

# Reliance 5



## Web Client



# Reliance 5

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# 1 Introduction

The **Web client** (*Reliance Web Client*) and the client designed for use with smartphones and tablets (*Reliance Smart Client*) are commonly referred to as **thin clients**. The *thin clients* are designed for comfortable access to a visualization application from remote locations. The *thin clients* connect to *data servers* and provide similar visualization features as the *runtime software*. This document describes the *Web client*.

[What is Reliance Web Client?](#)

[Web Client Start](#)

## 1.1 What is Reliance Web Client

*Reliance Web Client* is software designed for running a visualization application on a remote computer connected to the network (the Internet). It enables remote users to view real-time data, control the visualized process, view and acknowledge alarms and view trends and reports. *Reliance Web Client* uses one of the **Reliance** data servers (*Reliance Server* or *Reliance Control Server*) as a data source. Communication between the Web client and the data server is based on the HTTP/HTTPS protocol. The communication messages of the HTTP/HTTPS protocol are encrypted and compressed.

The Web client is based on the **Java** platform from *Sun Microsystems*. The GUI is based on the JFC/SWING library from the same company. **Java** is available for many different operating systems such as *MS Windows*, *Linux*, *Unix*, *Mac OS X*, etc. The Web client doesn't depend on the installed Web browser and it can be started from *MS Internet Explorer*, *Mozilla Firefox*, *Konqueror*, *Safari*, *Google Chrome*, etc.

## 1.2 Starting the Web client

The most common way to start the Web client is via a link located on the **data server's** Web page. **Reliance data servers** (*Reliance Server* and *Reliance Control Server*) contain a built-in Web server to provide Web pages. For more information about *data servers* refer to a specialized document named *Data Servers*.

**Reliance 5**  
Control Server

**Home**

- Čeština (Czech)
- Change Password
- Log Off (s)
- Project
- Thin Clients**
- Administration
- Files
- Options
- API
- Help

**Welcome!**

Welcome to the **Reliance 5 Control Server** Web page, running the **BoilerRoom** project on the **Server1** computer.

**Thin Clients**

Reliance's thin clients are intended for making visualization applications available to remote users over the Internet. Thus, the user can easily display visualization projects on different operating systems, in a Web browser, on a tablet, or on a smartphone.

**Web Client**  
computer with Windows,  
Linux, macOS

**Smart Client**  
smartphone, tablet,  
Web browser

Reliance 5.0.0.63968 Pre-release x86 | GEOVAP

Project	Computer	Server	Uptime	Control Server
BoilerRoom	Server1	Active	0 d, 0 h, 5 m	0,00 % 76,53 MB

### Data server – Main page

**Note:** The Web page required to start the Web client is available only after a visualization project has been exported for remote users. The export for remote users can be done from the *Reliance Design* development environment via the `> Project > Export for Remote Users` command. For more information on *Export for Remote Users Wizard* see the *Development Environment* help.

To display the list of configurations available for the Web client, select the *Reliance Web Client* link in the *Thin Clients* section of the data server's main page.

### Startup by Reliance Web Client Launcher

To run the Web client, download and run Reliance Web Client Launcher, enter the server address, and choose the configuration you want to use for starting the Web client. The program does not require installing any other software (e.g., Java). Reliance Web Client Launcher can later be used for various Reliance projects.

[Download \(Windows\)](#)

[Download \(Linux\)](#)

[Download \(Mac OS\)](#)

#### Installation and startup

1. Unpack the ZIP file to any folder.
2. Run `WebClientLauncher\R_WebClientLauncher.exe` (Windows) or `WebClientLauncher/R_WebClientLauncher.sh` (Linux, Mac OS).
3. Enter the server address (e.g., `http://myserver:40000`) and click the `Connect` command.
4. Choose the desired configuration from the list of loaded configurations and click the `Run` command.
5. To quickly start the Web client next time, put a shortcut on the desktop by choosing the `Create shortcut` command (Windows) or create a script using the `Create script` command (Linux, Mac OS).

### Startup from Web (Java Web Start/applet)

The Web client can be run directly from the Web using Java Web Start or as an applet. It requires [Java](#) (JRE) version 8 or later to be installed on the user's computer. Java Web Start is no longer part of the JRE as it was removed in version 11. Applets are not supported by modern Web browsers. Starting the Web client as an applet can be disabled at the project level.

Click the `Start` button to launch the default configuration of the Web client via Java Web Start.

 **Start**

Alternatively, choose the configuration you want to use for starting the Web client.

#### Configuration

Server1	<a href="#">Java Web Start</a>
Server1-TOP	<a href="#">Java Web Start</a>

Exported: 14.04.2025 13:29:00

Note: The Java Runtime Environment (JRE) installer is part of the Reliance Add-On Pack.

## Configurations

Each configuration corresponds to a *computer* defined in the visualization project. The Web client can be started as an application using the *Reliance Web Client Launcher* (recommended), as a *Java Web Start* application or as a *Java Applet*.

[Reliance Web Client Launcher](#)

[Java Web Start](#)

[Java Applet](#)

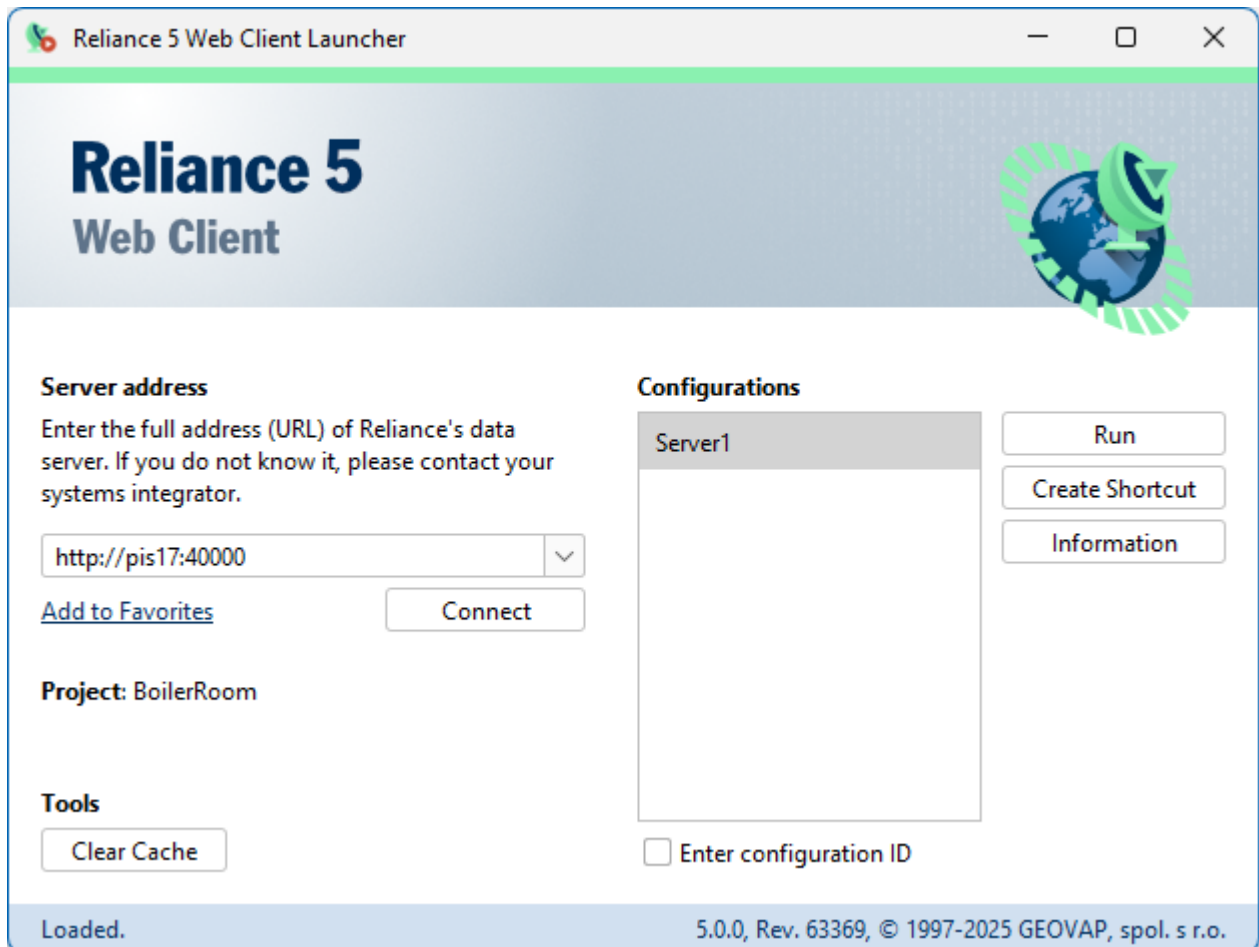
In some cases dialog box asking the user to enter *Access code* or query about a project resolution adjustment can appear.

[Entering Access Code](#)

[Adjusting Project Resolution](#)

### **1.2.1 Starting as an application using the Reliance Web Client Launcher**

Reliance Web Client Launcher acts as a substitute for Java Web Start and allows running Reliance Web Client on the new Java versions. The JRE which is part of the launcher – is tailored to Web Client. There is therefore no need to download and install Java on the end user's computer. You just need to download and run Reliance Web Client Launcher, through which you can – for the configuration you have selected – directly run Web Client or create a shortcut to it.



### Reliance Web Client Launcher

More information on Reliance Web Client Launcher is available in [this article](#).

#### 1.2.2 Starting as an application via Java Web Start

**Java Web Start** (JWS) is part of JRE and it is a system designed to start Java applications directly from the Internet without starting the Web browser. A Java application can be started via JWS for example by clicking on a file (link) with a `.jnlp` extension (*Java Network Launching Protocol*). A JNLP file contains basic information about the program – program name, version, program files location and other information and rules.

After clicking the "Java Web Start" link in the list of configurations, the `.jnlp` file is downloaded and processed by the *Java Web Start* system. If the up-to-date version of the Web Client is already stored (cached) on the computer, it is started (if a later version of the Web Client is available on the server it is first downloaded and then started). Next steps of the starting procedure are similar to the applet. The Web Client started via *Java Web Start* is installed in a similar way as common applications (e.g. on Windows, you can find it in the Start menu) – this feature can be disabled when a project is exported for remote users.

### 1.2.3 Starting as a Java applet

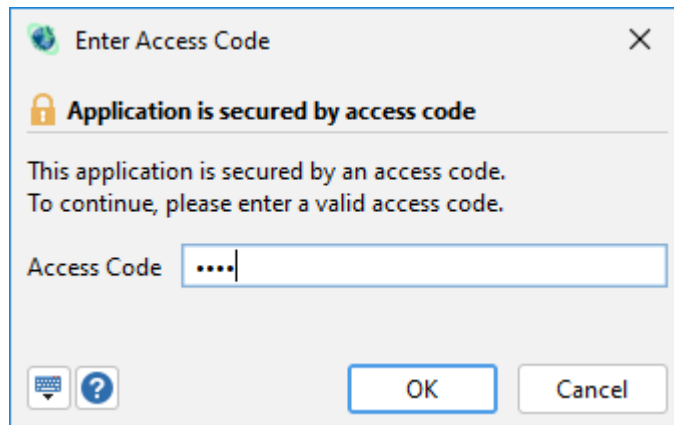
A *Java applet* is a software element (program) running in the context of a Web browser – it is part of a Web page and starts when the page is loaded. The functionality of *Java applets* in Web browsers is provided by *Java Plugin* which is part of **JRE** (*Java Runtime Environment*) – the runtime environment developed by *Sun Microsystems* for Java-based programs.

To start an applet, click the 'Applet' link on the *list of configurations* page. You are redirected to the page with a simple applet which is designed to detect if JRE 6.0 is installed on your system. If JRE 6.0 is not installed, it can be installed automatically (if an automatic installation is not possible, the user is provided with the information on how to install JRE 6.0 manually).

If JRE 6.0 is detected, the user is redirected to the page with the Web client applet. The Web client is downloaded and started after the user acknowledges a security certificate. After the Web client applet starts, the visualization project is automatically downloaded and started. Both the Web client applet and the visualization project are downloaded only once and stored on the local computer to speed up next start (the program and project files are downloaded again only if a new version is available). The main disadvantage of running the Web client as an applet is that it requires a Web browser to also be running.

### 1.2.4 Entering access code

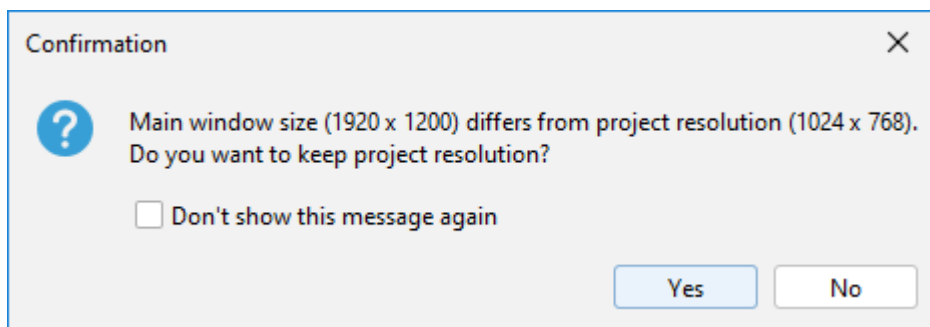
Access to *Web Client* can be protected with an access code. If this is the case, the *Enter Access Code* dialog is displayed on application start. Loading of the application won't continue until correct password is entered.



Enter Access Code

### 1.2.5 Adjusting project resolution

Confirmation dialog is shown if current display resolution doesn't correspond to the project resolution (if project was designed for different resolution). To keep the original main window size (resolution) select **Yes**, to resize visualization (main window and components) to fit current display resolution select **No** button.



Adjusting Project Resolution

To remember the answer check *Don't show this message again*. If you want to show the confirmation dialog again, you can change the behaviour via [Options](#).

## 2 Web Client description

Web client user interface

User logon/logoff

Editing tag values

Alarm viewers

Trend Viewer

Custom Trend

System Information

Information Dialogs

Virtual Keyboard

Text Data Viewer

Common GUI elements

Options

## 2.1 Web Client user interface

The splash screen contains progress bar which shows the status while a visualization project is downloading from a data server and/or loading into memory.



### Downloading Visualization Project

Main *Web Client* window is displayed after the download is finished.

[Main window](#)

[Title bar](#)

[Main menu](#)

[Tool bar](#)

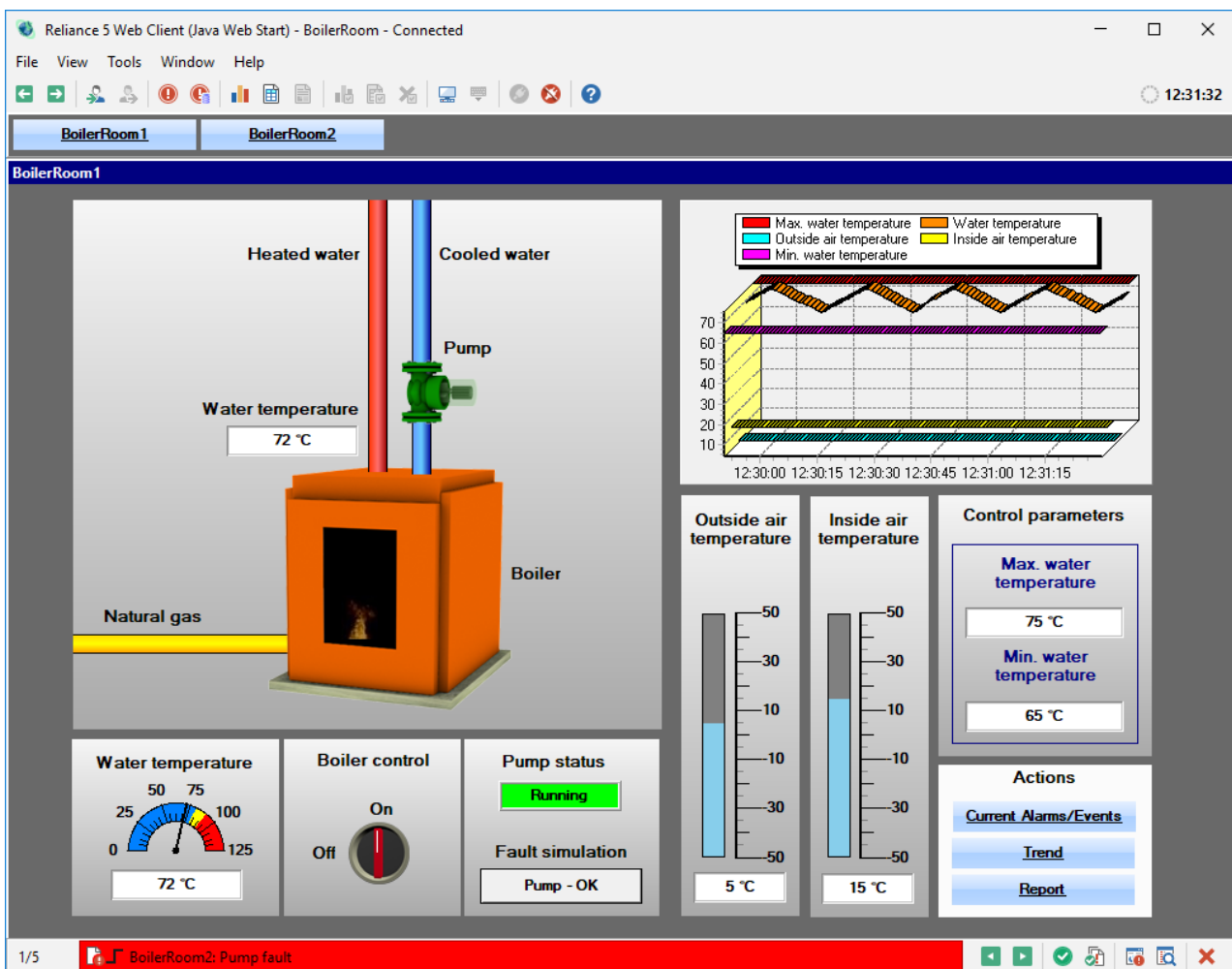
[Visualization windows](#)

[Bottom Alarms panel](#)

## 2.1.1 Main window

Main window is divided into following parts (top – down)

- title bar (1)
- main menu (2)
- toolbar (3)
- area for visualization windows (4)
- bottom alarms panel (5)



Web Client – Main window

All main window parts (except [visualization windows](#)) can be hidden by a developer (system integrator). Size (resolution) of the visualization window is defined when project is exported and can't be manually changed from the *Web Client*.

### 2.1.2 Title bar

Title bar shows a standard window title in the following format:

Reliance 5 Web Client (<type>) - [<project\_name>] - <status>

where:

<type>

indicates whether Web Client was started as an applet, common application or via Java Web Start

<project\_name>

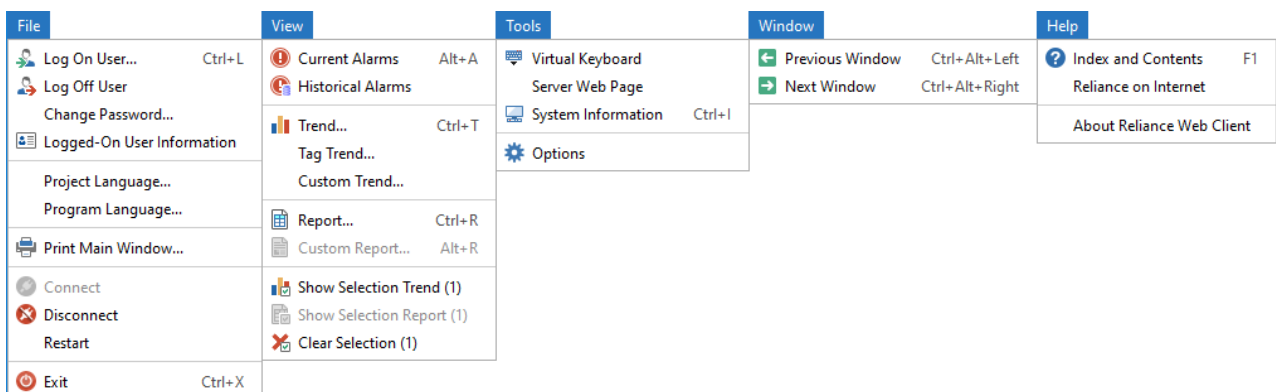
contains a name of loaded project

<status>

indicates the state of connection between a client and a server; state can be: "Disconnected", "Connecting", "Connected", "Disconnecting".

### 2.1.3 Main menu

Main menu contains the following items: **File**, **View**, **Tools**, **Window** and **Help**.



**Web Client – Main menu**

## File Menu

### *Log On User (Ctrl+L)*

Shows the dialog window for the [user logon](#).

### *Log Off User*

[Logs off the user](#) from the data server.

### *Change Password*

Shows the dialog window to change the password. The user must enter their current password, a new password, and the new password again for verification. The new password must meet the strong password rules that are set in the project. The list of rules can be viewed by clicking *Password Policy*. Depending on the user authentication method set in the project, this command may not be enabled.

### *Logged-On User Information*

Displays dialog window with the information about the [current user](#).

### *Project Language*

Shows the list of defined project languages. You can switch the language of project defined objects (labels, alarms texts, etc.)

### *Program Language*

Shows the list of program languages (Czech, English, Polish, Russian, German, Lithuanian, Hungarian, French, Slovak, Greek, Turkish, Slovenian, Spanish). You can switch the program language (GUI language – main menu, alarm viewer, etc.).

### *Print Main Window*

Brings up the standard OS print dialog which allows you to select a printer and configure print settings in order to print the image of the program's main window.

### *Connect*

Connects to the data server.

### *Disconnect*

Disconnects from the data server.

### *Restart*

Disconnects from the data server and restarts the web client. This command is available only if the web client is started using Java Web Start or Reliance Web Client Launcher.

### *Exit*

Closes the Web Client.

## **View Menu**

### *Current Alarms (Alt+A)*

Activates [Current Alarms viewer](#).

### *Historical Alarms*

Activates [Historical Alarms viewer](#).

### *Trend (Ctrl+T)*

Shows the list of defined *trends*; selected *trend* can be displayed in the [Defined Trends viewer](#).

### *Tag Trend*

Shows the list of defined *tags*; a trend of selected *tag* can be displayed in the [Tag Trend viewer](#).

### *Custom Trend*

Shows the custom trend dialog window. This tool allows you to create trends by manually selecting tags. Trends can be named and saved with custom name and then displayed at any time using the trend viewer.

### *Report (Ctrl+R)*

Shows the list of defined *reports*; selected report can be displayed in the default web browser.

### *Custom Report (Alt+R)*

Shows the list of defined *custom reports*; selected *custom report* can be displayed in the default web browser.

### *Show Selection Trend*

Shows the graph viewer with the trend of the selected tags. The numeral in the parentheses represents the number of selected tags.

### *Show Selection Report*

Shows the report of the selected tags. The numeral in the parentheses represents the number of selected tags.

### *Clear Selection*

Deletes the list of selected tags. The numeral in the parentheses represents the number of selected tags.

## **Tools Menu**

### *Virtual Keyboard*

Activates [Virtual Keyboard](#).

### *Server Web Page*

Opens *data server's* web page in the default web browser. For detailed *data server* description refer to specialized document.

### *System Information*

Displays a dialog window containing [System information](#).

### *Options*

Enables the user to change various [Web Client options](#).

## **Window Menu**

### *Previous Window (Ctrl+Shift+Left)*

Activates previous visualization window in the history of activated windows.

*New Window (Ctrl+Shift+Right)*

Activates next visualization window in the history of activated windows.

## Help Menu

*Index and Content (F1)*

Displays this document.

*Reliance on Internet*

Opens the **Reliance** web page in the default web browser ([www.reliance-scada.com](http://www.reliance-scada.com)).

*About Reliance Web Client*

Shows a window with the *Web Client* basic information (version, system information etc.)

**Note:** Some commands from the *Main menu* can be accessed directly from [visualization windows](#).

### 2.1.4 Toolbar

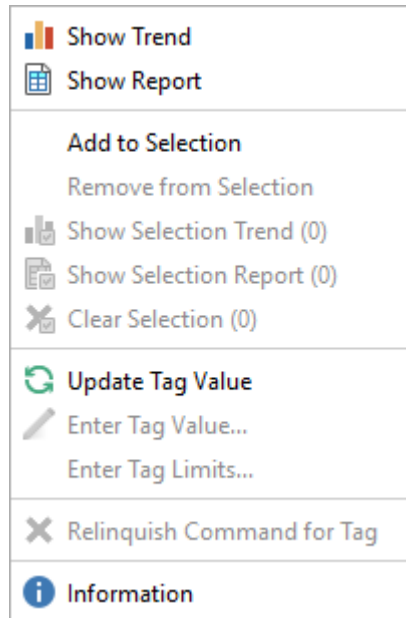
Most commonly used commands are also accessible in the toolbar. The right part of the toolbar contains system time and a window menu (a combo box with *Minimize* and *Close* commands). If any user is logged on, it is indicated with an icon (click the icon to display [Active User Information](#)).

### 2.1.5 Visualization windows

The contents of visualization windows is specific for every visualization project. The help document for visualization windows (screens) is usually provided by a system integrator (visualization developer). Common parts of the user interface are:

- the dialog window [Enter Tab Value](#)
- the dialog window [Enter Tag Limits](#)
- standard component's *Local menu*

Some components (visual objects located inside a visualization window) have *Local menu*, which can be activated by the right mouse button. Usually only components designed to display the tag values have the *Local menu* (e.g. Display).



### Local Menu

Standard component's local menu contains the following commands:

#### *Show Trend*

Displays [Tag Trend](#) in a trend viewer.

#### *Show Report*

Displays the report of the tag in the default web browser.

#### *Add to Selection*

Adds the tag to the list of selected tags.

#### *Remove from Selection*

Removes the tag from the list of selected tags.

#### *Show Selection Trend*

Displays the graph viewer with the trend of the selected tags. The numeral in the parentheses represents the number of selected tags.

### *Show Selection Report*

Displays the report of the selected tags. The numeral in the parentheses represents the number of selected tags.

### *Clear Selection*

Deletes the list of selected tags. The numeral in the parentheses represents the number of selected tags.

### *Update Tag Value*

Sends tag value update request to the *data server*. It is used for manual update of a tag value stored in the PLC, telemetric device etc.

### *Enter Tag Value*

Shows the dialog window [Enter Tag Value](#).

### *Enter Tag Limits*

Shows the dialog window [Enter Tag Limits](#).

### *Relinquish Command for Tag*

Relinquishes the command for the tag (it is only available to a BACnet device).

### *Information*

Shows the dialog window with [Tag Information](#).

Components connected to tags bad value quality can be distinguished by a yellow box (the color of the box is determined by the setting in the visualization project).

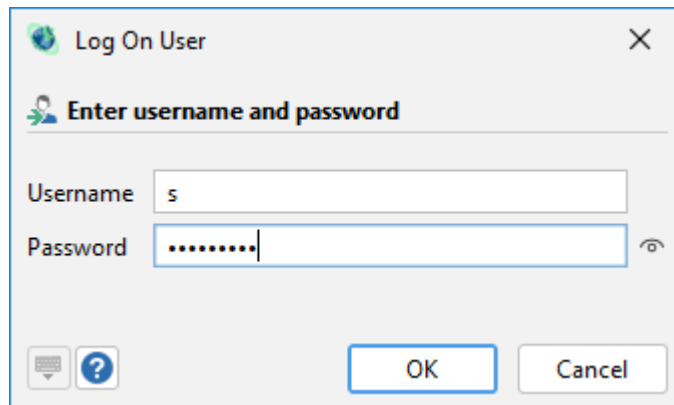
Schedule components are used to set up the time-dependent control of the industrial process (this applies to, for example, Teco or BACnet devices). After clicking on these components' area, the page (dialog box) with a schedule editor is displayed. This editor is specific to the type of device and schedule.

## 2.1.6 Bottom alarms panel

**Bottom alarms panel** is a control designed to provide an easy access to *Current alarms*. Only one *alarm* is displayed at a time. It is easy to switch between current alarms with the *Previous* and *Next* buttons. Other control buttons are similar to those used in the [Current Alarms viewer](#). Depending on the project options, panel can be permanently shown, permanently hidden or automatically shown when a new alarm is started (generated).

## 2.2 User logon/logoff

Access to the parts of a visualization project and/or to selected operations can be protected with *permissions*. Only if you are logged on and if you have the sufficient set of *permissions* you can access specific parts of the project. You can log onto the system via the > *File* > *Logon User* command (or via toolbar).



### Logon User

Enter the user name and password to log onto to the system. Once logged on, the user is prompted to change the password. If two-factor authentication (2FA) is enabled for the user, a code generated by an authenticator app (such as Microsoft Authenticator or Google Authenticator) on the user's mobile device will be required when the user logs in. The first time the user log in with two-factor authentication, the user will be prompted to activate by scanning a QR code from the authenticator app.

To display [Logged User Information](#) use the > *File* > *Logged On User Information* command (shows *Id*, *Name* and *Alias*).

Active user can be logged off via the > *File* > *Logoff* command.

Web Client have to be connected to the *Data server* to perform this operation.

## 2.3 Editing tag values

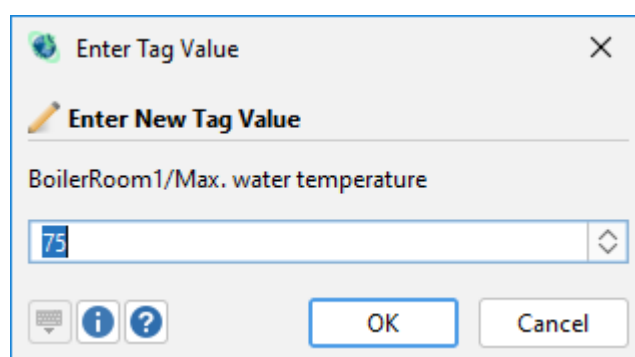
[Editing Tag Value](#)

[Editing Tag Limits](#)

### 2.3.1 Editing tag value

The *Enter Tag Value* dialog is designed to preview, change or edit value of a tag. Type of the controls used to enter/preview a tag value corresponds to the type of a tag according to the following list:

tag type	control type
boolean (binary value)	radio button
number (integer, float)	edit box with arrows (spinner)
string	edit box (multiple lines)



#### Changing Integer Value

To show the dialog window [Tag Information](#) click the "i" button.

### 2.3.2 Editing tag limits

So called *limits* can be defined for the numerical type tags. The limits are used to evaluate alarms, etc. For each tag four limits can be defined:

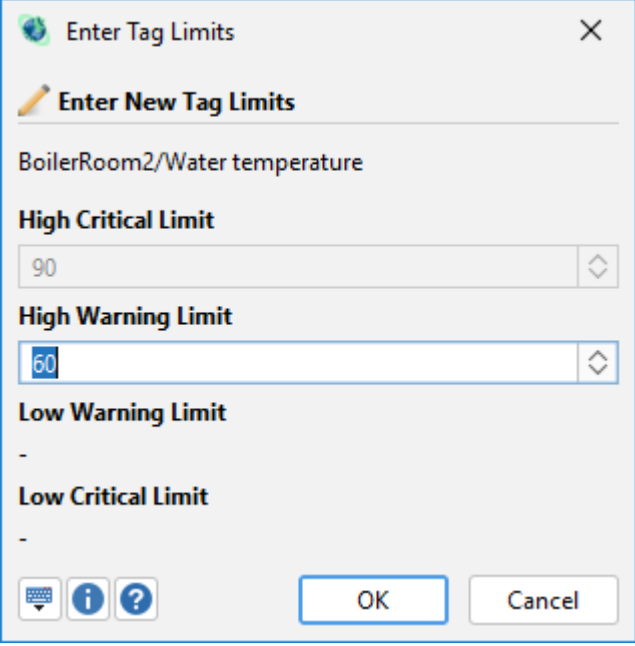
*High Critical*

*High Warning*

*Low Warning*

*Low Critical*

Limit can be defined as *static* (it's value is set when a project is designed) or *dynamic* (limit can be changed during a runtime).



The screenshot shows a dialog box titled "Enter Tag Limits" with a close button (X) in the top right corner. Below the title bar is a section titled "Enter New Tag Limits" with a pencil icon. The tag name "BoilerRoom2/Water temperature" is displayed. There are four limit fields, each with a spin button on the right:

- High Critical Limit:** 90
- High Warning Limit:** 60
- Low Warning Limit:** -
- Low Critical Limit:** -

At the bottom left, there are three icons: a list icon, an information icon (i), and a help icon (?). At the bottom right, there are two buttons: "OK" and "Cancel".

**Changing Tag Limits**

## 2.4 Alarm viewers

**Alarm** is started (triggered, generated) when defined condition is met (e.g. tag value changes or it is out of range). It usually indicates some error state (in which case it is called an *alarm*) or it can indicate common state or information, e.g. when tag value is changed by the user. User with sufficient permissions is permitted to **acknowledge** the alarm with the acknowledge command, to inform the system (and other users) that he/she is aware of the problem.

Each *alarm* is displayed in the *Current/Historical alarms list* according to the following rules:

state	current	historical	background color
not active, not acknowledged	yes	yes	white
not active, acknowledged	no	yes	white
active, not acknowledged	yes	yes	red
active, acknowledged	yes	yes	yellow
not needing acknowledge	yes	yes	white

**Note:** *Alarm* is active, if condition that generated it is still met. The colors listed in the table are default. They can be set differently in the project.

[Current Alarms](#)

[Historical Alarms](#)

### 2.4.1 Current Alarm viewer

**Current Alarm viewer** is a window containing the list of all *alarms* that are active or not yet acknowledged.

Last Occurrence Date/Time	Text	Device	Occurrence Count	Start Date/Time	End Date/Time	Acknowledge Date/Time	Tag
11.04.2025 10:54:57	Pump fault	BoilerRoom2	1	11.04.2025 10:54:57			BoilerRoom2/Pump ...
11.04.2025 10:54:50	Pump fault	BoilerRoom2	1	11.04.2025 10:54:50	11.04.2025 10:54:52		BoilerRoom2/Pump ...
11.04.2025 10:54:47	Pump fault	BoilerRoom1	1	11.04.2025 10:54:47	11.04.2025 10:54:48		BoilerRoom1/Pump ...
11.04.2025 10:54:45	Pump fault	BoilerRoom1	1	11.04.2025 10:54:45	11.04.2025 10:54:46		BoilerRoom1/Pump ...
27.03.2025 14:58:30	Pump fault	BoilerRoom1	1	27.03.2025 14:58:30	11.04.2025 10:54:43		BoilerRoom1/Pump ...

Ready Alarm Count: 5

### Current Alarm viewer

The toolbar and the local menu contains following commands:

#### *Acknowledge*

Acknowledges selected alarms.

#### *Acknowledge All*

Acknowledges all alarms in the list.

#### *Activate Related Window*

Activates the window that contains visualization related to the selected alarm.

#### *Information*

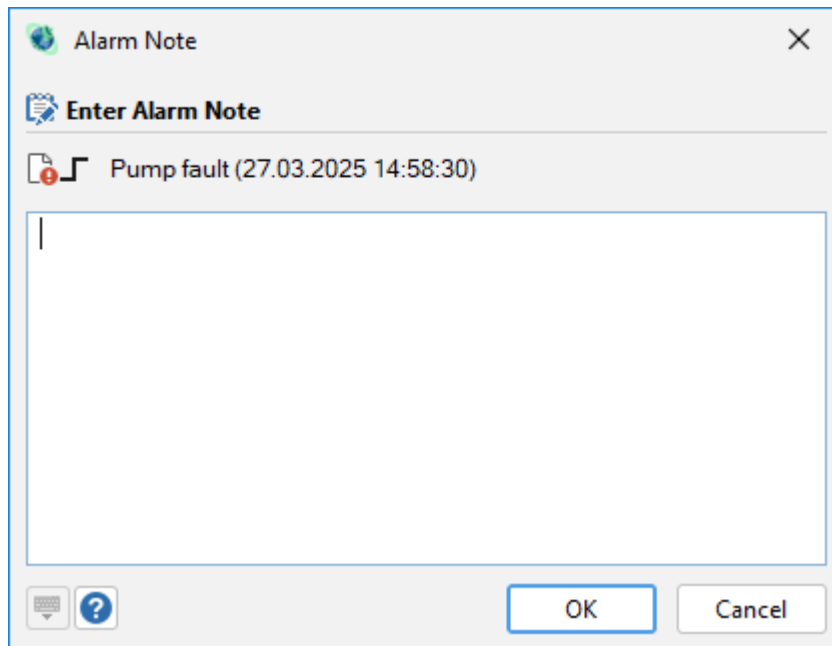
Displays a dialog with an **Information** about the selected alarm (information dialog can be displayed with a double click on the alarm too).

#### *Description*

Displays a dialog with a description of the selected alarm. The description can, for example, explain in detail to the operator the meaning of the alarm or contain instructions on how the operator should behave if this alarm occurs.

#### *Note*

Displays a dialog with an note of the selected alarm. For example, the note may describe the measures taken to solve the problem. Before acknowledging some of alarms you must write a note. User is invited to enter a note before acknowledging that alarms.



### Poznámka k alarmu

#### *Show Data As Text*

Shows the list of alarms as a text in the [Text Data Viewer](#).

#### *Options*

Shows the [Web Client Options](#) dialog window– it enables you to configure the list of displayed columns.

#### *Help*

Displays this help in your default web browser.

#### *Hide*

Hides this viewer.

To choose a parameter by which the list will be sorted click on the column header. The *Filter* feature can be used to narrow down the number of displayed alarms in the list. First three control elements from the right side of the toolbar are used to define a filter. Alarms can be filtered by a *device* (show only alarms contained in a selected device) or/and by a *part of the text* (alarm text contains entered string).

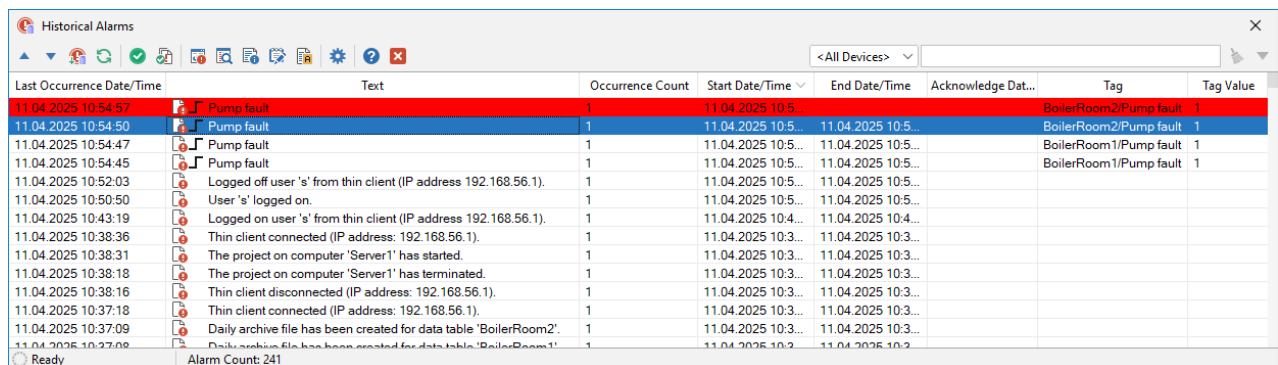
The Alarms list is automatically updated – this means that every time an alarm is generated, acknowledged or expires (condition which generated alarm no longer exists), the list is updated to contain current information (in contrast to the [Historical alarms viewer](#)). After reconnecting to a data server, the whole list is updated.

Bottom panel contains the number of alarms, value of this number is not effected by an applied filter. Alarms viewer is not modal, which means that the user can work with the *Web Client* even if the list is opened.

**Note:** Depending on the visualization project, the alarm viewer can be inserted into a visualization window.

## 2.4.2 Historical Alarm viewer

**Historical Alarm viewer** is a tool designed to browse alarms stored in the database. The list contains all alarms – even inactive and acknowledged ones (in contrast to [Current Alarms viewer](#)). Commands and filtering options accessible via toolbar are similar to those in the *Current Alarm viewer*.



Last Occurrence Date/Time	Text	Occurrence Count	Start Date/Time	End Date/Time	Acknowledge Dat...	Tag	Tag Value
11.04.2025 10:54:57	Pump fault	1	11.04.2025 10:5...			BoilerRoom2/Pump fault	1
11.04.2025 10:54:50	Pump fault	1	11.04.2025 10:5...	11.04.2025 10:5...		BoilerRoom2/Pump fault	1
11.04.2025 10:54:47	Pump fault	1	11.04.2025 10:5...	11.04.2025 10:5...		BoilerRoom1/Pump fault	1
11.04.2025 10:54:45	Pump fault	1	11.04.2025 10:5...	11.04.2025 10:5...		BoilerRoom1/Pump fault	1
11.04.2025 10:52:03	Logged off user 's' from thin client (IP address 192.168.56.1).	1	11.04.2025 10:5...	11.04.2025 10:5...			
11.04.2025 10:50:50	User 's' logged on.	1	11.04.2025 10:5...	11.04.2025 10:5...			
11.04.2025 10:43:19	Logged on user 's' from thin client (IP address 192.168.56.1).	1	11.04.2025 10:4...	11.04.2025 10:4...			
11.04.2025 10:38:36	Thin client connected (IP address: 192.168.56.1).	1	11.04.2025 10:3...	11.04.2025 10:3...			
11.04.2025 10:38:31	The project on computer 'Server1' has started.	1	11.04.2025 10:3...	11.04.2025 10:3...			
11.04.2025 10:38:18	The project on computer 'Server1' has terminated.	1	11.04.2025 10:3...	11.04.2025 10:3...			
11.04.2025 10:38:16	Thin client disconnected (IP address: 192.168.56.1).	1	11.04.2025 10:3...	11.04.2025 10:3...			
11.04.2025 10:37:18	Thin client connected (IP address: 192.168.56.1).	1	11.04.2025 10:3...	11.04.2025 10:3...			
11.04.2025 10:37:09	Daily archive file has been created for data table 'BoilerRoom2'.	1	11.04.2025 10:3...	11.04.2025 10:3...			
11.04.2025 10:27:09	Daily archive file has been created for data table 'BoilerRoom1'.	1	11.04.2025 10:2...	11.04.2025 10:2...			

Ready Alarm Count: 241

### Historical Alarm viewer

After the viewer is opened, limited number of last (depending on column used for sorting) alarms is downloaded from the data server. To download older or newer records, use *Download Previous Historical Alarms* or *Download Next Historical Alarms* commands.

To download all alarms that were started in a defined interval, use the *Download Historical Alarms* command. In addition to the defined interval, it is possible to select other criteria for downloading alarms.

Download Historical Alarms

Specify Alarms to download

From 11.4.2025  Latest

Direction Older

Device Select... X BoilerRoom1

Types Select... X alert,command,system message

Filter Name Select... X

Count 1000

OK Cancel

### Downloading Alarm in a defined interval

The list of *Historical Alarms* **is not** updated automatically. To update the list, use the *Refresh Historical Alarms* command. Periodic updating of the alarm list can be enabled by the *Automatically Refresh Historical Alarms* option in the local menu.

## 2.5 Trend viewers

**Trend viewer** is a tool designed to show historical data in the form of a trend (a chart where X axis is always time). *Web Client's* trend viewer is designed to show different types of trends:

- *defined trend* – trend predefined in *Trend Manager* (see *Runtime software help*)
- *tag trend* – trend showing values of selected tag (contains tag series and limit series)
- *selection trend* – trend showing values of selected tags
- *custom trend* – trend defined in *Web Client*

Data viewed in the *Trend viewer* is downloaded from the data server when they are needed and cached by the viewer to speed up browsing. After the viewer is closed, cache is deleted. Any part of the trend can be magnified with the **zoom** function – to define the area that should be magnified, drag the mouse from top left to bottom right. To display the trend in original size (cancel zoom), drag the mouse from bottom right to top left.

Right side of the *Trend Viewer* contains a *Quick Setup Panel*. It is designed to make quick changes in the basic trend settings (3D view, title, ruler and legend visibility, show overridden values, configure axis ranges). The ruler allows you to quickly change the visibility of the series. The Auto-scroll option enables automatic trend updating. To show hidden *Quick Setup Panel*, select an appropriate command from the toolbar.

Trend settings are automatically stored on the local computer in the user's profile (profile in the OS) and is separate for every project.

Bottom panel contains the information about a number of downloaded/displayed samples (sum of samples contained in all series). Trend viewer is not modal, which means that the user can work with the *Web Client* even if the list is opened.

[Toolbar commands](#)

[Defined trend](#)

[Tag trend](#)

### 2.5.1 Toolbar commands

Toolbar and trend viewer local menu contains following commands:

*Full Backward*

Scrolls the trend view backward by full time range (page).

### *Half Backward*

Scrolls the trend view backward by half a time range (page).

### *Half Forward*

Scrolls the trend view forward by full time range (page).

### *Full Forward*

Scrolls the trend view forward by half a time range (page).

### *Forward to Latest*

Scrolls the trend view forward to the latest data.

### *Move Rule Backward*

Moves the ruler to previous sample.

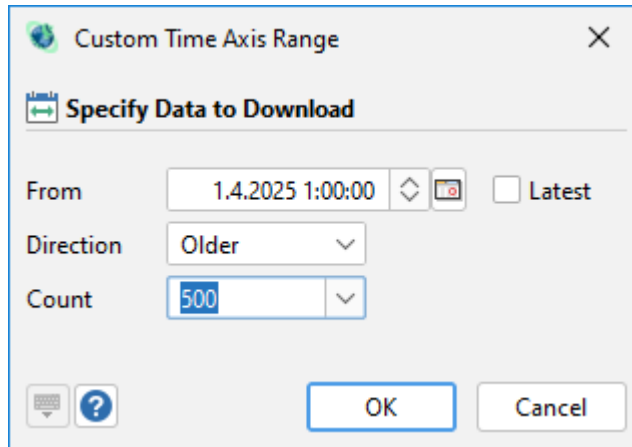
### *Move Rule Forward*

Moves the ruler to next sample.

### *Custom Time Axis Range*

Brings up the dialog that enables you to manually specify the time range. If the time range is specified as a number of samples, the it is defined with a time stamp, direction and sample count. If the time range is specified as a time, it is defined with a beginning and ending time stamp.

**Note:** If a [Tag trend](#) is used, the range is defined with a time stamp, direction and sample count.



**Custom Time Axis Range**

*Cancel zoom*

Resets trend zoom.

*Show Tag Information*

Shows the [Tag Information](#) dialog window; command is present only for *tag trends* (if trend viewer is opened via *File > Tag Trend*).

*Copy To Clipboard*

Inserts the picture of a currently displayed trend to the system clipboard, so the picture can be pasted to a third party application.

*Print*

Opens a dialog window to configure and print displayed trend.

*Save To File*

Exports trend to a selected image file. File format is defined by a file extension (PNG, JPG, GIF, BMP).

*Show Data As Text*

Displays trend data in [Text Data viewer](#).

*Show Quick Setup Panel*

Shows hidden *Quick Setup Panel* containing basic trend settings and axis ranges.

### Chart Settings

Contains the *Chart Settings* command, which displays a dialog box for detailed chart appearance settings, the *Load User Chart Settings* command, which loads chart settings from the selected user's profile, the *Save User Chart Settings* command, which saves chart settings to the selected user's profile, the *Reset Chart Settings* command, which resets chart settings to their default state, and the *Reset Separate Axes Settings* command, which resets the chart settings to their default state (other chart settings remain same).

### Help

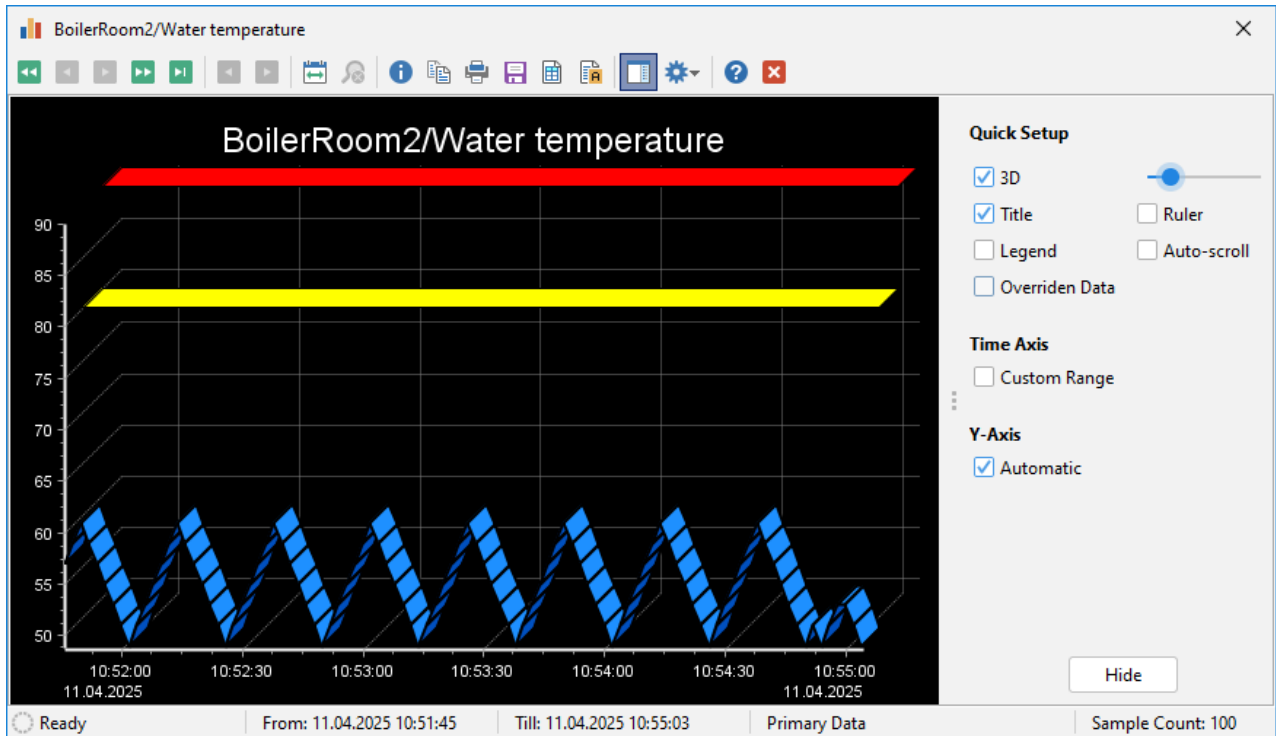
Displays this help in your default web browser.

### Hide

Hides this viewer.

## 2.5.2 Defined Trend viewer

The viewer is designed to show **historical data** of the tags defined in the project. Displayed time range of the trend is predefined in a trend definition, but it can be manually adjusted changing by *Custom Range* in *Quick Setup Panel*. Time range is defined by a number of samples. Settings is saved for each defined trend.



Defined Trend Viewer

### 2.5.3 Tag Trend viewer

*Tag Trend viewer* is designed to show historical data of a **single tag**. If tag limits are defined they are shown as horizontal lines in the trend. Yellow lines mark warning limits, red lines mark critical limits. Settings made to trend viewer are stored globally (tag trend settings are not tag specific).

The listed limit colors are default, they can be set differently in the project.

## 2.6 Custom Trend

The **Custom Trend** dialog window is a tool for displaying a trend created in the web client. Selecting a trend and confirming the dialog box opens the trend viewer with the selected custom trend.

**Custom Trend**

**Trends**

Temperatures New... Rename... Copy... Delete...

**Title**

Temperatures - comparison

**Series**

BoilerRoom1/WaterTemp  
BoilerRoom2/WaterTemp

**Range**

Count 6 hours

**Axis**

Right  
 Separate  
 Hidden  
 Automatic

Minimum and maximum Minimum 0 Maximum 100

**User Settings**

Load... Save...

OK Cancel

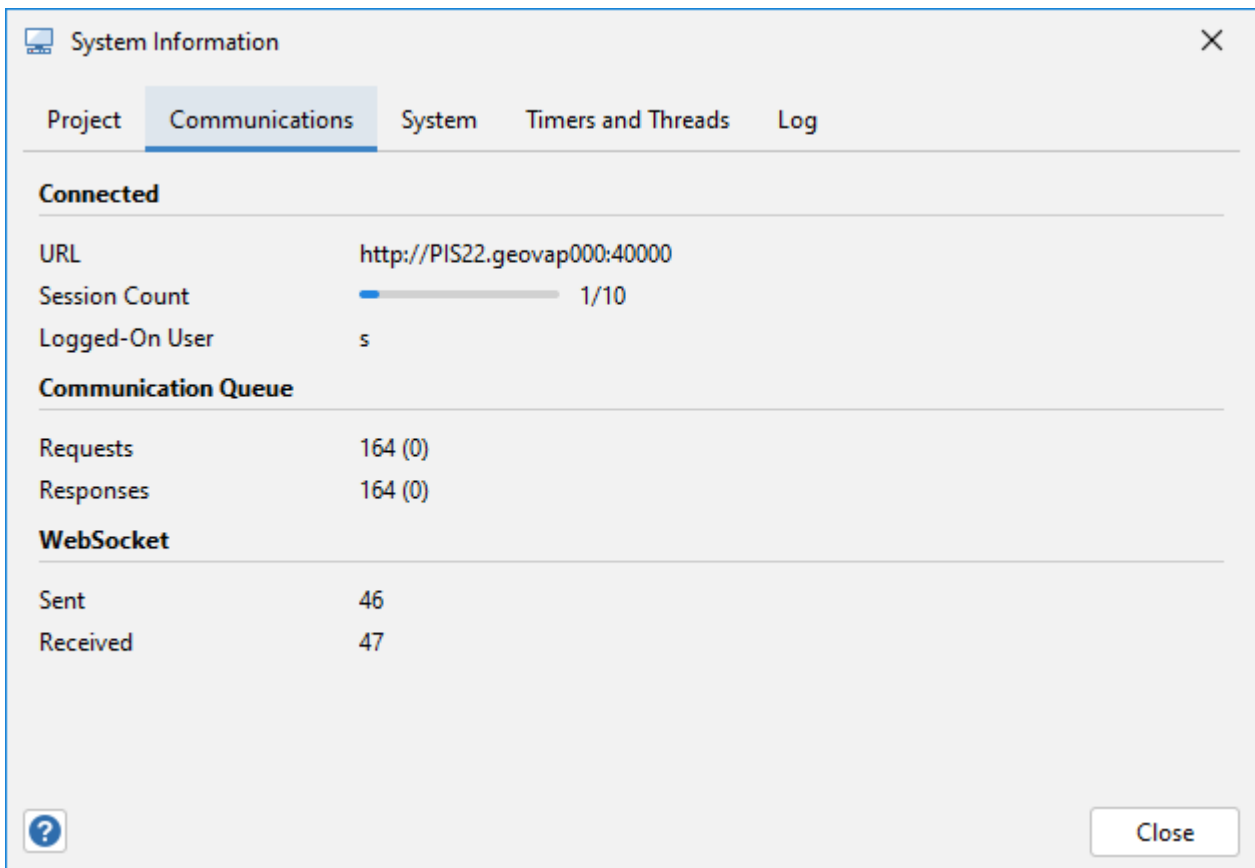
Custom Trend

The tool also allows trend management. Trends can be created (the *New* command), renamed (the *Rename* command), copied (the *Copy* command), or deleted (the *Delete* command). Each trend consists of a list of series. Each series corresponds to a variable stored in the database. Series can be added using data table field (the *Add: Data Table (Field)* command) or directly tags (the *Add: Variable* command). Series can be removed (the *Remove* command) and their order can be changed (the *Move Up* command and the *Move Down* command). A time range can be defined (using the number of points or the number of hours). The vertical axis can be set as common for all series, or separate for selected series.

The list of custom trends is saved in the profile of the logged-in user on the data server. Trend settings can be loaded from the selected user's profile (the *Load* command) or saved to the selected user's profile (the *Save* command).

## 2.7 System Information

**System Information** provides information and diagnostics about running Web Client and visualization project.



### System Information – Communication

Dialog window contains the following tabs:

#### Project

Provides information about current project (name, computer name, export time and date, up time). List located at the bottom part of the *Project* tab contains an overview of objects defined in a project. Objects are listed by the categories (tags, devices, trends, windows etc.).

## Communications

The first line contains text information about the state of the communication (possible states are listed in the topic [Title bar](#)). If connection to a data server can't be established, information about cause of the problem is displayed at the bottom of the Communications panel (e.g. `Can't connect (connection refused)`).

### *URL*

Data server URL.

### *Session Count*

Indicates the number of *thin clients* connected to the data server (currently connected / maximum available licenses).

### *Logged-On User*

Name of the currently logged-on user.

### *Requests*

Number of requests send to the data server; number in parenthesis indicates a number of requests to be send.

### *Responses*

Number of responses received from the data server; number in the parenthesis indicates a number of responses waiting in the queue.

### *Sent*

Number of messages send to the data server via WebSocket; number in parenthesis indicates a number of messages to be send.

### *Received*

Number of messages received from the data server via WebSocket; number in the parenthesis indicates a number of messages waiting in the queue.

## System

Contains a basic information about Web Client program (Java active thread count, memory usage and Java properties etc.).

**Timers and Threads**

Informs about the activity of timers and threads. Gray lamp (not blinking) signalizes that corresponding thread is not running.

**Log**

Displays the current web client log records.

*System Information* window is not modal, which means that the user can work with the *Web Client* even if it is opened.

## 2.8 Information dialogs

[Tag Information](#)

[Alarm Information](#)

[User Information](#)

### 2.8.1 Tag Information dialog

The **Tag Information** dialog contains information on tag's definition (*Id, Name, Data Type* etc.) and information on current tag's state (*Value, Time Stamp, Quality* etc.). The dialog window can be accessed e.g. from the [Enter Tag Value](#) dialog. Information on tag state is periodically updated.

Main		Other	
ID	36	Kind	Internal
Name	BoilerRoom2/WaterTemp	Data Type	SmallInt (16 b)
Alias	BoilerRoom2/Water temperature	Eng. Name	
Description		Units	°C

Value		Limits	
Displayed Value	15	High Critical Limit	90,00
Value	15	High Warning Limit	80,00
Time Stamp	11.04.2025 10:55:37	Low Warning Limit	
Quality	GOOD	Low Critical Limit	

Tag Information

## 2.8.2 Alarm Information dialog

The **Alarm Information** dialog contains information on defined alarm (Id, Name, Text etc.) and information on alarm current state (Data and Time of alarm's Start, End or Acknowledgement). The dialog window can be accessed for example via command in the [Current Alarm viewer](#). Information on an alarm current state is automatically updated. The [Tag Information](#) dialog and the [User Information](#) dialog can be accessed from this window.

The screenshot shows the 'Alarm Information' dialog window with the following data:

Text	
Text	Pump fault
Description	Call the technician at 723145789.

Date/Time		Alarm	
Receipt Date/Time	27.03.2025 14:58:31	ID	3
Start Date/Time	27.03.2025 14:58:30	Name	BoilerRoom1 - PumpFault
End Date/Time		Alias	BoilerRoom1 - PumpFault
Acknowledge Date/Time		Type	alert
Last Occurrence Date/Time	27.03.2025 14:58:30	Condition	DIGITAL_HI
Occurrence Count	1	Priority	0
Note Date/Time		Groups	

Tag		Other	
Tag	BoilerRoom1/Pump fault	State	Active, Unacknowledged
Tag Value	1	Computer	Server1

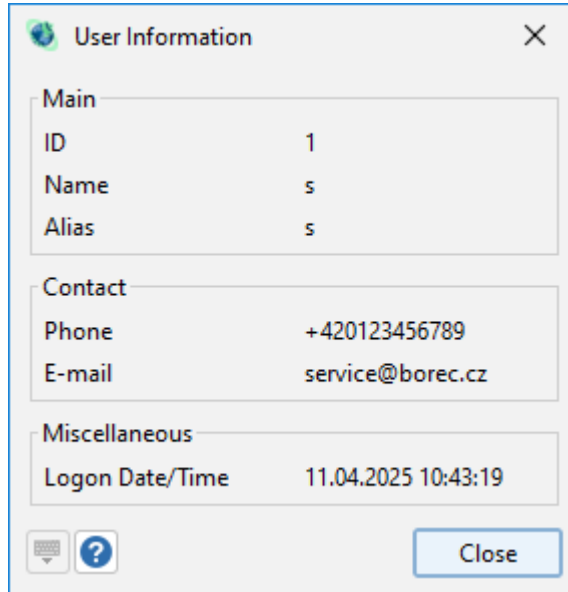
User	
User	Default
User (command)	Default
User (acknowledge)	None
Acknowledge Permissions	

At the bottom right of the dialog is a 'Close' button.

### Alarm information

### 2.8.3 User Information dialog

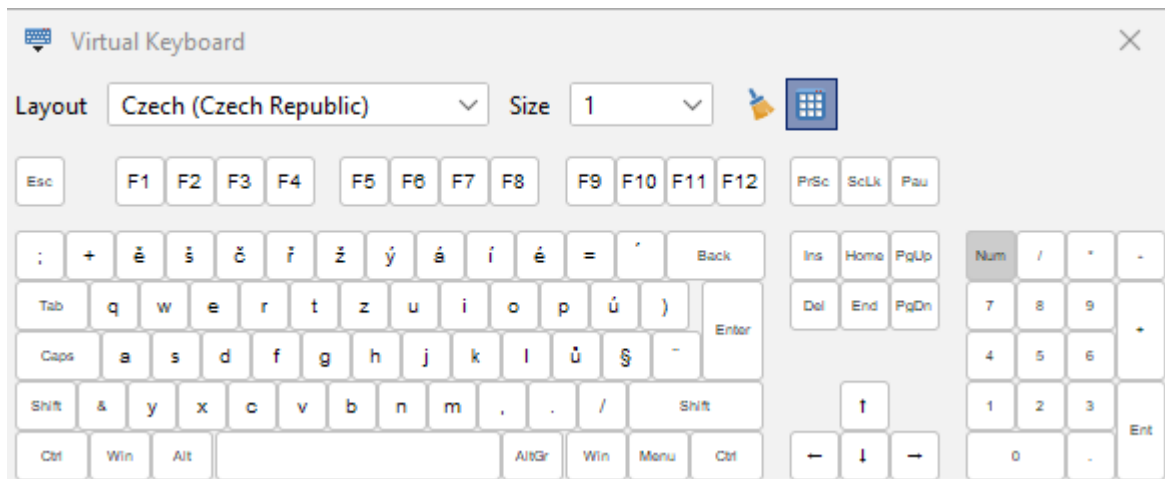
The **User Information** dialog window contains basic information on a user (Id, Name and Alias). Information about currently logged user can be accessed via the *> File > Logged-On User Information* command or via the icon on the right side of the main toolbar.



**User Information**

## 2.9 Virtual keyboard

If it is required, values can be entered by *Virtual keyboard*. This is very useful especially if *Reliance Web Client* is operated on a computer without a keyboard (e.g. a touch panel).



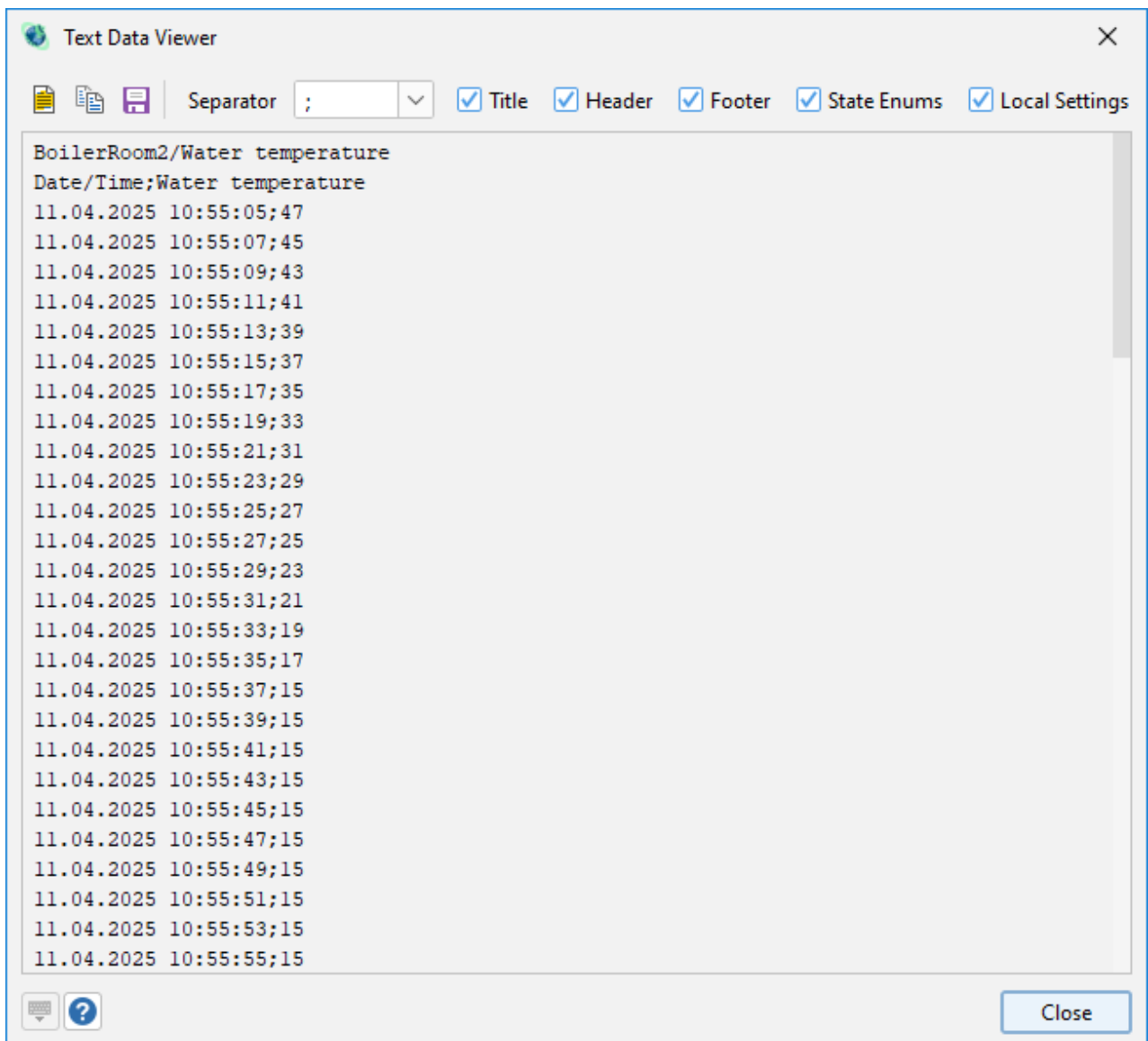
### Virtual Keyboard

Numerical keypad can be easily hidden with the *Num. Pad* key. The size and the layout of the virtual keyboard can be adjusted via combo boxes located at the top left part of the window.

**Note:** Changing layout of the virtual keyboard to required language settings changes only key labels. Real meaning of the keys depends on the layout selected in operation system (usually with ALT + SHIFT).

## 2.10 Text Data Viewer

*Text Data Viewer* is a dialog window designed to view (usually historical) data as a text. The viewer can be used to display [Alarm list](#) or [Trend data](#) in a simple text form. Data values are separated by the semicolon by default, but the *separator* can be changed. The list can optionally contain *Title*, *Header* and *Footer*. Data in the text form can be easily copied to the clipboard and used by another application (e.g. MS Excel). Data can also be saved to a file in the CSV format.



Text Data Viewer

Toolbar contains following commands:

*Select All*

Selects all rows of the list.

*Copy To Clipboard*

Copies selected text to the clipboard.

*Save To File*

Saves text to the selected file.

## 2.11 Common GUI elements

Window menu

Activate Virtual keyboard button

### 2.11.1 Virtual keyboard button

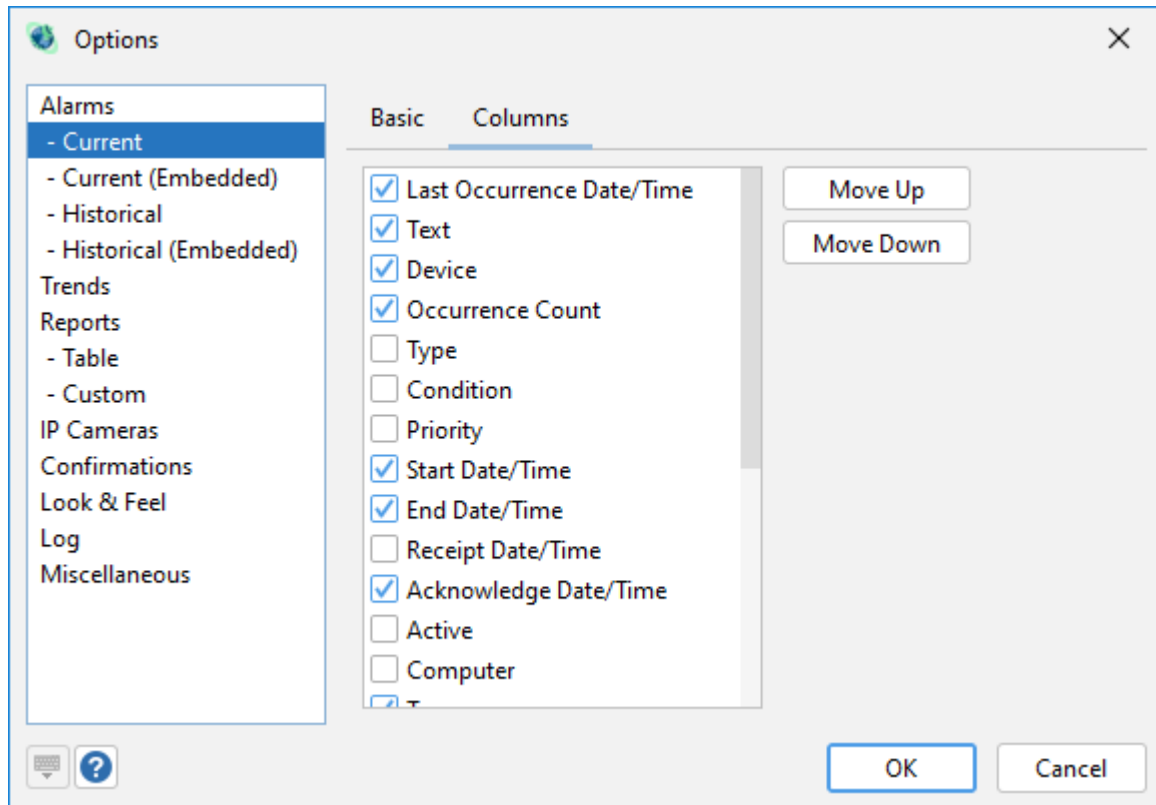
Some dialog windows (e.g. [User Logon](#) and [Edit Tag Value](#)) contain the *Virtual keyboard* button. The button brings up the [Virtual keyboard](#).



Show virtual keyboard button

## 2.12 Options

The **Options** dialog window enables the user to change *Web Client* settings.



### Tools – Options

#### Alarms

##### Basic

The *Play Sounds* parameter enables/disables sounds associated with alarms. This parameter is available only in the Current Alarm viewer.

##### Columns

Defines visibility and position of columns displayed in the [Alarm viewers](#).

## Trends

### *Basic*

Defines the distance (offset) of the horizontal and vertical axes from the edges of the trend. This can be useful in cases where a trend series is overlapped by the axis (e.g. a series with zero values). The offset value is entered in percentage. It also defines the range type of the horizontal (time) axis for a tag trend. The option specifies whether the axis range is determined by the point count or the time range.

### *Ruler*

Defines custom appearance for the trend ruler (ruler type, line color, line width, line style).

## Reports

Defines the layout of generated HTML page for large reports (multiple pages). Defines the format used to view *Custom Reports* (HTML or PDF). Report is dynamically generated by the data server in selected format and displayed in the default browse. For table reports, it defines the sorting of records.

## IP Cameras

Defines the image refresh interval of IP cameras. If the *Direct Connection* parameter is activated then the image will be provided directly by IP camera. In other case the image will be provided through the data server.

## Confirmations

Defines if a confirmation dialog should be displayed and the automatic answer. Another way to define this settings is with the parameter "*Don't show this message again*" in the confirmation dialog.

## Look & Feel

Enables the user to select GUI graphical theme. The list of available themes depends on an OS and on the JRE version. Changes will take effect after restart of *Web Client*.

### *Use System Font*

Defines if operation system's font should be used for controls.

### *Menu Bar Embedded*

Defines whether the main menu of the web client should be part of the title bar. This feature is only supported by some Look & Feels.

### *Custom Scrollbar Width*

Enables the user to set the width of the scrollbars. Some Look & Feels have narrow scrollbars by default, which may not be satisfactory.

## **Log**

Enables logging of various information internally generated by Web Client. The logs are stored in the user's profile (*Documents and Settings*) and can be requested by the software author to help resolving eventual problems.

## **Miscellaneous**

### *Computer Connected to Same Network as Data Server*

Specifies that the web client is running on a computer that is on the same network as the data server. This means that some devices (e.g. IP cameras) are available at a local address and the web client can establish a direct connection to them. Otherwise, the connection is made via the data server, which may be slower.

### *Send Anonymous Usage Statistics*

Defines if anonymous information on usage of the *Web Client* should be send to a GEOVAP, s.r.o. company server. Information is sent always when program starts and it is used only for statistic purposes.

The *Web Client's* settings are stored in the Operation System user's profile, which means that settings are common to all visualization projects. Also other settings, such as system window position or size and column width in alarm viewers, are stored in the same way.

## 3 Appendix

### 3.1 Glossary

#### **JNLP** (*Java Network Launching Protocol*)

Protocol designed to start program written in the **Java** programming language via Internet (*Java Web Start*).

#### **PDF** (*Portable Document Format*)

A file format created by *Adobe Systems* for document exchange. PDF is used for representing documents in a form independent of software and hardware.

#### **CSV** (*Comma-separated values*)

A simple text based format designed for exchange of tabular data.

#### **Data servers**

A common term for the **Reliance Server** and **Reliance Control Server** runtime software.

#### **HTML** (*Hypertext Markup Language*)

A markup language for creating Web pages.

#### **Java Web Start**

A framework developed by Sun Microsystems that allows starting and automatically updating programs written in Java directly from Web pages.

#### **JRE** (*Java Runtime Environment*)

The runtime environment for programs written in Java.

#### **SOAP** (*Simple Object Access Protocol*)

A protocol for exchanging XML-based messages over the Internet, usually via HTTP.

#### **TCP port**

A special number used to map data to a particular process running on a computer.

#### **Thin clients**

A common term for **Reliance Web Client** and **Reliance Smart Client** (designed for use with smartphones and tablets).

**Web server**

A program responsible for processing HTTP requests from clients, usually from Web browsers. Processing a request means, for example, delivering a Web page.

**Web service**

A part of a program that allows data exchange with client applications over the Internet by means of the SOAP protocol. To transfer the data, the Web service uses a Web server.