

# 1 Minimum system requirements

<b>Operating system</b>	32 bit version of: <ul style="list-style-type: none"><li>▪ Windows 2000 SP4</li><li>▪ Windows XP Professional SP2</li><li>▪ Windows Vista Business / Enterprise / Ultimate</li><li>▪ Windows 7 Professional / Ultimate / Enterprise</li></ul> 64 bit version of: <ul style="list-style-type: none"><li>▪ Windows 7 Professional / Ultimate / Enterprise</li></ul>
<b>RAM</b>	Windows 2000 / Windows XP: 1 GB Windows Vista, Windows 7: 2 GB
<b>Memory</b>	Program: 1 GB Data: 2 GB
<b>Serial ports</b>	for devices with RS-232 interface
<b>USB ports</b>	for devices with USB interface
<b>Screen</b>	Resolution 1024 x 768

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

Additional requirements for the **MagIC Net server**:

<b>Operating system</b>	32 bit version of: <ul style="list-style-type: none"><li>▪ Windows 2000 SP4</li><li>▪ Windows XP Professional SP2</li><li>▪ Windows Vista Business / Enterprise / Ultimate</li><li>▪ Windows 7 Professional / Ultimate / Enterprise</li><li>▪ Windows 2000 Server</li><li>▪ Windows Server 2003</li><li>▪ Windows Server 2008</li><li>▪ Windows Server 2008 R2</li></ul> 64 bit version of: <ul style="list-style-type: none"><li>▪ Windows 7 Professional / Ultimate / Enterprise</li><li>▪ Windows Server 2008 R2</li></ul>
-------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Network

10 Mbit/s, stable and permanent

Communication via TCP/IP



### Caution

During a determination data loss may occur when the PC switches over to the standby mode. In the energy settings of the operating system the **standby mode** should therefore be **deactivated**.

## 2 Single workplace installation

With the single workplace version **MagIC Net Basic**, **MagIC Net Compact** or **MagIC Net Professional** the MagIC Net client as well as the server will be installed on your computer.

- 1 On inserting the CD into the drive of your computer the installation will be started automatically. If this option is deactivated on your computer, double click the file **setup.exe**.

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

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

- 2 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.

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



## Note

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

The screenshot shows the 'License code' screen of the Metrohm MagIC Net 2.0 Setup. The title bar reads 'Metrohm MagIC Net 2.0 Setup'. The main heading is 'License code' with the instruction 'Please type in your license code.' and the Metrohm logo. Below, there are two sets of license code input fields. The first set is pre-filled with 'IC20', '0123', '4567', '8901', '2345', and '6789'. Below these fields is an information icon and a message: 'The licence code is valid only for a program update. Please enter the licence code of the previous full version.' The second set of fields is for the previous full version, with the first field containing 'IC'. At the bottom, there are '< Back', 'Next >', and 'Cancel' buttons, and the 'InstallShield' logo.

- 4 Now enter the target folder for the **MagIC Net** installation and confirm with **[Next]**.
- 5 In the dialog window **Additional installation information** you can define the paths for the database and backup files:

The screenshot shows the 'Additional installation information' screen of the Metrohm MagIC Net 2.0 Setup. The title bar reads 'Metrohm MagIC Net 2.0 Setup'. The main heading is 'Additional installation information.' with the instruction 'Please enter the necessary information for the operation.' and the Metrohm logo. Below, there is an information icon and a message: 'Every user needs read/write rights for the specified directories!'. There are two input fields: 'Database path' with the value 'C:\Program Files\Metrohm\MagIC Net\Data' and 'Default backup path' with the value 'C:\Program Files\Metrohm\MagIC Net\Backup'. Each field has a browse button ('...'). At the bottom right, there is an 'Advanced...' button. At the bottom, there are '< Back', 'Next >', and 'Cancel' buttons, and the 'InstallShield' logo.

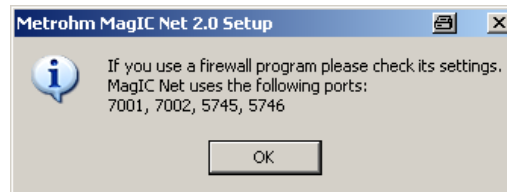


## Note

The default paths may differ depending on the Windows version used.

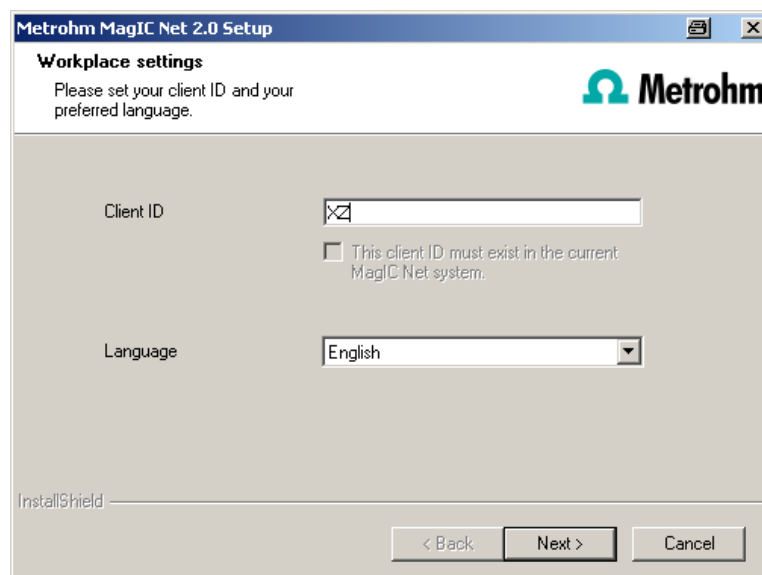
Under **[Advanced...]** it is possible to change the ports **MagIC Net** uses to communicate with the database and administration server. If the ports are already used, an appropriate error message will appear. Ask your system administrator for more information about this. Continue with **[Next]**.

- 6** Follow the instructions of the program until the following message appears:



This message points out 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]**.

- 7** As soon as the copying procedure has been finished you can set further workplace settings:



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

If you activate this option **MagIC Net** checks whether the identifier you have entered exists in the database. If this is true 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.

- 8 At the end of the installation, the file **info.txt** will be created which contains all relevant information concerning your current **MagIC Net** installation. Save this file on your hard disk in case of need in future and print it (add to IQ). Complete the installation with **[Finish]**.

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

### 3 Client/Server installation

With the **MagIC Net Multi** version (multiple workplace version with 3 licenses) you can select during the installation whether you want to install a MagIC Net **client** or the MagIC Net **client** plus **server** on your computer.

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

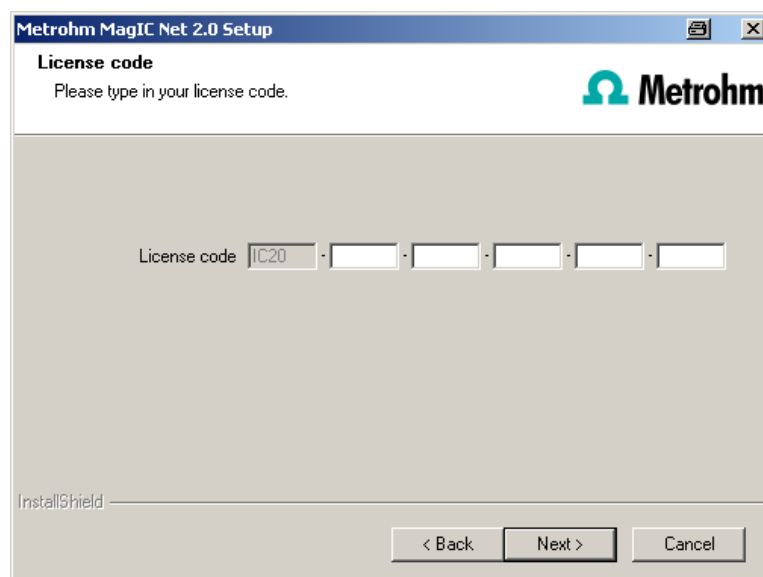
- 1 On inserting the CD into the drive of your computer the installation will be started automatically. If this option is deactivated on your computer, double click the file **setup.exe**.

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

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

- 2 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.

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



The screenshot shows a Windows-style dialog box titled "Metrohm MagIC Net 2.0 Setup". Inside the window, the text "License code" is followed by "Please type in your license code." in a smaller font. The Metrohm logo is in the top right corner. Below the text, there is a license code input field consisting of six small boxes separated by dots. The first box contains the text "IC20". At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the window's content area.



## Note

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


The screenshot shows the 'License code' dialog box in the Metrohm MagIC Net 2.0 Setup. The title bar reads 'Metrohm MagIC Net 2.0 Setup'. The main text says 'Please type in your license code.' with the Metrohm logo on the right. Below, there are two sets of license code input fields. The first set is pre-filled with 'IC20 - 0123 - 4567 - 8901 - 2345 - 6789'. Below this, an information icon and text state: 'The licence code is valid only for a program update. Please enter the licence code of the previous full version.' The second set of input fields is empty, starting with 'IQ'. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

- 4 Now enter the target folder for the **MagIC Net** installation and confirm with **[Next]**.
- 5 The dialog window **Additional installation information** appears where you can select whether you want to install a **client** or the **server**:

The screenshot shows the 'Additional installation information' dialog box in the Metrohm MagIC Net 2.0 Setup. The title bar reads 'Metrohm MagIC Net 2.0 Setup'. The main text says 'Please enter the necessary information for the operation.' with the Metrohm logo on the right. There are two radio button options: 'Client/Server' (selected) and 'Client'. Below 'Client/Server', there is an information icon and text: 'Every user needs read/write rights for the specified directories!'. There are two text input fields: 'Database path' (pre-filled with 'C:\Program Files\Metrohm\MagIC Net\Data') and 'Default backup path' (pre-filled with 'C:\Program Files\Metrohm\MagIC Net\Backup'). Below 'Client', there is a text input field for the server name. An 'Advanced...' button is located at the bottom right. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

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.

With **Client**, only the **client** will be installed and you have to select the database server (has to be installed in advance!), to which you want to

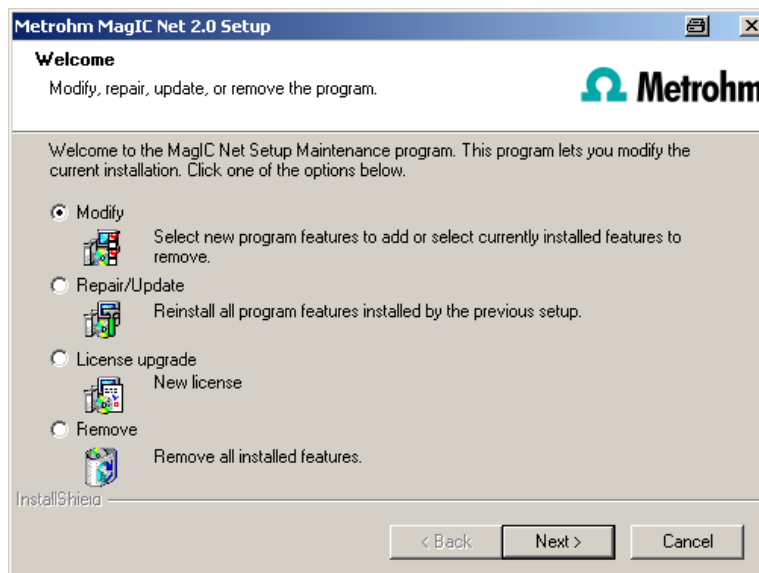
connect, with . The network server name or the IP address are accepted.

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

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

## 4 Modify / repair / remove installation and upgrade license

In order to carry out modifications on the current **MagIC Net** installation, start the file **setup.exe** on the installation CD or click on **Metrohm MagIC Net** under **Control Panel ► Software**. Then select **Change/Remove**:



### Modify

With this option you can change the paths to the database and backup files and set 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.

- **Repair installation**

In case of a defective **MagIC Net** installation due to e.g. a missing DLL file or an accidentally deleted program file, **MagIC Net** can be repaired with this option.

- **Update installation**

In case an older version of **MagIC Net** is installed, it will be updated to the new version of **MagIC Net**, see *Program update with MagIC Net Compact/Professional* or *Program update with MagIC Net Multi*.



#### **Caution**

During updating older MagIC Net versions to MagIC Net 2.x the databases will be converted to the new version. Depending on the size of the database, this can take some time. For each database a progress bar is displayed which informs about the status of the conversion.

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

### **License upgrade**

Allows a direct upgrade of your current installation to a **MagIC Net** version with additional features. The following upgrade paths are possible:

- **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 remain on your hard disk.

## **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 **MagIC Net Compact/Professional**.



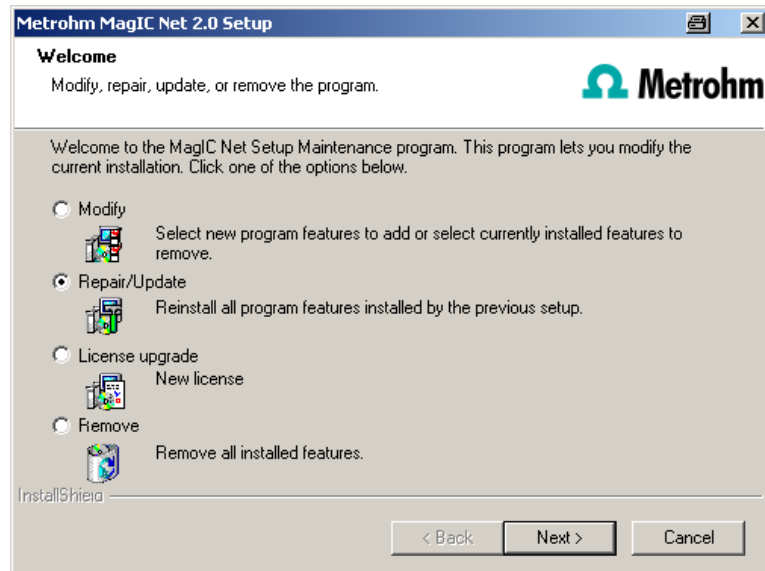


## Note

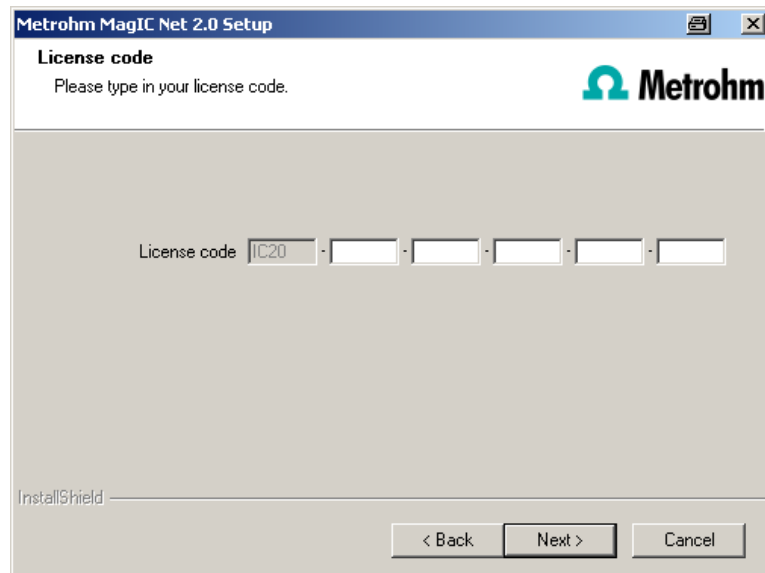
The files in the database and backup directory will be retained when updating the program.

Files in the subdirectories **bin**, **jre**, **lib**, **res**, **doc** and **examples** will be overwritten by the update. The files in these directories, which have not been overwritten by the update, will be deleted. The deleted files are listed in the **InstallLog**.

- 1** Save the configuration database into an external directory using the backup function of **MagIC Net**. In the program part **Configuration**, select the menu item **File ► Save ► Manually**. 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.
- 2** If desired, export the methods in addition to the automatic backup of the configuration database (see above) into an external directory. In the program part **Method**, select the menu item **File ► Method manager....** Select the desired **Method group**, mark 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 exported methods to CD/DVD.
- 3** Save all determination databases created by yourself into an external directory using the backup function of **MagIC Net**. In the program part **Database**, select the menu item **File ► Database manager....** 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.
- 4** Save further files created by yourself 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 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 2.x the databases will be converted to the new version. Depending on the size of the database, this can take some time. For each database a progress bar is displayed which informs about the status of the conversion.

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 having been copied to your computer and with a confirmation of a 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 sever are automatically updated for further use with **MagIC Net Multi**.



### Note

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. The files in these directories, which have not been overwritten by the update, will be deleted. The deleted files are listed in the **InstallLog**.

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



### Note

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

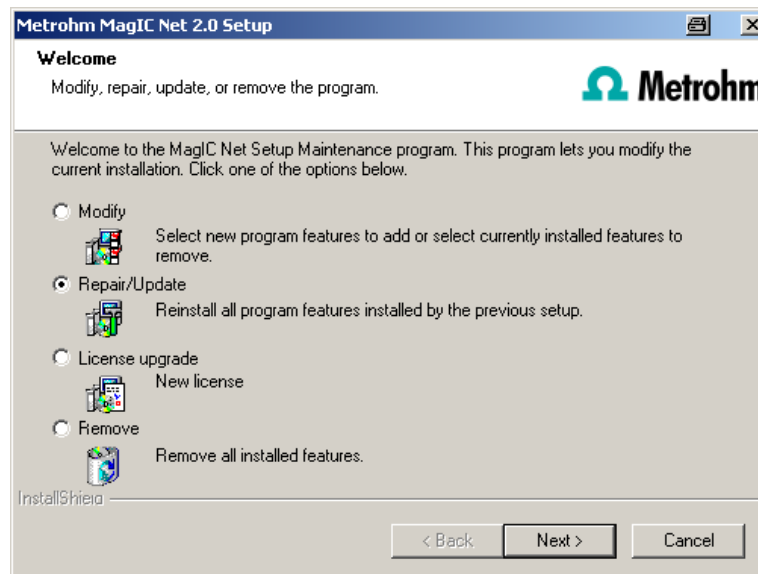
- 2 Open **MagIC Net Multi** on the server and save the configuration database into an external directory using the backup function of **MagIC Net**. In the program part **Configuration**, select the menu item **File ► Save ► Manually**. Select the **Backup directory**, enter a name for the backup file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

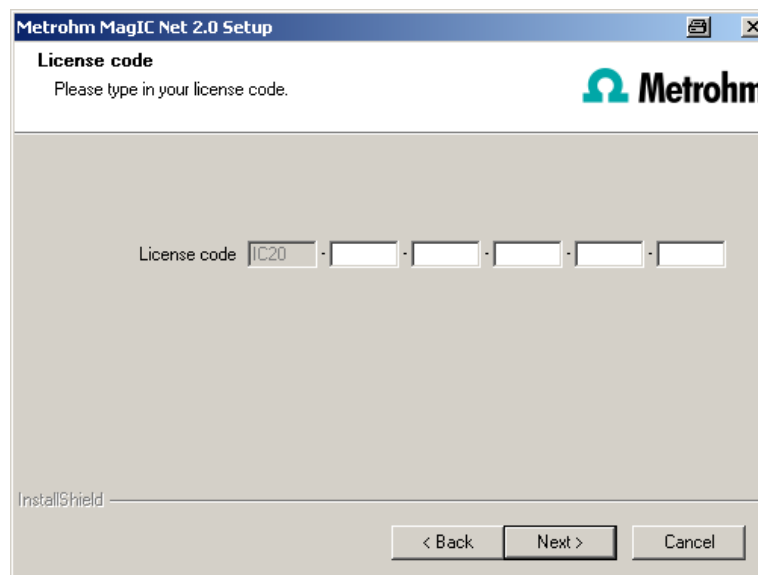
- 5 Save further files in the installation directory (e.g. export files) into an external directory or to CD/DVD.

## 6 Update 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



#### Note

The update of **MagIC Net Multi** consists of the server license and three client licenses. If an existing installation contains additional 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 2.x the databases will be converted to the new version. Depending on the size of the database, this can take some time. For each database a progress bar is displayed which informs about the status of the conversion.

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 having been copied to the server and with a confirmation of a successful installation is saved in the **MagIC Net** 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 Update 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]**.



#### Note

In order to facilitate updating 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, ...) for the installation can be set in advance, which allows you to only having to click through the installation.

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

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

## 7 Installation of drivers

The installation routine of **MagIC Net** usually 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 systems displays a message when connecting a device to the computer, e.g.

**Device driver software was not successfully installed. No driver found.** The message should also show the name of the corresponding device. Note this name and proceed as follows to install the driver manually:



### Note

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

- 1** Open the Windows Device Manager. Under **Other devices** the corresponding device can be found.
- 2** Click on the device with the right mouse button. 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 subfolder **drivers**. It contains a subfolder for each of the corresponding devices, containing the necessary driver.
- 7** In the subfolder **drivers**, open the subfolder of the corresponding device and select the driver file (\*.inf).
- 8** Apply the selection with **[OK]**. A safety prompt is displayed. In order to install the driver, click on **[Install]**.
- 9** After the successful installation, close the Device Manager.

## 8 Adding additional licenses with Windows Vista or newer

### General

Since 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 for **MagIC Net**.

### Problem description

One would like to add additional licenses for the program; the license code for an additional 5 licenses, for example, is added (on the server) in the program part **Configuration** in the dialog window **Program administration** (accessible via menu item **Tools ► Program administration**, tab **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 (**C:\Program Files\Metrohm\MagIC Net\bin**).

If one adds the 5 licenses and then looks at this file **license.mlic**, only the standard license code will be listed (for 3 licenses).

If one highlights the file **license.mlic** and presses **Compatibility files** in the bar, then one will arrive in the directory, **C:\Users\'User\'AppData\Local\VirtualStore\Program Files\Metrohm\MagIC Net\bin** ('User' being the abbreviation (UID) for the user logged in on the operating system). The file **license.mlic** with the license codes for the standard licenses and the 5 newly added licenses is to be found here, i.e. the additional licenses are stored in the **VirtualStore** of the Windows user who was logged in on the PC at the time the additional licenses were added, only.

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

For the Client/Server functionality of the database server, however, the file **license.mlic** in the directory **C:\Program Files\Metrohm\MagIC Net\bin** is relevant, 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).

## Remedy

### ■ For new installations

To enter additional licenses, the program must be started as administrator (position the mouse on the Program icon press down the right-hand mouse button – select **Run as administrator** there). If one then adds the license code for additional licenses in the usual way, then the file **license.mlic** in the directory **C:\Program Files\Metrohm\MagIC Net\bin** will contain both license codes.

### ■ For existing installations

First of all, the file **license.mlic** in the directory **C:\Users\'User'\AppData\Local\VirtualStore\Program Files\Metrohm\MagIC Net\bin** must be deleted. This file must not be present in the **VirtualStore** of any user – a check must be made to make sure of this, and any such files which may be found must be deleted.

Afterwards, the program must be started as administrator (position the mouse on the Program icon and click the right mouse button – select **Run as administrator**). If one then adds the license code for additional licenses in the usual way, then the file **license.mlic** in the directory **C:\Program Files\Metrohm\MagIC Net\bin** will contain both license codes.

## 9 User rights for MagIC Net

In order that the logged in user 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
<b>Database directory</b> Directory where the databases will be saved (...Data)	<b>Modify</b>	<b>SYSTEM</b> <b>User*</b>
<b>Backup directory</b> Directory where the backups will be stored (...Backup)	<b>Modify</b>	<b>User*</b>
<b>%ALLUSERSPROFILE%\Application Data\Metrohm</b> (Windows 2000, Windows XP)**	<b>Modify</b>	<b>User*</b>
<b>%PROGRAMDATA%\Metrohm</b> (Windows Vista, Windows 7) **	<b>Modify</b>	<b>User*</b>
<b>Export directories</b> Directories where the exported files are to be saved.	<b>Modify</b>	<b>User*</b>
<b>PDF directories</b> Directories where the PDF files are to be saved.	<b>Modify</b>	<b>User*</b>
<b>Desktop</b>	<b>Modify</b>	<b>User*</b>
<b>%PROGRAMFILES%\Metrohm\MagIC Net</b>	<b>Read Execute</b>	<b>User*</b>



- \* **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, User, Guests, Main users.**