

1 Minimum system requirements

Operating system	32-bit version of: <ul style="list-style-type: none">Windows 10 Pro/EnterpriseWindows 8.1 Professional/EnterpriseWindows 7 Professional/Ultimate/Enterprise 64-bit version of: <ul style="list-style-type: none">Windows 10 Pro/EnterpriseWindows 8.1 Professional/EnterpriseWindows 7 Professional/Ultimate/EnterpriseWindows Server 2019Windows Server 2016Windows Server 2012 R2Windows Server 2012Windows Server 2008 R2
RAM	4 GB (8 GB recommended for 64-bit Windows)
Storage capacity	Program: 1 GB Data: 10 GB
Serial ports	for devices with RS-232 interface
USB ports	for devices with USB interface
Screen	Resolution: 1024 x 768
Network	10 Mbit/s, stable and permanent Communication via TCP/IP

The Windows user must have administrator rights in order to be able to install the **MagIC Net** software.



CAUTION

Data loss may occur if the PC switches to sleep mode during a determination. The **sleep mode** should therefore be **disabled** in the energy settings of the operating system.

2 Single workplace installation

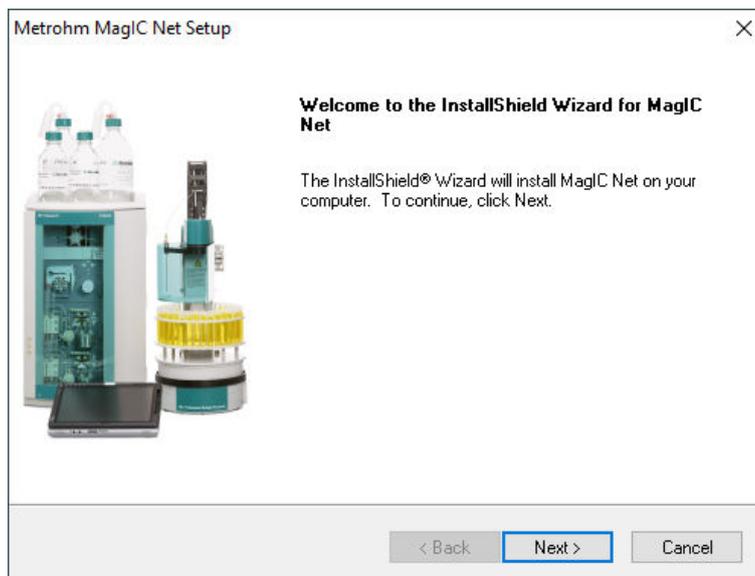
With the single workplace version **MagIC Net Basic**, **MagIC Net Compact** or **MagIC Net Professional**, you can install both the MagIC Net client and the server on the computer.

- 1 The installation process starts automatically when you insert the CD into the drive. If this option is deactivated on your computer, double-click on the **setup.exe** file.

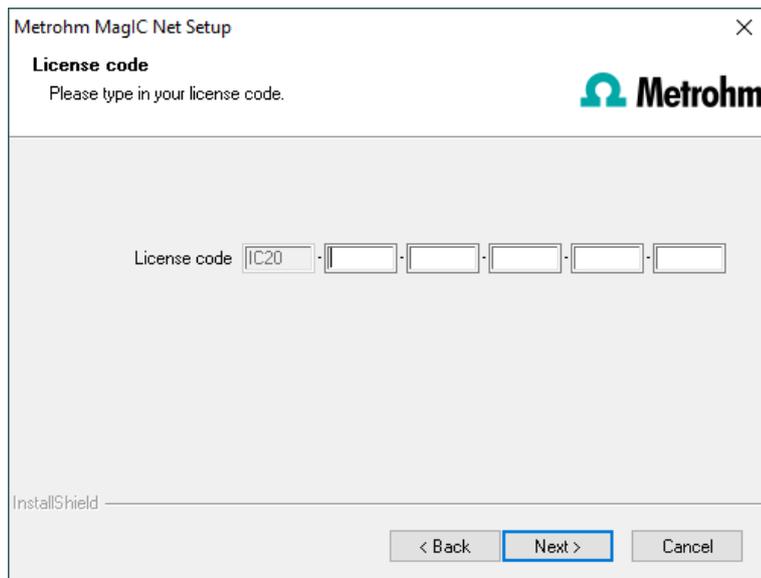
If the minimum system requirements are not met (see above) an appropriate message appears. Click on **[Yes]** if you would like to install the program nonetheless.

Afterwards, click on **[Next >]**.

- 2 During the installation process, the Welcome screen appears first. Click on **[Next >]** to install the software.



- 3 After having read the license agreement for **MagIC Net** and accepted it with **[Yes]**, a window will appear where you can enter the license code.

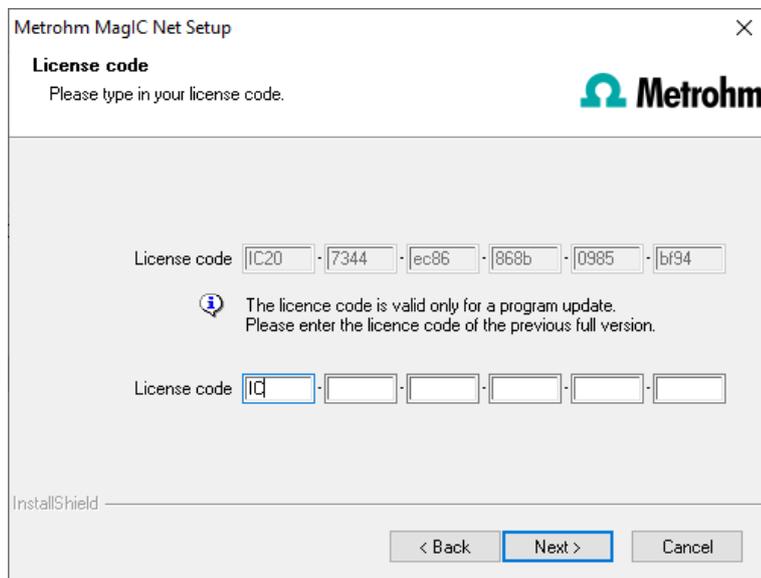


- 4 Enter the license code for **MagIC Net Basic**, **MagIC Net Compact** or **MagIC Net Professional** and then click on **[Next >]**.

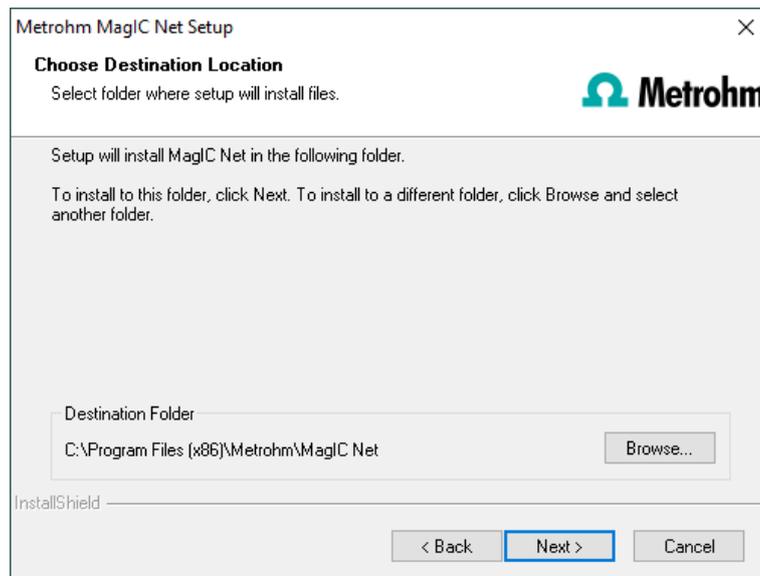


NOTICE

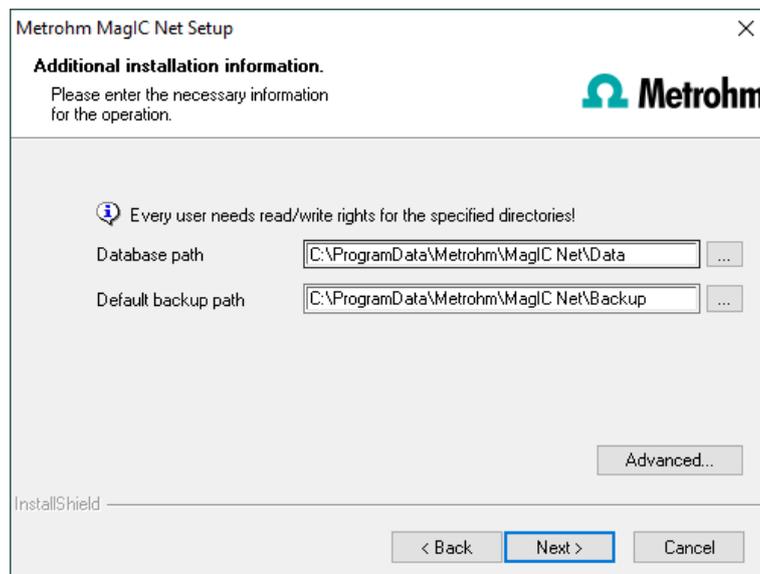
If you have entered the license code of an update license, then the license code of the previous full version will additionally be requested.



- 5 Now confirm the target folder for the **MagIC Net** installation with **[Next >]** or select a different target folder with **[Browse...]**.



- 6 You can define the paths for the database files and default backup files in the **Additional installation information** window:

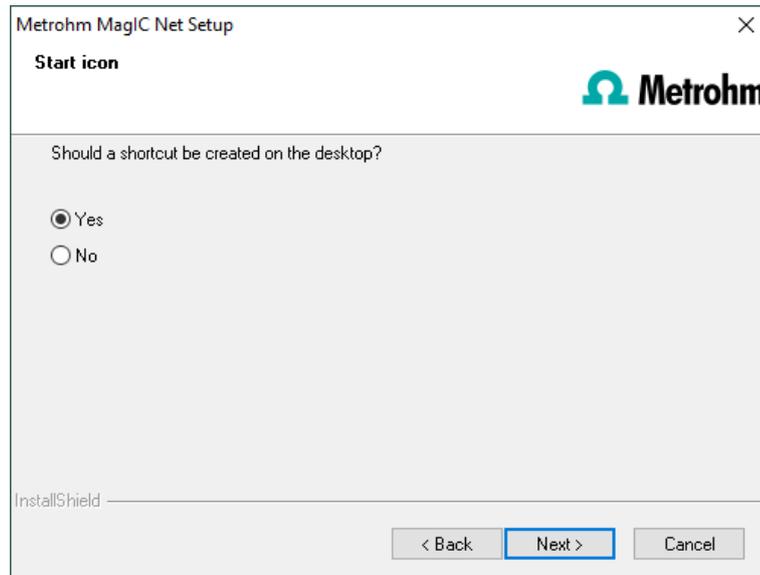


NOTICE

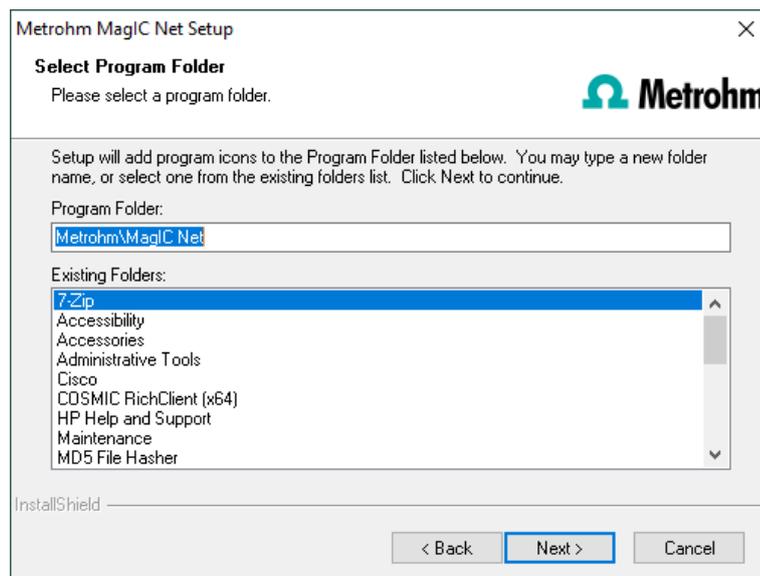
The default paths are different for the various operating systems.
 The database path must not be on a network drive.
 The default backup path may also be on a network drive.

You can change the ports **MagIC Net** uses to communicate with the database server and the administration server with the **[Advanced...]** button. If the ports are already used, an appropriate error message will appear. Ask your system administrator for more information about this. Continue with **[Next >]**.

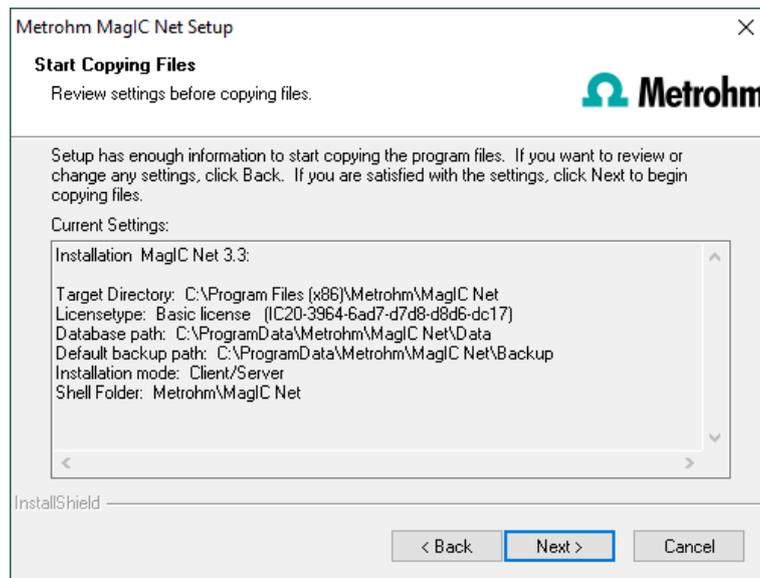
- 7 If you would like to create a shortcut on your desktop to start the **MagIC Net** software, activate **[Yes]** and then click on **[Next >]**.



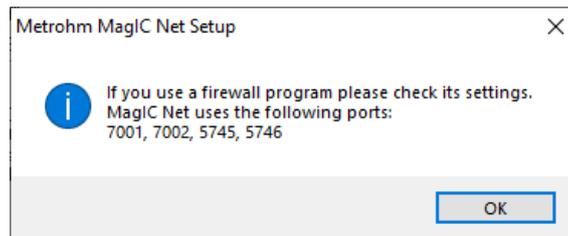
- 8 In normal cases, you can confirm the selection of the program folder with **[Next >]**.



- 9 The installation settings can now be checked. Start the copy process with **[Next >]**.



- 10 Follow the instructions of the program until the following message appears:



This message points out again which ports **MagIC Net** uses. Write down these ports and inform your system administrator in case **MagIC Net** is not able to connect to the database. Confirm the message with **[OK]**.

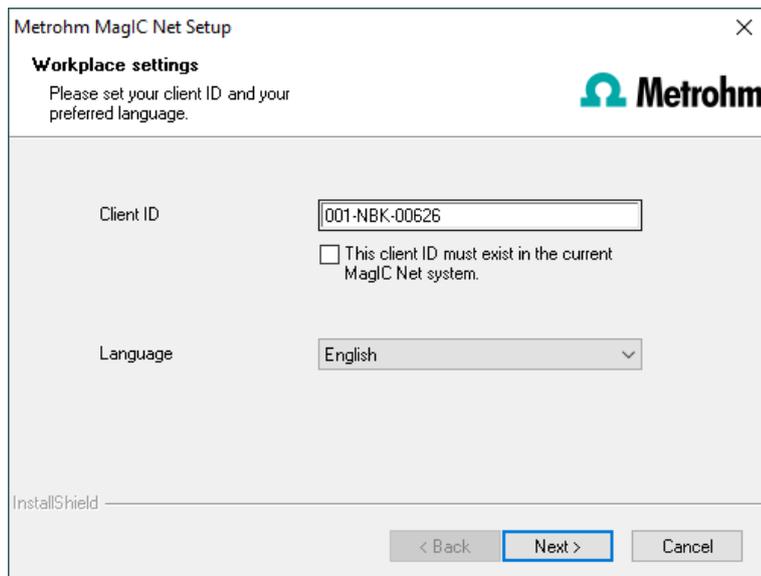
MagIC Net will now be installed.



NOTICE

During the installation, all device drivers that are required for controlling the supported USB devices are installed or updated. If the driver software by Theyson needs to be updated, a message may appear. Confirm the installation by clicking on the **[Install]** button.

- 11 Once the copying procedure has been completed you can make further workplace settings:



The option **This client ID must exist in the current MagIC Net system.** can only be activated if a database from a previous installation already exists or if you want to connect to a database server on another computer.

If you enable this option, then **MagIC Net** checks whether the identifier you have entered exists in the database. If this is the case, the identifier and all associated settings will be adopted. With this option, reinstalling a client is much easier.

Click on **[Next >]**. If the database ports are not available, an appropriate error message will appear and the installation will be canceled. In this case, check your server and firewall settings before installing the program again.

- 12** At the end of the installation, the file **info.txt** will be created. This file contains all relevant information concerning your current **MagIC Net** installation. Save this file on your hard drive for future reference and print it (add to installation qualification).



NOTICE

An **InstallLog** file can be found in the installation directory of **MagIC Net** under `...bin\InstallLog`. It contains a listing of all files copied to your computer during the installation and a confirmation that the installation has been successfully completed.

- 13** Complete the installation with **[Finish]**.



NOTICE

On the Windows 10 operating system, not all fonts are installed by default anymore. This can lead to East Asian fonts missing and reports created in MagIC not being displayed correctly. To solve this problem, you must install the required fonts by adding the corresponding language in the Windows settings.

3 Client/server installation

With the **MagIC Net Multi** version (multiple workplace version with three licenses) you can select during the installation whether you want to install a MagIC Net **client** or a MagIC Net **client** plus **server** on your computer.

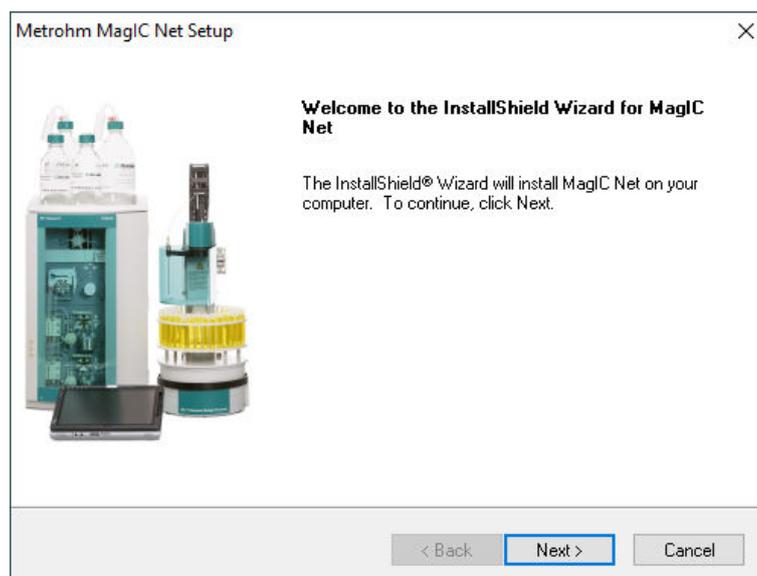
If you want to install only a client on your computer, a server to which the client will be connected must have been previously installed on another computer.

- 1 The installation process starts automatically when you insert the CD into the drive. If this option is deactivated on your computer, double-click on the **setup.exe** file.

If the minimum system requirements are not met (see above) an appropriate message appears. Click on **[Yes]** if you would like to install the program nonetheless.

Afterwards, click on **[Next >]**.

- 2 During the installation process, the Welcome screen appears first. Click on **[Next >]** to install the software.



- 3 After having read the license agreement for **MagIC Net** and accepted it with **[Yes]**, a window will appear where you can enter the license code.

Metrohm MagIC Net Setup

License code
Please type in your license code.

Metrohm

License code IC20 - - - - -

InstallShield

< Back Next > Cancel

- 4 Enter the license code for **MagIC Net Multi** and then click on **[Next>]**.



NOTICE

If you have entered the license code of an update license, then the license code of the previous full version will additionally be requested.

Metrohm MagIC Net Setup

License code
Please type in your license code.

Metrohm

License code IC20 - 7344 - ec86 - 868b - 0985 - bf94

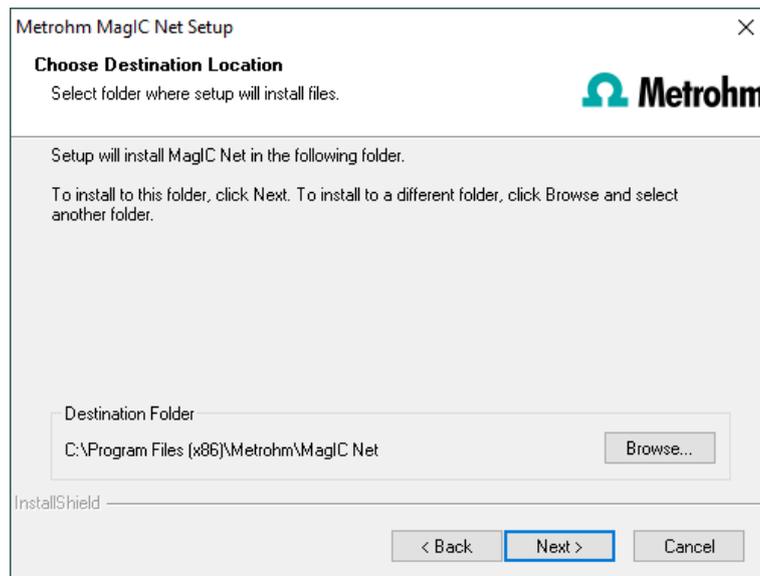
The licence code is valid only for a program update.
Please enter the licence code of the previous full version.

License code IC - - - - -

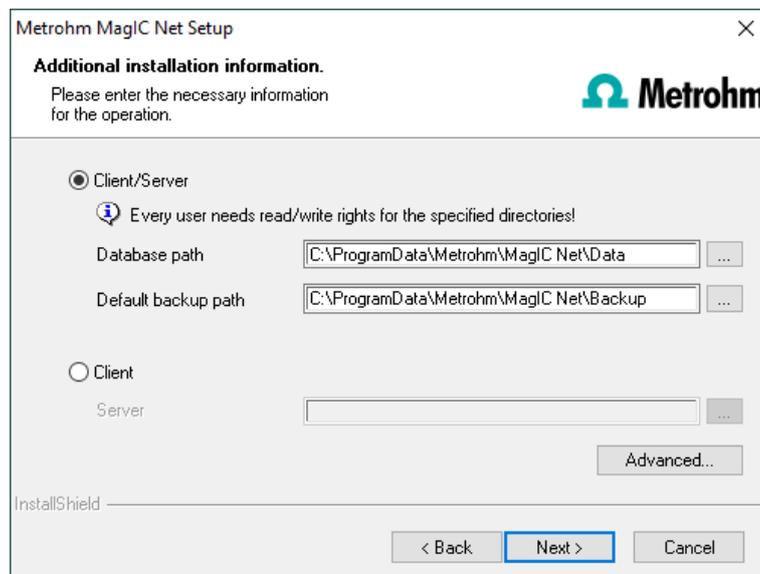
InstallShield

< Back Next > Cancel

- 5 Now confirm the target folder for the **MagIC Net** installation with **[Next >]** or select a different target folder with **[Browse...]**.



- 6** The **Additional installation information** dialog appears. Here you can select whether you want to install a **client** or the **server**:



The option **Client/Server** installs the client and the database server on your computer. Select this option if your computer will be used as server.



NOTICE

The default paths are different for the various operating systems.
The database path must not be on a network drive.
The default backup path may be on a network drive.

With **Client**, only the **client** will be installed and you have to select the database server (has to be installed in advance!) you would like to use with the  button. The network server name or the IP address is accepted as the name.

You can change the ports **MagIC Net** uses to communicate with the database and administration server with the **[Advanced...]** button. If the ports are already used, an appropriate error message will appear. Ask your system administrator for more information about this. Continue with **[Next >]**.

- 7 All further installation steps correspond to those of the single workplace installation from **point 6** onwards.



NOTICE

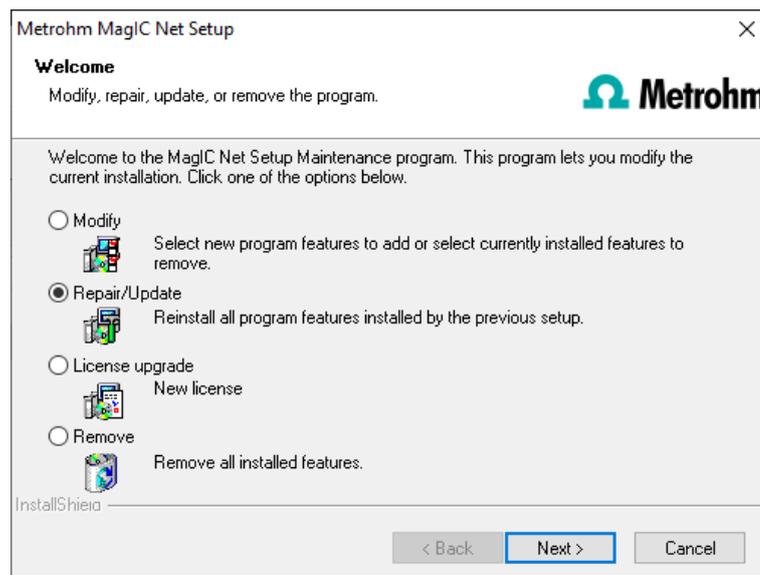
On the Windows 10 operating system, not all fonts are installed by default anymore. This can lead to East Asian fonts missing and reports created in MagIC not being displayed correctly. To solve this problem, you must install the required fonts by adding the corresponding language in the Windows settings.

4 Modifying/repairing/removing the installation and upgrading the license

In order to carry out modifications on the current **MagIC Net** installation, start the **setup.exe** file on the installation CD or click under:

- in Windows XP and older - **Control Panel ► Software**
- in Windows 7 - **Control Panel ► Programs and Features**
- in Windows 10 - **Settings ► Apps**

on **Metrohm MagIC Net**. Then select **Change/Remove**:



Modify

With this option you can adjust the paths to the database and backup files and change the ports which **MagIC Net** uses for communication. With the **MagIC Net Multi** version you can additionally change the path to the database server.

If the database path is changed, the existing databases are automatically copied to the new location.

Repair/Update

With this option you can **repair** an existing defective installation or **update** an older installation.

- **Repairing the installation**

In case of a defective **MagIC Net** installation because, for instance, a DLL file is missing or a program file has been deleted by mistake, **MagIC Net** can be repaired with this option.

- **Updating the installation**

In case an older version of **MagIC Net** is installed, it will be updated to the new version of **MagIC Net**.



CAUTION

During the updating of older MagIC Net versions the databases will be converted to the new version. Depending on the size of the database, this may take some time. For each database a progress bar which informs about the status of the conversion is displayed.

The computer must not be restarted or Windows shut down as long as the conversion is running!

License upgrade

A direct upgrade of your current installation to a **MagIC Net** version with additional features is possible with this option:

- **MagIC Net Compact** to **MagIC Net Professional** or **MagIC Net Multi**
- **MagIC Net Professional** to **MagIC Net Multi**

In order to do this, enter your new license code in the next dialog window.

Remove

This option removes your **MagIC Net** installation. Data which has been generated after the installation (e.g. database entries, log files, exported data, etc.) will not be deleted.

5 Program update with MagIC Net Compact/ Professional

During the program update, the configuration database (system configuration, methods, templates) and the determination databases are automatically

updated for further use with the new version of **MagIC Net Compact/Professional**.

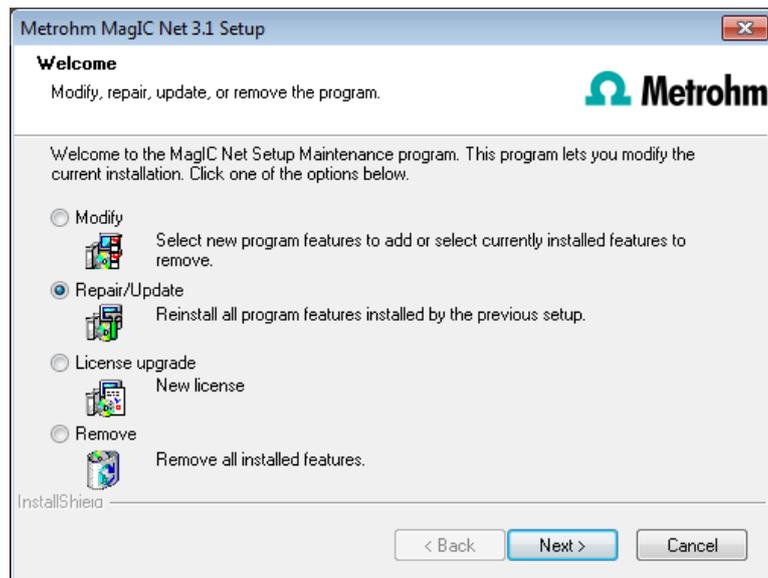


NOTICE

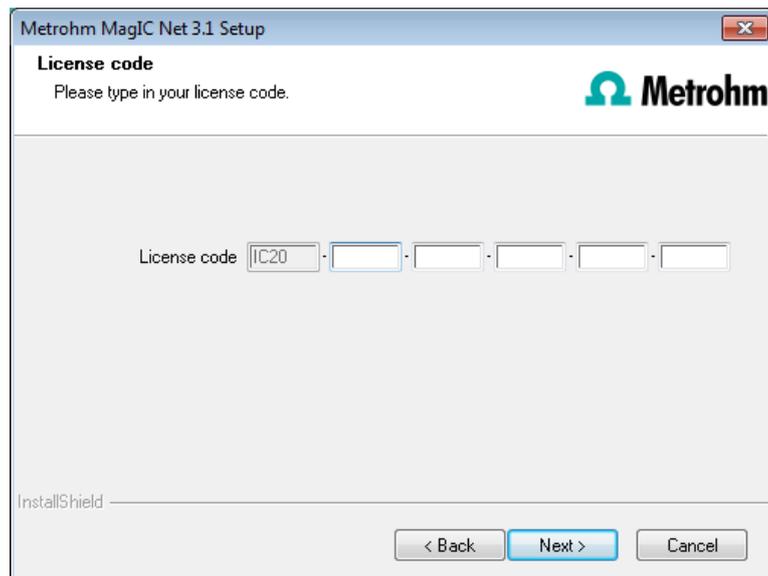
The files in the database and backup directory will be retained when updating the program.

Files in the subdirectories **bin**, **jre**, **lib**, **res**, **doc** and **examples** will be overwritten by the update. Those files in these directories which are not updated during the update will be deleted. The deleted files are listed in the **Install-Log**.

- 1** Save the configuration database into an external directory using the backup function of **MagIC Net**. In the **Configuration** program part, select the **File ► Save ► Manually** menu item. Select the **Backup directory**, enter a name for the backup file and click on **[Start]**. The backup is carried out automatically. It is recommended to copy the backup file to CD/DVD afterwards.
- 2** If desired, export the methods in addition to the automatic backup with the configuration database (see above) into an external directory. In the **Method** program part, select the **File ► Method manager...** menu item. Select the desired **Method group**, select all methods to be exported and click on **[Edit] ► Export...** Select the desired export directory and click on **[OK]**. The methods are exported into the desired directory. It is recommended to copy the method files to CD/DVD afterwards.
- 3** Save all determination databases created by you into an external directory using the backup function of **MagIC Net**. In the **Database** program part, select the **File ► Database manager...** menu item. Select the desired database and click on **[Backup]**. Select the **Backup directory**, enter a name for the backup file and click on **[Start]**. The backup is carried out automatically. It is recommended to copy the backup file to CD/DVD afterwards.
- 4** Save further files created by you in the installation directory (e.g. export files) into an external directory or to CD/DVD.
- 5** Close **MagIC Net**. Insert the installation CD and double-click on the file **setup.exe**. Then select **Repair/Update** and click on **[Next >]**.



- 6 Enter the update license code for **MagIC Net Compact** or **MagIC Net Professional** and click on **[Next >]**.



- 7  **CAUTION**
- During updating older MagIC Net versions to MagIC Net 3.3 the data-bases will be converted to the new version. Depending on the size of the database, this may take some time. For each database a progress bar which informs about the status of the conversion is displayed.
- The computer or Windows must not be restarted or shut down as long as the conversion is running!

Complete the installation with **[Finish]**.

An **UpdateLog** file with a list of all files that have been copied to your computer during the program update and with a confirmation for a suc-

Successful installation is saved in the **MagIC Net** installation folder (default: C:\Program Files\Metrohm\MagIC Net) under bin\InstallLog.

6 Program update with MagIC Net Multi

During the program update, the configuration database (system configuration, methods, templates, user-specific data for all clients) and the determination databases on the server are automatically updated for further use with the new version of **MagIC Net Multi**.



NOTICE

The files in the database and backup directory will be retained when updating the program.

Files in the subdirectories **bin**, **jre**, **lib**, **res**, **doc** and **examples** will be overwritten by the update. Those files in these directories which are not updated during the update will be deleted. The deleted files are listed in the **Install-Log**.

- 1 Make sure **MagIC Net Multi** is closed on all clients.



NOTICE

In the **bin** subdirectory of the **MagIC Net** installation, you can find the **Clients.exe** application, with which all clients and their status can be displayed.

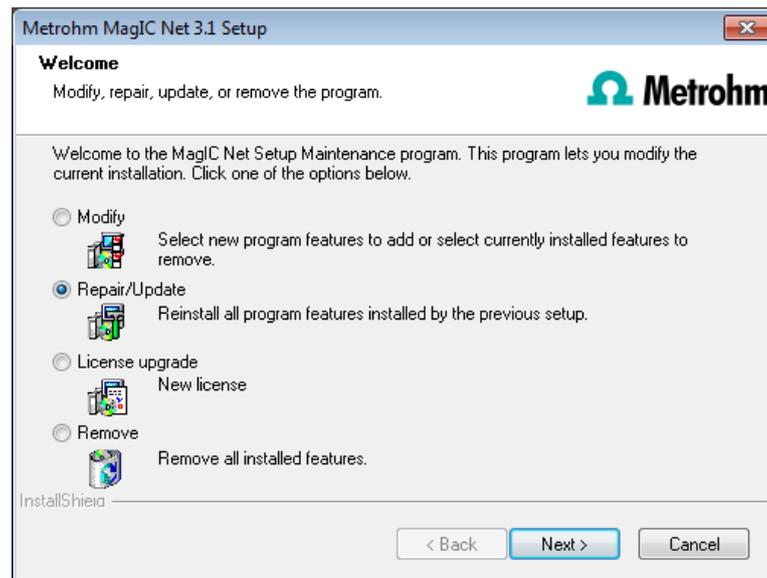
- 2 Open **MagIC Net Multi** on the server and save the configuration database into an external directory using the backup function of **MagIC Net**. In the **Configuration** program part, select the **File ► Save ► Manually** menu item. Select the **Backup directory**, enter a name for the backup file and click on **[Start]**. The backup is carried out automatically. It is recommended to copy the backup file to CD/DVD afterwards.
- 3 If desired, export the methods in addition to the automatic backup with the configuration database (see above) into an external directory. In the **Method** program part, select the **File ► Method manager...** menu item. Select the desired **Method group**, select all methods to be exported and click on **[Edit] ► Export...**. Select the desired export directory and click on **[OK]**. The methods are exported into the desired directory. It is recommended to copy the method files to CD/DVD afterwards.
- 4 Save all determination databases on the server into an external directory using the backup function of **MagIC Net**. In the **Database** program part, select the **File ► Database manager...** menu item. Select the desired database and click on **[Backup]**. Select the **Backup directory**,

enter a name for the backup file and click on **[Start]**. The backup is carried out automatically. It is recommended to copy the backup file to CD/DVD afterwards.

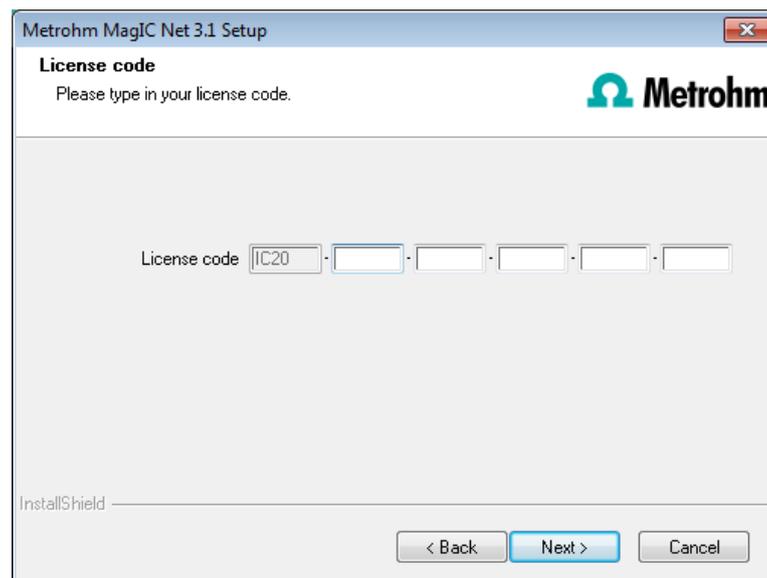
- 5 Save further files in the installation directory (e.g. export files) into an external directory or to CD/DVD.

6 Updating the server

Close **MagIC Net Multi** on the server and on all clients. Insert the installation CD on the **server** and double-click the file **setup.exe**. Then select **Repair/Update** and click on **[Next >]**.



- 7 Enter the update license code for **MagIC Net multi** and click on **[Next >]**.



8



NOTICE

The update of **MagIC Net Multi** consists of the server license and three client licenses. If an existing installation contains additional client licenses, these will be deleted.

Click on **[OK]** in the corresponding message in order to continue the installation.

9



CAUTION

During updating older MagIC Net versions to MagIC Net 3.3 the databases will be converted to the new version. Depending on the size of the database, this may take some time. For each database a progress bar which informs about the status of the conversion is displayed.

The computer or Windows must not be restarted or shut down as long as the conversion is running!

Complete the installation with **[Finish]**.

An **UpdateLog** file with a list of all files that have been copied to the server and with a confirmation of a successful installation is saved in the **MagIC Net** server's installation folder (default: C:\Program Files\Metrohm\MagIC Net) under bin\InstallLog.

- 10** In case additional licenses have been removed during the server update, or if further additional licenses are to be added, the **Administrator** can enter them in **MagIC Net** (dialog: **Configuration** ▶ **Tools** ▶ **Program administration** ▶ **Licenses** ▶ **Add licenses**).

11 Updating clients

For each client, insert the installation CD and double-click the file **setup.exe**. Then select **Repair/Update** and click on **[Next >]**. Complete the installation with **[Finish]**.



NOTICE

In order to facilitate the updating of many clients, the installation can be copied from the CD to a writeable medium and the file **magic_init.ini** can be modified. There, user-defined parameters (license code, installation path, server name, etc.) for the installation can be set in advance, which allows you to only have to click through the installation.

An **UpdateLog** file with a list of all files that have been copied to the client computer and with a confirmation for a successful installation is saved

in the **MagIC Net** client's installation folder (default: C:\Program Files\Metrohm\MagIC Net) under bin\InstallLog.

7 Installation of drivers

In normal cases, the installation routine of **MagIC Net** automatically installs all the drivers necessary for controlling the supported devices.

If you are using a 64-bit operating system, it may be necessary to install drivers manually in combination with a few devices. This is the case if the operating system displays a message when connecting a device to the computer, as e.g. **Device driver software was not installed. No driver found.** The message should also show the name of the corresponding device. Write down this name and proceed as follows to install the driver manually:



NOTICE

The following description applies for Windows 7 (64-bit version). It may slightly vary for your system.

The drivers for the devices **889 IC Sample Center** and **Combustion Module** can both be found in the **drivers/889** subfolder in the installation folder.

- 1 Open the Windows Device Manager. The corresponding device can be found under **Other devices**.
- 2 Right-click on the device. The context menu opens.
- 3 In the context menu, select **Update driver software...**. A dialog window opens.
- 4 Select **Browse my computer for driver software**. The file selection dialog opens.
- 5 Navigate to the installation folder of **MagIC Net** (default: C:\Program Files\Metrohm\MagIC Net).
- 6 In the installation folder, open the **drivers** subfolder. This folder contains the **889** subfolder, in which you can find the driver for the **889 IC Sample Center** and the **Combustion Module**.
- 7 Apply the selection with **[OK]**. A Windows safety prompt is displayed. In order to install the driver, click on **[Install]**.
- 8 After successful installation, close the Device Manager.

8 Adding additional licenses with Windows Vista or newer

General

Starting with Windows Vista, Microsoft has introduced the UAC (User Account Control), which permits running tasks either as non-administrator or as administrator (without changes of user, switching off or similar).

<http://technet.microsoft.com/en-us/library/cc709691%28WS.10%29.aspx>

<http://technet.microsoft.com/en-us/magazine/2007.06.uac.aspx>

This function can, however, cause difficulties with client/server installations of **MagIC Net**.

Problem description

A user would like to add additional licenses for the program; the license code for an additional five licenses, for example, is added (on the server) in the **Configuration** program part in the **Program administration** dialog window (accessible via the **Tools ▶ Program administration...** menu item, **Licenses** tab).

The file **license.mlic**, which contains the standard license code and the additional license codes, is stored in the **bin** directory of the program installation (**C:\Program Files\Metrohm\MagIC Net\bin**).

If the user adds the five licenses and then looks at this **license.mlic** file, only the standard license code will be listed (for three licenses).

If the user highlights the **license.mlic** file and clicks on **Compatibility files** in the bar, then he or she will be taken to the **C:\Users\User\AppData\Local\VirtualStore\Program Files\Metrohm\MagIC Net\bin** directory ('User' being the unique identifier (UID) of the user logged in on the operating system). The **license.mlic** file with the license codes for the standard licenses and the five newly added licenses can be found here, i.e., the additional licenses are stored in the **VirtualStore** only for the Windows user who was logged in on the PC at the time the additional licenses were added.

On the server, the program recognizes all of the licenses. The operating system adds the **license.mlic** file from the **C:\Users\User\AppData\Local\VirtualStore\Program Files\MagIC Net\bin** directory to the detail list of the **C:\Program Files\Metrohm\MagIC Net\bin** directory.

For the client/server functionality of the database server, however, the **license.mlic** file in the **C:\Program Files\Metrohm\MagIC Net\bin** directory is relevant, and here only the basic license is listed. Therefore, problems are to be anticipated when adding additional clients (more than the three clients present in the default settings).

Remedy

- **For new installations**
 - To enter additional licenses, you must start the program as an administrator (right-click on the program icon and select **Run as administrator** there).
 - If you then add the license code for additional licenses in the usual way, then the **license.mlic** file in the **C:\Program Files\Metrohm\MagIC Net\bin** directory will contain both license codes.
- **For existing installations**
 - First of all, the **license.mlic** file in the **C:\Users\User\AppData\Local\VirtualStore\Program Files\Metrohm\MagIC Net\bin** directory must be deleted.
This file must not be present in the **VirtualStore** of any user – you must check to make sure this is the case, and any such files which may be found must be deleted.
 - Afterwards, you must start the program as an administrator (right-click on the program icon and select **Run as administrator** there). If you then add the license code for additional licenses in the usual way, then the **license.mlic** file in the **C:\Program Files\Metrohm\MagIC Net\bin** directory will contain both license codes.

9 User rights for MagIC Net

In order for the logged-in user to be able to access all functions with **MagIC Net**, the Windows system administrator must ensure that the permissions are set for the directories as listed below:

Directory	Permission	Group name or user name
Database directory Directory where the databases will be saved (...Data).	Modify	SYSTEM User*
Backup directory Directory where the backups will be stored (...Backup).	Modify	User*
%ALLUSERSPROFILE%\Application Data\Metrohm (Windows XP)**	Modify	User*
%PROGRAMDATA%\Metrohm (Windows Vista and higher) **	Modify	User*
Export directories Directories where the exported files are to be saved.	Modify	User*
PDF directories Directories where the PDF files are to be saved.	Modify	User*
Desktop	Modify	User*

Directory	Permission	Group name or user name
%PROGRAMFILES%\Metrohm\MagIC Net (32-bit version of Windows versions)	Read & execute	User*
%PROGRAMFILES(x86)%\Metrohm\MagIC Net (64-bit version of Windows versions)	Read & execute	User*

* **User** = name of the user who is logged in

** During installation of **MagIC Net** the permission **Full Control** is set for the following groups: **SYSTEM, Administrators, Users, Guests, Main users.**



NOTICE

The **BackupServer.exe** process must be started for carrying out a backup (backup of the configuration database and of the determination databases). You can check this under "Windows Task Manager".

The **user** must be logged in during the whole backup process.