Table of Contents

| Part I | What's New | 1 |
|----------|---|----|
| Part II | General Information | 3 |
| 1 | Overview | 4 |
| | Features | |
| | Compatibility | |
| | Requirements | |
| 5 | Licensing | 11 |
| 6 | Getting Support | 15 |
| Part III | Using ODBC Driver | 17 |
| 1 | Installation | 17 |
| | Windows | |
| • | Windows Silent | |
| 2 | Remote Installation | |
| | Deployment and Activation | |
| | Software Upgrade | 34 |
| 3 | Product Activation | |
| | Obtaining Activation Key | |
| | Where to See the License Information? | |
| 4 | Connecting to Magento 1.x | |
| | Driver Configuration | |
| 5 | Create Magento 1.x API User | |
| 3 | Driver Configuration | |
| | Create Adobe Commerce or Magento 2.x API User | |
| 6 | Connection String Parameters | 58 |
| 7 | Enabling ODBC Tracing | 62 |
| 8 | Usage Statistics | |
| | Enable or Disable on Windows | |
| | Supported Data Types | |
| 10 | Supported ODBC API Functions | 67 |
| Part IV | Using in Third-Party Tools | 77 |
| 1 | Using in DBeaver | |
| | Connect DBeaver Community to Adobe Commerce through ODBC | |
| 2 | Connect DBeaver Enterprise to Adobe Commerce through ODBC | |
| | Using in Informatica PowerCenter | |
| - | • | |

| | Index | 0 |
|----|---------------------------------------|-------|
| 15 | Using in Tableau | 140 |
| 14 | Using in SSIS | 139 |
| | Creating a Linked Server | . 136 |
| 13 | Using in SQL Server Management Studio | |
| | Using in QlikView | |
| | Using in Python | |
| 10 | Using in Power BI | 123 |
| 9 | Using in PHP | 121 |
| 8 | Using in Oracle DBLink | 119 |
| 7 | Using in OpenOffice and LibreOffice | 109 |
| 6 | Using in Microsoft Visual Studio | 108 |
| 5 | Using in Microsoft Excel | 102 |
| 4 | Using in Microsoft Access | 100 |

1 What's New

New features in ODBC Driver for Adobe Commerce 3.1

- Improved compatibility with Node.js
- Improved compatibility with Tableau
- Improved compatibility with Vectorworks

New features in ODBC Driver for Adobe Commerce 3.0

- Fixed connection timeout setting before opening connection
- Now keys and passwords are stored in an encrypted form in the DSN record
- Renamed to ODBC Driver for Adobe Commerce
- Added metadata cache

New features in ODBC Driver for Magento 2.7

- 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 Magento 2.6

- Improved compatibility with Linked Server in SQL Server 2019
- Improved compatibility with Tableau Prep Builder
- Improved compatibility with Crystal Reports

New features in ODBC Driver for Magento 2.5

- 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 Magento 2.4

• MSI installer for deploying through GPO is added

New features in ODBC Driver for Magento 2.3

- The ReturnForeignKeys connection option to significantly improve performance is added
- Compatibility with Microsoft Power BI Desktop is improved
- Compatibility with Microsoft Excel is improved
- Compatibility with Visual Studio is improved
- SQLProcedures now returns an empty recordset instead of an error
- · SQLProcedureColumns now returns an empty recordset instead of an error

New features in ODBC Driver for Magento 2.2

- 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 Magento 2.2

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

New features in ODBC Driver for Magento 2.1

- 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 Magento 2.0

Magento version 2.x is supported

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

New features in ODBC Driver for Magento 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 Magento 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 Magento 1.0

- First release of ODBC Driver for Adobe Commerce:
- Windows 32-bit is supported
- Windows 64-bit is supported

2 General Information

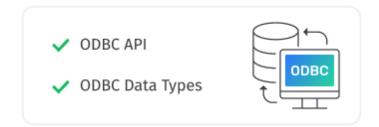
- 1. Overview
- 2. Features
- 3. Compatibility

- 4. Requirements
- 5. Licensing
- 6. Getting Support

2.1 Overview

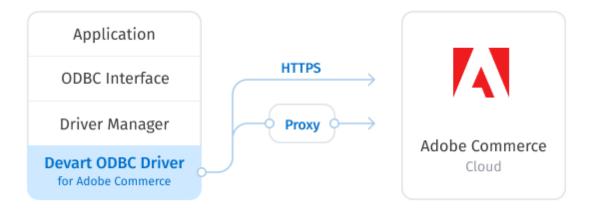
Overview

Devart ODBC Driver for Adobe Commerce is a high-performance connectivity tool with enterprise-level <u>features</u> for accessing Adobe Commerce (formerly Magento) from ODBC-compliant reporting, analytics, BI, and ETL tools on both 32-bit and 64-bit Windows. Our ODBC driver fully supports standard ODBC API functions and data types and enables easy and secure access to live Adobe Commerce data from anywhere.

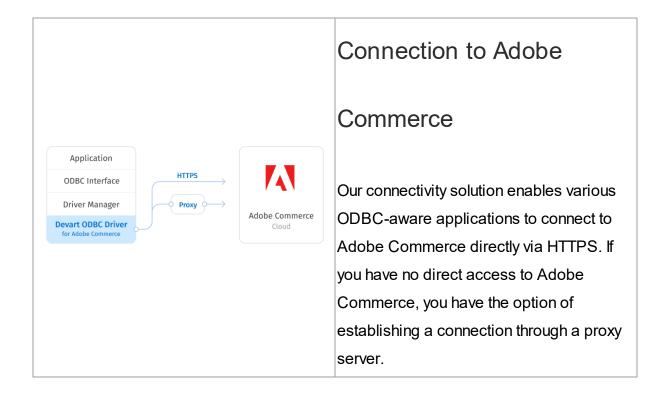


Connection to Adobe Commerce

Our data connector enables various ODBC-aware applications to <u>connect</u> to Adobe Commerce directly via HTTPS. If you have no direct access to Adobe Commerce via HTTPS, you have the option of establishing a connection through a proxy server.



2.2 Features

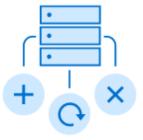


Extended SQL Syntax

Our ODBC driver provides an unrivalled opportunity to work with Adobe Commerce 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 "Type", Max("weight") As "Weight"
From Products
Where "Weight" > 0
Group By "Type"
  From Customers
join CustomerGroups on Customers.group_id=CustomerGroups.customer_group_id
where CustomerGroups.customer_group_code = 'General'
  Select SOSI.item_id,
          SOSI.sku,
          SOSI.name,
          SOSI.price.
  SOSI.qty
From SalesOrderShipmentItems SOSI,
         SalesOrderShipments SOS
Where SOSI.shipment_id=SOS.shipment_id
Order By SOSI.order_item_id
```



DML Operations

Devart ODBC Driver for Adobe Commerce Moreover, with our driver you can perform provides support for DML (INSERT,



Bulk Updates

bulk updates to Adobe Commerce by

UPDATE, DELETE) operations, which allows you to modify data in Adobe Commerce in the same way as in SQL databases.

combining SQL statements into batches, thus simplifying and speeding up large data modification with Adobe Commerce.

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 Adobe
Commerce from various environments and
platforms, that support ODBC.



Adobe Commerce

✓ Adobe Commerce API

Adobe Commerce Data Types



Compatibility

Our ODBC driver fully supports all data types defined in the Adobe Commerce API.

Moreover, the driver is compatible with the Adobe Commerce API itself.

Advanced Data Conversion

We have implemented advanced Data Conversion mechanisms that provide bidirectional mapping between any Adobe Commerce and ODBC data types.

Integration

The driver is compatible with 3rd-party data 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 Adobe Commerce 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 multilingual Adobe Commerce databases correctly, not depending on whether its charset is Latin, Cyrillic, Hebrew, Chinese, etc., in any environment localization.

High Performance

Every operation with Adobe Commerce becomes significantly faster using such capabilities of our driver as Local data caching, connection pooling, query optimization and much more.

Support

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

2.3 Compatibility

Adobe Commerce Compatibility

| Adobe Commerce API | ~ |
|---------------------------|----------|
| Adobe Commerce 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.

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 | ~ |

2.4 Requirements

The following requirements must be met for ODBC Driver for Adobe Commerce:

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

2.5 Licensing

ODBC Driver License Agreement

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INTRODUCTION

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2.6 Getting Support

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

Support Options

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

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

Subscriptions

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

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

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

Priority Support

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

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

Your ODBC Driver for Adobe Commerce Registration number.

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

- Versions of the Adobe Commerce 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 Adobe Commerce.

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

3 Using ODBC Driver

- 1. Installation
- 2. Product Activation
- 3. Connecting to Adobe Commerce 1.x
- 4. Connecting to Adobe Commerce 2.x
- 5. Connection String Parameters
- 6. Enabling ODBC Tracing
- 7. Supported Data Types
- 8. Supported ODBC API Functions

3.1 Installation

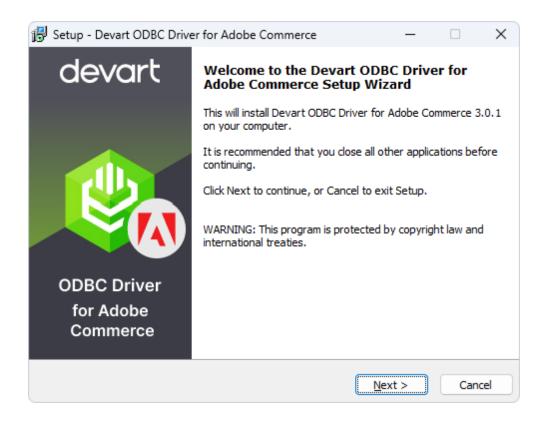
ODBC Driver for Adobe Commerce currently supports Windows 32-bit and 64-bit.

- Regular Installation
- Silent Installation

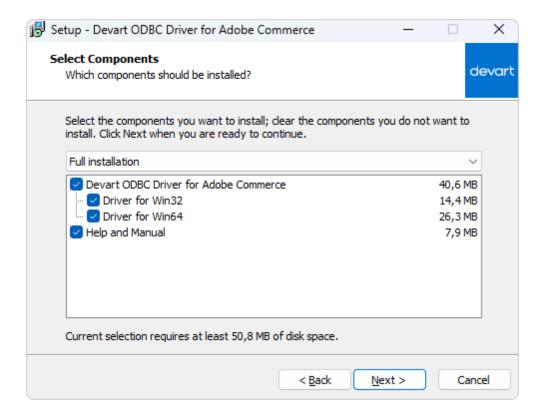
3.1.1 Windows

Installation on Windows

- 1. Download and run installer executive file.
- 2. Follow the instructions in the wizard.



- 3. If you already have the specified installation folder on the PC or another driver version is installed, you will get a warning. Click Yes to overwrite the old files with the current installation, but it is recommended to completely uninstall the previous driver version first, and then install the new one.
- 4. On the **Select Components** page, you can choose whether to install the **64-bit** version of the driver. Clear the checkbox if you do not need a 64-bit installation. There is also a checkbox on this page that allows you to choose whether to install Help and Manual.

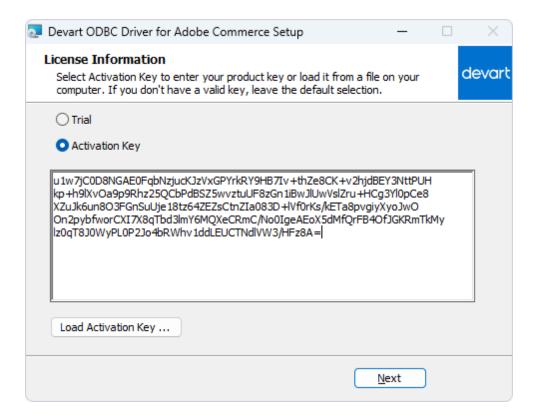


- 5. On the **License Information** page, select when you want to activate the driver:
 - Immediately after installation: Select Input Purchased or Trial activation key and enter your key in the provided box, or click Load Activation Key and select the file containing your key.
 - Any other time: Select Activate product later.

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

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

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



- 6. Click **Next** to complete the installation.
- 7. Click **Finish** to exit Setup.
- 8. After the installation is completed, you need to configure the driver.

3.1.2 Windows Silent

Silent Installation with OEM license on Windows

- 1. Run the Command Prompt as an administrator.
- 2. Use the following command-lines to perform the driver silent/very silent installation:

DevartODBCMagento.exe /SILENT /ActivationKey=y1c7nmgdu234laszxcvONGurjfhxm90DevartODBCMagento.exe /VERYSILENT /ActivationKey=ekhdh765mh09ukr237gfHRtrilw

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

DevartODBCMagento.exe /SILENT /ActivationFile=d:\lic.key

DevartODBCMagento.exe /VERYSILENT /ActivationFile=d:\lic.key

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

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

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

3.2 Remote Installation

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

The information is organized into the following sections:

- Creating the MST File Using Orca
- Remote Deployment and Activation
- Upgrading Driver Version and License Key

3.2.1 Package Transformation

Creating the MST File Using Orca

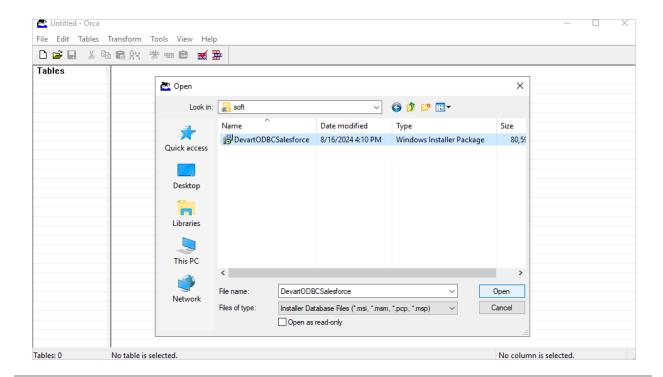
To customize the installation of the ODBC Driver for Adobe Commerce, you first need to edit the Windows Installer Package (MSI) by creating an MST file. This will allow for customized installation of an original Windows Installer (MSI) Package.

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

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

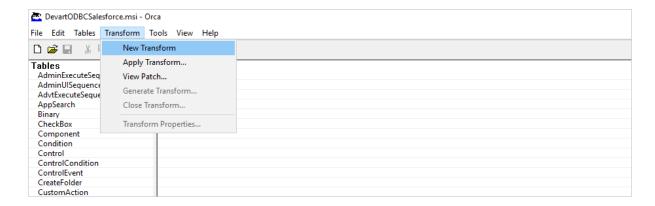
To start the process of MST file generation using the Orca editor, follow the steps below:

 Launch the Orca application, then open the required MSI file by selecting Open in the File menu or click the Open icon on the toolbar below.

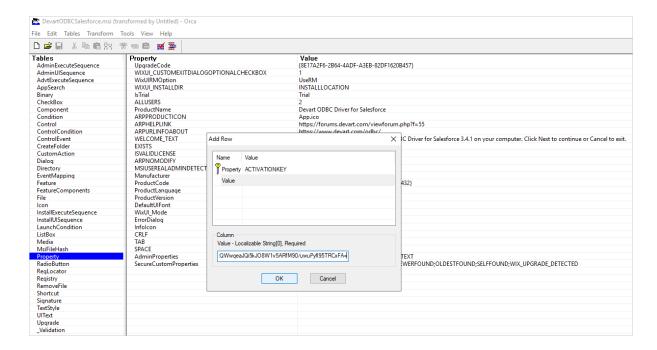


The MSI file for the ODBC Driver for Salesforce is taken as an example to illustrate the Group Policy installation process. Use the same steps described in this section when installing the ODBC Driver for Adobe Commerce.

- 2. As a result, the **Tables** menu on the left side of the main application window will display the properties of the selected MSI file.
- 3. Next, navigate **Transform** -> **New Transform**.



4. To proceed, select **Property** from the **Tables** menu, then double-click any empty row on the right side of the application window.



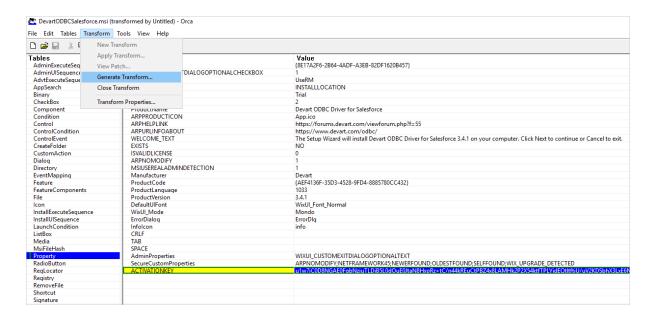
In the **Add Row** dialog that opens, make the following settings and press **OK** to apply the changes:

- Property enter ACTIVATIONKEY with capital letters only.
- Value enter the valid OEM license key for the ODBC Driver for Adobe Commerce.

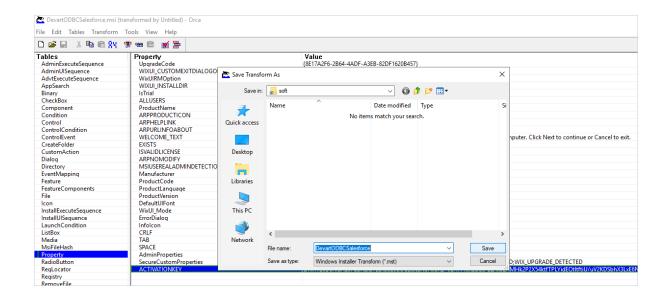
As shown in the following screen, a new property, ACTIVATIONKEY, has been added, with

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

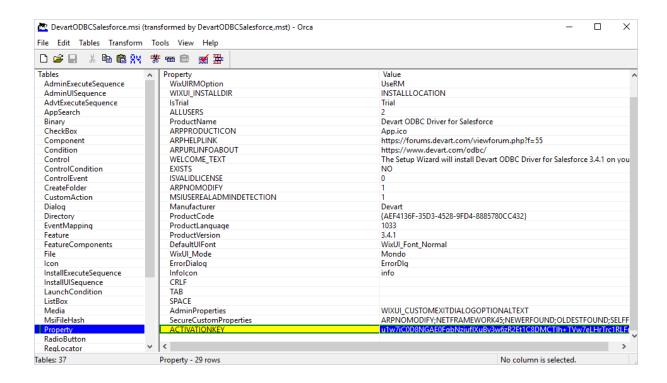
Once the configuration changes have been made, select Transform -> Generate
 Transform.



6. In the Save Transform As dialog that appears, enter a suitable name for the new MST file and click Save to apply your settings.



 If successful, the encryption message DevartODBCSalesforce.msi (transformed by DevartODBCSalesforce.mst) - Orca will be displayed at the top of the Orca application window.



In case of a positive outcome, the newly created MST file will be located in the folder you specified, alongside the MSI file.

3.2.2 Deployment and Activation

Installing and Activating Software Remotely

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

Prerequisites: Locating the MSI Installation File

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

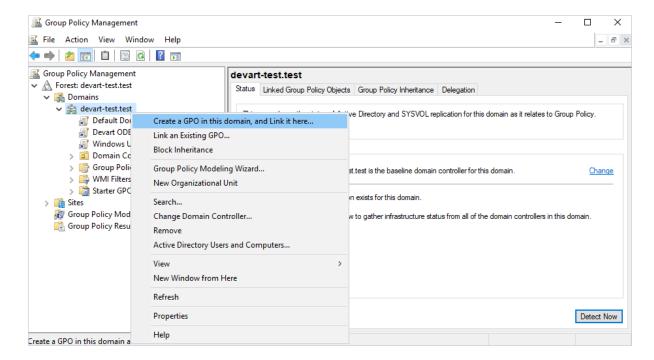
- 1. Create a shared network folder on the publishing server.
- Set the appropriate sharing permissions on this folder to allow read access to the driver installation package for all domain users.
- 3. Download the ODBC Driver for Adobe Commerce MSI file, and place it in the network folder.

The MSI file for the ODBC Driver for Salesforce is taken as an example to illustrate the Group Policy installation process. Use the same steps described in this section when installing the ODBC Driver for Adobe Commerce.

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

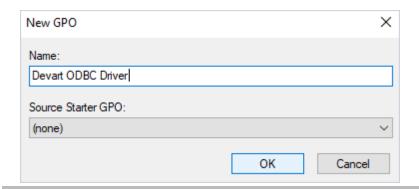
Server-Side Actions

- 1. Open the **Group Policy Management** desktop application.
- 2. In the Group Policy Management window, navigate to the desired forest node, then expand the appropriate option under the Domains node. For this example, we'll select devart-test.test. Right-click the Domains node, and from the context menu, select Create a GPO in this domain, and Link it here.



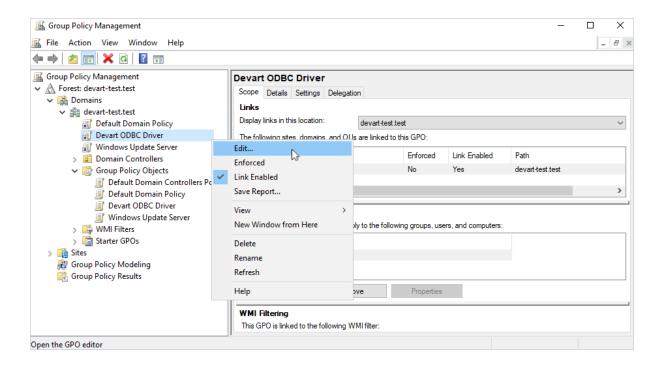
 You can now create a New Group Policy Object. In the New GPO dialog enter a name for the new object and click OK. The new GPO will then appear within the Group Policy Management container.

For example, let's create a GPO named after the ODBC driver name.

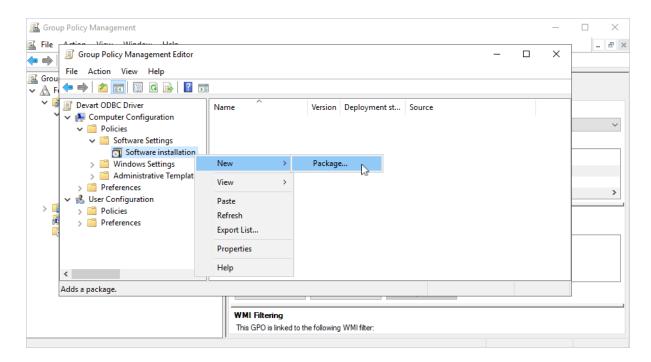


Keep in mind that each ODBC Driver for Adobe Commerce Windows installation package corresponds to one Group Policy Object (GPO), which is important for managing future software upgrades. To install multiple drivers using Group Policy, you need to create a separate GPO for each driver you want to deploy.

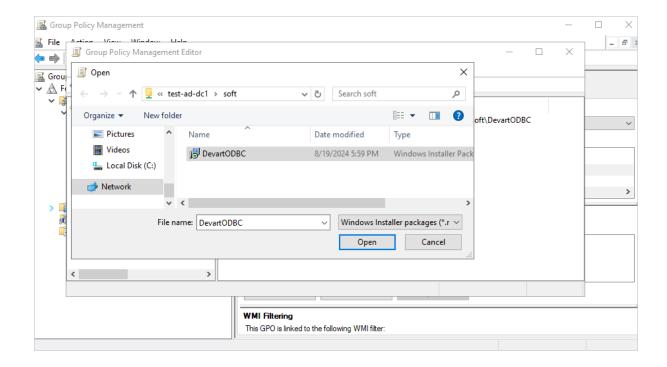
4. Right-click the new object and select **Edit** from the context menu.



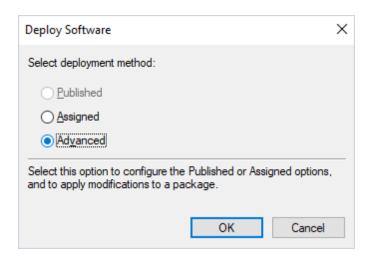
5. In the left pane of the Group Policy Management Editor, navigate to Computer Configuration --> Policies --> Software Settings --> Software installation. Your current deployment package will appear in the right pane. Right-click Software installation, then select New --> Package.



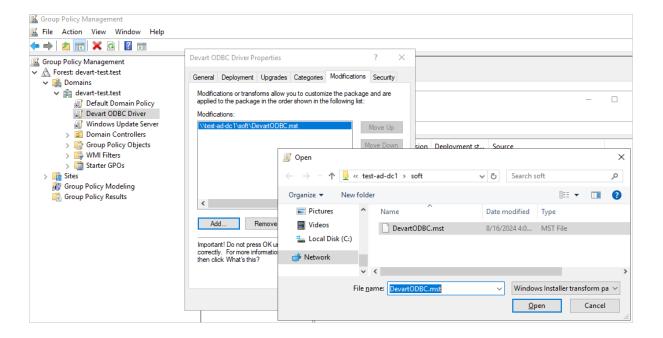
In the Group Policy Management Editor dialog that opens, select the desired MSI installation file and click Open.



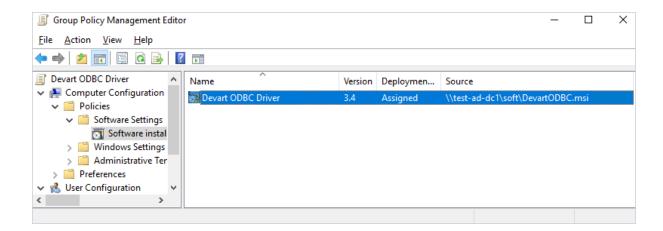
7. In the **Deploy Software** dialog, select **Advanced** to specify the software deployment method. The **Advanced** deployment method allows you to make necessary modifications to the MSI file, such as creating the MST file in Orca.



8. In the **Properties** dialog of the installation package that opens, go to the **Modifications** tab and select **Add**. Browse for the corresponding MST file, select it, and click **Open** to apply the settings.



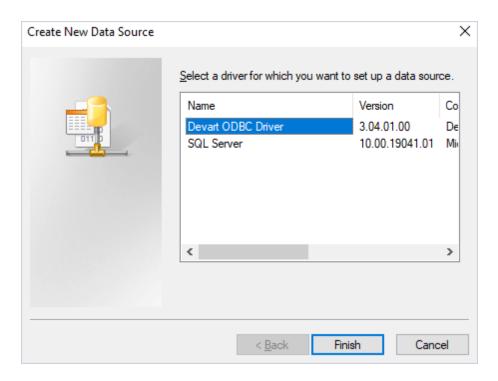
9. If configured correctly, the Group Policy Management Editor window should look as follows:



Client-Side Actions

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

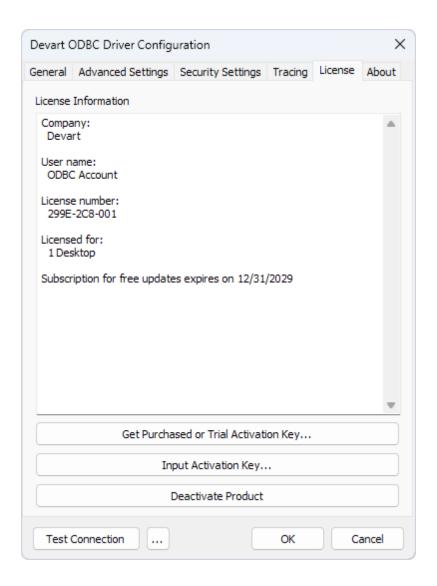
In case of successful deployment, the ODBC driver will be installed on the client's computer. To verify, open the <u>ODBC Data Source Administrator</u> on the client's machine and add the deployed ODBC driver.



All information on the deployed driver is accessible upon clicking the **About** tab.



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



See Also

- Creating the MST File Using Orca
- Activating on Windows ODBC Driver for Adobe Commerce
- License Information ODBC Driver for Adobe Commerce

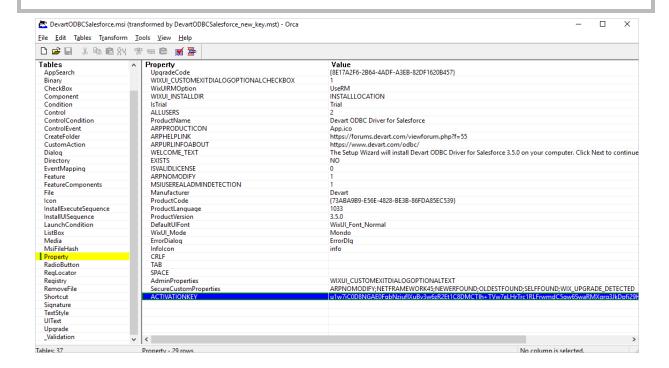
3.2.3 Software Upgrade

Automatic Software Update Using Group Policy

If the ODBC Driver for Adobe Commerce was initially deployed through Group Policy, it can be easily updated to a newer version. Follow the steps below to update both the ODBC Driver for Adobe Commerce and the license to newer versions on all remote computers in the domain.

- Download the ODBC Driver for Adobe Commerce installation MSI file of a newer version and place it in the shared network folder.
- 2. Create a new MST file with a new license key using Orca.

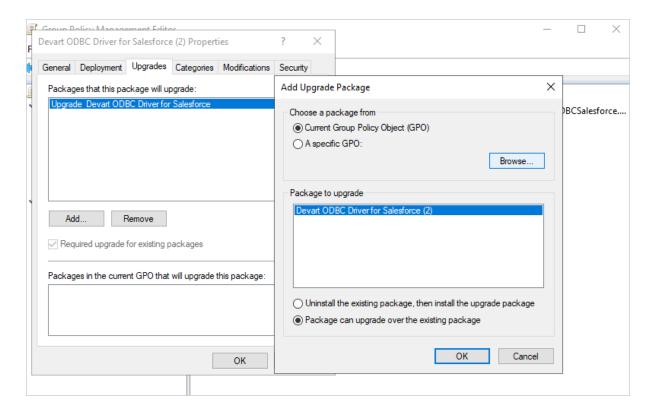
If your license is still valid, there's no need to create a new MST file. Use the current MST file instead.



The MSI file for the ODBC Driver for Salesforce is taken as an example to illustrate the Group Policy installation process. Use the same steps described in this section when installing the ODBC Driver for Adobe Commerce.

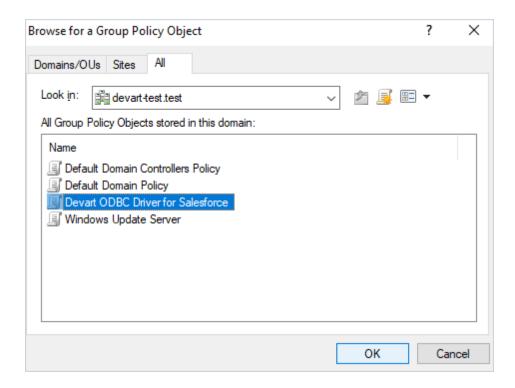
- 3. Follow the same workflow as outlined in <u>Step 4 to Step 7</u> of the <u>ODBC Driver for Adobe</u>

 <u>Commerce Remote Deployment and Activation</u> section.
- 4. In the **Properties** dialog that appears after selecting the **Advanced** deployment method, go to the **Upgrades** tab and click **Add**.

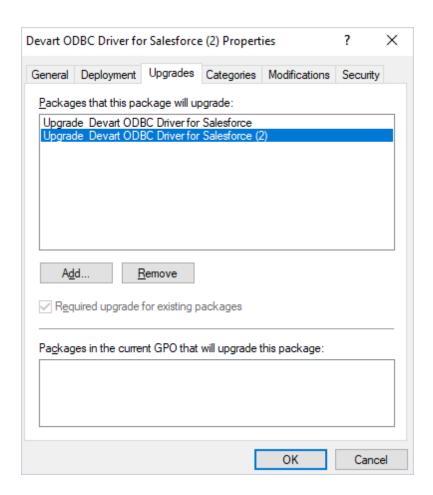


Make sure to select the following check boxes while adding the package:

- Current Group Policy Object
- Package can upgrade over the existing package
- 5. Browse for the corresponding GPO object and click **OK** to apply the settings.

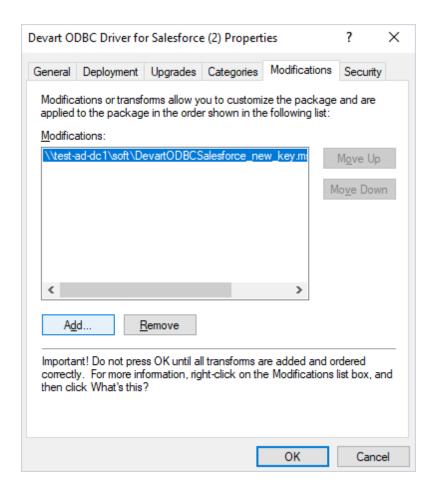


Now the **Upgrades** tab of the **Properties** dialog will list a new package with a newer version.



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

We have already created a new MST file with a new license key in <a>Step 2.



8. In case of a positive outcome both the old and new versions of the driver package will be displayed in the Group Policy Management Editor.



Once the GPO configuration on the server is complete, the ODBC Driver for Adobe

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

Client-Side Actions

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

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

See Also

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

3.3 Product Activation

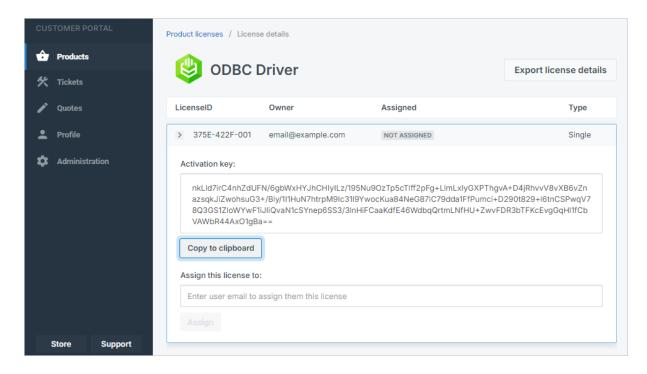
See how to activate Devart ODBC Driver for Adobe Commerce:

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

3.3.1 Obtaining Activation Key

Follow these steps to obtain your product activation key:

- From the Customer Portal:
 - 1. Open the Customer Portal and sign in.
 - **2.** On the **Product licenses** page, select the driver.
 - **3.** Click **Copy to clipboard** to copy the activation key.



• From the registration email:

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

See also:

Activation on Windows

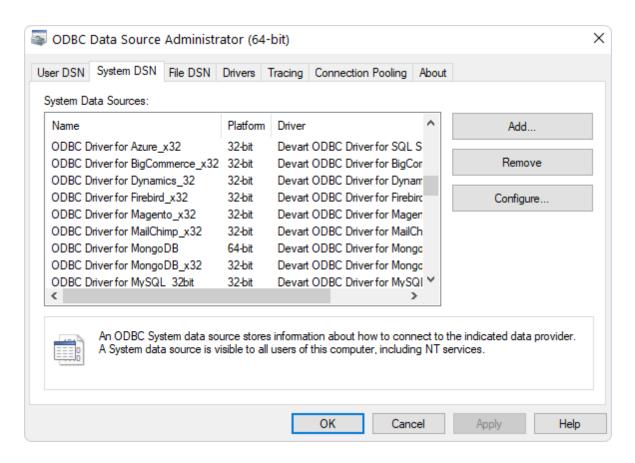
3.3.2 Activation on Windows

Driver Activation After Installation

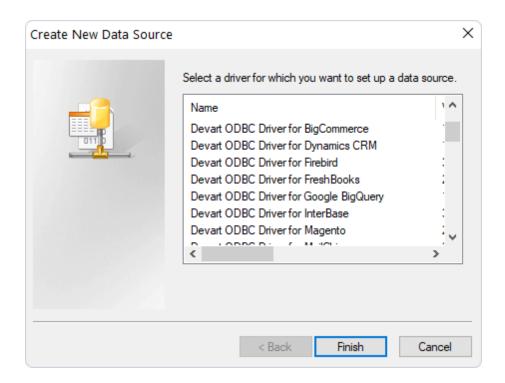
To activate your installed driver, perform the following steps.

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

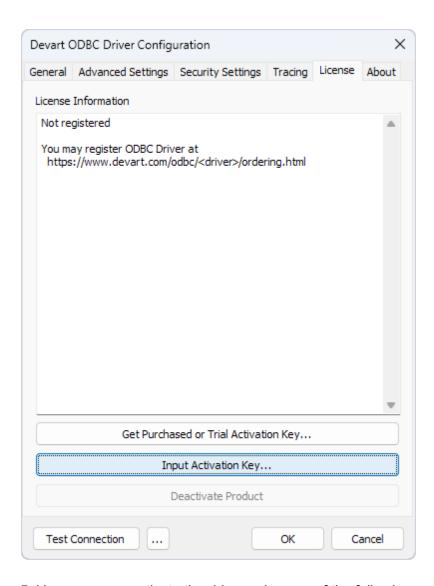
- 1. Open the ODBC Data Source Administrator.
- 2. On the **System DSN** tab, click **Add**.



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



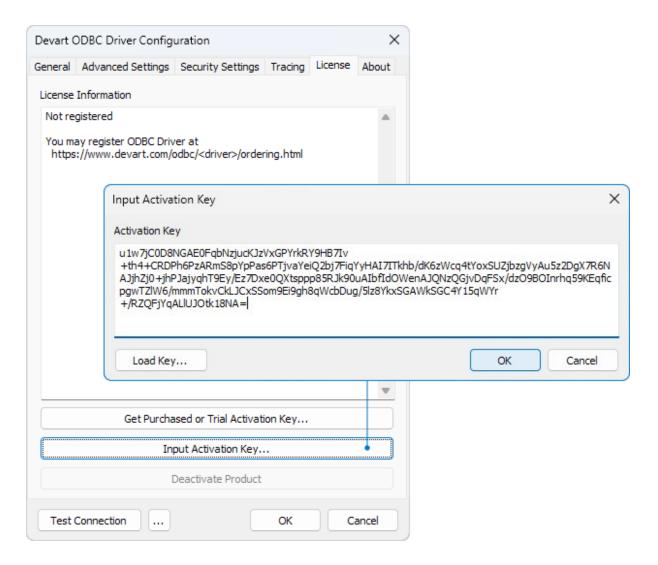
4. In the configuration dialog, navigate to the **License** tab, and click **Input Activation Key**.



- 5. Here, you can activate the driver using one of the following methods:
 - Enter an activation key: Paste your activation key into the corresponding box.
 - Load an activation file: Click Load Key and select the file that contains the activation key.

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

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

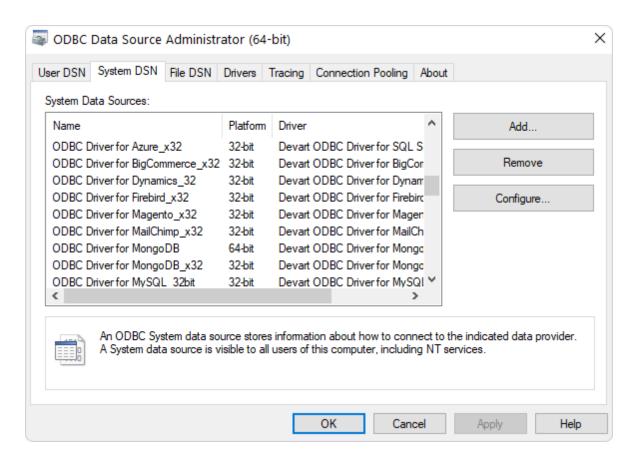


6. Click OK.

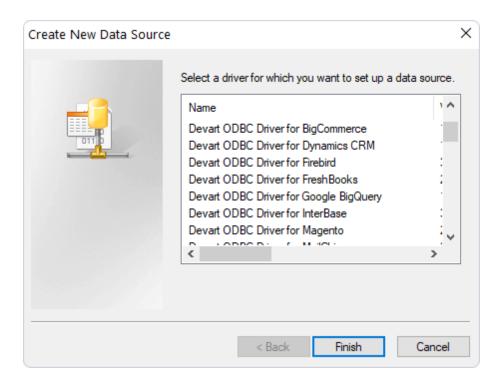
3.3.3 Where to See the License Information?

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

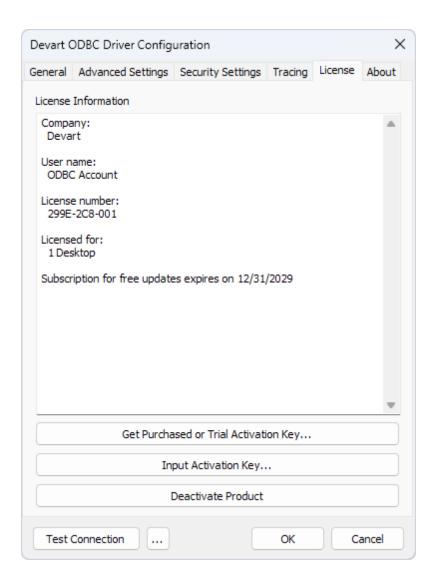
- 1. Open the ODBC Data Source Administrator.
- 2. On the **System DSN** tab, click **Add**.



3. Select the driver, then click **Finish**.



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



3.4 Connecting to Magento 1.x

This section describes how to connect to Adobe Commerce 1.x using ODBC Driver for Adobe Commerce

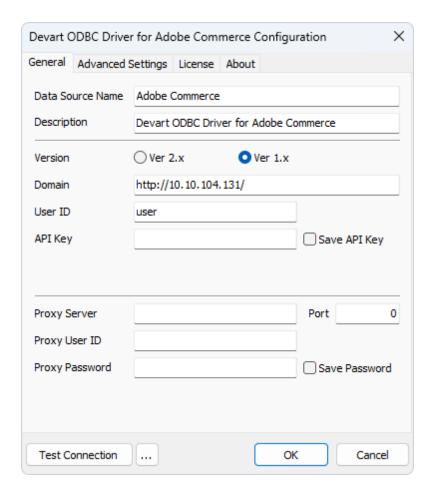
- 1. Driver Configuration
- 2. Create Adobe Commerce API User

3.4.1 Driver Configuration

Windows DSN Configuration

After installing the driver, create a DSN for Adobe Commerce 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.
- Select Devart ODBC Driver for Adobe Commerce and click Finish. The driver setup dialog will open.
- 5. Enter the connection information in the appropriate fields.
- 6. You may test the connectivity by clicking **Test Connection**.
- 7. Click **OK** to save the DSN.



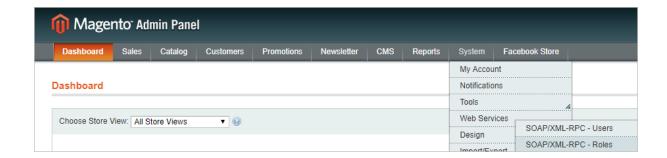
See Also

- Connection Options
- Create Adobe Commerce 1.x API User

3.4.2 Create Magento 1.x API User

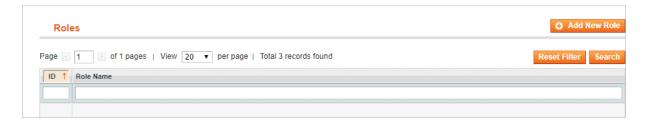
Logging into the Adobe Commerce Admin Panel

First an API role needs to be added. Login to the Adobe Commerce Admin Panel and navigate to System > Web Services > SOAP/XML-RPC-Roles.



Create a new API role

This page lists the current API roles. If there none listed yet, click on **Add New Role**.



Every role needs a name. This can be anything. Just make sure it is descriptive enough for yourself.

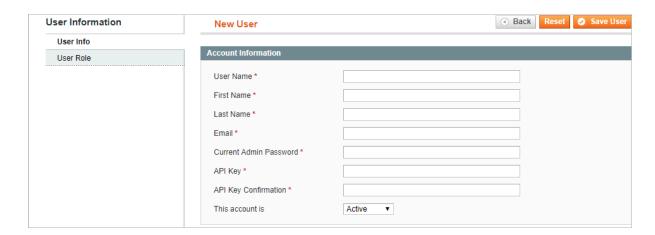


The second tab on the left (**Role Resources**) allows you to select which resources should be available for users with this role. While you can select exactly which privileges are given, we recommend you select **Al**.



Create a new API user

Now that the role is created, you can add a user that makes use of this role. The fields **First Name**, **Last Name** and **Email** just need to be filled in with any value you like. Make sure the **User Name** and **Api Key** are secure enough.



The second tab on the left is called **User Role**, and that's where you select the role earlier created. Then, **Save User**.



3.5 Connecting to Adobe Commerce or Magento 2.x

This section describes how to connect to Adobe Commerce 2.x using ODBC Driver for Adobe Commerce

- 1. Driver Configuration
- 2. Create Adobe Commerce API User

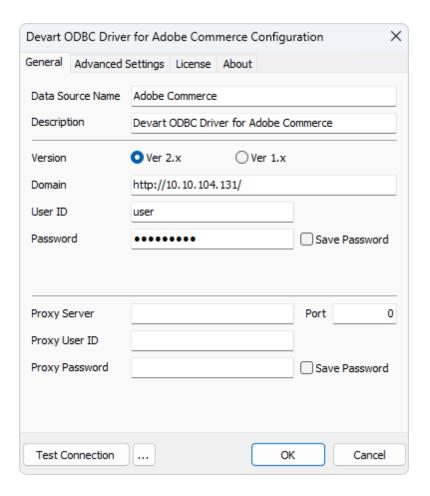
3.5.1 Driver Configuration

Windows DSN Configuration

After installing the driver, create a DSN for Adobe Commerce 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.
- Select Devart ODBC Driver for Magento and click Finish. The driver setup dialog will open.
- 5. Enter the connection information in the appropriate fields.
- 6. You may test the connectivity by clicking **Test Connection**.
- 7. Click **OK** to save the DSN.



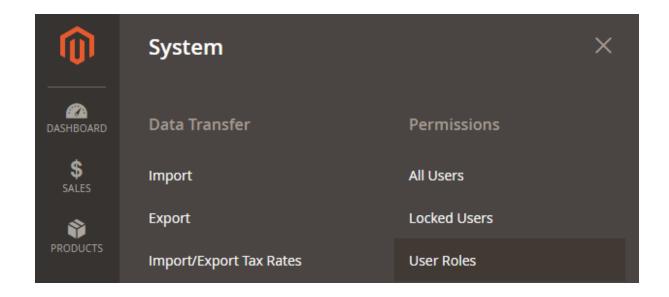
See Also

- Connection Options
- Create Adobe Commerce (formerly Magento) 2.x API User

3.5.2 Create Adobe Commerce or Magento 2.x API User

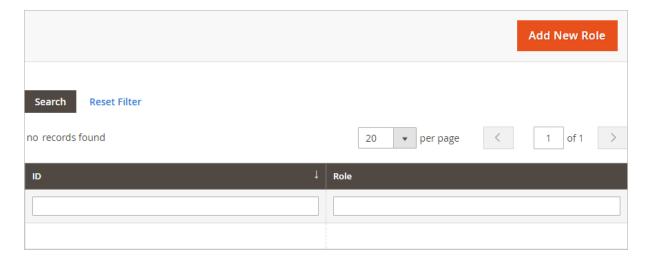
Logging into the Adobe Commerce Admin Panel

First an API role needs to be added. Login to the Adobe Commerce Admin Panel and navigate to **System > User Roles**.

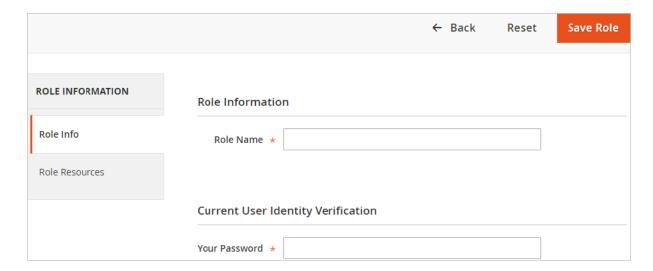


Create a new API role

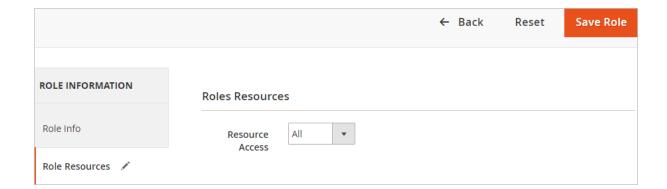
This page lists the current API roles. If there none listed yet, click on Add New Role.



Every role needs a name. This can be anything. Just make sure it is descriptive enough for yourself.

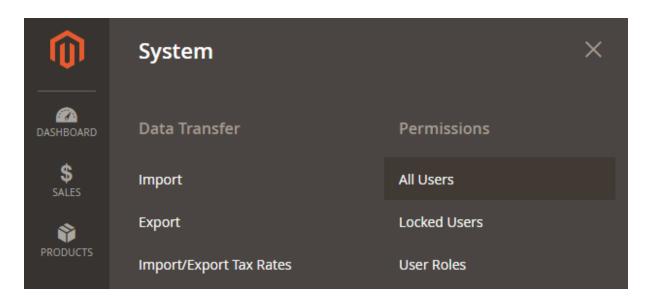


The second tab on the left (**Role Resources**) allows you to select which resources should be available for users with this role. While you can select exactly which privileges are given, we recommend you select **Al**.

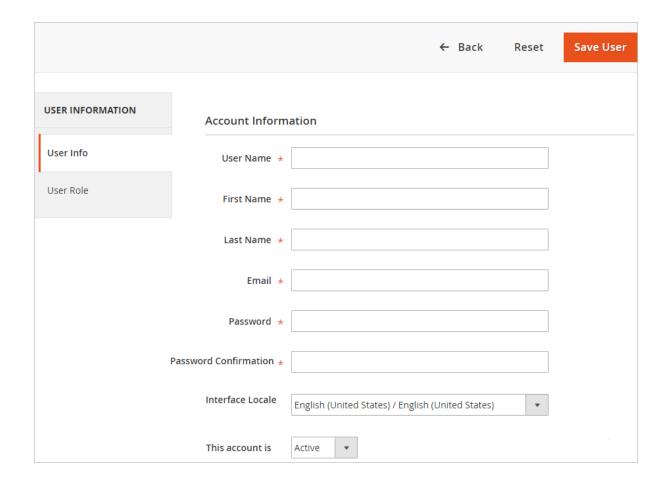


Create a new API user

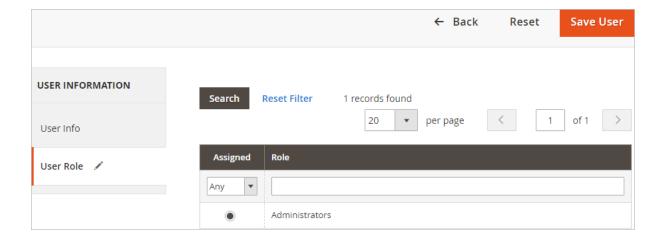
Now that the role is created, you can add a user that makes use of this role.



The fields **First Name**, **Last Name** and **Email** just need to be filled in with any value you like. Make sure the **User Name** and **Password** are secure enough.



The second tab on the left is called **User Role**, and that's where you select the role earlier created. Then, **Save User**.



3.6 Connection String Parameters

Adobe Commerce ODBC Connection String Parameters

The following table lists the connection string parameters for Adobe Commerce (formerly Magento).

| Paramet er | Description | |
|---------------|--|--|
| Version | Used to specify the required Adobe Commerce version. The available values are: • Ver1 • Ver2 The default value is Ver1. | |
| Magento 1 | .X: | |
| Domain | The URL of your Magento store admin panel. | |
| User ID | Magento API user login. | |

| | Note: API users and keys are created and configured individually in |
|----------------------------|--|
| | Magento admin panel: see the Creating Magento API User. To save your |
| | authentication token in the DSN settings, select the Save Token checkbox. |
| API Key | APIKey is used for secure authorization of API users to Magento store. |
| Adobe Co | mmerce or Magento 2.x: |
| Domain | The URL of your Adobe Commerce or Magento store admin panel. |
| | Magento API user login. |
| Heen TD | Note: API users and keys are created and configured individually in |
| User ID | Adobe Commerce or Magento admin panel: see the Create Magento API |
| | <u>User</u> . |
| | Password is used for secure authorization of users to Adobe Commerce |
| Password | or Magento store. |
| Proxy Sett | ings |
| Proxy Server | The proxy hostname or IP address. |
| Proxy Port | The port number used to connect to a proxy server. |
| Proxy User | The proxy username. |
| Proxy Password | The proxy password. |
| Advanced | Settings |
| AllowNullSt | Some parameters don't accept null values when retrieving metadata. If a |
| ringsInMeta | third-party tool passes a null value to such a parameter, the driver returns |
| data | an error. By default, these options are enabled for compatibility with such |
| EmptyString sAsNullInMe | third-party tools |
| | <u> </u> |

| tadata | | |
|-------------|--|--|
| | This is a configurable parameter, which allows caching and storing metadata in a temporary database. The parameter settings specify the frequency of resetting cached metadata ranging from 1 hourto 1 month. False | |
| | The metadata caching is disabled. | |
| | Hour | |
| Cache | Cached metadata is reset one time per hour. | |
| Metadata | Day | |
| | Cached metadata is reset once a day (i.e. every 24 hours). | |
| | Month | |
| | Cached metadata is reset once per month. | |
| | True | |
| | Metadata caching won't reset until the driver is unloaded. | |
| Connection | The time (in seconds) to wait for a connection to open before terminating | |
| Timeout | an attempt. The default value is 60. | |
| ODBC | 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. | |
| Behavior | 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. | |
| QueryTimeou | The time to wait for a query execution result before terminating and | |
| t | generating an error. | |
| RegionalDat | Enables the use of local regional settings when converting dates and | |
| eTimeSettin | times to strings. | |
| | | |

| gs | | | |
|-----------------|---|--|--|
| RegionalNum | Enables the use of local regional settings when converting numbers to | | |
| berSettings | strings. | | |
| | Use the parameter to specify whether the driver must return foreign keys. | | |
| | Retrieving metadata about foreign key constraints is a time-consuming | | |
| ReturnForei | operation; many third-party tools request foreign key metadata even whey | | |
| gnKeys | they do not actually need this information. Note that enabling the option | | |
| | may degrade performance of data access operations. The default value is | | |
| | False. | | |
| | Sets the string value types returned by the driver as Default, ANSI, or Unicode. Default | | |
| | The driver defines the string types. | | |
| | Ansi | | |
| | All string types are returned as SQL_CHAR, SQL_VARCHAR, and | | |
| String Types | SQL_LONGVARCHAR. | | |
| | Unicode | | |
| | All string types are returned as SQL_WCHAR, SQL_WVARCHAR, and | | |
| | SQL_WLONGVARCHAR. | | |
| | Note: Set the parameter to Ansi or Unicode if your third-party tool supports | | |
| | only ANSI or Unicode strings. | | |
| | Specifies whether all the datetime | | |
| | values retrieved from the data source | | |
| | are returned as UTC values or | | |
| UTC Dates | 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 Magento Version 1.x ODBC Connection String

DRIVER={Devart ODBC Driver for for Adobe Commerce};Domain=http://
myhost/magento;User ID=admin;Api Key=admin11111

Adobe Commerce or Magento Version 2.x ODBC Connection String sample

```
DRIVER={Devart ODBC Driver for Adobe
Commerce};Version=Ver2;Domain=http://myhost/magento;User
ID=admin;Password=admin111
```

3.7 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.

- 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.

3.8 Usage Statistics

Usage Statistics

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

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

Collected Data

The driver collects the following data:

- Product name and version.
- Name of the process (application) using the driver.

- License information: license type, license number, and license status.
- Operating system name and version, number of processor cores.
- An anonymous user identifier.

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

An anonymous hardware identifier.

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

- Database server name and version.
- Names of connection parameters used to connect to the database server.

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

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

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

Default Settings

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

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

Enable or Disable Usage Statistics on Windows

3.8.1 Enable or Disable on Windows

Enable or Disable Usage Statistics on Windows

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

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

• After installation: By editing the Windows Registry.

Disable Usage Statistics in the Installation Wizard

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



Disable Usage Statistics From the Command Line

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

Silent and Very Silent Mode

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

DevartODBCMagento.exe /NOUSAGESTATISTICS /SILENT
DevartODBCMagento.exe /NOUSAGESTATISTICS /VERYSILENT

Quiet Mode

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

msiexec /i DevartODBCMagento.msi /q NOUSAGESTATISTICS=true

Change Usage Statistics Settings in the Windows Registry

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

- 1. Open the Registry Editor. To do this, press **Win+R**, type regedit in the **Run** dialog, and press **Enter**.
- 2. Depending on your driver version, navigate to one of the following keys:
 - 64-bit driver: HKEY_LOCAL_MACHINE\SOFTWARE\ODBC\ODBCINST.INI\Devart ODBC Driver for Adobe Commerce
 - 32-bit driver: HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\ODBC\ODBCINST.INI\Devart ODBC
 Driver for Adobe Commerce
- 3. Set the value of the UsageStatistics parameter to False to disable statistics, or True to enable statistics.

3.9 Supported Data Types

Data Type Mapping

The Devart ODBC Driver for Adobe Commerce supports all Adobe Commerce data types.

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

| Adobe Commerce Data Types | ODBC Data Types |
|---------------------------|------------------|
| BINARY | SQL_VARBINARY |
| | SQL_VARCHAR |
| STRING | SQL_LONGVARCHAR |
| | SQL_WVARCHAR |
| | SQL_WLONGVARCHAR |
| BOOLEAN | SQL_BIT |

| BYTE | SQL_TINYINT |
|----------|--------------------|
| INTEGER | SQL_INTEGER |
| INTEGER | SQL_SMALLINT |
| DOUBLE | SQL_FLOAT |
| DOOBLE | SQL_DOUBLE |
| TIME | SQL_TYPE_TIME |
| DATE | SQL_TYPE_DATE |
| DATETIME | SQL_TYPE_TIMESTAMP |

3.10 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 Adobe Commerce 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. |
|--------------------|---|------------|------------------------|
| | ~ | ODBC | Connects to a |
| | | | specific driver by |
| | | | connection string or |
| SQLDriverConnect | | | requests that the |
| OQLDIIVCIOOIIIICCU | | | Driver Manager and |
| | | | driver display |
| | | | connection dialog |
| | | | boxes for the user. |
| | | | Obtains an |
| SQLAllocEnv | ~ | Deprecated | 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. |
| | | | Returns the functions |
| SQLGetFunctions | ✓ | ISO 92 | supported by the |
| | | | driver. |
| | | | Returns information |
| SQLGetTypeInfo | ✓ | ISO 92 | 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. |
| SQLSetConnectOpti on | ~ | Deprecated | Sets a connection option |
| SQLGetConnectOpti on | ~ | 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. |
| SQLGetCursorNam e | ~ | ISO 92 | Returns the cursor name associated with a statement handle. |
| SQLSetCursorNam e | ~ | ISO 92 | Specifies a cursor name. |
| SQLSetScrollOption s | ~ | ODBC | Sets options that control cursor behavior. |

ODBC API Calls for Submitting Requests

| Function Name | Support | Standard | Purpose |
|----------------------|---------|----------|---------|
|----------------------|---------|----------|---------|

| SQLExecute | ~ | ISO 92 | Executes a prepared |
|--------------------|---|----------|------------------------|
| | | | statement. |
| SQLExecDirect | | ISO 92 | Executes a |
| OQLEACODIICOC | ~ | 100 02 | statement |
| | | | Returns the text of an |
| SQLNativeSql | | ODBC | SQL statement as |
| SQLIVativeSql | ~ | ODBC | translated by the |
| | | | driver. |
| | | | Returns the |
| SQLDescribeParam | | ODBC | description for a |
| SQLDescriber arani | ~ | ODBC | specific parameter |
| | | | in a statement. |
| | ~ | ISO 92 | Returns the number |
| SQLNumParams | | | of parameters in a |
| | | | statement. |
| | | | Used in conjunction |
| | | | with SQLPutData to |
| SQLParamData | | ISO 92 | supply parameter |
| SQLF alallibata | ~ | 100 92 | data at execution |
| | | | time. (Useful for long |
| | | | data values.) |
| | | | Sends part or all of a |
| SQLPutData | ~ | ISO 92 | data value for a |
| OQLF UIDAIA | | 150 92 | parameter. (Useful |
| | | | for long data values.) |
| | | <u> </u> | |

ODBC API Calls for Retrieving Results and Information about Results

| nction Name Support | Standard | Purpose | |
|---------------------|----------|---------|--|
|---------------------|----------|---------|--|

| | | 1 | |
|------------------|----------|------------|-------------------------|
| | | | Returns the number |
| SQLRowCount | | ISO 92 | of rows affected by |
| | • | | an insert, update, or |
| | | | delete request. |
| | | | Returns the number |
| SQLNumResultCols | ✓ | ISO 92 | of columns in the |
| | | | result set. |
| SQLDescribeCol | | ISO 92 | Describes a column |
| CQLBCCCIBCCCI | ~ | 100 02 | in the result set. |
| | | | Describes attributes |
| SQLColAttribute | ✓ | ISO 92 | of a column in the |
| | | | result set. |
| | | | Describes attributes |
| SQLColAttributes | ✓ | Deprecated | of a column in the |
| | | | result set. |
| SQLFetch | ~ | ISO 92 | Returns multiple |
| SQLI EIGH | | | result rows. |
| SQLFetchScroll | ~ | ISO 92 | Returns scrollable |
| SQLI EKISSIOII | | | result rows. |
| SQLExtendedFetch | | Deprecated | Returns scrollable |
| SQLEXIENDEUFEICH | ~ | | result rows. |
| | | | Positions a cursor |
| | | | within a fetched |
| | | | block of data and |
| SQLSetPos | • | ODBC | enables an |
| OGLOGII OS | ~ | | application to refresh |
| | | | data in the rowset or |
| | | | to update or delete |
| | | | data in the result set. |
| | | | 1 |

| SQLBulkOperations | | | Performs bulk |
|-------------------|---|------|-----------------------|
| | | | insertions and bulk |
| | | ODBC | bookmark |
| | ~ | ODBC | 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 |
|----------------------|---------|----------|---------|
|----------------------|---------|----------|---------|

| | | Returns a list of |
|----------|--------|-------------------------|
| | | columns and |
| | ODRC | |
| ~ | ODBC | associated |
| | | privileges for one or |
| | | more tables. |
| | | Returns the list of |
| ✓ | X/Open | column names in |
| | | specified tables. |
| | | Returns a list of |
| | | column names that |
| ✓ | ODBC | make up foreign |
| | | keys, if they exist for |
| | | a specified table. |
| | | Returns the list of |
| ~ | ODBC | column names that |
| | | make up the primary |
| | | key for a table. |
| | | Returns the list of |
| | | input and output |
| | | parameters, as well |
| ✓ | | as the columns that |
| | | constitute the result |
| | | set for the specified |
| | | procedures. |
| | | Returns the list of |
| _ | ODBC | procedure names |
| ~ | ODBC | stored in a specific |
| | | data source. |
| ~ | X/Open | Returns information |
| | | ODBC ODBC ODBC |

| S | | | 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 |
|--------------------|---|--------|--|
| | | | |
| 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. |

4 Using in Third-Party Tools

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

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

4.1 Using in DBeaver

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

Connect DBeaver Community to Adobe Commerce through ODBC

Connect DBeaver Enterprise to Adobe Commerce through ODBC

4.1.1 Connect DBeaver Community to Adobe Commerce through ODBC

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

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

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

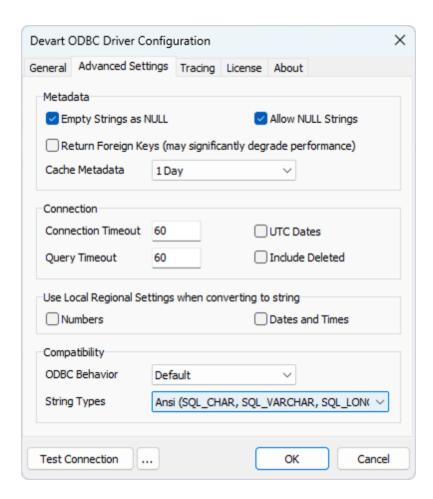
Initial configuration

- 1. Download jdbc-odbc-bridge-jre7.jar and x64/Jdbc0dbc.dll from Github.
- 2. Download the **Microsoft Visual C++ 2010 Service Pack 1 Redistributable Package** from the **Microsoft website**.

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

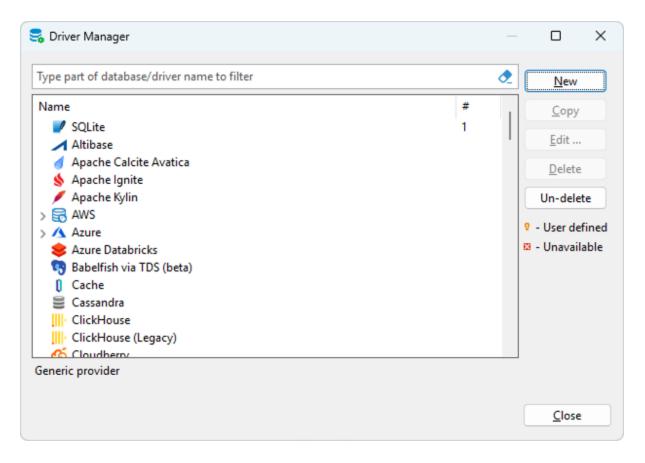
- 3. Configure an ODBC data source. For more information, see Windows DSN Configuration.
- 4. On the **Advanced Settings** tab of the DSN configuration window, select **Ansi** from the **String Types**.

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

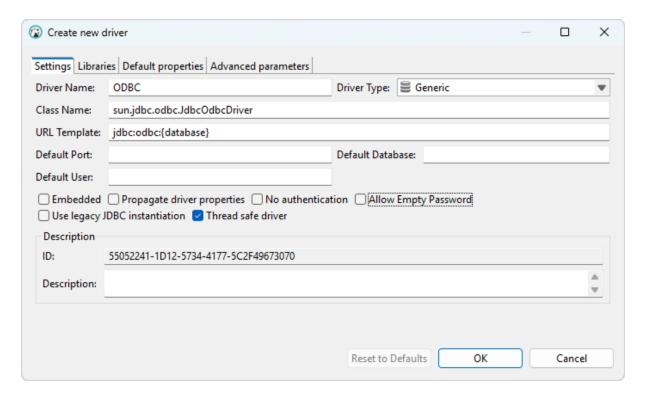


Connect to Adobe Commerce

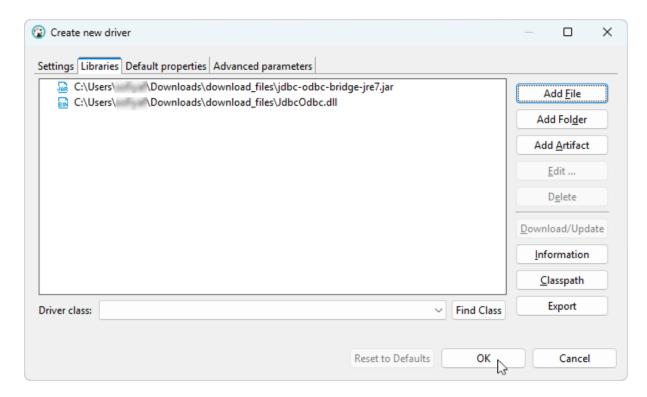
- 1. In DBeaver, select **Database** > **Driver Manager**.
- 2. Click New.



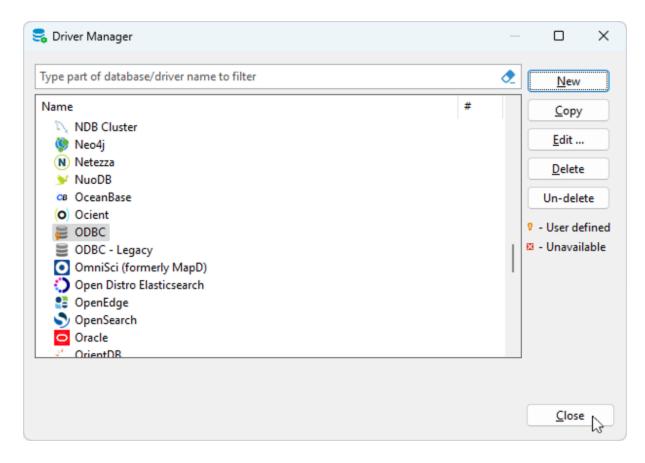
- 3. Configure the following properties for a new driver:
- In the **Driver Name** field, enter *ODBC*.
- In the Class Name field, enter sun.jdbc.odbc.JdbcOdbcDriver
- In the URL Template field, select jdbc:odbc:{database}.



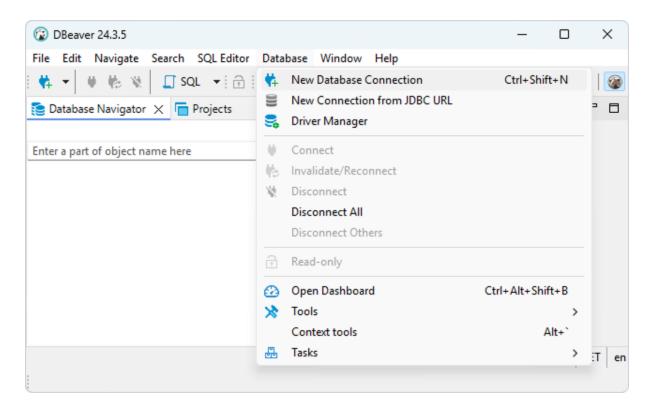
- 4. On the Libraries tab, click Add File.
- 5. Select the jdbc-odbc-bridge-jre7.jar, then click **OK**. After that, select JdbcOdbc.dll, then click **OK**.



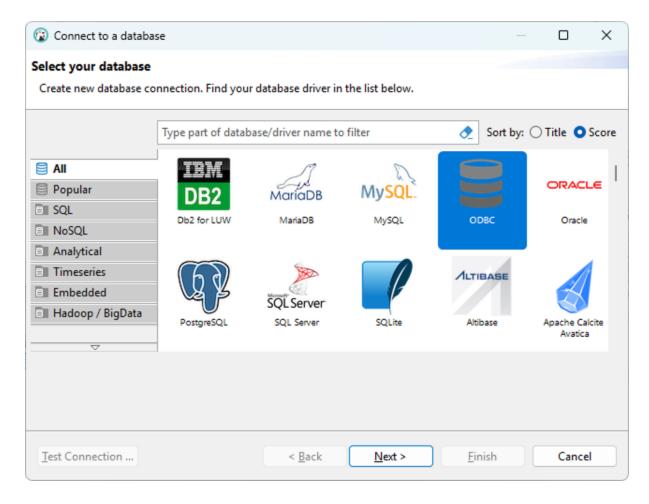
6. Once a new ODBC driver appears on the list, click Close.



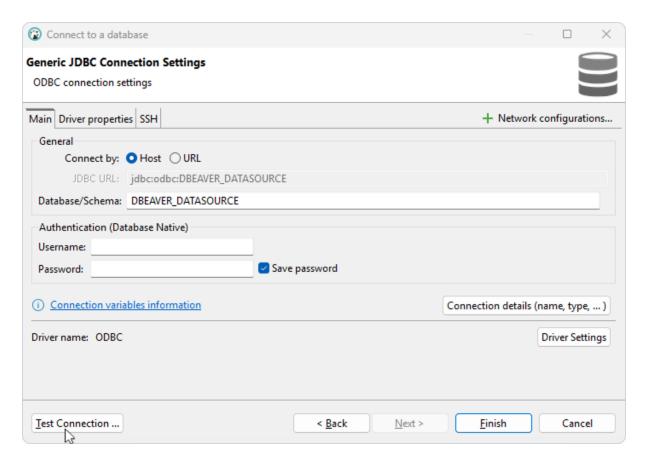
7. Select Database > New Database Connection.



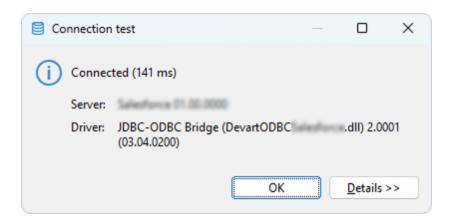
8. Select the **ODBC** driver, then click **Next**.



9. In the Database/Schema field, specify the name of your DSN.



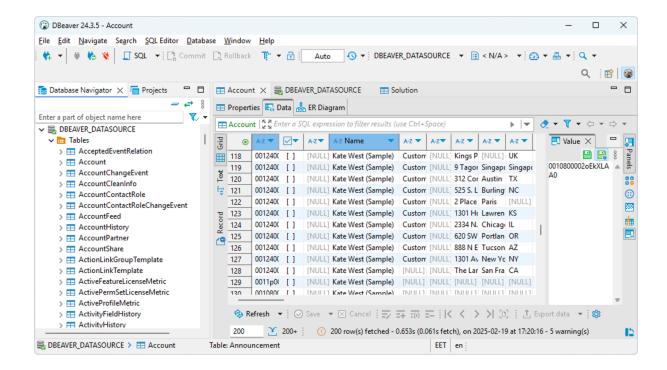
10. Optional: Select **Test Connection** to verify the connection settings.



11. Click Finish.

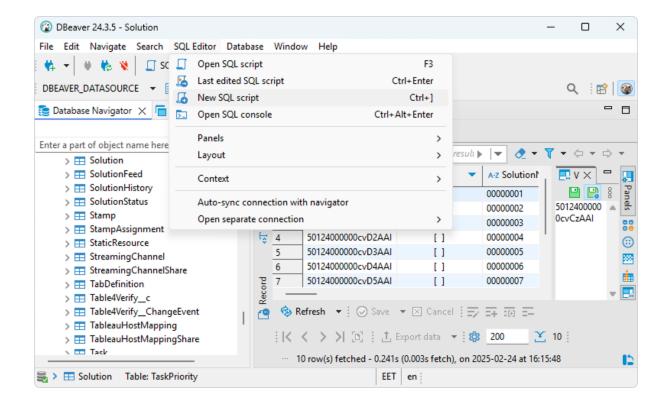
The database appears on the left pane.

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

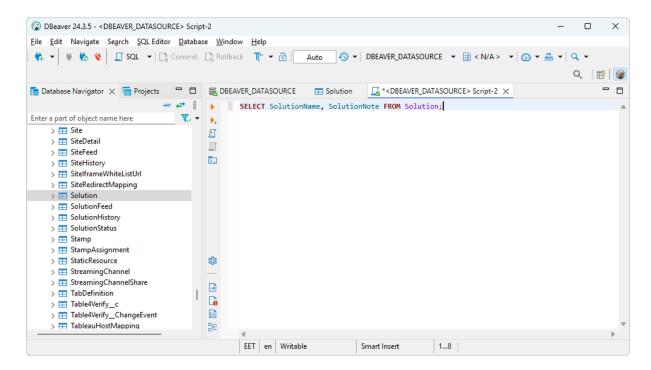


Query Adobe Commerce data

1. Select SQL Editor > New SQL script.

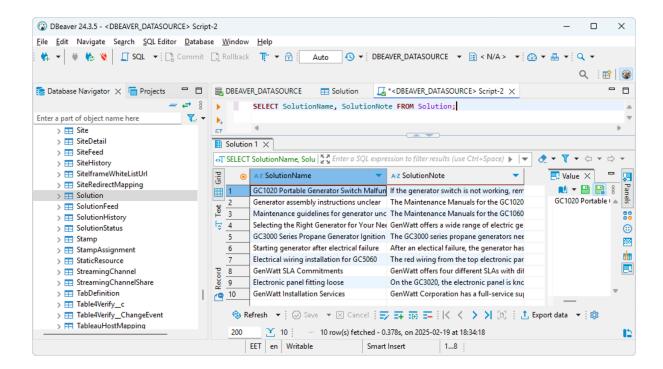


2. Enter your query.



Select SQL Editor > Execute SQL query.

The query results are displayed in the main window.



4.1.2 Connect DBeaver Enterprise to Adobe Commerce through ODBC

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

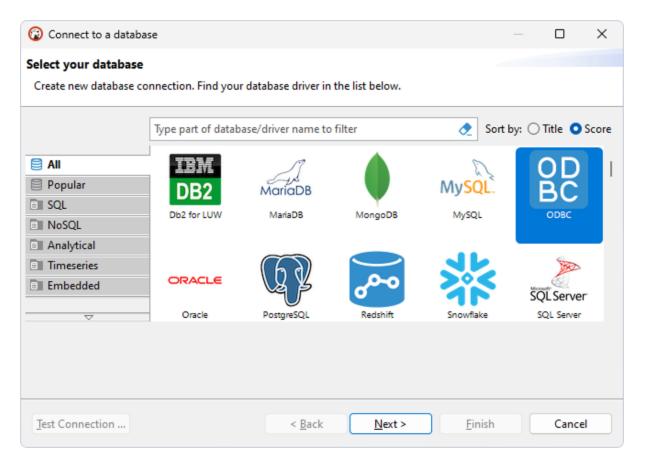
If you require a simplified connection setup with built-in ODBC support, enhanced security, and performance features, you may try DBeaver Enterprise.

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

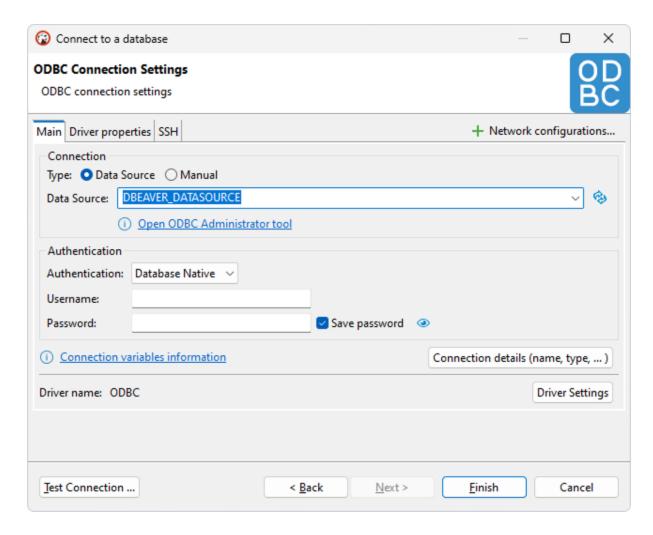
Connect to Adobe Commerce

To connect to the Adobe Commerce database from DBeaver Enterprise:

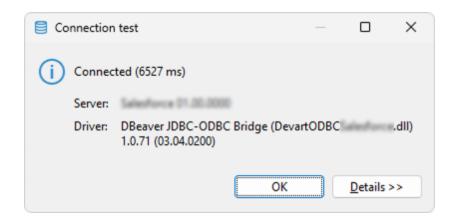
- 1. Select **Database > New Database Connection**.
- 2. Select the **ODBC** driver and click **Next**.



3. In the **Database Source** field, specify the name of your DSN.



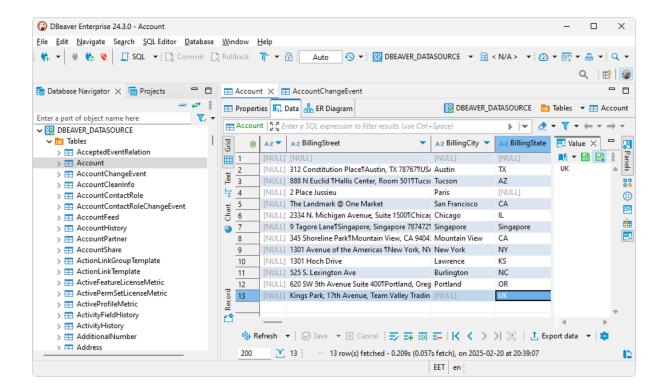
4. Optional: Select **Test Connection** to verify the connection settings.



5. Click Finish.

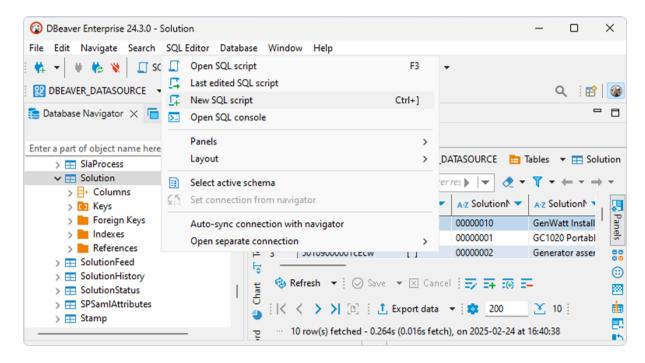
The database appears on the left pane.

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

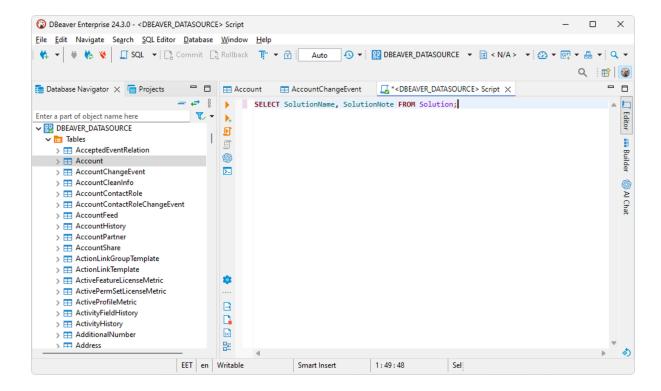


Query Adobe Commerce data

1. Select SQL Editor > New SQL script.

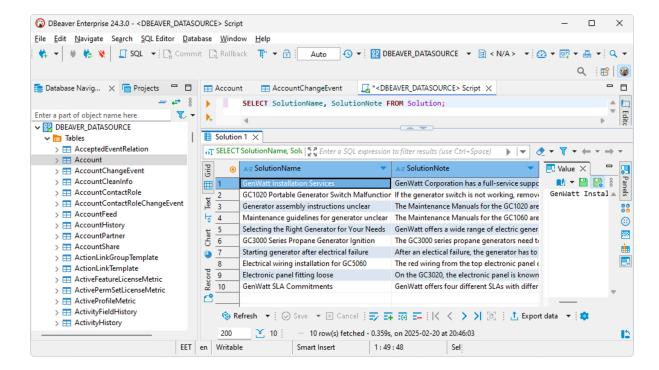


2. Enter your query.



Select SQL Editor > Execute SQL query.

The guery results are displayed in the main window.

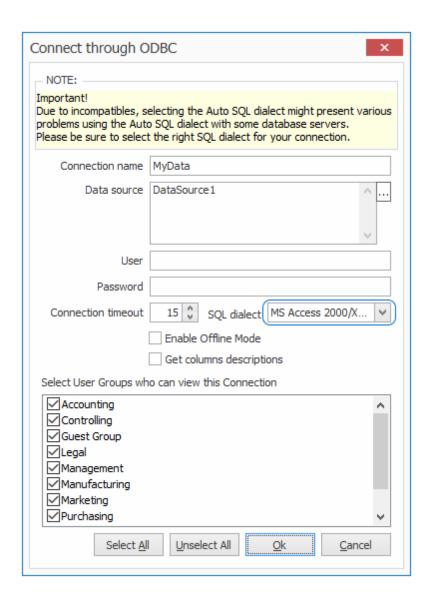


4.2 Using in DBxtra

Troubleshooting Adobe Commerce ODBC Connection in DBxtra

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

Due to incompatibilities between DBxtra and Adobe Commerce, 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.



4.3 Using in Informatica PowerCenter

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

Prerequisites

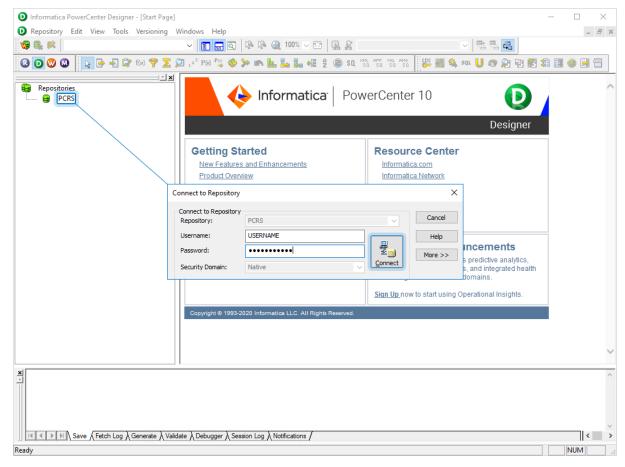
- Configure the Informatica services.
- Install the PowerCenter Client tools.
- Create a repository folder in PowerCenter Repository Manager.

- Install Devart ODBC Driver for Adobe Commerce. For instructions, see Installation.
- Configure a data source name (DSN). For instructions, see Windows DSN Configuration.

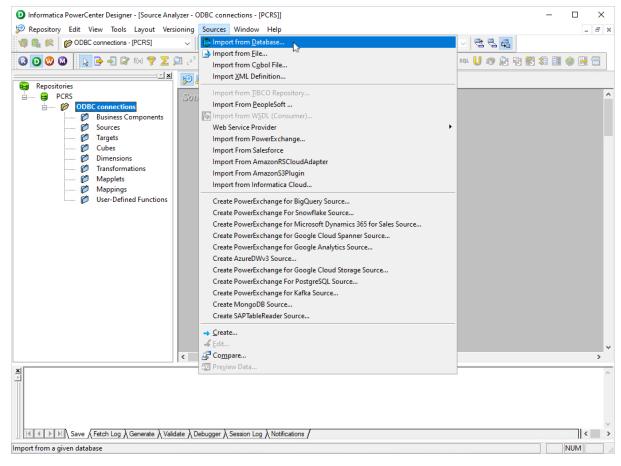
Add a data source in Informatica PowerCenter

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

- Open the C:\Informatica\10.4.1\clients\PowerCenterClient\client\bin\powrmart.ini file
 in a text editor.
- 2. In the [ODBCDLL] section, add Adobe Commerce=EXTODBC.DLL, then save the changes.
- 3. Open PowerCenter Designer.
- 4. Double-click the repository name (in this example, **PCRS**), enter your Informatica credentials, then click **Connect**.

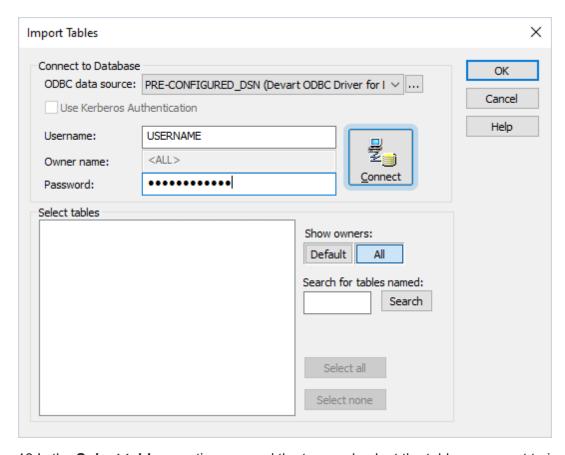


Double-click the repository folder (in this example, ODBC connections), then select
 Sources > Import from Database.

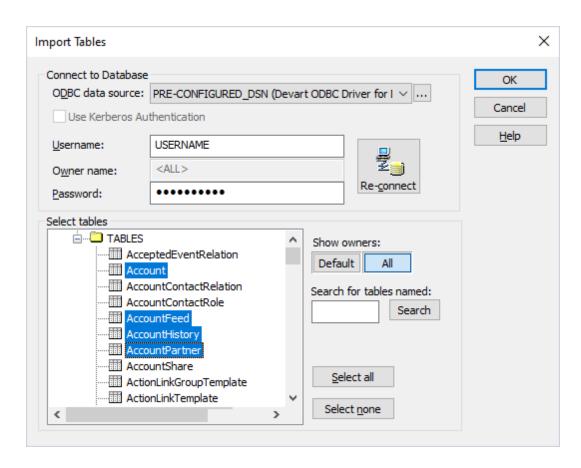


The Import Tables dialog opens.

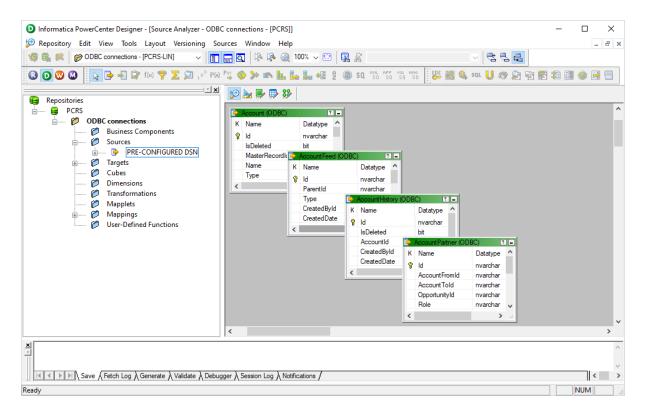
- 6. From the **ODBC data source** menu, select the needed DSN.
- 7. In the **Username** and **Password** fields, enter your Adobe Commerce credentials.
- 8. Under **Show owners**, select **All**.
- 9. Click Connect.



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



The table schemas appear in the Source Analyzer, and the data source is added to the **Sources** subfolder of the repository folder. You can now create mappings and work with Adobe Commerce data in Informatica PowerCenter.



4.4 Using in Microsoft Access

Connecting Microsoft Access to Adobe Commerce Using an ODBC Driver

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

Importing Adobe Commerce Data Into Microsoft Access Through an ODBC Connection

- 1. Open your Microsoft Access database.
- Select the External Data tab in the ribbon.
- 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 Adobe Commerce 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 Adobe Commerce Data in Microsoft Access Through an ODBC Connection

- 1. Open your Microsoft Access database.
- 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 Adobe Commerce 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 Adobe Commerce table as the unique record identifier. You are linking multiple tables, you will be prompted to select unique record identifiers for each of the selected tables.
- 9. The linked tables should appear in the **Tables** navigation pane on the left.
- 10. Double-click on the needed table to display its contents.

4.5 Using in Microsoft Excel

Connecting to Adobe Commerce from Microsoft Excelusing ODBC Driver for Adobe Commerce

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

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

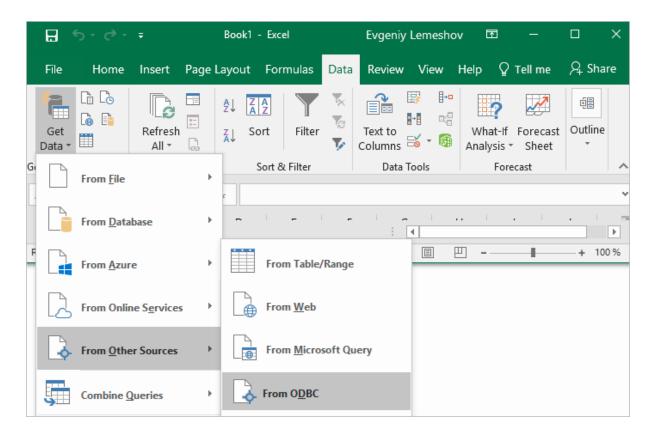
- Connecting Excel to Adobe Commerce with Get & Transform (Power Query)
- Connecting Excel to Adobe Commerce with Data Connection Wizard (Legacy Wizard)
- Connecting Excel to Adobe Commerce with the Query Wizard
- Connecting Excel to Adobe Commerce with Microsoft Query
- Connecting Excel to Adobe Commerce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

Connecting Excel to Adobe Commerce with Get & Transform (Power Query)

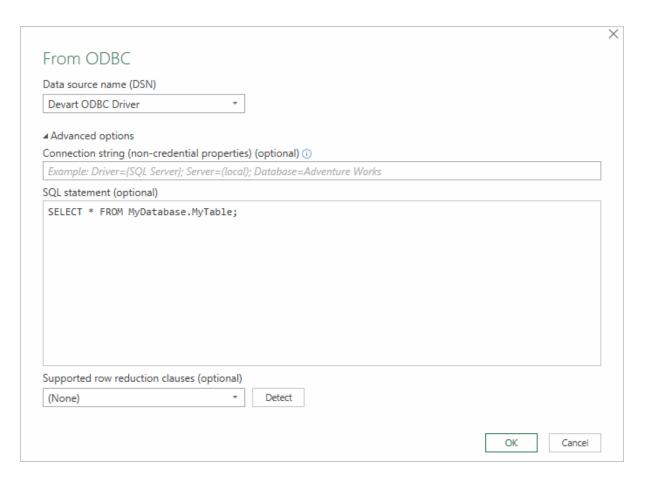
You can use Get & Transform (Power Query) to connect to Adobe Commerce from Excel with ODBC. This method assumes that you've installed an ODBC driver for Adobe Commerce.

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

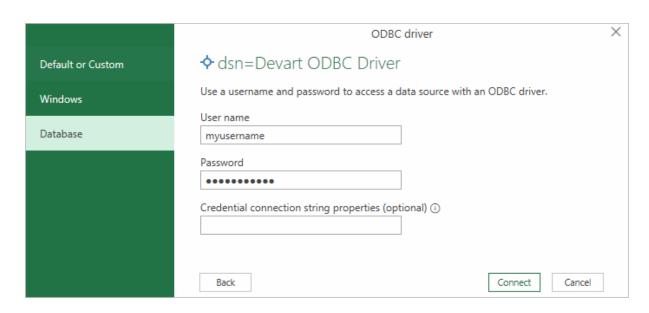
Sources > From ODBC.



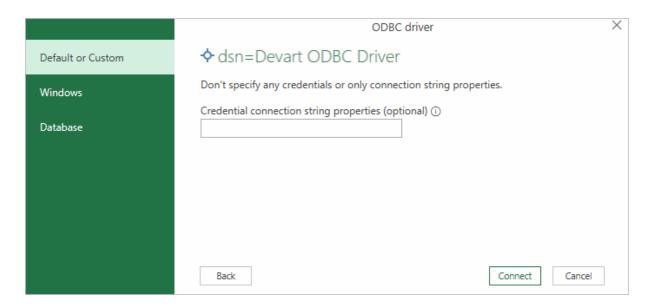
2. In the From ODBC dialog, choose your data source name (DSN). If you haven't configured your ODBC driver yet, you can expand the Advanced Options dialog box and enter the connection string for your data source (without credentials, which are defined in the credentials dialog box in the next step). Additionally, you can enter an SQL statement that will be executed right after establishing a connection to the data source. Click OK.



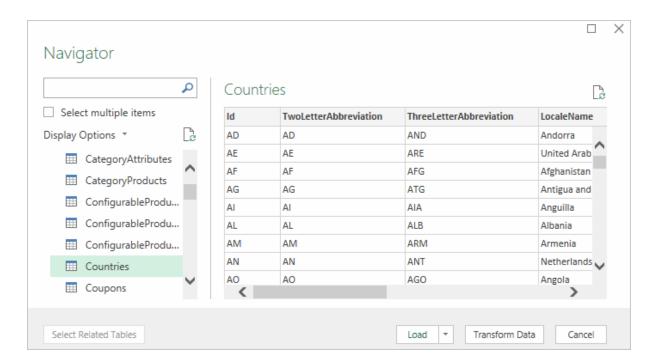
3. If you're using a database username or password, select **Database** and enter your credentials in the dialox bog, then click **Connect**.



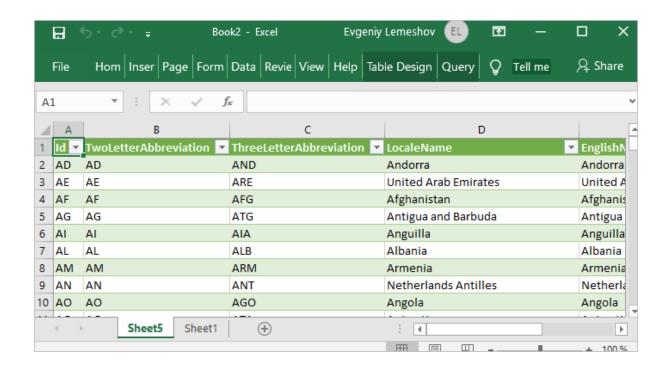
If your database is not password-protected or you've already specified your credentials in the ODBC data source settings, select **Default or Custom** and press **Connect**



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 Adobe Commerce 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.

- In Excel, go to the Data tab. Click From Other Sources, and then click From Data Connection Wizard.
- 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 Adobe Commerce with the Query Wizard

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

You can use this option to create a more complex query for retrieving Adobe Commerce 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 Adobe Commerce). 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 Adobe Commerce 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 Adobe Commerce), 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).
- When the Import operation succeeded, click the Close button. The retrieved data is inserted in the active worksheet.

4.6 Using in Microsoft Visual Studio

Importing Adobe Commerce Data into Visual Studio Through an ODBC Connection

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

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

- 1. Run Visual Studio Desktop and click **Tool** and select **Connect to Database**.
- In the Add connection dialog box, select the Microsoft ODBC Data Source as a data source.
- 3. In the **Data source specification** point expand the **Data Source Name (DSN)** drop-down list and select the previously configured DSN for Adobe Commerce. Alternatively, you can connect to the database by entering the DSN in a **Use connection string** field. To check

- whether your connection is successful, click Test connection. Click OK.
- If your data source is password-protected, Visual Studio will prompt you for user credentials. Type your **Username** and **Password** in the respective fields and click **OK**.
- 5. In the Server Explorer you can see the database structure. Choose **Tables**, right-click the table you want to view the data of and select **Retrieve Data**. You can also preview the contents of the database objects by clicking on them.

4.7 Using in OpenOffice and LibreOffice

Connecting to Adobe Commerce from OpenOffice and LibreOffice using ODBC Driver for Adobe Commerce

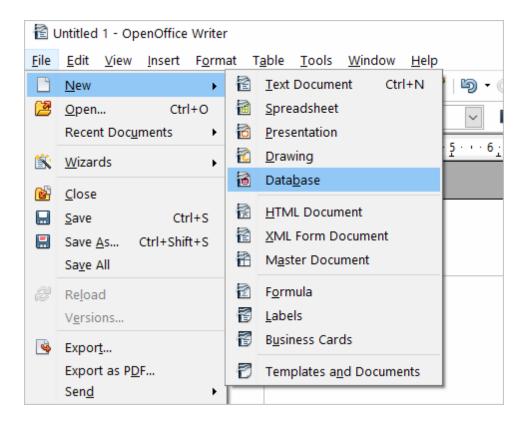
The article describes how to use Apache OpenOffice and LibreOffice to access ODBC data sources using the respective driver. You can access Adobe Commerce data from Open Office Base or LibreOffice Base — desktop database management systems. Note that the Windows version of OpenOffice is 32-bit, and you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

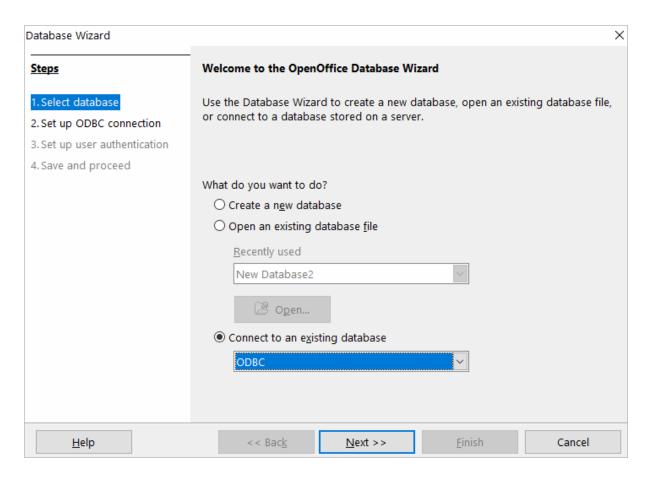
Start OpenOffice or LibreOffice, click Database to open the Database Wizard.



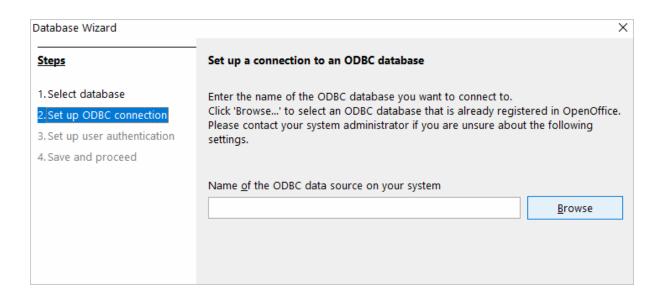
Alternatively, you can launch the **Database Wizard** from OpenOffice or LibreOffice Calc, Writer or any other tool by choosing **File > New > Database**.

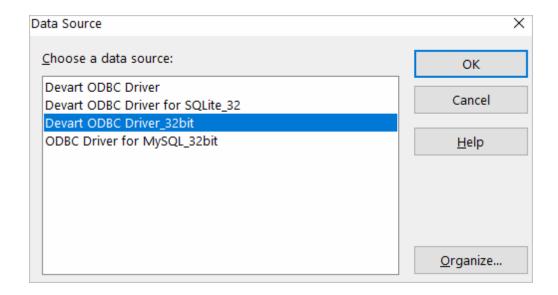


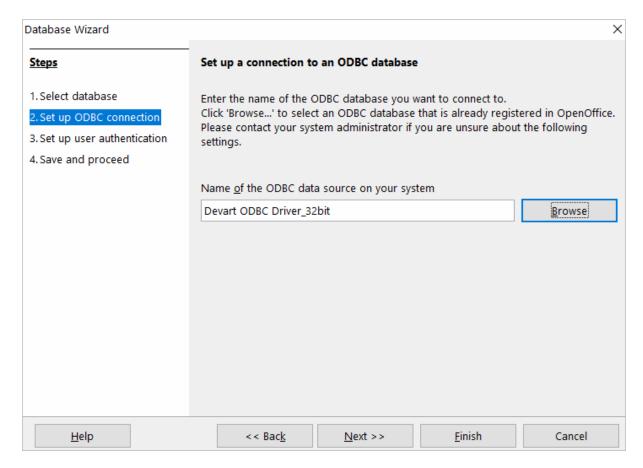
2. In the **Database Wizard dialog box**, click **Connect to an existing database**, select **ODBC** from the drop-down list, and click **Next**.



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 Adobe Commerce, or you can click Browse, double-click the data source you need, and then click Next.

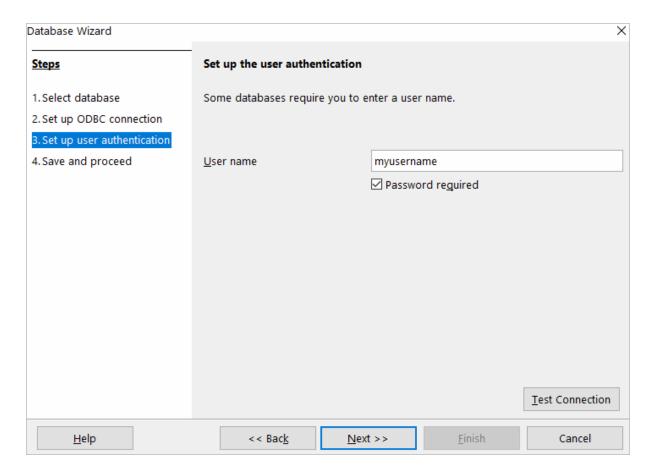




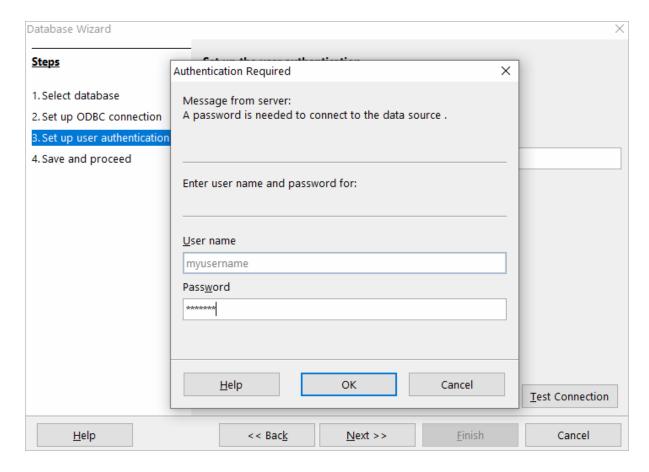


4. If your database requires a user name, type it into the **User name** field. If you are connecting to a password protected database, check the **Password required** field.
Alternatively, you can specify these parameters in the data source settings of your ODBC

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

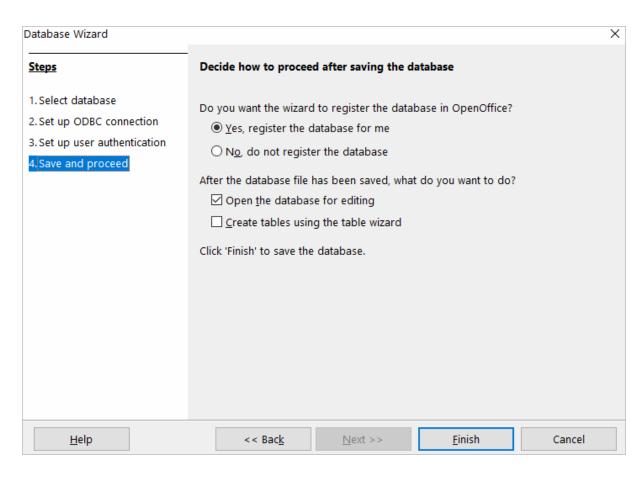


To test the connection to your data source, click **Test Connection**, input your credentials and click **OK**.

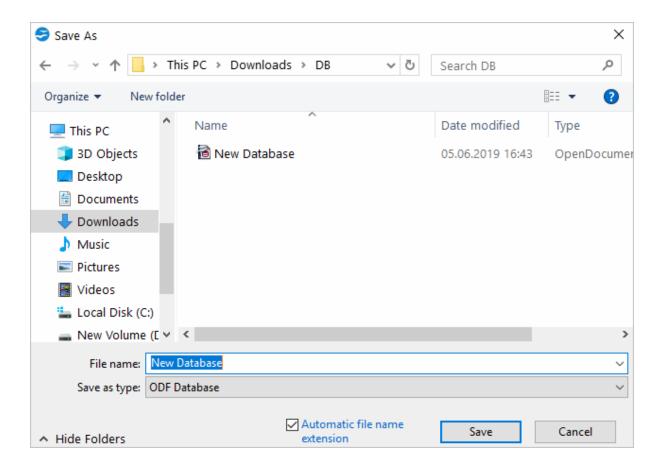


If you have entered valid credentials, you will see a success message. Click **Next** to proceed to the final step.

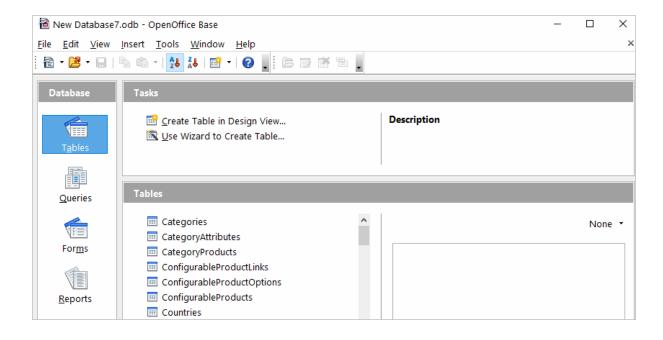
5. You can keep the default selection in this dialog box and click **Finish**.

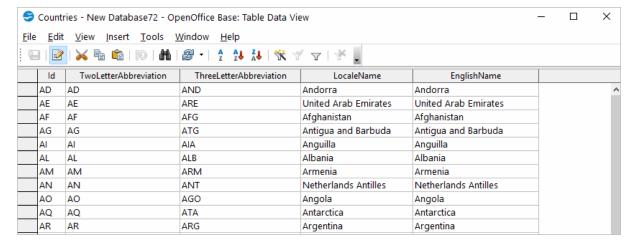


You will be prompted to give a name to your new database and select the directory where you want to store it.

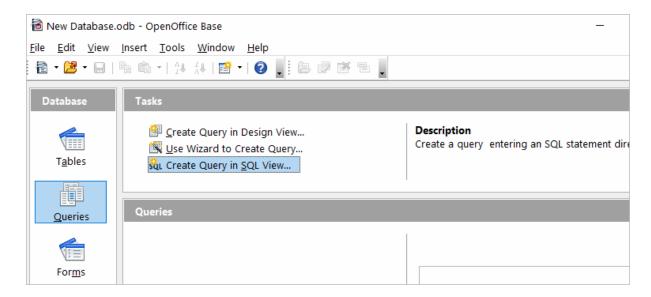


6. When the database opens, you will see the list of tables from your data source diplayed in OpenOffice or LibreOffice Base workspace. To view the data from a specific table, double-click the table name.

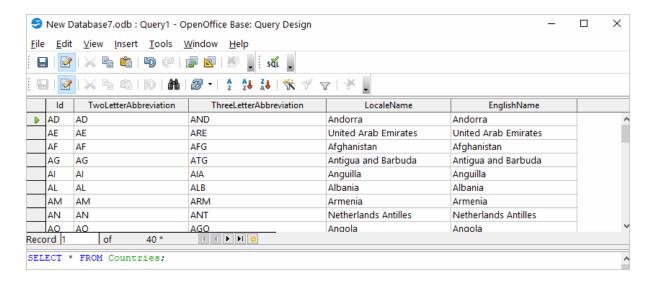




7. To create an SQL query, click **Queries** in the **Database** pane, then click **Create Query in SQL View...**



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



4.8 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 Adobe Commerce, 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, initAdobe Commerce.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=Adobe Commerce
```

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 <code>listener.ora</code> configuration file which is located in the <code>ORACLE_HOME\NETWORK\ADMIN\</code> directory. The following example is the address on which the Oracle Net Listener listens (<code>HOST</code> is the address of the machine on which the gateway is installed):

Add an entry to the <code>listener.ora</code> file to start the gateway in response to connection requests. The SID of the gateway (<code>SID_NAME</code>) must be the same in <code>listener.ora</code> and <code>tnsnames.ora</code>. <code>ORACLE_HOME</code> 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=Adobe Commerce)
```

```
(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.

```
Adobe Commerce =

(DESCRIPTION =

(ADDRESS = (PROTOCOL = tcp)(HOST = localhost)(PORT = 1521))

(CONNECT_DATA =

(SID = Adobe Commerce)

)

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

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

See also

Configuring Oracle Database Gateway for ODBC

4.9 Using in PHP

Connecting to Adobe Commerce from PHP using ODBC Driver for Adobe Commerce

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 Adobe Commerce via ODBC. The script connects to Adobe Commerce 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.

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.

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

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

4.10 Using in Power BI

Importing Adobe Commerce 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 Adobe Commerce, you can use a corresponding ODBC driver.

This tutorial explores how to connect to Adobe Commerce 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 Adobe Commerce.

- 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 Adobe Commerce
- 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 Adobe Commerce data into Power BI for analysis, select the needed table and click **Load**.

4.11 Using in Python

Installing the ODBC Driver for Adobe Commerce

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 <u>download the ODBC Driver</u> for Adobe Commerce. 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 Adobe Commerce from Python using ODBC Driver for Adobe Commerce

Here's an example to show you how to connect to Adobe Commerce 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 Adobe Commerce}; Version
```

Step 2: Insert a row

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

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

Step 3: Execute query

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

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

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

4.12 Using in QlikView

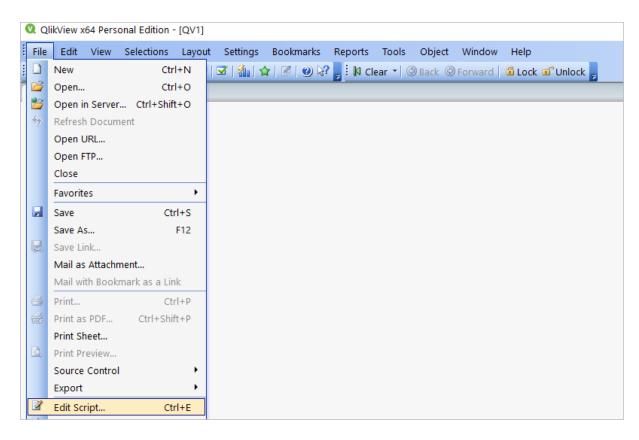
Connecting to Adobe Commerce from QlikView using ODBC Driver for Adobe Commerce

This tutorial describes how to connect and configure QlikView to retrieve data from Adobe Commerce 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.

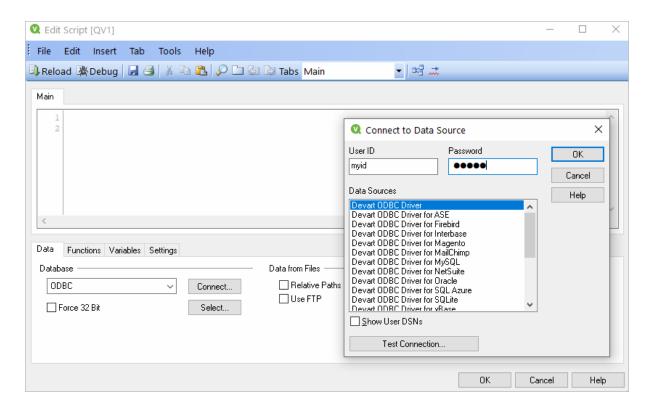
QlikView supports the ODBC connectivity interface for communication with external data sources. An ODBC data source must be configured for the database you want to access. You can create an ODBC connection using a DSN during the ODBC driver installation or later.

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

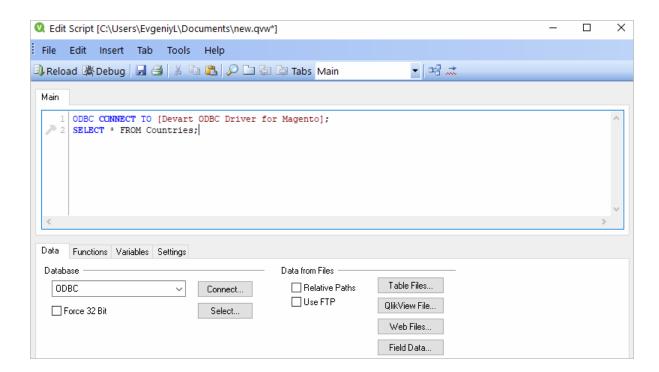
 Open the QlikView client application and click File > New. Close the Getting Started wizard and open File > Edit Script (CTRL+E).

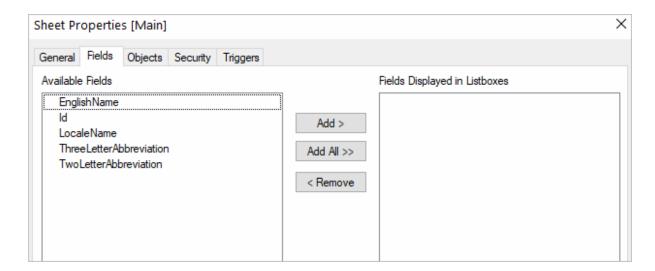


2. In the Data tab, choose ODBC from the Database drop-down and click Connect. Select the Data Source you created earlier, type in the User ID and Password if your database is password-protected. You can test the connection by choosing Test Connection. The Connection Test succeeded message should appear.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

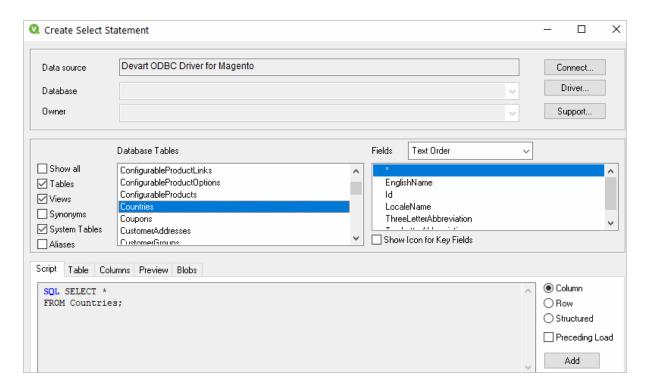


3. To retrieve the data from your data source, you can enter an SQL query and press **F5**. You will be suggested to choose fields to be displayed.

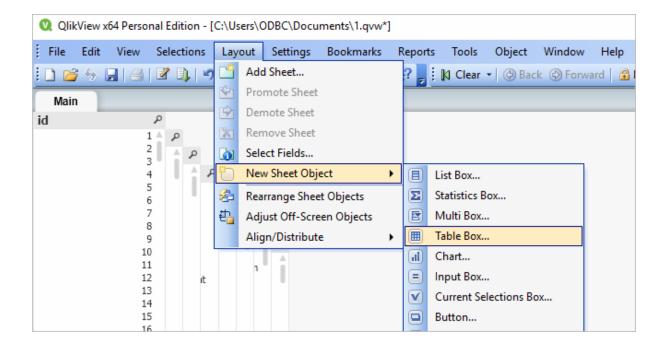


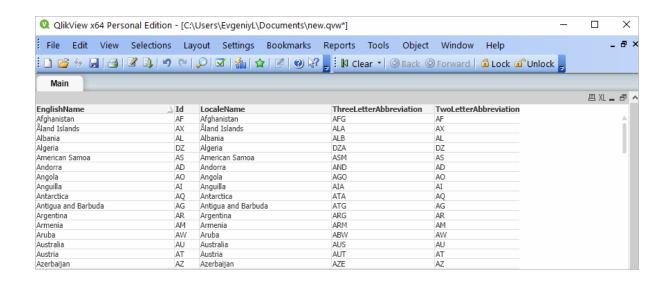


4. Alternatively, you can click **Select**, and QlikView will show you the database structure window where you can compose a SELECT statement for the data to be fetched. You can choose a different database from the database drop-down list. Select the necessary tables and fields. You can retrieve date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





4.13 Using in SQL Server Management Studio

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

- Creating a Linked Server
- Troubleshooting in SSMS

4.13.1 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 <u>Driver Configuration</u> 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 Adobe Commerce and SQL Server must be installed on the same

computer.

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

Connecting to Adobe Commerce from SQL Server Management Studio using ODBC Driver for Adobe Commerce

You can use the Microsoft SQL Server Management Studio to connect your Adobe Commerce 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 Adobe Commerce 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 Adobe Commerce:

- 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 Adobe Commerce

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

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

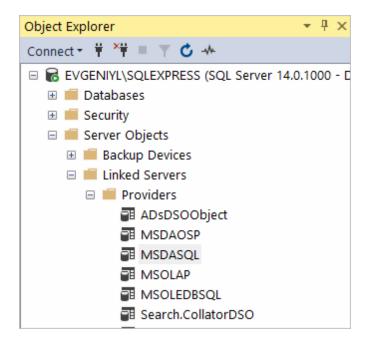
list.

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

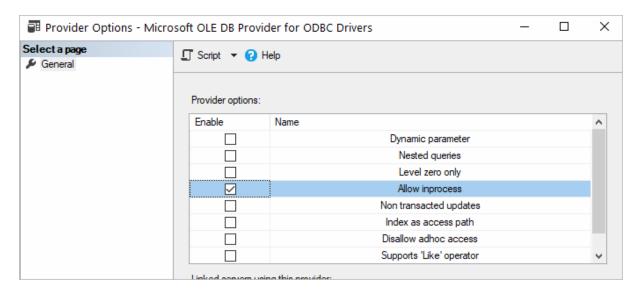
The linked server will appear under the Linked Servers in the Object Explorer Pane. You can now issue distributed queries and access Adobe Commerce databases through SQL Server.

Retrieving Data From Adobe Commerce

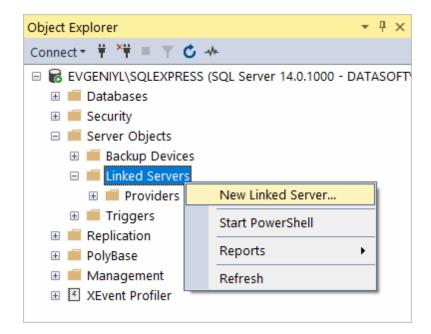
Ensure the **Allow inprocess option** of MSDASQL OLE DB Provider for ODBC Drivers is enabled. For this, find the **MSDASQL** provider in the list of Linked Servers and double-click on it



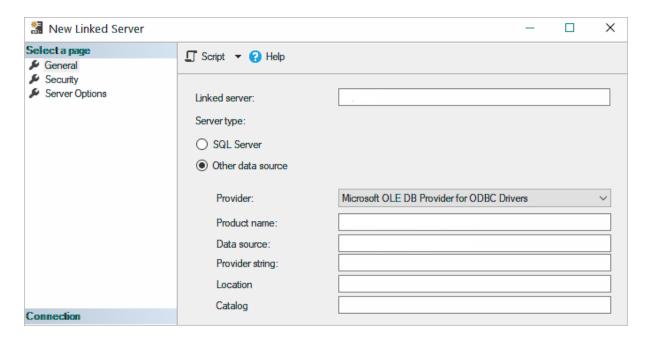
In the appeared **Provider Options** window, enable the **Allow inprocess** checkbox:



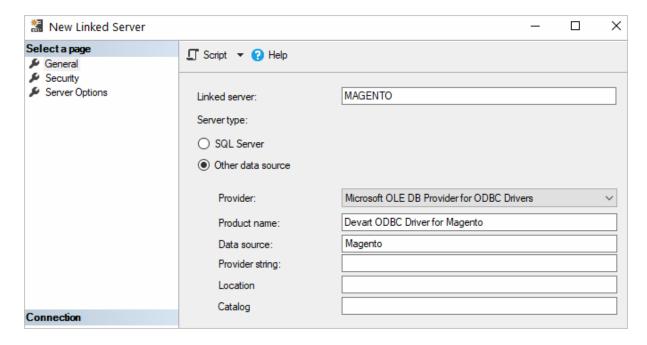
Create a new Linked Server



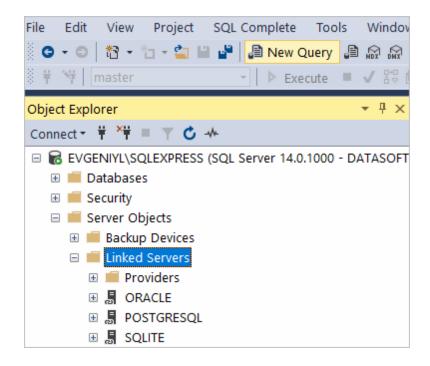
Make sure to select Microsoft OLE DB Provider for ODBC Drivers:



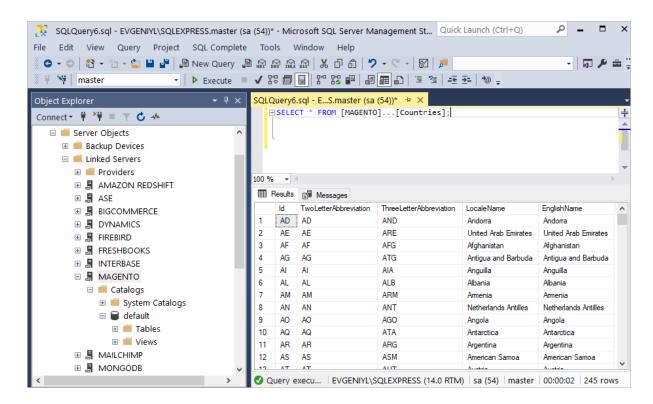
Now you need to input the Linked Server name, e.g. ADOBECOMMERCE. In the Product Name and Data Source fields you need to indicate the System DSN that you've previously created - more info on System DSN setup can be found here.



The Adobe Commerce 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 Adobe Commerce account you are connected to.

See also

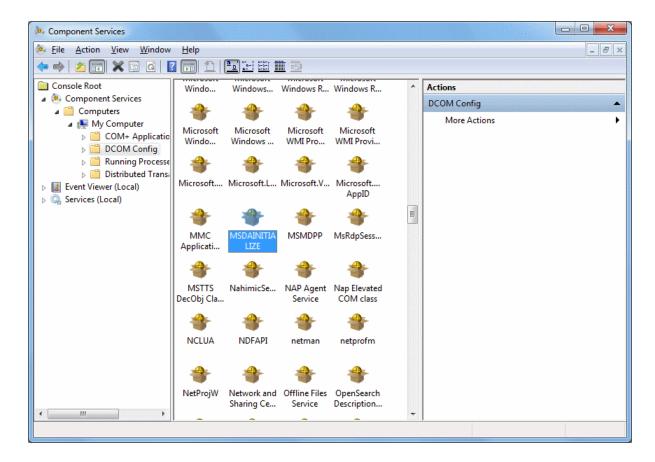
Troubleshooting SSMS

4.13.2 Troubleshooting in SSMS

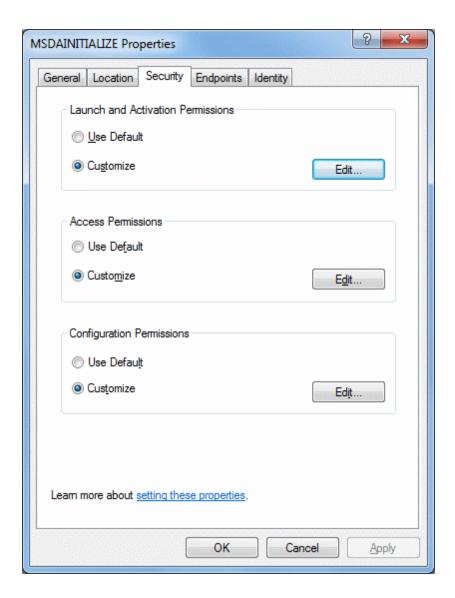
When creating a linked server in SSMS, most errors happen due to security issues with DCOM class MSDAINITIALIZE. We need to alter the DCOM Class MSDAINITIALIZE security settings to make it work.

Following are the steps:

- 1. Open Component Services (Start>Run>DCOMCNFG)
- 2. Expand Component Services>Computers>My Computer>DCOM Config
- 3. From the list of DCOM components on the right side, select MSDAINITIALIZE and go to its properties:



4. Go to the Security Tab, Choose 'Customize' and click on the 'Edit' Button:

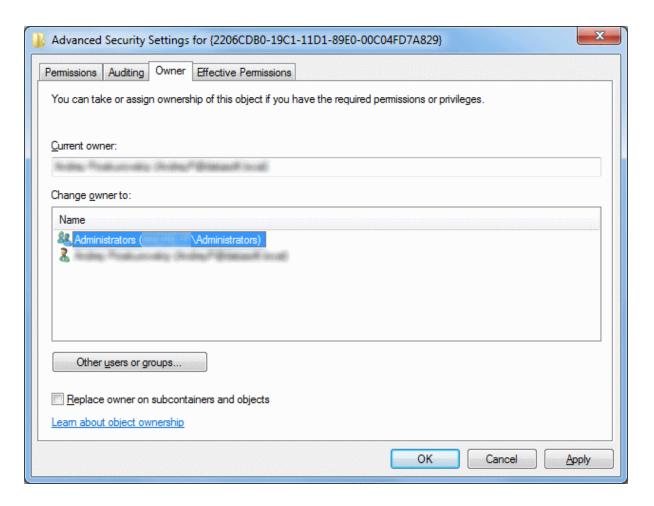


- 5. Add the Domain User who is accessing the linked server and 'Allow' all the permissions available (Local Launch, Remote Launch, Local Activation, Remote Activation). If you are connecting to SQL server using SQL account, you need to provide this permission to the account under which the SQL service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

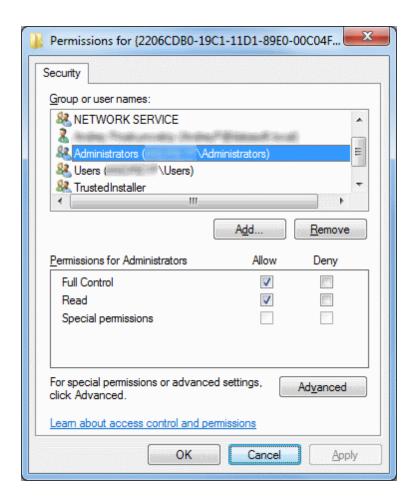
To edit the Security settings, we followed the below steps:

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

3. Right Click>Permissions>Advanced>Owner Tab:



- 4. Change the owner to Administrators.
- 5. Now, grant 'Full Control' to Administrators:



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

See also

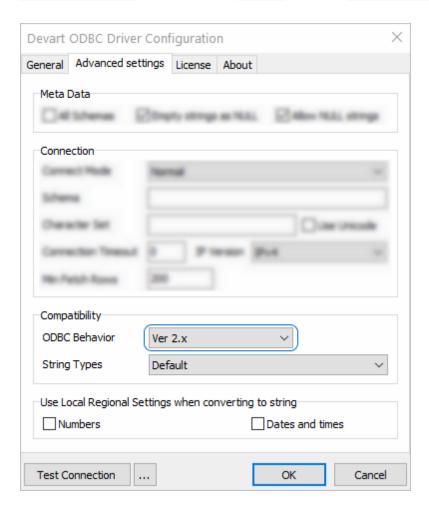
Error message when you try to create an instance of an OLE DB provider in SQL Server:
 "Cannot create an instance of OLE DB provider"

4.14 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 Adobe Commerce as a translation layer between the data source and SSIS, the driver and SSIS communicate via Microsoft ODBC version 3.x.

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

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



4.15 Using in Tableau

Importing Adobe Commerce Data Into Tableau Through an ODBC Connection

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