sauermann®

USER MANUAL

KILOG CFR: OPERATING SOFTWARE FOR KISTOCK DATA LOGGERS

Table of contents

1 INTRODUCTION

KILOG CFR 2015 software is the essential tool for users whom traceability is subject to the 21 CFR part 11 standard. The security and the integrity of your data are protected from any manipulation or falsification.

The software also allows the user to set their KISTOCK, record and use their data in a very easy way. Available as option, with the KISTOCK classes 20, 50, 120, 220 and 320, KILOG-CFR 2015 software allows the visualisation and exploitation of measurements datasets.

Its main functions:

- Viewing the results of the measurement datasets
- Zoom function for more detailed study of a period
- Setting up the data loggers
- Management of the instruments database
- Data recovery and creation of files under image or tables files

2 INSTALL THE SOFTWARE

2.1 Minimum configuration required

- Windows XP SP3, Windows Vista, Windows 7 or Windows 8
- USB port for communication with KISTOCK
- CD reader for the installation of the software
- Internet connection to update the instruments
- RAM 1024 MB

2.2 Installation

Only an administrator of the computer can install the KILOG CFR 2015 software.

➢ Insert the CD-ROM. The installation auto runs.

If not, use your browser to launch the "setupKilogCFR.exe" file from the installation CD.

➢ Follow the instructions on the screen.

According to the software installed or not on the computer, (mainly NET Framework), waiting time can be long – Please wait.

The software is now installed, **KILOG CFR 2015** icon is on the desktop. 

During installation, 2 groups are created:

- A group of administrators named "Admins" with **admin** as username and **admin** as password.
- A group of users named "Users" with **user** as username and **user** as password.

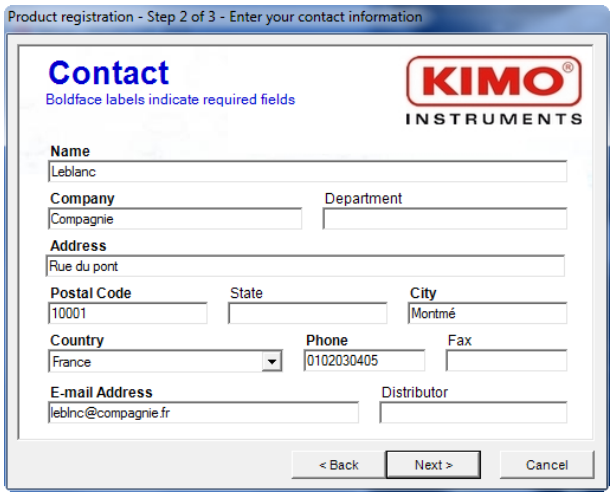
2.3 KILOG CFR 2015 software registration

At the end of the KILOG CFR 2015 installation, a registration program is launched. It allows to send an application of licence key to Sauermann, by e-mail or Fax.

The following window opens at the end of the installation:

➢ Click **"Next"**.
The following window opens with information about the software:

➢ Click **"Next"**.
The following window opens.



➢ Fill in the fields.

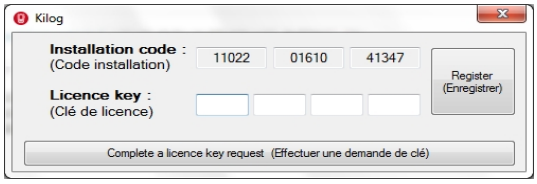
"Name", "Company", "Address", "Postal Code", "City", "Country", "Phone" and E-mail address" are compulsory.

➢ Click "Next".

The following window opens:

- Select how to register the product.
- Click **"Finish"**.

Once the licence key is obtained, launch the Kilog-CFR 2015.
The following window opens.



- Enter the licence key supplied by Sauermann.
- Click **"Register"**.
  A message that indicates the key is correctly registered is displayed and the software starts.

If **"Register later"** has been selected during the product registration step, click **"Complete a Licence key request"**.

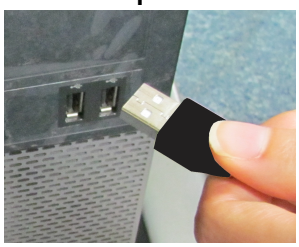
3 CONNECT THE DATA LOGGER TO THE COMPUTER

Class 50 KISTOCK

KISTOCK of the class 50 are equipped with a micro-USB connector. Thanks to the USB – micro-USB cable, you can connect your data logger to the computer.

1. Connect the male USB connector to the computer USB port.
2. Open the USB cap on the bottom of the data logger.
3. Connect the male micro-USB connector to the female micro-USB connector of the data logger.

1



2

3

Class 120 KISTOCK

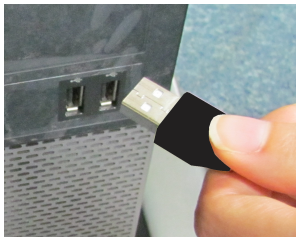
KISTOCK of the class 120 are equipped with an integrated male USB connection. You can connect it directly to the computer.

Class 220 KISTOCK

KISTOCK of the class 220 are equipped with a micro-USB connector. Thanks to the USB – micro-USB cable, you can connect your data logger to the computer.

1. Connect the male USB connector to the computer USB port.
2. Open the USB cap on the bottom of the data logger.
3. Connect the male micro-USB connector to the female micro-USB connector of the data logger.

1



2

3

Class 320 KISTOCK

KISTOCK of the class 320 are equipped with a micro-USB connector. Thanks to the USB – micro-USB cable, you can connect your data logger to the computer.
Perform the same procedure as for class 220 KISTOCK.

4.1 Launch the application

- Double-click the desktop icon
  or
- Go to **"Start",** then **"KILOG 2015"**.

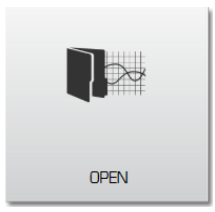
The following homepage opens:

4.2 Main menu buttons

Data logger settings: displays the devices state and a configuration menu (channels, instrument and a configuration summary).

Download datasets saved in the data logger: global view, legend and statistics, graphs and table of data.

Application parameters: location of the data files, MKT value, printing options, graph properties.



Open files: recent files and measurement datasets.

4.3 Menu bar

File menu

- **Open:** opens recent files or datasets. For each selected file, details of the document are displayed (type of recording, interval, preview etc.)
- **Close:** closes the current file
- **Save:** saves the current file
- **Save as:** saves the modifications on the document, generates the modifications on a new document and allows to rename the document
- **Save period:** creates a new file containing only the points of the period displayed on the graph
- **Export:** exports the table of measured values in CSV (spreadsheet), the graph in JPEG image or the report in PDF
- **Add file:** import points of another file into the current file
- **Reset file:** gives back the original file cancelling all the modifications
- **Properties:** displays information about the dataset
- **Print preview:** view the document before printing it
- **Print:** launches the current file printing
- **Exit:** closes the software

Data logger menu

- **Configuration:** data logger state and configuration menu (channels, data logger and summary)
- **Downloading:** download the datasets saved in the data logger and save them in the computer.
- **Measurement correction:** correct the measurement (coefficient, offset).
- **Products database:** manage the database of data loggers that have been connected to the computer

Functions menu

- **Add a function:** add additional channels, calculated from channels already saved
- **Modify a function:** if a channel added through a function is selected on the graph or on the table, edit it and modify it from this menu
- **Delete a function:** if a channel added through a function is selected on the graph or on the table, this channel and all channels calculated later will be deleted

Tools menu

- **Language:** select the required language
- **Management of customers and operators forms:** manage your lists of contacts, customers and operators and then integrate them in dataset files. Customers and operators are listed on the left menu. Click a name on the list to get contact details: company, address, phone number, e-mail, etc.
- **Management of time slots templates:** access the time slots templates management window
- **Select the time slots:** access the time slots window
- **Options:** application parameters: data files location, MKT value, printing options, graph properties
- **Event log:** open the event log of the software

"?" menu

- **About:** software version, users base, global base and language
- **Help:** link to the software user manual

4.4 Toolbar

The toolbar has shortcuts to go to the functions menu quickly.

Open a dataset

Save the current dataset

Export data

Printing **preview**

Print the dataset

Download the connected data logger

Configure the connected data logger

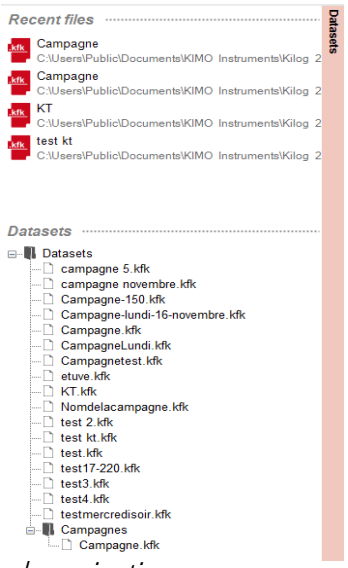
Start a measurement dataset in **"ONLINE"** mode, direct recording

Options to set parameters of the application

4.5 Side tab: "Datasets"

At any time, a quick access to recent opened files and to measurement datasets is possible thanks to the side tab located on the left-hand corner:

- Click this tab to display the following menu:
- Double-click a file to open it.



The open files are organised in tabs in the upper part of the screen for a quick and simple navigation:

** Available only for classes 220 and 320 KISTOCK.*

5.1 Manage users and groups

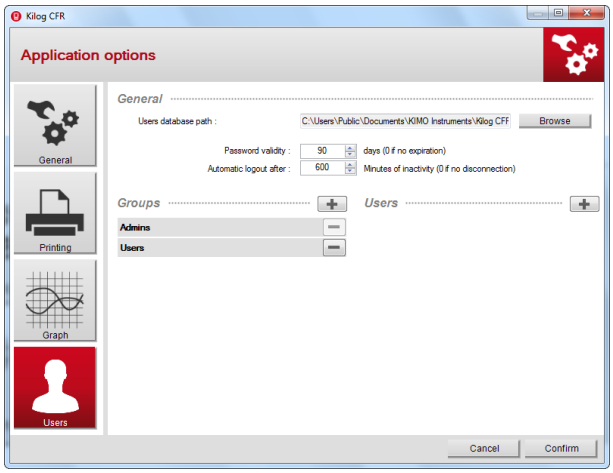
Create groups and users and attribute rights to them. Define the location where the base is saved, the period of validity of passwords and the automatic disconnection.

➢ Click **"Tools"** menu then **"Options"**.
The window of the options for the application opens.

➢ Click 

to go to users options.

The following window is displayed:



It allows to define:

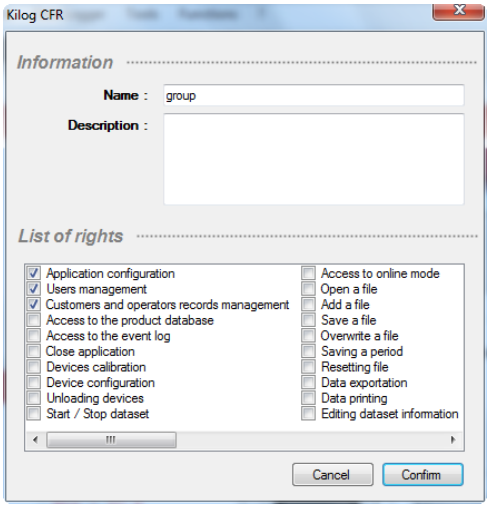
- the path for the saving of the users base:
  ➢ Click **"Browse"** then define the location where the users base will be saved
- the period of validity for the password:
  ➢ Enter the number of days between **0** (no expiration) and **365 days**
- the automatic logout time
  ➢ Enter the time of inactivity between **0** (no logout) and **600 minutes**

5.1.1 Create a users group

➢ Click  next to **"Groups"**.
The opposite window opens:

➢ Give a name and a description to the group.

➢ Tick the boxes corresponding to the rights to attribute to the group.



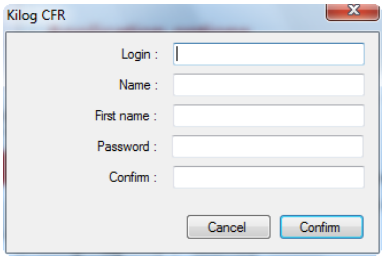
Rights to attribute are the following:

Application configuration	Start / Stop dataset	Data printing
Users management	Access to online mode	Editing dataset information
Customers and operators records management	Open a file	Management of calculated channels
Access to the product database	Add a file	Management of annotations
Access to the event log	Save a file	Sign a file
Close application	Overwrite a file	
Devices application	Saving a period	
Device configuration	Resetting file	
Unloading devices	Data exportation	

➢ Click **"Confirm"**.
The created group appears on the groups list.

5.1.2 Create a user

➢ Click the group to whom the user will belong.
➢ Click [+] next to **"Users"**.
The opposite window opens:



➢ Enter the following information:
- User name
- Name
- First name
- Password
- Password confirmation

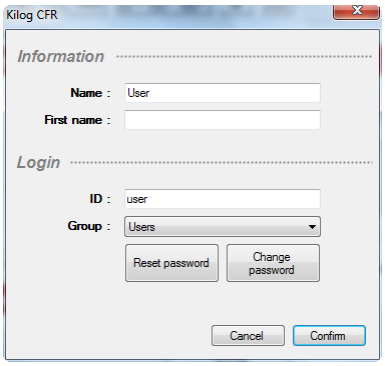
User name and passwords must contain at least 4 characters.

➢ Click **"Confirm"**.
The created user appears in the list of users of the affected group.

5.1.3 Modify a group or a user

To modify a group:
➢ Double-click the group to modify.
The information window of this group is displayed.
➢ Perform the required modifications (modifications of the name, description and rights)
➢ Click **"Confirm"** to validate the modifications.

To modify a user:
➢ Click the group in which the user to modify is present.
The list of users of the selected group is displayed.
➢ Double-click the user to modify.
The opposite window opens.
➢ Perform the required modifications.
- Name/First name
- User name
- Belonging group



- Modify the password (if necessary): click **"Modify password"** then enter a new password and confirm it.
- Reset the password (if necessary): click **"Reset password"**.

When resetting the password, it changes to be the same as the user name. Only the capital letters become lower case. Example: if the user name is **"BORC"**, the reset password will be **"borc"**.

5.1.4 Delete a group or a user

To delete a group:

- Click [−] next to the group to delete.
  A message is displayed to confirm the group deletion.
- Click **YES** to validate the deletion.

To delete a user:

- Click the group in which the user to delete is present.
  The list of users of the selected group is displayed.
- Click [−] next to the user to delete.

  A message is displayed to confirm the user deletion.
- Click **YES** to validate the deletion.

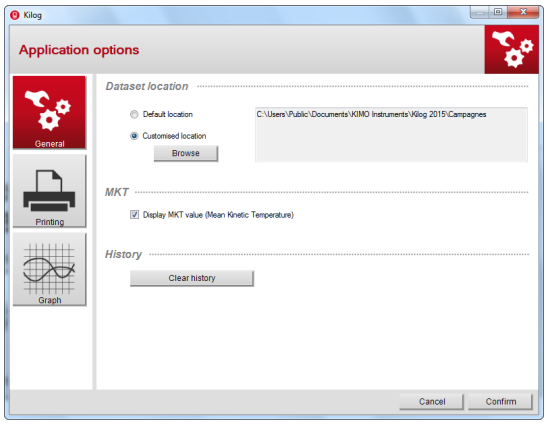
5.2 Application options

There are several options to navigate to the application options menu:

- From the homepage, click 

  or
- From the toolbar, click 
  or
- From the menu bar, select **"Tools"** then **"Options"**

The following window opens:



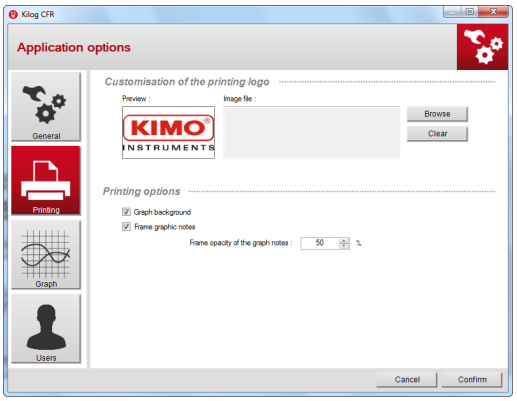
5.2.1 General options

- It is possible to set the recording location of data files: select the default location or click Browse to customise it.
- Tick or untick the **"Display MKT value"** box (Mean Kinetic Temperature) to activate or deactivate the displaying of this value: the MKT temperature is a simplified way to express the overall effect of temperature fluctuations during storage or transit perishable goods
- Delete the recent history files by clicking Clear history

5.2.2 Printing options

➢ Click 

to set the printing parameters.



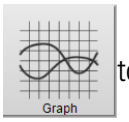
The following window opens:

➢ Define a printing logo. Default logo is the KIMO logo. To modify it, click and select an image file.

➢ Set the printing options of the graph: print or not the graph background, frame or not notes and set the opacity of the graph notes.

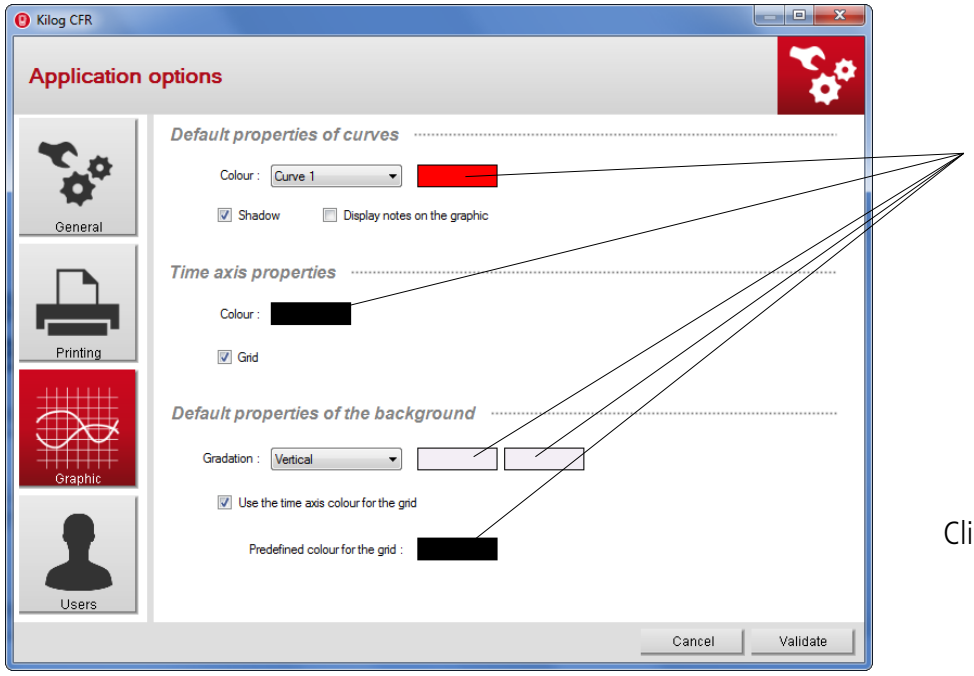
➢ Click Clear to restore KIMO logo.

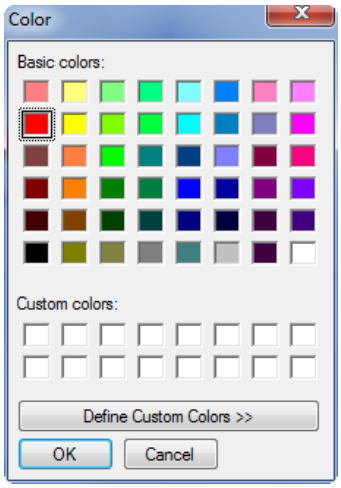
5.2.3 Graph options

➢ Click 

to set the graph parameters.

The following window opens:





Click on the coloured squares of the options window to display the colours palette.

➢ Define the colour of the different curves, display or not the shadow of the curves and display or not notes on the graph.

➢ Define the time axis colour and activate or deactivate the grid.

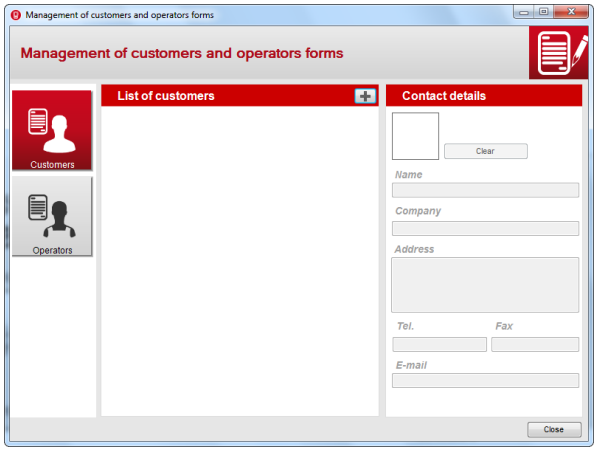
➢ Define the required colours for a gradation on the background, activate or deactivate the use of time axis colour for the grid or customise it.

5.3 Manage customers and operators

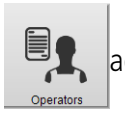
It is possible to create a base with customers whose datasets are intended for and operators who have performed the datasets.

5.3.1 Create a customer or an operator

➢ In the menu bar, click **"Tools"** then on **"Management of customers and operators forms"**.
The following window opens:

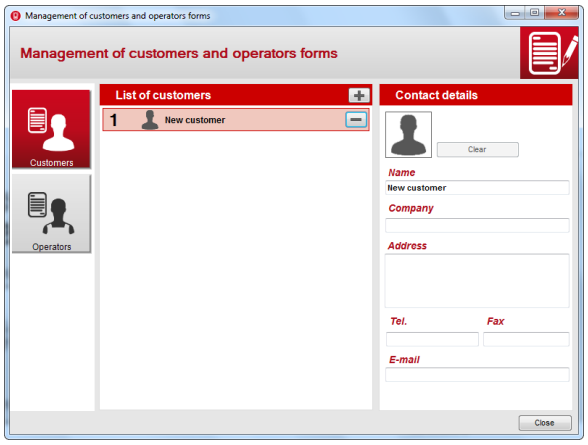


➢ Click 

or 

according to the type of contact to create.

➢ Click 
A customer or an operator appears on the list:



➢ Click the line of this customer or operator.
Contact details on the right become accessible and can be filled in.

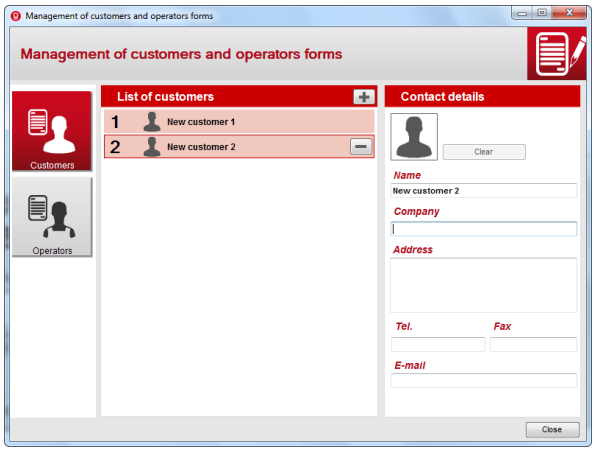
➢ Enter contact details: name, company, address, phone number, fax and e-mail.
Name of the customer or operator and its company appear in the list.

➢ Click  to customise the contact picture selecting an image file on the computer.

➢ Click **"Close"** to exit and back to home page.
Customer or operator is saved.

5.3.2 Delete a customer or an operator

➢ In the menu bar, click **"Tools"** then on **"Management of customers and operators forms"**.
The following window opens:



- Select the customer or operator to delete.
- Click [−] next to the customer or operator to delete.
  A message is displayed to confirm the deletion.
- Click **"Yes"** to delete the customer or operator or click **"No"** to cancel.
- Click [Close] to close the window.

5.3.3 Modify a customer or an operator

- In the menu bar, click **"Tools"** then on **"Management of customers and operators forms"**.

From the **"Management of customers and operators forms"** window:

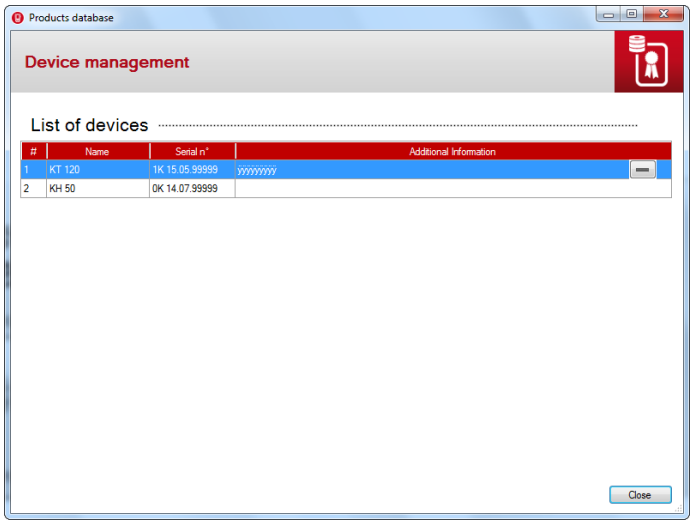
- Click the customer or operator to modify.
- Modify the required information in **"Contact details"** part.
  Modifications are automatically took into account.
- Click [Close] to close the window.
  Modifications are saved.

5.4 Select the language

- From the menu bar, click **"Tools"** then go to **"Language".**
- Select the required language.

To go to this function, click **"Data loggers"** in the menu bar then select **"Products database"**.

The following window opens:



The software displays the list of data loggers that have been connected to the computer with their serial number.

- Click **"Additional information"** field in front of the required element to add information.
- Click Close to close the window

6.1 Delete a data logger saved in the database

- Select the line of the data logger to delete.
- Click —
  The software displays confirmation message.
- Click **"Yes"** to confirm the deletion of the data logger or on **"No"** to cancel.
- Click Close to close the window

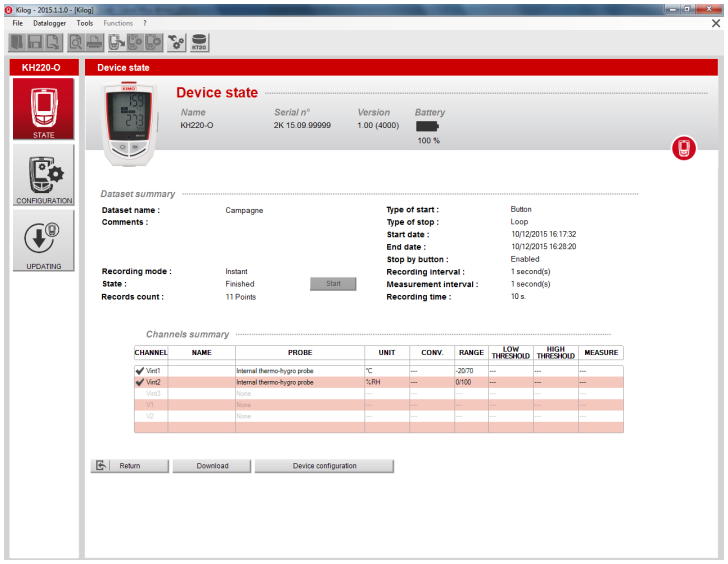
There are several options to navigate to the KISTOCK configuration menu:

- From the homepage, click 

or
- From the toolbar, click 
or
- From the menu bar, click **"Data logger"** then **"Configuration"**.

7.1 Device state

*Once in the **"Configuration"** menu, the software displays a summary of the device state:*



In the upper part of the screen, the software displays:

- Name
- Serial number
- Firmware version
- Battery state

In **"Dataset summary"**, the following information is displayed:

- Dataset name and the potential comments that have been recorded
- Type of start and stop
- Number of recording points
- Interval of recording and measurement
- Mode and recording duration
- Dataset state (in progress or finished)

Finally, a summary table of channels is displayed with:

- Channel name
- Measurement unit
- Measurement ranges
- High and low thresholds
- Channel number
- Converted channel (if configured, please see page 25)
- Type of probe*

** Only for classes 220 and 320 KISTOCK*

7.2 Configure the device and the recording mode

There are several options to navigate to the KISTOCK recording configuration:

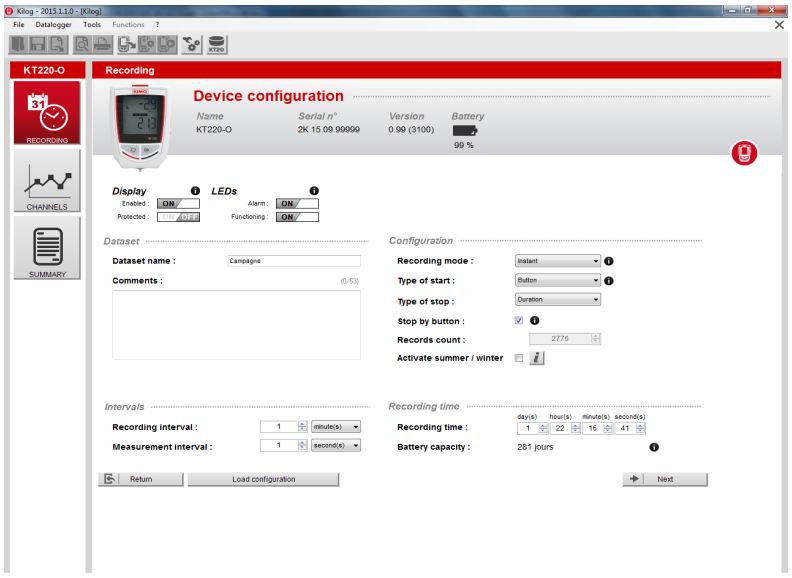
- From the homepage, click 

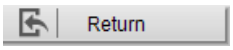
and select 

or
- In the menu bar, click **"Data logger"** then on **"Configuration"** and select 

or
- From the **"Device state"** window, click **"New configuration".**
To load a configuration previously saved click 

(see page 26 to save a configuration)
The following window opens:



At any time, it is possible to back to the state summary of the device clicking 

7.2.1 Set the display and the LEDs

From the **"Recording"** window:

- Set the display of the KISTOCK* **"ON"** or **"OFF"** by clicking 

Display


Display


- Set the protected mode of the KISTOCK* **"ON"** or **"OFF"** by clicking 

If the protected mode is activated, the measured values will not be displayed on the data logger.
To deactivate the protected mode, set it on **"OFF"** or press for 3 seconds the **"Selection"** key of the data logger.

- Set the alarm by LEDs** **"ON"** or **"OFF"** by clicking 

- Set the operating LEDs** **"ON"** or **"OFF"** by clicking 

** Only for models with display*
*** Only for classes 220 and 320 KISTOCK*

7.2.2 Activate the wireless connection (Class 320 Kistock)

Activate or deactivate the wireless connection function of class 320 Kistock and define or not a protection code which will be asked by Kistock Mobile application.

- Activate or deactivate the wireless connection by clicking ON OFF
- Activate or deactivate the protection code by clicking ON OFF
- Then define the protection code if it has been activated.

7.2.3 Name and comment a dataset

From **"Device configuration"** window:

- Name the dataset in the **"Dataset name"** field and write a comment in the **"Comment"** field.

7.2.4 Change daylight time

From the **"Recording"** window:

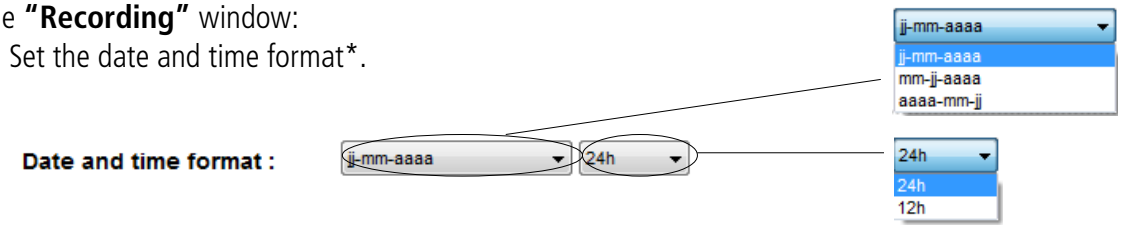
- Activate or deactivate the automatic setting of daylight time ticking or unticking the box.

- Click **"Information"** to display the time changes.

7.2.5 Set the date and time format

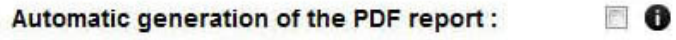
From the **"Recording"** window:

- Set the date and time format*.



7.2.6 Activate or deactivate the automatic generation of the PDF report (Class 120 Kistock)

- Tick or untick the **"Automatic generation of the PDF report"** box to activate or deactivate the automatic generation of the PDF report when connecting your data logger to the computer*.



7.2.7 Set the recording mode

From the **"Recording"** window:

- Select the required recording mode:
  - **Instantaneous**: values are recorded at defined recording interval
  - **Minimum****: configuration of this mode requires 2 intervals: one measurement interval and one recording interval. The recorded value will be the minimum measured by the data logger according to the defined intervals.

    Example: recording interval = 10 minutes
    measurement interval = 1 minute

    The KISTOCK performs a measurement every minute but only records the minimum value found over the period of 10 minutes.

1 min.	2 min.	3 min.	4 min.	5 min.	6 min.	7 min.	8 min.	9 min.	10 min.
26.5°C	26.5°C	**26.4°C**	26.5°C	26.5°C	26.6°C	26.7°C	26.7°C	26.5°C	26.6°C

    10 measurements | Recording of the minimum measured: **26.4°C**

  - **Maximum****: same principle as minimum mode but the maximum value is recorded.
  - **Average****: same principle as minimum and maximum modes but the recorded value is the average of all the measurements during the recording interval defined.

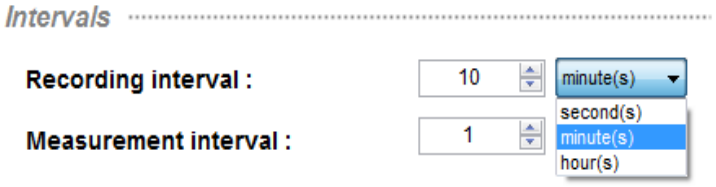
** Only for class 120 KISTOCK*
*** Only for classes 220 and 320 KISTOCK*

- **Monitoring***: this recording mode requires two intervals:
  - one **"classic"** recording interval
  - one **"in alarm"** recording mode

  The data logger performs a measurement every second and stores values at "classic" interval when the measurement are between two defined thresholds, or at "in alarm" interval when measurements are out of thresholds.

7.2.8 Set the recording intervals

From the **"Recording"** window:

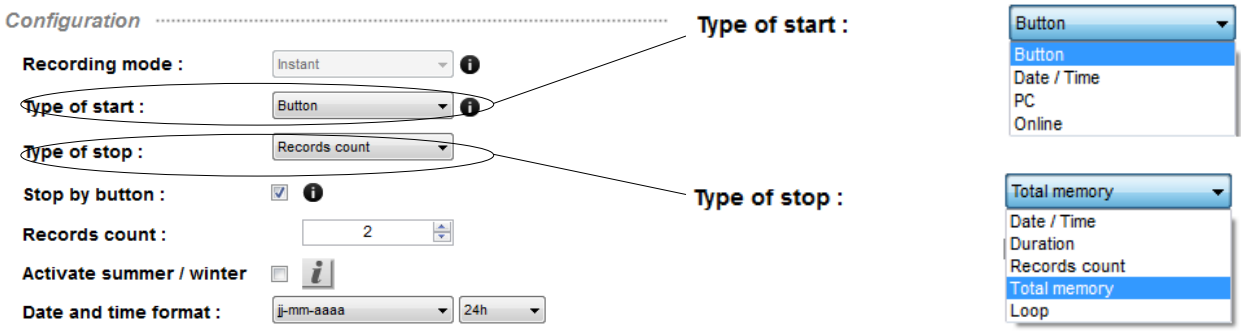


➢ Set the recording interval and potentially a second one* whose role is variable according to the type of operating selected:

- **Instantaneous mode:** the 1st interval is the recording interval of values, the 2nd one allows to define a reloading interval of the displayed value on the screen (for classes 50 and 120, this interval is by default 1 minute).
- **Minimum, Maximum, Average modes*:** both intervals are compulsory, one recording interval and one measurement interval.
- **Monitoring mode*:** both intervals are compulsory, one "normal" recording interval and one "in alarm" recording interval.

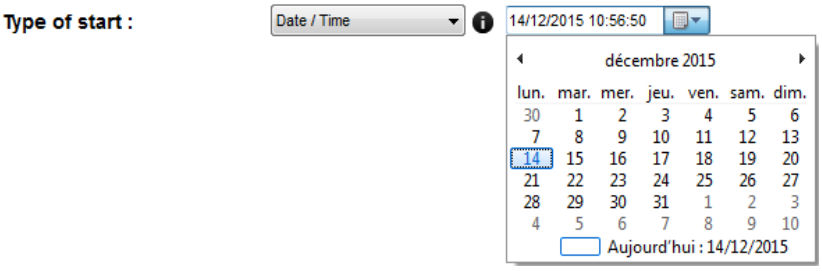
7.2.9 Types of dataset start and stop

From the **"Recording"** window:



➢ Select a type of start:

- **"Button":** start by a long press on the **"OK"** button of the data logger
- **"Date/Time":** set a start according to a defined date and time. Set the required date and time: modify the date and time in the filed with the numeric keypad or click icon to display the calendar and select the required date.

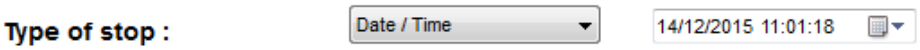


- **"PC":** trigger a measurement start directly from the KILOG software. For that, once the configuration of the data logger is completed, the software will ask to start the dataset immediately: click **"Yes"** to start the dataset or on **"No"** to start it later from the **"Device state"** window by clicking on **"Start"**.
- **Online*:** the "**Online**" start corresponds to a specific functioning of the KISTOCK because the measured values by the data logger are not stored in its memory but directly sent to the computer. **"Online"** datasets can only be launched and stopped by the software.

** Only for classes 220 and 320 KISTOCK*

➢ Select a type of stop:

- **"Date / time":** set a stop according to a defined date and a time, only if the **"Date and time"** start has been selected before. Set the required date and time.



- **"Records count":** stop measurements from a number of recordings. Set the required number of recordings.

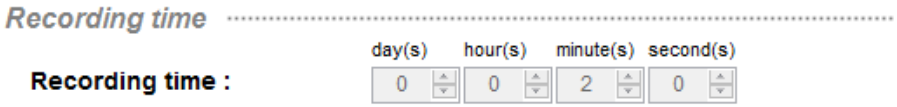
- **"Total memory":** stop measurements when the memory of the data logger is full.

- **"Loop":** set a continuous recording. When the memory is full, the first recorded values are overwritten by the new ones.

- Tick the **"Stop by button"** box to activate the stop by button. It allows to stop the measurement at any time thanks to the **"OK"** button of the data logger.

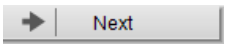
- **"Online"** is available only with an **"Online"*** start.

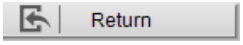
- **Recording time:** the **"Recording time"** is calculated according to the recording interval and the recording number that have been set. For example, if a 1-minute recording interval and a recording number of two have been set, the recording time will be two minutes:



Change this duration selecting a type of stop by **"Duration"**. Set the required recording duration: days, hours, minutes and seconds**. According to the set duration and measurement interval, the number of recording points is automatically calculated.

"Date/time" and "Recording time" types of stop and "Loop" storage mode are not available with the "Monitoring" mode.

➢ Once the configuration is completed, click 

to go to the **"Channel configuration"** menu or on 

to back to the **"Device state"**.

7.3 Configure the channels

➢ From the homepage, click 

select 

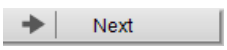
then 

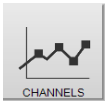
or

➢ In the menu bar, click **"Data logger"** then on **"Configuration"**, 

select then 

or

➢ From the recording configuration menu, click 

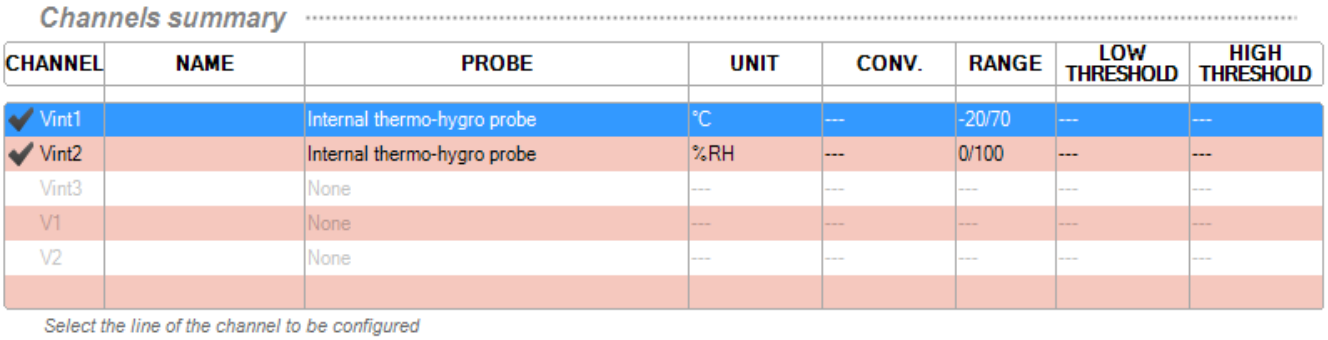
or 

to go to the channels configuration menu.

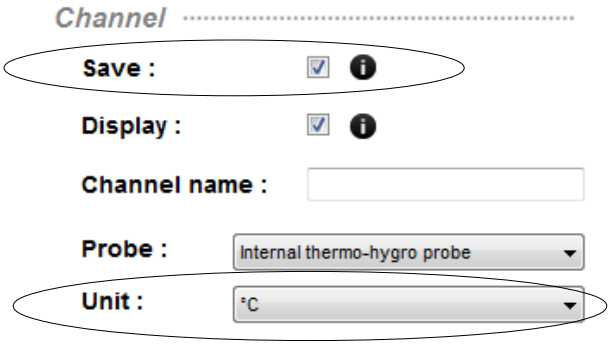
At any time, to navigate to the previous configuration menu, click 

** Only for classes 220 and 320 KISTOCK*
*** The "seconds" unit is available only for classes 220 and 320 KISTOCK*

The software displays the channels summary:



- Select the line of the channel to configure.
- Tick or untick **"Save"** box to activate or deactivate the recording of measured values.
- Tick or untick **"Display"** box to activate or deactivate the displaying of the channel*.
- Name the channel in the **"Name"** field.
- Select the probe to link to this channel.
- Select the required unit.

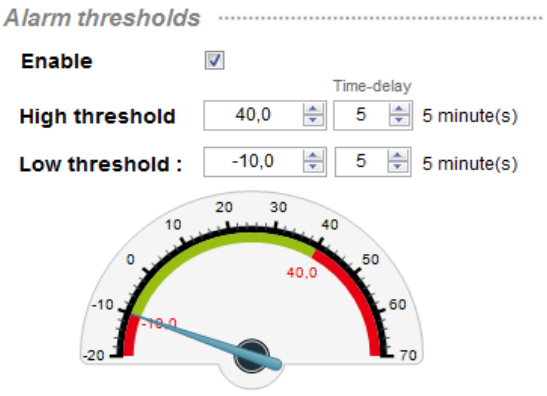


When the recording option on the selected channel is active, the ✔ icon appears on the line of the concerned channel.

7.3.1 Set the alarm thresholds

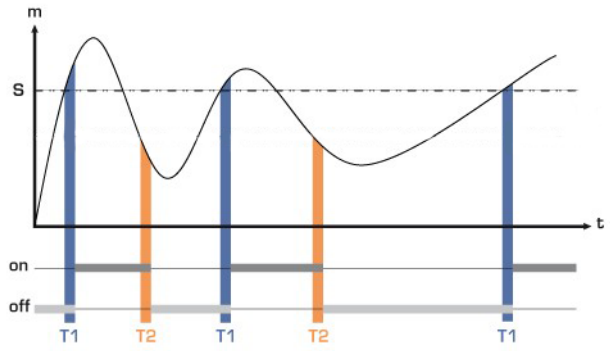
From the **"Channels configuration"** window:

- Select the channel to set in the channel summary table by clicking on the line on the concerned channel.
- Tick the **"Enable"** box in the "Alarm thresholds" part.
- Set the high and low thresholds. If the measured value exceeds the defined value for the high threshold, or if it is below the defined value for the low threshold, the alarm will go off.
- Set the time-delay. The time-delay corresponds to the period of time that passes before the alarm goes off when the threshold has been reached. If 0 minute is selected, the alarm will go off immediately after a threshold exceeded or when the measured value is lower than the defined low threshold.

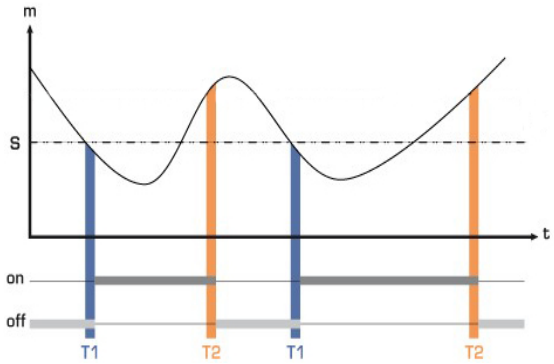


** Only for models with display*

- High threshold: the alarm goes off when the measurement **exceeds** the threshold and stops when it is **below** the threshold.
- Low threshold: the alarm goes off when the measurement is **below** the threshold and stops when it **exceeds** the threshold



High threshold



Low threshold

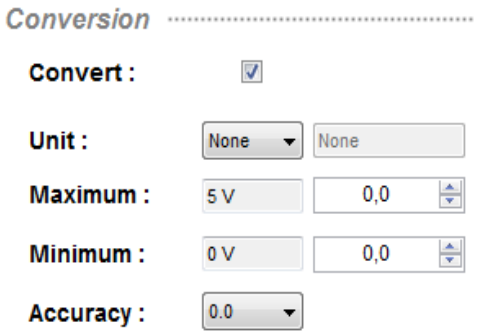
7.3.2 Conversion

From the **"Channel conversion"** window:

- **"Convert"** an analogue input*:

➢ Write the minimum and maximum values of the corresponding range and the conversion is automatically carried out during the KISTOCK downloading.

➢ Set the accuracy corresponding to the number of required digits.

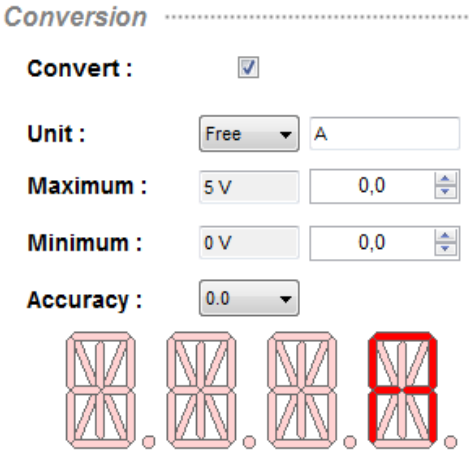


- Choose a **"Free"** unit**:**

➢ Select **"Free"** at the bottom of the units scrolling list.

➢ Name it in the associated field.

➢ Click the required digits to set its display.



** Only for the class 220 and 320 KISTOCK.*

7.4 Summary

➢ From the home menu, click 

choose 

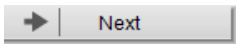
then 

or

➢ On the menu bar, click **"Data logger"** then **"Configure"**, choose 

and 

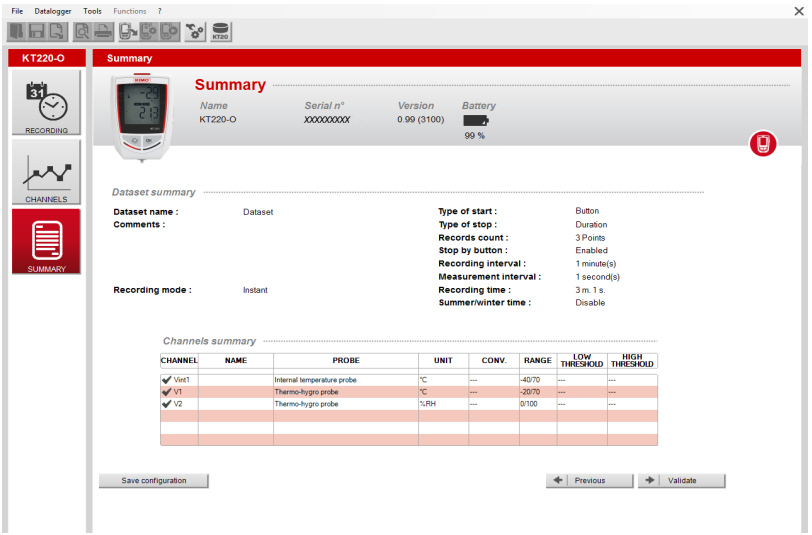
or

➢ From the channel setting menu, click 

or 

At any time, to go back to the previous setting menu, click 

The following window is displayed:



The software displays the summary of previous settings: the dataset name and possible notes, the recording mode and recording settings, the summary table of channels.

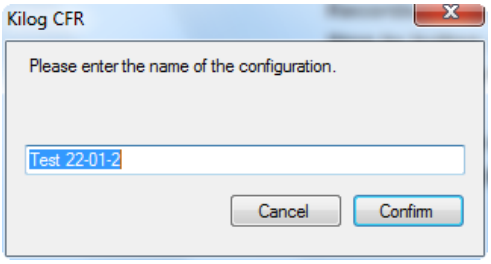
➢ To modify the device configuration, click 

7.4.1 Save the settings

From the **"Summary"** window:

➢ To save the settings immediately, click 

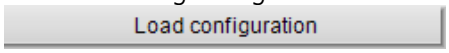
The following window is displayed:



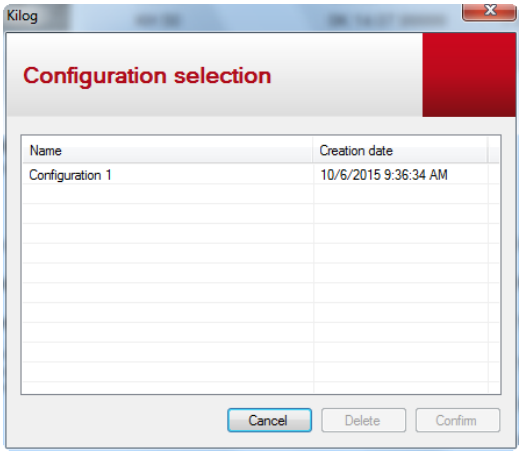
➢ Write the configuration name and click **"Confirm".**
A window is displayed to confirm the configuration is saved.

7.4.2 Load an existing configuration

From the **"Summary"** window:

➢ Load an existing configuration to set another device. To load an existing configuration, click 

The following window is displayed with the list of previous saved configuration:



- From this window, select the required configuration and click **"OK"** to use it with your device or click **"Delete"** to delete this configuration.

- To validate the device configuration, click **"Confirm".**

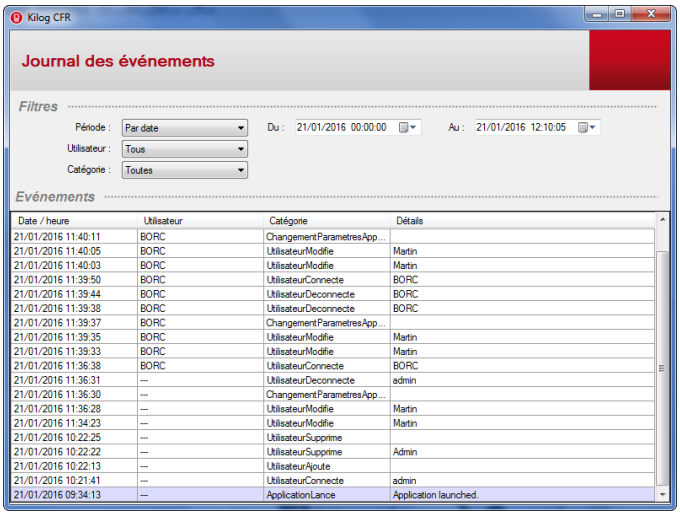
  A message is displayed to confirm that the device has been successfully set.
  Then a second message is displayed asking to configure another device of the same type.

- To set another device of the same type, click **YES** and the software stays on the configuration screen, or click **NO** and the software backs to homepage.

8 OPEN THE EVENT LOG

Access to all the actions performed on the software by the different users.

➢ Click **"Tools"** menu then on **"Event log"**.
The event log opens.



It is possible to sort the different events according several filters:

- by date: define the required period during which events took happened
- by user: select the user you want to see events
- by category: select the required event category

9.1 Download the KISTOCK

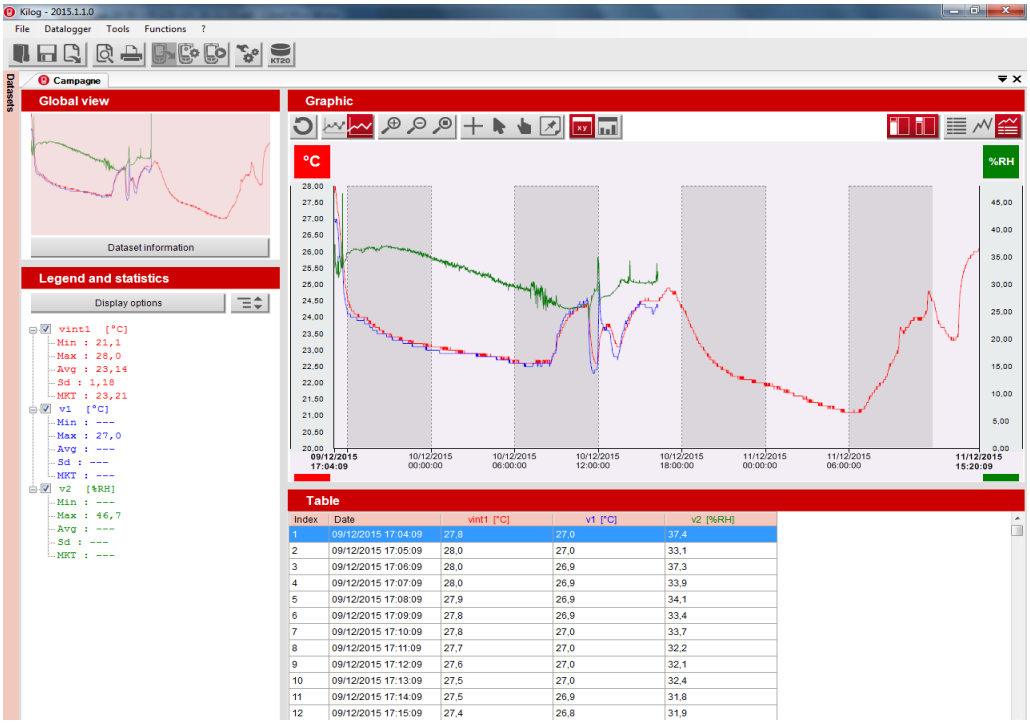
There are several options to download the device:

- From the home menu, click **"Download"**
  or
- On the toolbar, click **"Downloading"** icon.
  or
- From the menu bar, go to **"Data logger"** and click **"Downloading"**.
  or
- From the **"Device state"** configuration window, click Download

The screen displays the following progress bar:
Please wait a few seconds...

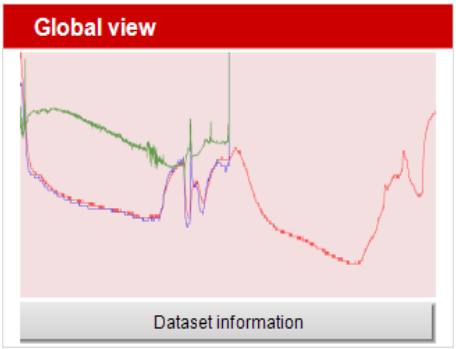
A saving window opens.

- Name and save the dataset at the required location on the computer.
  The following screen is displayed:

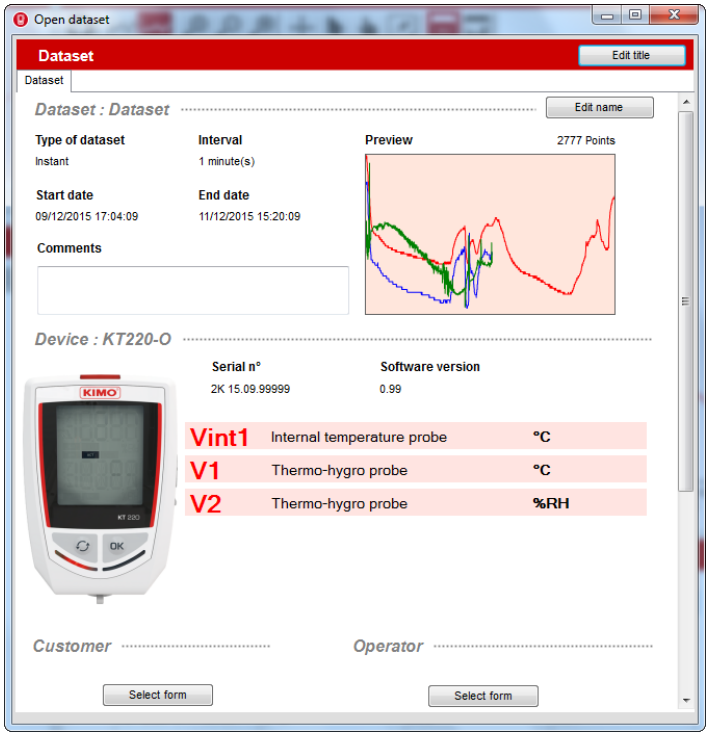


9.2 Global view

On the upper left-hand corner, the global view of the measurement data graph is displayed:



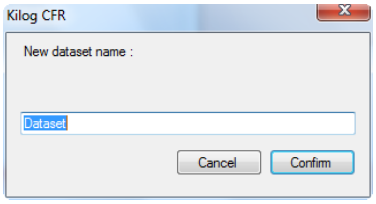
➢ Click **"Dataset Information"** to display the summary of the recording configuration, an overview of the global view and information about the device and the active channels:



From this window:

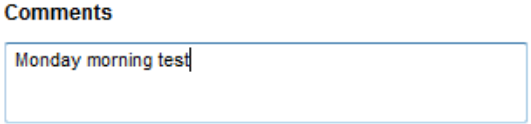
➢ Modify the dataset name by clicking **"Edit name":**

The following window opens:

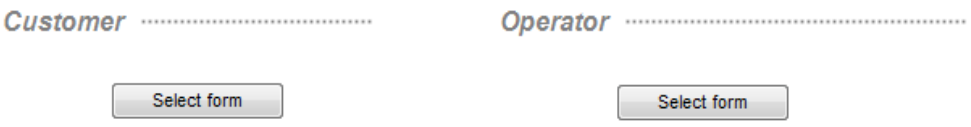


Write the required name and click **"Confirm"**. The new dataset name is displayed on the top of the information window.

➢ Write a comment about the dataset in **"Comments"** field:



➢ Link a **"Customer"** or **"Operator"** to this measurement dataset:

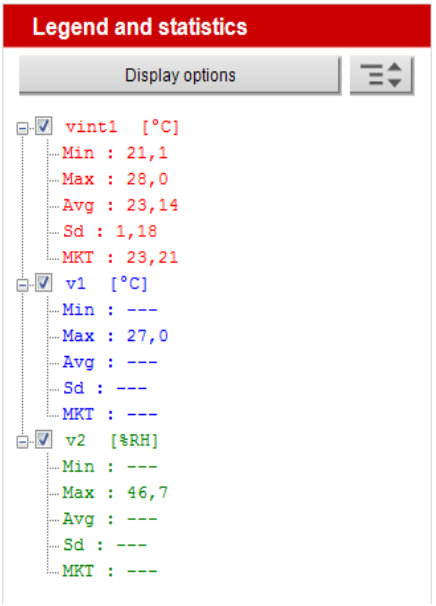


Click **"Select form"** then on the required contact and validate by clicking on **"Select form".** The chosen contact is displayed in the information window.

9.3 Legend and statistics

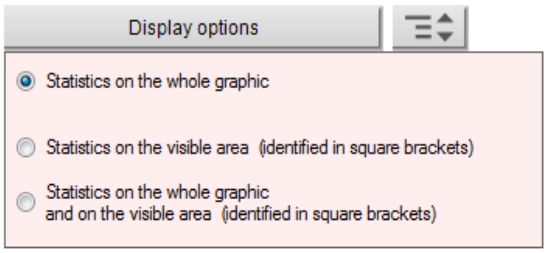
In the lower right-hand corner are ***"Legend and Statistics"****:*
Details concerning each channel are displayed: for example for temperature measurements, the minimum and maximum values, average, standard deviation and MKT temperature are displayed.

The measurement units are between [ ] square brackets:
[°C], [%RH], [lux], [A]...

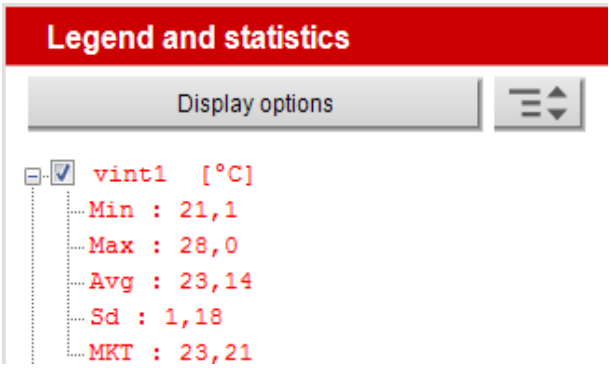


- Tick or untick the box corresponding to the concerned channel to display it or not on the graph.
- Click  to develop or hide channels details.

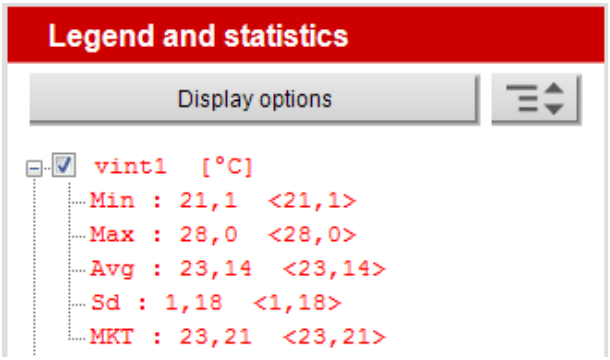
- Click the **"Display options"** to select the statistics display:
  - on whole graph
  - only on the visible area
  - on both
- Tick the corresponding box.



The visible area is between < > square brackets:



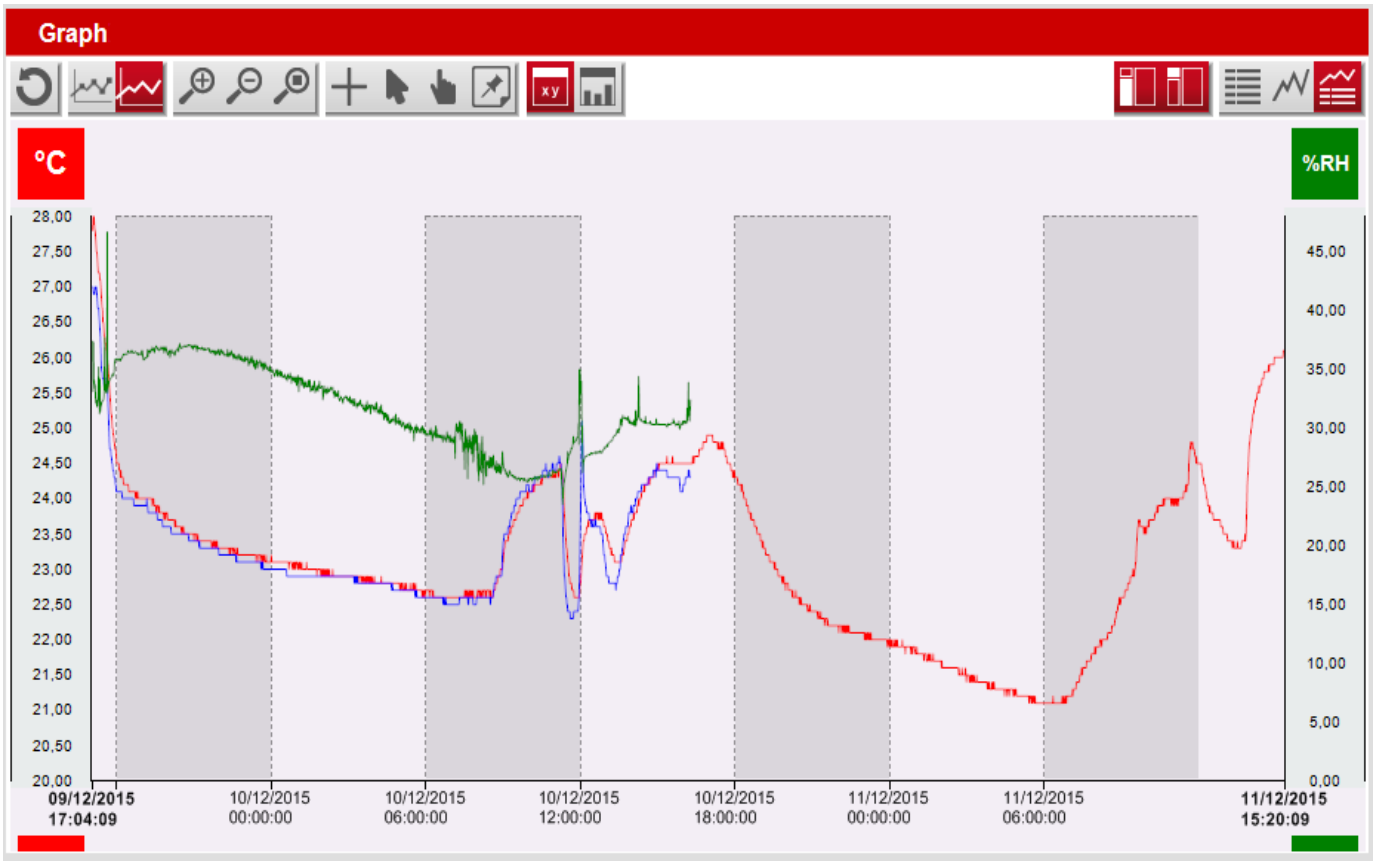
Display options: statistics only on visible area



Display options: statistics on whole graph AND visible area

9.4 Graph

On upper right-hand corner, the measured values are displayed as a graph:



9.4.1 Graph toolbar

Cancels all display modifications carried out on the graph and restores the initial display

Displays the points corresponding to the measurements on the graph

Displays the graph as a curve

Performs a zoom in, zoom out or a dynamic zoom. For the dynamic zoom, slide the mouse cursor from the left to the right to zoom in, and from the right to left to zoom out. Use the zoom in or out directly on the abscissas or ordinates to zoom in or out only the concerned curve.

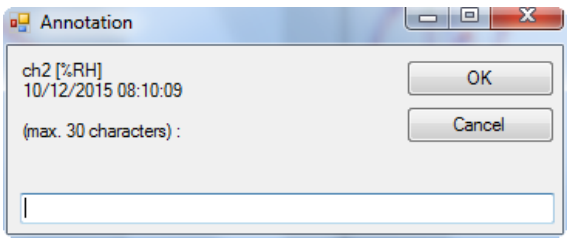
Puts a mark on the graph in abscissa or ordinate. It allows a simplified reading of the values corresponding to the points on the graph.

Restores initial cursor.

Moves on the graph: slide the mouse from left to right or reverse to move on the graph.

Adds notes on the graph: click this button then on the graph area where a note is required.

The following window is displayed:



➢ Add your note and click **OK**.

A mark appears on the graph to remind there is a note: ▽

➢ Put your mouse cursor on this mark to display the comment, and the date and time of the recorded point.

Displays the detailed table of measured values on the bottom of the screen:

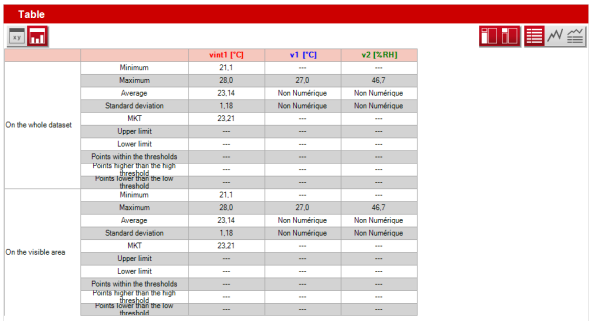
Table

Index	Date	vint1 [°C]	v1 [°C]	v2 [%RH]
834	10/12/2015 06:57:09	22,6	22,5	28,9
835	10/12/2015 06:58:09	22,6	22,5	28,8
836	10/12/2015 06:59:09	22,6	22,5	29,2
837	10/12/2015 07:00:09	22,6	22,5	29,0
838	10/12/2015 07:01:09	22,6	22,5	29,1
839	10/12/2015 07:02:09	22,6	22,5	28,8
840	10/12/2015 07:03:09	22,6	22,5	28,7
841	10/12/2015 07:04:09	22,6	22,5	28,8
842	10/12/2015 07:05:09	22,6	22,5	29,2
843	10/12/2015 07:06:09	22,6	22,5	29,3
844	10/12/2015 07:07:09	22,6	22,5	29,2

➢ Click the column title to display the values in increasing or decreasing order.

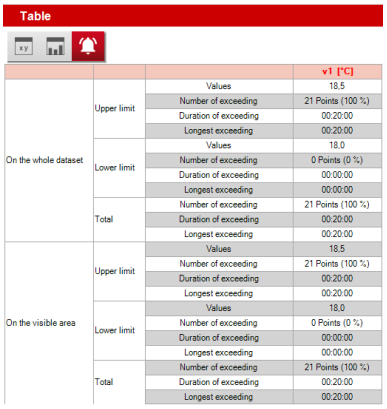
Displays, instead of the measured values table, the statistics table with the following values on the whole dataset and on the highlighted area of the dataset:

- maximum values
- minimum values
- averages
- standard deviations
- MKT temperature (only for temperature measurements)
- high limits
- low limits
- number of points in the thresholds
- number of points higher than the high threshold
- number of points lower than the low threshold.



Displays details of the alarm in a table with the upper and lower limit, the total, on the whole dataset or on the highlighted area only, with:

- the configured threshold
- the number of exceeding thresholds
- the duration of the exceeding thresholds
- the longest exceeding threshold



Activates/Deactivates the legend and statistics display on the left of the screen.

Activates/Deactivates the global view display on the left of the screen.

Displays only the measured values table or statistics.

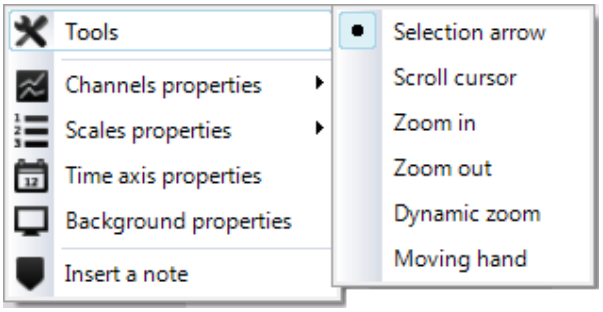
Displays graph only.

Displays the graph and the measured values table.

9.4.2 Graph menu

➢ Right click the graph for a quick access to the graph properties menu:

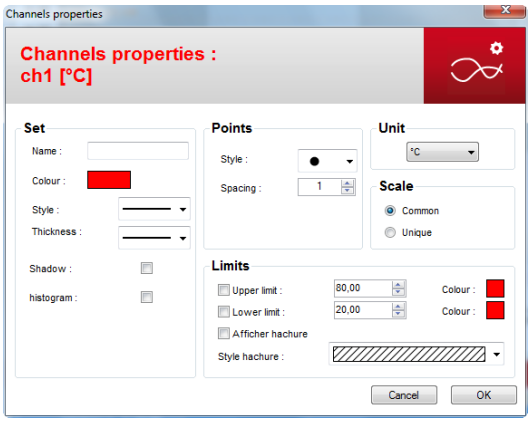
- **"Tools"** takes over the main functions which allow to



move on the graph: selection arrow, scroll cursor, zoom, moving hand.

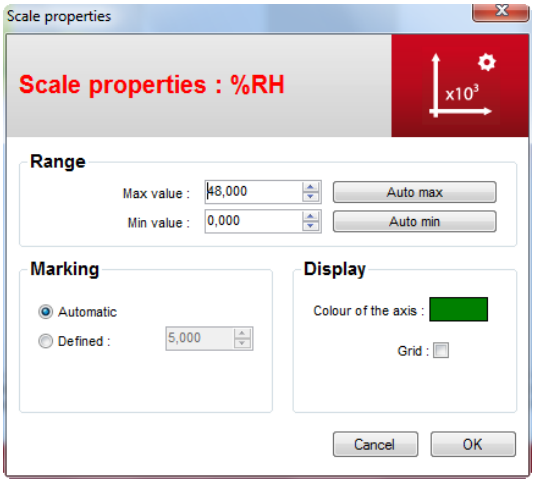
- **"Channels properties"**: see page 34
- **"Scales properties"**: see page 34
- **"Time axis properties"**: see page 34
- **"Background properties"**: see page 35
- **"Insert a note"**: see page 32

9.4.3 Channels properties



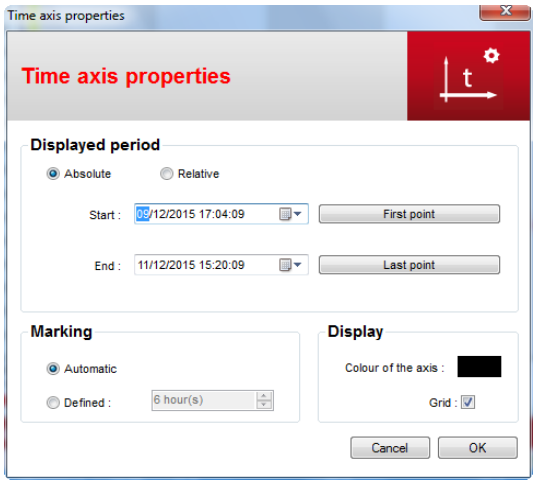
- To set the channels display: double-click the channel line in the **"Legend and statistics"** list, or double-click the graph curve, or right click the graph then choose **"Channels properties".**
- Set the channel display which appears in **"Legend and statistics"**, on the graph and in the values tables (name, colour, point and line style...).
- **"Unit":** define the unit.
- **"Scale part":** select a common or unique scale for the measured values displayed on the graph. This concerns the channels which have the same measured parameter.
- **"Limits":** activate or deactivate the upper and lower limits of the measured values and define the value and display parameters on the graph (colour, hatches).

9.4.4 Scales properties



- Double-click the ordinates to display the scales properties or right click the graph then choose **"Scales properties".**
  The following window is displayed:
- For example for temperature measurements, set the minimum and maximum values of the measuring range or click **"Auto max"** or **"Auto min"** to activate the automatic configuration of values.
- Set the **"Marking"** in **"Automatic"** or **"Defined"** mode. This allows to modify the values on ordinate axis.
  For example, if a marking of "10" is defined, the values in ordinate will be displayed by steps of 10 (10, 20, 30 etc.).
- **"Display":** click the coloured square in front of **"Axis colour"** to define its colour. To display the grid pattern, tick the corresponding box.

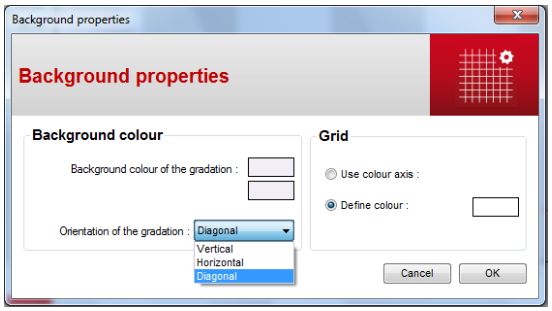
9.4.5 Time axis properties



- Double-click the abscissas to display the time axis properties or right click the graph then choose **"Time axis properties".**
  The following window is displayed:
- In **"Displayed period"**, choose **"Absolute"** to display the graph on the dataset period. Choose **"Relative"** and modify the starting and ending date to display on the graph the previous or following period of the dataset.
  Click First point or Last point to restore the absolute dates (first and last recorded points).

- Set the **"Marking"** in **"Automatic"** or **"Defined"** mode to modify the values on abscissa axis.
- In **"Display"**, click the coloured square in front of **"Axis colour"** to define its colour. To display the grid pattern, tick the corresponding box.

9.4.6 Background properties



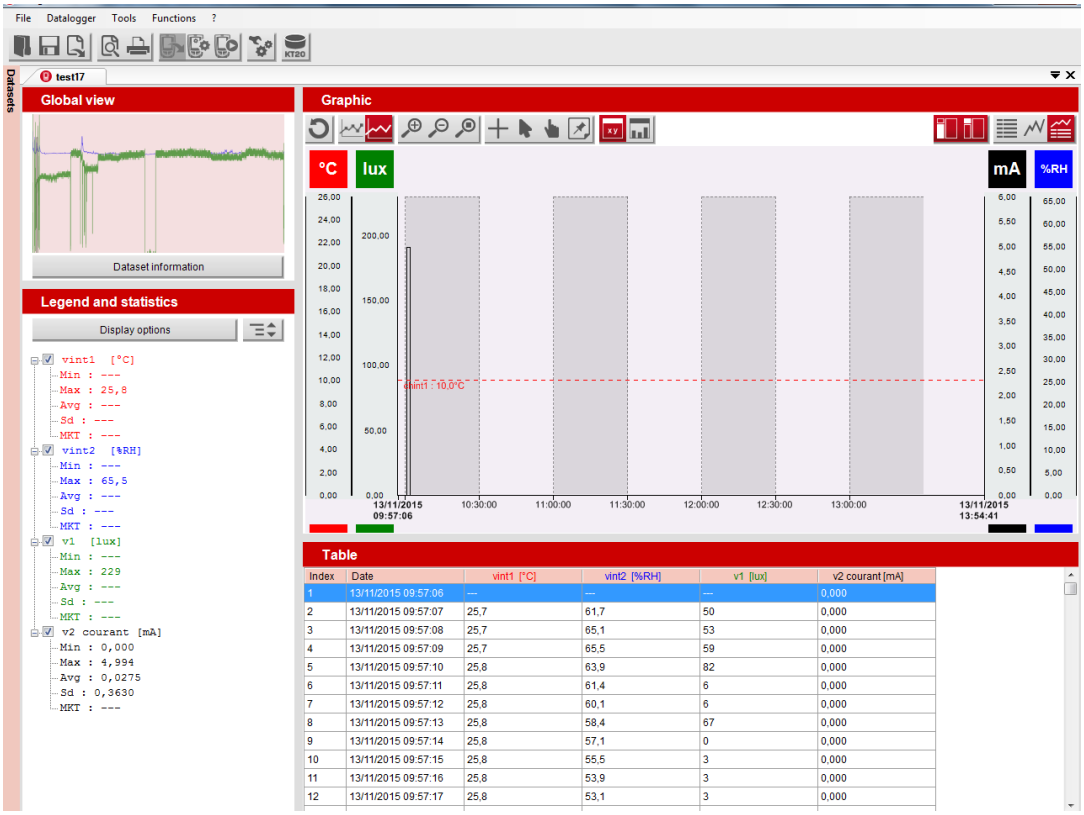
- Double-click the graph background then choose **"Background properties"**.
  The following window opens:
- Set the background colour, the colour gradation and the grid pattern.

9.5 Add a dataset

Import the points of another file in the current file to add a channel to a dataset.

To add a dataset:

- Open the file on which it is required to add the points of another file.
  For example:

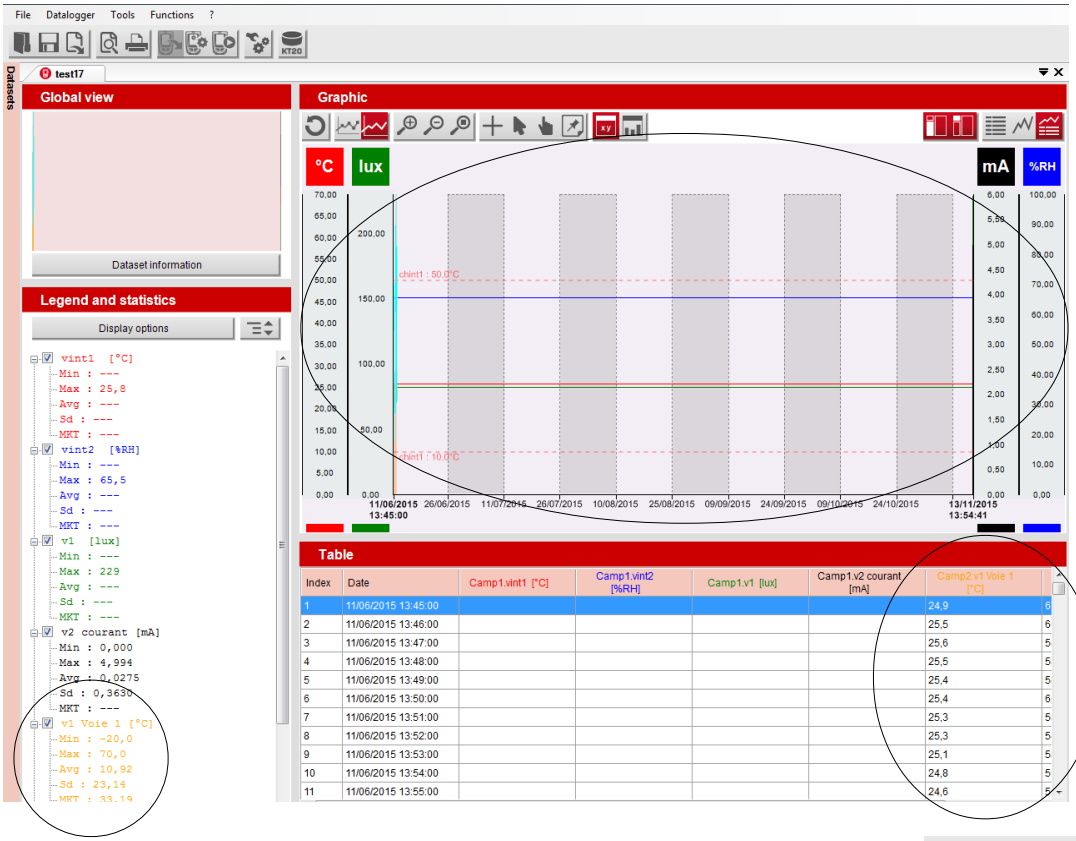


- In the menu bar, click **"File"** then **"Add dataset"**.
- In the **"Datasets"** folder, select the file to add to the current file and validate by clicking **"Open"**.
- Select the file to add.

The following window is displayed:

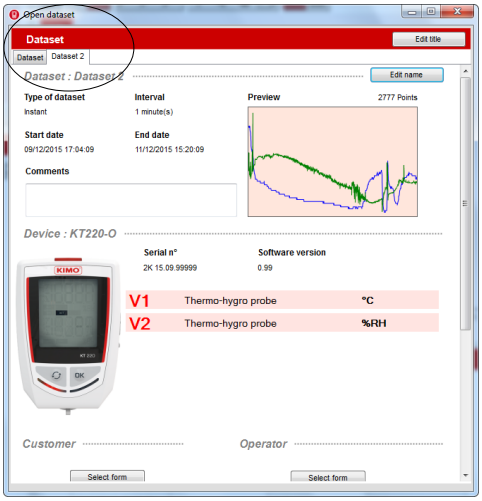
- Tick the boxes corresponding to the required channels to import.
- Confirm by clicking **"Confirm"**.

The selected channels are added to to the previous channels of the initial file as the points of the graph and table values:



- A tab indicates the channel of the imported file in the **"Dataset information"**: click 

The following window is displayed with the additional tabs corresponding to the added channels:

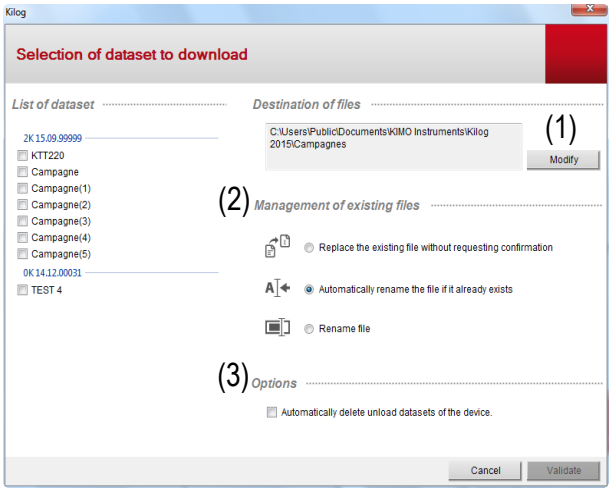


9.6 *Download data collector (optional)*

9.6.1 Download data collector on PC

- Plug the data collector on the computer USB port.
- Launch the **Kilog 2015** software by double clicking icon.
- Click **"Download"**, or go to **"Data logger"** menu and select **"Downloading".**

  The following window opens.



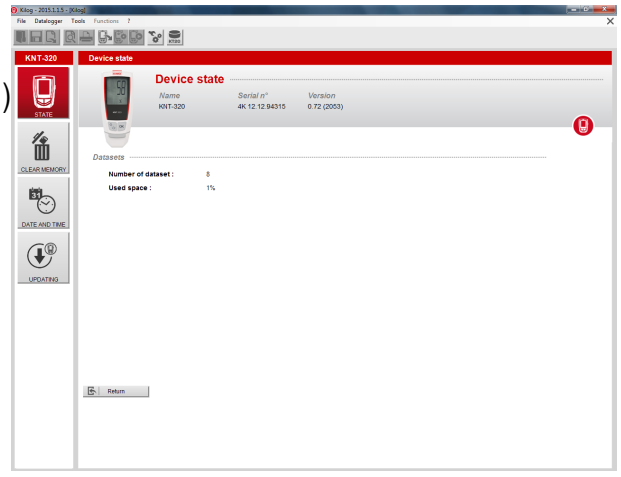
- Tick the boxes of datasets to transfer.
- If necessary, define the files saving location by clicking on **"Modify"**. (1)
- Select the required option about **"Management of existing files"** (2).
- To delete automatically the datasets which are transferred from the data collector to the computer, tick the corresponding box in **"Options"** (3).
- Click **"Confirm"**.

  The measurement datasets are displayed and automatically saved in the defined location.

9.6.2 Display data collector state, delete memory and set date and time

- Plug the data collector on the computer USB port.
- Launch the **Kilog 2015** software by double clicking icon.
- Click **"Configure"**, or go to **"Data logger"** menu and select **"Configuration"**

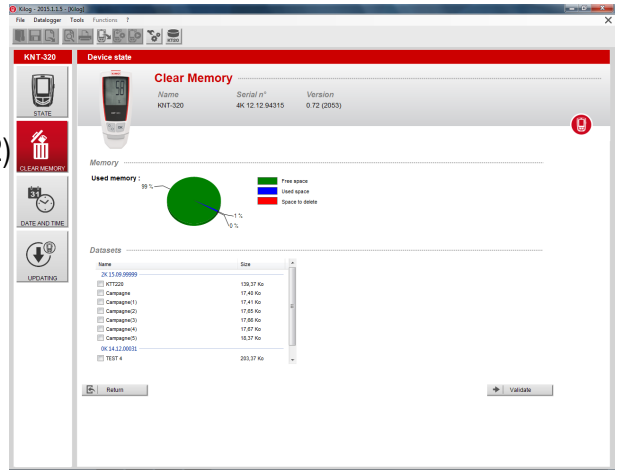
(1)



*The **"Device state"** (1) window opens.*
The device name, serial number and version number are indicated on top of the window.

The number of recorded datasets and the used storage capacity are displayed.

(2)



- Click **"Clear memory"** (2)

  A diagram summarises the memory state and a list of the recorded datasets is displayed.

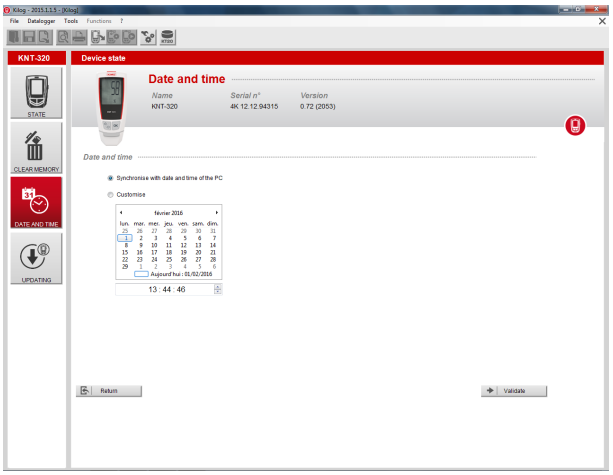
- Select the datasets to delete by ticking the corresponding box then click **"Confirm"**

  *A confirmation message is displayed: click **Yes** to confirm or **No** to cancel.*

➢ Click **"Date and time"** (3)

➢ Set a date and time synchronisation with PC or customise them, then click **"Confirm".**

(3)



9.6.3 Update the data collector

Update the **KNT 320** data collector by connecting it on the **Kilog 2015** software: the procedure is the same as for Kistock devices, see page 47.

9.7 KCC 320: containment rating

9.7.1 Indoor air containment

As part of indoor air quality monitoring in public establishments, a measurement protocol of the air quality must be applied integrating an air containment calculation.
A good containment indicator is the measurement of carbon dioxide (CO_2). CO_2 is emitted by the breathing of people in the room. So, the more CO_2 concentration is higher, the more the air is stuffy.

KILOG software allows to calculate the level of air containment from a recording of CO_2 measurements performed with a KCC 320 data logger.

9.7.2 Calculation detail of the air containment rating

This calculation requires the recording of CO_2 concentrations values and the attendance time in the room (during a normal occupancy) for a week.
Carbon dioxide values for the selected periods are then divided into 3 classes according to their level:

- number of values lower than or equal to 1000 ppm
- number of values between 1000 and 1700 ppm included
- number of values higher than 1700 ppm

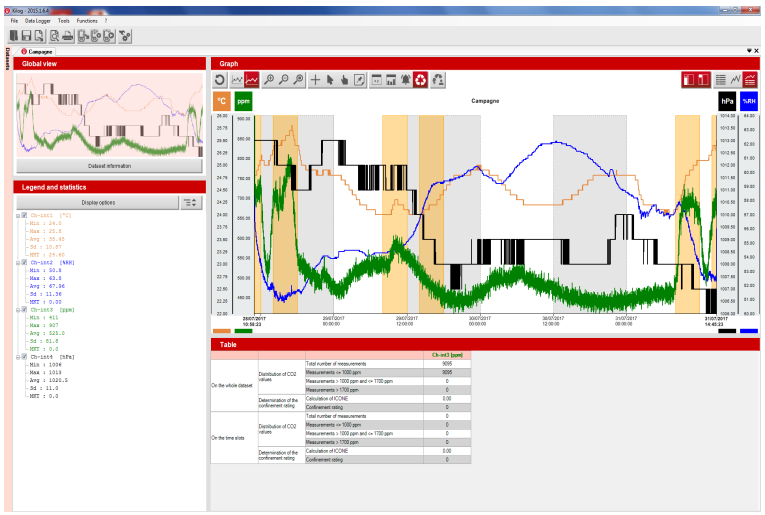
The final containment rating is calculated and expressed with an accuracy equal to 1 (it means rounds up or down with no digit after the decimal point) according to the following rule:

Gross value of the containment rating	Value applied for the containment rating
ICONE < 0.5	0
0.5 ≤ ICONE < 1.5	1
1.5 ≤ ICONE < 2.5	2
2.5 ≤ ICONE < 3.5	3
3.5 ≤ ICONE < 4.5	4
ICONE ≥ 4.5	5

9.7.3 Exploitation of a CO_2 file

If an opened file has one or more CO_2 channels, some new functionalities are accessible. These functionalities allow to calculate and display the containment rating regarding the CO_2 concentration measured during the dataset.

➢ Click  to display the CO_2 statistics and calculations:



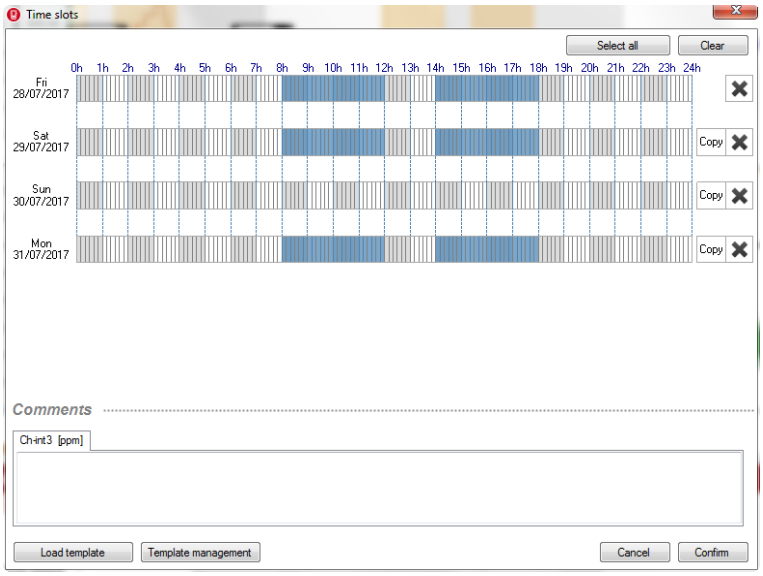
There are 2 calculations:

- On the entire recording: all the measurements are integrated in the calculations of statistics and containment rating
- On the attendance time: only the recorded measurements during the attendance time are taken into account in the calculations

It is possible to give information and modify the attendance times:

➢ Click 

A window opens allowing to select different periods in order to limit the calculations on the attendance times, for each day of the recording:



Attendance times are indicated in blue:

➢ Click/drag on the calendar in order to activate or deactivate the operating time.

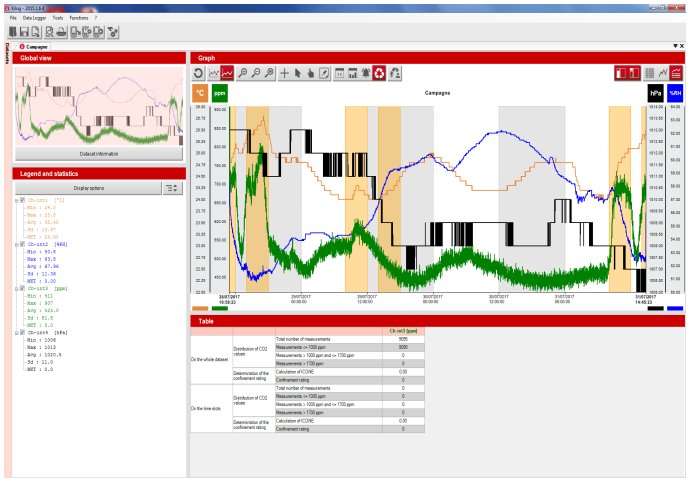
Each time represents 10 minutes. **"Copy"** buttons allow to copy the planning of the previous day on the processed line. The cross erases the planning of the concerned day.

➢ It is possible to apply a template: click **"Template management"** (see page 40).

➢ Add a comment if required. It will appear on the dataset report.

9.7.4 Representation of the time slots

Time slots are displayed with coloured areas on the graph and on the table of values.



Statistic display

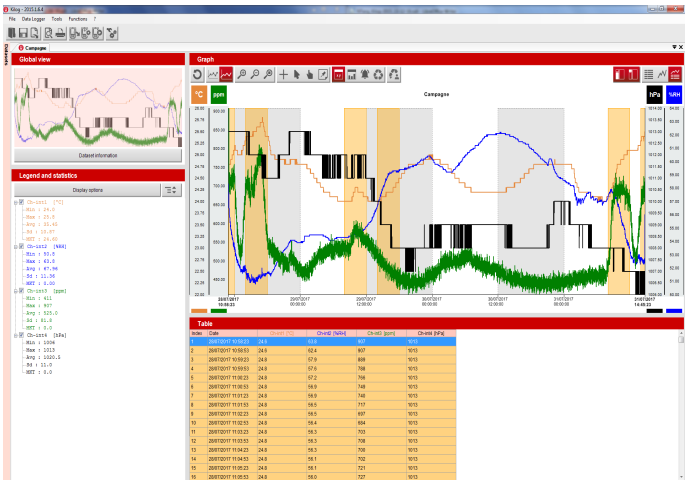
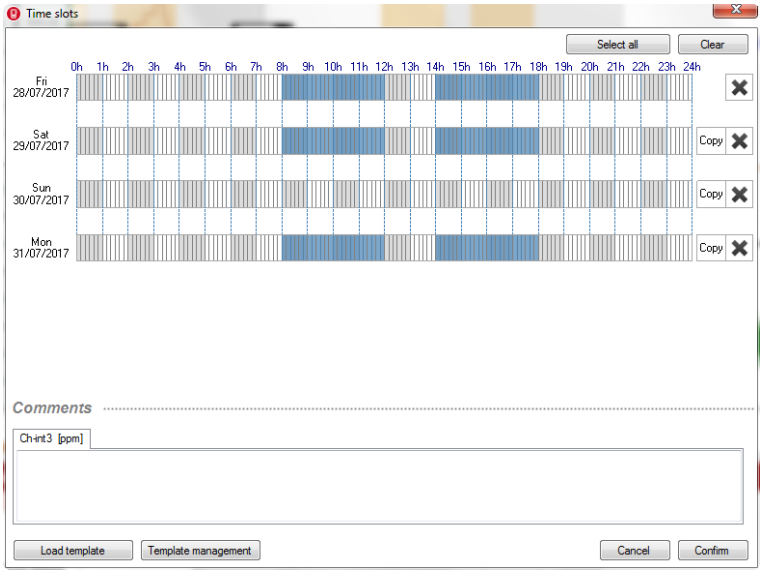


Table display

9.7.5 Management of the time slots templates

There are two ways to set the management of the time slots templates:

- Click **"Tools"** menu then **"Management of time slots templates"**
  Or
- Click **"Template management"** from the window of attendance times selection.



- Click/drag the operating time to activate.
- Click **"Copy"** to copy the planning of the previous day on the processed line.
- Click **"Load template"** to open a template previously saved.
- Click **"Confirm"** to save the attendance time template.

9.8 Export data under CSV, JPEG or PDF format

Export the measurement values table under CSV (table) format, the graph in JPEG picture format or the whole dataset as a measurement report as a PDF file.

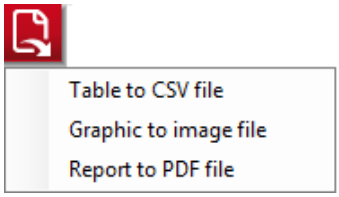
Integrate easily pictures or tables to documents and edit customised dataset reports which summarise all information about measurements.

Several possibilities:

- Click directly on **"Export"** in the toolbar

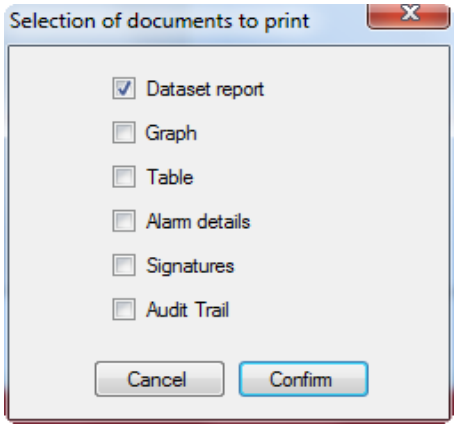
  or
- In the menu bar, go to **"File"** then **"Export"**

- Choose the required action:



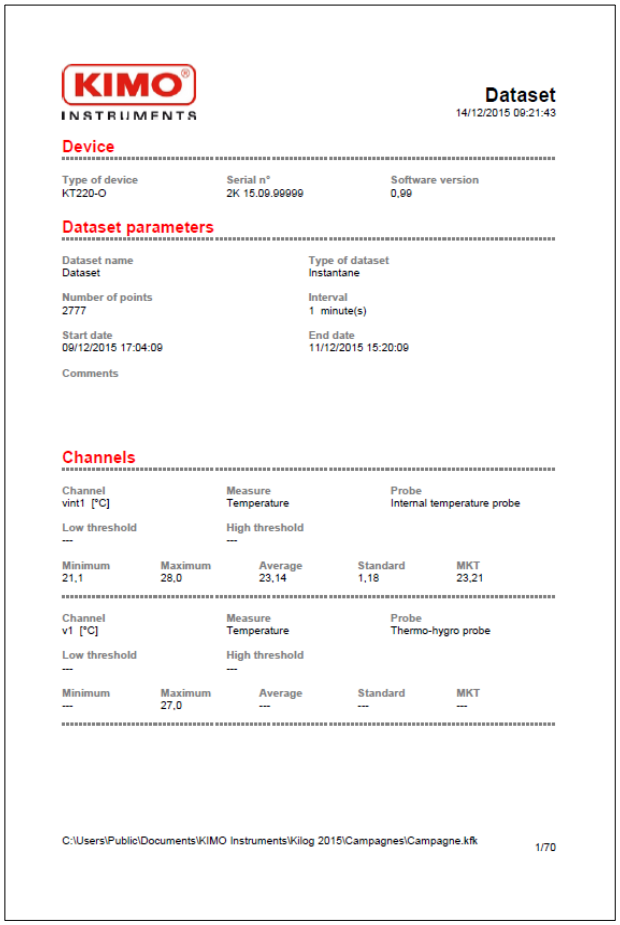
- **"Table to CSV file"**
- **"Graph to image file"**
- **"All to PDF"**

During the dataset export to a PDF format file, the following window is displayed:



- Select the elements to display on the PDF report: dataset report, alarm details (exceeding thresholds), graphic, table of points, signature and/or audit trail.
- Confirm by clicking **"Confirm".**
- Choose the required location to save this file on the computer.
- Confirm to save the document.
  A message confirms the report has been successfully exported.

Example of PDF report:



KIMO INSTRUMENTS

Dataset
14/12/2015 09:21:43

Device

Type of device	Serial n°	Software version
KT220-O	2K 15.09.99999	0,99

Dataset parameters

Dataset name: Dataset	Type of dataset: Instantane
Number of points: 2777	Interval: 1 minute(s)
Start date: 09/12/2015 17:04:09	End date: 11/12/2015 15:20:09
Comments:	

Channels

Channel	Measure	Probe
vint1 [°C]	Temperature	Internal temperature probe

Low threshold	High threshold
---	---

Minimum	Maximum	Average	Standard	MKT
21,1	28,0	23,14	1,18	23,21

Channel	Measure	Probe
v1 [°C]	Temperature	Thermo-hygro probe

Low threshold	High threshold
---	---

Minimum	Maximum	Average	Standard	MKT
---	27,0	---	---	---

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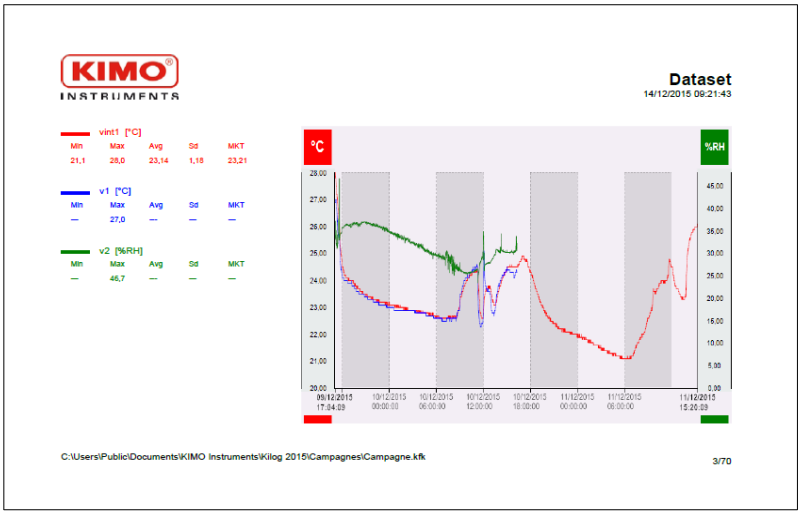

KIMO INSTRUMENTS

Dataset
14/12/2015 09:21:43

vint1 [°C] — Min 21,1 | Max 28,0 | Avg 23,14 | Sd 1,18 | MKT 23,21

v1 [°C] — Min --- | Max 27,0 | Avg --- | Sd --- | MKT ---

v2 [%RH] — Min --- | Max 46,7 | Avg --- | Sd --- | MKT ---

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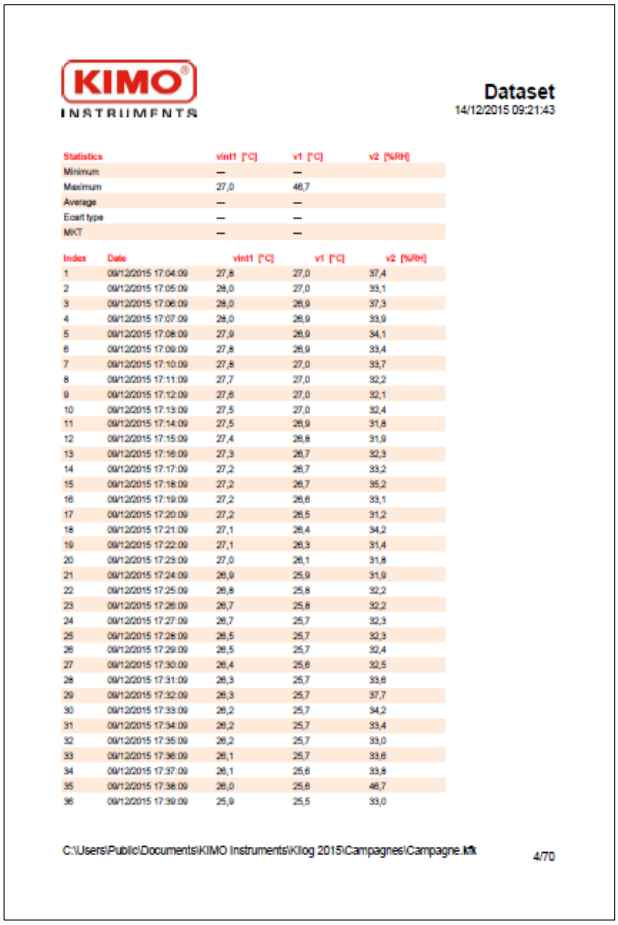

KIMO INSTRUMENTS

Dataset
14/12/2015 09:21:43

Statistics	vint1 [°C]	v1 [°C]	v2 [%RH]
Minimum	---	---	
Maximum	27,0	46,7	
Average	---	---	
Ecart type	---	---	
MKT	---	---	

Index	Date	vint1 [°C]	v1 [°C]	v2 [%RH]
1	09/12/2015 17:04:09	27,8	27,0	37,4
2	09/12/2015 17:05:09	28,0	27,0	33,1
3	09/12/2015 17:06:09	28,0	26,9	37,3
4	09/12/2015 17:07:09	28,0	26,9	33,9
5	09/12/2015 17:08:09	27,9	26,9	34,1
6	09/12/2015 17:09:09	27,8	26,9	33,4
7	09/12/2015 17:10:09	27,8	27,0	33,7
8	09/12/2015 17:11:09	27,7	27,0	32,2
9	09/12/2015 17:12:09	27,6	27,0	32,1
10	09/12/2015 17:13:09	27,5	27,0	32,4
11	09/12/2015 17:14:09	27,5	26,9	31,8
12	09/12/2015 17:15:09	27,4	26,8	31,9
13	09/12/2015 17:16:09	27,3	26,7	32,3
14	09/12/2015 17:17:09	27,2	26,7	33,2
15	09/12/2015 17:18:09	27,2	26,7	35,2
16	09/12/2015 17:19:09	27,2	26,6	33,1
17	09/12/2015 17:20:09	27,2	26,5	31,2
18	09/12/2015 17:21:09	27,1	26,4	34,2
19	09/12/2015 17:22:09	27,1	26,3	31,4
20	09/12/2015 17:23:09	27,0	26,1	31,8
21	09/12/2015 17:24:09	26,9	25,9	31,9
22	09/12/2015 17:25:09	26,8	25,8	32,2
23	09/12/2015 17:26:09	26,7	25,8	32,2
24	09/12/2015 17:27:09	26,7	25,7	32,3
25	09/12/2015 17:28:09	26,5	25,7	32,3
26	09/12/2015 17:29:09	26,5	25,7	32,4
27	09/12/2015 17:30:09	26,4	25,6	32,5
28	09/12/2015 17:31:09	26,3	25,7	33,6
29	09/12/2015 17:32:09	26,3	25,7	37,7
30	09/12/2015 17:33:09	26,2	25,7	34,2
31	09/12/2015 17:34:09	26,2	25,7	33,4
32	09/12/2015 17:35:09	26,2	25,7	33,0
33	09/12/2015 17:36:09	26,1	25,7	33,6
34	09/12/2015 17:37:09	26,1	25,6	33,8
35	09/12/2015 17:38:09	26,0	25,6	46,7
36	09/12/2015 17:39:09	25,9	25,5	33,0

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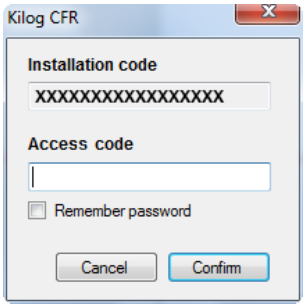
Check the number of pages according to the number of points!

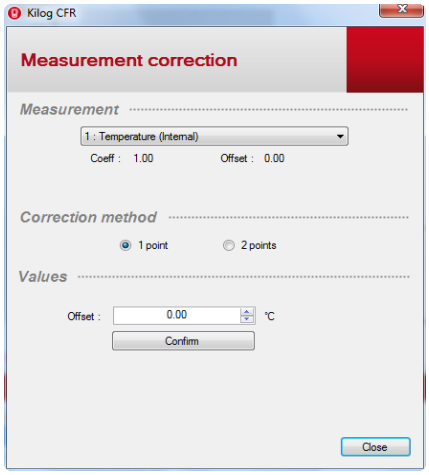
If a device is connected and is not currently recording, it is possible to adjust the measurement channels in one or two points (offset and/or coefficient).

- From the menu bar, click **"Data logger"** then **"Correction".**
  The following window is displayed:



The access to the measurement correction is protected by a password associated to the installation key. To obtain this code, please contact Sauermann.

- Enter this access code and confirm.
  The following window is displayed:

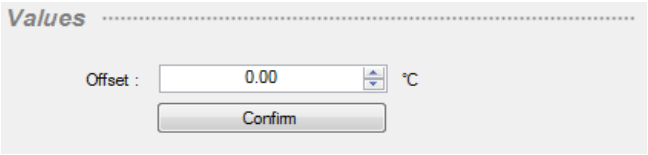


- In the **"Measurement"** part, choose the channel to modify.
- In the **"Correction method"** part, tick the corresponding box:

- **1 point correction:**

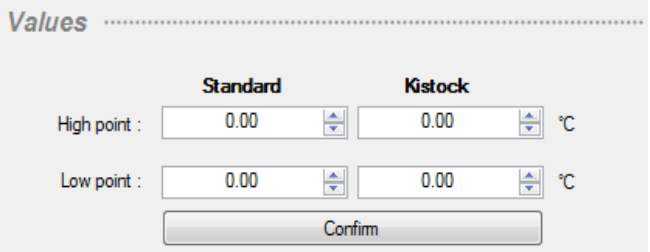
All the corrections in 1 point are carried out by offset, except brightness for which a multiplier coefficient must be applied.

- In **"Values"** part, set the required offset value:



- **2 points correction:**

Enter a high and a low point with the benchmark value and the effective values measured by the device. Then, a slope and a corrective offset are automatically calculated to correct the selected channel:

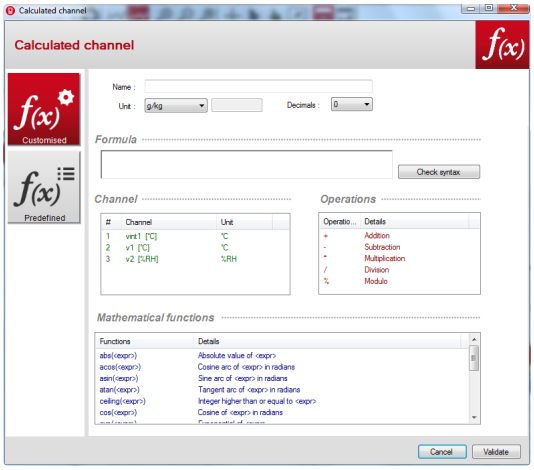


- To apply these modifications, click **"Confirm"** then on **"Close"**.

The operator may add additional channels, calculated from existing channels.

11.1 Add a function

- To add a calculated function, click **"Functions"** in the menu bar, then **"Add a function"**.
  The following window is displayed:



It is possible to add a customised or a predefined function. In both cases, indicate the channel properties:

- Name the function in the **"Name"** field
- Select the required measurement units in the scrolling list. For free units, choose **"Free"** (bottom of the list) and fill in the right field to name the unit (maximum 10 characters).
- Choose the required decimals in the scrolling list: 0, 1, 2, 3 or 4.

11.1.1 Add a customised function: operations

- Click **"Customised functions"** 

- Create the formula: double click the concerned channel(s) and double-click the operator (see the table below).

+, -, *, /	Addition, subtraction, multiplication and division.
%	Modulo *(remainder of division of integers). Example: 13 % 3 = 1*

  Ex: #001 - #008.
- Verify the syntax.
  If the syntax is correct, take the next step, or correct the formula.
- Click **"Confirm"**.

11.1.2 Add a customised function: mathematical functions

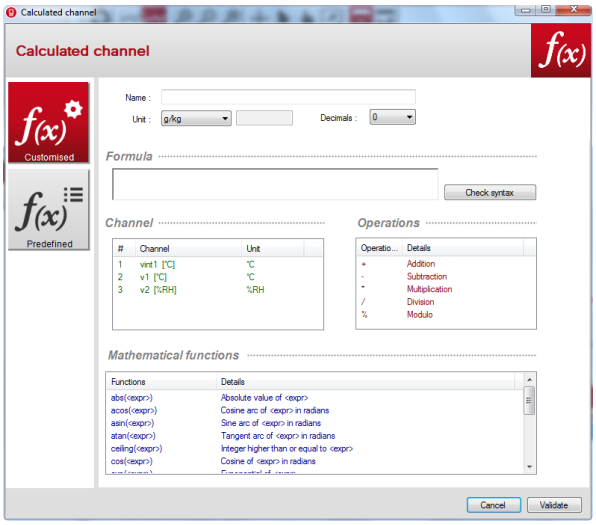
- Create the formula: double click the mathematical function (see on page 26 the table of mathematical functions) then double click the concerned way(s) or insert the appropriate number.
- Verify the syntax.
  If the syntax is correct, take the next step, or correct the formula.
- Determine the channel properties (name, units, decimals: see page 44).
- Click **"Confirm"**.

Mathematical functions:

abs (<expr>)	Gives the absolute value of the expression. ABSV(*Way1Name*) gives the value of the way Way1Name if it is positive, or its opposite value. ABS(V(*Way1Name*)*10.3+V(*Way2Name*)) evaluates the expression V(Way1Name)*10.3+V(Way2Name) and gives its absolute value.
acos (<expr>)	Arc cosine of the expression in radians acos (0) gives 1.5708 acos (-1) gives 3.1416
Asin (<expr>)	Arc sine of the expression in radians asin (1) gives 1.5708 asin (0) gives 3.1416
Atan (<expr>)	Tangent arc of the expression in radians atan (1) gives 0.7854 atan (0) gives 0
Ceiling (<expr>)	Integer number above or equal to the expression CEIL (2.9) gives 3 CEIL (-2.9) gives -2
Cosinus (<expr>)	Cosinus of the expression in radians cos (1.5708) gives 0 cos (3.1416) gives -1
Exp (<expr>)	Exponential of the expression
Floor (<expr>)	Integer number below or equal to the expression Floor (2.9) gives 2 Floor (-2.9) gives -3
Ln (<expr>)	Neperian logarithm of the expression (The expression must be positive)
Log10 (<expr>)	Decimal logarithm of the expression Log 100 gives 2. Log(V(Way1Name)*10.3+V(Way2Name)) evaluates the expression V(Way1Name)*10.3+V(Way2Name) and gives its decimal logarithm. The expression must be positive.
Pow (<expr> ; <pw>)	Raising to a power: <expr> raised to a power <pw>. Ex: pow (5;3) = 125
Round (<expr>)	Round the operator value to the closer integer. Round (2.4) gives 2 Round (2.6) gives 3
Sin (<expr>)	Sine of the expression in radians Sin (1.5708) gives 1 Sin (3.1416) gives 0
Sqrt (<expr>)	Square root of the expression
Tangent (<expr>)	Tangent of the expression in radians Tan (0.7854) gives 1 Tan (3.1416) gives 0

11.1.3 Add a predefined function

➢ From the **"Calculated functions"** window, click **"Predefined functions"**
The following window opens:



➢ Determine the channel properties (name, units, decimals: see chapter 10.1).
• **Humid air calculation parameters:**
➢ Choose the function (for more details, see the table below)
• **Conversion parameters:**
➢ Choose the corresponding channels to the involved parameters in the calculation.
➢ Click **"Confirm"**.

Combination ratio	The combination ratio of an air volume appoints to the ratio of the water vapour mass it contains to the dry air mass. g/kg.
Absolute humidity	Mass of water vapour in a unitary humid air volume on a temperature and pressure given. g/m^3.
Dew-point	The air dew-point is the temperature in which, all in keeping unchanged the current barometric conditions, the air becomes saturated in water vapour. °C td.
Wet temperature	Value which puts through the dry air temperature and the relative humidity percentage contained in the air. °C tw.
Enthalpy	State function of thermodynamics which variation enables to express the amount of the heat involved during a system transformation when it receives or provides a mechanical work. kJ/kg.
Indoor WBGT	Wet Bulb Globe Temperature (black ball). Globe temperature and in humid et au thermometer. Calculates the WBGT index indoor and outdoor. °C.
Outdoor WBGT	

11.2 Modify a calculated function

➢ Click **"Dataset"** menu then go to **"Calculated function"**.
➢ Click **"Modify function"**.
The window of calculated functions list is displayed.
➢ Select the function to modify then click **"Confirm"**.
➢ Modify the function.
➢ Click **"Confirm"**.

11.3 Delete a calculated function

➢ Click **"Dataset"** menu then go to **"Calculated functions"**.
➢ Click **"Delete function".**
The window of calculated functions list is displayed.
➢ Select the function to delete then click **"Confirm"**.

It is possible to update the device by connecting it to the KILOG software:

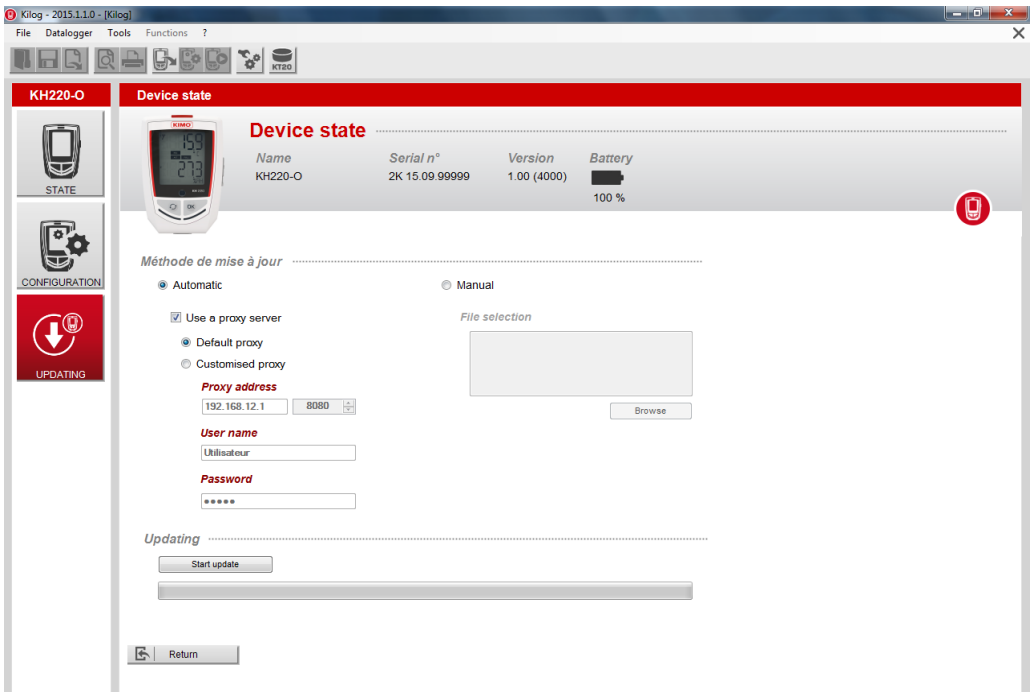
- From the home menu, click 

or
- From the toolbar, click 
or
- From the menu bar, click **"Data logger"** then **"Configuration".**

*Once in **"Configuration"** menu, the software displays a summary of the device state.*

- Click 

The following window is displayed:



Please check that no dataset is currently recorded before carrying out an update.

12.1 Automatic update

The automatic updating needs an internet connection. It can be protected by a proxy server. In this case:

- Tick the **"Automatic"** box.
- Tick the **"Use a proxy server"** box.
- Choose **"Default proxy"**: the KILOG software uses the proxy parameters of the computer internet connection.
  Or
- Choose **"Customised proxy"**: indicate the Proxy address then the user name and password.

Then:

- Click 

to start the device updating.
  The progress of the updating displays in the progression bar.
  A message indicating the updating is finished displays at the end.

12.2 Manual update

- Tick the **"Manual updating"** box.
- Click Browse and take the updating file given by the after-sales service of the company (.zip file type).
- Click Start update to start the device update.

The progress of the updating displays in the progression bar.
A message indicating the updating is finished displays at the end.

12.3 Verify the effective updating

- To verify the effective updating, check the version number indicated in the device references of the device state window:

13 UNINSTALL THE SOFTWARE

To uninstall the KILOG software, suitable rights are needed. Use the Windows tool provided for that purpose:

- Go to **"Start"** menu, **"Parameters"**, **"Control panel"**, then **"Add/Remove programs".**
- In the index **"Install/Uninstall"**, click the **"KILOG"** line and follow Windows indications.

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