

LocalWEB

Monitoring System
Operator Manual

CONTENT

1	General	3
2	Datalogger Connection	3
3	Operator WEB Interface	4
3.1	<i>Interface</i>	5
3.1.1	Interface on Large Screen Devices	5
3.1.2	Interface Management on Middle Screen Devices.	5
3.1.3	Interface Management on Small Screen Devices	8
3.2	<i>Display of Data Received from Logger</i>	8
3.2.1	Groups	8
3.2.2	Charts	10
3.2.3	Tables	15
3.2.4	Control	18
3.3	<i>Technological Log</i>	20
3.4	<i>User Event Log</i>	22
3.5	<i>Reporting</i>	24
3.6	<i>User Change</i>	26
3.7	<i>Changing Interface Language</i>	26
3.8	<i>Application Current Status</i>	27
4	Alarms and Warnings	28

1 General

The LocalWEB application is located in the memory of the Datalogger-Webserver manufactured by TERA.

The application allows you to monitor technological processes at remote sites in real time, as well as view archived data and generate reports for a selected period. The application generates warnings and messages about accidents and sends them to the selected communication channels.

Communication with the Datalogger-Webserver can be provided both through the local area network (Ethernet) and through the global network (Internet), which allows you to control processes both from the operator's room and from anywhere in the world.

Several devices (probes, transducers, or controllers) can be connected to the Datalogger-Webserver at the same time, each of which can transmit its parameters to the Datalogger. Devices can be connected both via wired communication lines and wirelessly. The Datalogger-Webserver supports the simultaneous processing of up to 1000 parameters, but the data storage time in the Datalogger's memory depends on the number of parameters - the more parameters are archived, the shorter the archive update time.

The application has a flexible system for delimiting user rights. It supports simultaneous connection with several users.

This document is an operator manual. See the administrator's manual for information on setting up the application.

2 Datalogger Connection

The Datalogger-Webserver has a fixed URL indicated on its enclosure (id1). You can connect to it from any device with Internet access: PC, tablet, smartphone. A QR code is also shown on the recorder's case, after scanning the connection to the Datalogger at the URL occurs automatically.

If the Datalogger-Webserver does not have Internet access, then use the device address on the local network (id2) for connection.

In addition, the Datalogger is a Wi-Fi access point. Its Wi-Fi network name (SSID) and password (Password) are also indicated on the device.

To connect to the Datalogger-Webserver, go to its URL in the standard browser (Google Chrome is recommended) (Fig. 1).



Figure 1. Go to Data Logger URL

Attention! The first application download to the device takes up to 60 seconds (depending on the speed of the Internet connection). The following downloads are faster because the data is already stored in the browser cache.

After connecting to the data logger, a "Sign In" Form will appear in the browser (Fig. 2).

The image shows a web login interface for 'LOCALWEB'. At the top, the text 'LOCALWEB' is displayed in blue. Below it, a green banner contains the text 'Sign in to Local-WEB'. The main form area is white and contains two input fields. The first field is labeled 'Username or e-mail' and contains the text 'User'. The second field is labeled 'Password' and contains four dots. Below the input fields is a blue button labeled 'Login'.

Figure 2. "Sign In" Form

The data logger factory settings provide only one user (login **User**, password **User**). This user is assigned to **Operator** and he has minimal rights. The system administrator can add new users and give them additional rights necessary for work.

Enter the username and password. The operator WEB interface will appear on the screen.

3 Operator WEB Interface

The main part of the screen is occupied by data received from the logger. Data display is described in section 3.2 of this manual.

The screen also contains interface controls.

Interface controls are divided into functional groups:

- A – selection of data display form (graph, table, control);
- B – tools for viewing the event log and creating reports;
- C – sign of active alarms and warnings;
- D – choice of interface language, user change;
- E – application status information.

The application interface depends on the device screen resolution.

3.1 Interface

3.1.1 Interface on Large Screen Devices



Figure 3. Interface elements on a large screen (PC)

On devices with a large screen (PC), the menu for selecting data display form (A) is located in the upper left part of the screen.

Signs of active alarms and warnings are placed under it (C).

Tools for viewing event logs and creating reports are located at the upper left of the screen (B).

The choice of interface language and user change are located in the upper right part of the screen (D).

Application status information is located at the bottom left (E).

3.1.2 Interface Management on Middle Screen Devices.

On devices with a middle screen (tablet), the menu for selecting the data display form (A) pops up on the left when you click on the icon located in the upper right part of the screen. This menu is hidden by clicking on the same icon or by clicking on the arrow at the top of the pop-up menu.

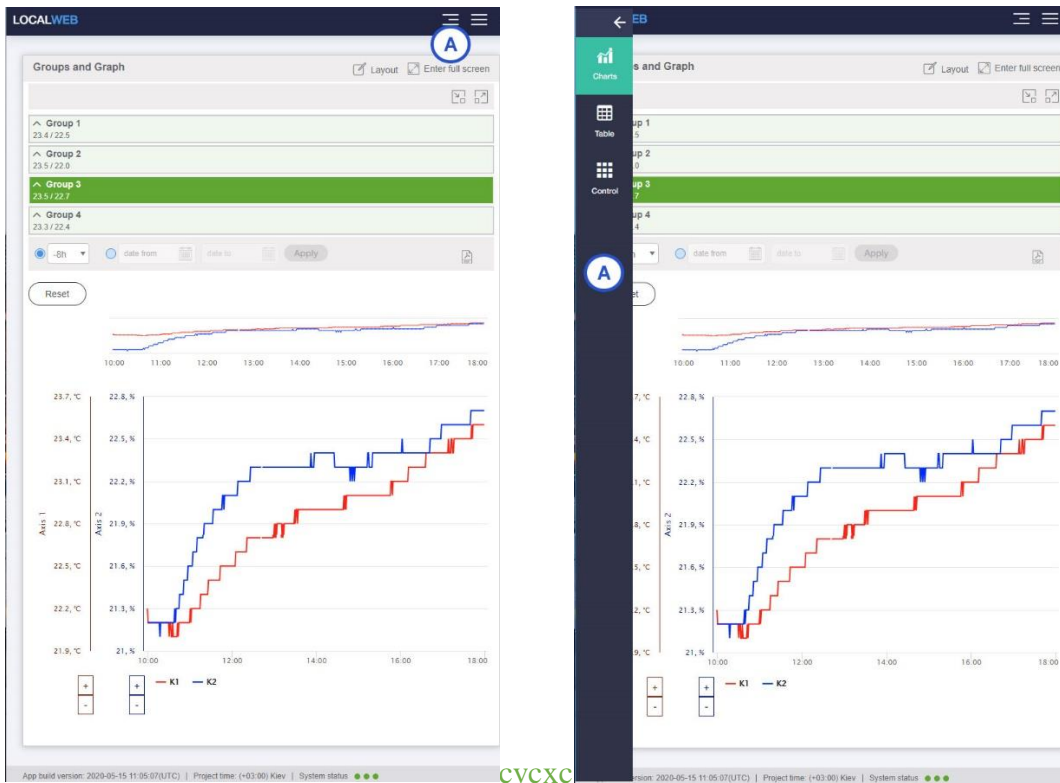


Figure 4. Switching the data display forms on a middle screen (tablet)

A menu of tools for viewing event logs and creating reports (B) pops up on the right when you click on the icon located in the upper right part of the screen. This menu is hidden by clicking on the arrow at the top of the pop-up menu.

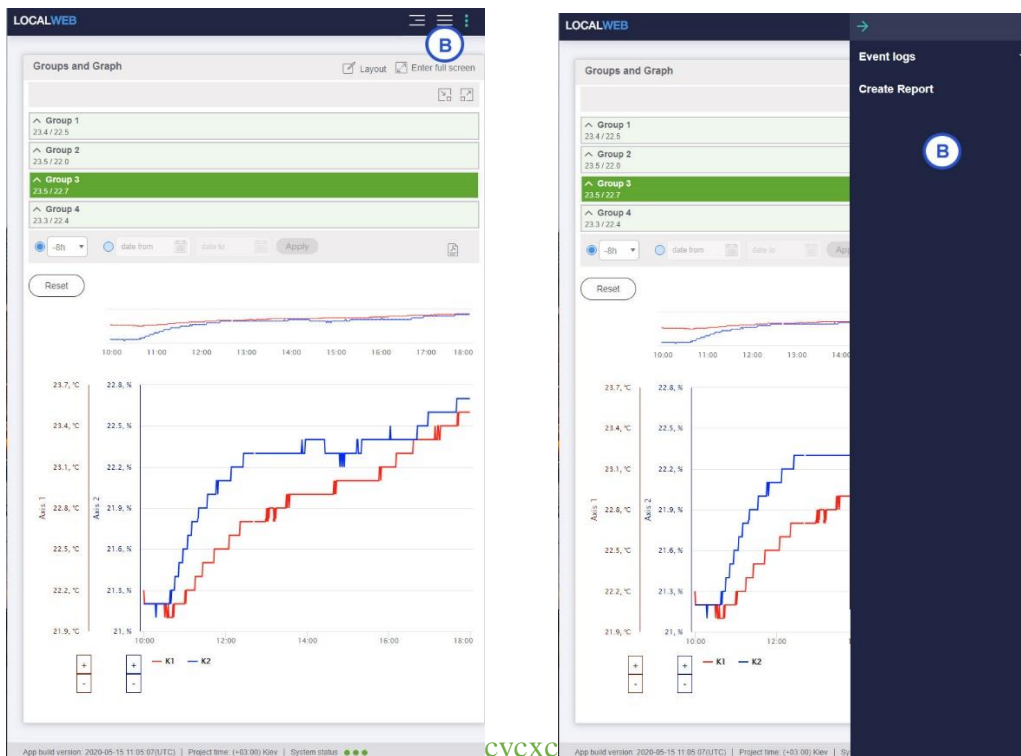


Figure 5. Calling the menu to view the event log and create reports on a middle screen (tablet)

The menu for selecting the interface language and changing the user (D) pops up from the top when you click on the icon located in the upper right part of the screen. This menu is hidden by clicking on the same icon.

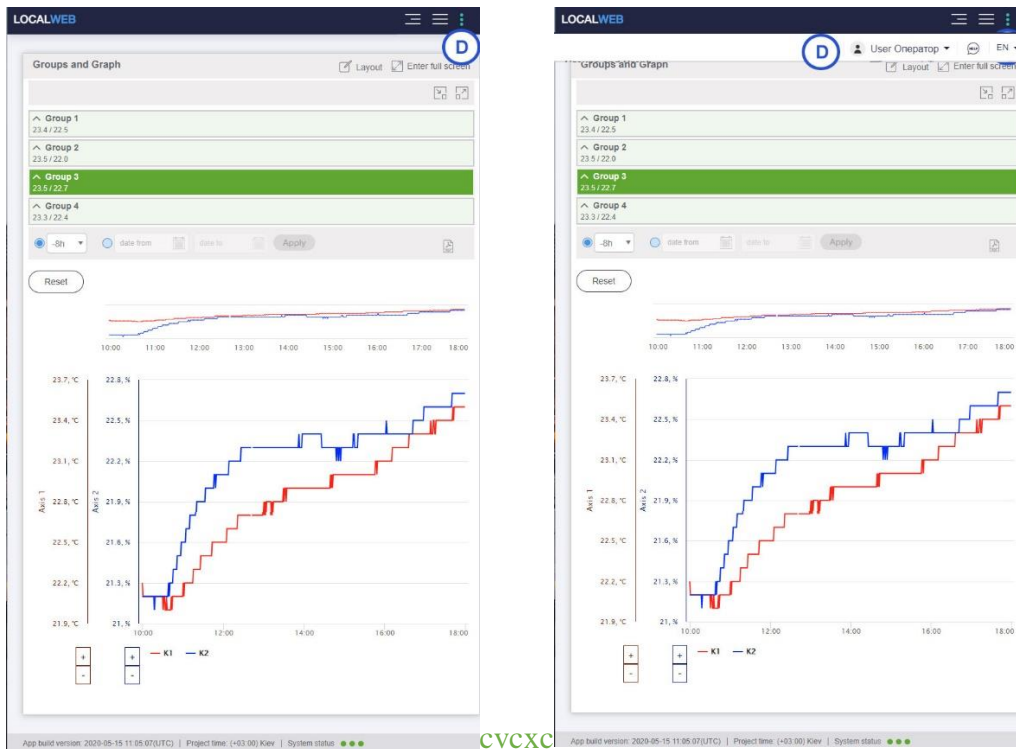


Figure 6. Selecting the interface language and changing the user on a middle screen (tablet)

Signs of active alarms and warnings are located at the top of the screen (C). Application status information is located at the bottom of the screen (E).

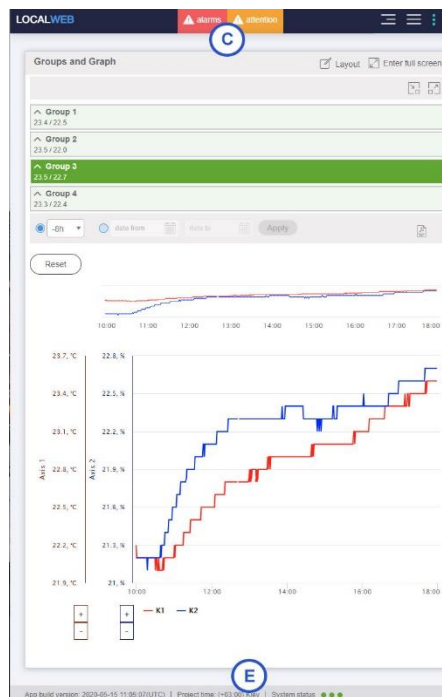


Figure 7. Displaying active alarms on a middle screen (tablet)

3.1.3 Interface Management on Small Screen Devices

The ability to control the interface and view data on devices with a small screen is limited. There are no opportunities to view graphs and tables, process control and reporting. The user can only see the current probe readings and alarms.

The menu for selecting the interface language and changing the user (D) pops up from the top when you click on the icon located in the upper right part of the screen. This menu is hidden by clicking on the same icon.

Signs of active alarms and warnings are located at the top of the screen (C).

Application status information is located at the bottom of the screen (E).



Figure 8. Displaying active alarms on a small screen (smartphone)

3.2 Display of Data Received from Logger

3.2.1 Groups

The current data received from the logger is divided into groups. This manual describes a demo project that contains 4 groups, in each group - 2 parameters.



Figure 9. Data Groups

The data status in the group is indicated by color. The green highlight of the group indicates the absence of alarms; the red highlight means active alarms. A yellow highlight of the group is also possible if there is a warning. The value that generated the alarm is highlighted in red inside the group. The value that generated the warning is highlighted in dark yellow inside the group.

<div style="display: flex; justify-content: space-between; align-items: center;"> Group 1 ✎ </div> <div style="margin-left: 20px;"> <p>K1 23.8 °C</p> <p>K2 22.7 %</p> <p>Show all group data</p> </div>
<div style="display: flex; justify-content: space-between; align-items: center;"> Group 2 ✎ </div> <div style="margin-left: 20px;"> <p>K1 24.0 °C</p> <p>K2 22.1 %</p> <p>Show all group data</p> </div>
<div style="display: flex; justify-content: space-between; align-items: center;"> Group 3 ✎ </div> <div style="margin-left: 20px;"> <p>K1 24.0 °C</p> <p>K2 22.9 %</p> <p>Show all group data</p> </div>
<div style="display: flex; justify-content: space-between; align-items: center;"> Group 4 ✎ </div> <div style="margin-left: 20px;"> <p>K1 23.7 °C</p> <p>K2 22.6 %</p> <p>Show all group data</p> </div>

Figure 10. Alarm Group Highlight

The icon to the left of the group title is used to minimize or expand the group.



Figure 11. Minimized Groups

In minimized groups, the current values of the first four parameters are listed with the / separator under the title. Alarm highlight of minimized groups works the same as for expanded groups. If the number of parameters in the group is less than four, current values of all parameters from the group are displayed.

There are two icons above all the groups that allow you to expand and minimize all groups at once with one click.

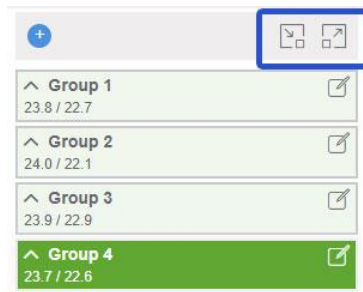


Figure 12. Buttons for expanding and minimizing all groups simultaneously

Groups are used to select the displayed graphs and tables. To select a group, click on its title. The active group is highlighted in saturated color.

3.2.2 Charts

Charts are displayed in the central part of the screen when the charts data display form is selected.



Figure 13. Displaying Chart Data

When you hover over any point on the chart, a pop-up window appears showing the parameter value and time.

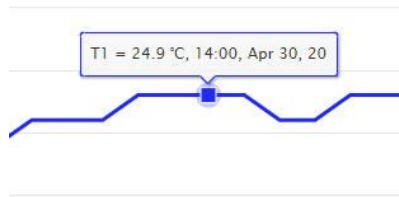


Figure 14. Displaying Parametr Value on the Chart

There is the *Layout* icon at the top right. It allows you to change the type of the *Groups and Charts* tab.

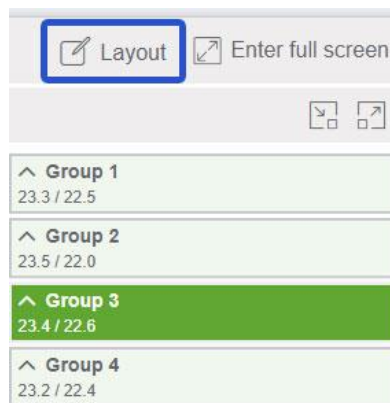


Figure 15. Icon for selecting a type of *Groups and Charts* tab

After clicking on this icon, a selection window appears.

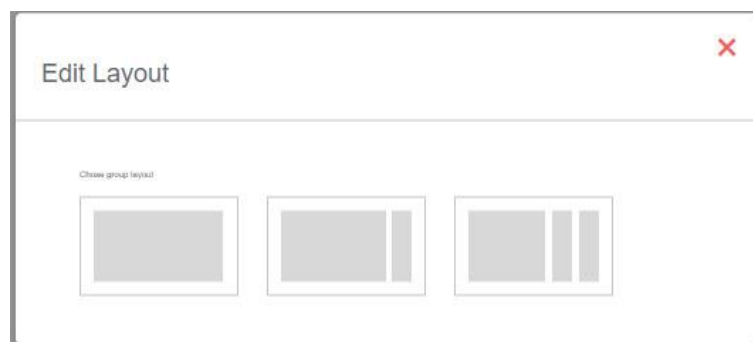


Figure 16. Selecting a type of *Groups and Charts* tab

The user has the opportunity to choose one of the types:

- show only charts, do not show groups;
- show charts and groups placed in one column;
- show charts and groups placed in two columns. After selecting this view, part of the groups should be dragged with the mouse to the right column.

There is the *Enter Full Screen* icon at the top right.

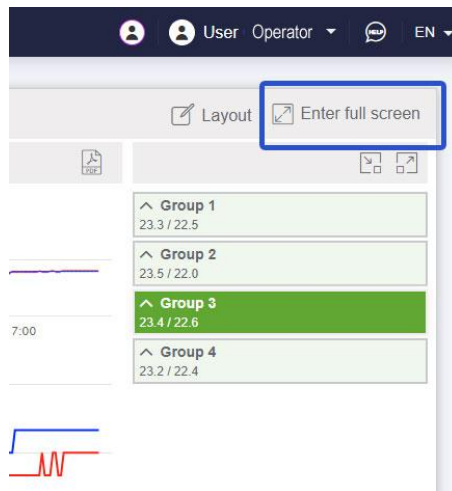


Figure 17. Selecting Full Screen Mode

After clicking on this icon, the *Groups and Charts* tab expands to the full screen, all menu items are not visible.

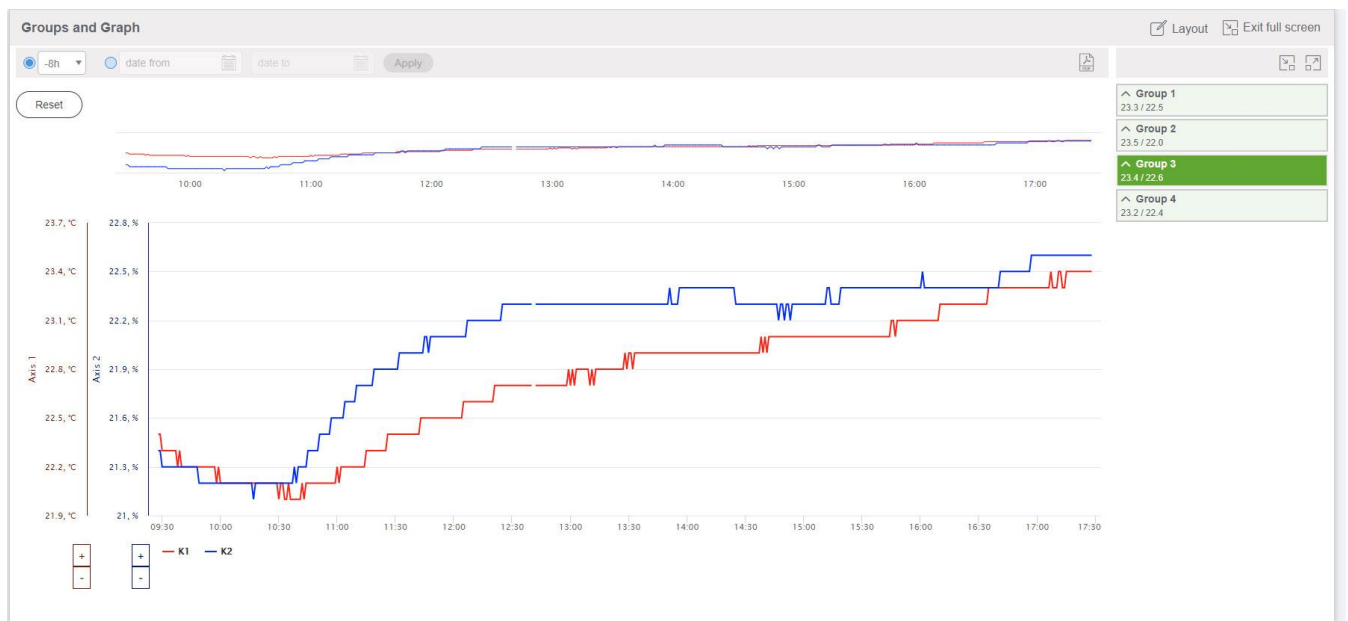


Figure 18. Full Screen Chart Display Mode

To exit the full screen mode, press the *Esc* key on the PC keyboard or use the *Exit Full Screen* button.

The chart consists of two parts: a trend line (above) and a detailed chart (below). There are tools above the trend line for selecting the interval to display data on the graph.

The user can use the drop-down list and select one of the standard display intervals:



Figure 19. List of Standard Chart Display Intervals

When one of the standard intervals is selected, the current data is displayed on the trend line and on the detailed chart. New points are added to the chart on the right.

The user can use the mouse to select part of the trend line, the time axis of the detailed chart will stretch over the entire selected range.

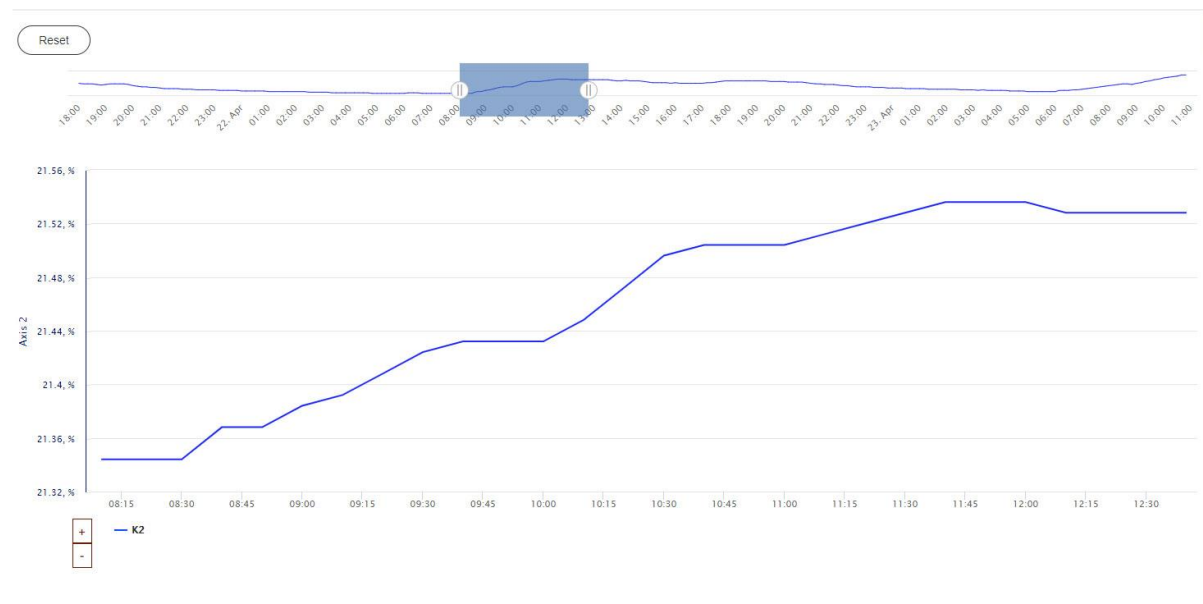


Figure 20. Selection part of time interval using a trend line

No new points are added to the chart. To exit this state, press the *Reset* button.

If it is necessary to read archive data, the user should use the time interval selection form:

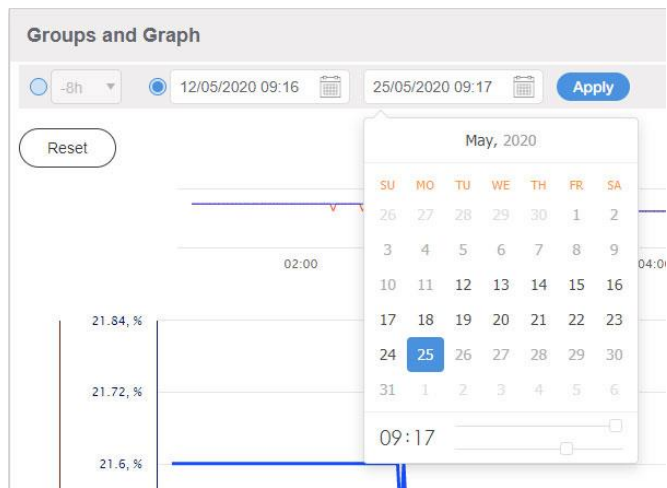


Figure 21. Selecting interval for reading archived data

When choosing the interval for reading archive data, you need to pay attention to the fact that the dates available for reading the archive have darker color. The beginning of the interval for reading the archive should be earlier than the end of this interval. To select a date, you need to click on the number in the calendar. To select time, use the sliders for setting the hours and minutes located under the calendar.

After reading the archived data, both the trend line and the detailed graph will display data for the selected period. No new data is adding to the graph. The user can use the trend line to select and examine in detail individual sections of the archive.

To exit this state, press the *Reset* button.

There is an axis scaling tool at the bottom left below each axis of the chart.



Figure 22. Axis Scaling

To stretch the graph vertically, click on the $+$ button. To compress it, press the $-$ button. To return to the original scale, press *Reset*.

The user has various options for disabling and enabling graphs. If you need to see only one chart from a group, it is most convenient to click on the variable name on the group. A background color under the name changes and only one graph remains. To exit this state, click on the *Show All*

Group Data inscription at the bottom of the group. If it is necessary to disable several charts, it is most convenient to click on the names of the variables below the chart. To return to the initial state, press the *Reset* button.

The user can save the customized chart in .pdf format or print it. To do this, click on the *pdf* icon located in the upper right above the chart.

To select another group of charts, click on the title of the corresponding group. The active group is highlighted in saturated color.

3.2.3 Tables

A data table is displayed in the central part of the screen when the table display form is selected.

To select the data, click on the title of the corresponding group. The active group is highlighted in saturated color.

The screenshot shows the LOCALWEB interface with a data table titled "Groups and Table". The table has the following columns: "Date, time", "K1, °C", and "K2, %". The data rows show alternating values for K1 and K2 over time. A sidebar on the right shows a list of groups, with "Group 1" highlighted in green.

Date, time	K1, °C	K2, %
2020-05-25 09:34:00	22.1	21.3
2020-05-25 09:33:00	22.0	21.3
2020-05-25 09:32:00	22.1	21.3
2020-05-25 09:31:00	22.1	21.3
2020-05-25 09:30:00	22.1	21.3
2020-05-25 09:29:00	22.0	21.3
2020-05-25 09:28:00	22.0	21.3
2020-05-25 09:27:00	22.0	21.3
2020-05-25 09:26:00	22.0	21.3
2020-05-25 09:25:00	22.0	21.3
2020-05-25 09:24:00	22.0	21.3
2020-05-25 09:23:00	22.0	21.3
2020-05-25 09:22:00	22.0	21.3
2020-05-25 09:21:00	22.0	21.3
2020-05-25 09:20:00	22.0	21.3
2020-05-25 09:19:00	22.0	21.3
2020-05-25 09:18:00	22.0	21.3
2020-05-25 09:17:00	22.0	21.3
2020-05-25 09:16:00	22.0	21.3

Figure 23. Displaying Data Table

There is the *Layout* icon at the top right. It allows you to change the type of the *Table* tab. After clicking on this icon, a selection window appears.

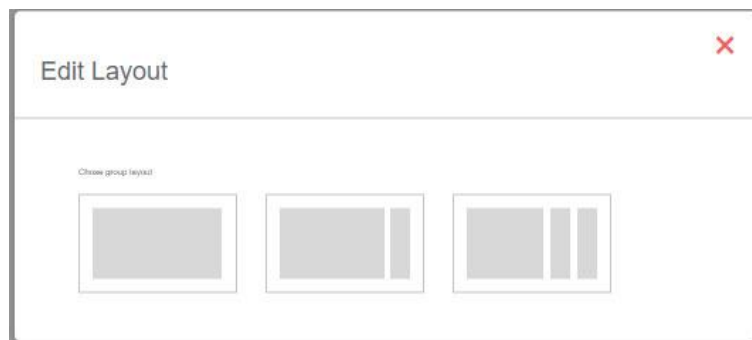


Figure 24. Selecting Type of Table Tab

The user can choose one of the types:

- show only the table, do not show groups;
- show the table and groups placed in one column;
- show the table and groups placed in two columns. After selecting this view, part of the groups should be dragged with the mouse to the right column.

There is the *Enter Full Screen* icon at the top right. After clicking on this icon, the *Table* tab expands to full screen, all menu items are not visible.

Date, time	K1, °C	K2, %
2020-05-25 09:51:00	22.1	21.3
2020-05-25 09:50:00	22.1	21.3
2020-05-25 09:49:00	22.1	21.3
2020-05-25 09:48:00	22.1	21.3
2020-05-25 09:47:00	22.1	21.3
2020-05-25 09:46:00	22.1	21.3
2020-05-25 09:45:00	22.1	21.3
2020-05-25 09:44:00	22.1	21.3
2020-05-25 09:43:00	22.1	21.3
2020-05-25 09:42:00	22.1	21.3
2020-05-25 09:41:00	22.1	21.3
2020-05-25 09:40:00	22.1	21.3
2020-05-25 09:39:00	22.1	21.3
2020-05-25 09:38:00	22.1	21.3
2020-05-25 09:37:00	22.1	21.3
2020-05-25 09:36:00	22.0	21.3
2020-05-25 09:35:00	22.1	21.3
2020-05-25 09:34:00	22.1	21.3
2020-05-25 09:33:00	22.0	21.3
2020-05-25 09:32:00	22.1	21.3

Figure 25. Full Screen Table Display Mode

To exit the full screen mode, press the *Esc* key on the PC keyboard or use the *Exit Full Screen* button.

The user can use the drop-down list and select one of the standard display intervals:



Figure 26. List of Standard Table Display Intervals

When you select one of the standard intervals, new entries are added to the table.

If it is necessary to read archive data, the user should use the time interval selection form


located above the table.

When choosing the interval for reading archive data, you need to pay attention to the fact that the dates available for reading the archive have darker color, the beginning of the interval for reading the archive should be earlier than the end of this interval. To select a date, you need to click on the number in the calendar. To select time, use the sliders for setting the hours and minutes located under the calendar.

After reading the archived data, the table will display data for the selected period. No new data is added to the table.

To exit this state, select one of the standard display intervals.

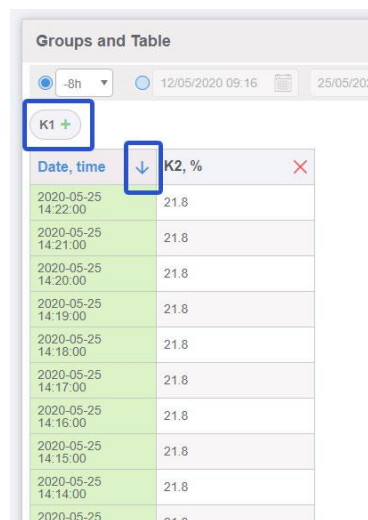
Data in the table can be sorted from old to new or from new to old. To change the sorting method, click the icon to the right of the *Date, time* title.



Date, time	K1, °C	K2, %
2020-05-25 09:51:00	22.1	21.3
2020-05-25 09:50:00	22.1	21.3
2020-05-25 09:49:00	22.1	21.3
2020-05-25 09:48:00	22.1	21.3

Figure 27. Sorting Data in Table by Time

The user can remove columns from the table by clicking on the red icon to the right of the column title. Above the table there are icons with the names of the removed columns, clicking on which the user returns the column to the table.



Date, time	K2, %
2020-05-25 14:22:00	21.8
2020-05-25 14:21:00	21.8
2020-05-25 14:20:00	21.8
2020-05-25 14:19:00	21.8
2020-05-25 14:18:00	21.8
2020-05-25 14:17:00	21.8
2020-05-25 14:16:00	21.8
2020-05-25 14:15:00	21.8
2020-05-25 14:14:00	21.8
2020-05-25	21.8

Figure 28. Removing and adding columns to the table

Below the table on the left is a drop-down list that allows you to select the number of table rows displayed on one page. To the right below the table is a navigation element that allows you to navigate through the pages of the table.

2020-05-25 14:12:00	21.9
2020-05-25 14:11:00	21.9
2020-05-25 14:10:00	21.9
2020-05-25 14:09:00	21.9
2020-05-25 14:08:00	21.9
2020-05-25 14:07:00	21.9

Show 20 entries

Displaying 1 to 20 of 773 records

Figure 29. Paging tables

The user can save a customized page with a table in .pdf format or print it. To do this, click on the *pdf* icon located in the upper right above the table.

3.2.4 Control

A table with technological settings that can be changed by the user is displayed in the central part of the screen when the *Groups and Control* display form is selected.

The *Control* tab contains all the settings that the user can change.

Parameter	Value	Edit
Lower Limit	40.0	<input type="checkbox"/>
Upper Limit	120.0	<input type="checkbox"/>

- Group 1: 22.7 / 21.7
- Group 2: 22.9 / 21.3
- Group 3: 22.9 / 21.9
- Group 4: 22.7 / 21.7

Figure 30. Groups and Control Tab

To select a data, click on the title of the corresponding group. The active group is highlighted in saturated color.

There is the *Layout* icon at the top right. It allows you to change the type of the *Control* tab. After clicking on this icon, a selection window appears.



Figure 31. Selecting Type of Control tab

The user can choose one of the types:

- show only the control table, do not show groups;
- show the control table and groups placed in one column;
- show the control table and groups placed in two columns. After selecting this view, part of the groups should be dragged with the mouse to the right column.

At the top right there is the *Enter Full Screen* icon. After clicking on this icon, the *Groups and Control* tab expands to full screen, all menu items are not visible.



Figure 32. Full Screen Control Table Display

To exit the full screen mode, press the *Esc* key on the PC keyboard or use the *Exit Full Screen* button.

To change any parameter, click on the *Edit* icon located to the right of the value. In the field that appears, enter the new parameter value and click the *Save* button.

3.3 Technological Log

All warnings and alarms that appear are displayed in the technological log.

The user can go to the technological log either through the menu item *Event logs - Technological log* or by clicking on the red or yellow flags - signs of an active alarm.

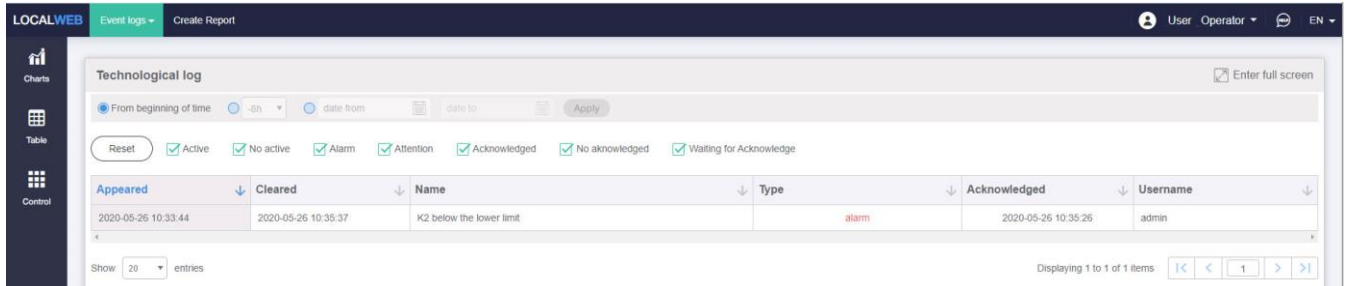


Figure 33. Technological Log

By default, the technological log displays all records stored in the device memory.

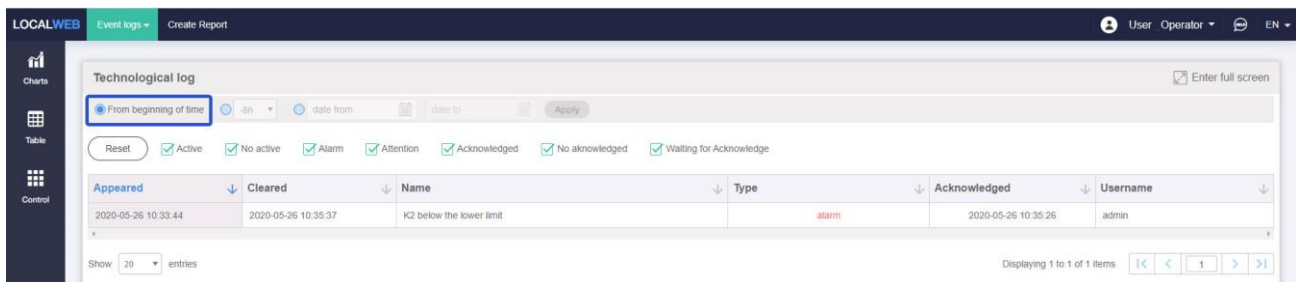


Figure 34. Records display in technological log for the maximum possible time

A large number of records may be inconvenient for analysis, so it is possible to select the display time from the drop-down list.

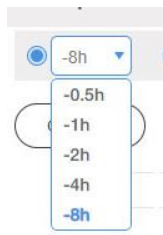


Figure 35. List of standard intervals for displaying technological log

If it is necessary to display technological events for the past period, the user must use the time interval selection form:

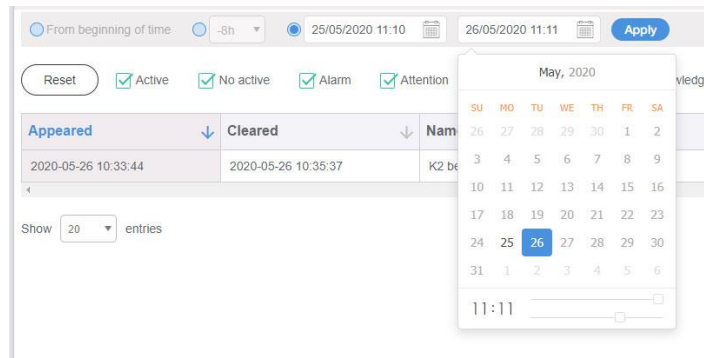


Figure 36. Selecting reading interval of technological log

When choosing the reading interval for the technological log, you need to pay attention to the fact that the dates available for reading the log are highlighted in a darker color, the beginning of the reading interval of the log should be earlier than the end of this interval. To select a date, you need to click on the number in the calendar. To select time, use the sliders for setting the hours and minutes below the calendar.

After pressing the *Reset* button, all records stored in the device memory are displayed again in the technological log.

Selection items are located above the process records.

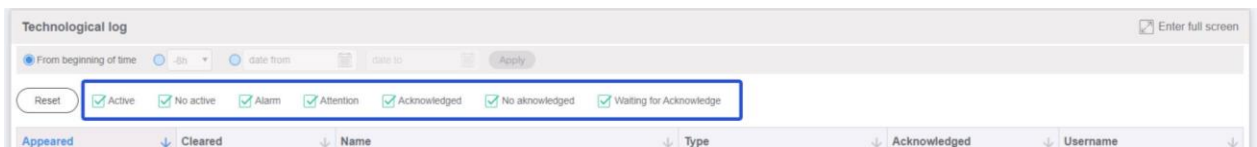


Figure 37. Selecting process records

The user can customize the display in the technological log in any combination:

Active – current active warnings and alarms;

No active - inactive warnings and alarms;

Alarm - alarms;

Attention - warnings;

Acknowledged - confirmed by the user;

No acknowledged - non-confirmed by the user;

Waiting for acknowledge – waiting for confirmation.

When going to the event log through the alarm flag, only alarms are displayed. When going to the event log through the warning flag, only warnings are displayed.

The user can change the sequence of records display by clicking on the icon to the right of the column title:

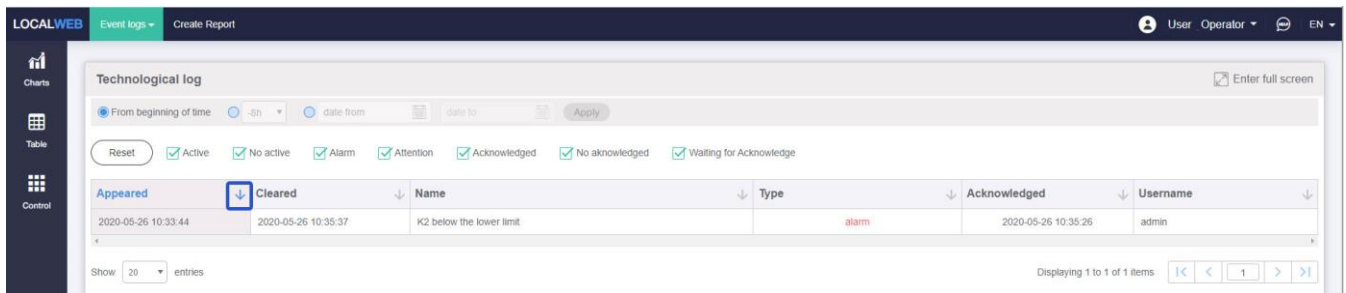


Figure 38. Sorting records in the event log

Appeared - sorting records by the time the event occurred;

Cleared - sorting records by the time the event disappeared;

Name - sorting by event name;

Type - sorting by event type;

Acknowledged - sorting by confirmation time;

Username - sorting by the name of the user who performed the confirmation.

Critical events require confirmation by the operator. If this happens, the alarm flag flashes until the operator confirms that he saw this event.

To confirm the event, the operator must press the *Acknowledge* button. After this the date and time of the reaction of the operator and his name are recorded in the technological log.

The technological log can be expanded to full screen using the *Enter Full Screen* icon. To exit the full screen mode, press the *Esc* key on the PC keyboard or use the *Exit full screen* button.

Below the log on the left is a drop-down list that allows you to select the number of lines displayed on one page. To the right under the log is a navigation element that allows you to navigate through the pages of the log.

3.4 User Event Log

All actions of all users are displayed in the user's event log, including user authorization in the system and changes in technological parameters on the *Management* tab.

The user can go to the event log through menu item *Event logs - User Log*.

Appeared	Name	Username
2020-05-22 11:01:58	User User is logged in	User
2020-05-22 11:01:54	User admin is logged out	admin
2020-05-22 11:01:54	User admin is logged out	admin
2020-05-22 11:01:41	Permission changed for role "Oneparop", resource "software-events-journal", action "edit" set to "true"	admin
2020-05-22 11:01:40	Permission changed for role "Oneparop", resource "software-events-journal", action "view" set to "true"	admin
2020-05-22 11:00:59	User admin is logged in	admin
2020-05-22 10:58:37	User User is logged out	User
2020-05-22 10:58:36	User User is logged out	User
2020-05-22 10:24:19	User User is logged in	User
2020-05-22 10:15:40	User admin is logged in	admin
2020-05-22 10:04:13	Permission changed for role "Admin", resource "system-log", action "edit" set to "true"	admin
2020-05-22 10:04:12	Permission changed for role "Admin", resource "system-log", action "view" set to "true"	admin
2020-05-22 10:03:10	User admin is logged in	admin
2020-05-22 10:03:05	User User is logged out	User
2020-05-22 10:03:05	User User is logged out	User
2020-05-22 10:02:15	User User is logged in	User
2020-05-22 10:02:04	User User is logged in	User
2020-05-21 18:53:15	User User is logged in	User
2020-05-21 16:16:56	User admin is logged in	admin
2020-05-21 16:16:35	User admin is logged in	admin

Figure 39. User Event Log

By default, all records stored in the device memory are displayed in the user event log.

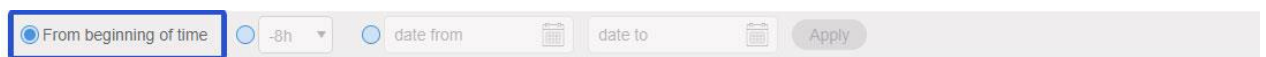


Figure 40. Displaying the user event log records for the maximum possible time

A large number of records may be inconvenient for analysis, so it is possible to select the display time from the drop-down list.



Figure 41. List of standard display intervals of user event log

If it is necessary to display events for the past period, the user must use the time interval selection form.

The user can change the sequence of records display by clicking on the icon to the right of the column header:

Appeared - sorting records by the time the event occurred;

Name - sorting by event name;

Username - sorting by user name.

The log can be expanded to full screen using the *Enter Full Screen* icon. To exit the full screen mode, press the *Esc* key on the PC keyboard or use the *Exit full screen* button.

Below the log on the left is a drop-down list that allows you to select the number of lines displayed on one page. To the right under the log is a navigation element that allows you to navigate through the pages of the log.

3.5 Reporting

Go to the reporting tab through the *Create Report* menu item.

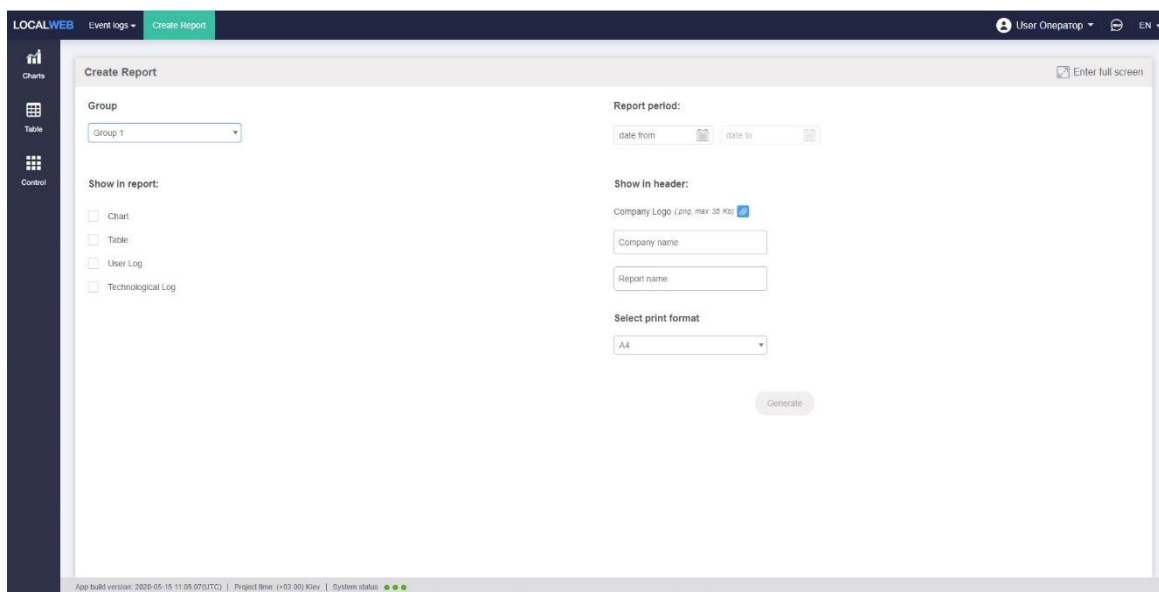


Figure 42. Create Report Tab

Report generation procedure:

- from the drop-down list on the left, select the group according to which a report will be generated;
- mark the elements that should be included in the report (graph, table, technological log, user event log);
- using the form located in the upper right, select the time interval for which the report should be generated;
- if necessary, upload the company logo;
- enter the company name in the corresponding input field;
- if necessary, enter the name of the report;
- select the paper size for printing.

After all the settings are completed, the *Generate* button will become active.

After clicking on it, a report is generated and a window appears:

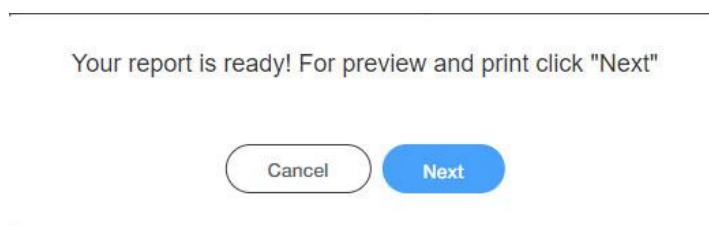


Figure 43. Complete Report Generation

After clicking on the *Next* button, the report preview window will appear on the screen. As a rule, a report consists of several pages. To view the pages, use the scroll located to the right of the report.

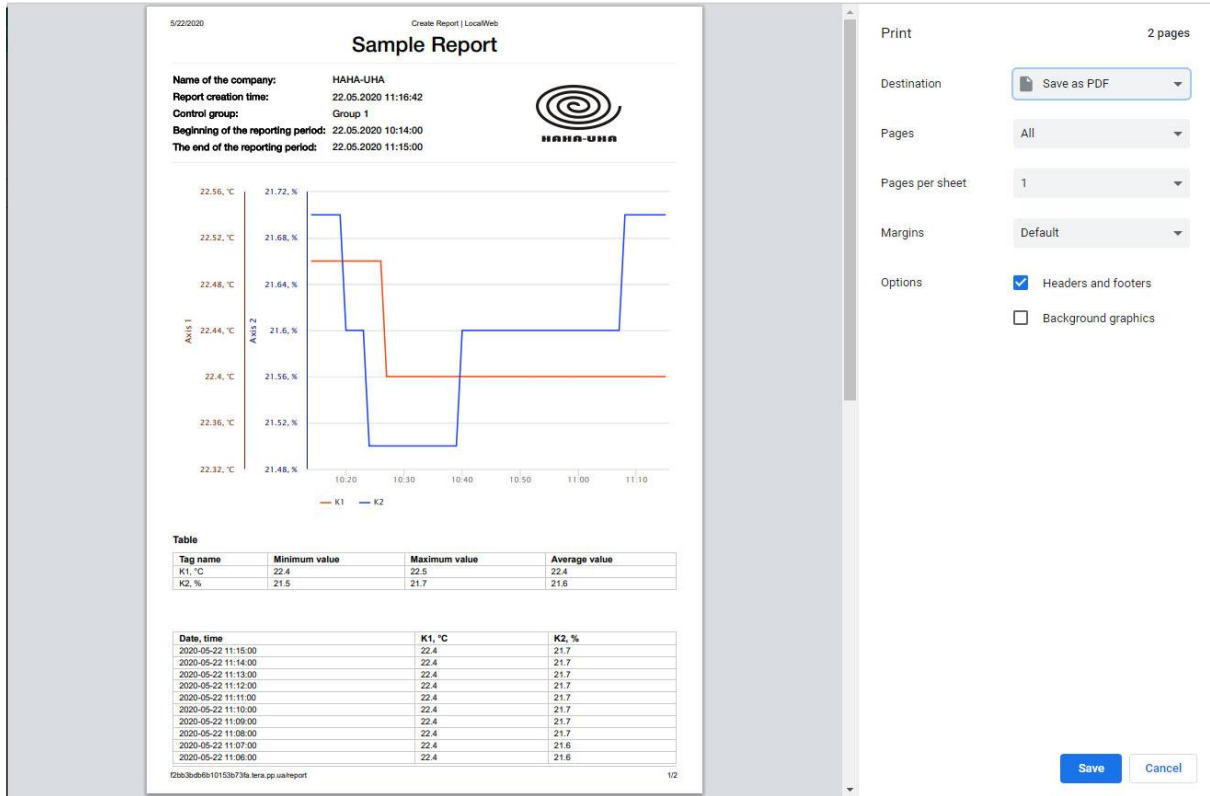


Figure 44. Example of Report First Page

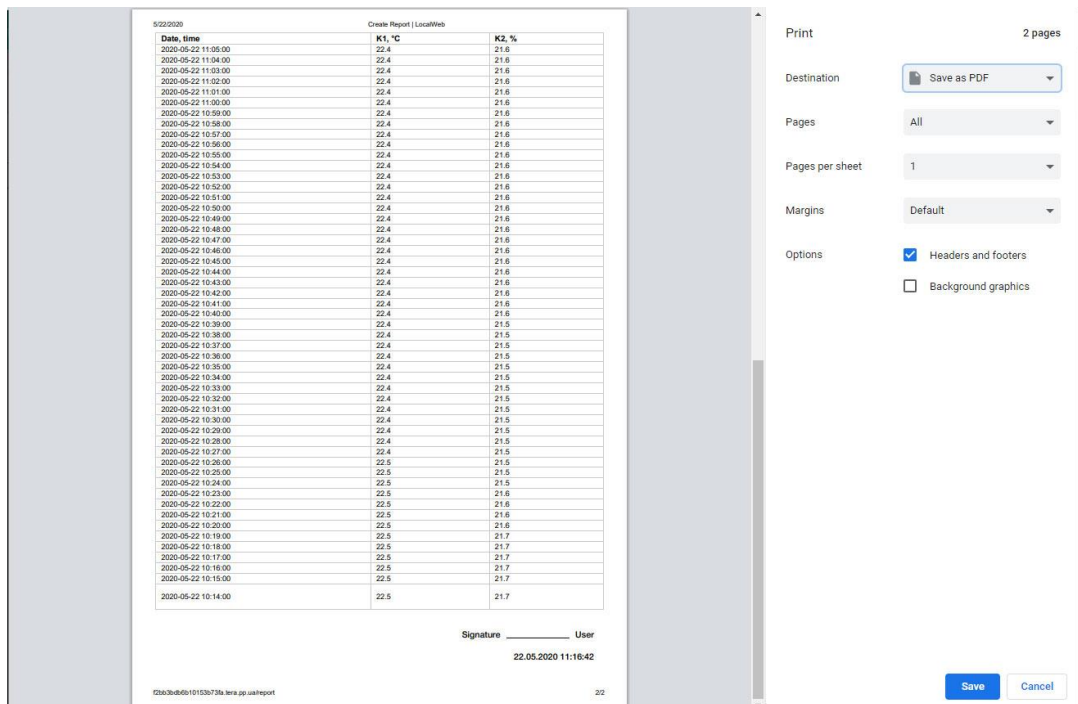


Figure 45. Example of Report Last Page

The generated report can be printed or saved as a file in the .pdf format.

3.6 User Change

To change the user, use the *Logout* button.

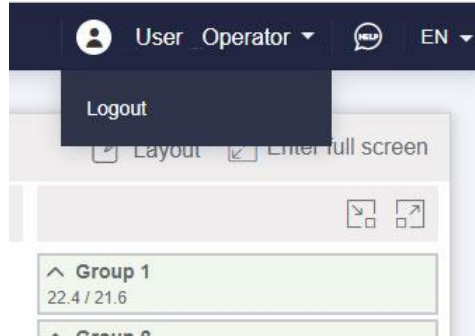


Figure 46. User Change

An authorization window will appear in which you need to enter the name and password of the new user.

User session time is limited. If the user has not worked with the application for 15 minutes, the next time you click anywhere on the screen, an authorization window will appear and the user will need to re-enter the name and password.

Up to 5 users can be connected to one data logger at a time. Additional icons of users connected from other devices appear to the left of the icon of the current user. When you hover over them, a tooltip pops up with the username.

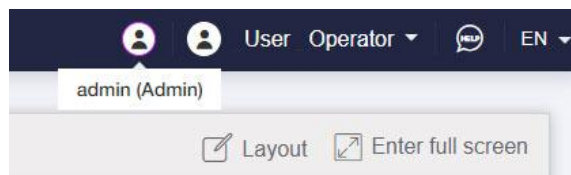


Figure 47. Simultaneous connection of two users to one device

3.7 Changing Interface Language

To change the language of the application interface, use the drop-down list of available languages located in the upper right part of the screen.

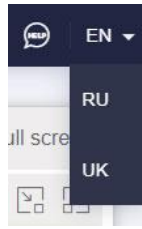


Figure 48. Selecting Interface Language

The next time you boot the application, it will be launched in the project language.

3.8 Application Current Status

At the bottom of the screen on the left is service information about the application and its current status:

- version of the application;
- application time zone;
- three indicators of the status of the application software modules; in the normal state, the indicators should be green.

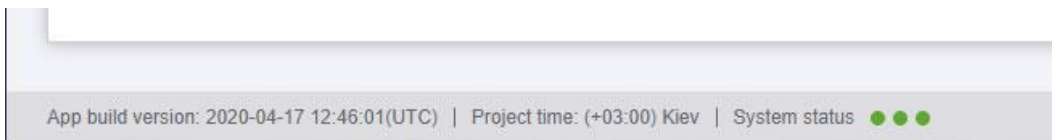


Рисунок 50. Application Current Status

4 Alarms and Warnings

The Datalogger constantly analyzes the condition of the probes and the compliance of the measurement results with the established permissible limits.

Emerging warnings and alarms are recorded in the technological log, and messages are also generated and sent via the communication channels configured by the administrator (SMS, e-mail, instant messengers).

Probe Failure

If problems arise with the probe, one of the inscriptions appears instead of the parameter readings on the group, in the table (it is highlighted in red on the group):

- fault;
- offline;
- no data;
- wait for initialization.

fault – physical failure of the sensor element, the probe needs to be replaced and repaired;

offline – violation of radio communication with the probe, short-term violation is not critical; a permanent radio communication failure may occur due to a transmitter malfunction, in this case the probe needs to be replaced and repaired;

no data, wait for initialization - errors in the operation of the polling server; if they occur, contact the system administrator.

Parameter exceeded set limits.

An alarm is generating if parameter value exceeds upper or lower set limits. Depending on the project settings, the permissible limits can be set directly or changed by the user on the control tab.

If such an alarm occurs, check the correctness of the setting of the allowable limits of the parameters and check of the climate equipment.

Lack of 220 V Supply Voltage

It is recommended to use an uninterruptible backup power supply unit to power the Datalogger. When 220V power supply failure, the “220 V fault” alarm is generated, the Datalogger is powered by the uninterruptible backup power supply battery.

The system administrator can create and configure additional conditions for warnings and alarms if such a need arises during operation.