

1 Minimum system requirements

Operating system	64-bit version of: <ul style="list-style-type: none">Windows 10 Pro / EnterpriseWindows Server 2019Windows Server 2016Windows Server 2012 R2
RAM	8 GB
Storage capacity	Program: 1 GB Data: <ul style="list-style-type: none">Minimum: 10 GBRecommended: 50 GB
Serial ports	for devices with RS-232 interface
USB ports	for devices with USB interface
Screen	Minimum resolution: 1024 x 768
Network	10 Mbit/s, stable and permanent Communication via TCP/IP Safety systems, e.g. firewalls, have an impact on the performance of the client/server system.
PDF reader	A PDF reader must be installed on the PC.

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

2 Customizing energy options

During the determination, data loss may occur or there may be communication problems with certain energy options of the operating system. Proceed as follows to customize the energy-saving plan settings:

1 Under **Control Panel ► System and Security ► Energy Options**, open the system settings that specify the behavior when the power switch is pressed or the computer is folded shut.

2 Change the following settings:

- **When pressing the power switch:** Do nothing
- **When pressing the energy saving button:** Do nothing
- **When closing the lid:** Do nothing
- **Enable fast start-up:** Deactivated



NOTICE

To change the **Turn on fast start-up** option, you may need to enable it first as an administrator. To do this, click on **Some settings are currently unavailable** in the window.

3 Open the energy-saving plan settings under **Control Panel ► System and Security ► Energy Options**. Now click on **Change advanced energy settings**.

4 Change the following settings:

- Under **Saving energy**:
 - **Deactivation after:** Never
 - **Allow hybrid standby mode:** Off
 - **Hibernate after:** Never
- Under **USB settings**:
 - **Selective USB energy-saving settings:** Disabled

3 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 Prior to the installation, disconnect all the USB devices from the PC on which **MagIC Net** is to be installed.

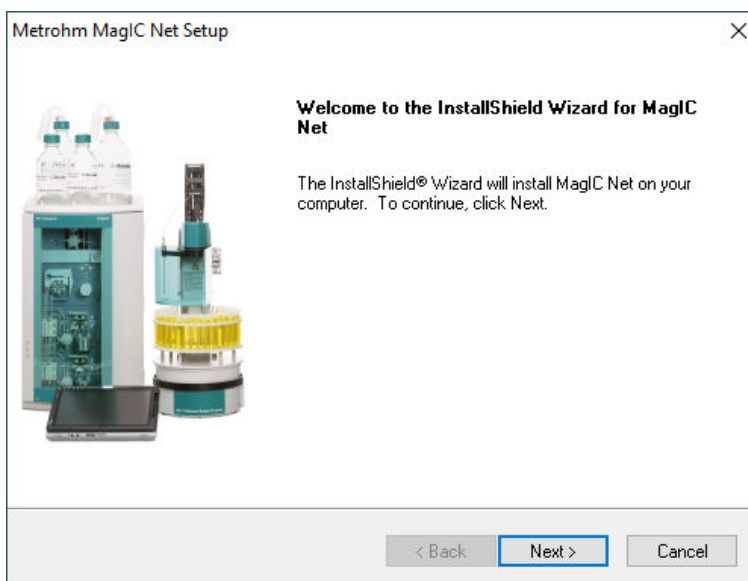
If the OMNIS Software is already installed on the PC, end the **Metrohm OMNIS DeviceServer** service via the Windows Task Manager.

2 Connect the USB flash drive with the **MagIC Net** installation file to the PC and start the **setup.exe** file.

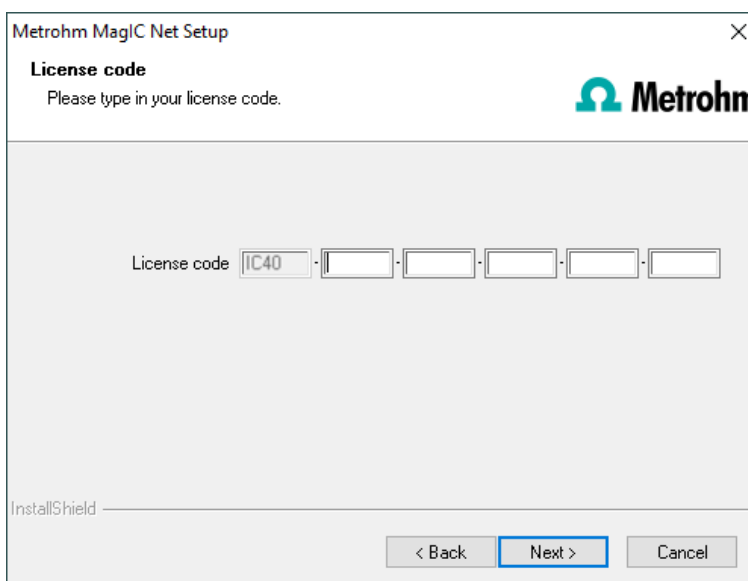
If the minimum system requirements are not met (see above), an appropriate message appears. Click on **[Yes]** if you would like to install the program nonetheless.

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

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



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

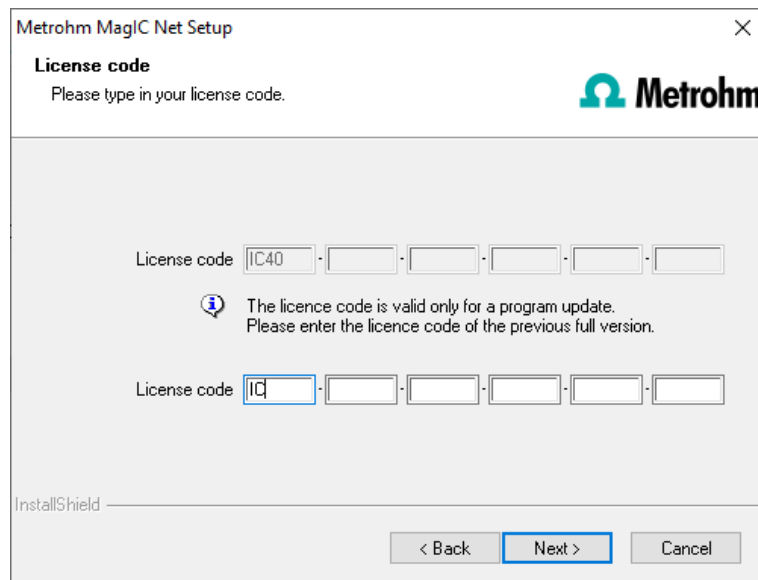


Enter the license code for **MagIC Net Basic**, **MagIC Net Compact** or **MagIC Net Professional** and then click on **[Next >]**.

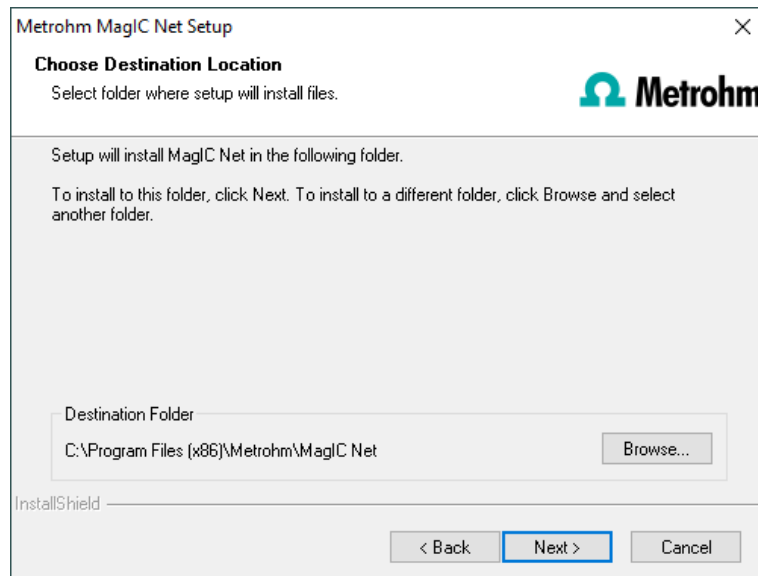


NOTICE

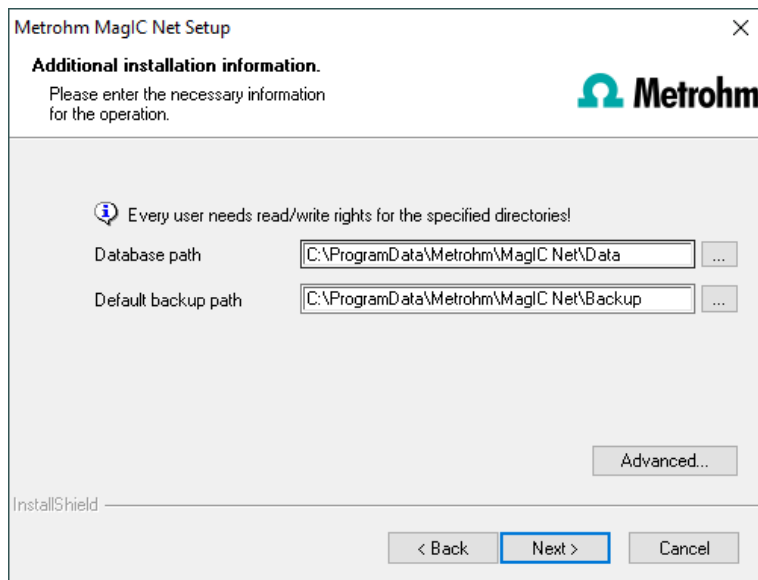
If you have entered the license code of an update license, then the license code of the previous full version will additionally be requested.



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



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

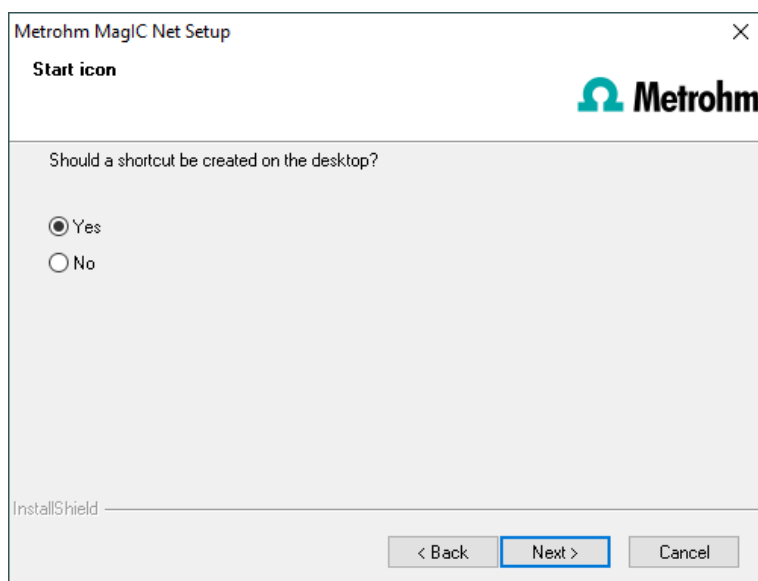


NOTICE

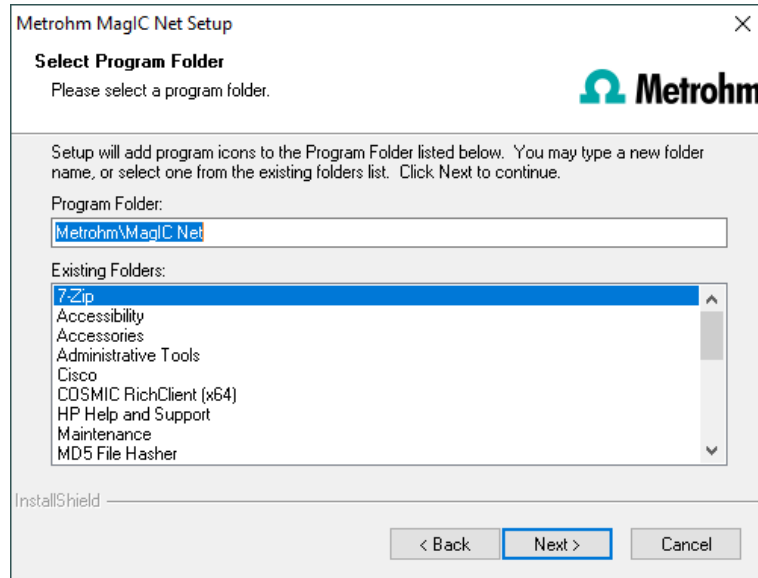
The default paths are different for the various operating systems.
 The database path must not be on a network drive.
 The default backup path may also be on a network drive.

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 >]**.

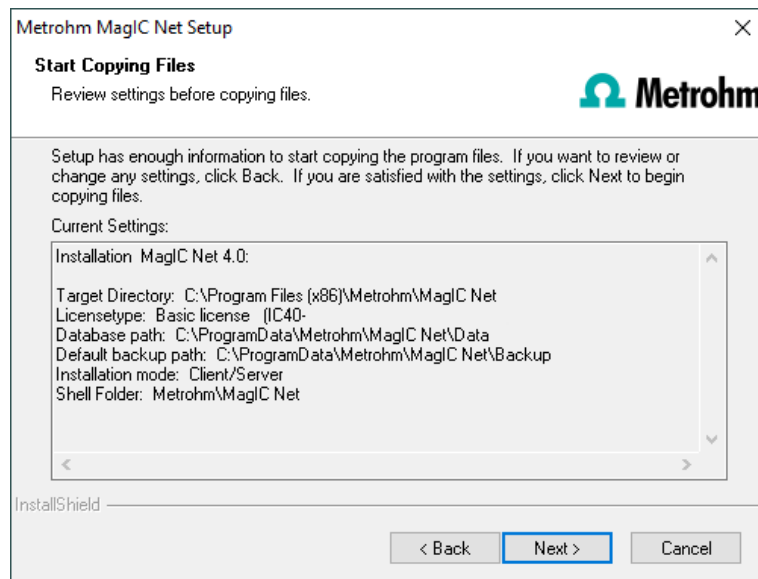
- 8 If you would like to create a shortcut on your desktop to start the **MagIC Net** software, activate **[Yes]** and then click on **[Next >]**.



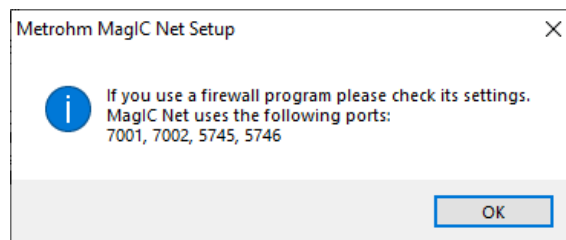
- 9 Confirm the program folder with **[Next >]** or select a different program folder.



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



- 11 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 needs to be updated, a message appears. Confirm the installation by clicking on the **[Install]** button.

- 12** 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.

- 13** 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.

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

If the OMNIS Software is already installed on the PC, start the **Metrohm OMNIS DeviceServer** service via the Windows Task Manager again.

Fonts

On the operating system Windows 10, it may be necessary for the correct display of East Asian fonts (e.g. in reports) to add the corresponding font. There are two options to do this. Only carry out one of the two described options.

- Install the missing language.
Procedure for Windows 10, version 1809: **Windows Settings ► Time & Language ► Language ► Add a language**
- Download the fonts for all the languages.
Procedure for Windows 10, version 1809: **Windows Settings ► Personalization ► Fonts ► Download fonts for all languages**

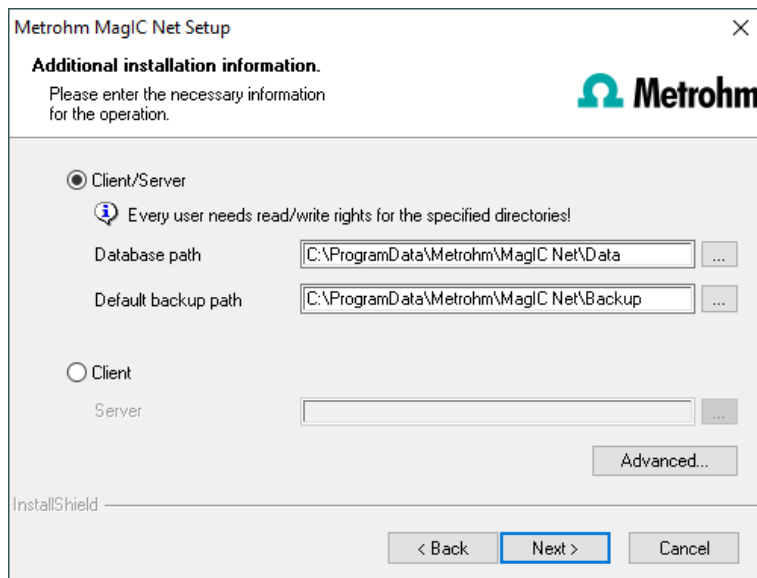
4 Client/server installation

With the **MagIC Net multi** version (multi-client version with 3 licenses) you can select during the installation whether you want to install only a **Client** or a **client** and a **server** (database 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 Follow steps **1** to **6** of the single workplace installation (*see chapter 3, page 2*).

2 The **Additional installation information** dialog appears. Here you can select whether you want to install only a **client** or a **client** and a **server** (database server) on your computer.




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 also 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 >]**.

- 3** All further installation steps correspond to those of the single workplace installation from **point 8** onwards (see *chapter 3, page 2*).

Fonts

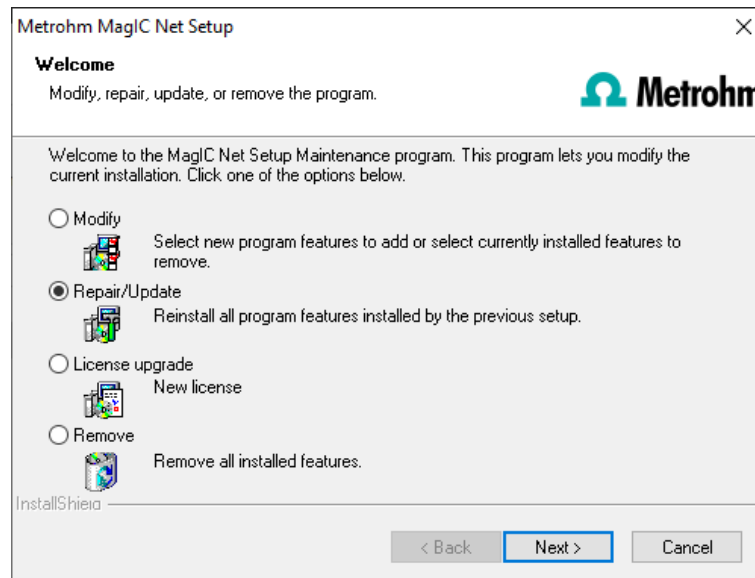
On the operating system Windows 10, it may be necessary for the correct display of East Asian fonts (e.g. in reports) to add the corresponding font. There are two options to do this. Only carry out one of the two described options.

- Install the missing language.
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- Download the fonts for all the languages.
Procedure for Windows 10, version 1809: **Windows Settings ► Personalization ► Fonts ► Download fonts for all languages**

5 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 from the USB flash drive or click under:

Control Panel ► Programs and Features on **Metrohm MagIC Net**. Then select **Uninstall/Change**:



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**. For MagIC Net Compact / Professional, see *Chapter 6, page 11*. For MagIC Net Multi, see *Chapter 7, page 13*.



CAUTION

During the updating of older MagIC Net versions to MagIC Net 4.0 the databases will be converted to the new version. Depending on the size of the database, this may take some time. A progress bar showing the status of the conversion is displayed for each database.

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.

6 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 the program is updated.

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

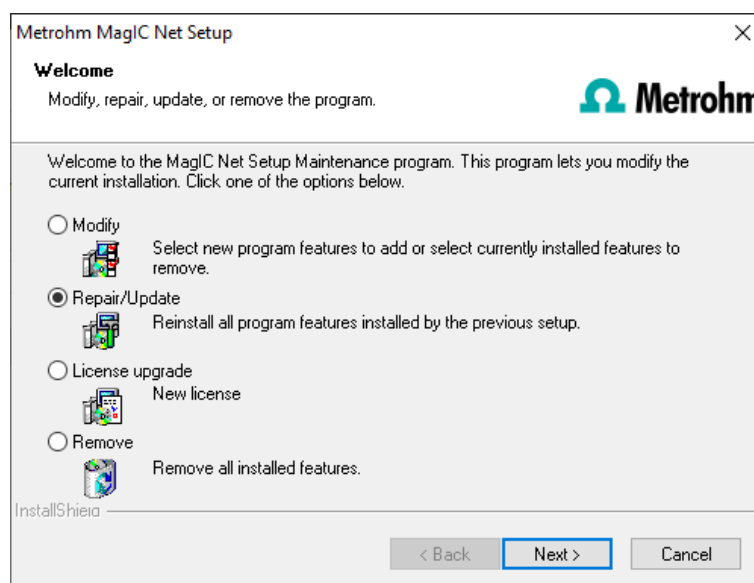
- 1 Save the configuration database to an external directory using the backup function of **MagIC Net**. In the **Configuration** program part, select the **File ► Save ► Manually** menu item. Select the **Backup directory**, enter a name for the backup file and click on **[Start]**. The backup is carried out. Then copy the backup file to an external storage medium.

- 2 If desired, export the methods to an external directory in addition to the backup with the configuration database (see above). To accomplish this, select the **File ► Method manager...** menu item in the **Method** program part. Select the desired **Method group**, mark all of the methods to be exported and click on **[Edit] ► Export....** Select the desired export directory and click on **[OK]**. The methods are exported to the desired directory. Then copy the method files to an external storage medium.

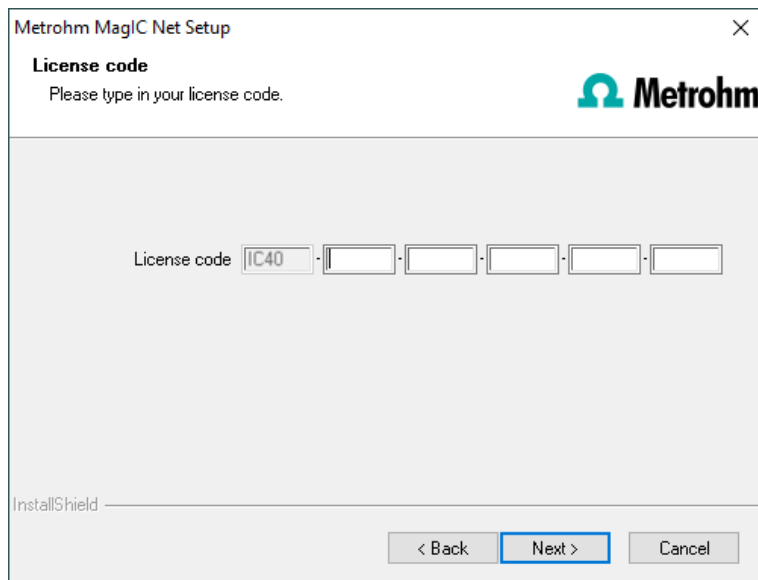
- 3 Save all determination databases created by you to an external directory using the backup function of **MagIC Net**. In the **Database** program part, select the **File ► Database manager...** menu item. Select the desired database and click on **[Backup]**. Select the **Backup directory**, enter a name for the backup file and click on **[Start]**. The backup is carried out. Then copy the backup file to an external storage medium.

- 4 Also save further files created by you in the installation directory (e.g. export files) to an external directory or to an external storage medium.

- 5 Close **MagIC Net**. Connect the USB flash drive with the installation file to the PC and start the **setup.exe** file. 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 the updating of older MagIC Net versions to MagIC Net 4.0 the databases will be converted to the new version. Depending on the size of the database, this may take some time. A progress bar showing the status of the conversion is displayed for each database.

The computer must not be restarted or Windows 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 of a successful installation is saved in the **MagIC Net** installation folder (default: C:\Program Files(x86)\Metrohm\MagIC Net) under bin\InstallLog.

7 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 the program is updated.

Files in the subdirectories **bin**, **jre**, **lib**, **res**, **doc** and **examples** will be overwritten by the update. The 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.



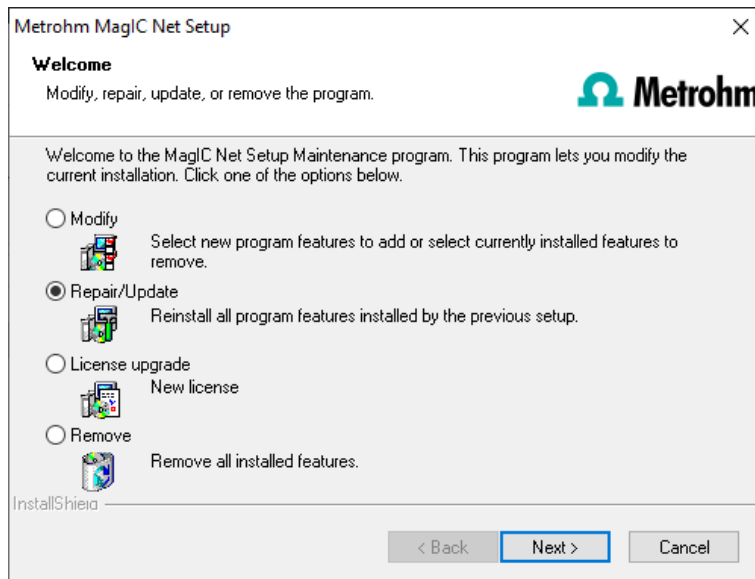
NOTICE

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.

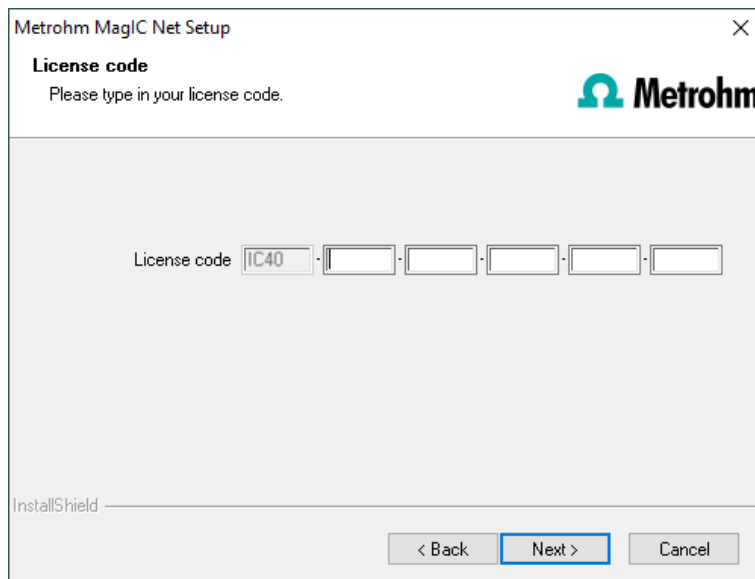
- 2 Open **MagIC Net Multi** on the server and save the configuration database into an external directory using the backup function of **MagIC Net**. In the **Configuration** program part, select the **File ► Save ► Manually** menu item. Select the **Backup directory**, enter a name for the backup file and click on **[Start]**. The backup is carried out automatically. Then copy the backup file to an external storage medium.
- 3 If desired, export the methods in addition to the automatic backup with the configuration database (see above) into an external directory. To accomplish this, select the **File ► Method manager...** menu item in the **Method** program part. Select the desired **Method group**, mark all of the methods to be exported and click on **[Edit] ► Export....** Select the desired export directory and click on **[OK]**. The methods are exported to the desired directory. Then copy the method files to an external storage medium.
- 4 Save all of the determination databases on the server to 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. Then copy the backup file to an external storage medium.
- 5 Also save further files created in the installation directory (e.g. export files) to an external directory or to an external storage medium.

6 Updating the server

Close **MagIC Net Multi** on the server and on all clients. Connect the USB flash drive with the installation file to the PC and start the **setup.exe** file. 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 the updating of older MagIC Net versions to MagIC Net 4.0 the databases will be converted to the new version. Depending on the size of the database, this may take some time. A progress bar showing the status of the conversion is displayed for each database.

The computer must not be restarted or Windows 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 during the program update and with a confirmation of a successful installation is saved in the **MagIC Net** installation folder (default: C:\Program Files(x86)\Metrohm\MagIC Net) under the server's 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**) (see "Adding additional licenses", page 17).

11 Updating clients

Connect the USB flash drive with the installation file to each client in turn and start the **setup.exe** file. Then select **Repair/Update** and click on **[Next >]**. Complete the installation with **[Finish]**.



NOTICE

To facilitate the updating of many clients at once, the installation can be copied from the USB flash drive to a writable medium and the file **magic_init.ini** can be modified. There, user-defined parameters for the installation (license code, installation path, server name, etc.) can be set in advance, so that one needs only 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 of a successful installation is saved in the **MagIC Net** client's installation folder (default: C:\Program Files(x86)\Metrohm\MagIC Net) under bin\InstallLog.

If additional licenses were removed at the time of the server update or if further additional licenses are to be added, proceed as follows:

Adding additional licenses

- 1 Open the directory **C:\Users\Username\AppData\Local\VirtualStore\Program Files (x86)\Metrohm\MagIC Net\bin**. If there is a file there named **license.mlic**, delete it. Repeat this for each user.
- 2 Right-click on the file **setup.exe** and select **Run as administrator**.
- 3 Add the desired licenses in the **Configuration** program part under **Extras ► Program administration ► Licenses ► Add licenses**.

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 (e.g. **C:\Program Files(x86)\Metrohm\MagIC Net\bin**).



NOTICE

For more information on adding additional licenses, refer to *Chapter 8, page 17*.

8 Adding additional licenses

General

Windows 10 has a UAC (User Account Control), which permits running tasks either as non-administrator or as administrator (without changes of user, switching off or similar). For more information about this function, see <https://docs.microsoft.com/en-us/windows/security/identity-protection/user-account-control/how-user-account-control-works>.

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

Problem description

Additional licenses for the program should be added. For this purpose, the license code for an additional 5 licenses, for example, has been 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).

Normally the **license.mlic** file, which contains the standard license code and the additional license codes, is stored in the **bin** directory of the program installation (e.g. **C:\Program Files(x86)\Metrohm\MagIC Net\bin**).

However, it may happen that the 5 licenses have been added and the **license.mlic** file contains only the standard license code (for 3 licenses). If this is the case, check whether there is a file named **license.mlic** in the **C:\Users\Username\AppData\Local\VirtualStore\Program Files (x86)\Metrohm\MagIC Net\bin** directory. This file contains the license codes for the standard

licenses and the 5 newly added licenses, i.e. the additional licenses were 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\Username\AppData\Local\VirtualStore\Program Files (x86)\MagIC Net\bin** directory to the detail list of the **C:\Program Files (x86)\Metrohm\MagIC Net\bin** directory.

The **license.mlic** file in the **C:\Program Files (86)\Metrohm\MagIC Net\bin** directory determines the client/server functionality of the database server, however, and here only the basic license is listed. Therefore, problems are to be anticipated when adding additional clients (more than the 3 clients present in the default settings). To fix this, the **license.mlic** file must be deleted from the **VirtualStore**.

Remedy

- **For new installations**
 - Start the program as an administrator.
 - Add the license code for additional licenses as usual. The **license.mlic** file in the **C:\Program files(x86)\Metrohm\MagIC Net\bin** directory contains both license codes.
- **For existing installations**
 - In the **C:\Users\Username\AppData\Local\VirtualStore\Program Files(x86)\Metrohm\MagIC Net\bin** directory, check whether there is a file present named **license.mlic** and delete it if necessary.
 - Start the program as an administrator.
Add the license code for additional licenses as usual. The **license.mlic** file in the **C:\Program files(x86)\Metrohm\MagIC Net\bin** directory contains 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*
%PROGRAMDATA%\Metrohm**	Modify	User*
Export directories Directories where the exported files are to be saved.	Modify	User*

Directory	Permission	Group name or user name
PDF directories Directories where the PDF files are to be saved.	Modify	User*
Desktop	Modify	User*
Installation directory, e.g. %PROGRAMFILES(x86)% \Metrohm\MagIC Net	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.