

# Using SQL-server as database engine

This tutorial explains on a step by step base how to configure YDOC-Insights for usage with a SQL-server database. (How to manage SQL-server itself is not part of this tutorial)

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## 1. Install SQL-server

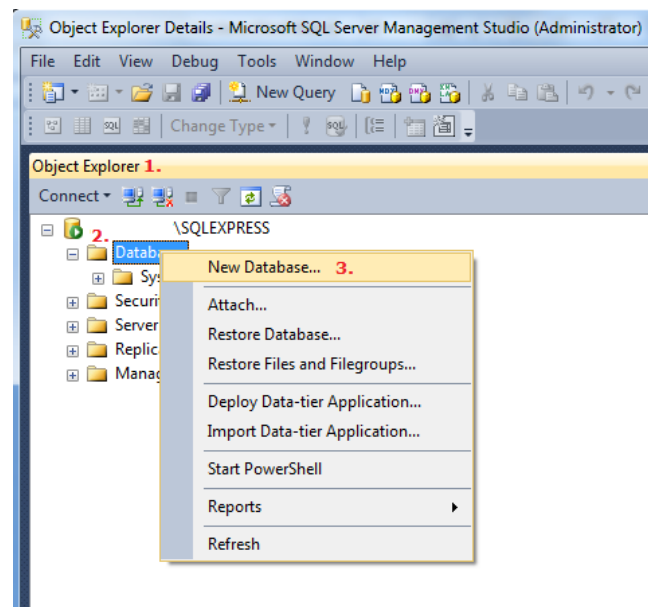
If you did not already install SQL-server® or don't have access to a cooperate SQL-server®, please download and install Microsoft® SQL Server® 2012 Express with Tools (Includes the database engine and SQL Server Management Studio Express). SQL Server® 2012 **requires Microsoft Windows 7, 2008** or higher.

SQL Server® 2012 Express is a powerful and reliable free data management system that delivers a rich and reliable data store.

This package contains everything needed to install and configure SQL Server as a database server. When asked for during installation choose Express and not LocalDB.

## 2. Create a database

If a YDOC-Insights database was not yet created before, you can create a new empty database with the 'SQL Server Management Studio'. Start the 'Studio', connect to your local database engine (<computer name>\SQLEXPRESS) using 'Windows Authentication'.



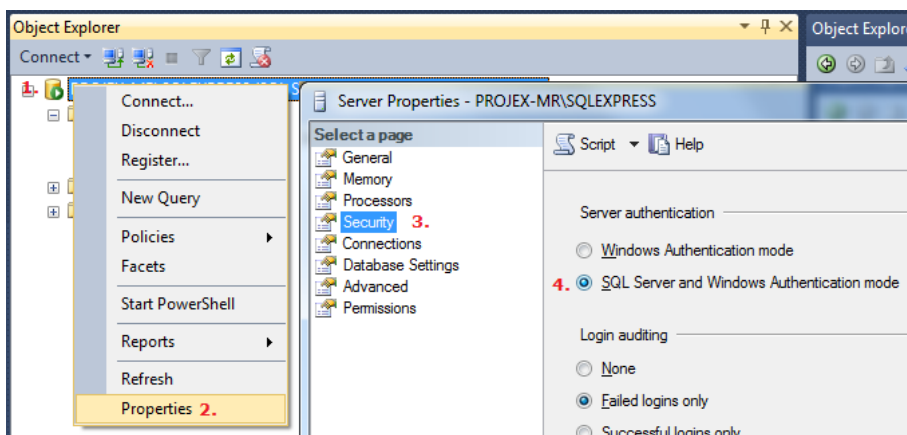
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In the 'Object Explorer' (1.) right mouse click the 'Databases' map (2.) and click 'New database' (3.) in the popup-menu. A window will pop-up to create an empty database and all you have to do is to specify a name for your database (e.g. YOURDATABASE). YDOC-Insights itself will create all the necessary tables and indexes.

### 3. Make SQL-server network accessible

If you want to make your database accessible from other PC's or even from remote you have to make some provisions. You can skip this chapter if your database is for local use only.

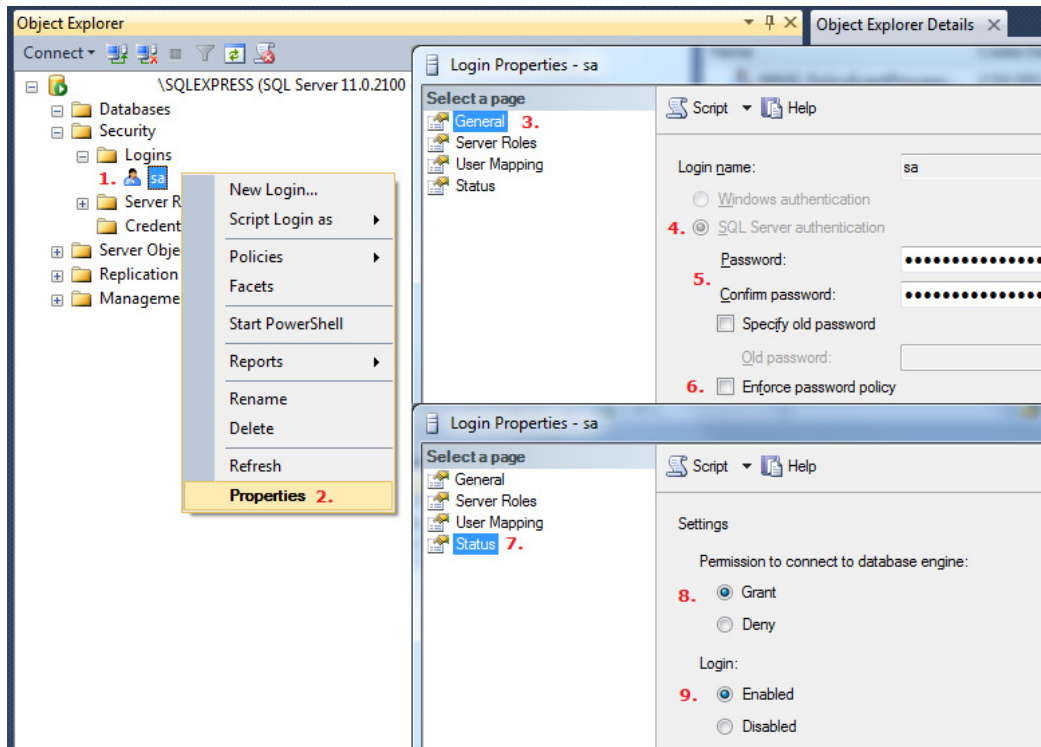
#### 3.1 Set authentication mode



The SQL-server authentication mode is at default set to 'Windows authentication', however when you want to access the server from a PC outside the domain, you can't access the database. In the 'Object Explorer' right mouse click the 'Database Engine' (1.) and click 'Properties' (2.) in the popup-menu. In the popped-up properties window select the 'Security'-page (3.) and check the 'SQL-server and Windows Authentication mode' radio button (4.)

## 3.2 Enable the 'sa' login

To be able to access a database with 'SQL-server authentication' you need to have a SQL-server login and the quickest way to do it, is by enabling the already build in 'sa' account.



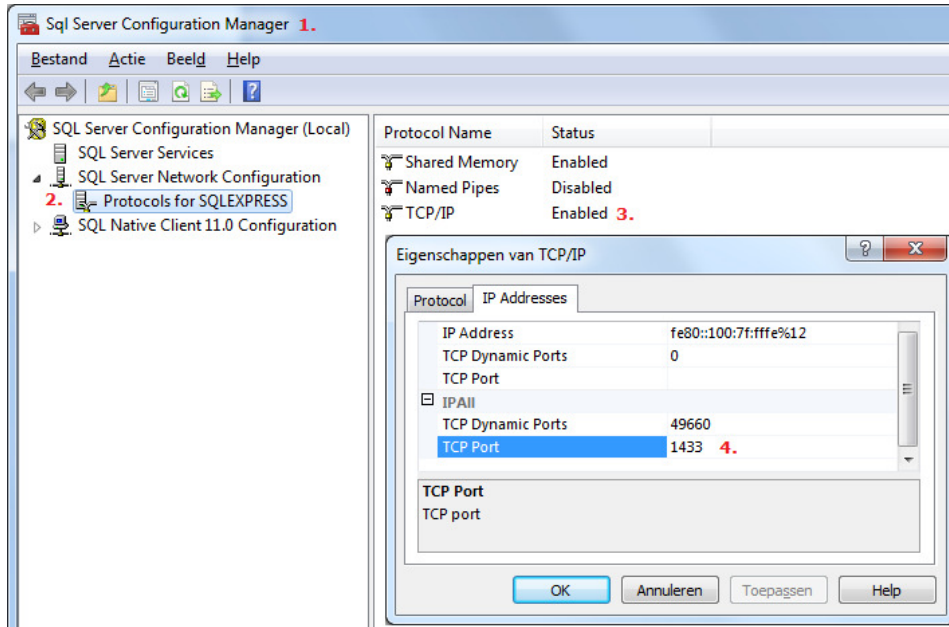
In the 'Object Explorer' right mouse click the 'sa' Login (1.) and click 'Properties' (2.) in the popup-menu. In the popped-up properties window select first the 'General'-page (3.) and check the 'SQL-server authentication' radio button (4.) and specify a strong password (5.) and make sure that 'Enforce password policy' is set to disabled to prevent Windows from disabling your login after security updates.

The 'sa' login is disabled at default, select the 'Status'-page (7.) and grant (8.) the login access permission and set it to enabled (9.)

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## 3.3 Enable TCP/IP protocols

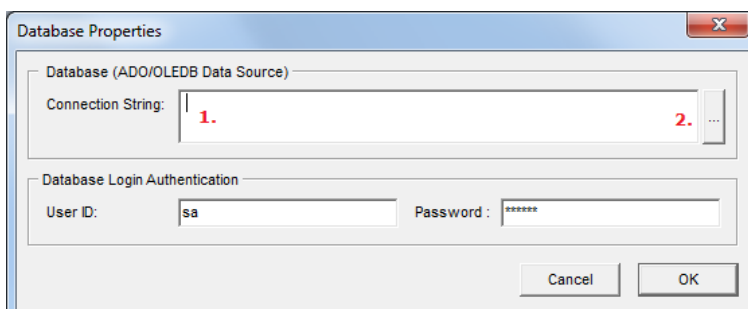
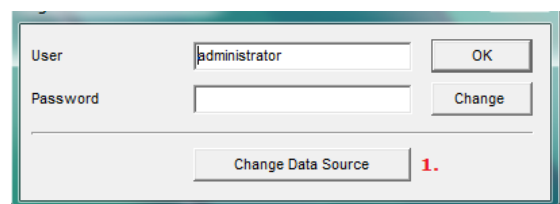
To be able to access the database thru a TCP/IP network, the TCP/IP protocols of SQL-server should be enabled and configured first.



Start the 'SQL-Server Configuration Manager (1.) and select 'Protocols for SQLEXPRESS' (2.). Please enable (3.) the TCP/IP protocol and set the TCP-port (4.) at which SQL-server should listen for all network interfaces (IP All) to 1433. Make sure that your firewalls don't block this port.

## 4. Link application to the SQL-server database

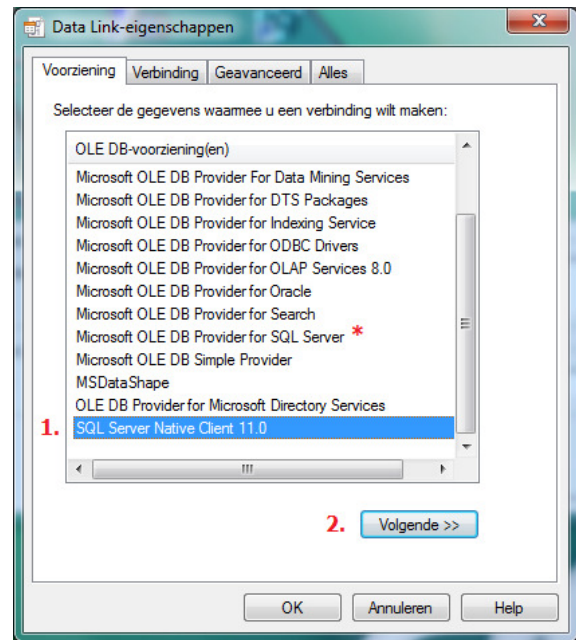
When you start YDOC-Insights and run it as administrator the YDOC-Insights Login box will show a 'Change Data Source'-button (1.). Please click this button to pop-up a 'Database properties'-screen.



To link to a SQL-server database, please clear the existing 'Connection String' (1.) and click the '...'-button (2.) to popup a database 'Data link properties'- screen.

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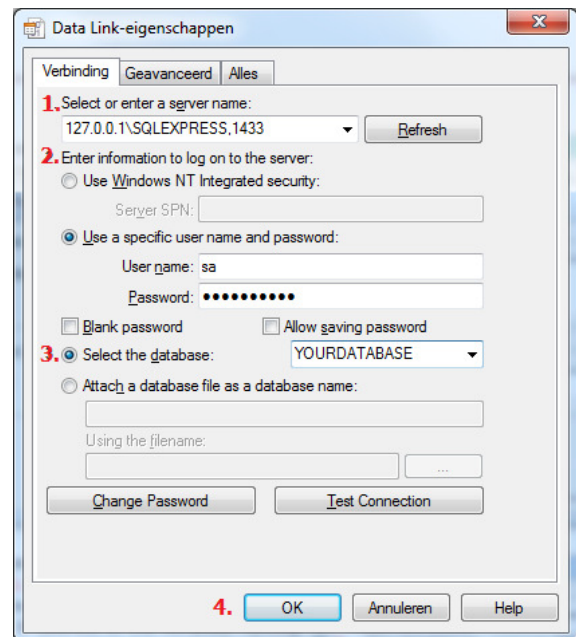
In the 'Data link properties'-screen select the 'SQL Server Native Client'-driver (1.) or if not available on your client, the 'Microsoft OLE DB for SQL-server'-driver (\*) and click the 'Next'-button (2.)



Please specify the location of the SQL-server engine (1.) which exists out of three parts: before the \ you have to specify the host name or IP-address of the computer running SQL-server (e.g. 127.0.0.1). After the \ you have to specify the 'Instance name' of the SQL-server (e.g. SQLEXPRESS) and the last part separated with a comma (,) should be the TCP-port number SQL-server is listening at (e.g. 1433).

To get access you have to specify (2.) a user name and password.

As a SQL-server engine can service multiple databases you have to select the database (3.) used for YDOC-Insights (e.g. YOURDATABASE).



Click the OK-button (4.) to finalize your driver settings.