SQLError	✔	Deprecated	Returns additional error or status information
SQLGetDiagField	✔	ISO 92	Returns additional diagnostic information (a single field of the diagnostic data structure).
SQLGetDiagRec	✔	ISO 92	Returns additional diagnostic information (multiple fields of the

			diagnostic data structure).

ODBC API Calls for Obtaining Information About Database Objects (Catalog Functions)

Function Name	Support	Standard	Purpose
SQLColumnPrivileges	✔	ODBC	Returns a list of columns and associated privileges for one or more tables.
SQLColumns	✔	X/Open	Returns the list of column names in specified tables.
SQLForeignKeys	✔	ODBC	Returns a list of column names that make up foreign keys, if they exist for a specified table.
SQLPrimaryKeys	✔	ODBC	Returns the list of column names that make up the primary key for a table.
SQLProcedureColumns	✔	ODBC	Returns the list of input and output parameters, as well as the columns that constitute the result set for the specified

			procedures.
SQLProcedures	✓	ODBC	Returns the list of procedure names stored in a specific data source.
SQLSpecialColumns	✓	X/Open	Returns information about the optimal set of columns that uniquely identifies a row in a specified table, or the columns that are automatically updated when any value in the row is updated by a transaction.
SQLStatistics	✓	ISO 92	Returns statistics about a single table and the list of indexes associated with the table.
SQLTablePrivileges	✓	ODBC	Returns a list of tables and the privileges associated with each table.
SQLTables	✓	X/Open	Returns the list of table names stored

Request Support ODBC Forum Provide Feedback

			in a specific data source.

ODBC API Calls for Performing Transactions

Function Name	Support	Standard	Purpose
SQLTransact	✓	Deprecated	Commits or rolls back a transaction
SQLEndTran	✓	ISO 92	Commits or rolls back a transaction.

ODBC API Calls for Terminating a Statement

Function Name	Support	Standard	Purpose
SQLFreeStmt	✓	ISO 92	Ends statement processing, discards pending results, and, optionally, frees all resources associated with the statement handle.
SQLCloseCursor	✓	ISO 92	Closes a cursor that has been opened on a statement handle.
SQLCancel	✓	ISO 92	Cancels an SQL statement.

ODBC API Calls for Terminating a Connection

Function Name	Support	Standard	Purpose
SQLDisconnect	✓	ISO 92	Closes the connection.

SQLFreeHandle	✔	ISO 92	Releases an environment, connection, statement, or descriptor handle.
SQLFreeConnect	✔	Deprecated	Releases connection handle.
SQLFreeEnv	✔	Deprecated	Releases an environment handle.

4   Using in Third-Party Tools

This section discusses how to use ODBC Driver for NexusDB with ODBC-compliant tools.

- DBeaver

- DBxtra

- Denodo

- Informatica PowerCenter

- Microsoft Access

- Microsoft Excel

- Microsoft Visual Studio

- OpenOffice and LibreOffice

- Oracle Database Link

- PHP

- Power BI

- Python

- QlikView

- SQL Server Management Studio

- SSIS

- [Tableau](#)

Note: Due to NexusDB specifics, the following tools and languages can connect to the NexusDB DBMS through the ODBC driver only in Remote mode:

- Alteryx

- Aqua Data Studio

- DBeaver

- DBxtra

- MS SDT

- MS SSMS

- PHP

- PowerBI

- Power Pivot

- QlickSense

- SAS JMP

- SPSS

- SSRS

- Tableau

- Visual FoxPro

- Visual Studio

4.1 Using in DBeaver

This section describes how to connect DBeaver to NexusDB using Devart ODBC Driver for NexusDB.

- [Connect DBeaver Community to NexusDB through ODBC](#)
- [Connect DBeaver Enterprise to NexusDB through ODBC](#)

4.1.1 Connect DBeaver Community to NexusDB through ODBC

DBeaver Community and DBeaver Enterprise let users connect to NexusDB via ODBC, enabling SQL-based querying, reporting, and data management.

If you need basic ODBC connectivity to NexusDB and are comfortable with manual configuration using a generic ODBC Connection, choose DBeaver Community—a free, open-source database management tool.

If you require a simplified connection setup with built-in ODBC support, enhanced security, and performance features, you may try DBeaver Enterprise. For more information on connecting to NexusDB data from DBeaver Enterprise, see Connect DBeaver Enterprise to NexusDB through ODBC.

Initial configuration

1. Download `jdbc-odbc-bridge-jre7.jar` and `x64/JdbcOdbc.dll` from Github.

2. Download the **Microsoft Visual C++ 2010 Service Pack 1 Redistributable Package** from the Microsoft website.

The built-in legacy ODBC driver was removed in DBeaver Community Edition 23.1. If you're using an earlier version of DBeaver Community, skip steps 1 and 2.

3. Configure an ODBC data source. For more information, see Windows DSN Configuration.

4. On the **Advanced Settings** tab of the DSN configuration window, select **Ansi** from the **String Types**.

This option is required for the proper display of the SQL_WVARCAHAR data type in DBeaver. It also ensures that all string types will be returned as **SQL_CHAR**, **SQL_VARCHAR**, and **SQL_LONGVARCHAR**.
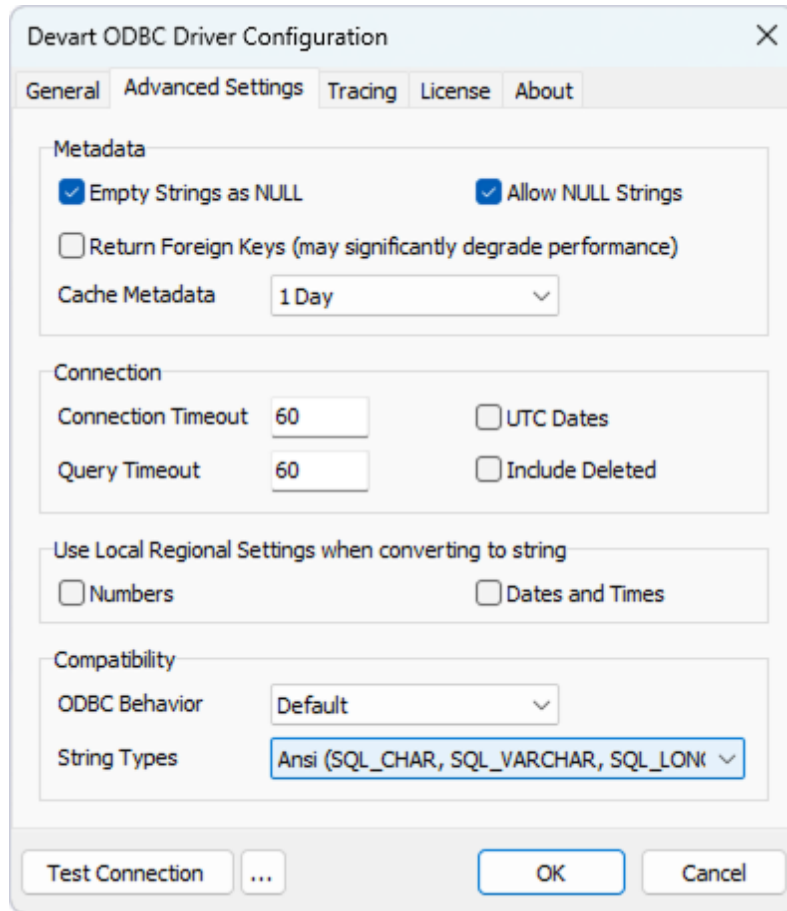
Connect to NexusDB

1. In DBeaver, select **Database** > **Driver Manager**.

2. Click **New**.
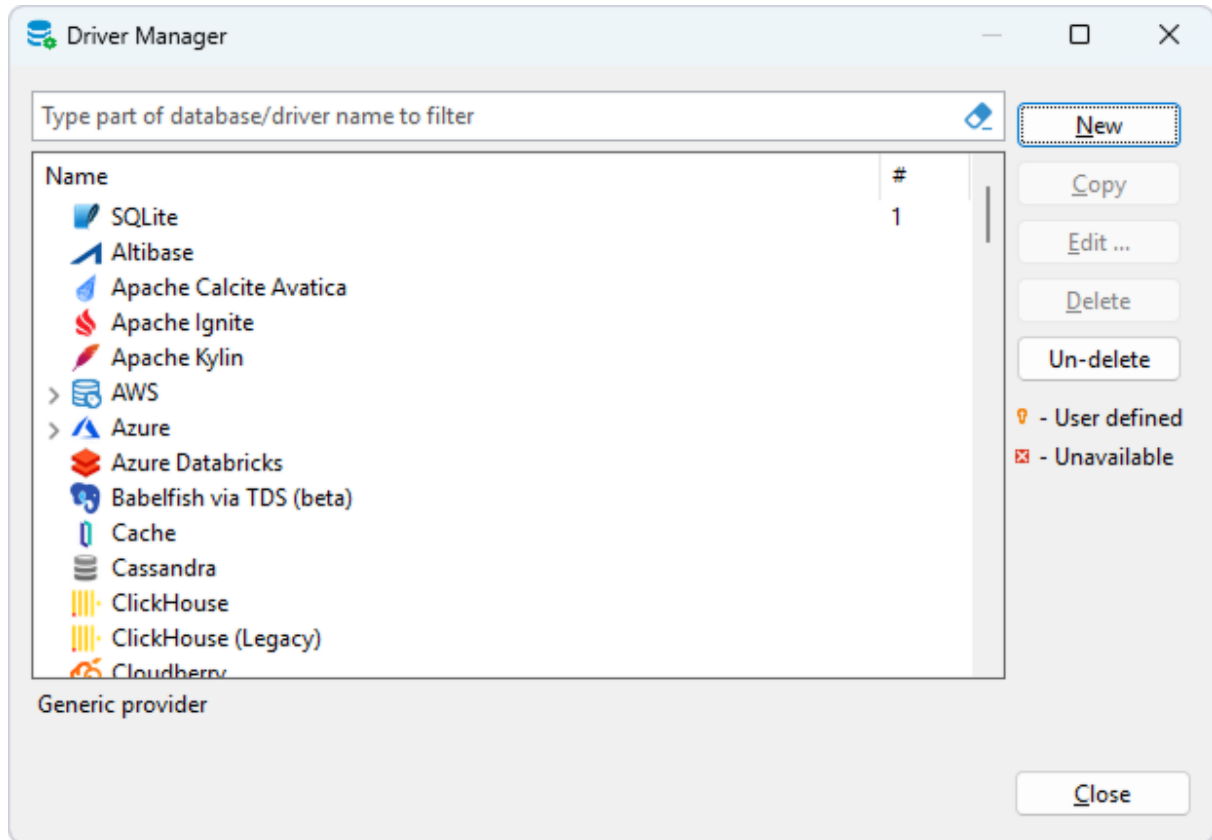
3. Configure the following properties for a new driver:

- In the **Driver Name** field, enter *ODBC*.

- In the **Class Name** field, enter *sun.jdbc.odbc.JdbcOdbcDriver*

- In the **URL Template** field, select *jdbc:odbc:{database}*.

4. On the **Libraries** tab, click **Add File**.

5. Select the `jdbc-odbc-bridge-jre7.jar`, then click **OK**. After that, select `JdbcOdbc.dll`, then click **OK**.
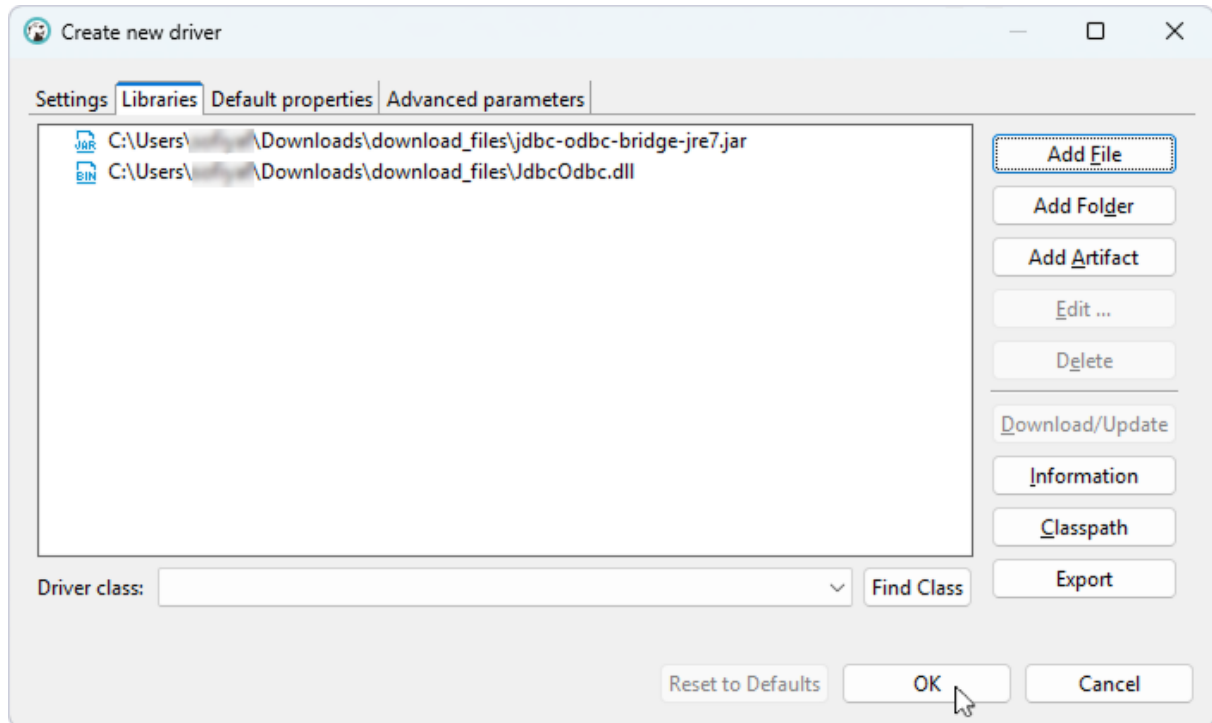
6. Once a new ODBC driver appears on the list, click **Close**.
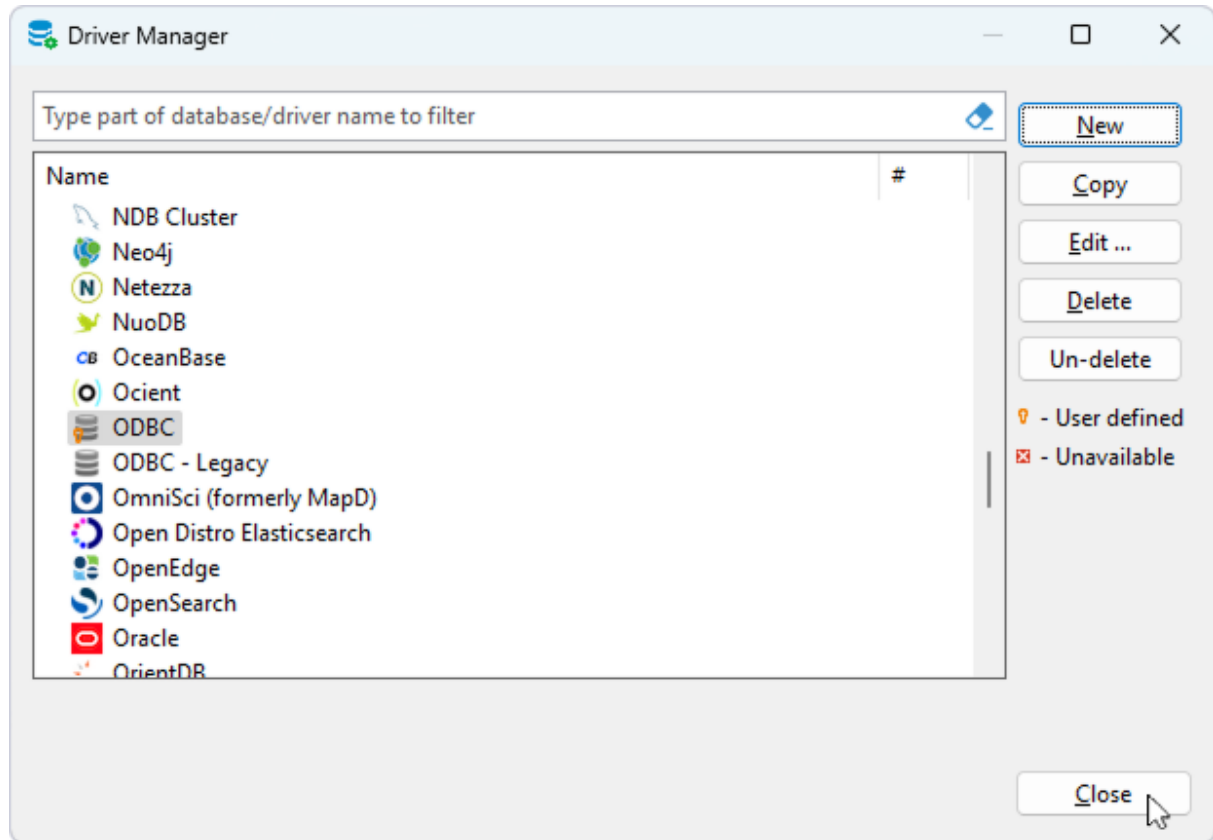
7. Select **Database** > **New Database Connection**.
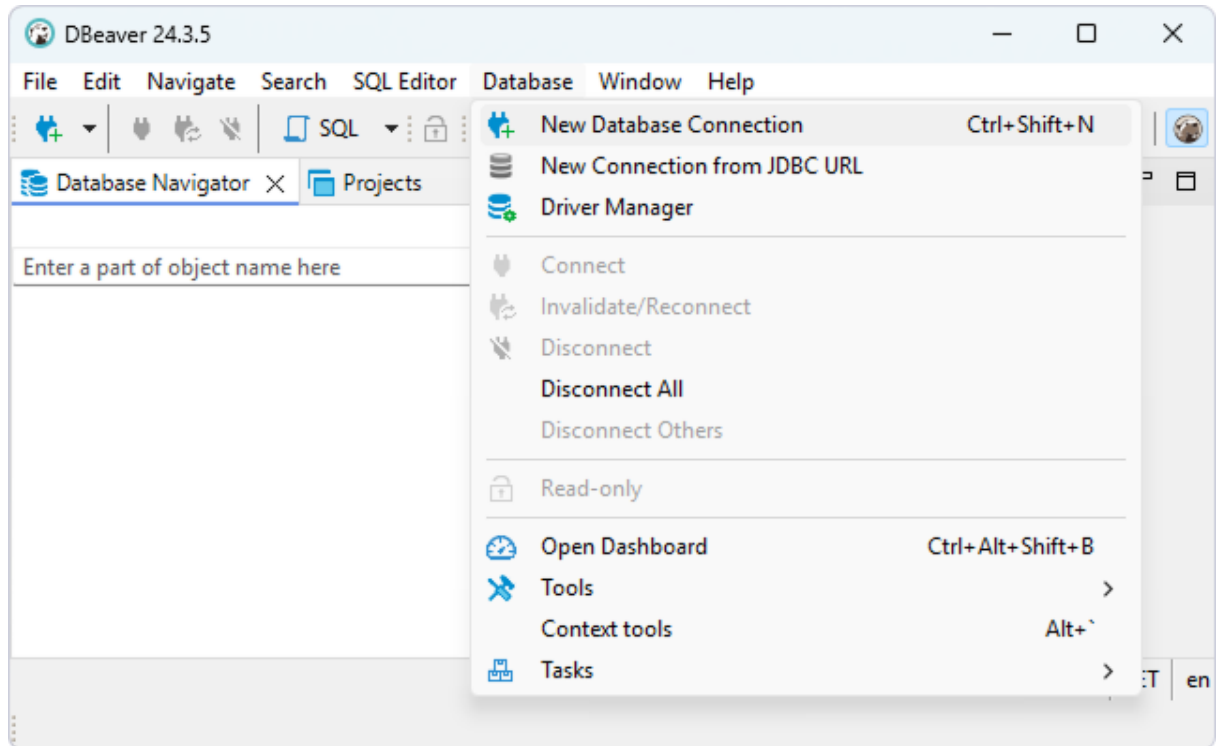
8. Select the **ODBC** driver, then click **Next**.
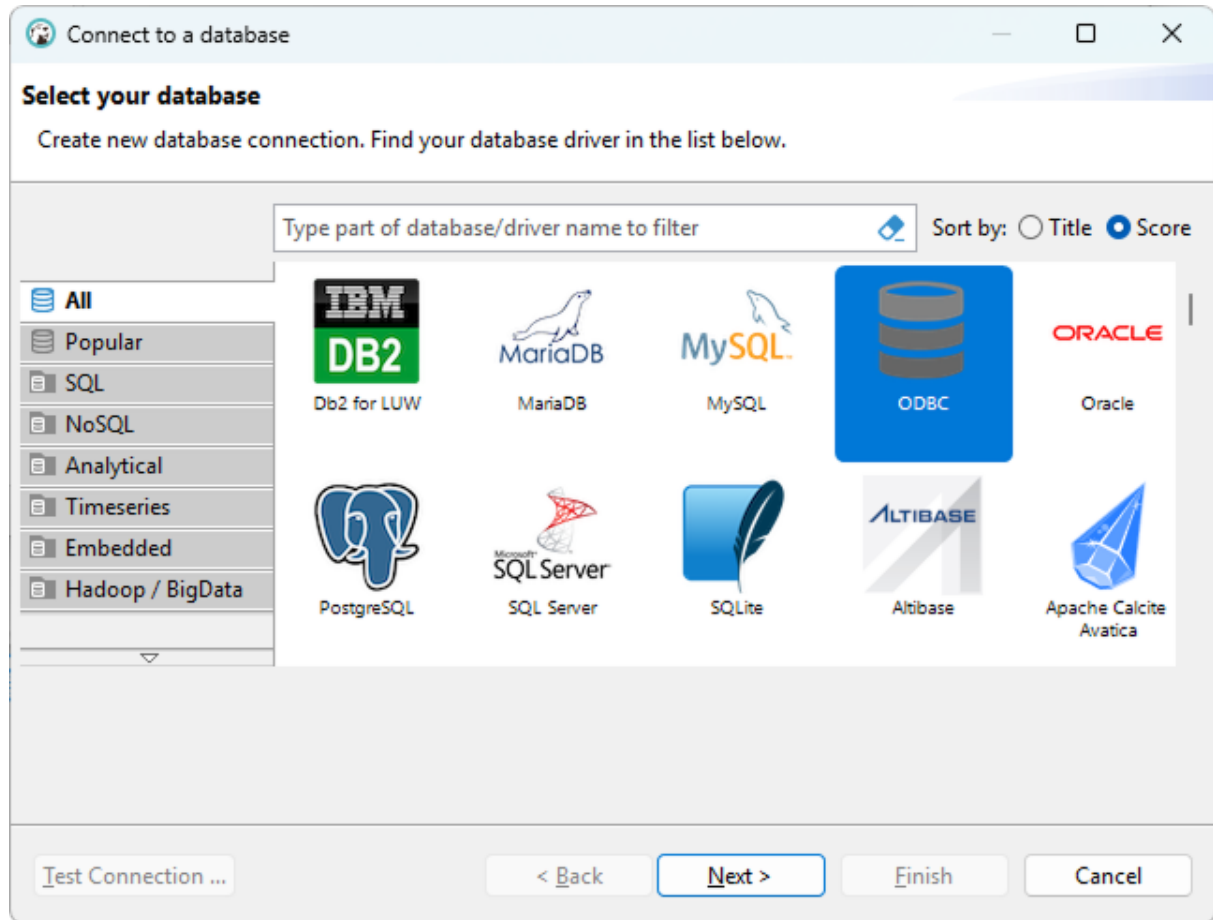
9. In the **Database/Schema** field, specify the name of your DSN.
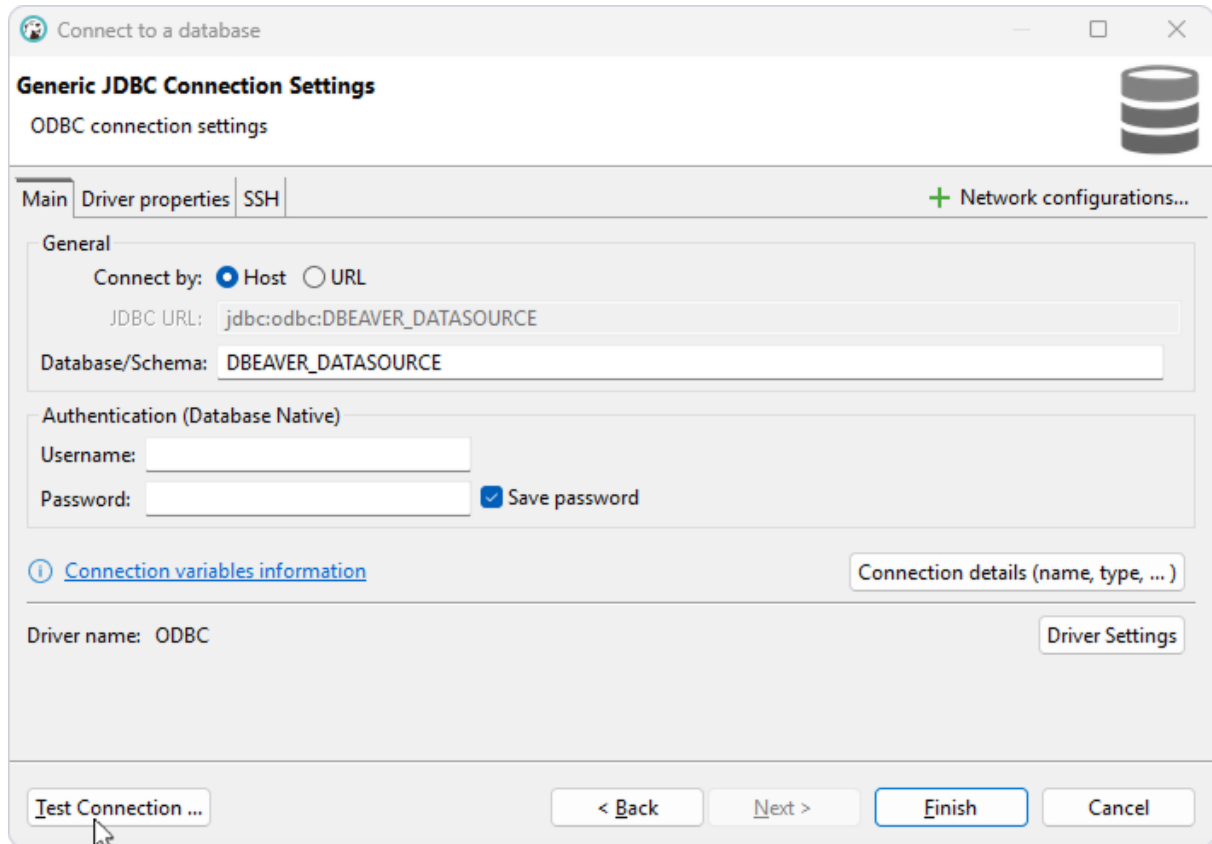
10. Optional: Select **Test Connection** to verify the connection settings.
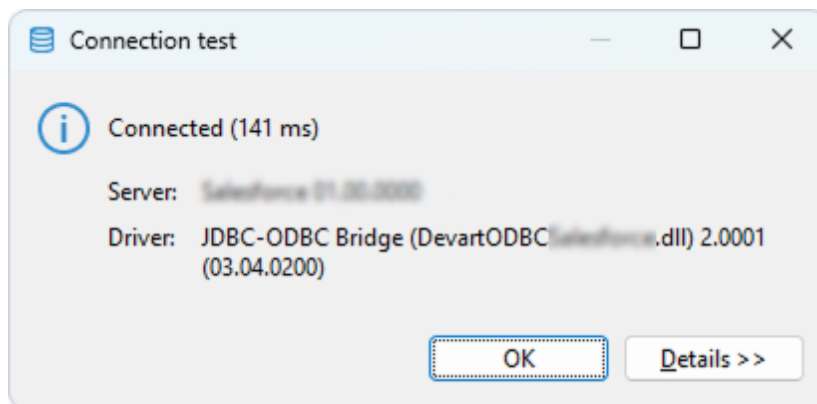
11. Click **Finish**.

The database appears on the left pane.

12. To view the data stored in a table, expand the database structure and click the needed table.
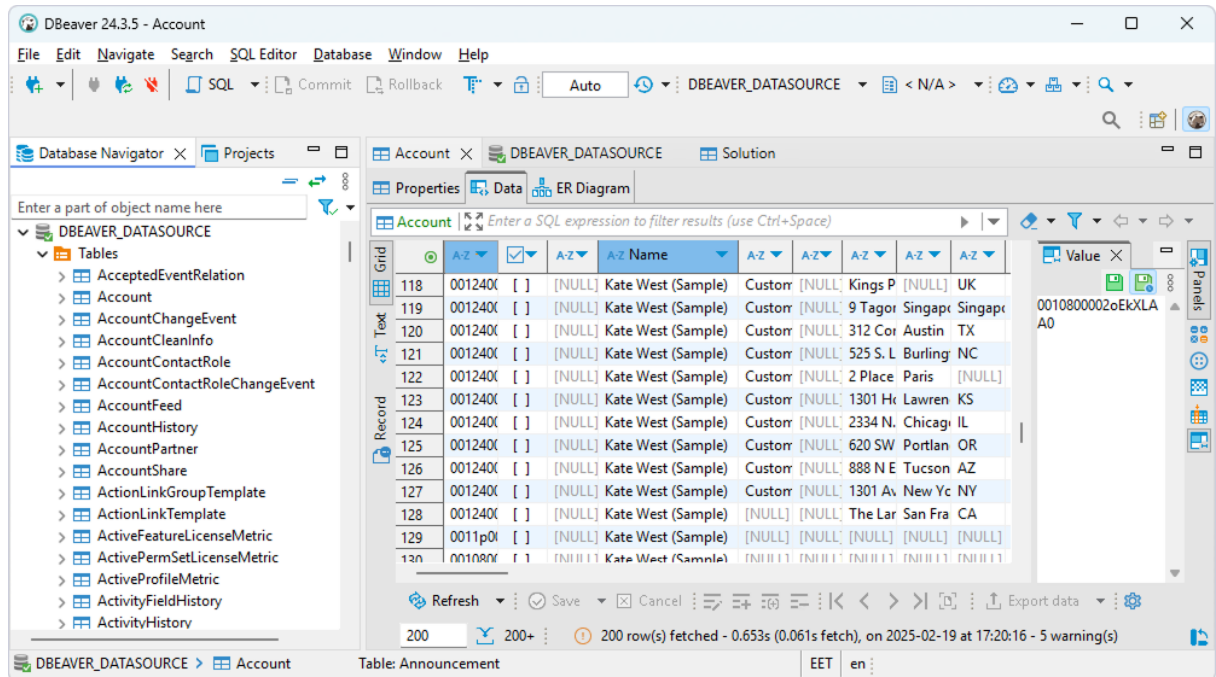
Query NexusDB data

1. Select **SQL Editor** > **New SQL script**.
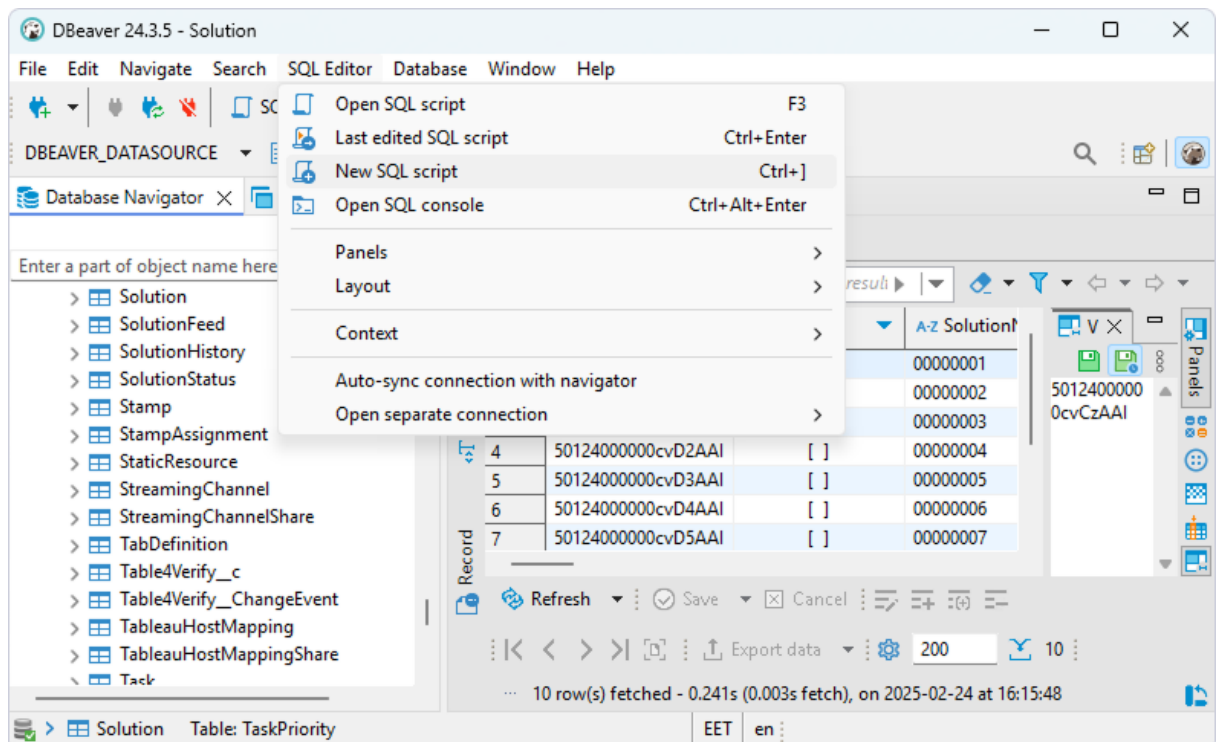
2. Enter your query.
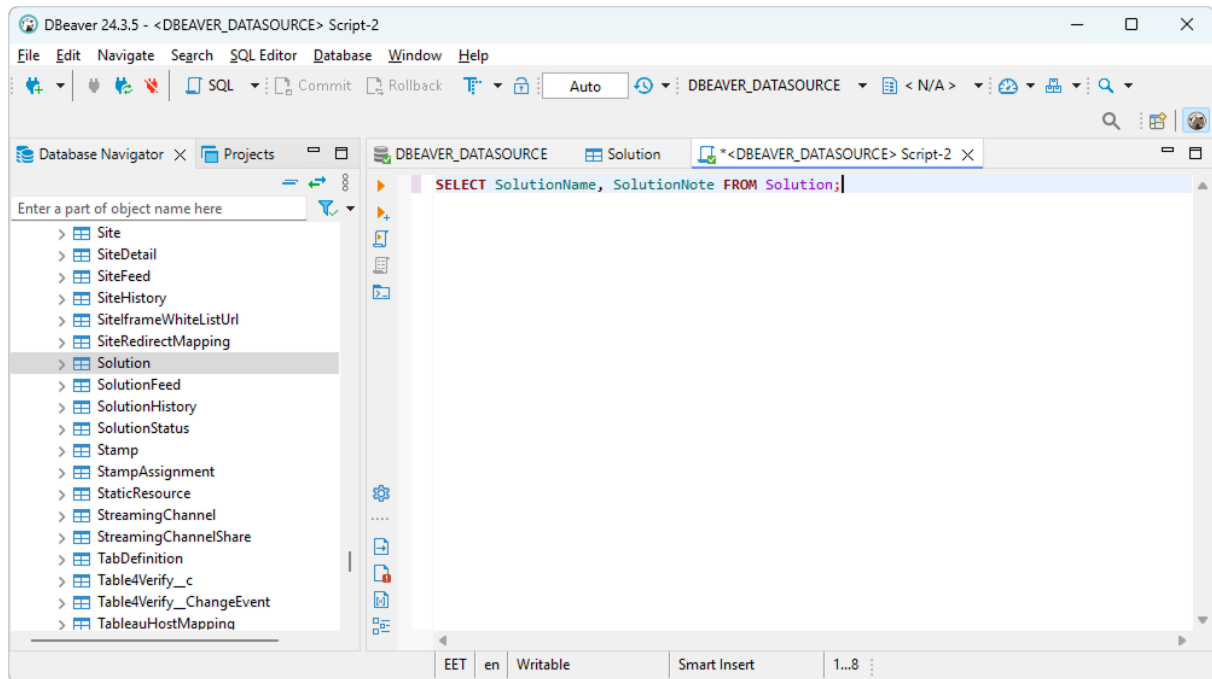
3. Select **SQL Editor** > **Execute SQL query**.

The query results are displayed in the main window.
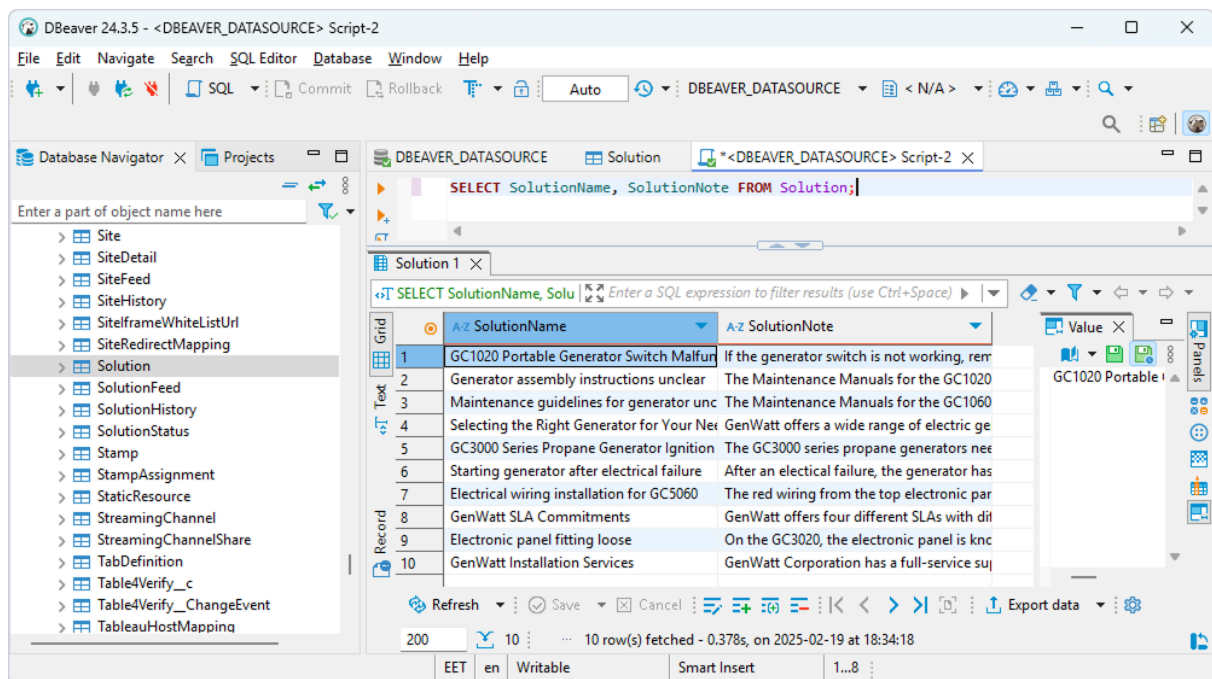
4.1.2 Connect DBeaver Enterprise to NexusDB through ODBC

DBeaver Enterprise and DBeaver Community let users connect to NexusDB via ODBC, enabling SQL-based querying, reporting, and data management.

If you require a simplified connection setup with built-in ODBC support, enhanced security, and performance features, you may try DBeaver Enterprise.

If you need basic ODBC connectivity to NexusDB and are comfortable with manual configuration using a generic ODBC connection, choose DBeaver Community—a free, open-source database management tool. For more information on connecting to NexusDB data from DBeaver Community, see Connect DBeaver Community to NexusDB through ODBC.

Connect to NexusDB

To connect to the NexusDB database from DBeaver Enterprise:

1. Select **Database** > **New Database Connection**.

2. Select the **ODBC** driver and click **Next**.
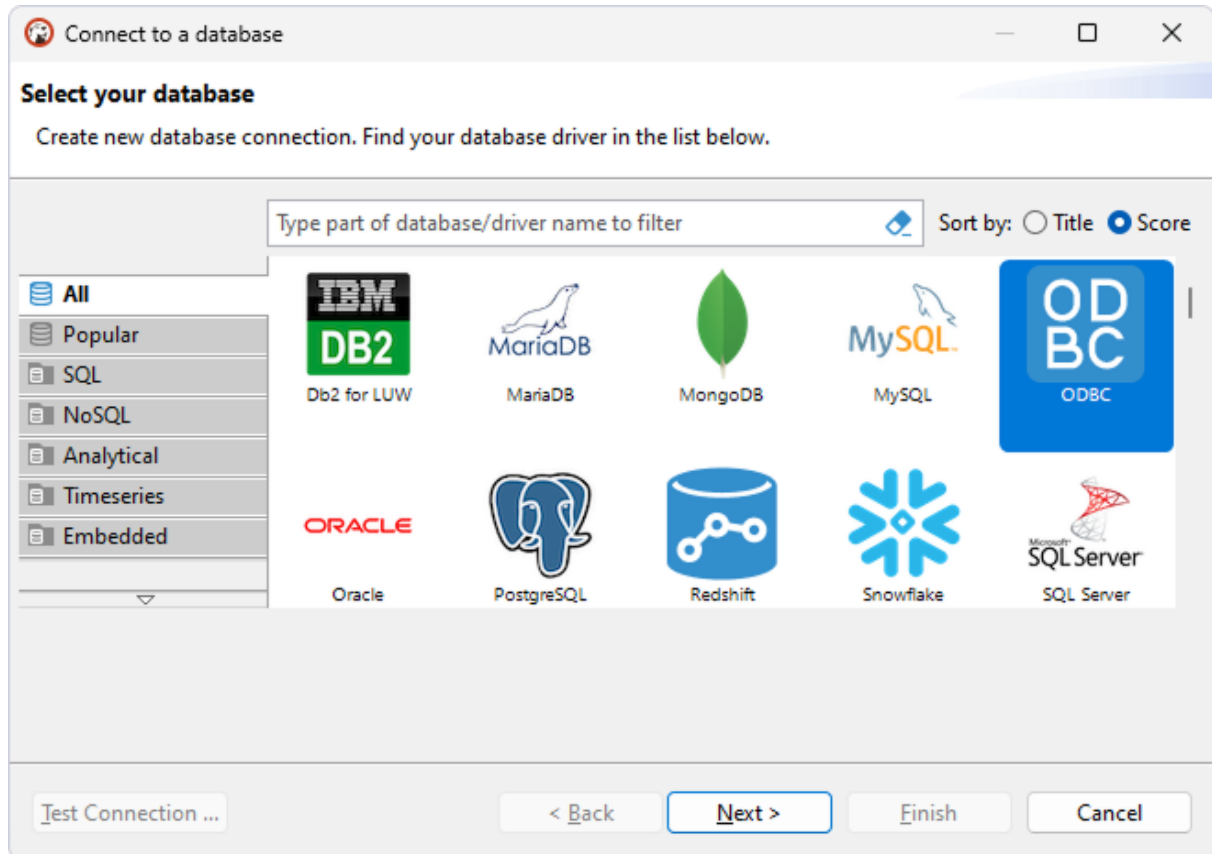
3. In the **Database Source** field, specify the name of your DSN.

4. Optional: Select **Test Connection** to verify the connection settings.

5. Click **Finish**.

Request Support ODBC Forum   Provide Feedback

The database appears on the left pane.

6. To view the data stored in a table, expand the database structure and click the needed table.
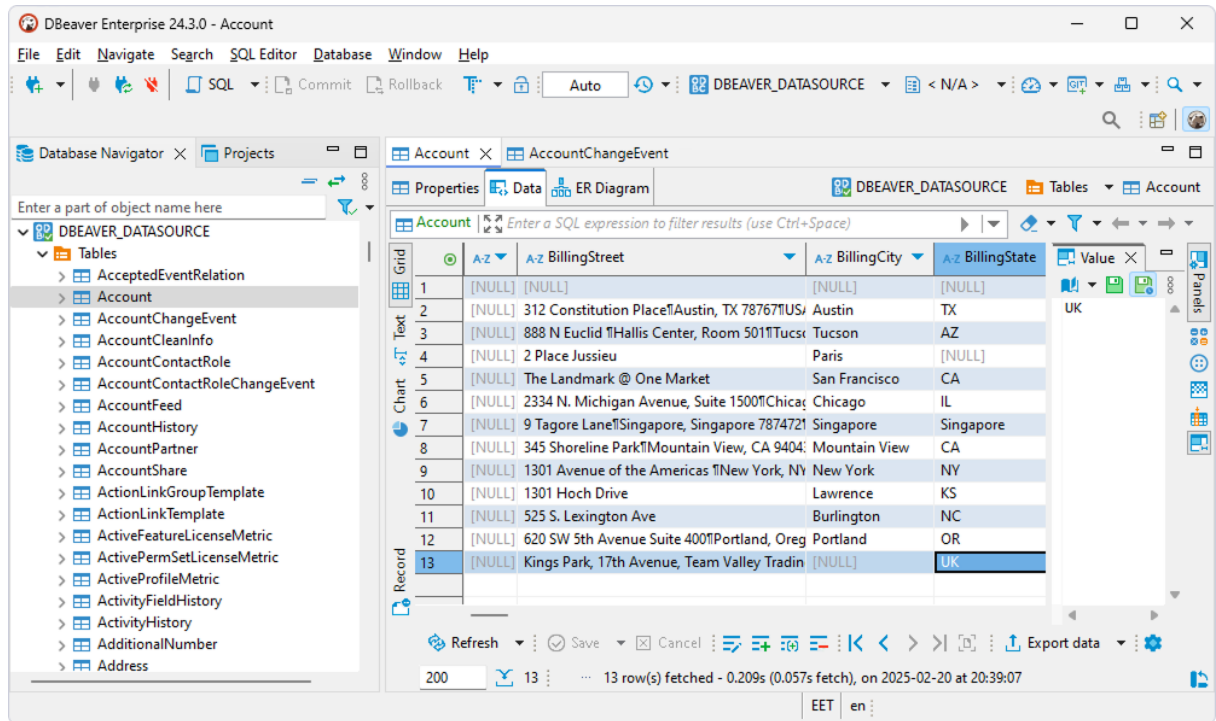
Query NexusDB data

1. Select **SQL Editor** > **New SQL script**.
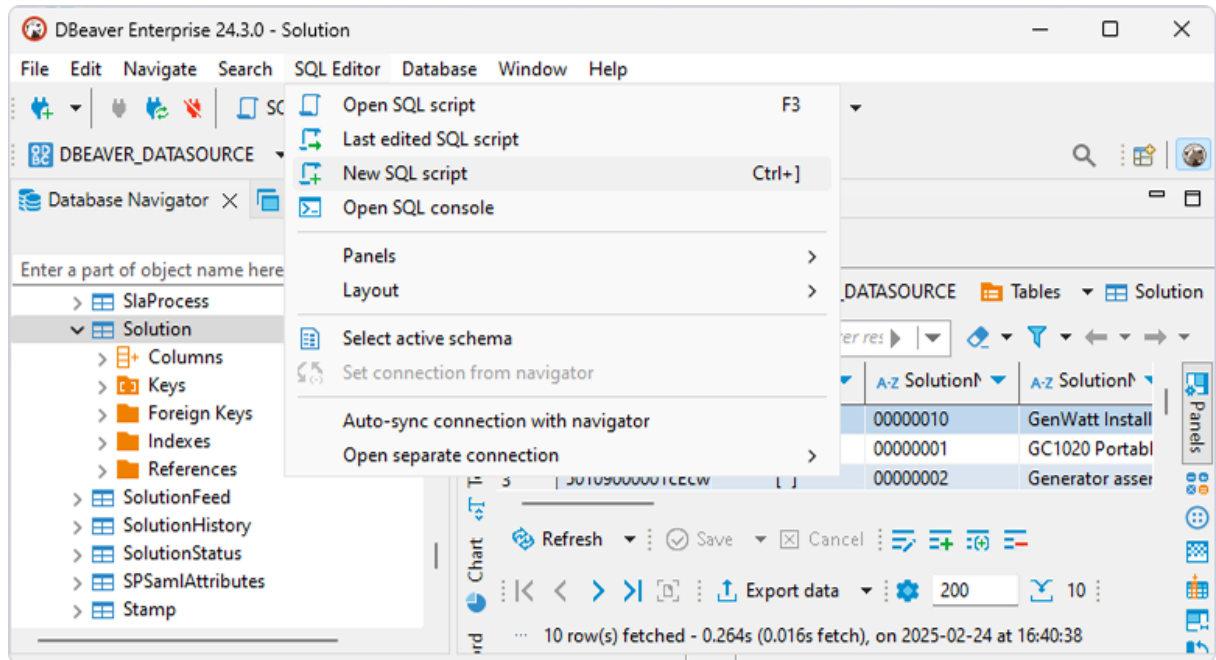
2. Enter your query.
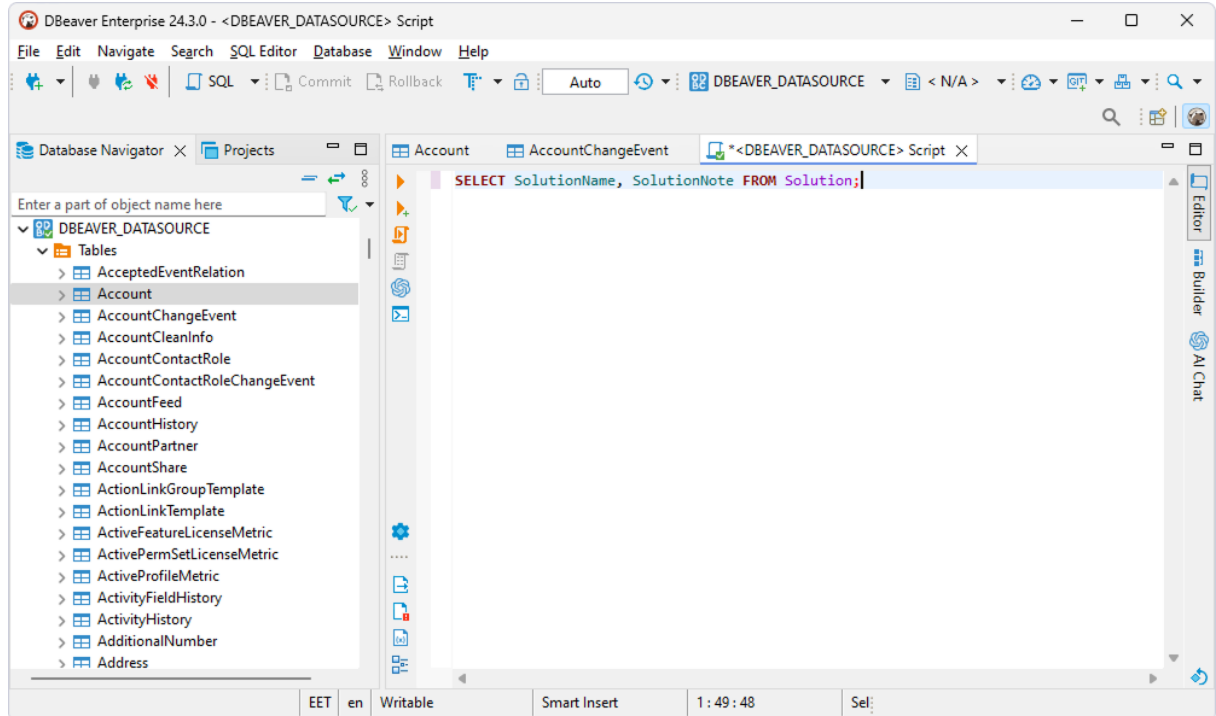
3. Select **SQL Editor** > **Execute SQL query**.

The query results are displayed in the main window.
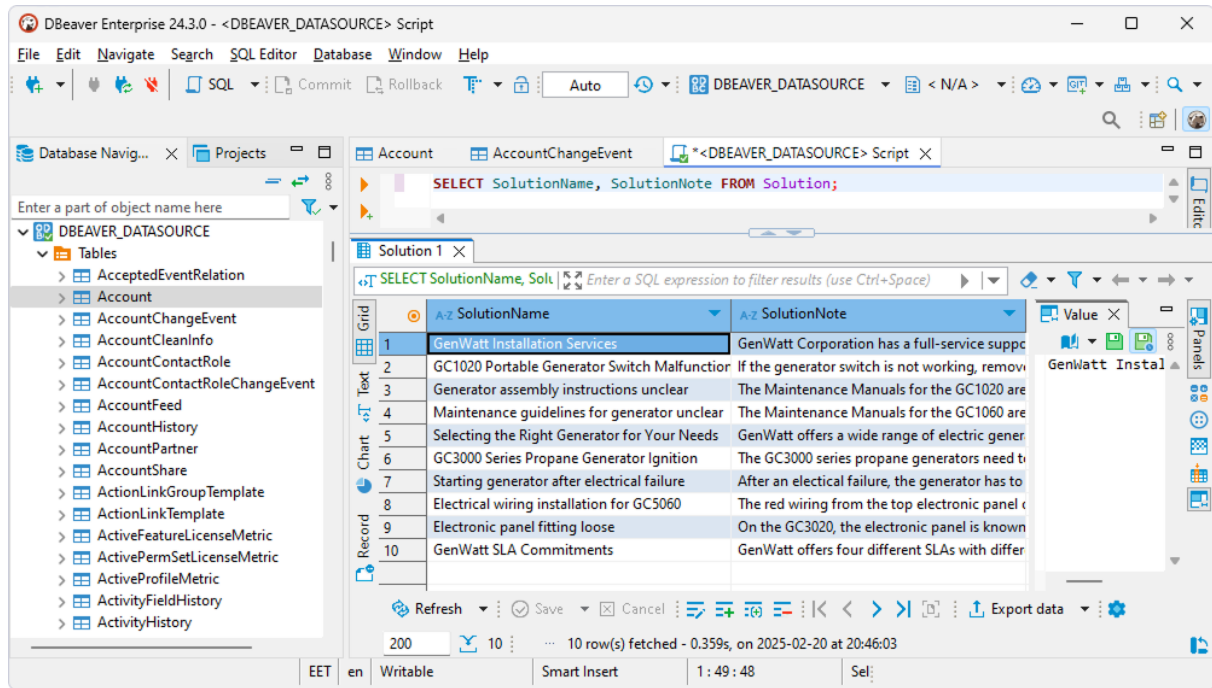
4.2 Using in DBxtra

Troubleshooting NexusDB ODBC Connection in DBxtra

This page explains how to troubleshoot your ODBC connection to NexusDB in DBxtra.

Due to incompatibilities between DBxtra and NexusDB, leaving the `SQL dialect` property to its default might present various issues. To resolve compatibility issues, set the property to `MS Access 2000/XP/2003` or `ANSI SQL/2003` for DBxtra version 11.0.1 or newer, and to `ANSI SQL/2003` for versions prior to 11.0.1.

Request Support ODBC Forum   Provide Feedback

4.3 Using in Denodo

Troubleshooting ODBC Connection in Denodo

When you attempt to access NexusDB from Denodo with default settings, you may get an
'Unexpected error creating a connection: Unable to validate object Received exception with
message 'Unable to validate object''. To resolve the error:

1. Select **File** > **New** > **Data Source** > **ODBC** in Virtual DataPort Administration Tool.

2. Click **Connection Pool configuration**.

3. In **Ping query**, change `Select 1` to `Select 1 From #Dummy`, then click **Ok**.
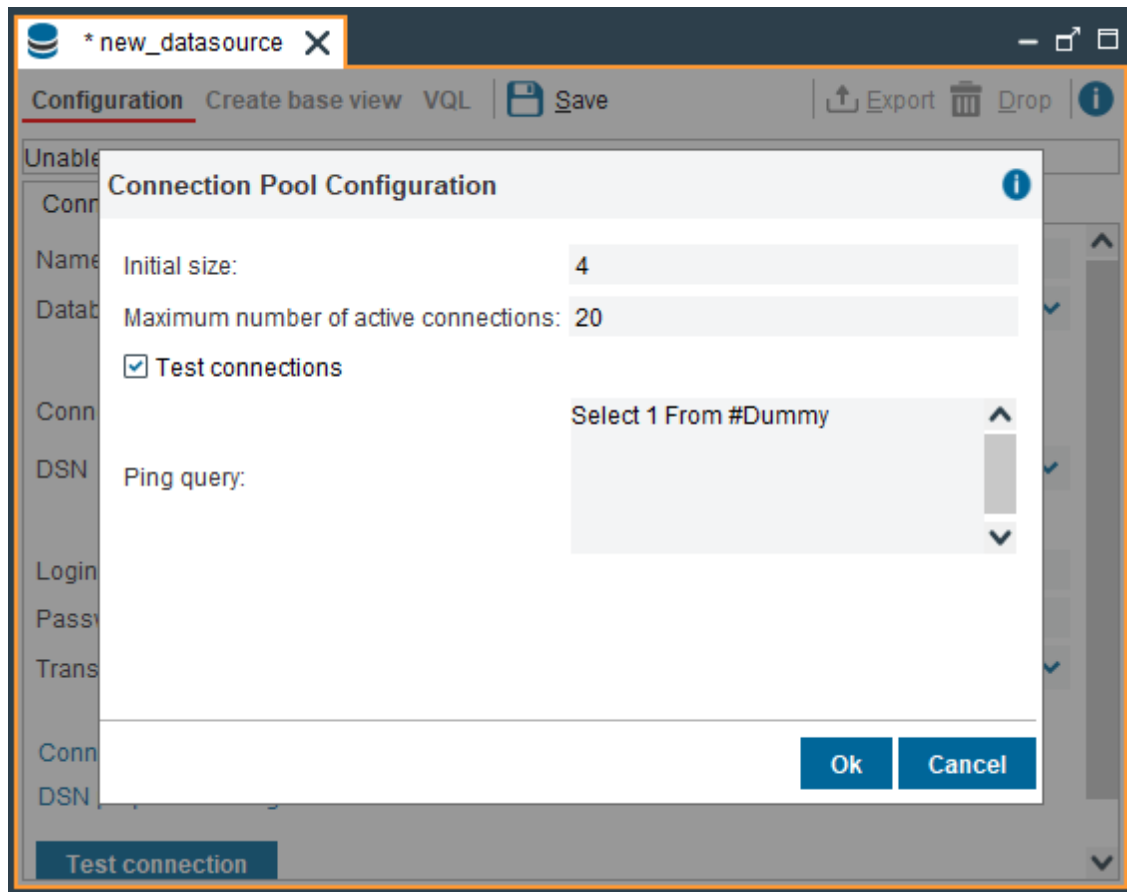
4.4 Using in Informatica PowerCenter

You can connect Informatica PowerCenter to NexusDB through an ODBC driver on Windows to unify and manage data across these systems.

Prerequisites

- Configure the Informatica services.

- Install the PowerCenter Client tools.

- Create a repository folder in PowerCenter Repository Manager.

- Install Devart ODBC Driver for NexusDB. For instructions, see Installation.

- Configure a data source name (DSN). For instructions, see Windows DSN Configuration.

Add a data source in Informatica PowerCenter

Before you proceed, make sure PowerCenter Designer isn't running.

1. Open the `C:\Informatica\10.4.1\clients\PowerCenterClient\client\bin\powrmart.ini` file in a text editor.

2. In the `[ODBCDLL]` section, add `NexusDB=PMODBC.DLL`, then save the changes.

3. Open **PowerCenter Designer**.

4. Double-click the repository name (in this example, **PCRS**), enter your Informatica credentials, then click **Connect**.
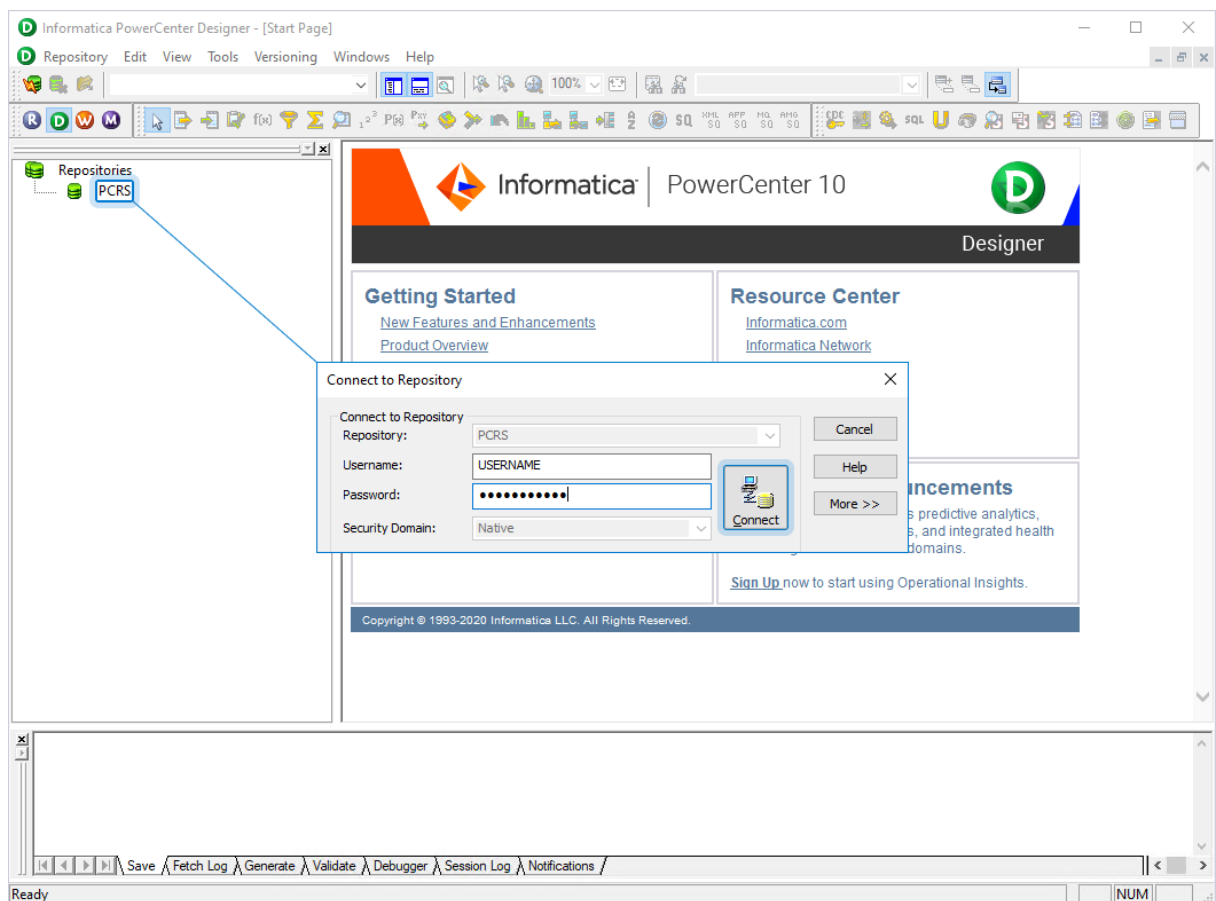
5. Double-click the repository folder (in this example, **ODBC connections**), then select **Sources** > **Import from Database**.
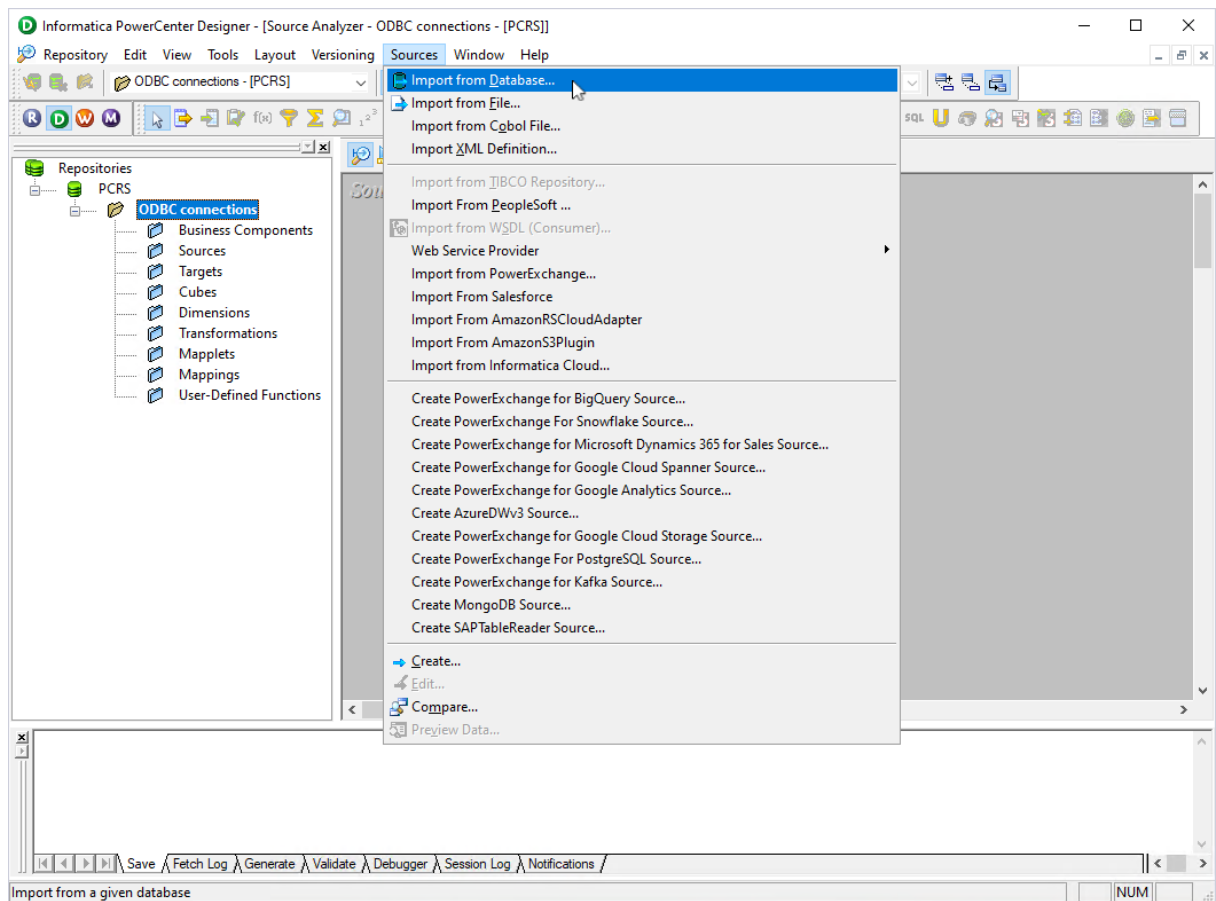
The Import Tables dialog opens.

6. From the **ODBC data source** menu, select the needed DSN.

7. In the **Username** and **Password** fields, enter your NexusDB credentials.

8. Under **Show owners**, select **All**.

9. Click **Connect**.

10. In the **Select tables** section, expand the tree and select the tables you want to import.

11. Click **OK**.
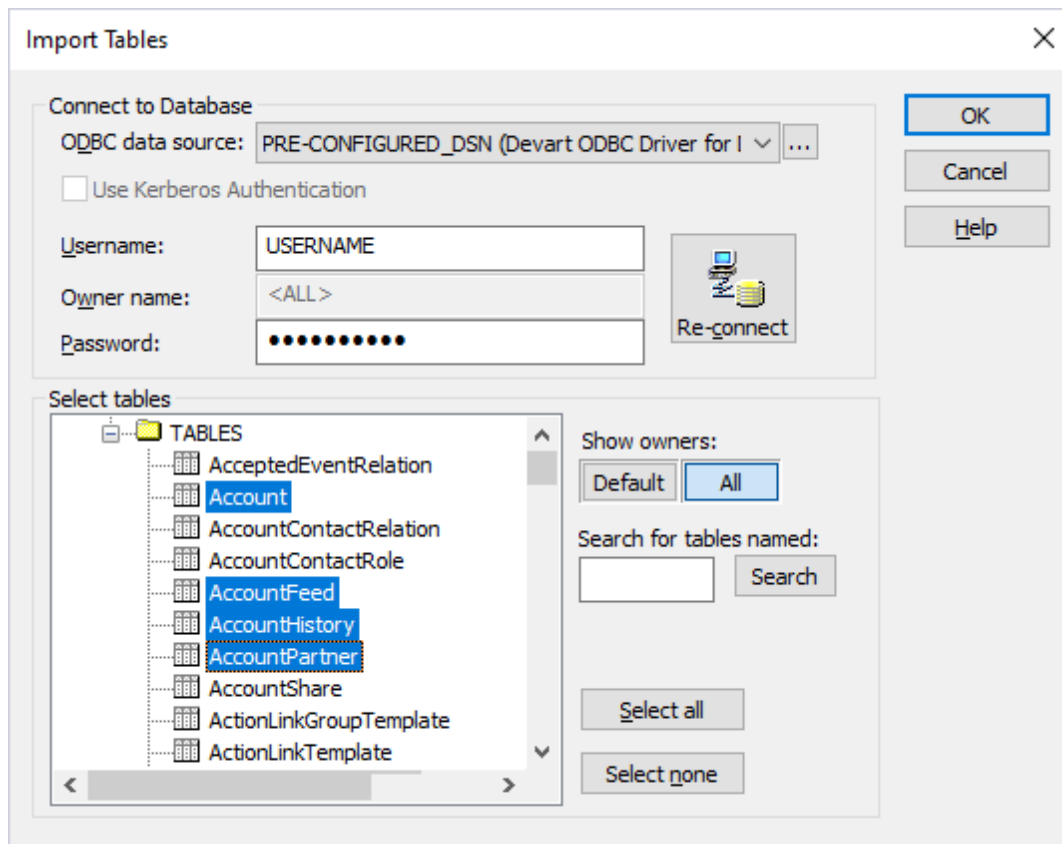
The table schemas appear in the Source Analyzer, and the data source is added to the **Sources** subfolder of the repository folder. You can now create mappings and work with NexusDB data in Informatica PowerCenter.
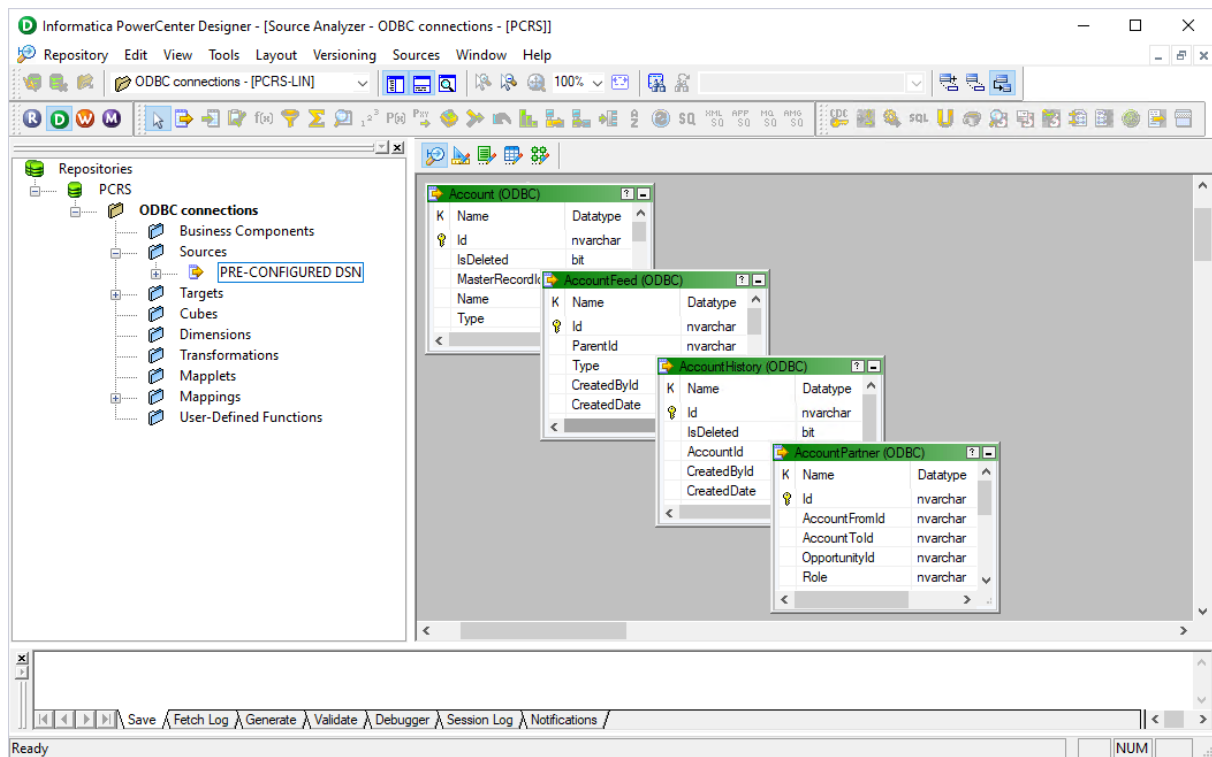
4.5 Using in Microsoft Access

Connecting Microsoft Access to NexusDB Using an ODBC Driver

This article explains how to connect Microsoft Access to NexusDB through the standard ODBC interface. Microsoft Access is a dababase management system that combines the relational database engine with a graphical user interface. Access can be used as a substitution for spreadsheet applications like Excel to organize, store, and retrieve large amounts of related data that can be difficult to manage in spreadsheets.

In Microsoft Access, you can connect to your NexusDB data either by importing it or creating a table that links to the data. Devart ODBC drivers support all modern versions of Access. It is assumed that you have already installed and configured a DSN for ODBC driver for NexusDB. For the purpose of this article, we tested an ODBC connection to NexusDB through our ODBC drivers in Microsoft Access 2003, Microsoft Access 2007, Microsoft Access 2010, Microsoft Access 2013, Microsoft Access 2016, Microsoft Access 2019. The following steps describe how to use Microsoft Access 2019 to import or link to your data in NexusDB.

Importing NexusDB Data Into Microsoft Access Through an ODBC Connection

1. Open your Microsoft Access database.

2. Select the **External Data** tab in the ribbon.

3. Expand the **New Data Source** drop-down and select **From Other Sources**, then select **ODBC Dababase**.

4. In the **Get External Data - ODBC Database** dialog box, select **Import the source data into a new table in the curent database**, and click **OK**.

5. In the **Select Data Source** dialog box, select the **Machine Data Source** tab.

6. Select the DSN that you have configured for NexusDB and click **OK**.

7. In the **Import Objects** dialog box, select the tables that you want to import, and click **OK**.

8. If the database objects have been successfully imported, you should the see the corresponding message in the dialog box. If you want to save the import steps to quickly repeat the process without using the wizard at a later time, select the **Save import steps** checkbox. Click **Close**.

9. The imported tables should appear in the **Tables** navigation pane on the left.

10. Double-click on the needed table to display its contents.

Linking to NexusDB Data in Microsoft Access Through an ODBC Connection

1. Open your Microsoft Access database.

2. Select the **External Data** tab in the ribbon.

3. Expand the **New Data Source** drop-down and select **From Other Sources**, then select **ODBC Dababase**.

4. In the **Get External Data - ODBC Database** dialog box, select **Link to the data source by creating a linked table**.

5. In the **Select Data Source** dialog box, select the **Machine Data Source** tab.

6. Select the DSN that you have configured for NexusDB and click **OK**.

7. In the **Link Tables** dialog box, select the table or tables that you want to link to, and click **OK**.

8. The **Select Unique Record Identifier** dialog box will prompt you to choose a field or fields that uniquely identify each record in the table. To avoid inconsistencies, it is recommended to select the primary key in the NexusDB table as the unique record identifier. You are linking multiple tables, you will be prompted to select unique record identifiers for each of the selected tables.

9. The linked tables should appear in the **Tables** navigation pane on the left.

10.Double-click on the needed table to display its contents.

4.6   Using in Microsoft Excel

Connecting to NexusDB from Microsoft Excel using ODBC Driver for NexusDB

You can use Microsoft Excel to access data from a NexusDB database using ODBC connector. With ODBC Driver, you can import the data directly into an Excel Spreadsheet and present it as a table. Make sure that you use matching Excel and ODBC Driver, e.g. if you have installed a 64-bit ODBC Driver, you will need to use the 64-bit version of Excel.

When working with Microsoft Excel, there are different ways of retrieving data from various data sources using our ODBC drivers.

- Connecting Excel to NexusDB with Get & Transform (Power Query)
- Connecting Excel to NexusDB with Data Connection Wizard (Legacy Wizard)
- Connecting Excel to NexusDB with the Query Wizard
- Connecting Excel to NexusDB with Microsoft Query
- Connecting Excel to NexusDB with PowerPivot
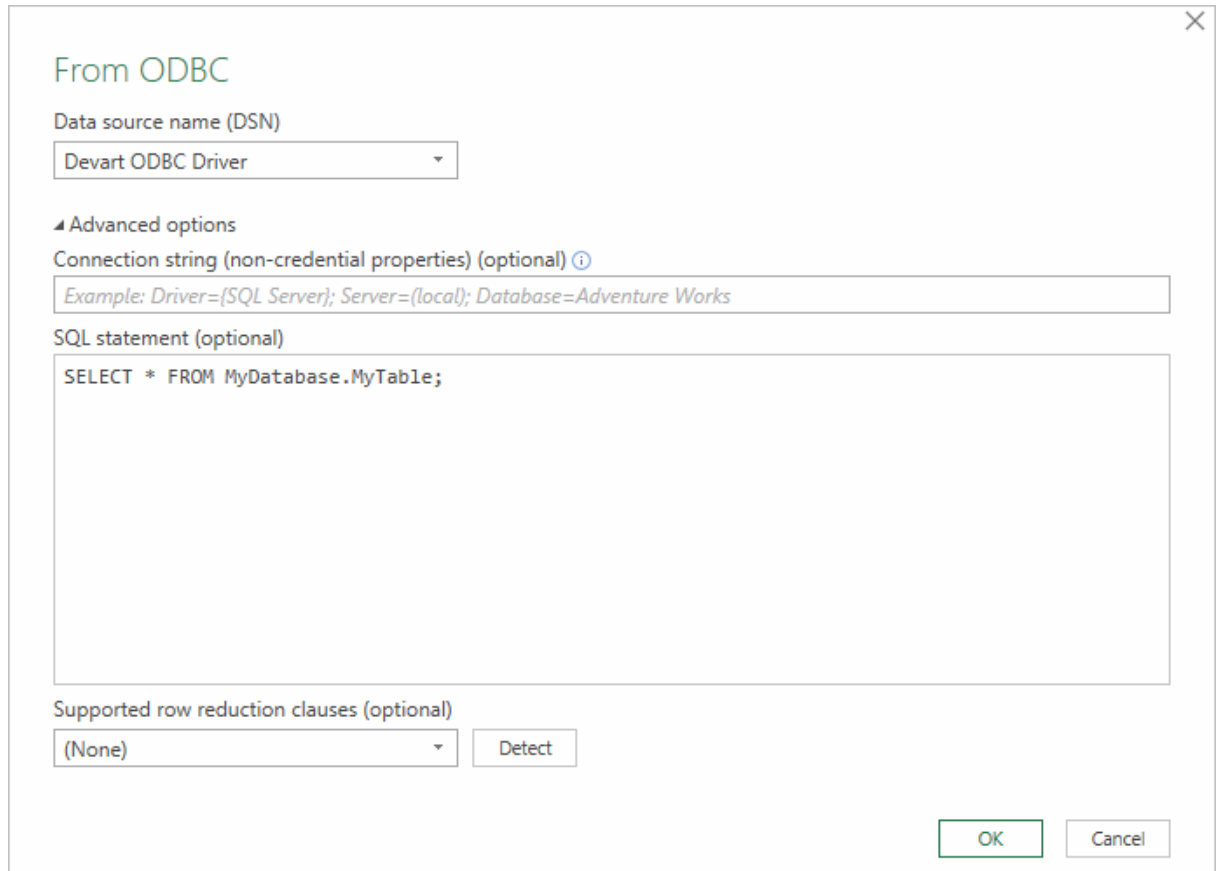
Connecting Excel to NexusDB with Get & Transform (Power Query)

You can use Get & Transform (Power Query) to connect to NexusDB from Excel with ODBC. This method assumes that you've installed an ODBC driver for NexusDB.

1. Click the **Data** in Excel, then expand the **Get Data** drop-down list. Click **From Other Sources** > **From ODBC**.
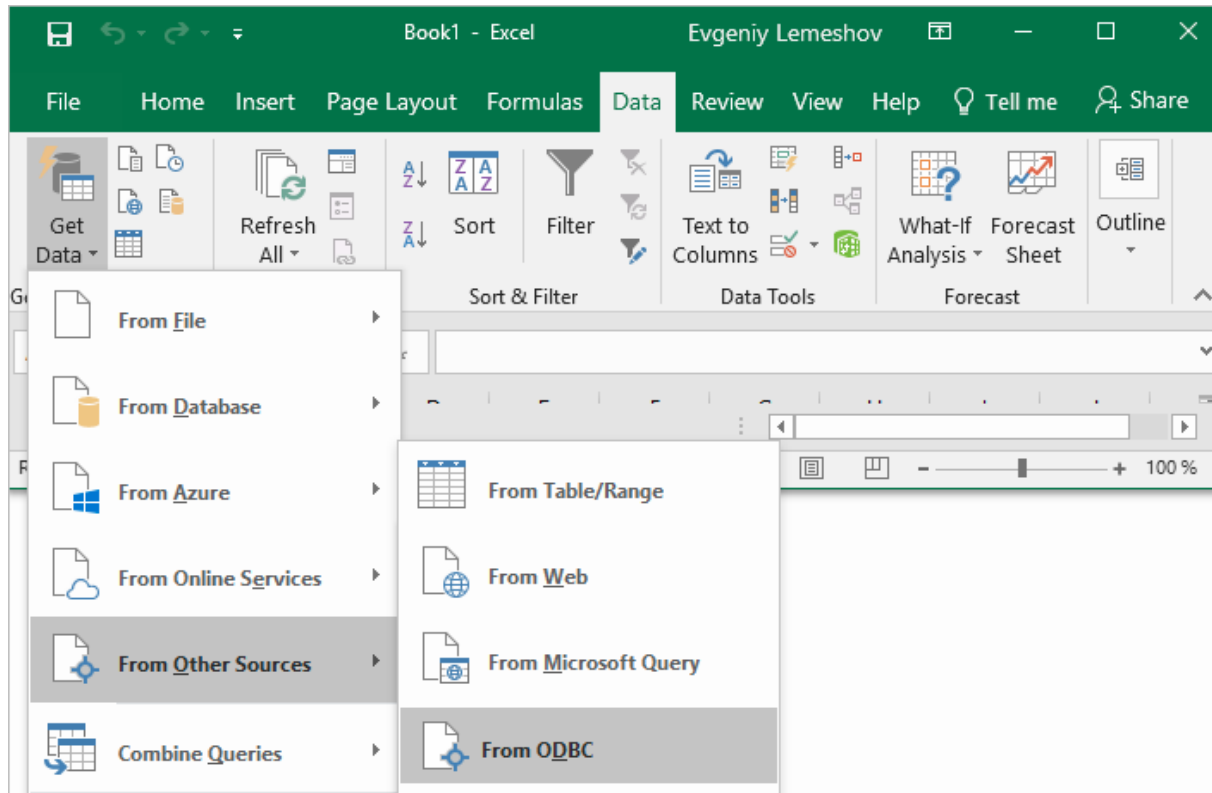
2. In the **From ODBC** dialog, choose your data source name (DSN). If you haven't configured your ODBC driver yet, you can expand the **Advanced Options** dialog box and enter the connection string for your data source (without credentials, which are defined in the credentials dialog box in the next step). Additionally, you can enter an SQL statement that will be executed right after establishing a connection to the data source. Click **OK**.
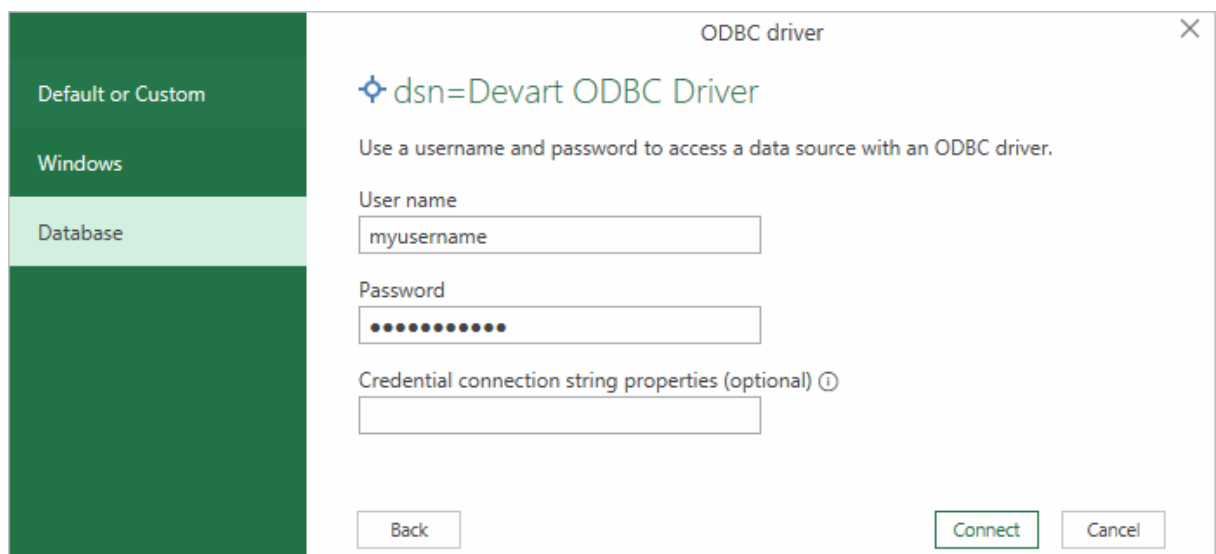
3. If you're using a database username or password, select **Database** and enter your credentials in the dialox bog, then click **Connect**.
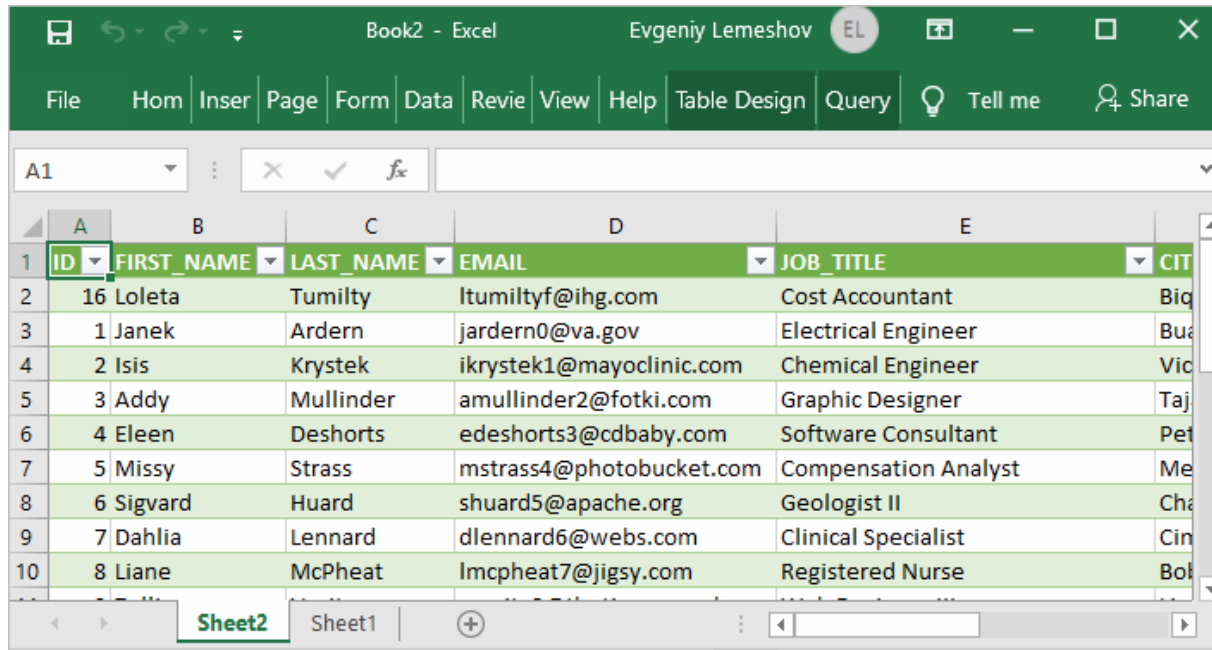
If your database is not password-protected or you've already specified your credentials in the ODBC data source settings, select **Default or Custom** and press **Connect**
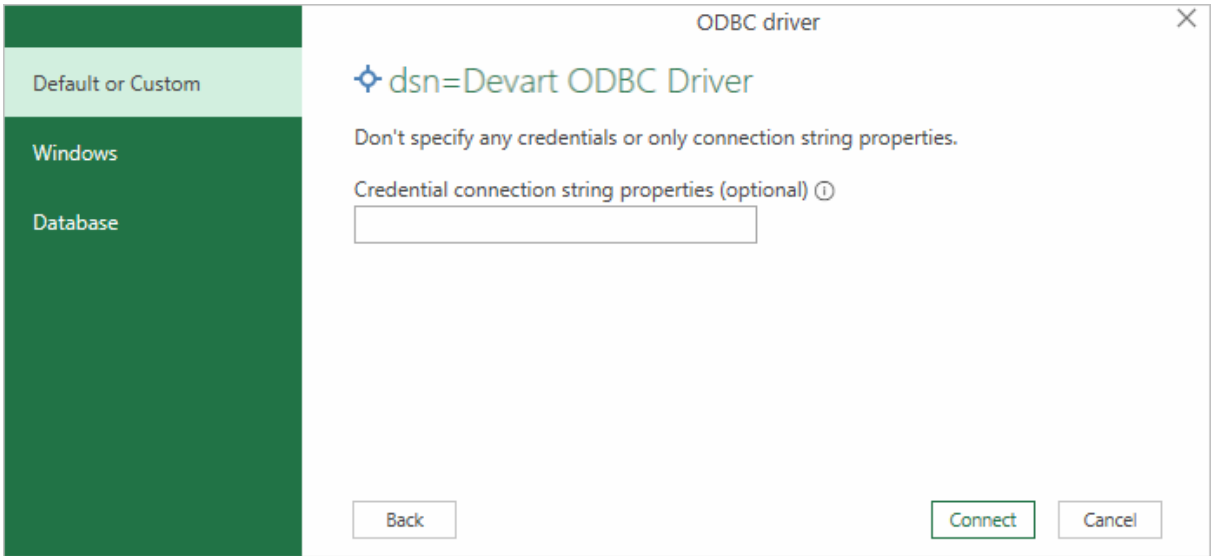
4. In the window that appears, select the table you want to retrieve data from, and click **Load**.
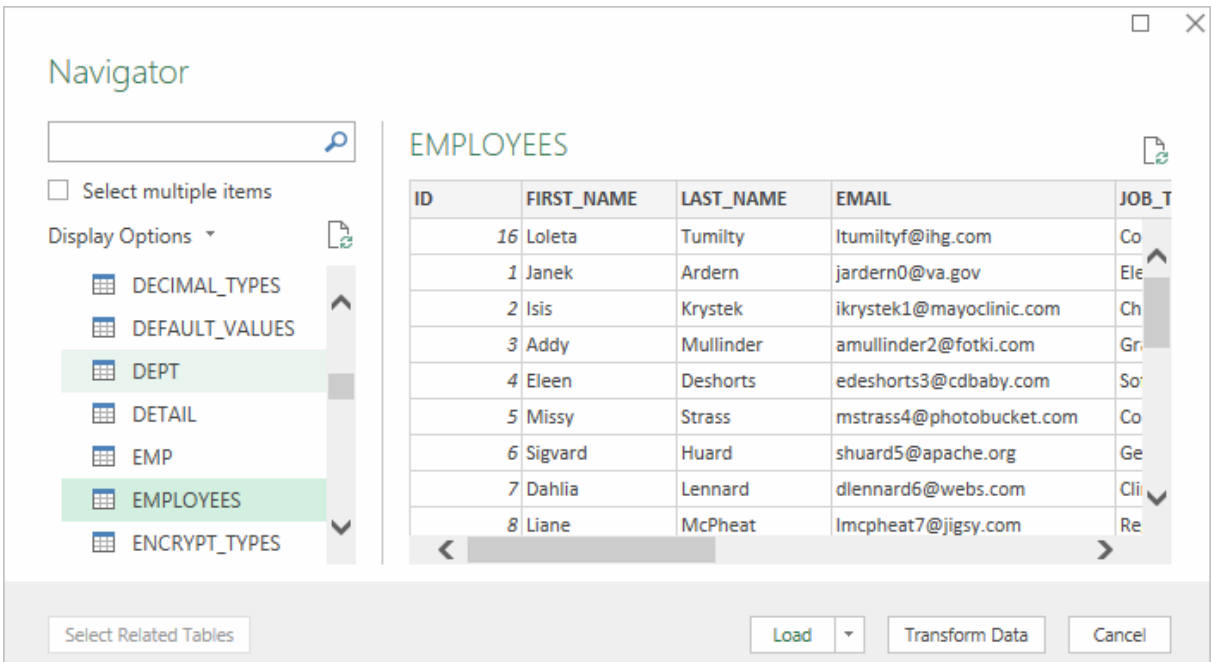
The data from the table will be a displayed in an Excel spreadsheet where you can further work with it.

Connecting Excel to NexusDB with Data Connection Wizard (Legacy Wizard)

You can use this option to connect to OLE DB or ODBC external data source that has already been defined.

1. In Excel, go to the **Data** tab. Click **From Other Sources**, and then click **From Data Connection Wizard**.

2. In the opened dialog, select **ODBC DSN** and click **Next** to continue.

3. Now select a data source you want to connect to, and click **Next**.

4. To connect to the table containing the required data, select its name and click **Next** to enter and save information about your new file or click **Finish**.

5. In the **Import data** dialog, you can select the way your data will be viewed in Excel and the place where to put it in the worksheet, and click **OK**.

6. The required data is now displayed in the existing Excel worksheet.

Connecting Excel to NexusDB with the Query Wizard

You can use this option to create a simple query for retrieving data from NexusDB to Excel via

ODBC driver.

1. Open Excel, in the main menu, click the **Data** tab.

2. Click the **From Other Sources** dropdown menu, and then click **From Microsoft Query**.

3. In the appeared dialog, you can choose the data source you want to connect to.

4. After a successful connection, you can select the data you want to be displayed in Excel and click **Next**.

5. The next two steps allow filtering and sorting the data. Click **Next** to skip these procedures.

6. If you plan to further use the query, you can save it by clicking the **Save** button on the right.

7. Select **Return Data To Microsoft Excel** and click **Finish**.

8. In the **Import data** dialog, you can select the way your data will be viewed in Excel and the place where to put it in the worksheet, and click **OK**.

9. The required data is successfully imported to Excel.

Connecting Excel to NexusDB with Microsoft Query

You can use this option to create a more complex query for retrieving NexusDB data to Excel via ODBC driver.

1. Start Excel, click the **Data** tab.

2. In the appeared ribbon, click **From Other Sources**, and then click **From Microsoft Query**.

3. In the next dialog, choose the data source you want to connect to (e.g., using data source name - Devart ODBC NexusDB). Uncheck **Use the Query Wizard to Create/Edit Queries** and click **OK**.

4. Now you can select the tables you want to add to your query. When you finish, just click the **Add** button.

5. In the graphical editor, you can filter rows or columns of data, sort data, join multiple tables, create a parameter query, etc.

Connecting Excel to NexusDB with PowerPivot

You can use PowerPivot - an Excel add-in to perform data analysis and create complex data models. To load the required data, do the following:

1. In Excel, click the **PowerPivot** tab, then click **Manage** to go to the PowerPivot window.

2. In the opened window, click **From Other Sources**.

3. When the **Table Import Wizard** opens, select **Others (OLEDB/ODBC)** and click **Next**.

4. In the **Specify a Connection String** window, click the **Build** button.

5. In the **Data Link Properties** dialog, specify the data source you want to connect (e.g., using data source name - Devart ODBC NexusDB), and then click **Next**.

6. Now you should choose how to import the data (either select a table from the list or write a query to specify the data to be imported).

7. When the Import operation succeeded, click the **Close** button. The retrieved data is inserted in the active worksheet.

4.7   Using in Microsoft Visual Studio

Importing NexusDB Data into Visual Studio Through an ODBC Connection

A Visual Studio is a powerful tool containing features that allow editing, debugging, and compilating the code and creating applications that can be connected to any databases product and services on a local machine and network, and any type of cloud (private, public, or hybrid). To connect Visual Studio to a data source such as NexusDB, you can use an appropriate ODBC driver.

This guide describes how to connect to NexusDB and retrieve data importing them to Visual Studio with an ODBC driver. It is assumed that you have already installed and configured a DSN for ODBC driver for NexusDB.

1. Run Visual Studio Desktop and click **Tool** and select **Connect to Database**.

2. In the **Add connection** dialog box, select the **Microsoft ODBC Data Source** as a data source.

3. In the **Data source specification** point expand the **Data Source Name (DSN)** drop-down list and select the previously configured DSN for NexusDB. Alternatively, you can connect to the database by entering the DSN in a **Use connection string** field. To check whether your connection is successful, click **Test connection**. Click **OK**.

4. If your data source is password-protected, Visual Studio will prompt you for user credentials. Type your **Username** and **Password** in the respective fields and click **OK**.

5. In the Server Explorer you can see the database structure. Choose **Tables**, right-click the table you want to view the data of and select **Retrieve Data**. You can also preview the contents of the database objects by clicking on them.

4.8   Using in OpenOffice and LibreOffice

# Connecting to NexusDB from OpenOffice and LibreOffice using ODBC Driver for NexusDB

The article describes how to use Apache OpenOffice and LibreOffice to access ODBC data sources using the respective driver. You can access NexusDB data from Open Office Base or LibreOffice Base — desktop database management systems. Note that the Windows version of OpenOffice is 32-bit, and you may get the error "The specified DSN contains an architecture mismatch between the Driver and Application" when trying to access a data source through a 64-bit ODBC Driver. To get rid of the error message, set up the 32-bit version of the driver.

To connect to an ODBC data source from OpenOffice or LibreOffice using our driver for NexusDB, perform the steps below:

1. Start OpenOffice or LibreOffice, click **Database** to open the **Database Wizard**.
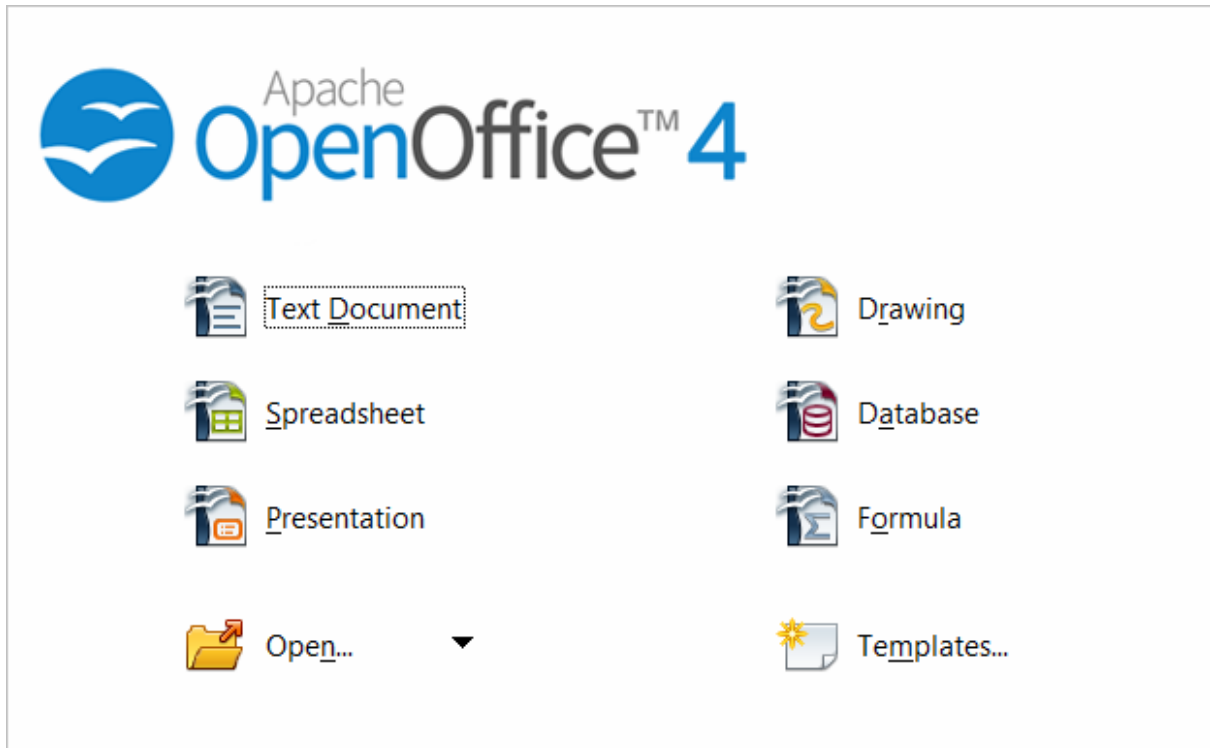
Alternatively, you can launch the **Database Wizard** from OpenOffice or LibreOffice Calc,

Writer or any other tool by choosing **File > New > Database**.
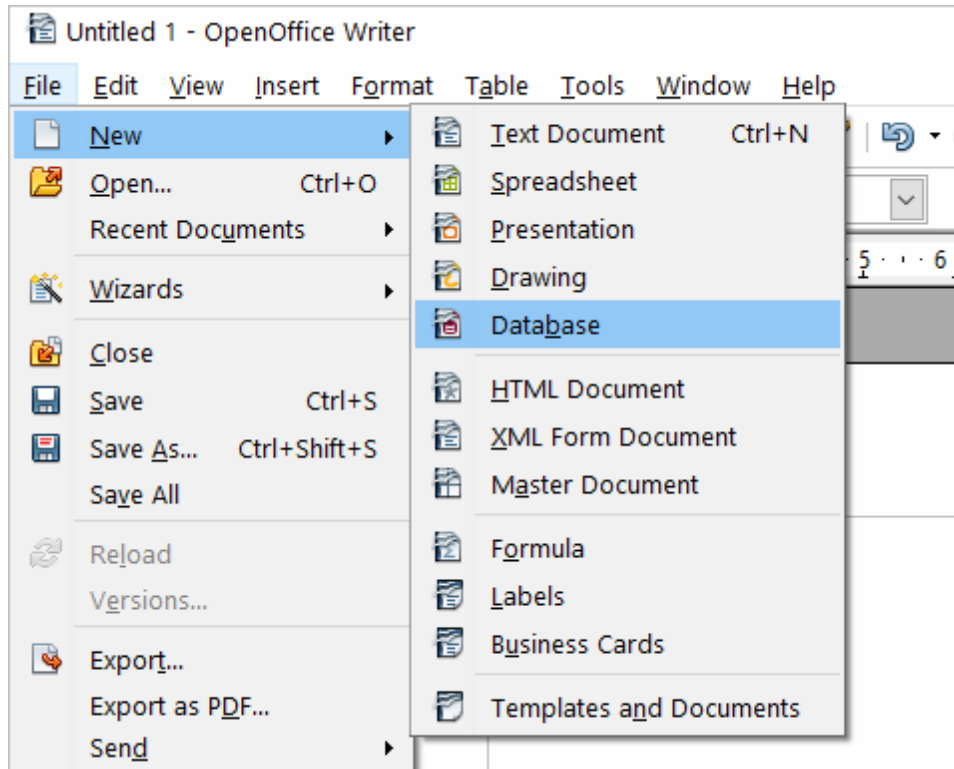
2. In the **Database Wizard dialog box**, click **Connect to an existing database**, select
   ODBC from the drop-down list, and click **Next**.
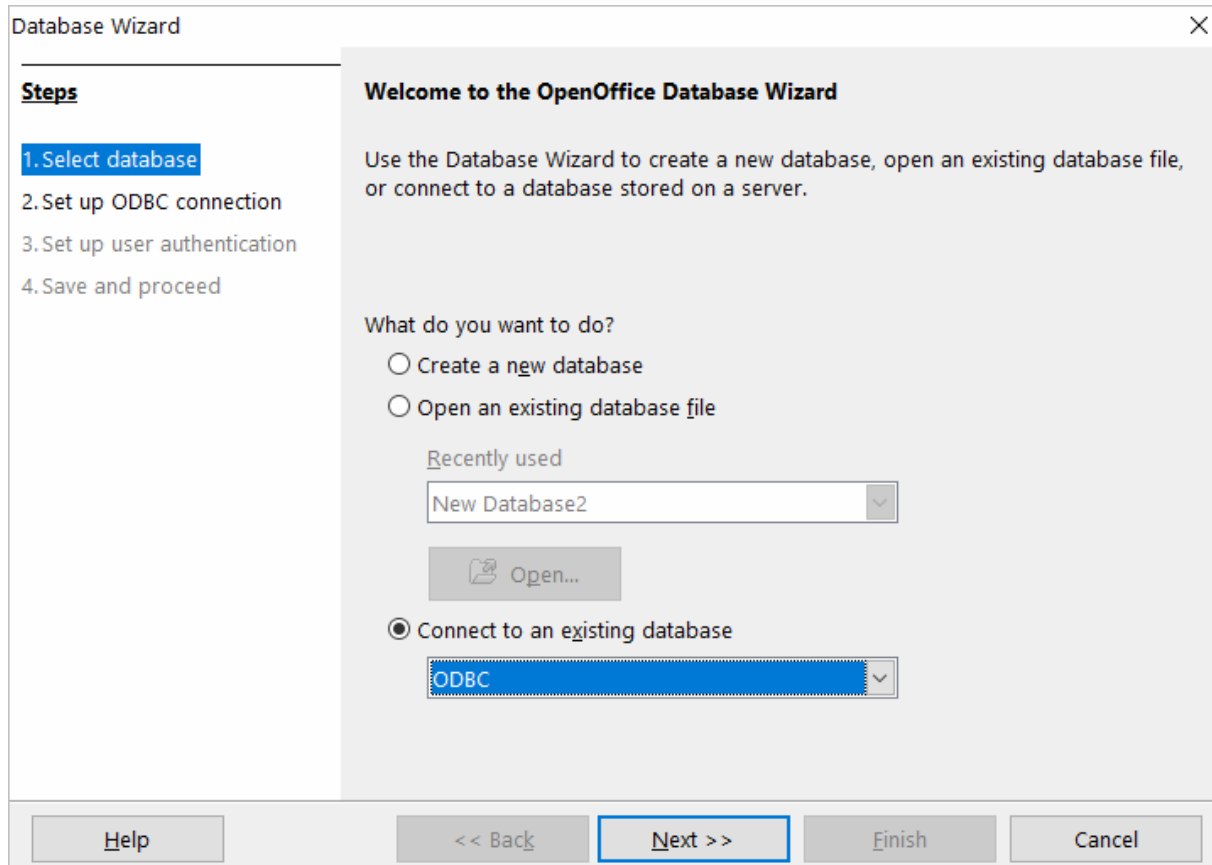
3. Specify the name of the data source you want to connect to. You can either type the name of your data source into the field, e.g. **ODBC Driver for NexusDB**, or you can click **Browse**, double-click the data source you need, and then click **Next**.
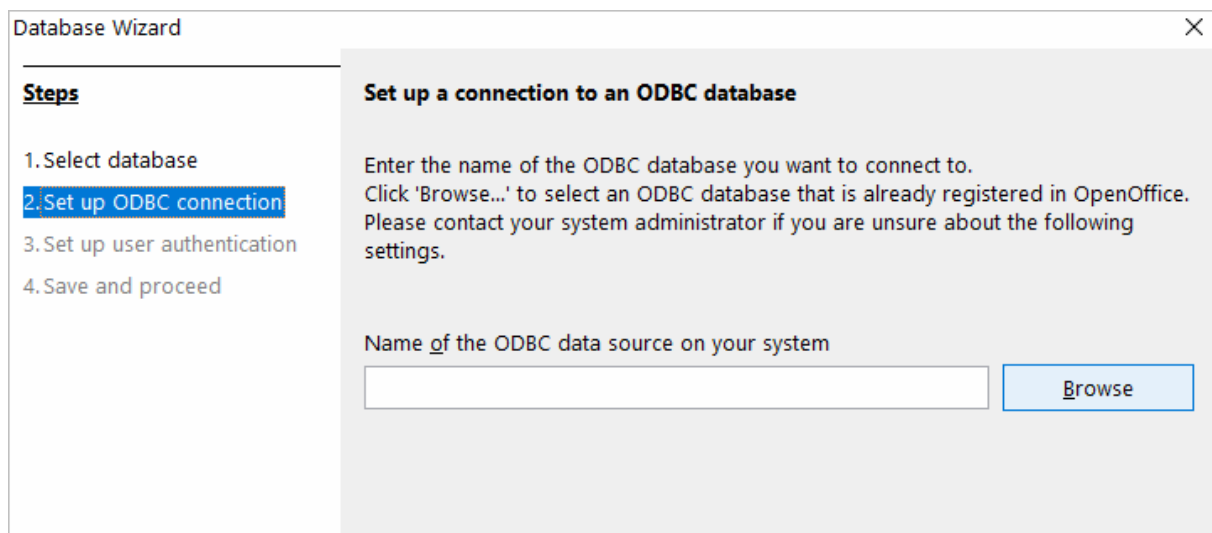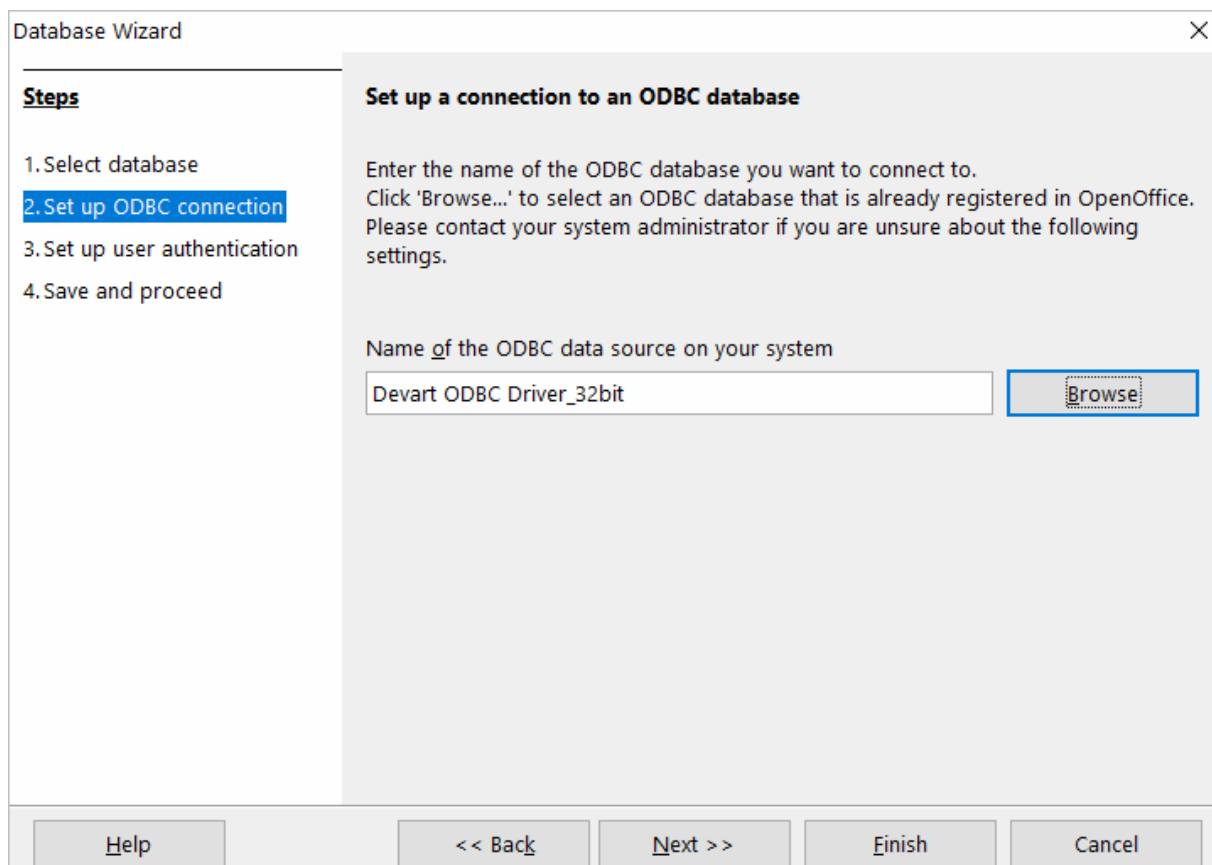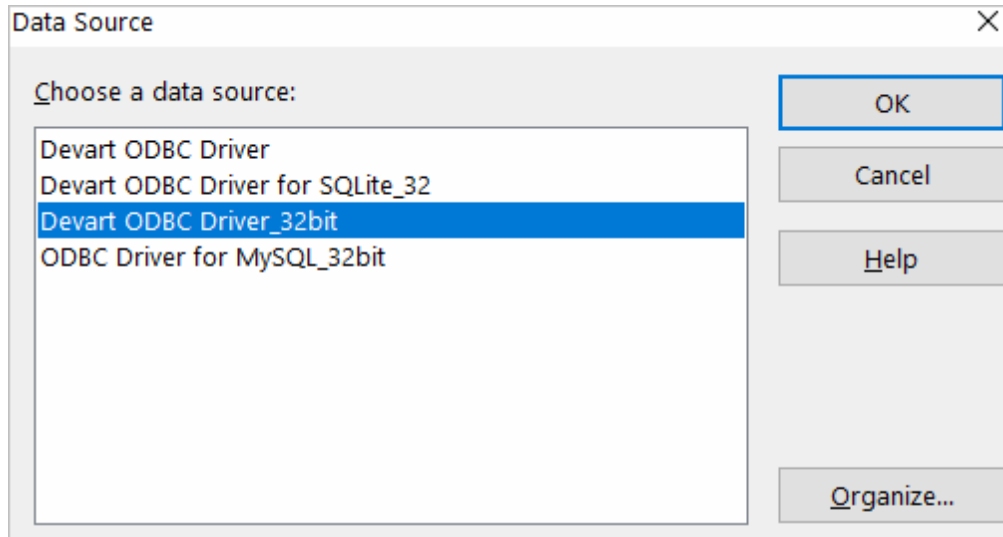
4. If your database requires a user name, type it into the **User name** field. If you are connecting to a password protected database, check the **Password required** field. Alternatively, you can specify these parameters in the data source settings of your ODBC

Driver for NexusDB and leave these fields empty in **Database Wizard**.

To test the connection to your data source, click **Test Connection**, input your credentials and click **OK**.
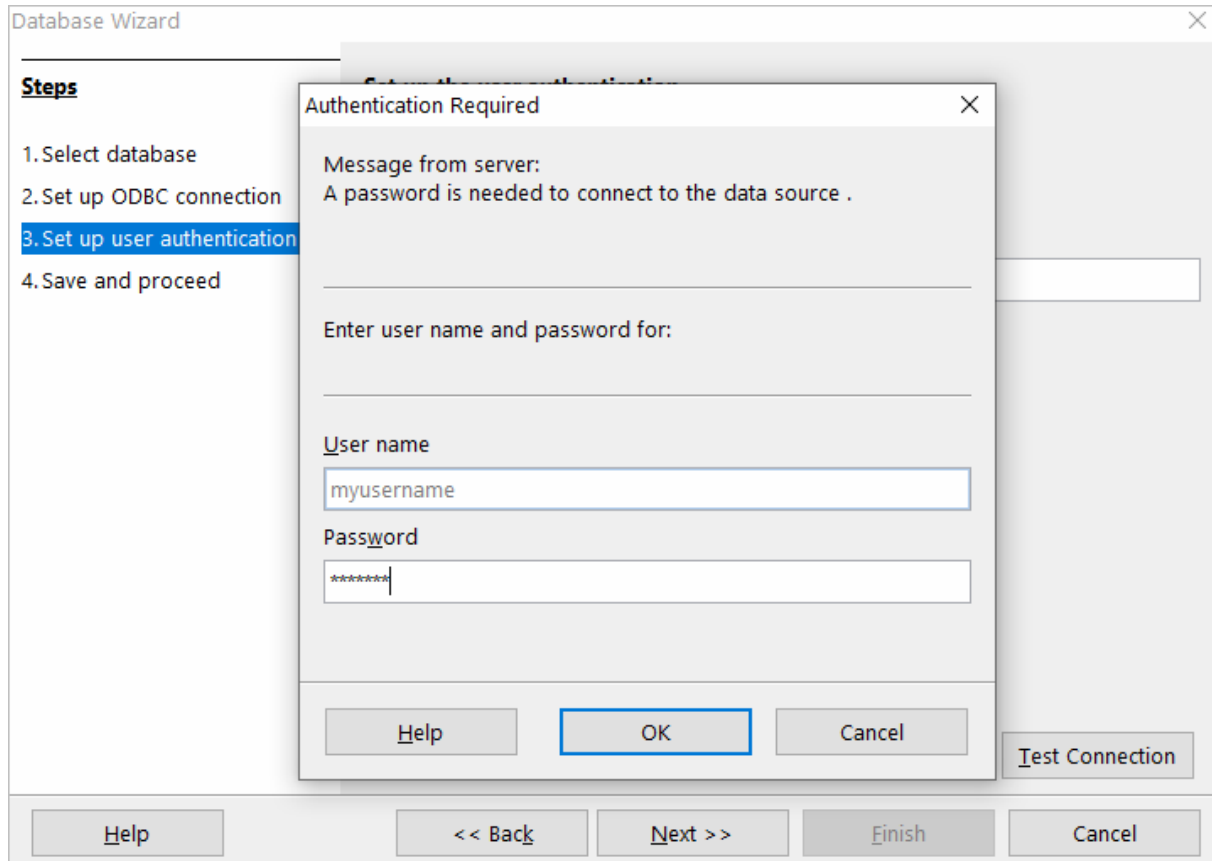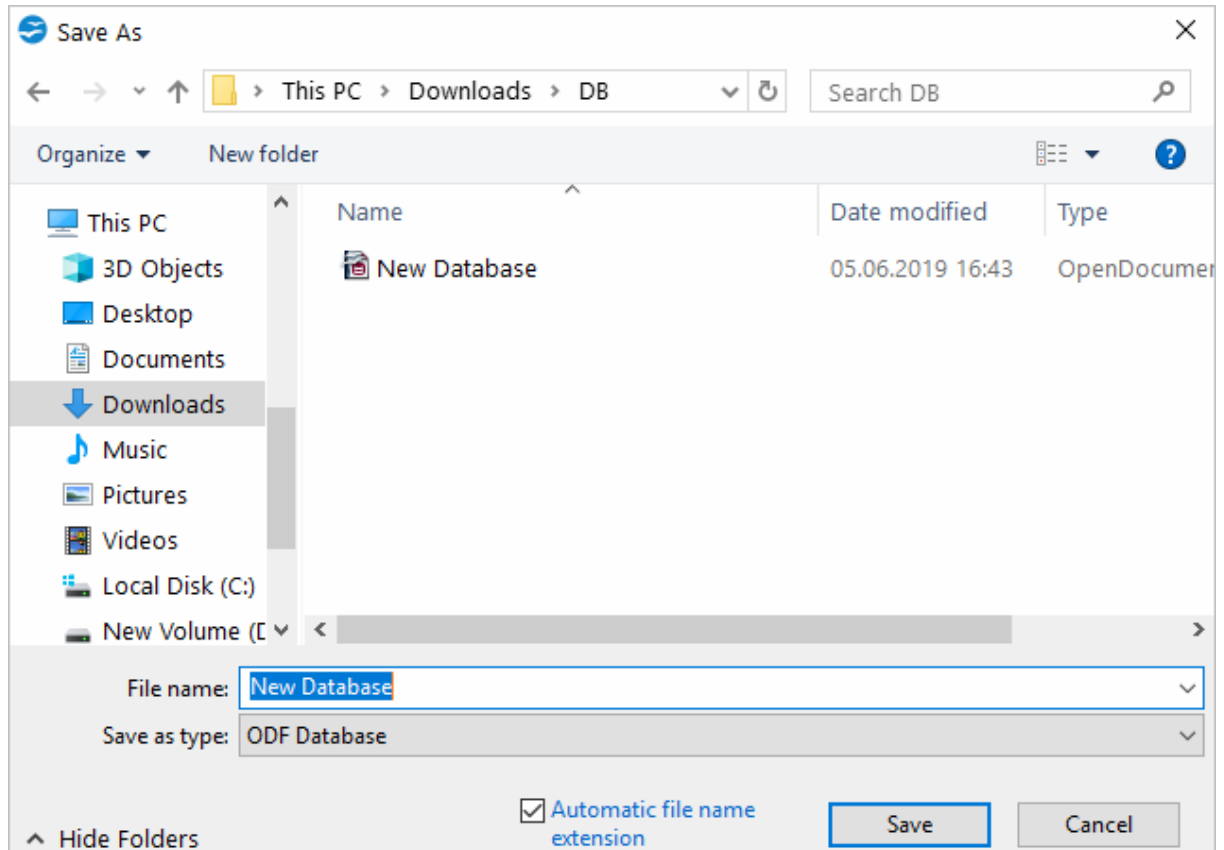
If you have entered valid credentials, you will see a success message. Click **Next** to proceed to the final step.
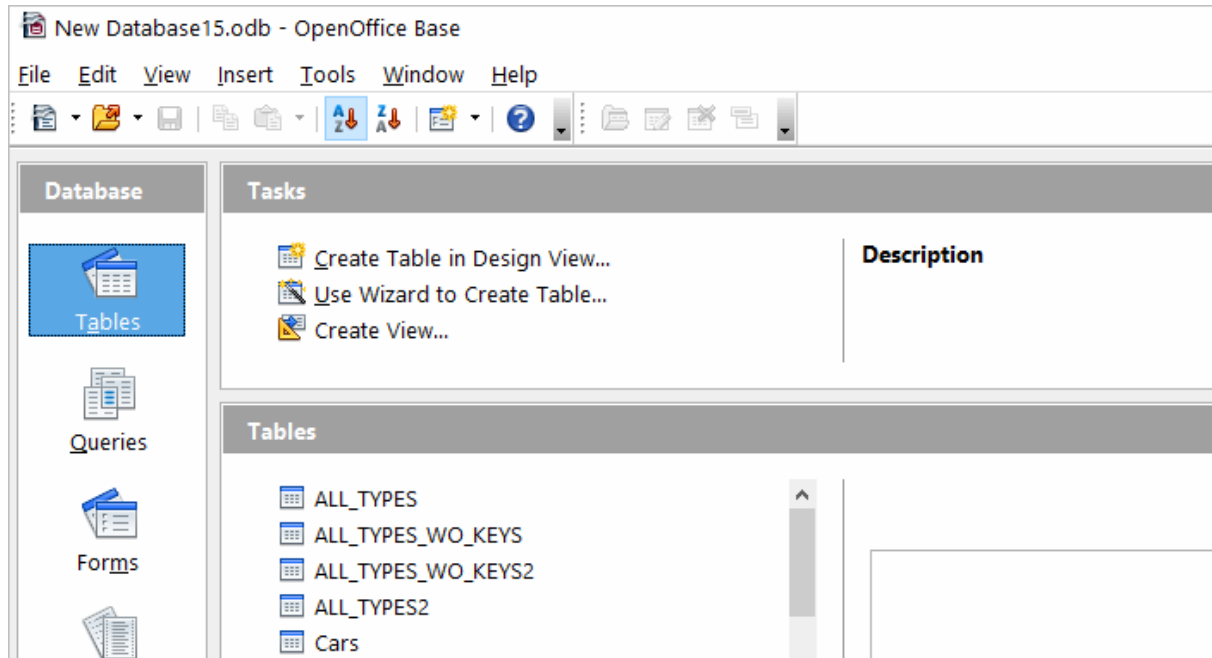
5. You can keep the default selection in this dialog box and click **Finish**.
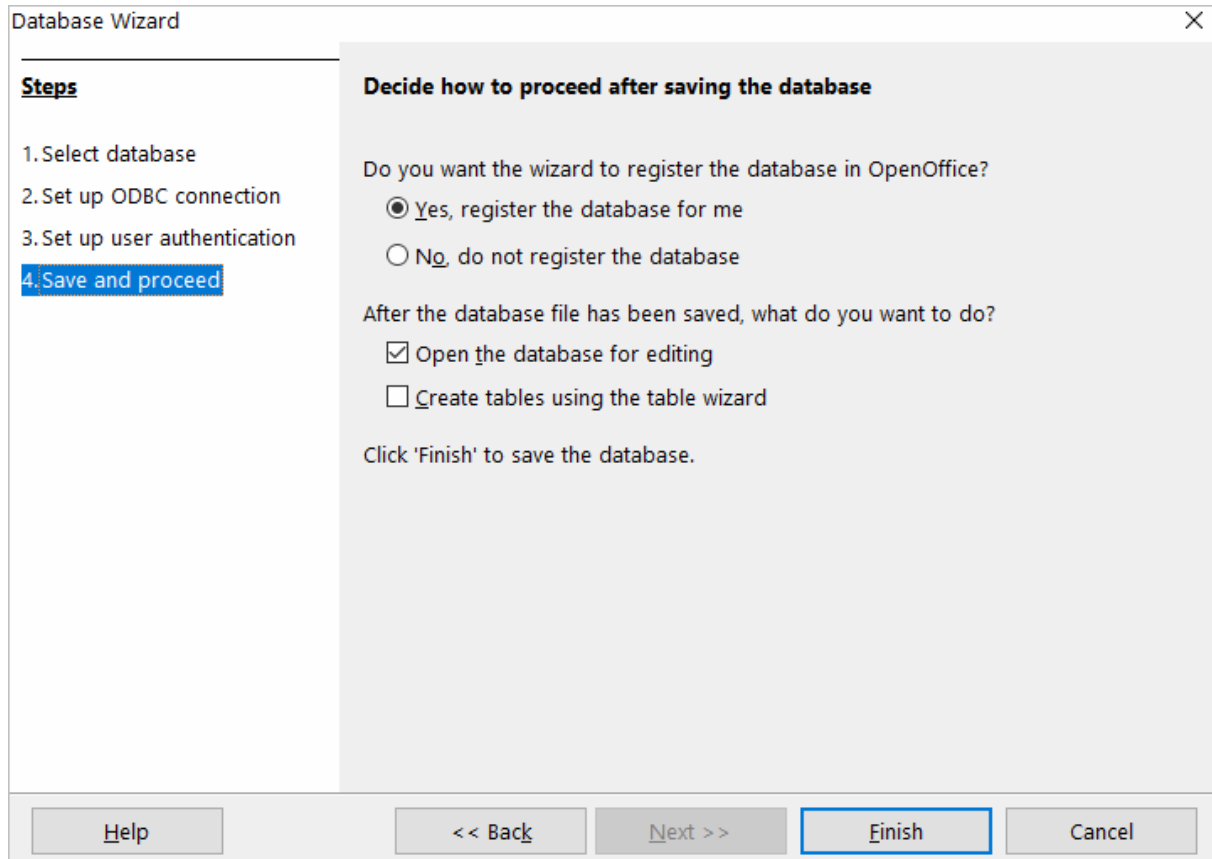
You will be prompted to give a name to your new database and select the directory where you want to store it.
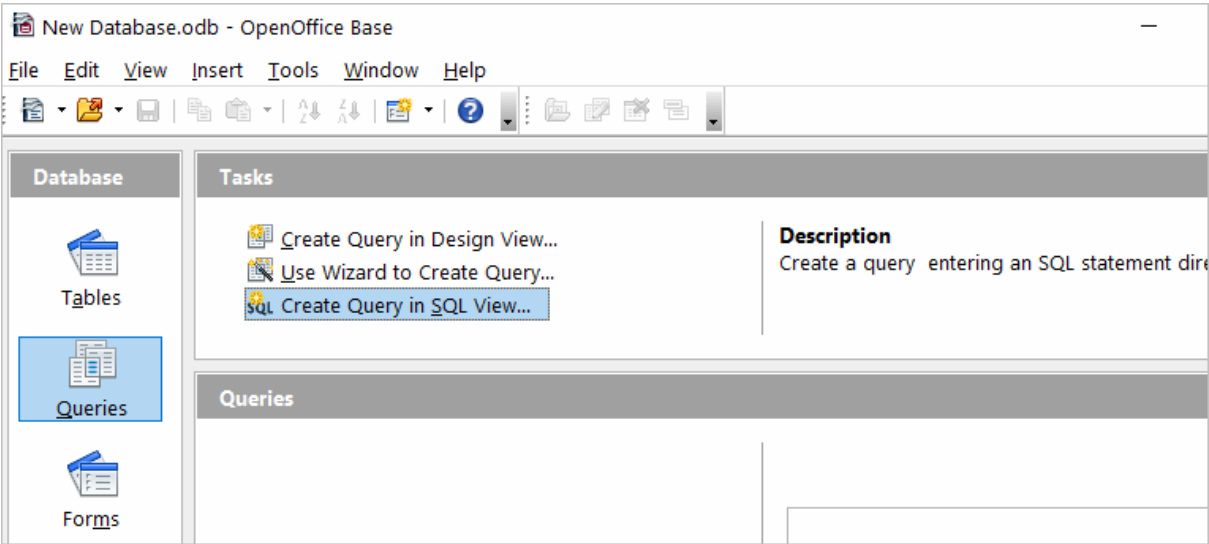
6. When the database opens, you will see the list of tables from your data source diplayed in OpenOffice or LibreOffice Base workspace. To view the data from a specific table, double-click the table name.
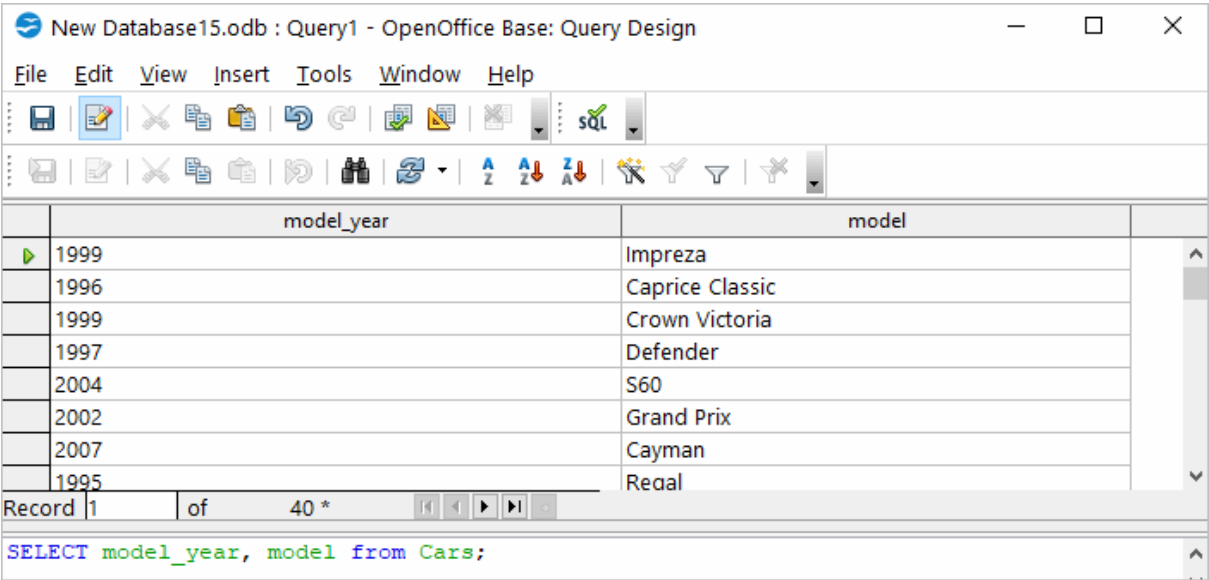
7. To create an SQL query, click **Queries** in the **Database** pane, then click **Create Query in SQL View…**

Enter your query in the query text box and click **Run Query (F5)**. The date will be fetched from the database and displayed in Open Office or LibreOffice, respectively.

4.9 Using in Oracle DBLink

Configuring Oracle Database Gateway for ODBC

This article explains how to configure Oracle Database Gateway for ODBC. If your data is stored in a non-Oracle database system or cloud application, and you need to access it from

an Oracle Database server, you can create a database link to an Oracle Database Gateway for ODBC. The gateway works with an ODBC driver to access non-Oracle systems or other, remote Oracle servers. Any ODBC-compatible data source can be accessed using the gateway and the appropriate ODBC driver. The driver must be installed on the same machine as the gateway. The non-Oracle system can run on the same machine as the Oracle server or on a different machine. The gateway can be installed on the machine running the non-Oracle system, the machine running the Oracle database or on a third machine as a standalone.

Configure the Initialization File

After installing the gateway and the ODBC driver for NexusDB, create an initialization file for your Oracle Database Gateway for ODBC. The sample file `initdg4odbc.ora` is stored in the `ORACLE_HOME\hs\admin` directory. To create an initialization file for the gateway, copy the sample initialization file and rename it. The name must be prefixed with init — for example, `initNexusDB.ora`. You need a separate initialization file for each ODBC data source. After creating the file, set the `HS_FDS_CONNECT_INFO` parameter to the system DSN that you created earlier, for example:

```
HS_FDS_CONNECT_INFO=NexusDB
```

Configure Oracle Net Listener

After configuring the gateway, you need to configure Oracle Net Listener to communicate with the Oracle database. Information about the gateway must be added to the `listener.ora` configuration file which is located in the `ORACLE_HOME\NETWORK\ADMIN\` directory. The following example is the address on which the Oracle Net Listener listens (`HOST` is the address of the machine on which the gateway is installed):

```
LISTENER =
    (DESCRIPTION_LIST =
        (DESCRIPTION =
            (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
        )
    )
```

Add an entry to the `listener.ora` file to start the gateway in response to connection requests. The SID of the gateway (`SID_NAME`) must be the same in `listener.ora` and `tnsnames.ora`. `ORACLE_HOME` is the Oracle home directory where the gateway resides. To apply the new settings, stop and restart the Oracle Net Listener service.

```
SID_LIST_LISTENER=
```

```
    (SID_LIST=
      (SID_DESC=
          (SID_NAME=NexusDB)
          (ORACLE_HOME=D:\ORACLE_HOME)
          (PROGRAM=dg4odbc)
      )
    )
```

Configure Oracle for Gateway Access

Add a connect descriptor for the gateway to the `tnsnames.ora file`, which is located in `ORACLE_HOME\NETWORK\ADMIN` directory. The `SID` must match the value specified in the `listener.ora` file.

```
NexusDB =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = tcp)(HOST = localhost)(PORT = 1521))
    (CONNECT_DATA =
      (SID = NexusDB)
    )
    (HS = OK)
  )
```

Create Database Links

To access an ODBC data source, you must create a database link using a database tool like SQL Plus or dbForge Studio for Oracle: connect to your database server and execute the `CREATE DATABASE LINK` statement, as follows:

```
CREATE DATABASE LINK dblink CONNECT TO "username"  IDENTIFIED BY "password"
```

`dblink` is the complete database link name. `tns_name_entry` is the Oracle Net connect descriptor specified in the `tnsnames.ora` file.

When you create the database link in dbForge Studio for Oracle, you can see your newly created link in Database Links on the left panel. After creating the database link, you can run a query against the ODBC data source using the following syntax:

```
SELECT * FROM table_name@"dblink_name"
```

See also

Configuring Oracle Database Gateway for ODBC

4.10   Using in PHP

Connecting to NexusDB from PHP using ODBC Driver

for NexusDB

PHP is one of the most popular programming languages for website development. ODBC drivers are connectors that make PHP development database agnostic — your software written in PHP will function with any vendor's database management system. You can use functions like odbc_exec() to prepare and execute SQL statements against any databases like MySQL, SQLite, PostgreSQL, etc.

PHP-based projects usually require a data storage, whether a traditional database or a cloud-based database. You can establish a connection to them using ODBC interface. With our ODBC drivers, you can access various data sources and retrieve tables and fields from a database.

Below is a sample PHP script for accessing NexusDB via ODBC. The script connects to NexusDB database and fetches all records from a table:

Step 1: Connect to ODBC data source

The *odbc_connect()* function is used to connect to an ODBC data source. Note that the function takes three mandatory parameters: the data source name, username and password. If your database is not password-protected or doesn't require a username, leave these parameters empty. In the following example, a connection is established using the *odbc_connect()* function in PHP.

```php
<?php
    $user = "myusername";
    $password = "mypassword";
    $ODBCConnection = odbc_connect("DRIVER={Devart ODBC Driver for NexusDB};
```

Step 2: Execute an SQL statement

If connection is successful, the *odbc_exec()* function is used to execute a SELECT statement against the *dept* table in the *autotest* database.

```php
$SQLQuery = "SELECT * FROM autotest.dept";
    $RecordSet = odbc_exec($ODBCConnection, $SQLQuery);
```

Step 3: Print the result set

The *odbc_fetch_row()* function is used to return records from the result set. While *odbc_fetch_row()* returns rows, the *odbc_result_set()* function prints a set of result in HTML table. After all rows from the result set have been printed, the *odbc_close()* function closes the connection.

```
    $result = odbc_result_all($RecordSet, "border=1");
    odbc_close($ODBCConnection);
?>
```

You can modify this script by specifying general settings for each Devart ODBC driver to use any of them with your PHP projects.

4.11 Using in Power BI

Importing NexusDB Data into Power BI Through an ODBC Connection

Power BI is a popular business intelligence solution that is comprised of services, apps, and connectors that allow you to pull raw data from various sources and create meaningful reports. To connect Power BI to a data source such as NexusDB, you can use a corresponding ODBC driver.

This tutorial explores how to connect to NexusDB and import data into Power BI Desktop using an ODBC driver. It is assumed that you have already installed and configured a DSN for ODBC driver for NexusDB.

1. Run Power BI Desktop and click **Get Data**.

2. Select the **Other** category in the **Get Data** dialog box, then select **ODBC**. Click **Connect** to confirm the choice.

3. In the **From ODBC** dialog box, expand the **Data Source Name (DSN)** drop-down list and select the previously configured DSN for NexusDB

4. If you would like to enter a SQL statement to narrow down the returned results, click the **Advanced options** arrow, which expands the dialog box, and type or paste your SQL statement.

5. Click **OK**. If your data source is password-protected, Power BI will prompt you for user credentials. Type your **Username** and **Password** in the respective fields and click.

6. Now you should see the data structures in your data source. You can preview the contents of the database objects by clicking on them.

7. To load the NexusDB data into Power BI for analysis, select the needed table and click **Load**.

4.12   Using in Python

Installing the ODBC Driver for NexusDB

One of the most convenient methods to connect to an external database or access cloud data from Python is via ODBC. Devart has developed a range of ODBC Drivers for Python to work with databases and cloud services.

If you don't have Python installed on your machine, go to the Python official website, download the appropriate installer and run it. You will also need to install the **pyodbc** module — the easiest way to do that is by using the *pip install pyodbc* command in the Python interactive mode. Next, you need to download the ODBC Driver for NexusDB. To use the ODBC driver as a translation layer between the application and the database, you need to configure it by following the installation instructions.

Connecting to NexusDB from Python using ODBC Driver for NexusDB

Here's an example to show you how to connect to NexusDB via Devart ODBC Driver in Python. First we import the pyodbc module, then create a connection to the database, insert a new row and read the contents of the EMP table while printing each row to the Python interactive console. To execute the script, you can type the code directly in the interactive console or add the code to a file with the .py extension and run the file from the command prompt.

Step 1: Connect

```
import pyodbc
cnxn = pyodbc.connect('DRIVER={Devart ODBC Driver for NexusDB};Server=myserv
```

Step 2: Insert a row

Here's a simple example of how to execute an *insert* statement to test the connection to the database. The script inserts a new record to the EMP table.

```
cursor = cnxn.cursor()
cursor.execute("INSERT INTO EMP (EMPNO, ENAME, JOB, MGR) VALUES (535, 'Scott
```

Step 3: Execute query

The *cursor.execute()* function retrieves rows from the *select* query on a dataset. The

cursor.fetchone() function iterates over the result set returned by *cursor.execute()* while the *print()* function prints out all records from the table to the console.

```
cursor = cnxn.cursor()
cursor.execute("SELECT * FROM EMP")
row = cursor.fetchone()
while row:
 print (row)
 row = cursor.fetchone()
cursor.close()
cnxn.close()
```

4.13   Using in QlikView

Connecting to NexusDB from QlikView using ODBC Driver for NexusDB

This tutorial describes how to connect and configure QlikView to retrieve data from NexusDB for further analysis. QlikView is a data visualization tool that connects and pulls data from different popular databases like MySQL, MongoDB, Oracle, SQL Server, Postgres, etc. to present it in a single view. The business intelligence platform identifies relationships in your data and discovers patterns and opportunities to support your decision making.

QlikView supports the ODBC connectivity interface for communication with external data sources. An ODBC data source must be configured for the database you want to access. You can create an ODBC connection using a DSN during the ODBC driver installation or later.

To connect to an ODBC data source from QlikView using our driver for NexusDB, perform the steps below:

1. Open the QlikView client application and click **File > New**. Close the **Getting Started** wizard and open **File > Edit Script (CTRL+E)**.
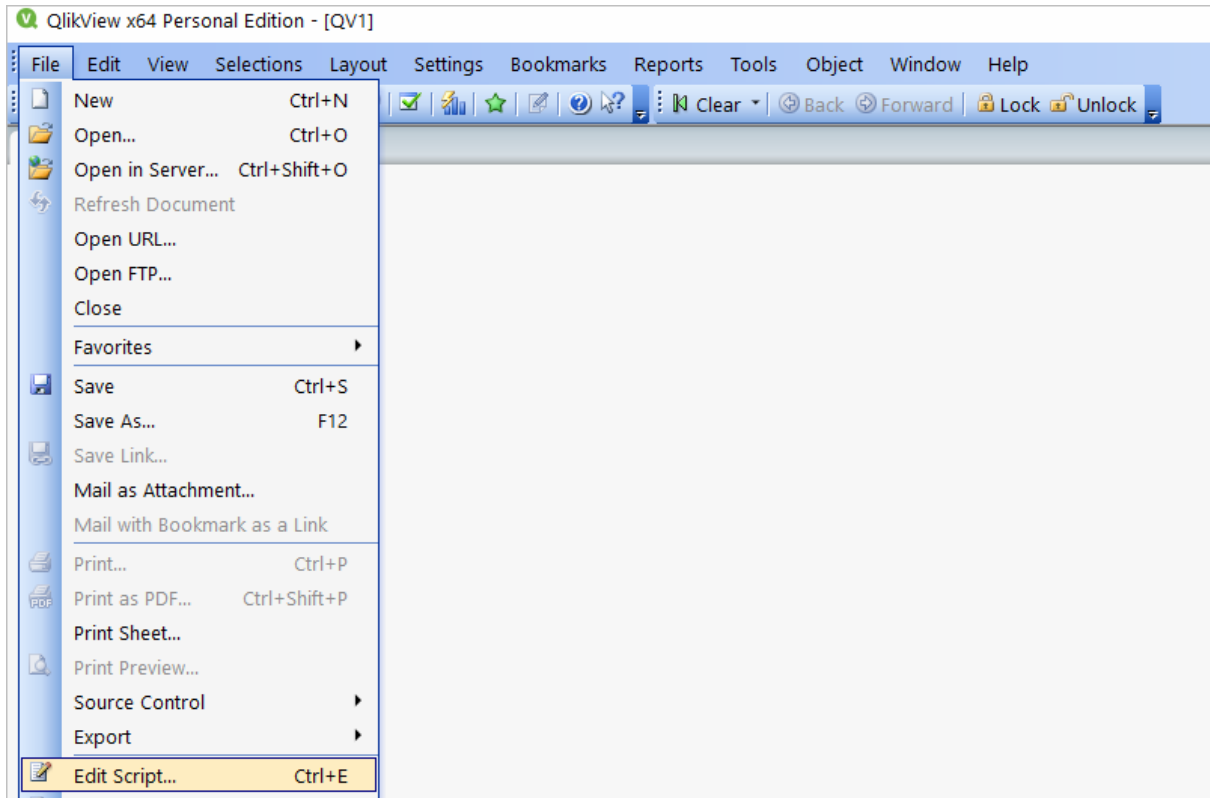
2. In the **Data** tab, choose **ODBC** from the **Database** drop-down and click **Connect**. Select the **Data Source** you created earlier, type in the **User ID** and **Password** if your database is password-protected. You can test the connection by choosing **Test Connection**. The **Connection Test succeeded** message should appear. Click **OK** to connect to your data source.
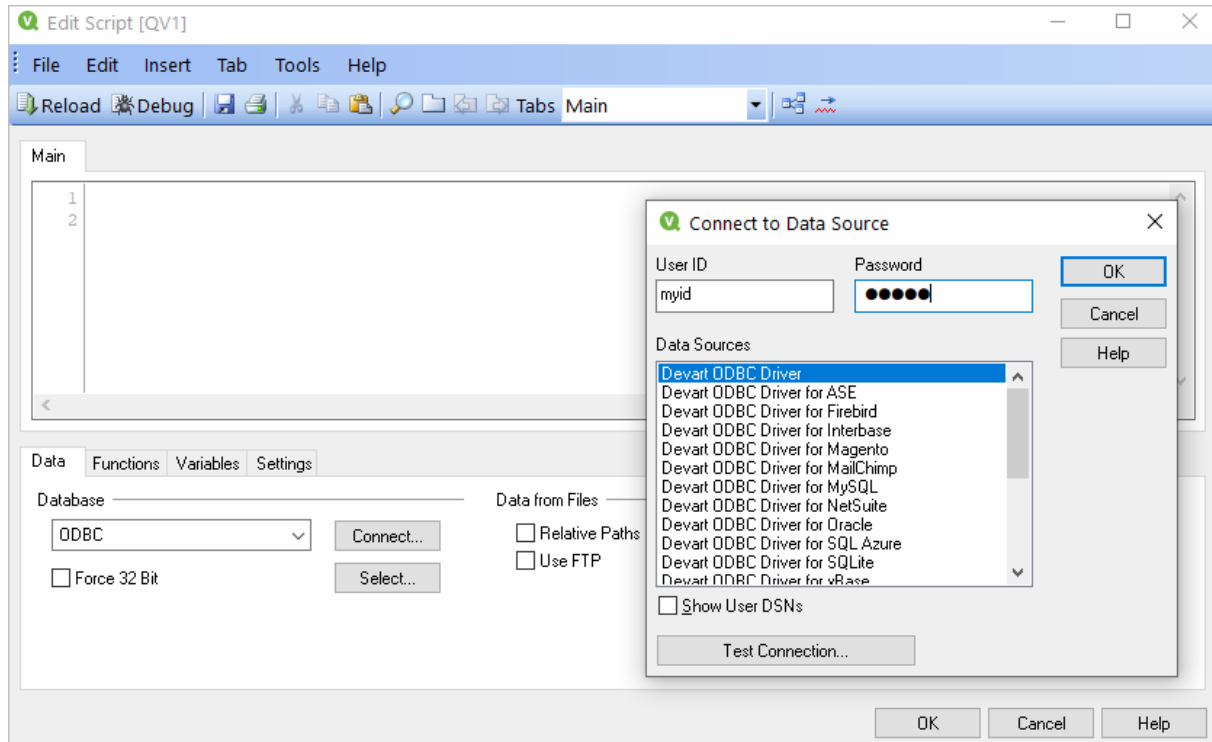
3. To retrieve the data from your data source, you can enter an SQL query and press **F5**. You will be suggested to choose fields to be displayed.
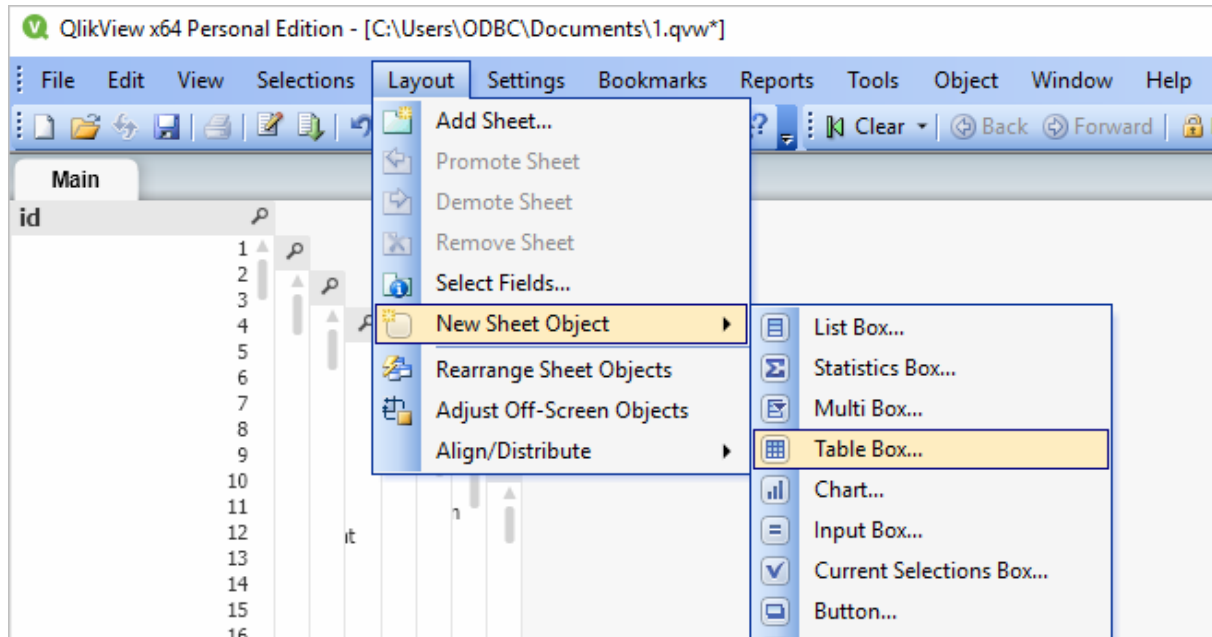
Request Support ODBC Forum Provide Feedback
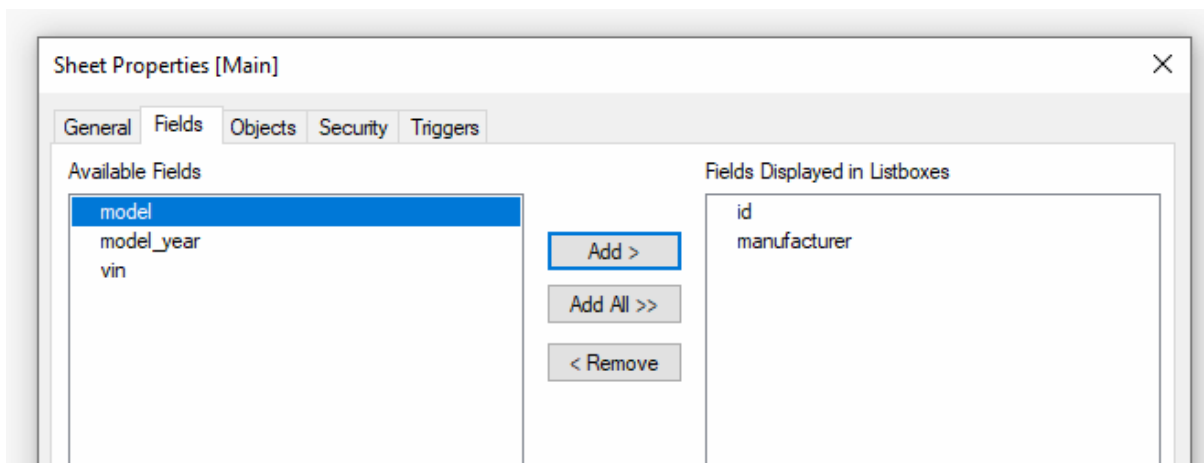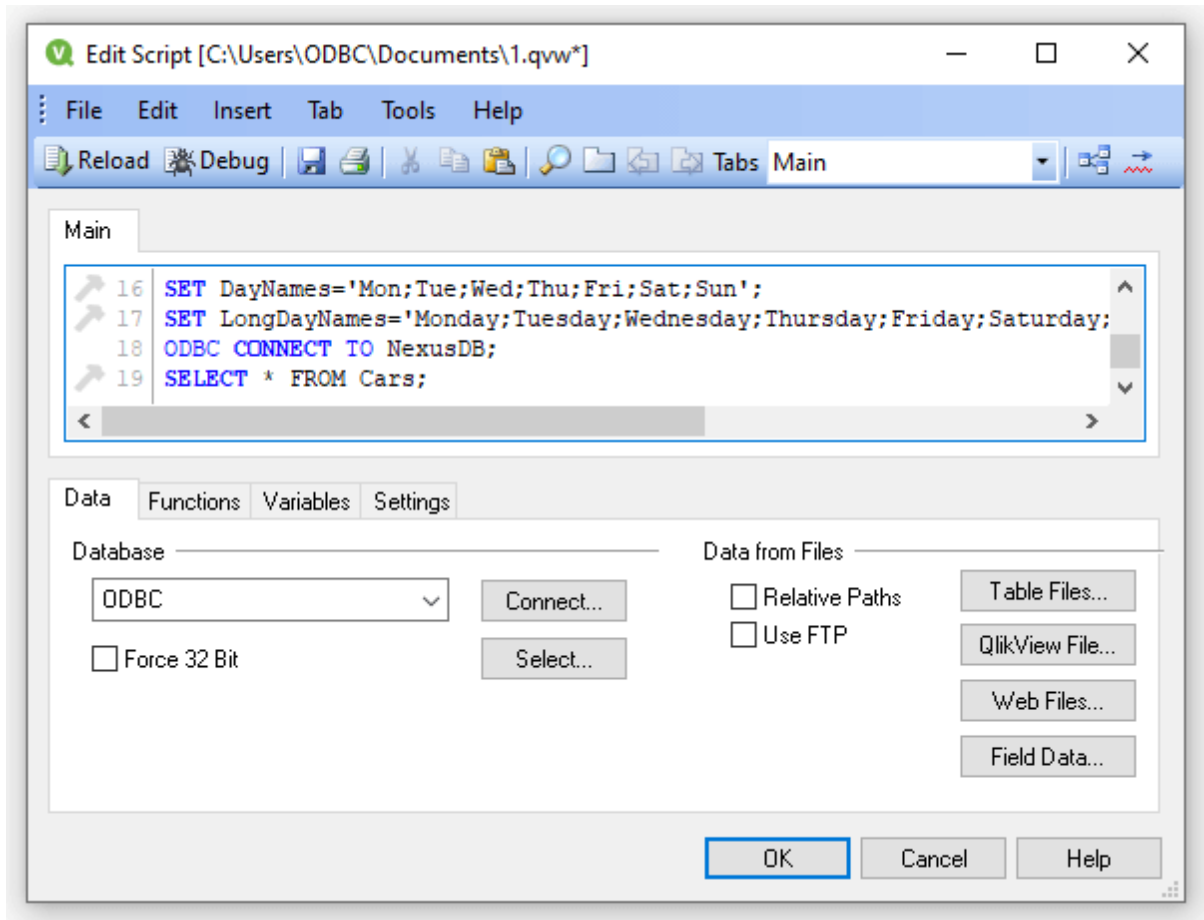
4. Alternatively, you can click **Select**, and QlikView will show you the database structure window where you can compose a SELECT statement for the data to be fetched. You can choose a different database from the database drop-down list. Select the necessary tables

and fields. You can retrieve date from multiple tables and fields by selecting them and clicking **Add**. When you are ready with your SELECT statement, click **OK**. You will get back to the main script editor with your SQL statement. Press **F5** to execute the script and select the fields to be displayed in QlikView.
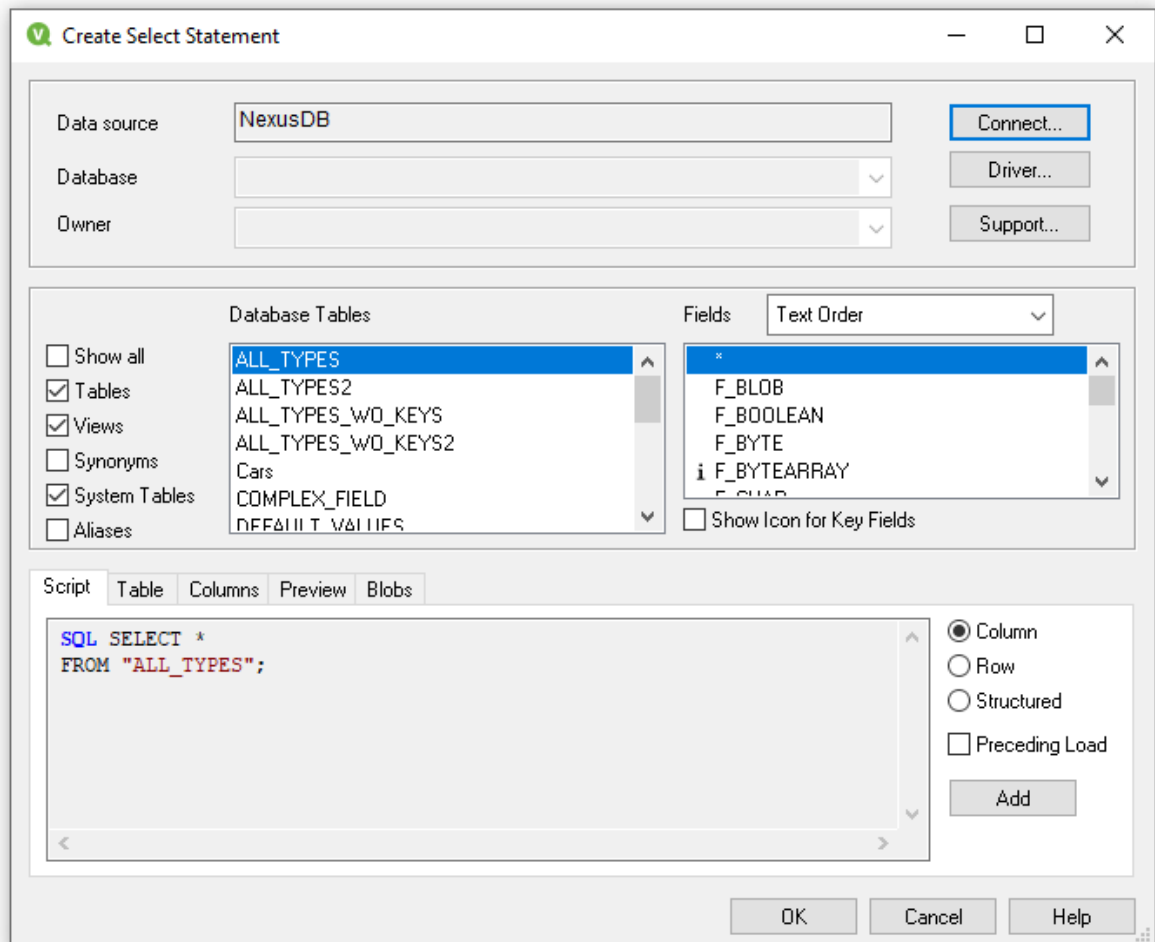
5. Once the data has been fetched, you can choose a table layout to present the data in a table. Choose **Layout > New Sheet Object > Table Box**. Select the fields to be added to the tablebox and click **OK**.

4.14   Using in SQL Server Management Studio

This section describes how to establish and troubleshoot a connection to NexusDB from SQL Server Management Studio using ODBC Driver for NexusDB.

- Creating a Linked Server

- [Troubleshooting in SSMS](#)

4.14.1 Creating a Linked Server

Requirements

In order to avoid incorrect integration with MS SSMS, the working environment must meet the following conditions:

- The data source must be a configured system DSN. Refer to the [Driver Configuration](#) article to learn how to configure a System DSN.

- The driver, studio, and SQL Server must be of the same bitness. For example, if you are using 64-bit SQL Server Management Studio on 64-bit Windows platform, then configure the 64-bit version of the driver using ODBC Administrator launched from %windir% \system32\odbcad32.exe. Otherwise, configure the driver using the 32-bit version of ODBC Administrator - launch it from %windir%\SysWOW64\odbcad32.exe.

- ODBC Driver for NexusDB and SQL Server must be installed on the same computer.

- .NET Framework 4.5 must be installed on the computer.

Connecting to NexusDB from SQL Server Management Studio using ODBC Driver for NexusDB

You can use the Microsoft SQL Server Management Studio to connect your NexusDB data to an SQL Server instance. Linked Server is a tool of MS SQL Server that allows to execute distributed queries to refer tables stored on non-SQL Server datbase in a single query. With linked servers, you can execute commands against different data sources such as NexusDB and merge them with your SQL Server database. You can create a linked server with one of these methods: by using the options in the Object Explorer or by executing stored procedures.

Below are major advantages of using SQL Server Linked Servers to connect to NexusDB:

1. The ability to connect other database instances on the same or remote server.

2. The ability to run distributed queries on heterogeneous data sources across the organization.

3. The ability to work with diverse data sources in the same way.

## How to configure a SQL Server Linked Server to connect to NexusDB

You can follow the steps to create a linked server for NexusDB in SQL Server Management Studio by using Object Explorer:

1. Start your Management Studio and choose your SQL Server instance.

2. In the **Object Explorer pane**, expand the **Server Objects**, right-click on **Linked Servers** and then click on **New Linked Server**.

3. Configure your linked server in the dialog box:

   - Give a name for your server in the **Linked server** field.

   - Under **Server type**, select **Other data source** .

   - Choose **Microsoft OLE DB Provider for ODBC Drivers** in the **Provider** drop-down list.

   - In the **Data source** field, enter the name of your DSN, e.g. Devart ODBC Driver for NexusDB. Alternatively, you can input the ODBC Driver connection string in the **Provider** field.

The linked server will appear under the Linked Servers in the Object Explorer Pane. You can now issue distributed queries and access NexusDB databases through SQL Server.
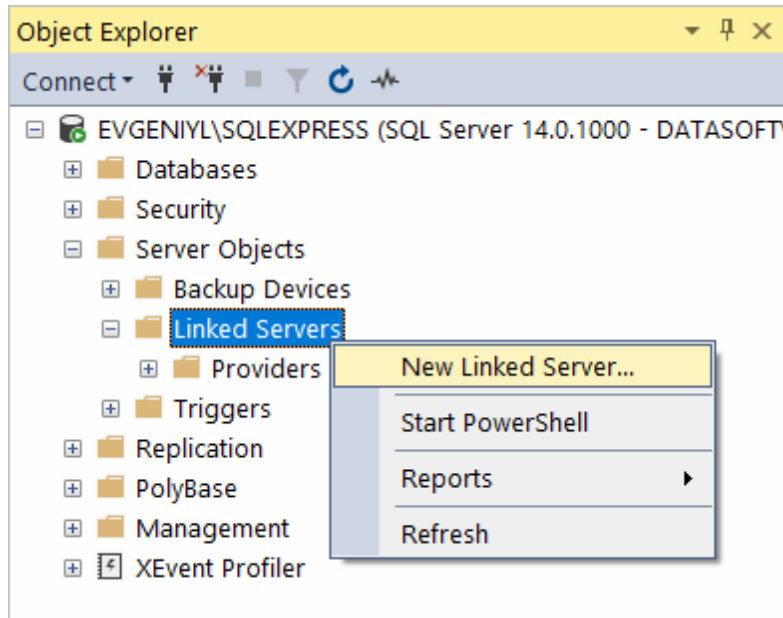
Retrieving Data From NexusDB

Ensure the **Allow inprocess option** of MSDASQL OLE DB Provider for ODBC Drivers is enabled. For this, find the **MSDASQL** provider in the list of Linked Servers and double-click on it
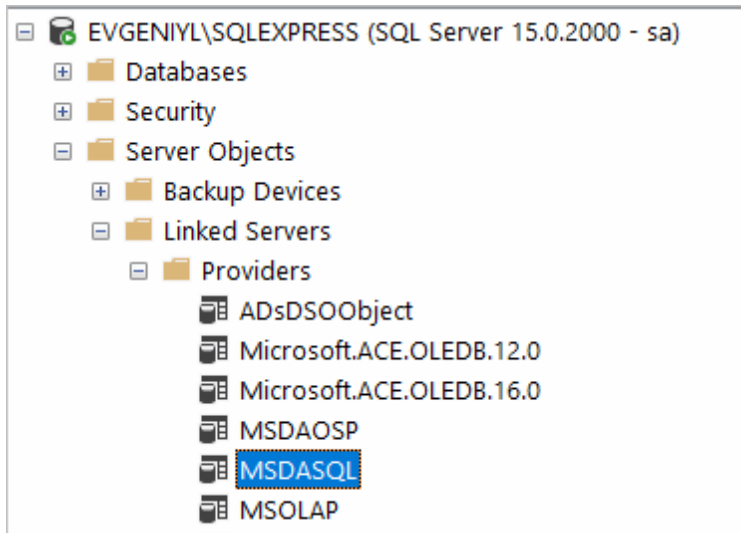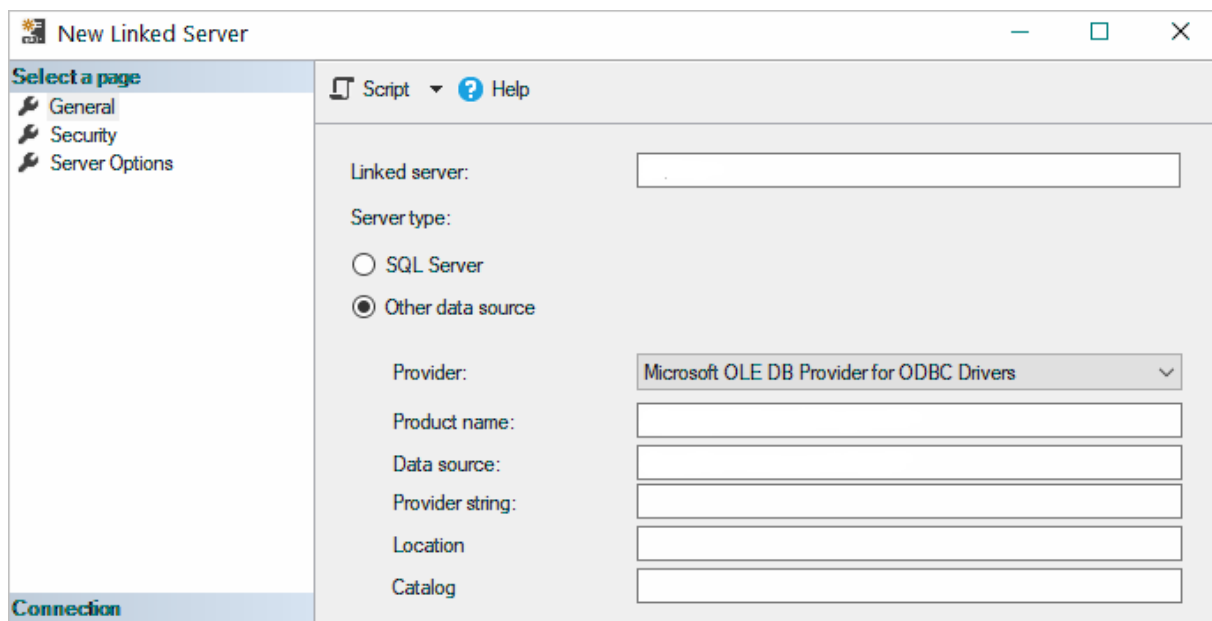
In the appeared **Provider Options** window, enable the **Allow inprocess** checkbox:
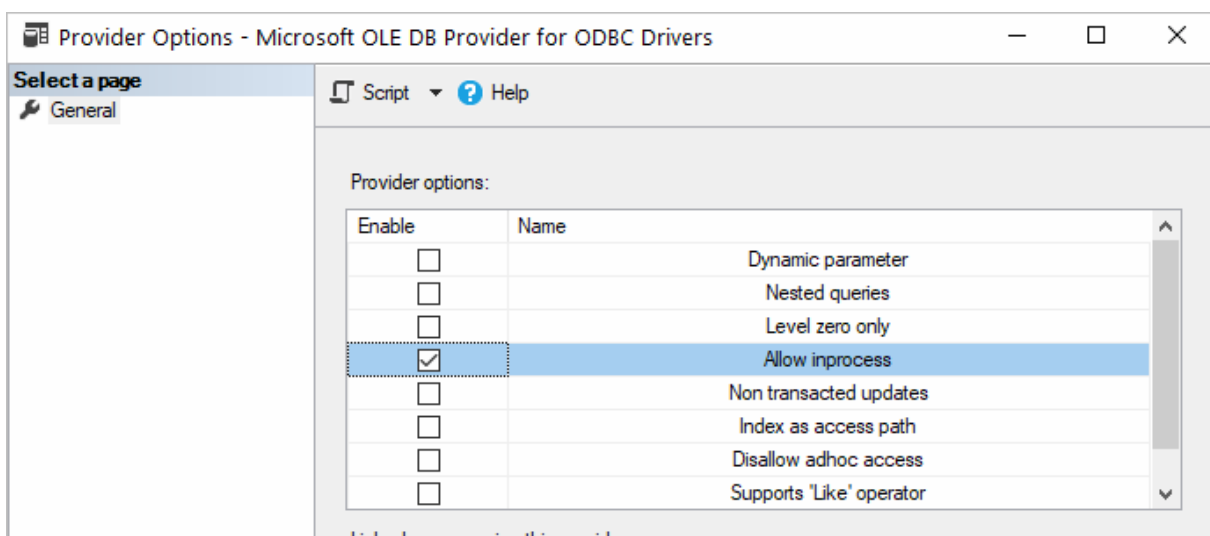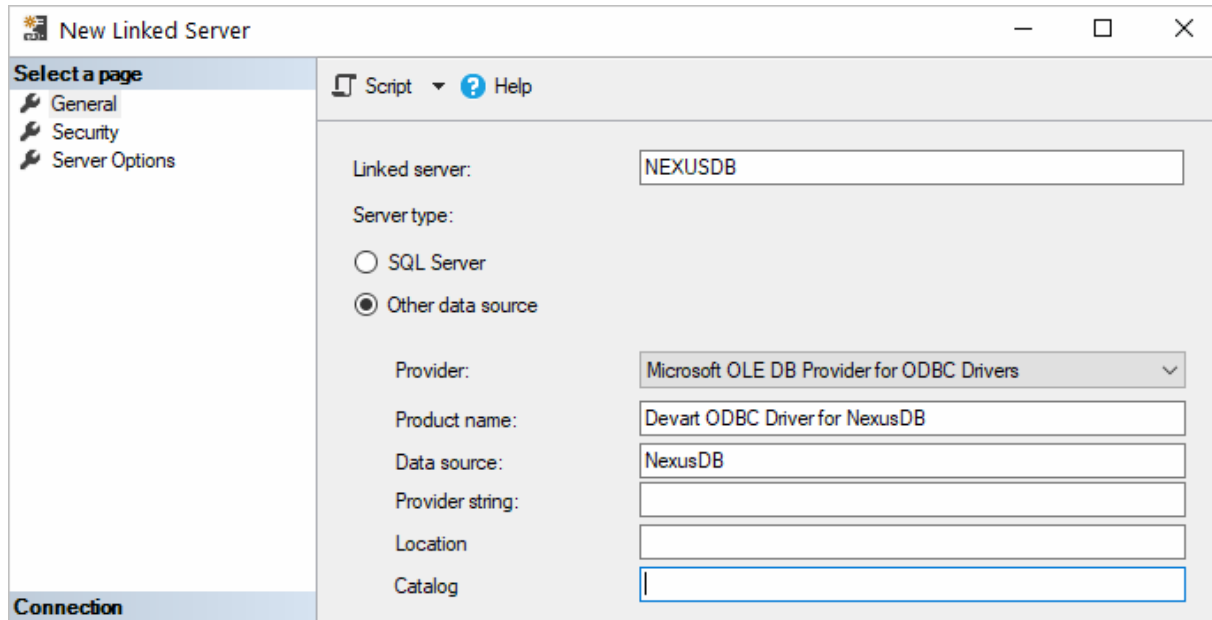

Create a new **Linked Server**

Make sure to select **Microsoft OLE DB Provider for ODBC Drivers**:

Now you need to input the Linked Server name, e.g. NEXUSDB. In the Product Name and Data Source fields you need to indicate the System DSN that you've previously created - more info on System DSN setup can be found here.

The NexusDB tables are already available to be fetched. To query the linked server, click **New Query** in the toolbar:
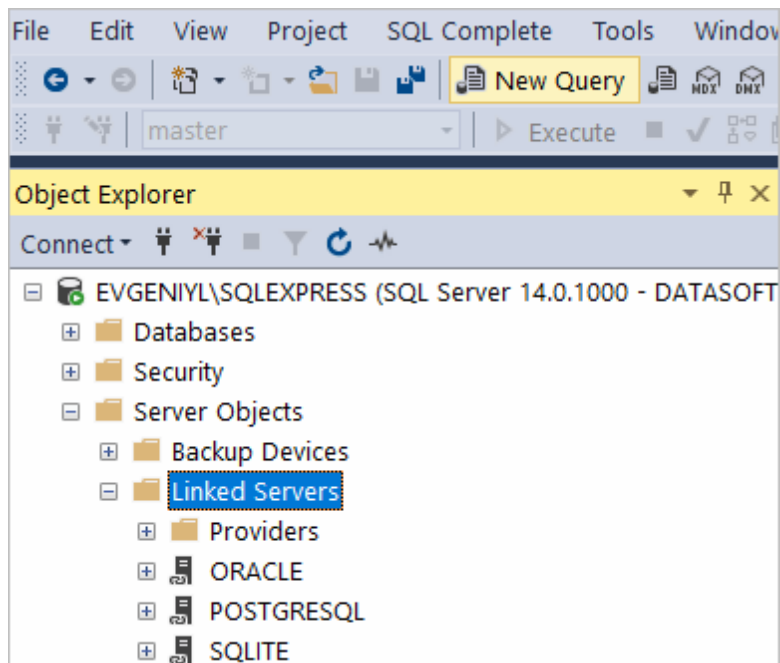
Enter your SQL query in the editor window and click **Execute** to run the query:
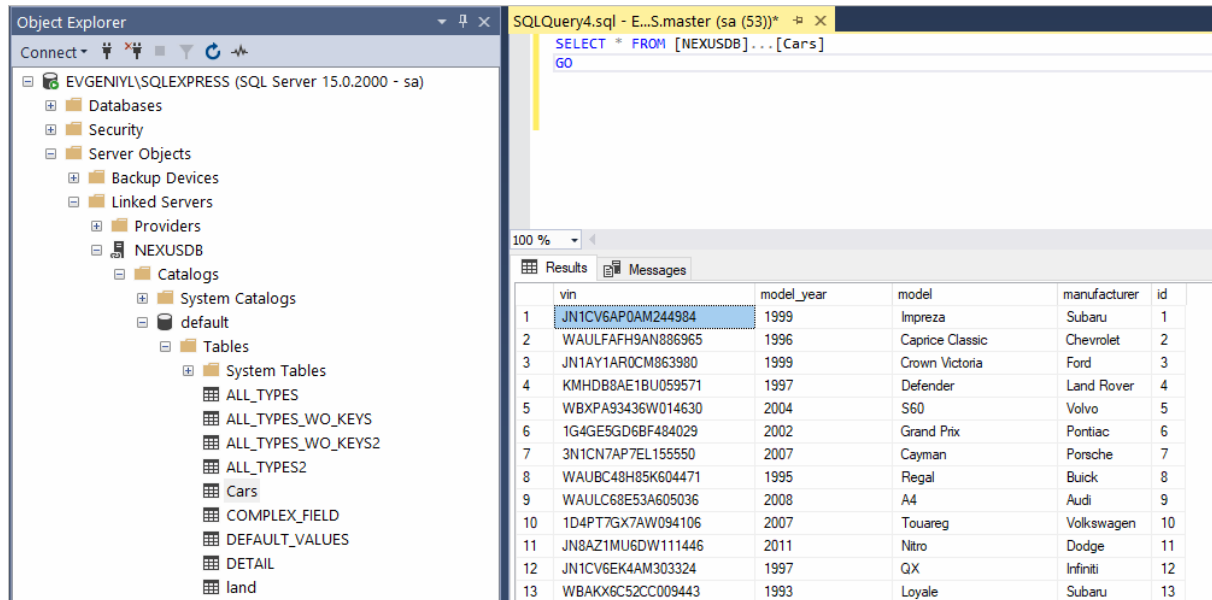
As a result, you can see the contents of the selected table retrieved directly from the NexusDB account you are connected to.

See also
- Troubleshooting SSMS

4.14.2 Troubleshooting in SSMS

When creating a linked server in SSMS, most errors happen due to security issues with DCOM class MSDAINITIALIZE. We need to alter the DCOM Class MSDAINITIALIZE security settings to make it work.

Following are the steps:

1. Open Component Services (Start>Run>DCOMCNFG)

2. Expand Component Services>Computers>My Computer>DCOM Config

3. From the list of DCOM components on the right side, select **MSDAINITIALIZE** and go to its properties:
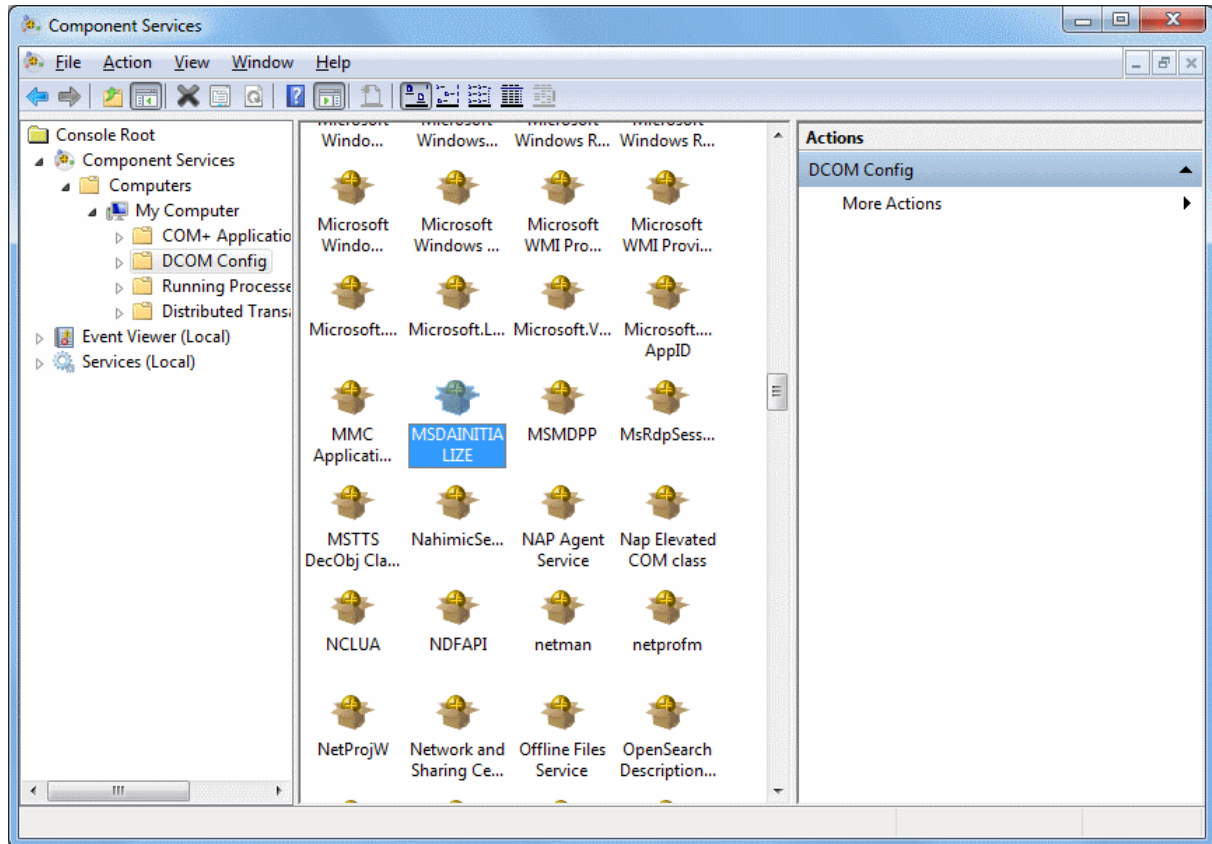
4. Go to the Security Tab, Choose 'Customize' and click on the 'Edit' Button:
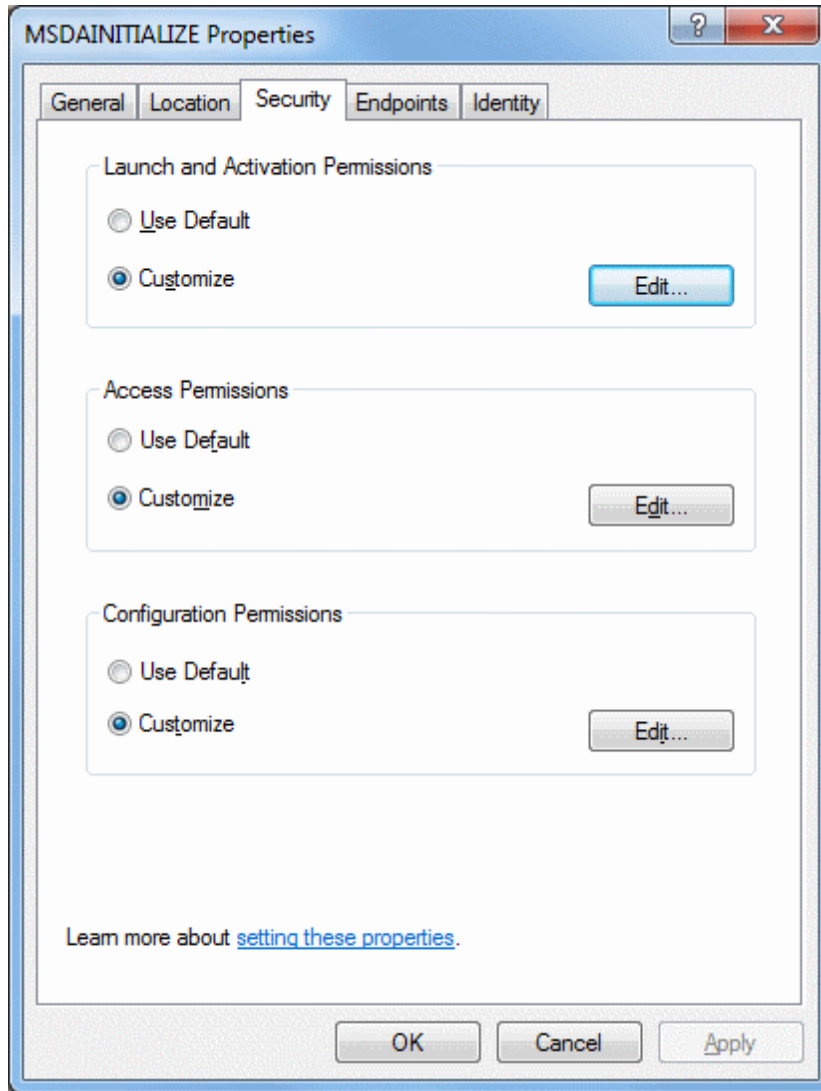
5. Add the Domain User who is accessing the linked server and 'Allow' all the permissions available (Local Launch, Remote Launch, Local Activation, Remote Activation). If you are connecting to SQL server using SQL account, you need to provide this permission to the account under which the SQL service is running.

6. Do this for all the 3 sections in the above screenshot.

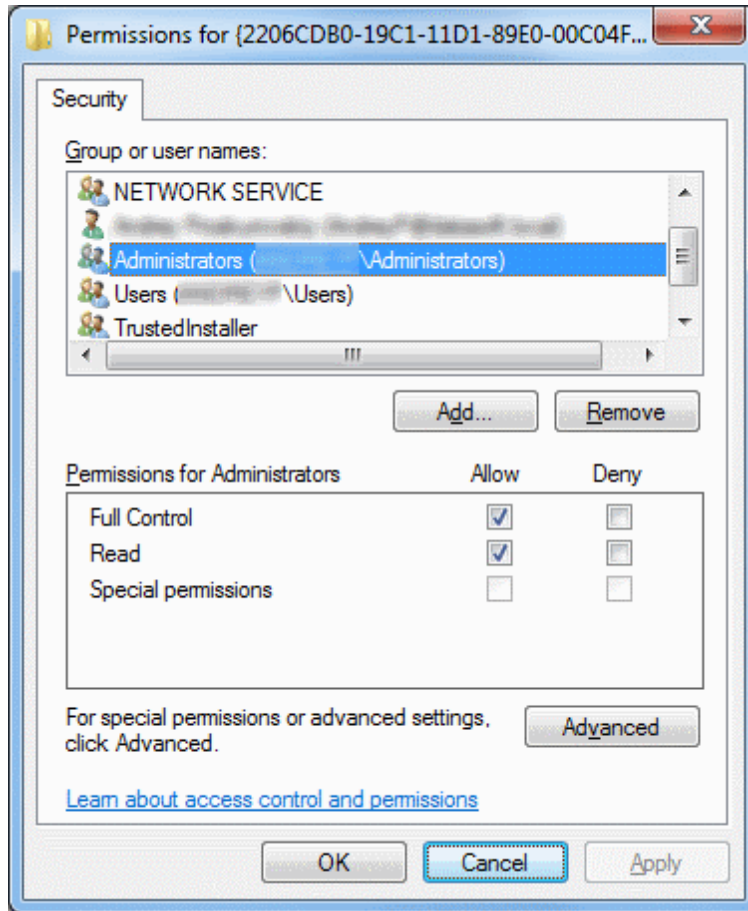To edit the Security settings, we followed the below steps:

1. Start > Run > Regedit

2. Find the Key: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\AppID\{2206CDB0-19C1-11D1-89E0-00C04FD7A829}

3. Right Click>Permissions>Advanced>Owner Tab:
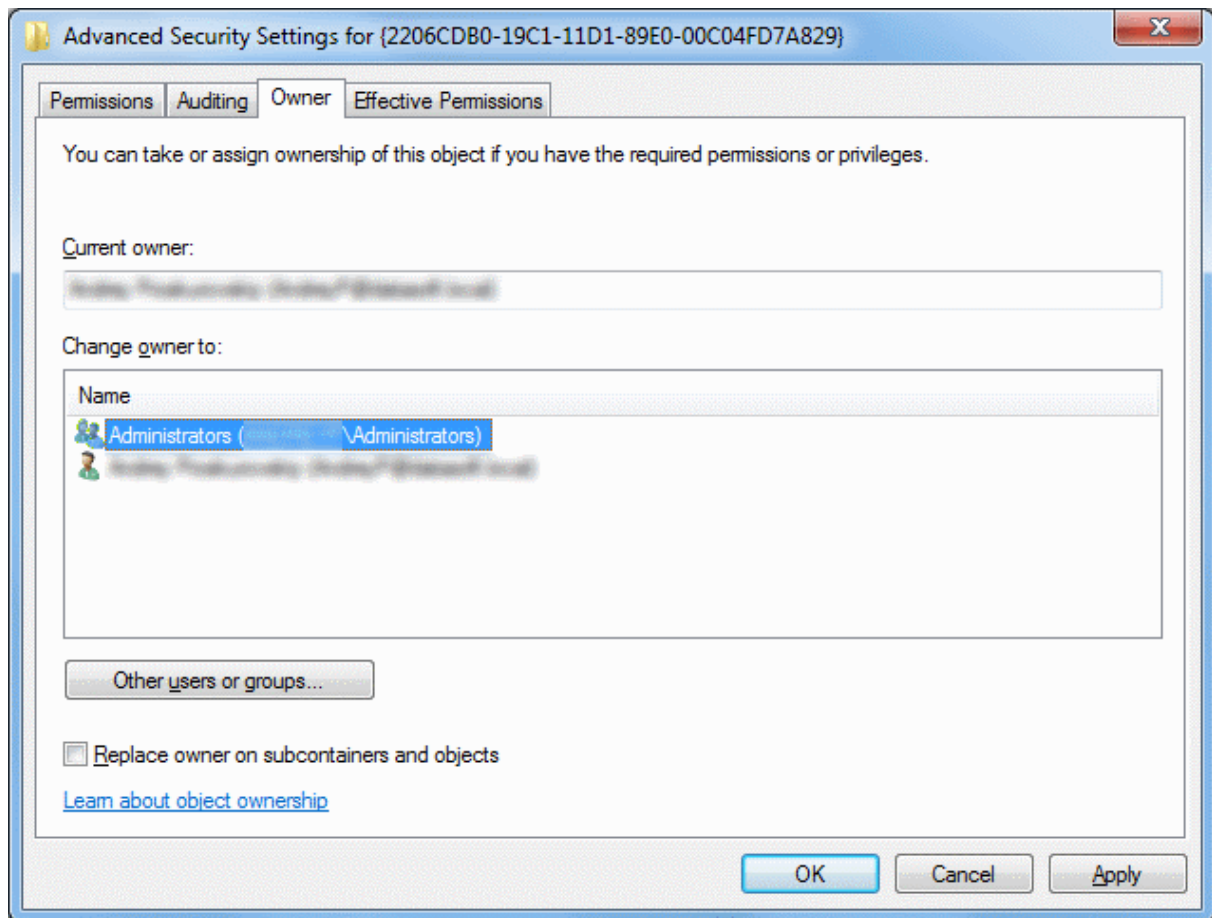
4. Change the owner to Administrators.

5. Now, grant 'Full Control' to Administrators:

After this you should be able to edit MSDAINITIALIZE security settings.

See also

- Error message when you try to create an instance of an OLE DB provider in SQL Server: "Cannot create an instance of OLE DB provider"

4.15   Using in SSIS

SQL Server Integration Services (SSIS) is a component of SQL Server that is designed to perform various data migration tasks. When using Devart ODBC Driver for NexusDB as a translation layer between the data source and SSIS, the driver and SSIS communicate via Microsoft ODBC version 3.x.

Note that when you extract data from an ODBC data source using the `SQLExecDirect` function,

an issue may occur: SSIS expects the ODBC 2.x behavior, while the ODBC driver continues to fetch data from a data source via ODBC version 3.x. To prevent any issues when using SQLExecDirect, you should force the ODBC 2.x behavior in the DSN settings: open the `Advanced Settings` tab and select `Ver 2.x` from the `ODBC Behavior` dropdown.
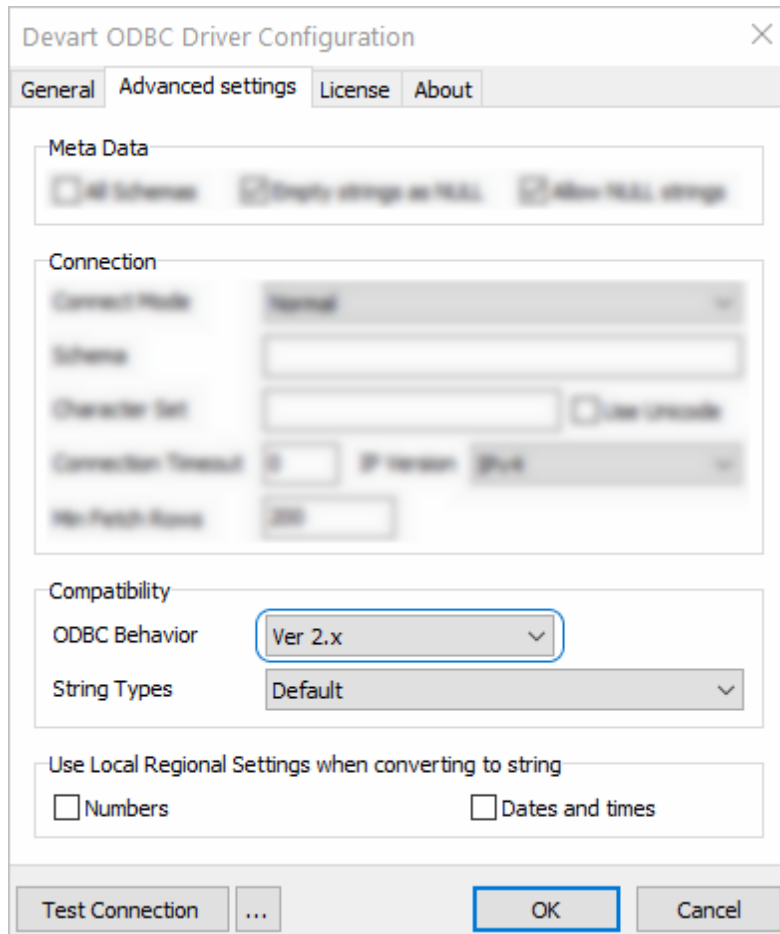
4.16   Using in Tableau

This section describes how to establish and troubleshoot a connection to NexusDB from Tableau using ODBC Driver for NexusDB.

- Using in Tableau

- Troubleshooting in Tableau

4.16.1 Using in Tableau

Importing NexusDB Data Into Tableau Through an ODBC Connection

This article explains to establish and ODBC connection to NexusDB from Tableau Desktop. Tableau is a data visualization tool that allows you to pull in raw data, perform analysis on it, and create meaningful reports to get actionable insights. With Tableau Desktop and our suite of ODBC drivers, you can connect to various relational and non-relational databases, both cloud and on-premise.

1. Run Tableau Desktop.

2. On the start page, select **More...** in the **Connect** pane.

3. Choose **Other Databases (ODBC)**.

4. Expand the **DSN** drop-down list and select the DSN that you have created and configured for NexusDB. Alternatively, if you have not created a DSN, you can choose the **Driver** option and select Devart ODBC Driver for NexusDB from the drop-down.

5. Click **Connect**.

6. After a successful connection, click **Sign in**.

7. Select the needed database and schema in NexusDB.

8. You should see the list of all tables you have access to in the connected data source.

9. Drag-and-drop the table name to the area where it says **Drag tables here** to retrieve the data, or click **New Custom SQL** to write a query that will select only specific data from the table.

10. Hit **Update Now** to retrieve and display the data.

4.16.2 Troubleshooting in Tableau

Troubleshooting ODBC Connection in Tableau

The default Tableau settings limit the number of rows to be retrieved through an ODBC connection to 1,000. To overcome this limitation, create a Tableau Datasource Customization (.tdc) file in '*Users\[your name]\Documents\My Tableau Repository\Datasources*' — for example, *devart-nexusdb.tdc*, and add the following capabilities to the file:

```
<?xml version='1.0' encoding='utf-8' ?>
<connection-customization class='genericodbc' enabled='true' version='1.0'>
<vendor name='nexusdb' />
```

```
<driver name='Devart ODBC Driver for NexusDB' />
    <customizations>
            <customization name='CAP_QUERY_TOPSTYLE_ROWNUM' value='no' />
            <customization name='CAP_QUERY_TOP_N' value='no' />
            <customization name='CAP_QUERY_TOPSTYLE_LIMIT' value='no' />
            <customization name='CAP_QUERY_TOPSTYLE_TOP' value='yes' />
            <customization name='CAP_SELECT_TOP_INTO' value='no' />
    </customizations>
</connection-customization>
```