



UNLIMITED PLM PERFORMANCE DEVELOPED BY ISD

## Microsoft SQL Server 2019

### Installation guide

Version: 24 January 2025

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# 1 Introduction

The HELiOS PDM Modules (Document management, Part management, Workflow etc.) are based on a relational database. Before putting HELiOS into operation, the Microsoft SQL database control system must be installed on the server, a database must be imported and the clients ODBC connection must be established.

The following installation instructions refer to the installation of the English Version of SQL Server 2019 Evaluation Edition. Other editions may have slight divergences.

For further information about Microsoft SQL Server 2019 please refer to the Microsoft documentation or the Help on the Microsoft homepage as follows:

<https://www.microsoft.com/en-us/sql-server/sql-server-2019>

<https://msdn.microsoft.com/de-de/library/ms143531.aspx>

## Please note:

- If you work with HELiOS and ordered the SQL Server via ISD, please use only the DVD or ISO file provided by ISD.
- If a German SQL Server must be installed on a foreign OS, Region as well as Language must be switched to DE/DE, otherwise the setup routine will not start. After installation, the settings can be restored (this also applies to German/Swiss or German/Austrian)

## 2 Installation Database Server

### 2.1 Installation of the Database Modules

After starting the setup, the installation screen will appear as shown below:

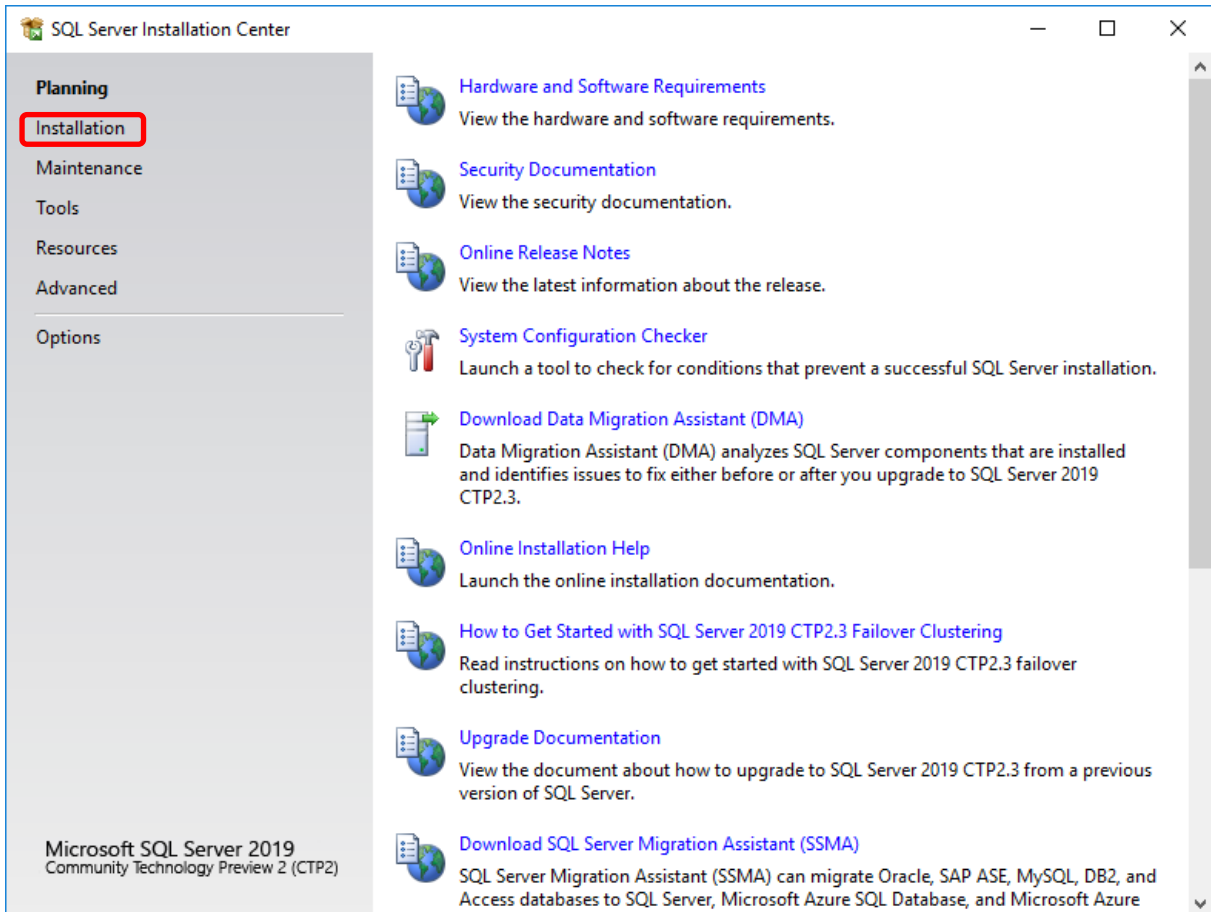


Image 1: Start page of SQL Server Installation Centre

In the option menu, select **Installation**.

On the right side of the screen, click **New SQL Server stand-alone installation or add features to an existing installation**.

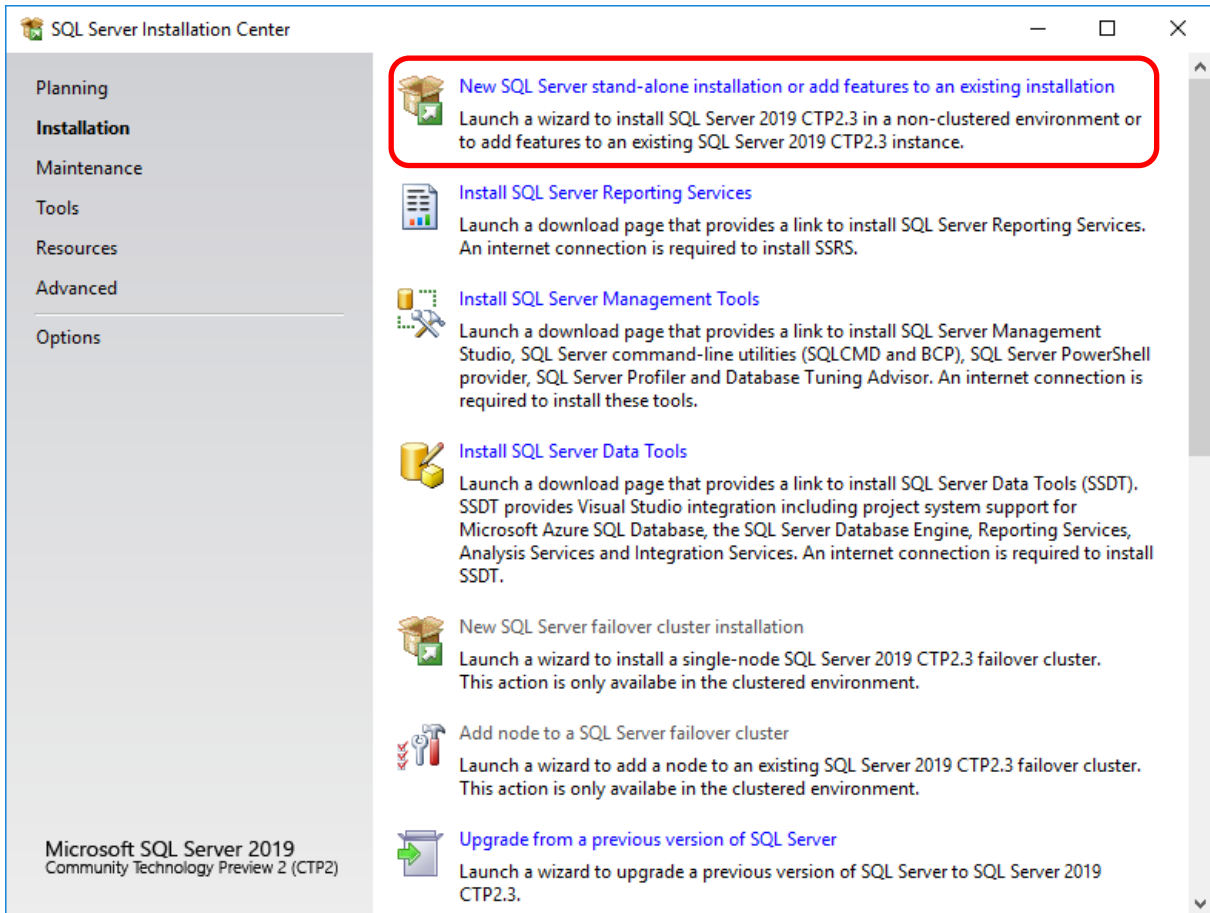


Image 2: Begin installation

Select the field below to enter the **Product Key** and click **Next**.

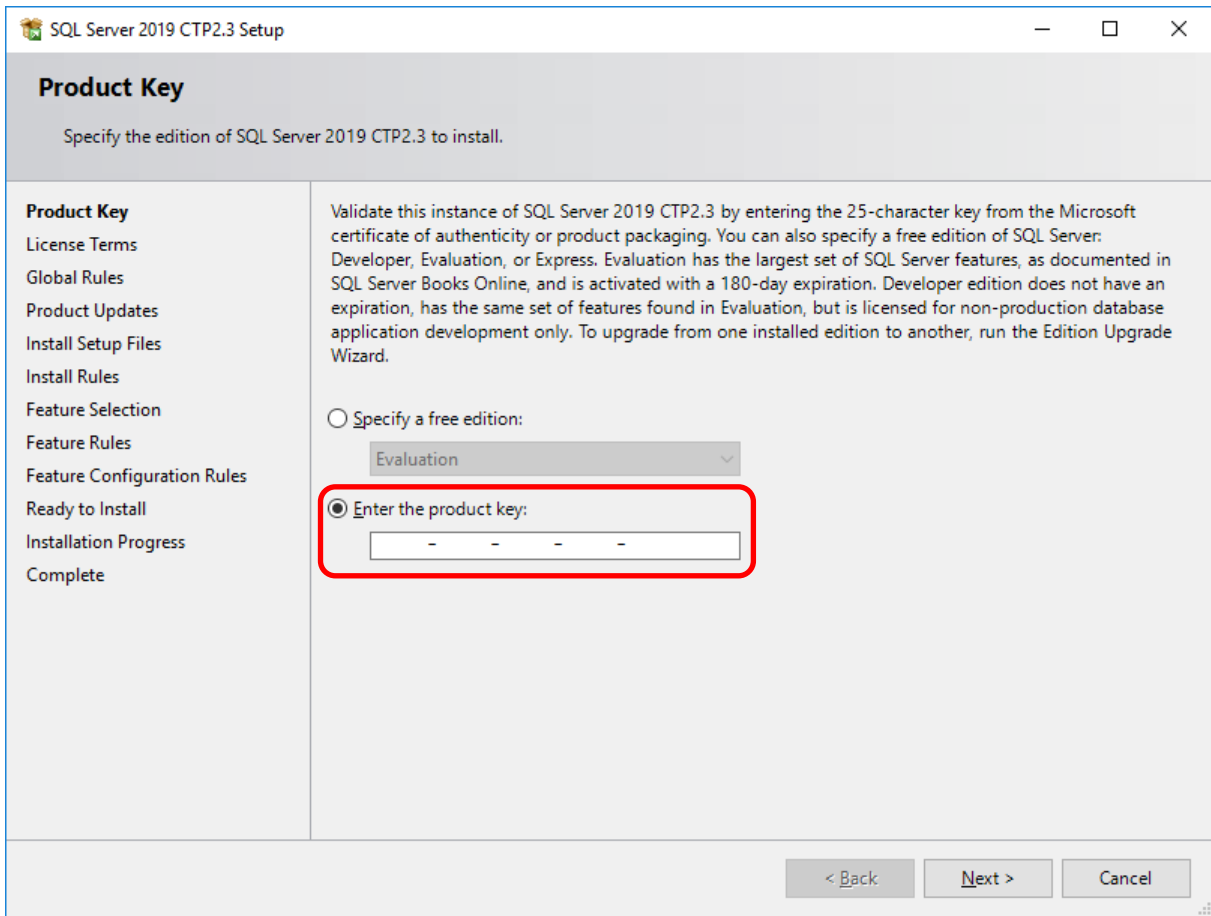


Image 3: Product Key



Agree on the License Terms and Privacy Statement and click **Next**.

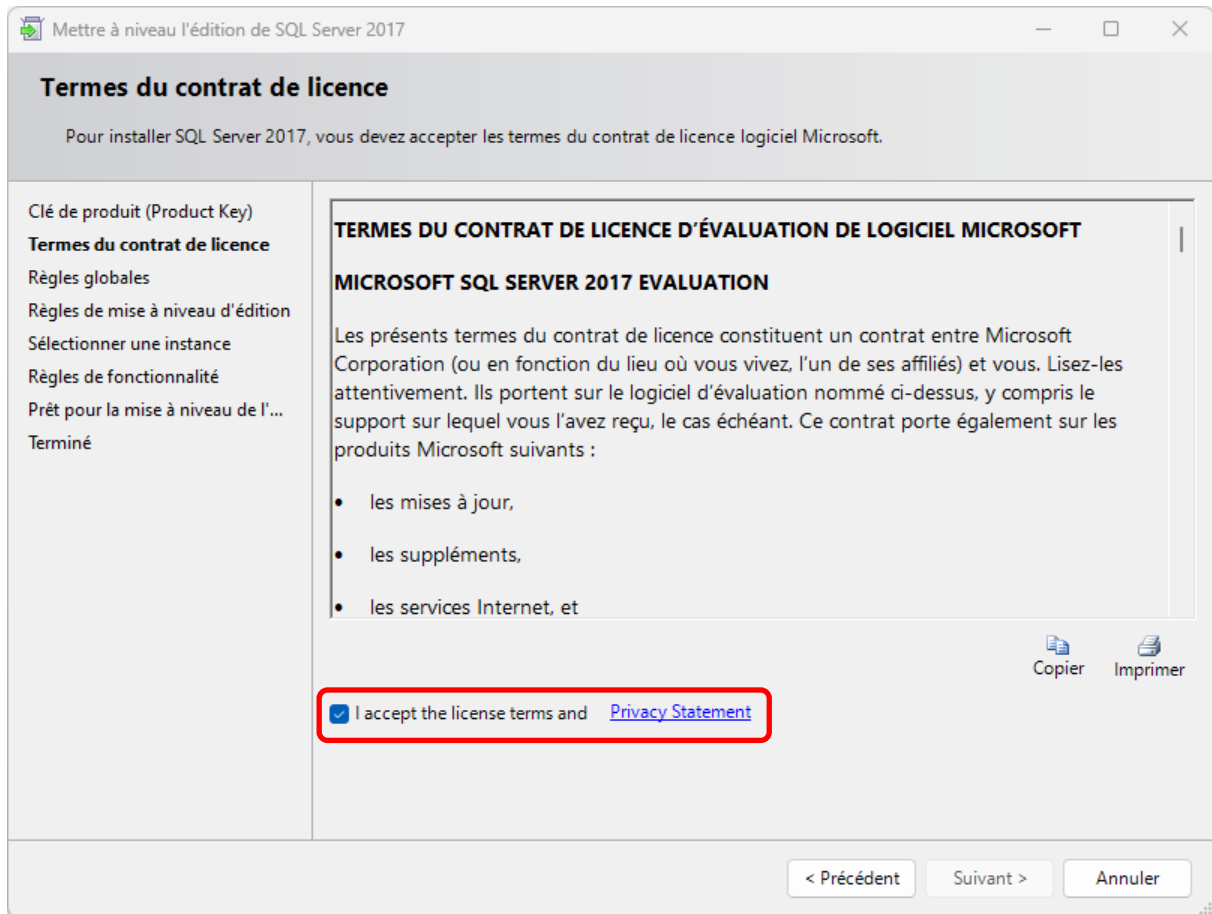


Image 4: Accept Licence Terms

If there are **Microsoft Updates** available, go to the tab and activate the checkbox for updates. Product updates and setup files are being installed.

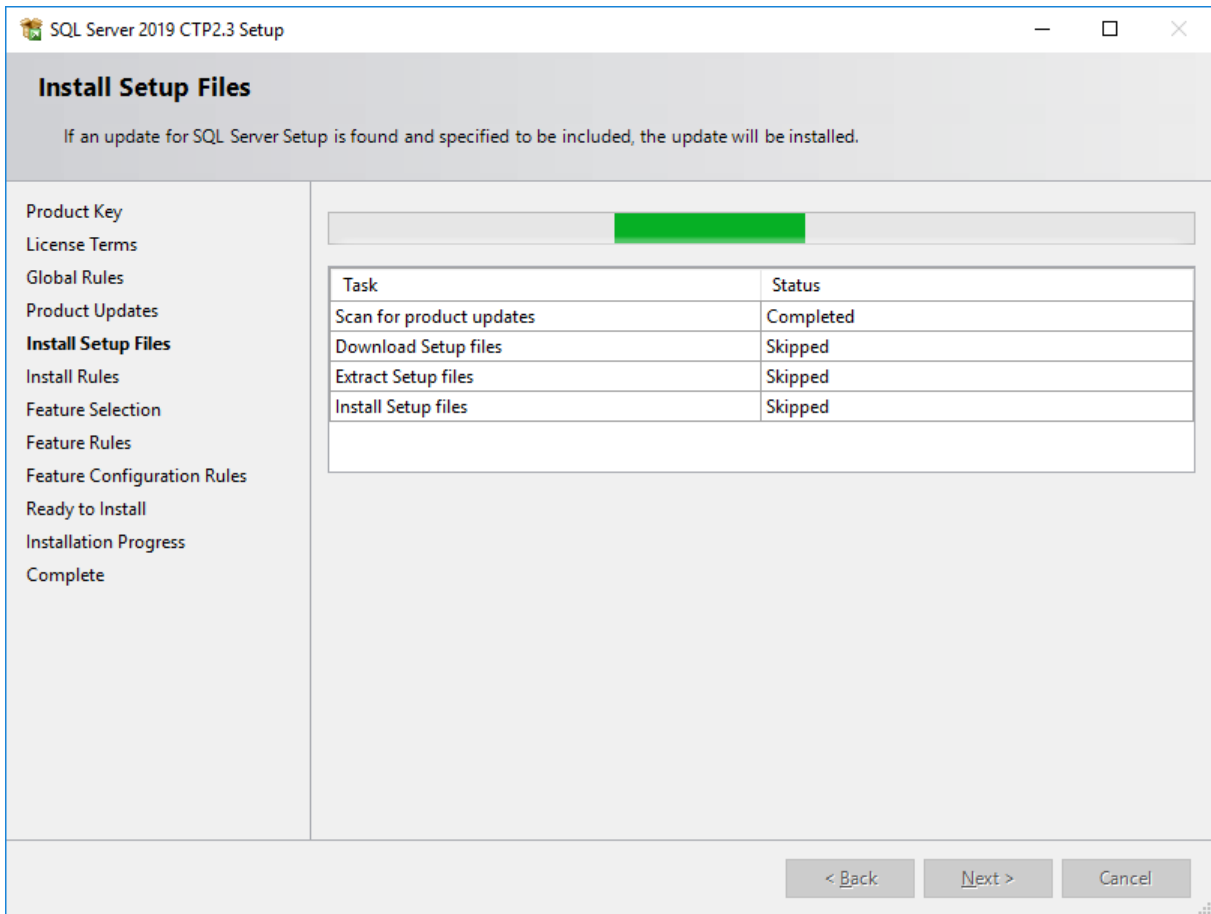


Image 5: Install Setup Files

After completion, click **Next**.

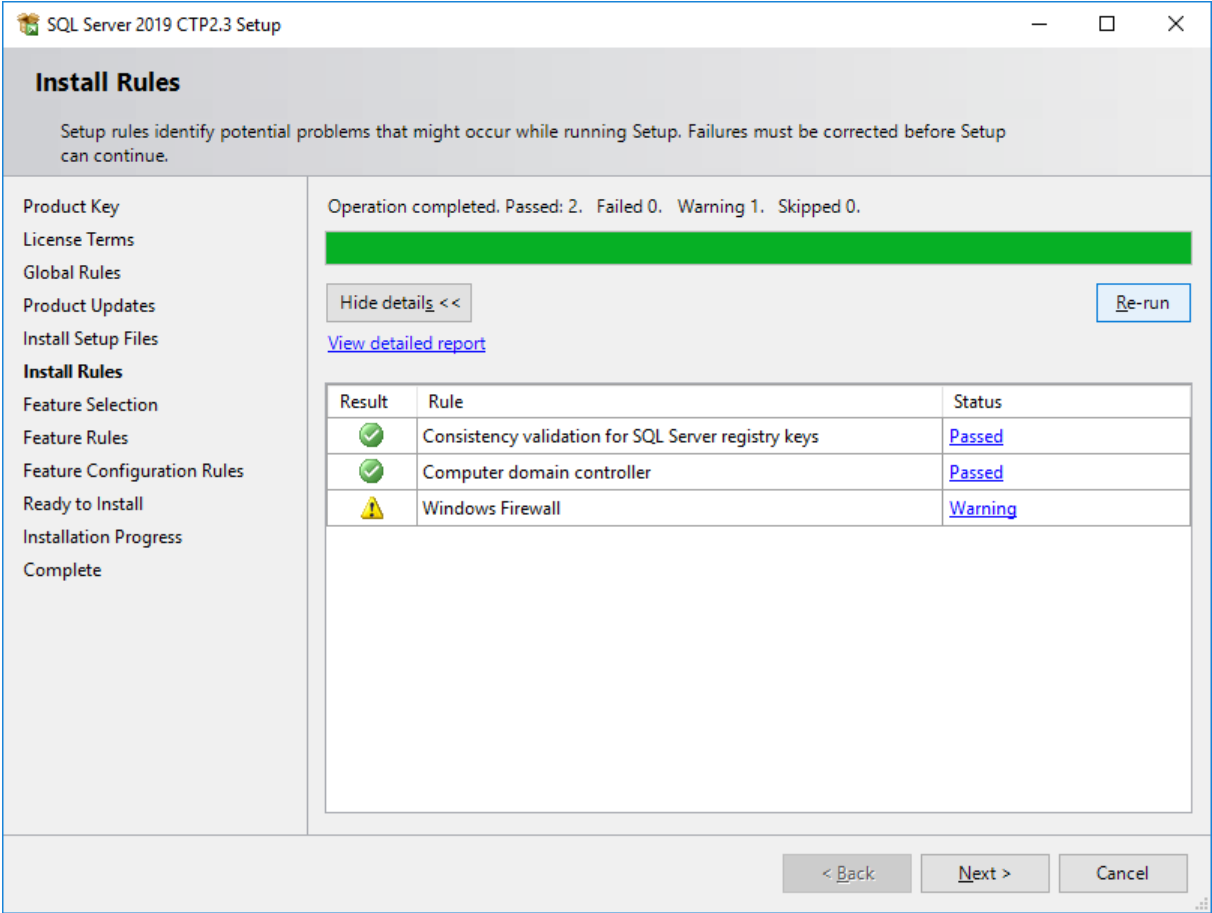


Image 6: Setup ready

Select the highlighted feature: **Database Engine Services**

Confirm the selection and click **Next**.

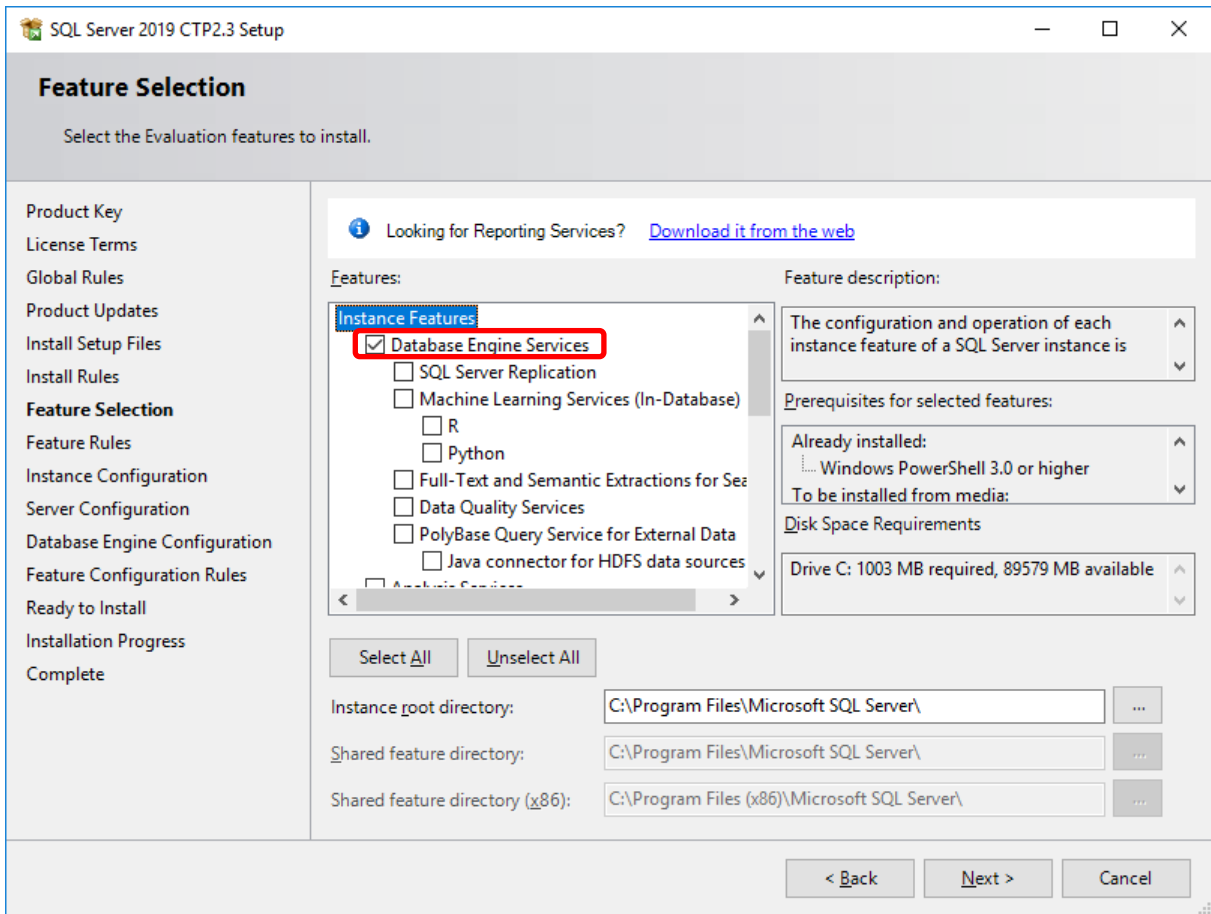


Image 7: Feature Selection

In the dialogue shown below, specify the name of the SQL Server instance. In this manual, the **Default instance** is used.

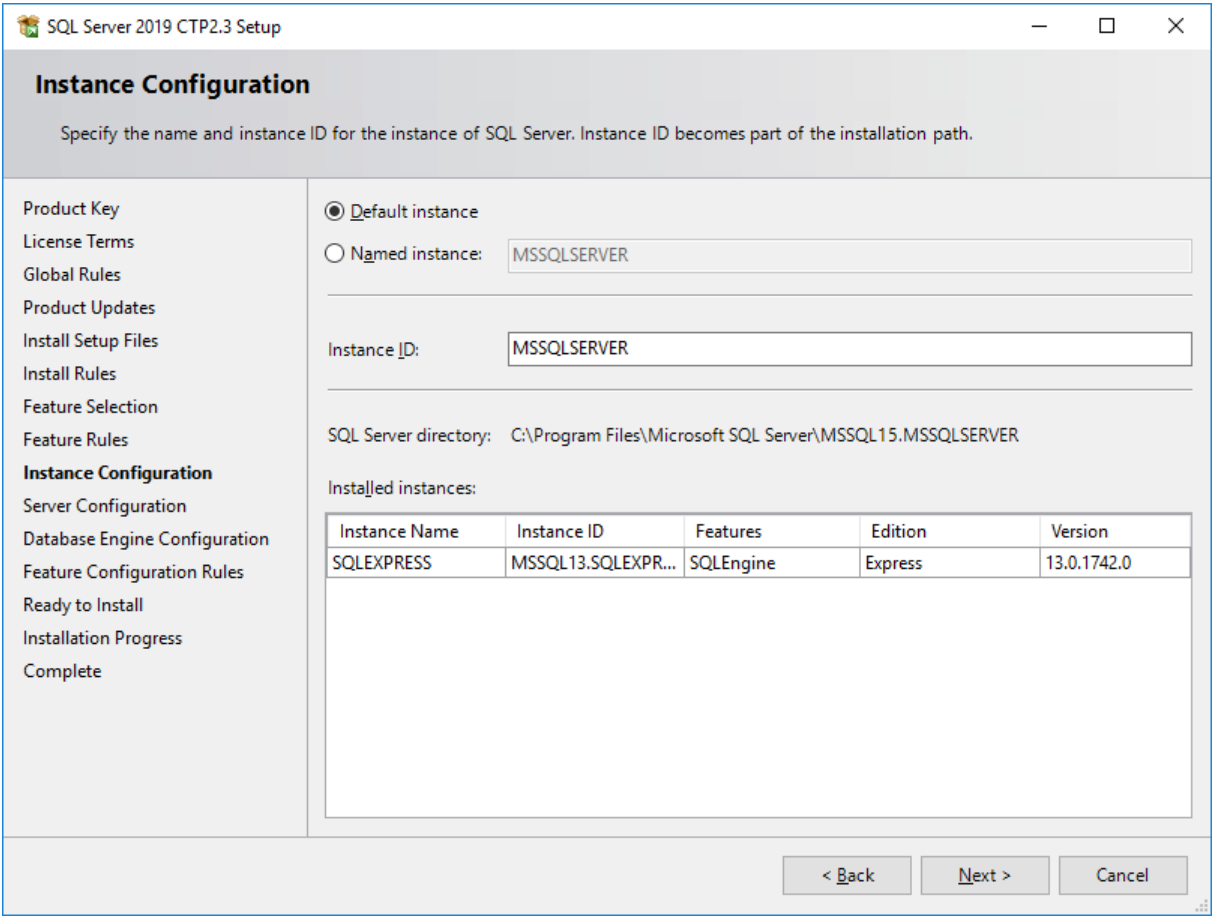


Image 8 Instance Configuration

Afterwards, specify on which accounts the services is to be started.  
Apply the settings as shown below and click **Next**.

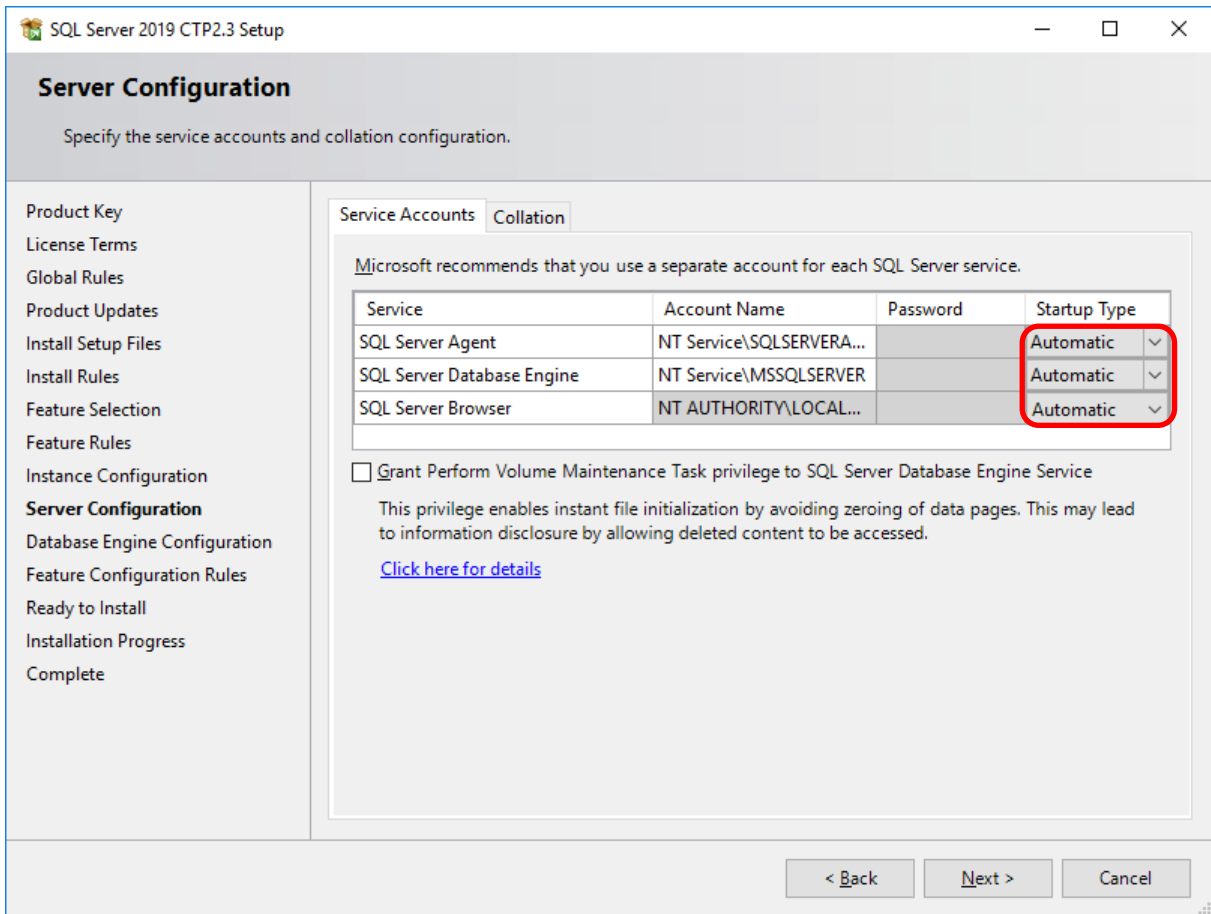


Image 9: Server Configuration: Set Start Type to “Automatic”

After clicking **Next**, the authentication mode shall be specified. For this, **Mixed mode** is required. Enter the password for the internal database administrator (SA).

**Important:** Make sure not to select a password that contains special characters such as a semicolon. This can cause problems when exporting and importing the HELIOS database.

In **Specify SQL Server administrators**, enter the current user as well as the group of Windows – Administrators (may be added if necessary).

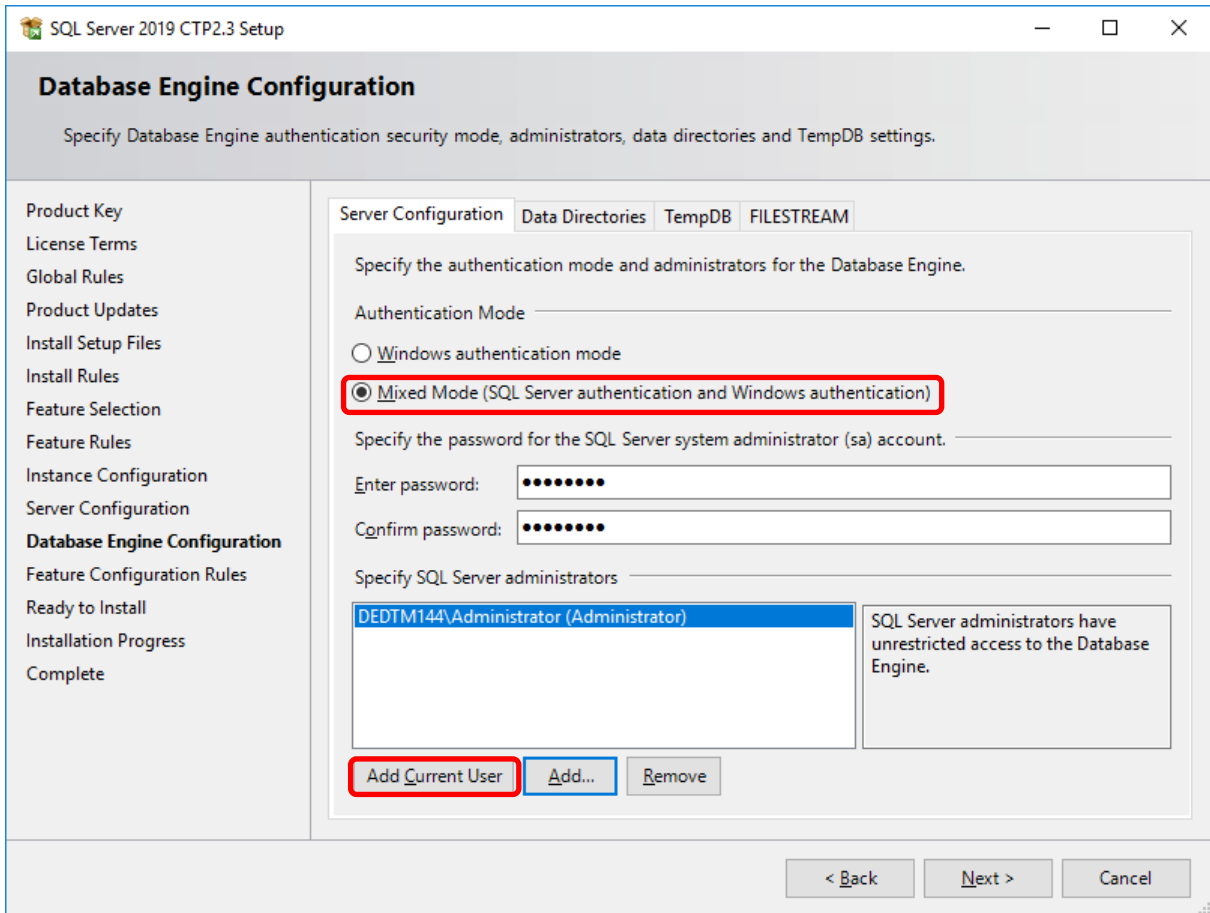


Image 10: Authentication Mode

An overview of the configuration follows. Now click **Install** to install the SQL Server 2019.

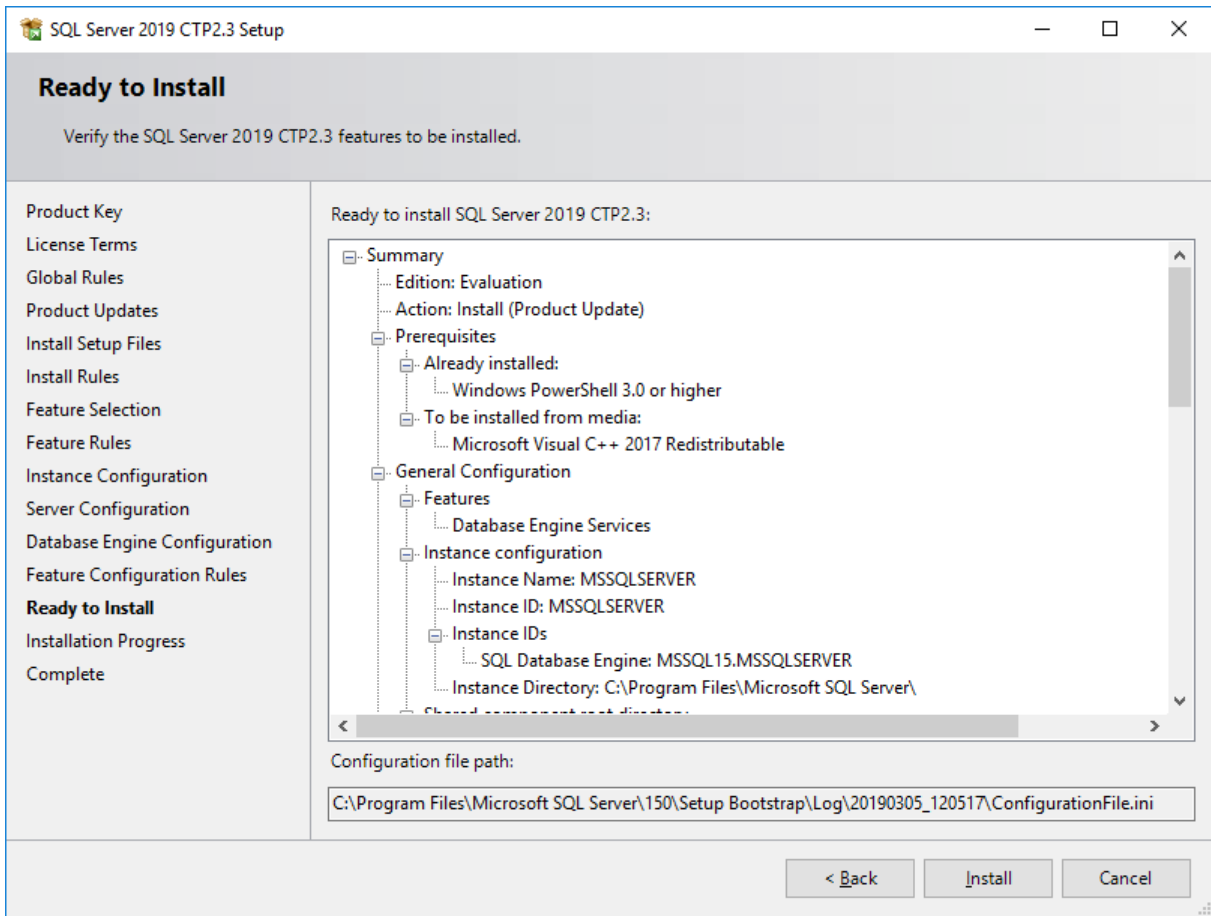


Image 11: Installation Configuration



After successful installation, additional information about the setup operation will be shown.

Click **Close** to end the installation.

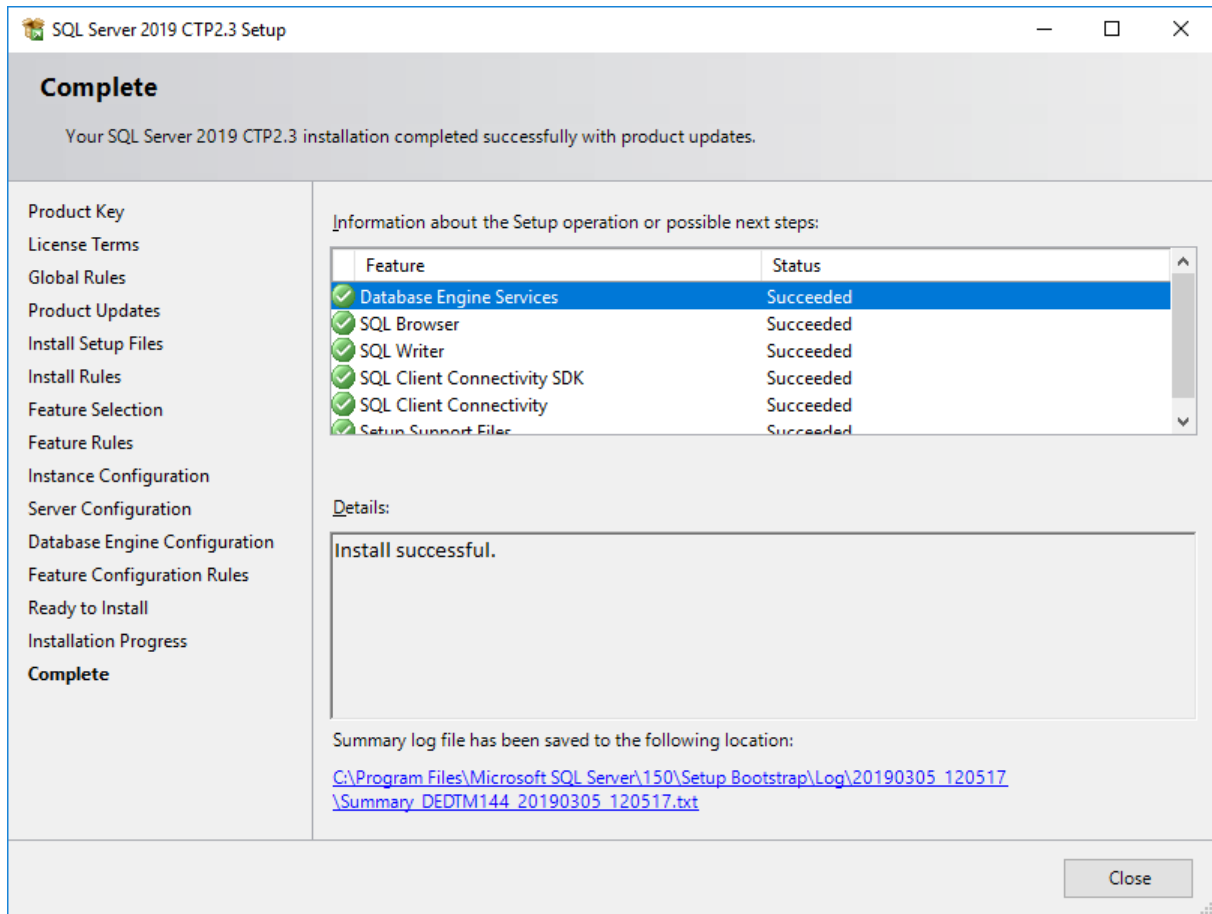


Image 12: Completion

To configure SQL Server 2019, the tool **SQL Server Management Studio** is required.

The tool can be downloaded directly from the Microsoft homepage:

<https://msdn.microsoft.com/en-us/library/mt238290.aspx>

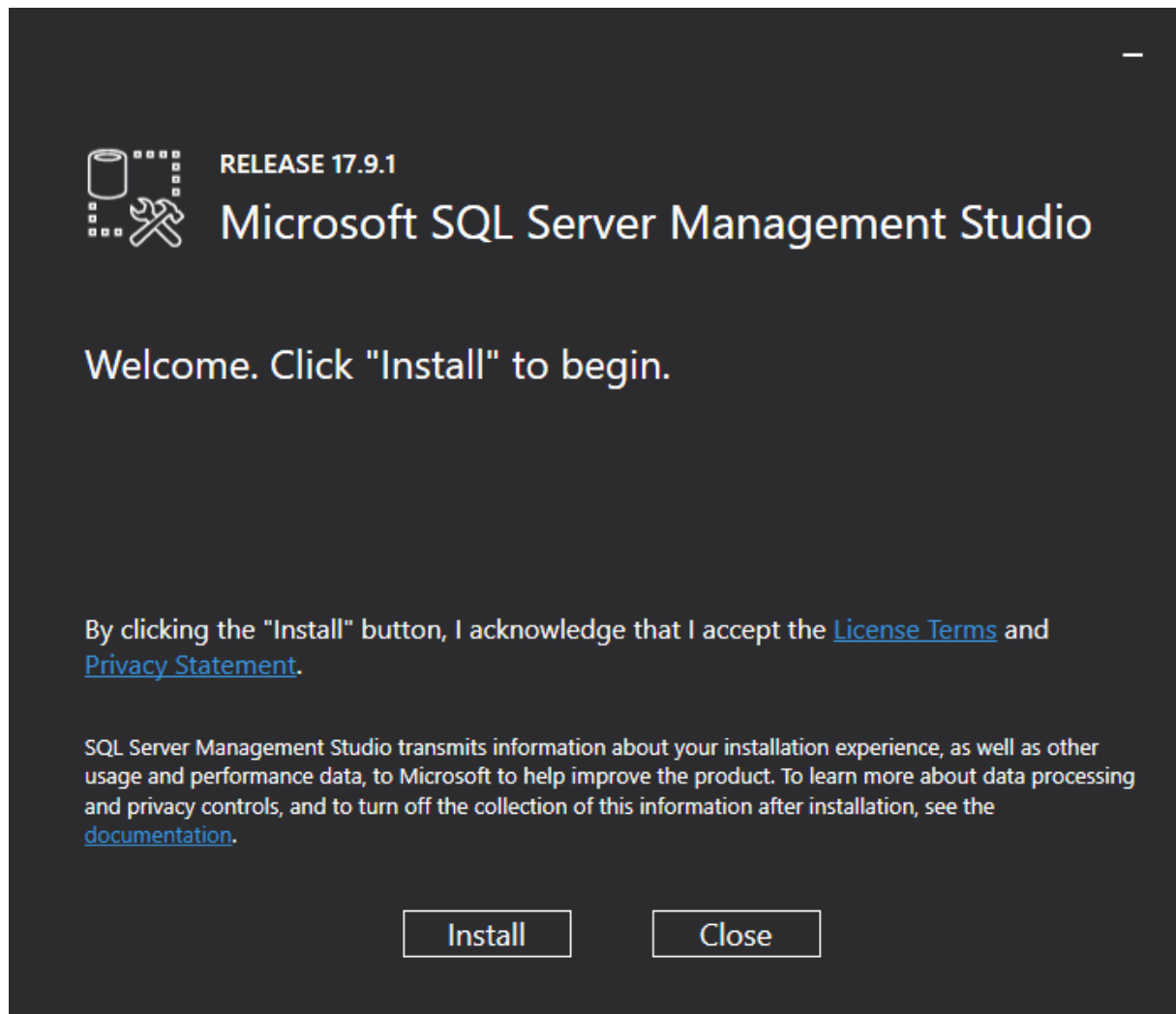


Image 13: Installation Microsoft SQL Server Management Studio

Click **Install** to perform the installation automatically.

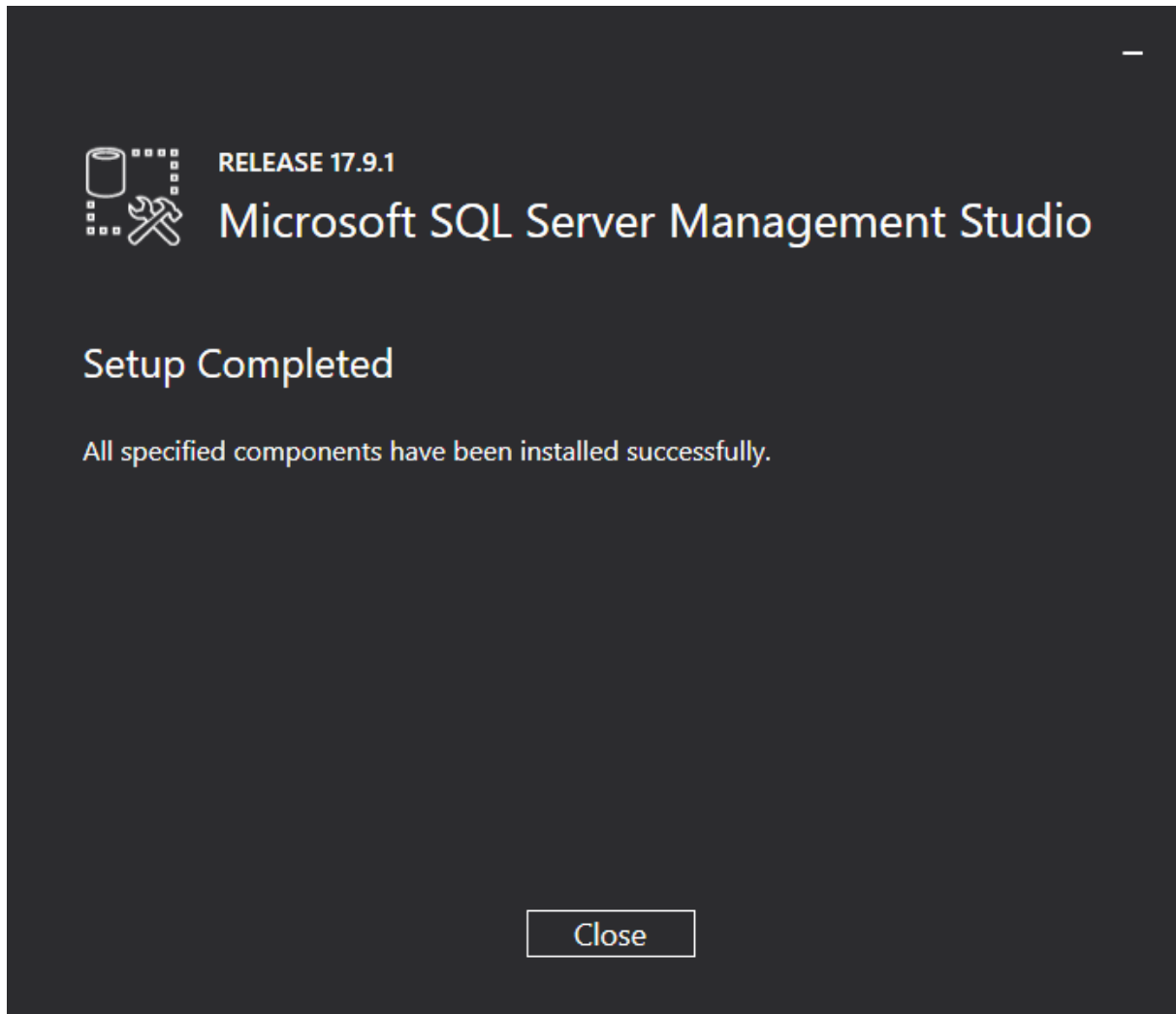


Image 14: Completion of Microsoft SQL Server Management Studio Installation

## 3 Set up SQL Server 2019

### 3.1 Set up Conditions for Database Import

Start **Microsoft SQL Server Management Studio 17** for further configuration.

For this, use Windows Search.

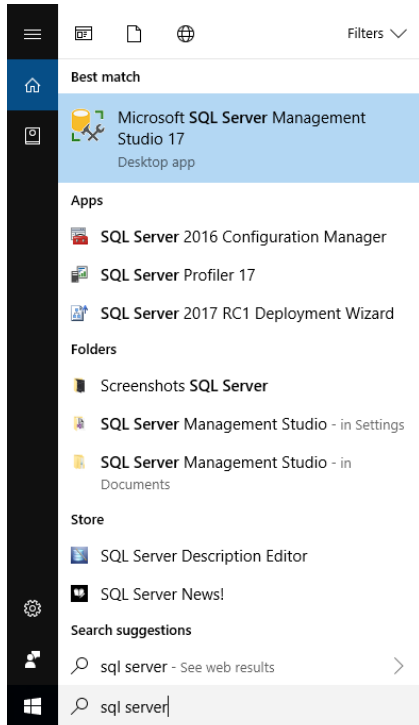


Image 15: SQL Server Management Studio 17

In the login window, specify the **Server name** and select **SQL Server Authentication** in the **Authentication** field. Connect as **sa** with the password you specified during installation in the **Password** field.

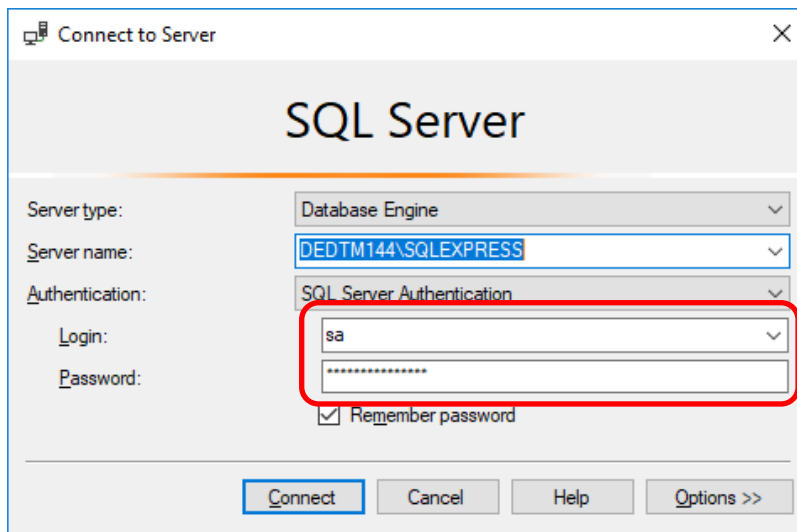


Image 16: Management Studio login

In the left area of the window, expand the folder **Security**, right-click the **Logins** sub-folder and select **New Login** in the context menu.

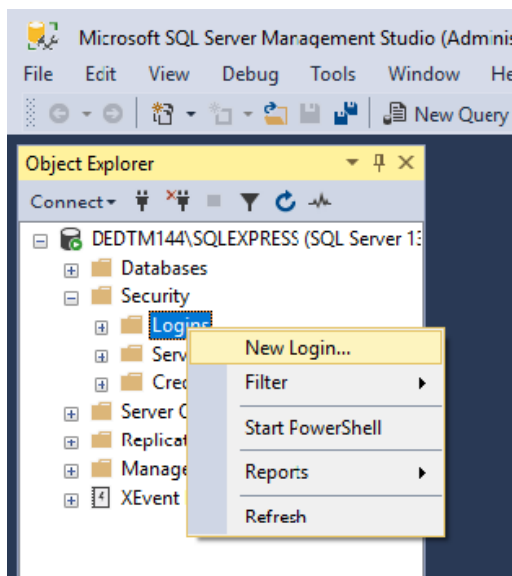


Image 17: Microsoft SQL Server Management Studio

The following window is displayed:

The screenshot shows the 'Login - New' dialog box with the following configuration:

- Login name:** hicad
- Authentication:**  SQL Server authentication
- Password:** [Masked]
- Confirm password:** [Masked]
- Enforce password policy:**
- Enforce password expiration:**
- User must change password at next login:**
- Mapped to certificate:** [Dropdown]
- Mapped to asymmetric key:** [Dropdown]
- Map to Credential:**  [Dropdown]
- Mapped Credentials:**

Credential	Provider
- Default database:** master
- Default language:** <default>

The 'Connection' section shows:

- Server: DEDTM144\SQLEXPRESS
- Connection: sa
- [View connection properties](#)

The 'Progress' section shows a 'Ready' status.

Image 18: Creating the user hicad

Enter **hicad** in the **Login name** field, activate the **SQL Server authentication** option and enter a password. Deactivate the **Enforce password policy** option.

Switch to **User Mapping**. Activate Model Database as shown below and enter **hicad** in the Default Schema column. Confirm with **OK**.

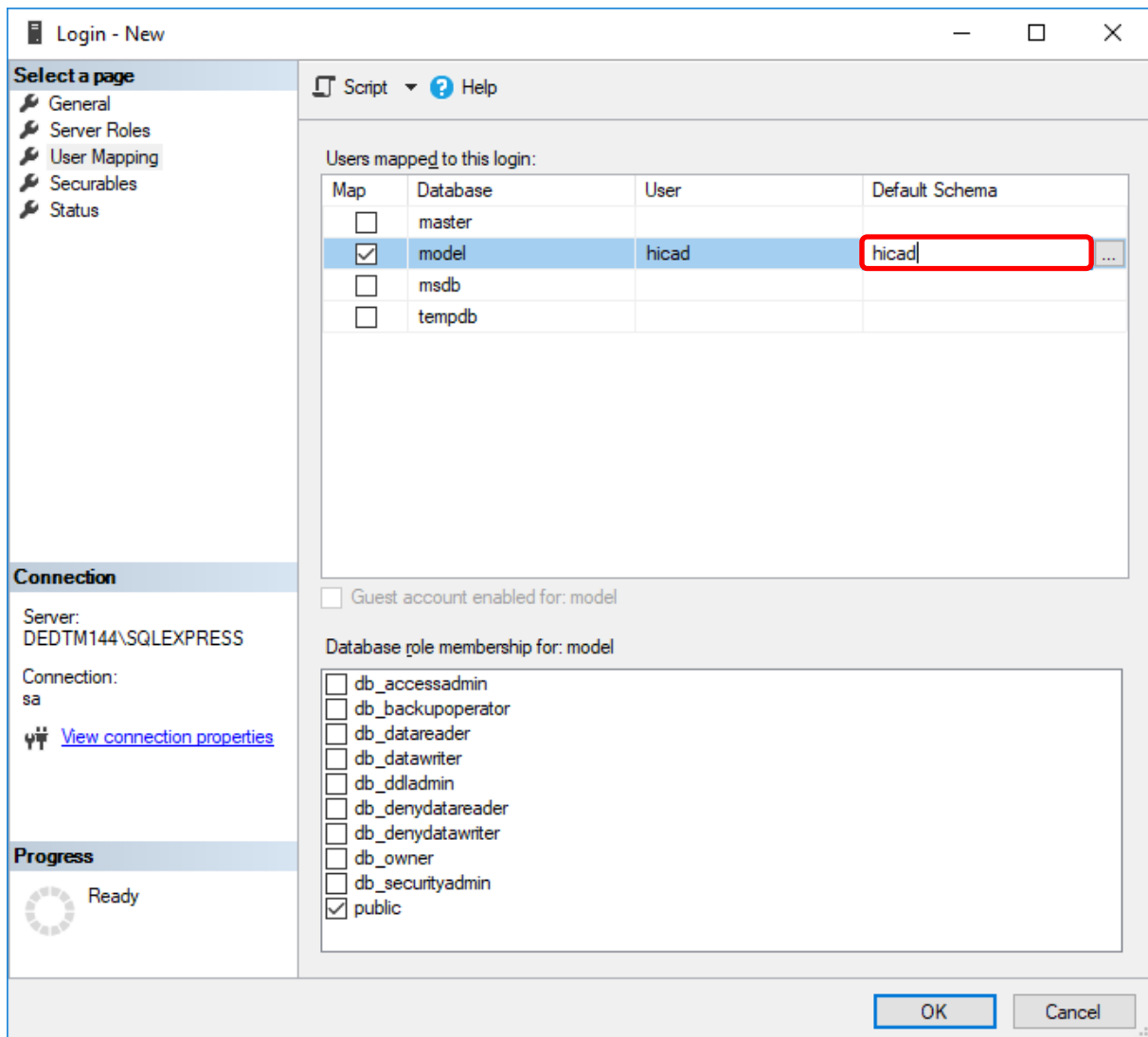


Image 5: User Mapping

## 4 Import HELIOS Database

### 4.1 Installation HELiOS Database Creator

To install the HELiOS Database Creator, click the corresponding button in the selection mask.

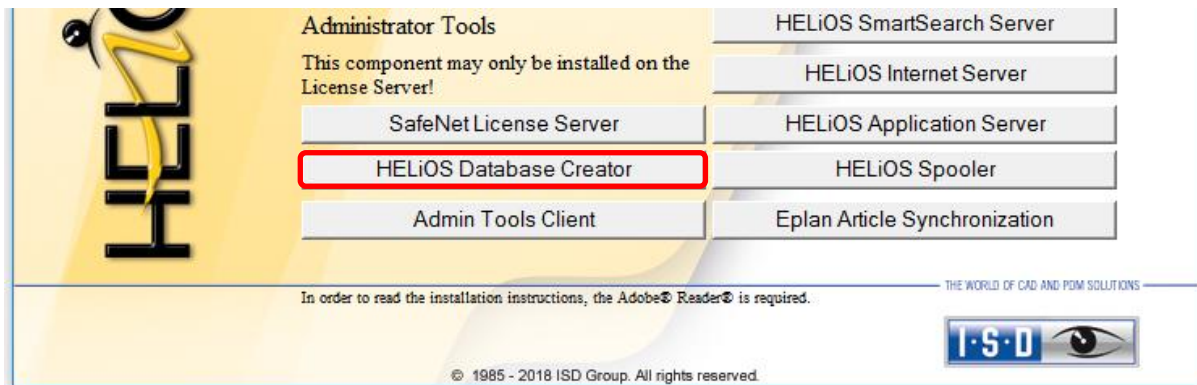


Image 20: Installation DVD with HELiOS Database Creator

The start mask of the setup wizard for **Helios Database Creator** will be displayed.

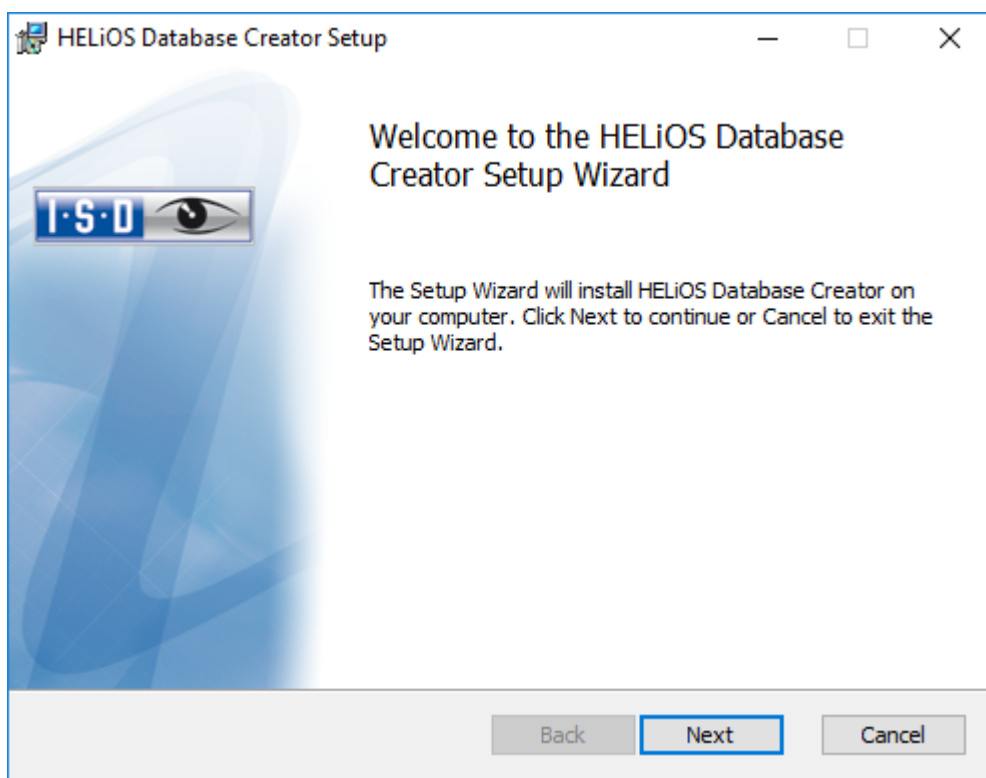


Image 21: Setup Wizard

Click **Next**.

Specify an installation directory for the **HELiOS Database Creator**, and click **Next**.



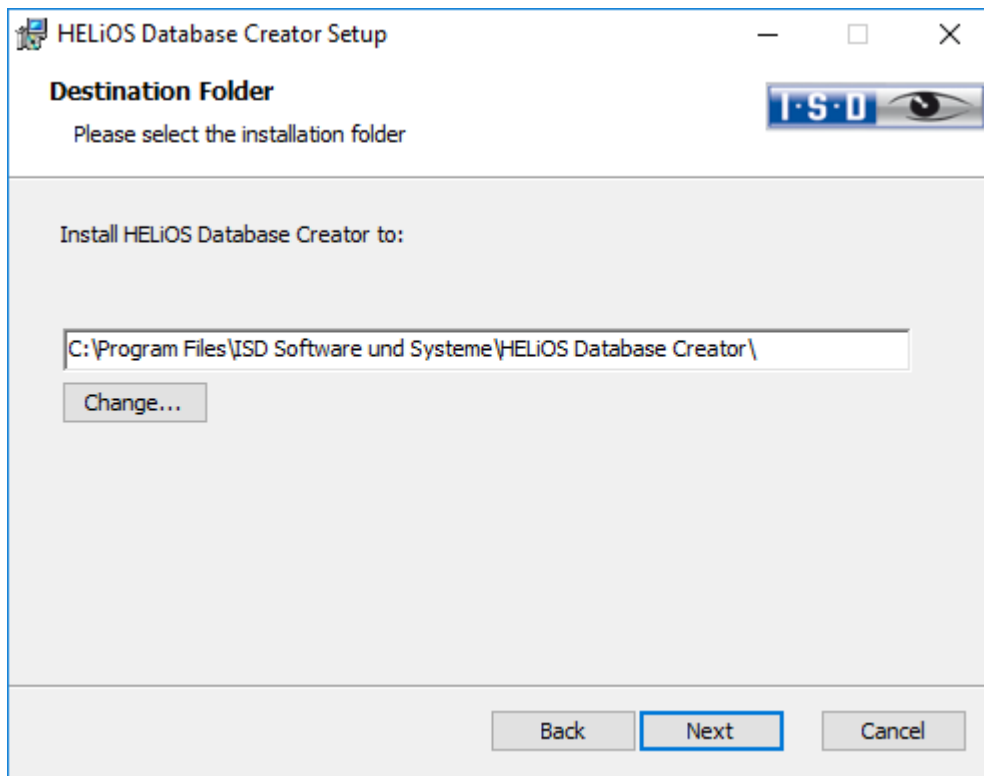


Image 22: Specify installation directory

Click **Install** to start the installation.

Click **Finish** to exit the Setup Wizard.

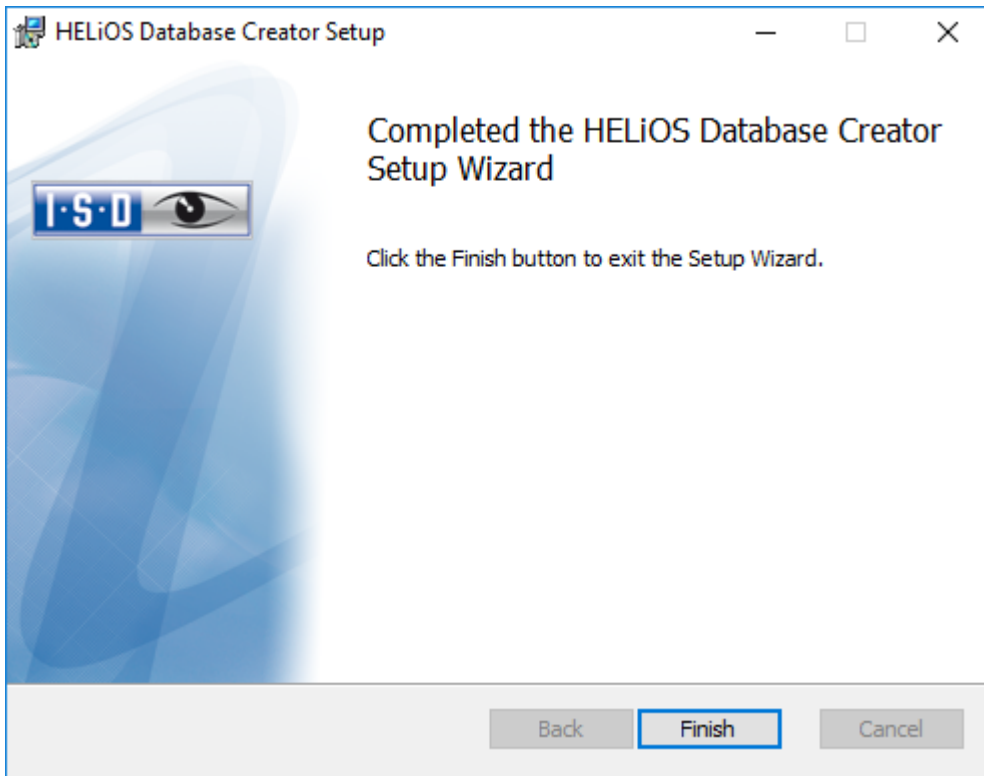


Image 23: Finalise HELIOS Database Creator installation

## 4.2 Import Database with HELiOS Database Creator

Enter **Database Creator** in Windows Search.

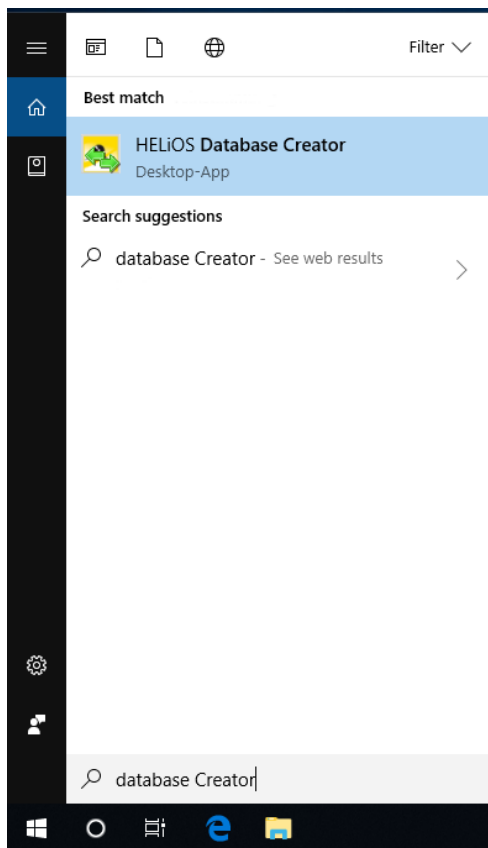


Image 24: Start HELiOS Database Creator

After entering the user data – user **sa**, password and the Server to be connected, the login is performed.

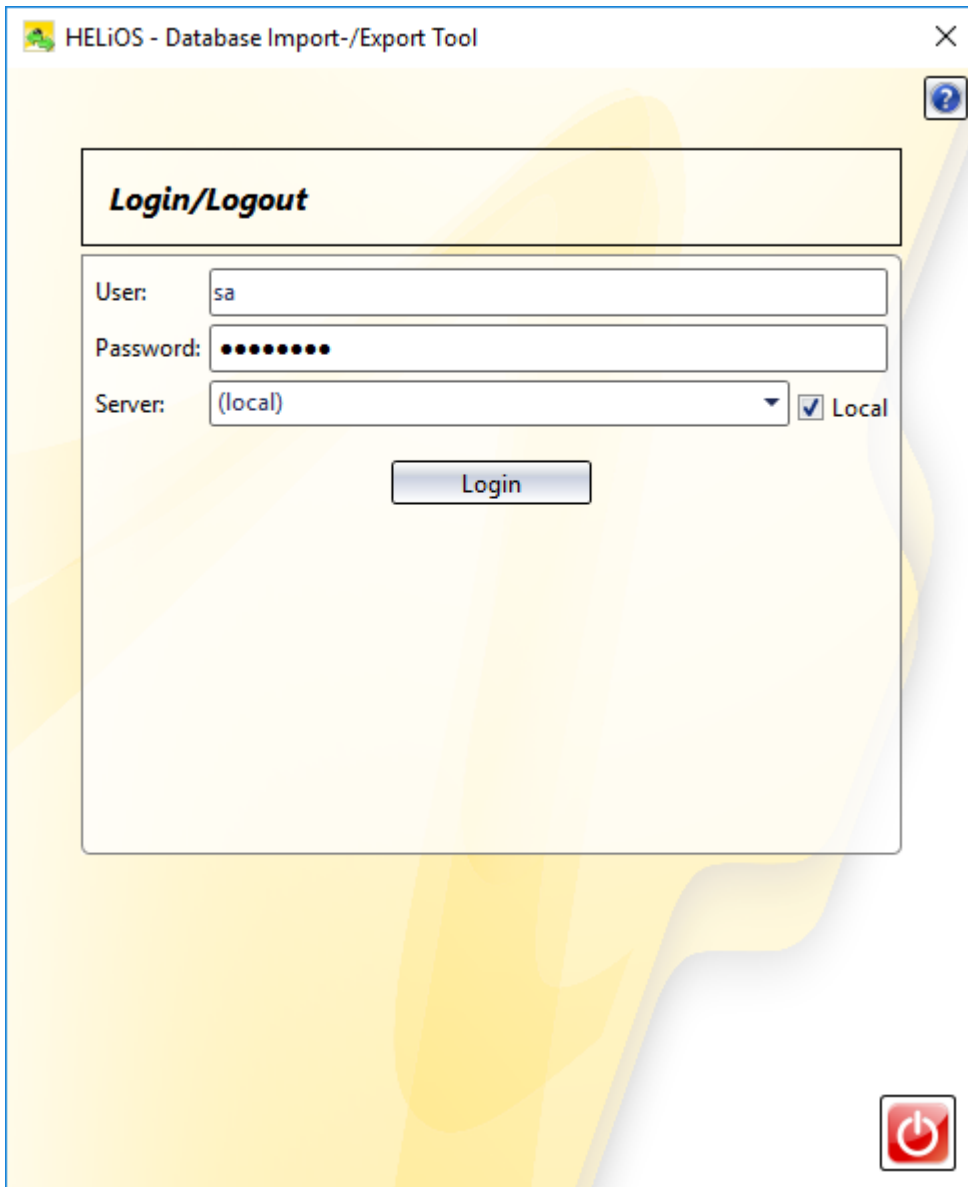


Image 25: HELIOS Database Import/Export Tool

For HELiOS versions from HELiOS 2024 ( Major Release V. 2900) you will find the database in the directory \Databases\ , or in the subdirectory \Databases\en\ .

The log file of the process is stored under %Appdata%\Roaming\ISD Software and Systems\HELiOS\bauteil\_akt\_Helios\_Export.log and the configuration under %Appdata%\Roaming \ISD Software and Systems\Helios.DBImportExport\DBImportExportConfig.xml.

The instructions assume that the database name **HELiOS** is used. Enter the export path and the database name and execute the import by clicking the **Import** button.

It is not possible to export to an existing directory that already contains files. In this case you will receive an error message.

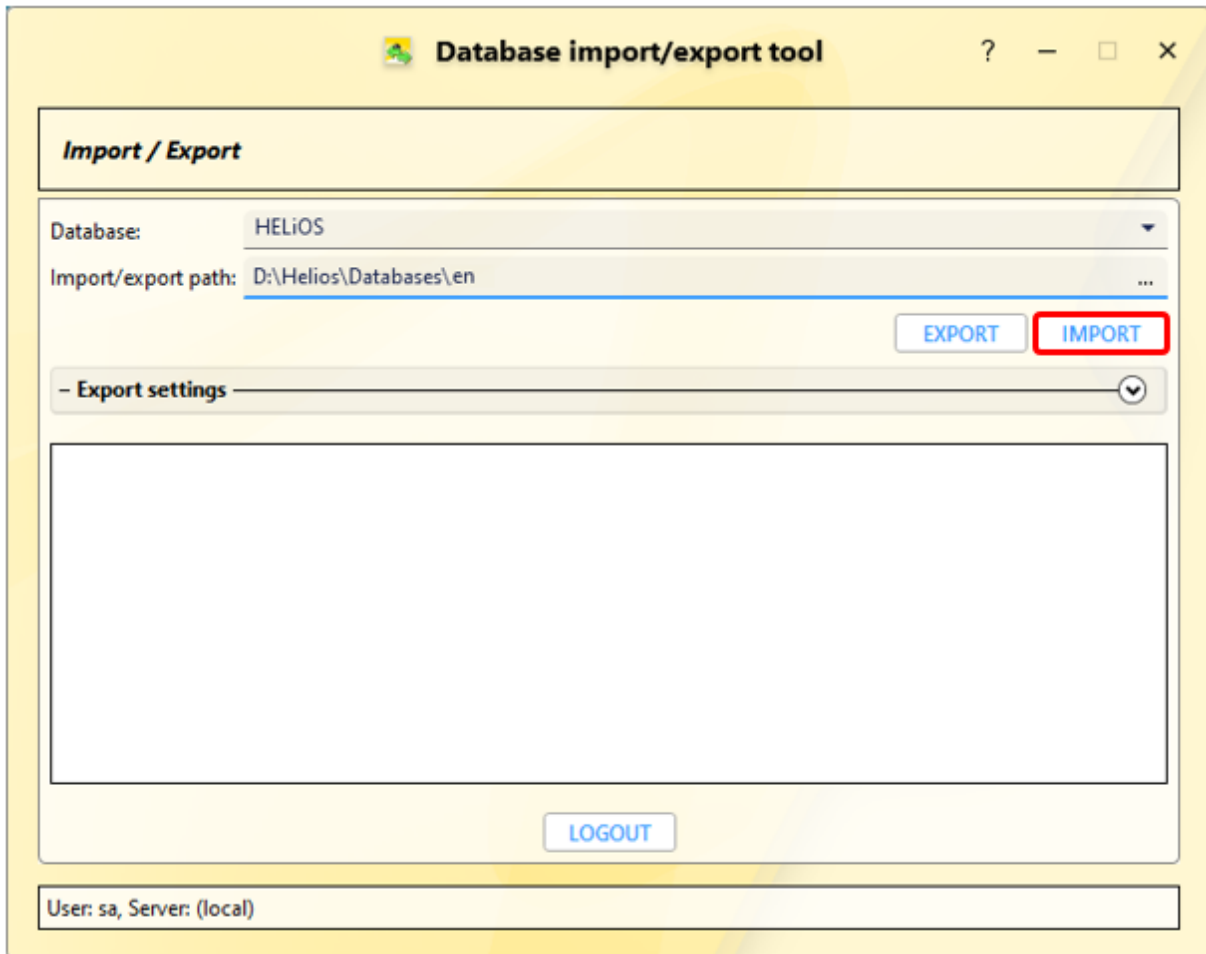


Image 26: Start Imports

After successful import, an import log is displayed:

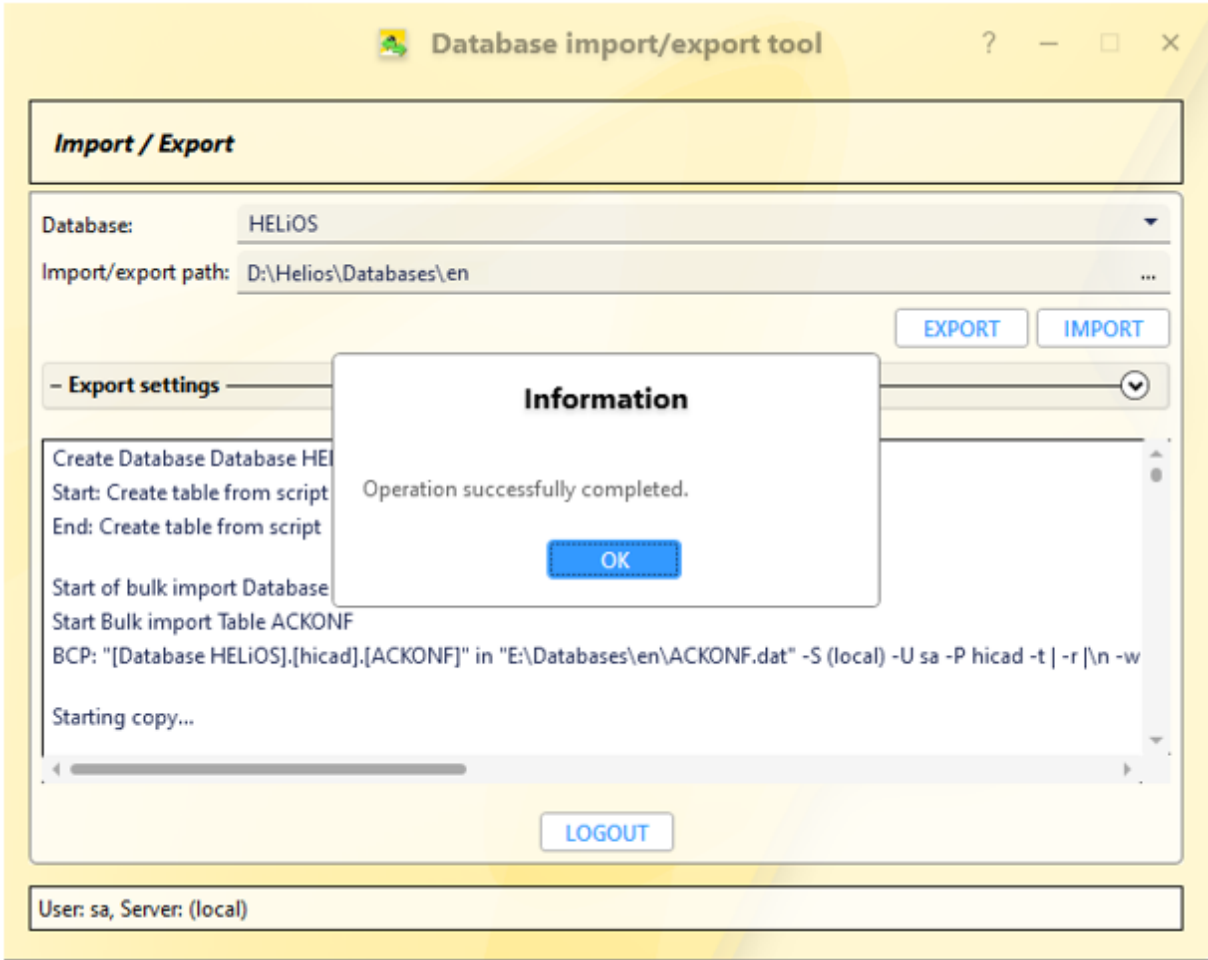


Image 27: Import log

After successful import a corresponding notification occurs. Confirm with **OK**.

**Information**

Operation successfully completed.

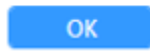


Image 286: Import successful

## 5 Define Permissions for the User hicaad

Switch to the SQL Server Management Studio to define the user permissions for the Database **HELIOS**.

Expand the **Databases** folder, right-click **HELIOS** and select the **Properties** function in the context menu.

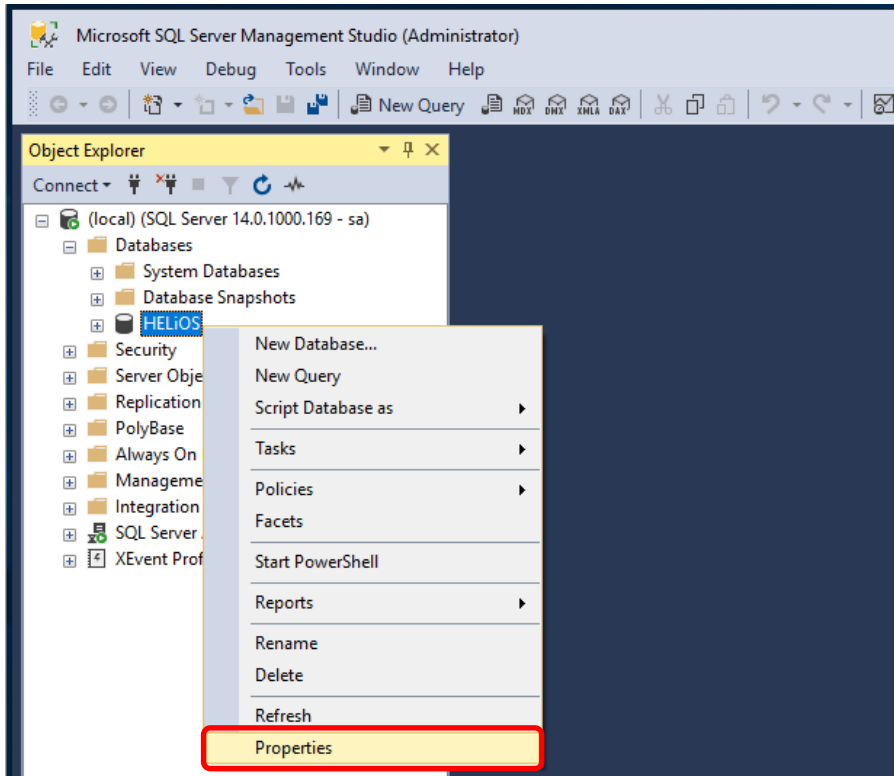


Image 27: Calling the Properties of HELIOS



Switch here to **Permissions**.

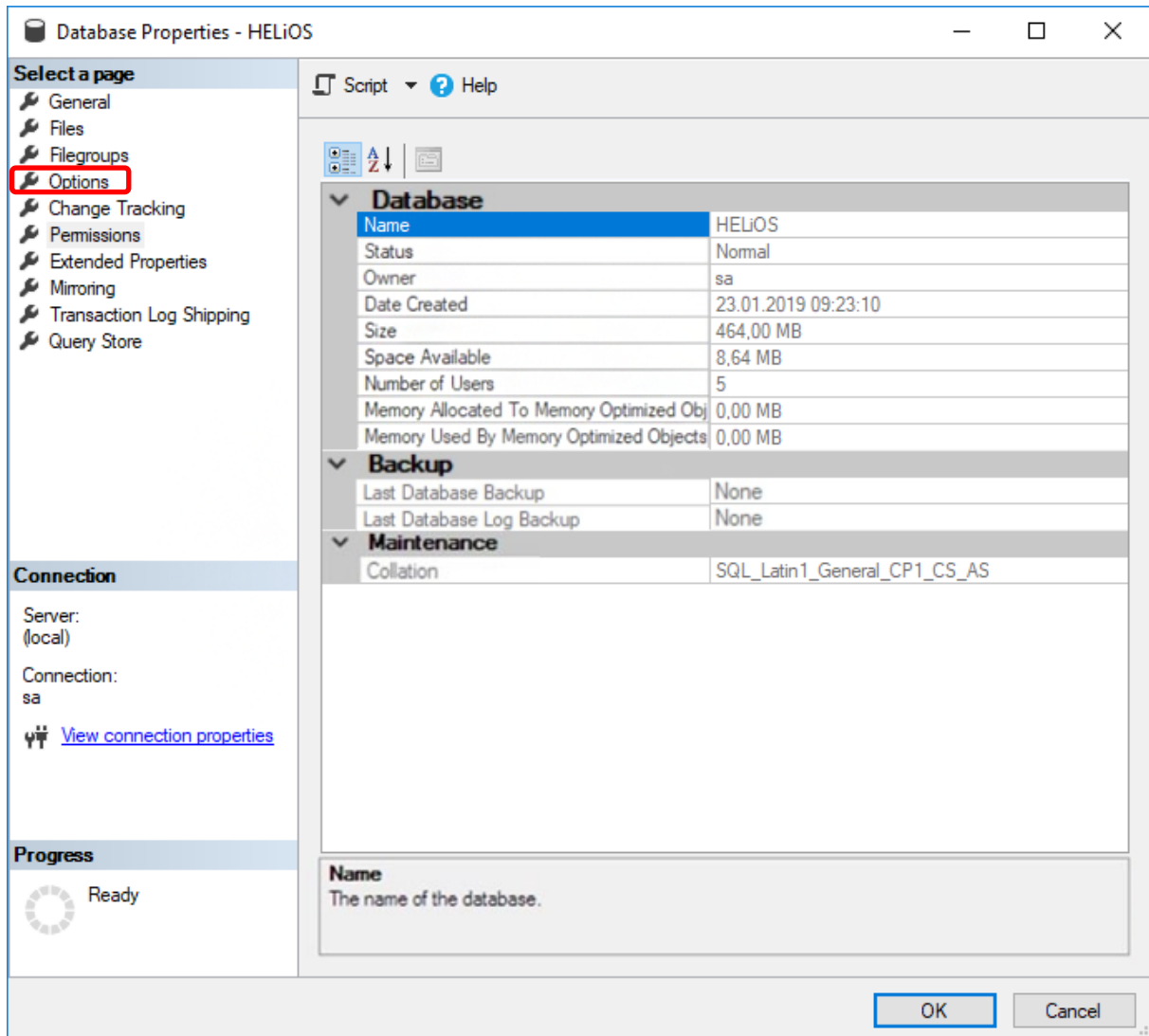


Image 30: Permissions for hcad

The permissions for the user hicaad are defined as follows:

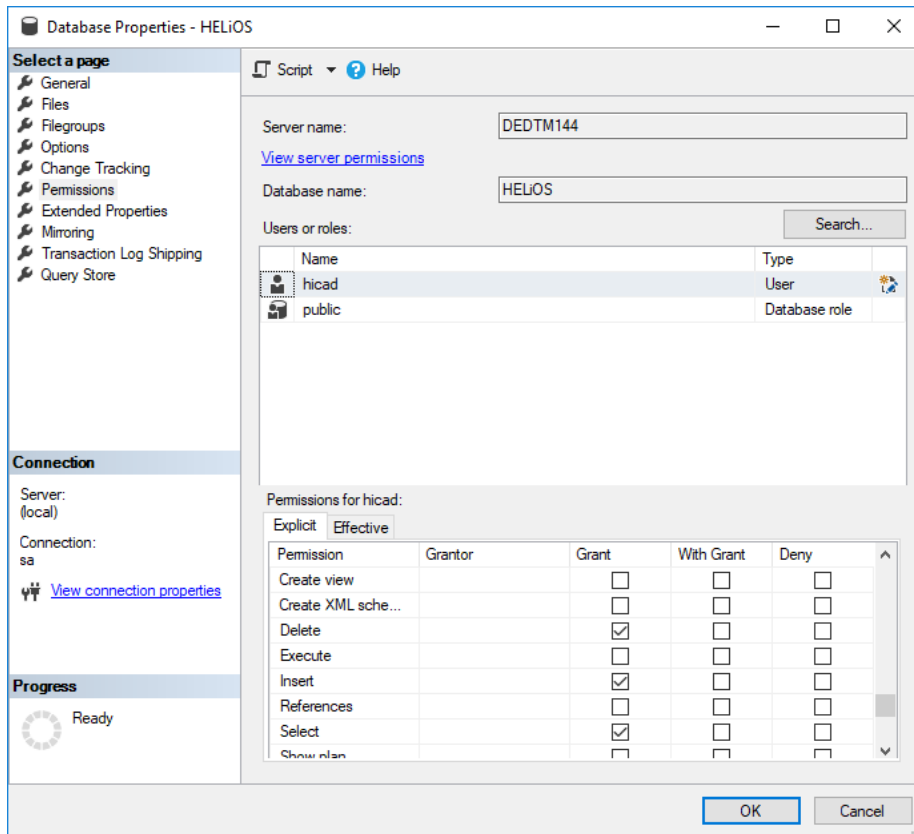


Image 8: Permissions for hicaad

In the list of permissions, grant the following permissions:

- » Update
- » Alter
- » Select
- » Insert
- » Delete
- » Create table
- » Connect

## 6 Set up ODBC Connection

To set up the ODBC connection for the clients, open **Data Sources (ODBC)** with Windows Search.

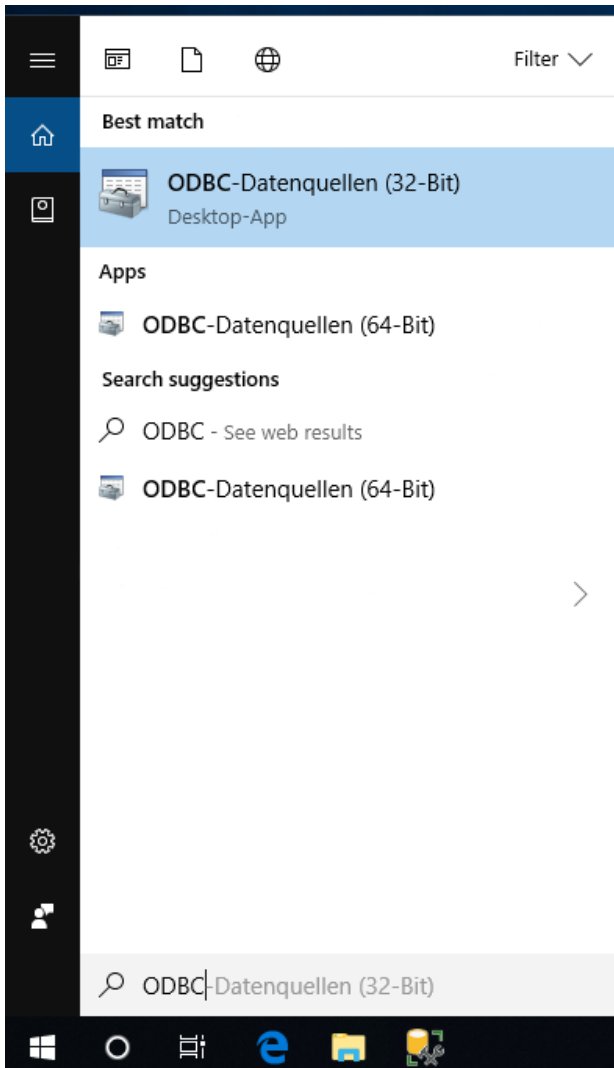


Image 9: Open Data Sources (ODBC)

The ODBC data source can either be set up as a **System DSN** (by administrator) being available to all users of the computer or as a User DSN which will be available only to the user who created it. The procedure for both options is identical.

In the ODBC Data Source Administrator, click the **Add** button.

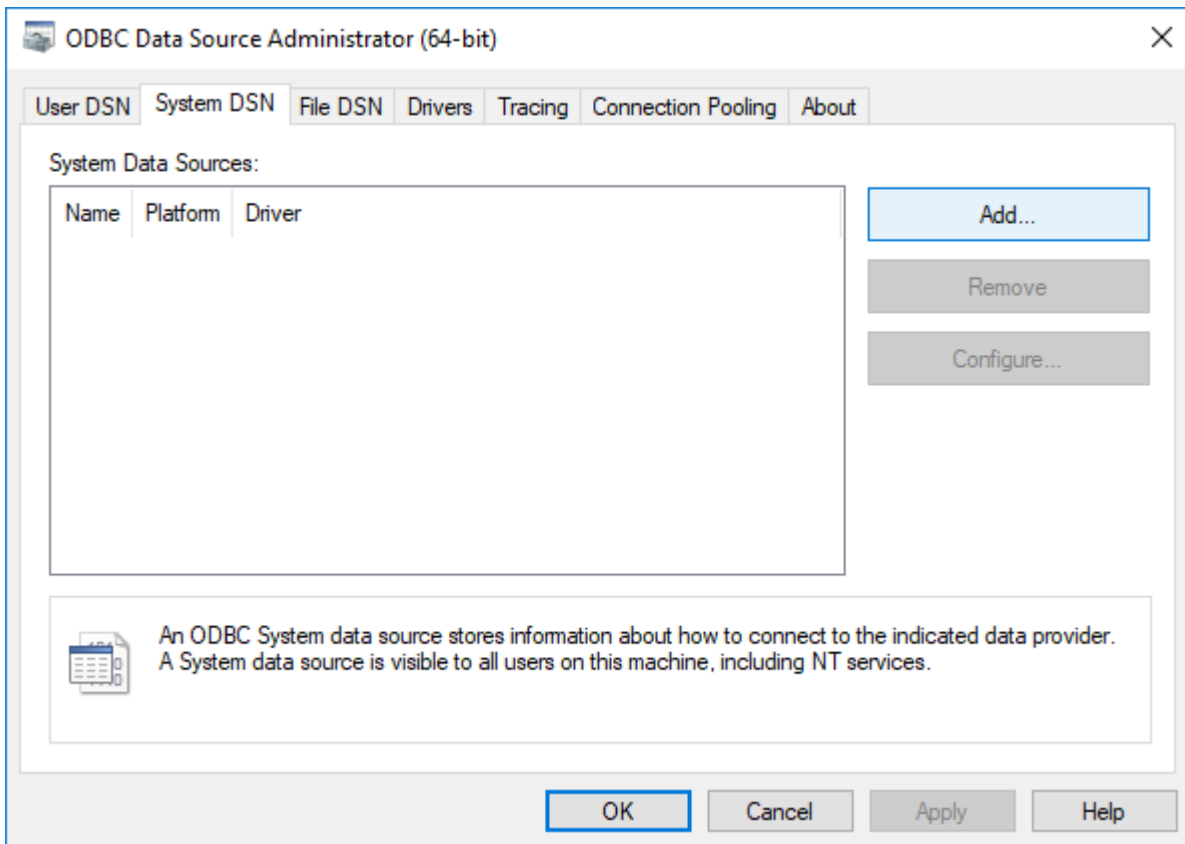


Image 33: ODBC Data Source Administrator

In the **Create Data Source** dialogue window, select the **SQL Server Native Client 11.0** and click **Finish**.

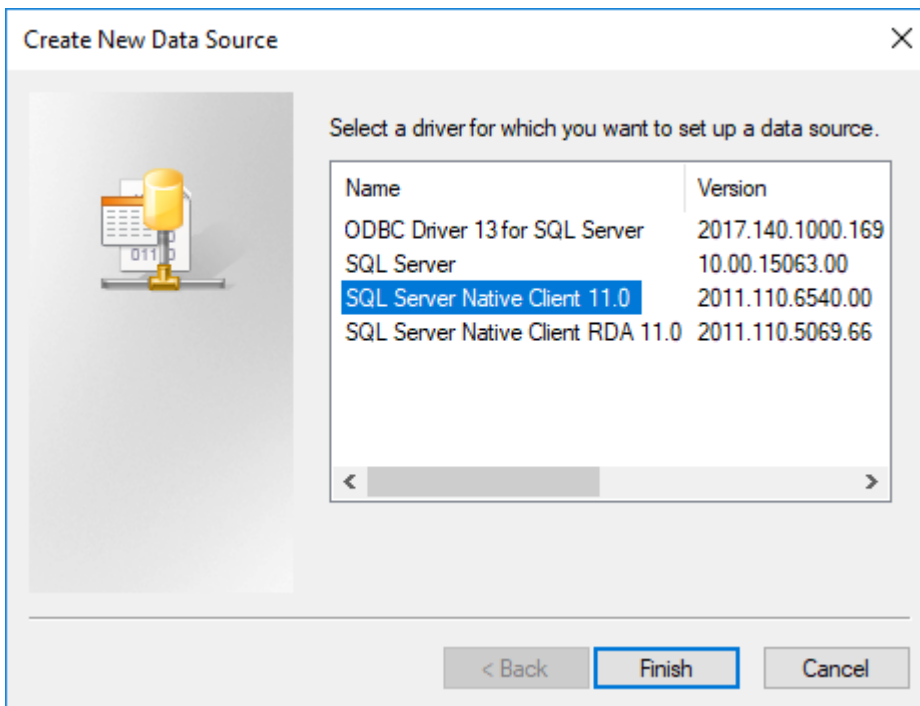


Image 10: Select ODBC driver

Enter the name of the data source (here, **HeliosBauteil** is used in an exemplary manner) as well as the name of the database server or select it from the list. Confirm your entries with **Next**:

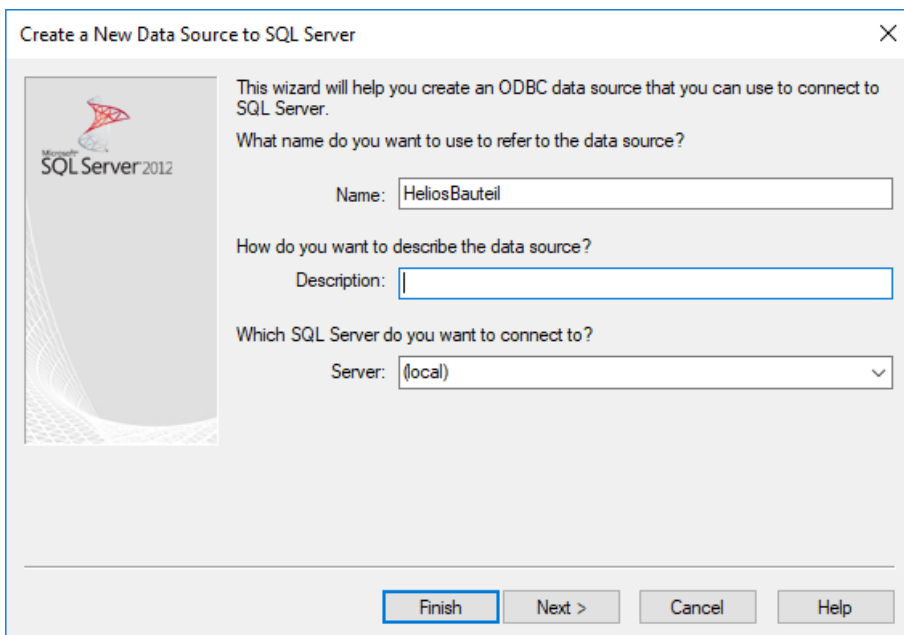


Image 11: Specification of data source

Activate the **With SQL Server authentication...** option, enter **hicaad** in the **Login ID** field and your **Password** in the corresponding field below:

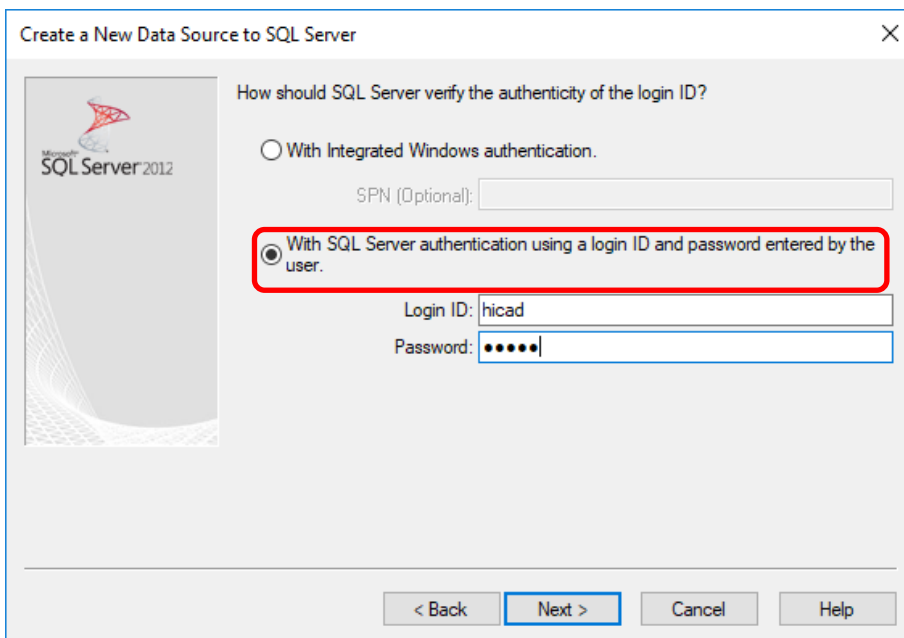


Image 12: User input

Activate the checkbox **Change the default database to:** and select **HELIOS** database. Other options must correspond to those shown in the image below:

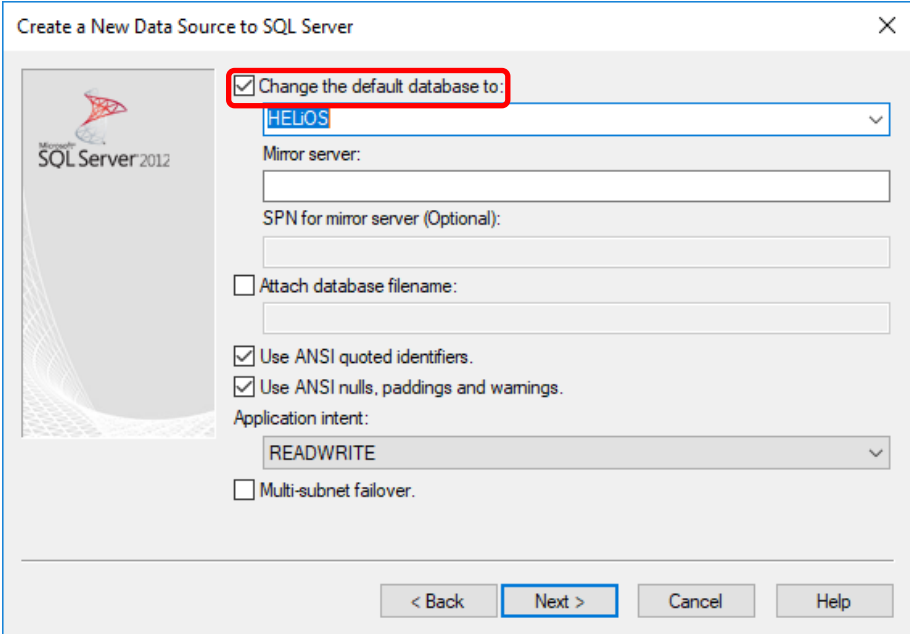


Image 13: Database selection

Deactivate all options and click **Finish** to finalize the creation of the connection.

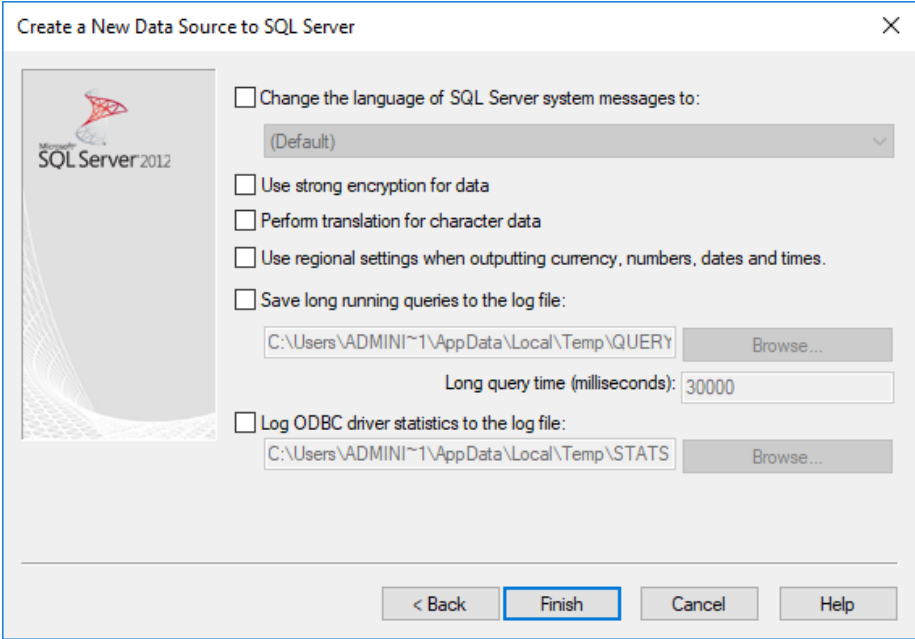


Image 14: Settings for ODBC connection



The window below offers the option to test the data source:

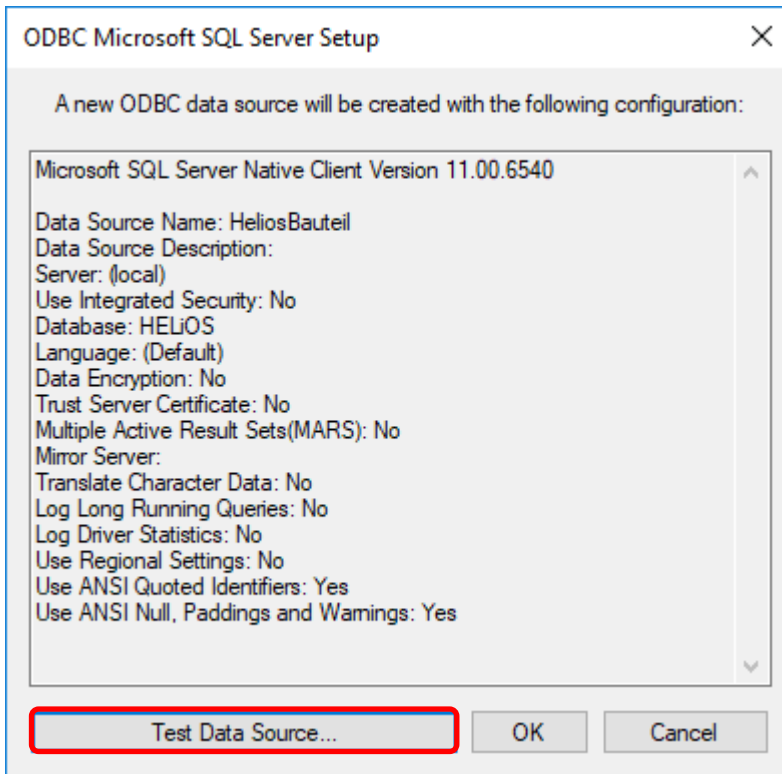


Image 15: Data Source Test

After successful testing, the creation can be closed with OK. The ODBC Data Source Administrator can now be closed as well.

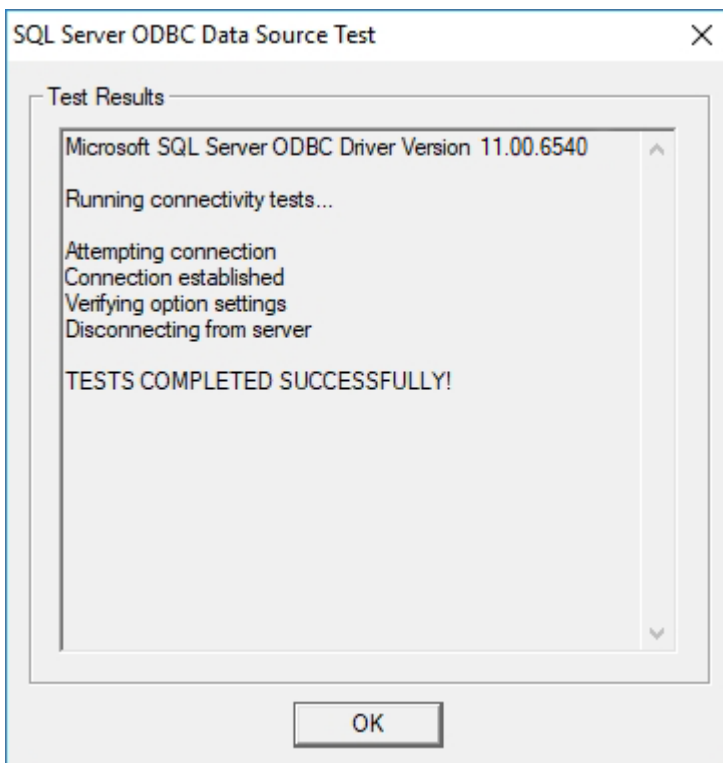


Image 16: Test completed

## 7 Establish HELiOS Connection

Finally, the name of the previously defined data source must be entered. For this, open DB Manager with Windows Search and switch to the tab **Connections**:

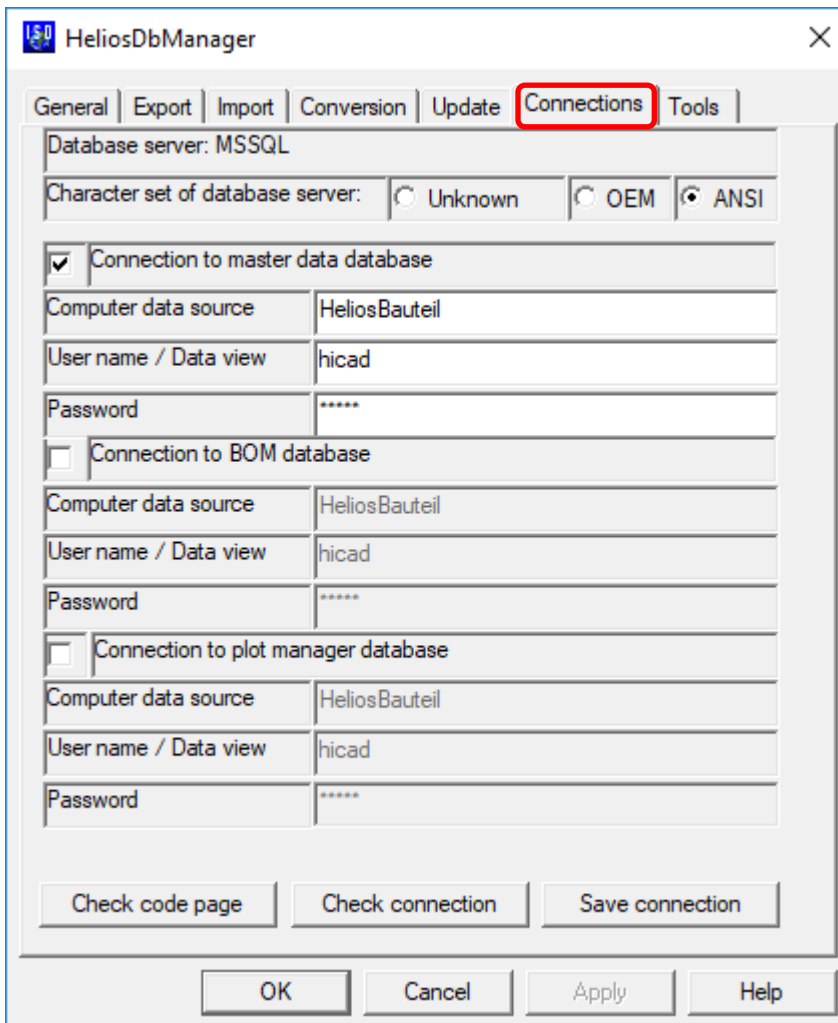


Image 17: DB Manager



### Important notes on the DB Manager:

Please note the setting for **Character set of database server**: here, **ANSI** must be activated. Then, tick the checkbox **Connection to master data database** and enter the previously defined name of the ODBC data source in the **Computer data source** field, **hacad** in the **User name** field and the password. The setting options for the connection to plot manager database are there for historical reasons only and therefore of no relevance.

Click **Save connection** to save your settings, then close the DB Manager with **OK**.

All steps required for the installation are now completed. You can now start HELiOS.





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