Table of Contents

1 What's New

New features in ODBC Driver for Dynamics 365 3.3

- Added support for macOS ARM (Apple Silicon M1 and M2)
- Improved compatibility with 4D in macOS

New features in ODBC Driver for Dynamics 365 3.2

- Added support for SQL_ATTR_MAX_ROWS attribute
- Improved compatibility with Visual Basic in Visual Studio
- Improved compatibility with Linked Server in SQL Server
- Improved compatibility with Alteryx

New features in ODBC Driver for Dynamics 365 3.1

- Added support for macOS 13 Ventura
- Added support for custom ClientId and ClientSecrect in connection string parameters
- Improved compatibility with Tableau Prep Builder
- Improved compatibility with Crystal Reports

New features in ODBC Driver for Dynamics 365 3.0

- macOS is supported
- Linux is supported
- Improved compatibility with Linked Server in MSSMS

New features in ODBC Driver for Dynamics 365 2.2

- Added support for Windows 11
- Improved compatibility with FICO Mosel
- Improved compatibility with FileMaker
- Improved support for an ODBC installer on Windows 2000

New features in ODBC Driver for Dynamics 365 2.1

- MSI installer for deploying through GPO is added
- The driver was renamed to ODBC Driver for Dynamics 365

New features in ODBC Driver for Dynamics 365 2.0

- OAuth authorization is supported

New features in ODBC Driver for Dynamics 365 1.7

- The ReturnForeignKeys connection option to significantly improve performance is added
- The "associate" and "disassociate" stored procedures are added
- Compatibility with Microsoft Power BI Desktop is improved
- Compatibility with Microsoft Excel is improved
- Compatibility with Visual Studio is improved

New features in ODBC Driver for Dynamics 365 1.6

- Performance of obtaining metadata is improved
- Support for connection pooling is improved
- Now ODBC driver activation does not require administrator privileges

New features in ODBC Driver for Dynamics 365 1.6

- Possibility to force the ODBC 2.x behavior is added

New features in ODBC Driver for Dynamics 365 1.5

- Compatibility with Dynamics CRM after August 2018 update is improved

New features in ODBC Driver for Dynamics 365 1.4

- Possibility to return String Types as Ansi or Unicode is added
- Compatibility with MS Access is improved
- Compatibility with Tableau is improved
- Compatibility with Omnis Studio is improved

- Compatibility with Power Pivot is improved
- Compatibility with DBeaver is improved

New features in ODBC Driver for Dynamics 365 1.3

- Connection Timeout option is added
- Query Timeout option is added

New features in ODBC Driver for Dynamics 365 1.2

- Compatibility with SAS JMP is improved
- Compatibility with MS Power Query is improved
- OUTER JOIN macros in SQL queries are supported
- DateTime macros in SQL queries are supported
- Scalar function macros in SQL queries are supported

New features in ODBC Driver for Dynamics 365 1.1

- Compatibility with MS Visual Studio
- Compatibility with MS FoxPro is improved
- Compatibility with MapInfo is improved
- Compatibility with Libre Office is improved
- Compatibility with Qlik is improved
- Compatibility with Delphi & C++Builder is improved
- MS Access linked tables support is improved

New features in ODBC Driver for Dynamics 365 1.0

- First release of ODBC Driver for Dynamics 365:
- Windows 32-bit is supported
- Windows 64-bit is supported

Request Support ODBC Forum Provide Feedback

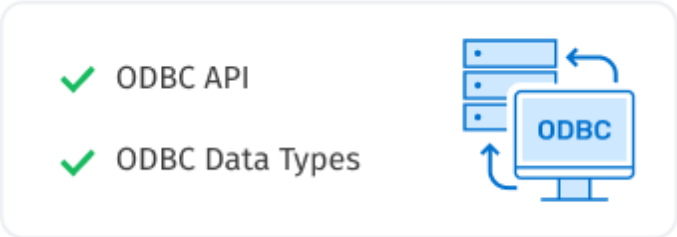
2 General Information

Request Support ODBC Forum Provide Feedback

2.1 Overview

Overview

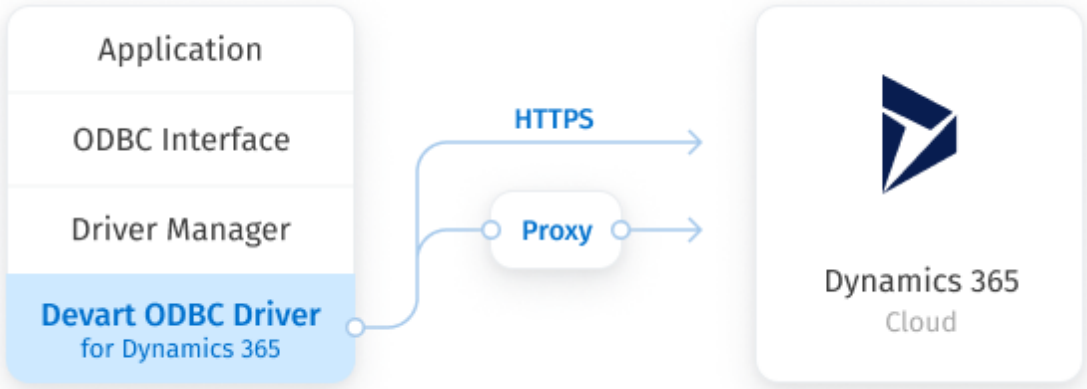
Devart ODBC Driver for Dynamics 365 is a high-performance connectivity solution with enterprise-level features for accessing Dynamics 365 Customer Engagement (formerly known as Dynamics CRM) from ODBC-compliant reporting, analytics, BI, and ETL tools on Windows, macOS, and Linux. Our ODBC driver fully supports standard ODBC API functions and data types and enables easy and secure access to live Dynamics 365 data from anywhere.



Connection to Dynamics 365

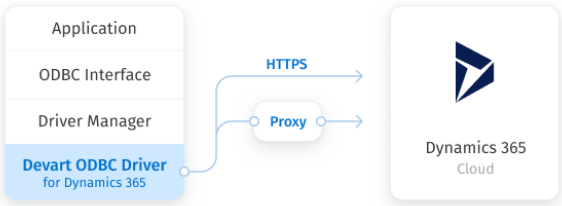
Our data connector enables various ODBC-aware applications to connect to Dynamics 365 directly via HTTPS. If you have no direct access to Dynamics 365 via HTTPS, you have the

option of establishing a connection through a proxy server.



Request Support ODBC Forum Provide Feedback

2.2 Features

	Connection to Dynamics 365 Our connectivity solution enables various ODBC-aware applications to connect to Dynamics 365 directly via HTTPS. If you have no direct access to Dynamics 365, you have the option of establishing a connection through a proxy server.

Extended SQL Syntax

Our ODBC driver provides an unrivalled opportunity to work with Dynamics 365 objects just as with SQL tables. The extended SQL syntax allows you to use all the SQL benefits in SQL-92 compatible SELECT statements:

- Complex JOINs
- WHERE conditions
- Subqueries
- GROUP statements
- Aggregation functions
- ORDER statements
- and more.

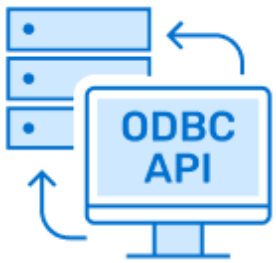
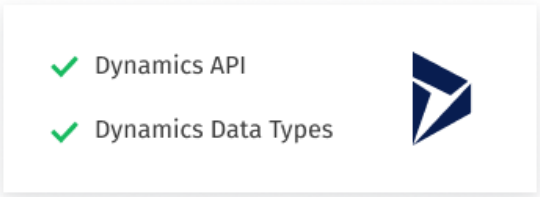
```
Select a.customersizecode,
       a.territorycode,
       a.name,
       a.accountnumber,
       at.isdocument,
       at.businessunitname
  From account a
  Left Join (Select ant.objectid,
                    ant.subject,
                    ant.isdocument,
                    b.name as businessunitname
               From annotation ant
               Left Join  (Select * From businessunit) b
                 On ant.owningbusinessunit = b.businessunitid
             ) at
    On at.objectid = a.accountid
 Where a.exchangerate = 1
   And a.websiteurl Is not Null
Order By a.revenue,
       a.versionnumber,
       a.statecode
```

DML Operations

Devart ODBC Driver for Dynamics 365 provides support for DML (INSERT,

Bulk Updates

Moreover, with our driver you can perform bulk updates to Dynamics 365 by

UPDATE, DELETE) operations, which allows you to modify data in Dynamics 365 in the same way as in SQL databases.	combining SQL statements into batches, thus simplifying and speeding up large data modification with Dynamics 365.
## ODBC Conformance The driver provides full support for common ODBC interface: • ODBC API Functions support • ODBC Data Types support In addition, we provide support for Advanced Connection String parameters. Thus allowing any desktop and web applications to connect to Dynamics 365 from various environments and platforms, that support ODBC.	
	## Dynamics 365 Compatibility Our ODBC driver fully supports all data types defined in the Dynamics 365 API. Moreover, the driver is compatible with the Dynamics 365 API itself.
## Advanced Data Conversion We have implemented advanced Data	## Integration The driver is compatible with 3rd-party data

Conversion mechanisms that provide bi-directional mapping between any Dynamics 365 and ODBC data types.	analysis tools, such as Microsoft Excel, and integrates with various IDEs and systems like Visual Studio, etc. For a complete list of compatible tools and platforms, see Compatibility.
## Platforms Variety Devart ODBC Driver for Dynamics 365 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.	## Fully Unicode Driver With our fully Unicode driver, you can retrieve and work with any data from multi-lingual Dynamics 365 databases correctly, not depending on whether its charset is Latin, Cyrillic, Hebrew, Chinese, etc., in any environment localization.
## High Performance Every operation with Dynamics 365 becomes significantly faster using such capabilities of our driver as Local data caching, connection pooling, query optimization and much more.	## 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.

Request Support ODBC Forum Provide Feedback

2.3 Compatibility

Dynamics 365 365 Compatibility

Dynamics 365 API	✓
Dynamics 365 Data Types	✓

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.
- macOS 64-bit
- Linux 64-bit

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	✓
DBArtisan	✓
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	✓
FICO Xpress Mosel	✓
IBM SPSS Statistics	✓
MicroStrategy	✓
Oracle BI	✓
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	✓

 Request Support ODBC Forum Provide Feedback

2.4 Requirements

The following requirements must be met for ODBC Driver for Dynamics 365:

- Only one version of ODBC Driver for Dynamics 365 is installed on your system.
- .NET Framework 4.5 or later is installed on your system.

 Request Support ODBC Forum Provide Feedback

2.5 Licensing

ODBC Driver License Agreement

PLEASE READ THIS LICENSE AGREEMENT CAREFULLY. BY INSTALLING OR USING THIS SOFTWARE,YOU INDICATE ACCEPTANCE OF AND AGREE TO BECOME BOUND BY THE TERMS AND CONDITIONS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT INSTALL OR USE THIS SOFTWARE AND PROMPTLY RETURN IT TO DEVART.

INTRODUCTION

This Devart end-user license agreement ("Agreement") is a legal agreement between you (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".

LICENSE

1. GRANT OF LICENSE

The enclosed Software is licensed, not sold. You have the following rights and privileges, subject to all limitations, restrictions, and policies specified in this Agreement.

1.1. If you are a legally licensed user, depending on the license type specified in the registration letter you have received from Devart upon purchase of the Software:

- the "Desktop License" allows you to install and use the Software on a single desktop computer, provided it is accessed by no more than one person at a time, either directly or remotely, for sole purposes only in accordance with this Agreement. If more than one person can simultaneously use the computer where you plan to install the product,you must purchase a Server License. A Desktop License is valid for one single desktop installation;

- the "Server License" allows you to install and use the Software on a single server,provided it is accessed by more than one person at a time, either directly or remotely.This definition includes, but is not limited to, Web servers, application servers,batch servers, and desktop workstations, where more than one concurrent users can access the Software. A Server License is valid for one single server installation,provided it is used by 1 (one) legal entity in accordance with this Agreement.

1.2. If you are a legally licensed user of the Software, you are also entitled to:

- make one copy of the Software for archival purposes only, or copy the Software onto the hard disk of your computer and retain the original for archival purposes;

- develop and test Applications with the Software, subject to the Limitations below.

1.3. You are allowed to use evaluation versions of the Software as specified in the Evaluation section.

No other rights or privileges are granted in this Agreement.

2. LIMITATIONS

Only legally registered users are licensed to use the Software, subject to all of the conditions of this Agreement. Usage of the Software is subject to the following restrictions.

2.1. You may not reverse engineer, decompile, or disassemble the Software.

2.2. You may not reproduce or distribute any Software documentation without express written permission from Devart.

2.3. You may not distribute and sell any portion of the Software integrating it into your Applications.

2.4. You may not transfer, assign, or modify the Software in whole or in part. In particular, the Software license is non-transferable, and you may not transfer the Software installation package.

2.5. You may not remove or alter any Devart's copyright, trademark, or other proprietary rights notice contained in any portion of Devart files.

3. REDISTRIBUTION

The license grants you a non-exclusive right to reproduce any new software programs(Applications) created using the Software. You cannot distribute the Software integrated into your Applications. Any Devart's files remain Devart's exclusive property.

4. TRANSFER

You may not transfer the Software to any individual or entity without express written permission from Devart. In particular, you may not share copies of the Software under "Desktop License" with other co-developers without obtaining proper license of these copies for each individual; you may not install the Software under "Server License" more than 1 (one) server without obtaining proper license of these installations for each server.

5. TERMINATION

Devart may immediately terminate this Agreement without notice or judicial resolution in the

event of any failure to comply with any provision of this Agreement. Upon such termination you must destroy the Software, all accompanying written materials, and all copies.

6. EVALUATION

Devart may provide evaluation ("Trial") versions of the Software. You may transfer or distribute Trial versions of the Software as an original installation package only.If the Software you have obtained is marked as a "Trial" version, you may install and use the Software for a period of up to 30 calendar days from the date of installation(the "Trial Period"), subject to the additional restriction that it is used solely for evaluation of the Software and not in conjunction with the development or deployment of any application in production. You may not use Applications developed using Trial versions of the Software for any commercial purposes. Upon expiration of the Trial Period, the Software must be uninstalled, all its copies and all accompanying written materials must be destroyed.

7. WARRANTY

The Software and documentation are provided "AS IS" without warranty of any kind.Devart makes no warranties, expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose or use.

8. SUBSCRIPTION AND SUPPORT

The Software is sold on a subscription basis. The Software subscription entitles you to download improvements and enhancement from Devart's web site as they become available, during the active subscription period. The initial subscription period is one year from the date of purchase of the license. The subscription is automatically activated upon purchase, and may be subsequently renewed by Devart, subject to receipt applicable fees. Licensed users of the Software with an active subscription may request technical assistance with using the Software over email from the Software development. Devart shall use its reasonable endeavors to answer queries raised, but does not guarantee that your queries or problems will be fixed or solved.

Devart reserves the right to cease offering and providing support for legacy IDE versions.

9. COPYRIGHT

The Software is confidential and proprietary copyrighted work of Devart and is protected by international copyright laws and treaty provisions. You may not remove the copyright notice from any copy of the Software or any copy of the written materials,accompanying the

Software.

This Agreement contains the total agreement between the two parties and supersedes any other agreements, written, oral, expressed, or implied.

Request Support ODBC Forum Provide Feedback

2.6 Getting Support

This document lists several ways you can find help with using ODBC Driver for Dynamics 365 describes the Priority Support program.

Support Options

There are a number of resources for finding help on installing and using ODBC Driver for Dynamics 365:

- You can find out more about ODBC Driver for Dynamics 365 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 Dynamics 365 developers through the ODBC Driver for Dynamics 365 Priority Support program.

Subscriptions

The ODBC Driver for Dynamics 365 Subscription program is an annual maintenance and support service for ODBC Driver for Dynamics 365 users.

Users with a valid ODBC Driver for Dynamics 365 Subscription get the following benefits:

- Product support through the ODBC Driver for Dynamics 365 Priority Support program
- Access to new versions of ODBC Driver for Dynamics 365 when they are released
- Access to all ODBC Driver for Dynamics 365 updates and bug fixes
- Notifications about new product versions

Priority Support

ODBC Driver for Dynamics 365 Priority Support is an advanced product support service for getting expedited individual assistance with ODBC Driver for Dynamics 365-related questions from the ODBC Driver for Dynamics 365 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 Dynamics 365 Subscription.

To get help through the ODBC Driver for Dynamics 365 Priority Support program, please send an email to odbc@devart.com describing the problem you are having. Make sure to include the following information in your message:

Your ODBC Driver for Dynamics 365 Registration number.

- Full ODBC Driver for Dynamics 365 edition name and version number. You can find the version number in DLL version information.
- Versions of the Dynamics 365 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 Dynamics 365.

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

Request Support ODBC Forum Provide Feedback

3 Using ODBC Driver

1. Installation
2. Product Activation
3. Connecting to Dynamics 365
4. Connection String Options
5. Enabling ODBC Tracing
6. Supported Data Types
7. Supported ODBC API Functions

8. Stored Procedures

Request Support ODBC Forum Provide Feedback

3.1 Installation

ODBC Driver for Dynamics 365 currently supports the following platforms: Windows, macOS, and Linux, both 32-bit and 64-bit.

- Windows - Regular Installation
- Windows - Silent Installation
- macOS
- Linux DEB
- Linux RPM

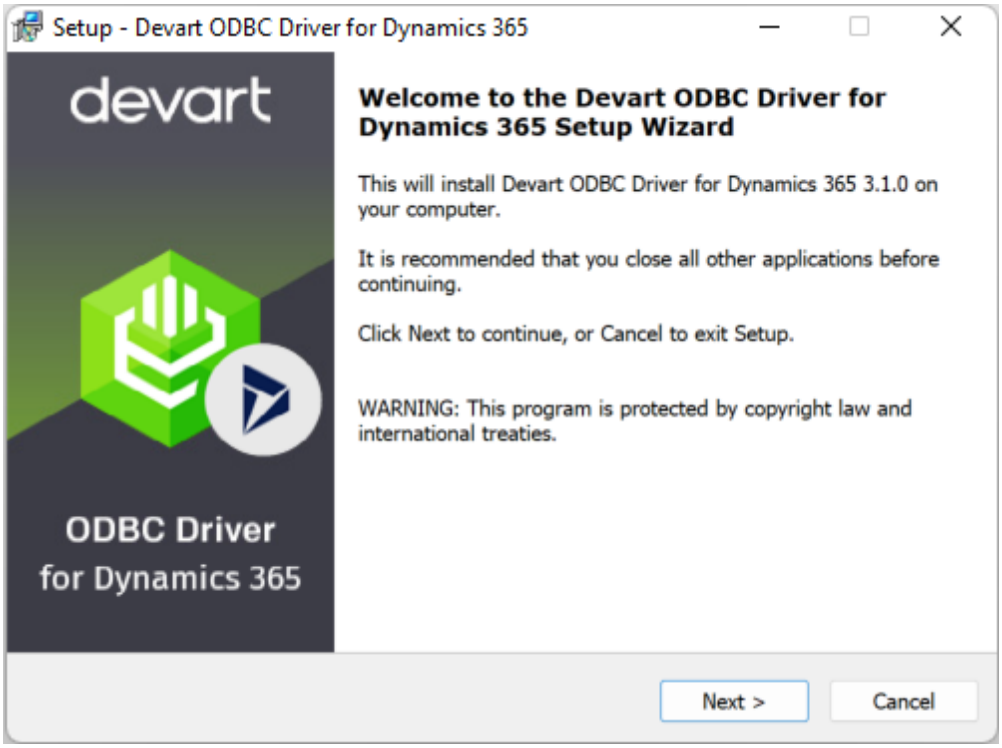
Request Support ODBC Forum Provide Feedback

3.1.1 Windows

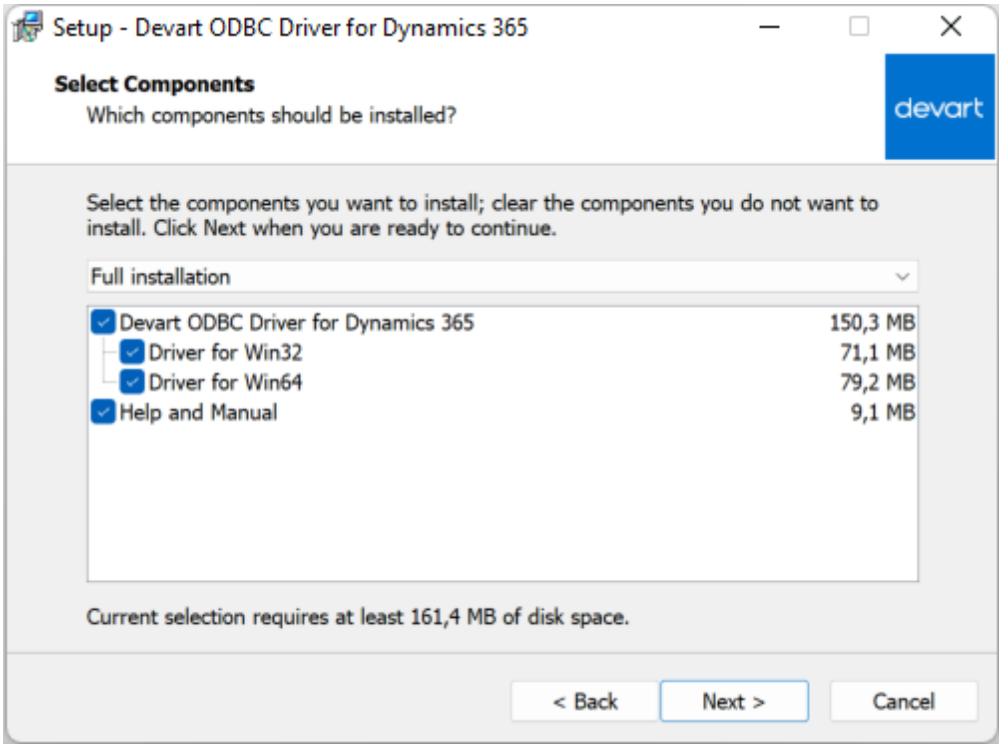
Installation

1. Download and run the installer.

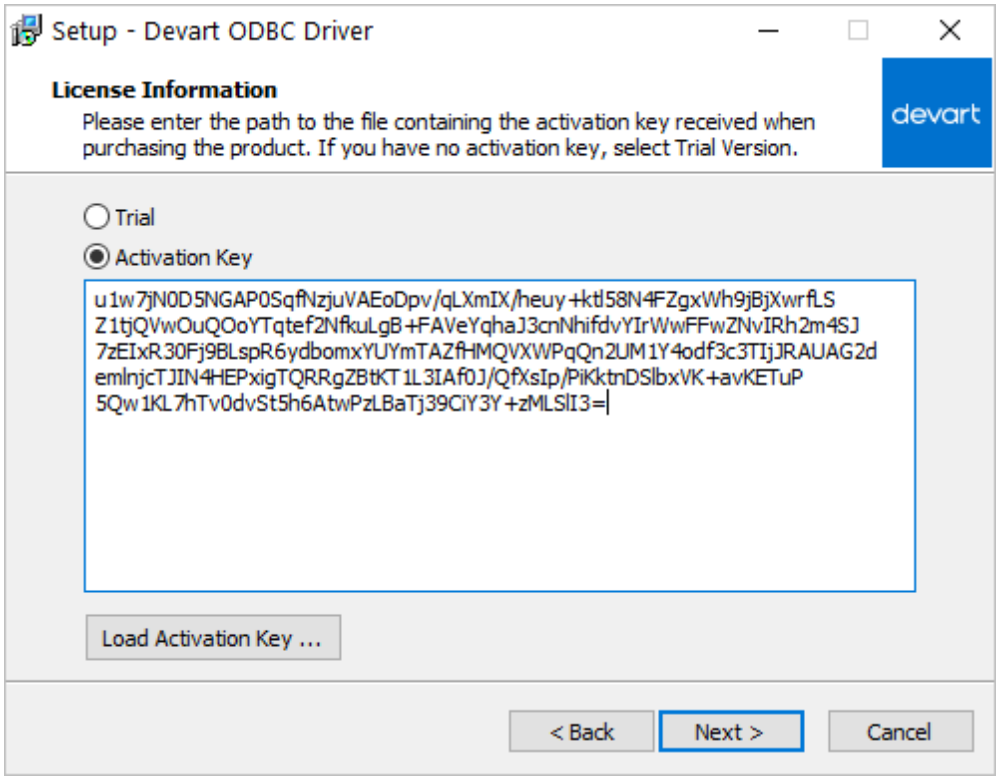
2. Follow the instructions in the wizard.



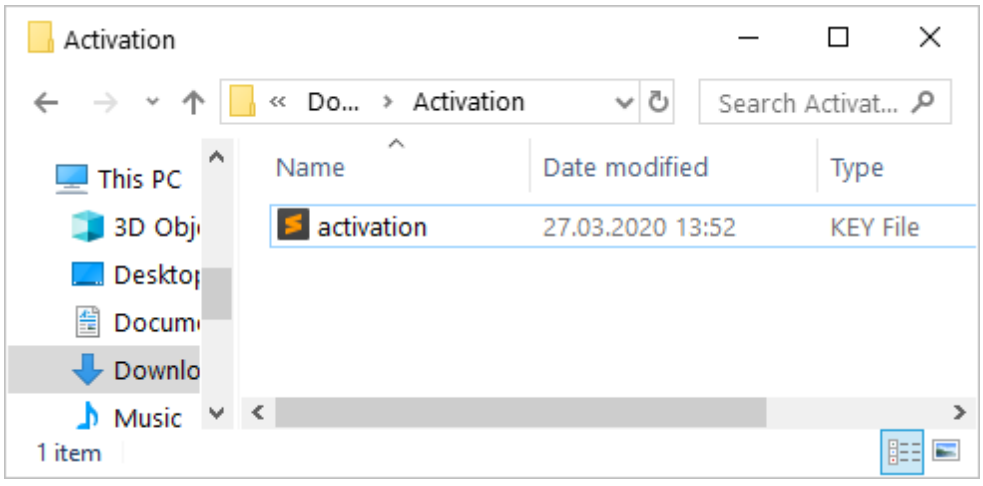
3. In case if you already have the specified installation folder on the PC or another Driver version is installed, you will get a warning. Click **Yes** to overwrite the old files with the current installation, but it is recommended to completely uninstall the previous driver version first, and then install the new one.
4. On the Select Components page you can select whether to install the **64-bit** version of the driver or not. Clear the check box if you need no 64-bit installation. There is also a check box on this page, that allows you to select whether to install Help and Manual.



5. In the License Information dialog box, you should select the license type and activate the product. If you have no activation key, you can select Trial and use the driver for evaluation purposes.
6. If you have an activation key, select the Activation Key option. Copy the activation key from the registration email or your Customer Portal account and paste it into the Activation Key edit box.



7. If you have the activation key file, click the Load Activation Key button and browse to it.



8. Click Next.

9. Click Install, then Finish.

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

See also:

- Installation on macOS
- Install Linux DEB package
- Install Linux RPM package

Request Support ODBC Forum Provide Feedback

3.1.2 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:

```
DevartODBCDynamics 365.exe /SILENT /ActivationKey=y1c7nmgdu234laszxcvONGurjf
```

```
DevartODBCDynamics 365.exe /VERYSILENT /ActivationKey=ekhdh765mh09ukr237gfHR
```

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

```
DevartODBCDynamics 365.exe /SILENT /ActivationFile=d:\lic.key
```

```
DevartODBCDynamics 365.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.

Request Support ODBC Forum Provide Feedback

3.1.3 macOS

Prerequisites

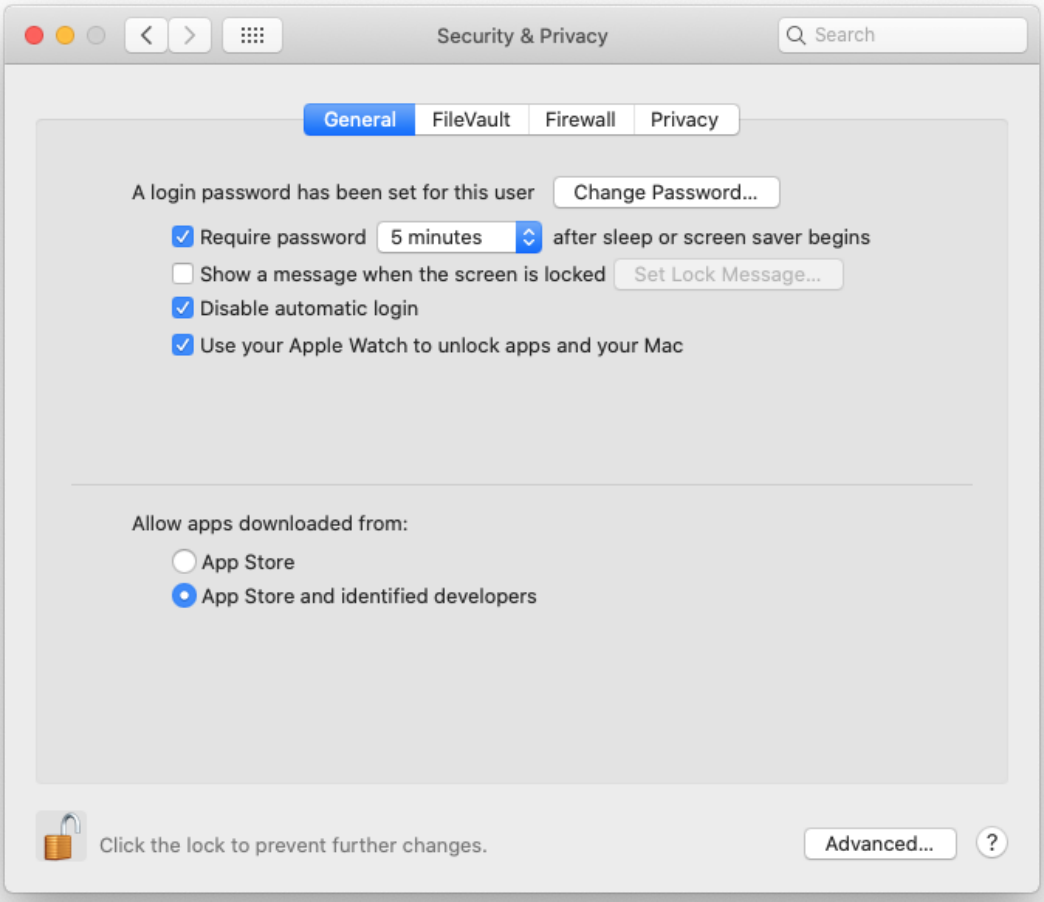
ODBC Driver for Dynamics 365 works under control of an ODBC driver manager. ODBC driver manager is not distributed along with our driver and must be installed separately.

ODBC Driver for Dynamics 365 is compatible with iODBC driver manager.

In case when using other ODBC driver managers, ODBC Driver for Dynamics 365 will be installed, but it will require manual modification of configuration files of these managers.

Installing ODBC Driver for Dynamics 365

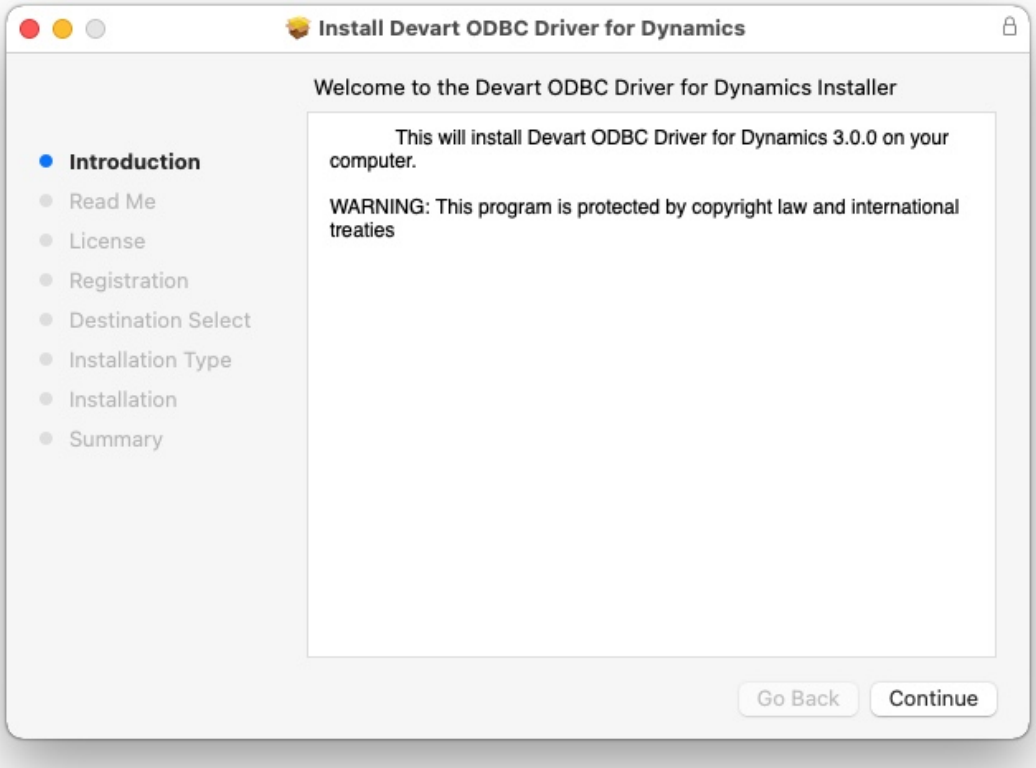
1. Go to Security & Privacy settings in the System Preferences.
2. Enable the *App Store and identified developers* option in the **Allows apps downloaded from** section.



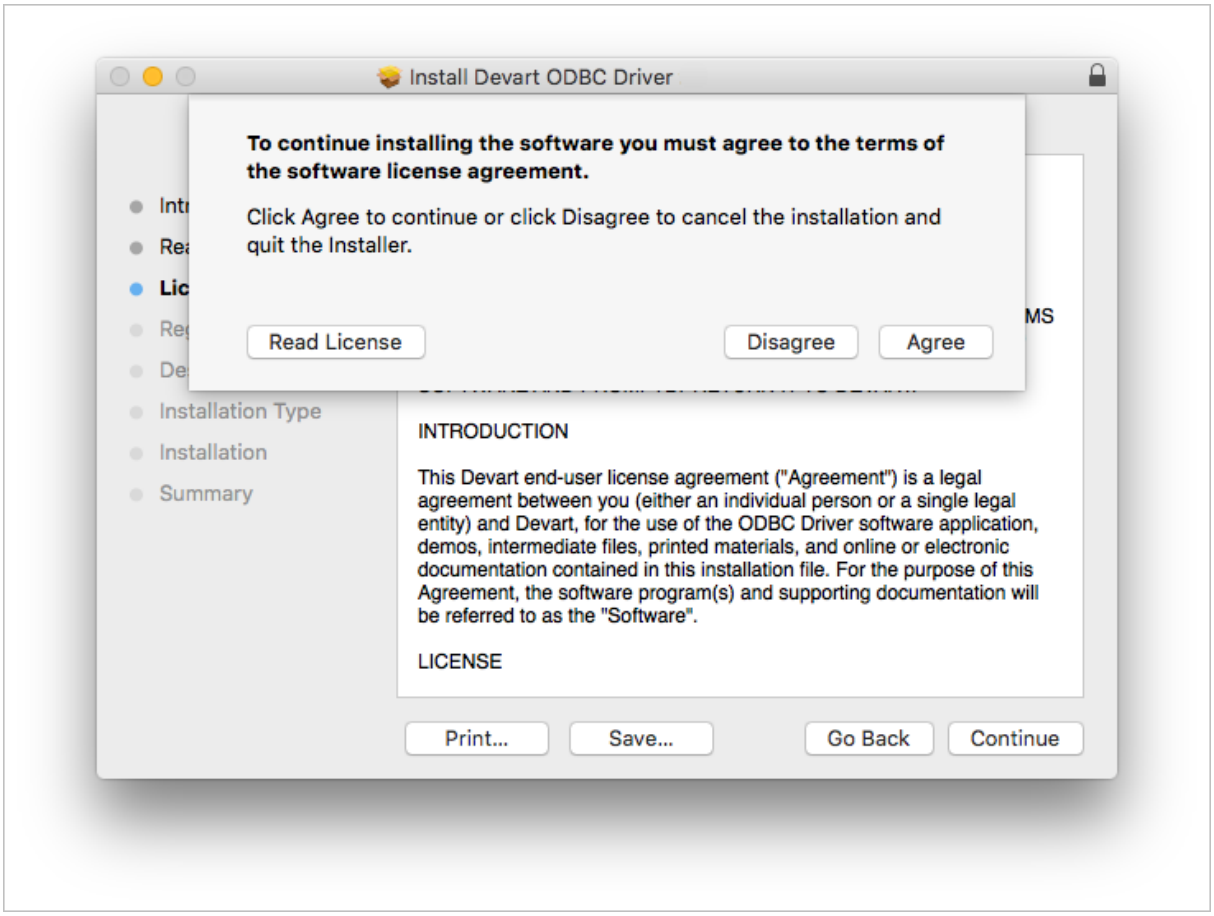
*Note: If the options in **Allow apps downloaded from** section are grayed out, click on the lock icon and enter your administrator password to proceed with the installation.*

3. Download the PKG file from the Devart website.

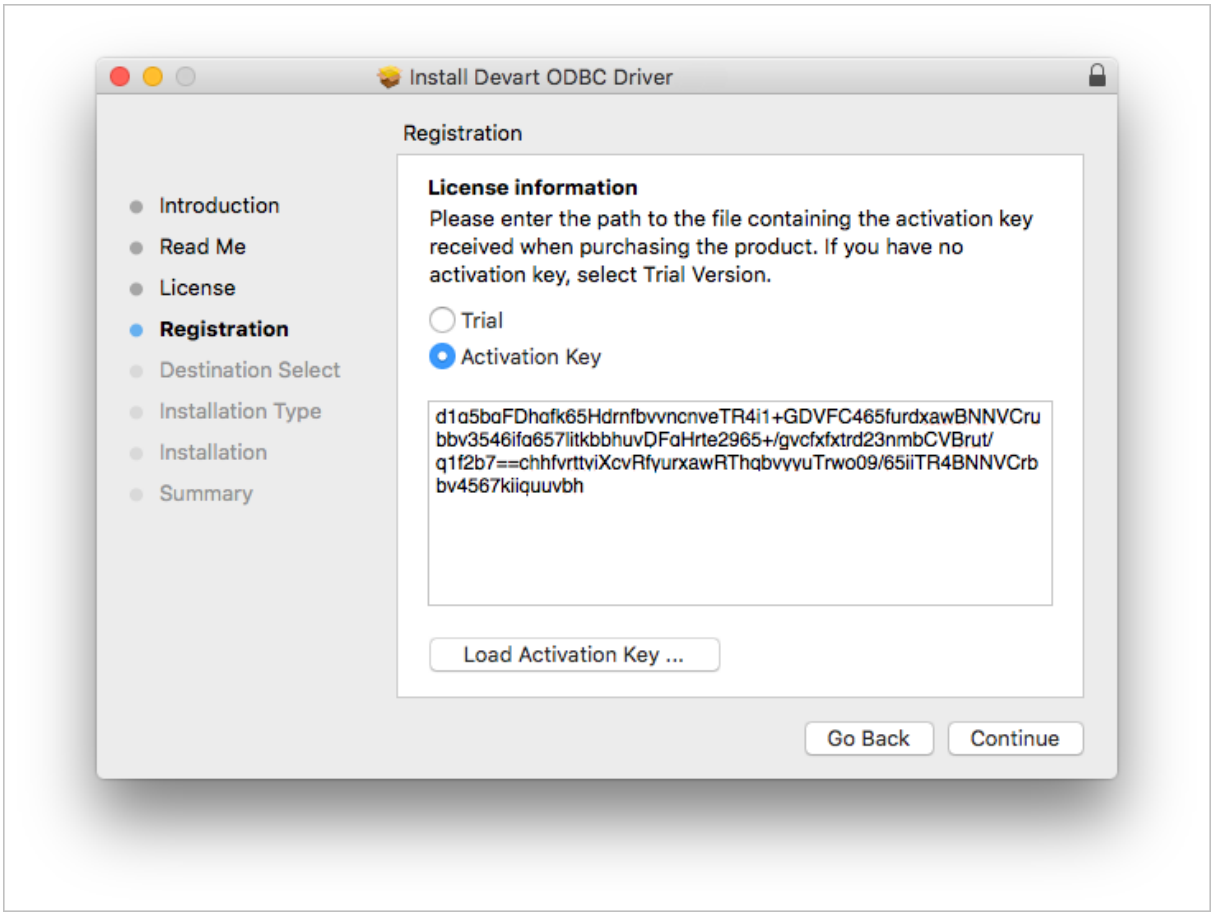
4. Run the downloaded file, press the Allow button to proceed with the installation.



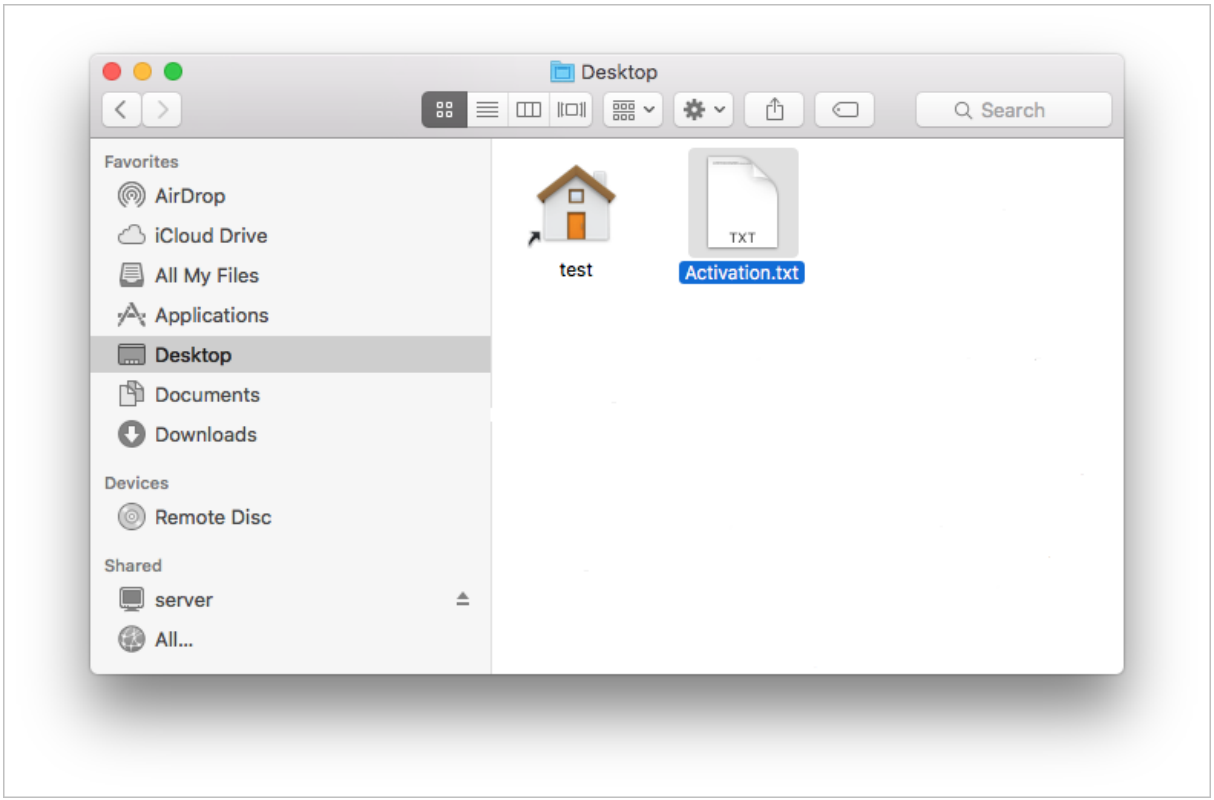
5. After reading the license agreement, click Agree.



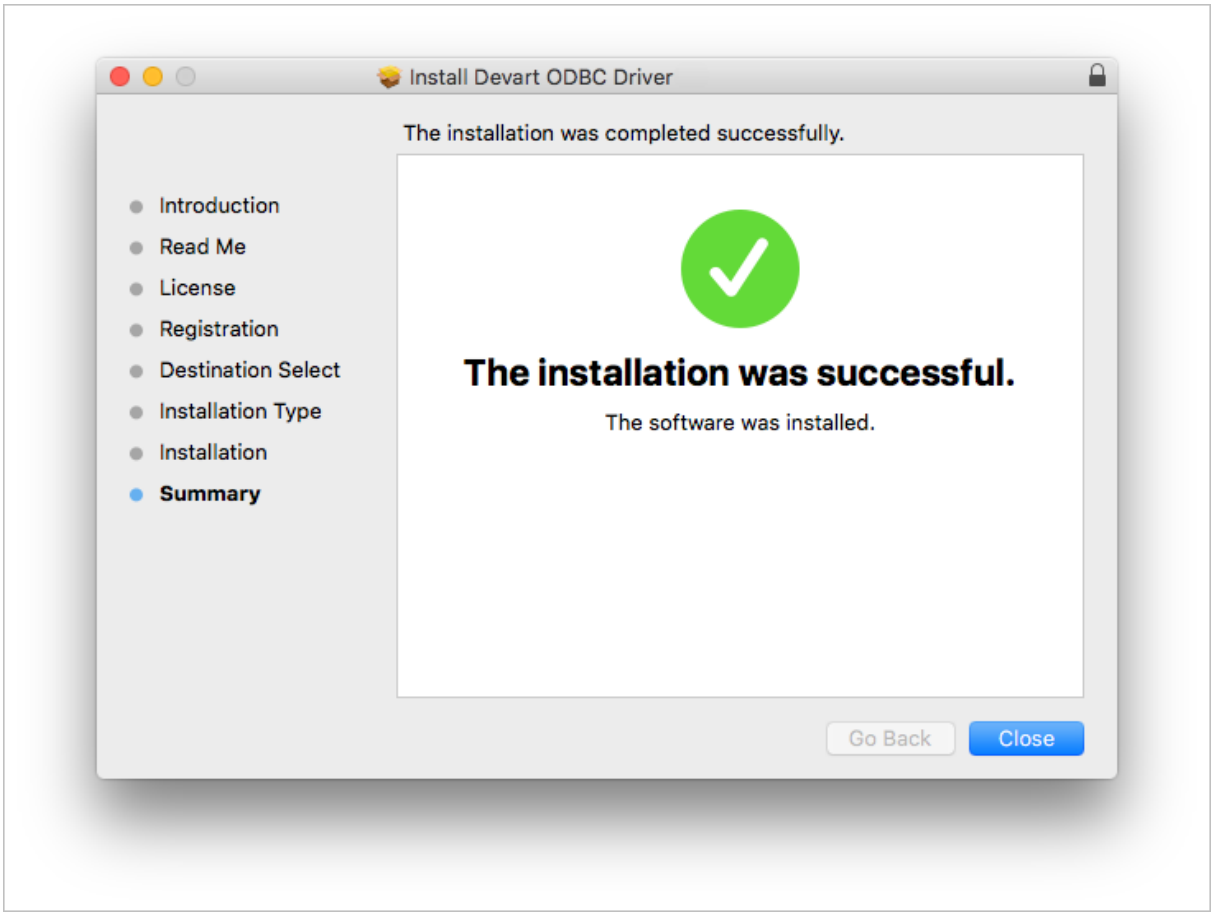
6. In the License Information dialog box, you should select the license type and activate the product. If you have no activation key, you can select Trial and use the driver for evaluation purposes.
7. If you have an activation key, select the Activation Key option. Copy the activation key from the registration email or your Customer Portal account and paste it into the Activation Key edit box.



8. If you have the activation key file, click the Load Activation Key button and browse to it.



9. To complete the installation click Continue, then Install buttons.



To activate the driver, perform the steps described in the Product Activation article.

See also:

- Installation on Windows
- Install Linux DEB package
- Install Linux RPM package

Request Support ODBC Forum Provide Feedback

3.1.4 Linux DEB

Prerequisites

ODBC Driver for Dynamics 365 works under control of an ODBC driver manager. ODBC driver manager is not distributed along with our driver and must be installed separately.

ODBC Driver for Dynamics 365 is compatible with UnixODBC driver manager. You can install the unixODBC driver manager using the command below:

```
sudo apt-get install odbcinst1debian2 libodbc1 odbcinst unixodbc
```

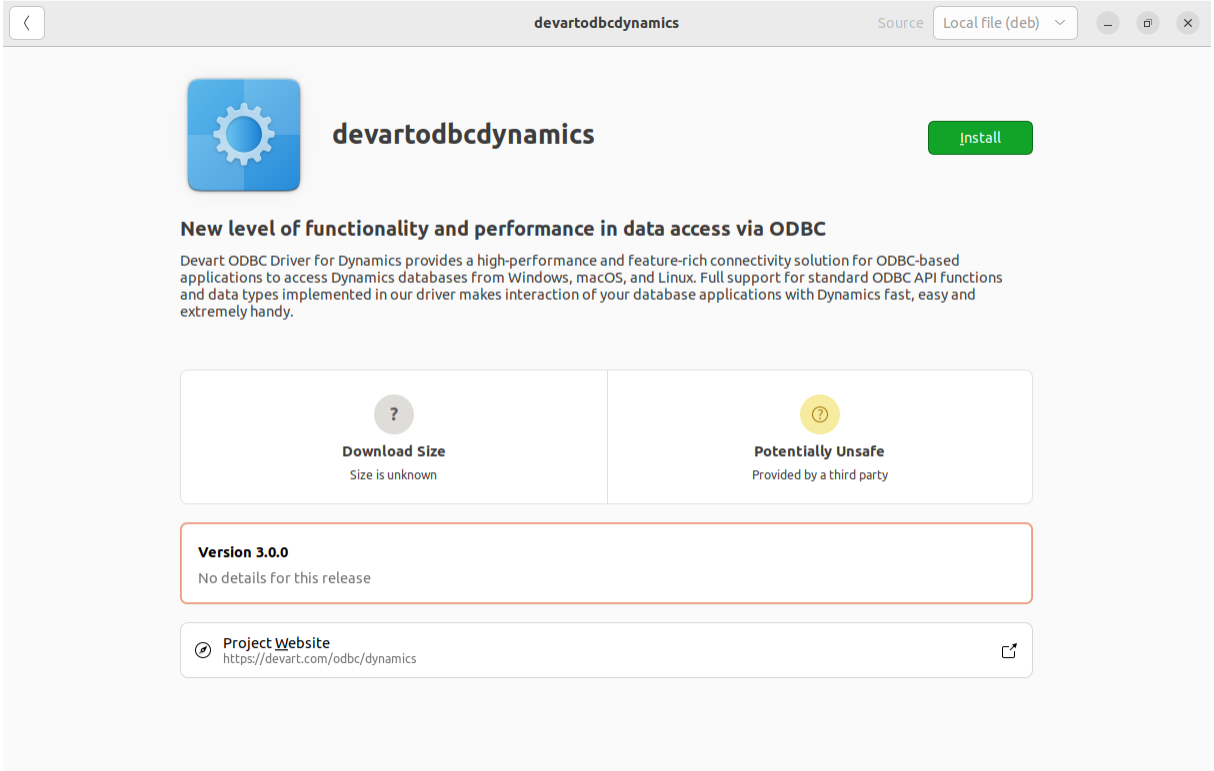
In case when using other ODBC driver managers, ODBC Driver for Dynamics 365 will be installed, but it will require manual modification of configuration files of these managers.

Installation

Let's consider how to install the Devart ODBC driver on Linux from a DEB package, for example, on Ubuntu. There are two ways to install the driver either manually or via the command line.

GUI installation

1. Download the DEB package of the required bitness from the Devart website.
2. Navigate to the folder with the downloaded package ("Downloads" by default) and double-click it.
3. In the opened dialog, click the **Install** button.



4. If the installation is successfully completed, the Install button changes into the Remove one.

Command-line installation

1. Download the DEB package from the Devart website.

By default the required package will be downloaded into the ~/Downloads folder (or the selected one);

2. Run the 'Terminal' program;

3. Navigate to the folder with the downloaded package cd ~/Downloads (if you downloaded the package into another folder, you need to specify the path to this folder as the cd command parameter):

```
cd ~/Downloads/
```

```
ubuntu@ubuntu-VirtualBox:~$ cd ~/Downloads/
```

4. To install the devartodbcdynamics_amd64.deb on a 64-bit system, use the following command:

```
sudo dpkg -i devartodbcdynamics_amd64.deb
```

```
ubuntu@ubuntu-VirtualBox:~$ cd ~/Downloads/
ubuntu@ubuntu-VirtualBox:~/Downloads$ sudo dpkg -i devartodbcdynamics_3.0.0_amd6
4\(24.10.2022\).deb
```

5. Driver is installed successfully.

```
ubuntu@ubuntu-VirtualBox:~$ cd ~/Downloads/
ubuntu@ubuntu-VirtualBox:~/Downloads$ sudo dpkg -i devartodbcdynamics_3.0.0_amd6
4\(24.10.2022\).deb
[sudo] password for ubuntu:
Selecting previously unselected package devartodbcdynamics.
(Reading database ... 179657 files and directories currently installed.)
Preparing to unpack devartodbcdynamics_3.0.0_amd64(24.10.2022).deb ...
Unpacking devartodbcdynamics (3.0.0) ...
Setting up devartodbcdynamics (3.0.0) ...
ubuntu@ubuntu-VirtualBox:~/Downloads$
```

To activate the driver, perform the steps described in the Product Activation article.

See also:

- Install Linux RPM package
- Installation on Windows
- Installation on macOS

Request Support ODBC Forum Provide Feedback

3.1.5 Linux RPM

Prerequisites

ODBC Driver for Dynamics 365 works under control of an ODBC driver manager. ODBC driver manager is not distributed along with our driver and must be installed separately.

ODBC Driver for Dynamics 365 is compatible with UnixODBC driver manager.

In case when using other ODBC driver managers, ODBC Driver for Dynamics 365 will be installed, but it will require manual modification of configuration files of these managers.

Installation

Let's consider how to install the Devart ODBC driver on Linux from an RPM package, for example, on CentOS. To install the driver, you should download the .rpm package and install it via the command line. See the detailed description of these steps below:

1. Download the RPM package from the Devart website.

By default the required package will be downloaded into the ~/Downloads folder (or the selected one);

2. Run the 'Konsole' program;

3. Navigate to the folder with the downloaded package cd ~/Downloads (if you downloaded the package into another folder, you need to specify the path to this folder as the cd command parameter):

```
cd ~/Downloads/
```

```
[test@localhost ~]$ cd ~/Downloads/
[test@localhost Downloads]$
```

4. To install the devart-odbc-dynamics.x86_64.rpm on a 64-bit system, use the following command::

```
sudo rpm -ivh devart-odbc-dynamics.x86_64.rpm
```

```
[test@localhost Downloads]$ sudo rpm -ivh devart-odbc-salesforce.x86_64.rpm
```

5. Driver is installed successfully.

To activate the driver, perform the steps described in the Product Activation article.

See also:

- Install Linux DEB package
- Installation on Windows
- Installation on macOS

 Request Support ODBC Forum Provide Feedback

3.2 Product Activation

- Obtaining Activation Key
- Activation on Windows
- Where to see the license information

 Request Support ODBC Forum Provide Feedback

3.2.1 Obtaining Activation Key

To obtain a product activation key, follow these instructions:

1. After purchasing the license, you receive a registration email to the email address, specified when ordering the product.
2. This email contains a Driver Activation Key and Login Credentials for the Customer Portal. Keep this information secret.
3. You can copy the Activation Key either from the registration email or at the Customer Portal

account.

4. To login to the Customer Portal, use your Username and Password from the registration email.
5. To obtain your Activation Key, click the View link on the right. You will get the following dialog box:

6. Copy the Activation Key with the Copy to Clipboard button.

See also:

- Activation on Windows

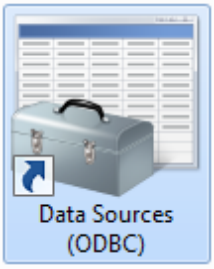
Request Support ODBC Forum Provide Feedback

3.2.2 Activation on Windows

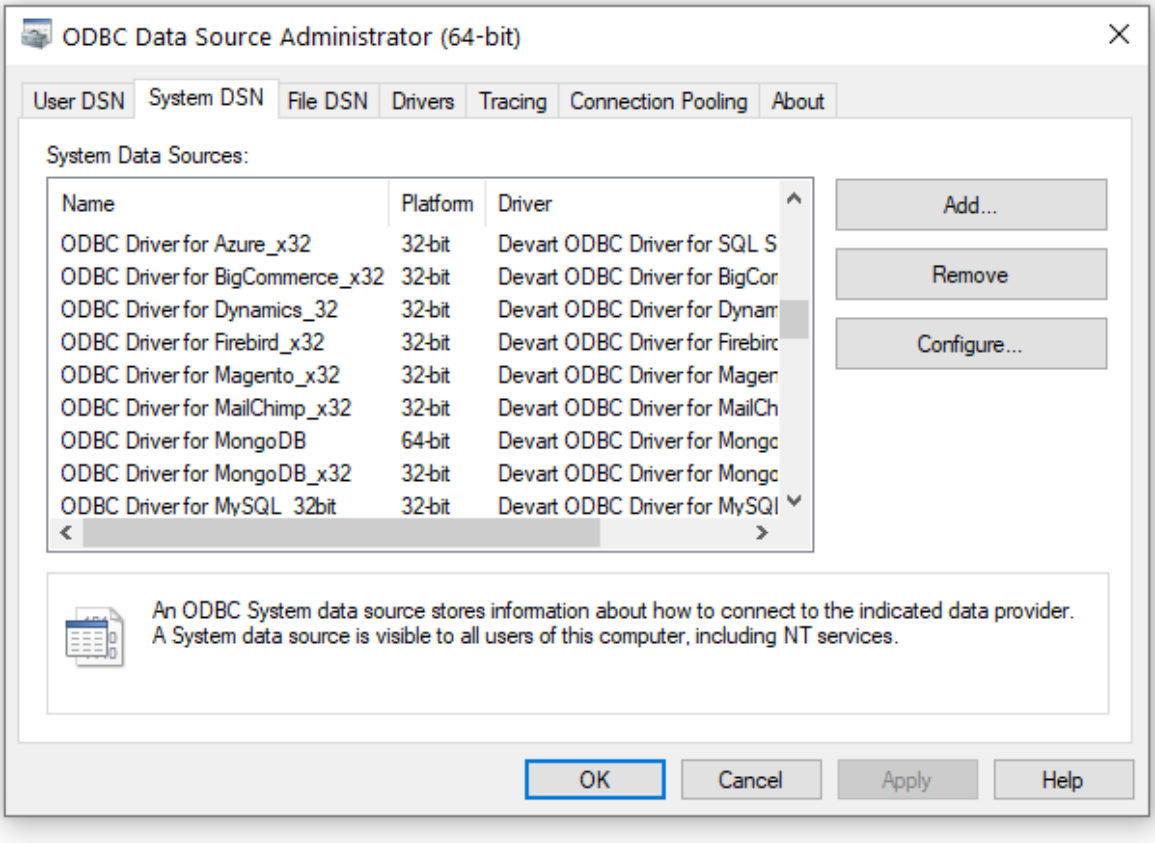
Driver Activation After Installation

To activate your installed driver using ODBC Administrator, perform the following steps:

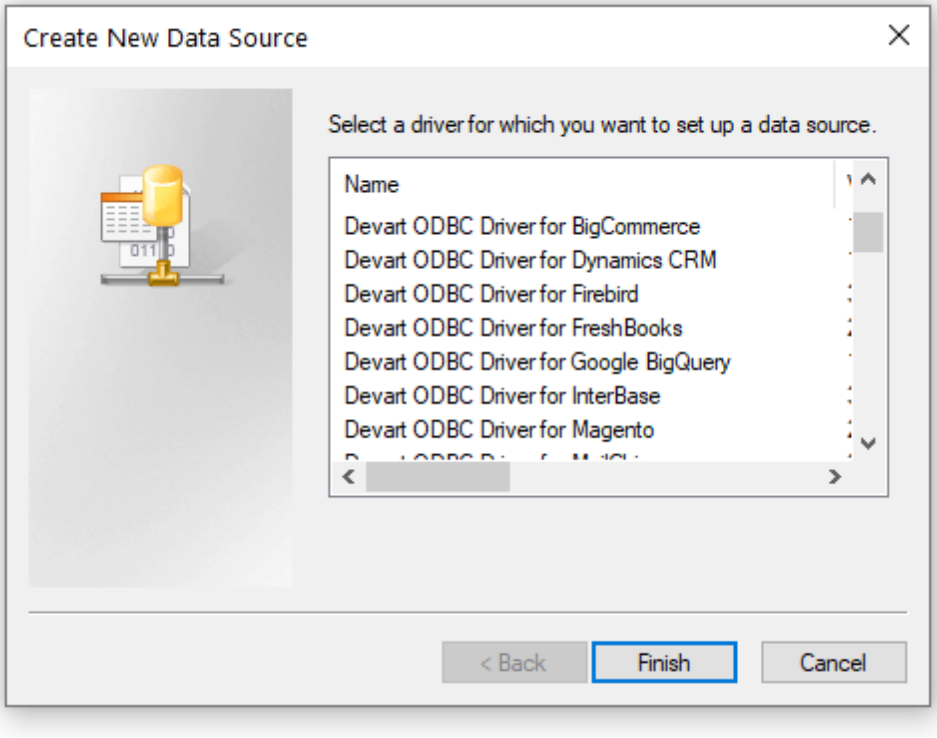
1. Run ODBC Administrator.



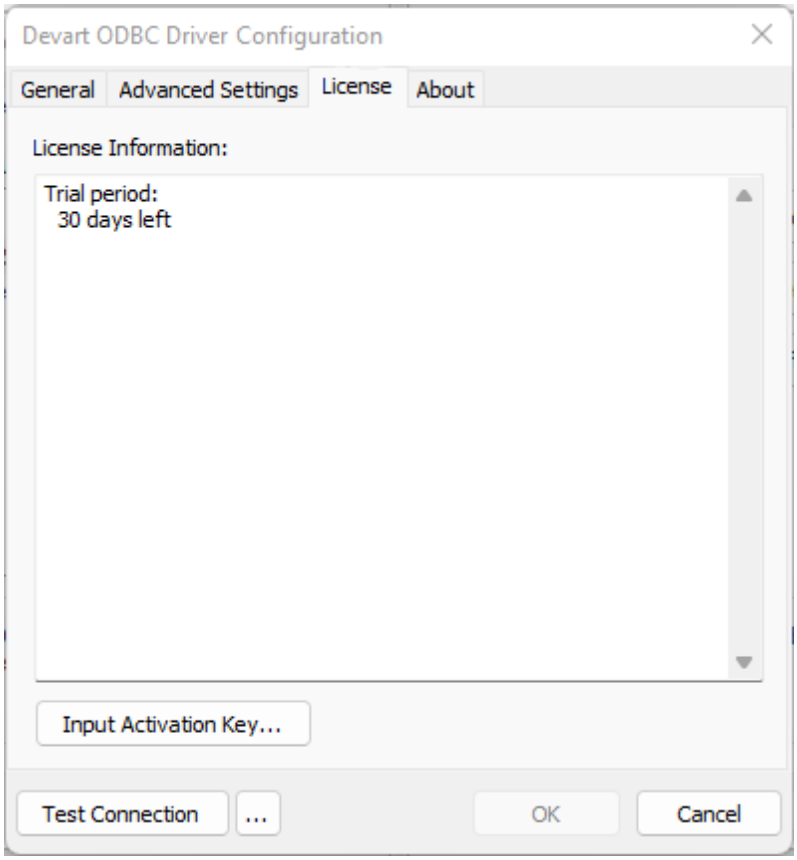
2. In the System DSN tab click the Add button.



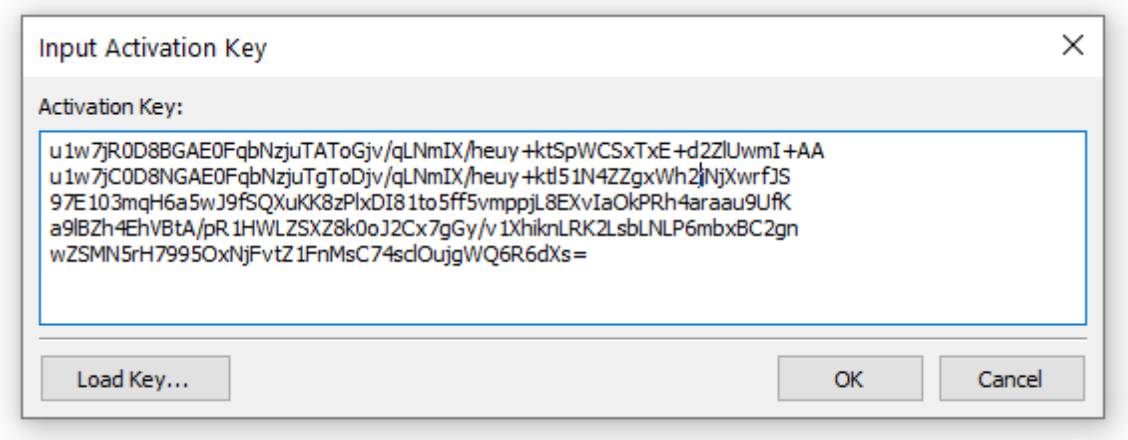
3. In the appeared dialog box, select the installed driver, click Finish.



4. In the Driver Configuration dialog box, on the License tab, click the Input Activation Key button.



5. Copy the activation key from the registration email carefully and paste it into the Input Activation Key edit box.



6. If you have the activation key file, click the Load Key button and browse to it.

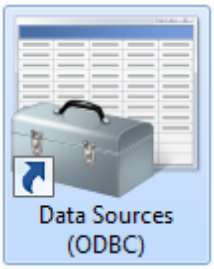
7. Click OK.

Request Support ODBC Forum Provide Feedback

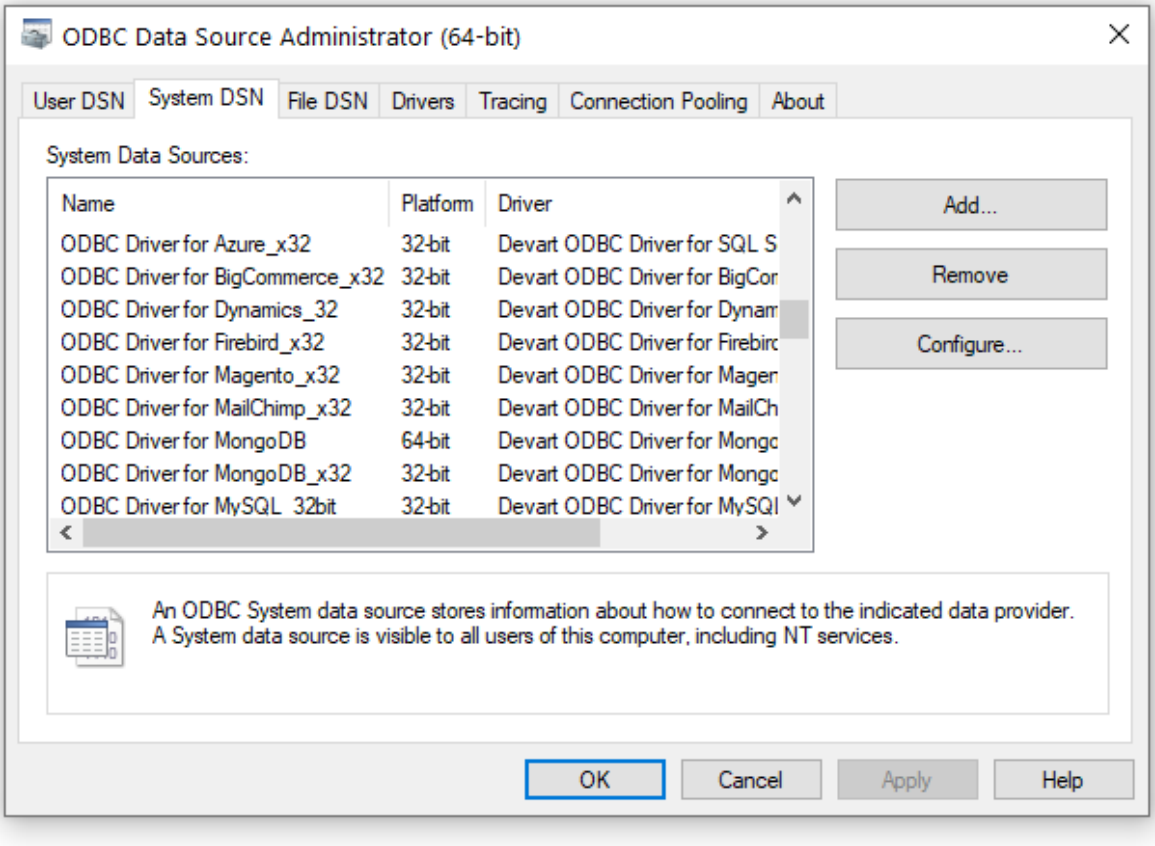
3.2.3 Where to See the License Information?

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

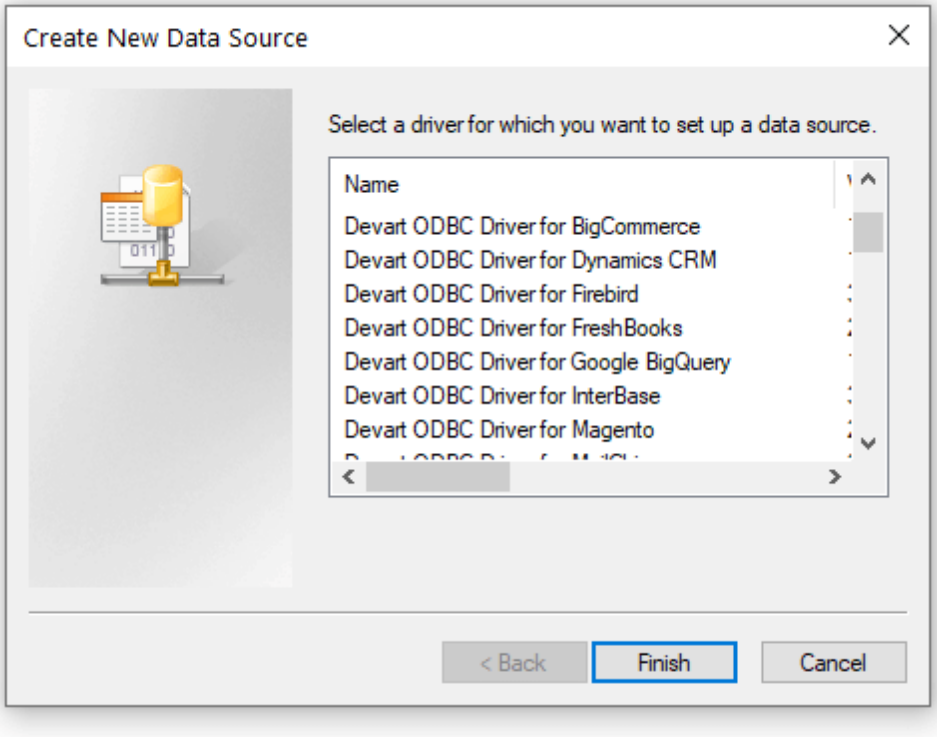
1. In the Control Panel run ODBC Administrator



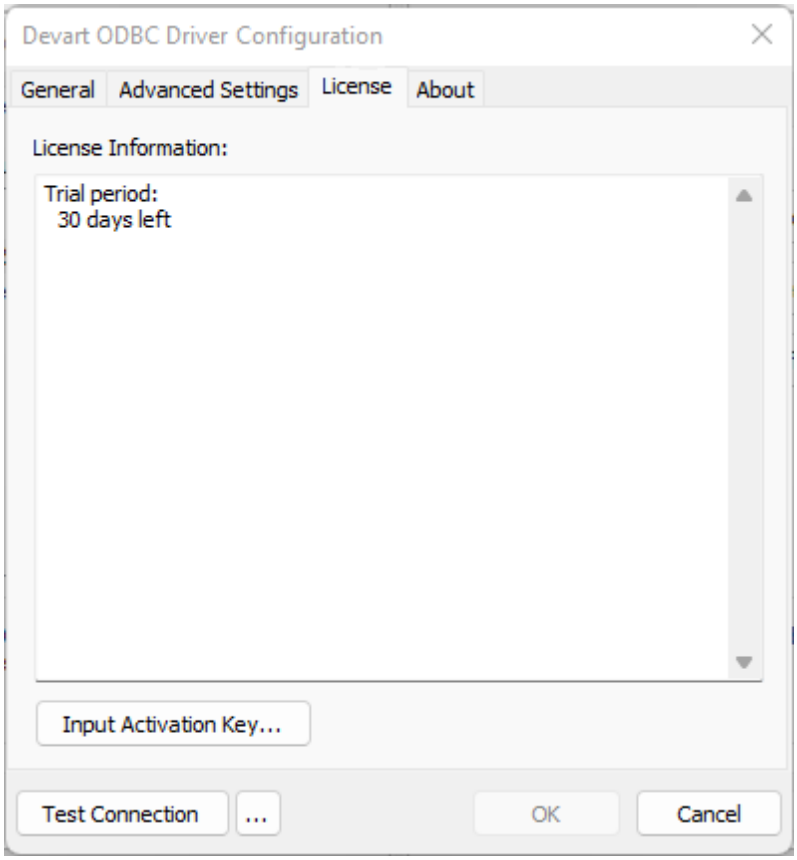
2. Open the System DSN tab and click the Add button



3. Select the driver and click Finish



4. In the appeared dialogue, select the License tab



See also

- Product Activation

Request Support ODBC Forum Provide Feedback

3.2.4 Activation on macOS

Driver Activation After Installation

If you don’t activate your driver during installation, you can activate it later by following the steps:

1. Create a file with the "activation.key" name.
2. Copy the activation key from the registration email or your Customer Portal account and paste it into the created file.

3. Place the "activation.key" file into the folder where the driver was installed (for Devart ODBC Driver for Dynamics 365 it is /Library/ODBC/Devart/Dynamics by default).

See also:

- Activation on Windows
- Activation on Linux

 Request Support ODBC Forum Provide Feedback

3.2.5 Activation on Linux

Driver Activation After Installation

If you did not activate the driver during installation, you can activate it later:

1. Create a file with the "activation.key" name.
2. Copy the activation key from the registration email or your Customer Portal account and paste it into the created file.
3. Place the "activation.key" file into the folder where the driver was installed:

- for the DEB package of Devart ODBC Driver for Dynamics 365, it is */usr/share/devart/odbcdynamics* by default;

- for the RPM package of Devart ODBC Driver for Dynamics 365, it is */usr/local/devart/odbcdynamics* by default.

See also:

- Activation on Windows
- Activation on macOS

 Request Support ODBC Forum Provide Feedback

3.3 Connecting to Dynamics 365

See how to connect the Devart ODBC Driver for ODBC Driver for Dynamics 365:

- Windows DSN Configuration
- macOS DSN Configuration
- Linux DSN Configuration

Request Support ODBC Forum Provide Feedback

3.3.1 Windows

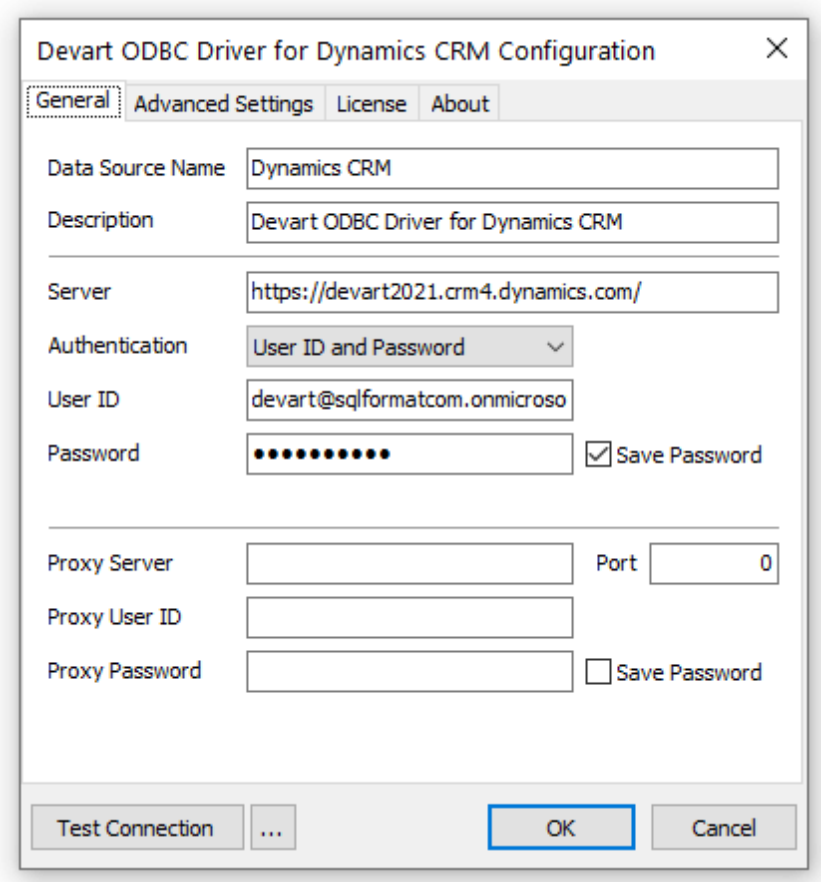
Windows DSN Configuration

After installing the driver, create a DSN for Dynamics 365 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 ODBC Driver for Dynamics 365** and click **Finish**. The driver setup dialog will open.
5. Enter the connection information in the appropriate fields.

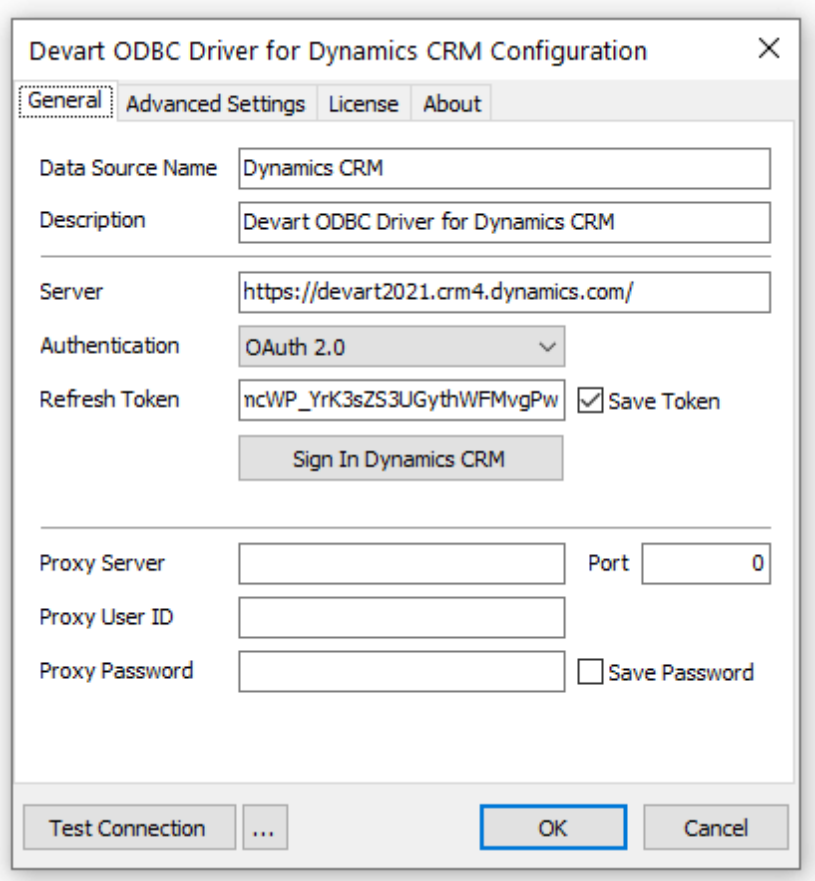
Basic Authentication

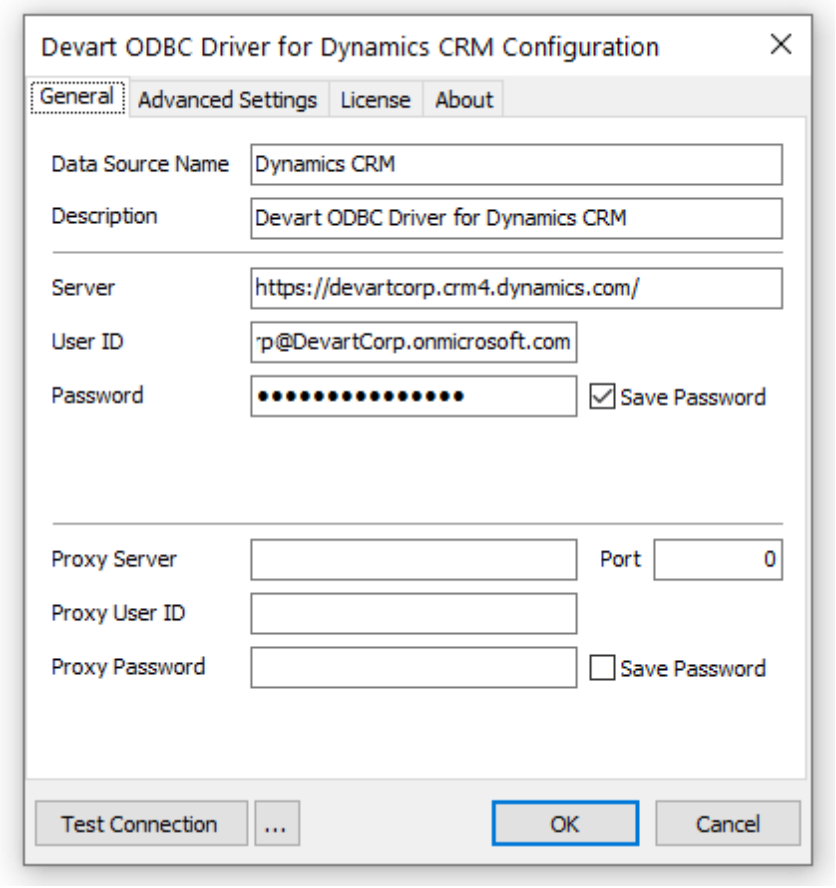
If you choose this authentication type, enter the username and password for your Dynamics 365.



Token-Based Authentication

If you authenticate with OAuth2, click **Sign In with Dynamics 365**, enter your credentials, and grant the requested permissions to generate a refresh token.


Devart ODBC Driver for Dynamics CRM Configuration
General
Advanced Settings
License
About
Data Source Name
Dynamics CRM
Description
Devart ODBC Driver for Dynamics CRM
Server
https://devart2021.crm4.dynamics.com/
Authentication
OAuth 2.0
Refresh Token
ncWP_YrK3sZS3UGythWFMvgPw
Save Token
Sign In Dynamics CRM
Proxy Server
Port
0
Proxy User ID
Proxy Password
Save Password
Test Connection
...
OK
Cancel



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

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

See Also

Connection Options

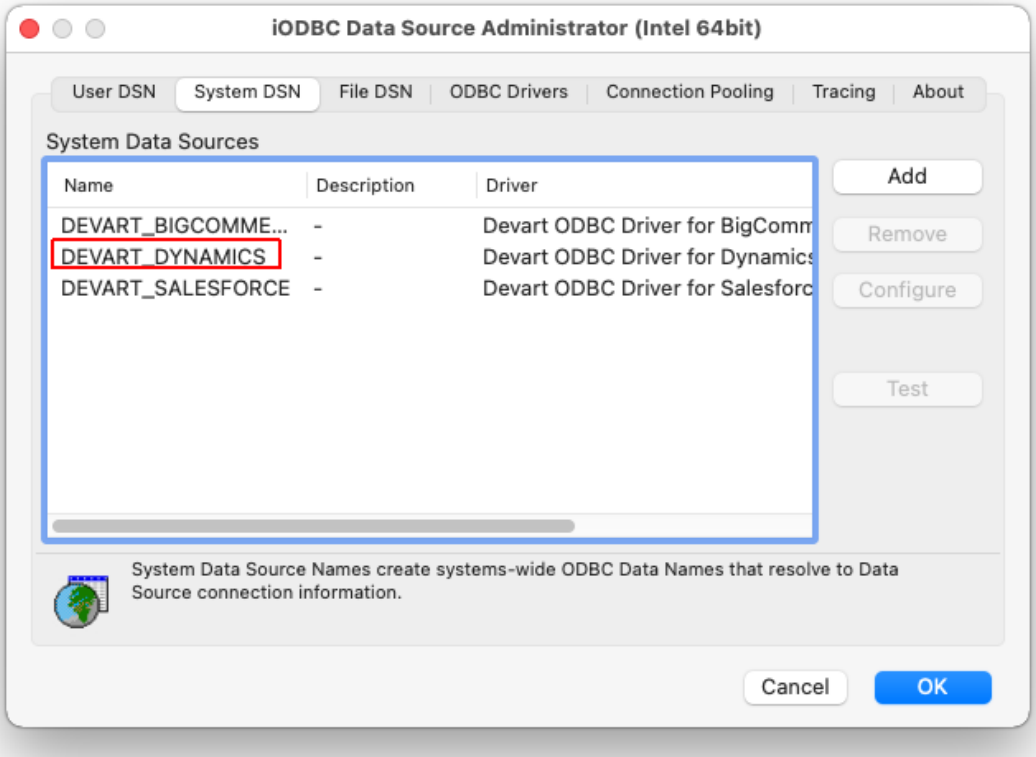
Request Support ODBC Forum Provide Feedback

3.3.2 Mac

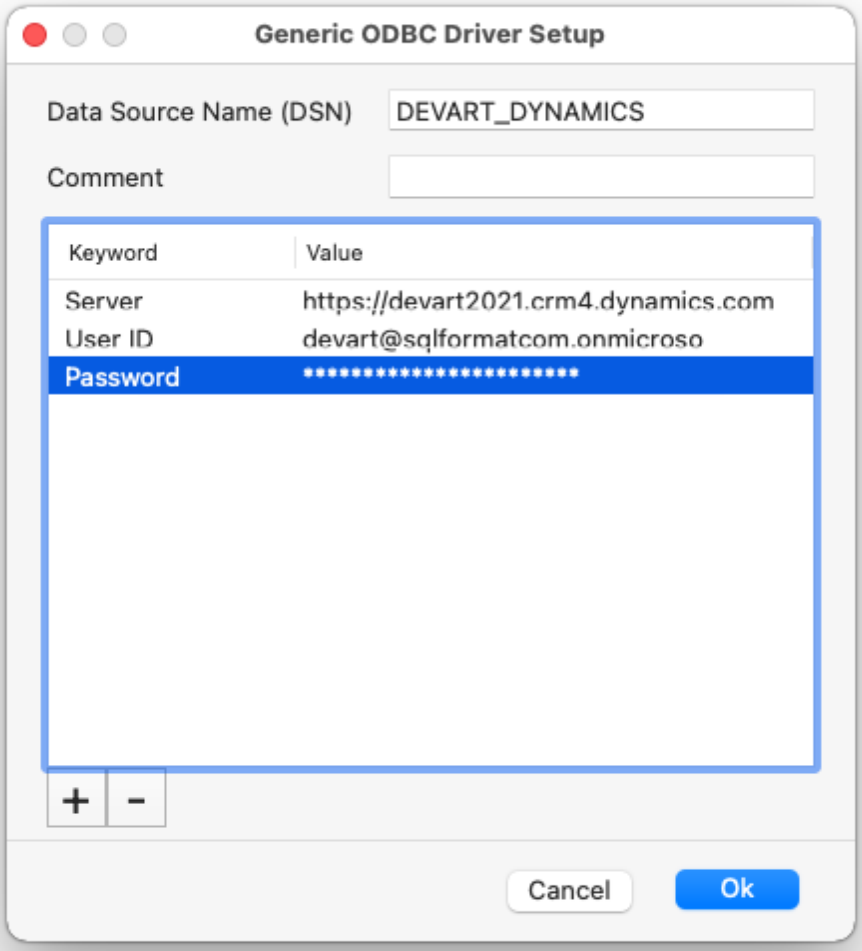
macOS DSN Configuration

After the driver is installed, DSN with the name DEVART_DYNAMICS is created. You can use it to test a connection with DYNAMICS server. For this, perform the following steps:

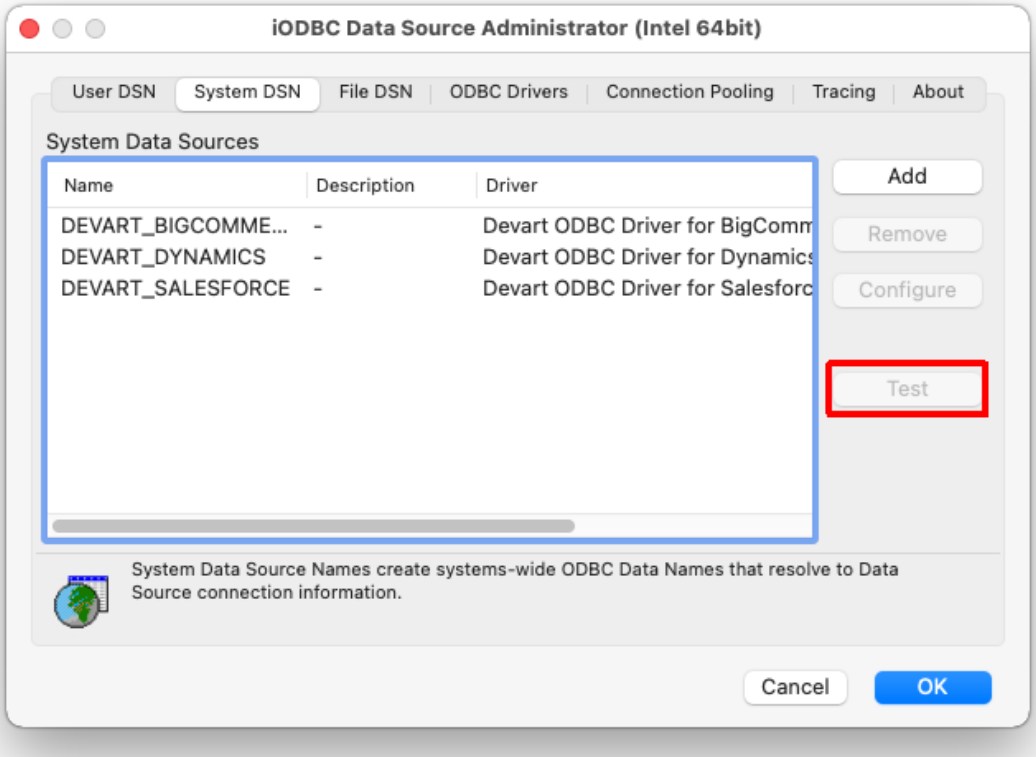
1. Run the iODBC utility of the required bitness. Find the DEVART_DYNAMICS section and click the Configure button:



2. In the appeared dialog, specify the required connection settings and click OK.



3. Now click the Test button to establish a test connection to your data source.



See Also

Connection Options

Request Support ODBC Forum Provide Feedback

3.3.3 Linux

Linux DSN Configuration

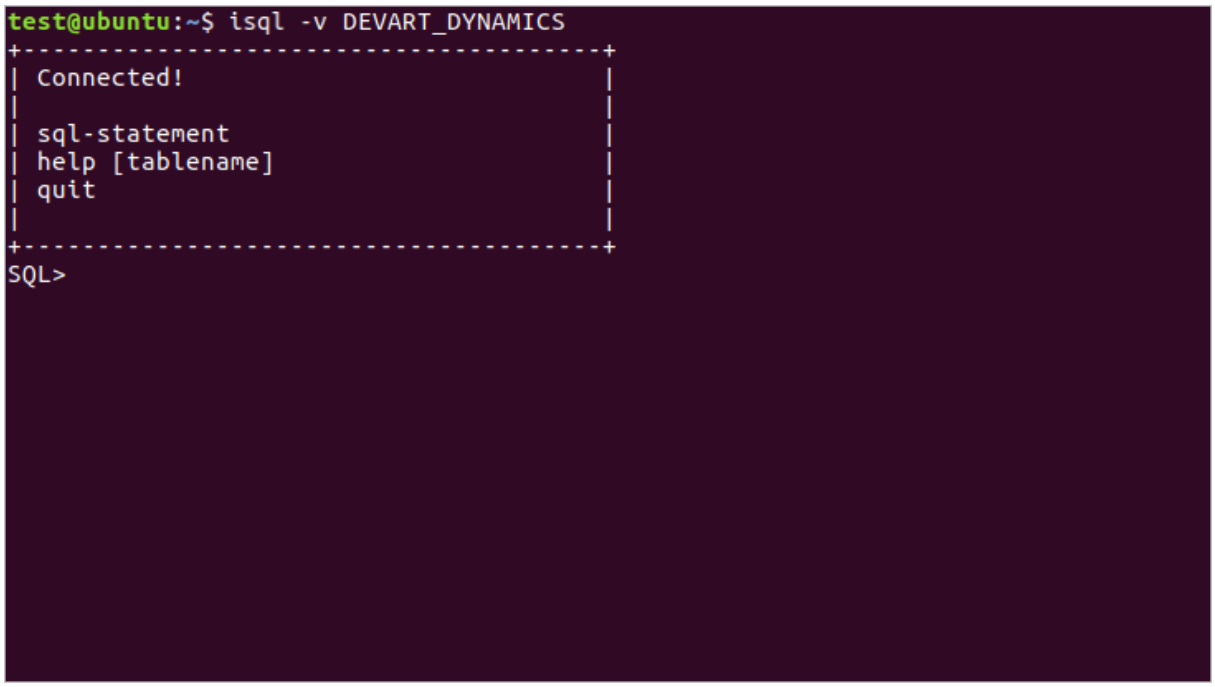
After the linux (DEB or RPM) driver is installed, a DSN with the name DEVART_DYNAMICS is created. You can use it to test the connection with the DYNAMICS server. For this, perform the following steps:

1. Open the odbc.ini file located in the /etc folder. Find the DEVART_DYNAMICS section and specify the required connection settings:

```
Server=<your Dynamics 365 server address>
User ID=<your Dynamics 365 User ID>
Password=<your Dynamics 365 password>
```

2. Run the UnixODBC Test Command utility and test a connection using the following command:

```
isql -v DEVART_DYNAMICS
```



See Also

Connection Options

Request Support ODBC Forum Provide Feedback

3.4 Connection String Options

Dynamics 365 ODBC Connection String Options

The following table lists the connection string options for Dynamics 365.

Option	Description
Authentication	The authentication type to use when connecting to Dynamics 365. Defaults to OAuth. OAuth The OAuth 2.0 authentication. User ID and Password The basic user/password authentication.
Server	The URL of the Dynamics 365 server.
User ID	The Dynamics 365 username. Available when the User ID and Password authentication type is selected.
Password	The Dynamics 365 password. Available when the User ID and Password authentication type is selected.
Refresh Token	The Dynamics 365 OAuth 2.0 token. Available when the OAuth 2.0 authentication type is selected.
Client Id	Custom Client Id for the Dynamics 365 OAuth 2.0.
Client Secret	Custom Client Secret for the Dynamics 365 OAuth 2.0.

Proxy Settings

Option	Description
Proxy Server	The proxy hostname or IP address.
Proxy Port	The proxy port.
Proxy User	The proxy username.
Proxy Password	The proxy password.

Advanced Settings

Option	Description
AllowNullStringsInMeta	Some parameters don't accept null values when retrieving metadata. If a third-party tool passes a null value to such a parameter, the driver returns

`data EmptyStringsAsNullInMetadata`	an error. By default, these options are enabled for compatibility with such third-party tools.
`Connection Timeout`	The time (in seconds) to wait for a connection to open before terminating an attempt. The default value is 60.

`ODBC Behavior`	Sets the behavior corresponding to the ODBC specification version expected by a third-party tool. The behavior of the ODBC driver can be changed by calling the `SQLSetEnvAttr` function to set the `SQL_ATTR_ODBC_VERSION` environment attribute. Some third-party tools expect the driver to exhibit ODBC 2.x behavior, but forget to call `SQLSetEnvAttr` with the needed version, or pass an incorrect value. In this case, the behavior can be explicitly set in the connection string.
	`0`
	The default value. ODBC behavior is determined by a third-party tool.
	`2`
	ODBC 2.x behavior is explicitly set.
	`3`
	ODBC 3.x behavior is explicitly set.

`QueryTimeout`	The time to wait for a query execution result before terminating and generating an error.
`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.
`ReturnForeignKeys`	Use the option to specify whether the driver must return foreign keys. Retrieving metadata about foreign key constraints is a time-consuming operation; many third-party tools request foreign key metadata even whey they do not actually need this information. Note that enabling the option may degrade performance of data access operations. The default value is False.
`String`	Sets the string value types returned by the driver as Default, ANSI, or

Types	Unicode.
	`Default`
	The driver defines the string types.
	`Ansi`
	All string types are returned as SQL_CHAR, SQL_VARCHAR, and SQL_LONGVARCHAR.
	`Unicode`
	All string types are returned as SQL_WCHAR, SQL_WVARCHAR, and SQL_WLONGVARCHAR.
	Note: Set the option to `Ansi` or `Unicode` if your third-party tool supports only ANSI or Unicode strings.

UTC Dates	Specifies whether all the datetime values retrieved from the data source are returned as UTC values or converted to local time and whether the date values specified on the application side (e.g., in SQL statements) are considered UTC or local. The default value is false.

Sample Dynamics 365 ODBC Connection String

```
DRIVER={Devart ODBC Driver for Dynamics 365};Server=https://
dynamicsaccount.crm.dynamics.com/;User
ID=dynamicsuser@dynamicsaccount.onmicrosoft.com;Password=******
```


Request Support ODBC Forum Provide Feedback

3.5 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.

3.6 Supported Data Types

Data Type Mapping

The Devart ODBC Driver for Dynamics 365 supports all Dynamics 365 data types.

The following table describes how the Dynamics 365 data types are mapped to the ODBC data types.

Dynamics Data Types	ODBC Data Types
BINARY	SQL_VARBINARY
STRING	SQL_VARCHAR
	SQL_LONGVARCHAR
	SQL_WVARCHAR
	SQL_WLONGVARCHAR
BOOLEAN	SQL_BIT
INT	SQL_INTEGER
LONG	SQL_BIGINT
DOUBLE	SQL_FLOAT
	SQL_DOUBLE
DECIMAL	SQL_DECIMAL
TIME	SQL_TYPE_TIME
DATE	SQL_TYPE_DATE
DATETIME	SQL_TYPE_TIMESTAMP
GUID	SQL_GUID

3.7 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 Dynamics 365 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	✓	ISO 92	Returns the cursor name associated with a statement handle.
SQLSetCursorName	✓	ISO 92	Specifies a cursor name.
SQLSetScrollOptions	✓	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 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.

Request Support ODBC Forum Provide Feedback

3.8 Stored Procedures

Updating Dynamics 365 Data with Stored Procedures

Some Dynamics 365 tables don't allow the user to update their data directly with the UPDATE

statement. In this case, the update is performed by calling a stored procedure. Devart ODBC Driver for Dynamics 365 offers two stored procedures — AssociateRequest and DisassociateRequest — to update data in tables. The stored procedures take a list of parameters as described below.

The `AssociateRequest` stored procedure executes an associate request.

Input Parameter	Description
`entityName1`	The name of the target table to add associations to.
`entityId1`	The ID of the target table to add associations to.
`relationship`	The name of the relationship to be used for the association.
`entityName2`	The name of the entity to relate to the target table.
`entityId2`	The ID of the entity to relate to the target table.

The `DisassociateRequest` stored procedure executes a disassociate request.

Input Parameter	Description
`entityName1`	The name of the target table to remove associations from.
`entityId1`	The ID of the target table to remove associations from.
`relationship`	The name of the relationship to be used for the disassociation.
`entityName2`	The name of the entity to disassociate from the target table.
`entityId2`	The ID of the entity to disassociate from the target table.

Example

```
call Associate('mai_mfilesquote', '8229F5C2-FBFC-EA11-B9B1-005056974312', 'm
```

4 Using in Third-Party Tools

This section discusses how to use ODBC Driver for Dynamics 365 with ODBC-compliant tools.

- DBeaver
- DBxtra
- Oracle Database Link
- Microsoft Access
- Microsoft Excel
- OpenOffice and LibreOffice
- PHP
- Power BI
- Python
- QlikView
- SQL Server Management Studio
- SSIS
- Tableau

Request Support ODBC Forum Provide Feedback

4.1 Using in DBeaver

DBeaver Overview

DBeaver is a free, open source multiplatform database management tool and SQL client for developers and database administrators. DBeaver can be used to access any database or cloud application that has an ODBC or JDBC driver, such as Oracle, SQL Server, MySQl, Salesforce, or Mailchimp. Devart DBeaver provides you with the most important features you'd need when working with a database in a GUI tool, such as:

- SQL queries execution

- Metadata browsing and editing
- SQL scripts management
- Data export/import
- Data backup
- DDL generation
- ER diagrams rendering
- Test data generation
- BLOB/CLOB support
- Database objects browsing
- Scrollable resultsets

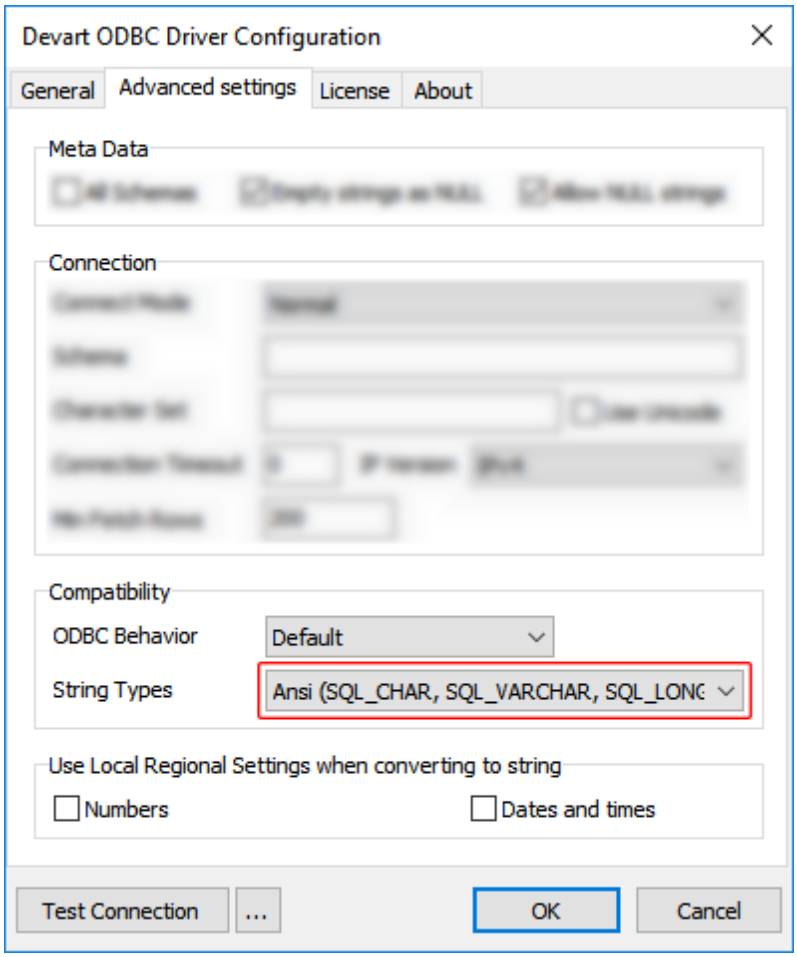
The tool comes in two editions — Community and Enterprise. Enterprise Edition supports NoSQL databases, such as MongoDB or Cassandra, persistent query manager database, SSH tunneling, vector graphics (SVG) and a few other enterprise-level features. Note though that you can access a MongoDB database from DBeaver Community Edition using the respective Devart ODBC driver. For the purposes of this guide, we'll use the Community Edition of DBeaver to retrieve data from Dynamics 365 via the Open Database Connectivity driver.

Creating an ODBC Data Source to Use Dynamics 365 Data in DBeaver

1. Click the **Start** menu and select **Control Panel**.
2. Select **Administrative Tools**, then click **ODBC Data Sources**.
3. Click on the **System DSN** tab if you want to set up a DSN name for all users of the system or select **User DSN** to configure DSN only for your account.
4. Click the **Add** button and double-click Devart ODBC Driver for Dynamics 365 in the list.
5. Give a name to your data source and set up the connection parameters.
6. Click the **Test Connection** button to verify that you have properly configured the DSN.

When using ODBC driver for Dynamics 365 with DBeaver, SQL_WVARCHAR data types may be displayed incorrectly in DBeaver. To prevent this, you need to set the string data

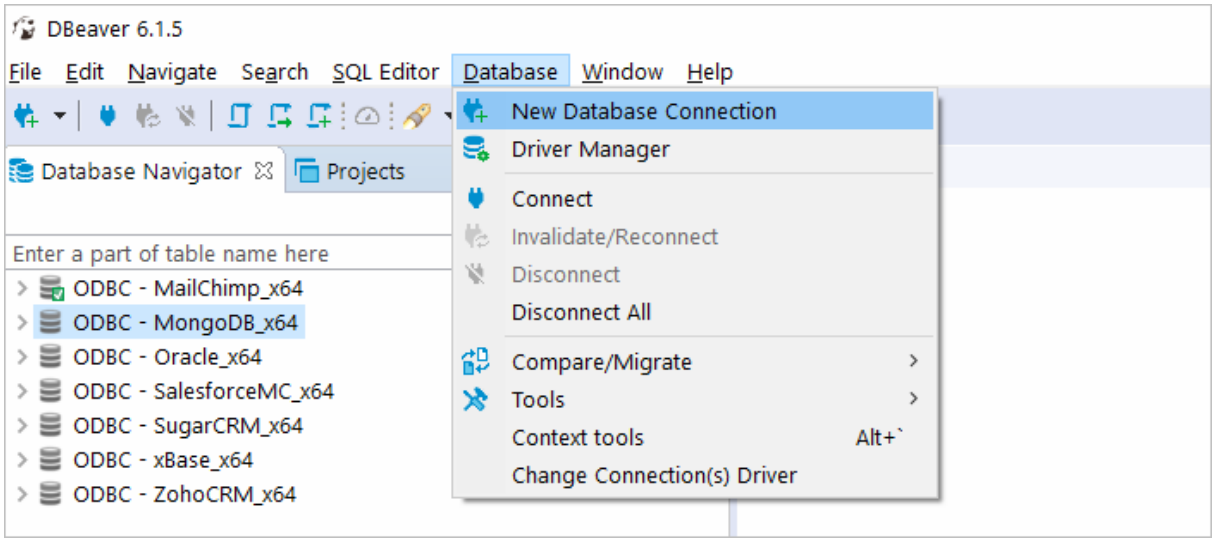
types to Ansi either in the **Advanced Settings** tab of the driver configuration dialog or directly in the connection string (String Types=Ansi) — all string types will be returned as SQL_CHAR, SQL_VARCHAR and SQL_LONGVARCHAR.



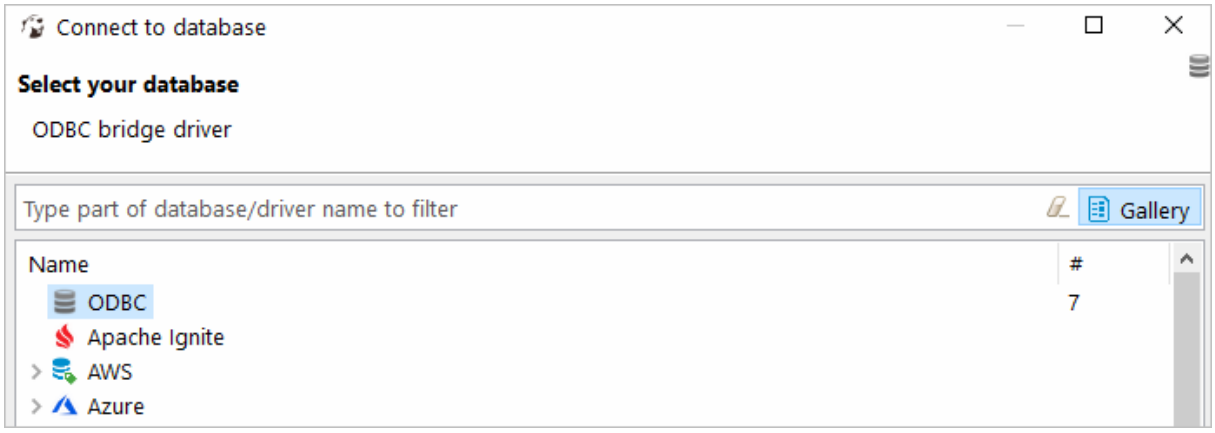
Connecting to Dynamics 365 Data from DBeaver via ODBC Driver for Dynamics 365

Follow the steps below to establish a connection to Dynamics 365 in DBeaver.

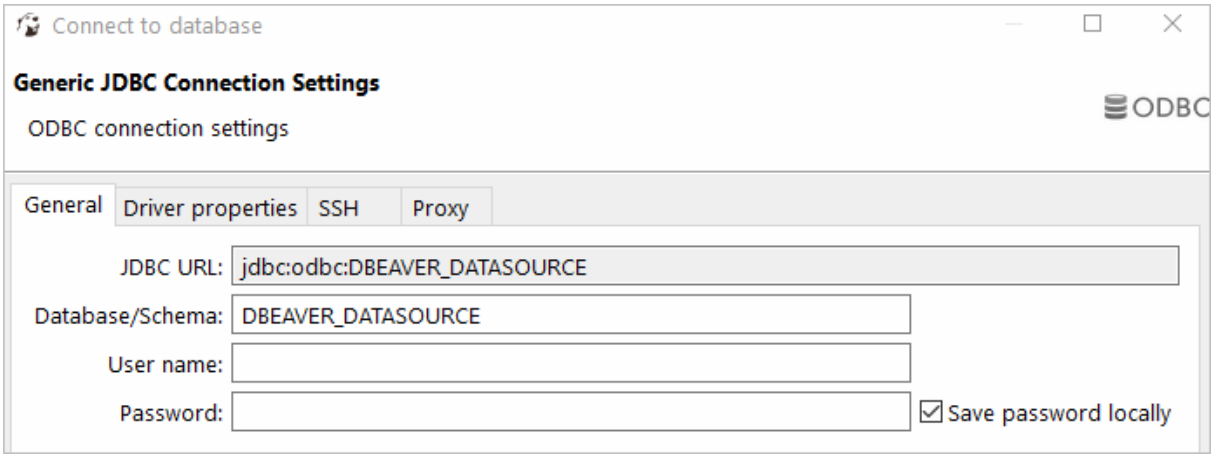
1. In the **Database** menu, select **New Database Connection.**



2. In the **Connect to database** wizard, select **ODBC** and click **Next**.



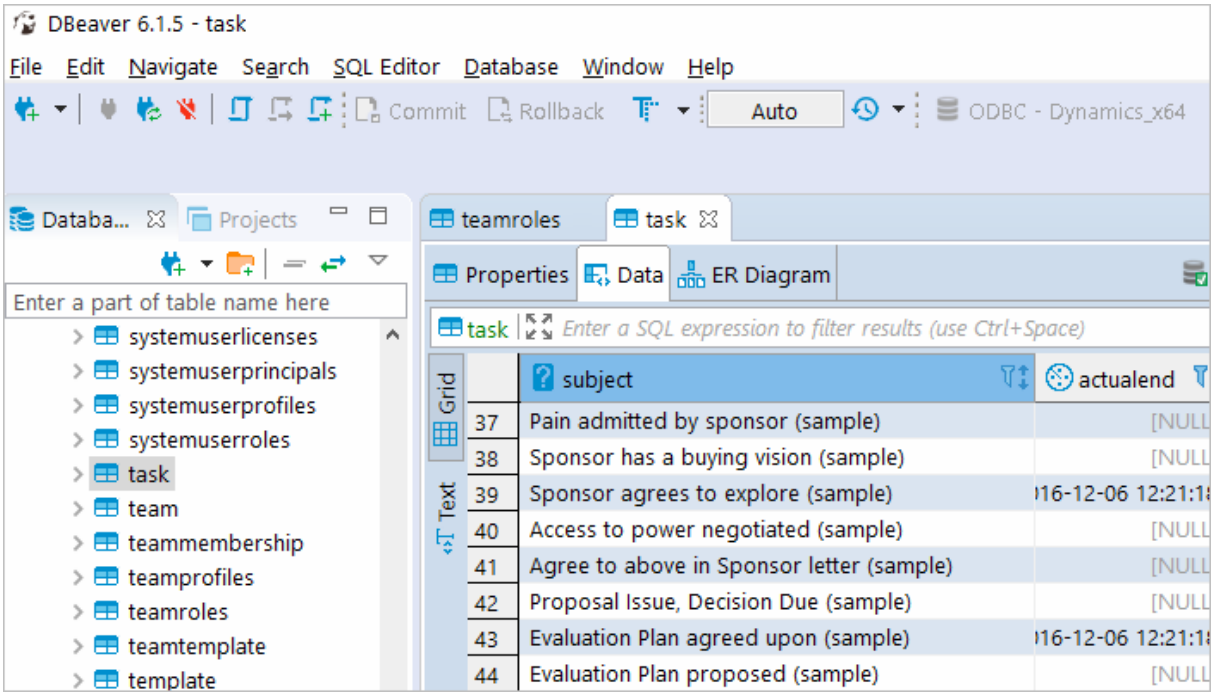
3. Enter the previously configured DSN in the **Database/Schema** field.



4. Click **Test Connection**. If everything goes well, you'll see the **Success** message.

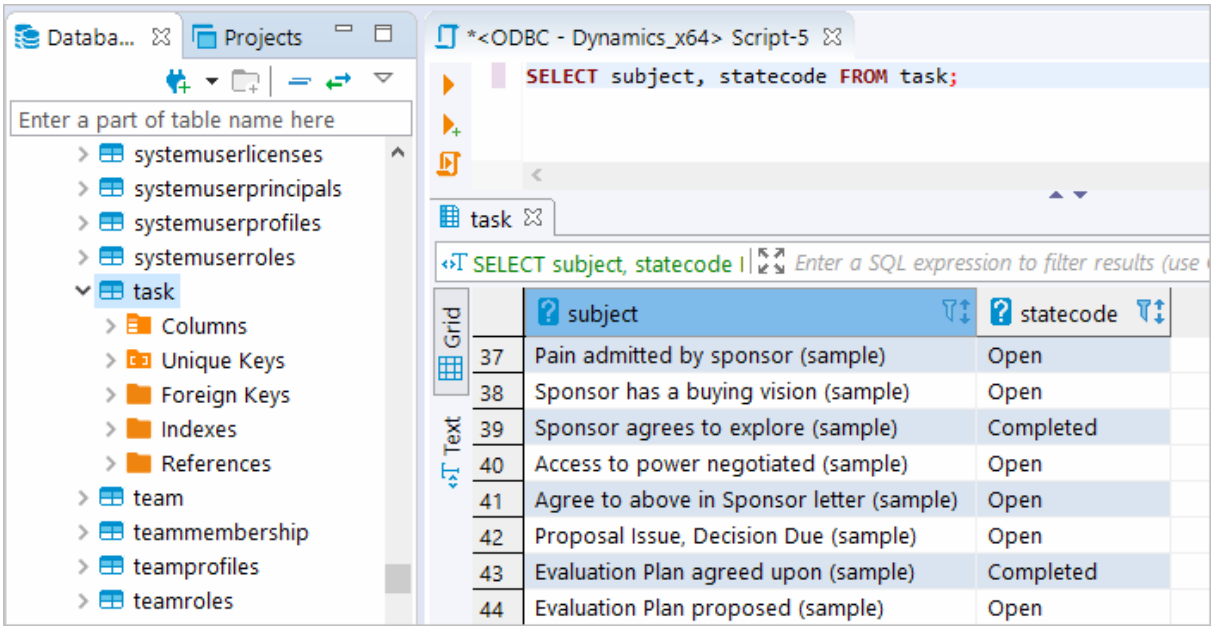
Viewing Dynamics 365 Database Objects and Querying Data

You can expand out the database structure in DBeaver's **Database Navigator** to visualize all the tables in Dynamics 365 database. To view and edit the data in a table, you need to right-click on the target table name and select **View data**.The content of the table will be displayed in the main workspace.



If you want to write a custom SQL query that will include only the necessary columns from the

table, you can select **New SQL Editor** in the **SQL Editor** main menu. Create your query and run it by clicking **Execute SQL Statement** to view the results in the same window.



 Request Support ODBC Forum Provide Feedback

4.2 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 Dynamics 365, 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, `initDynamics 365.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=Dynamics 365
```

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=Dynamics 365)
         (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.

```
Dynamics 365 =
```

```
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = tcp)(HOST = localhost)(PORT = 1521))
    (CONNECT_DATA =
      (SID = Dynamics 365)
    )
    (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

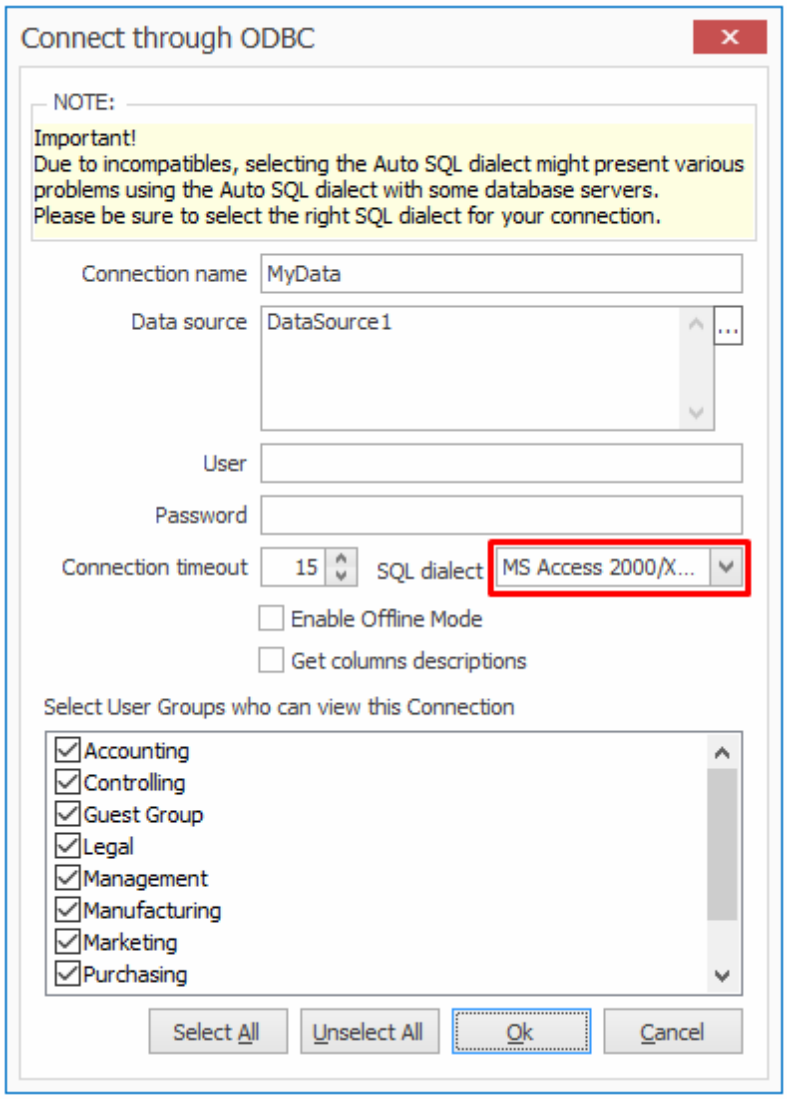
Request Support ODBC Forum Provide Feedback

4.3 Using in DBxtra

Troubleshooting Dynamics 365 ODBC Connection in DBxtra

This page explains how to troubleshoot your ODBC connection to Dynamics 365 in DBxtra.

Due to incompatibilities between DBxtra and Dynamics 365, 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

4.4 Using in Microsoft Access

Connecting Microsoft Access to Dynamics 365 Using an ODBC Driver

This article explains how to connect Microsoft Access to Dynamics 365 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 Dynamics 365 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 Dynamics 365. For the purpose of this article, we tested an ODBC connection to Dynamics 365 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 Dynamics 365.

Importing Dynamics 365 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 Dynamics 365 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 Dynamics 365 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 Dynamics 365 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 Dynamics 365 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.

Request Support ODBC Forum Provide Feedback

4.5 Using in Microsoft Excel

Connecting to Dynamics 365 from Microsoft Excel using ODBC Driver for Dynamics 365

You can use Microsoft Excel to access data from a Dynamics 365 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 Drive, 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.

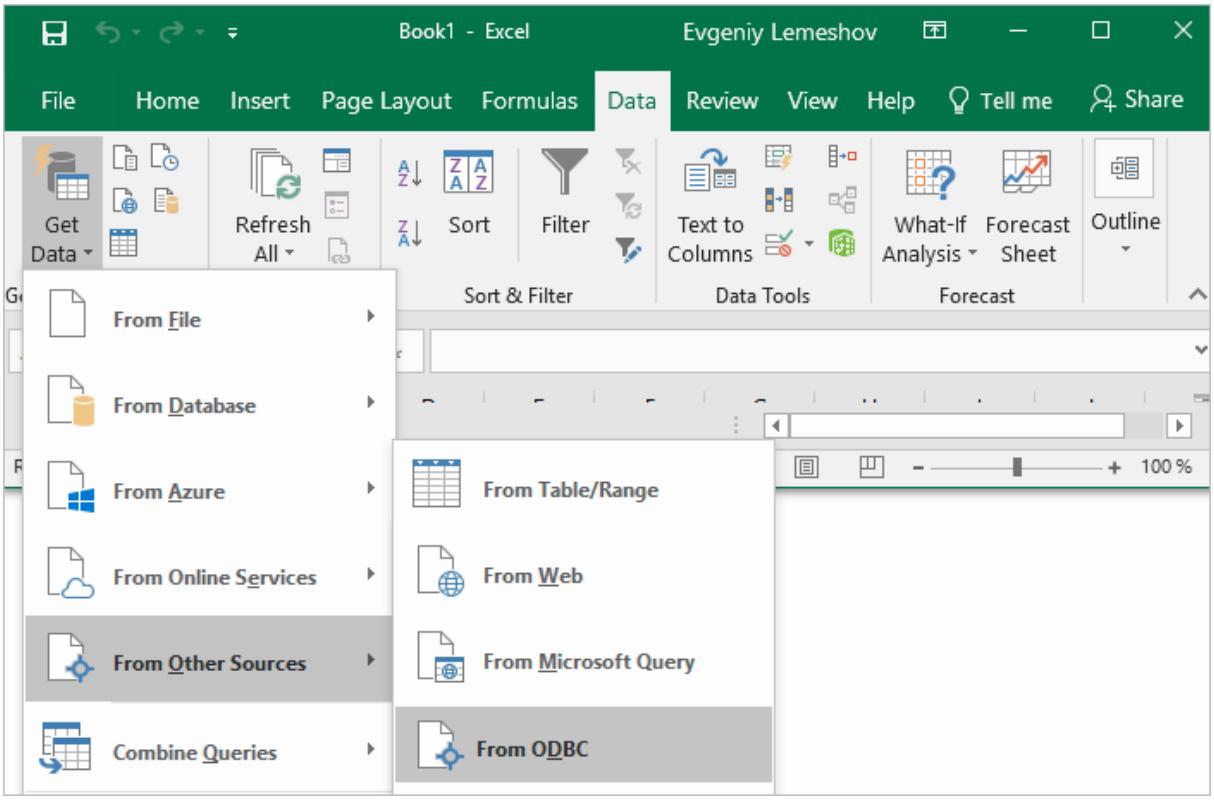
- Connecting Excel to Dynamics 365 with Get & Transform (Power Query)

- Connecting Excel to Dynamics 365 with Data Connection Wizard (Legacy Wizard)
- Connecting Excel to Dynamics 365 with the Query Wizard
- Connecting Excel to Dynamics 365 with Microsoft Query
- Connecting Excel to Dynamics 365 with PowerPivot

Connecting Excel to Dynamics 365 with Get & Transform (Power Query)

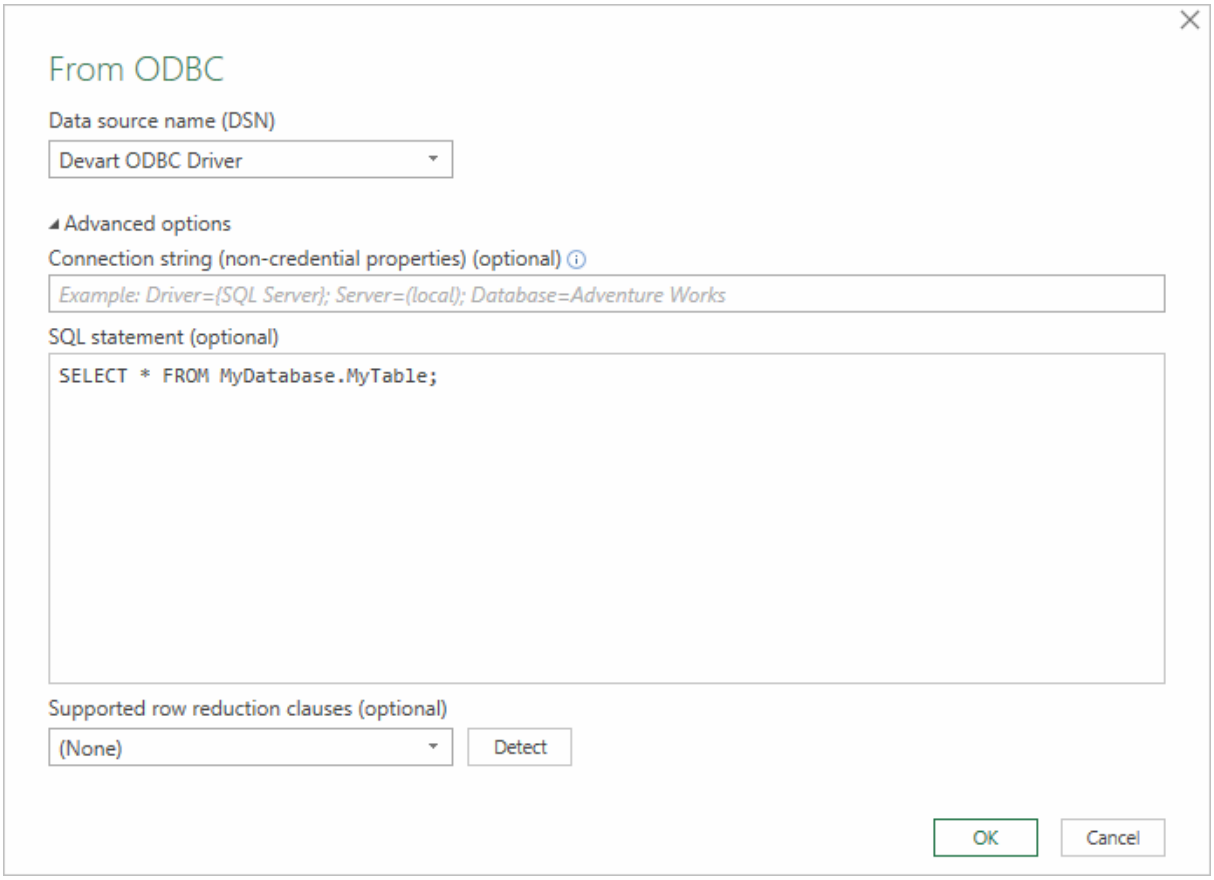
You can use Get & Transform (Power Query) to connect to Dynamics 365 from Excel with ODBC. This method assumes that you've installed an ODBC driver for Dynamics 365.

1. Click the **Data** in Excel, then expand the **Get Data** drop-down list. Click **From Other Sources > From ODBC**.

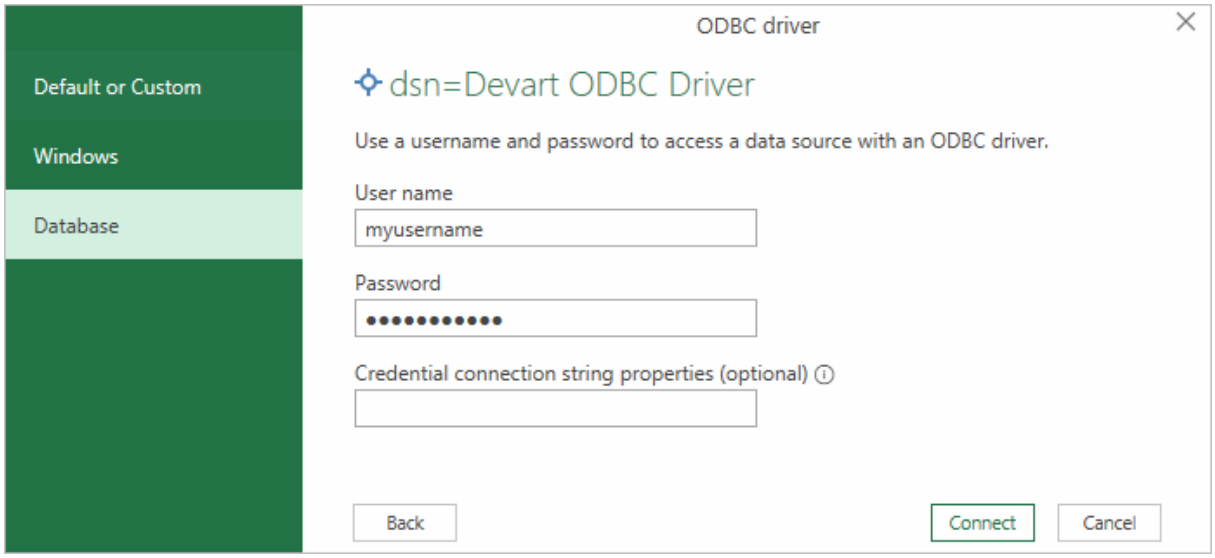


2. In the **From ODBC** dialog, choose your data source name (DSN). If you haven't configured your ODBC driver yet, you can expand the **Advanced Options** dialog box and enter the connection string for your data source (without credentials, which are defined in the

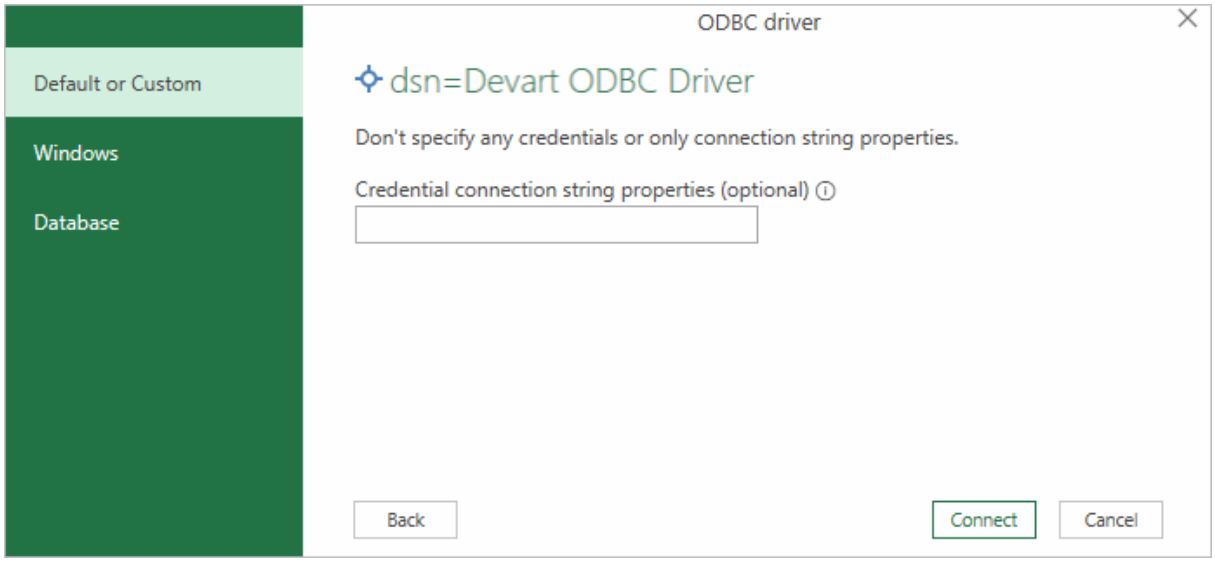
credentials dialog box in the next step). Additionally, you can enter an SQL statement that will be executed right after establishing a connection to the data source. Click **OK**.



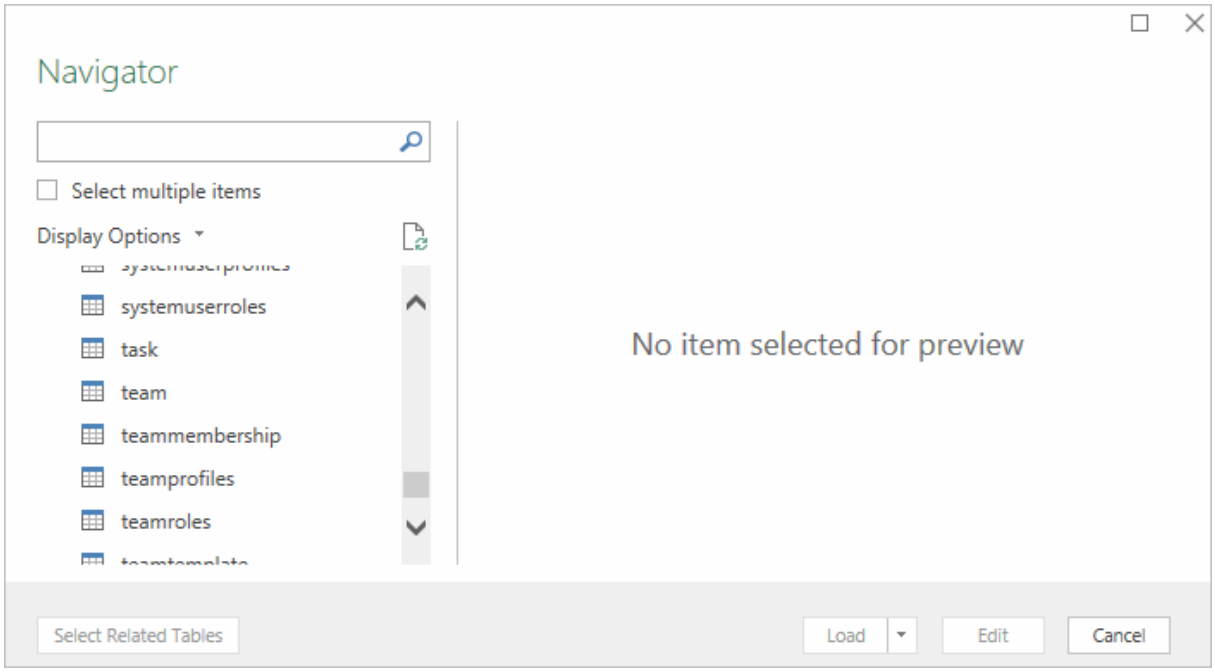
3. If you're using a database username or password, select **Database** and enter your credentials in the dialox bog, then click **Connect**.



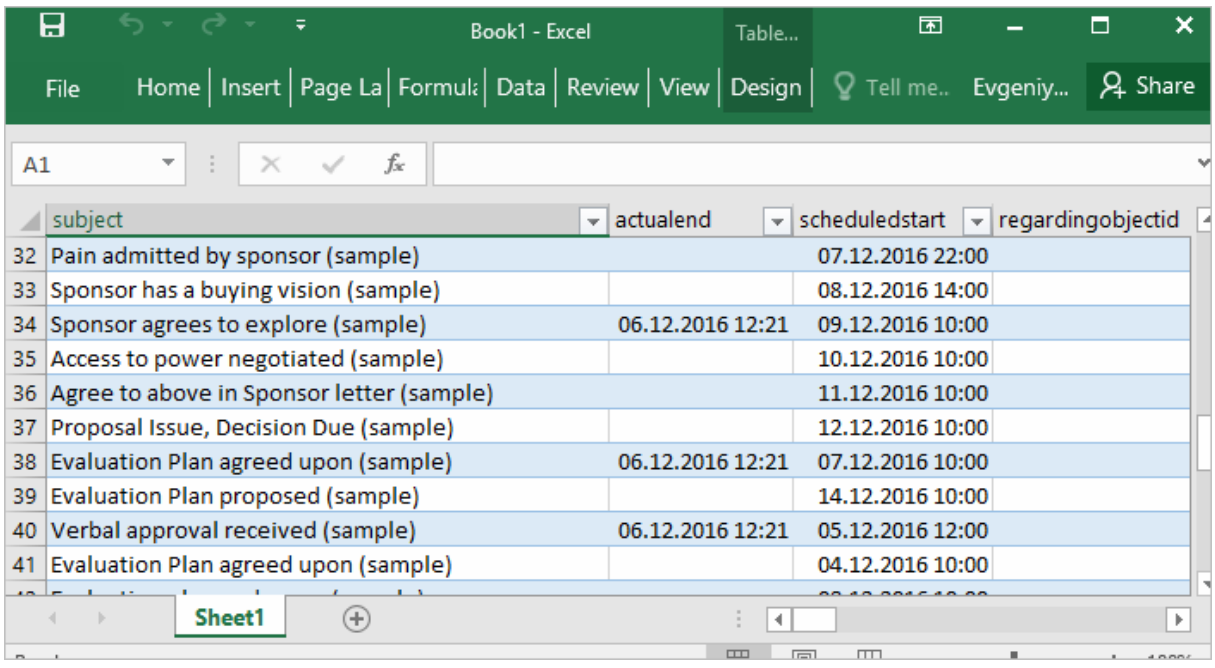
If your database is not password-protected or you've already specified your credentials in the ODBC data source settings, select **Default or Custom** and press **Connect**



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 Dynamics 365 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 Dynamics 365 with the Query Wizard

You can use this option to create a simple query for retrieving data from Dynamics 365 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 Dynamics 365 with Microsoft Query

You can use this option to create a more complex query for retrieving Dynamics 365 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 Dynamics 365). 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 Dynamics 365 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 Dynamics 365), 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.

Request Support ODBC Forum Provide Feedback

4.6 Using in SQL Server Management Studio

This section describes how to establish and troubleshoot a connection to Dynamics 365 from SQL Server Management Studio using ODBC Driver for Dynamics 365.

- Creating a Linked Server
- Troubleshooting in SSMS

Request Support ODBC Forum Provide Feedback

4.6.1 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 Dynamics 365 and SQL Server must be installed on the same computer.
- .NET Framework 4.5 must be installed on the computer.

Connecting to Dynamics 365 from SQL Server Management Studio using ODBC Driver for Dynamics 365

You can use the Microsoft SQL Server Management Studio to connect your Dynamics 365 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 Dynamics 365 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 Dynamics 365:

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 Dynamics 365

You can follow the steps to create a linked server for Dynamics 365 in SQL Server Management Studio by using Object Explorer:

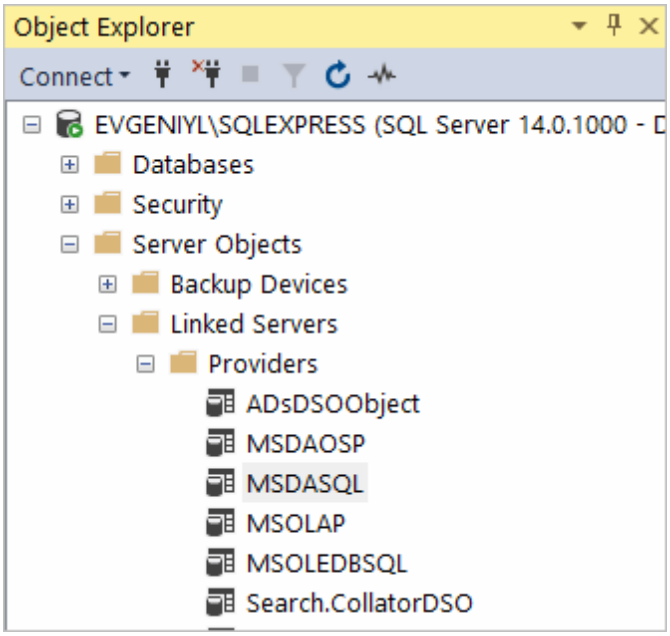
1. Start your Management Studio and choose your SQL Server instance.
2. In the **Object Explorer pane**, expand the **Server Objects**, right-click on **Linked Servers** and then click on **New Linked Server**.
3. Configure your linked server in the dialog box:
   - Give a name for your server in the **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 Dynamics 365 . 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 Dynamics 365 databases through SQL Server.

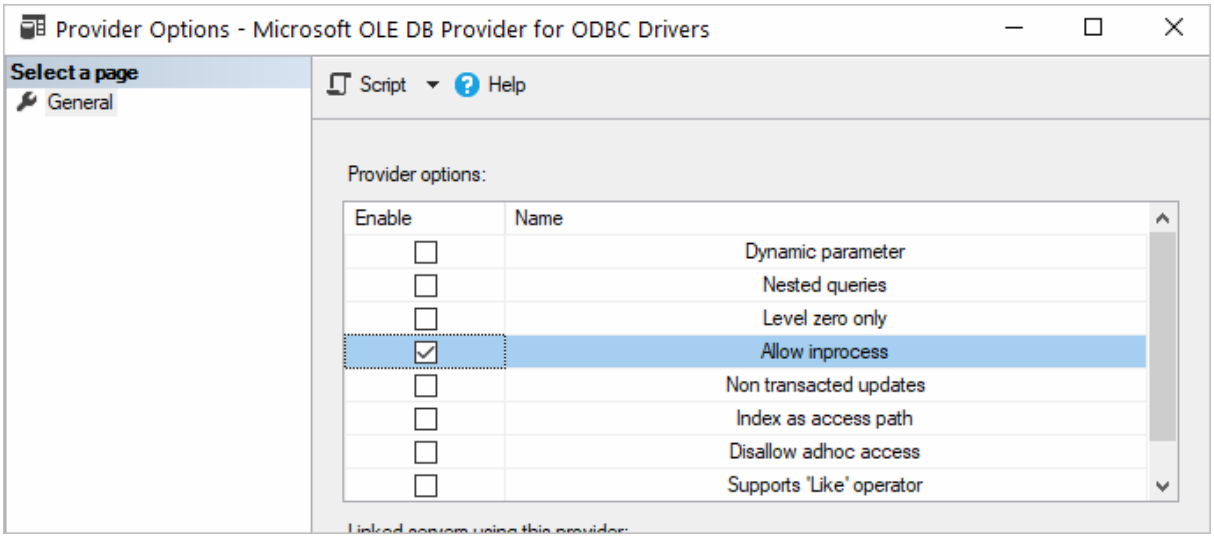
Retrieving Data From Dynamics 365

Ensure the **Allow inprocess option** of MSDASQL OLE DB Provider for ODBC Drivers is

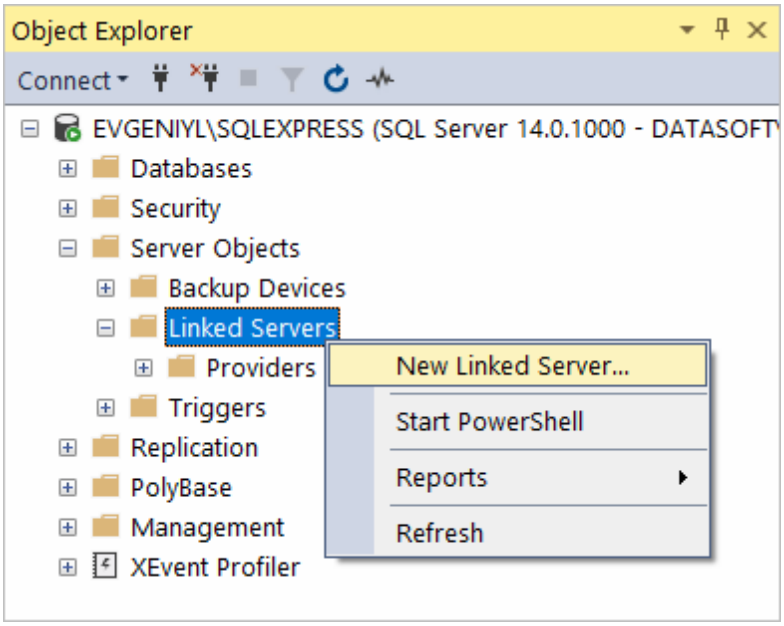
enabled. For this, find the **MSDASQL** provider in the list of Linked Servers and double-click on it



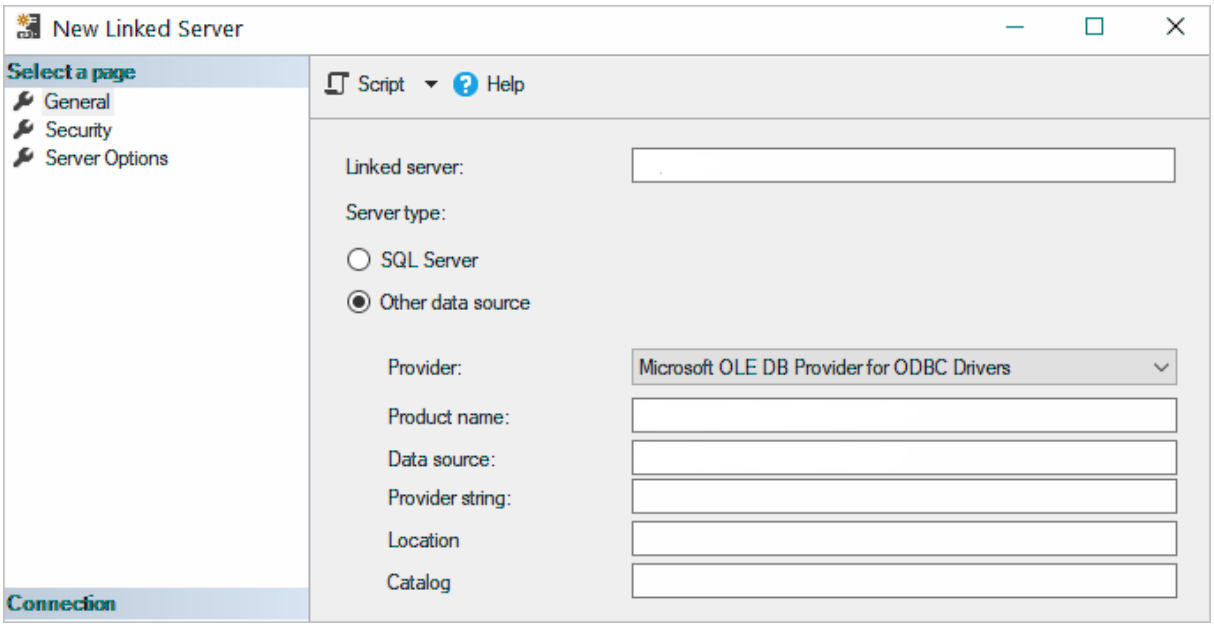
In the appeared **Provider Options** window, enable the **Allow inprocess** checkbox:



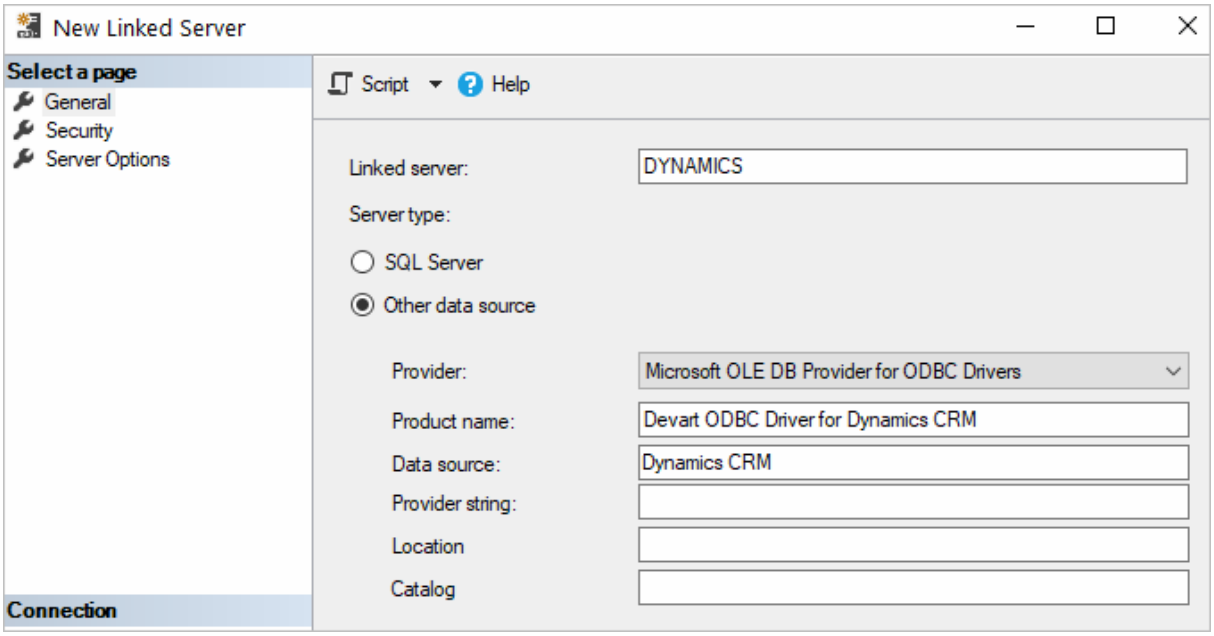
Create a new **Linked Server**



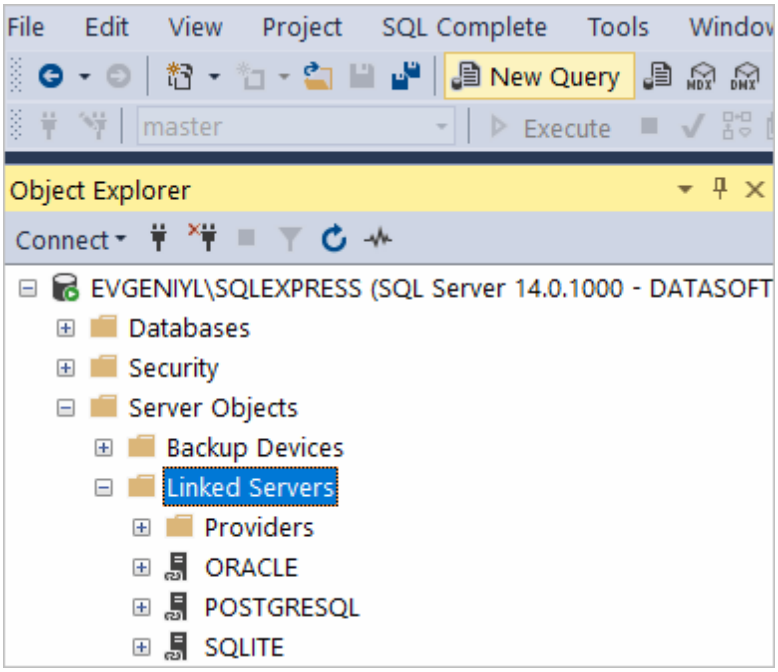
Make sure to select **Microsoft OLE DB Provider for ODBC Drivers**:



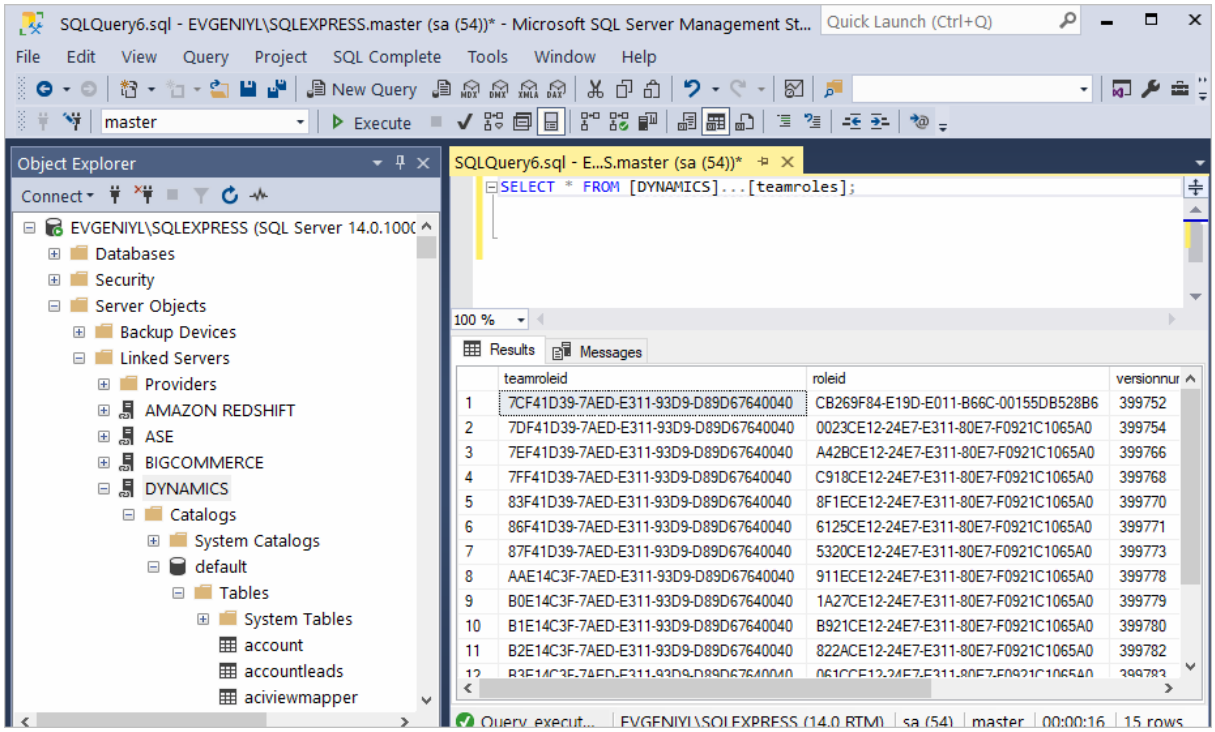
Now you need to input the Linked Server name, e.g. DYNAMICS. In the Product Name and Data Source fields you need to indicate the System DSN that you've previously created - more info on System DSN setup can be found here.



The Dynamics 365 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 Dynamics 365 account you are connected to.

See also

- Troubleshooting SSMS

Request Support ODBC Forum Provide Feedback

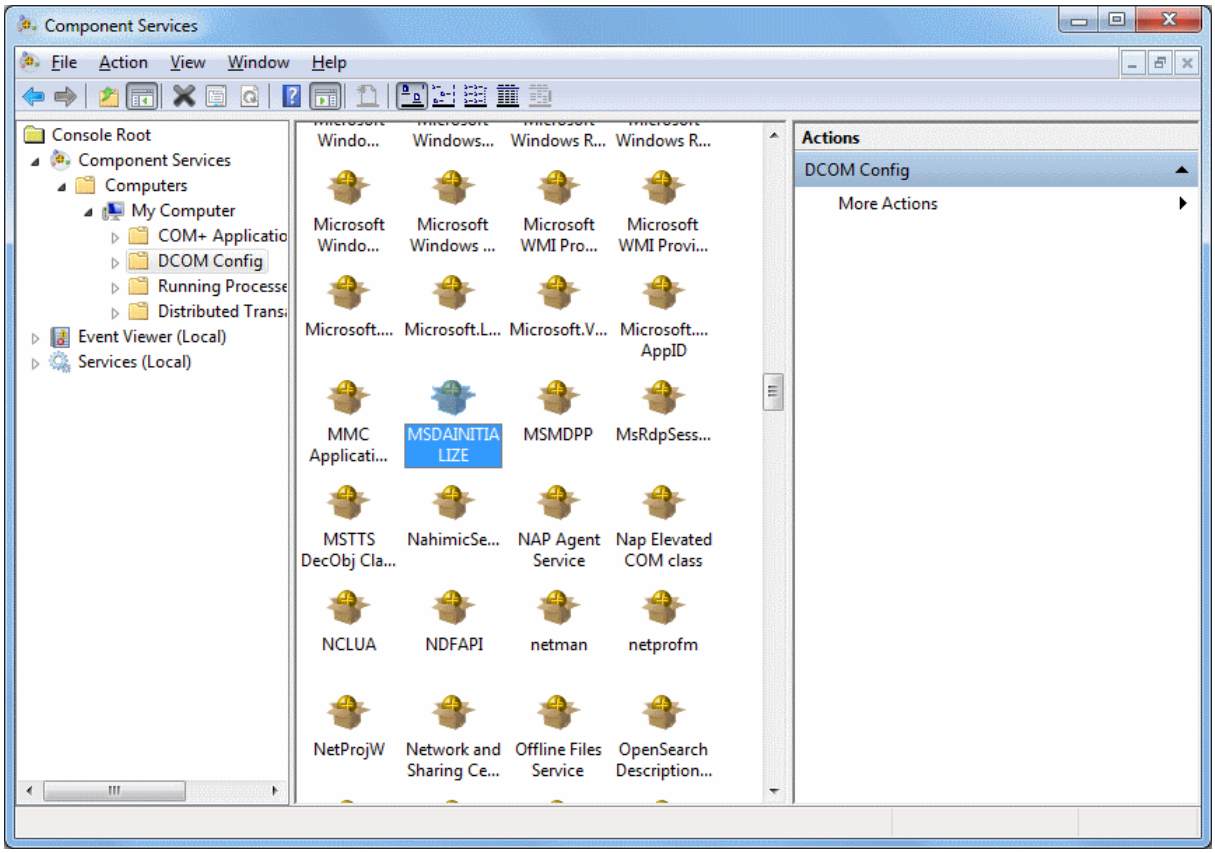
4.6.2 Troubleshooting in SSMS

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.

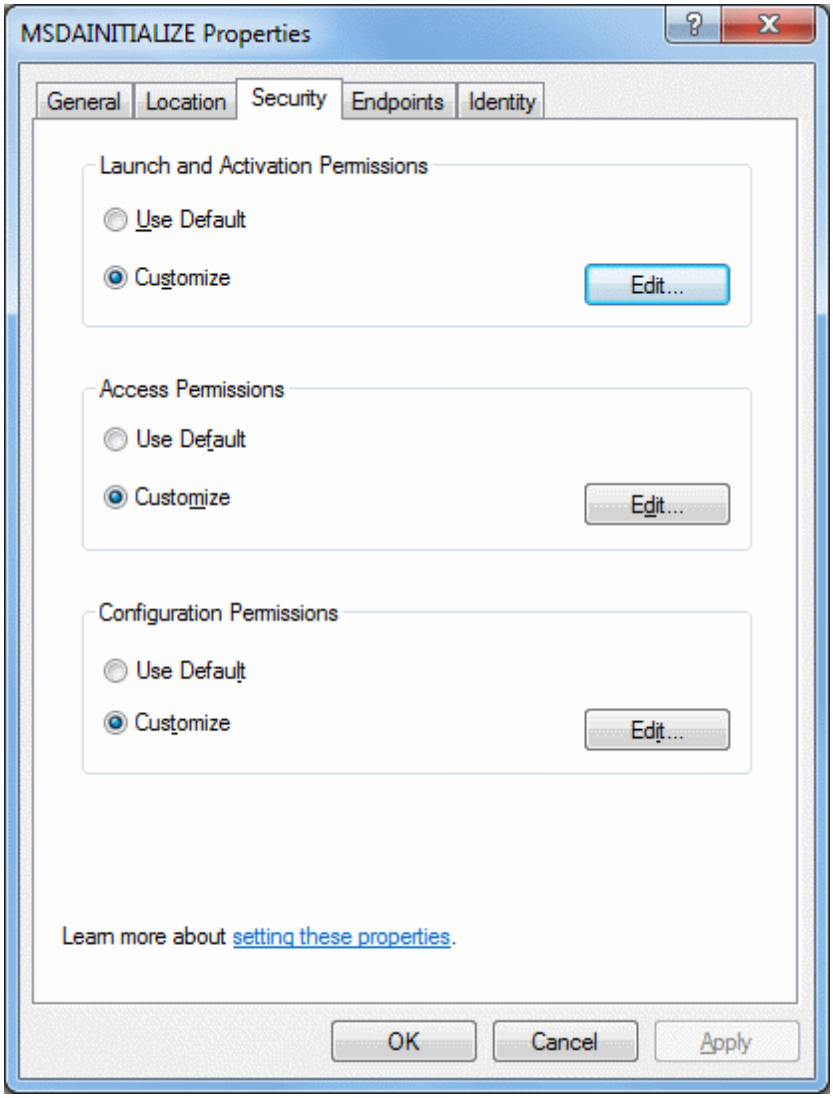
Following are the steps:

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:

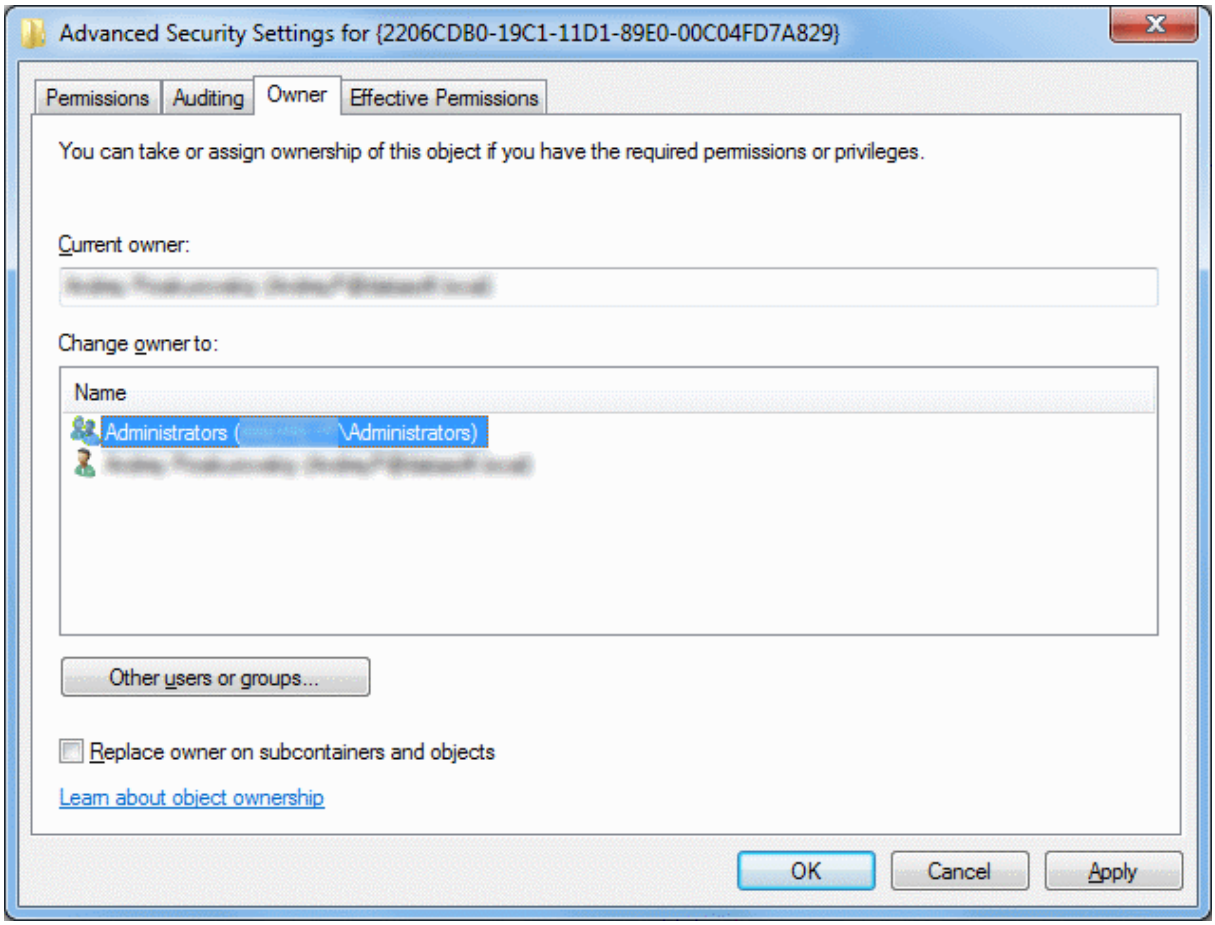


5. Add the Domain User who is accessing the linked server and ‘Allow’ all the permissions available (Local Launch, Remote Launch, Local Activation, Remote Activation). If you are connecting to SQL server using SQL account, you need to provide this permission to the account under which the SQL service is running.
6. Do this for all the 3 sections in the above screenshot.

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

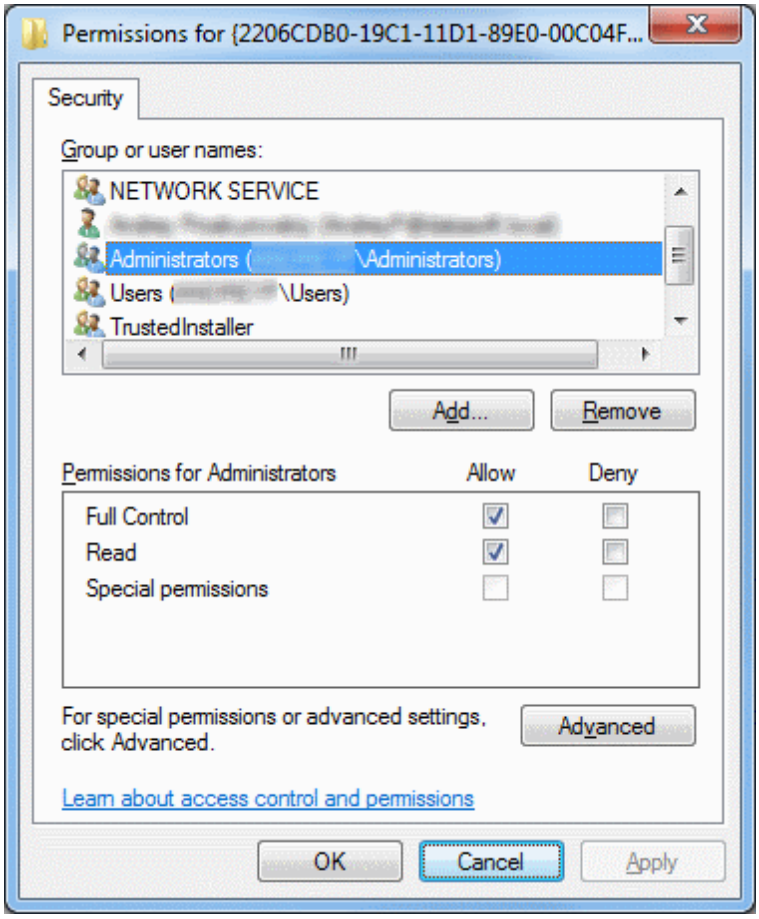
1. Start > Run > Regedit
2. Find the Key: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\AppID\{2206CDB0-19C1-11D1-89E0-00C04FD7A829}

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"

Request Support ODBC Forum Provide Feedback

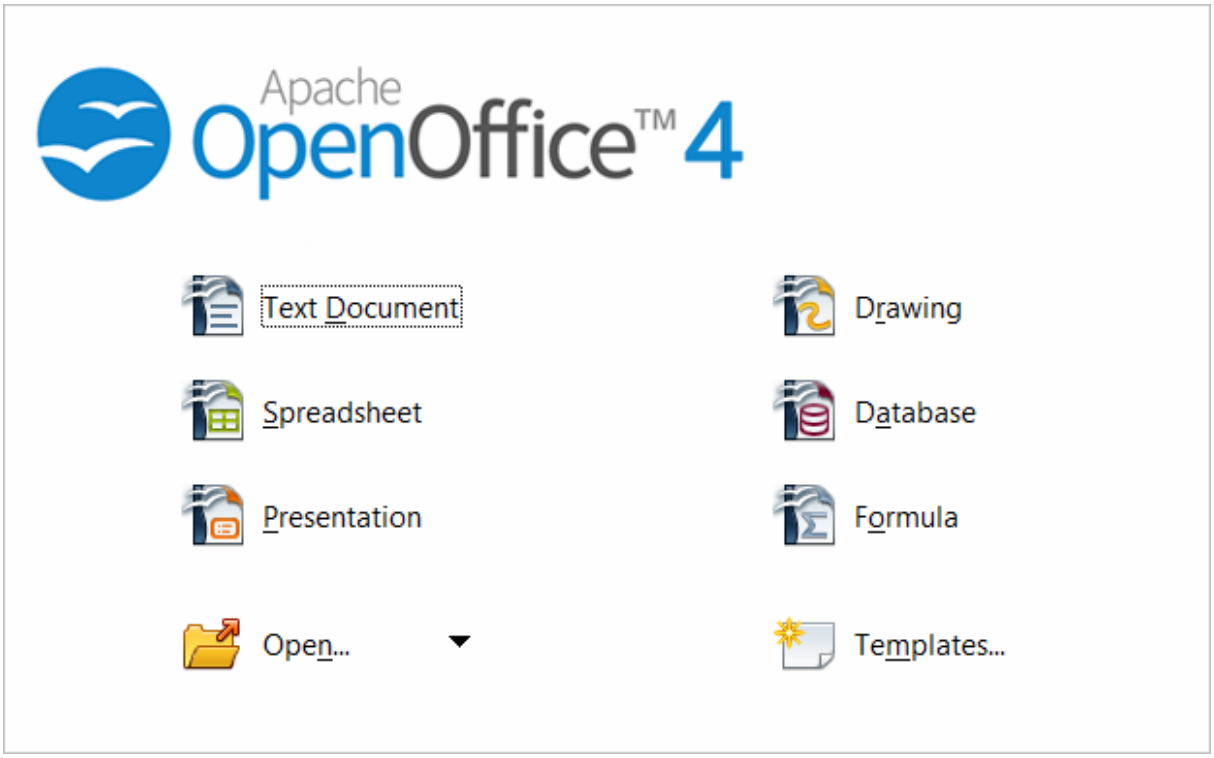
4.7 Using in OpenOffice and LibreOffice

Connecting to Dynamics 365 from OpenOffice and LibreOffice using ODBC Driver for Dynamics 365

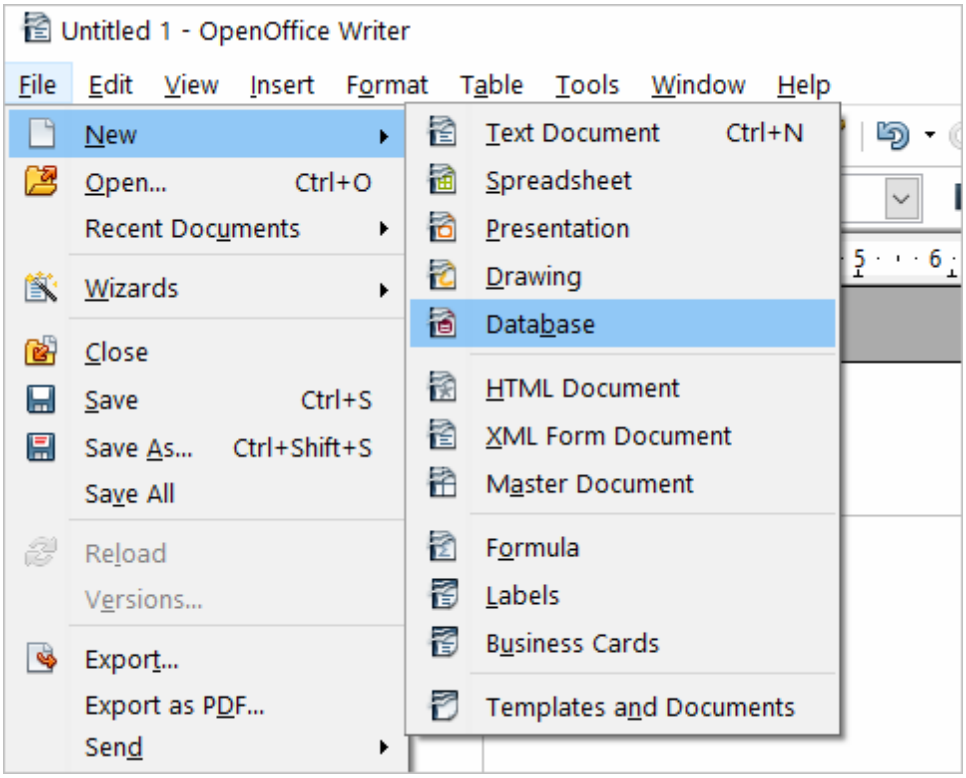
The article describes how to use Apache OpenOffice and LibreOffice to access ODBC data sources using the respective driver. You can access Dynamics 365 data from Open Office Base or LibreOffice Base — desktop database management systems. Note that the Windows version of OpenOffice is 32-bit, and you 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 Dynamics 365, perform the steps below:

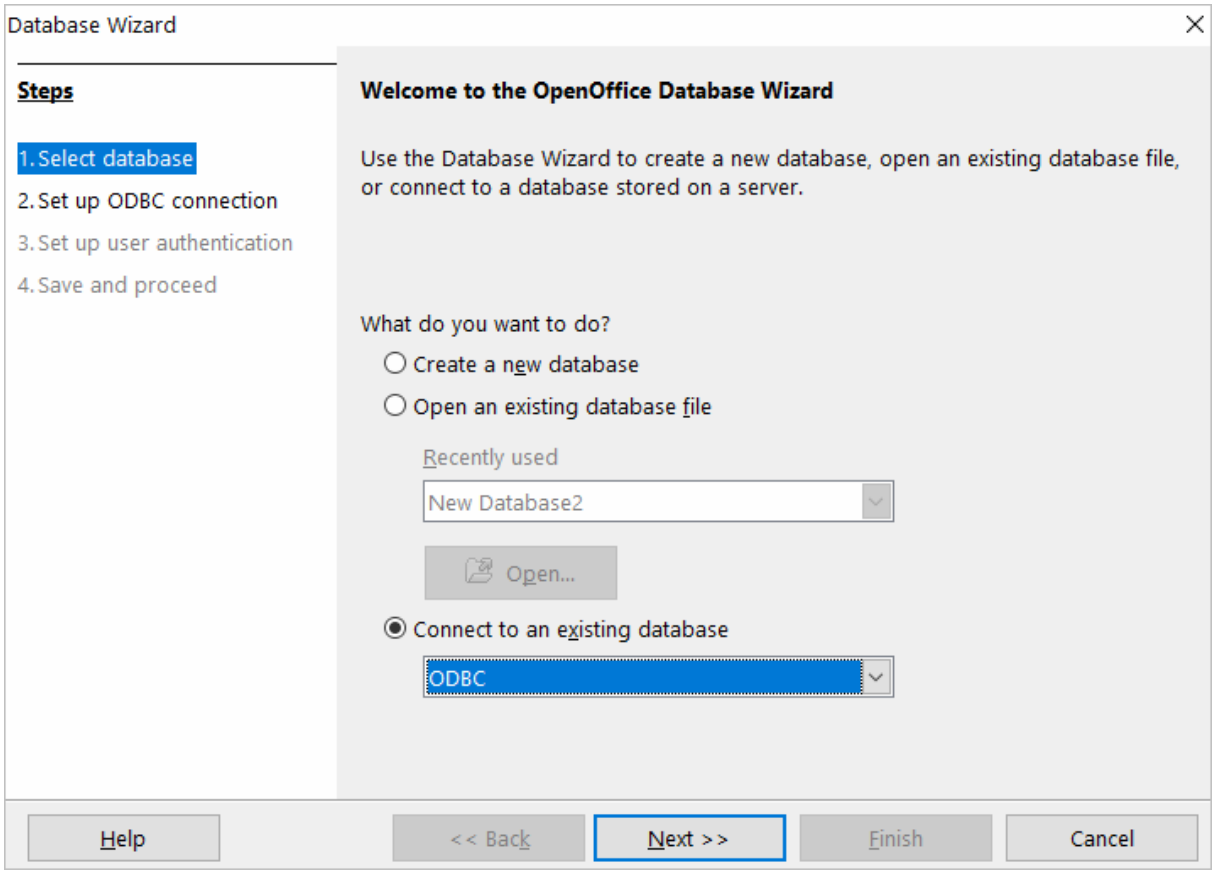
1. Start OpenOffice or LibreOffice, click **Database** to open the **Database Wizard**.



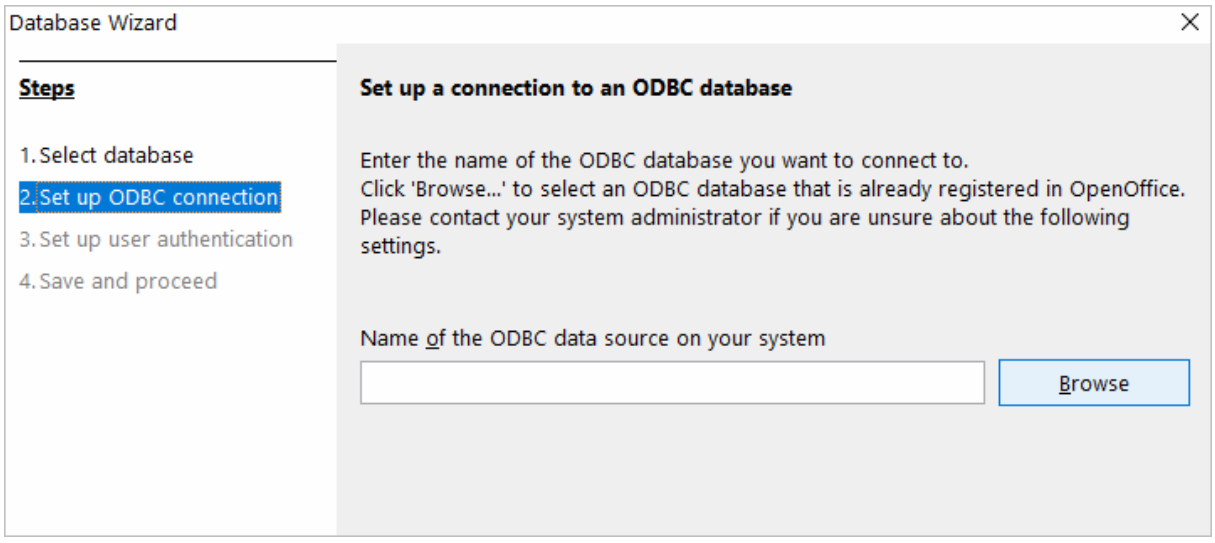
Alternatively, you can launch the **Database Wizard** from OpenOffice or LibreOffice Calc, Writer or any other tool by choosing **File > New > Database**.

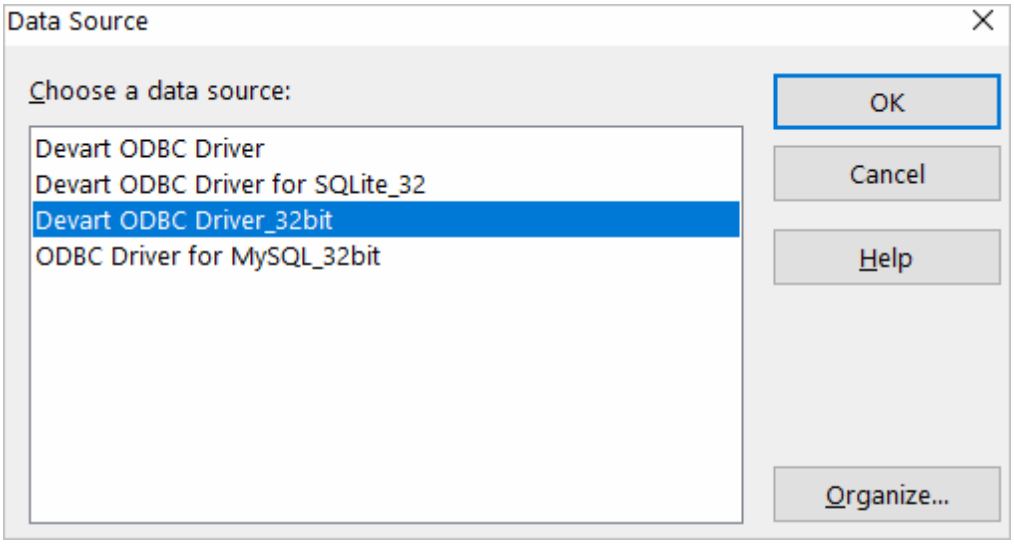


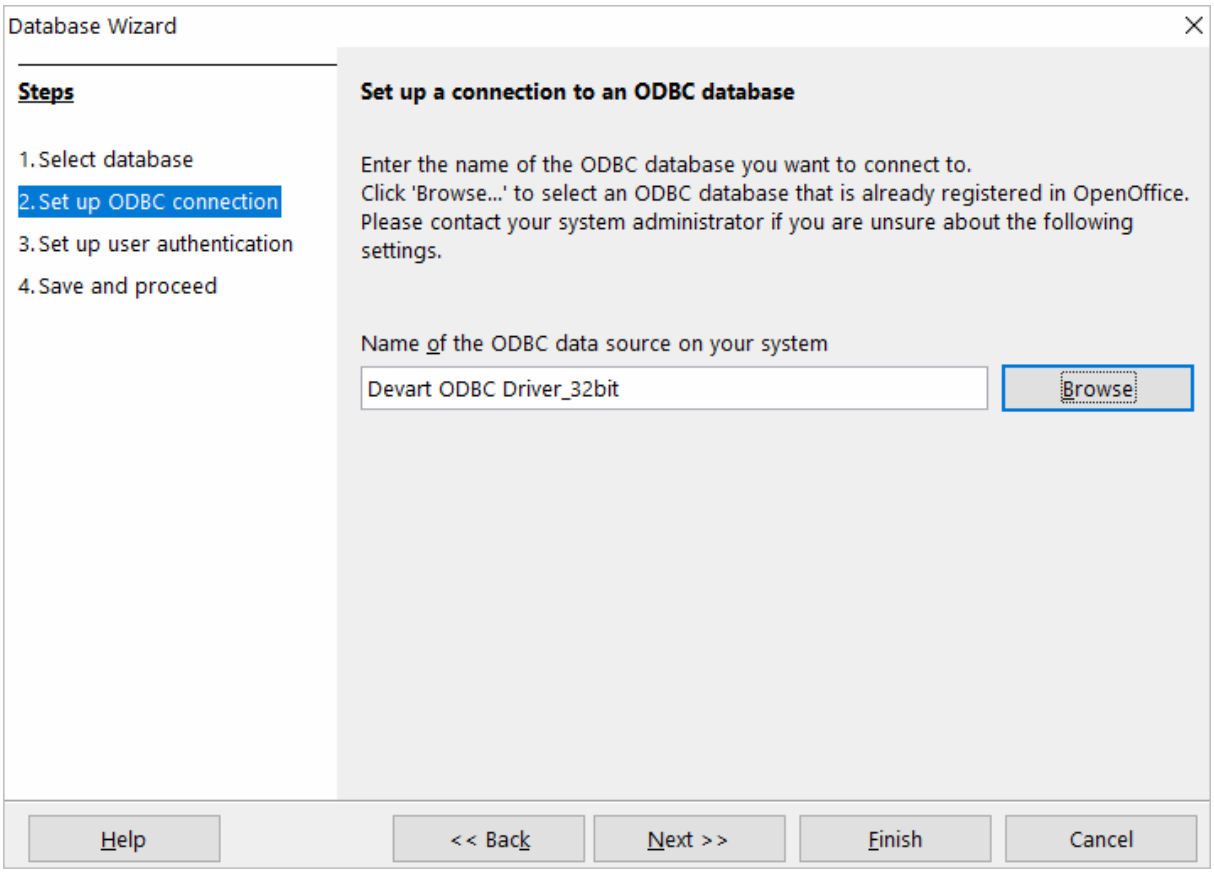
2. In the **Database Wizard dialog box**, click **Connect to an existing database**, select **ODBC** from the drop-down list, and click **Next**.



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 Dynamics 365**, or you can click **Browse**, double-click the data source you need, and then click **Next**.

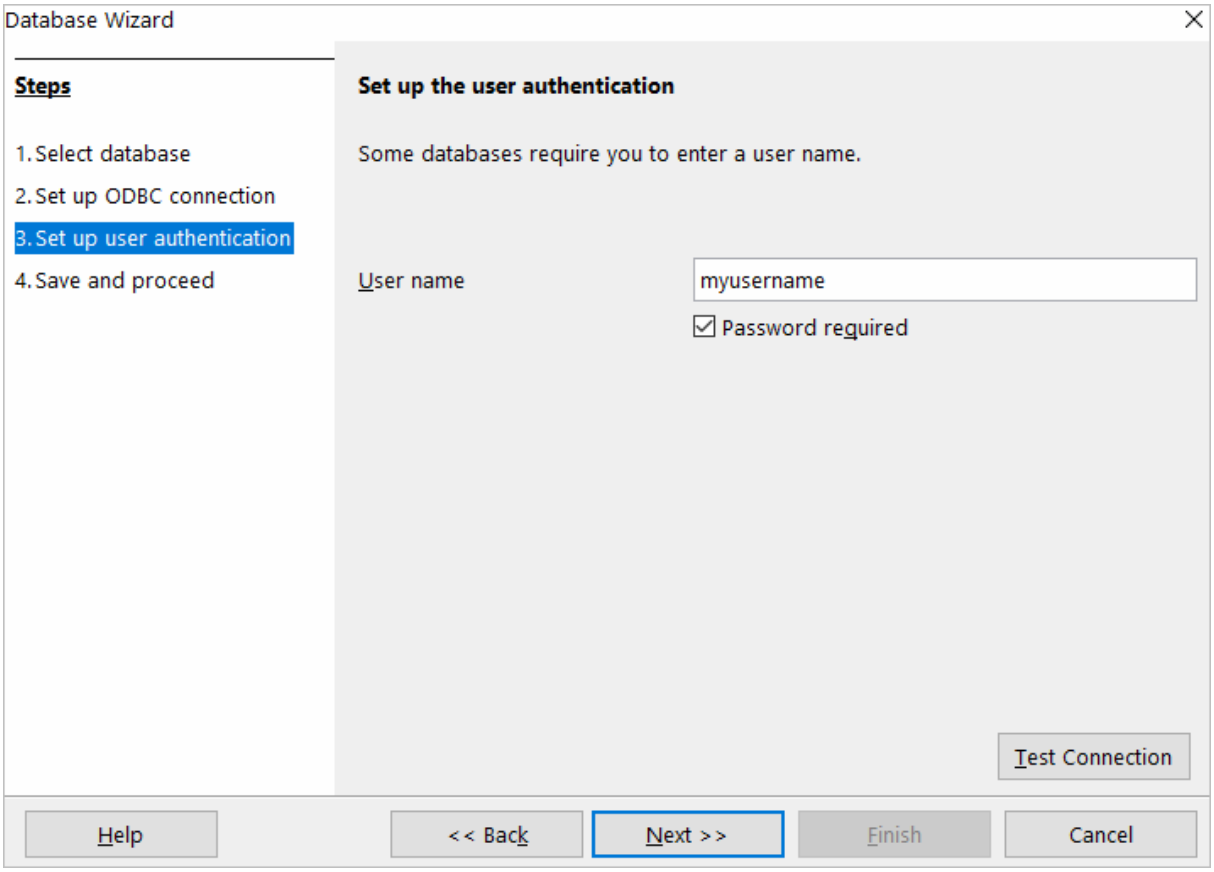




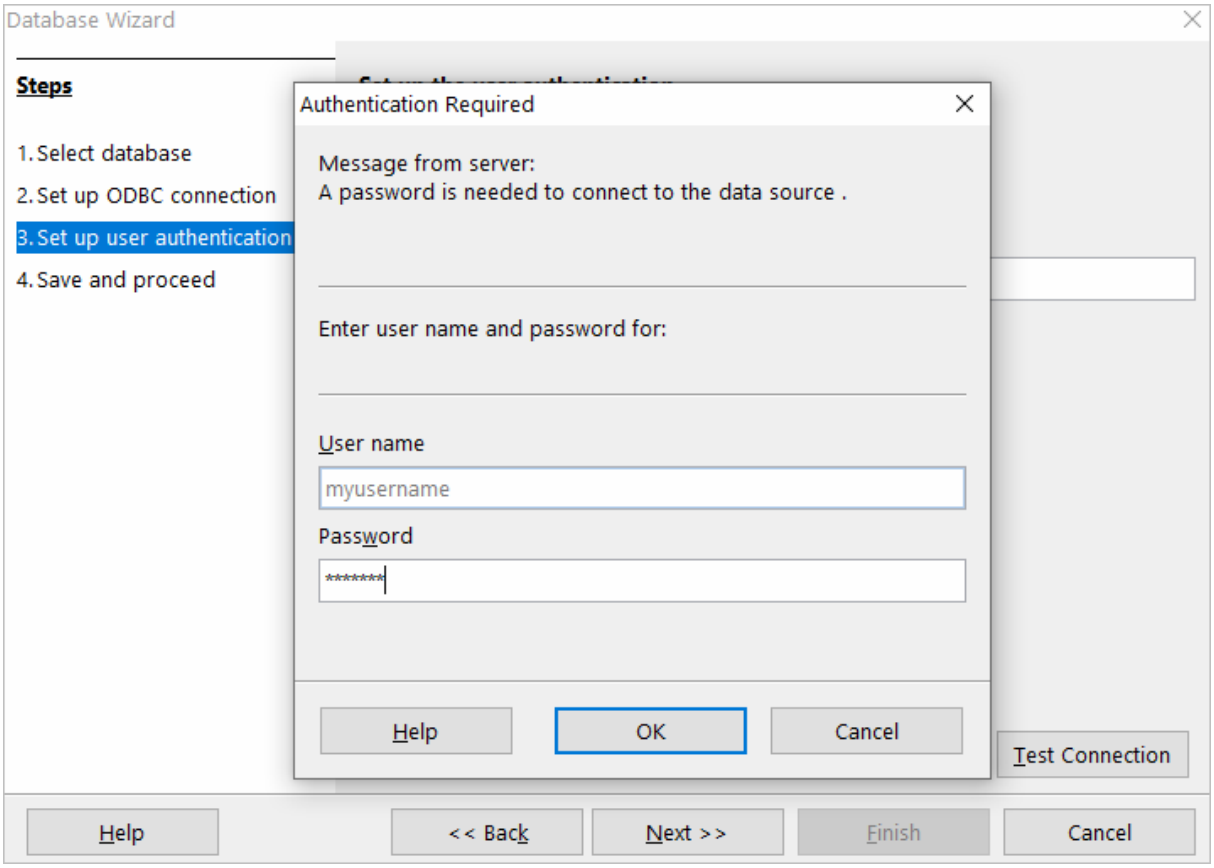


4. If your database requires a user name, type it into the **User name** field. If you are connecting to a password protected database, check the **Password required** field. Alternatively, you can specify these parameters in the data source settings of your ODBC

Driver for Dynamics 365 and leave these fields empty in **Database Wizard**.

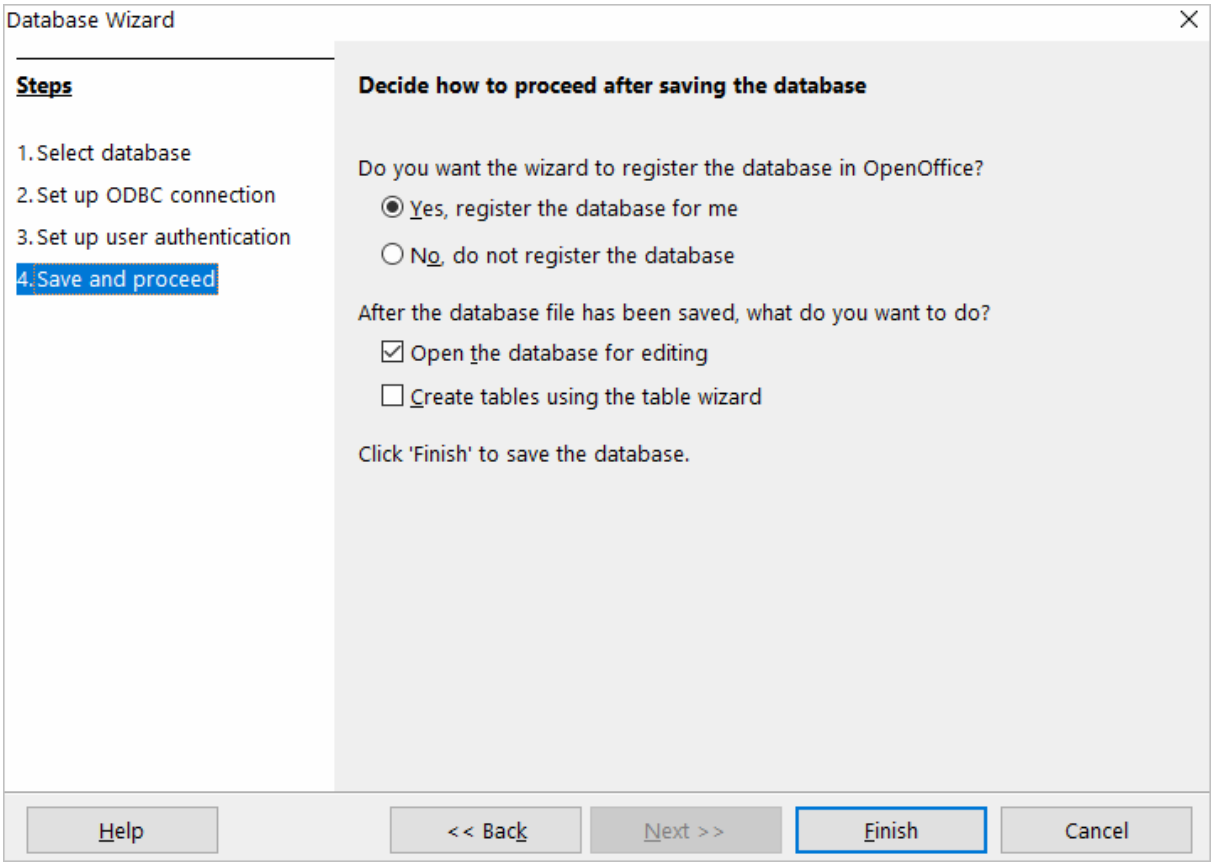


To test the connection to your data source, click **Test Connection**, input your credentials and click **OK**.

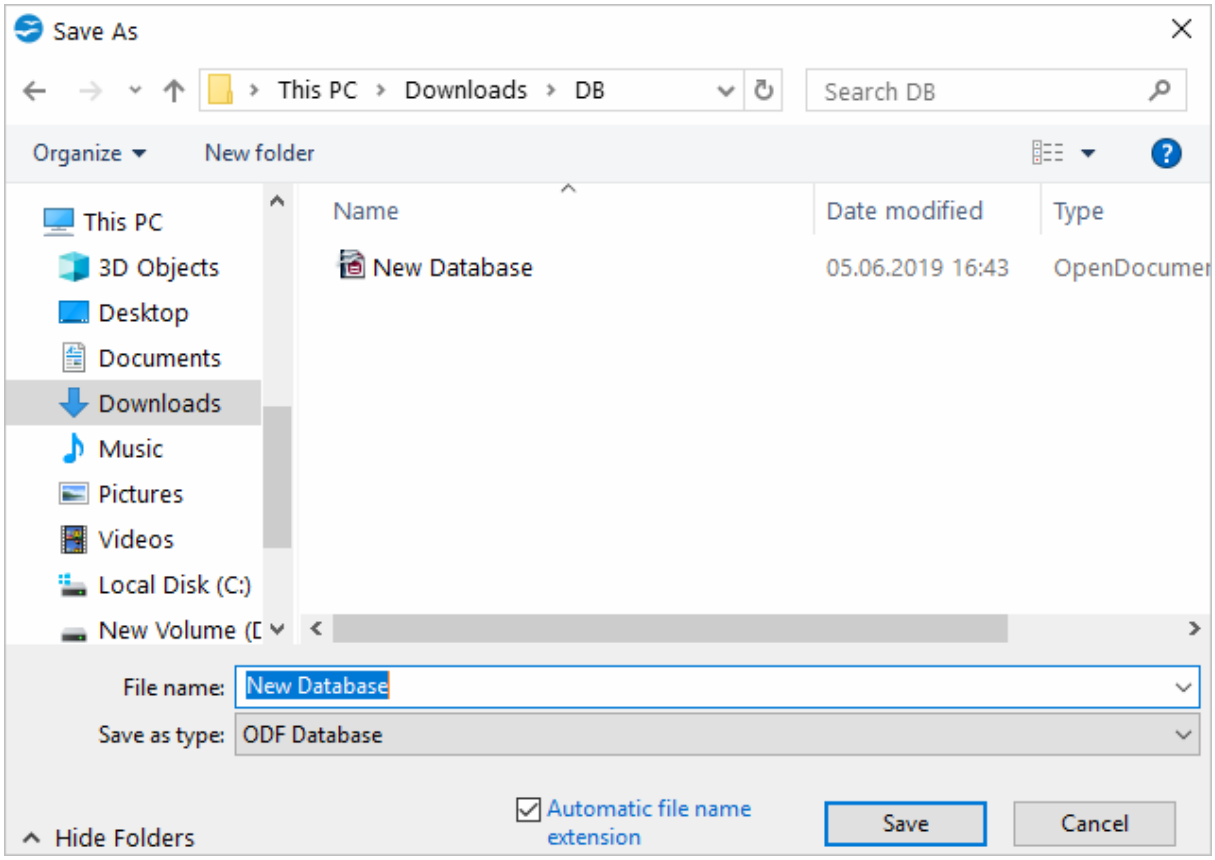


If you have entered valid credentials, you will see a success message. Click **Next** to proceed to the final step.

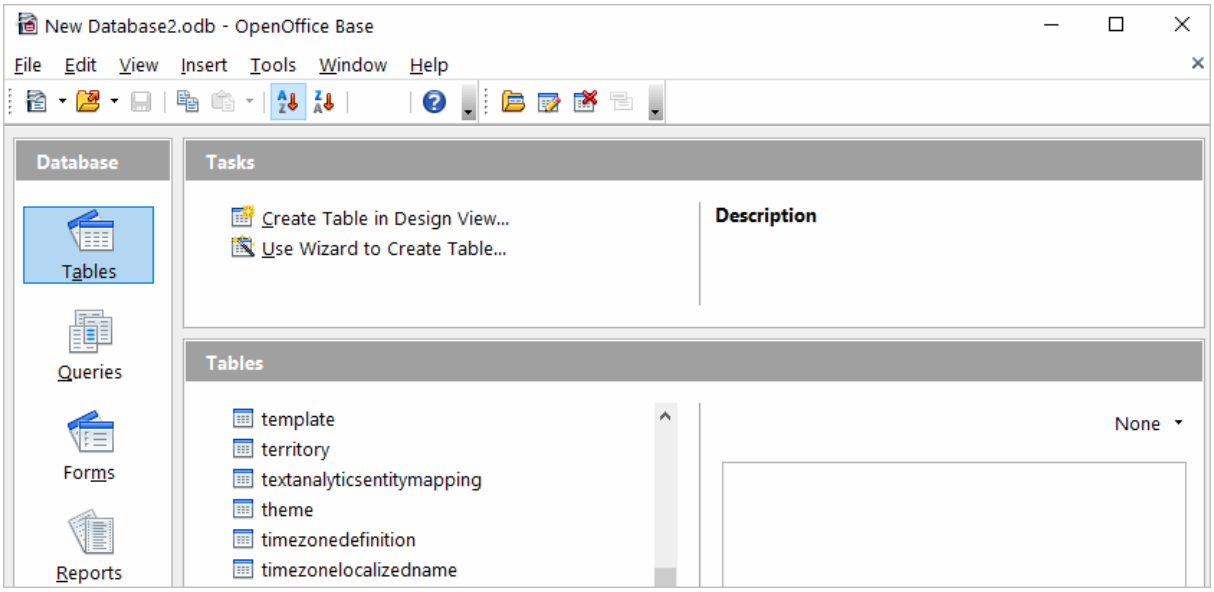
5. You can keep the default selection in this dialog box and click **Finish**.

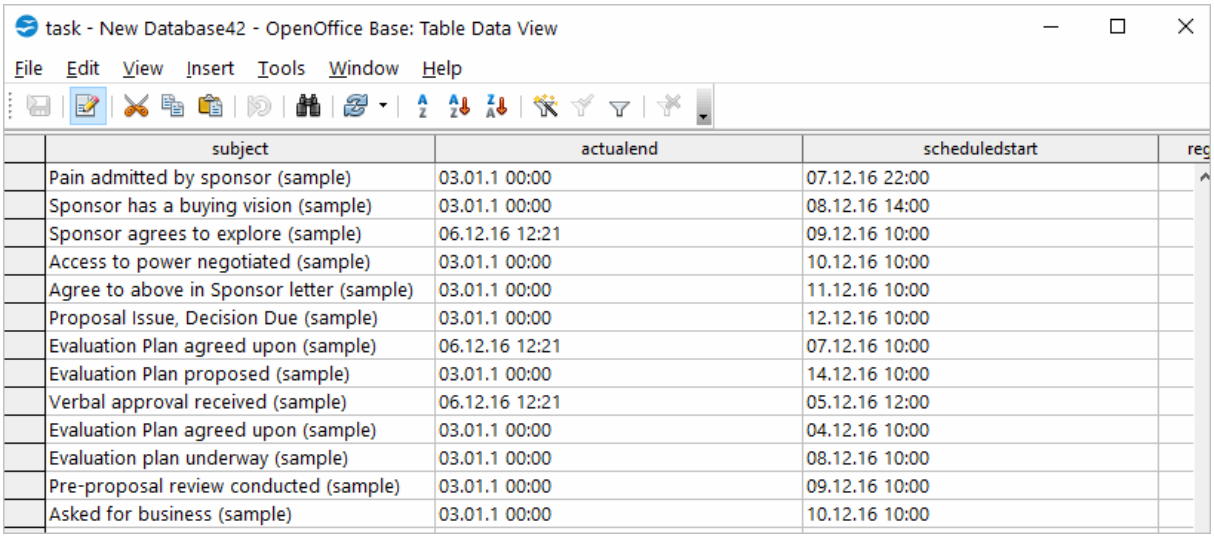


You will be prompted to give a name to your new database and select the directory where you want to store it.



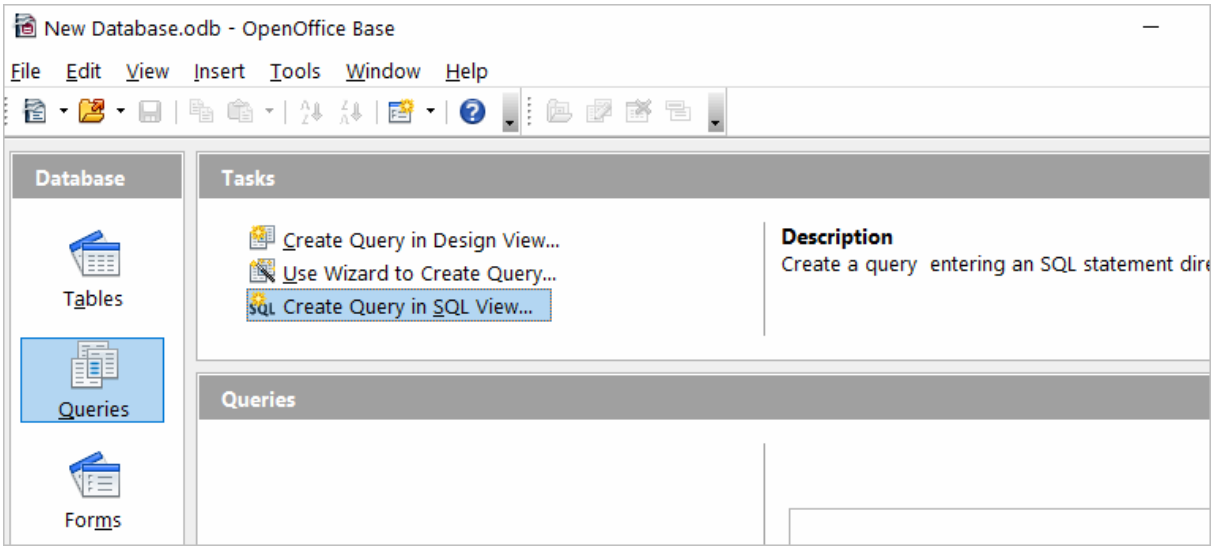
6. When the database opens, you will see the list of tables from your data source diplayed in OpenOffice or LibreOffice Base workspace. To view the data from a specific table, double-click the table name.



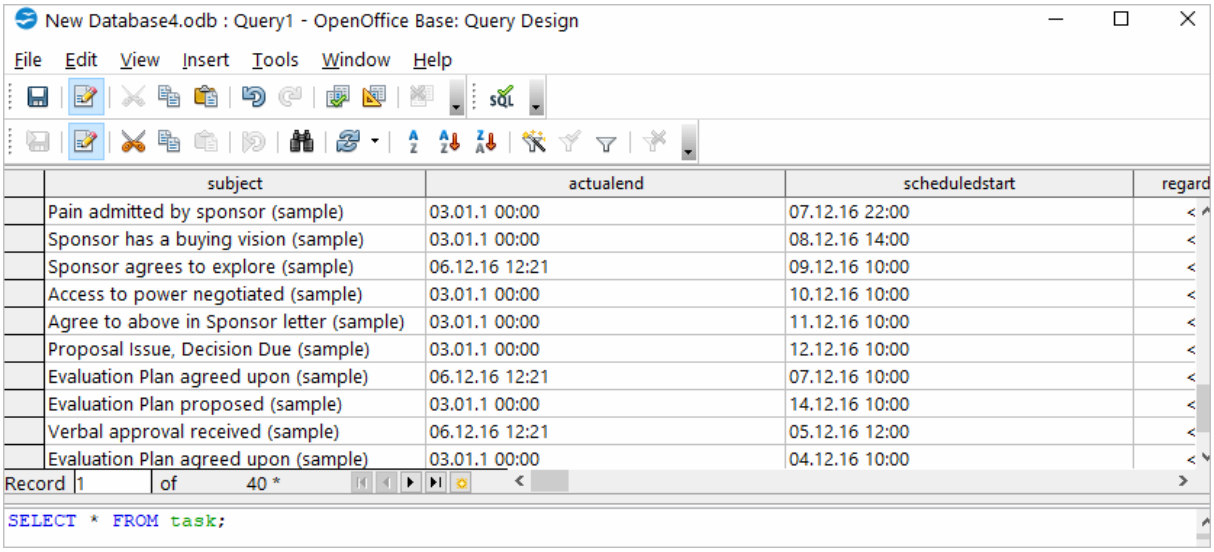


subject	actualend	scheduledstart	reg
Pain admitted by sponsor (sample)	03.01.1 00:00	07.12.16 22:00	
Sponsor has a buying vision (sample)	03.01.1 00:00	08.12.16 14:00	
Sponsor agrees to explore (sample)	06.12.16 12:21	09.12.16 10:00	
Access to power negotiated (sample)	03.01.1 00:00	10.12.16 10:00	
Agree to above in Sponsor letter (sample)	03.01.1 00:00	11.12.16 10:00	
Proposal Issue, Decision Due (sample)	03.01.1 00:00	12.12.16 10:00	
Evaluation Plan agreed upon (sample)	06.12.16 12:21	07.12.16 10:00	
Evaluation Plan proposed (sample)	03.01.1 00:00	14.12.16 10:00	
Verbal approval received (sample)	06.12.16 12:21	05.12.16 12:00	
Evaluation Plan agreed upon (sample)	03.01.1 00:00	04.12.16 10:00	
Evaluation plan underway (sample)	03.01.1 00:00	08.12.16 10:00	
Pre-proposal review conducted (sample)	03.01.1 00:00	09.12.16 10:00	
Asked for business (sample)	03.01.1 00:00	10.12.16 10:00	

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.



Request Support ODBC Forum Provide Feedback

4.8 Using in PHP

Connecting to Dynamics 365 from PHP using ODBC

Driver for Dynamics 365

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 Dynamics 365 via ODBC. The script connects to Dynamics 365 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
    $user = "myusername";
    $password = "mypassword";
    $ODBCConnection = odbc_connect("DRIVER={Devart ODBC Driver for Dynamics
```

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.

```
$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.

```
   while (odbc_fetch_row($RecordSet)) {
        $result = odbc_result_all($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.

Request Support ODBC Forum Provide Feedback

4.9 Using in Power BI

Importing Dynamics 365 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 Dynamics 365, you can use a corresponding ODBC driver.

This tutorial explores how to connect to Dynamics 365 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 Dynamics 365.

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 Dynamics 365
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 Dynamics 365 data into Power BI for analysis, select the needed table and click **Load**.

Request Support ODBC Forum Provide Feedback

4.10 Using in Python

Installing the ODBC Driver for Dynamics 365

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 Dynamics 365. 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 Dynamics 365 from Python using ODBC Driver for Dynamics 365

Here’s an example to show you how to connect to Dynamics 365 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 Dynamics 365};Server=m
```

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()
```


Request Support ODBC Forum Provide Feedback

4.11 Using in QlikView

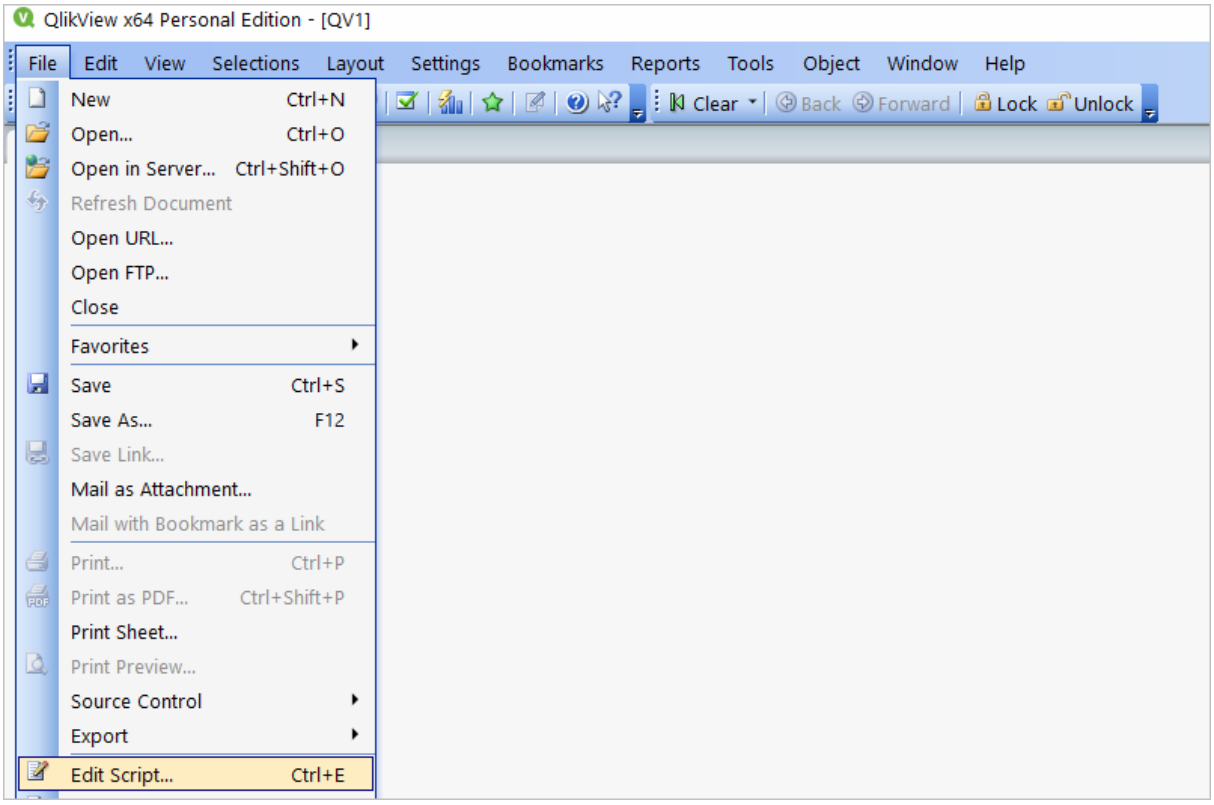
Connecting to Dynamics 365 from QlikView using ODBC Driver for Dynamics 365

This tutorial describes how to connect and configure QlikView to retrieve data from Dynamics 365 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.

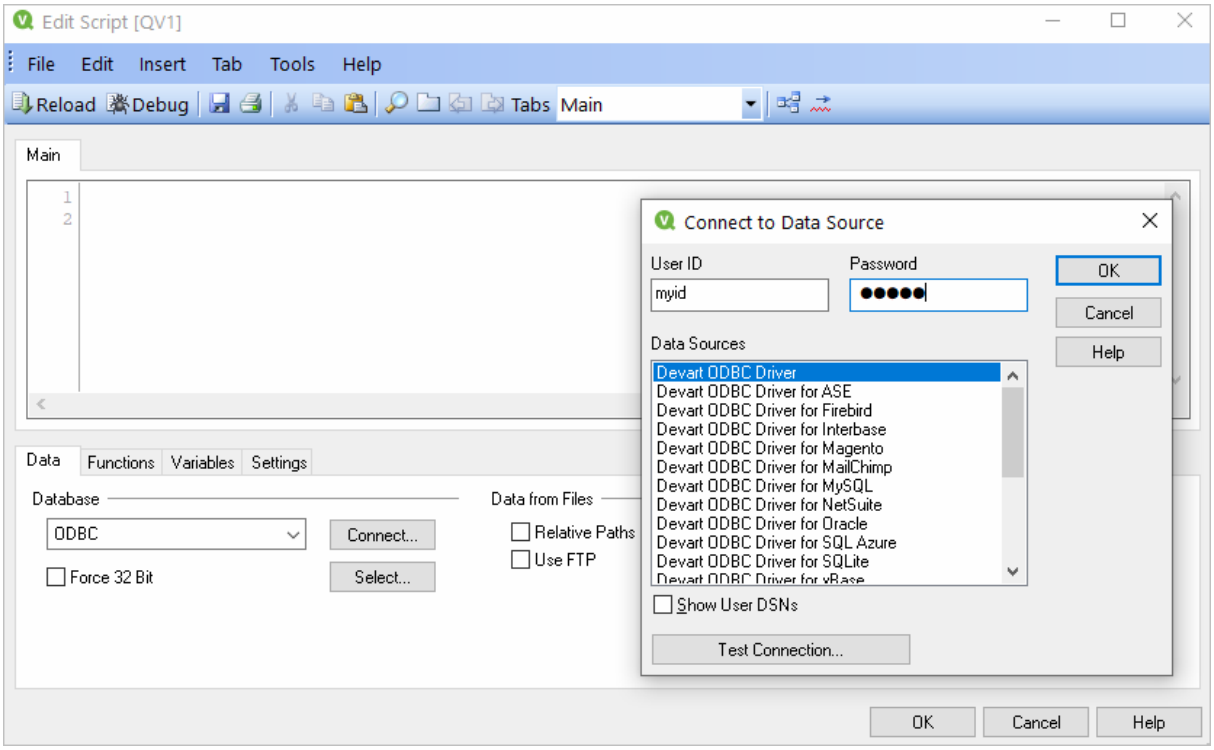
QlikView supports the ODBC connectivity interface for communication with external data sources. An ODBC data source must be configured for the database you want to access. You can create an ODBC connection using a DSN during the ODBC driver installation or later.

To connect to an ODBC data source from QlikView using our driver for Dynamics 365, perform the steps below:

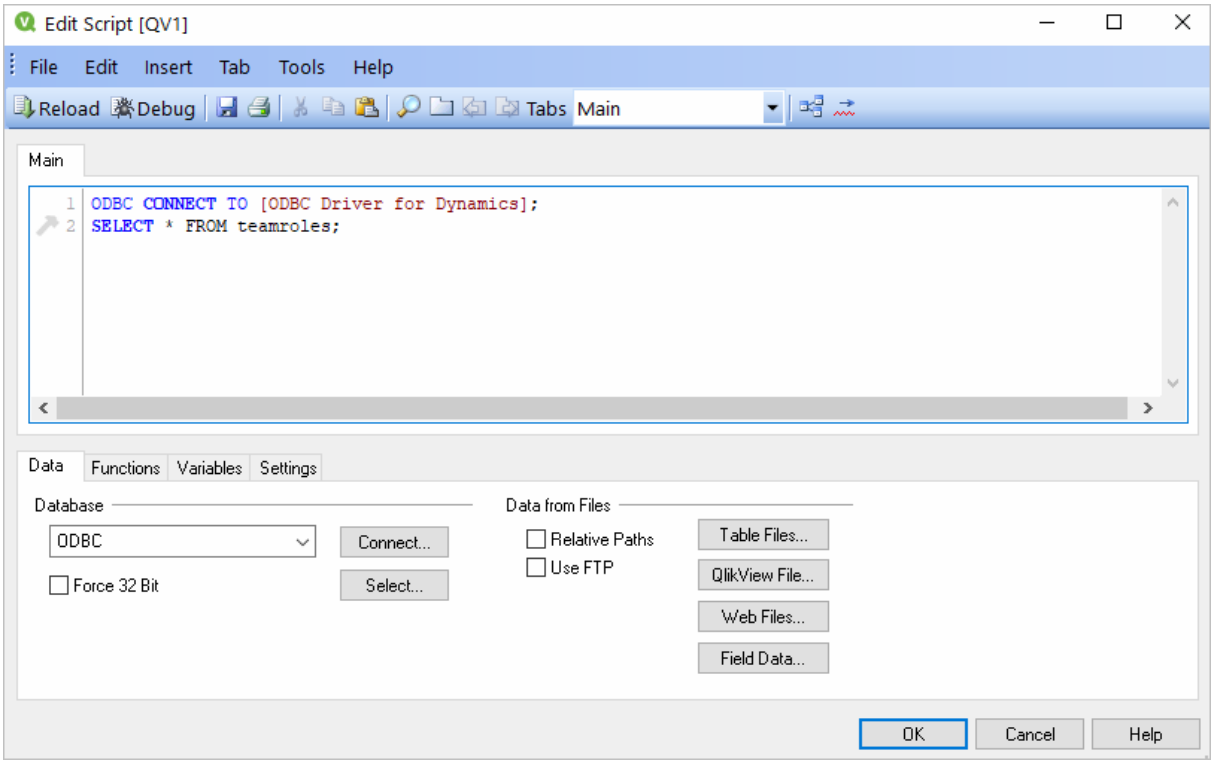
1. Open the QlikView client application and click **File > New**. Close the **Getting Started** wizard and open **File > Edit Script (CTRL+E)**.

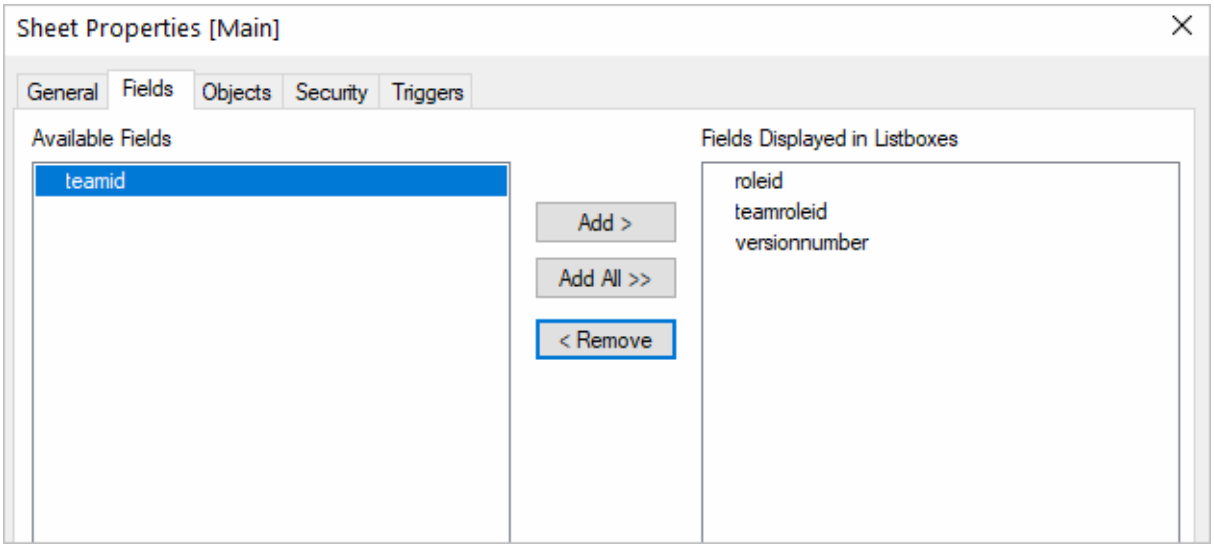


2. In the **Data** tab, choose **ODBC** from the **Database** drop-down and click **Connect**. Select the **Data Source** you created earlier, type in the **User ID** and **Password** if your database is password-protected. You can test the connection by choosing **Test Connection**. The **Connection Test succeeded** message should appear. Click **OK** to connect to your data source.



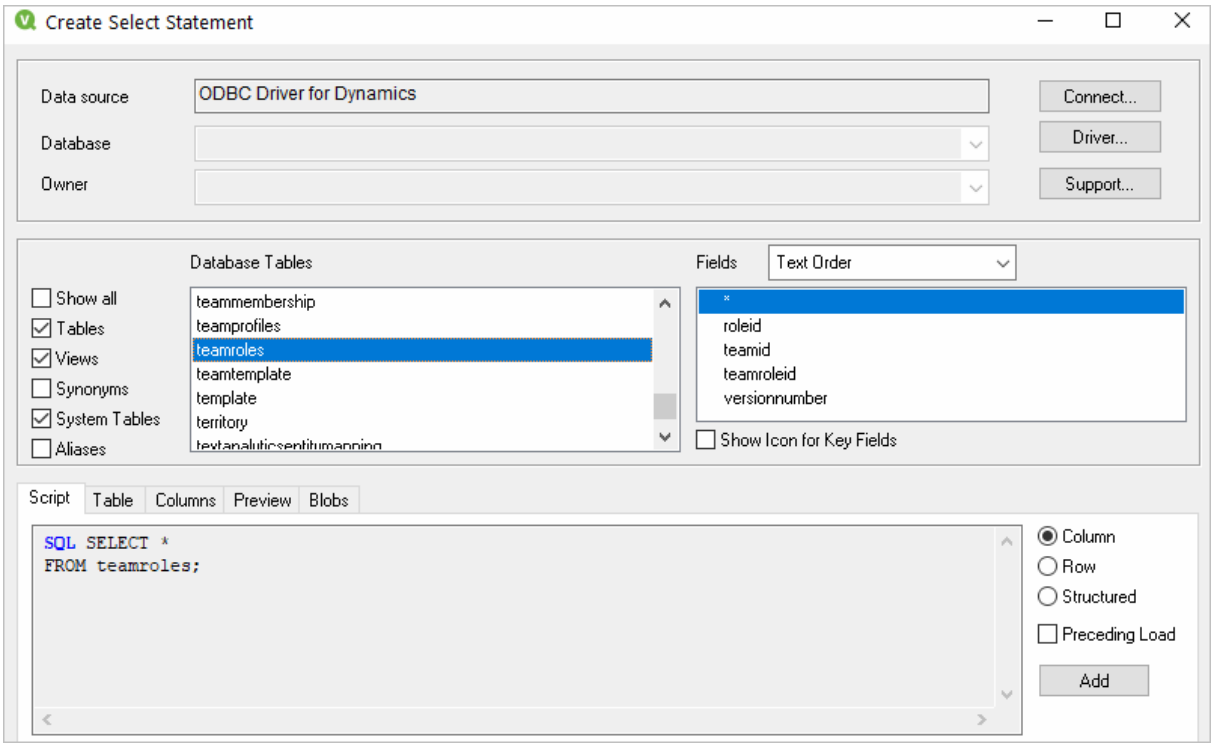
3. To retrieve the data from your data source, you can enter an SQL query and press **F5**. You will be suggested to choose fields to be displayed.



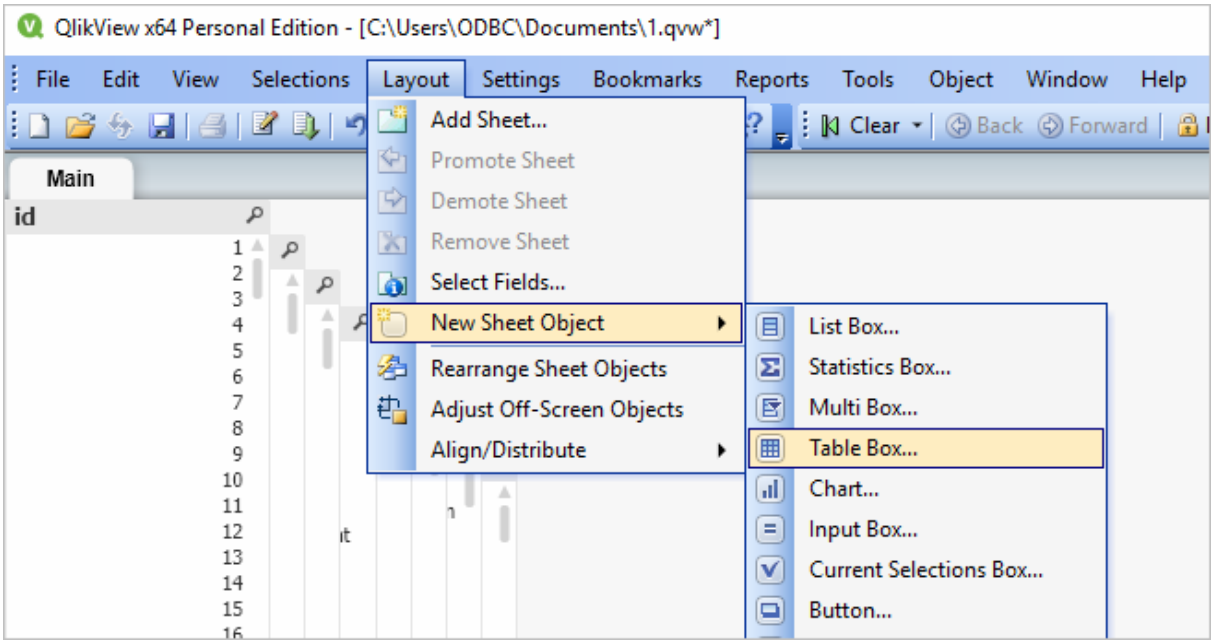


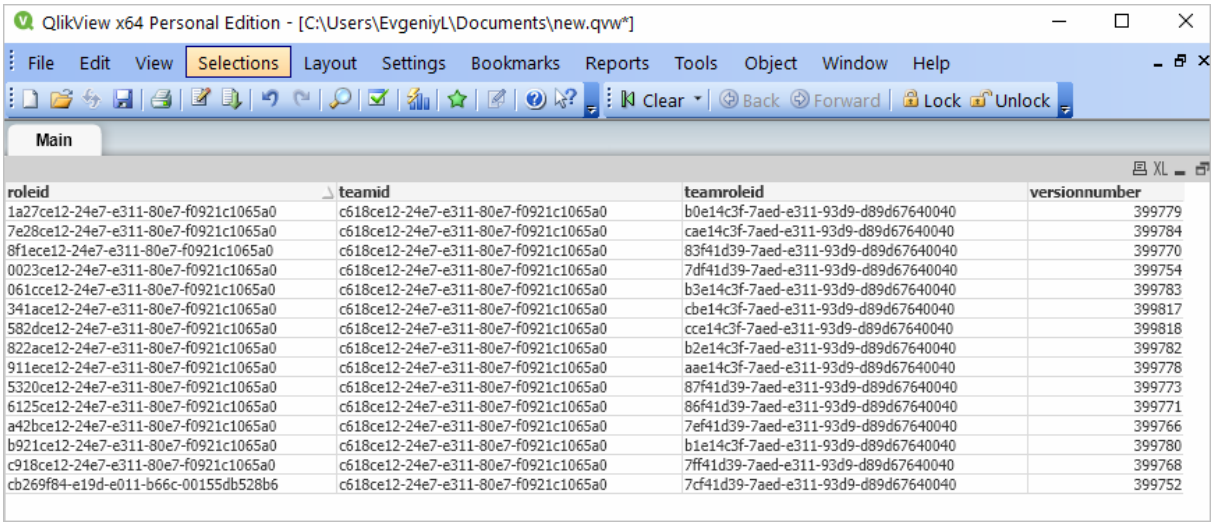
4. Alternatively, you can click **Select**, and QlikView will show you the database structure window where you can compose a SELECT statement for the data to be fetched. You can choose a different database from the database drop-down list. Select the necessary tables and fields. You can retrieve date 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**.





roleid	teamid	teamroleid	versionnumber
1a27ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	b0e14c3f-7aed-e311-93d9-d89d67640040	399779
7e28ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	cae14c3f-7aed-e311-93d9-d89d67640040	399784
8f1ece12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	83f41d39-7aed-e311-93d9-d89d67640040	399770
0023ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	7df41d39-7aed-e311-93d9-d89d67640040	399754
061cce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	b3e14c3f-7aed-e311-93d9-d89d67640040	399783
341ace12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	cbe14c3f-7aed-e311-93d9-d89d67640040	399817
582dce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	cce14c3f-7aed-e311-93d9-d89d67640040	399818
822ace12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	b2e14c3f-7aed-e311-93d9-d89d67640040	399782
911ece12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	aae14c3f-7aed-e311-93d9-d89d67640040	399778
5320ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	87f41d39-7aed-e311-93d9-d89d67640040	399773
6125ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	86f41d39-7aed-e311-93d9-d89d67640040	399771
a42bce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	7ef41d39-7aed-e311-93d9-d89d67640040	399766
b921ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	b1e14c3f-7aed-e311-93d9-d89d67640040	399780
c918ce12-24e7-e311-80e7-f0921c1065a0	c618ce12-24e7-e311-80e7-f0921c1065a0	7ff41d39-7aed-e311-93d9-d89d67640040	399768
cb269f84-e19d-e011-b66c-00155db528b6	c618ce12-24e7-e311-80e7-f0921c1065a0	7cf41d39-7aed-e311-93d9-d89d67640040	399752

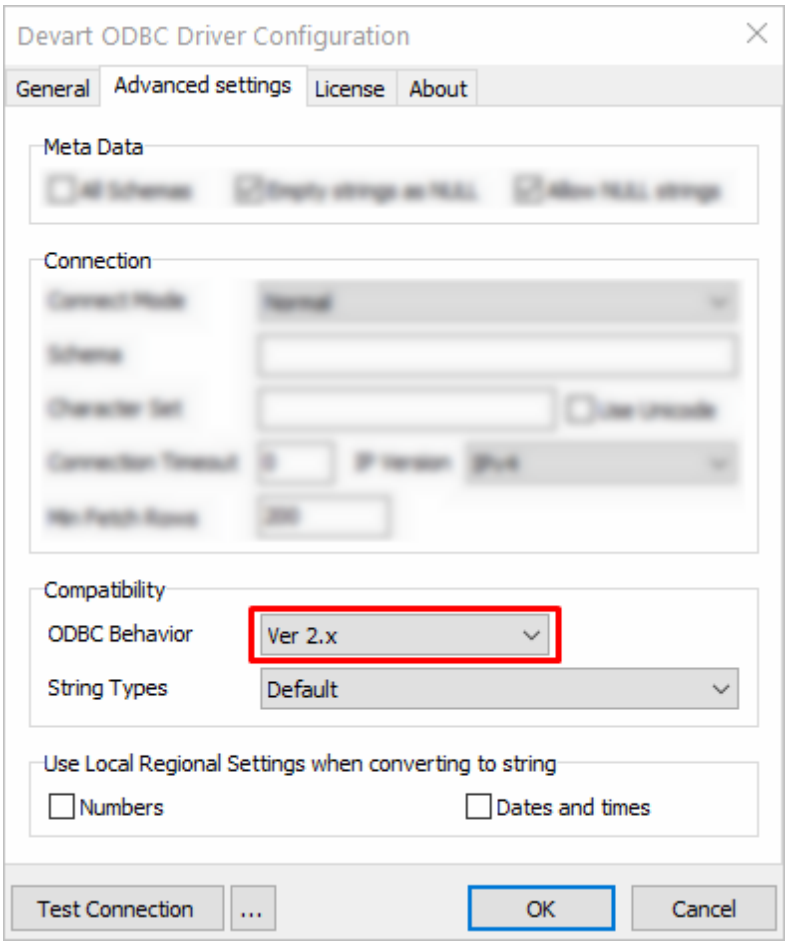
Request Support ODBC Forum Provide Feedback

4.12 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 Dynamics 365 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.



Request Support ODBC Forum Provide Feedback

4.13 Using in Tableau

Importing Dynamics 365 Data Into Tableau Through an ODBC Connection

This article explains to establish and ODBC connection to Dynamics 365 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 Dynamics 365. Alternatively, if you have not created a DSN, you can choose the **Driver** option and select Devart ODBC Driver for Dynamics 365 from the drop-down.
5. Click **Connect**.
6. After a successful connection, click **Sign in**.
7. Select the needed database and schema in Dynamics 365.
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.