CS Soft Network

Install Guide

Revision G

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Change sheet

Audit	Alteration	Date	Processor
A	First edition	4/20/2011	TE
B	• Installation changes for MySQL Community Server 5.5.11: • Uninstallation Instructions MySQL Community Server 5.5.11:	5/18/2011	TE
C	• Update minimum requirements • Note: WIC required under Windows 2003 Server	5/19/2011	TE
D	• Info for assigning the IP address	5/26/2011	TE
E	• Welcome, Support	6/6/2011	TE
F	• Settings DS400, DS500	2/22/2014	TE
G	• Support and Service	10/2/2014	TE

Dear customer,

every year thousands of customers purchase our high quality products.
With very good reason:

- Our products offer a very good price/performance ratio. Reliable quality at a fair price.

- With a professional experience of over 20 years, we are able to find the optimal solution for your measuring task.

- Our high quality standards.

- Of course, all of our equipment bears the CE mark required by the EU.

- Calibration certificates, seminars and consulting.

- After the purchase we will not leave you standing in the rain.

Our service ensures rapid assistance for you.

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Es konnten keine Einträge für ein Abbildungsverzeichnis gefunden werden.

1 Introduction

1.1 System Overview
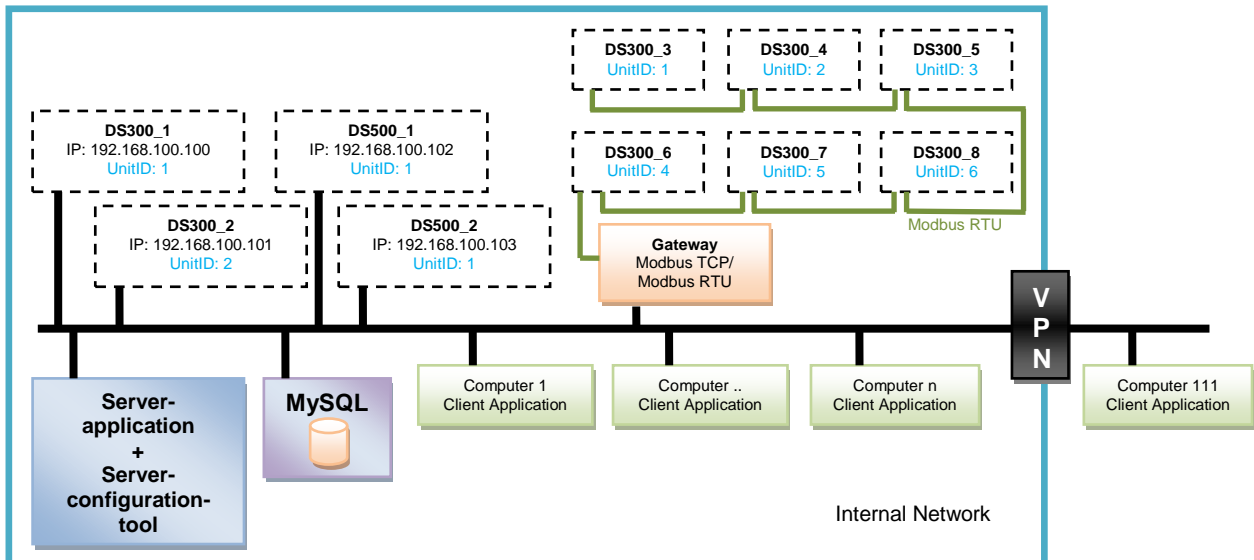
The DS300/DS500 with an integrated Ethernet port can be connected directly to the Ethernet. DS300 devices without an Ethernet connection can be networked via the RS485 port and a Modbus RTU / Modbus TCP Gateway connected to the Ethernet.

1.1.1 Server Application

The server application is a Windows service application. When starting the PC, the server application is started automatically. The server application can be run under every Windows operating system (starting from Windows XP SP2) and may only be operated once within the network.

The server application communicates with the individual devices using the Modbus TCP protocol. For the communication with clients WCF is used.

The server application performs any kind of administrative processing. This includes the following tasks:

- Cyclic storage of all measured values in a mySQL database
- Alarm generation and transmission via SMS and email
- Backup of the mySQL database

1.1.2 ServerGUI

The server application can be configured with the ServerGUI. The ServerGUI can be run under every Windows operating system (starting from Windows XP SP2) and is installed on the same machine as the server application.

With the help of the server configuration tool the following tasks can be performed:

- Configuration of the Modbus
- User administration
- Server parameterization (e.g. cycle time for the saving of the values into the database)
- STMP mail server configuration
- SMS gateway configuration
- Test functions for mail/SMS dispatch
- Backup configuration for mySQL

- Tool for calculating the maximum data volume in the mySQL database

1.1.3   Client Application

The client application can be run under every Windows operating system (starting from Windows XP SP2) and may installed and operated within the network randomly.

Limitations:
Under Windows XP, a maximum of 10 network connections can be established. Windows 7 is limited to 20 network connections. If more clients than the ones mentioned above are operated in the network at the same time, the server application must be installed on a server operating system.

The client application provides the following functionalities:

- Loading/saving of a graphical file with freely placeable measuring devices
- Display of current measuring values
- Graphical display of current measuring values
- Graphical and tabular display of stored measured values
- Graphical display with zoom function and selection of the display area
- Navigation within the graphical display with a presetting for the step size
- Free formatting of the gradient within a diagram
- Saving/loading of diagrams and their measured values
- Statistical analysis of data within the selected period
- Consumption Analysis
- Printing/export of graphical display, reports, measured values
- Alarm definition
- Alarm display / alarm archive
- Parameterization mail recipient / SMS recipient

2 Minimum Requirements

2.1   MySQL Community Server 5.5.11

Hard disk space	For the storage of a measured value 26 bytes are required. If 5 measured values are to be stored for three years at a storage interval of 1 minute then the following storage space is required: 5 measured values x 3 years x 365 days/year x 24 hours/day * 60 measured values/hour x 26 bytes = 204,980,000 bytes For a large amount of data, a fast MySQL database access requires the spanning of data across various hard disks. Please contact us when you plan your system.
RAM	At least 4 GB RAM
Operating system	The MySQL database 5.5.11 can be installed on the following operating systems: see http://dev.mysql.com/doc/refman/5.5/en/installing.html

2.2   CS Soft OMServer + OMServerGUI

Hard disk space	At least 1 GB (32-bit) / 3 GB (64-bit)
RAM	At least 1 GB RAM
Operating system	Windows XP SP3 and higher

2.3   CS Soft OMClient

Hard disk space	At least 2 GB (32-bit) / 4 GB (64-bit)
RAM	At least 512 MB RAM
Operating system	Windows XP SP3 and higher

3 Device Settings

3.1 IP Address

- Each device must have a static IP address.
- The assignment of a static IP address can be performed on the device or configured using the MAC-address through a DHCP server.
- Please observe the following points when assigning the IP address:
    1. The IP addresses may not be used by any other device.
    2. The IP address must be within the same subnet as your PC. In small networks, the IP address usually starts with 192.168...
    In this case, the IP address of the device must also start with 192.168. and may only differ only from the IP address of your PC in the last segment.

        Example:
        IP address of PC: 192 168 210 100
        Possible IP addresses for the device: 192.168.210.x, e.g. 192.168.210.22

3.1.1 Configuration DS300

- ZNetUtility must be used to configure the IP address of the DS300.
    1. Search
    2. Select device from list
    3. Code word: 88888
    4. IP Type: Static
    5. IP: *<e.g.: 192.168.0.200>*
    6. Mask: *<e.g.: 255.255.255.0>*
    7. Gateway: *<e.g.: 192.168.0.1>*
    8. Apply Change

- It must be checked with ZNetUtility if under the COM1 Settings the Frame Interval (ms) is set to 5.
    1. Search
    2. Select device from list
    3. Code word: 88888
    4. Frame Interval (ms):   5
    5. Apply Change

- The correct protocol must be selected on the DS300:
    1. Enter
    2. Communication setting
    3. Select protocol
    4. Modbus / TCP

- On the DS300 the ModbusID can be configured freely. If the DS300 is used with an Ethernet interface, the default Modbus ID 1 can be maintained.
    If the DS300 is networked with an RS485 interface and connected via a Modbus RTU / TCP Modbus, it must be ensured that the ModbusID's are unique within the RS485 network.
    1. Enter
    2. Communication setting
    3. Set communication settings
    4. Set Unit ID
    5. ModbusID: <1…247 e.g. 5>

3.1.2 Configuration DS400/DS500

Configuration IP-Adress

Main menu ➜ Settings ➜ Device settings ➜ Network Settings

```
***  Network settings  ***

    [ ]  IP address via DHCP

    IP address          192.168.100.2
    Subnet Mask         255.255.255.0
    Gateway address     192.168.100.1
    Host name              DS400-1
    HTTP Port                 80

    Back              Apply & Restart
```

Configuration Modbus

Main menu ➜ Settings ➜ Device settings ➜ ModBus-settings

```
***  ModBus settings  ***

Enable MB-RTU  [ ]    Modbus ID  [ 1 ]

                  Baudrate
1200  2400  4800  9600  19.2  38.4  57.6  115.2

   Parity          Stopbits    Term   Bias
none  even  odd      1    2     [✓]    [ ]

              Set to Default

Back    Rx: 1506060812 Crc-Err: 3698643975    Res.Diag
        Tx: 971041807  Par-Err: 708790593
```

4 Installation

4.1 General

Online monitoring requires the .NET Framework 4. The .NET Framework 4 is installed automatically during the installation.

CAUTION:

For the successful installation of .NET Framework 4 under Windows Server 2003 the "Windows Imaging Component (WIC)" must be installed. You can find the English version in the WIC folder.

Under

http://www.microsoft.com/downloads/en/details.aspx?familyid=8e011506-6307-445b-b950-215def45ddd8&displaylang=en

or under

http://www.microsoft.com/downloads/en/details.aspx?familyid=F64654AC-6E26-41D9-A90A-0E7783B864EE&displaylang=en

you can find the current version in every language.

4.2 MySQL Community Server 5.5.11

4.2.1 Installation

- The installation of MySQL Community Server is not necessary if you already have a working installation of MySQL Community Server 5.5.11.
  In this case proceed directly to 4.2.2 Database Setup.
- Run the following from the installation CD:
    a) mysql-5.5.11-win32.msi for Windows 32-bit systems
    b) mysql-5.5.11-winx64.msi for Windows 64-bit systems
    c) If you want to install the MySQL community server under a different operating system, please download the corresponding file here http://dev.mysql.com/downloads/.
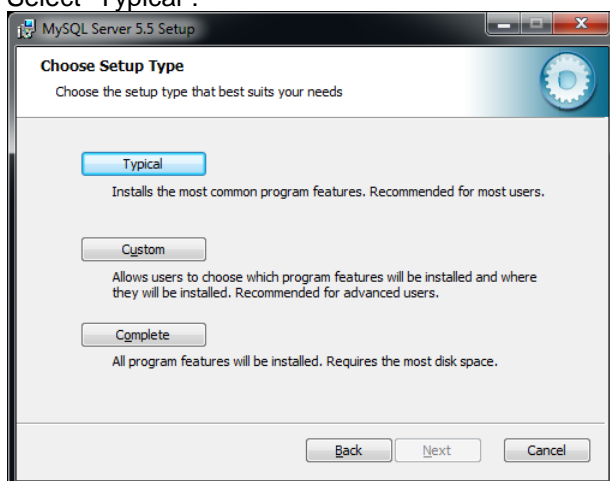
- Select "Typical":

Illustration 1: Setup Type

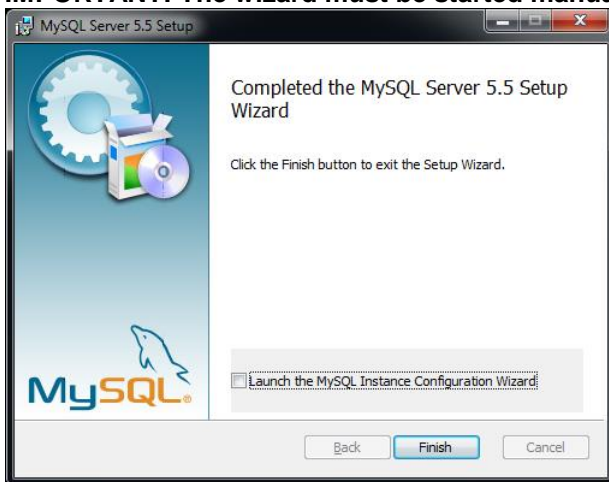- **IMPORTANT: The wizard must be started manually, otherwise the install will fail!**

Illustration 2: Configuration Wizard

- Start the configuration wizard from %ProgramFiles%\MySQL\MySQL Server 5.5\bin\MySQLInstanceConfig.exe as the administrator!
(example: C:\Programme\MySQL\MySQL Server 5.5\bin\MySQLInstanceConfig.exe)
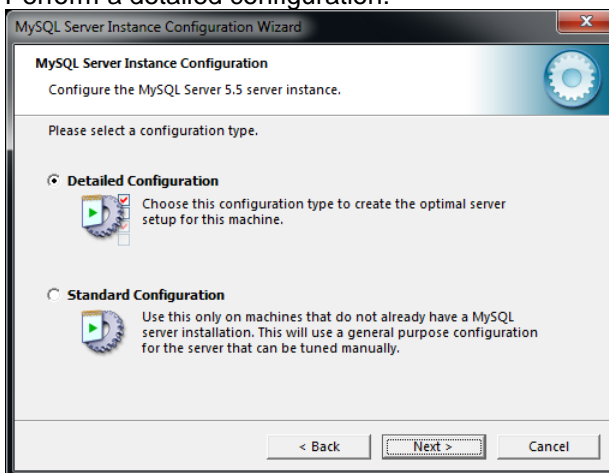
Perform a detailed configuration:

Illustration 3: Configuration
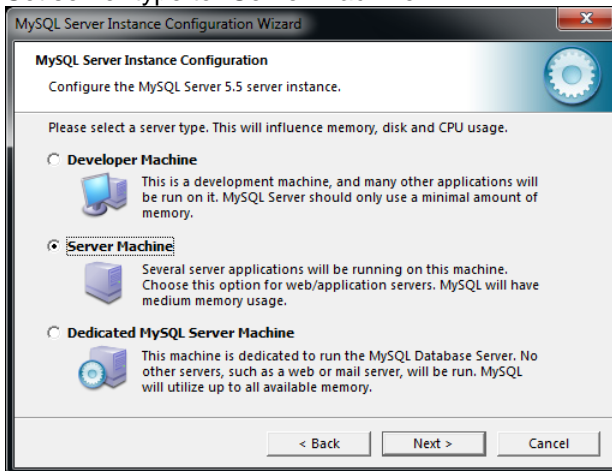
- Set server type to "Server Machine":
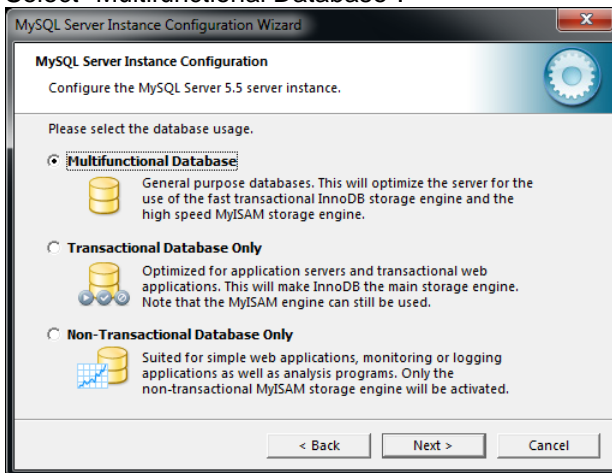

Illustration 4: Server Type

- Select "Multifunctional Database":

Illustration 5: Database Usage

- Use OLTP:
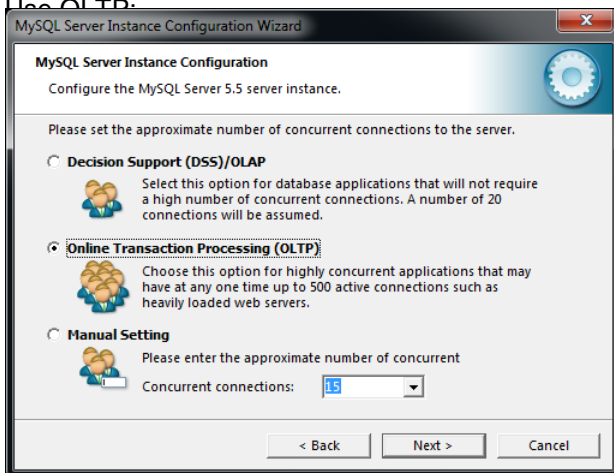
Illustration 6: Database Connections

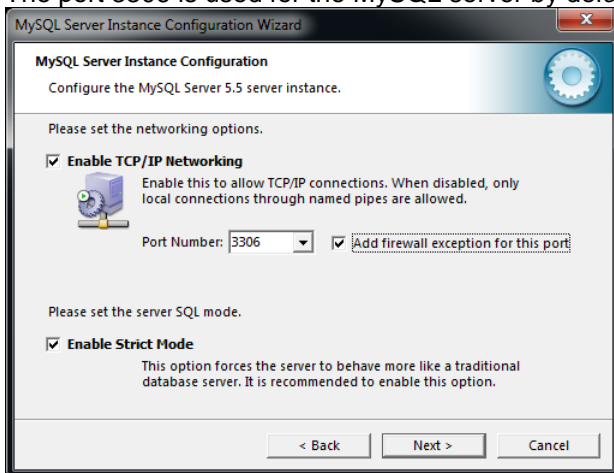- The port 3306 is used for the MySQL server by default:

Illustration 7: Network Options
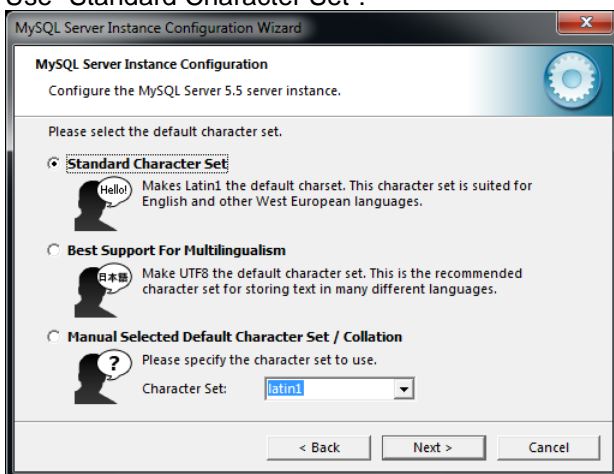
- Use "Standard Character Set":

Illustration 8: Character set
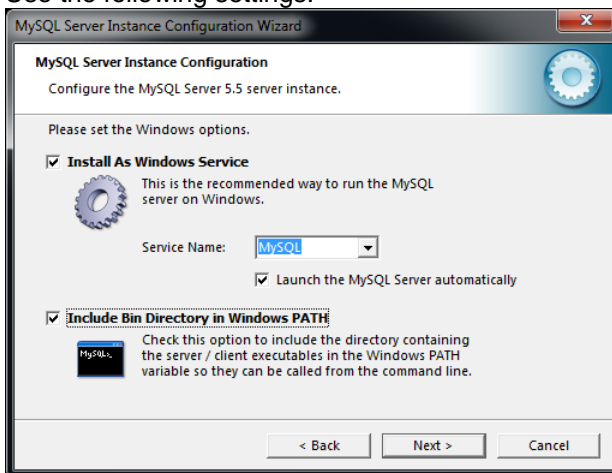
- Use the following settings:

Illustration 9: Windows options

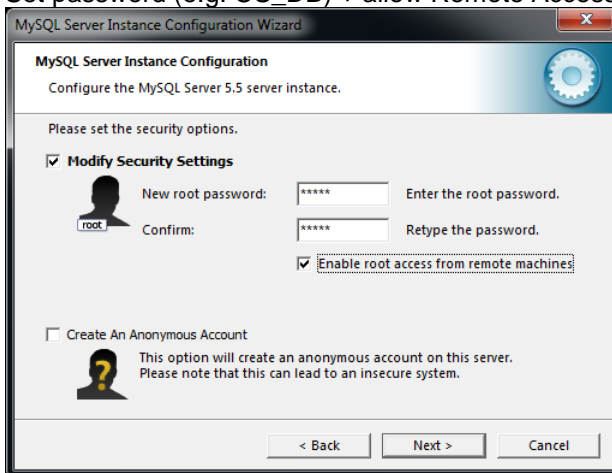- Set password (e.g. CS_DB) + allow Remote Access

Illustration 10: Root Password

- After a successful installation the following dialog will appear (all check marks must be blue).
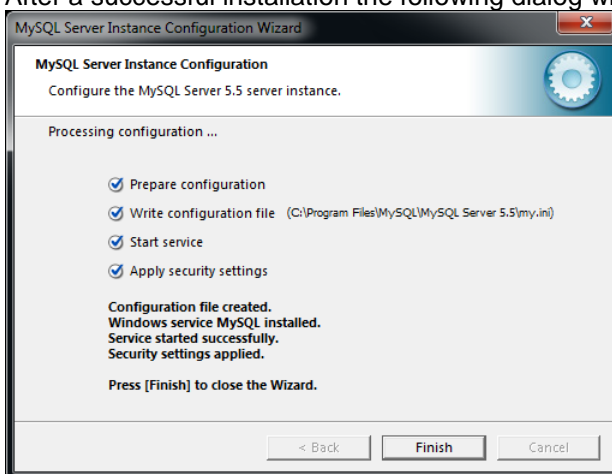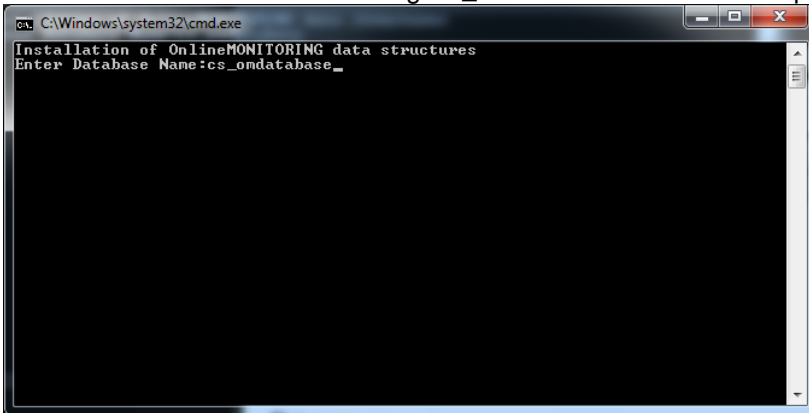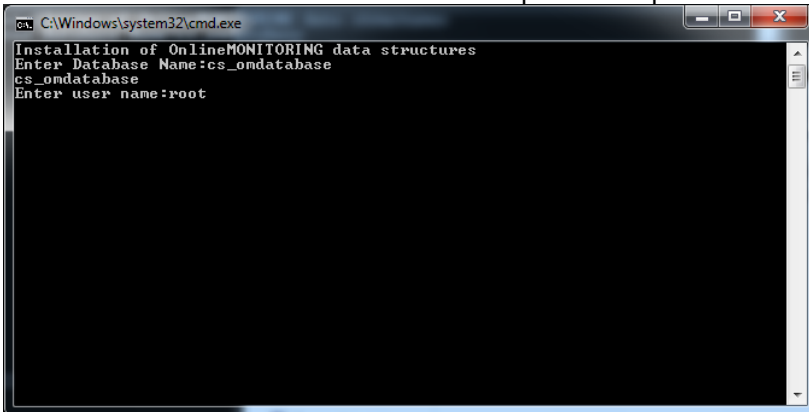

Illustration 11: Status configuration

4.2.2 Database Setup

- Start the "CreateCSDatabase.bat" file in the folder "CreateCSDatabase" on the installation CD by double-clicking on it.
- Enter the name of the database e.g. cs_omdatabase and then complete the input with Enter.
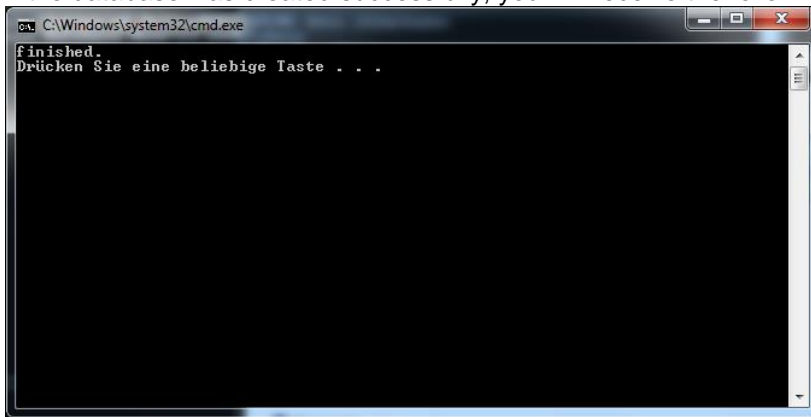

- As the user name enter "root" and then complete the input with Enter.

- Enter the password and complete the input with Enter. Here, the password must be entered under that was used in
Illustration 10: Root Password.
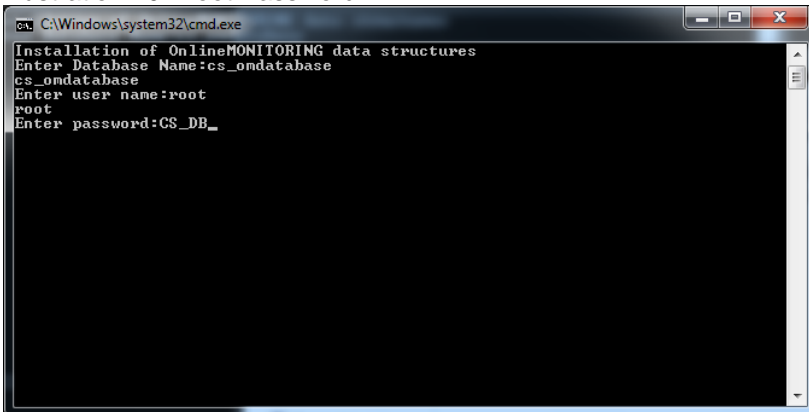
- If the database was created successfully, you will receive the following message:

4.2.3   Deinstallation

If the installation was not performed according to 4.2.1 the MySQL server will not be installed correctly. In order to properly install the MySQL server, the MySQL server must be uninstalled as follows.

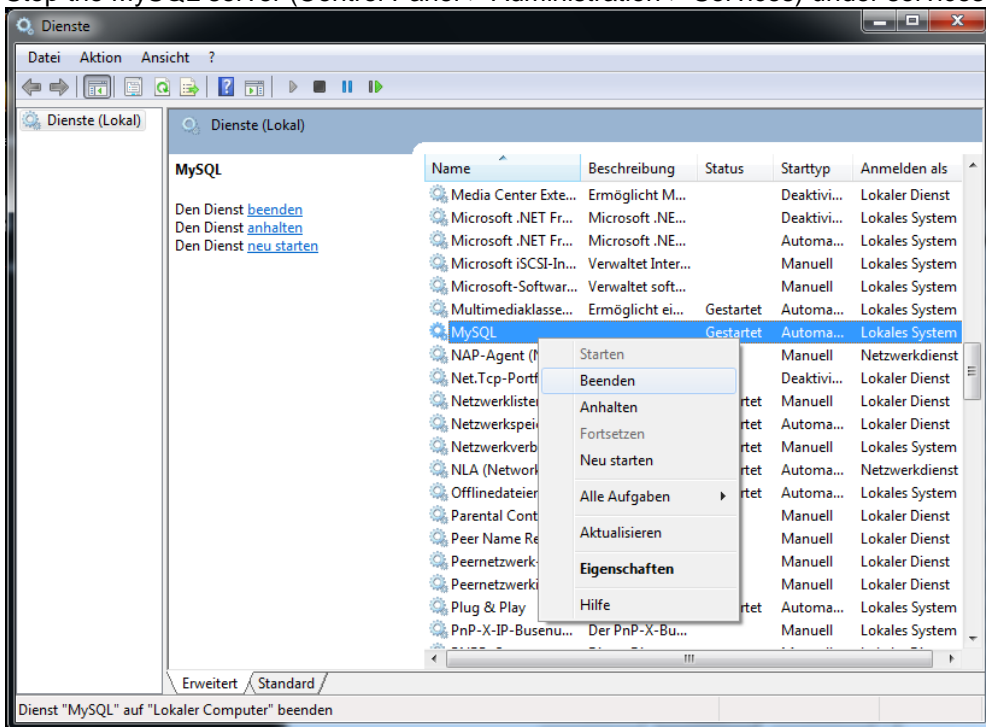1. Stop the MySQL server (Control Panel-> Administration-> Services) under services.

Illustration 12: Stop the MySQL service

2. Uninstall the MySQL Server 5.5 via the Control Panel.
3. Delete the following MySQL folders:
    a. %ProgramFiles% (C:\Programme\MySQL)
    b. as of WinVista: %ProgramData% (C:\ProgramData\MySQL)
       WinXP: C:\Dokumente und Einstellungen\All users\Anwendungsdaten\MySQL

4.3 CS Soft Network Server

4.3.1 OMServer

- The installation of online monitoring server is only allowed on one computer within the network.
- The Online Monitoring Server is automatically installed as a service and automatically starts with the computer.
- Please start the "setup.exe" in the folder "Setup_OMServer" to install the OMServer.
- During installation, the default settings are maintained.

4.3.2 OMServerGUI

- With the help of the OMServerGUI the Admin will receive a graphical interface for the configuration of the OMServer.
- OMServerGUI must be installed on the same computer as the OMServer.
- OMServerGUI may also only be installed once within the network.
- Please start the "setup.exe" in the folder "Setup_OMServerGUI" to install the OMServerGUI.
- During installation, the default settings are maintained.

4.4 CS Soft Network Client

- The installation of the Online Monitoring Client can be performed repeatedly throughout the network.
- Please start the "setup.exe" in the folder "Setup_OMViewer" to install the OMClient.
- During installation, the default settings are maintained.

5 Support and Service

If you have questions about our products or require technical support for the installation or use of our software, please contact us by e-mail:

info@cs-instruments.com

or by phone call:

+49 461 7002025

Phone support and Teamviewer access
(15 minutes = 30 Euro, minimum 45min)

We will answer all inquiries within 24-48 hours.