DIXELL EMERSON

XWEB EVO

OPERATING MANUAL (V.5.0)

INDEX

1. INTRODUCTION 5

2. THE RECIPIENTS OF THIS MANUAL 7

3. USARE XWEB 7

3.1 DISPLAY INTERFACE (ONLY FOR "COOLMATE" MODELS) 8

3.1.1 MENU VIEW 8

3.1.2 MENU MENU 10

3.2 WEB INTERFACE 12

3.2.1 FIRST INSTALLATION 14

3.2.2 INTERFACE WITH SYSTEM CONFIGURED 15

3.2.2.1 DASHBOARD 15

3.2.2.2 DEVICES 16

3.2.2.2.1 REALTIME 16

3.2.2.2.2 COMMANDS 18

3.2.2.2.3 PARAMETERS 20

3.2.2.3 ALARMS LOG 24

3.2.2.4 SETTINGS 25

3.2.2.4.1 DEVICES 25

3.2.2.4.1.1 ADD 25

3.2.2.4.1.2 DELETE 27

3.2.2.4.1.3 DEVICE SELECTION 27

3.2.2.4.1.3.1 CLONE 28

3.2.2.4.1.3.2 EXPORT 28

3.2.2.4.1.3.3 APPLY 29

3.2.2.4.1.3.4 GENERAL 29

3.2.2.4.1.3.5 VARIABLES 29

3.2.2.4.1.3.6 CONNECTION 30

3.2.2.4.1.3.7 COMMANDS 31

3.2.2.4.2 ALARMS 32

3.2.2.4.2.1 PRINCIPLES OF OPERATION 32

3.2.2.4.2.2 CATEGORIES 32

3.2.2.4.2.3 LEVELS 33

3.2.2.4.3 GROUPS 35

3.2.2.4.4 PRECONFIGURATIONS 36

3.2.2.4.5 UPDATES 37

3.2.1 LAYOUT 38

3.2.2 ANALYSIS 40

3.2.2.1 REPORTS 40

3.2.2.1.1 HACCP REPORTS 40

3.2.2.1.2 FOOD QUALITY REPORTS 42

3.2.2.1.3 HACCP REPORTS 44

3.2.2.2 CHARTS 46

3.2.2.3 CONSUMPTION ANALYZER 49

3.2.2.4 PERFORMANCE 53

3.2.2.5 COMMUNICATION STATUS 55

3.2.3 TOOLS 57

3.2.3.1 GLOBAL COMMANDS 57

3.2.3.2 SCHEDULER 59

3.2.3.3 CALENDAR 64

3.2.3.4 AUTOMATIC EXPORT 65

3.2.3.5 COMPRESSOR RACK OPTIMIZER 67

3.2.3.5.1 CONFIGURATION PARAMETERS 67

3.2.3.5.2 HOW IT WORKS 68

3.2.3.5.3 RESULTS FROM CRO 69

3.2.3.6 DEW POINT 70
3.2.3.6.1 CONFIGURATION PARAMETERS 70
3.2.3.6.2 ERRORS 70
3.2.3.7 SUPERVISION 72
3.2.3.8 LANGUAGES 78
3.2.1 SYSTEM 80
3.2.1.1 INFO 80
3.2.1.2 UPDATES 81
3.2.1.3 USERS 83
3.2.1.4 SETTINGS 87
3.2.1.5 BACKUP 97
3.2.1.6 SYSTEM LOGS 98
3.2.1.7 WIZARD SETUP 98
3.2.1.8 RESTORE SETUP 98
3.2.1.9 WIZARD SETUP 98
3.2.1.10 REBOOT 99
3.2.1.11 SHUTDOWN 99

4. TRADEMARKS 100

5. FAQS 100

5.1 MAINTENANCE PROCEDURE FOR XWEB300/500 MODELS 100

5.2 MAINTENANCE PROCEDURE FOR XWEB3000/5000 MODELS 100

5.3 I CANNOT ACCESS THE SYSTEM WITH MY PASSWORD 100

5.4 MY BROWSER CANNOT REACH THE XWEB 100

5.5 DISPLAYING OF INCOMPLETE OR INCORRECT PAGES FROM PC 101

5.6 SOMEONE HAS RECEIVED A CONFLICTING MESSAGE ON THE IP ADDRESS 102

5.7 HOW MANY CONTROLLERS CAN THE XWEB MANAGE 102

5.8 HOW THE ALARMS ARE MANAGED 102

5.9 HOW ARE THE ALARM EMAILS RE-SENT 102

5.10 TABLETS / PDA COMPATIBILITY 102

5.11 HOW SMS ALARM NOTIFICATIONS APPEAR 103

5.12 MODEM ERROR MESSAGES 103

CAUTION: TO PREVENT FLAMES FROM DEVELOPING OR ELECTRIC SHOCK, AVOID ANY CONTACT BETWEEN THIS DEVICE AND RAIN OR WATER	
CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER IT DOES NOT CONTAIN ANY PARTS THAT REQUIRE SERVICING BY THE USER ALWAYS HAVE QUALIFIED STAFF PERFORM THE PROCEDURES.
	THE SYMBOL OF THE LIGHTNING BOLT INSIDE AN EQUILATERAL TRIANGLE IS USED TO ALERT THE USER OF THE POTENTIALLY DANGEROUS NON-INSULATED ELECTRICAL VOLTAGES
	THE SYMBOL OF THE EXCLAMATION MARK INSIDE AN EQUILATERAL TRIANGLE IS USED TO WARN THE USER THAT HE/SHE MUST PAY CLOSE ATTENTION TO THE TOPIC COVERED IN THIS MANUAL

CAUTION	This device must be installed exclusively by service staff with suitable technical training and experience, who are aware of the dangers that they are exposed to. The operations described herein are set forth exclusively for the service staff.

CAUTION	Only use modems that are officially supported by this monitoring unit. Dixell srl cannot be held responsible for any damage caused by the use of non-supported modems.

CAUTION	Dixell srl reserves the right to amend this manual without prior notice. The latest available version can be downloaded from the internet site.

CAUTION	The instructions in this manual are common to all “XWEB 300D” / “XWEB 500D” / “XWEB 500” / “XWEB 3000” / “XWEB 5000” models. Any particular features are specified expressly.

CAUTION	This control and monitoring unit fulfils EN 12830 for use with probes to detect measurements referred to in 13485

CAUTION	This is a class A product. It can cause radio-interference in residential environments. Should this occur, the user should take suitable counter-measures

CAUTION	Dixell srl reserves the right to vary the composition of its products without prior notice to the customer, ensuring the identical and unchanged features of the same

1. INTRODUCTION

Congratulations for having purchased this product.
XWEB represents one of the most advanced monitoring, control and supervision systems available on the market today. The user will benefit from a power device, which is easy to use and highly customisable for all requirements. It uses the most advanced technology for displaying the web pages and is based on the

Linux™ operating system which guarantees its efficiency and reliability. The hardware is based on highly reliable industrial boards that require practically no maintenance whatsoever.
The web interface is made available locally on the XWEB3000/5000 models a monitor, mouse and keyboard. A local interface on display and keyboard, is also available on the XWEB500 model.
In remote and for all models you can use the web interface, connecting from a regular home computer with an Internet browser, such as Internet Explorer® or Mozilla Firefox®.
XWEB, for the 300D/500D models can easily be on DIN guide. The wall 500 model. The 19” rack or desk 3000/5000 models.

XWEB is designed and bases its operation not only on the Dixell network of controllers. Its main applications are supermarkets of any size, industrial refrigeration and air conditioning.
In addition to the normal monitoring systems, XWEB provides:

- the recording of temperatures in compliance with food hygiene standards UNI EN 12830, HACCP
- the tracking and management of system and control alarms (and centralised management for the XCenter product)
- the management of controllers with planned operations (only for 500D/500/3000/5000 versions)
- the programming of controller parameters
- Compressor Plant Management (Compressor Rack Optimiser, CRO). To better manage the availability of cooling power (only for the 500 and 5000 models)
- and much more

The following tools are added to the XWEB 5000 models:

- Supervision (SPV). For load control, light control, etc.;
- Anti-Sweat Heater Control (DEWP). Useful for the management of the anti-sweat heaters

These tools are particularly useful for Energy Saving optimisation.

2. THE RECIPIENTS OF THIS MANUAL

The contents of this manual are intended for professional users, such as the XWEB installer and/or its end user. The configuration and usage procedures of the XWEB are an integral part of this manual. Users may be professionals such as energy-managers or supermarket directors.

In addition to this manual, we also recommend reading the installation manual provided in paper form, inside the product package, and in electronic form on the Dixell site, under the "manual" section.

3. USARE XWEB

In its configuration, the XWEB system requires connection to its interface of Modbus devices. Make sure that:

1. the controller network is suitably connected paying particular attention to the configuration of the device addresses, to avoid non-admitted duplications.
2. all devices are properly powered. Create the list of all connected devices. Then compare this list with the number of devices effectively detected by means of the automatic procedure.

The XWEB allows for the management of different device lines (also called "nodes"), which can use different types of physical connections and configurations for communication. Obtain the network documentation.

3.1 DISPLAY INTERFACE (ONLY FOR “COOLMATE” MODELS)

The local interface consists of 8 keys:

KEY	FUNCTION
VIEW	Direct access to the archive or data in real time
MENU	Access to configuration menus
CLEAR	Exit from current menu; character deletion
ENTER	Entry into menu; opening of current alarm list
⮜	Movement to the left
⮝	Up movement
⮟	Down movement
⮞	Movement to the right

And generally the interface shows the → symbol for the selectable items
To access certain screens, you must enter a valid username and password of a user registered in the system. The entered credentials remain valid for 5 minutes.

The main screen, when the system has not detected alarms, the LCD display shows:

```
        X W E B 5 0 0   E V O
        X W E B   E V O 1 2 3 4
        A c q u i s i t i o n
    0 9 : 1 8   1 8 / 0 9 / 2 0 1 5
```

When the system has detected alarms, the LCD display shows:

```
        X W E B 5 0 0   E V O
        X W E B   E V O 1 2 3 4
        A c q u i s i t i o n
    A c t i v e   A l a r m s :   8
```

3.1.1 MENU VIEW

By pressing the VIEW key from the main screen, the user accesses the menu

```
                V i e w
→ D a t a
  A l a r m
  T o o l s                        ↓
```

The complete menu is composed of

```
View__
      |__ Data
      |      |__ Actual
      |      |__ From Archive
      |           |__ Main Data
      |           |__ Circular Data
      |__ Alarm
      |       Access denied insert username and password
      |            Exit Save Caps abcd...z
      |                 |__ Actual
      |                 |__ From Archive
      |                         |__ Last 3 days
      |                         |__ Last 3 days by device
      |__ Tools
      |       |__ Line test
      |__ Mute buzzer
```

- The data item displays the actual or archive data
- The alarms item displays the actual or archive data
- The utility item allows access to the RS485 line test
- The mute buzzer item allows interrupting the buzzer noise, potentially active in case of alarm

CURRENT DISPLAY AND SETPOINT CHANGE and command sending
You can select a tool from the current data menu and change its setpoint. The current view is as follows:

```
  RS1-002  New_XR170C
. >------ANALOG-------<
  Evaporator  (Pb2  -7.
  Room  (Pb1)  -10.8  °C
  >------STATUS-------<
  On:  ON
  >------SETPOINT----<
  Set  Point  1.3°C
  >------ALARM-------<
  EEPROM  Failure:  Off
  Error  Pb3:  Off
  Error  Pb1:  Off
  Open  Door:  On
  >------INPUT-------<
  Generic  Alarm:  Off
  >------OUTPUT------<
  Cooling:  Off
  Alarm:  Off
  Defrost:  Off
```

To modify the current setpoint, move over the setpoint and press ENTER, modify the set using the “up arrow”, “down arrow” keys and press ENTER.

ARCHIVE DATA
From the archive data menu you can select a tool and the variable of interest (e.g. “Room (Pb1)” probe) and scroll the value over the selected time periods.

Please select “circular data” to retrieve the samples

```
            Room  (Pb1)
  18/09/2015  11:51:23  -10.8°C
  18/09/2015  11:46:23  -10.8°C
  18/09/2015  12:01:23  -10.8°↓
```

ALARMS DISPLAY
The alarms are displayed by entering username and password valid for their display from the alarm menu

1. Current and active

```
     Active  Alarms
→ 59  (RS1-002)  New_XR170C
  58  (RS1-002)  New_XR570C
  57  (RS1-002)  New_XR170↓
```

Selecting the alarm shows its details The information shown is like those in the example:

```
     Active  Alarms
. Code:  59
  Address:  RS1-002
  Device:  New_XR170C
```

```
  C a t e g o r y   D e f a u l t
  N a m e :   O p e n   D o o r
  S t a r t :   2 0 1 5 / 9 / 1 8   1 0 : 1 1 :2 8
  E n d :   A c t i v e
  D u r a t i o n :   A c t i v e
```

2. From archive

```
      A l a r m   A r c h i v e
. C o d e :   6 9
  A d d r e s s :   R S 1 - 0 0 2
  D e v i c e :   N e w _ X R 1 7 0 C
  C a t e g o r y   D e f a u l t
  N a m e :   O p e n   D o o r
  S t a r t :   2 0 1 5 / 0 9 / 1 8   1 4 : 4 5 : 1 3
  E n d :   2 0 1 5 / 0 9 / 1 8   2 1 : 4 3 : 1 4
  D u r a t i o n :   0 6 h   5 8 m
  T e r m i n a t e d   B y   S E L F
  N o t e s   P r e s e n t
  N o t i f y   N o t   P r e s e n t
```

3.1.2 MENU MENU

By pressing the MENU key from the main screen, the user accesses the menu

```
              M e n U
→ S e t u p
  V i e w
  D e v i c e   C o m m a n d        ↓
```

The complete menu is composed of

```
Menu__
      |__ Setup
      |     |__ Access denied insert username and password
      |          Exit Save Caps abcd...z
      |           |__ XWEB500 EVO – Device
      |           |     |__ Language
      |           |     |__ Identification
      |           |     |__ Delete archive
      |           |     |__ Network
      |           |     |__ e-mail
      |           |
      |           |__ Start-Stop Acquisitions
      |           |     |__ Start Acquisitions
      |           |     |__ Stop Acquisitions
      |           |
      |           |__ Date / Time
      |           |     |__ date
      |           |     |__ hour
      |           |     |__ Format
      |           |     |__ NTP server
      |           |     |__ Sync mode
      |           |
      |           |__ Devices
      |                 |__ Add
      |                 |__ Delete Single Device
      |                 |__ Delete multiple devices
      |
```

```
|__ View
|     |__ (as per VIEW menu, see above)
|
|__ Device Command
|     |__ Access denied insert username and password
|          Exit Save Caps abcd...z
|
|__ Global command
|     |__ Access denied insert username and password
|          Exit Save Caps abcd...z
|           |__ command 1
|           |__ command 2
|
|__ Logout
|
|__ About
```

- The setup item allows configuring the xweb machine parameters
- The view item displays the actual or archive data
- The device command item allows sending commands to the tools

```
      D e v i c e   C o m m a n d
→ R S 1 - 0 0 1   N e w _ X R 5 7 0 C
  R S 1 - 0 0 2   N e w _ X R 1 7 0 C
  R S 1 - 0 0 3   N e w _ X R 5 7 0 C ↓
```

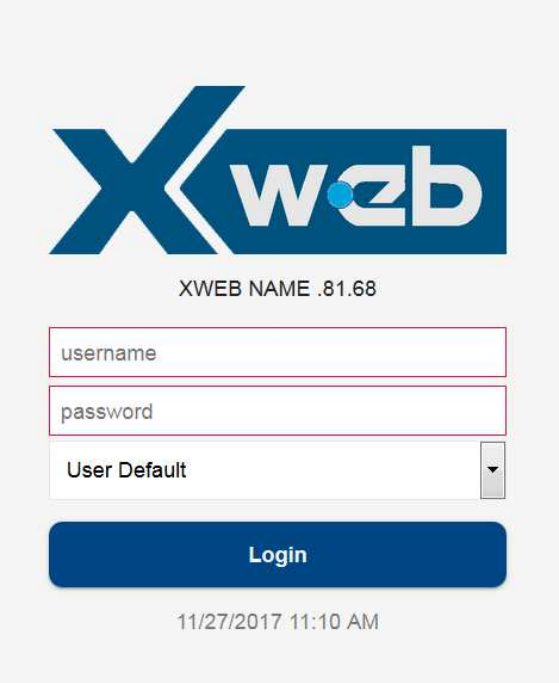
```
  R S 1 - 0 0 1   N e w _ X R 5 7 0 C
→ D e v i c e   O F F
  A l a r m   M u t e
  K e y b o a r d   U N - L O C K
  D e v i c e   O N
  A c t i v e   D e f r o s t
  K e y b o a r d   L O C K
  E n e r g y   s a v i n g   A c t i v e
  E n e r g y   s a v i n g   N O T   A c t i v e
```

- The global-command item allows sending groups of commands to the tools, as configured on the “overview” desktop
- The logout item forces the username and password entry for the subsequent operations that require them
- The About item allows displaying the info relating to the model in question

```
            A b o u t
. S o f t w a r e :   3 . 0 . 0 - A 7 - - 4 a 5 d
  M a x   D e v i c e s :   5 0
  C o d e :   J N P P B Z Z 5 0 0
  M A C :   0 0 0 A F 1 2 3 4 5 6 7
```

3.2 WEB INTERFACE

Access the system from your PC by entering the XWEB IP in the browser address bar. With a direct local connection [screen, mouse and keyboard], this operation is not required, simply switch on the screen. The Web interface can be accessed with browser; we recommend using a high resolution device (typically available on a display of at least 7 inches) in order to be able to all information on all pages.



The user will be directed to the "login" page. From which all users will consistently have access to the system's user interface. Enter Username and Password to access the system. If the entered details are correct the homepage is loaded, otherwise repeat the operation. Pay attention to the presence of alphanumeric characters or capital letters in the password.
The combobox below the password indicates to the system with which language the interface is to be used; if “User Default” is selected, the language used will be that set in the system for the user.

You can only connect to a system being accessed for the first time, which has just completed the "initial wizard" procedure, with:
Username: Admin
Password Admin
Attention: change this password as soon as possible; anyone can read this manual and come into possession of the access details.

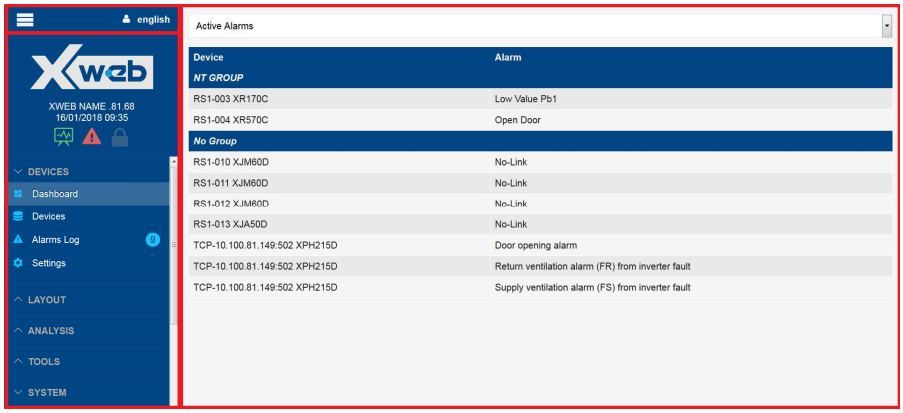
The icon indicates that access to the user interface for non-administrator users is blocked. This block is normally executed to indicate a system maintenance operation by a specialised operator.

The icon indicates an alarm situation (e.g.: high temperature). It will be necessary to login with a valid username and password to be able to recognise the type of alarm and to analyse the system situation. The alarm icon does not automatically assume that the XWEB has activated the relay outputs (e.g. to pilot an alarm siren) nor that someone has been notified of the alarm. This depends on how the administrator has decided to configure the XWEB.

Once logged in with the appropriate credentials, XWEB shows the user the navigation bar (with red border in the image below) that can be hidden/shown by pressing the key at the top and always visible.

The position set by the user on the navigation bar defines the contents of the remainder of the web page.

The navigation bar is always visible on all pages and it enables the user to run the LOGOUT, in other words, to display the interface on the page requesting the username and password.

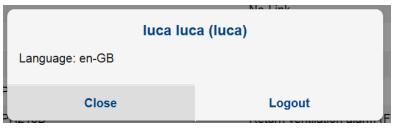


The visible bar shows:

- System Name
- Date and time of system
- Connected user name

  By clicking on the user name, the system shows:

  - User language



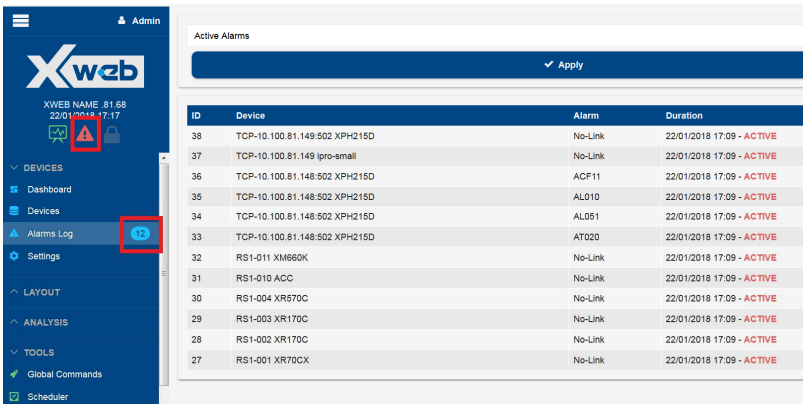
- Access status for non “admin” users; / = locked / unlocked

  Click on the padlock icon to activate and deactivate the block: a dialog will appear to confirm the operation.

- State of the acquisitions; / = active / not active

  Click on the computer icon to activate and deactivate the block: a dialog will appear to confirm the operation.

- Active alarms number



3.2.1 FIRST INSTALLATION

On first access to the XWEB interface of unconfigured product, the system proposes the following WIZARD SETP screen in which the user can retrieve the configuration from a possible backup file (“RESTORE SETUP”) or configure it by following the wizard procedure.

The procedure can also be activated with the system fully configured and is described in the chapter SYSTEM→WIZARD SETUP.

3.2.2 INTERFACE WITH SYSTEM CONFIGURED

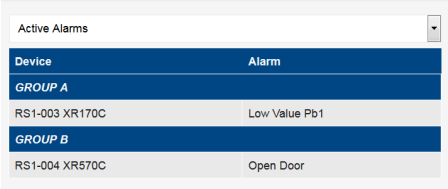
- DEVICES
- LAYOUT
- ANALYSIS
- TOOLS
- SYSTEM

3.2.2.1 DASHBOARD

The dashboard has several views of the device network status.
Where the tool network is displayed in graphical form, the tool box colour indicates:
1. green in case of “no detected alarm” status;
2. red when at least one alarm has been detected;
3. grey when the tool is in maintenance mode

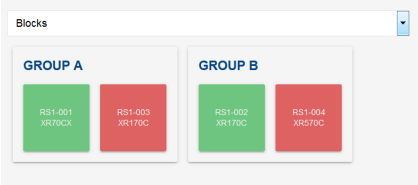
By clicking on the tool box, the interface moves to “Devices” for the selected tool.

- “Active Alarms”

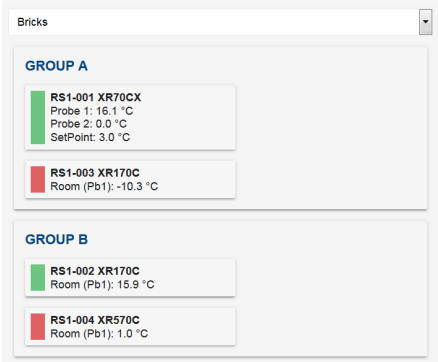


All active alarms detected by the tool network are listed

- “Blocks”

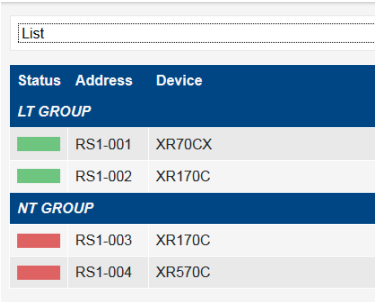


- “Bricks”



The variables selected as “Chart Default” (see “Devices→Settings”) are displayed for each tool with their name, their current value with the unit of measurement.
By clicking on the tool box, the interface moves to “Devices” for the selected tool.

- “List”

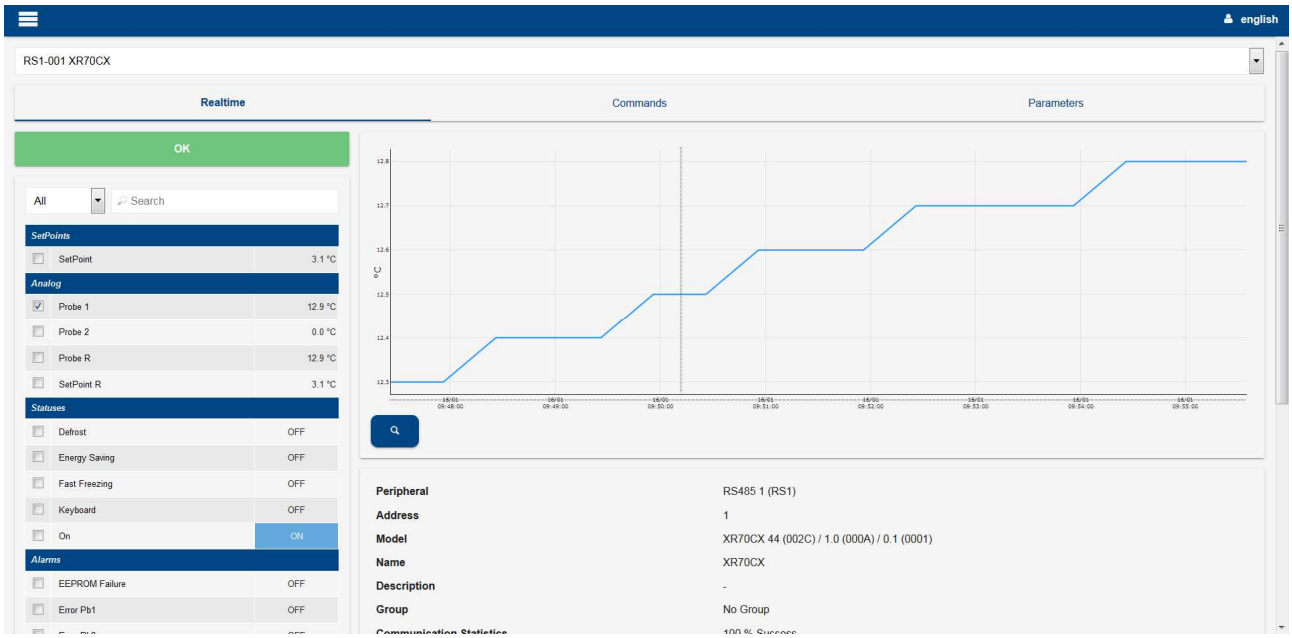


3.2.2.2 DEVICES

The Devices page is a panel for controlling the specific tool; the page is divided into sections.

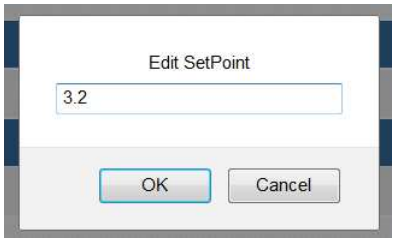
3.2.2.2.1REALTIME

It shows, for the selected tool, the values of its variables updated in real time. And for the selected variables, it shows the chart of the trend of the last period.

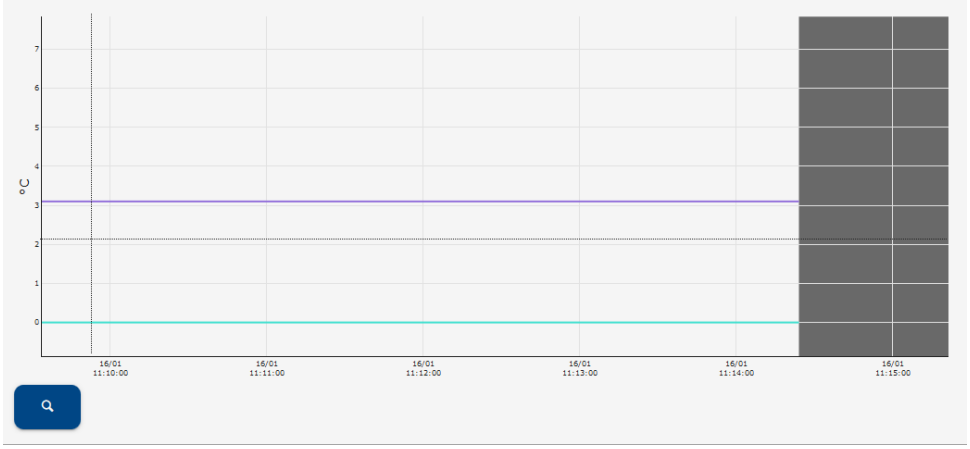


If the tool detects at least one alarm condition, it highlights it with a red bar.

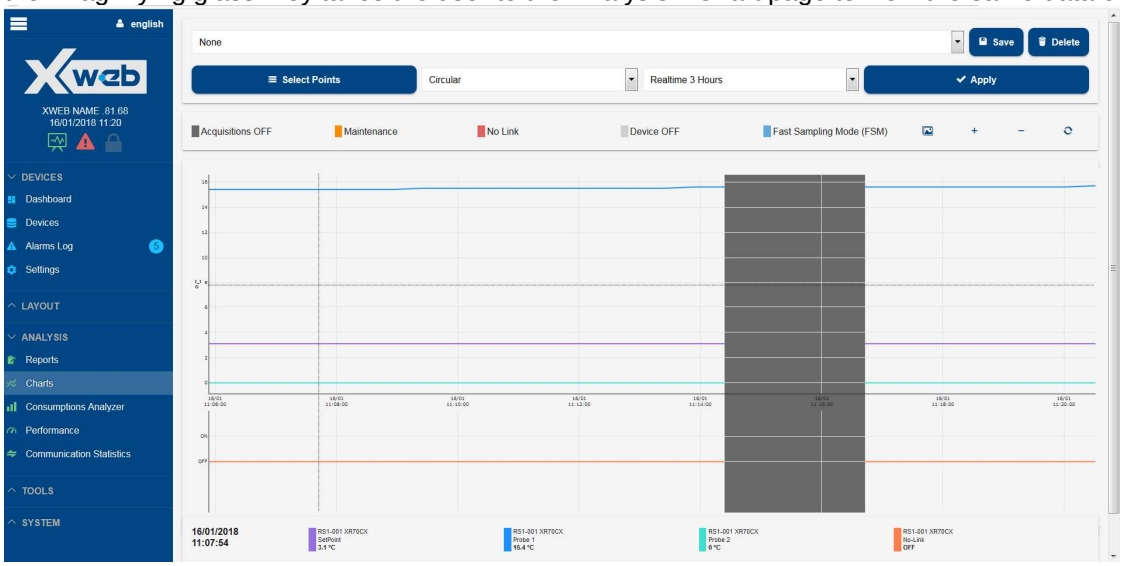
The setpoints are variables whose value can be set by the user; press on the area where the value is displayed to change it.



the chart cursor, typically the mouse, shows the value of the variables based on its position.



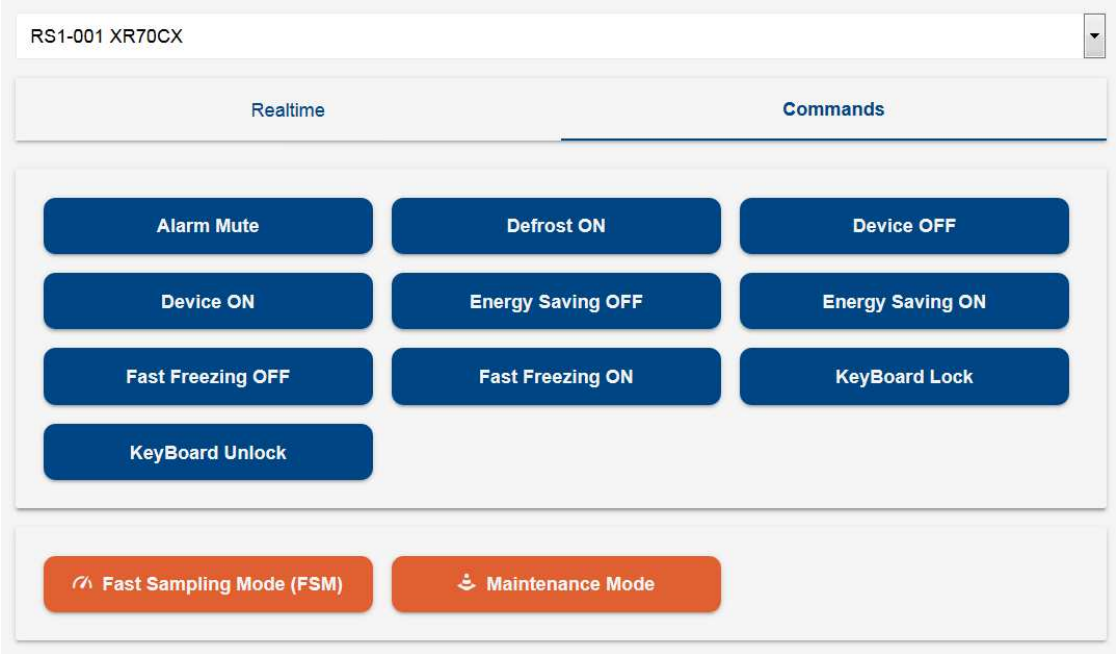
the “magnifying glass” key takes the user to the Analysis→Chart page to view the same data on full screen.



A summary of the main information of the tool is shown below the chart

Peripheral	RS485 1 (RS1)
Address	3
Model	XR170C 16 (0010) / 2.0 (0014) / 0.4 (0004)
Name	XR170C
Description	-
Group	NT GROUP
Communication Statistics	95.28 % Success, 4.72 % Exception

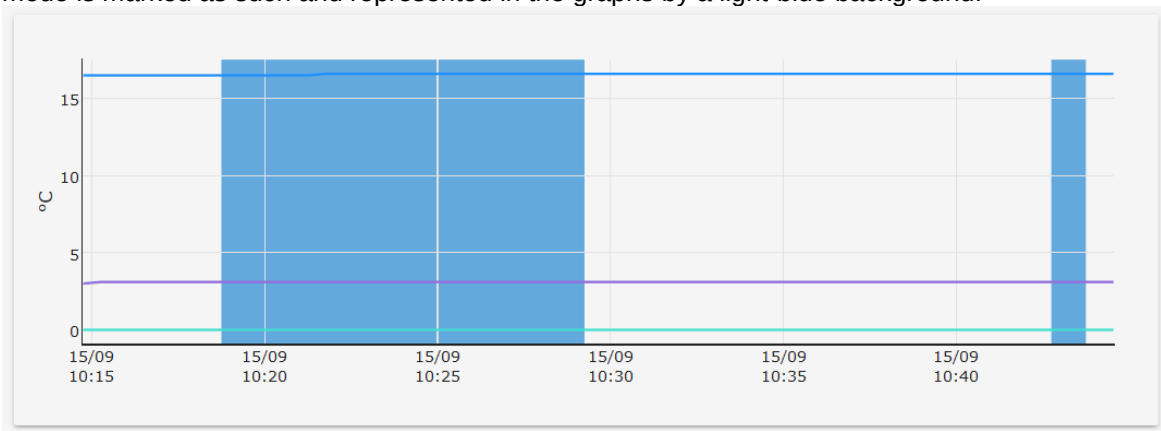
3.2.2.2.2COMMANDS



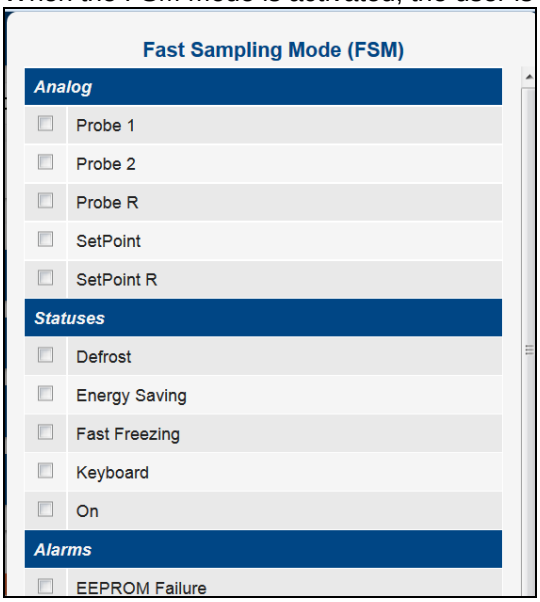
for the selected tool it shows, with blue keys, the available commands that can be sent to the device itself. The list of available commands depends on the type of tool.

Also available below, the orange keys for the commands

- FSM
  The FSM mode aims to perform a high speed selective monitoring of the resources for a set time limited to 10 minutes. This type of monitoring allows the user to run the controller debug and/or of its application, as if the other devices were "disconnected" from the device network. The delay in the acquisition time of the controller values is at a minimum, the device is read more or less in real time.
  Attention: to allow for a higher speed of a controller, the others will be affected. During FSM mode, the sampling time of the other controllers may appear to have increased.
  The FSM mode saves all read samples in the main data archives. All data sampled during FSM mode is marked as such and represented in the graphs by a light-blue background.

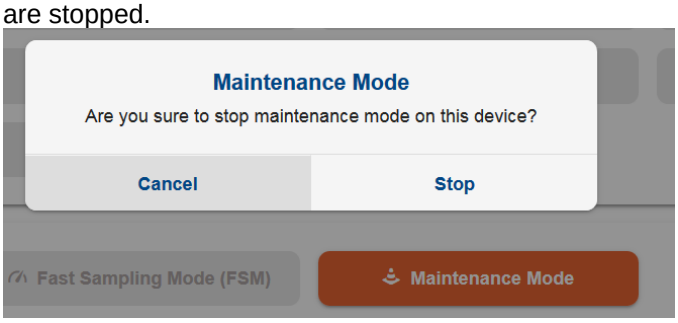


When the FSM mode is activated, the user is asked on which variables should priority be given



- Maintenance Mode
  the user can set the device in Maintenance mode for “Service” or “Cleaning” for a certain period, at the end of which the device will go back to being monitored normally.

  Return to normal status can also be forced by the user by clicking on the “maintenance” key again; the user will be requested to confirm the stop. The maintenance status stops even if the acquisitions are stopped.

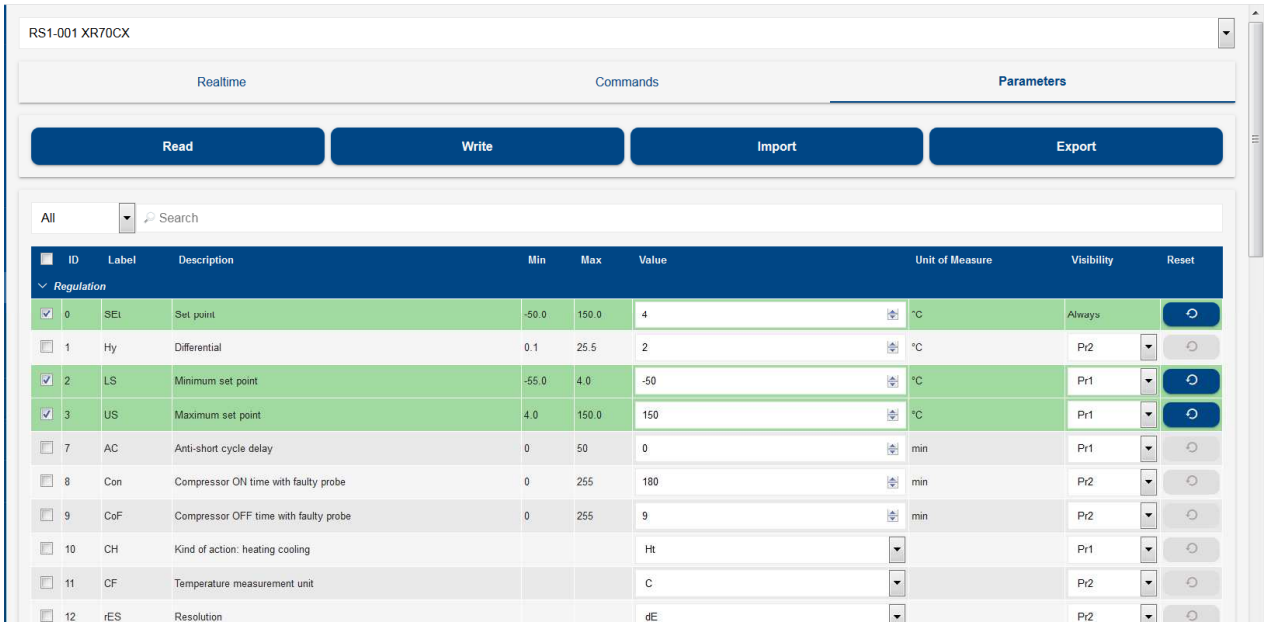


With the maintenance modes any alarm generated by a connected tool is ignored. In general, every reading and writing operation on the tool is inhibited.

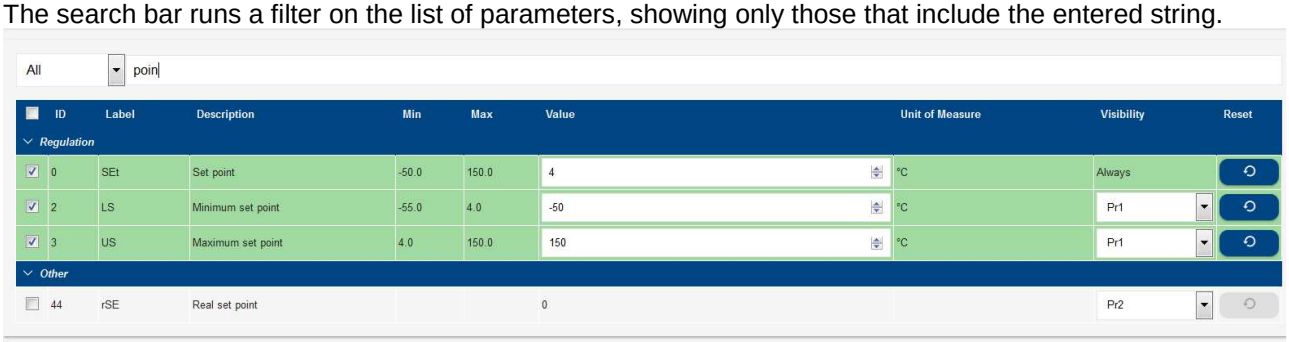
3.2.2.2.3PARAMETERS

The “Parameters” page allows for the management of the parameters associated with the device operation.

Press “**Read**” to read all parameters and show them on the screen table; any unsaved changes on the devices will be lost. The parameters are shown divided by parameter group.

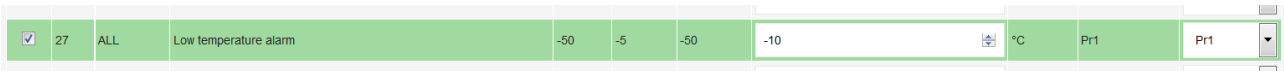


The search bar runs a filter on the list of parameters, showing only those that include the entered string.

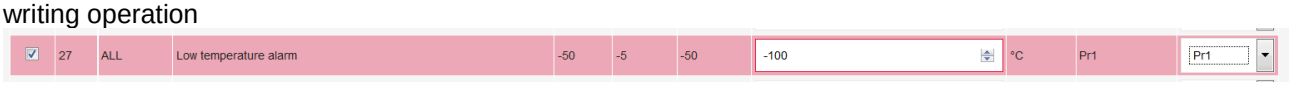


Each parameter whose value has been changed, is highlighted with the following colours:

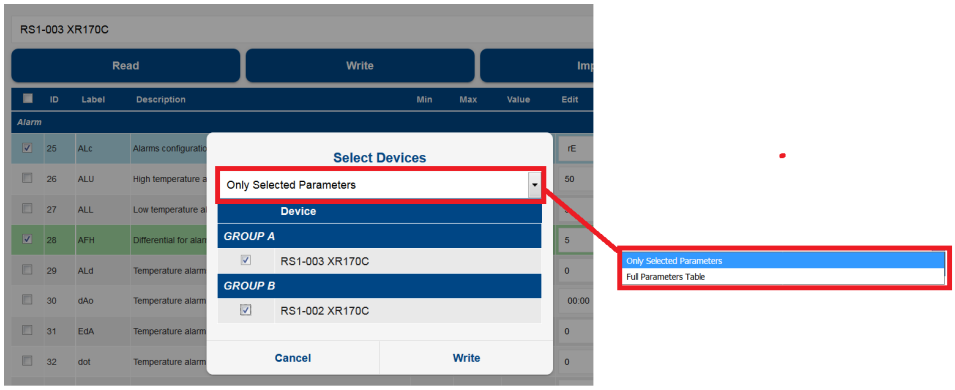
1. green, when the parameter value is correctly validated according to the tool rules and is ready to be written



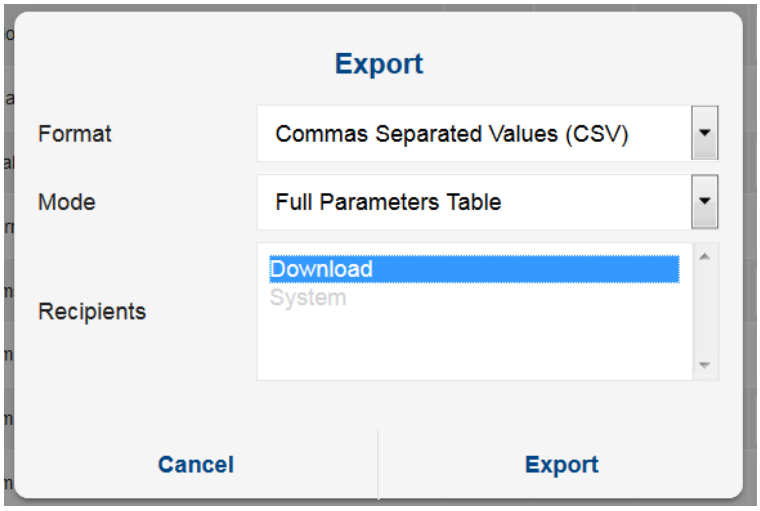
2. red, when the parameter value is in conflict with the tool rules. A single red parameter cannot allow the writing operation



Press “**Write**” to transfer the parameter values on the screen, to the devices. The user can choose on which tools to write and whether to write all parameters or only the selected ones.

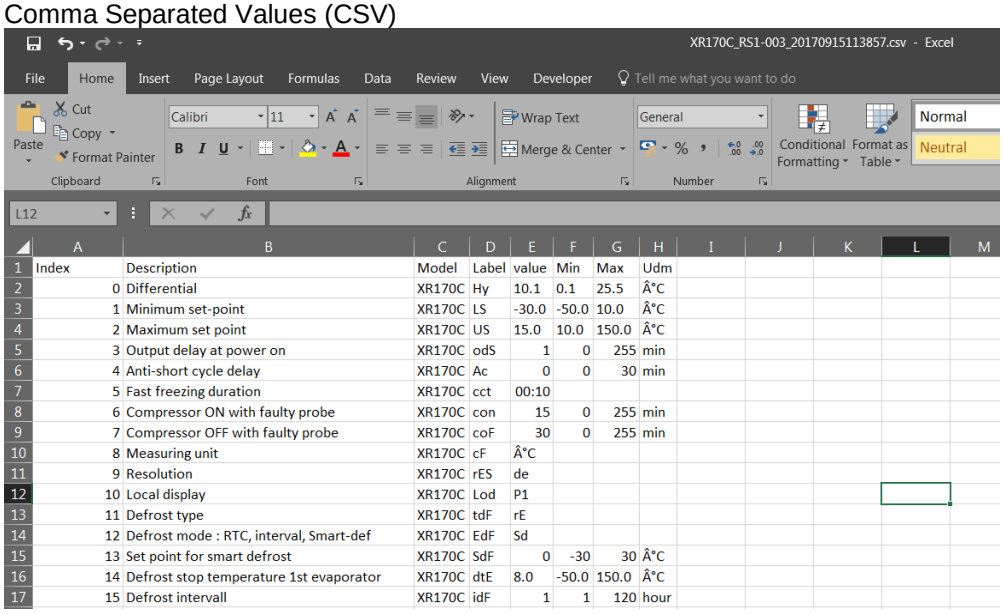


Press "**Export**" to save the parameter map creating a backup. The parameter map can be saved in the XWEB or downloaded on a PC as a ZIP file, through the browser.



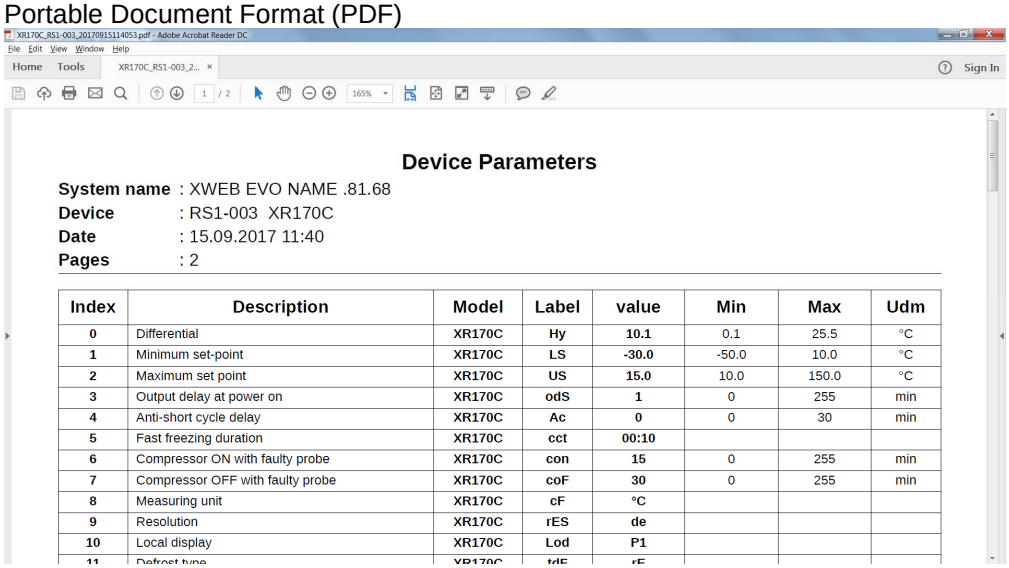
The options available are:

1) Comma Separated Values (CSV)



Index	Description	Model	Label	value	Min	Max	Udm
0	Differential	XR170C	Hy	10.1	0.1	25.5	Â°C
1	Minimum set-point	XR170C	LS	-30.0	-50.0	10.0	Â°C
2	Maximum set point	XR170C	US	15.0	10.0	150.0	Â°C
3	Output delay at power on	XR170C	odS	1	0	255	min
4	Anti-short cycle delay	XR170C	Ac	0	0	30	min
5	Fast freezing duration	XR170C	cct	00:10			
6	Compressor ON with faulty probe	XR170C	con	15	0	255	min
7	Compressor OFF with faulty probe	XR170C	coF	30	0	255	min
8	Measuring unit	XR170C	cF	Â°C			
9	Resolution	XR170C	rES	de			
10	Local display	XR170C	Lod	P1			
11	Defrost type	XR170C	tdF	rE			
12	Defrost mode : RTC, interval, Smart-def	XR170C	EdF	Sd			
13	Set point for smart defrost	XR170C	SdF	0	-30	30	Â°C
14	Defrost stop temperature 1st evaporator	XR170C	dtE	8.0	-50.0	150.0	Â°C
15	Defrost intervall	XR170C	idF	1	1	120	hour

2) Portable Document Format (PDF)

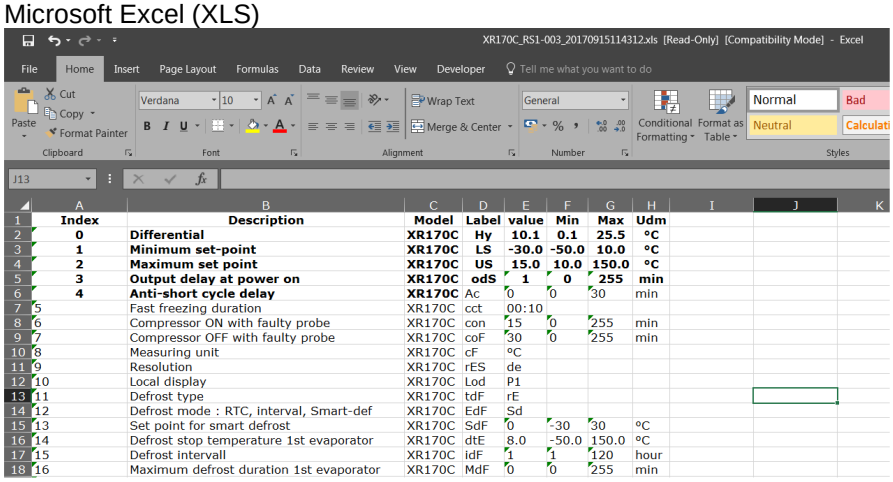


Device Parameters

System name : XWEB EVO NAME .81.68
Device : RS1-003 XR170C
Date : 15.09.2017 11:40
Pages : 2

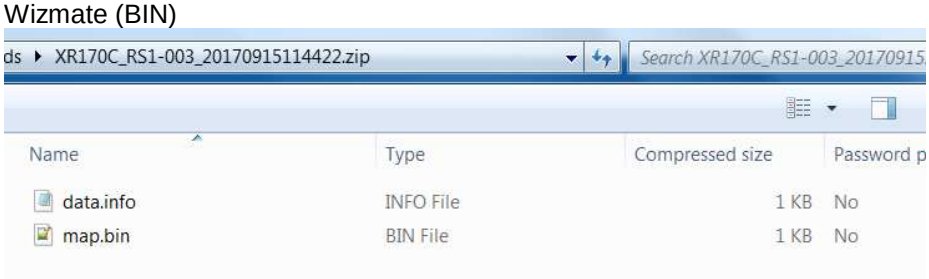
Index	Description	Model	Label	value	Min	Max	Udm
0	Differential	XR170C	Hy	10.1	0.1	25.5	°C
1	Minimum set-point	XR170C	LS	-30.0	-50.0	10.0	°C
2	Maximum set point	XR170C	US	15.0	10.0	150.0	°C
3	Output delay at power on	XR170C	odS	1	0	255	min
4	Anti-short cycle delay	XR170C	Ac	0	0	30	min
5	Fast freezing duration	XR170C	cct	00:10			
6	Compressor ON with faulty probe	XR170C	con	15	0	255	min
7	Compressor OFF with faulty probe	XR170C	coF	30	0	255	min
8	Measuring unit	XR170C	cF	°C			
9	Resolution	XR170C	rES	de			
10	Local display	XR170C	Lod	P1			
11	Defrost type	XR170C	tdF	rE			

3) Microsoft Excel (XLS)



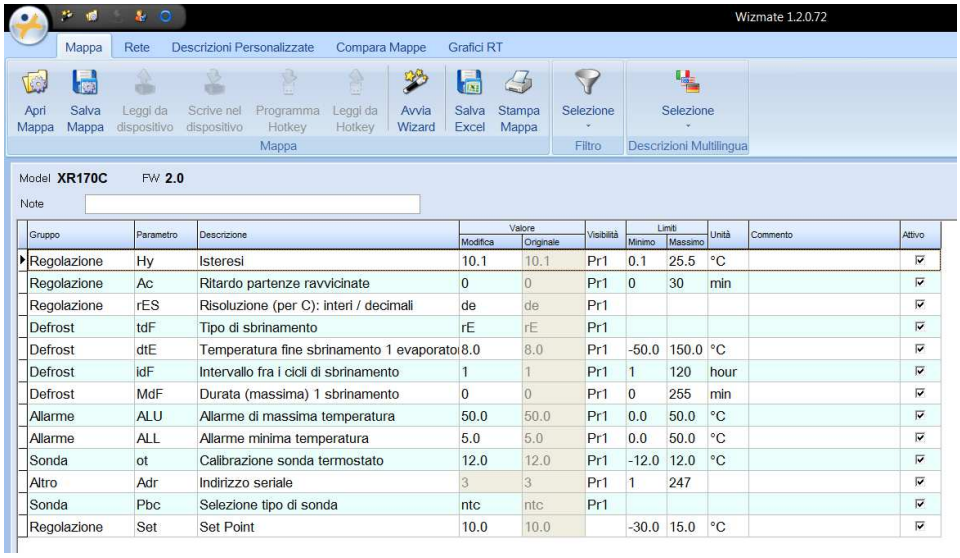
	Index	Description	Model	Label	value	Min	Max	Udm
2	0	Differential	XR170C	Hy	10.1	0.1	25.5	°C
3	1	Minimum set-point	XR170C	LS	-30.0	-50.0	10.0	°C
4	2	Maximum set point	XR170C	US	15.0	10.0	150.0	°C
5	3	Output delay at power on	XR170C	odS	1	0	255	min
6	4	Anti-short cycle delay	XR170C	Ac	0	0	30	min
7	5	Fast freezing duration	XR170C	cct	00:10			
8	6	Compressor ON with faulty probe	XR170C	con	15	0	255	min
9	7	Compressor OFF with faulty probe	XR170C	coF	30	0	255	min
10	8	Measuring unit	XR170C	cF	°C			
11	9	Resolution	XR170C	rES	de			
12	10	Local display	XR170C	Lod	P1			
13	11	Defrost type	XR170C	tdF	rE			
14	12	Defrost mode : RTC, interval, Smart-def	XR170C	EdF	Sd			
15	13	Set point for smart defrost	XR170C	SdF	0	-30	30	°C
16	14	Defrost stop temperature 1st evaporator	XR170C	dtE	8.0	-50.0	150.0	°C
17	15	Defrost intervall	XR170C	idF	1	1	120	hour
18	16	Maximum defrost duration 1st evaporator	XR170C	MdF	0	0	255	min

4) Wizmate (BIN)



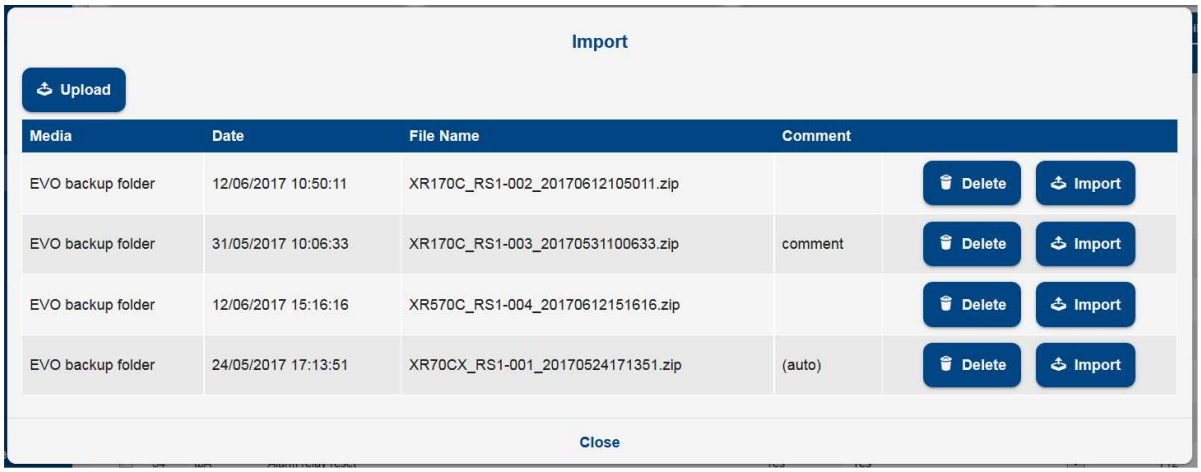
Name	Type	Compressed size	Password p
data.info	INFO File	1 KB	No
map.bin	BIN File	1 KB	No

with this option, XWEB exports a ZIP file that includes the “data.info” and “map.bin” files. For use with WIZMATE simply open the BIN file, assuming that the tool WIZMATE library is already installed correctly in the same WIZMATE.



Gruppo	Parametro	Descrizione	Valore Modifica	Valore Originale	Visibilità	Limiti Minimo	Limiti Massimo	Unità	Commento	Attivo
Regolazione	Hy	Isteresi	10.1	10.1	Pr1	0.1	25.5	°C		☑
Regolazione	Ac	Ritardo partenze ravvicinate	0	0	Pr1	0	30	min		☑
Regolazione	rES	Risoluzione (per C): interi / decimali	de	de	Pr1					☑
Defrost	tdF	Tipo di sbrinamento	rE	rE	Pr1					☑
Defrost	dtE	Temperatura fine sbrinamento 1 evaporato	8.0	8.0	Pr1	-50.0	150.0	°C		☑
Defrost	idF	Intervallo fra i cicli di sbrinamento	1	1	Pr1	1	120	hour		☑
Defrost	MdF	Durata (massima) 1 sbrinamento	0	0	Pr1	0	255	min		☑
Allarme	ALU	Allarme di massima temperatura	50.0	50.0	Pr1	0.0	50.0	°C		☑
Allarme	ALL	Allarme minima temperatura	5.0	5.0	Pr1	0.0	50.0	°C		☑
Sonda	ot	Calibrazione sonda termostato	12.0	12.0	Pr1	-12.0	12.0	°C		☑
Altro	Adr	Indirizzo seriale	3	3	Pr1	1	247			☑
Sonda	Pbc	Selezione tipo di sonda	ntc	ntc	Pr1					☑
Regolazione	Set	Set Point	10.0	10.0		-30.0	15.0	°C		☑

Press “**Import**” to load the parameter set saved previously with the Export procedure, into the parameter table on the screen.

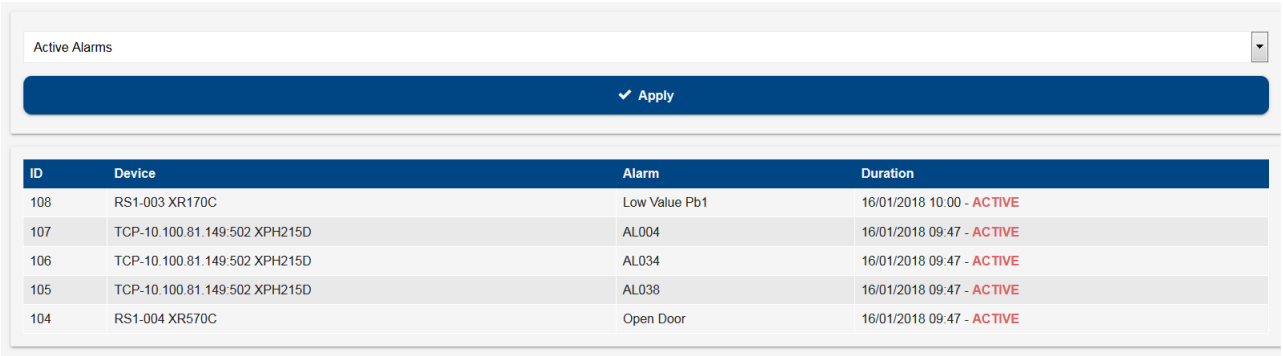


Press “Upload” if the backup to be loaded is not among those saved in the XWEB memory.

3.2.2.3 ALARMS LOG

The “alarms” page displays the list of

1. active alarms

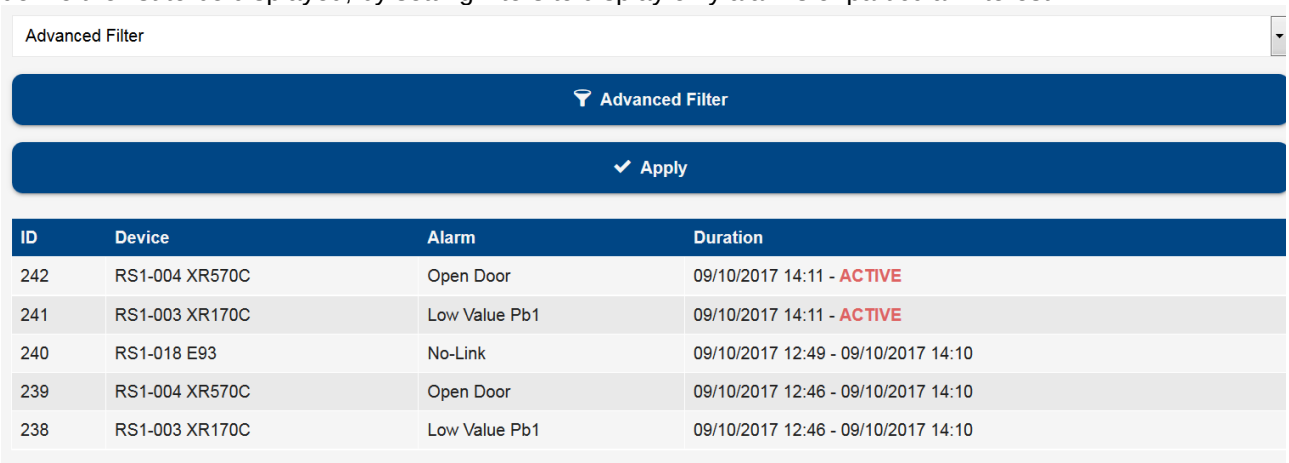


ID	Device	Alarm	Duration
108	RS1-003 XR170C	Low Value Pb1	16/01/2018 10:00 - ACTIVE
107	TCP-10.100.81.149:502 XPH215D	AL004	16/01/2018 09:47 - ACTIVE
106	TCP-10.100.81.149:502 XPH215D	AL034	16/01/2018 09:47 - ACTIVE
105	TCP-10.100.81.149:502 XPH215D	AL038	16/01/2018 09:47 - ACTIVE
104	RS1-004 XR570C	Open Door	16/01/2018 09:47 - ACTIVE

as in the above image, all alarms currently detected on the active tool line(s) are displayed.

2. advanced filter

as shown below, the active alarms and the log of alarms occurred in the past are displayed. The user can define the list to be displayed, by setting filters to display only alarms of particular interest.

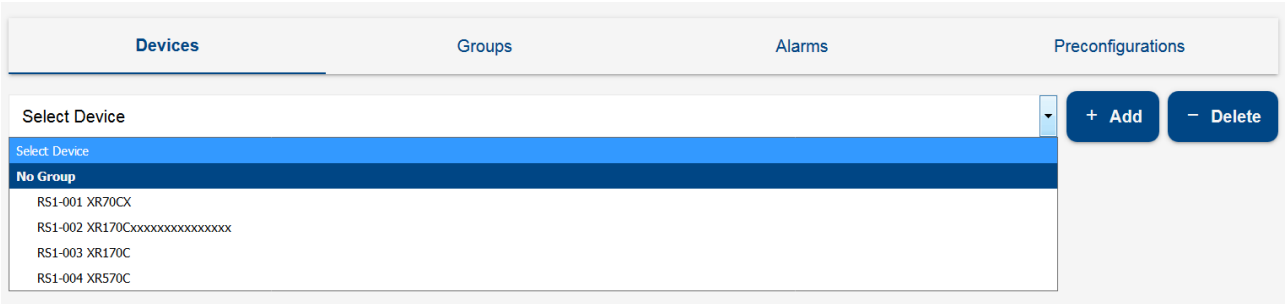


ID	Device	Alarm	Duration
242	RS1-004 XR570C	Open Door	09/10/2017 14:11 - ACTIVE
241	RS1-003 XR170C	Low Value Pb1	09/10/2017 14:11 - ACTIVE
240	RS1-018 E93	No-Link	09/10/2017 12:49 - 09/10/2017 14:10
239	RS1-004 XR570C	Open Door	09/10/2017 12:46 - 09/10/2017 14:10
238	RS1-003 XR170C	Low Value Pb1	09/10/2017 12:46 - 09/10/2017 14:10

3.2.2.4 SETTINGS

The configuration parameters of the tools connected to XWEB are set in this section.

3.2.2.4.1DEVICES

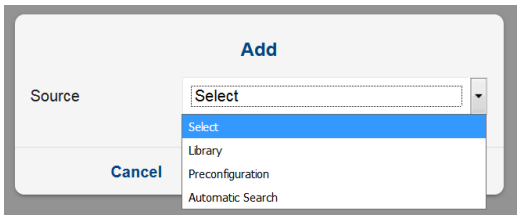


Here you can configure the XWEB parameters for the tool. In this page you can also add or remove tools from the XWEB configuration.

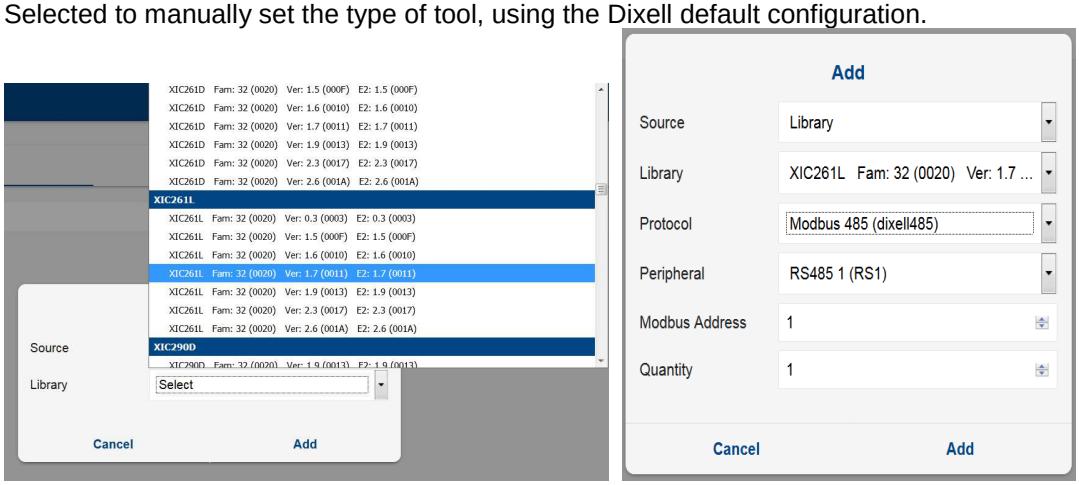
3.2.2.4.1.1 ADD

By pressing the **ADD key**, the user chooses to add a new tool to the XWEB device network.

The options available are:



1. Library
Selected to manually set the type of tool, using the Dixell default configuration.



The user must manually set

- Library name

- Protocol
  - **Modbus 485 (dixell485)**: for wired networks (no wireless)

- o **Modbus 485 iCool (dixell485-icool)**: for wireless networks with the use of iCOOL modules
- o **Modbus ASCII (mdb_ASCII)**: for ASCII modbus devices
- o **Modbus TCP/IP (mb485tcpip):** for modbus-485 devices connected on gateway tcp/ip
- o **Modbus 485 over TCP/IP (mbtcpip)**: for modbus devices on tcpip

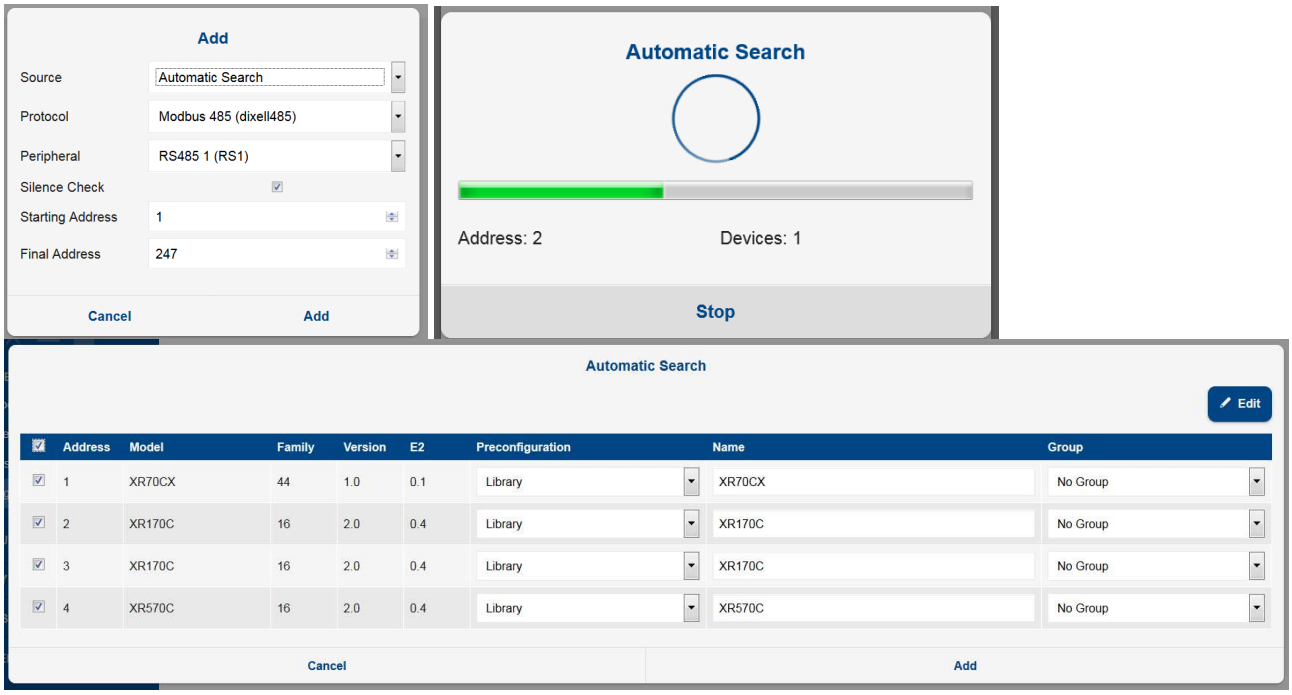
- Peripheral
  - o XWEB 300/500 allows managing 1 serial line that can address up to 247 devices.
  - o XWEB3000/5000 two lines and each line can address a maximum of 247 devices.

- Modbus Address
  - o Modbus address to which the tool must respond

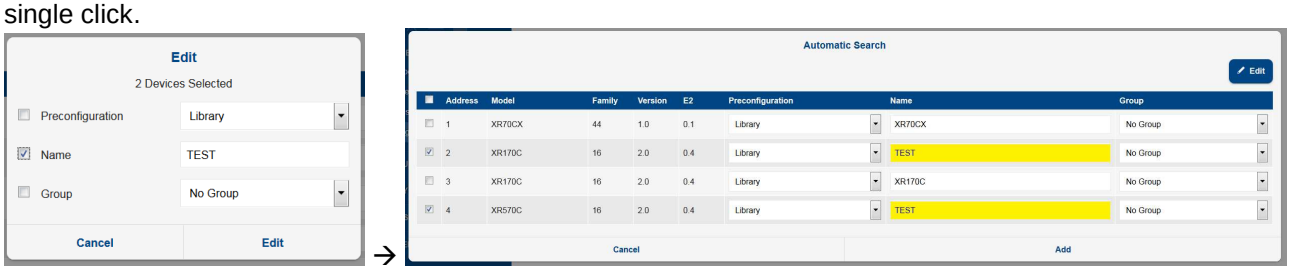
- Quantity
  - o number of tools with the same characteristics to add to the tool network configuration

2. Preconfiguration
   You choose to manually set the tool, using a customised configuration and previously saved in the system from Devices→Export.

3. Automatic Search
   You choose the automatic search to set devices with unknown modbus address.

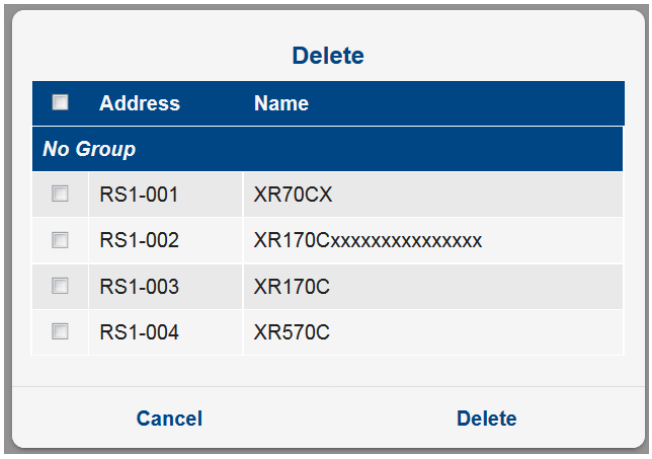


The EDIT key allows setting the preconfiguration/name/group, the configuration of selected devices in a single click.



3.2.2.4.1.2 DELETE

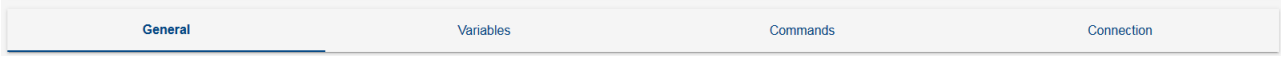
By pressing the **Delete key**, the user chooses to remove an already configured tool from the XWEB device network.



You can remove the configuration of the selected tools. The removal is permanent and cannot be subsequently cancelled: please be careful when removing the devices and you are advised to always make a backup/preconfiguration for subsequent retrieval, if necessary.

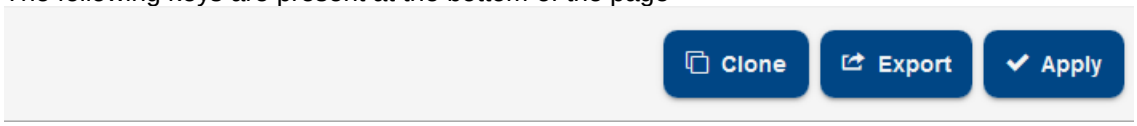
3.2.2.4.1.3 DEVICE SELECTION

By **selecting the tool** from the combobox, its configuration parameters are displayed.
When the selection is made, the page updates and is divided into sections



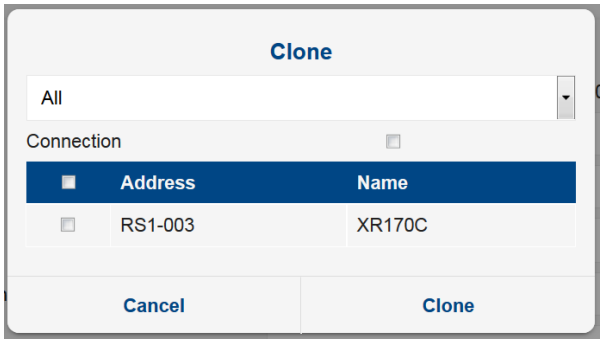
Each of these sections includes a part of the parameters necessary for the operation of the individual device.

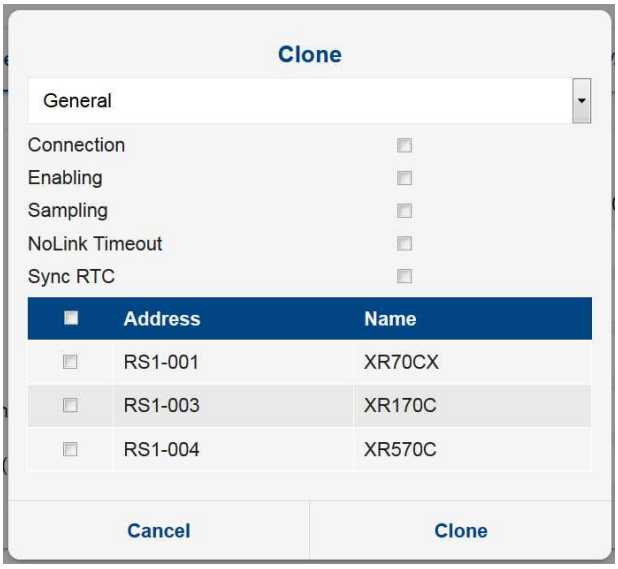
The following keys are present at the bottom of the page



3.2.2.4.1.3.1 CLONE

To clone the configuration parameters between tools.





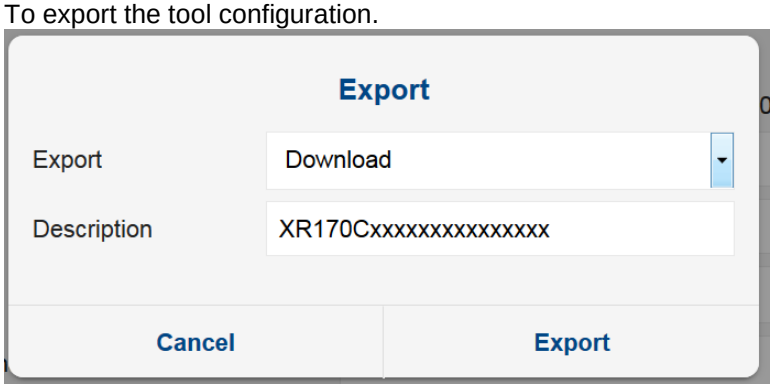
There are two possible options:

- "All": applicable only to compatible devices. For a copy of all device parameters.
- "General": applicable to all devices. For a copy of parameters only.

Select the devices to which you wish to apply the copy of configuration parameters on the network and click OK. The 'name', 'sampling', 'no-link time out' and 'clock syncro' parameters, at this point, are all duplicated alongside all descriptions of the variables and their display parameters.

3.2.2.4.1.3.2 EXPORT

To export the tool configuration.



The following options are available:

- System

Saves the configuration for the tool in the XWEB memory. The configuration thus produced is subsequently available from the Devices→Settings→Preconfigurations menu.

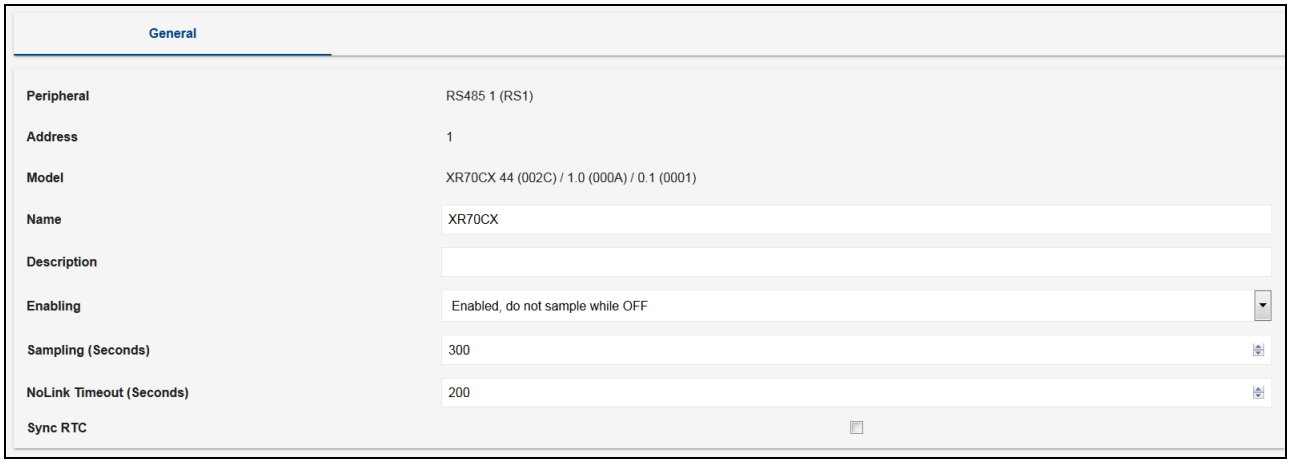
- Download

To save the tool configuration through computer memory, from the browser.

3.2.2.4.1.3.3 APPLY

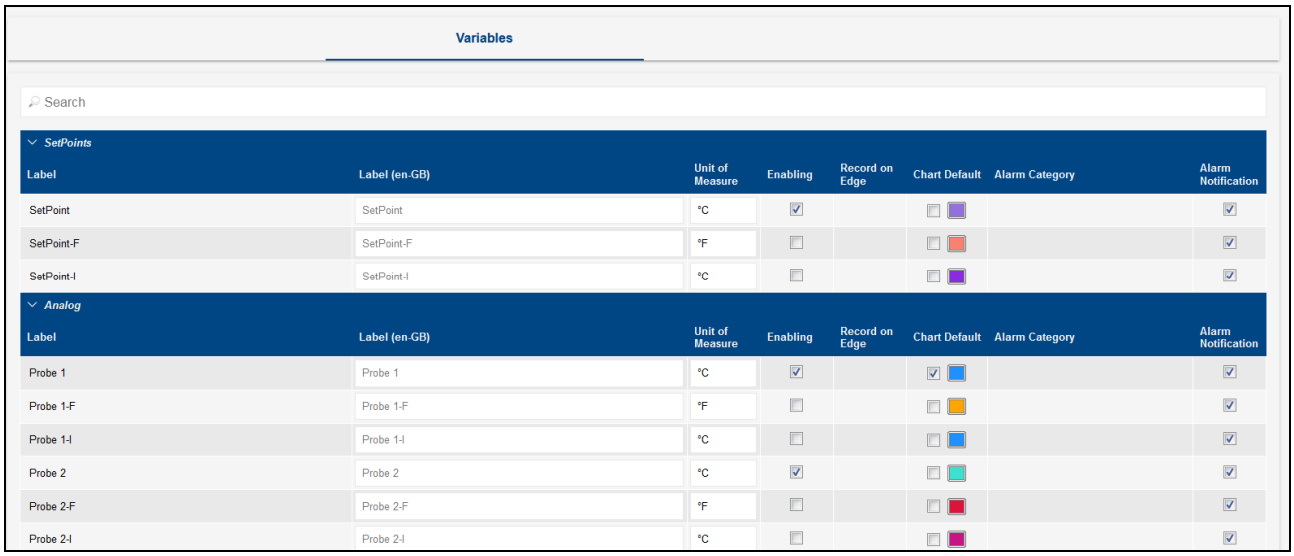
To make the configuration changes operational. The operation has immediate effect.

3.2.2.4.1.3.4 GENERAL



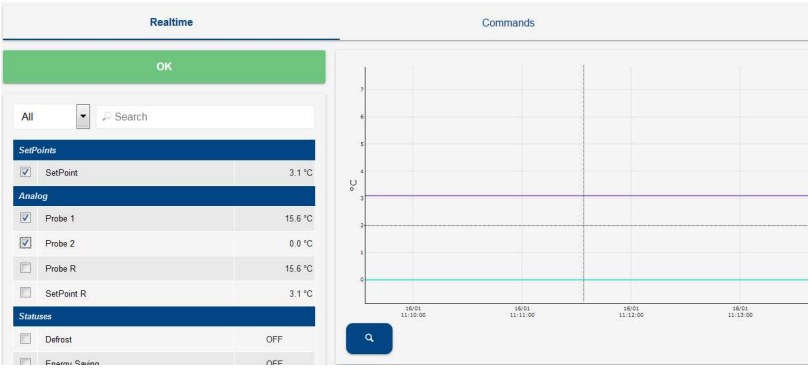
- **Peripheral**: communication channel (e.g. serial port)
- **Address**: modbus address
- **Model**: for each model there is a specific library/driver
- **Name**: name
- **Description**: description
- **Enabling**: enabling status
- **Sampling**: recording interval in permanent memory of the configured variables (in seconds)
- **No Link Timeout**: maximum time of failed communication with device before the no-link alarm (in seconds)
- **Sync RTC**: enabling to clock synchronisation (where available) with XWEB. The update operation is automatic.

3.2.2.4.1.3.5 VARIABLES

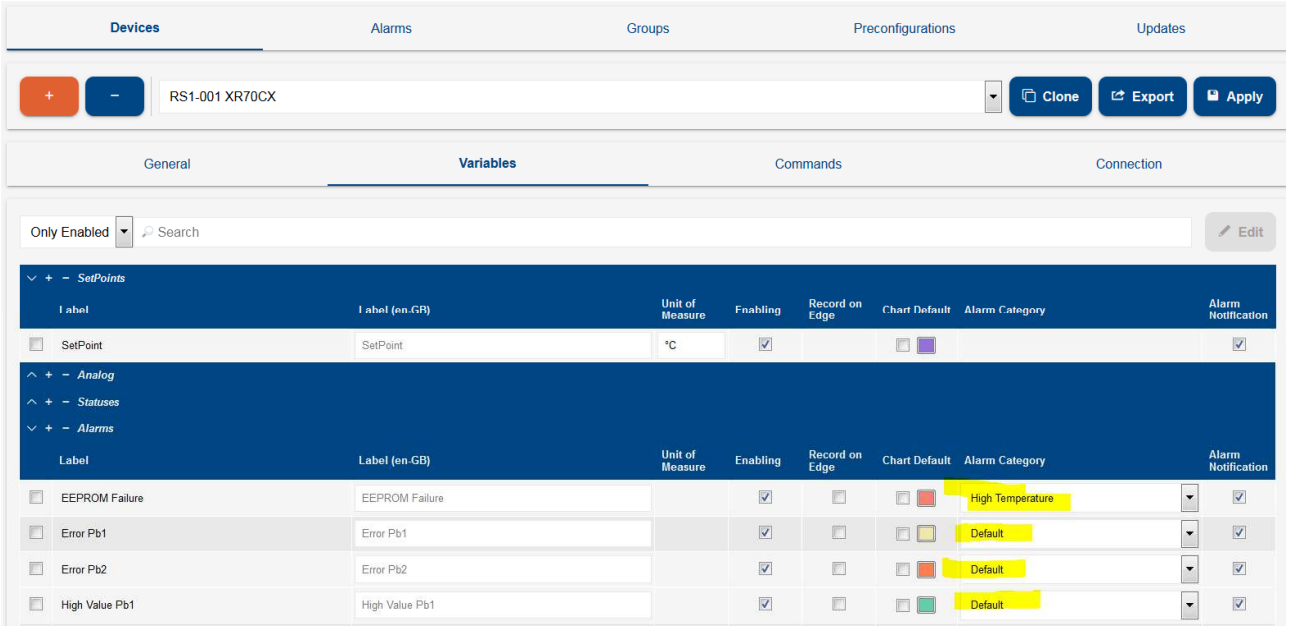


On this page the user can set the description (***Label*** field) as variable, ie the string with which the variable appears in the other XWEB windows. The description string is in the original language and this allows customising the text for each language with which the system is accessed. For example, “Probe 1” (default string) can be set to “Sonda 1” for Italian users and “Sonde 1” for German users; to configure the string per

language, the administrator must access the system with the language to be customised. The UDM field is for the unit of measurement.
Enabling indicates to the system whether the variable must be read or not by the tool; the enabling of the variable must be limited as much as possible since the higher the number of variables read by XWEB, the lower will their update speed be.
Record on edge (only available for digital type variables) indicates to the system to sample at threshold change or in time (default).
Chart Default: this parameter defines whether the variable is enabled or not and its default colour for the device's charting. For example:



Alarm Category: this parameter, only settable for the digital variables, defines the notification enabling as alarm with relay, email, sms, etc.



Alarm Notification: this parameter defines the enabling of the variable in the snapshot table in the event an alarm is notified via email for this tool

3.2.2.4.1.3.6 CONNECTION

The XWEB connection parameters with the tool are defined in this page.
The change of parameters maintains the log data for the tool.

Connection

Connection		
Connection	RS485	RS485

RS485 Settings		
Property	Value	Edit
Peripheral	RS1	RS1
Address	1	1
Wireless	No	No
Modbus Type	RTU	RTU
Timeout (ms)	150	150

Serial Settings			
Property	Library Default	Value	Edit
Speed	-	9600	9600
Parity	-	n	n
Data Bits	-	8	8
Stop Bit	-	1	1
Interframe (ms)	-	30	30
DTR ON (ms)	-	5	5

3.2.2.4.1.3.7 COMMANDS

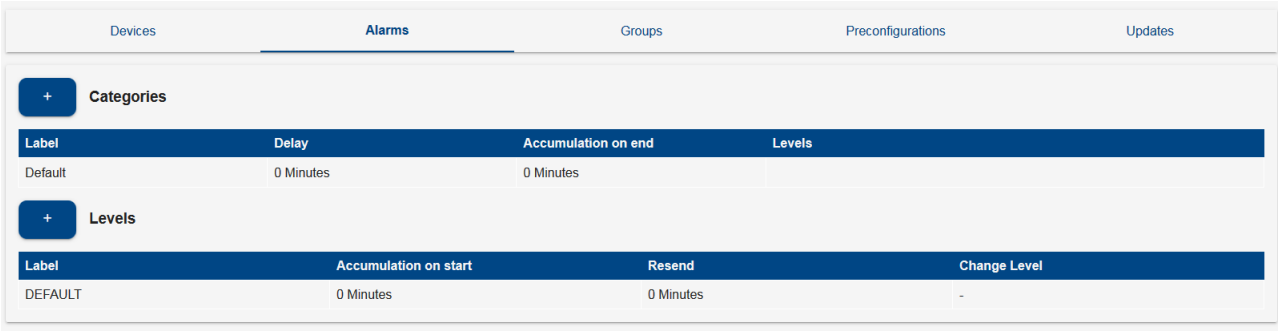
Commands

Search

Label	Label (en-GB)	Enabling
Alarm Mute	Alarm Mute	☑
Aux OFF	Aux Off	☐
Aux ON	Aux On	☐
Active Defrost	Defrost ON	☑
Device OFF	Device OFF	☑
Device ON	Device ON	☑
Energy saving OFF	Energy Saving OFF	☑
Energy saving ON	Energy Saving ON	☑
Fast Freeze OFF	Fast Freezing OFF	☑
Fast Freeze ON	Fast Freezing ON	☑
Humidity Fan OFF	Humidity Fan OFF	☐

The list of commands for the tool is configured on this page. The description can be customised and is in original language, ie valid for all users accessing the xweb interface with the same language. The command is available on the XWEB pages when Enabling is enabled.

3.2.2.4.2ALARMS



In this section you configure the device alarm variables and how they make the XWEB system react when they are detected. The XWEB uses this information to detect the alarms from the controllers and notify their status to the users in the book.

3.2.2.4.2.1 PRINCIPLES OF OPERATION

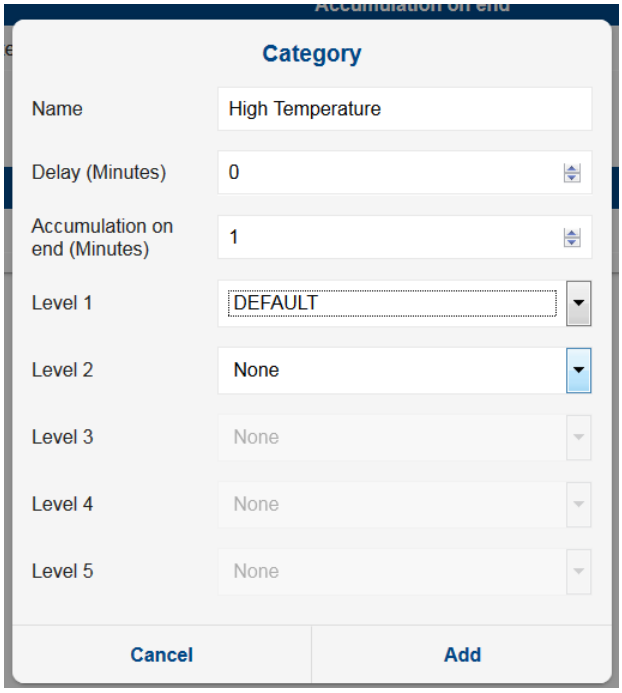
For the alarms to be considered as such, they must be part of an alarm category. Once the alarm has been detected, the system confirms this after a certain period of time (see Delay parameter, "alarm category parameters"). Upon alarm confirmation, the first level users are also notified. If the alarm persists, other notifications may be sent to the same recipients (see re-send time, "alarm level parameters"). If the alarm persists beyond the maximum time permitted to the level (see re-send life time, level parameters), the level shifts, sending the subsequent notifications to the recipients of the subsequent level. The alarm recovery is also normally notified: there are many parameters that can be used to customise notifications according to your requirements; these will be individually described in the following pages.

3.2.2.4.2.2 CATEGORIES

The Alarm-Categories is a list of types of alarm, with the purpose of grouping the alarms that must be dealt with in the same manner, from a point of view concerning alarm detection and their notification.

For example, it is possible to create a category named "Temperature Alarms" or "Pressure Alarms"; and associate all alarms of this type with the above-mentioned alarm-categories.

- **Name**: identifies the category itself;
- **Delay**: stand-by time for the processing of the alarm, from when it is read by the controller network to when it is effectively considered an alarm: if the alarm is resolved before this time runs out, the source of the alarm is ignored. This parameter is useful for the delayed management of the "open door" status which comes from an I/O board: the variable is not an alarm but with the XWEB it can be used as if it were.
- **Accumulation on end**: the system sends notification when the alarm is reset. However, the system waits for the resetting of other alarms for the period indicated in this parameter, before sending a cumulative notification. This therefore reduces the notification line's task; relieving it of any critical conditions such as is the case when the line is slow. This parameter works similarly to the "Accumulation" time present amongst the "alarm notification parameters": However, in the case of the alarm-categories, the time is divided between all of the "Alarm Level Settings";
- **Levels**: notification levels. The order is important: the first level to be notified (entry level) is that with the lowest number (“Setting 1”). The up-scaling of the notification level occurs based on the parameters set in "Settings".

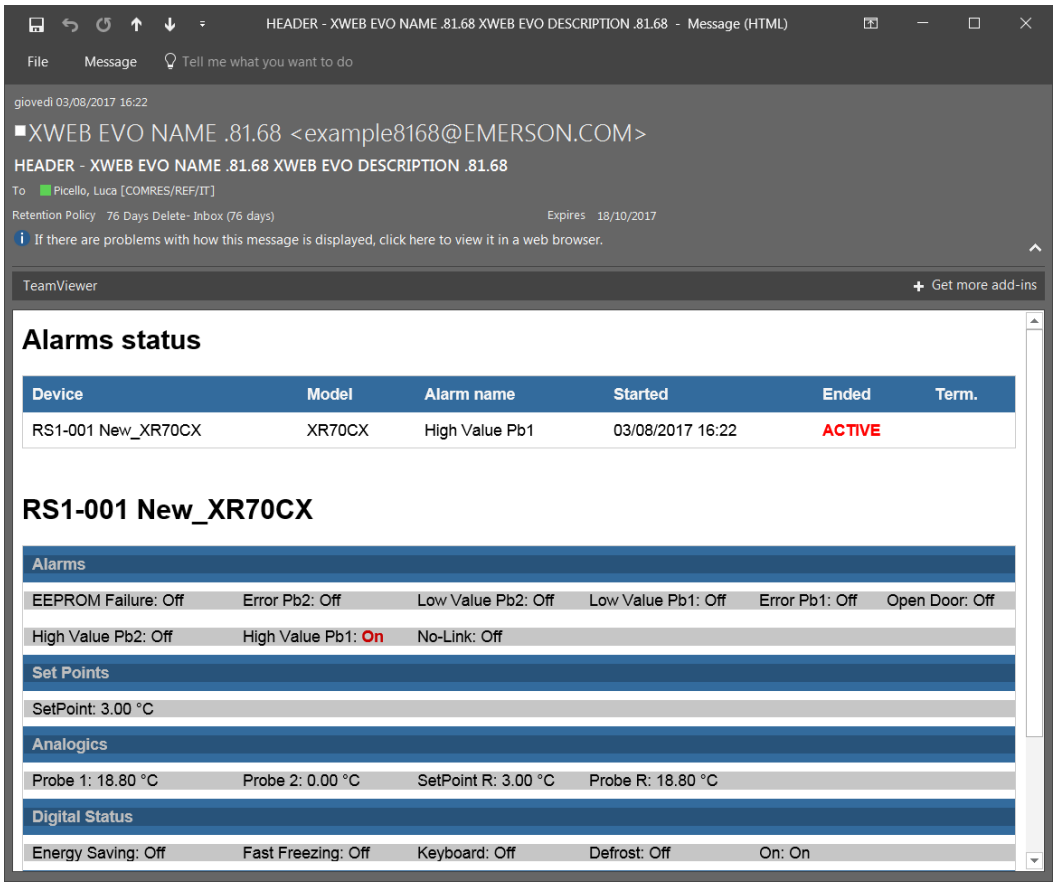


3.2.2.4.2.3 LEVELS

The alarm notification parameters identify the notification levels. Each level includes the users who receive the alarm notifications.

- **Name**: identifies the notification level
- **Site Manager Priority**: priority for Emerson Site Manager
- **Notify on Start**: enabled for the sending of new alarm notifications
- **Notify on End**: enabled for the sending of alarm-over notifications
- **Send Single Notification**: the enabling of this parameter invalidates the accumulation time. If the system detects two alarms simultaneously, the users will receive two separate notifications.
- **Accumulation at start-up Time**: the time during which the system awaits the detection of new alarms for the sending of a cumulative notification
- **Re-send Time**: interval between notifications of persisting alarms. For example, if a new alarm message is sent but ignored or lost, the system notifies the same message again after the indicated time. This parameter is critical to "level" climb logic: if this parameter value is 0 after the first notification, the level is scaled upwards
- **Level change time**: maximum time within which the continuously active alarm is notified of the current level rules. After this time, the level is up-scaled to the next level indicated in the alarm-category.
- **Notification services**:
    1. AUX2/AUX3: the alarm notification occurs by means of the local relay, physically present on rear of the XWEB machine. The configuration parameters of these relays are available on page “SYSTEM→SETTINGS→INPUTS/OUTPUTS”. Caution: on models 500D/500 the entries AUX2/AUX3 are identified with names AUX1 and AUX2. For XWEB300D the system relay is called SYSAUX
    2. RAUX1/ RAUX2/ RAUX3/RAUX4: the alarm notification occurs by means of the remote relay physically present on an XJR40D controller connected to the Modbus network. The relay parameters of this controller are available on page “Menu→XWEB SYSTEM SETUP→System Setup→AUX Outputs”
    3. PRINTER: the alarm notification occurs by means of the local printer physically connected/configured to the XWEB. The configuration parameters of this printer are available on page “Menu→XWEB SYSTEM SETUP→System Setup→Printers”

4. XCENTER: the alarm notification is sent to the Dixell XCenter system. Configure the system by accessing the page “Menu→XWEB SYSTEM SETUP→System Setup→XCenter”
5. FAX (XWEB3000/5000 only): the alarm notification is performed through means of a fax message being sent over the telephone line
6. FAX OCR (XWEB3000/5000 only): the alarm notification is performed by means of a fax message being sent over the telephone line in a fixed-width font format and therefore automatically segmented
7. EMAIL: the alarm notification is performed by means of the sending of an e-mail message.



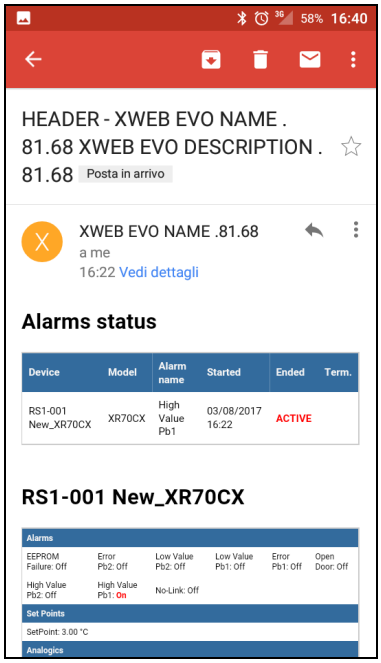
The HTML part is the format rendered by the browser. The text is better suited to automatic parser and is as follows.

```
Content-Type: text/plain; charset="UTF-8"
Content-Transfer-Encoding: 8bit

Alarm Report: XWEB Xweb EVO system name|XWEB EVO system description
START|18/10/2013 17:26|RS1-007 New_XR170Cxxxxx|Low Value Pb1
```

The email format can be analysed by automatic robots examining the section "text/plain".
Below is an example of an alarm email:

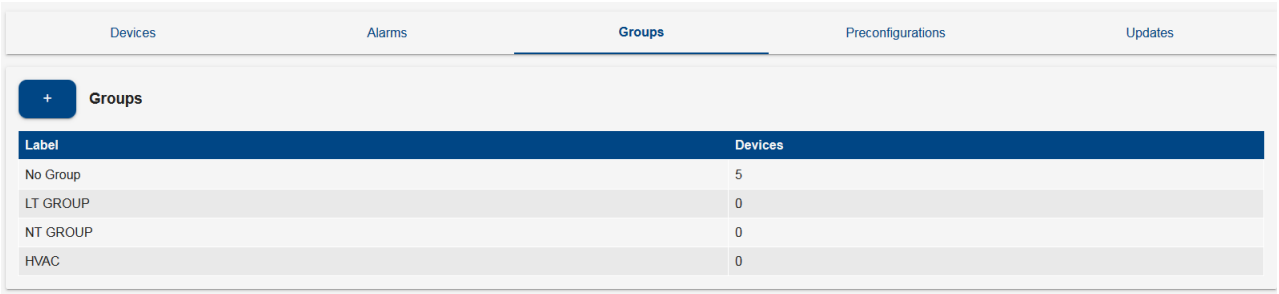
```
Thread-Topic: Alarm(s) Notification - Xweb EVO XWEB EVO
Content-Type: multipart/alternative; boundary="----_=_NextPart_001_00dbe1c4.5236b

This is a multi-part message in MIME format.

------_=_NextPart_001_00dbe1c4.5236b6ac
Content-Type: text/plain

Report Allarmi: XWEBEVO Xweb EVO|XWEB EVO START|13/09/2013 17:34|RS1-040
New_XC1008D|No-Link
Device      Model Alarm name Started     Ended Term.
RS1-040 New_XC1008D   XC1008D    No-Link    13/09/2013 17:34

------_=_NextPart_001_00dbe1c4.5236b6ac
Content-Type: text/html

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/D
```

7. SMS: the alarm notification is performed by means of the sending of an SMS message

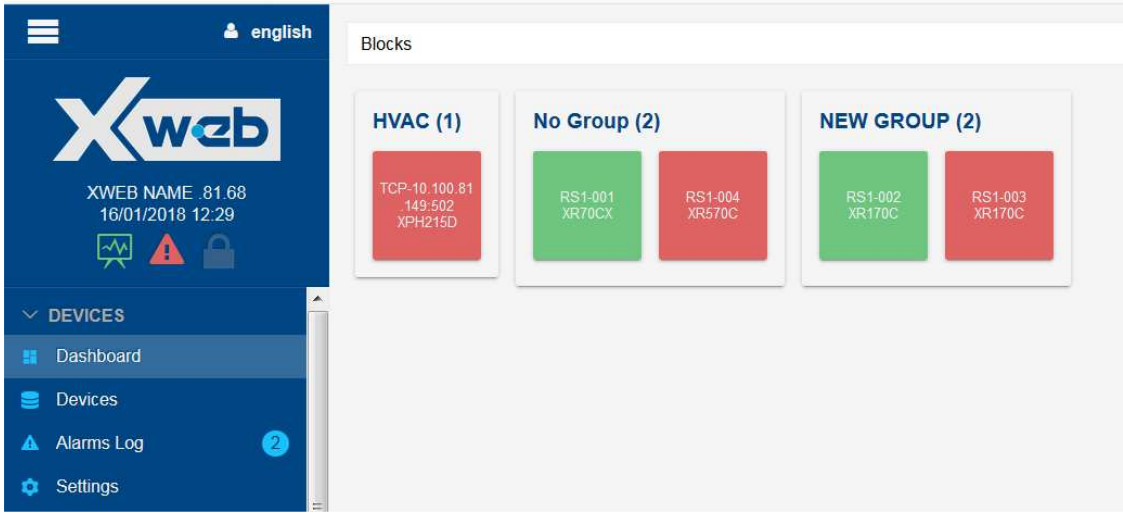


- **Email/FAX header**: customised text entered in the object
- **Calendar**: filter calendar on alarm notifications; the calendar identifies the period during which the notification messages will not be issued. The calendars are set from TOOLS→CALENDAR.

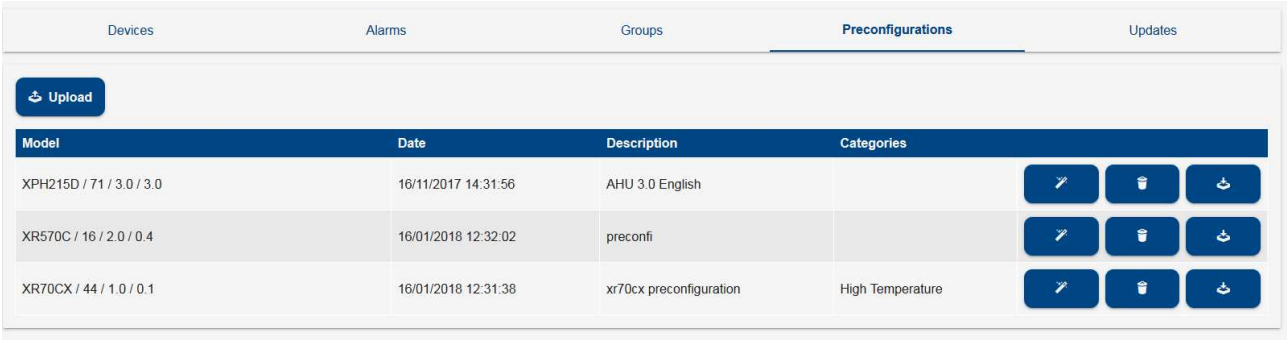
3.2.2.4.3GROUPS



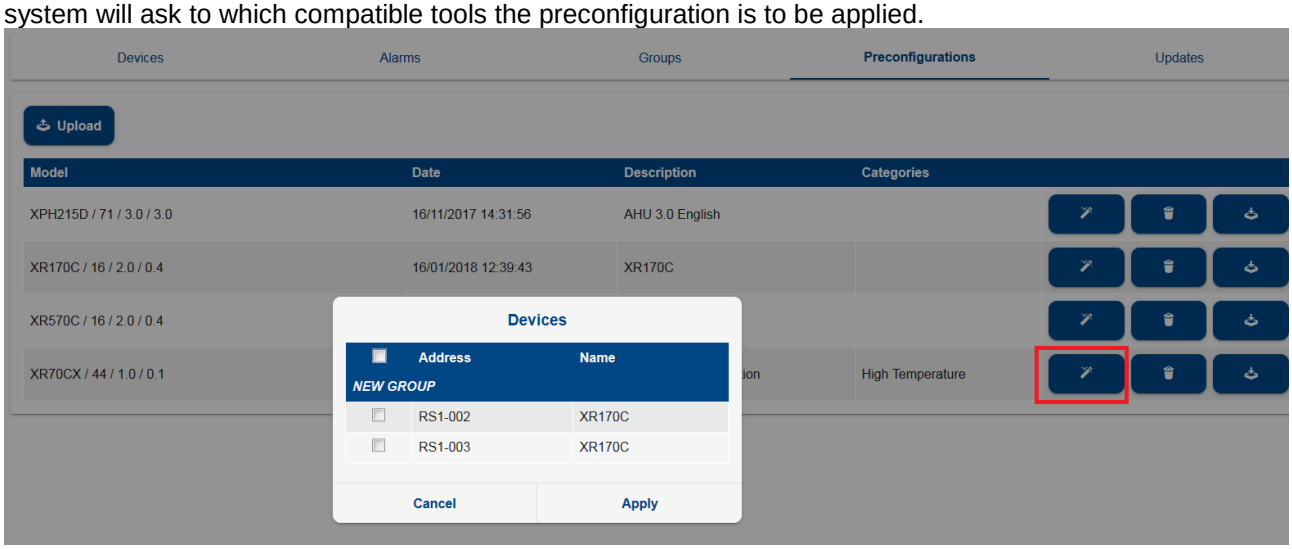
The user can assign controller devices to groups so as to order the configuration according to a functional diagram or physical positioning within the supermarket.
The separate representation of the groups can be seen in the DEVICES/DASHBOARD page.



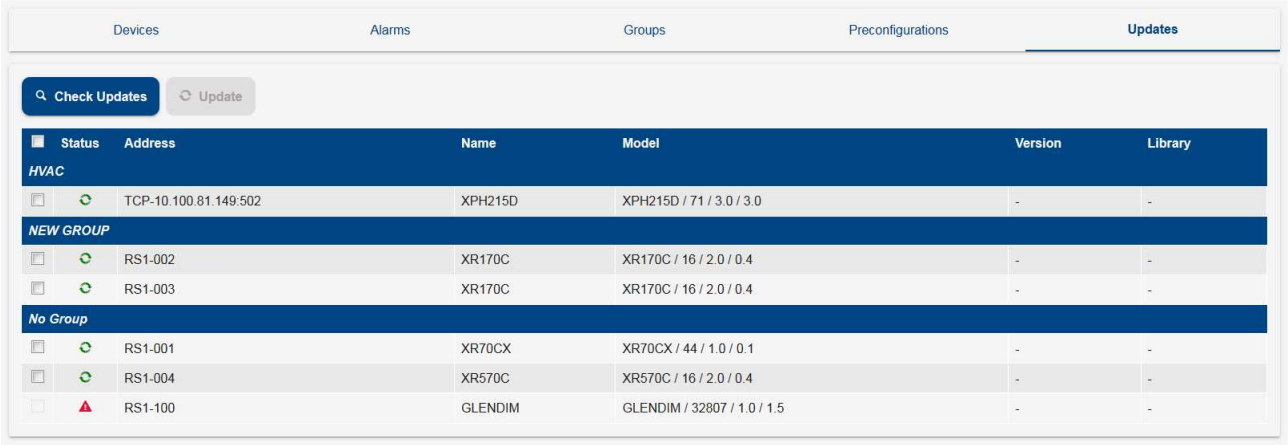
3.2.2.4.4PRECONFIGURATIONS



This section displays the preconfigurations in the XWEB memory.
the preconfigurations can be applied to tools already at setup by pressing on the “magic wand” key: the system will ask to which compatible tools the preconfiguration is to be applied.



3.2.2.4.5UPDATES

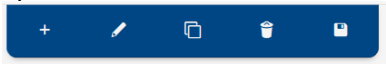


From this window you can adapt the device configuration with possible library updates. If the new library is compatible, the update can be applied without having to loose any log data and without having to redo any configuration; if the new library is incompatible, devices that cannot be updated are indicated with the red triangle. If the user needs to update those devices, he/she must remove and then add again the device from the xweb configuration and reconfigure it completely.
The icon is applied to all devices at setup, even if an update has not been installed.

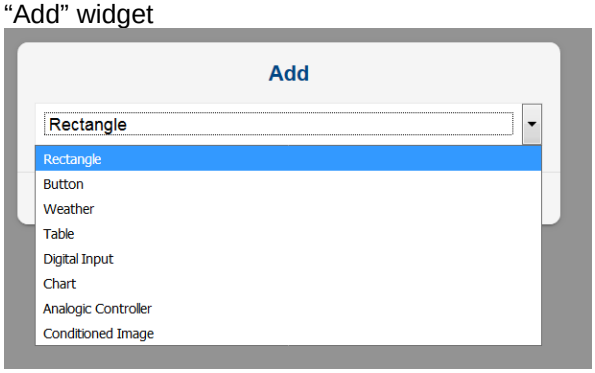
3.2.1 LAYOUT

The Layout tool allows the creation of customised pages with graphic widgets.
Each customised page takes the name of “layout” and the pages can be added to the system by pressing “Add”.

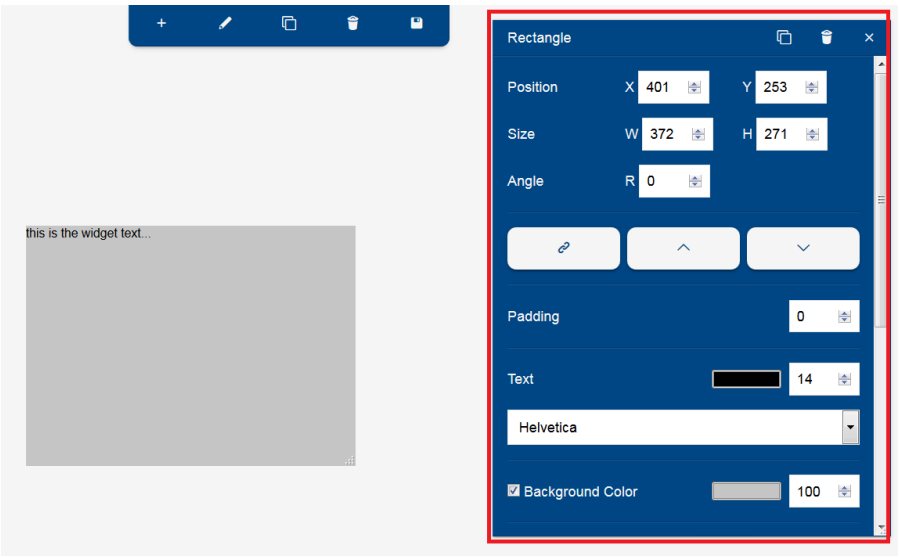
The user must then edit the page by pressing , which enables the user to perform the following operations:



a. “Add” widget

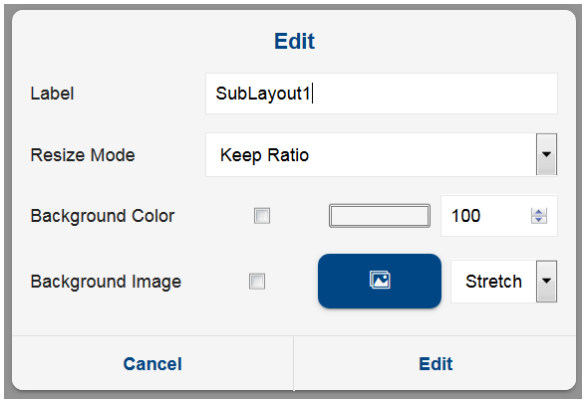


each selected widget shows a set of attributes on its palette that the user can define. The palette is a modal window and can be moved; the palette is only displayed during the layout modification procedure.



← example of palette

b. “Edit”



Label: text of the page name
Resize Mode:
Background Color:
- enabling to colour rendering
- background colour
- transparency percentage

Background Image:
- enabling to colour rendering
- image
- resizing

c. “Clone”. Creates an identical copy of the current page

d. “Delete”. Deletes the current page

e. “Save”. Saves the current page

accessible by pressing “Menu”. The procedure requires the user to hold down the left key of the mouse over the desired widget, i.e. "image", and to then drag it onto the work area for positioning.
Once the widget is in place, proceed with dimensioning and configuration. The latter must always be performed by pressing the "wrench" key.

Regarding image uploading in the XWEB system, the following limits apply:

- Maximum number of importable images: no limit on the number of images

  Maximum memory available for images:

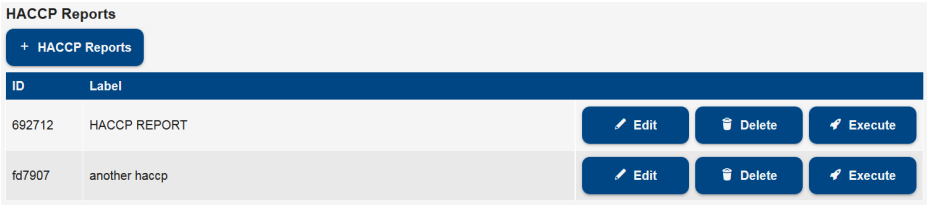
  - XWEB 300D, XWEB 500D, XWEB 500: 5MB
  - XWEB 3000, XWEB 5000: 10MB
  - Maximum image size: 1MB
  - If you upload an image with the same name as an image already existing in the system, the new image will overwrite the previous one (if the upload is successful, of course)

3.2.2 ANALYSIS

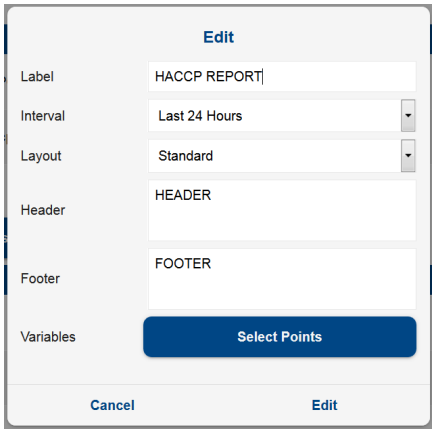
3.2.2.1 REPORTS

Here you can configure, and retrieve, three different types of reports of the data recorded in XWEB.

3.2.2.1.1 HACCP REPORTS

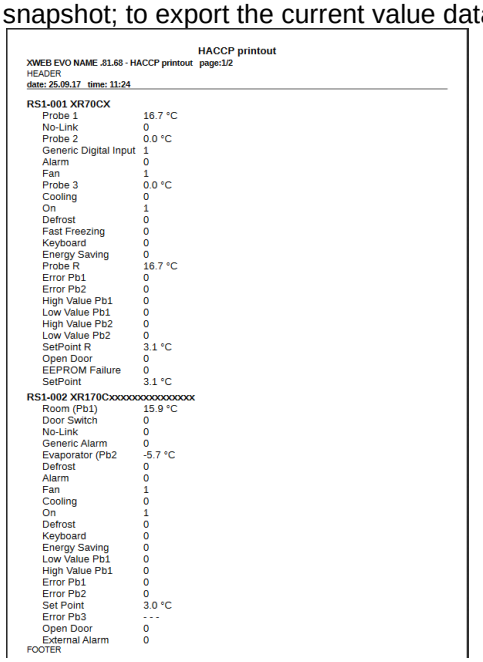


The "+ HACCP Reports" key is used to add a haccp configuration to the list.



specify the fields:

- Label: report name
- Interval:
  - snapshot; to export the current value data



HACCP printout

XWEB EVO NAME .81.68 - HACCP printout page:1/2

HEADER

date: 25.09.17 time: 11:24

RS1-001 XR70CX

Probe 1	16.7 °C
No-Link	0
Probe 2	0.0 °C
Generic Digital Input	1
Alarm	0
Fan	1
Probe 3	0.0 °C
Cooling	0
On	1
Defrost	0
Fast Freezing	0
Keyboard	0
Energy Saving	0
Probe R	16.7 °C
Error Pb1	0
Error Pb2	0
High Value Pb1	0
Low Value Pb1	0
High Value Pb2	0
Low Value Pb2	0
SetPoint R	3.1 °C
Open Door	0
EEPROM Failure	0
SetPoint	3.1 °C

RS1-002 XR170Cxxxxxxxxxxxxxx

Room (Pb1)	15.9 °C
Door Switch	0
No-Link	0
Generic Alarm	0
Evaporator (Pb2	-5.7 °C
Defrost	0
Alarm	0
Fan	1
Cooling	0
On	1
Defrost	0
Keyboard	0
Energy Saving	0
Low Value Pb1	0
High Value Pb1	0
Error Pb1	0
Error Pb2	0
Set Point	3.0 °C
Error Pb3	- - -
Open Door	0
External Alarm	0

FOOTER

  - Today/Yesterday/Last 24 Hours/Last 48 Hours/Last Week/Last Month to export log data.

in this mode you can export data in two formats (Layout):

- Standard; the data is tabulated with one row per variable

Export from main archive: XWEB EVO NAME .81.68 - HACCP printout
date: 25.09.17 time: 11.27 Sampling: 04.00
HEADER

Legend:*=defrost, !=post defrost, SO=System OFF, #=unit OFF, X=offline, §=door open

TIME TABLE:		**24/09 15:27**	**24/09 19:27**	**24/09 23:27**	**24/09 03:27**	**25/09 07:27**	**25/09 11:27**
RS1-001 XR70CX							
Probe 1	**°C**	15.60	15.51	15.45	15.39	15.18	15.75
No-Link		0.00	0.00	0.00	0.00	0.00	0.00
Probe 2	**°C**	0.00	0.00	0.00	0.00	0.00	0.00
Generic Digital Input		1.00	1.00	1.00	1.00	1.00	1.00
Alarm		1.00	1.00	1.00	1.00	1.00	0.67
Fan		1.00	1.00	1.00	1.00	1.00	1.00
Probe 3	**°C**	0.00	0.00	0.00	0.00	0.00	0.00
Cooling		0.00	0.00	0.00	0.00	0.00	0.00
On		1.00	1.00	1.00	1.00	1.00	1.00
Defrost		0.00	0.00	0.00	0.00	0.00	0.00
Fast Freezing		0.00	0.00	0.00	0.00	0.00	0.00
Keyboard		0.00	0.00	0.00	0.00	0.00	0.00
Energy Saving		0.00	0.00	0.00	0.00	0.00	0.00
Probe R	**°C**	15.60	15.51	15.45	15.39	15.18	15.75
Error Pb1		0.00	0.00	0.00	0.00	0.00	0.00
Error Pb2		0.00	0.00	0.00	0.00	0.00	0.00
High Value Pb1		0.00	0.00	0.00	0.00	0.00	0.00
Low Value Pb1		0.00	0.00	0.00	0.00	0.00	0.00
High Value Pb2		0.00	0.00	0.00	0.00	0.00	0.00
Low Value Pb2		0.00	0.00	0.00	0.00	0.00	0.00
SetPoint R	**°C**	3.10	3.10	3.10	3.10	3.10	3.10
Open Door		0.00	0.00	0.00	0.00	0.00	0.00
EEPROM Failure		0.00	0.00	0.00	0.00	0.00	0.00
SetPoint	**°C**	3.10	3.10	3.10	3.10	3.10	3.10
RS1-002 XR170Cxxxxxxxxxxxxxxx							
Room (Pb1)	**°C**	15.90	15.90	15.90	15.90	15.90	15.90

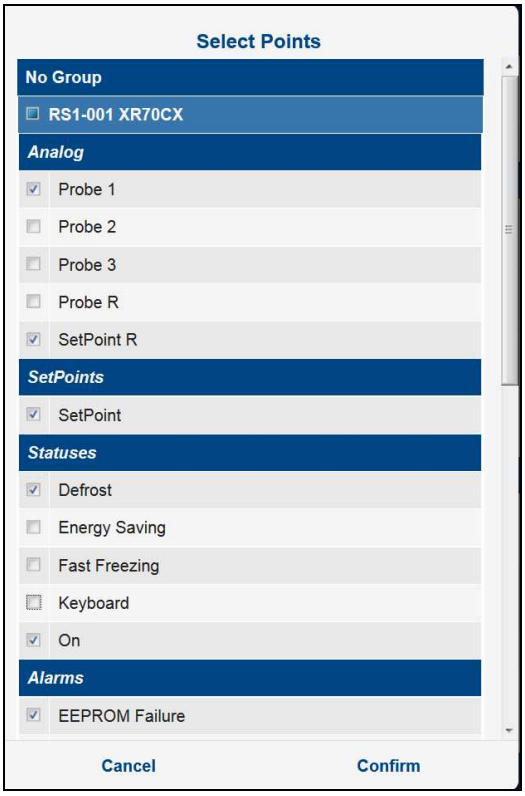
- Extended; for the extended format, indicate the sampling time between the points (first column); the data is tabulated in a column per variable

Export from main archive: XWEB EVO NAME .81.68 - HACCP printout
date: 25.09.17 time: 11.30 Sampling: 00.15
HEADER

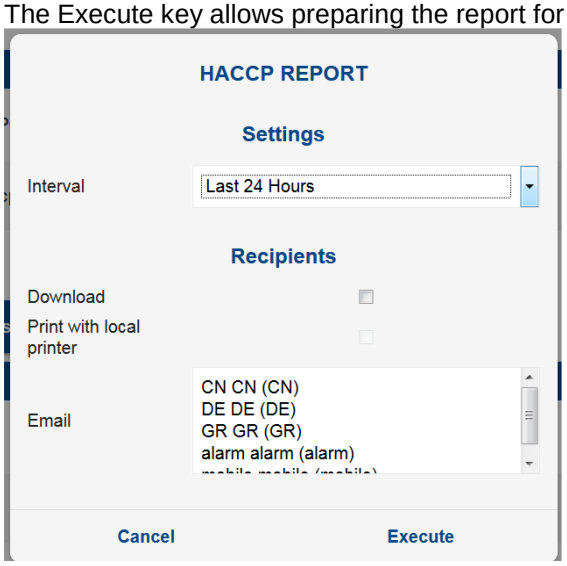
Legend:*=defrost, !=post defrost, SO=System OFF, #=unit OFF, X=offline, §=door open

	RS1-001 XR70CX Probe 1 °C	No-Link	Probe 2 °C	Generic Digital Input	Alarm	Fan	Probe 3 °C	Cooling	On	Defrost	Fast Freezing	Keyboard	Energy Saving	Probe R °C
11:30 24/09/2017	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
11:45	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
12:00	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
12:15	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
12:30	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
12:45	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
13:00	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
13:15	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
13:30	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
13:45	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
14:00	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
14:15	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
14:30	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
14:45	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
15:00	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
15:15	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
15:30	15.60	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.60
15:45	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
16:00	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
16:15	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
16:30	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
16:45	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
17:00	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
17:15	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
17:30	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
17:45	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
18:00	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
18:15	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
18:30	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
18:45	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
19:00	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
19:15	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
19:30	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
19:45	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
20:00	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50
20:15	15.50	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	15.50

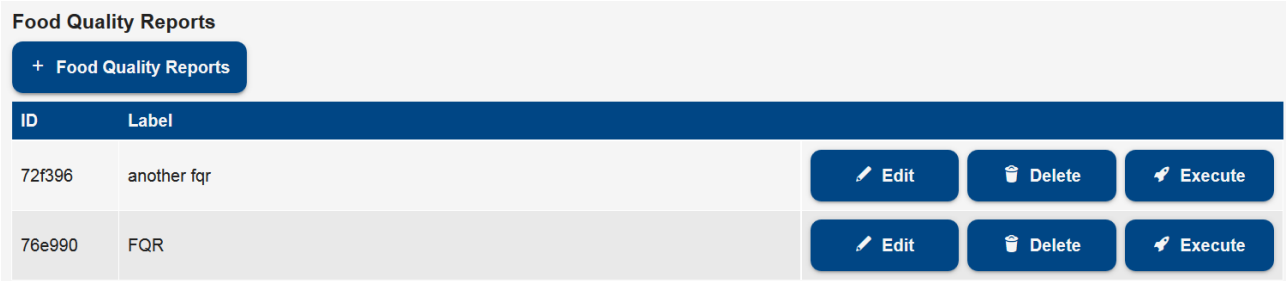
- Header/Footer: text that appears on the edges of the report
- Select Points: the key opens a window from which to select the list of variables to be included in the report; clicking on the tool name explodes the list with the complete list of variables per tool.



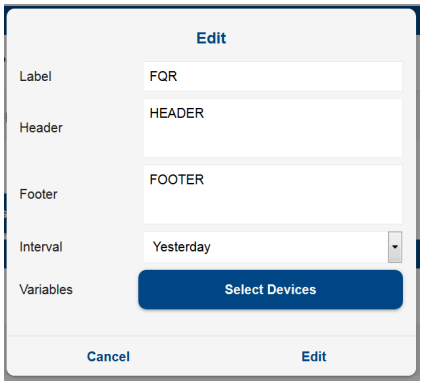
For an existing report-haccp configuration, the Edit key allows its editing.
The Delete key permanently deletes the configuration.
The Execute key allows preparing the report for immediate download, print or sending via email.



3.2.2.1.2FOOD QUALITY REPORTS

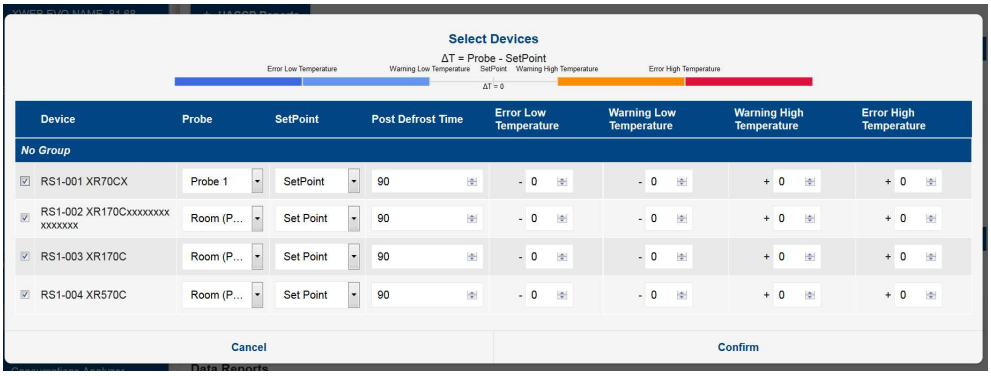


The “+ Food Quality Reports” key is used to add an FQR configuration to the list.

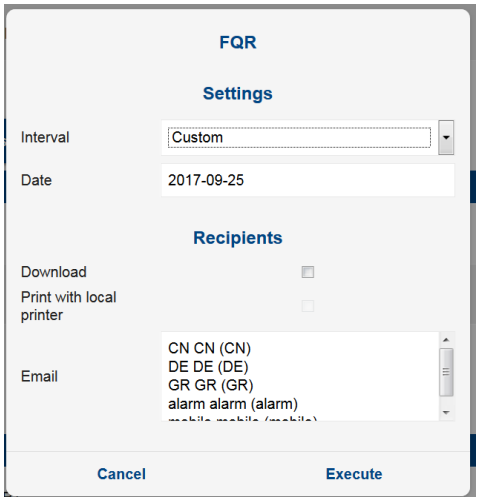


specify the fields:

- Label: report name
- Header/Footer: text that appears on the edges of the report
- Interval: Today, Yesterday.
- Variables: press “Select Devices” to select the devices for which the report is to be created. Each temperature variable is accompanied by the following parameters
    - Setpoint
    - Post-Defrost Time
    - Low Error (offset applied to the setpoint value)
    - Low Warning (offset applied to the setpoint value)
    - High Warning (offset applied to the setpoint value)
    - High Error (offset applied to the setpoint value)



For an existing report-fqr configuration, the Edit key allows its editing.
The Delete key permanently deletes the report configuration.
Execute immediately creates the report according to its configuration parameters, for downloading, printing or sending via email.



the resulting FQR report will have the following format:

Food Quality Report - [redacted]
Date: 27-04-2017

Cold Error
Cold Warning
Hot Warning
Hot Error

--- Completely missing data
12.3 Partially missing data (AcqOff, DeviceOff, NoLink)
Defrost + Post Defrost

Food quality report - [redacted] - Yesterday

Adr.	Name	Uom	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Max	Min
ZONE LT																												
RS1-041	Frozen Food 1	°C	-24	-24	-25	-24	-24	-24	-24	-24	-24	-23	-23	-23	-23	-23	-24	-24	-24	-24	-23	-23	-23			-23	00:00 -20.8	06:10 -27.7
RS1-042	Frozen Food 2	°C	-24	-24	-26	-25	-25	-25	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24		-16	-24	22:30 -15.2	03:45 -28.0
RS1-043	Frozen Food 3	°C	-24	-24	-26	-24	-24	-24	-23	-24	-24	-24	-23	-23	-23	-23	-24	-24	-24	-24	-23	-23	-23		-24	-24	22:30 -18.2	03:45 -28.0
ZONE NT																												
RS1-010	Milk 1	°C	-0.0	-0.9	1.4	0.4	0.9	0.6			0.5	0.1	0.1	-0.1	0.3	0.1			-0.1	-0.1	0.2	0.1	0.2	0.6			08:00 4.0	01:10 -4.2
RS1-011	Milk 2	°C	1.2	1.2	1.1	1.9	1.9	1.1			0.6	0.1	0.6	0.2	1.0	0.6			0.8	0.8	0.6	0.5	0.5	1.0			08:25 4.0	22:05 -3.5
RS1-012	Milk 3	°C	-1.5	0.6	-0.3	-0.1	-0.6			-0.5	-0.4	-0.5	-0.3	-0.4	-0.2			-1.2	-0.5	-0.8	-0.6	-0.6	-0.4			-0.5	09:30 2.5	03:35 -4.5
RS1-013	Milk 4	°C	0.6	0.8	-0.5	0.7	0.8			0.5	0.7	0.4	0.4	0.3	0.7			0.6	0.6	0.6	0.3	0.4	0.6			0.4	14:20 13.1	04:10 -3.7
RS1-014	FVP	°C		1.1	1.4	0.8	0.8	0.9	0.9	1.1		1.5	1.1	1.1	1.0	1.0	1.0	1.1		1.4	1.1	0.8	1.0	1.4	0.7	1.0	09:30 3.6	04:05 -2.0
RS1-015	Salat	°C	3.0	2.7	1.1	2.5	2.8	2.4	3.0		2.8	3.0	2.5	2.8	2.7	3.1	2.8		2.9	3.0	2.7	3.0	3.1	2.5	3.0		08:55 6.2	05:30 -0.3
RS1-016	Pastry	°C	3.5	3.2	3.1	3.2	3.5	3.1	3.9		3.4	3.1	3.7	3.2	2.8	3.5	3.4		3.0	3.6	2.5	3.0	3.7	3.6	3.3		00:40 5.4	00:00 0.6
RS1-017	Gastronomy 1	°C	5.0	5.0	3.5	5.0	5.0	5.0		4.6	4.8	4.9	4.9	4.7	4.7	4.7		4.7	4.7	4.7	4.8	5.0	4.9	4.9		4.8	00:00 6.9	07:35 2.5
RS1-018	Gastronomy 2	°C	2.8	3.0	1.1	3.4	3.3	3.2		1.3	1.7	1.8	1.5	1.2	1.1	1.1		1.1	1.4	1.4	1.9	1.9	1.9	1.8		2.2	03:45 5.7	12:35 -2.4
RS1-020	Take Away 1	°C		0.7	-0.3	0.7	-0.5	-0.5				0.0	-0.1	0.0	-0.3	-0.1				0.1	-0.4	0.0	-0.3	0.1			11:50 2.2	00:00 -4.4
RS1-021	Take Away 2	°C		-0.3	0.5	-0.0	-0.8	-0.2				-0.4	-0.1	0.1	0.1	-0.3				0.1	-0.1	-0.2	-0.1	-0.4			12:35 2.2	00:40 -4.4
RS1-024	Meat	°C		1.0	0.6	0.8	1.2	1.2	1.1			1.5	1.5	1.4	1.6	1.4	1.2			1.7	1.4	1.6	1.6	1.2	1.1		09:35 3.2	05:40 -1.0
RS1-025	Meat T. Away 1	°C	-1.2	-0.8			-1.1	-0.5	-1.5	-1.0			-1.5	-0.7	-1.3	-1.8			-1.1	-1.6	-1.8	-1.1	-1.2			-1.4	09:40 0.7	23:50 -6.2
RS1-026	Meat T. Away 2	°C	-3.0	-2.0			-2.5	-2.5	-1.4	-3.9		0.5	-3.4	-1.3	-2.5	-1.1		-0.9	-2.1	-1.9	-0.4	-3.3	-3.8			-2.3	09:40 0.2	00:00 -7.4
RS1-060	Meat 2	°C		1.9	0.8	1.4	1.5	1.1	1.6	1.1		1.5	1.4	1.4	1.4	1.7	1.5	1.1		1.6	1.3	1.6	1.7	1.0	1.3	1.5	01:05 3.2	00:00 -0.7
CELLS																												
RS1-027	Fish Cell	°C		1.0		1.2	1.0	1.1	1.2	1.6			1.3	1.2	1.3	1.3	0.8			1.1	1.2	1.6	1.0	1.1	1.2		07:45 5.6	17:20 -0.3
RS1-028	Vegetables Cell	°C			7.9	6.9	7.3	6.8	7.3	6.8	7.0			14	8.1	6.9	7.0	7.0			7.1	6.4	7.0	7.5	7.0	6.9	11:55 15.7	08:25 5.5
RS1-029	Poultry Cell	°C	0.6	0.1	-0.3	0.6	0.6	0.7		1.5	1.1	1.2	1.6	1.5	0.9			0.3	0.8	1.0	1.3	1.0	1.0			0.6	06:20 11.1	00:45 -1.0
RS1-030	Meat Cell	°C	0.8	1.2	0.6	0.7	1.0		2.6	1.3	0.5	1.1	0.9		2.4	1.1	0.7	1.0	0.8		2.6	5.9	0.5	1.3	0.9		12:10 12.7	14:10 -1.0
RS1-031	Frozen Food Cell	°C	-20	-20	-21	-20	-20	-19	-16	-19		-20	-20	-17	-20	-20	-1.8		-18	-19	-19	-19	-20	-20	-21		14:35 8.8	03:25 -22.2
RACKS																												
RS1-050	RACK NT	°C	-16	-14	-15	-14	-15	-16	-14	-15	-15	-14	-15	-14	-15	-16	-14	-16	-14	-14	-15	-15	-16	-15	-15	-15	18:25 -8.0	15:20 -19.4
RS1-051	RACK LT	°C	-31	-30	-34	-32	-33	-32	-30	-31	-32	-30	-30	-30	-30	-30	-30	-31	-32	-31	-30	-30	-29	-34	-32	-30	22:30 -19.4	06:35 -40.4

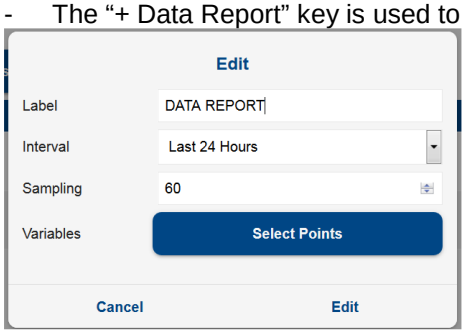
Printed by XWEB EVO
Generated on: 03-05-2017 15:39

1 / 2

the report consists of a table in which the temperatures of the day are listed for each device.
The cells containing the temperature values can assume different colours in cases where the same temperature is higher/lower than the setpoint value, considering the error or alarm thresholds. The temperature values are omitted in case of defrost and/or missing data.
The minimum and maximum temperature values, and when this was detected, are indicated for each device.

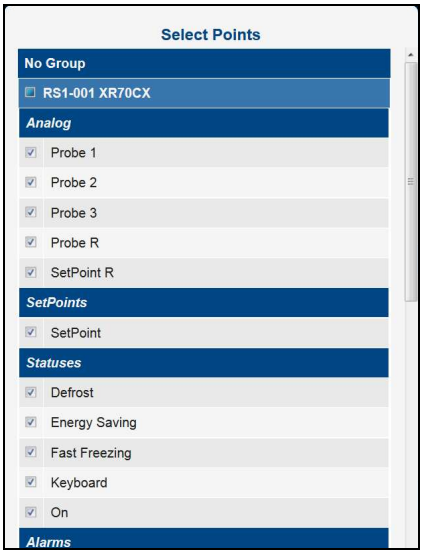
3.2.2.1.3HACCP REPORTS

- The "+ Data Report" key is used to add a Data-report configuration to the list.

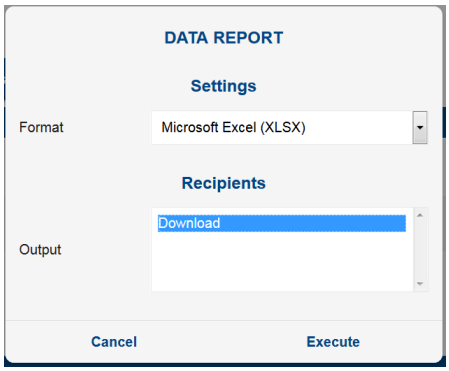


specify the fields:

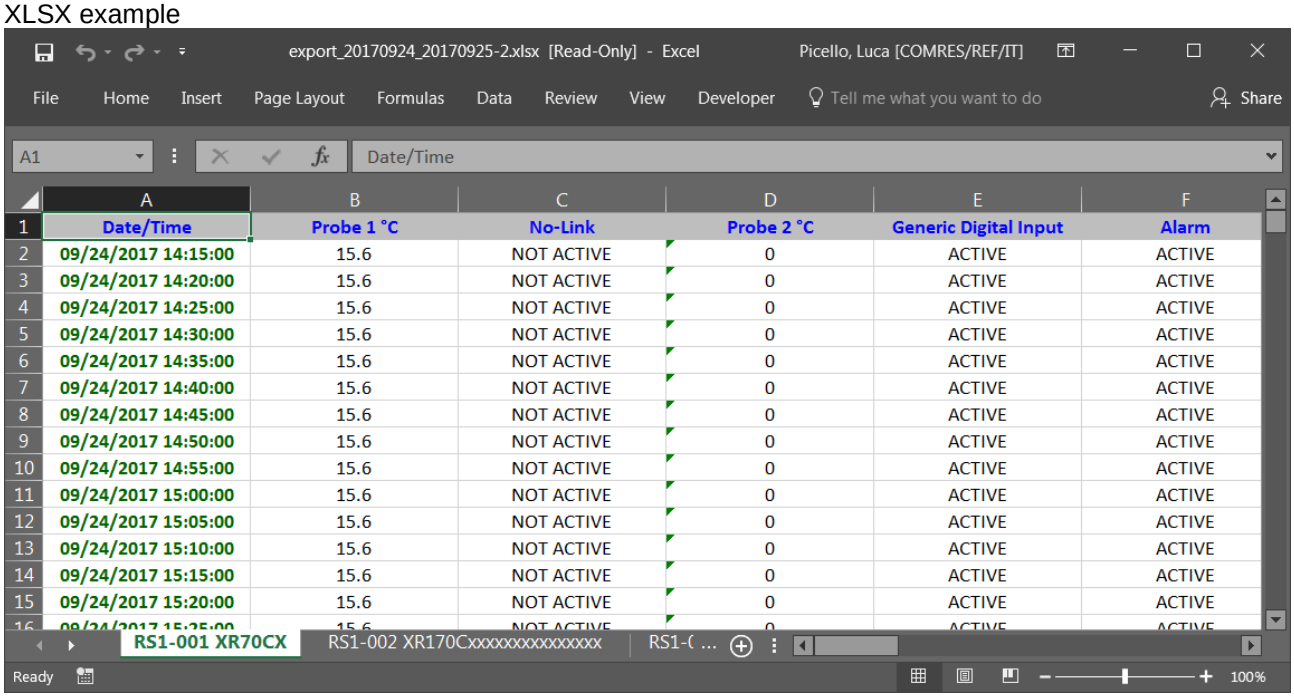
- Label: report name
- Interval: interval on which to extract data from the XWEB archives (options available: Today, Yesterday, Last 24 hours, Last 48 hours, Last week, Last month)
- Sampling: minimum interval filter between samples. 0 indicates the export of all samples stored for the interval.
- Variables: the "Select Points" key accesses the window used to indicate the list of variables with which to create the report. clicking on the tool name explodes the list of variables for the selected tool.



For an existing report-data configuration, the Edit key allows for its editing and Delete for its permanent deletion. The Execute key immediately generates a report; the options available are the CSV ("Comma Separated Values") and XLSX (Microsoft Excel) formats; these reports are available for downloading on the browser (download option).



XLSX example



	A	B	C	D	E	F
1	Date/Time	Probe 1 °C	No-Link	Probe 2 °C	Generic Digital Input	Alarm
2	09/24/2017 14:15:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
3	09/24/2017 14:20:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
4	09/24/2017 14:25:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
5	09/24/2017 14:30:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
6	09/24/2017 14:35:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
7	09/24/2017 14:40:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
8	09/24/2017 14:45:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
9	09/24/2017 14:50:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
10	09/24/2017 14:55:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
11	09/24/2017 15:00:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
12	09/24/2017 15:05:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
13	09/24/2017 15:10:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
14	09/24/2017 15:15:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE
15	09/24/2017 15:20:00	15.6	NOT ACTIVE	0	ACTIVE	ACTIVE

3.2.2.2 CHARTS

In this page you can benefit from the charting, and its configuration, of the values in XWEB memory.

- **configuration**

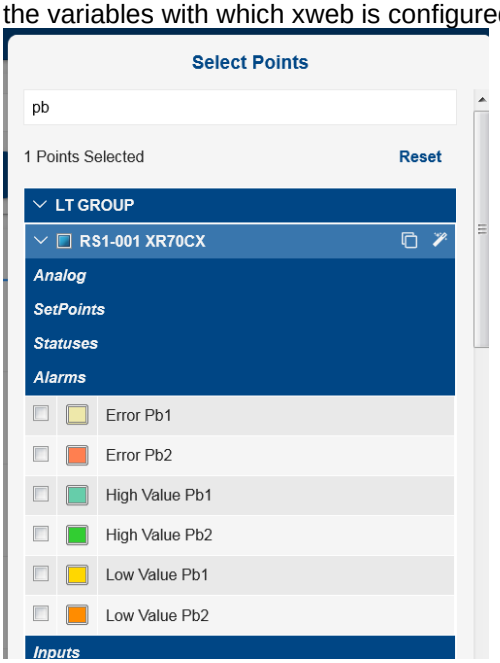
the configuration parameters for a chart are:

- ***type of database source***: the options available are:
  a. ***Circular***: these archives provide the most frequent recordings; but are limited in the period. For the XWEB3000/5000 models the archive covers a maximum of two days while for the XWEB300/500 models the last six hours are covered.

  b. ***Main***: to chart data stored before the limit of the circulars.

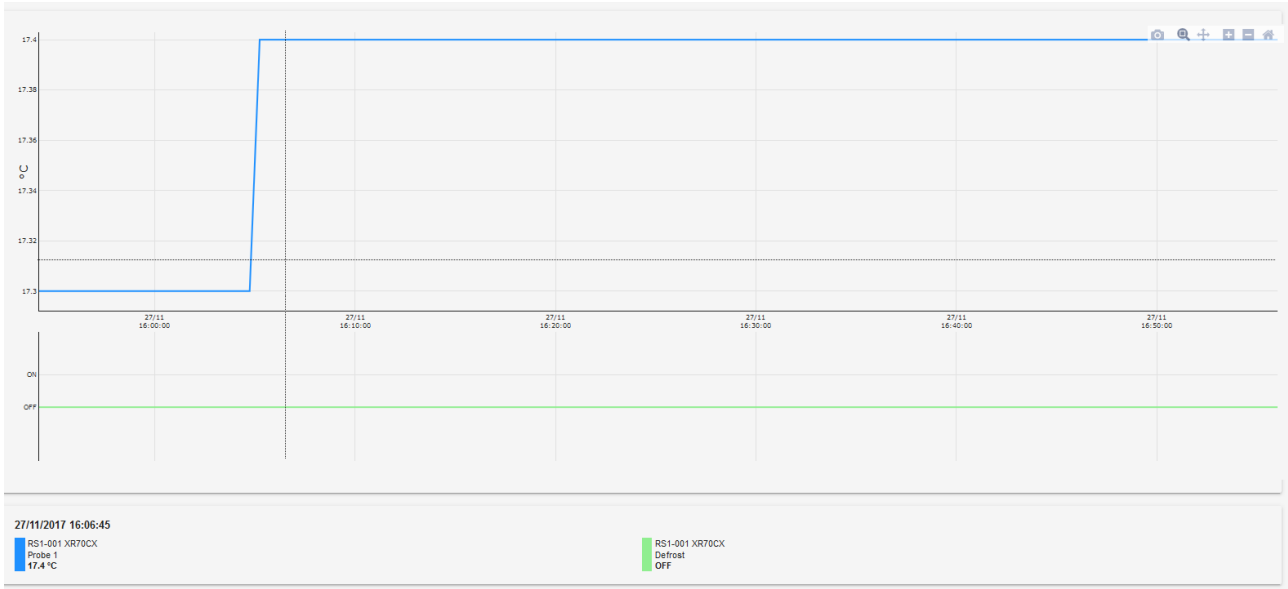
- **period**: period to charge, the available options are:
  a. Last … : indicates that once charting is performed, the chart is no longer updated.
  b. Realtime … : indicates continuous charting, updated in real time

- **points:** resources to be charted. they are the variables configured for storage in xweb, for each device. to chart, it is necessary to define the list of variables and their colour. Pressing the "Select Points" key open the following window: clicking on the tool name (red area) explodes the list with all the variables with which xweb is configured to record.



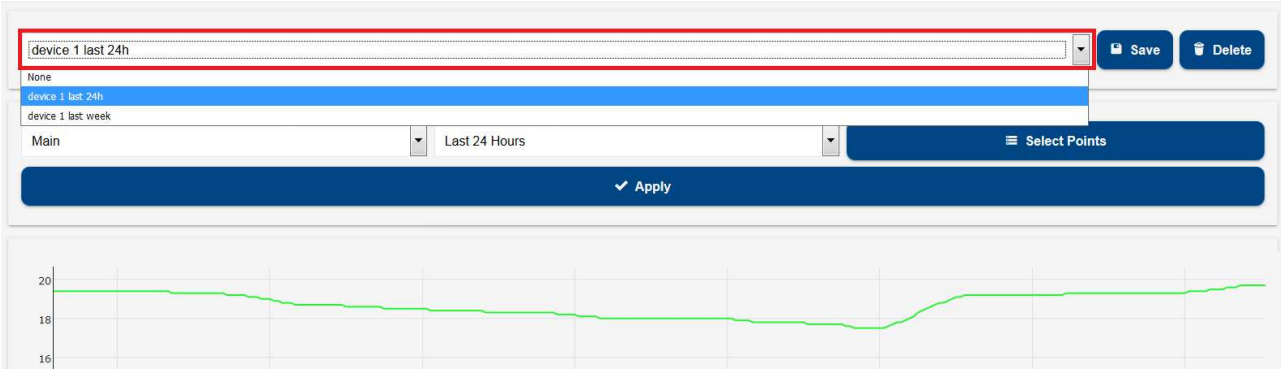
the list of variables in the window can be filtered using the fulltext search of the "Search" field;
the configuration of the variables selected on a tool can be cloned on another compatible, by clicking
it is possible to select only the variables configured in
DEVICES→SETTINGS→DEVICES→DEVICE→VARIABLES→CHART DEFAULT by pressing

charting is carried out by clicking on "Apply"; the window is updated as per the following image:



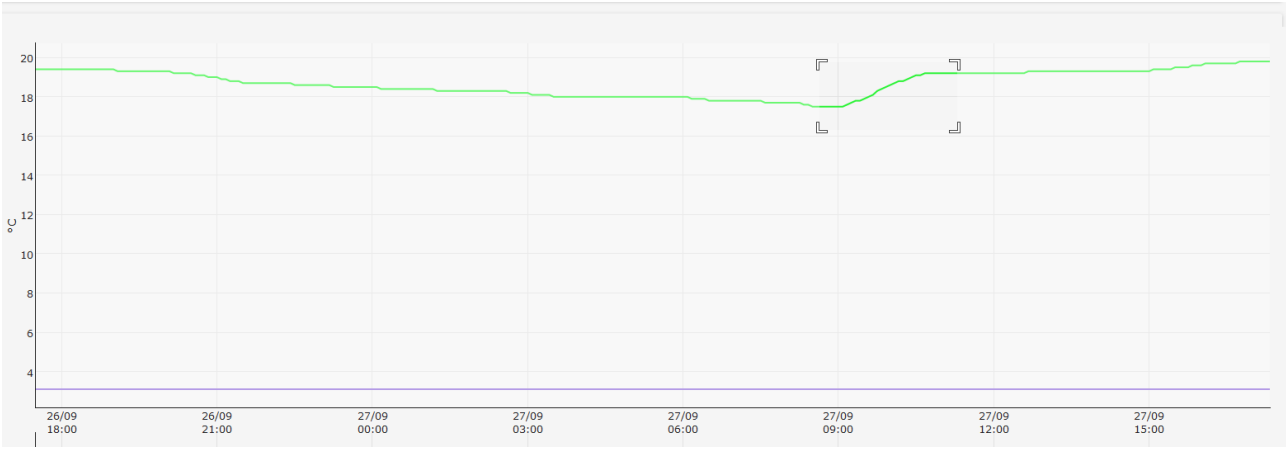
The mouse cursor position on the chart area shows, in the key at the bottom, the values with their tool and time references

Once charting has been carried out, you can save its configuration for future retrieval; press “Save” to save the configuration in the XWEB memory. To retrieve a previously saved configuration, simply select it from the combobox at the top (in red in the image below).



Once charting has been carried out, the following actions can be performed:

1. Zoom on selected area



click the mouse to select the first point of the area, move the cursor to enlarge the area, release when the whole area of interest has been selected (image above).

the charge immediately updates, rendering the selected area full-screen.

2. Download PNG (icon)
   downloads a chart image

3. Zoom (icons and)
   zooms the chart

4. Reset (icon)
   Rescale the chart

5. Hide / enable display of individual variable
   By clicking on the variable on the bar below, it is hidden and/or re-enabled for display on the chart.

3.2.2.3 CONSUMPTION ANALYZER

By configuring one of the supported devices in the product, it becomes possible to access the "Consumptions Analyzer" menu

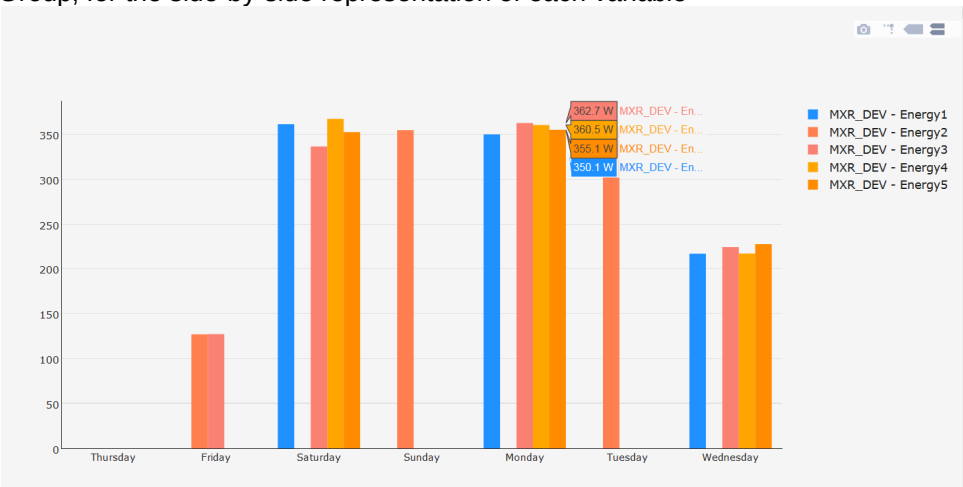
The following are supported:

Trade name	Library name
Carlo Gavazzi EM21	EM21
Carlo Gavazzi EM23	EM23
Carlo Gavazzi EM24	EM24
Carlo Gavazzi EM26	EM26
Carlo Gavazzi EM100	EM100
Carlo Gavazzi EM210	EM210
Carlo Gavazzi EM271	EM271
Carlo Gavazzi VM14	WM14
Carlo Gavazzi VM22	WM22
ERVATECH E-93	E93
Emerson Energy Meter	EEM

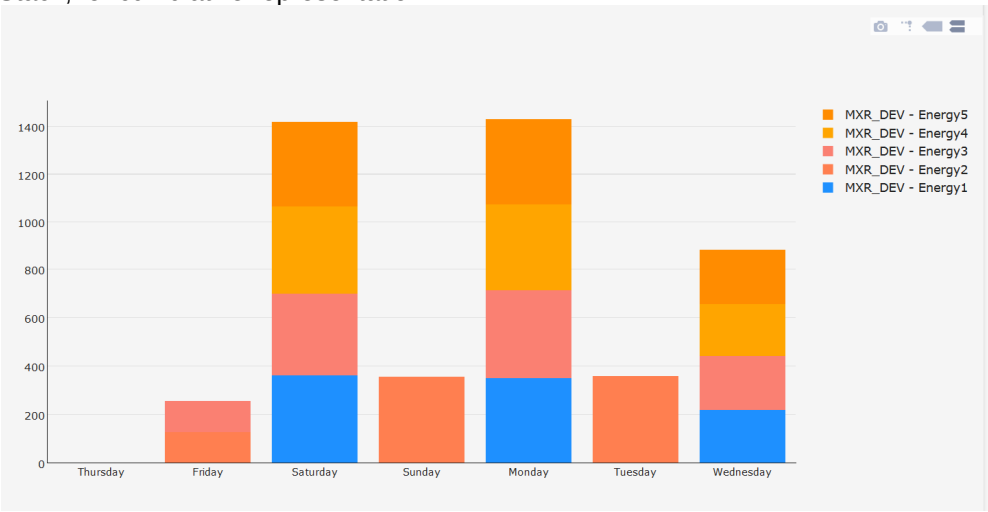
The consumption data can be displayed once all page parameters have been configured:

- ***display period***; the following options are available:
    a. Last 24 hours
    b. Last 7 days
    c. Last 4 weeks
    d. Last 12 months
    e. Last 3 years
    f. Custom; to set a period from/to

- ***grouping*** (for multiple variables); the following options are available:
    a. Group; for the side-by-side representation of each variable

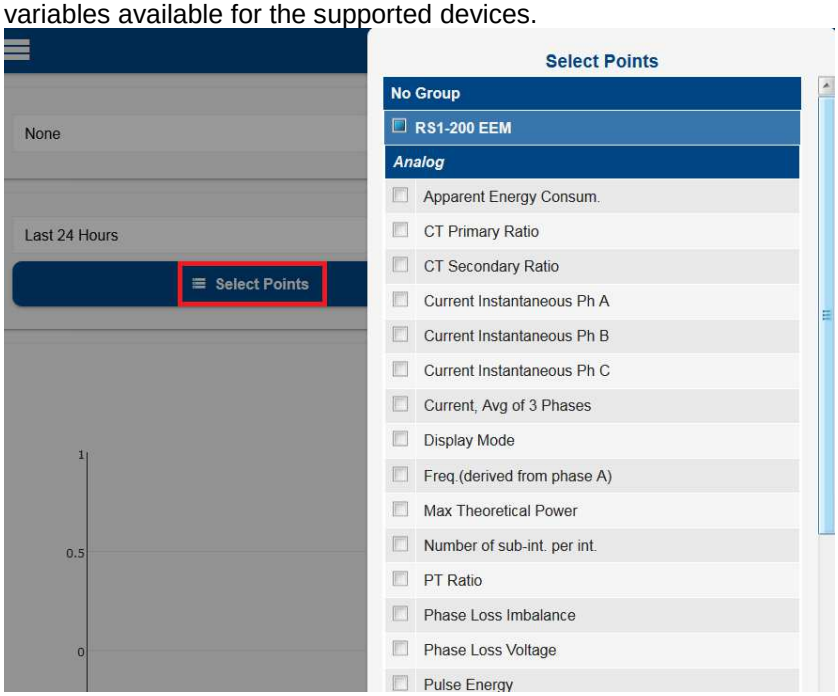


b. Stack; for cumulative representation



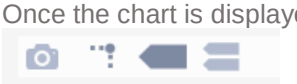
- ***colour style***; the following options are available:
  a. Random Colors; to display the bars with random colours
  b. Chart defaults; to display the bars with the same colours set in DeviceSetup→Advanced→Chart default color

- ***variables***; the following options are available:
  a. manual variable selection; by pressing "Select Points" the user can choose from the variables available for the supported devices.

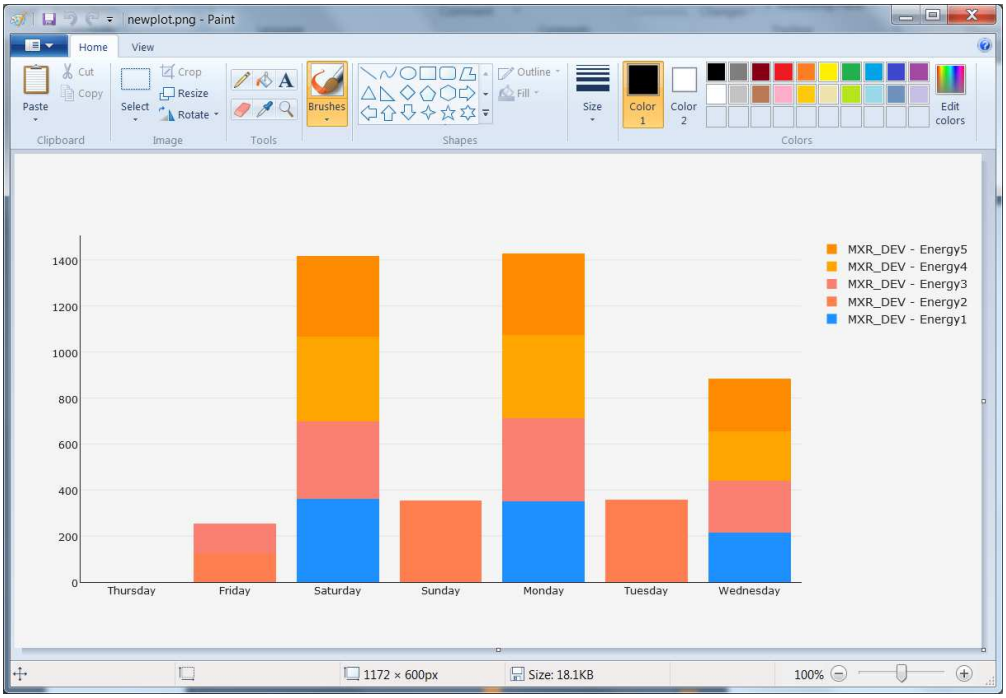


  b. automatic variable selection; by pressing "Automatic Configuration" all variables involving accumulation are selected for the supported consumption analysers.

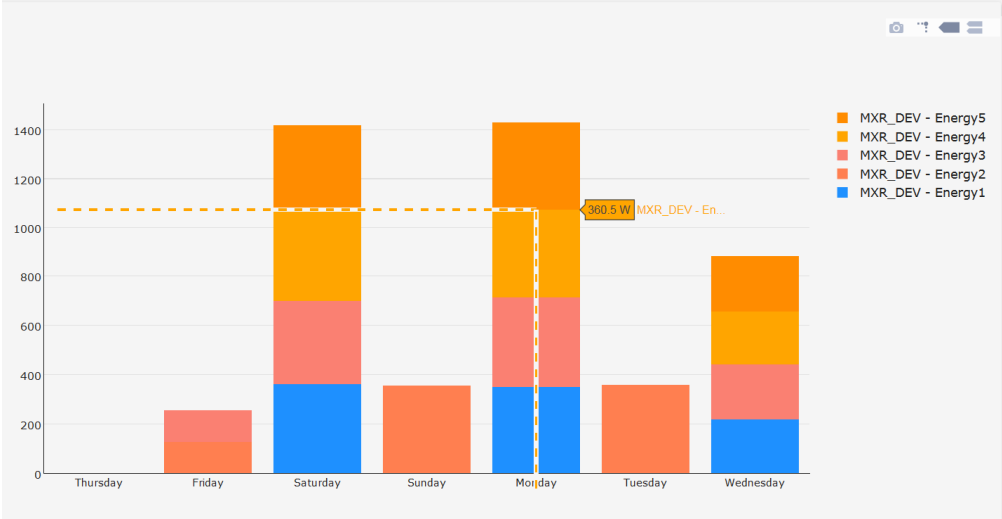
Once the chart is displayed, the user can perform the following actions on the chart bar:



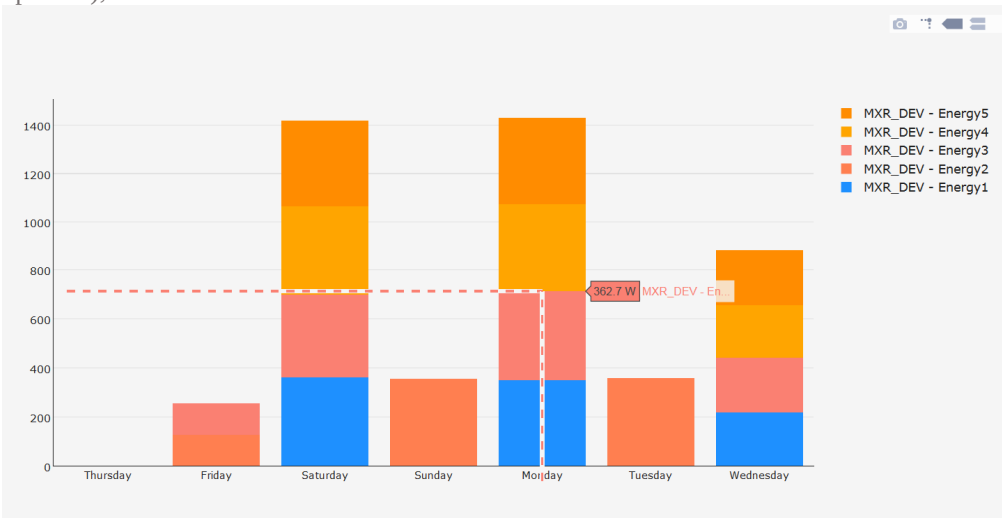
1. ***Download plot as PNG***; downloads the chart as file on the browser



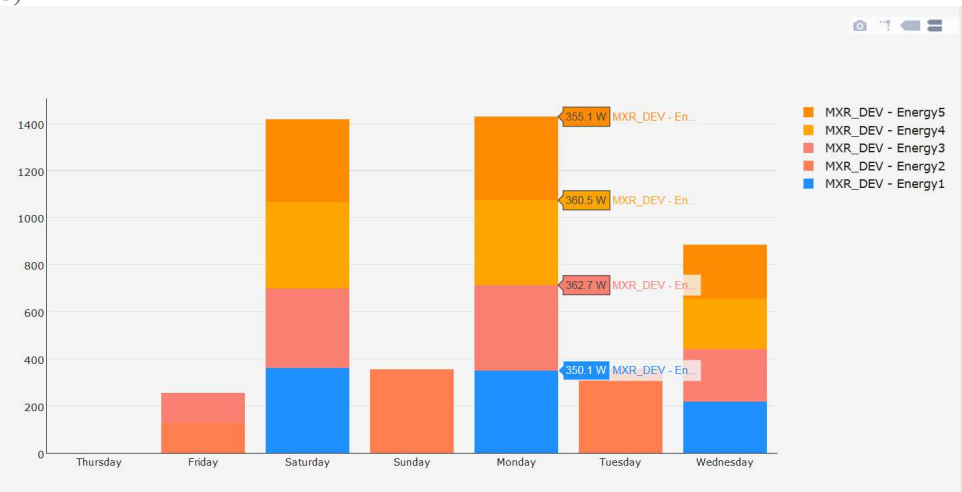
2. ***Toggle Spike Lines***; adds/removes the display of the reference line with the Y axis



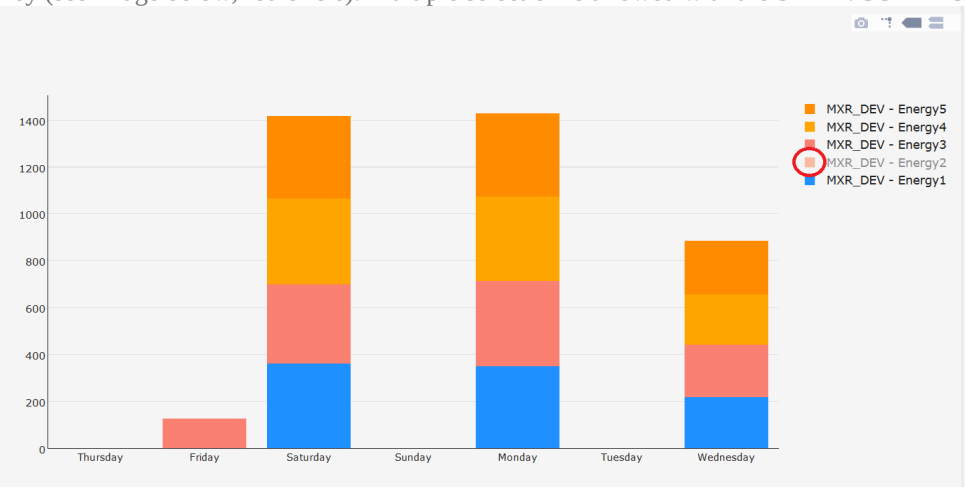
3. ***Show closest data on hover***; displays only the data of the bar selected by the mouse; (mutually exclusive with option 4);



4. ***Compare data on hover***; displays all data in the period selected by the mouse (mutually exclusive with option 3)



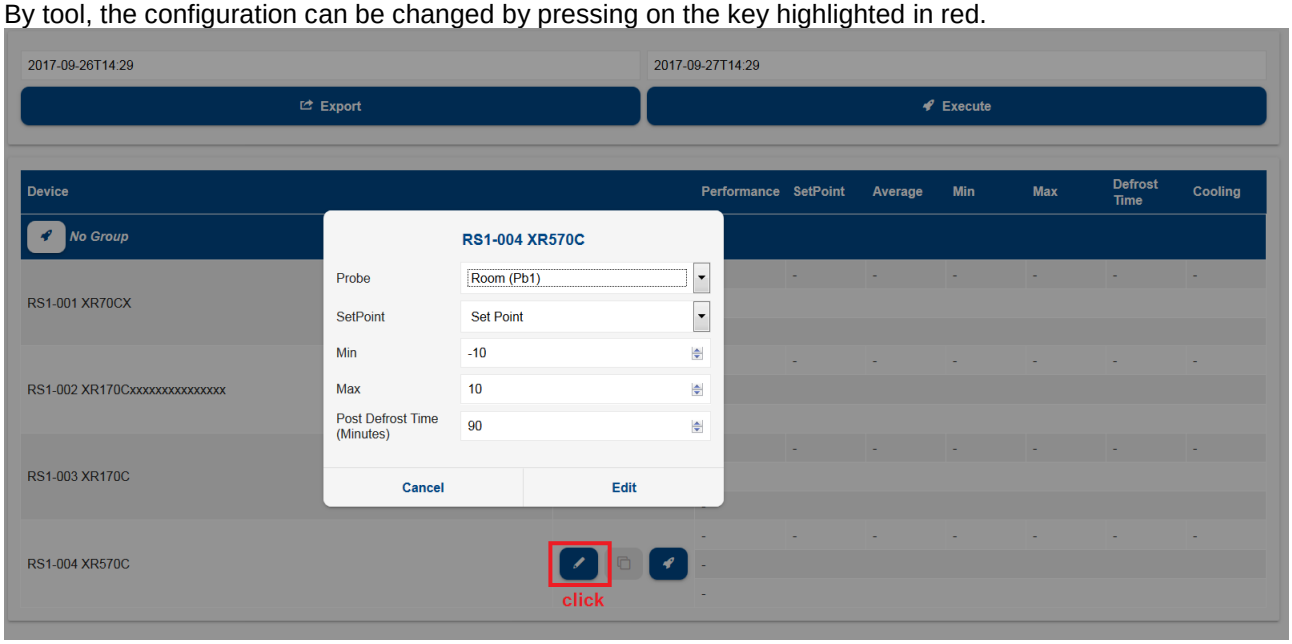
5. Add/Remove variables to chart. Variables are added/removed from the chart by clicking on the variable in the key (see image below, red circle). Multiple selection is allowed with the SHIFT/CONTROL keys



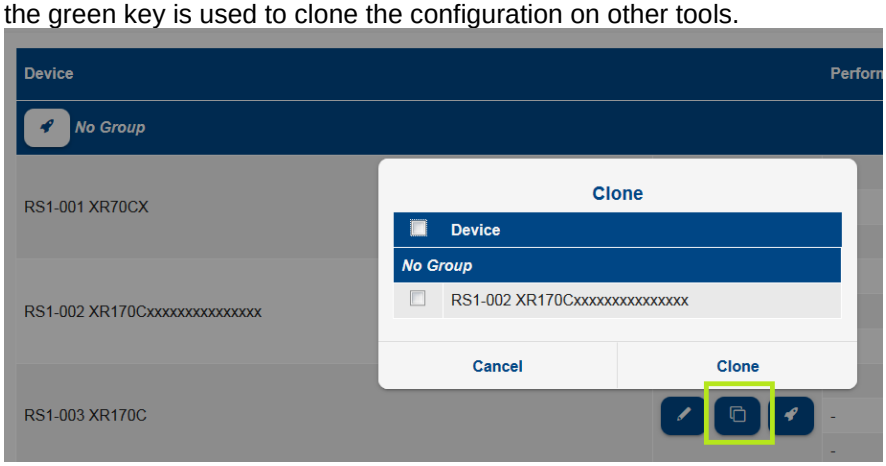
3.2.2.4 PERFORMANCE

The configuration of the default Performance Meter is automatic: it identifies the Probe and Setpoint variables and sets the Min = (setpoint value -10) and Max = (setpoint value +10) parameters.

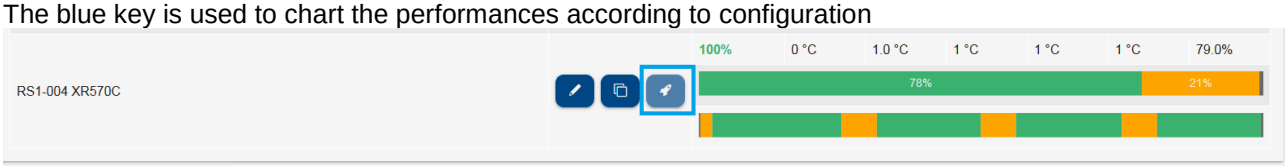
By tool, the configuration can be changed by pressing on the key highlighted in red.



the green key is used to clone the configuration on other tools.



The blue key is used to chart the performances according to configuration



results on charted period:

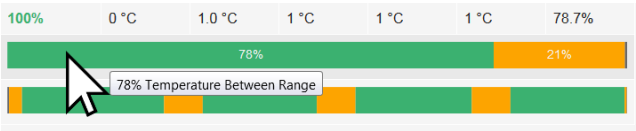
- **Performance**: percentage on the displayed period of the adjustment status within the limits
- **Setpoint**: device setpoint value
- **Average**: average temperature
- **Min**: minimum temperature value
- **Max**: maximum temperature value
- **Defrost Temp**: maximum temperature after defrosting
- **Cooling:** represents the period of time (expressed in percentage) during which the utility has gone to cold call. The calculation formula is: $\%Cool = \frac{T_{COOL}}{T - T_{DEFROST}} \cdot 100$

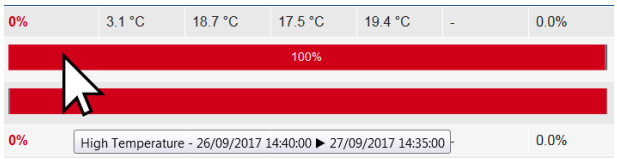
T_{COOL} = total cold call time

T = observation period

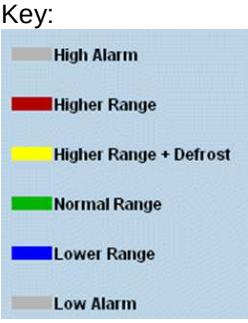
$T_{DEFROST}$ = total defrost time during the observation period

To complete the numerical values, this tool also provides a horizontal bar with relative key. The purpose is to provide the user with a general overview of the plant operation. In fact, moving the pointer over this area, shows the temperature values corresponding to the date in question.



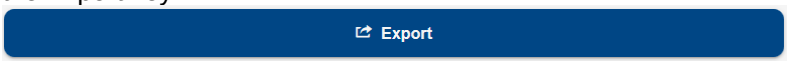


Key:



From a point of view that contemplates the ideal situation, the greater the %COOL percentage, the better has the compressor station been sized. If many utilities work with values close to 100%, most probably not all devices will receive the correct amount of “cold” when the worst case scenario occurs. Use the data provided by the resource meter based on your experience of the application. Moreover, if an individual utility belonging to a homogenous set shows higher values than the others, this utility is likely to actually have operating problems

After charting, it is possible to export the resulting data to the browser, in HTML or CSV format, by pressing the Export key.



3.2.2.5 COMMUNICATION STATUS

Access to the window shows the statistics table on the communication with the configured devices. Each device has been represented in columns:

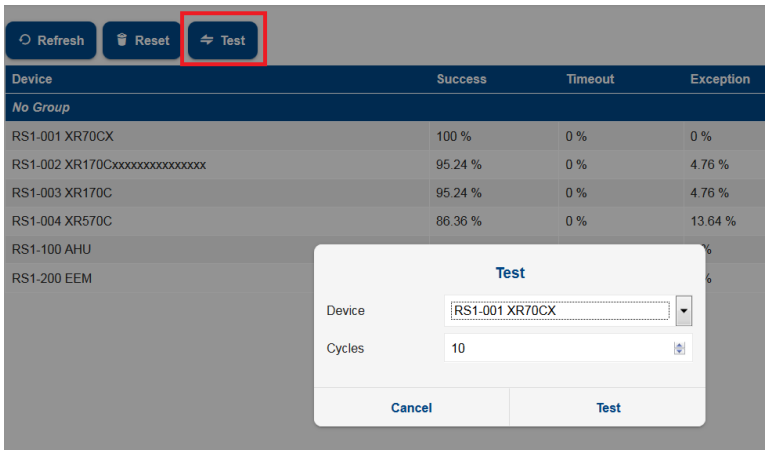
- Device: device name
- Success(%): successful communication total percentage
- Time Out(%): errors for Time Out percentage. This type of error occurs in cases in which the device is switched off or not reachable
- Exception(%): errors for exception percentage. This type of error occurs when the device is reachable, but there are inconsistencies between the configuration of its parameters and that shown on the XWEB
- Crc-Error(%): CRC error percentage. This type of error occurs when the device can be reached, but there are problems on the line such as interferences.
- Overrun(%): percentage errors for packages in transit but not expected. This type of error occurs when the device can be reached, but there are problems on the line such as interferences.
- Unknown(%): percentage of others detected, different from those reported in previous rows. Example: equality or other errors.

The table enables sorting by column. It is advisable to press "Success(%)" to easily identify the addresses of the most problematic devices. The table does not automatically refresh.

Identification of device configuration errors: should a device show exception errors, it is possible to ask the system to run a new specific test for the device, so that it detects the most problematic sizes. The following example demonstrates the identification of a device with a certain percentage of exceptions, but no other type of communication error:

Device	Success	Timeout	Exception	CRC Error	Overrun	Unknown
No Group						
RS1-001 XR70CX	100 %	0 %	0 %	0 %	0 %	0 %
RS1-002 XR170Cxxxxxxxxxxxxxxx	95.24 %	0 %	4.76 %	0 %	0 %	0 %
RS1-003 XR170C	95.24 %	0 %	4.76 %	0 %	0 %	0 %
RS1-004 XR570C	86.36 %	0 %	13.64 %	0 %	0 %	0 %
RS1-100 AHU	0 %	100 %	0 %	0 %	0 %	0 %
RS1-200 EEM	0 %	100 %	0 %	0 %	0 %	0 %

It is selected to execute the test. The "test cycle" value identifies the number of readings that will be carried out for each device resource.



After having pressed "Start test", the configured variable that does not respond is displayed, i.e. Pb3 which is not enabled by the device parameters.

RS1-002 XR170Cxxxxxxxxxxxxxxx

Total	Success	Timeout	Exception	CRC Error	Overrun	Unknown
110	100	0	10	0	0	0

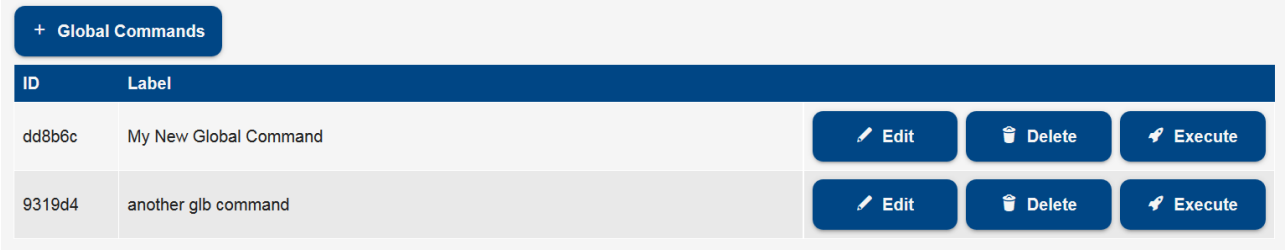
	Success	Timeout	Exception	CRC Error	Overrun	Unknown
Analog						
Evaporator (Pb2	10	0	0	0	0	0
Room (Pb1)	10	0	0	0	0	0
SetPoints						
Set Point	10	0	0	0	0	0
Statuses						
Defrost	10	0	0	0	0	0
Energy Saving	10	0	0	0	0	0
Keyboard	10	0	0	0	0	0
On	10	0	0	0	0	0
Alarms						
EEPROM Failure	10	0	0	0	0	0
Error Pb1	10	0	0	0	0	0
Error Pb2	10	0	0	0	0	0
Error Pb3	0	0	10	0	0	0
External Alarm	10	0	0	0	0	0
High Value Pb1	10	0	0	0	0	0
Low Value Pb1	10	0	0	0	0	0
Open Door	10	0	0	0	0	0
Inputs						

Close

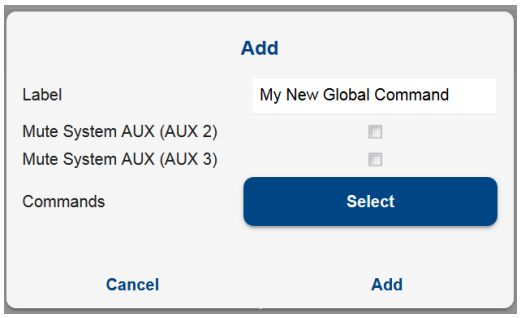
3.2.3 TOOLS

3.2.3.1 GLOBAL COMMANDS

This page is used to configure the global commands that can be run from the user interface (if provided), from scheduler and from digital input command.

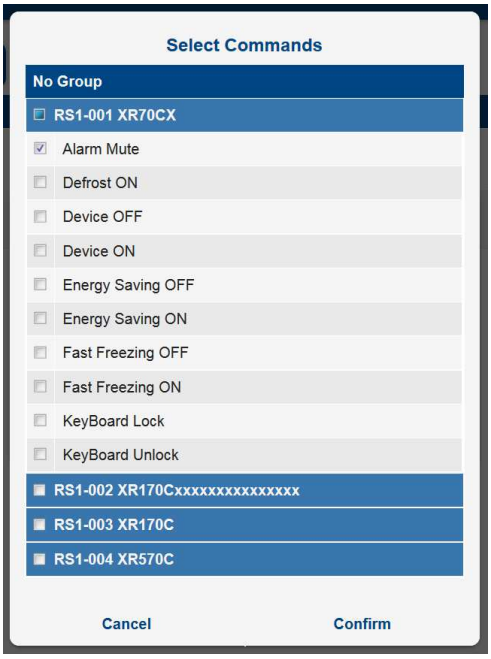


"+" Global commands
for adding a new command to the configuration.



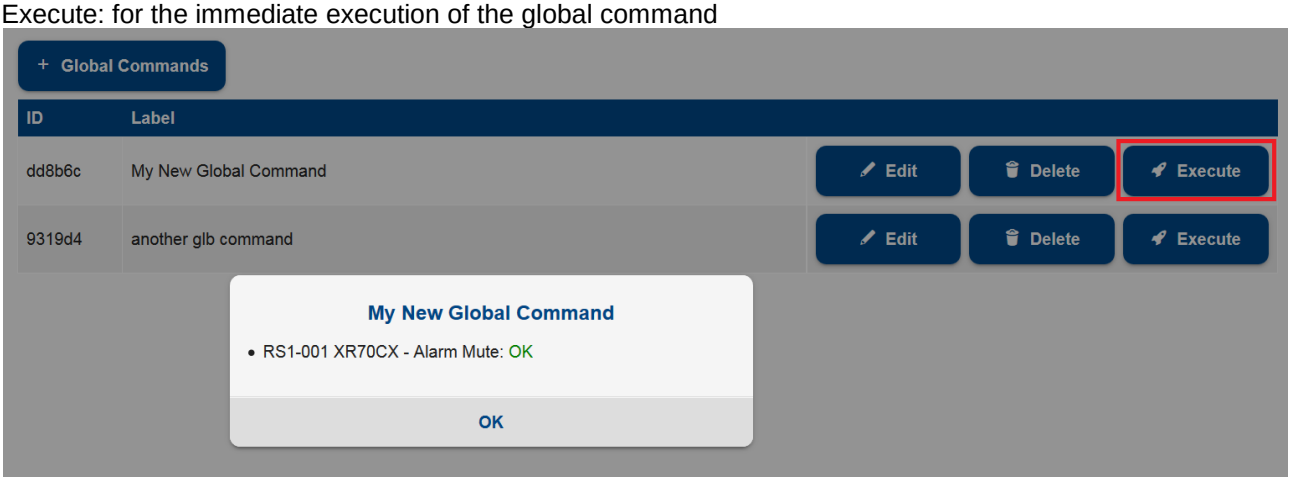
The user is asked to indicate a name (label field) and the list of commands that must be executed together with the request to execute this global command.

- Mute System AUX (AUX 2): to silence the AUX2 relay, if necessary
- Mute System AUX (AUX 3): to silence the AUX3 relay, if necessary
- Commands
  press the "select" key to explode the command list on the devices; the checkbox is enabled for all those commands that will be executed together with the global command;
  by clicking on the tool name, the window will explode with the name of the individual variables managed by the same tool

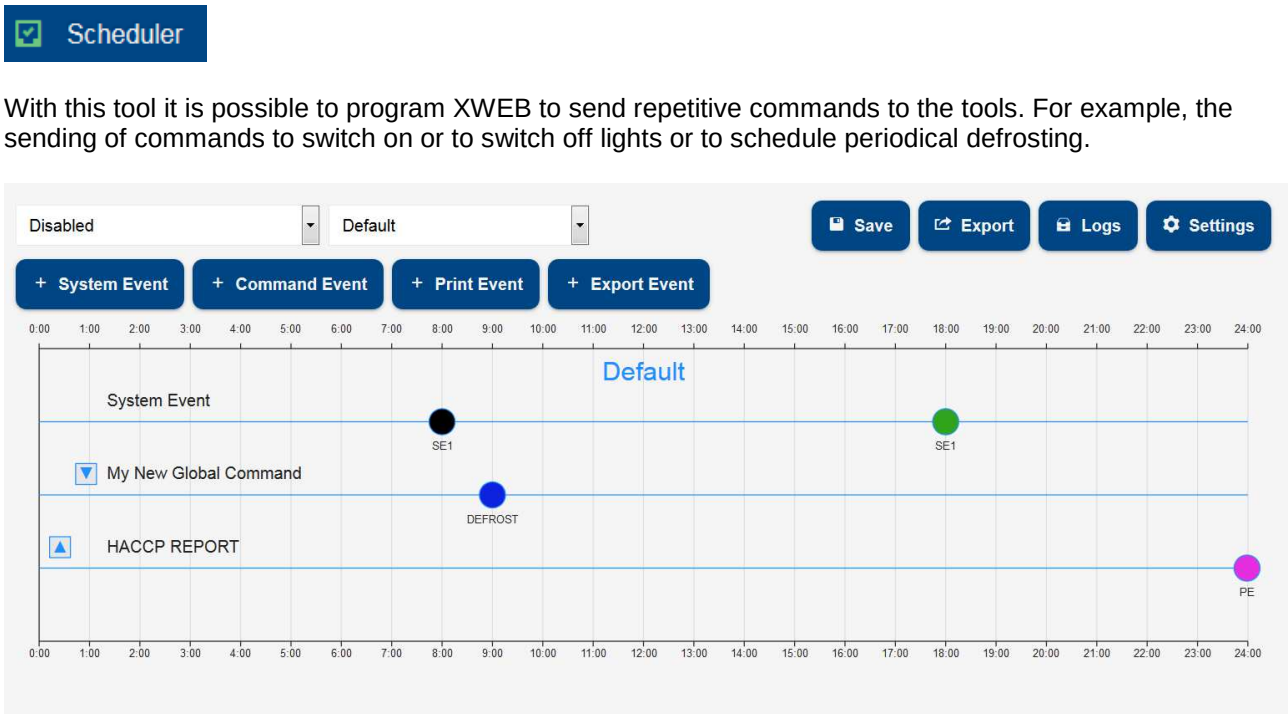


for the list of already configured global commands, you can invoke the actions of

- Edit: to edit the global command
- Delete: to delete the global command from the list. caution: command removal is not a reversible operation
- Execute: for the immediate execution of the global command



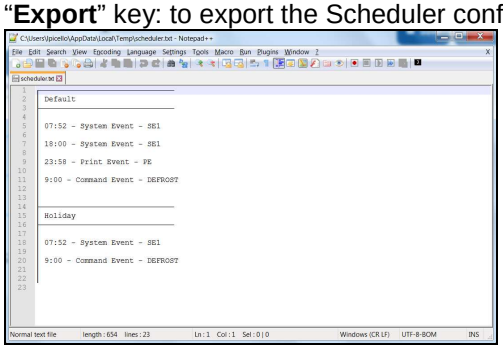
3.2.3.2 SCHEDULER

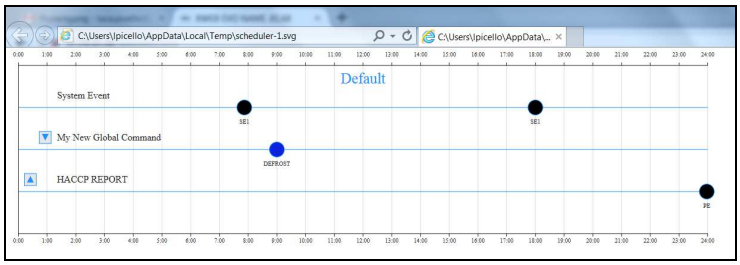


The entire daily interval (from 00:00 to 24:00) is present at the bottom of the window; each hour is marked with a vertical placeholder. The events are placed on the horizontal placeholders.

- "**Save**" key: to save the configuration. Attention, once you save it is no longer possible to recover a previous version;

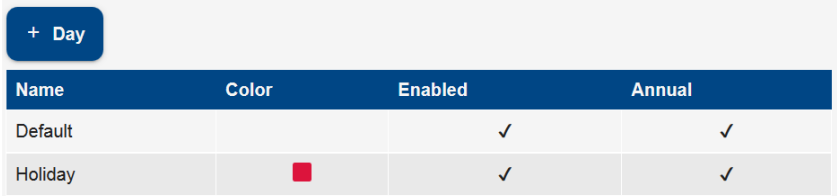
- "**Export**" key: to export the Scheduler configuration in a TXT or SVG file.





- "**Logs**" key: to show the scheduler logs, for the list of sent commands and other actions performed.

- "**Settings**" key: the following are configured in this window
    1. ***Days***: to configure the types of day, each of which defines its specific events with times.

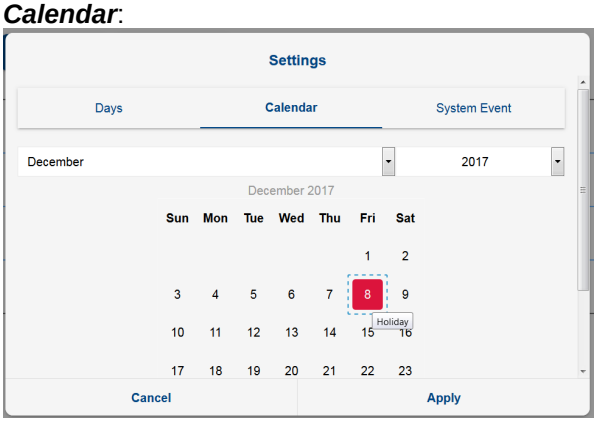


+ Day

Name	Color	Enabled	Annual
Default		✓	✓
Holiday		✓	✓

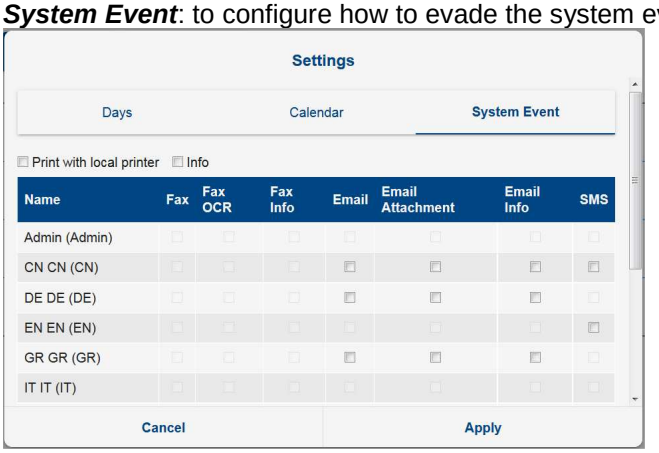
The colour will be important for visual recognition on the calendar. The "Enabled" parameter indicates whether the events configured on the day are active. The "Yearly" parameter indicates whether the day is to be associated - to all years - for operations of association to calendar. Attention: once the day has been created, the "Yearly" parameter can no longer be modified.

2. ***Calendar***:



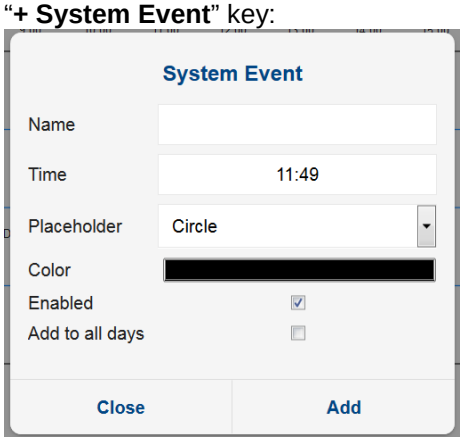
To associate the days, click on the day and select the (type of) day desired. It is also possible to associate the (type of) day on week days by clicking the name in the red band, e.g. apply the day "weekend" to all Sundays.

3. ***System Event***: to configure how to evade the system events

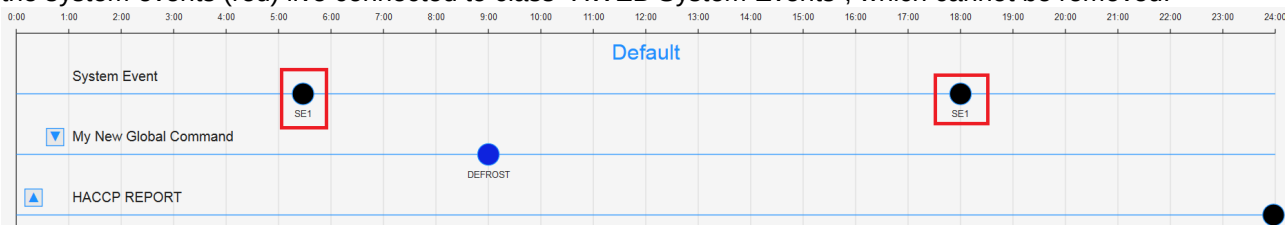


Caution: “Local Print Event” is an option that only appears with XWEB3000/5000 EVO as these systems can print on a directly connected local printer. "Info" is an option that lets you print in a more verbose manner, ie more detailed.

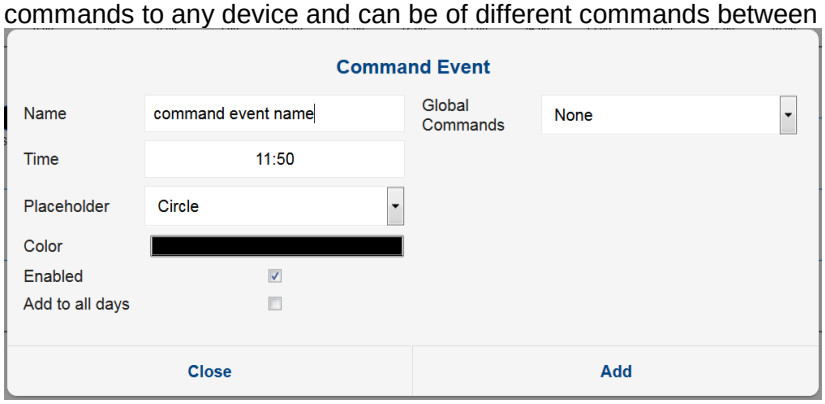
- “**+ System Event**” key:



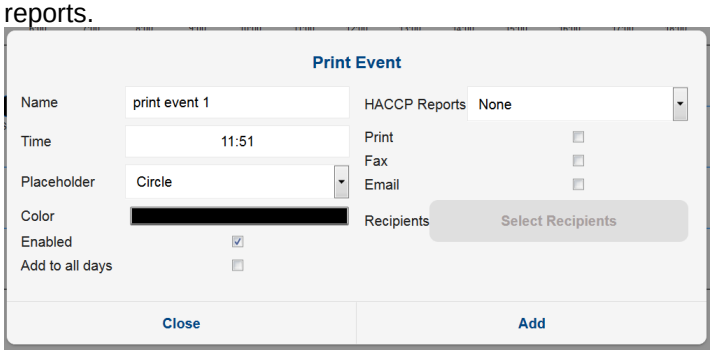
the system events (red) live connected to class “XWEB System Events”, which cannot be removed.



- "**+ Command Event**" key: command events are described on the scheduler with the name, and the marker. The commands to be sent will be selected from a list of "global commands". The list may include commands to any device and can be of different commands between devices.

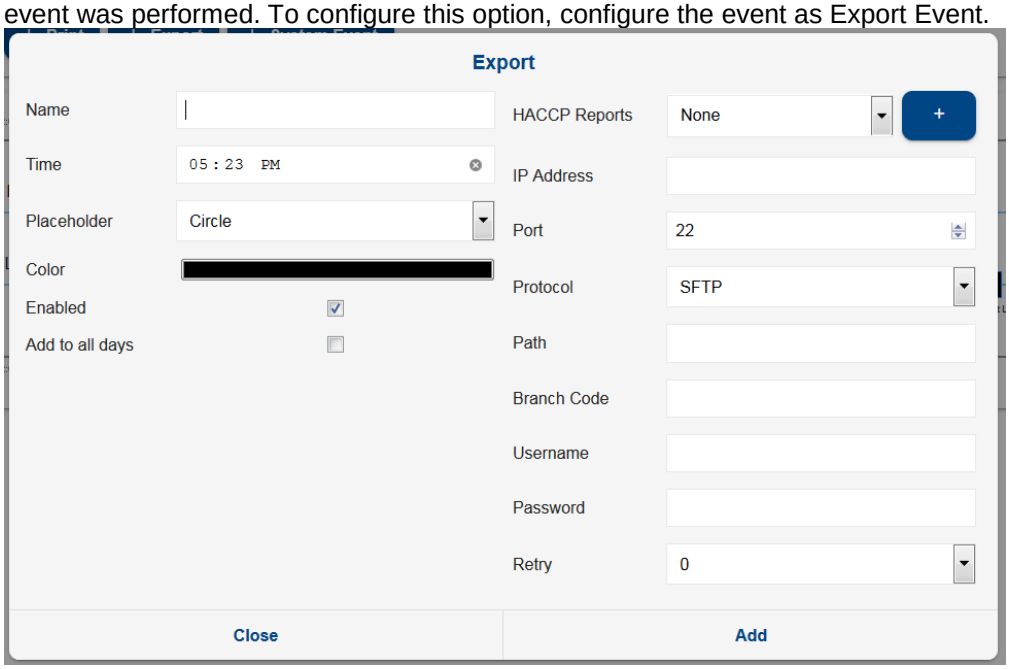


- "**+ Print Event**" key: the print events are those that produce, and eventually send, the temperature reports.



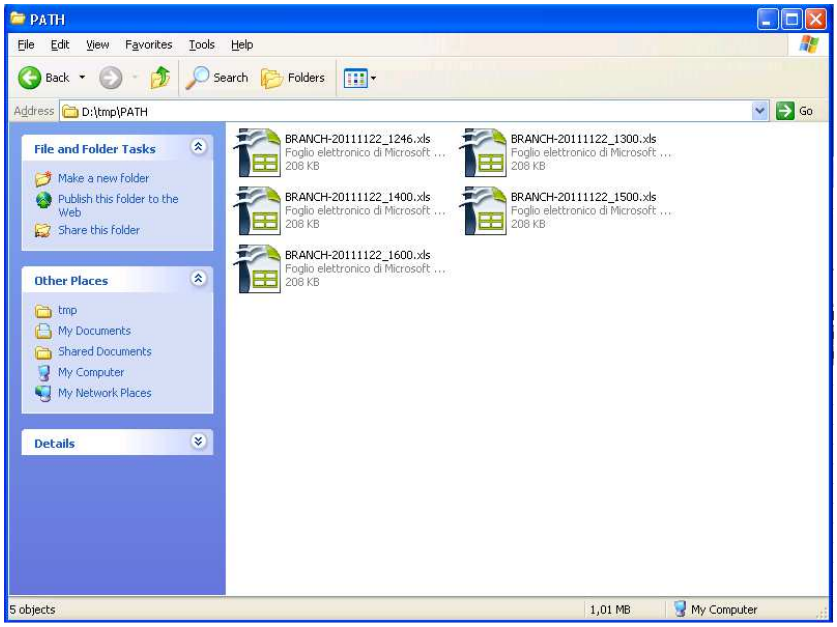
the reports can be generated for the type models that are configured from the Tools→Reports menu.

- "**+ Export Event**" key: the system is able to create excel files from historical data, since the time the event was performed. To configure this option, configure the event as Export Event.



Set the server parameters on which to create the Excel file containing the report data: The protocols available are: FTP/SFTP/SCP. A password is required to connect to the server receiving the Excel files. For the correct "server", "port" settings, etc., we recommend seeking support from your network administrator. The Server-Address must be a valid IP. The Server-Path must be a valid path, alphanumeric, delimited with "/" (e.g.: "myPath/mySubPath"). The path on which to create the file must exist. If the path does not exist, XWEB will attempt to create it, but the directory creation command must be enabled on the receiving Server-Address for the selected protocol. The Branch-Code must be an alphanumeric string.

Once configured, the Excel files will be created as: <PATH>/<BRANCH>-<datetime>.XLS as per screenshot below.

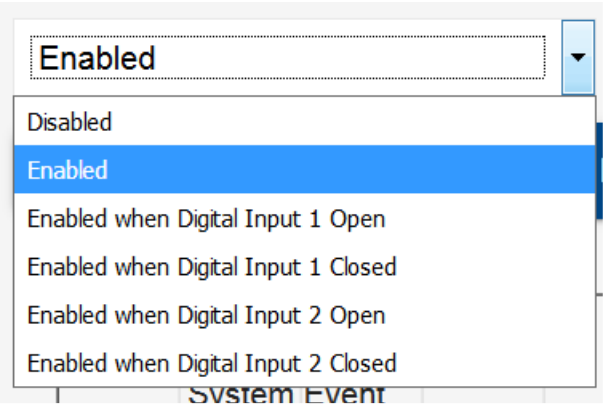


The format of the files is as demonstrated below, where each Excel worksheet is dedicated to a single device.

	A	B	C	D	E	F	G	H	I	K	R	S	V	W	X
1	Date-Time	Room (Pb1)	Evaporator (Pb2	Set Point	On	Defrost	Keyboard	Energy Saving	Low Value Pb1	Error Pb1	No Link	Defrost	Cooling	Door Switch	Generic Alarm
2	28/11/2011 10:44	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
3	28/11/2011 10:59	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
4	28/11/2011 11:15	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
5	28/11/2011 11:30	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
6	28/11/2011 11:45	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
7	28/11/2011 12:00	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
8	28/11/2011 12:15	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
9	28/11/2011 12:30	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
10	28/11/2011 12:45	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
11	28/11/2011 13:00	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
12	28/11/2011 13:15	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
13	28/11/2011 13:30	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
14	28/11/2011 13:45	-6,70	-25,50	2,00	ACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	DEACTIVE	ACTIVE	DEACTIVE
15															

001 fakeDeviceName | **002 New_XR570C** | 004 New_XR70CX | 005 New_XR170C | 007 New_XR170C

- "**Enabling**" combobox: the scheduler can be enabled according to certain conditions:
  1. unconditional enabling / disabling
  2. enabling / disabling if Digital Input Open / Closed

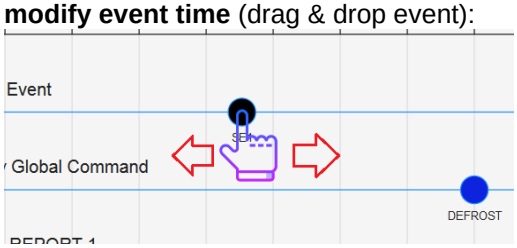


- "**Day**" combobox:

- **up/down** keys: to move the existing event classes up/down

the change of position on the page does not affect the execution of the commands, but it is only a way to change the graphic representation.

- **modify event time** (drag & drop event):

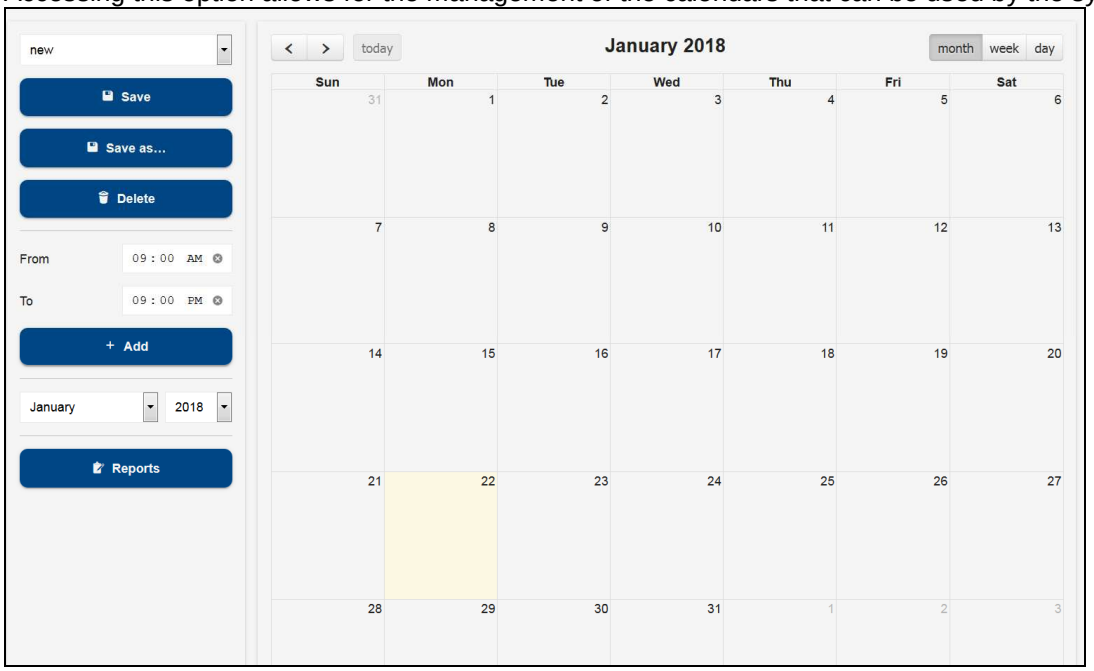


by moving the mouse over the event, the marker develops to indicate the selection. The event can be moved to the right/left, by updating the time of execution of the event.

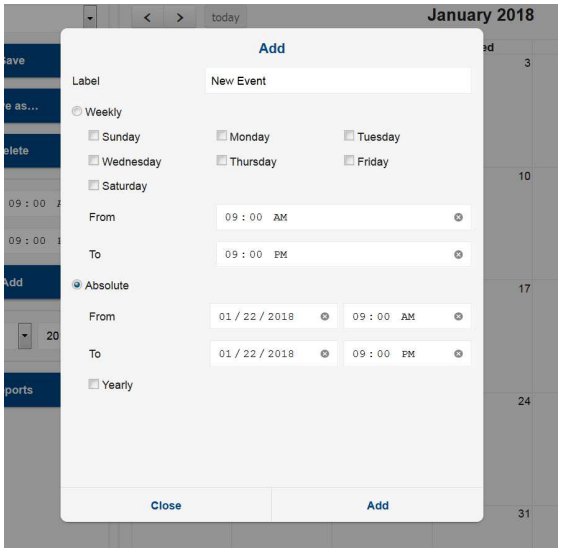
- **edit or delete event** (click on event): by clicking on an event, the window for editing and/or deleting it opens.

3.2.3.3 CALENDAR

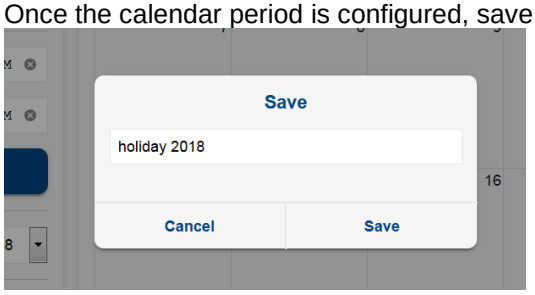
Accessing this option allows for the management of the calendars that can be used by the system.



For the selected calendar, the user adds event periods by clicking on the same calendar or on the "Add" key.



The user must set the period name and interval as well as the period.
Once the calendar period is configured, save the calender itself by naming it, pressing the “Save” button.



3.2.3.4 AUTOMATIC EXPORT

This procedure allows for the configuring of the XWEB so that it creates a new datalog file on a daily basis that can always be recovered from an external server with an http call and/or saved on USB.

The user must:

a. **enable the service,** by setting **the time** when this must be performed daily; in the event that a USB stick is left inserted in XWEB on the same time, its data is updated

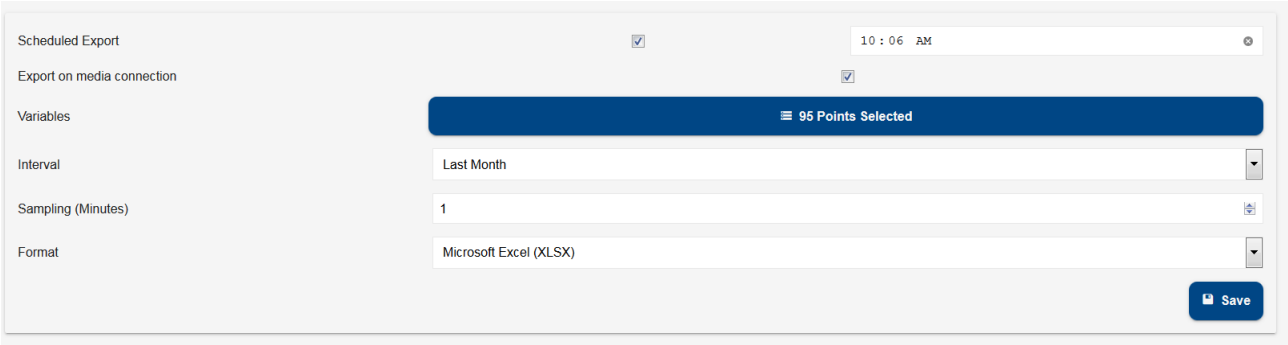
b. configure the "**Export to USB connection**" option, the enabling of which allows copying data when the USB stick is inserted

c. configure **the variables for which the history is desired;**

d. configure **the interval** that identifies the minimum period between the samples that will be exported from the system (data from last 24/48 hours, from last week or last month) and the **sampling time** between data (minimum 1 minute)

e. configure the **format** with which data is exported; the possible options are CVS and EXCEL

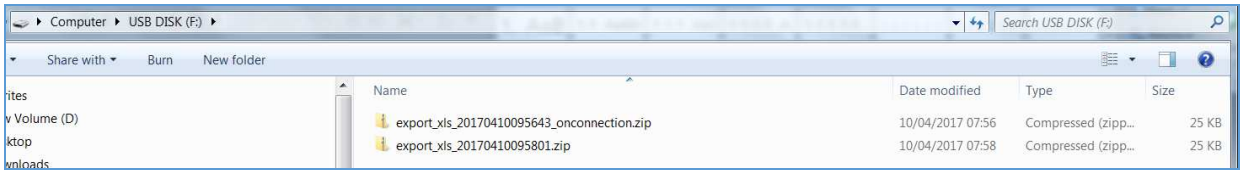
Once configured, the user must confirm by pressing SAVE.

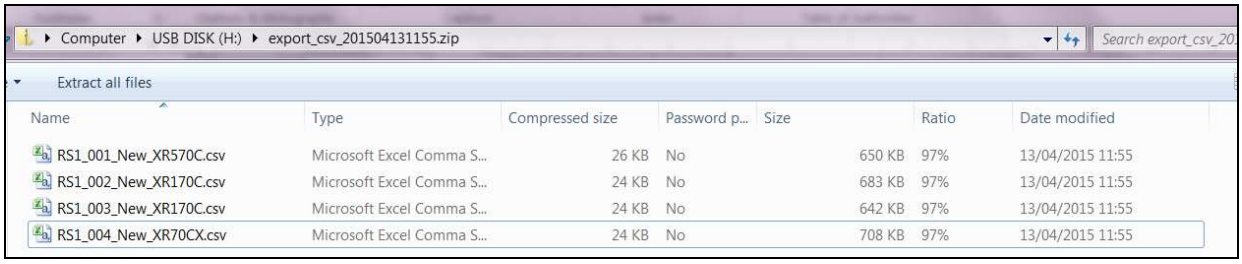


To retrieve data from remote connect to url:: http://IP_EVO/getdailydata?g=1&u=<username>&p=<md5 password>

Evo transmits a zip file with the name "export_xls_YYYYMMGGhhmm.zip" or "export_csv_YYYYMMGGhhmm.zip".
For example:
export_xls_201311271234.zip (for xls export)
export_csv_201311271234.zip (for csv export)

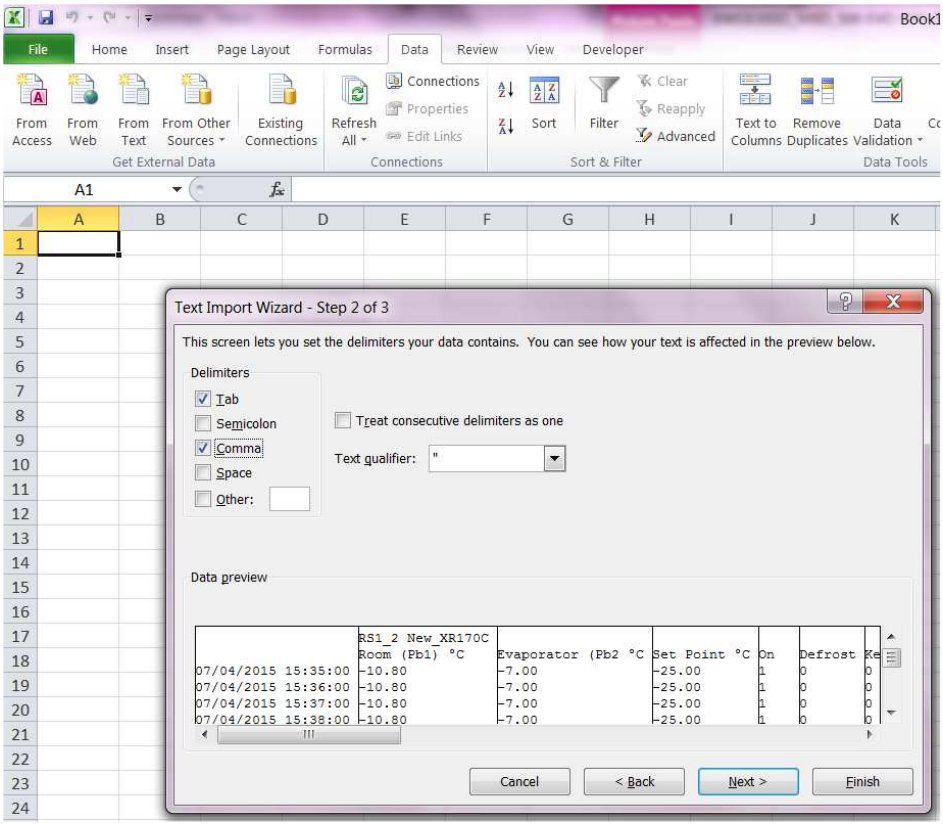
In case of export on USB stick, the files will be copied to it as per picture below

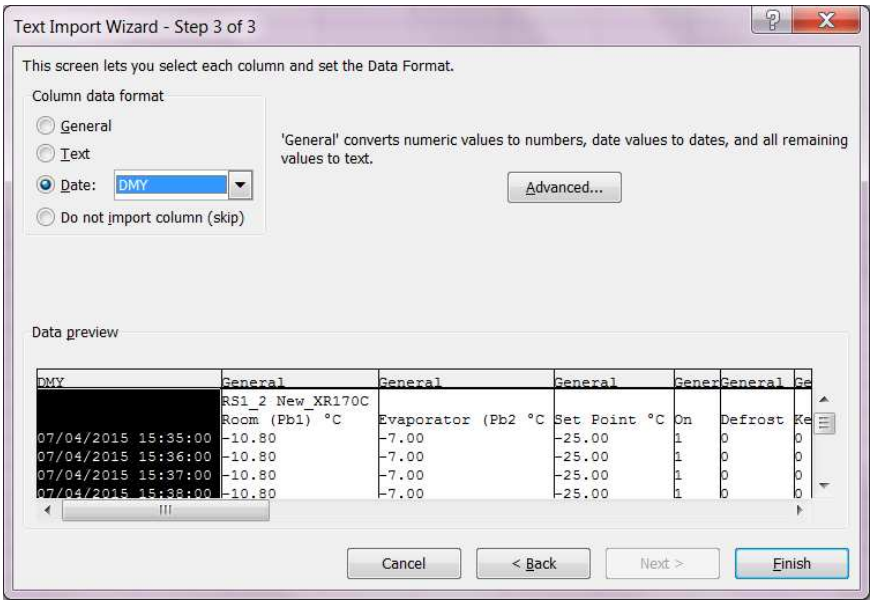




If the data is exported as CSV, note the conventions applied are:

8. Comma as column separator
9. Dot, as decimal separator





10. Day/Month/Year

3.2.3.5 COMPRESSOR RACK OPTIMIZER

C.R.O. works with a proprietary algorithm developed by Dixell that combines the complexity of the cooling system with the simplicity of the parameters that the user must set at a program level. It works on two basic parameters to guarantee the best possible adjustment of the refrigerator: the suction pressure of the compressor plant (detected by a series XC1000D ver.1.1 or higher controller) and the more critical utility from a "consumption of cold" point of view.
Depending on the model of your XWEB, the function may have a different number of CRO engines. The following types of parameters are common for all. A window such as that illustrated below appears when the CRO menu is opened for the first time.

Module 1 - Active

Execution Interval	240 Minutes	Calculation Interval	60 Minutes
Devices	2	Compressor	RS1-010 XC1008D (SupVis set SUC1)
Worst Case SetPoint	90 %Cooling	Dead Band	4 %
Post Defrost Time	60 Minutes	Starting SetPoint	-35 °C
Min	-38 °C	Max	-30 °C
Release Gain	20 (m°C / %Cool)	Call Gain	50 (m°C / %Cool)
Simulation Mode	✔	Cycling Mode	NO

Logs Edit Stop Start

3.2.3.5.1CONFIGURATION PARAMETERS

Execution interval: indicates how often a new set-point is sent to the plant (in minutes).

Analysis interval: indicates for how many minutes, in reverse, the data is to be analysed (operation of class utilities; in minutes).

Reference class: is the set of controllers affected by the calculation of the worst possible case.

Device: is the plant controller affected by the modification of the set-point.

Set-Point: allows you to select which set-point to use: typically, that of the plant suction section.

Worst case threshold: allows for the defining of the intervention threshold for the C.R.P. algorithm (in %)

Neutral zone: specifies an oscillation band (centred on the percentage of the worst possible case) inside which the algorithm does not intervene.

Initial value: initial set-point value. The value can be an estimate: in time, the set-point value sent to the plant will change -according to the algorithm (typically in °C).

Min. and Max. Set-points: safety limit values associated with the minimum and maximum suction pressure: to prevent C.R.O. from excessively increasing or lowering the pressure to avoid the safety devices from triggering (typically in °C). It is good for the minimum value to be as high as possible in order to optimise energy consumption.

Release and Call Gain: the call and release gain are two parameters that decide by how much the current set-point must be increased/decreased. The call-gain parameter is used should the set-point need to be decreased. It is useful to set a higher call-gain value than the release-gain in order to quickly decrease the temperature (typically in m°C/%).

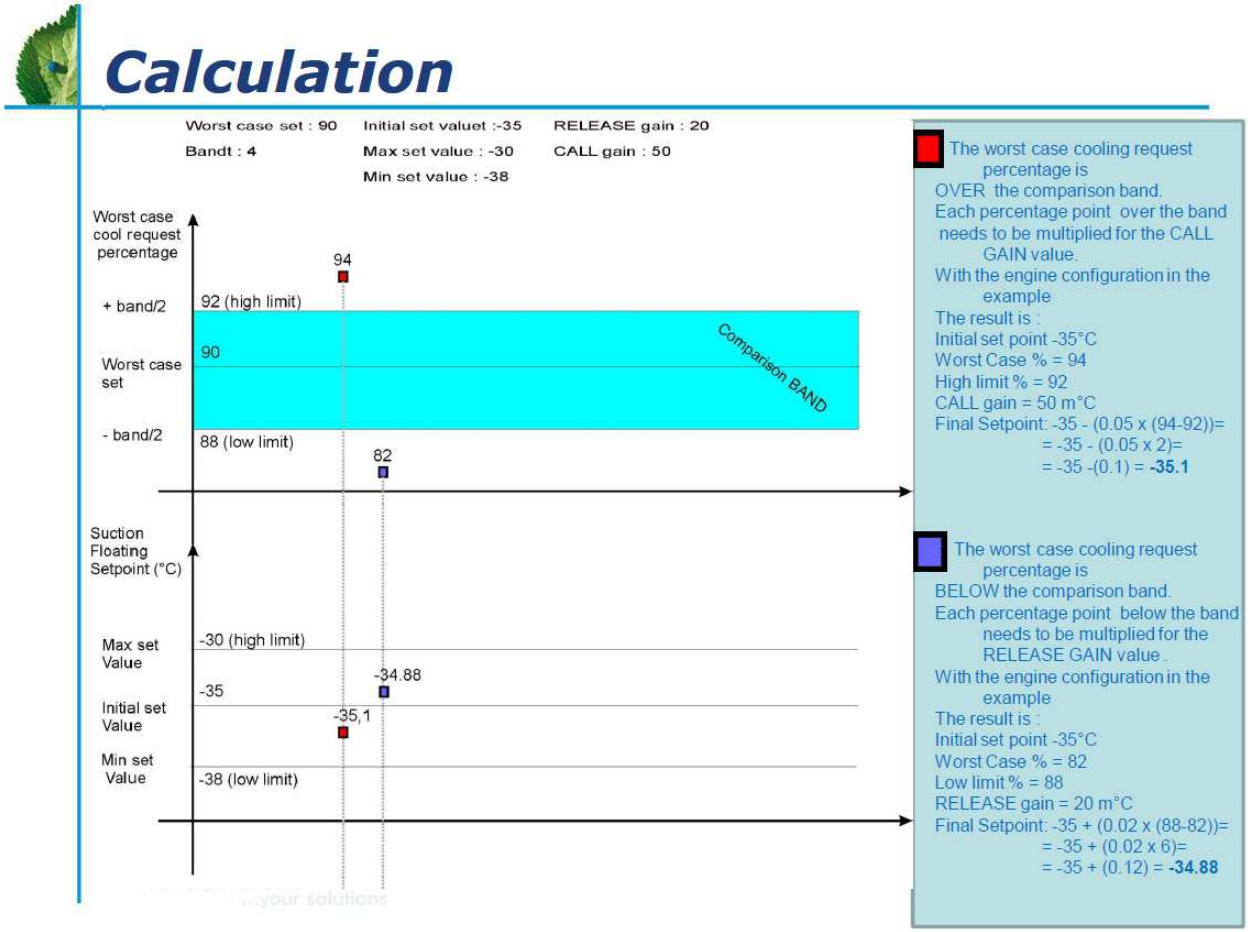
Post Defrost Time out: the duration after a defrosting event that is ignored in calculating the percentage (in minutes).

Simulation Mode: The enabling of simulation mode does not send the set-point values calculated by the algorithm

Cycling Mode: The enabling of cycling mode, combined with cycle time (in hours) continuously enables and disables the algorithm. This mode is useful for checking the quality, when applied to the system. Usually, cycle times of no more than three days are set. When the algorithm is disabled, a reset command is sent to the plant for its repositioning to its initial state.

Typically, the units of measure of the plant are expressed in °C, however, C.R.O. adapts to the plant's unit of measure. However, should the unit of measure be modified in the next phase, it will be necessary to re-configure the CRO starting with the disabling of the set-point variable from the algorithm parameters, subsequently re-configuring the unit of measure in "Devices Setup" and re-configuring the CRO parameters.

3.2.3.5.2HOW IT WORKS



Should the real percentage of the worst possible case be below that set (except the neutral zone), the formula used for the new set-point is:

$$Set_{new} = Set_{old} + \Delta\% \cdot \left(\frac{RLS_{gain}}{1000} \right)$$

$\Delta\% =$ (calculated percentage value) - (percentage set for the worst possible case)

$RLS_{gain} =$ release-gain parameter value

And vice-versa, should it be above the set percentage (except the neutral zone), the formula used for the new set-point is:

$$Set_{new} = Set_{old} - \Delta\% \cdot \left(\frac{CALL_{gain}}{1000} \right)$$

$\Delta\% =$ (calculated percentage value) - (percentage set for the worst possible case)

$CALL_{gain} =$ call-gain parameter value

The calculated percentage refers to the analysis range and it changes from time to time based on the real system conditions.

Each engine must be activated by pressing enable system. To deactivate it, press disable system.
The engine status is displayed at the top of the window.

3.2.3.5.3RESULTS FROM CRO

To display the status of the three worst utilities, from the cold call point of view, open the menu LOGS. Select the class and then the devices for which the report is to be issued. The three devices considered to be the worst in the latest period, will be shown on the screen (as illustrated by the image below). The worst device is that indicated in the red column.

Risultati richiesta freddo (TN)

Calc. Time	Dispositivo 1	On/Off	Ch.	Dispositivo 2	On/Off	Ch.	Dispositivo 3	On/Off	Ch.	Set
31/05/2013 12:30	040 5TN Carni	100.00%	1	030 2TN M Murale S/L	76.66%	13	042 22TN Carni	74.48%	4	-8.22
31/05/2013 12:23	040 5TN Carni	88.87%	2	030 2TN M Murale S/L	74.45%	13	042 22TN Carni	73.37%	5	-6.95
31/05/2013 12:16	040 5TN Carni	83.32%	4	030 2TN M Murale S/L	73.34%	13	042 22TN Carni	60.06%	6	-6.51
31/05/2013 12:09	030 2TN M Murale S/L	76.70%	15	040 5TN Carni	69.97%	5	032 2TN S Murale S/L	57.77%	10	-6.51
31/05/2013 12:02	030 2TN M Murale S/L	75.58%	13	040 5TN Carni	65.52%	6	036 3TN S Murale S/L	58.90%	10	-6.73
31/05/2013 11:55	030 2TN M Murale S/L	75.59%	13	040 5TN Carni	56.62%	7	042 22TN Carni	52.29%	8	-6.99
31/05/2013 11:48	030 2TN M Murale S/L	75.58%	14	036 3TN S Murale S/L	52.20%	10	040 5TN Carni	46.61%	8	-7.25
31/05/2013 11:41	030 2TN M Murale S/L	71.12%	15	036 3TN S Murale S/L	54.42%	11	040 5TN Carni	47.74%	8	-7.51
31/05/2013 11:34	030 2TN M Murale S/L	71.11%	14	036 3TN S Murale S/L	57.75%	11	040 5TN Carni	47.78%	9	-7.92
31/05/2013 11:26	030 2TN M Murale S/L	74.45%	13	040 5TN Carni	53.33%	8	036 3TN S Murale S/L	51.09%	11	-8.34
31/05/2013 11:19	030 2TN M Murale S/L	74.44%	13	040 5TN Carni	51.15%	9	036 3TN S Murale S/L	46.69%	12	-8.64
31/05/2013 11:12	030 2TN M Murale S/L	74.44%	13	036 3TN S Murale S/L	54.46%	11	040 5TN Carni	51.17%	9	-8.94
31/05/2013 11:05	030 2TN M Murale S/L	74.44%	13	040 5TN Carni	54.51%	7	036 3TN S Murale S/L	54.46%	11	-9.24
31/05/2013 10:58	030 2TN M Murale S/L	75.55%	13	040 5TN Carni	63.37%	7	036 3TN S Murale S/L	54.46%	11	-9.54
31/05/2013 10:51	030 2TN M Murale S/L	76.63%	13	040 5TN Carni	73.37%	5	042 22TN Carni	66.68%	5	-9.80
31/05/2013 10:44	030 2TN M Murale S/L	79.95%	11	040 5TN Carni	74.47%	3	042 22TN Carni	71.11%	3	-10.02
31/05/2013 10:37	040 5TN Carni	86.69%	3	042 22TN Carni	83.32%	3	030 2TN M Murale S/L	83.28%	9	-10.13
31/05/2013 10:30	040 5TN Carni	96.67%	1	042 22TN Carni	96.67%	1	030 2TN M Murale S/L	86.64%	8	-9.85
31/05/2013 10:23	040 5TN Carni	100.00%	1	042 22TN Carni	97.78%	2	030 2TN M Murale S/L	86.65%	9	-8.83
31/05/2013 10:16	040 5TN Carni	100.00%	1	042 22TN Carni	83.36%	3	030 2TN M Murale S/L	83.28%	8	-7.55
31/05/2013 10:09	040 5TN Carni	86.68%	3	030 2TN M Murale S/L	83.31%	9	042 22TN Carni	81.13%	4	-6.28
31/05/2013 10:02	040 5TN Carni	78.91%	4	030 2TN M Murale S/L	76.66%	11	042 22TN Carni	67.81%	5	-6.00
31/05/2013 09:55	040 5TN Carni	74.44%	5	030 2TN M Murale S/L	70.00%	13	036 3TN S Murale S/L	62.15%	9	-6.00
31/05/2013 09:48	030 2TN M Murale S/L	66.68%	15	040 5TN Carni	61.09%	6	036 3TN S Murale S/L	61.06%	11	-6.25
31/05/2013 09:41	030 2TN M Murale S/L	63.34%	16	036 3TN S Murale S/L	58.86%	10	040 5TN Carni	55.53%	8	-6.82
31/05/2013 09:34	030 2TN M Murale S/L	64.46%	14	036 3TN S Murale S/L	56.66%	10	049 11TN Cella ortofrutta	53.37%	8	-7.51
31/05/2013 09:27	030 2TN M Murale S/L	64.50%	17	049 11TN Cella ortofrutta	60.02%	12	036 3TN S Murale S/L	57.80%	11	-8.16
31/05/2013 09:20	030 2TN M Murale S/L	68.93%	15	042 22TN Carni	66.72%	5	040 5TN Carni	62.17%	5	-8.81
31/05/2013 09:13	030 2TN M Murale S/L	74.48%	15	040 5TN Carni	73.30%	5	042 22TN Carni	71.15%	3	-9.30
31/05/2013 09:06	042 22TN Carni	83.36%	3	040 5TN Carni	79.96%	3	030 2TN M Murale S/L	74.48%	15	-9.60
31/05/2013 08:59	042 22TN Carni	92.23%	1	040 5TN Carni	86.65%	3	030 2TN M Murale S/L	74.45%	16	-9.60
31/05/2013 08:52	040 5TN Carni	100.00%	1	042 22TN Carni	85.54%	2	030 2TN M Murale S/L	75.55%	15	-8.91

Azzera conteggi | Risultati grafici | Chiudi

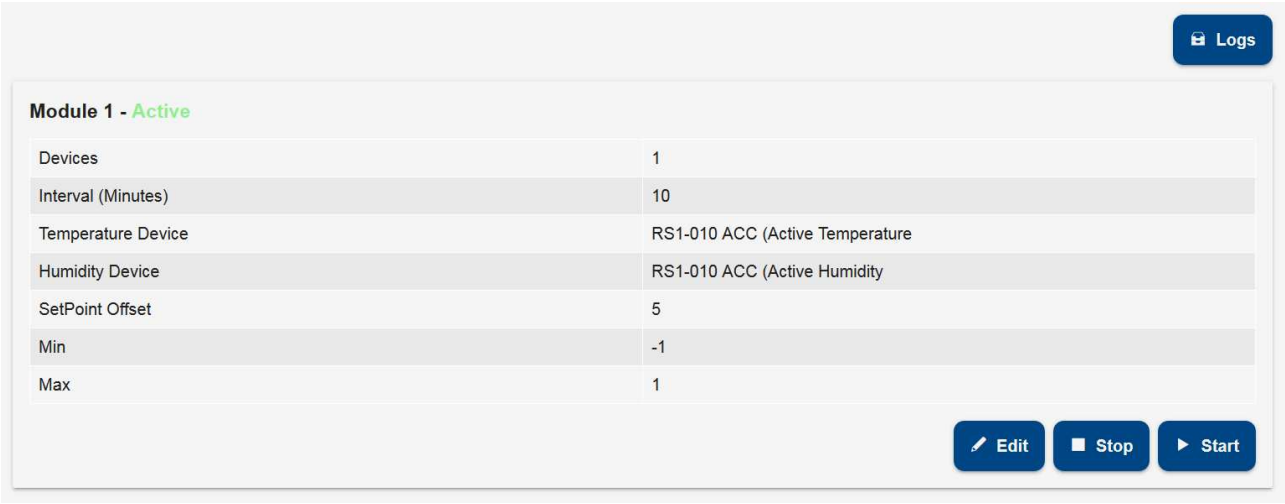
For each device, in addition to its name, the amount of cold call is also indicated. "Ch." corresponds to the compressor start-ups, while "On/Off" corresponds to the call of the eventual electronic expansion valve. These values are used to calculate the cold call percentage of the algorithm.
Each line corresponds to a different moment in which the C.R.O. algorithm has sent a new set-point to the plant: this set-point is shown on the right, below the "Set" column.

From the previously described window, press "Graph Results" for a graph displaying the same information. The user is asked to indicate the graphic tools with which to display the graph.

The graph shows the collected data for the selected period; together with the plant set-point as a dotted line. With C.R.O. deactivated, the central set-point would be a horizontal line: the areas above this fixed set-point and floating set-point are energy saving.
The plant set-point is illustrated in the first graph of the following image, whilst in the graph below, the energy consumptions relating to the same period are shown.

3.2.3.6 DEW POINT

The Dew-Point managing concept enables the XWEB to act on the adjustment of the anti-sweat heaters in order to reduce their electricity consumption.
The XWEB acts on the XM600 and/or ACC controllers, to which the Dew-point temperature set-point is sent. Condensation builds up on the controlled bench window surrounding the system.
Each engine may relate to different zones of the system where work is to be carried out with different settings and parameters. All of the following configurations are part of the dew-point project that will be run by the system if at least one of the dew-point engines is activated.



3.2.3.6.1CONFIGURATION PARAMETERS

Devices: variables of devices receiving the set dew point value;For XWEB configuration device, define:
- Check enabled: defines whether or not the device is part of the class
- Set Dew Variable: defines the variable towards which the dew-point value will be sent. Attention: if the Set Dew Point variable is not visible in the list, it has probably been disabled by the tool advances. Access Device-Setup Advanced and enable it.
- Offset: value added to the Set Dew value. Reflects the difference between the temperature read by the XM600 probe that is not normally fitted on the glass and the real glass temperature.

Interval: cycle time for sending the dew-point set (in minutes)

Control Device: device for calculating the dew-point set value. Should the XH50/55P box be selected, the calculation is performed by the same device that must be specified with field “XH50/55P Device”. This controller is connected to a temperature and humidity probe in the room. Should this device not be available, it is possible for the XWEB to calculate the Dew-point Set value, by specifying the variables from which the room temperature and humidity values are to be read. They are indicated with parameters Temperature/Humidity controller and Temperature/Humidity Input.

Constant Set Offset: offset at Dew-point set value added

Min./Max. Set: limit values of Dew-point set. Should these values be higher or lower, they are sent to the controllers configured as addressees for this engine

3.2.3.6.2ERRORS

From LOG, you can read the events created by the Dewpoint engine; in case of errors, the system can put in the “Result” column

"Valid" => in the value column, the value calculated and sent to the central device is shown.
"Syntax error" => There is an error in the formula defined by the user. The mathematics is not developed.

"No device data" => There is no data from the device and the mathematics cannot be developed.
"No link device" => As above, since the device is a NoLink
"Device OFF" => As above, since the device is in Off mode.
"Math div by 0" => The mathematics development is stopped due to a division by "0"
"Value not allowed" => The values for the formula variables are not permitted (out of range)
"Mathematic" appears in the "Device" column

The possible errors that may occur when sending the set to the central device include:
"Timeout" => No response from device.
"Exception" => Value not accepted by device.
"Unknown" => Unknown error.
"Success" => Value sent with success.
The device name/address is shown in the "device" column.

3.2.3.7 SUPERVISION

The supervision concept significantly expands the possibility of intervention by the XWEB5000 on system management. Supervision is intended as the ability of independent intervention by the monitoring unit on the monitored devices. To simplify the concept, it may help to think of a functional block with all the variables detected on the controller field (temperatures, pressures, operating status, alarms, etc...) as an input, and as an output, the possibility of sending specific commands to the same controllers. The basic link between input and output lies in the supervision, that is to say, in a special algorithm that the user has programmed and that the system implements each time the input variables meet the set criteria. Pay due attention to the fact that the sending of certain commands verified, following the establishing of certain input conditions, is not accompanied by the sending of additional commands when the input conditions fail. In other words, when the user considers and realises the direct action, the reverse action must then be realised. Otherwise, the system is unable to restore the initial conditions when required.
Given the evident importance of this new work tool, Dixell has tried to make its usage as simple as possible for the end-user. This is why the event is programmed through the graphic user interface, therefore, no programming knowledge is required (in contrast with what occurs with normal programming languages for PLC).

THE PROJECT

From a practical point of view, the user must be familiar with the supervision project to be realised in advance, this is why, for educational purposes, the project considered throughout this chapter will be the following:
the installation in question, demonstrates the need to monitor the operating state of an emergency generator that is only activated should there be no electric energy supply. Upon the occurrence of this condition, the supervisor must send a series of commands to the utilities in order to manage, at the highest possible level, the energy saving function during a power-cut. In the example in question, the generator is monitored through means of a Dixell XJA50D controller (alarm/status acquisition module): when the generator is activated, the module signals this through the variation of the corresponding digital input. During operation with an emergency generator, the XWEB must send the "energy saving" command (variation of work set-point) and, only for the compatible utilities as well as the "save cold" curtain lowering command.

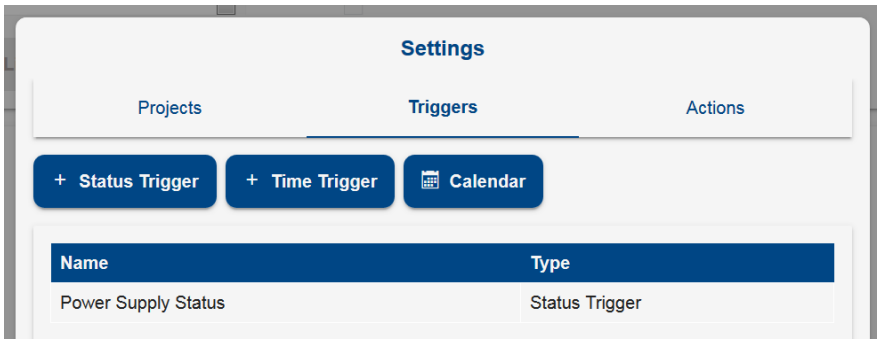
SDC, ELS and ODC

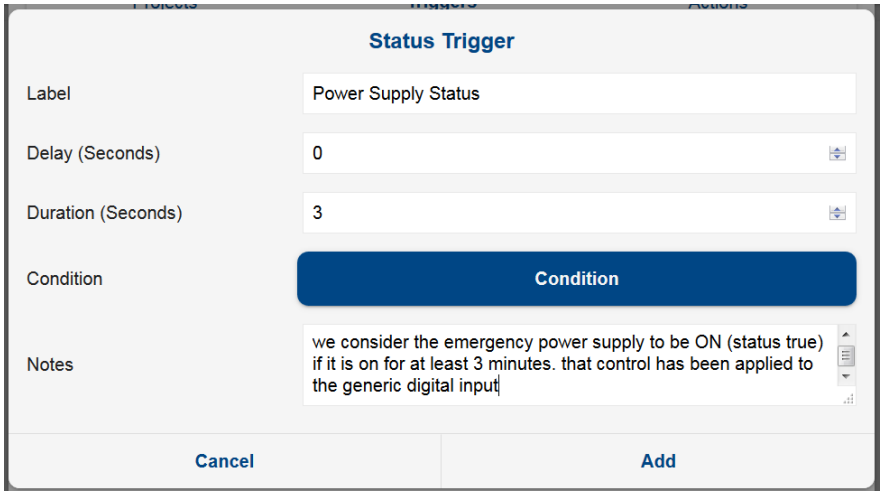
Each project consists of at least 3 distinct blocks:

- SDC (source device class) is the set of controllers whose variables (probe values, operating state, etc...) constitute the inputs for the supervision project.
- ELS (event logic supervisor) is the functional block that combines the input performed by the SDC with the output, that is to say, the sending of the commands to the supervision project controllers.
- ODC (object device class) is the class of tools involved by the sending of commands

Other blocks can be associated with these functional blocks, e.g. STE (system time event) as well as others that will be added by Dixell during the development of the XWEB5000 project.

SDC BLOCK (SDC -> Trigger - Device Status Trigger)





We will create a SDC that verifies the state of the XJP30D module digital input. When this input is active for at least 3 minutes, the generator is to be considered active.

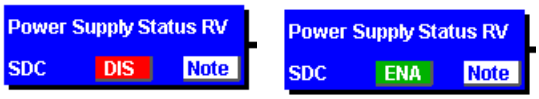
From the device type filter, select the tool to be monitored. Go to "activation" and in our example select “Generic digital input”.

If multiple variables and devices are configured for this block, the logic rule constructed by the above parameters corresponds to:

OUTPUT = ((RL ‘Var**A**’-Addr***1***) ACT (RL ‘Var**B**’-Addr***1***)) DL
((RL ‘Var**A**’-Addr***2***) ACT (RL ‘Var**B**’-Addr***2***)) DL
((RL ‘Var**A**’-Addr***3***) ACT (RL ‘Var**B**’-Addr***3***)))

Where
RL = Rever logic (box selected = not)
ACT = Activation logic. AND or OR
DL = Device Logic. AND or OR.
‘Var**A**’-Addr***1*** = Variable**A** of address device ***1.***

If the control must be executed on numeric values, set the condition (greater, less, equal) and the corresponding threshold value.
The block output results from the above calculation. Value 0 corresponds to status DIS (disable). Value 1 corresponds to status ENA (enabled). These front changes are sent to the next block (ELS), which will then carry out further processing and act by sending commands to the successive blocks.



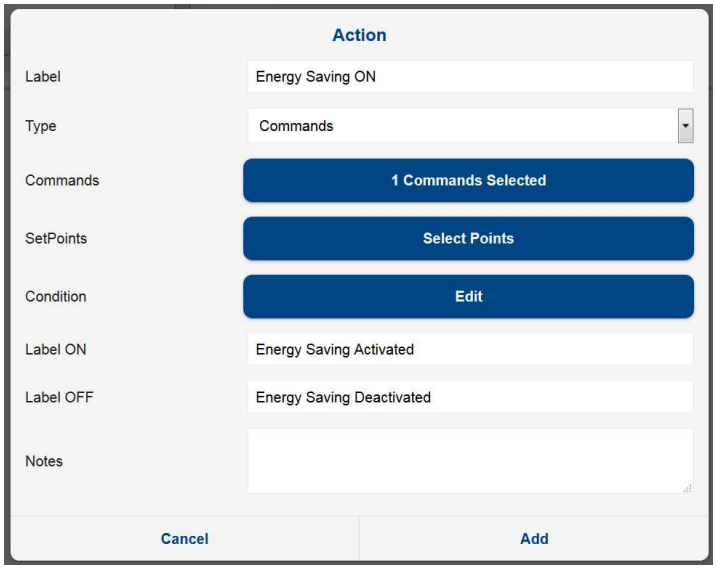
The ENA status can be activated with a delay, set with parameter DELAY. The above assumed logic continues to always be met and returns the TRUE value. The block status, from the moment in which the logic is met at the end of the delay time, assumes the DLY value.

The ENA status can be maintained with a maximum time set with parameter DURATION. After this time, the block status switches from ENA to DUR.

ODC BLOCK (Action – Commands Action)

We will create an ODC that sends the reduced set-point command. The normal work set is increased by a few degrees by this command and is sent to 2 walls.
Enter an appropriate name under "ODC name". From the device type filter, select the category to be monitored. Select the tools and go to "available commands". In our example we have activated the “energy saving ON” command.

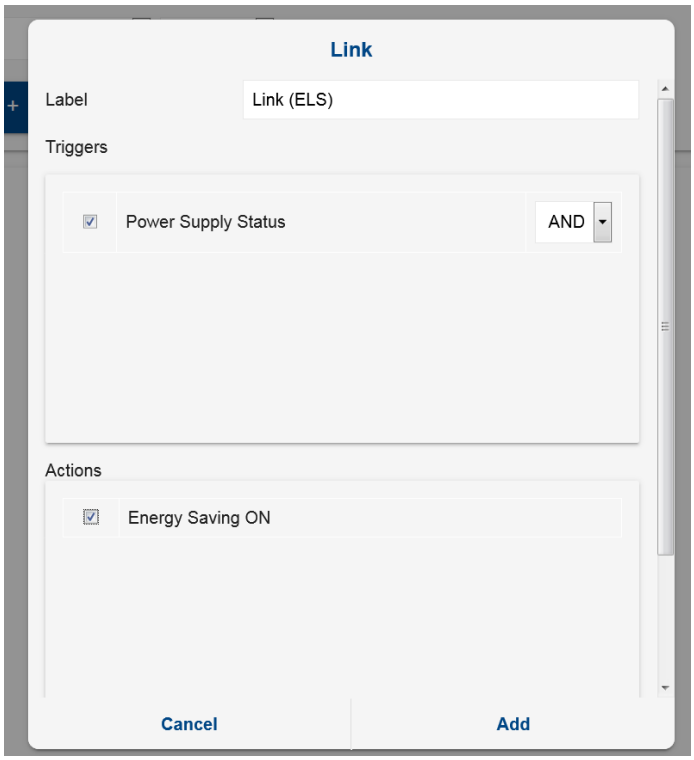
Fill-in the fields “Conditions” and “Labels”. These labels are used to recognise the actual sending of the command.



The possibility of entering notes that can be subsequently used to understand the meaning of the logic block being created can be very useful.

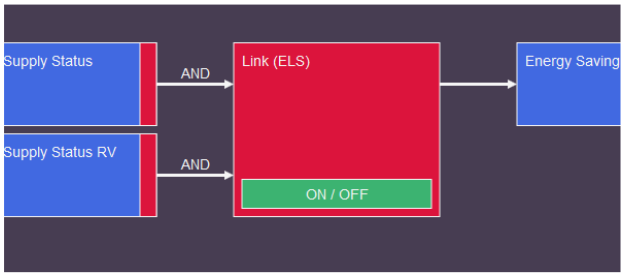
ELS BLOCK (Link)

Choose the "Create" menu. We will create an ELS that ties the two blocks so far realised. The ELS acts as a filter combining the input (generator status) and the output (command sending to utilities).
Enter an appropriate name under "ELS name". This block allows for the linking of the SDCs to the ODSs.
The user can create multiple functional blocks, linking only those used for the project in question. The other blocks can be used in other projects.



This block can be configured with multiple inputs, such as SDC and/or STE blocks. A logic group can be associated with each of these: AND/OR/DIS. The rule that is executed is (∑And | ∑Or) & ∑!Dis where
And=AND logic of all parameters in AND;
Or=OR logic of all parameters in OR;
Dis=NOT logic of all parameters in DIS.

Example with C=Condition of Input (SDC/STE):
C1 AND
C2 OR
C3 AND
C4 OR
C5 AND
C6 DIS
C7 DIS
The resulting logic is: ((C1&C3&C5) | C2 | C4) & !C7 & !C6



The logic configured for each input is shown on the project screen as a label on the same inputs. As illustrated in the above image.

Complete project

The complete project is displayed by means of the macroblocks:

STE BLOCK (Trigger – Time Trigger)

This logic block allows for the management of the timed events. It is a programmable filter, the status of which can be added to the project and linked to the ELS block. It is useful to set night/day filters or hourly filters.
When the input conditions (from the SDC block) occur, the system also checks the STE status. In view of this verification, ELS is activated. Should this occur in vice-versa the event in ODC will not run.
The STE blocks correspond to the "classes" configured in "Supervision Time Event".

EMM BLOCK (Action – Message Action)

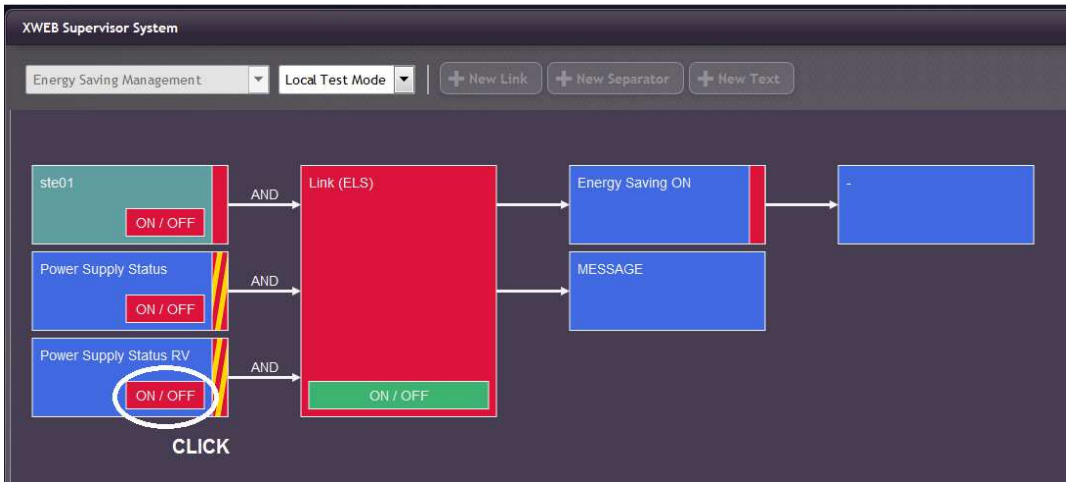
The EMM block can receive alarms or notifications
With the EMM block you can receive alarms or notifications regarding the status of the active supervising programs.
The list of receivers depends on the receiver book filled in the ALARM configuration. The message text is the content of the fax/mail that you intend to send. The EMM also report information regarding the status of the controller that will usually correspond to the controller modified by the ODC action or the SDC enabling condition. The EMM block will be added after the ELS. This means that once the SDC is enabled and the ELS activates, the ODC and the EMM will send a message according to the setting selected.

PROJECT SIMULATION

Once the project is realised, it can be partially or totally simulated before being considered definitive. There are 3 types of simulation: Local test, on-field Simulation and Runtime mode.

LOCAL TEST

This mode is useful when a rough idea of what happens when varying the status of the inputs is necessary. Access the menu "Tools" and then "Local test".
The status of the SDCs can be forced by clicking their status. A block which in turn activates the ELS. The chain interrupts on block ODC, which simulates the command sending but does not in fact realise it.



In the above image, we clicked on the SDC block when in status DIS: block enabling activates block ELS which then turns red. And the ODC block sends a false command.
Select "Modification mode" from the "Tools" menu to return to modification mode.

ON-FIELD SIMULATION

The input statuses can be forced through means of this test in order to produce and verify the sending of the commands to the utilities. Pay attention to the fact that this test sends commands to the utilities, it is not a simulation, however the results are real and reflect the system response. To force the inputs statuses, place the mouse pointer on block SDC or STE and right-click to activate the "Disconnected inputs" mode. The user can now force the status of an input by left-clicking the mouse on the corresponding item "ENA" (enabled) or "DIS" (disabled). Based on the programming performed, the ELS block will pass the command sending the request to the next ODC. Be careful when exiting the on-field test mode, the system returns to the previous project conditions and sends commands to utilities, if necessary. Therefore, consider the potential sending of additional commands before abandoning the project.

RUNTIME MODE

This mode allows the user to verify, in real time, the status of the system operation following the execution of a supervision project. The user cannot, in any way, interact with the project. ATTENTION: each time runtime mode is engaged, the system is put into its working position which is, at that moment, decided by the SDC status. When runtime mode is deactivated, the system is reset. This may entail the sending of an additional command.

ACTIVATION OF PROJECTS

The system allows for the simultaneous execution of multiple projects, the user must then decide which to activate. From the menu "Projects", "Project activation", select the project to be activated via the appropriate check box.

VISUAL FEEDBACK

Once the supervision program is running, it provides the user with important information in graphic form. The following table summarises the possible work situations.

value/colour	description
Red	Not Active
Green	Active

Yellow	Trigger on duration
Orange	Trigger on delay
Yellow+Red	Status Unknown or Error

3.2.3.8 LANGUAGES

The user manages the languages available in the system by accessing the language management panel. By default, the system presents the user with the following languages:

- English
- Italian
- Spanish
- German
- Portuguese (Brasil)
- Russian
- Turkish
- French
- Polish
- Greek

Other languages can be added/removed and translations are handled with Excel files.
The system having hardware that mounts a factory-installed version 2.0 software, manages a maximum total of 10 languages. Additional installed languages can reduce the temperature data storage time to less than 1 year.

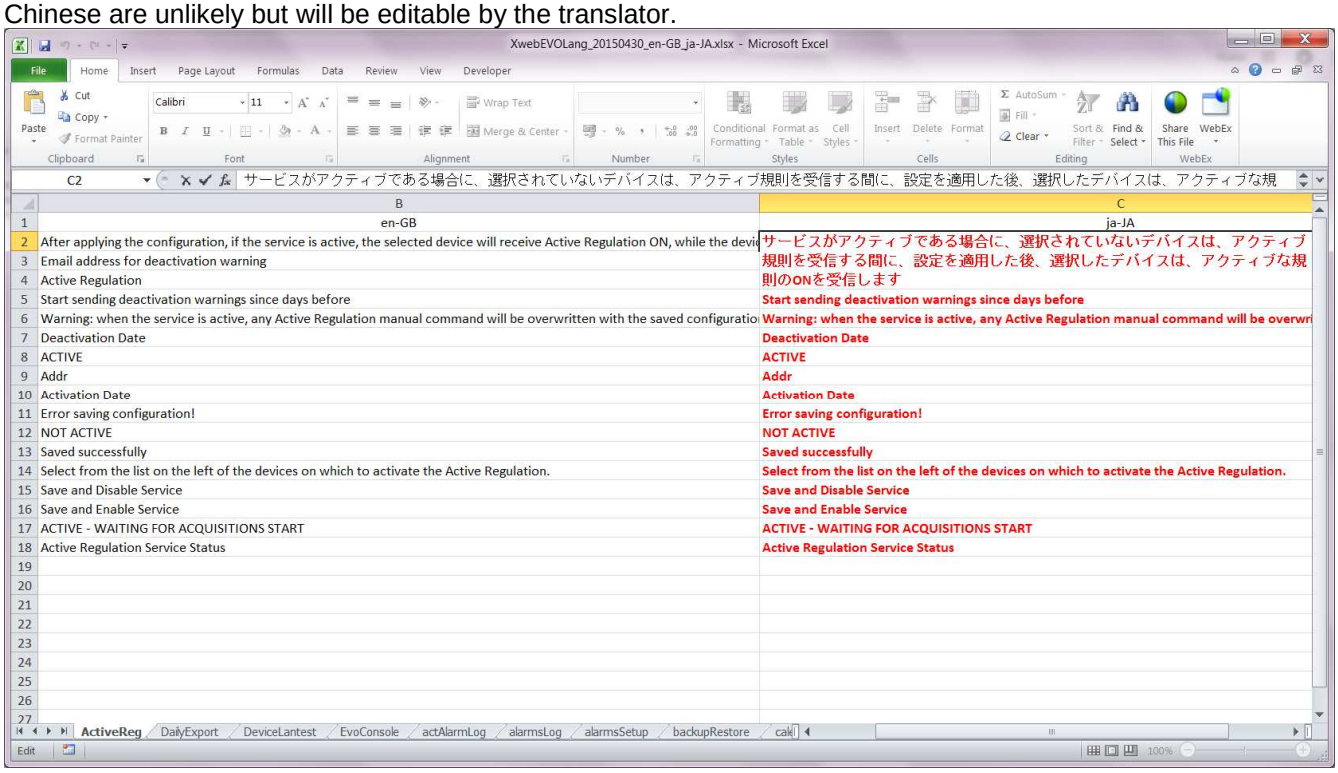
Add New Language
For adding a new language you must specify

1. A language already present in the system from which to inherit the translations
2. Language name in acronym format. The left box indicates the language and the right side shows the country for management of dialect
3. Language name in extended format.

Export Language
Export is the preliminary step to the translation. Select

1. The source language of translation (for example, English)
2. The language that you want to translate (for example, Japanese)

XWEB exports an Excel file containing all the strings in English and Chinese. Already translated strings in Chinese are unlikely but will be editable by the translator.



Import Language
To import a translation in the system. The format should be the that of the Excel sheet.

Clone Language
To copy translations from one language to another.

Remove language
To remove a language not needed by the system

3.2.1 SYSTEM

3.2.1.1 INFO

? Info

This page displays the main system configuration parameters and the system status.

Name	XWEB EVO NAME .81.68
Description	XWEB EVO DESCRIPTION .81.68
Final Product Code (CPF)	JYLDFAA800
Model	XWEB5000 EVO
Hardware	X86
Software	9e2f7b

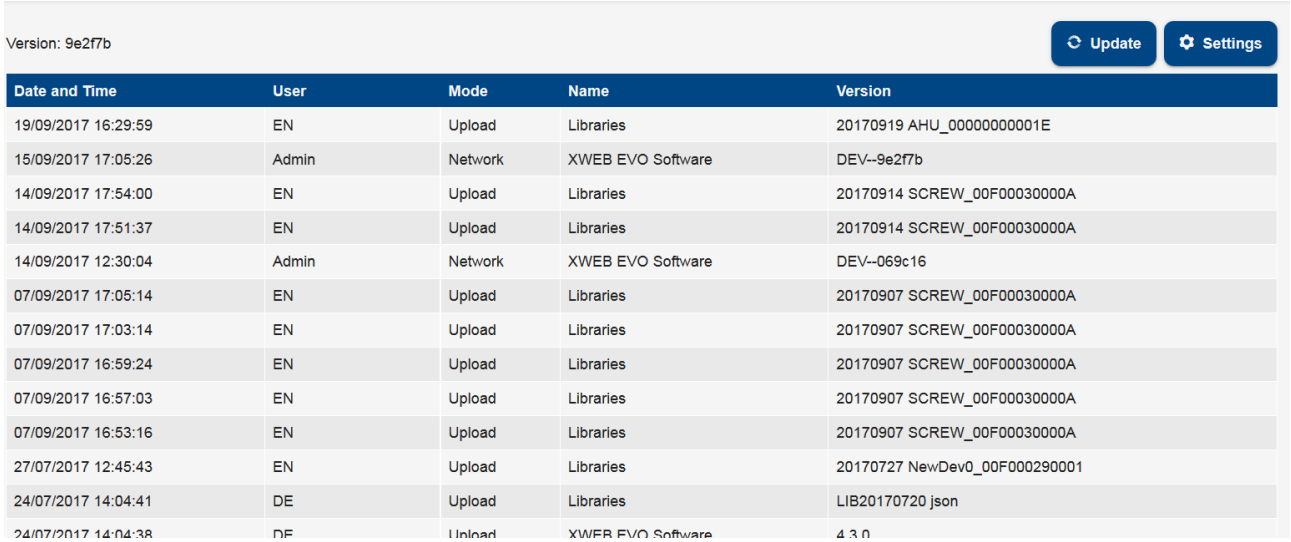
Hostname	XWEB-EVO
IP Address	10.100.81.68
Subnet Mask	255.255.255.0
Gateway	10.100.81.1
DNS 1	10.100.81.1
DNS 2	8.8.8.8
HTTP Port	80
HTTPS Port	443

Logs	1%
Log Duration	18/09/2017 11:05:00 - 25/09/2017 15:20:00 (7 days)
Log ETA	2 years
Polling Time	RS485_1: 10 Seconds

Name and **description** are set by the user in the menu SYSTEM→SETTINGS→GENERAL;
CPF, Model, Hardware e Software correspond to the physical product model. The CPF is usually visible on the product label also. **Hostname, IP, Subnet, gateway, DNS 1 and 2, HTTP and HTTPS** ports are set by the user in the menu SYSTEM→SETTINGS→NETWORK. **Logs**: used memory. **Approximate Log Duration**: duration between the oldest and the most recent samples; **Approximate Time of Arrival**: approximate date when the oldest data will be deleted. **Polling Time:** sampling time on serial. These indications can vary over time according to the use of XWEB and is calculated based on the total and the used memory of XWEB

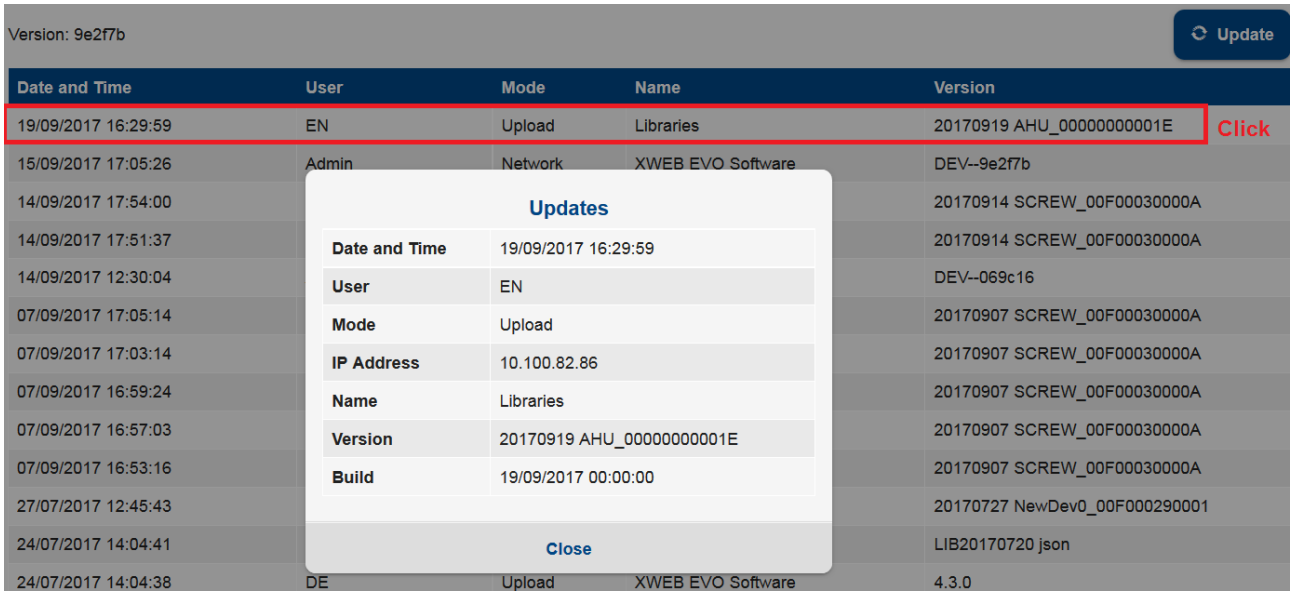
3.2.1.2 UPDATES

This page displays the software version in use of the product and the list of all updates made on the machine. The list also shows all uploads for integrating device libraries.

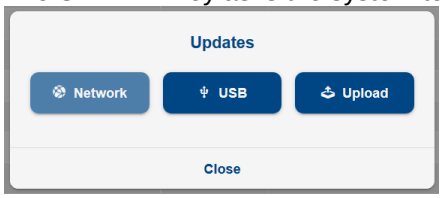


Date and Time	User	Mode	Name	Version
19/09/2017 16:29:59	EN	Upload	Libraries	20170919 AHU_00000000001E
15/09/2017 17:05:26	Admin	Network	XWEB EVO Software	DEV--9e2f7b
14/09/2017 17:54:00	EN	Upload	Libraries	20170914 SCREW_00F00030000A
14/09/2017 17:51:37	EN	Upload	Libraries	20170914 SCREW_00F00030000A
14/09/2017 12:30:04	Admin	Network	XWEB EVO Software	DEV--069c16
07/09/2017 17:05:14	EN	Upload	Libraries	20170907 SCREW_00F00030000A
07/09/2017 17:03:14	EN	Upload	Libraries	20170907 SCREW_00F00030000A
07/09/2017 16:59:24	EN	Upload	Libraries	20170907 SCREW_00F00030000A
07/09/2017 16:57:03	EN	Upload	Libraries	20170907 SCREW_00F00030000A
07/09/2017 16:53:16	EN	Upload	Libraries	20170907 SCREW_00F00030000A
27/07/2017 12:45:43	EN	Upload	Libraries	20170727 NewDev0_00F000290001
24/07/2017 14:04:41	DE	Upload	Libraries	LIB20170720 json
24/07/2017 14:04:38	DE	Upload	XWEB EVO Software	4.3.0

Clicking on a row, explodes the details in a dialogue window (see image below).



The **UPDATE** key asks the system to load an update



- Network: when the update is available via internet (only for Dixell updates)
- USB: when the update is present on USK stick already inserted in the system
- Upload: when the update is present and is to be uploaded by the pc on which the web-browser is running.

Note: an update file usually has a .ZIP extension and should not be unpacked to uploaded on the system.

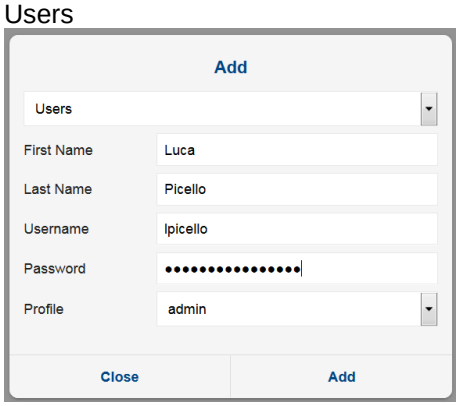
The **SETTINGS** key is used to configure the parameters with which the system accesses or allows access to updates. Do not modify the DIXELL default settings.

3.2.1.3 USERS

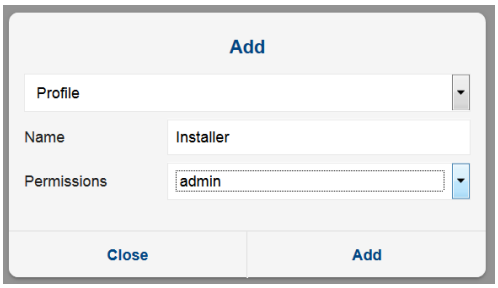
This page configures users and system access and use profiles.
The profile is a preconfiguration that can be applied on various users.

With the “+ Add” key, you can add the following to the system:

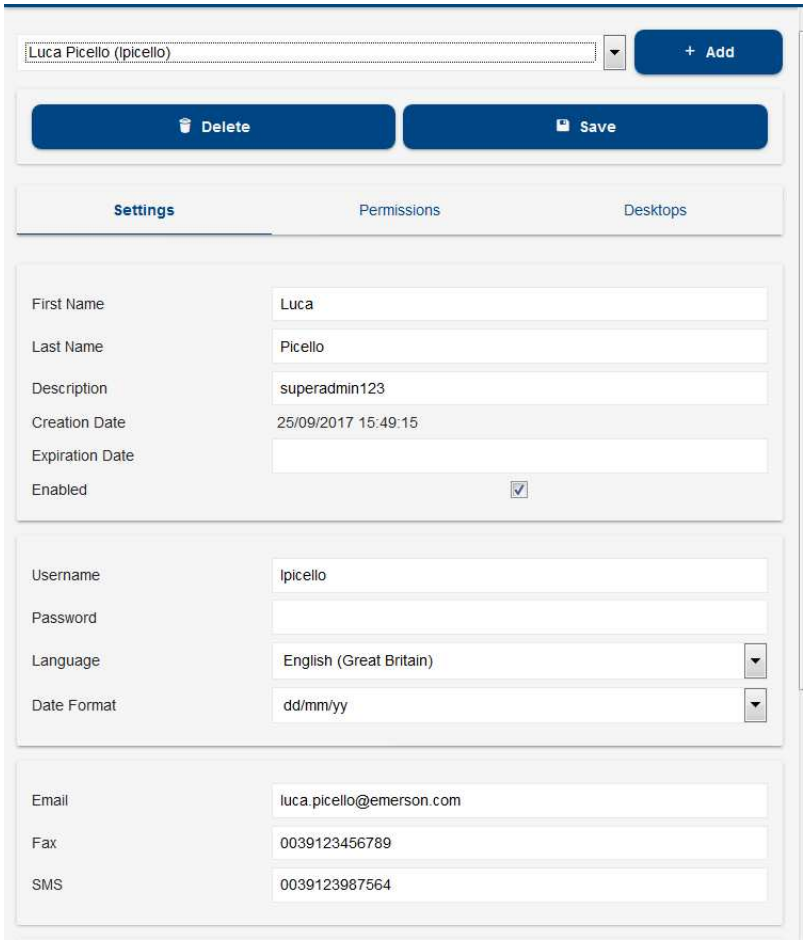
Users



Profiles



From the list of already configured users/profiles, you can choose one to access the details and all options for editing or deleting.



The “Save” key consolidates the changes in the XWEB EVO memory, while “Delete” removes them.

The user configuration parameters are:

SETTINGS section:

- First name: user name;
- Last name: user surname;
- Description: user description; you can use the title in the organisation, ie “installer”
- Creation date (read only): date/time of creation of the user on the system
- Expiration date: limit date and time beyond which the user is not allowed access to the system; beyond this date the Enabled parameter is automatically forced to disabled.
- Enabled: enabling of access to the system via user interface
- Username: name used to access the user interface
- Password: password used to access the user interface
- Language: user interface language
- Date Format: date/time format of the user interface. The options “dd/mm/yy” (standard Italian) and “mm/dd/yy” (standard American) are available.
- Email: e-mail address where to send user notifications
- Fax (if hardware present): fax number where to send user notifications
- SMS: GSM number to which to send sms notifications
- Enable custom Email Server: enabling to the customised mail server for user email notifications. This mailserver is replaced, but only for the user configured to it in SYSTEM→SETTINGS→EMAIL. The parameters of this server are Server/Email/Authentication/Username/Password

PERMISSIONS section:

- **Alarms Log**
  - Delete Alarms Logs
  - Edit Alarms Log Notes
- **Alarms Setup**
  - Edit Alarm Setup
  - Read Alarm Setup
- **Backup / Restore**
  - Backup System Data and Configuration
  - Restore System Data and Configuration
- **Calendar Setup**
  - Edit Calendar Setup
- **Commands**
  - Send Command
- **Compressor Rack Optimizer**
  - Edit Compressor Rack Optimizer Setup
- **Automatic Export**
  - Configure Automatic Export
- **Devices Line Test**
  - Perform Device Line Test
- **Runtime Data**
  - Send Commands to Device
- **Devices Setup**
  - Edit Device Setup
  - Edit advanced com setting
  - Read Device Setup
- **Device View**
  - Edit SetPoint
  - Start / Stop Fast Sampling Mode (FSM)
- **Dew Point Management**
  - Edit Dew Point Setup
- **Digital Input**
  - Trigger Digital Inputs
- **Global Commands**
  - Mute AUX 2
  - Mute AUX 3
  - Send Commands
  - Set Global Commands Parameters
- **Layout Global Commands**

    - Mute AUX 2
    - Mute AUX 3
    - Send Commands
- **HACCP Print**
    - Set HACCP Parameters
- **Languages Manager**
    - Access Languages Manager
- **Lists Manager**
    - Edit Consumptions Reports
    - Edit Data Charts
    - Edit Food Quality Reports
    - Edit Generic Lists
    - Edit Global Commands
    - Edit HACCP Reports
    - PERM-listsManager-dataReports-edit
- **Parameter Programming**
    - Export parameters map
    - Import parameters map
    - Read parameters
    - Write parameters
- **Performance**
    - Edit Performance Meter Setup
- **Scheduler**
    - Edit Scheduler Setup
- **System Setup**
    - Configure AUX Outputs
    - Configure Acquisitions
    - Configure Date and Time
    - Configure Dialup Connections
    - Configure Dialup Extensions
    - Configure Email Service
    - Configure LAN Speed
    - Configure Language and Keyboard
    - Configure Login Welcome Message
    - Configure Modems
    - Configure Network
    - Configure Printers
    - Configure SMS Service
    - Configure System Identification
    - Configure System Updates
    - Configure XCenter Notifications
    - Set web port
- XWEB Supervisor System
    - Edit Supervision Setup
- System
    - Access Emergency modality
    - LCD access
    - Layout Editing
    - Lock / Unlock System (if enabled the user can login even if locked)
    - Reboot System
    - Shutdown System
    - Start Acquisitions
    - Start/Stop Maintenance Mode
    - Stop Acquisitions
- System Log
    - Delete System Logs
    - Display System Debug Log
- System Update
    - Update from Browser
    - Update from Network
    - Update from USB
- User Setup

    - Edit User Setup

Caution: some permits may not be available for certain XWEB models where functionality is not present.

DESKTOPS section:

- Predefined
    - Alarms
    - Charts
    - Dashboard
    - Devices
    - Logs
    - Parameters
- Layout
    - Default

The profile configuration parameters are:

SETTINGS section

- none

PERMISSIONS section

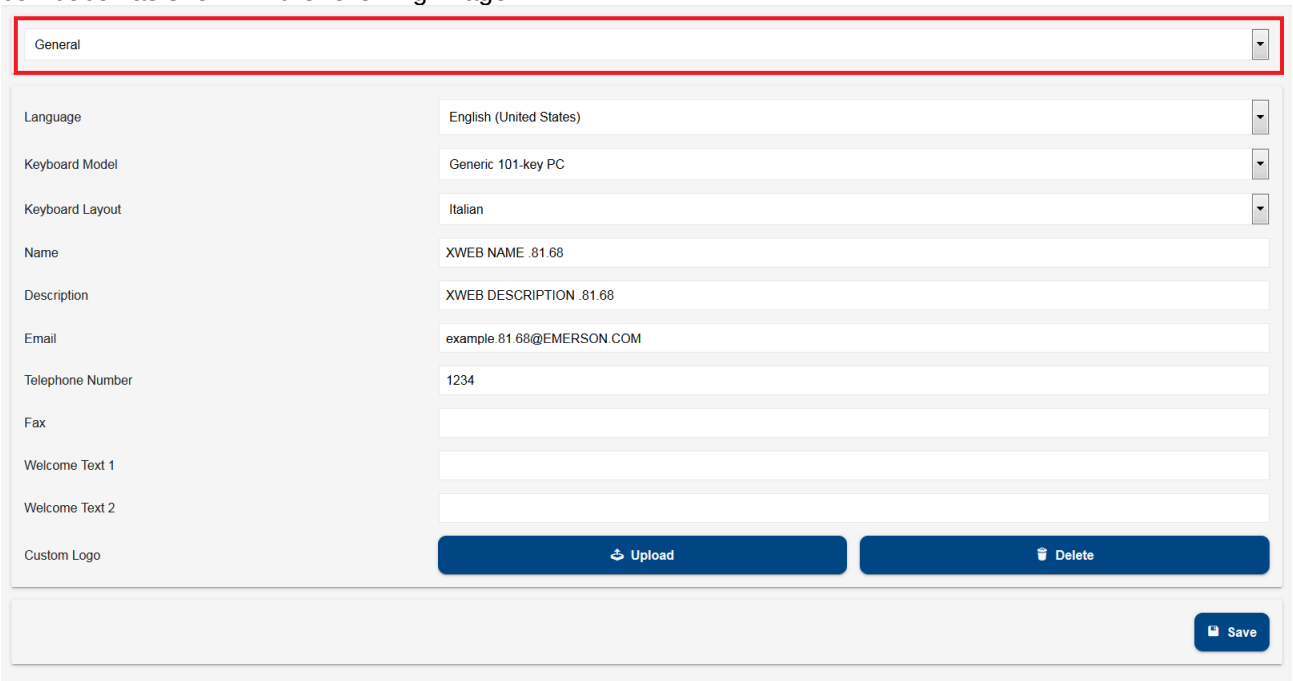
- see user configuration parameters

DESKTOPS section

- see user configuration parameters

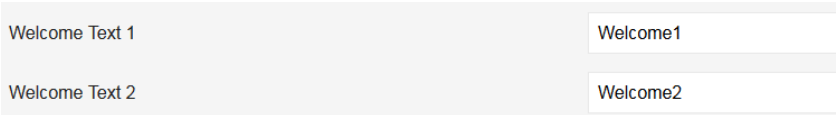
3.2.1.4 SETTINGS

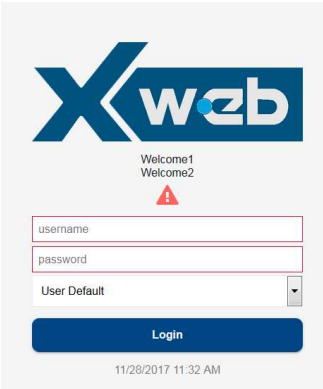
This page configures the system parameters. the page is divided into multiple sections, accessible from the combobox as shown in the following image.



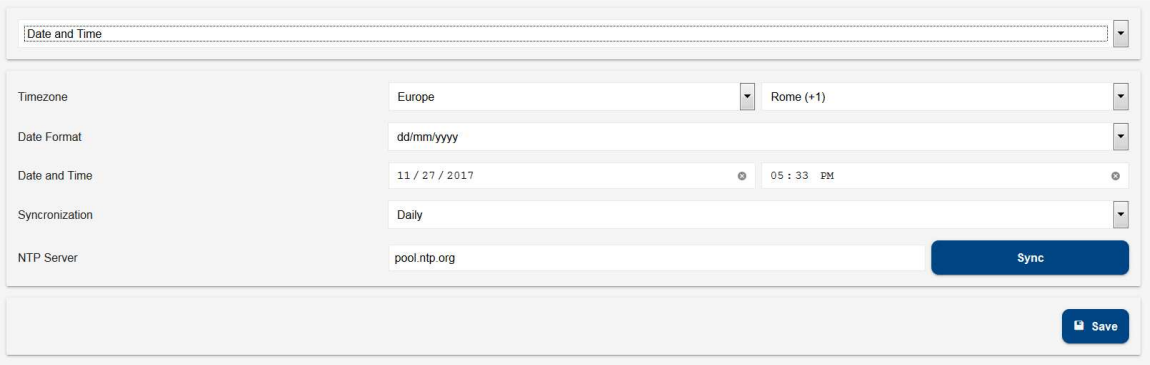
- **GENERAL**

*Language**: System language. It represents the language that the system uses for the parts that do not refer to a user, thus to its language. For example, for system notifications.
*Keyboard Model**: physical format of keyboard connected to XWEB (only for XWEB3000/5000)
*Keyboard Layout**: keyboard language with key format
*Nome**: name of this XWEB. We recommend using an easily recognisable name that distinguishes it from other XWEB, especially if you receive alarm notifications.
Description: description of this XWEB
Email: XWEB email address that will be used as sender
Telephone Number: reference telephone number for the maintenance operations of this XWEB
Fax: reference fax number for the maintenance operations of this XWEB. This number will be used as sender, in case the notifications are configured via fax
Welcome Text 1/2: texts for the login homepage (see image below)



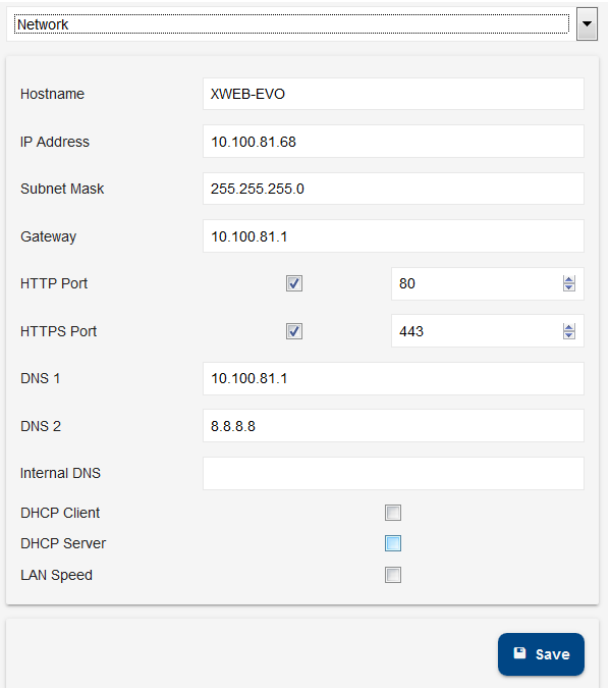


- Date and Time



Configuration parameters of the XWEB time. The time can always be changed by hand; or automatically synchronised with an NTP time-server with a daily/weekly/monthly interval. We recommend using an NTP server that is geographically in your vicinity, for example, in your own country. We recommend asking your network administrator for the name of the NTP server that will be used.

- Network

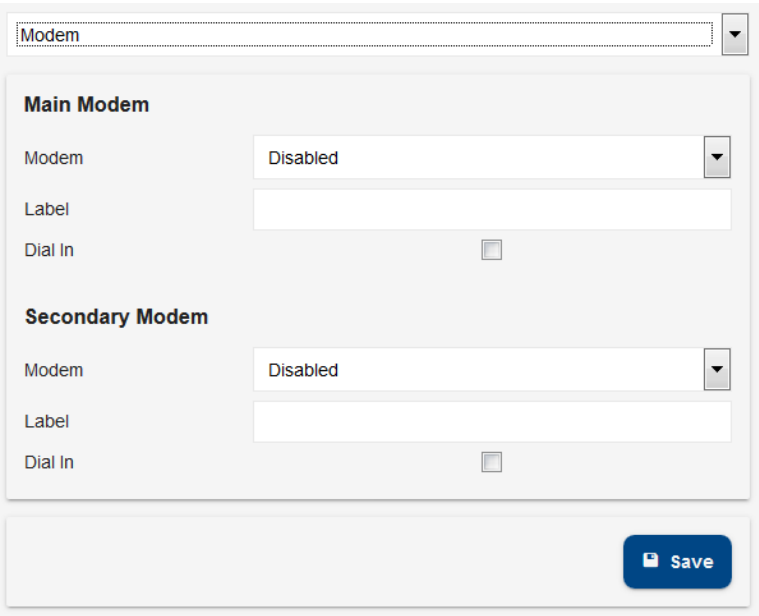


For the XWEB network interface configuration. Normally, these parameters are to be agreed with the network administrator, so it is advisable to contact him/her for guidance and support.

- '*Lan enable*': disable the check to use the XWEB with local interface only (monitor and keyboard). In this way, it will not be possible to access the server by means of the local network or internet. Disabling is not a common procedure: if in doubt, keep this box enabled.
- '*Automatic DHCP*': enable this box if your network provides a DHCP server and if you want it to inform the XWEB regarding which IP to use. Disabling implies that the user configuring the XWEB must explicitly indicate the following parameters:
  - Hostname
  - IP Address
  - IP Mask
  - Gateway IP Address
  - DNS1 IP Address
  - DNS2 IP Address
  - Domain search name/ip address
- '*Hostname*'. Name identifying the machine within the network. Example XWEB0001

- *'IP Address'*: is the unambiguous address used to access XWEB. There are two types of IP addresses: private and public. The first are used when the clients connected to the network must not be externally reachable; a closed environment is created where communication is only enabled between the network PCs. 192.168.x.y is an example of a private address. The public IPs are used when there is need for visibility on the Internet.
- *'IP Mask'*: is a filter that allows for the routing of the packs directly to clients belonging to the subnet mask. For example, a subnet mask 255.255.255.0 enables XWEB to directly reach only the PCs with IP addresses compatible with the mask, with the exception of the last octet. All other requests are routed to the gateway (if present).
- *'Gateway IP'*: The Gateways are devices that handle the routing of the network traffic that is unable to directly reach the destination IP. Example 192.168.0.1
- *'DNS1/DNS2 IP Address'*: In order to reach a web server on the internet, you must enter the name, e.g. www.dixell.com, in the Browser address bar. In fact, following the use of specific communication protocols required to guarantee the efficiency and the safety of the network, the name is converted into a number (the IP address). This operation is performed by a DNS server. The ISP or network administrator can normally provide a DNS server. Example 10.100.1.20
- '*Domain search name/ip address*'. Example MYCOMPANY.COM
- '*2nd web-server port*': is the network port on which the web server is listening. The default port is number 80. However, for some network needs, it may be necessary to change the default port value (port 81 and 8080 may be the values normally used).
- *'Enable local DHCP Server'*: it makes sense to enable this function only if you do not wish to connect the XWEB to a network but only to a PC, where the network interface does not specify an IP. If in doubt, keep this box disabled to avoid network conflicts.
- '*Enable net speed negotiation*': enables the automatic speed adjustment of the board with the network, after a link-down event.

- Modem

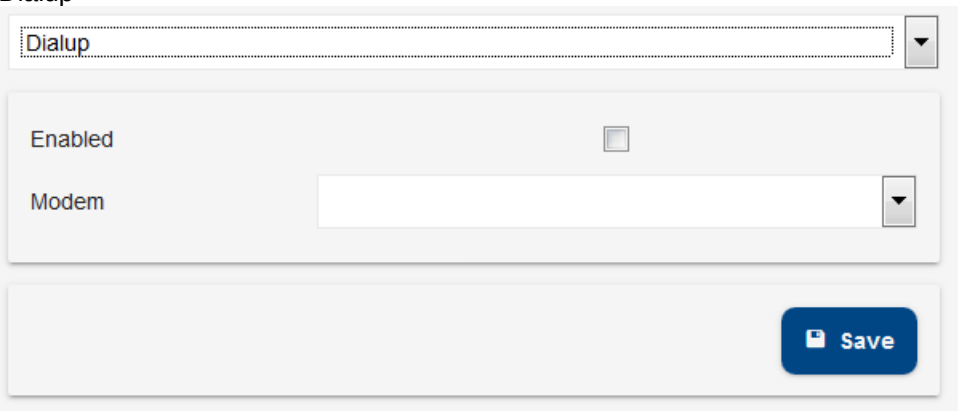


XWEB requires a modem, in some cases, to send emails. In the first case, the system works independently, whilst in the second, it is necessary to configure the dial-up connection (see next point). Attention: only Dixell-approved modems can be used.

The following options are possible:

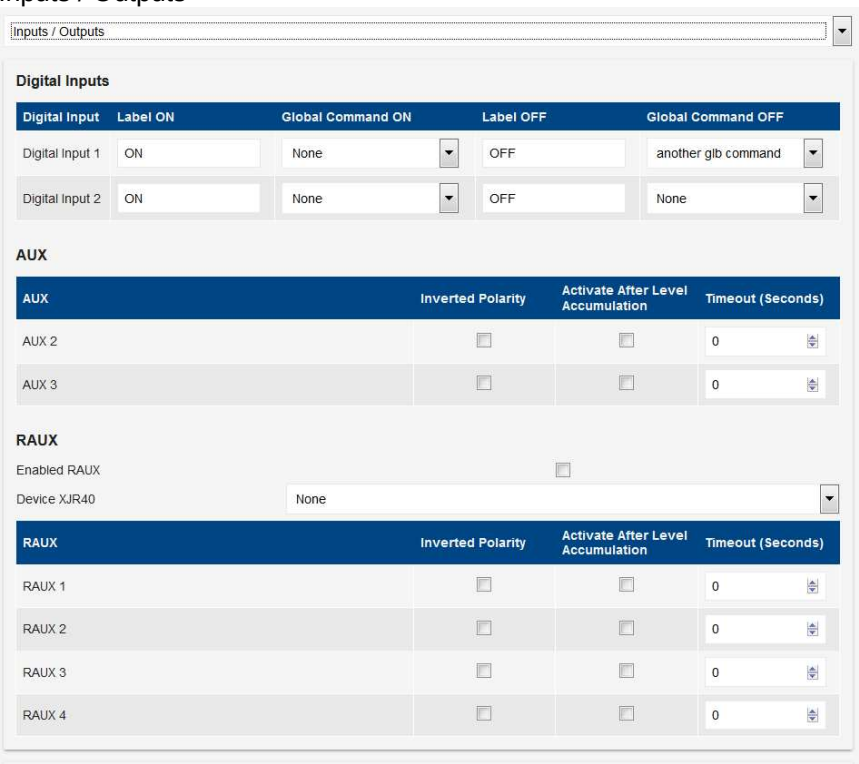
1. Disabled
2. Dixell internal modem. Corresponds to the internal analog modem
3. Dixell external modem. Corresponds to the external modem XWEBMODEM
4. External GPRS/UMTS modem. Corresponds to the TC35-KIT, GT-HE910-EUD-KIT, GT-HE910-NAD-KIT modem
5. Internal GPRS modem. Corresponds to the internal modem.
6. External generic modem.

- Dialup



The configuration of the dial-up parameters is necessary to establish a connection with the internet provider via the modem; for sending emails. This is also useful in cases where the XWEB is connected to the local network via an Ethernet cable yet there is no access to the mail sending server. The configuration parameters are always supplied by the provider; refer to this documentation.

- Inputs / Outputs



- Digital Inputs (only for xweb500 / xweb3000 / xweb5000)

This section is used to configure commands to be sent to the tools configured on the modbus/485 network during the digital input status changes.

- AUX

The boxes set the normal logic for the XWEB AUX relays The disabling of the 'follow alarm delay' box energises the relay in sync with the reading of the alarm status.

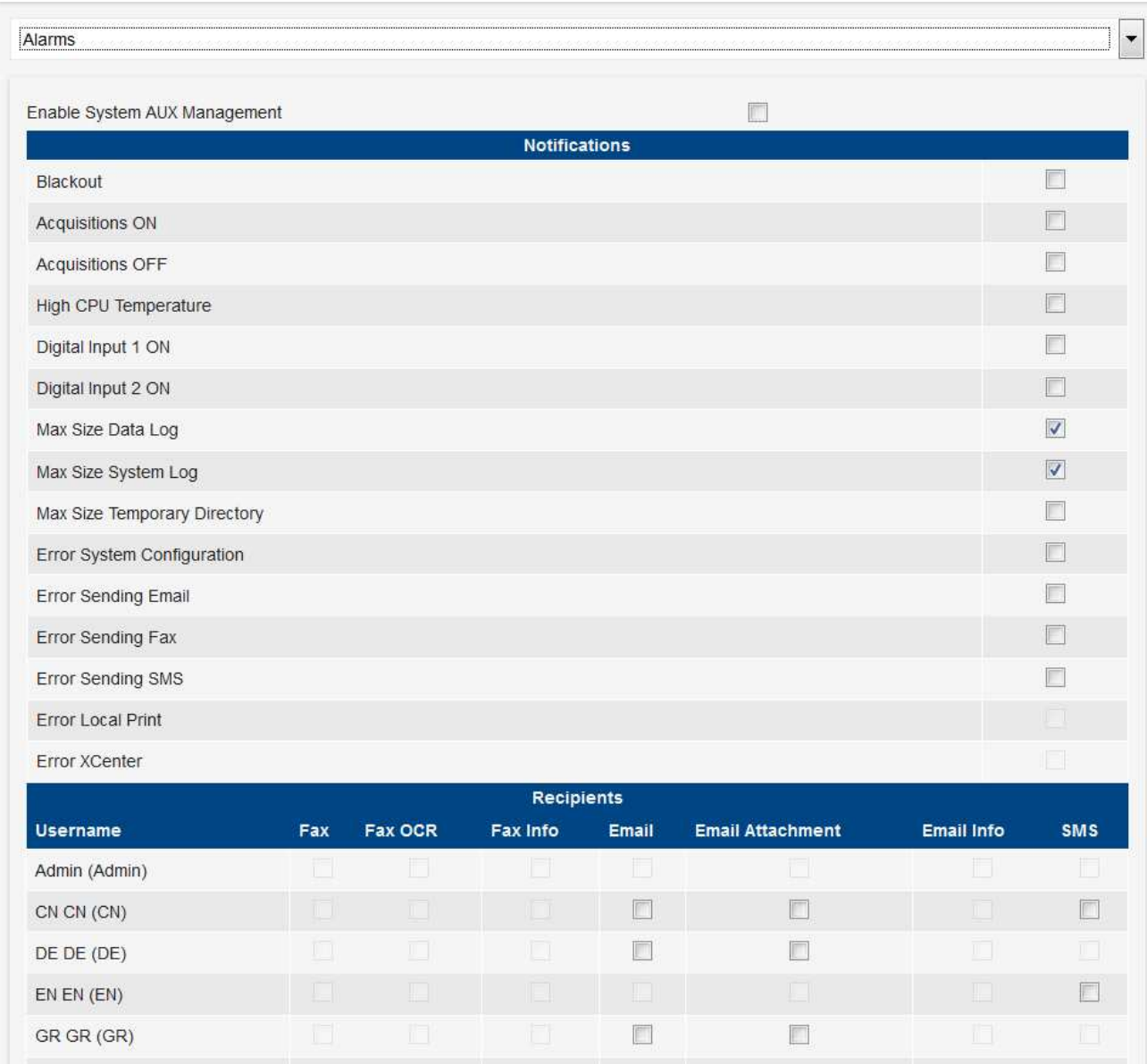
- RAUX

This section is used to configure a possible XJR40D to use it as extension of the XWEB alarm relays.

- Acquisitions

XWEB can be configured so that it automatically starts acquisitions after a given time from when the acquisitions are stopped.

- Alarms



Enable system alarms that must be managed by the system, with notification i.e. via email.
The messages sent by the system are of the same type as those managed by "system messages"
By selecting “Email” + “EMAIL INFO” for the sending, you select the extended email format demonstrated in the image below. The email in the mail client appears as (Outlook 2007):

Xweb EVO nome sistema <example@domain.com> 17:38 (vor 17 Stunden)
an mich

Xweb EVO nome sistema

XWEB EVO descrizione sistema

Evento messaggio di sistema

	Informazioni di sistema:
Data/Ora	Tue Oct 1 17:39:00 2013
Sistema acceso da	5 Ore 54 Minuti
Temperatura Cpu	**86.87 °C**
Carico medio della Cpu	0.44 0.43 0.37
Spazio usato nel disco storici	3%
Spazio usato nel disco log	5%
Spazio usato nel disco temporaneo	1%
Memoria totale disponibile	1619 Mb
Memoria utilizzata	25.92%
Stato acquisizioni	ON da 5 Ore 50 Minuti
Stato relay allarme	OFF da 5 Ore 51 Minuti
Stato relay Aux 2	OFF da 5 Ore 51 Minuti
Stato relay Aux 3	OFF da 5 Ore 51 Minuti
Velocità ventola rack	Bassa velocità da 0 Ore 0 Minuti
Dispositivi a setup	11 Totali 11 Abilitati
Allarmi dispositivi	**3 Totali 3 Notificati**
Errori notifiche	0 0 0 0 0 (mail,fax,sms,print,snmp)
Tempo di ciclo acquisizione	RS485_1: 1 Minuti 7 Secondi (175 48 122 5)
Ingresso digitale 1	-
Ingresso digitale 2	-

The same email in text format can be segmented and the most significant information highlighted in yellow:

```
Date: Tue, 1 Oct 2013 15:38:58 +0000
To: <xyz>
From: Xweb EVO system name <example@domain.com>
Subject: Caution: Cpu HT / Stp
MIME-Version: 1.0
Content-Type: multipart/alternative; boundary="--------40DFF36D5A44ECBC"
Return-Path: example@domain.com
X-OriginalArrivalTime: 01 Oct 2013 15:38:57.0073 (UTC) FILETIME=[5774E210:01CEBEBC]

----------40DFF36D5A44ECBC
Content-Type: text/plain; charset="utf8"
Content-Transfer-Encoding: 8bit

IP:10.100.81.208
GATEWAY:10.100.81.1
EXTERNAL-IP:10.100.81.208
DNS1:10.100.80.20
DNS2:

----------40DFF36D5A44ECBC
```

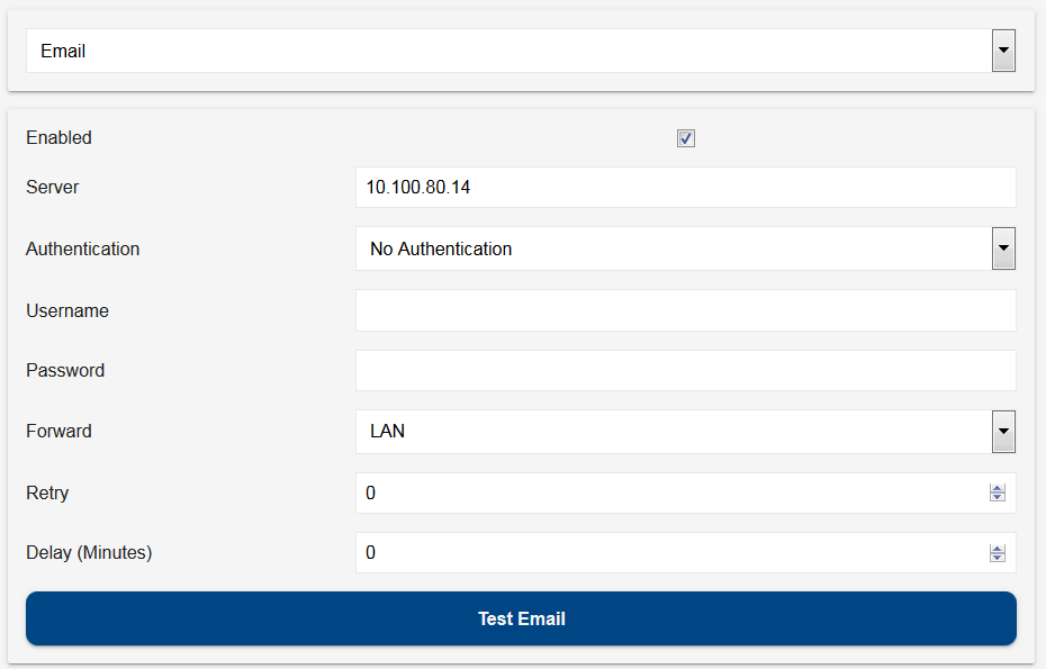
Diminutives errors, of subject

Acq OFF	The acquisitions are stopped.
Cpu HT	High temperature of CPU
Ist LS	History disc space almost exhausted
Log LS	Log disc space almost exhausted
Tmp LS	Temporary disc space almost exhausted.
Eml	Email sending errors
Fax	Fax sending errors
Sms	SMS sending errors
Prn	Print errors
Trap	Trap to xcenter sending errors
Di1	Error from digital input 1
Di2	Error from digital input 2
BlackOut	Return from blackout error
Stp	Evo configuration error.

Other information

```
IP:             => IP Address
GATEWAY:        => Network gateway address.
EXTERNAL-IP:    => (coincides with EVO IP)
DNS1:           => First dns
DNS2:           => Second dns
```

- Email



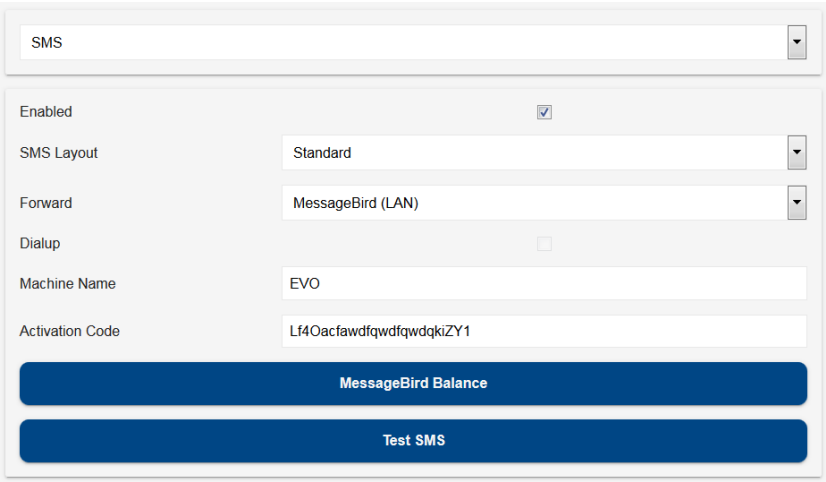
The XWEB is able to send emails, generally to notify updates on the status of alarms. To enable this function, it is necessary to enable the service by completing the configuration. The configuration parameters can be supplied by your internet provider or by your network administrator.

The XWEB supports different types of authentication protocols:

- No authentication
- User/Name normal
- User/Name TLS (without STARTTLS)
- User/Name TLS
- User/Name SSL

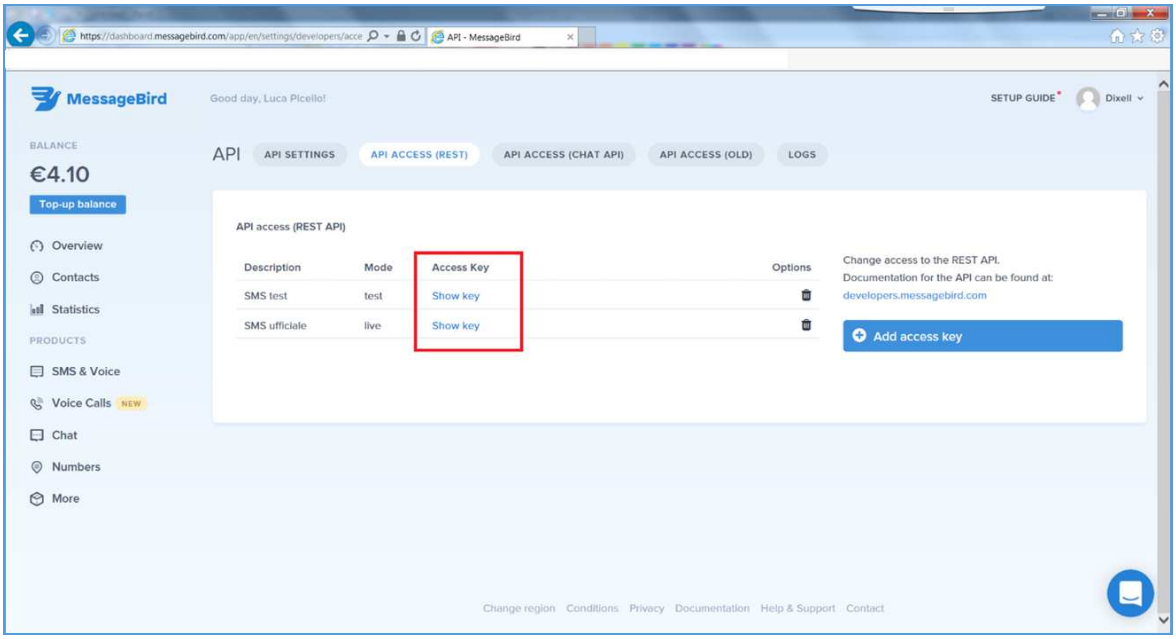
The TLS protocol is associated with ports 25 and 587; the SSL protocol is normally associated with port 465.

- SMS



The XWEB is able to send short text messages via SMS. Various types of services can be used:

- Netech Gateway. Visit the following link: http://www.netech.it/ir_smsalert to configure the SMS. After having completed the online registration form, you will receive an email with an activation code that you must include in the XWEB configuration.
- Via INTERNAL MODEM GSM/GPRS. If your XWEB is equipped with an internal GPRS modem, you will be able to use it to send messages using your phone credit.
- Via Sopen KOREA Gateway. If your XWEB is connected to the internet and you want to send SMS to Korea using the Sopen service (only available in Korea)
- Via RAVEN XE gateway. If you have connected a XE modem raven to the XWEB, you will be able to use it to send messages using your phone credit.
- MESSAGEBIRD: Once registered to the website www.messagebird.com, create the access key to be used in the XWEB EVO configuration. The access key relates to your credit line, from which the cost of each SMS to be sent from XWEB EVO will be downloaded.

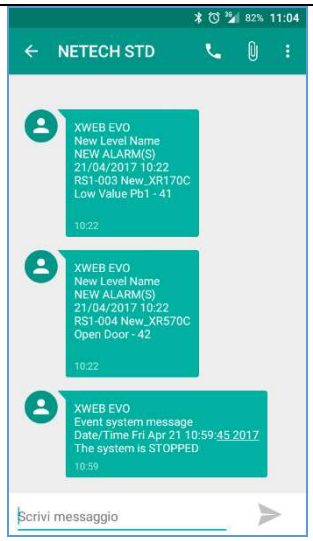
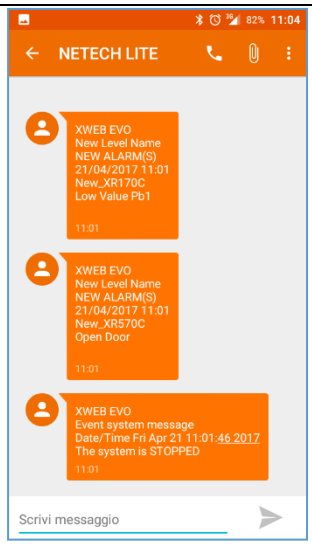


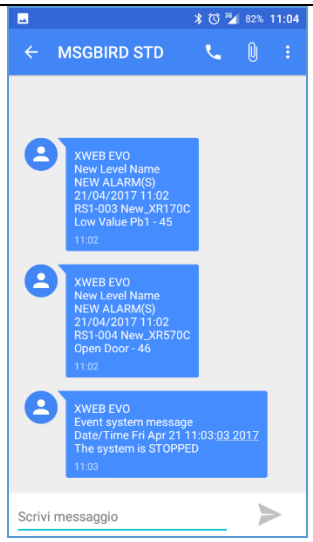
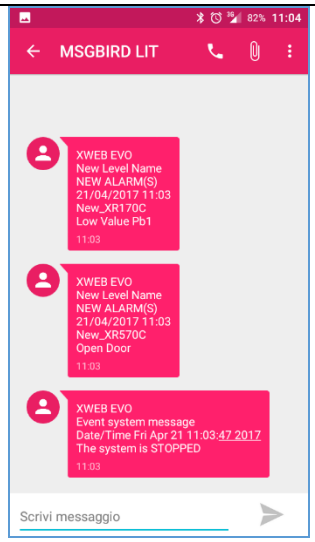
Messagebird supports the sending of text in non-Latin characters

Caution: in order to use the service, always make sure to have sufficient credit for sending sms; from XWEB EVO the credit check is available in the system configuration page: press on “Check current balance”.

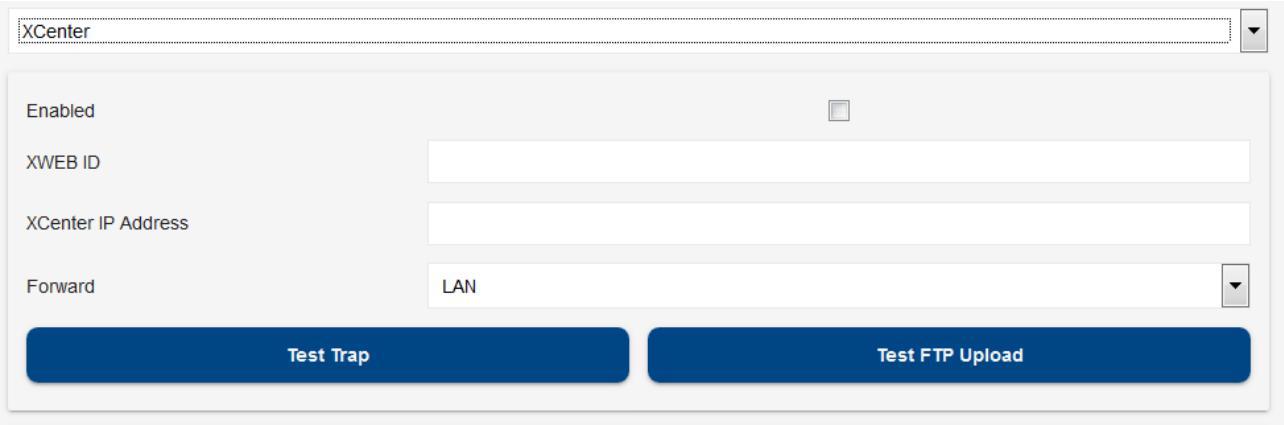
Alarm SMS sending in LIGHT format

In order to make the SMS messages more readable, the SMS format has been extended to the LIGHT option. Thanks to this function, the ModBUS address and the alarm code have been removed to increase the characters available to describe the device.

	STANDARD	LIGHT
NETECH		

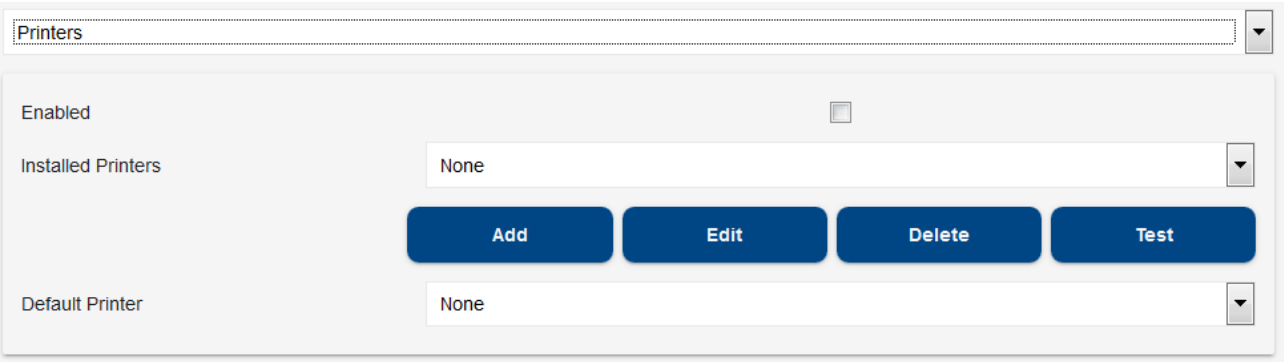
MESSAGEBIRD		

- XCenter



You can configure your XWEB to communicate with the centralised management XCenter system for Call Centers.

- Printers

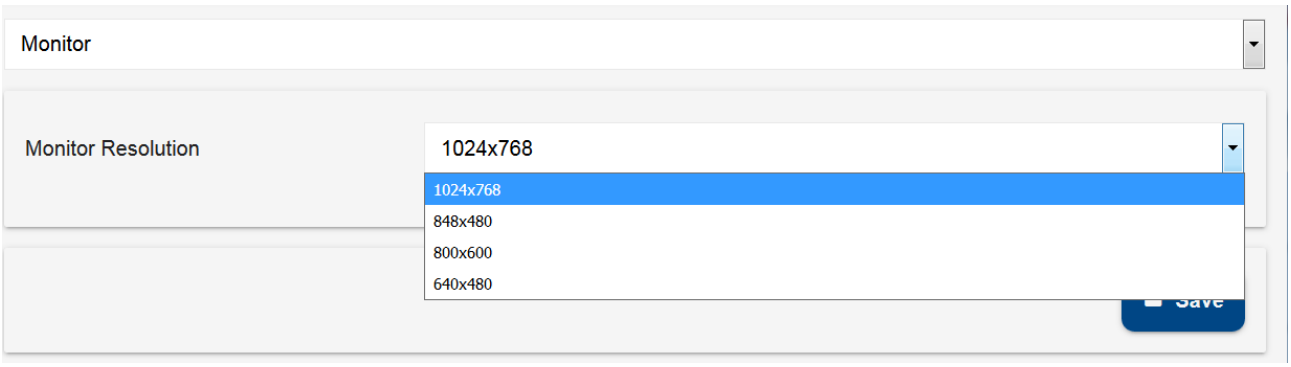


The printer can be connected locally or use a network printer. To obtain a list of tested printers, go to www.dixell.com and visit the XWEB support section or click on the following link: http://www.emersonclimate.com/europe/ProductDocuments/DixellLiterature/PrintersXWEB.pdf

Local printer
Once you have selected the local printer, select the port that the printer is connected to through means of the Local printer list box and then select the correct print driver. If your printer model is not listed, select the model that is most similar in terms of name and presence from the list.

Windows network printer
Once you have selected Windows Network Printer, the system automatically searches for the available network printers. After a few minutes (based on the size/complexity of the network), the full list of printers will appear. If your printer does not appear in the list, it cannot be used; try to repeat the search procedure. After having selected the printer, select the appropriate print driver. If your printer model is not listed, select the model that is most similar in terms of name and presence from the list.

- Monitor



the page allows forcing the resolution for the monitor connected directly to XWEB. The option is only available for XWEB3000/5000.

3.2.1.5 BACKUP

This procedure allows the user to save the system data and/or restore it if required. It is possible to create a backup on the XWEB memory or on the hard disc of the client's PC as well as on storage devices connected via USB. Attention: the USB devices used for restore-backup, must only be inserted before starting such procedures and disconnected when these have been completed. The restore procedure overwrites data memorised on the XWEB. This means that restoring a backup returns the XWEB status to that present on the date when the backup was performed. When clicking on the icon, the user must select which type of operation is to be completed:

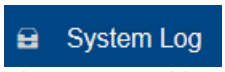
Backup

The procedure allows for the saving of data selected on the device selected in "Destination". The most thorough backup is run by selecting all items. Press "Start backup" to complete the operation.

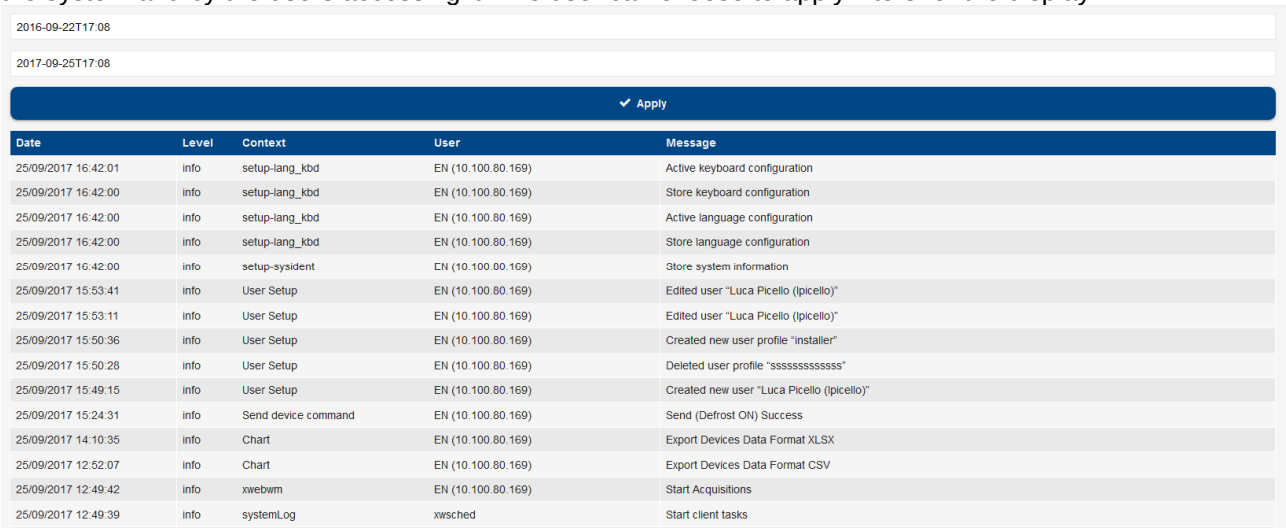
Restore/Upload

The procedure allows for the recovering of data in the XWEB memory. The user must select the backup data source to be restored: The “Evo system backup disk” allows for the uploading of a backup previously run in the XWEB memory; The “Usb connected to evo” enables the recovery of data from the USB device and “Upload backup” allows for the remote uploading of a backup with the browser. Once the data source has been selected, select the data to be recovered from "Section". Press "Start restore" to complete the operation.

3.2.1.6 SYSTEM LOGS

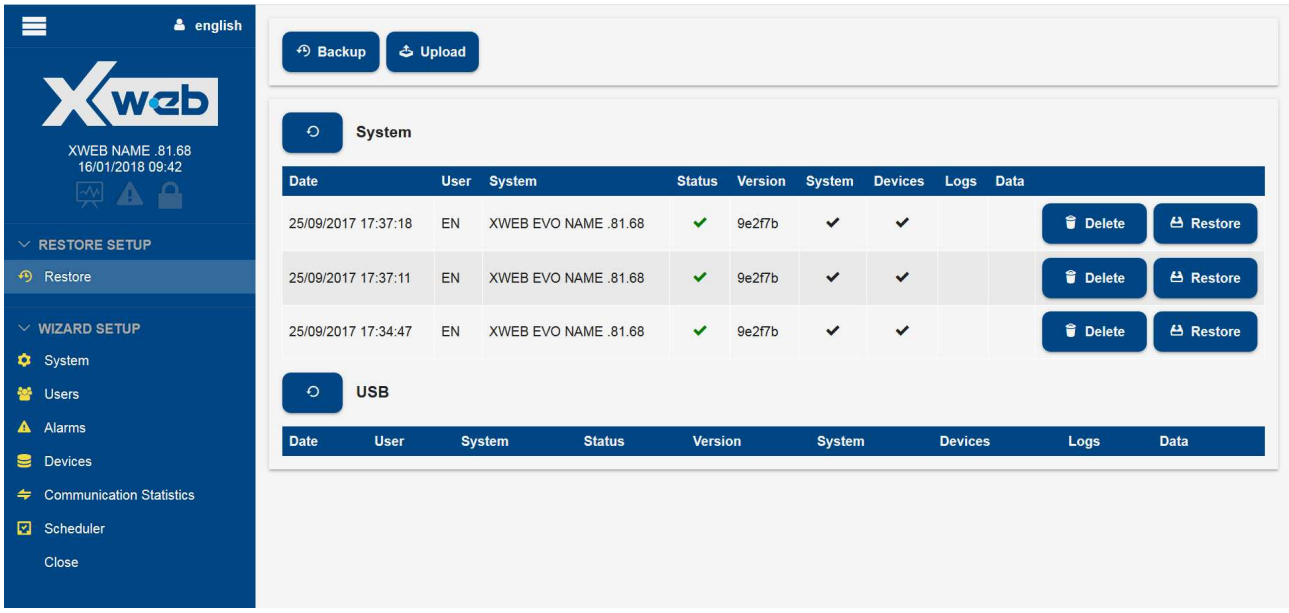


The page enables the user to visualise a list of events describing the most significant actions executed by the system and by the users accessing it. The user can choose to apply filters for the display.



Date	Level	Context	User	Message
25/09/2017 16:42:01	info	setup-lang_kbd	EN (10.100.80.169)	Active keyboard configuration
25/09/2017 16:42:00	info	setup-lang_kbd	EN (10.100.80.169)	Store keyboard configuration
25/09/2017 16:42:00	info	setup-lang_kbd	EN (10.100.80.169)	Active language configuration
25/09/2017 16:42:00	info	setup-lang_kbd	EN (10.100.80.169)	Store language configuration
25/09/2017 16:42:00	info	setup-sysident	EN (10.100.80.169)	Store system information
25/09/2017 15:53:41	info	User Setup	EN (10.100.80.169)	Edited user "Luca Picello (lpicello)"
25/09/2017 15:53:11	info	User Setup	EN (10.100.80.169)	Edited user "Luca Picello (lpicello)"
25/09/2017 15:50:36	info	User Setup	EN (10.100.80.169)	Created new user profile "installer"
25/09/2017 15:50:28	info	User Setup	EN (10.100.80.169)	Deleted user profile "ssssssssssss"
25/09/2017 15:49:15	info	User Setup	EN (10.100.80.169)	Created new user "Luca Picello (lpicello)"
25/09/2017 15:24:31	info	Send device command	EN (10.100.80.169)	Send (Defrost ON) Success
25/09/2017 14:10:35	info	Chart	EN (10.100.80.169)	Export Devices Data Format XLSX
25/09/2017 12:52:07	info	Chart	EN (10.100.80.169)	Export Devices Data Format CSV
25/09/2017 12:49:42	info	xwebwm	EN (10.100.80.169)	Start Acquisitions
25/09/2017 12:49:39	info	systemLog	xwsched	Start client tasks

3.2.1.7 WIZARD SETUP



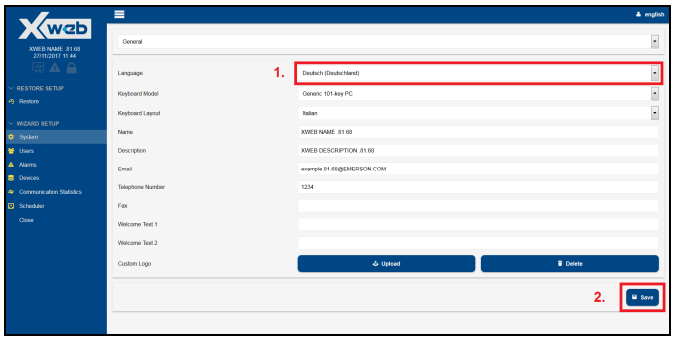
3.2.1.8 RESTORE SETUP

The user can configure the piece starting from a backup file previously executed with XWEB. Restore can be carried out from files in the same XWEB system or present in other media accessible to the browser (typically a USB stick or PC folder or network server).

3.2.1.9 WIZARD SETUP

The user can configure the piece starting from the XWEB default configuration. The main parameters of the same configuration can be seen and modified by scrolling the sections of the “wizard setup” menu; when modified, press the “Save” key to save it in the xweb memory.

The following image shows the sequence of operations to be performed before being able to change page; the page change is made by either changing the section from the WIZARD SETUP menu or by changing the section from the SYSTEM page combobox.



3.2.1.10 REBOOT

To reboot the machine software. Rebooting is useful to qualified personnel only, such as the customer support team. To perform this operation the user needs to confirm it by entering the password again.

3.2.1.11 SHUTDOWN

For a complete shutdown of the machine, without reboot. Shut down is useful to qualified personnel only. **!!Warning!!** This operation is not reversible, so **when the machine has been switched off, it will not automatically switch on again** until the machine is powered or the switch-on button is pressed. We recommend disabling this operation for users accessing the system remotely. Rebooting is useful to qualified personnel only, such as the customer support team. To perform this operation the user needs to confirm it by entering the password again.

4. TRADEMARKS

Consider It Solved and Intelligent Store are trademarks and Emerson Climate Technologies and the Emerson Climate Technologies logo are service marks and trademarks of Emerson Electric Co.
Windows and Internet Explorer are registered trademarks of Microsoft Corporation in the United States and other countries.
Oracle and Java are registered trademarks of Oracle and/or its affiliates.
Firefox is a registered trademark of the Mozilla Foundation.
Yahoo! is a registered trademark of Yahoo! Inc.
Linux is a trademark registered to Linus Torvalds.
Other names may be trademarks of their respective owners.

5. FAQS

5.1 MAINTENANCE PROCEDURE FOR XWEB300/500 MODELS

In case you need to disconnect XWEB to move it or to make cleaning, remember that it should not be opened for any reason, under penalty of immediate termination of the guarantee. Please follow the following procedure by observing the shape of the rear panel as per the installation manual. The same is provided in hard copy in the package and in electronic form on the website Dixell to the 'manual'.
Unplug the external modem if present;
Disconnect the telephone line and / or LAN cable;
Disconnect terminals RS485, relays and digital input;
Now you can unplug the power cord and move XWEB;

5.2 MAINTENANCE PROCEDURE FOR XWEB3000/5000 MODELS

Should it be necessary to disconnect the XWEB to move it or for cleaning purposes, remember that it should not be opened for any reason, or the warranty will be deemed invalid. Follow the procedure below, observing the rear panel figure as per the installation manual. The same is provided in paper form in the package and in electronic form on the Dixell website, under section "Manuals".
Press and quickly release the on/off power button (2);
Wait for all LEDs on the front to go off, including the PWR;
Disconnect external modem, if present (7);
Disconnect parallel printer or USB (6);
Disconnect monitor, keyboard and mouse (5);
Disconnect the telephone line and/or LAN network cable(4);
Disconnect RS485 terminals, relay and digital input (3)
Now disconnect the power supply cable (1) and move the XWEB;

Press and hold button (2) to force the instant switch-off of the system. When switch-off occurs in this way, the XWEB records the event, but cannot guarantee the correct data maintenance. The same applies for "forced" switch-offs which occur when the power supply cable is disconnected before the system is switched off.

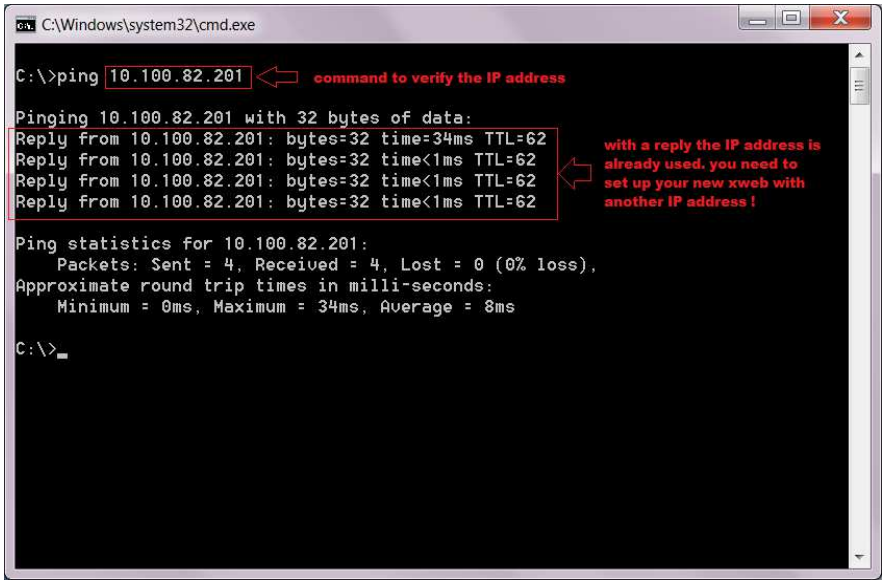
5.3 I CANNOT ACCESS THE SYSTEM WITH MY PASSWORD

Check upper and lower case. The XWEB system is sensitive to the letter case.

5.4 MY BROWSER CANNOT REACH THE XWEB

Check the cables in use starting from that connected to your PC's network. Once the cables have been checked, check that the XWEB IP address can be reached: run the PING command from the command line to verify the correct routing of the packs on the network.

Example:

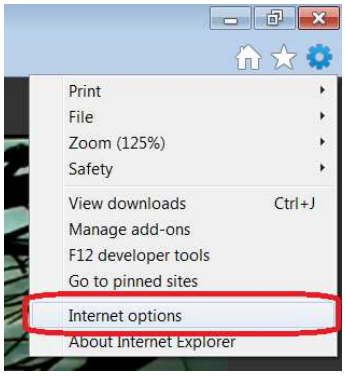


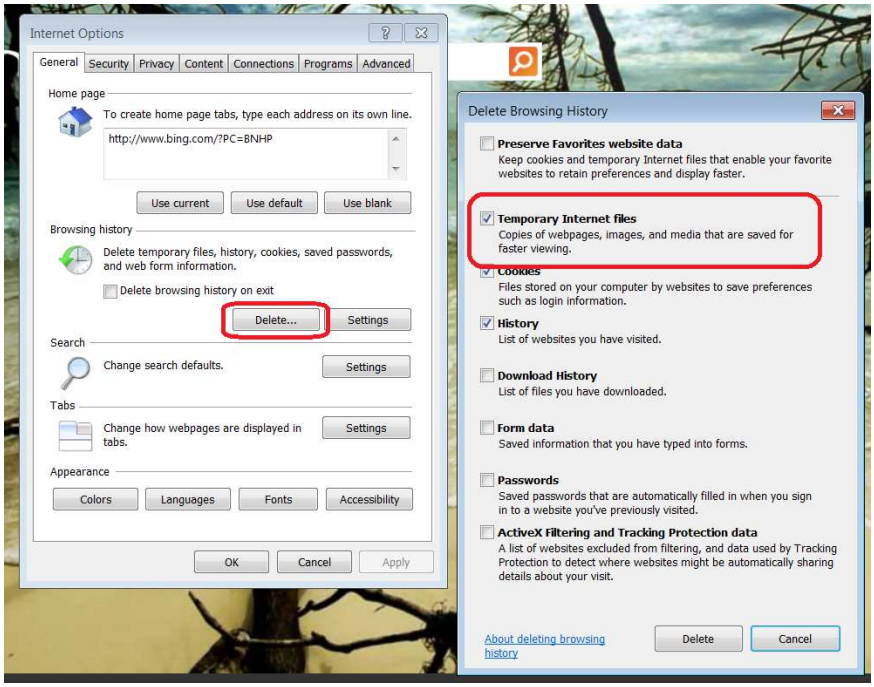
If no reply is received, your PC is unable to communicate with the XWEB. Check the cables once again or contact your network administrator. Attention, if a reply is received, it may not come from the XWEB: it may come from another device on the network. Also in this case, should you continue to have difficulties accessing via your browser, contact your network administrator for advice.

5.5 DISPLAYING OF INCOMPLETE OR INCORRECT PAGES FROM PC

The temporary browser files, also known by the name cache-files, may sometimes prevent proper use of the XWEB. This happens when, for example, an XWEB is replaced and is accessed remotely using the same web address.
To solve this problem, delete these temporary files from your computer. Their deletion may vary depending on your operating system and its settings. Refer to your PC/tablet documentation and/or obtain the support of a computer expert or your network administrator.

- Below, the procedure for removing the cache from INTERNET EXPLORER 9:





5.6 SOMEONE HAS RECEIVED A CONFLICTING MESSAGE ON THE IP ADDRESS

This may mean that the XWEB is using an IP address that is also being engaged by another network resource. We recommend changing the XWEB IP with a new, free address. If in doubt on which address to use, contact your network administrator.

5.7 HOW MANY CONTROLLERS CAN THE XWEB MANAGE

The XWEB300/500 can manage only one RS485 serial line, which can address up to a maximum of 247 controllers. The maximum number of devices that can used depends instead on the model purchased; for example, models XWEB300D can handle up to18 addresses, while the XWEB500 can handle up to 100 addresses.

The XWEB3000/5000 can manage two separate RS485 serial lines simultaneously, for each of which it can address up to a maximum of 247 controllers. Therefore it can address up to 494 controllers on serial 485 in a Modbus-RTU network.

5.8 HOW THE ALARMS ARE MANAGED

The XWEB monitors the alarm statuses and notifies any variations according to a configuration that must be set by the user. The person configuring the XWEB must perform the following steps in order to obtain a complete configuration:
System. The XWEB system anticipates that all notifications to an external media source (e.g. an email server) are configured in the system settings.
Book. All recipients of the alarm notifications must be recorded in the system and must have their Email/fax contact details, or other, configured.
Controllers It is necessary to define the controller network from which the XWEB will detect the alarm status of the same controllers.
Alarms. It is necessary to define the rules according to which the detected alarms must be notified. The alarms are grouped into alarm-categories that define how the alarm must be treated and to whom and how they must be notified. This information is defined on levels (aka. delivery settings).

5.9 HOW ARE THE ALARM EMAILS RE-SENT

The XWEB is often installed to notify alarms via email. This service can be configured in various ways to re-send emails, should the alarm conditions persist over time:

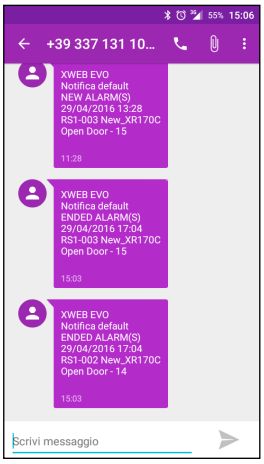
1. The first type of re-send is carried out during the lifespan of the level, where the emails are always re-sent to the same recipients. The parameters affecting this type of re-send are "Resend Time" and "Resend life time", in the level settings.
2. the second type of re-send is carried out through means of an increasing notification level and the consequent notification being sent to a new group of recipients. The parameters affecting this type of re-send are the entry order in the levels in the category parameters (see image below) and the "Resend life time" in level settings.
3. the third type of re-send is carried out through means of an increasing notification interface and the consequent routing of email notifications on its media. This means that should the emails via the LAN interface fail to send, it is possible to manage their re-sending via a DIAL-UP (modem). The parameters affecting this type of notification are illustrated in the following image taken from the System configuration parameter email section.

5.10 TABLETS / PDA COMPATIBILITY

The XWEB user interface is normally accessible via 10” tablet web browser. The HTML pages are re-sized according to the size of the screen. However, on smaller screens with low resolution, the pages are all usable.

5.11 HOW SMS ALARM NOTIFICATIONS APPEAR

When XWEB EVO detects an alarm from the devices network, if configured for SMS notifications it sends them with the following text (example):



which lists information about:

- XWEB name
- Notification level name
- Alarm START/END type
- Event DATE/HOUR
- Device name
- Alarm name
- Unique ID of the alarm as in the xweb Alarm Log

5.12 MODEM ERROR MESSAGES

In the “system log” associated with the message “Error sending SMS” there is an error code that you can see keeping the mouse still over the message.

+Send message using physical device GSM connected to the physical serial device
+----------
+1 => (GSM) Unable to get evo model from xwebconfig.json
+2 => (GSM) No gsm support configured
+3 => (GSM) Unknown modem specified (internal/external)
+4 => (GSM) Waiting registration to the network: Error write command to device modem.
+5 => (GSM) Timeout network registration.
+6 => (GSM) Error exec fork() to run xwgsmsms module.
+7 => (GSM) Timeout waiting end xwgsmsms module (20 Seconds).
+8 => (GSM) Child xwgsmsms module dead itself.
+9 => (GSM) nu.
+10=> (GSM) [xwgsmsms] => Invalid parameters passed
+11=> (GSM) [xwgsmsms] => No destination number or device specified.
+12=> (GSM) [xwgsmsms] => No SMS text provided.
+13=> (GSM) [xwgsmsms] => Unable to open device modem.
+14=> (GSM) [xwgsmsms] => Error on read modem received messages.
+15=> (GSM) [xwgsmsms] => [send parth message] => Error init modem.
+16=> (GSM) [xwgsmsms] => [send parth message] => Error reinit modem after try send message.
+17=> (GSM) [xwgsmsms] => [send parth message] => Error send sms rich last retry.

+Send message using physical device RAVEN connected to the network
+----------
+30=> (RAVEN) Generic error.
+31=> (RAVEN) Port selected out of range.
+32=> (RAVEN) Timeout waiting socket raven respons.
+33=> (RAVEN) Error send socket data to raven.
+34=> (RAVEN) Connect error to raved network device.
+35=> (RAVEN) Error on set socket options.
+36=> (RAVEN) Error create socket.
+37...=> (RAVEN) Error received from raven (trught socket). Raven result = THIS_VALUE - 37

+Send message using network gateway netech.it
+----------
+50=> (NETECH) Error on provided 'dest number' or 'dest message' or 'service code subscription'
+51=> (NETECH) Can't resolve the gateway address.
+52=> (NETECH) Error on create socket.

+53=> (NETECH) Error on set socket options.
+54=> (NETECH) Error connect to netech server.
+55=> (NETECH) Error write socket data (to the netech server).
+56=> (NETECH) Error receive response data from the server.
+57=> (NETECH) The netech server report a error on request send sms (subscription expired/invalid ?).
+58=> (NETECH) The netech server have close the connection.

+Send message using network gateway soap
+----------
+70=> (SOAP) Error encoding message (EncodeKr).
+71=> (SOAP) Send message to the gateway.
+75...=> (SOAP) Error reported by SOAP gateway. Soap result = THIS_VALUE - 75

NOTES

DIXELL™ EMERSON™

Dixell S.r.l. - Z.I. Via dell'Industria, 27 - 32016 Alpago (BL) ITALY
Tel. +39.0437.9833 r.a. - Fax +39.0437.989313 - EmersonClimate.com/Dixell - dixell@emerson.com