



MEDIWARE®

MW PHARM ++

Using of Microsoft SQL Server 2022 Setup MwPharm++ database

Title	Using of Microsoft SQL Server 2022 & Setup MwPharm++ DB
Author	George Dousa
Document No.	1.00
Date	22/08/2023
Status	1 st revision

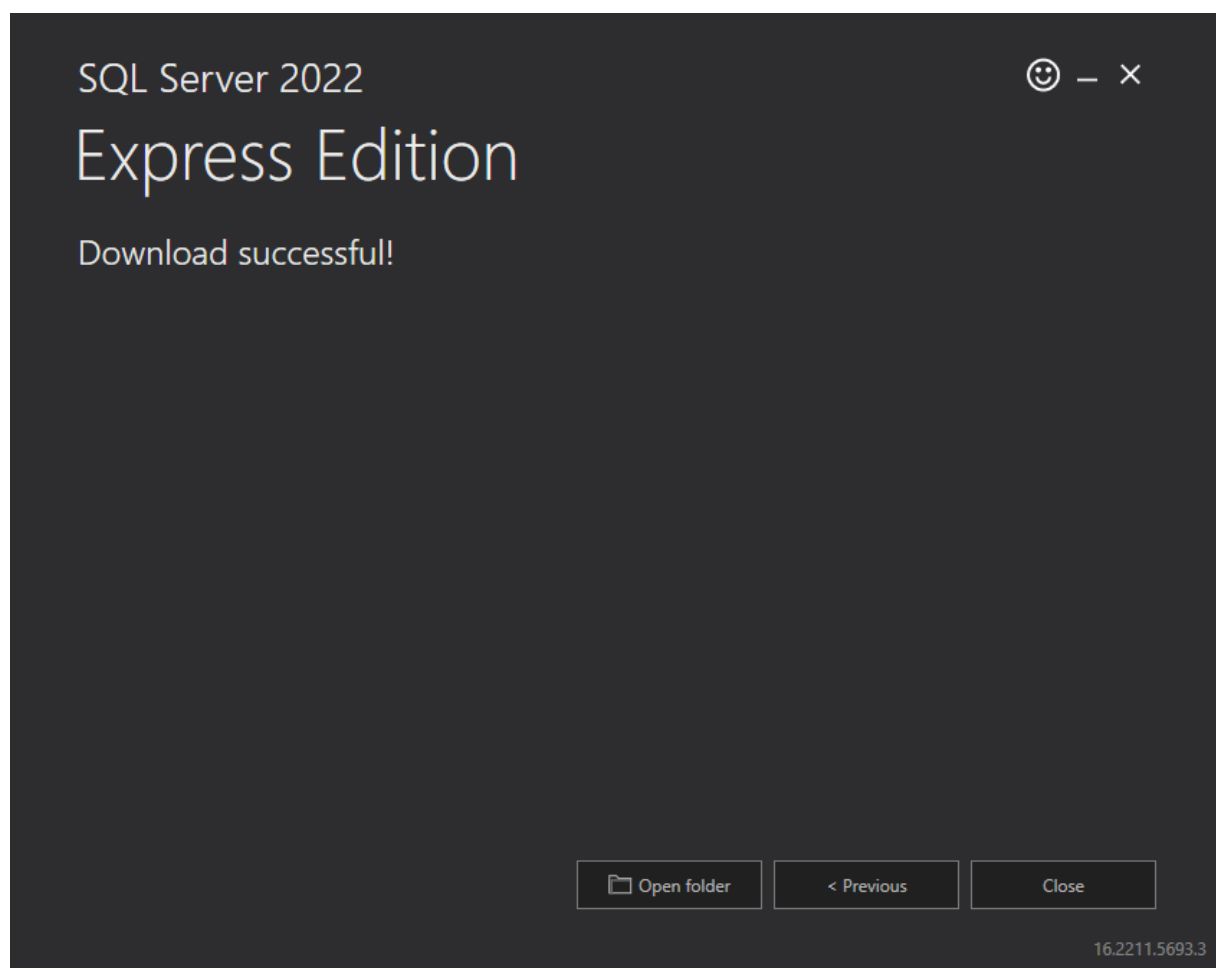
DOCUMENT HISTORY

Number	Date	Author	Description
1.00	22/08/2023	George Dousa	1 st revision

1 How to connect MwPharm++ to the Microsoft SQL Server 2022 (Full or Express)

1.1 Install the MS SQL Server 2022 (Full or Express)

<https://www.microsoft.com/en-US/download/details.aspx?id=104781>



Planning

Installation

Maintenance

Tools

Resources

Options

Microsoft SQL Server 2022



[New SQL Server standalone installation or add features to an existing installation](#)

Launch a wizard to install SQL Server 2022 in a non-clustered environment or to add features to an existing SQL Server 2022 instance.



[Install SQL Server Reporting Services](#)

Launch a download page that provides a link to install SQL Server Reporting Services. An internet connection is required to install SSRS.



[Install SQL Server Management Tools](#)

Launch a download page that provides a link to install SQL Server Management Studio, SQL Server command-line utilities (SQLCMD and BCP), SQL Server PowerShell provider, SQL Server Profiler and Database Tuning Advisor. An internet connection is required to install these tools.



[Install SQL Server Data Tools](#)

Launch a download page that provides a link to install SQL Server Data Tools (SSDT). SSDT provides Visual Studio integration including project system support for Microsoft Azure SQL Database, the SQL Server Database Engine, Reporting Services, Analysis Services and Integration Services. An internet connection is required to install SSDT.



[Upgrade from a previous version of SQL Server](#)

Launch a wizard to upgrade a previous version of SQL Server to SQL Server 2022.

[Click here to first view Upgrade Documentation](#)

License Terms

To install SQL Server 2022, you must accept the Microsoft Software License Terms.

License Terms

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

Azure Extension for SQL Server

Feature Selection

Feature Rules

Feature Configuration Rules

Installation Progress

Complete

SQL Server 2022 Express Edition

YOU MUST ACCEPT THE SOFTWARE LICENSE TERMS. SEE BELOW. Please read the full license terms provided at (aka.ms/useterms).

DATA COLLECTION. The software may collect information about you and your use of the software and send that to Microsoft. Microsoft may use this information to provide services and improve Microsoft's products and services. Your opt-out rights, if any, are described in the product documentation. Some features in the software may enable collection of data from users of your applications that access or use the software. If you use these features to enable data collection in your applications, you must comply with applicable law, including getting any required user consent, and maintain a prominent privacy policy that accurately informs users about how you use, collect, and share their data. You can learn more about Microsoft's data collection and use in the product documentation and the Microsoft Privacy Statement at <https://go.microsoft.com/fwlink/?linkid=521839>. You agree to comply with all

Copy

Print

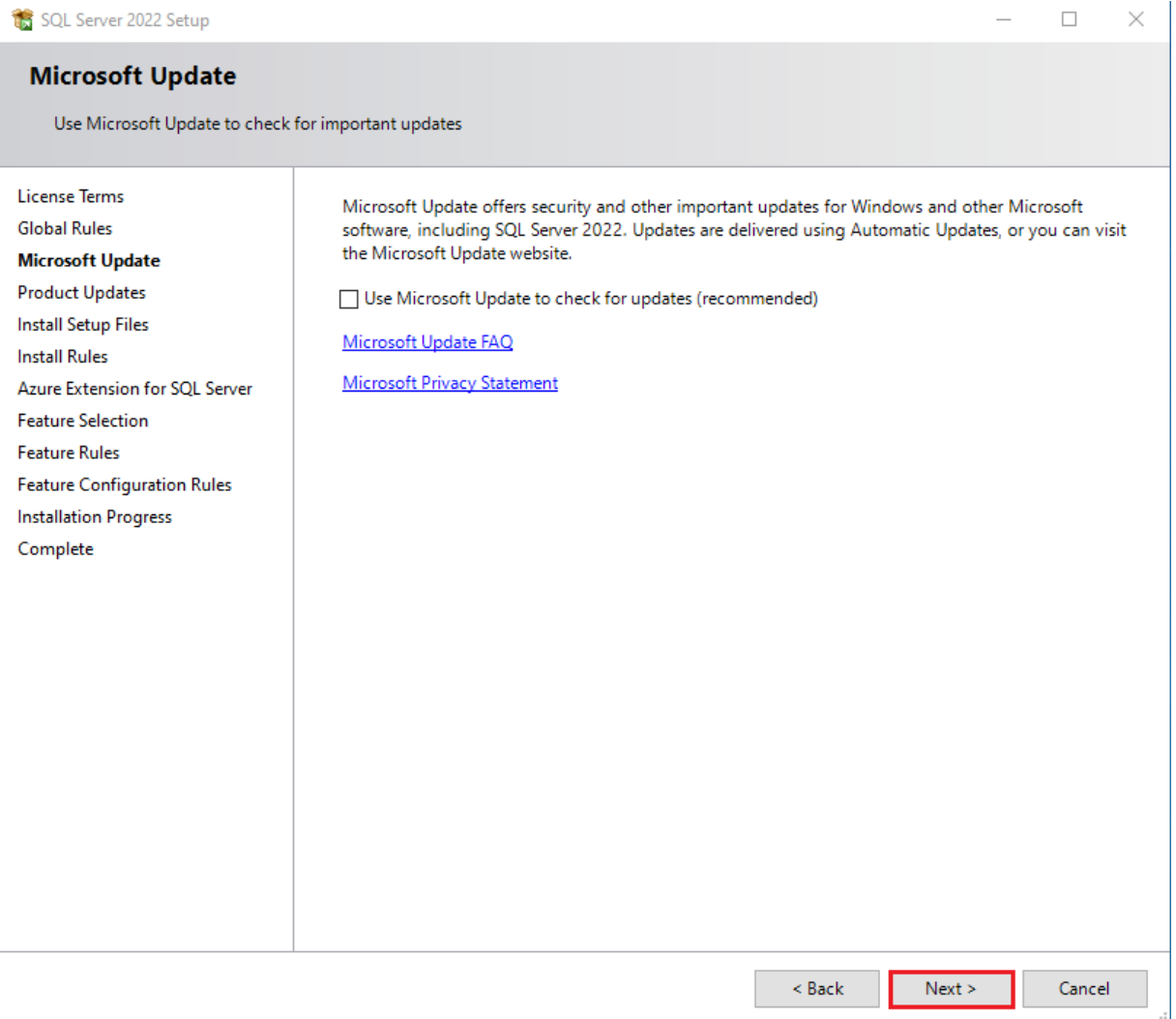
☒ I accept the license terms and [Privacy Statement](#)

SQL Server transmits information about your installation experience as well as other usage and performance data. Azure Arc connection also transmits the configuration data to allow you to manage and protect your SQL Server instance using Azure Portal and services. To learn more about data processing and privacy controls, and to turn off the collection of certain information, see the [documentation](#).

< Back

Next >

Cancel



SQL Server 2022 Setup

Install Rules

Setup rules identify potential problems that might occur while running Setup. Failures must be corrected before Setup can continue.

License Terms

Global Rules

Microsoft Update

Install Setup Files

Install Rules

Azure Extension for SQL Server

Feature Selection

Feature Rules

Instance Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Installation Progress

Complete

Operation completed. Passed: 4. Failed 0. Warning 1. Skipped 0.

Hide details <<

Re-run

[View detailed report](#)

Result	Rule	Status
✔	Machine Learning Server shared feature support	Passed
✔	Consistency validation for SQL Server registry keys	Passed
✔	Computer domain controller	Passed
⚠	Windows Firewall	Warning
✔	Microsoft .NET Framework 4.7.2, or newer, is required	Passed

< Back

Next >

Cancel

Azure Extension for SQL Server

Azure Extension for SQL Server is required to enable Microsoft Defender for Cloud, Purview, and Azure Active Directory.

License Terms

Global Rules

Microsoft Update

Install Setup Files

Install Rules

Azure Extension for SQL Serv...

Feature Selection

Feature Rules

Instance Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Installation Progress

Complete

☐ Azure Extension for SQL Server

To install Azure extension for SQL Server, provide your Azure account or a service principal to authenticate the SQL Server instance to Azure. You also need to provide the Subscription ID, Resource Group, Region, and Tenant ID where this instance will be registered. For more information for each parameter, visit <https://aka.ms/arc-sql-server>.

☐ Use Azure Login

☒ Use Service Principal

Azure Service Principal ID*

Azure Service Principal Secret*

Azure Subscription ID*

Azure Resource Group*

Azure Region*

Azure Tenant ID*

Proxy Server URL (optional)

< Back

Next >

Cancel

Feature Selection

Select the Express features to install.

License Terms

Global Rules

Microsoft Update

Install Setup Files

Install Rules

Azure Extension for SQL Server

Feature Selection

Feature Rules

Instance Configuration

PolyBase Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Installation Progress

Complete

Looking for Reporting Services? [Download it from the web](#)

Features:

- Instance Features
- ☒ Database Engine Services
 - ☒ SQL Server Replication
 - ☒ Machine Learning Services and Language Ext
 - ☒ Full-Text and Semantic Extractions for Search
 - ☒ PolyBase Query Service for External Data
 - Shared Features
 - ☒ LocalDB
 - Redistributable Features

Feature description:

The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL Server instances can operate side-by-side on the same computer.

Prerequisites for selected features:

Already installed:

- Windows PowerShell 3.0 or higher

To be installed from media:

- Microsoft Visual C++ 2017 Redistributable
- Microsoft MPI v10

Disk Space Requirements

Drive C: 10252 MB required, 48180 MB available

Select All

Unselect All

Instance root directory: C:\Program Files\Microsoft SQL Server\ ...


Shared feature directory: C:\Program Files\Microsoft SQL Server\ ...

Shared feature directory (x86): C:\Program Files (x86)\Microsoft SQL Server\ ...

< Back

Next >

Cancel


SQL Server 2022 Setup

—

□

×

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

License Terms

Global Rules

Microsoft Update

Install Setup Files

Install Rules

Azure Extension for SQL Server

Feature Selection

Feature Rules

Instance Configuration

PolyBase Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Installation Progress

Complete

☐ Default instance

☒ Named instance: *

Instance ID:

SQL Server directory:

C:\Program Files\Microsoft SQL Server\MSSQL16.SQLEXPRESS

Installed instances:

Instance Name	Instance ID	Features	Edition	Version

< Back

Next >

Cancel

SQL Server 2022 Setup

Server Configuration

Specify the service accounts and collation configuration.

License Terms

Global Rules

Microsoft Update

Install Setup Files

Install Rules

Azure Extension for SQL Server

Feature Selection

Feature Rules

Instance Configuration

PolyBase Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Installation Progress

Complete

Service AccountsCollation

Microsoft recommends that you use a separate account for each SQL Server service.

Service	Account Name	Password	Startup Type
SQL Server Database Engine	NT Service\MSSQL\$SQLE...		Automatic
SQL Server PolyBase Engine	NT AUTHORITY\NETWO...		Automatic
SQL Server PolyBase Data Movem...	NT AUTHORITY\NETWO...		Automatic
SQL Server Launchpad	NT Service\MSSQLLaunc...		Automatic
SQL Full-text Filter Daemon Launc...	NT Service\MSSQLFDLau...		Manual
SQL Server Browser	NT AUTHORITY\LOCAL ...		Disabled

☐ Grant Perform Volume Maintenance Tasks privilege to SQL Server Database Engine Service

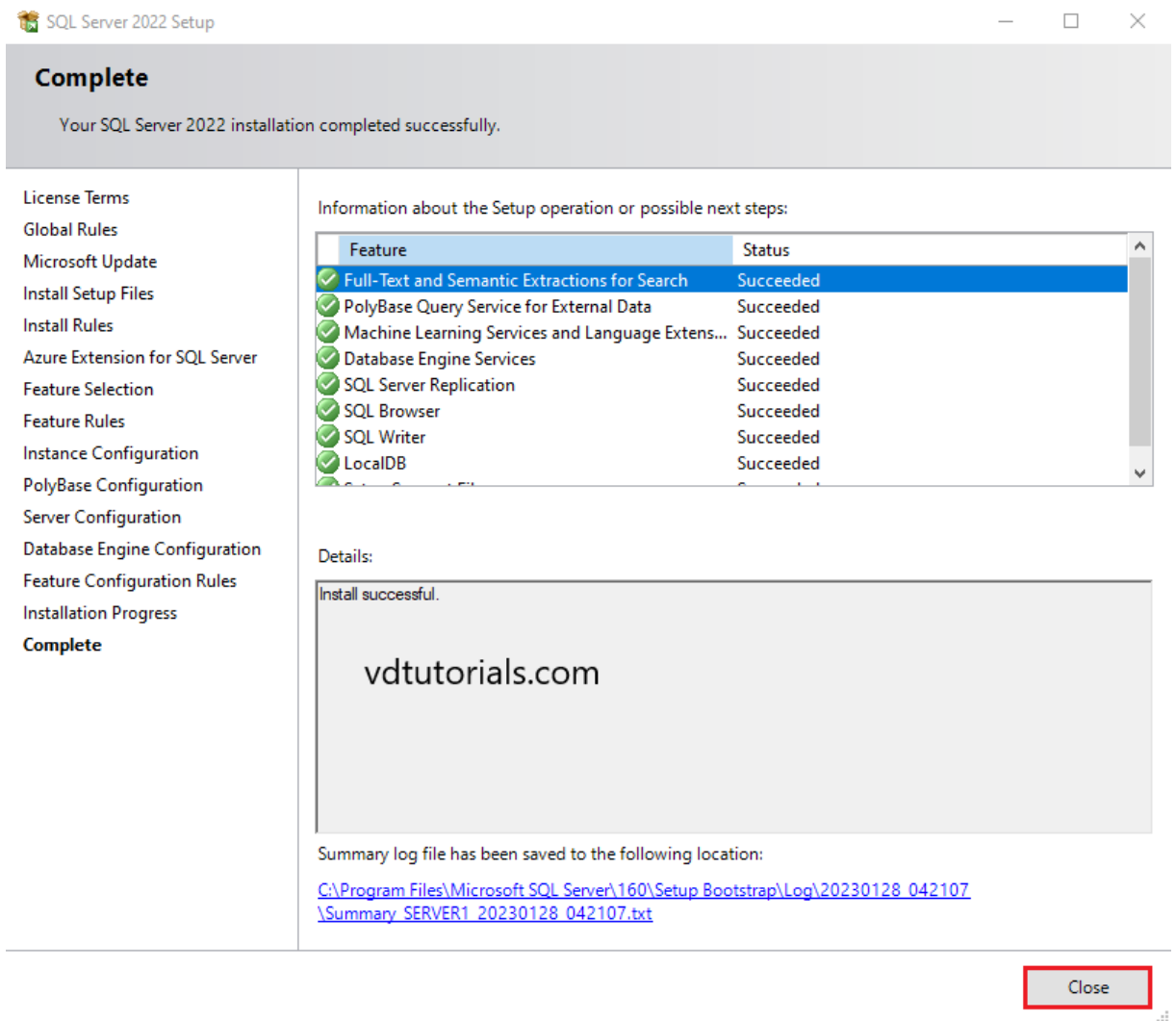
This privilege enables instant file initialization by avoiding zeroing of data pages. This may lead to information disclosure by allowing deleted content to be accessed.

[Click here for details](#)

< Back

Next >

Cancel



1.2 Install Microsoft SQL Server Management Studio

<https://learn.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver16>



RELEASE 19.0

Microsoft SQL Server Management Studio with Azure Data Studio

Welcome. Click "Install" to begin.

Location:

C:\Program Files (x86)\Microsoft SQL Server Management Studio 19

Change

By clicking the "Install" button, I acknowledge that I accept the [Privacy Statement](#) and the License Terms for [SQL Server Management Studio](#) and [Azure Data Studio](#)

SQL Server Management Studio transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the [documentation](#)

Install

Close




RELEASE 19.0

Microsoft SQL Server Management Studio with Azure Data Studio

Setup Completed

All specified components have been installed successfully.

Close

 Connect to Server ✕

SQL Server

Server type:

Database Engine

Server name:

GEORGE\SQLEXPRESS

Authentication:

Windows Authentication

User name:

AzureAD\GeorgeDouša

Password:

☐ Remember password

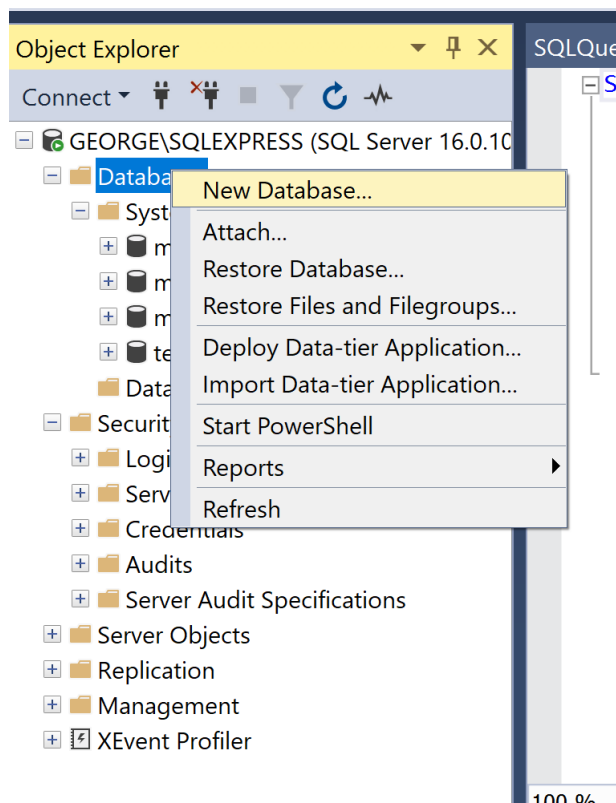
Connect

Cancel

Help

Options >>

2 Create new database for MwPharm by the SQL Management Studio



New Database

Select a page

General

Options

Filegroups

Connection

Server:

George\SQLEXPRESS

Connection:

AzureAD\GeorgeDouša

[View connection properties](#)

Progress

Ready

Script ? Help

Database name:

mwpharm

Owner:

<default>

...

☒ Use full-text indexing

Database files:

Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth / Maxsize	Path
mwpharm	ROWS ...	PRIMARY	8	By 64 MB, Unlimited C:\Program
mwpharm_log	LOG	Not Applicable	8	By 64 MB, Unlimited C:\Program

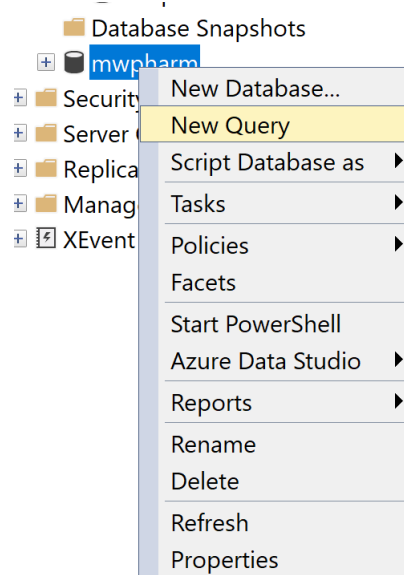
Add

Remove

OK

Cancel

3 Use scripts for creating the tables and filling the tables with data



Execute the scripts from https://www.mediware.cz/MSSQL_Scripts.zip

[Auto] Name	Ext	Size	↓Date	Attr
↑ [..]		<DIR>	08/22/2023 13:23	----
1-Execute-Me	sql	2,625,072	08/22/2023 13:23	-a--

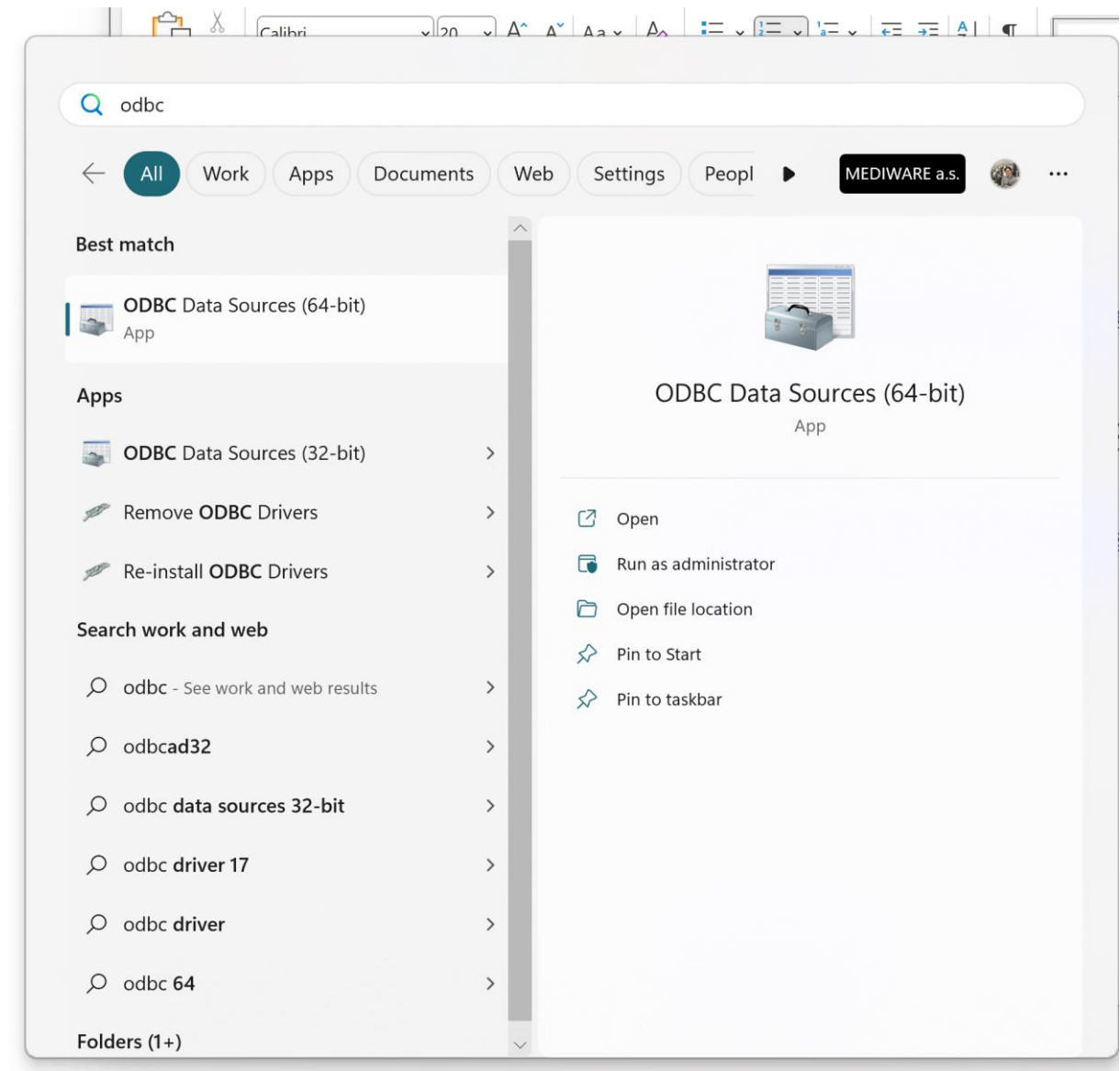
4 Install SQL Lite ODBC

https://www.mediware.cz/ODBC/sqliteodbc_w64.exe

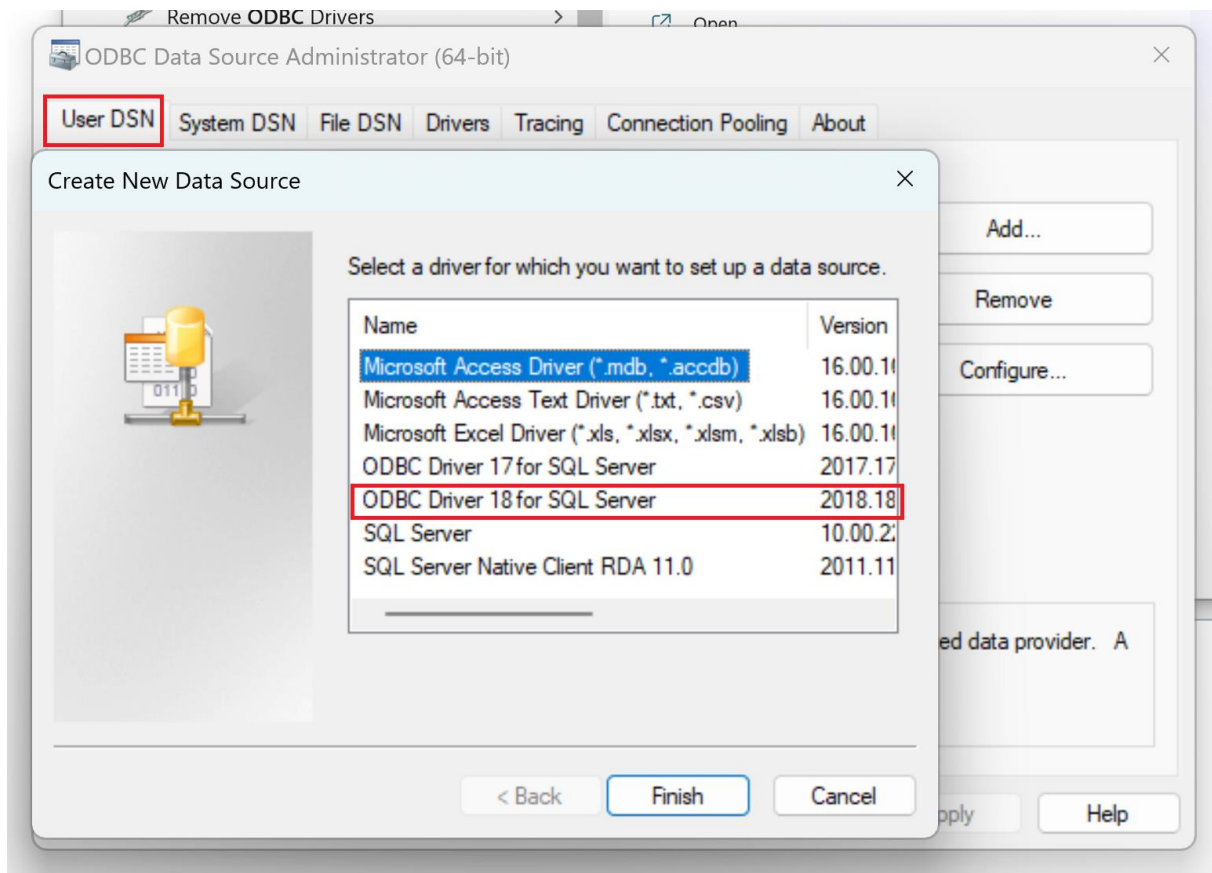
Install ODBC Driver 18 for SQL Server

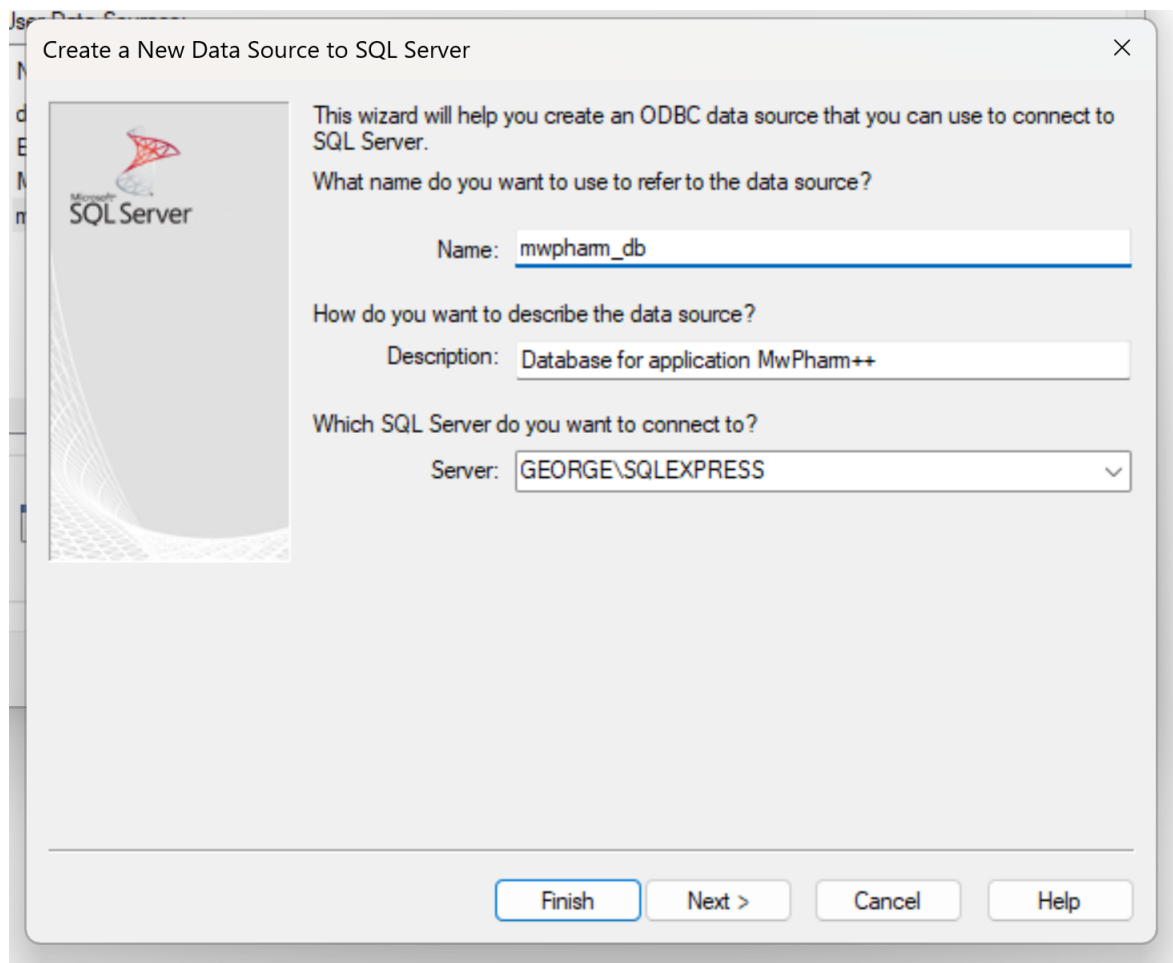
<https://go.microsoft.com/fwlink/?linkid=2242886>

5 Run ODBC Data Sources application




Add User DSN





Create a New Data Source to SQL Server



How should SQL Server verify the authenticity of the login ID?

☒ With Integrated Windows authentication.

SPN (Optional):

☐ With Azure Active Directory Integrated authentication.

☐ With SQL Server authentication using a login ID and password entered by the user.

☐ With Azure Active Directory Password authentication using a login ID and password entered by the user.

☐ With Azure Active Directory Interactive authentication using a login ID entered by the user.

☐ With Azure Managed Service Identity authentication.


☐ With Azure Service Principal authentication.

Login ID:

Password:

< Back Next > Cancel Help

Create a New Data Source to SQL Server



☐ Change the default database to:
 (Default)

Mirror server:

SPN for mirror server (Optional):

☐ Attach database filename:

☒ Use ANSI quoted identifiers.
☒ Use ANSI nulls, paddings and warnings.

Application intent:
 READWRITE

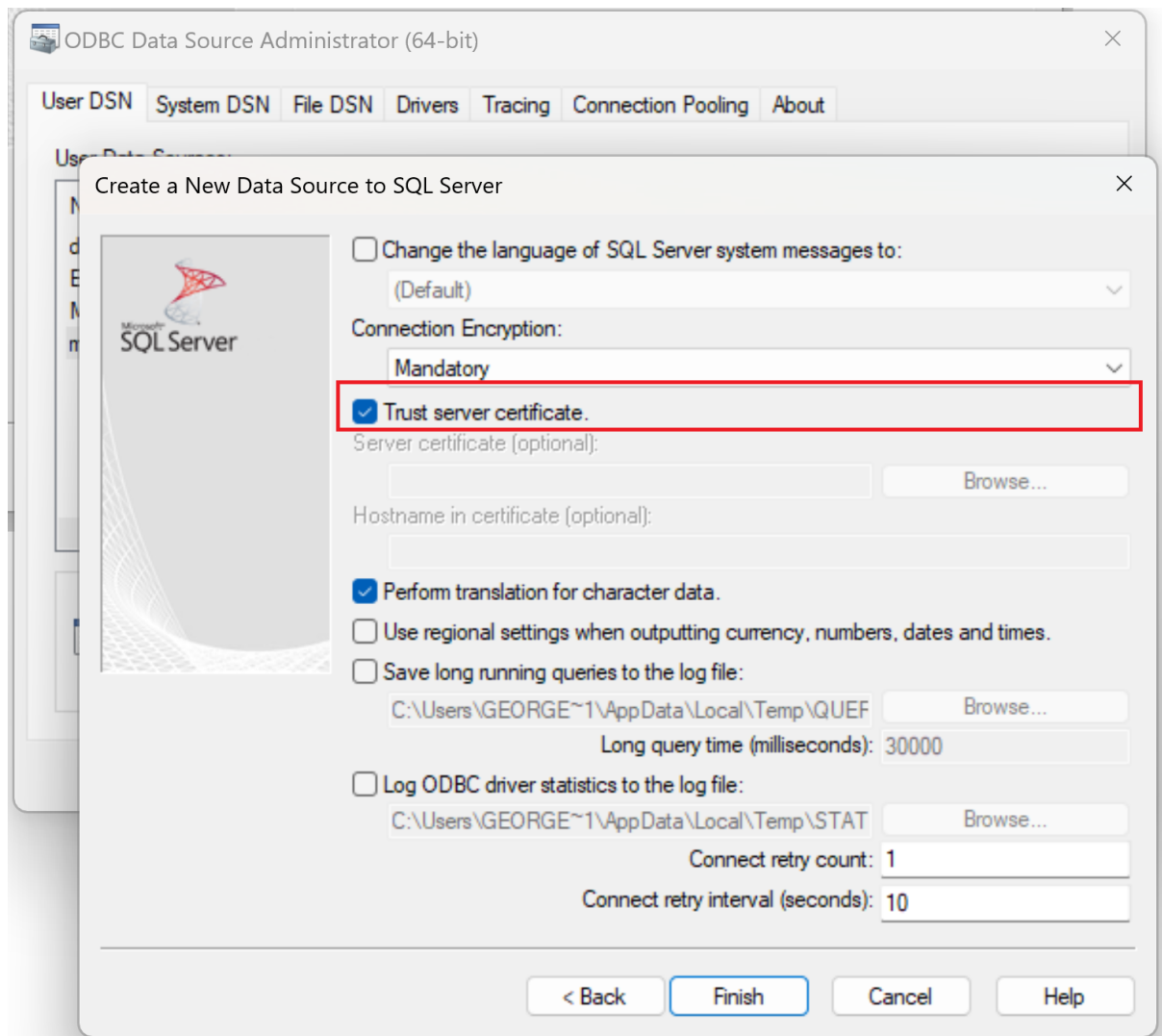
☐ Multi-subnet failover.
☒ Transparent Network IP Resolution.
☐ Column Encryption.

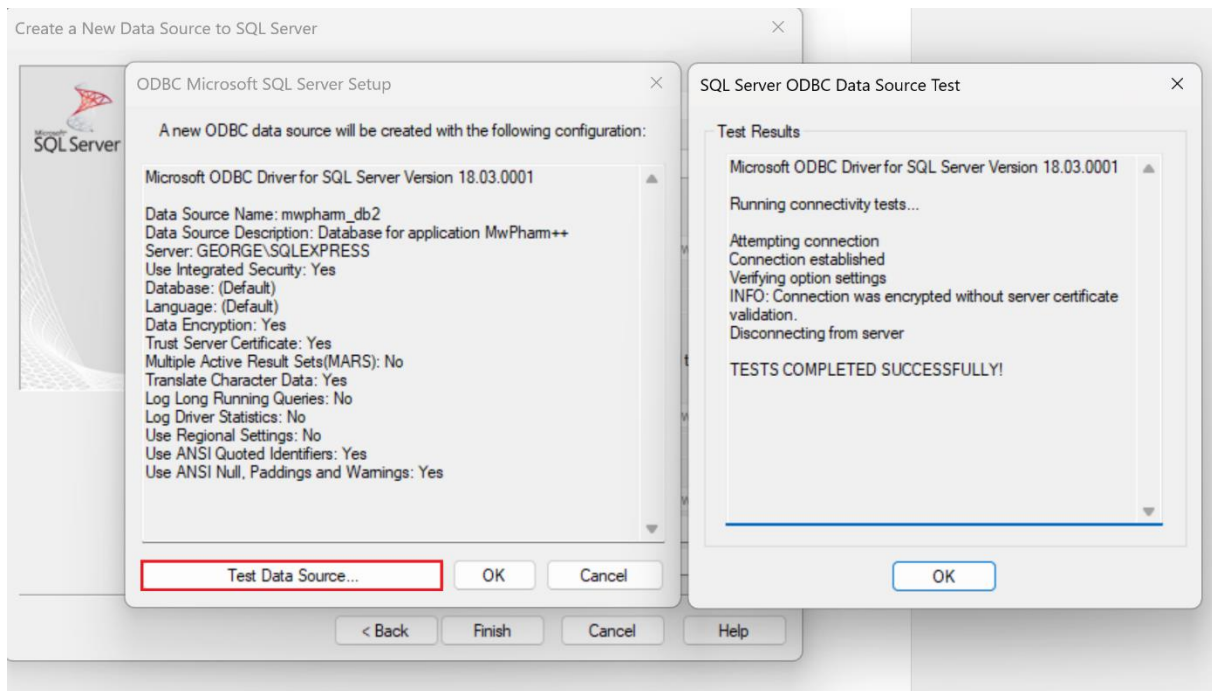
Enclave Attestation Info:

Keystore Configuration...

☐ Use FMONLY metadata discovery.

< Back Next > Cancel Help





Set new Connection string in settings of application MwPharm++.

DATABASE SETTINGS

Connection dsn=mwpharm_db

After change of connection string the application will automatically connect to the new data source.

Based on the data in data source the application will automatically update the data in your database (to the latest version):

MwPharm++

File
Model
Chart
Help

Name:
Type:

Model
Notes
MwPharm

PATIENT

Patient Number
Name and Initials
Date of Birth
Sex
Address
Postcode / Zipcode
City
Family Doctor
Requesting Physician
Ward
Room Number
Description
Medication Date
Age
Last Medication
Date of Change

1
MW
9/4/1968
Male

8/22/2023
55 years

☐ Dob
☐ Number
☐ Name

11/11/1950	!C001	!CASUS 001
11/11/1945	!C002	!CASUS 002
8/21/1936	!C003	!CASUS 003
11/11/1946	!C004a	!CASUS 004a
5/11/1993	!C004b	!CASUS 004b
11/11/1922	!C005	!CASUS 005
11/11/1992	!C006	!CASUS 006
11/11/1915	!C007	!CASUS 007
9/13/1990	!C008	!CASUS 008
11/11/1924	!C009	!CASUS 009
11/11/1977	!C010	!CASUS 010
4/26/1926	!N001	!NPEM 001
12/27/1929	!N002	!NPEM 002
4/26/1923	!N003	!NPEM 003
11/22/1984	!N004	!NPEM 004
3/22/1921	!N005	!NPEM 005
10/31/1942	!N006	!NPEM 006
4/15/1910	!N007	!NPEM 007
8/30/1926	!N008	!NPEM 008
5/11/1930	!N009	!NPEM 009
12/27/1949	!N010	!NPEM 010
10/7/1936	!PA0-001	!CASUS PAO 1
11/22/2004	!PA0-002	!CASUS PAO 2
3/13/1965	!PA0-003	!CASUS PAO 3
5/12/1965	!PA0-004	!CASUS PAO 4
9/12/1955	!PA0-005	!CASUS PAO 5
9/25/1947	!PA0-006	!CASUS PAO 6
7/27/2014	!PA0-007	!CASUS PAO 7

Standard
Import

P
R
List Mode
Number-Name
Insert

Login
Patient
Status
Case
Users
Settings
Help
About
Info

Sim
Applied database patches PATCH003 (OK), PATCH004 (OK), PATCH006 (OK), PATCH007 (OK), PATCH008 (OK), PATCH009 (OK), PATCH011 (OK), PATCH012 (OK) ..

Mediware a. s. | email: support@mediware.cz | <http://www.mediware.cz>