

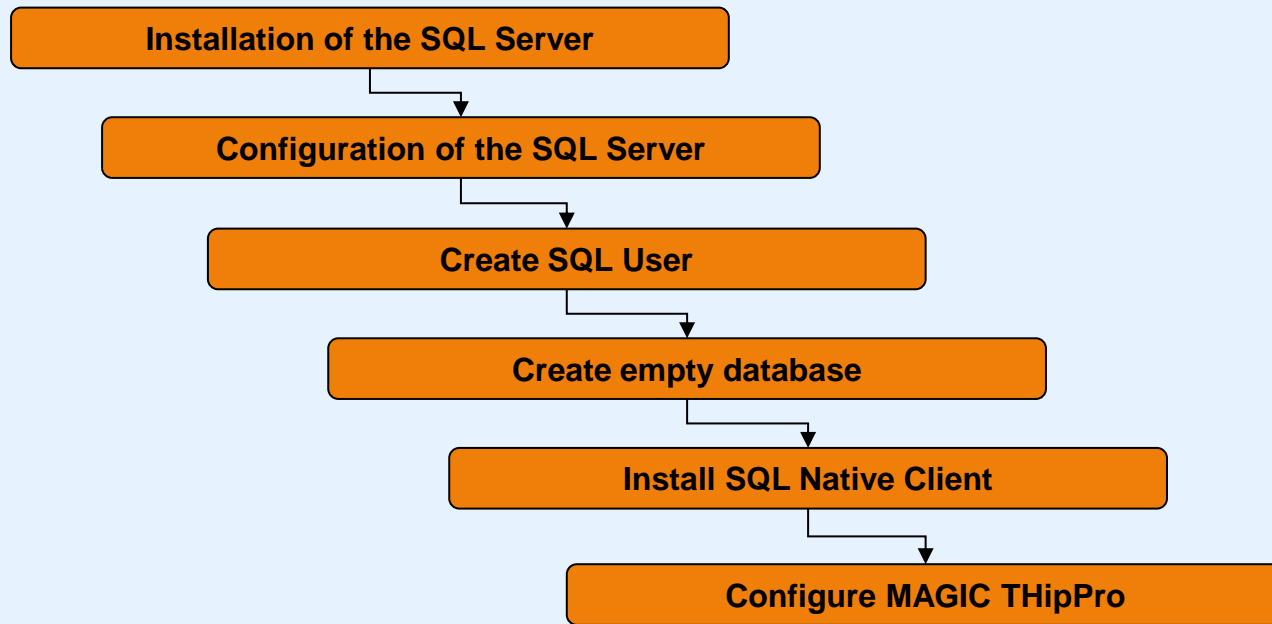
# MAGIC THipPro

## - SQL Server Installation -

using the example of



Wolfgang Peters



# Overview of the SQL Installation

- The user needs to have administrator rights on all PCs to install the software
- If the migration database is done using an existing SQL Server, the user needs to have administrative access rights for the SQL Server
- The USB Stick *MAGIC THipPro Updates with SQL Server Tools* must be available
  - Alternatively, all tools are also available on the Microsoft Website
- *SQL Server 2012 Express* requires Windows 7 or higher

## Requirements

- Processor
  - Minimum: 1,4-GHz Processor or faster
  - Recommended: Core i5 Processor
- RAM:
  - Minimum: 512 MB
  - Recommended: 2 GB
- Free hard disk space:
  - Depending on the version, but at least 6 GB

## Hardware requirements SQL Server

- Supported operating systems for *MS SQL Server 2012 Express*
  - Windows 7
  - Windows Server 2008 R2
  - Windows Server 2008 Service Pack 2
  - Windows Vista Service Pack 2
  - Windows 8.1
- All necessary components for the SQL Server Installation can be found on the USB Stick
  - For 64-Bit operating systems
  - Languages: German and English

## Operating system requirements

- Installation using the example operating system:  
*Windows 8.1*
- Preparations
  - The SQL Server Installation is done on a PC of your choice in the network
    - An installation on a PC on which you have a MAGIC THipPro LAN/SCREENER Client installed is also possible - if the performance data is matching the requirements
    - Please note that this Client must not be switched off since otherwise the database access is not possible anymore
  - The components necessary for the installation can be found in the directory *\Software\SQL Tools* on the USB Stick

## Installation of the SQL Server

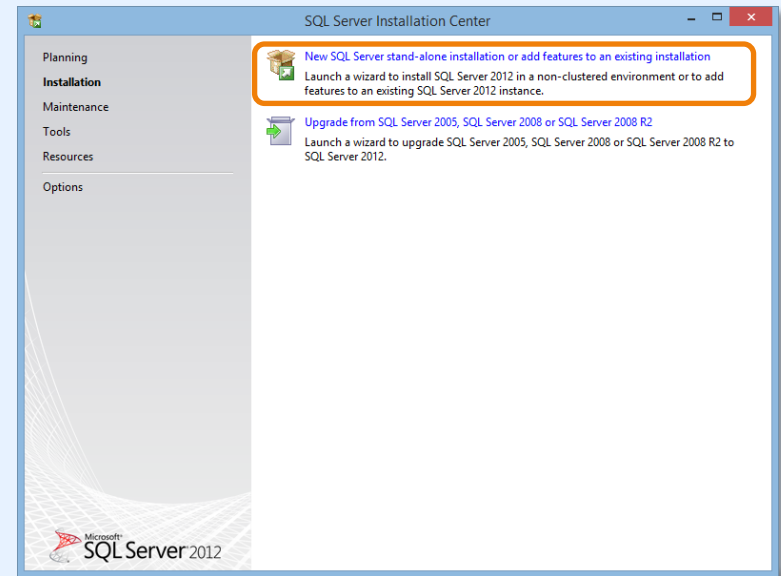
- SQL Server new installation

- *USB Stick directory:*

- \Software\SQL Tools\SQL Server Express 2012*

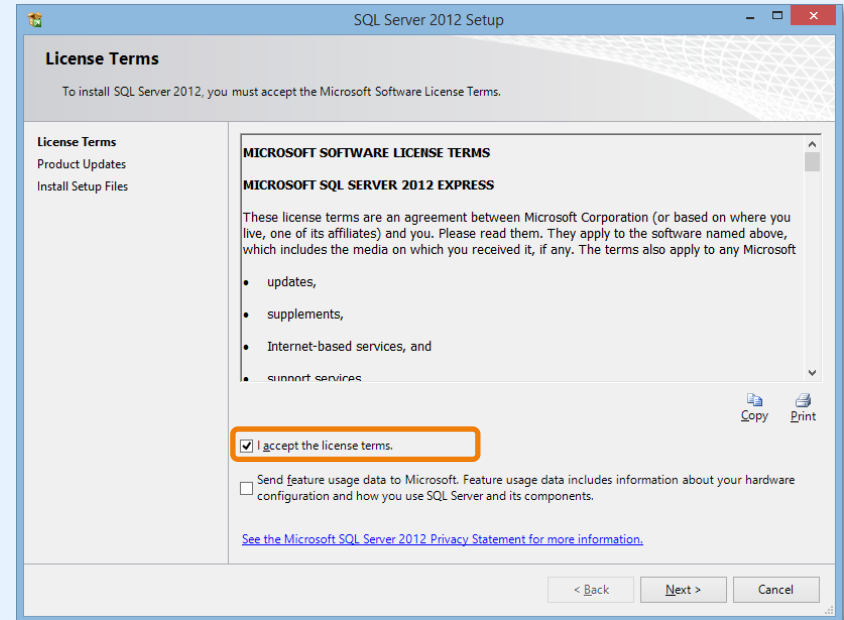
- SQLEXPRT\_x64\_ENU\_SP1.exe

- Microsoft SQL Server 2012 SP1 Express with Management Tools



# Setup: New installation

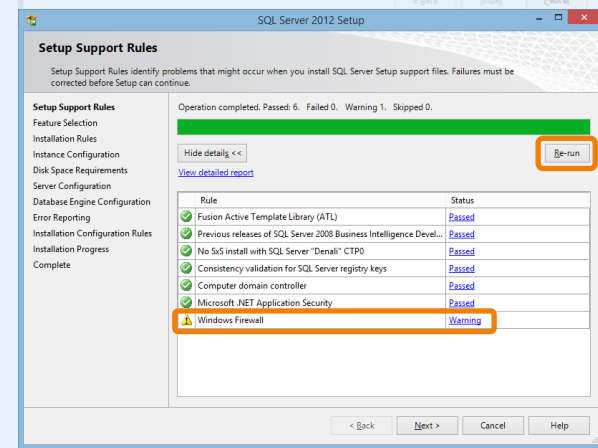
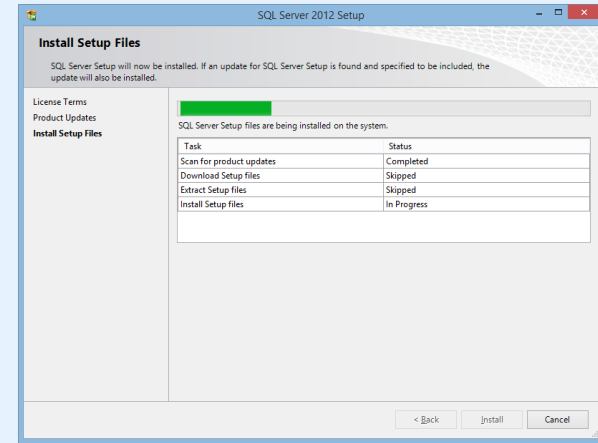
- Accept licence terms



## Setup: Licence terms

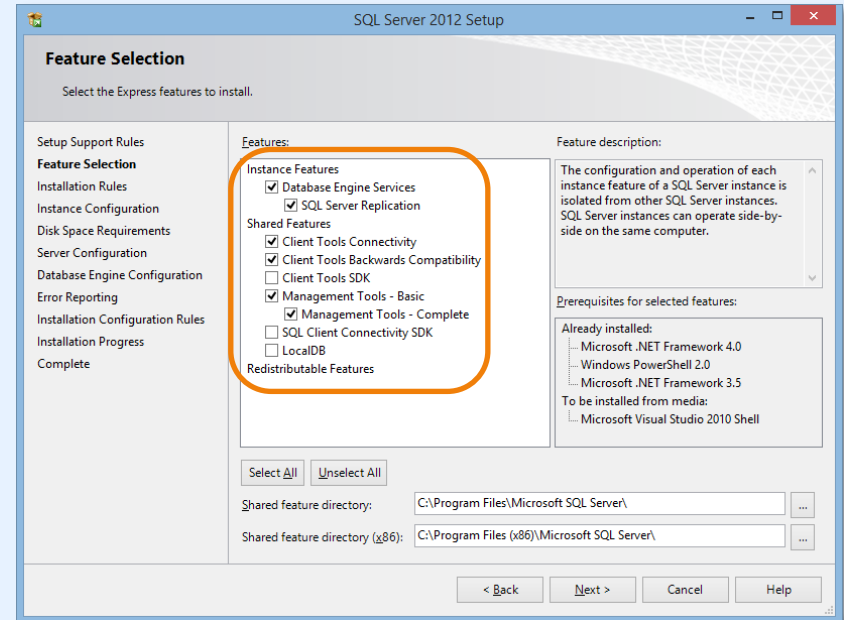


- No error/warning:
  - The window *Setup Support Rules* is skipped and will not be displayed
- In case of an error/warning:
  - Install the required setup (see Status) and press *Re-run*
  - The installation can only be continued without errors
  - The *Windows-Firewall* must be either deactivated or the respective ports must be unblocked
    - Please ask your administrator for this



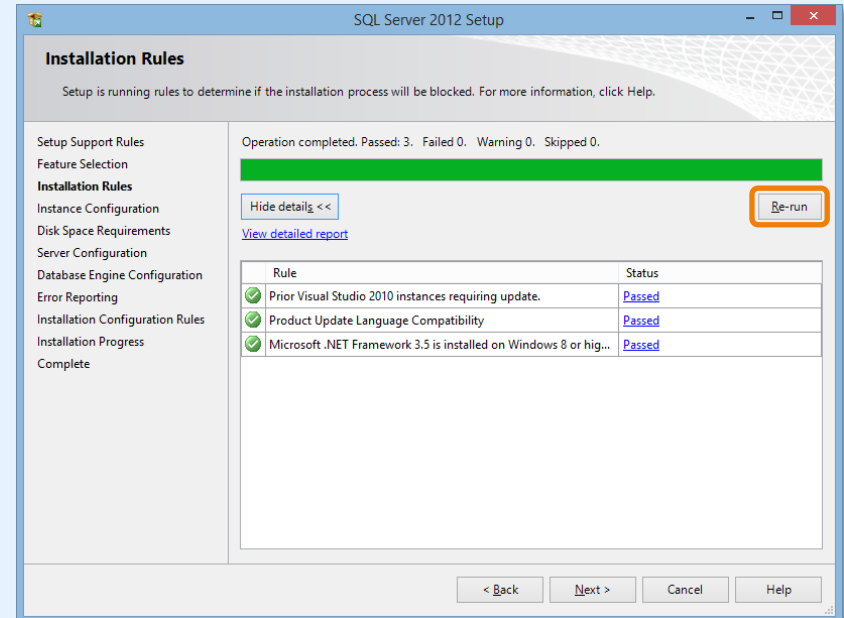
# Setup: Setup Support Rules

- Select the options as displayed under *Features*
  - If required you can also select all options



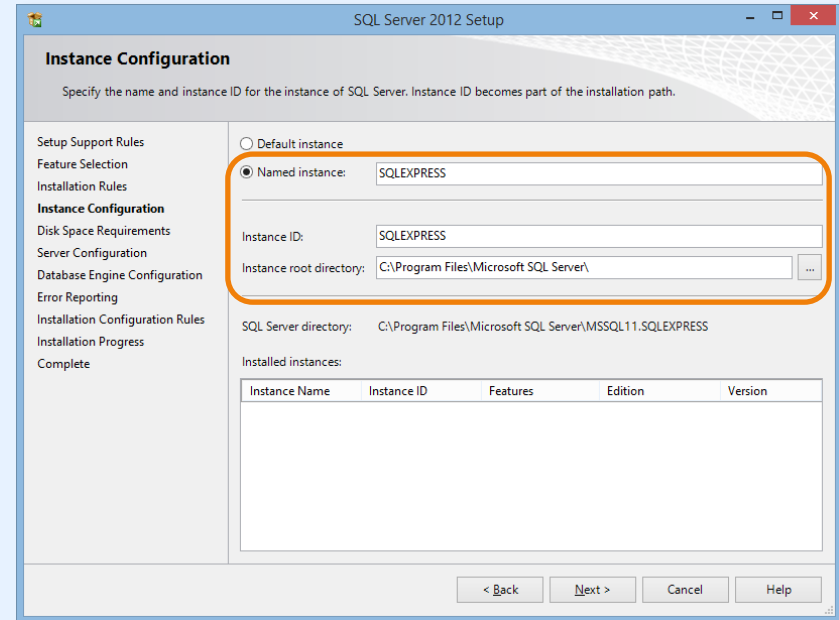
## Setup: Feature Selection

- No errors:
  - The window *Installation Rules* is skipped and will not be displayed
- In case of errors:
  - Eliminate the problem (see Status) and press *Re-run*
  - The installation can only be continued without errors



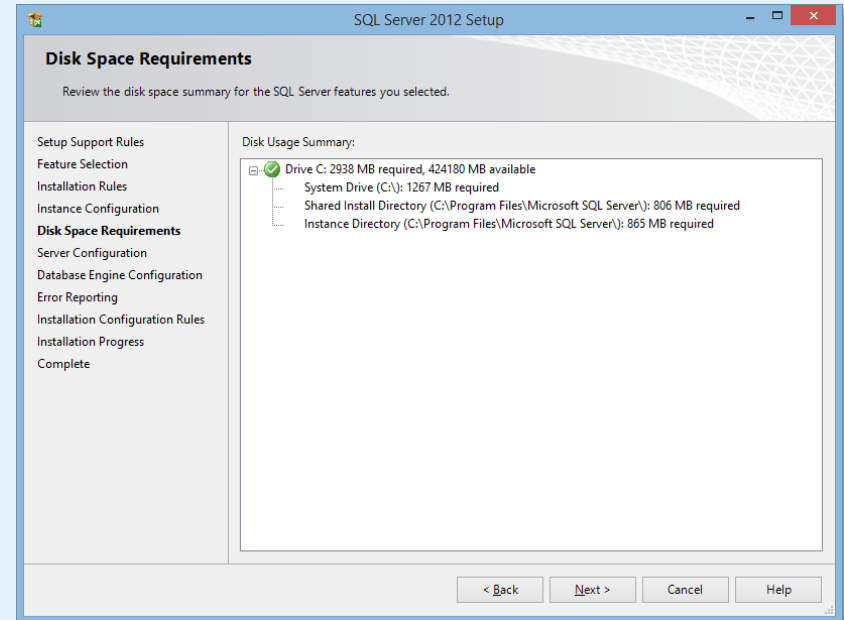
# Setup: Installation Rules

- Select *Named Instance*
  - Standard: SQLEXPRESS
    - Remember this instance name since it is required later on
- Enter *Instance ID*
  - Same name as under *Named Instance*
- Do not change the *Instance root directory* (recommended) or select a directory of your choice



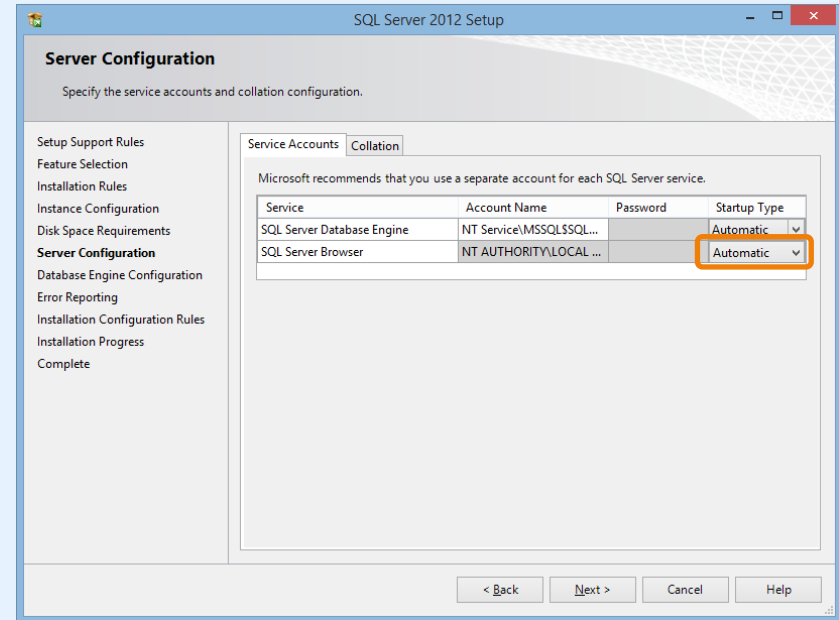
# Setup: Instance Configuration

- No errors:
  - The window *Disk Space Requirements* is skipped and will not be displayed
- In case of an error:
  - Provide the required disk space



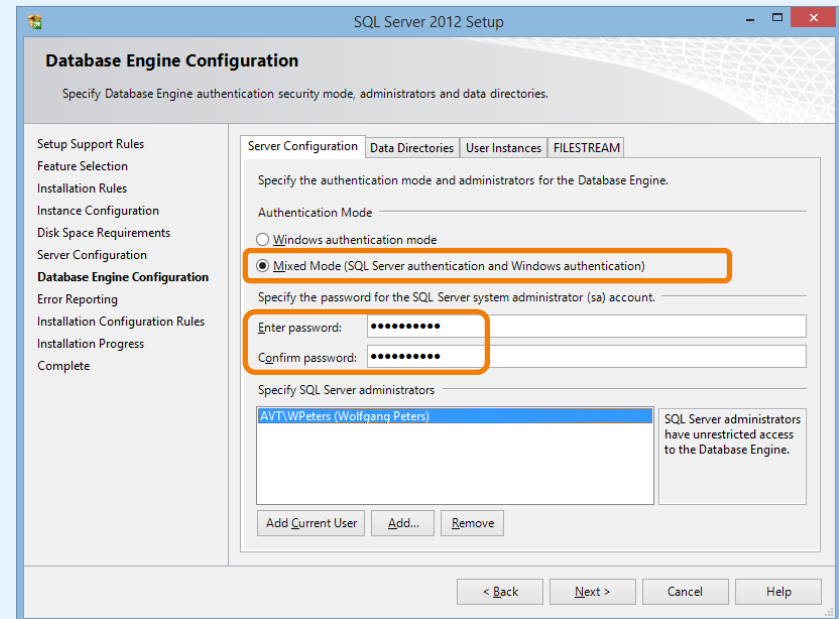
## Setup: Disk Space Requirements

- Change *Startup Type* for SQL Server Browser to *Automatic*
  - Without this settings the Client PCs do not receive the configuration information of the SQL Server
- The account names to start the services can usually be kept
  - Please ask your administrator



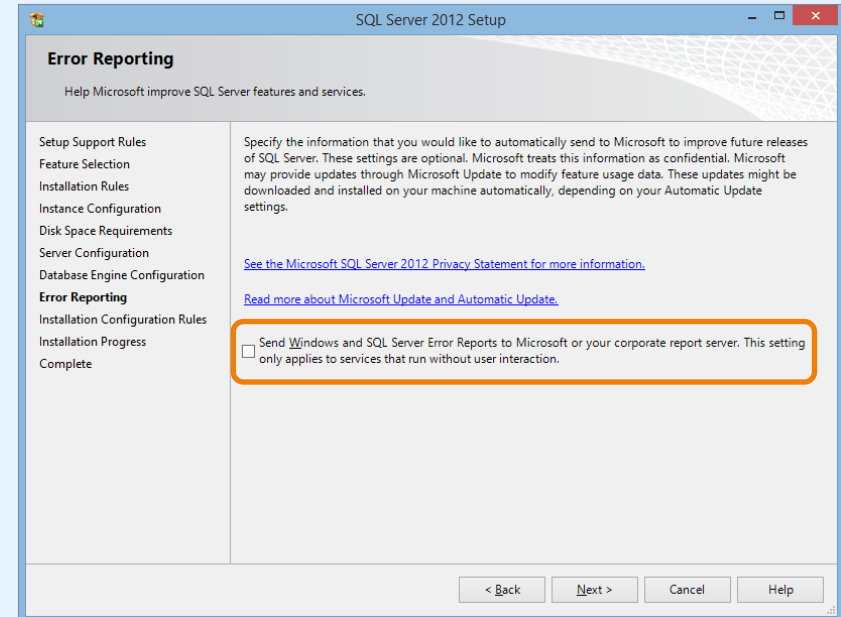
## Setup: Server Configuration

- Change the Authentication Mode to *Mixed Mode*
- Assign a *secure password* for the SQL Server system administrator account *SA*
  - The password is required later for the management of the Server
- Specify at least one *SQL Server administrator*
  - By default the current user is entered



## Setup: Database Engine Configuration

- Select if *Error Reports* shall be send to Microsoft or not
  - If yes, the PC needs to have an internet connection



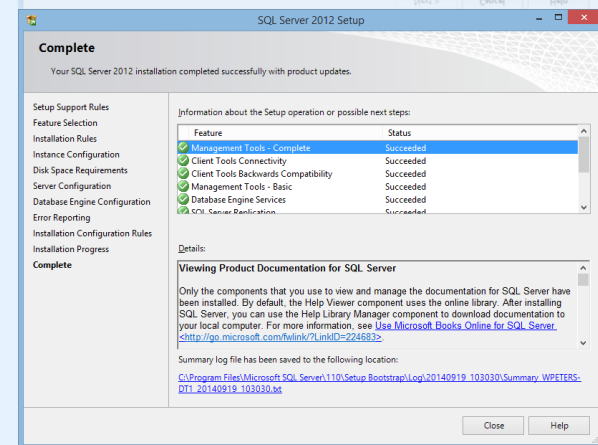
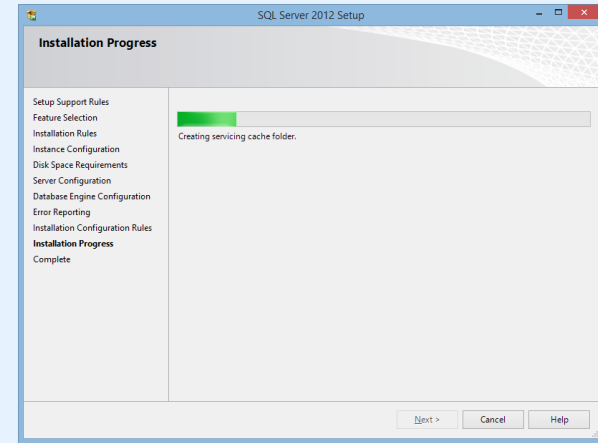
## Setup: Error Reporting



- No errors:
  - The window *Configuration Rules* is skipped and will not be displayed
- In case of errors:
  - Eliminate the problem (see Status) and press *Re-run*
  - The installation can only be continued without any errors

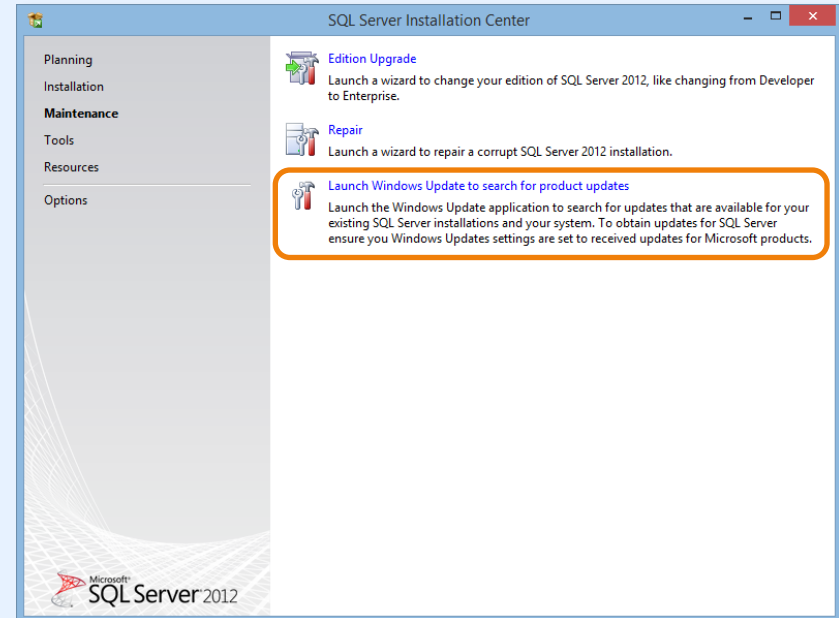
## Setup: Configuration Rules

- After entering all parameters the installation is executed and finished
- The setup can now be finished by pressing *Close*



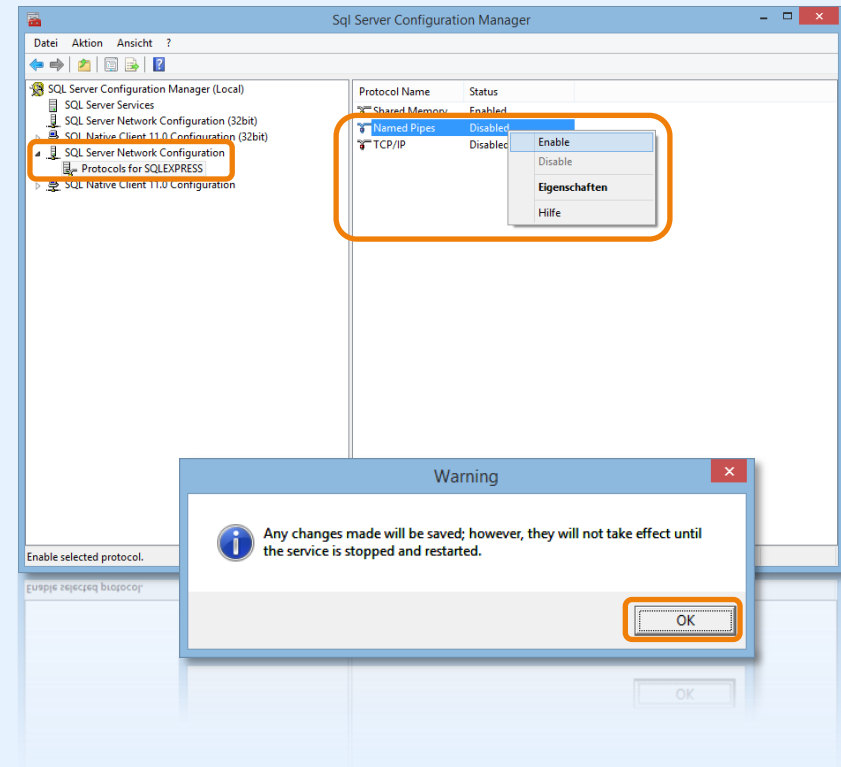
# Setup: Installation and Finish

- If the SQL Server PC is connected to the internet, it should be searched for product updates
- Updates are available automatically via the *Windows Updates*
- The installation window can now be closed

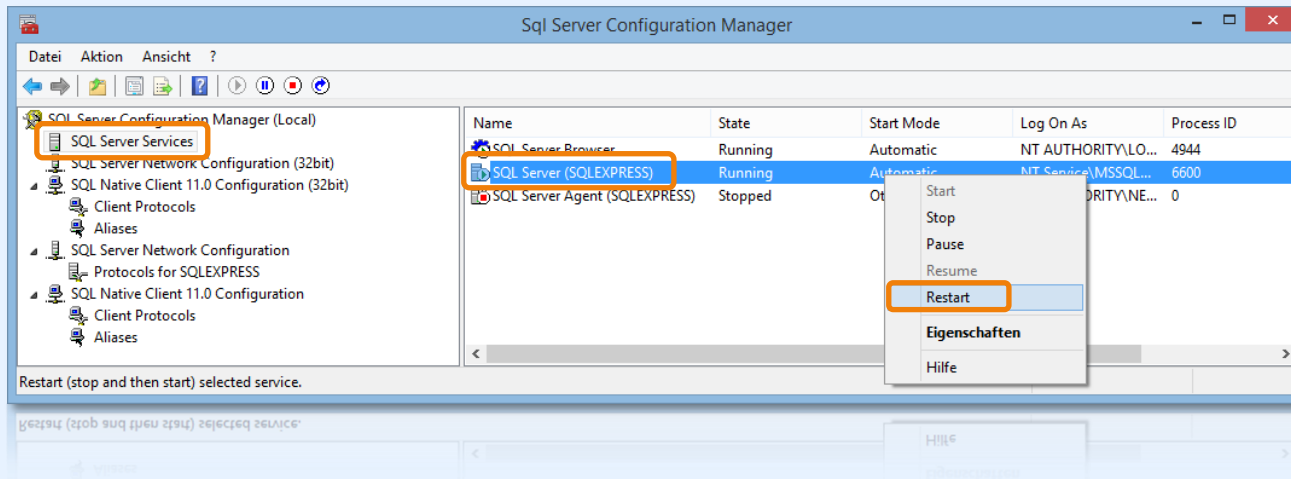


## Setup: Product Updates

- Start SQL Server Configuration Manager with
  - *START → All programmes → Microsoft SQL Server 2012 → Configuration tools → SQL Server Configuration Manager or search under Windows 8 for SQL Server Configuration Manager*
- Select the entry *Protocols for „SQLEXPRESS“* under *SQL Server Network Configuration*
- Activate the protocols *Named Pipes* and *TCP/IP* by a right mouse click and *Enable*
- Confirm the warning with *OK*



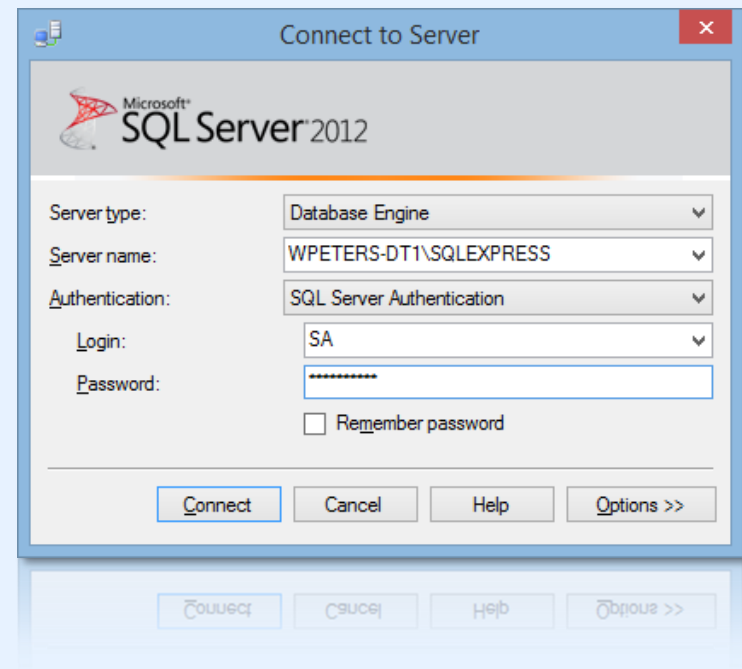
## Server Network Configuration (1)



- Select *SQL Server Services*
- Mark *SQL Server (SQLEXPRESS)*
- Open the context menu with the right mouse key and press *Restart*
- The *SQL Server Configuration Manager* can now be closed

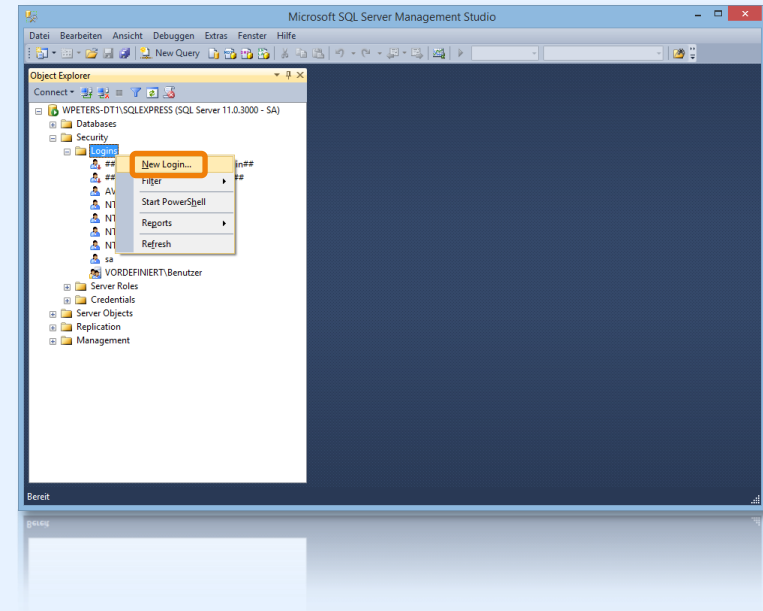
## Server Network Configuration (2)

- The management of the SQL Server is done via the *SQL Server Management Studio*
  - Under Windows 7: *START* → *All programmes* → *Microsoft SQL Server 2012* → *SQL Server Management Studio*
  - Under Windows 8: Search for *SQL Server Management Studio*
  - To login you need to enter the following parameters:
    - Server type: *Database Engine*
    - Server name: *<Computer name>\<Instance>*
    - Authentication: *SQL Server Authentication*
    - Login: *sa*
    - Password: *<Password>*
      - See Password that you have enter under [Database Engine Configuration](#)
      - If the PC is in the domain network, you can also login with Windows Authentication



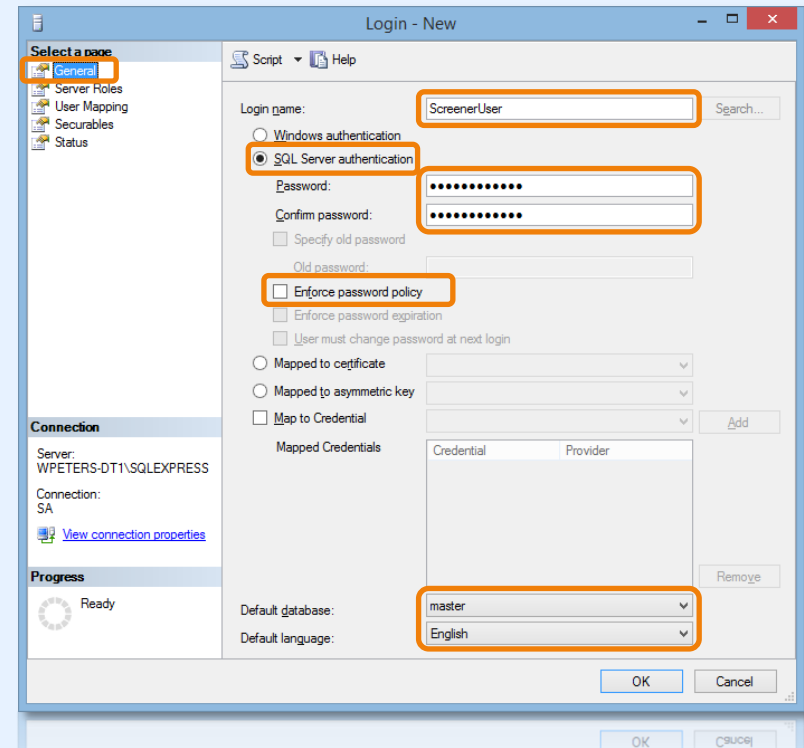
# SQL Server Management Studio

- Select the branch *Security* → *Logins*
- Open the context menu with the right mouse key and press *New login...*



## Create login (1)

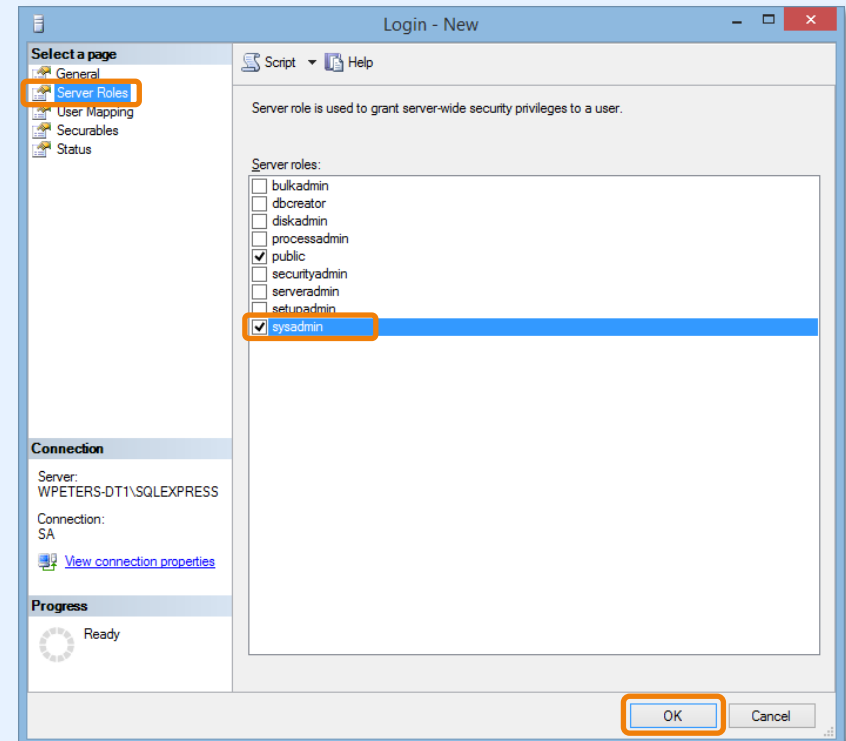
- All Clients are using the same user login e.g. *ScreenerUser*
  - Select page *General*
  - Enter the Login name *ScreenerUser*
  - Activate *SQL Server Authentication*
  - Assign a *password* of your choice and remember it
    - Login name and password are required later in the MAGIC THipPro Client configuration dialogue
  - Deactivate the option *Enforce password policy*
  - *Default database* must be kept to *master*
  - Set *Standard language* to *English*



## Create login (2)



- Change to page *Server Roles* and activate additionally the option *sysadmin*
- Afterwards the user is created by pressing the *OK* button



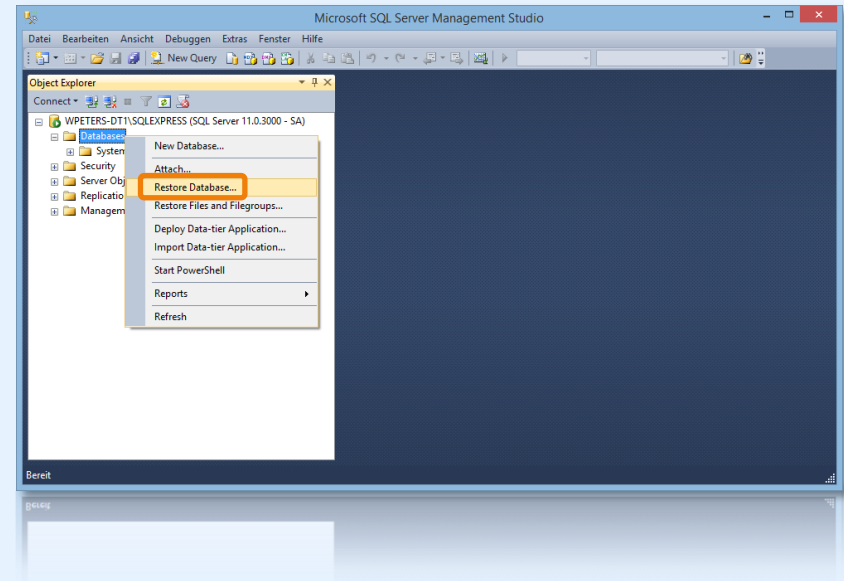
## Create login (3)

## **If you have a MAGIC THipPro Screener licence:**

Go to the chapter

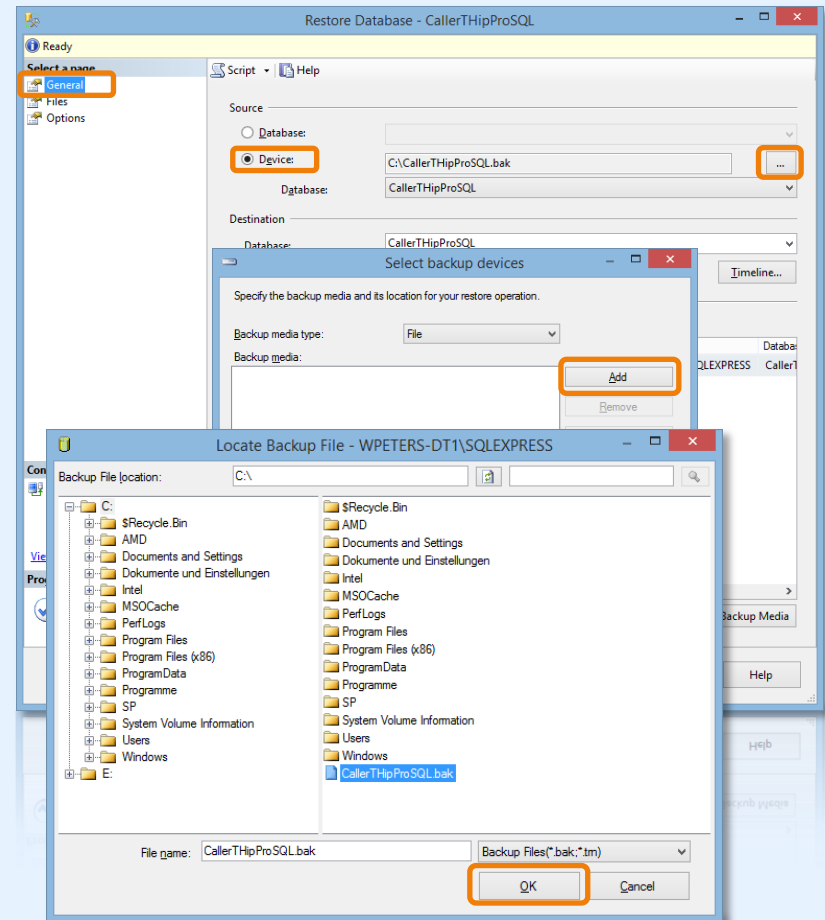
[Create database with the MAGIC THipPro Screener](#)

- Copy backup database  
*\Software\SQL Tools\Database\CallerTHipProSQL.bak* from the USB Stick to a local directory (e.g. C:\) of the PC
  - The file name must not be changed
- In the Object Explorer select the branch *Databases*
- Open the context menu with the right mouse key and press *Restore Database...*



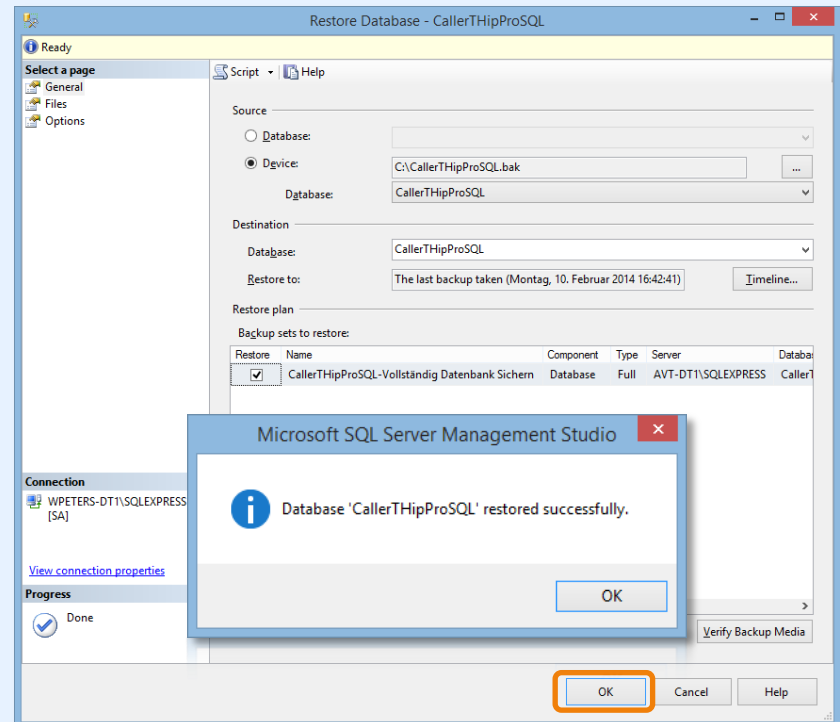
## Import empty database (1)

- Select *Device* and press ...
- Click on *Add*
- Select the database file *CallerTHipProSQL.bak* from the local directory (e.g. C:\) and press twice *OK*



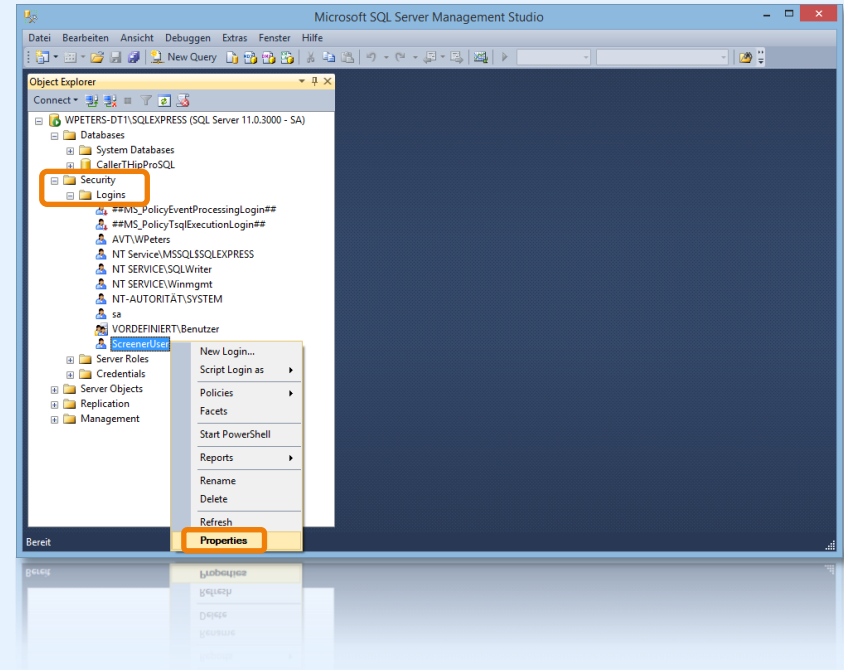
## Import empty database (2)

- Import the database by pressing *OK*
- Afterwards the database *CallerTHipProSQL* is displayed under *Databases*



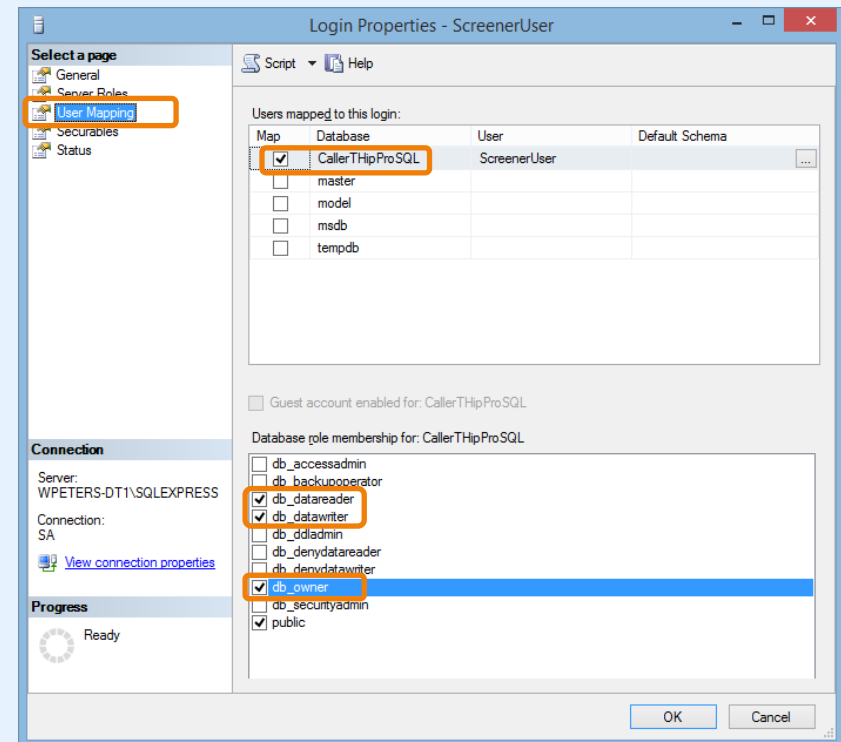
## Import empty database (3)

- Select the branch *Security* → *Logins* in the Object Explorer
- Select the login *ScreenerUser* and select *Properties* by using the right mouse key



## Import empty database (4)

- Select the page *user mapping*
  - Select the database *CallerTHipProSQL*, to which the login *ScreenerUser* is supposed to have access
  - Select the following options under *Database role membership for CallerTHipProSQL*:
    - *db\_datawriter*
    - *db\_datareader*
    - *db\_owner*
    - The option *public* is always set
  - Finish the import with *OK*



## Import empty database (5)

**If you do not have a MAGIC THipPro Screener licence:**

Go to the chapter

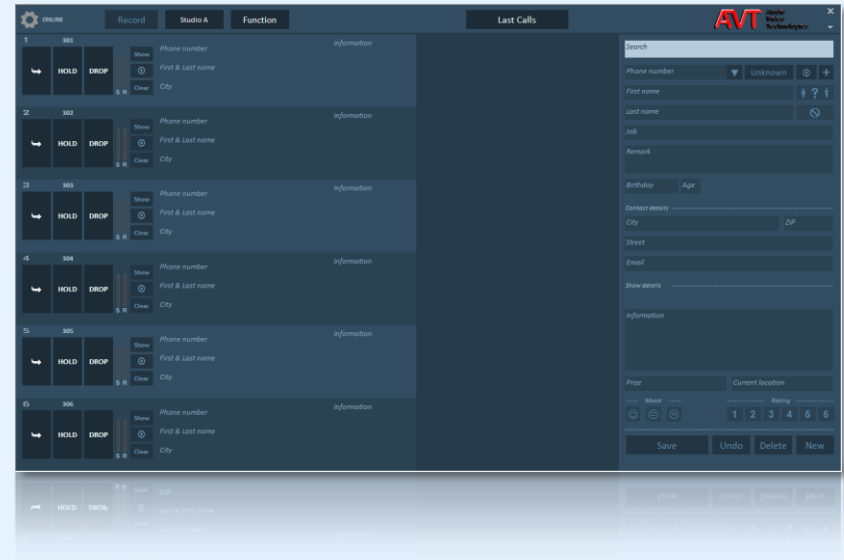
**Install SQL Native Client**



## • Requirements

- *MAGIC THipPro Screener* is installed and already connected to the MAGIC THipPro System
- The *SQL Command Tools* are installed on the Client PC<sup>1)</sup>
  - These tools can be found on the USB Stick under *SQL Tools\SQL Command Line Utilities*
- The Client PC has the required access rights for the Server PC
- The SQL Native Client is installed
  - See [Install SQL Native Client](#)
  - The Client can be found on the USB Stick under *Software\SQL Tools\SQL Client 2012*

<sup>1)</sup> Not required for the SQL Server, since they are installed with the SQL Server

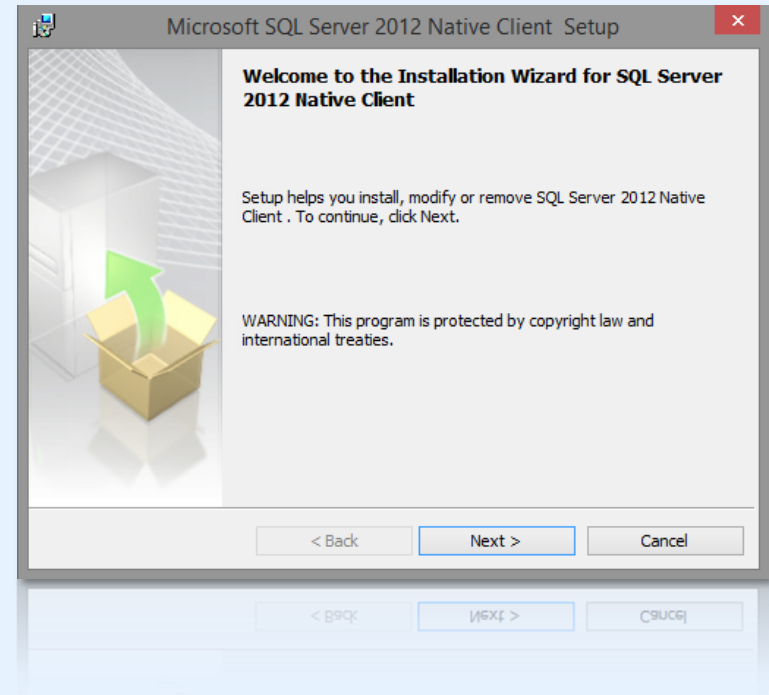


# Create database with MAGIC THipPro Screener (1)

- *MAGIC THipPro Screener* must be started with administrator rights via the context menu *Execute as administrator*
- Change via *Local Configuration* to the page *Database*
- Enter the login data for the SQL Server
  - *SQL Server*
  - *User*
  - *Password*
  - The Database name under *Database* can be selected without restrictions
- With *Create New* the new database is created

## Create database with MAGIC THipPro Screener (2)

- To enable the access to the SQL Database, on each PC with *MAGIC THipPro SCREENER* you must install the SQL Native Client
  - USB Stick directory *\Software\SQL Tools\SQL Client 2012*
- *MAGIC THipPro LAN* uses a different access procedure and does not need the Client

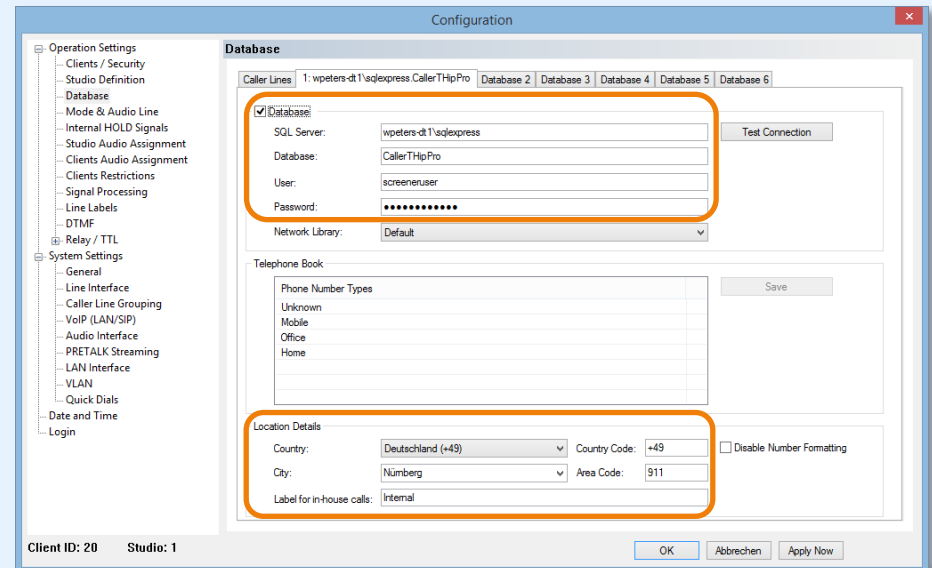


# Install SQL Native Client

- The configuration in the LAN Client is done under *Menu* → *Configuration* → *System* → *MAGIC THipPro* → *Database*

Or in the SCREENER Client under *Menu* → *System Configuration* → *Database*

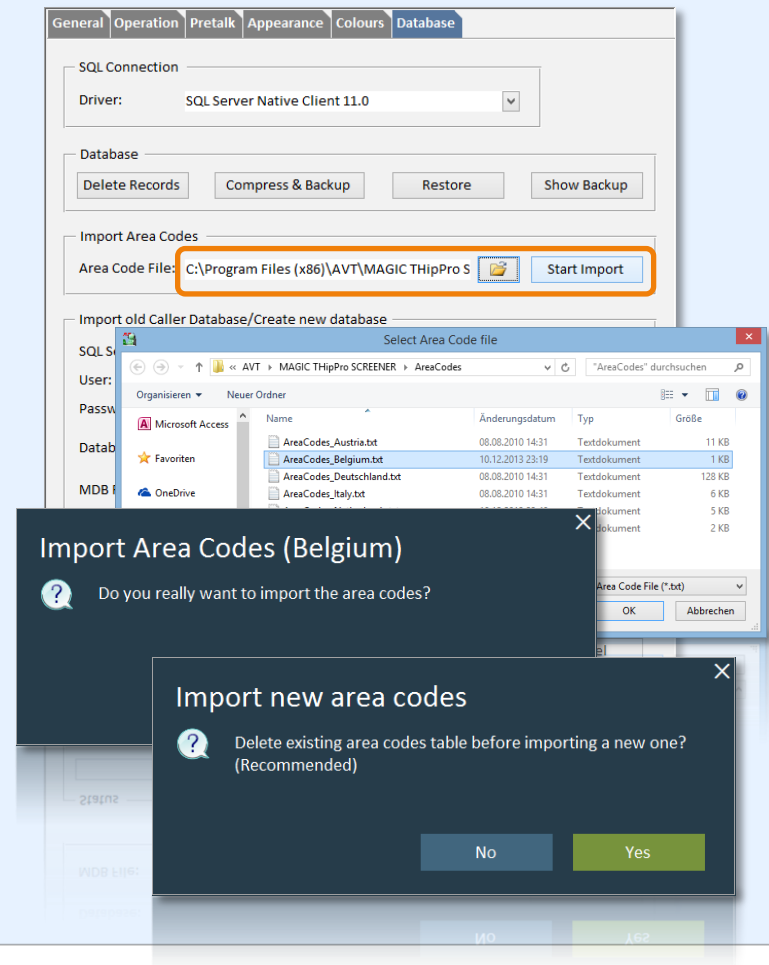
- Activate *Database*
- Corresponding to the entries at the SQL Server
  - Enter *SQL Server*
    - <Computer name>\<Instance name>
  - Enter *Database* name
  - Enter *User* and *Password*
- Under *Location Details* you must enter you location details (important)



# Configure MAGIC THipPro LAN/SCREENER

# Miscellaneous

- The system supports the analysis of the area codes so that you can display the location instead of the calling number
- Currently the following countries are supported:
  - Germany (already imported)
  - Belgium
  - Italy
  - Netherlands
  - Austria
  - Switzerland
- *MAGIC THipPro Screener* must be started with administrator rights via the context menu *Execute as administrator*
- Change to the page *Database* via *Local Configuration*
- Select and import *Area Code File*
  - Already included area codec should be deleted



# Import Area Codes

- Requirements
  - There must be already an existing database
  - Import is only possible with administrator rights
- The old *MAGIC TOUCH* database must be entered
  - SQL Server Database

or

  - Access Database (MDB-File)
- Via *Start Import* the old MAGIC TOUCH Database is imported into the new MAGIC THipPro Database
  - Already existing entries are not overwritten

The screenshot shows a software window with tabs: General, Operation, Pretalk, Appearance, Colours, and Database. The 'Database' tab is active. It contains several sections:

- SQL Connection:** A dropdown menu for 'Driver' set to 'SQL Server Native Client 11.0'.
- Database:** Buttons for 'Delete Records', 'Compress & Backup', 'Restore', and 'Show Backup'.
- Import Area Codes:** A text field for 'Area Code File' and a 'Start Import' button.
- Import old Caller Database/Create new database:** This section is highlighted with an orange box. It contains:
  - SQL Server:** TOUCH\SQLExpress
  - User:** admin
  - Password:** \*\*\*\*\*
  - Database:** CallerSQL
  - MDB File:** (with a folder icon)
  - Buttons:** 'Create New' and 'Start Import' (the latter is highlighted with an orange box).
- Status:** A text field.
- Buttons:** 'OK' and 'Cancel' at the bottom.

# Import old MAGIC TOUCH Database

# Annex



- ***db\_owner***
  - Members can execute all activities to configure and maintain the database and they can also delete the database
- ***db\_securityadmin***
  - Members can change the server role and manage rights. The adding of principals to this role could lead to an unwanted extension of the privileges
- ***db\_accessadmin***
  - Members can add or delete the access to the database for Windows authentications, Windows groups and SQL Server authentications
- ***db\_backupoperator***
  - Members can execute a backup of the database
- ***db\_ddladmin***
  - Members can execute all DDL commands (Data Definition Language) in a database
- ***db\_datawriter***
  - Members can add, delete or change data in all user tables
- ***db\_datareader***
  - Members can read all data of all user tables
- ***db\_denydatawriter***
  - Members cannot add, change or delete data in the user tables of a database
- ***db\_denydatareader***
  - Members cannot read data in the user tables of a database

## List of the Database Role Names

- **bulkadmin**
  - Members can perform the BULK INSERT command
- **dbcreator**
  - Members can create, edit, delete or restore any database
- **diskadmin**
  - Members can manage data carrier files
- **processadmin**
  - Members can stop processes which are run by an instance of the Database Engine werden
- **serveradmin**
  - Members can change server-wide configuration options and shut down the Server
- **securityadmin**
  - Members can manage logins and their properties. They have GRANT, DENY and REVOKE rights to assign rights on the Server level. They have also GRANT, DENY and REVOKE rights to assign rights on the Database level. They can reset passwords for SQL Server logins
- **setupadmin**
  - Members can add and delete connection servers and they can execute some stored system procedures
- **sysadmin**
  - Members can perform any activity in the Database Engine. By default, all members of the Windows group PREDEFINED\Administrators (the local administrator group) are members of the fixed Server Role **sysadmin**

# List of the Server Roles