# USER MANUAL OF HDSERVER1 SOFTWARE

# 1. INTRODUCTION

The **HDServer1** software allows receiving, entering in a database and viewing the measurements detected by a series of devices (in particular, data logger of the HD35... and HD50... series) connected to the Ehternet or Wi-Fi local network (directly, for the HD50... series, or through the HD35APW base unit, for the HD35... series).

The software consists of two parts that work independently:

- The **Server** part, which receives and enters in the database the data coming from the devices.

- The **Viewer** part, which displays the data in the database on the PC monitor.

The software can be installed in multiple PCs. The Server part is normally active in only one PC, while the Viewer part can be active simultaneously in several PCs.
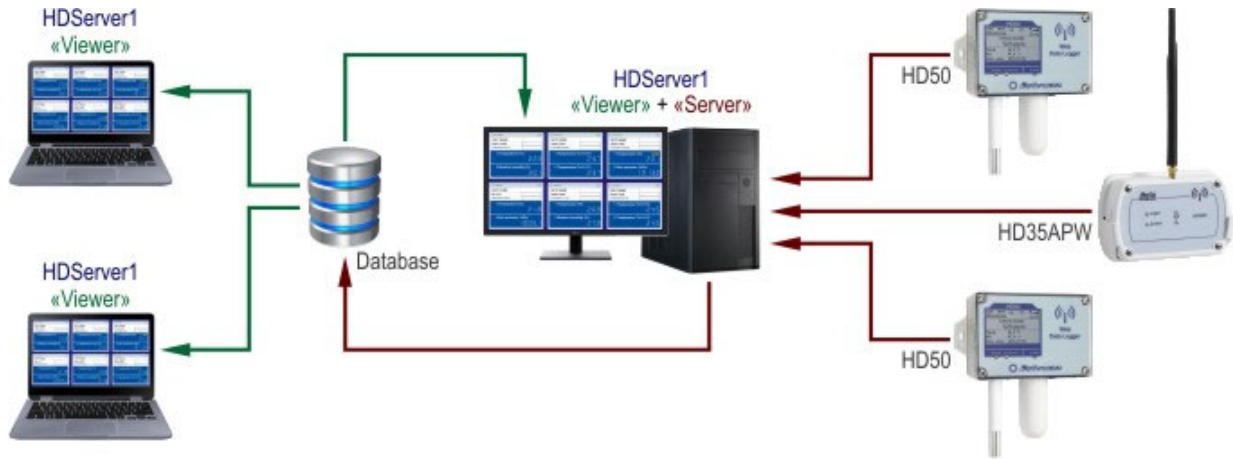


**WARNING: Correct operation of the database requires the installation of MySQL database management system. The database management system can be installed in any PC of the local network (even in a PC where the HDServer1 software is not installed).** In order to install MySQL, run the file *Autorun.exe* of the software package, select *Install MySQL* and follow the instructions in *Guide to MySQL server installation* available in *Documentation* section.

After installing the **HDServer1** software, start it by double clicking on the program icon on the desktop or by selecting *HDServer1* from *DeltaOhm* folder in the Start menu. Two windows open: the **Server window** and the **Viewer window**.

## 2. THE SERVER FUNCTION

The **Server** function receives and enters in the database the data coming from the devices. To activate the Server function it is sufficient, in the Server window of the software:

**1)** To set the IP address and the credentials for the connection to the database (**MySQL setup** panel).

**2)** To set the IP address and listening port of the PC acting as Server (**Listen setup** panel).

**3)** To set in the Client devices (HD50... data loggers or HD35APW base units) of the network the IP address and port number of the server set in the previous point. See the **Search Devices** function to set the IP address and port number of the server in the Client devices.

**4)** To press the **Start Server** button (at the bottom of the window). The Client devices of the network will be automatically detected by the program.

### 2.1. "MYSQL SETUP" PANEL



Set the following parameters to connect to the database:

*Hostname / IP* : insert *localhost* (or 127.0.0.1) if the database is installed in the same PC as the software; on the contrary insert the IP address of PC where the database is installed.

*Port* : enter the port number inserted during MySQL installation.

*User* : leave default setting (*root*).

*Password* : enter the password defined during MySQL installation.

Press **Save** to save the settings.

Press **Connect** to connect to the database. The correct connection is indicated by a green box at the bottom of the window (if the connection fails, the box is red).

## 2.2. "LISTEN SETUP" PANEL



Set the following parameters:

*Listen on* : select, from the drop-down list of available addresses, the IP address of the PC in which you are activating the Server function.

*Listen on Port* : enter the port number on which the Server listens for connection requests from the Client devices of the network.

Press **Save** to save the settings.

**WARNING: The IP address and port number entered in this panel must also be configured in the Client devices (HD50... data loggers or HD35APW base units) of the network using the "Search Devices function" described below.**

## 2.3. THE "SEARCH DEVICES" FUNCTION

By pressing the **Search Devices** button (at the bottom of the Server window), it is possible to search for the devices connected to the network and configure in the devices the IP address and port number of the server to which data are to be sent.

To search for the devices connected to the network, select the "Scanner" panel, set the IP addresses scanning range and press the **START SCAN** button. At the end of the search, the list of the devices found will appear.
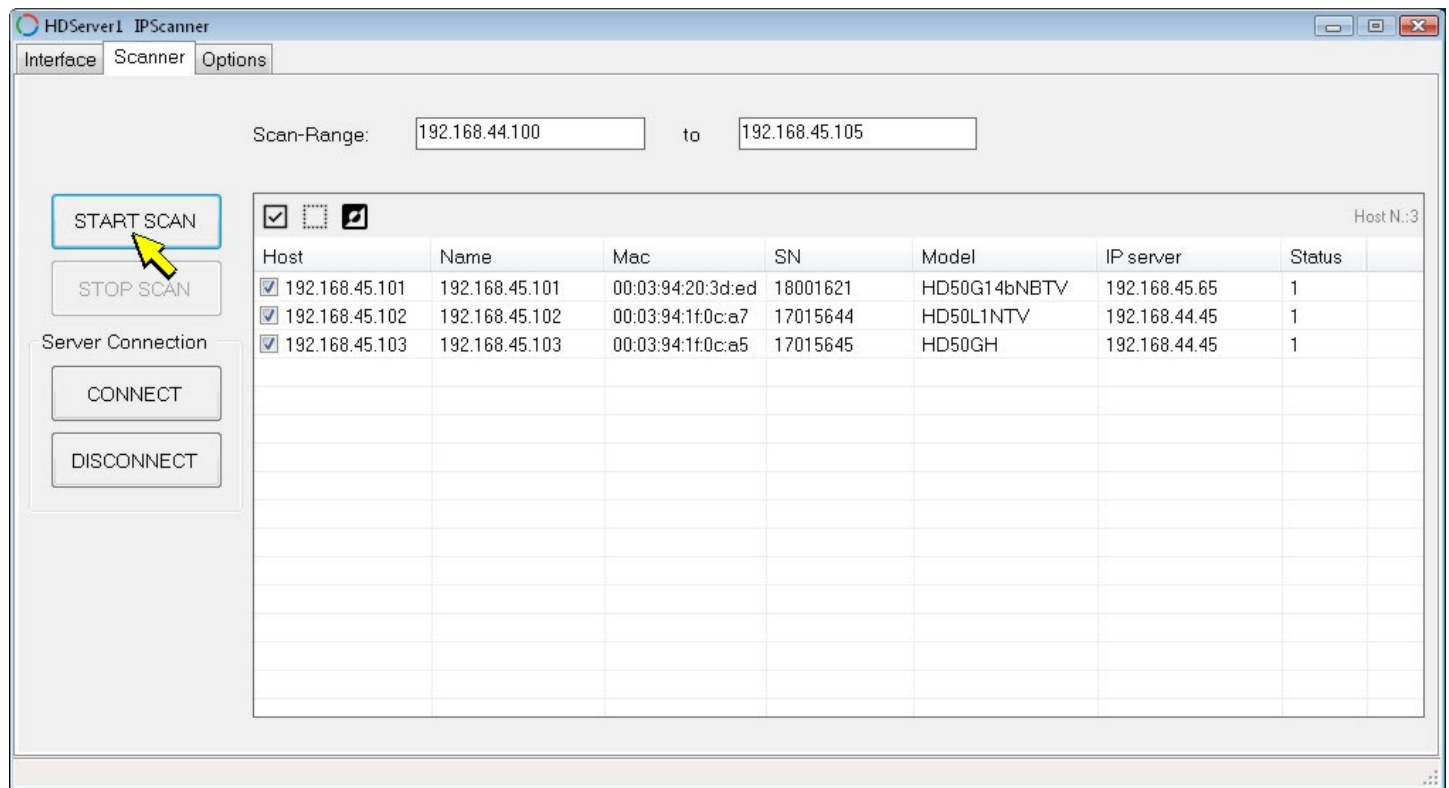


The "IP server" column indicates the IP address of the server set in the device and to which the device sends the data. The "Status" column indicates whether the device is enabled to send data to the server or not (1=yes, 0=no).

In order to set in one or more devices the server IP address defined previously in the "Listen setup" panel, select the devices (the ▣ icon allows selecting all and only the devices having a server IP address different from the one to be set) and press the **CONNECT** button.

It is also possible to set in the devices a server IP address different from the one set in the "Listen setup" panel. In this case, select the "Options" panel and set the "IP Server Address" fields (the default values are those defined in the "Listen setup" panel). If necessary, change the server "Timeout" (time within which a device must send a reply to the server).
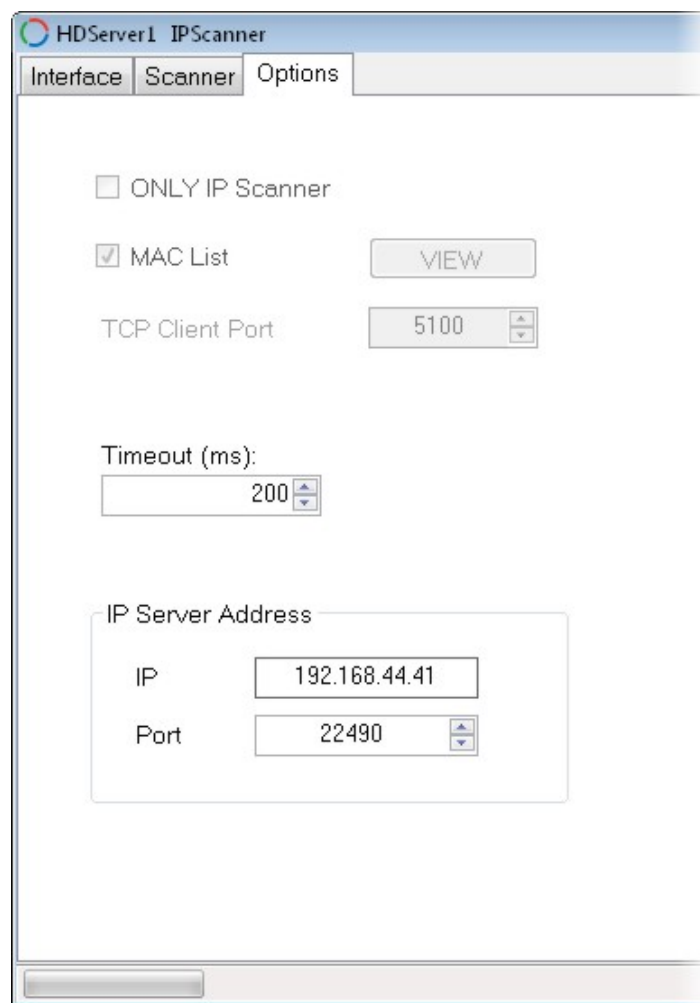
From the "Options" panel go back to the "Scanner" panel, select the devices (the ▱ icon can be used to select all and only the devices having a server IP address different from the one to be set) and press the **CONNECT** button.

In order to stop sending data from a device to the server, select the device and press the **DISCONNECT** button (the value in the "Status" column becomes 0).

Note: the "Interface" panel only reports information on the PC network card.

**Opening a device web server:**

By right-clicking on a device in the list of the devices found, the device web server can be opened (only for devices e-quipped with web server).
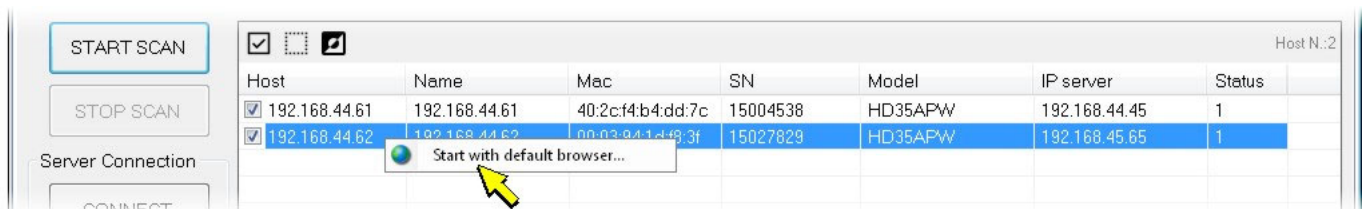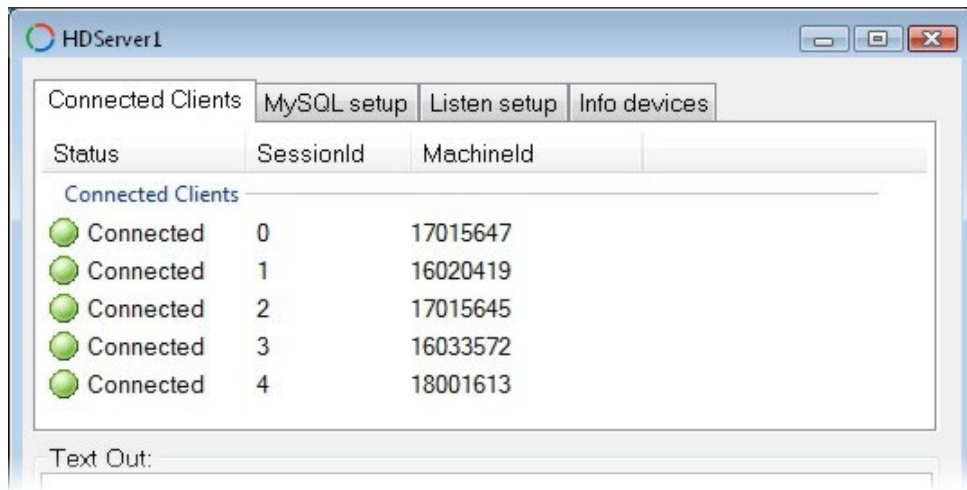


**"Connected Clients" and "Info devices" panels**

The "Connected Clients" and "Info devices" panels are only viewing panels (no configuration is required).

The "Connected Clients" panel lists the devices currently connected, with the corresponding serial number.

The "Info devices" panel shows information on the devices detected by the software: IP address, model, serial number, etc.
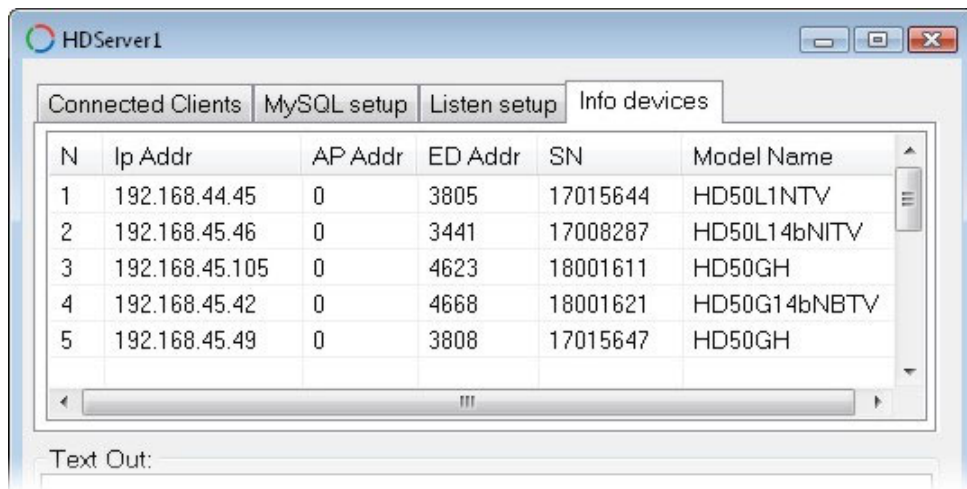


*Note*: in the "Info devices" panel there is also a "Drop aggr. Table" button for each device, which allows deleting some tables created and used by the software to draw the graphs. Use the button only in case of extreme necessity.

The "Text Out" and "Text In" boxes display the communication in progress between the Server and the Client devices.

**Stopping the Server function**

After starting the Server function, the "Start Server" button becomes "Stop Server". If you want to stop the Server function, press the **Stop Server** button.

**WARNING: If the "Required password" option of the software has been enabled (see the section <u>Software options</u>), the password will be requested to change the software settings. The password is supplied with the data loggers.**

# 3. THE VIEWER FUNCTION

The **Viewer** function displays the data in the database on the PC monitor. In the Viewer window, the following areas can be identified:
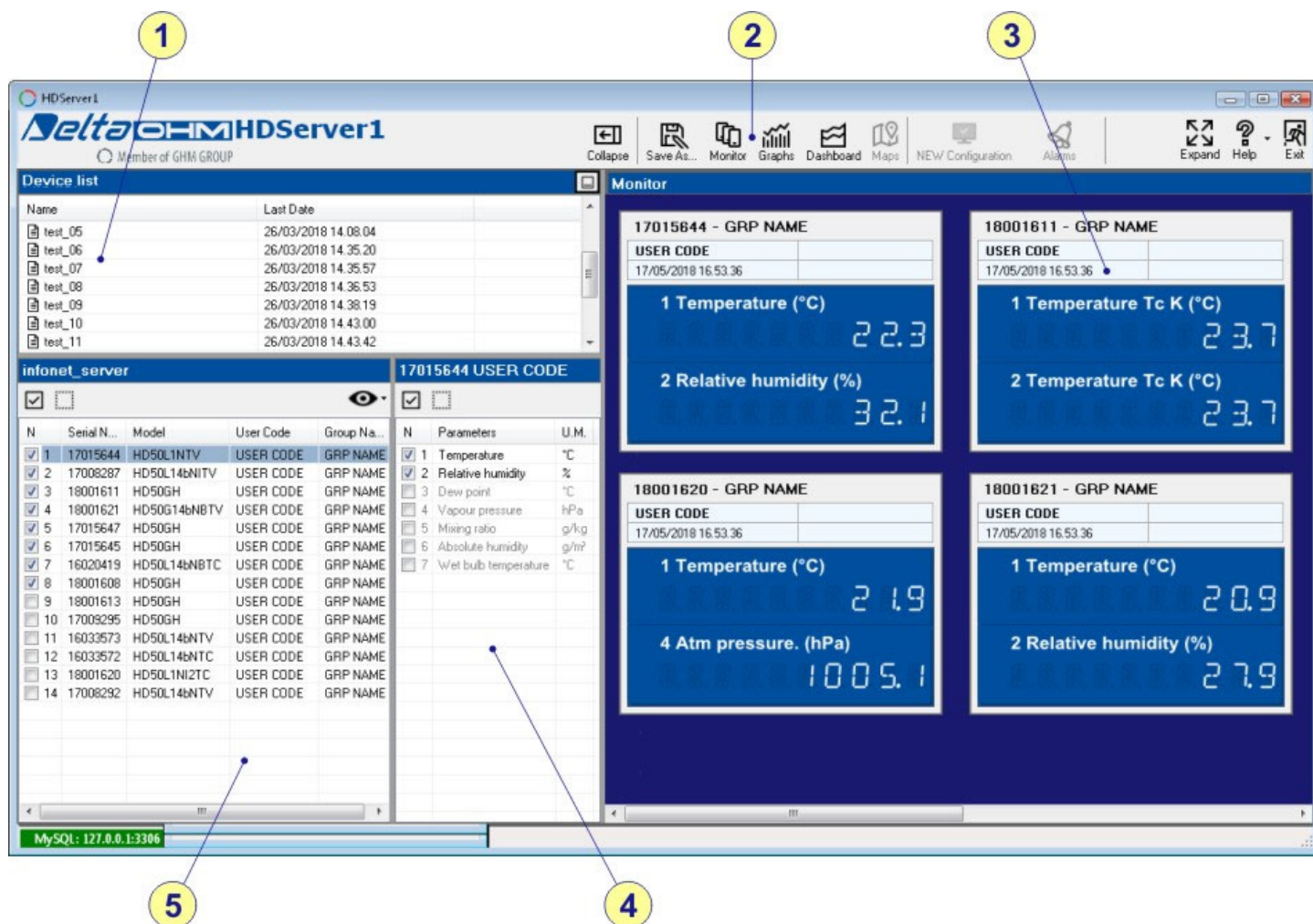


1. **List of saved "Visualizations"** ("Visualization" means the set of selected quantities and the appearance with which they are represented, in particular the size and position of the measurement panels). The list can be hidden/displayed by selecting the small icon in the upper right corner of the panel.

2. **Toolbar.**

3. **Measurement panels of the "Visualization" selected in the list of "Visualizations"** (point 1). The measurements displayed numerically are the most recent available in the database (they are not the real time measurements, but the measurements related to the date and time indicated in the panel header). The panel corresponding to the device selected in the list of devices (point 5) is highlighted by a green header.

4. **List of the quantities of the device selected in the list of devices** (point 5).

5. **List of devices**. For each device, the serial number, the model, the user code and the group to which it belongs are shown. The information can be hidden/displayed by selecting the icon 👁 in the upper right corner of the panel.

**Toolbar**
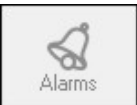


**Collapse or Expand**
Hides or displays the list of visualizations (point 1), devices (point 5) and quantities (point 4).
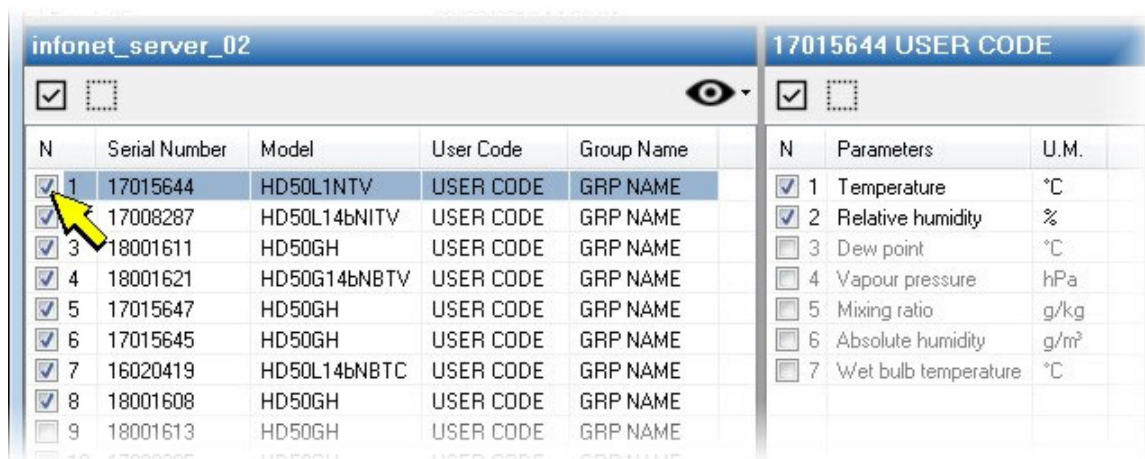


**Save As...**
Saves the current "Visualization".

**Monitor**
Displays in numerical form, for each quantities of the selected visualization, the most recent measurement available in the database.

**Graphs**
Displays the graphs of the quantities.

**Dashboard**
Creation of custom views.

**Maps**
Function not available.

**New configuration**
Blinks if the settings of a device in the network are changed or if a device is added to the network or removed from the network. When it blinks, click on the icon to stop the blinking.

**Alarms**
Function not available.

**Users** *(available only in CFR21 mode)*
Management of the system users.

**Audit trail** *(available only in CFR21 mode)*
List of the activities registered by the software.

**Logout** *(available only in CFR21 mode)*
Closes the CFR21 session of the current user.

**Expand or Collapse**
Activates/deactivates the full screen display of the Viewer window.

**Help**
Access to the manual, options, language and version of the program.

**Exit**
Closes the program.

## 3.1. CREATING AND SAVING A "VISUALIZATION"

The program allows selecting the quantities to be displayed and saving the current appearance of the Viewer window, in order to be able to recall it later.

**1)** In the list of devices, select the device of interest: the quantities measured by the selected device appear in the list of quantities. At the top of the list there are two commands that allow you to select and deselect all the items in the list.

**2)** In the list of the quantities, select the quantities to be displayed.
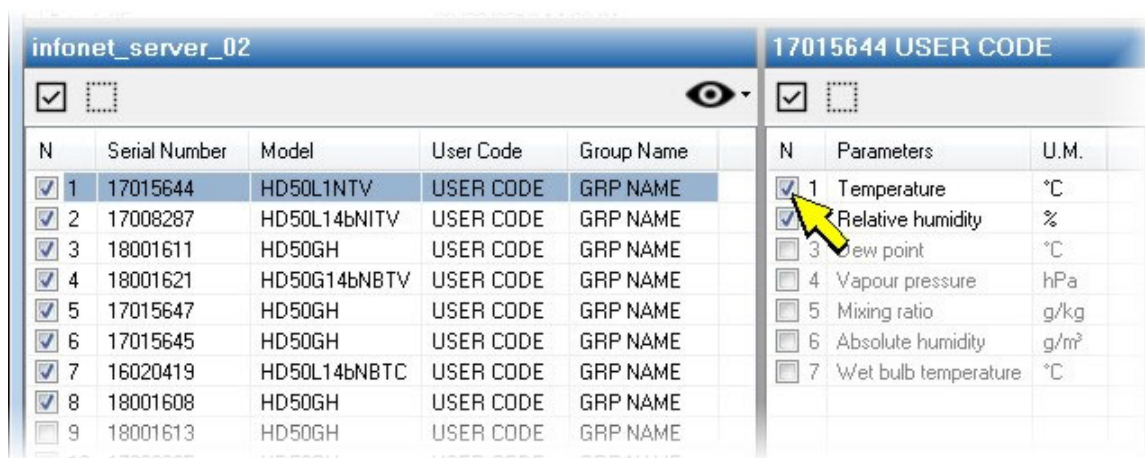


**3)** Repeat steps 1 and 2 for all the device of which the quantities are to be displayed.

**4)** Select **Save As...** in the toolbar and enter a name for the "Visualization" to be saved, then press **Save**.



The new "Visualization" will appear in the list of saved "Visualizations". To recall it in the future, just double-click on the "Visualization" name (alternatively, select the "Visualization", press the mouse right button and select **Open**).
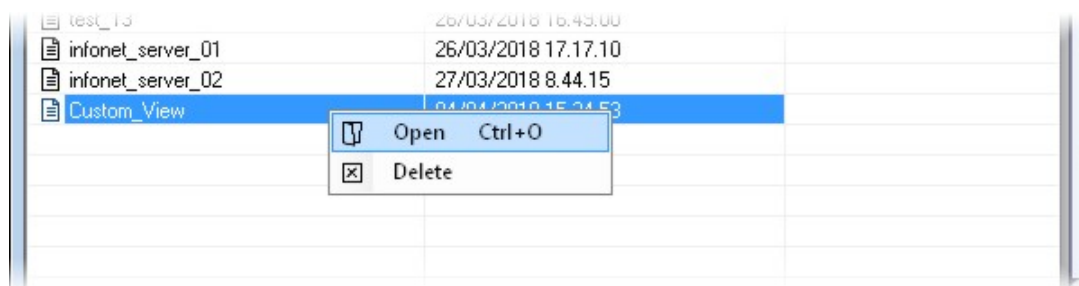


The measurement panels of the "Visualization" created can be resized and dragged to the desired position. The panel highlighted by the green header, corresponding to the device selected in the list of devices, can also be moved by using the arrow keys on the keyboard. In order to resize and move accurately a panel, place the mouse pointer over the panel, press the right mouse button and select **Layout setup**: the window to set the panel size and position appears.

18014916 - GRP NAME

Width: 300
Height: 300
X Position: 0
Y Position: 0

Apply    Exit

Press **Apply** to save the new settings. Press **Exit** to exit without saving.

In order to save the current appearance of the panels, always use the **Save As...** command.

To delete a "Visualization", select it, press the mouse right button, select **Delete** and answer affirmatively to the message asking to confirm the deletion.

## 3.2. ALARM INDICATIONS

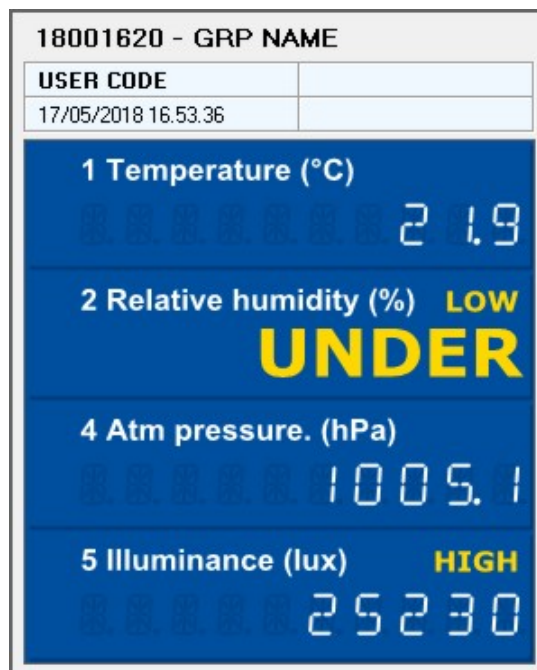In the numerical measurement panels, the following alarm indications may appear:

**LOW**: the measurement exceeds the lower alarm threshold.

**HIGH**: the measurement exceeds the upper alarm threshold.

**UNDER**: the measurement is lower than the minimum measurable (Under-range).

**OVER**: the measurement is greater than the maximum measurable (Over-range).

**ERROR**: the measurement is in error.



18001620 - GRP NAME

| USER CODE | |
| --- | --- |
| 17/05/2018 16.53.36 | |

1 Temperature (°C)   21.9

2 Relative humidity (%)   LOW
UNDER

4 Atm pressure. (hPa)   1005.1

5 Illuminance (lux)   HIGH
25230

## 3.3. DISPLAYING THE DATA GRAPHICALLY

To display the data of the "Visualizations" created graphically, select **Graphs** in the toolbar, then select, in the list of devices, the device of which you want to see the data. The graphs of the various quantities of the device appear one after the other.
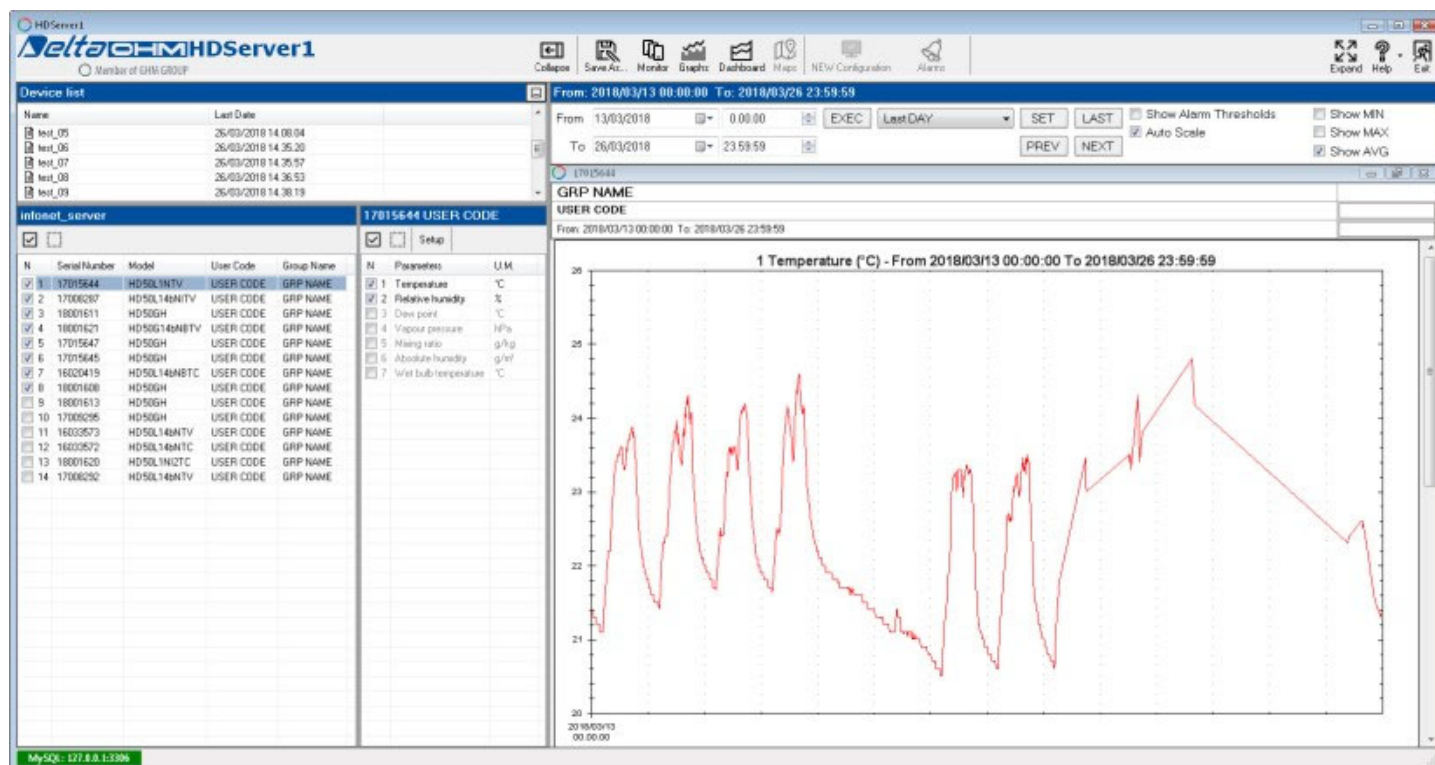
*Note*: the data of one device at a time and only of the devices and quantities belonging to the selected "Visualization" are displayed. To add or hide a graph, it is necessary to select or deselect respectively the corresponding quantity and save the "Visualization" by using the **Save As...** command in the toolbar.

The control panel above the sequence of graphs allows setting the time in the axis of the abscissas, enabling/disabling the automatic scale of the axis of the ordinates and displaying the alarm thresholds and the AVG, MIN and MAX curves.
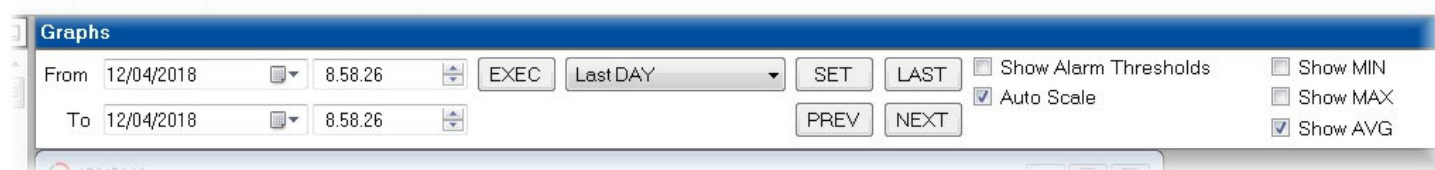


**Displaying the data of a specific time interval**
Enter the interval starting date and time in the **From** fields and the ending date and time in the **To** fields, then press the **EXEC** button.

**Displaying the data of predefined intervals**
Select in the drop-down list the predefined interval from those available, then press the **SET** button. The available options are:

**Last HOUR**: the data of the current hour (starting from hh:00:00; e.g., if it is 16:24, starting from 16:00) are displayed.

**Last DAY**: the data of the current day (starting from 00:00:00) are displayed.

**Last WEEK**: the data of the current week (starting from the first day of the week, which can be Sunday or Monday depending on the PC settings) are displayed.

**Last MONTH**: the data of the current month (starting from the first day of the month) are displayed.

**Last YEAR**: the data of the current year (starting from the first of January) are displayed.

**Scrolling the graph**
To scroll the graph backward or forward, use the **PREV** and **NEXT** buttons respectively. The scroll interval is equal to the selected predefined interval (HOUR, DAY, WEEK, MONTH or YEAR).

**Search for the most recent measurement**

By pressing the **LAST** button, the program searches for the most recent measurement in the database (considering all the devices, not just the selected one) and displays, in addition to the easurement found, the data of a period equal to the selected predefined interval and preceeding the last measurement (for example, if the selected predefined inerval is "Last DAY", the data of the previous 24 hours are displayed).

**AVG, MIN and MAX curves**

The number of points that can be represented in the graph depends on the resolution of the PC monitor. If the number of measurements to be displayed is greater than the number of points that can be represented, the software divides the measurements in many small time intervals and for each interval calculates the average value of the measurements in the interval, so as to reduce the number of points. The **AVG** curve corresponds to the trend of the average values calculated. The **MIN** curve (blue color) and the **MAX** curve (red color) are respectively the curve obtained from the minimum values and the curve obtained from the maximum values of the measurements in the intervals in which the averages were calculated; The MIN and MAX curves allow evaluating the measurement dispersion for each point of the AVG curve.
If the setting of the AVG, MIN and MAX options is changed, press the **EXEC** button to update the graphs.

**Alarm thresholds**

Selecting the **Show Alarm Thresholds** option, two horizontal lines corresponding to the alarm thresholds set in the selected device are shown. If the setting of the option is changed, press the **EXEC** button to update the graphs.

**Scale of the axis of the ordinates and colors of the graphs**

Selecting the **Auto Scale** option, the minimum and maximum values of the axis of the ordinates of the graphs are automatically calculated by the program according to the measurement data. If the option is deselected, the minimum and maximum values of the axis of the ordinates are those set manually.
To manually set the minimum and maximum values of the axis of the ordinates of the graphs, select **Setup** above the list of quantities. In the window that opens, set the minimum (**minY**) and the maximum (**maxY**) of the scale of the ordinates for each quantity. In order to change the color of the AVG curve of a quantity, select the color box and then choose a new color. Press "Save" to save the settings. Press "Exit" to close the window.
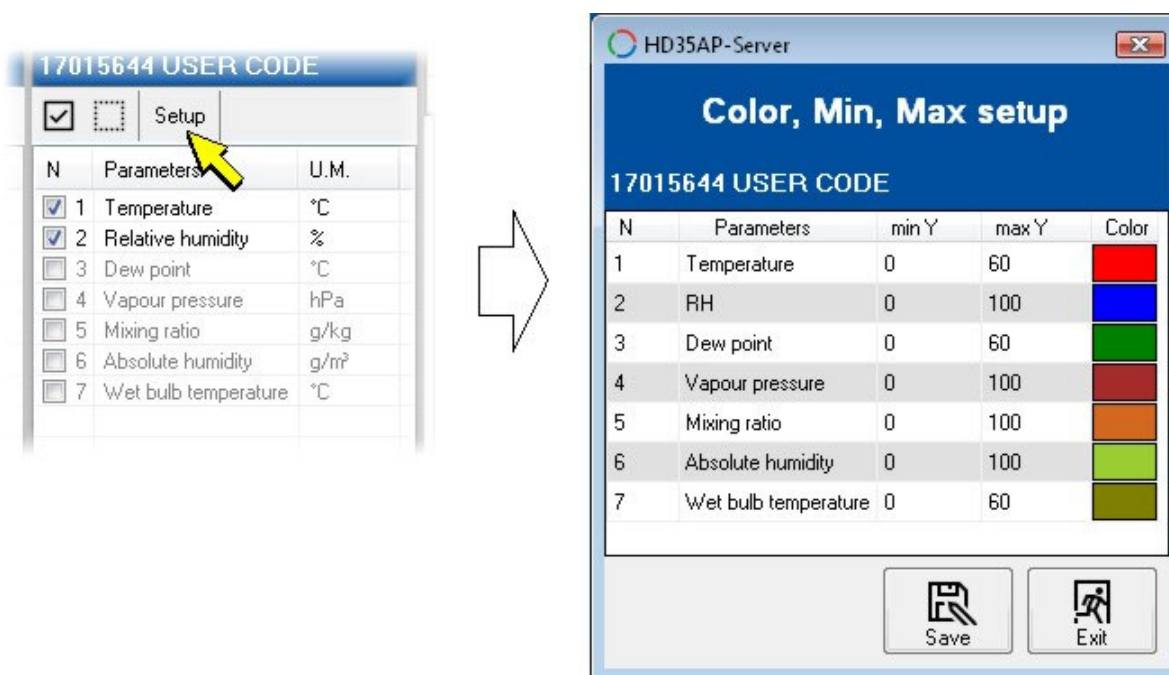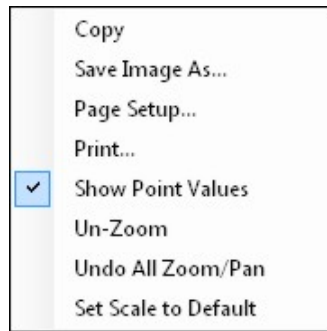


**Zoom**

In order to enlarge an area of the graph, press the left mouse key in extreme point of the area and, holding down the key, drag the mouse to draw a window around the area of interest, then release the key.
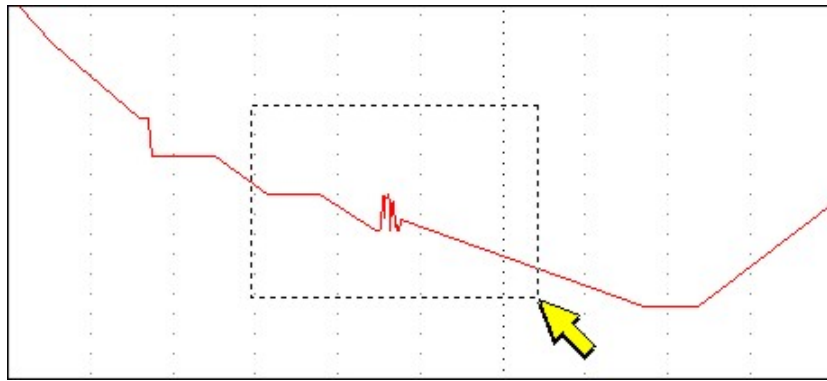
To go back to previous zoom settings, click with the right mouse key to open the following list of commands:



then select:

**Un-Zoom**: to go back to previous zoom level.

**Undo All Zoom/Pan**: to go back to the original graph display setting.

These commands are active only if a zoom has been applied to the graph.

**Other functions:**
In addition to Un-Zoom functions, by a right mouse click the following commands will be available:

**Copy**: copy the graph image in the Clipboard.

**Save image as...**: save the graph as bitmap image in the following formats: "emf", "png", "gif", "jpg", "tif" or "bmp".

**Page setup**: allows to setup the page format for graph printout.

**Print**: print the graph.

**Show Point Values**: enable or disable the display of acquired values when the mouse pointer is placed on a point over the chart trace.

**Set scale to Default**: adapt the vertical scale to measured values; the maximum zoom level is set in order to show the complete trace.

## Graphs with multiple quantities

Graphs with multiple quantities, even belonging to different devices, can be created.

Multiple graphs can be displayed simultaneously (in separate panels). The set of graphs displayed simultaneously is called "Dashboard". A "Dashboard" can also consist of a single graph.

**1.** Select **Dashboard** in the toolbar, then select the icon **New**.
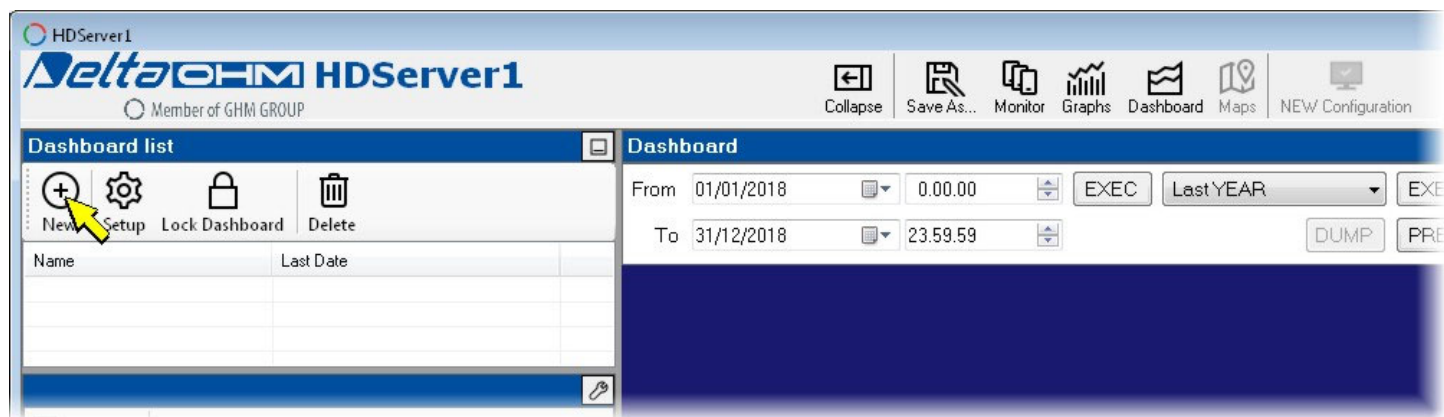
**2.** Enter a name for the new dashboard and press **Save**.



**3.** In the dashboard setup window that opens, select **New Graph**.
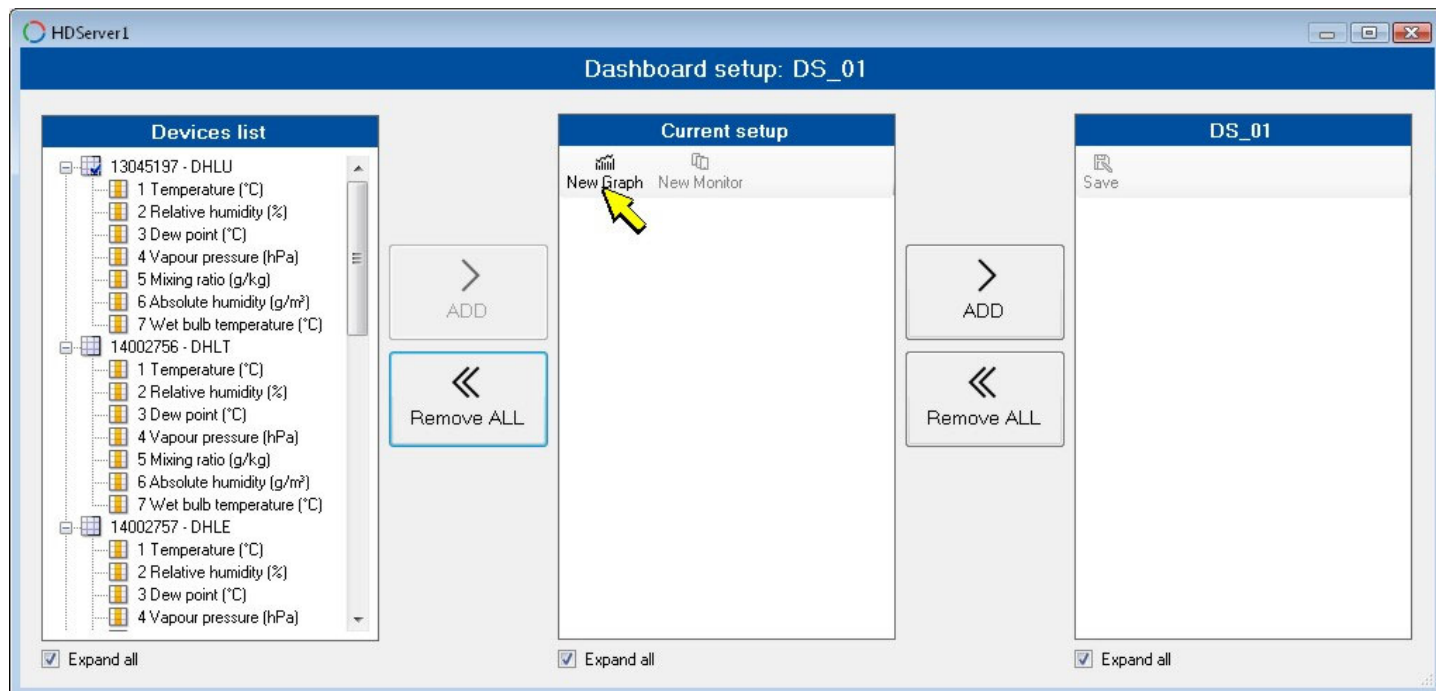


**4.** Enter a name for the new graph and press **Save**.

**5.** In the "Devices list" section, select the quantity to be added to the graph and press **ADD**. Proceed in the same way for all the quantities to be added to the graph. By selecting a device and pressing ADD, all the quantities of the device are added.
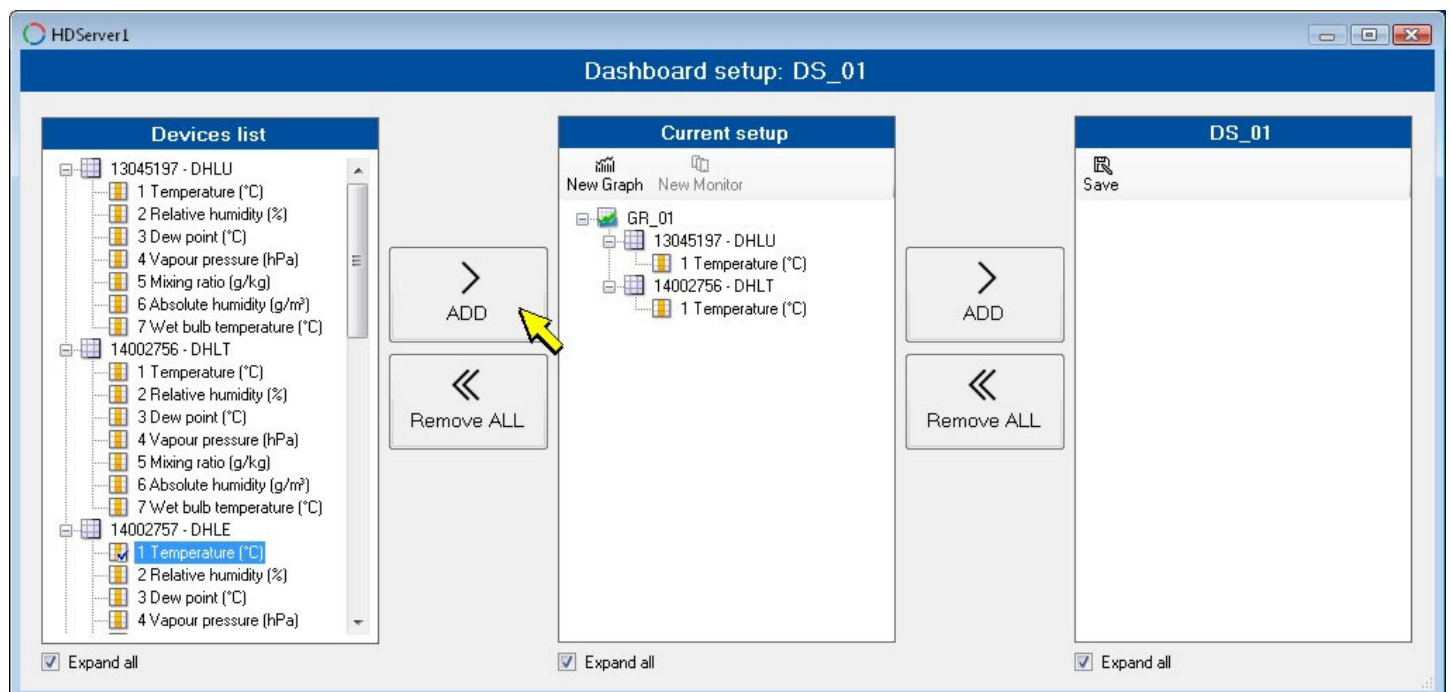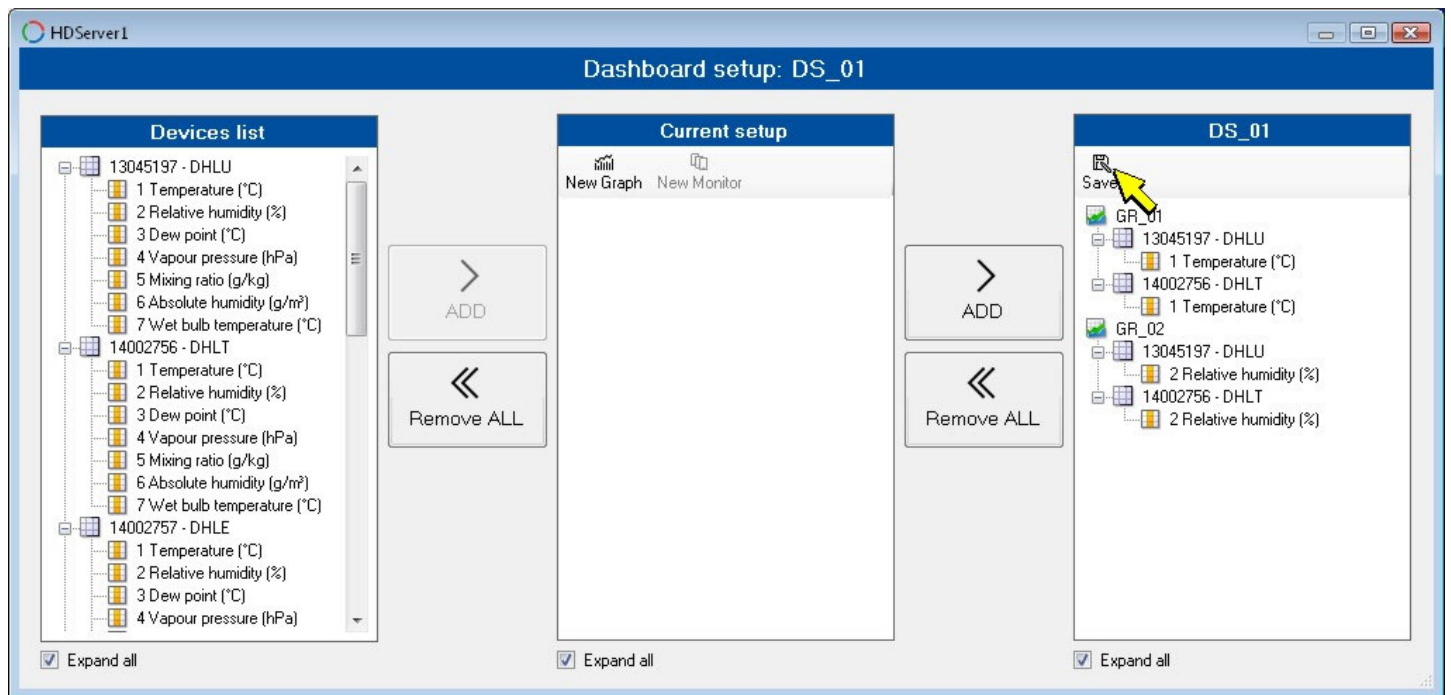


*Note*: to remove the added quantities, select "Remove ALL" (it is not possible to remove the individual quantities).

**6.** Press ADD to add the graph to the dashboard.
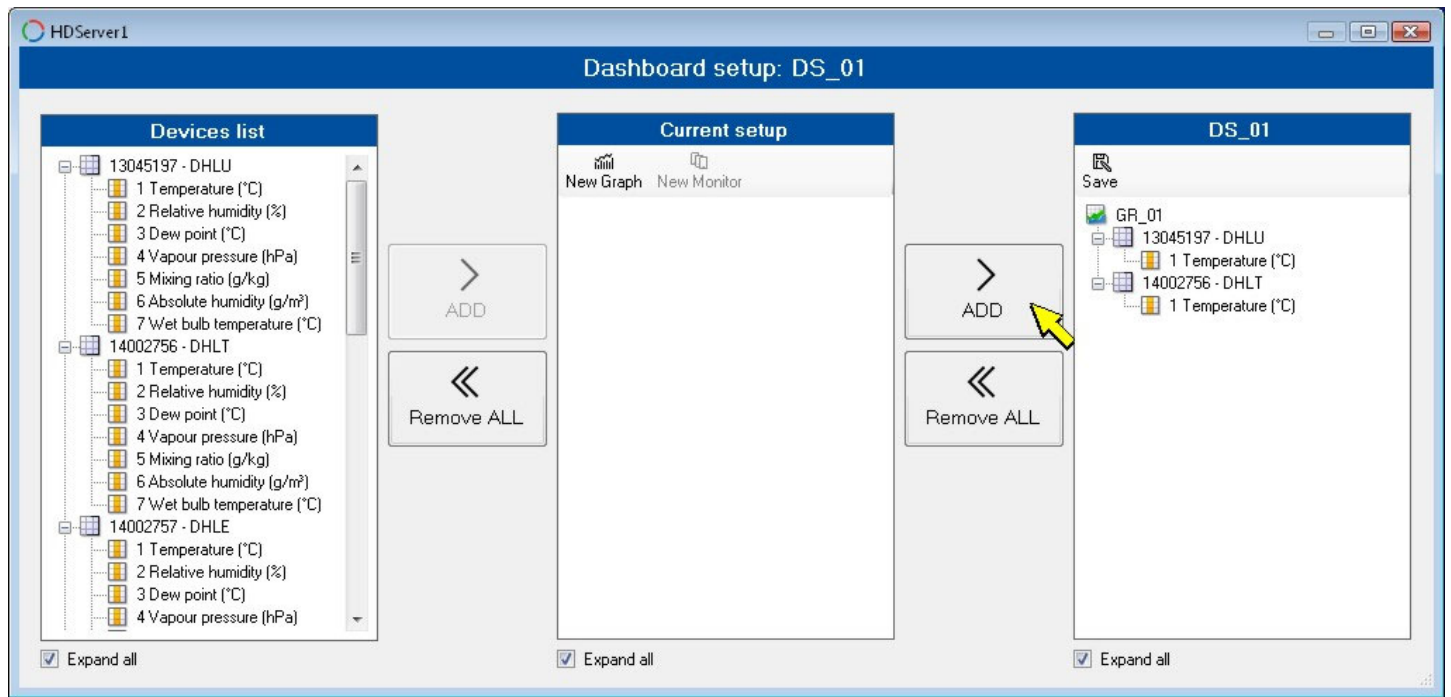
**7.** To add more graphs to the dashboard, repeat from step 3 to step 6. When finished, press **Save** and close the dashboard setup window.



Repeat the procedure above to create more dashboards. The dashboard created are accessible in the "Dashboard list" panel. To recall the graphs of a dashboard, double-click on the dashboard name.
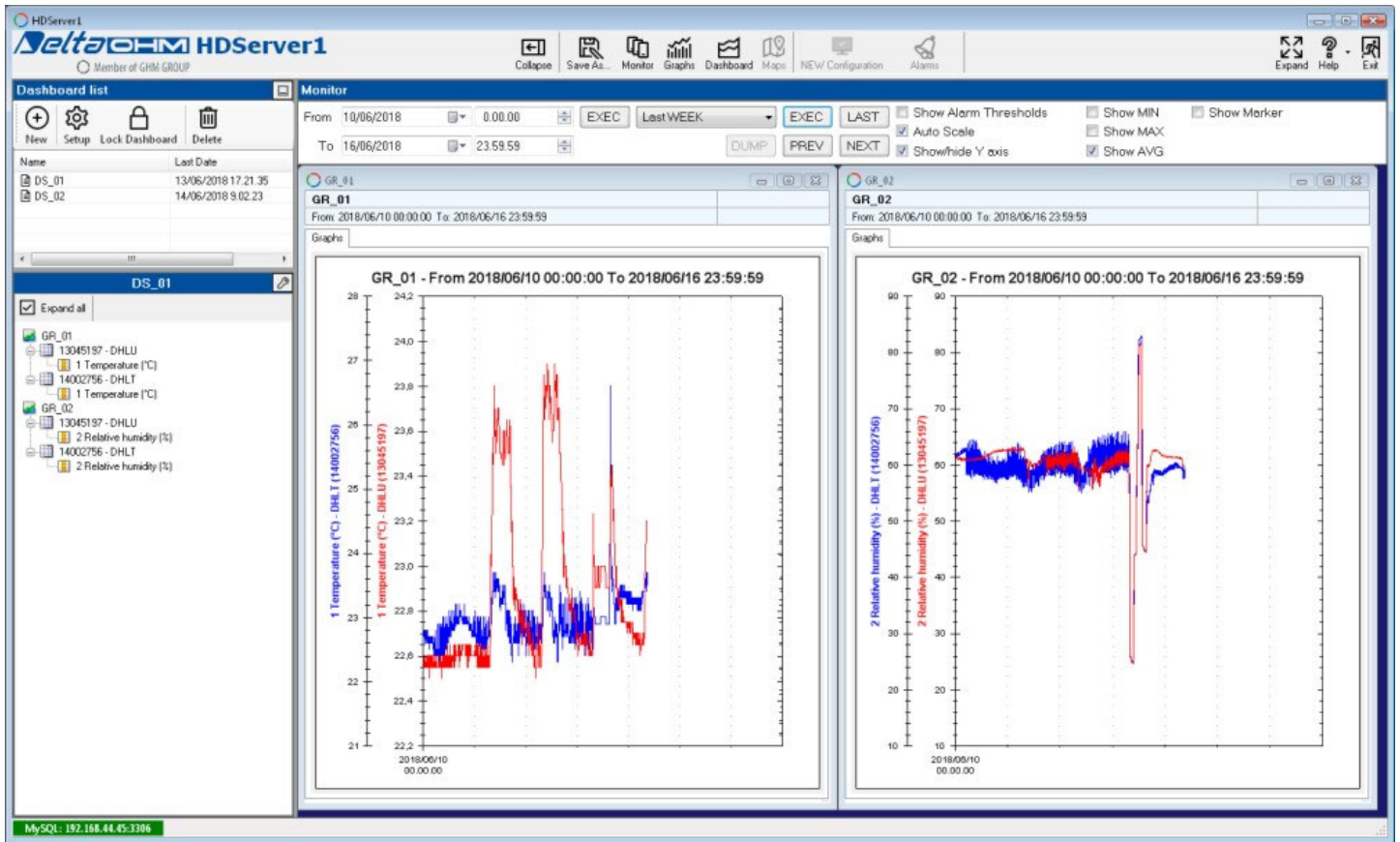
By selecting the ⚙ icon it is possible to hide/display the color setting of the graphs and the manual setting of the minimum (**minY**) and maximum (**maxY**) of the scale of the ordinates for each quantity (the manual setting is used when the "Auto Scale" option is deselected). In order to change the color of the curve of a quantity, select the color box and then choose a new color. Press "Save" to save the settings.



In order to reopen the setup window of the selected dashboard, select the icon **Setup** (or right-click on the dashboard name and select **Setup**).

The name of a dashboard can be changed by right-clicking on the dashboard name and selecting **Save As...**.

In order to delete the selected dashboard, select the icon **Delete** (or right-click on the dashboard name and select **Delete**).

The dashboard list can be hidden/displayed by selecting the small icon in the upper right corner of the panel.

**Mobile graphs window:**

The **Lock Dashboard** icon allows you to make the panel with the graphs an independent window that can be moved and resized as desired. When the icon looks as a closed padlock, the panel is "locked"; to make the panel an independent window, select the icon (which becomes an open padlock) and double-click on a dashboard name.

When the window is independent, the control panel above the graphs can be hidden/displayed by clicking on the blue header line just above the control panel.

To re-lock the panel with the graphs, select the "Lock Dashboard" icon again (which becomes a closed padlock) and double-click on a dashboard name.

# 4. DEVICES CONFIGURATION

Some parameters of a device can be configured by selecting the device in the list of devices, right clicking the mouse and selecting **Instrument setup**.
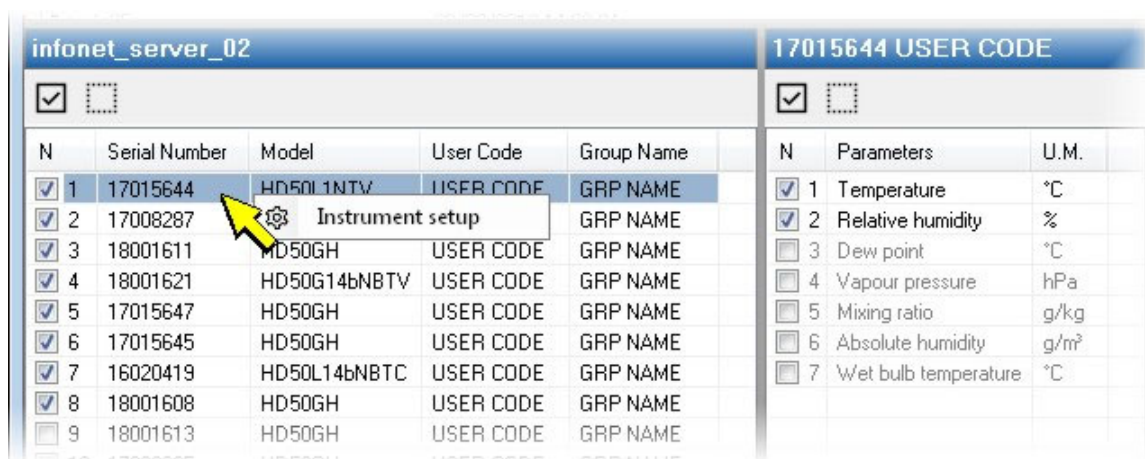


The "End Device settings" window will open. When opened, the window displays the **ED configurations** section, which allows setting the user code, the group, the logging interval and the measurement interval.
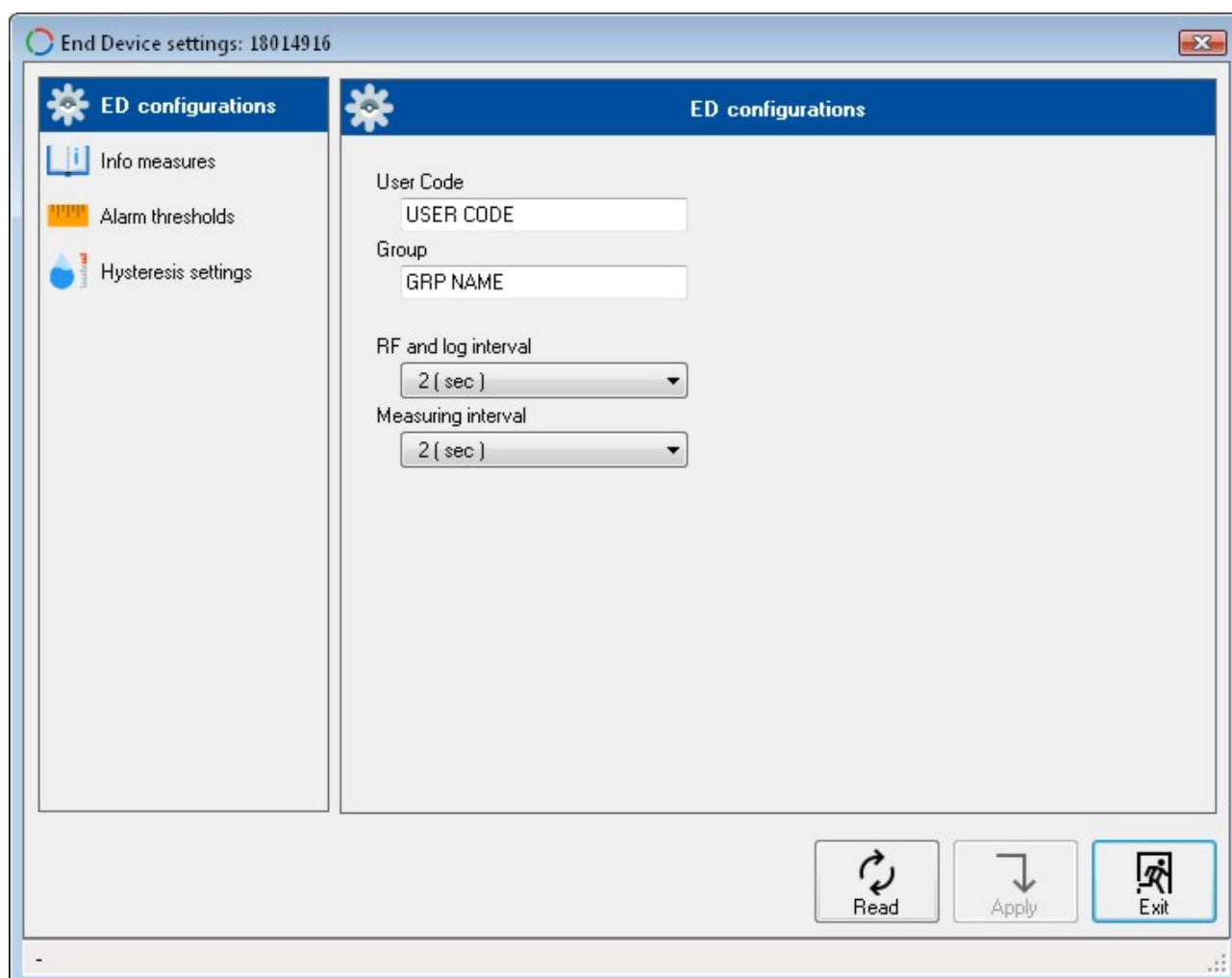
The **User code** is an alphanumeric code which identifies the device. Maximum length 20 characters. The ASCII characters from 32 (blank) to 126 (~) are accepted.

The **Group** is a code useful to identify subsets of devices, for example all devices installed in the same room. Maximum length 10 characters.

The logging interval and the measuring interval can be set to 1 s, 2 s, 5 s, 10 s, 15 s, 30 s, 1 m, 2 m, 5 m, 10 m, 15 m, 30 m, 1 h. The value stored is the average of the acquired values (with interval equal to the measuring interval) within the logging interval set. The measuring interval must be lower or equal to the logging interval (if a higher value is set, it is forced to the logging interval value). Only for the HD35... series, the logging interval coincides with the RF transmission interval of the data from the data logger to the base unit.

The **Info measures** section lists all the quantities measured by the device. For each quantity, resolution and unit of measurement are shown. If the device measures more quantities of the same type (for example two temperatures), a name to distinguish the quantities of the same type can be entered in the "Set measurement name" field.

**End Device settings: 18014916**

- ED configurations
- **Info measures**
- Alarm thresholds
- Hysteresis settings

**Info measures**

| Ch | Type of measure | Set measurement name | Res. | U.m. |
|----|-----------------|----------------------|------|------|
| 1 | Temperature | TEMP 1 | 0,1 | °C |
| 2 | Relative humidity | Relative humidity | 0,1 | % |
| 3 | Dew point | Dew point | 0,1 | °C |
| 4 | Vapour pressure | Vapour pressure | 0,01 | hPa |
| 5 | Mixing ratio | Mixing ratio | 0,1 | g/kg |
| 6 | Absolute humidity | Absolute humidity | 0,1 | g/m³ |
| 7 | Wet bulb temperature | Wet bulb temperature | 0,1 | °C |
| 8 | Temperature 2 | TEMP 2 | 0,1 | °C |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | RSSI - received signal strength | | 1 | dBm |
| 14 | PER - packet error rate | | 0.1 | % |

Read    Apply    Exit

The **Alarm thresholds** section allows setting the lower and upper alarm thresholds for each measured quantity. The alarm is generated when the measured value drops below the lower threshold or exceeds the upper threshold.

The **Hysteresis settings** section allows setting the hysteresis of the alarm thresholds and the alarm delay for each measured quantity.
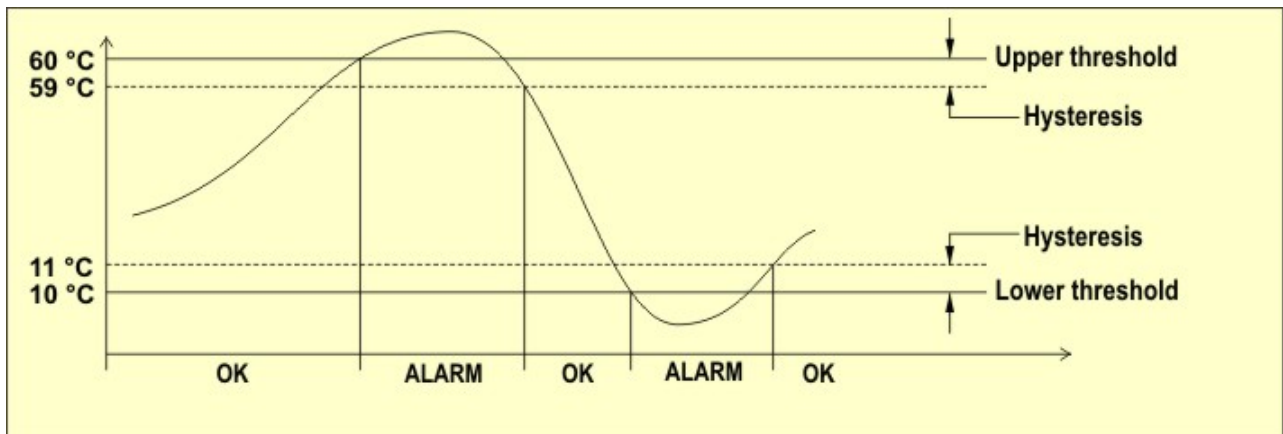
The width of the hysteresis is a percentage (0 ... 100%) of the difference between the two alarm thresholds. For example, if Hysteresis=2%, Lower threshold=10 °C and Upper threshold=60 °C, the hysteresis is (60-10)x2/100= 1 °C:



The alarm is generated after the time set in the **Alarm delay** field. The alarm is generated immediately if "no delay" is selected. If the alarm condition ends before the delay time is elapsed, the alarm is not generated.

*Note*: the timely reporting of an alarm condition depends on the measuring interval: the shorter is the measuring interval, the more timely the reporting of the alarm condition will be.

To apply the new settings (highlighted by a red flag placed on the right of the modified parameters) , press **Apply**. An icon at the bottom left of the "End Device settings" window indicates whether the settings have been changed successfully or not.



By pressing the **Read** button, the software reads the the current configuration of the device again.

In order to close the window, press **Exit**. If any modifications was made, but they were not transferred to the device, a message will appear asking the user if he wants to transfer the modifications before closing the window.

# 5. ACTIVATION OF CFR21 PART 11 MODE

*(The HD35AP-CFR21 option is required)*

**In order to activate the mode, the hardware key supplied with the HD35AP-CFR21 option must be connected. The hardware key can be connected to any PC connected to the same local network of the PC in which the HDServer1 software is installed. The key management software must be installed on the PC to which the hardware key is connected (please see the instructions provided with the key).**

In CFR21 part 11 mode, the program records the activities of the system and allows controlling the users access.

In order to enable the CFR21 part 11 mode, select **Help** in the toolbar, then select **Software module 21 CFR part 11**.
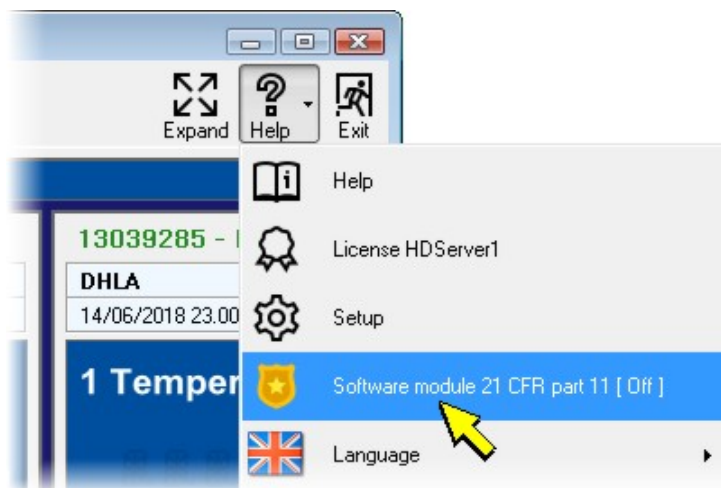


If the password request is enabled (see Software options), you are prompted for a password to activate the mode. Enter the administrator password (**the mode can be enabled only by a user with administrator credentials**) and press **Apply**.
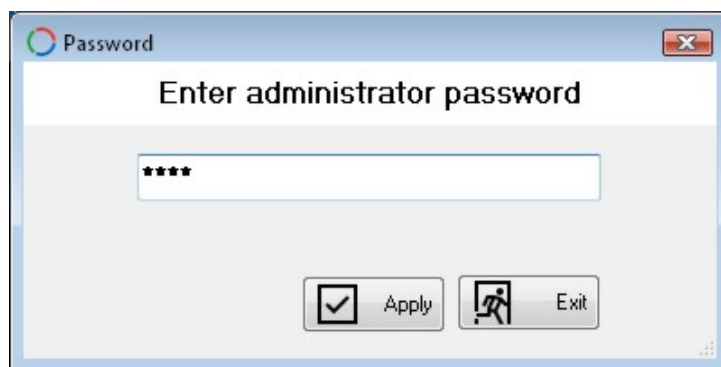


You are prompted to confirm the operation, press "Yes" to proceed. In the window that opens, enter the IP address of the PC where the hardware key is inserted (enter 127.0.0.1 if it is the local PC) and the port number set in the management software of the hardware key (default 15151), then press **Execute** and wait for the hardware key to be recognized (**present** indication).

Press **Save** to save the parameters in the PC. Press **Exit** to close the window: the message confirming the activation appears, press "OK" and restart the software.

After the restart, the software requires the access credentials: enter the user name and the password (the default user name and password are supplied with the hardware key) and press *OK* to proceed.

*Note*: the database (*Database Login*) and hardware key (*Setup Hw Key*) parameters are those already entered previously.

The icons of the CFR21 part 11 functions (**Users**, **Audit trail**) are shown in the toolbar.
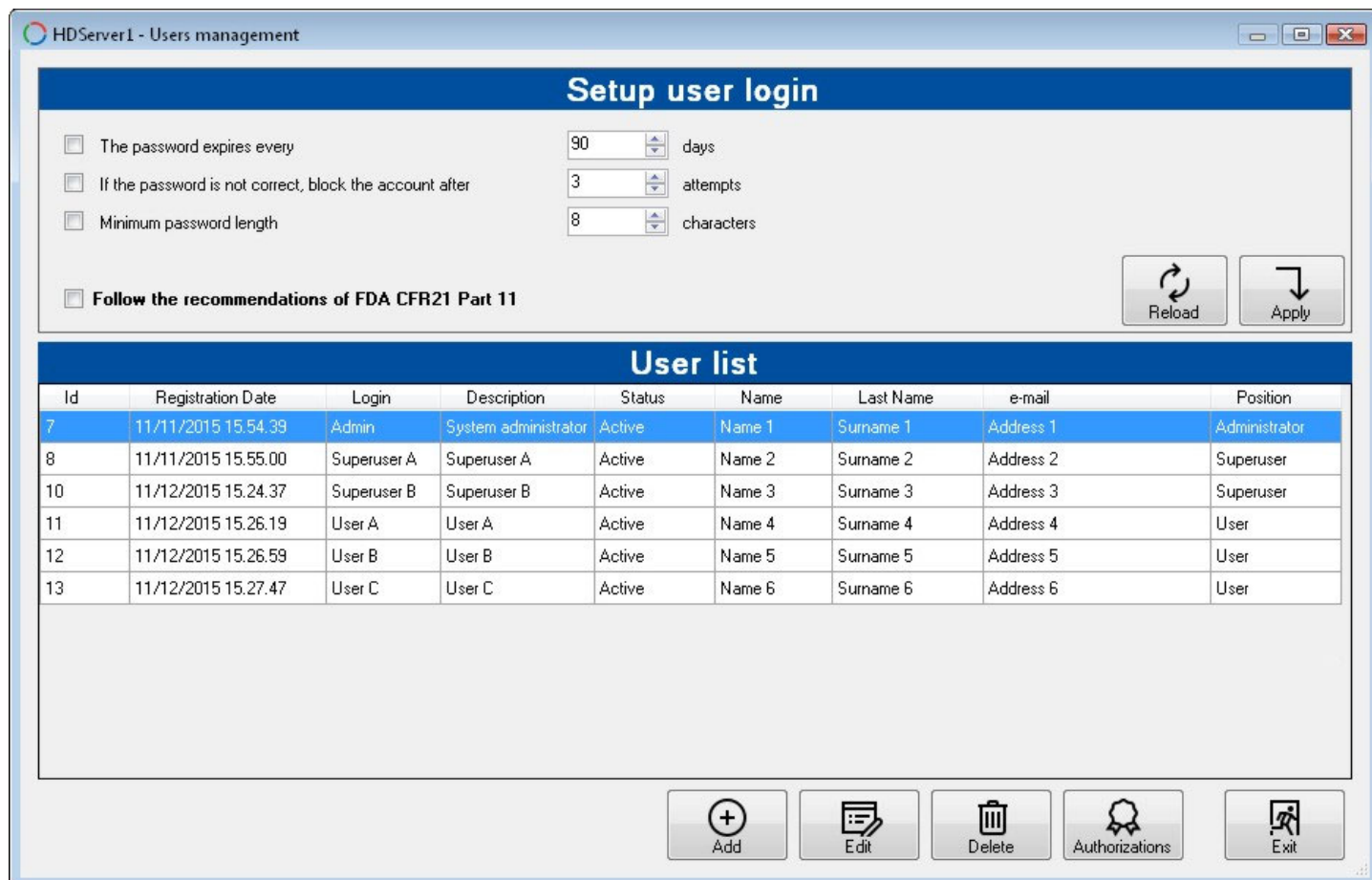
To close the user session, select **Logout** in the toolbar.

In order to disable the CFR21 part 11 mode, select **Help** in the toolbar, then select **Software module 21 CFR part 11**. If the password request is enabled, you are prompted for a password: enter the administrator password (**the mode can be disabled only by a user with administrator credentials**) and press **Apply**. You are prompted to confirm the operation, press "Yes" to proceed. The message confirming the disabling appears, press "OK", then restart the software.

## 5.1. USERS MANAGEMENT

*(function available only with CFR21 part 11 mode active)*

To define the list of the users authorized to access the system, select **Users** in the toolbar. The list of the users registered in the active database (the database indicated during login) appears.



**Add a new user**

Press the **Add** button. The user form appears; enter the required data and press "OK".

The "Status" field allows enabling (Status=Active) or disabling (Status=Deactive) the user acces to the system.

The *Position* field determines the user permissions (Administrator, Superuser or User).

*Note*: by pressing the "magnifying glass" symbol next to the "Password" field, the password is displayed.

The user is registered in the active database (the database indicated during login).

**Edit the properties of a user**

In the list of the users, select the desired user and press the **Edit** button. Enter the administrator password and press **Apply**. The user form appears; edit the data and press "OK". To update the registration date to the current date, press the **Update registration** button.



**Delete a user**

In the list of the users, select the user to be deleted and press the **Delete** button. Enter the administrator password and press **Apply**. You are prompted to confirm the operation, press "Yes" to proceed.

**Types of users and permissions**

There are three types of user: **Administrator**, **Superuser** and **User**. For each type of user you can decide which operations can be performed with the software.

Press the **Authorizations** button. Enter the administrator password and press **Apply**. For each type of user, select the authorized operations. To select all the operations, press the "Select all" buttons in the upper part of the window. To set the default authorizations, press the "Default" buttons. When finished, press the **Save** button. Press **Exit** to return to the list of users.



**Password properties**

In the "Setup user login" section of the "Users management" window, you can configure:

- The period of validity of the password.
- The number of attempts with wrong password before blocking the user.
- The minimum length of the password.

To set the CFR21 part 11 recommended values (period=90 days, number of attempts=3, minimum length=8), select the option "Follow the recommendations of FDA CFR21 Part 11".

Press **Apply** to save the settings. To cancel the changes not yet saved, press **Reload**.

If the password expiration is enabled, at login the software tells the user how soon the password expires. To renew the password, the administrator must update the registration date of the user (please see the section "Edit the properties of a user").

### 5.2. TRACEABILITY OF THE ACTIVITIES

*(function available only with CFR21 part 11 mode active)*

To visualize the list of recorded activities, select **Audit trail** in the toolbar. The complete list of recorded activities are reported in chronological order.

To list only the activities recorded in a determined interval of time, select "By date", then the interval in the lower part of the window and press the key **Apply**.

To filter the activities according to the content of the fields, select the **Apply filter** option in the upper part of the window.

To close the activity window, press the **Exit** button.

# 6. SOFTWARE OPTIONS

By selecting "Help >> Setup" in the Viewer window, some software options are available:
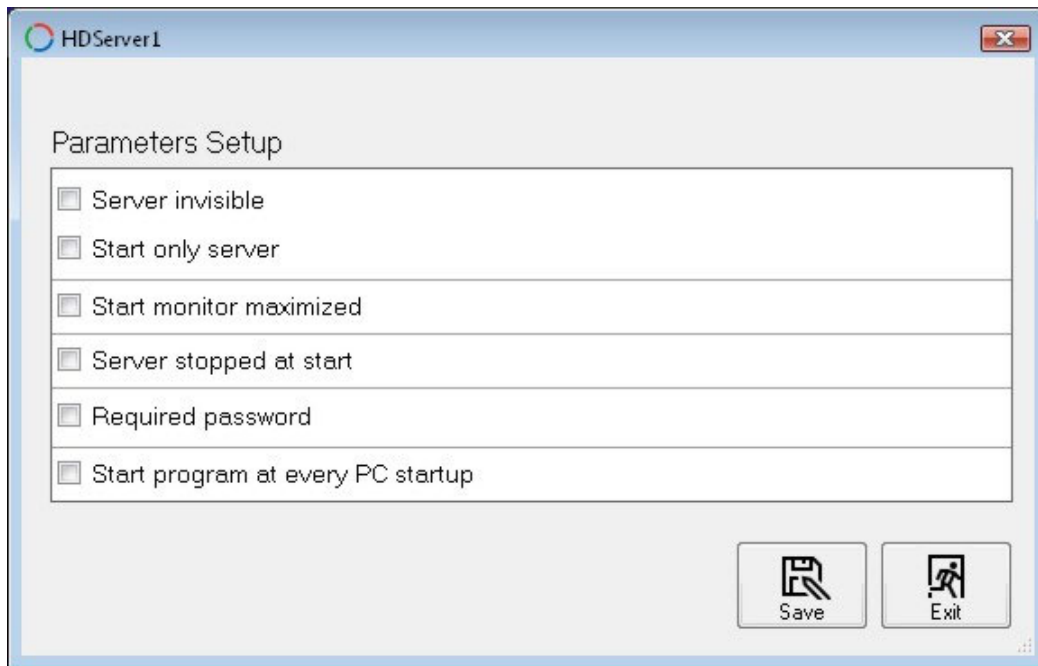


**Server invisible**: hides the Server window when the program starts.

**Start only server**: displays only the Server window when the program starts. If this option is activated, the additional button **Start New Monitor** appears in the Server window, allowing to open the Viewer window.
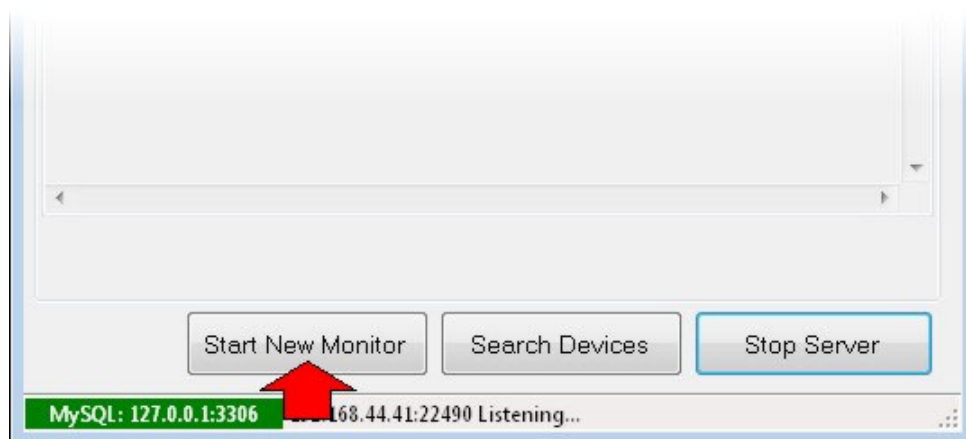


*Note*: the "Server invisible" and "Start only server" options are mutually exclusive.

**Start monitor maximized**: maximizes the Viewer window when the program starts.

**Server stopped at start**: stops the Server function when the program starts.

**Required password**: requires to enter the password to confirm the changes to the software settings. If this option is activated, when you try to change the software settings, the following window appears: enter the password (supplied with the data loggers), press **Apply** and then **Exit** (or wait for the window to close automatically after a few seconds).
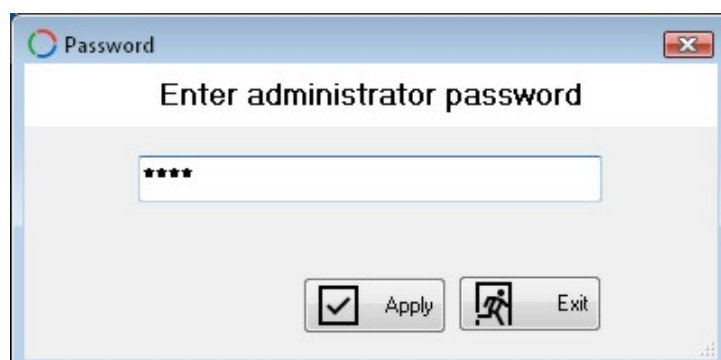
**Start program at every PC startup**: the program is started automatically every time the PC is started.

Press **Save** to save the option settings. Restart the software to make the new settings operational.

# 7. SHORTCUTS

**ALT + E**: Reloads the content of the Viewer window.

**ALT + F**: Activates/deactivates the full screen display of the measurement panels.

**ALT + R**: Brings the measurement panels back to the default size and position.

**CTRL + O**: Opens the selected "Visualization".

**CTRL + S**: Saves the current "Visualization".

# 8. SOFTWARE LANGUAGE

In order to modify the software language, select **Help** in the toolbar, then select **Language** and choose the appropriate language.

The software also allows selecting a user-defined language (**Language** >> **User**). In order to edit the strings in the user language (in english by default), modify, by using a text editor, the file "USER.lng" included in the software installation folder.
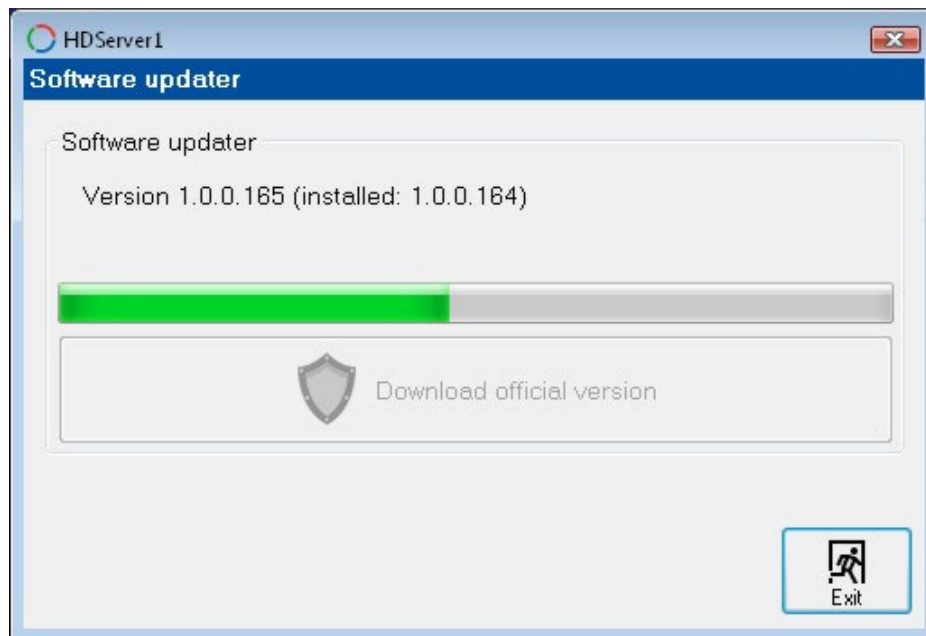
# 9. UPDATING THE SOFTWARE

To check for software updates, select **Help** in the toolbar, then select **Check for updates...**

The latest available version and the installed version of the software are shown. If the installed version is older than the latest available version, the **Download official version** button is enabled: press the button to download the update.
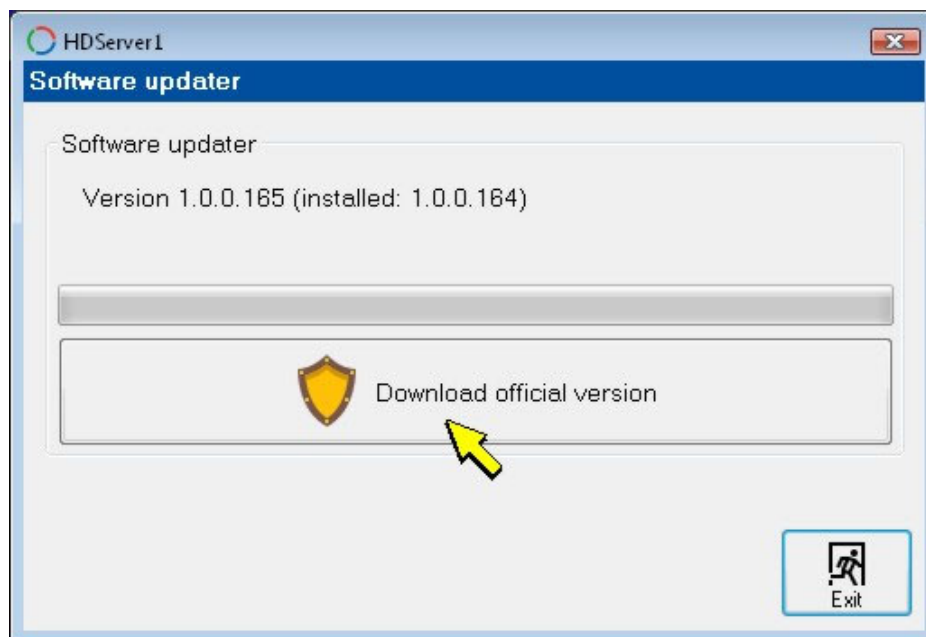


Wait until the update is downloaded.

At the end of the update, a message asking to restart the software appears, press OK.