



USER MANUAL



SvanNET ON-LINE MONITORING SOLUTIONS

Warsaw, 2019-04-18
Rev. 1.02

Copyright © 2019 SVANTEK.
All rights reserved.

CONTENTS

1	INTRODUCTION	3
2	SVANNET PROJECTS	5
2.1.	Automatic Files Download (AFD).....	5
2.2.	Advanced Alarms.....	5
2.3.	Data Storage	5
2.4.	Access levels	6
2.5.	Start SvanNET - Project VIEW	7
2.6.	Project list	11
2.6.1.	<i>STATUS</i> view (all access levels).....	16
2.6.2.	<i>CONFIGURATION</i> view (Owner/Administrator access level).....	19
2.6.3.	<i>SHARING</i> view (Owner access level)	20
2.6.4.	<i>AUTOMATIC DOWNLOAD</i> view (Owner/Administrator access level).....	23
2.6.5.	<i>DATA FILES</i> view (Owner/Administrator and Manager access levels)	30
2.6.6.	<i>RESULTS</i> view (Owner/Administrator and Manager access levels).....	32
3	CONFIGURING INSTRUMENTS	35
3.1.	Station list	35
3.1.1.	<i>STATUS</i> view.....	37
3.1.2.	<i>LOG</i> views.....	38
3.2.	WEB INTERFACE	39
3.2.1.	<i>VIEW</i> results	40
3.2.2.	<i>STATUS</i> view.....	42
3.2.3.	<i>CONFIGURATION</i> view.....	43
3.2.4.	<i>DATA FILES</i> view.....	51
	APPENDIX A – ICONS DESCRIPTION.....	52

1 INTRODUCTION

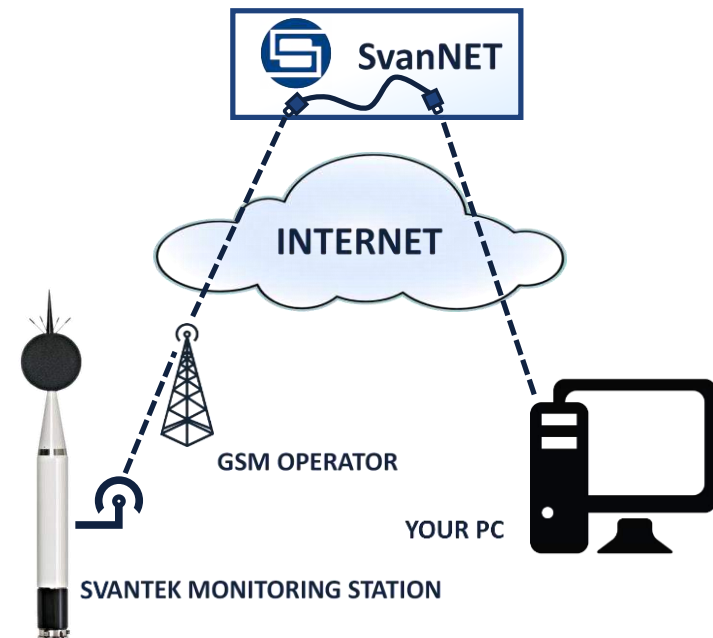
SvanNET is a web-service that supports multi-point connection with Svantek's noise & vibration monitoring stations. To ensure the reliability and data security the SvanNET has been located on the Microsoft Azure™, the cloud platform working through global network of Microsoft-managed data centers.

To support noise & vibration monitoring SvanNET provides on-line connection services such as web interface, access to data files in the monitoring station or status alarms. The monitoring checklist includes measurement status, alarms indication, power source including battery charge, external power information as well as the GSM signal strength.


SvanNET is an on-line solution which means it doesn't require software installation and is accessible through a web browser.

SvanNET connection maintains all types of SIM cards with a 3G modem regardless of having a public or private IP. Connection over the SvanNET allows users to:

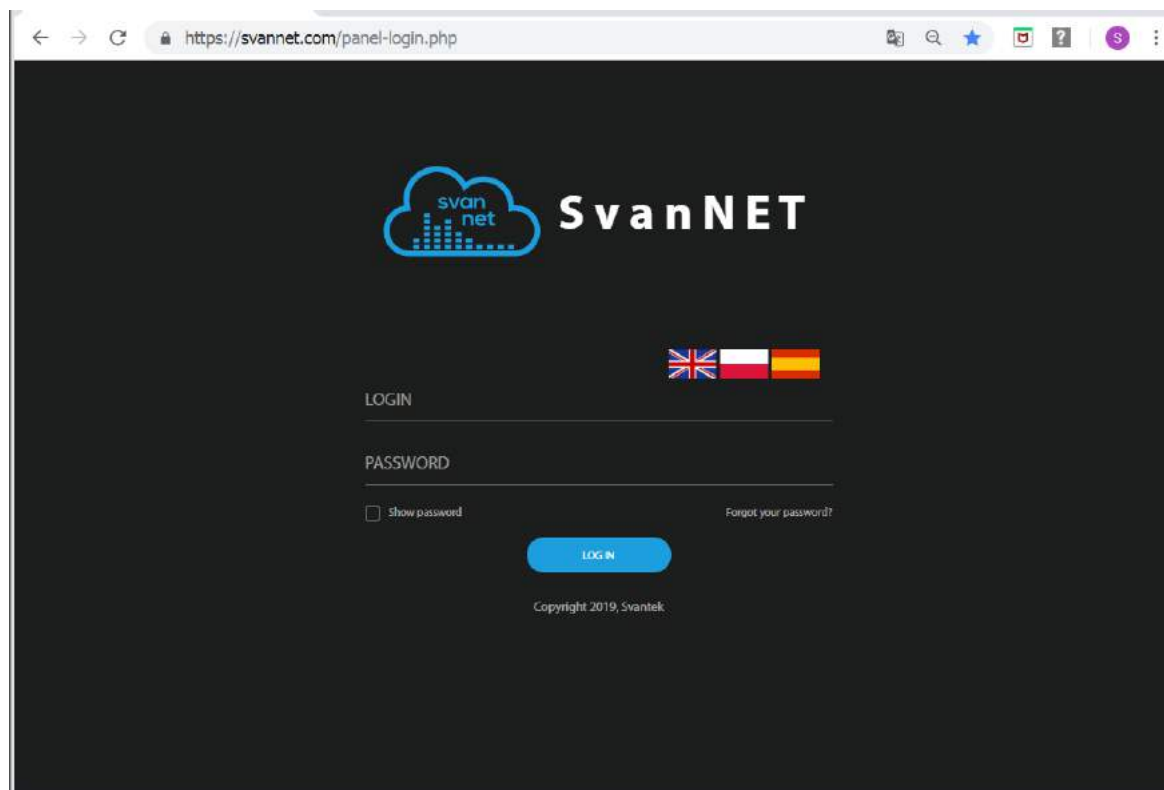
- use a mobile phone or a tablet to watch real time measurement results,
- manually download files and reconfigure stations,
- manually download files and reconfigure stations using SvanPC++_RC module,
- use the SvanPC++_RC application based on MS Windows® for automatic control of monitoring stations, data archiving, automatic web publication, etc.



Before start using the SvanNET web-service:

1. Check that your local distributor has created the SvanNET account for you and assigned your station(s) to your SvanNET account.
2. Install connections of your measurement devices with SvanNET (see user manuals dedicated for the measurement instruments). Successful connection with SvanNET is indicated by the  icon on the SVANTEK instrument's display.
3. To access SvanNET, log in to your account at: <https://www.svannet.com/panel-login.php>

Before logging in, select your language, clicking the appropriate flag.



Once logged in, you can use the web interface to control monitoring stations.

2 SVANNET PROJECTS

SvanNET Projects is a payable extension offering fully automated management of multi-point noise and vibration monitoring task. Tools such as Automatic Files Download, Data Storage, Advanced Alarms, Data Sharing and Reporting enable unattended monitoring. The functionality of SvanNET Projects allows to group monitoring stations so that alarms and reports are defined for each project separately. The data files are also grouped automatically in accordance with Project assignments.

2.1. Automatic Files Download (AFD)

The Automatic Files Download maintains the remote connection with monitoring stations and downloads the measurement data for each project separately. The AFD ensures that data is safely downloaded and shared before clearing the memory in the monitoring stations. The Automatic Files Download can be integrated as the content provided for customized websites - it can export data to FTP server both in the original Svantek format or converted to the CSV text format. The uploaded data can be easily used as the user's website content.

2.2. Advanced Alarms

The SvanNET Projects tools are capable to analyse data files downloaded by AFD in order to generate E-mail Alarms based on exceeding the level thresholds in specified time periods (e.g. Leq for day and night). System is flexible enough to alert different people depending on the day of the week or the time of day.

2.3. Data Storage

The main advantage of SvanNET Data Storage is a quick access to the measurement data that can be conveniently browsed and downloaded by the time range. The data is stored on the Microsoft Azure™ cloud platform ensuring reliable connection on the global scale.

2.4. Access levels

SvanNET allows to create different Projects each with a different Location and Level of Security that prevents users from getting access to information they're not authorized to see.

Multiple levels of security (MLS) for different users account offers possibility to limit the access to three levels: Administrator, Manager and User.

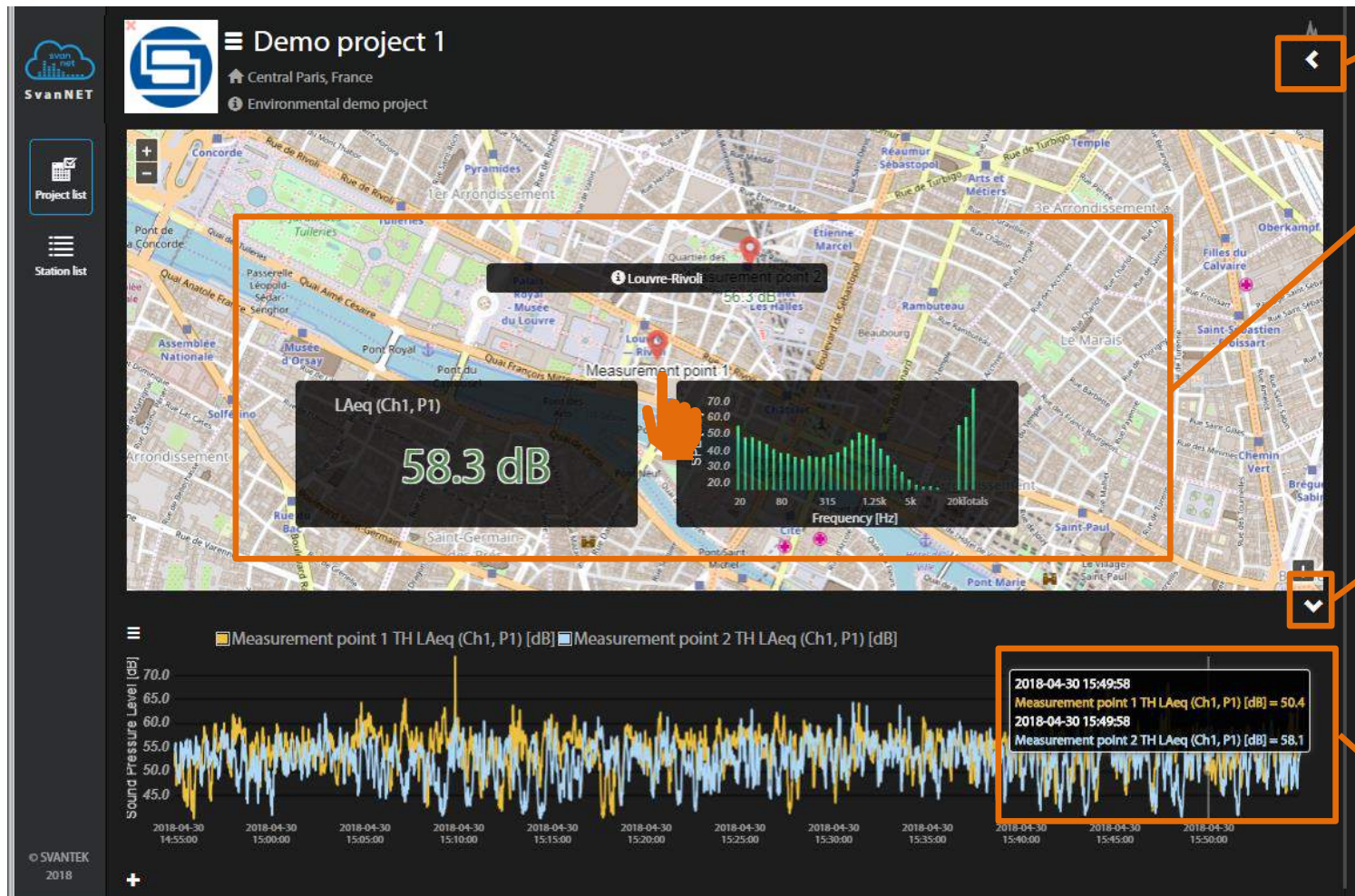
When you purchase Stations, you become the Owner and then you can manage them as Administrator. For each Project you can assign Administrator, Manager or Guest rights.

The difference between Owner and Administrator is that as an Owner you can add other administrator rights but as an administrator you can't. Below is an example of Administrator (Owner), Manager and Guest access to the Tool panel.

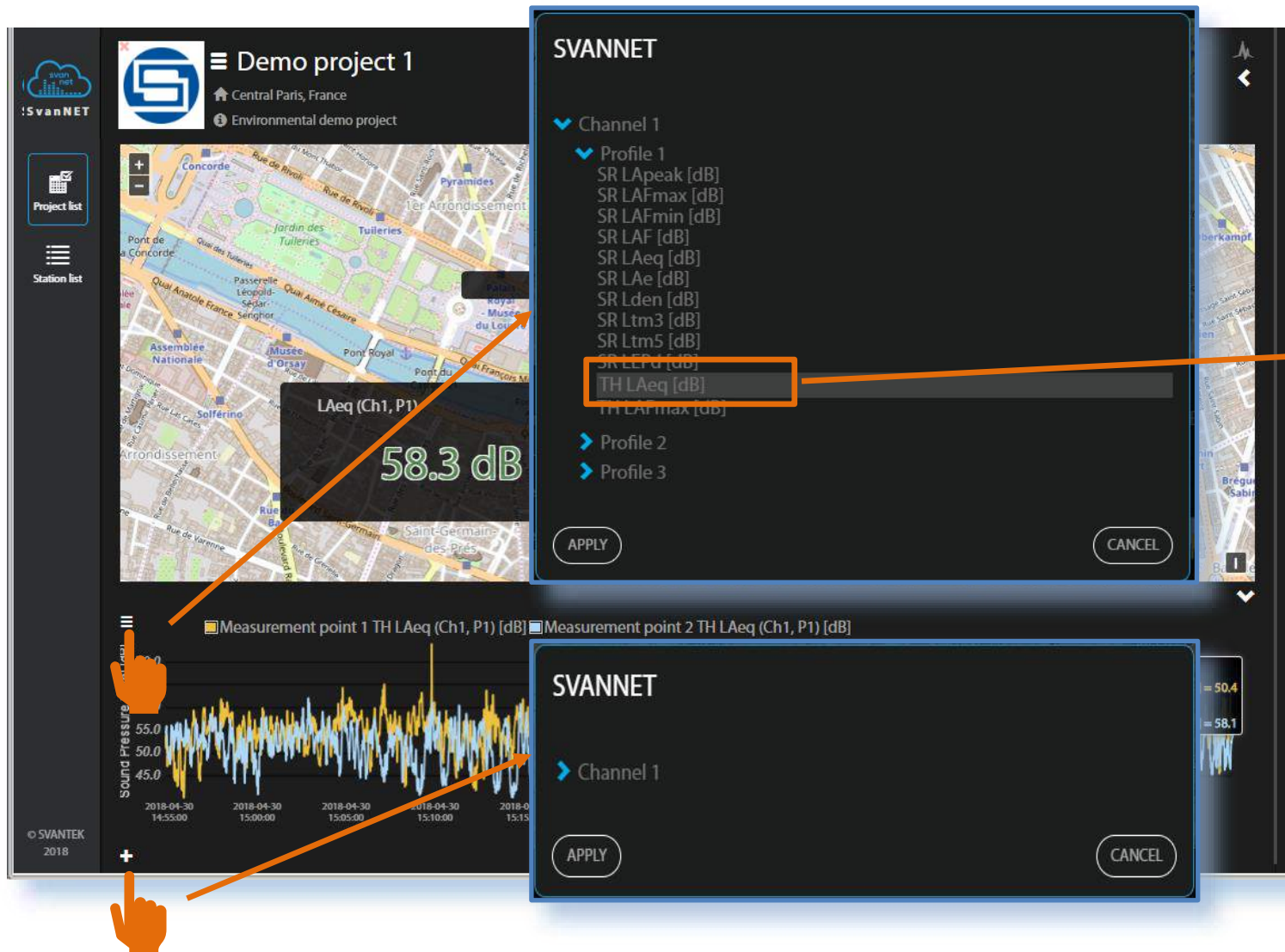




2.5. Start SvanNET - Project VIEW

When you open SvanNET a start-up project opens, with measurement points on the map appointed to this project.

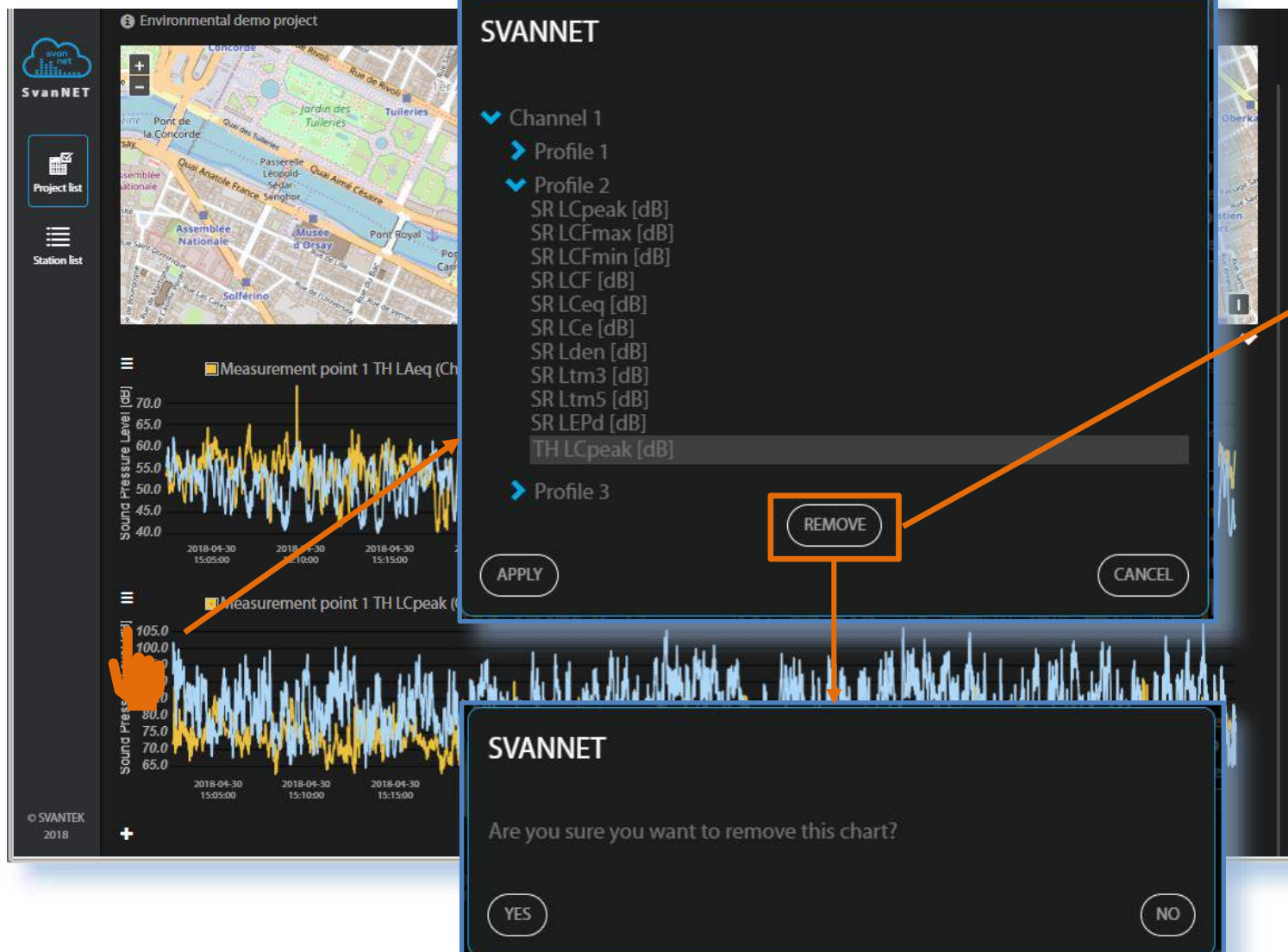



- Click the arrow to toggle panel with available stations.
- Click the measurement point on the map to pop up three boxes with point information, current broadband result and SPL spectrum.
- Click the arrow to hide the panel with time-history plots for all measurement points.
- Click the desired time point to see results for all measurement points in the cursor box.



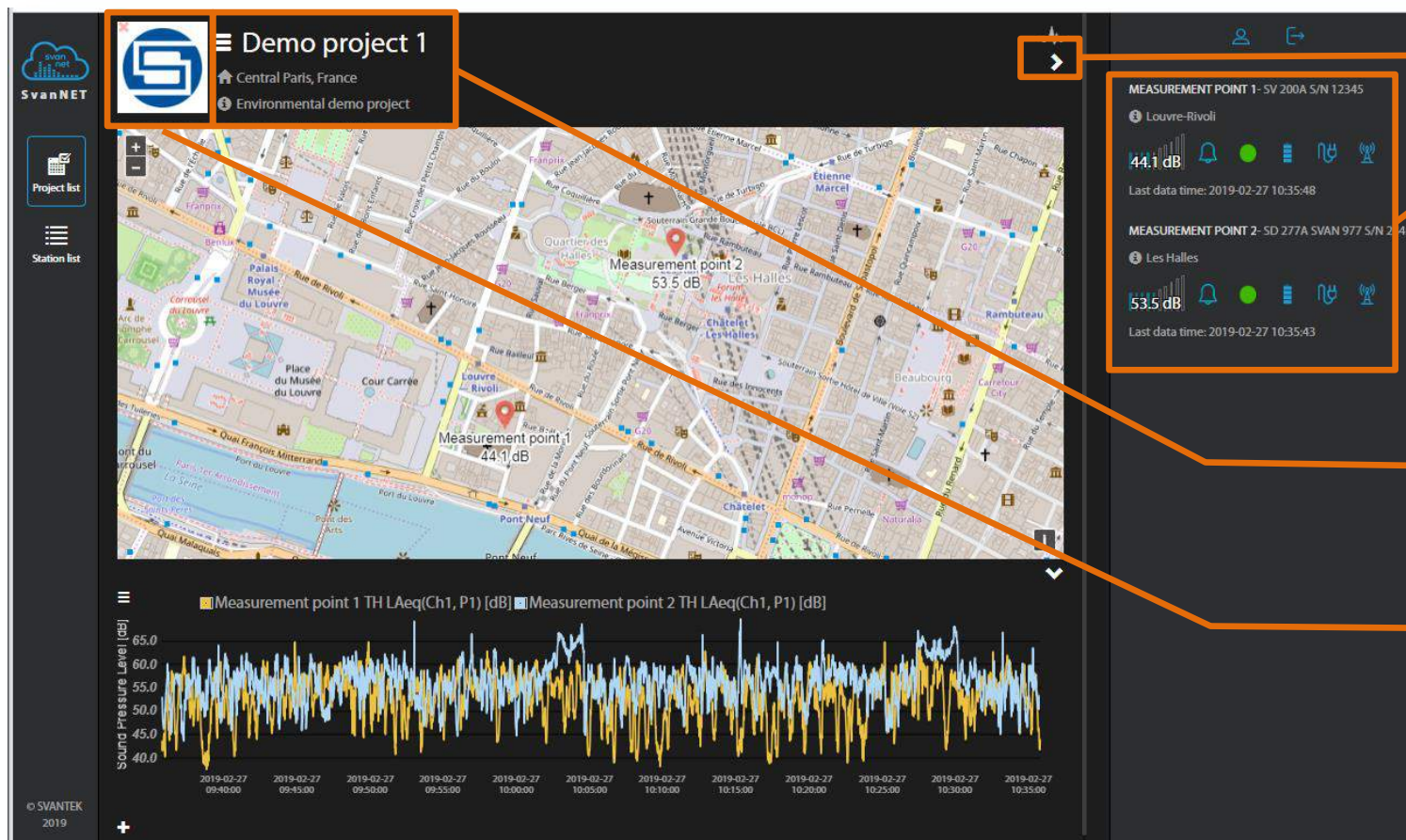
- Click  to change the measurement result in the pop-up box uploaded from the Channel and Profile.
- Click the result you wish to plot and then click **APPLY**.
- Click  to add the plot.



The measurement results may be measured and presented on the plot with **SR** (Summary results) or **TH** (Time history) steps.



- Click  to redefine the measurement results for created plot.
- Click **REMOVE** to delete created plot.
- Confirm removal in the pop-up box.

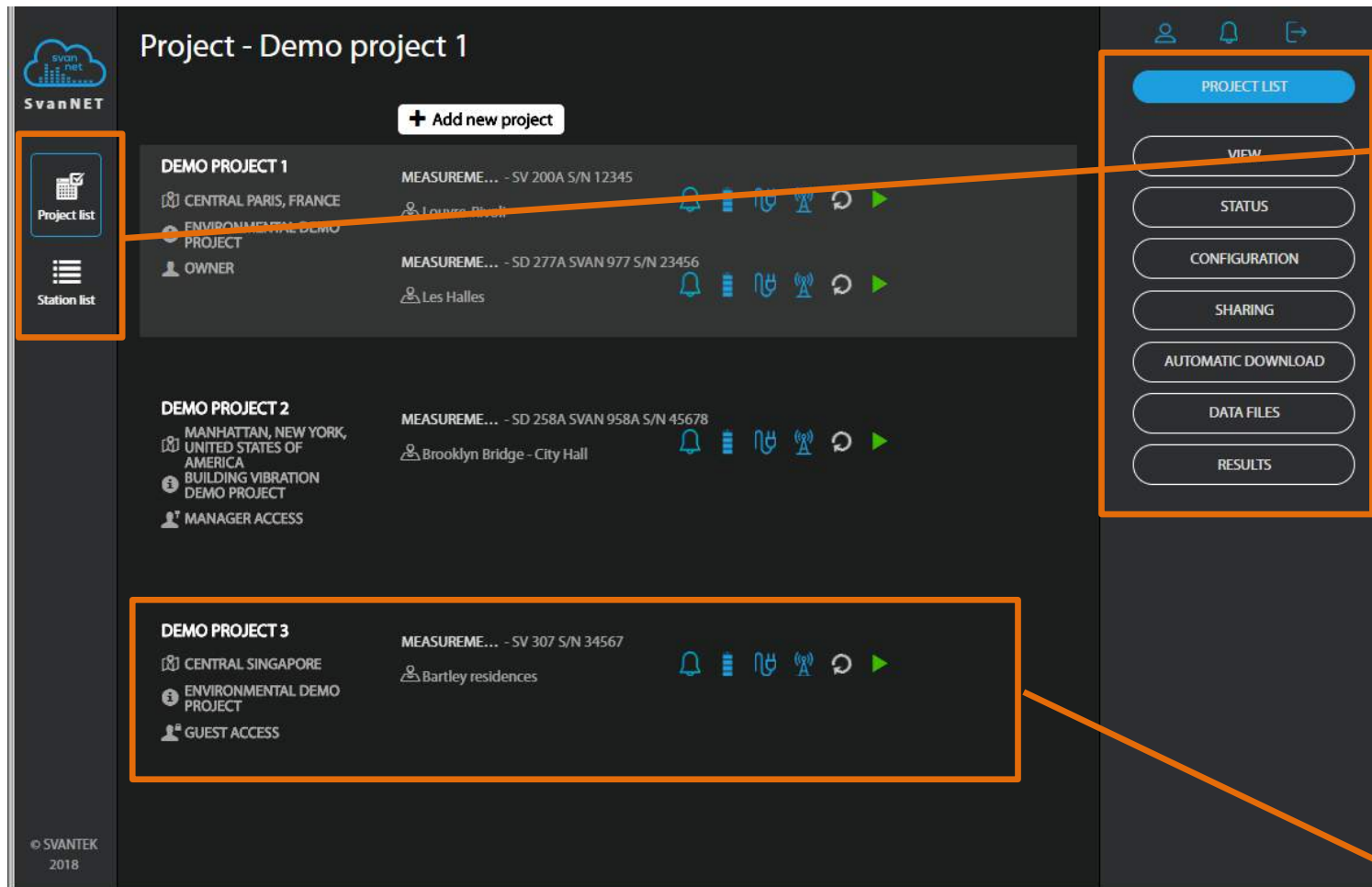
Note: You cannot delete the first plot.



- Click  to refresh your data.
- Click the arrow to open the side panel with station statuses for all measurement points.
- Click  to switch between projects in the pop-up box.
- Click the Svantek logo to change it to your own.

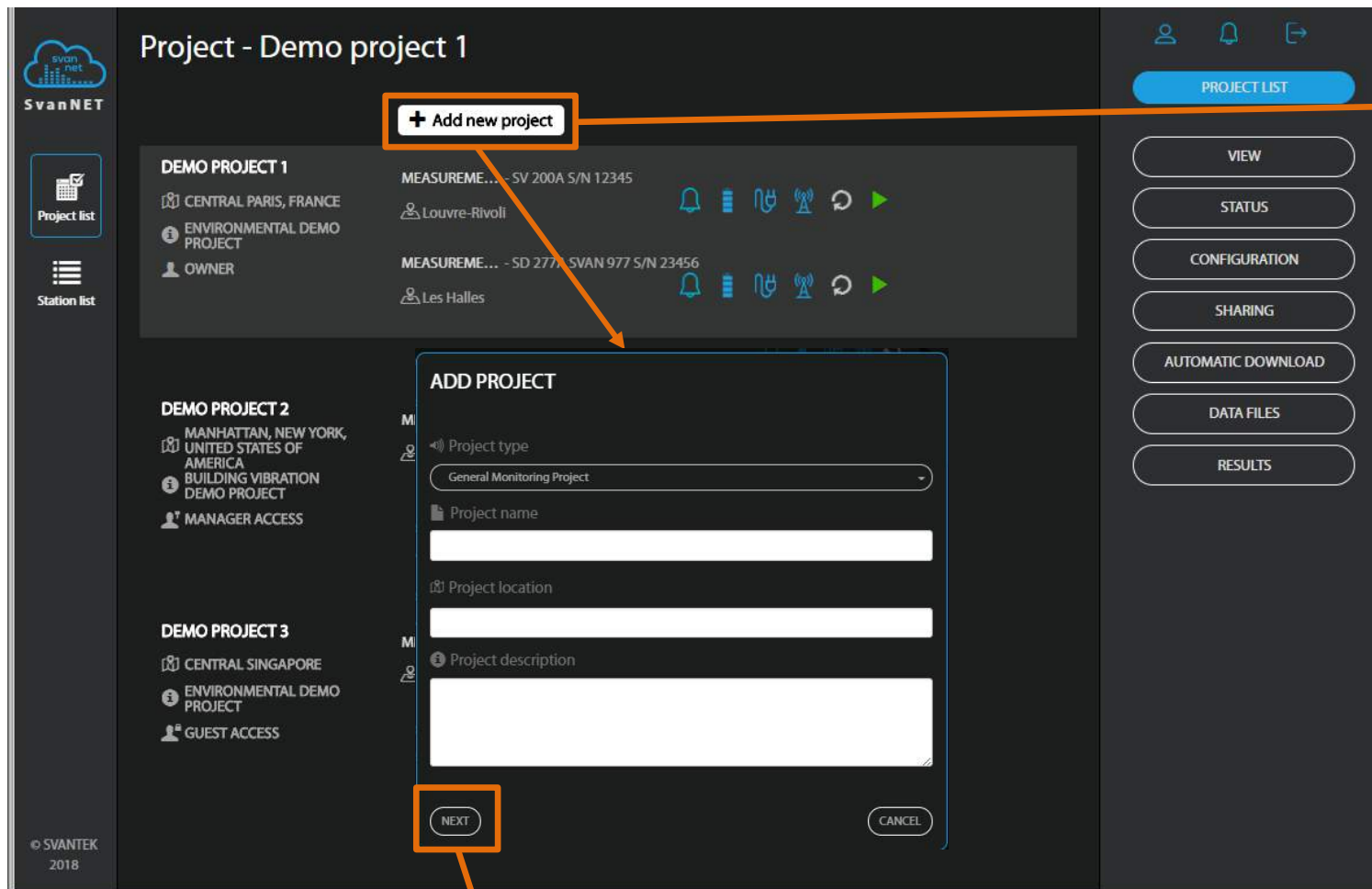
2.6. Project list

To open the Project list, use the left side bar.



The Project list is divided into three parts:

- Icons on the left-hand side allow you to choose whether you want to work with a particular station or with a Project. Wherever you are you can just click to see your station or ongoing project and manage them.
- Tool panel for the selected Project. Its content depends on the Access level.
- Information about the Project and used Stations.



To add new project:

- Click **+ Add new project** and in the ADD PROJECT pop-up box, select **Project type:** General Monitoring or Building Vibration Project

and enter:

Project name,
Project location and
Project description.

- Click the **NEXT** button to add measurement points.

ADD MEASUREMENT POINT

Point name
Strzyglowska


Point description
Svantek premises

Geolocalization
Latitude 52.172598 Longitude 21.163471

Station
None

SELECT COORDINATES

Search for ...



Latitude 52.172598 Longitude 21.163471

Project - DEMO PROJECT 4

SvanNET

DEMO PROJECT 4

STRZYGLOWSKA- NO STATION ASSIGNED

Svantek premises

WARSAW

EXAMPLE

OWNER

Project list

Station list

PROJECT LIST

VIEW

STATUS

CONFIGURATION

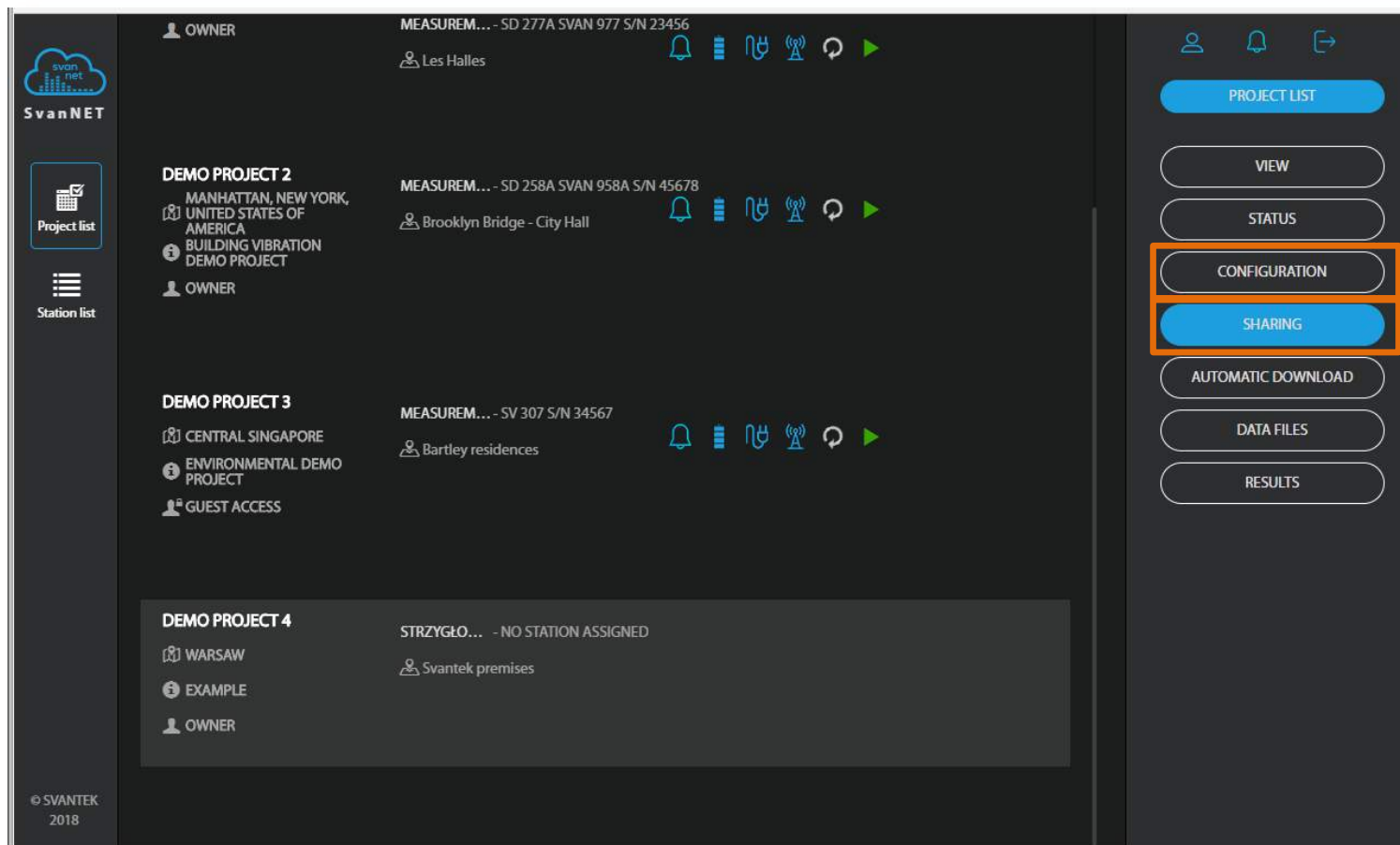
SHARING

AUTOMATIC DOWNLOAD

DATA FILES

RESULTS

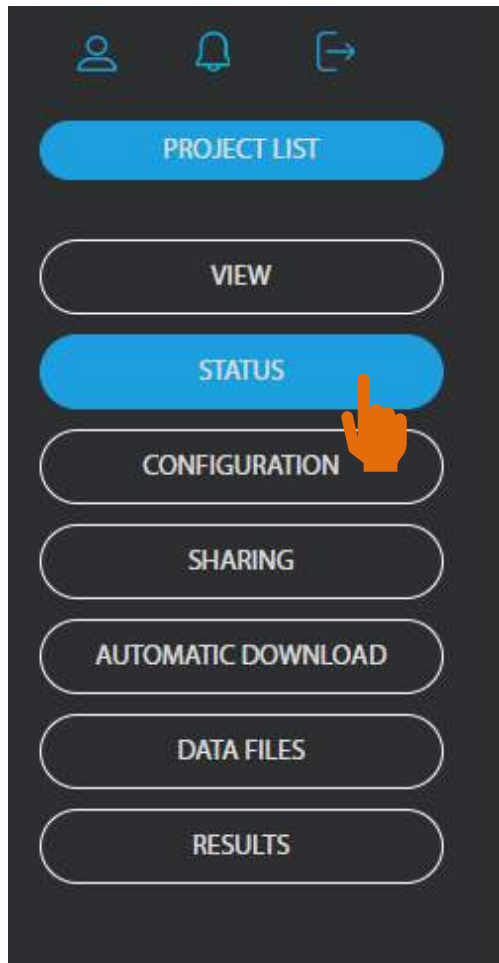
- In the ADD MEASUREMENT POINT box, enter: **Point name**, **Point description**, **Latitude** and **Longitude** of the monitoring station **Geolocalization**.
- Click **Pick from map**, find localization of your station on the map and click **APPLY**.
- Assign the station from the list of your stations and click OK to confirm made the measurement point parameters.



When new project is created you can:

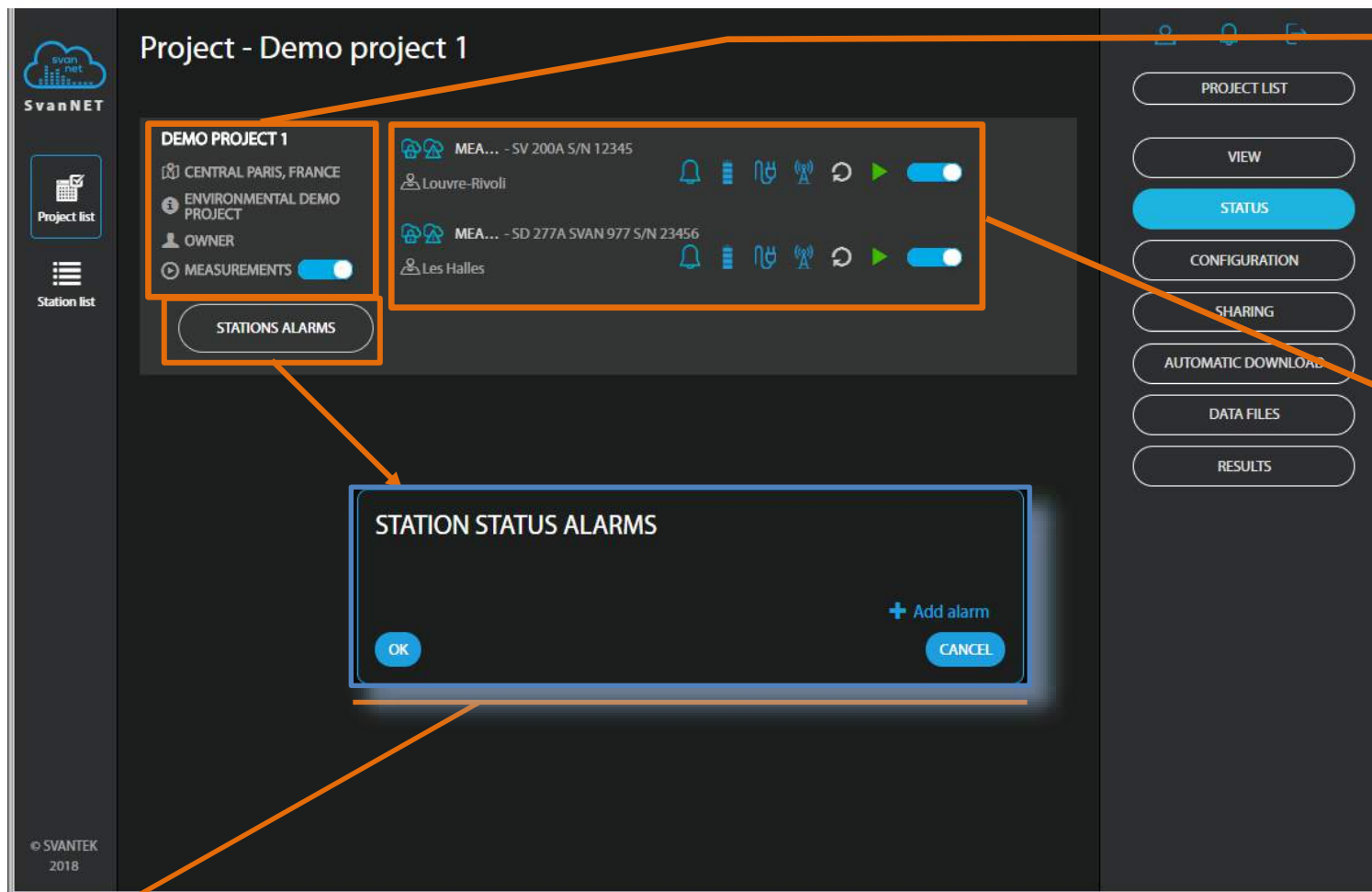
- add new measurement points clicking the **CONFIGURATION** button (see Chapter [2.6.2](#)),
- add new users clicking the **SHARING** button (see Chapter [2.6.3](#)).

The Tool panel structure depends on the type of access. The Tool panel for the OWNER enables all available functions. To switch the function, point cursor on the appropriate button (it will change its colour to blue) and click it.



- The blue **PROJECT LIST** button just informs you that you are in the Project view.
- The **VIEW** button switches you to the Project VIEW (see Chapter [2.5](#)) in which you can view measurement results.
- The **STATUS** button switches you to the Project STATUS view (see Chapter [2.6.1](#)) in which you can check the Project and instruments status and start/stop measurements.
- The **CONFIGURATION** button switches you to the Project CONFIGURATION view (see Chapter [2.6.2](#)) in which you can add/delete and configure measurement points.
- The **SHARING** button switches you to the Project SHARING view (see Chapter [2.6.3](#)) in which you can add new users with specific access rights.
- The **AUTOMATIC DOWNLOAD** button switches you to the Project AUTOMATIC DOWNLOAD view (see Chapter [2.6.4](#)) in which you can configure automatic downloading.
- The **DATA FILES** button switches you to the Project DATA FILES view (see Chapter [2.6.5](#)) in which you can manually download files from measurement points.
- The **RESULTS** button switches you to the Project RESULTS view (see Chapter [2.6.6](#)) in which you can view the history of measurement results.

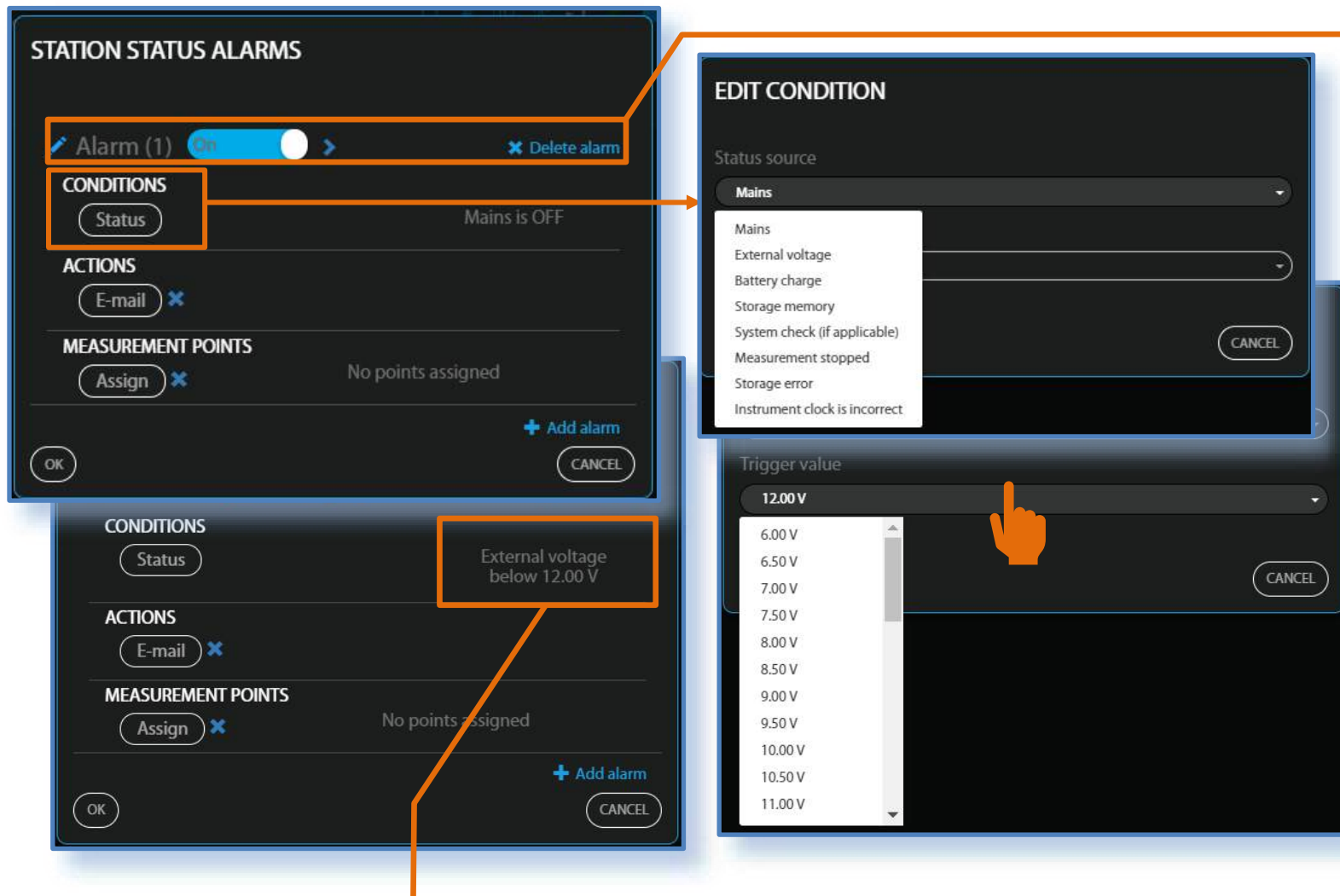
2.6.1. STATUS view (all access levels)



- This section presents the Project related information. You can also start/stop measurements for all measurement points simultaneously.
- This section presents measurement points related information - names and serial numbers of the instruments) and their status in the way of icons. You can also start/stop measurements for each measurement point individually.

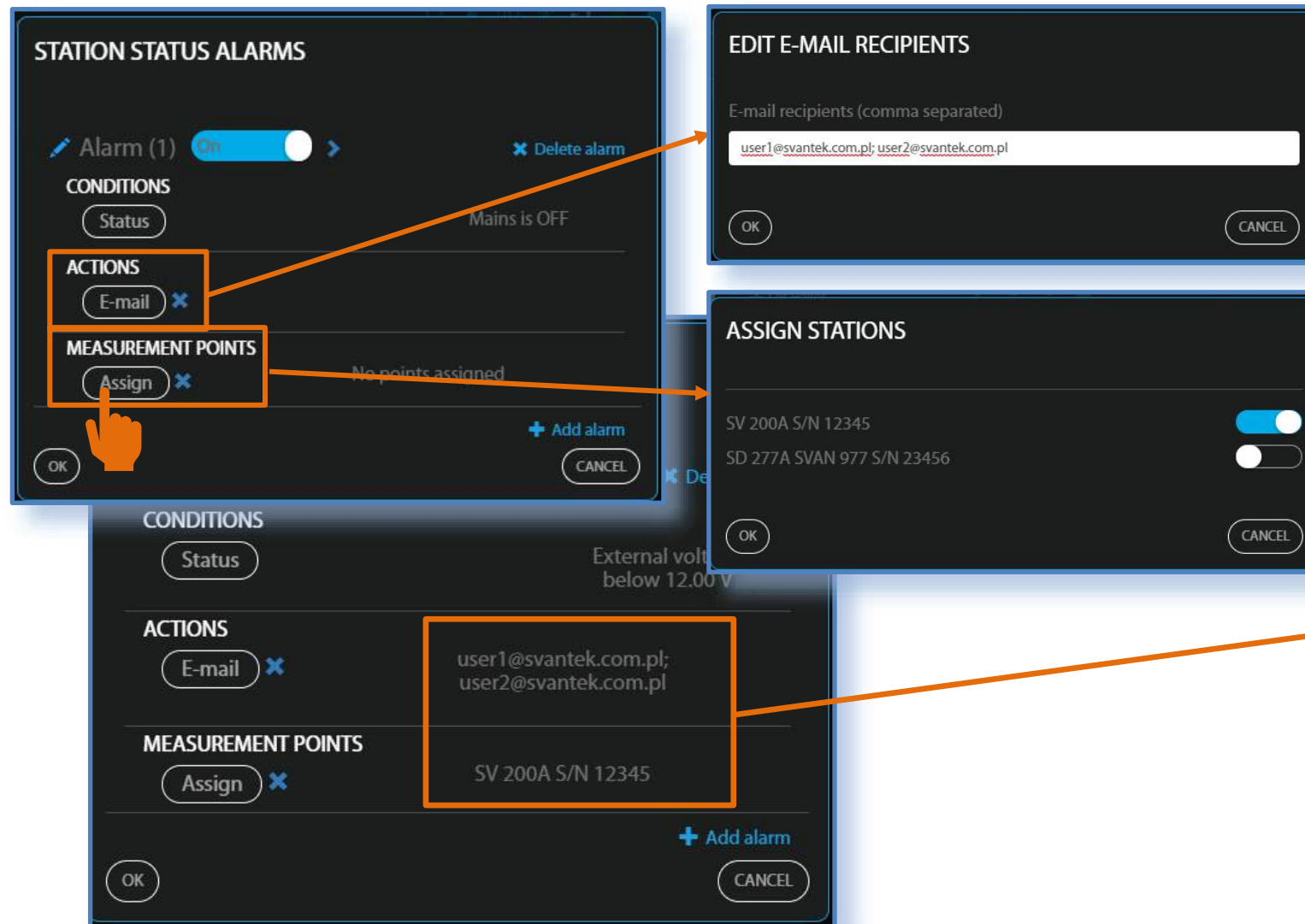
- Click the **STATIONS ALARM** button to configure alarms Conditions and related Actions for the measurement points.

To add new alarm, click the **Add alarm** text in the pop-up box appeared after clicking the **STATIONS ALARM** button.



- In this line you can switch on/off or delete the Alarm.
- Click the **Status** button and select **Status source**: Mains, External voltage, Battery charge, Storage memory, System check, Measurement stopped, Storage error, Instrument clock is incorrect.
- Click the **Trigger value** selector and choose the required threshold level for the selected **Status source**.
- Click **OK** and new CONDITION will be displayed in the SVANET STATION STATUS ALARMS box.

ALARMS relate to ACTIONS, that are default e-mails to the specified recipients, and refer to MEASUREMENT POINTS.



- Click the **E-mail** button to enter/edit e-mail recipients.
- Click the **Assign** button to assign alarm to the station(s).
- Made selections are displayed in the SVANNET STATION STATUS ALARMS box.

2.6.2. CONFIGURATION view (Owner/Administrator access level)

Project - Demo project 1

+ Add measurement point

DEMO PROJECT 1

EDIT PARAMETERS

MEASUREMENT POINT 1 - SV 200A S/N 12345
Louvre-Rivoli

MEASUREMENT POINT 2 - SD 277A SVAN 977 S/N 23456
Les Halles

Edit settings **Edit station configuration**

MODIFY PROJECT

Project type
General Monitoring Project

Project name
Demo project 1

Project location
Central Paris, France

Project description
Environmental demo project

DELETE PROJECT

MODIFY MEASUREMENT POINT

Point name
Measurement point 1

Point description
Louvre-Rivoli

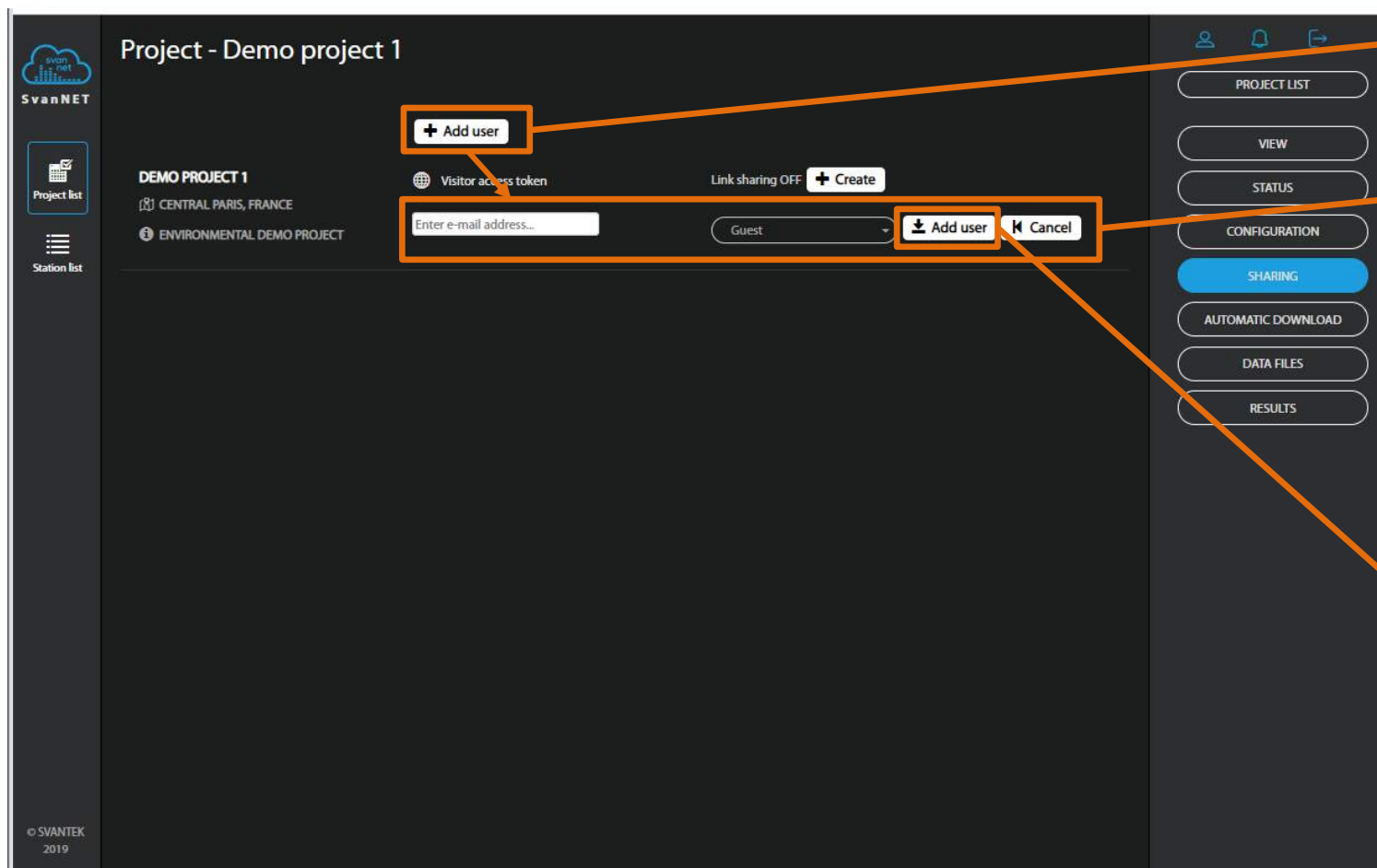
Geolocalization
Latitude 48.859774 Longitude 2.341741
Pick from map

Station
(SV 200A S/N 12345)

DELETE MEASUREMENT POINT

- Click **EDIT PARAMETERS** to modify **Project type**, **Project name**, **Project location** and **Project description** in the **MODIFY PROJECT** box.
- Click **Edit settings** or **Add measurement point** to modify or add the **Point name**, **Point description**, **Geolocalization** and assign the **Station** to this measurement point in the **MODIFY/ADD MEASUREMENT POINT** box.
- Click **Edit station configuration** to configure the monitoring station (see Chapter 3).

2.6.3. SHARING view (Owner access level)

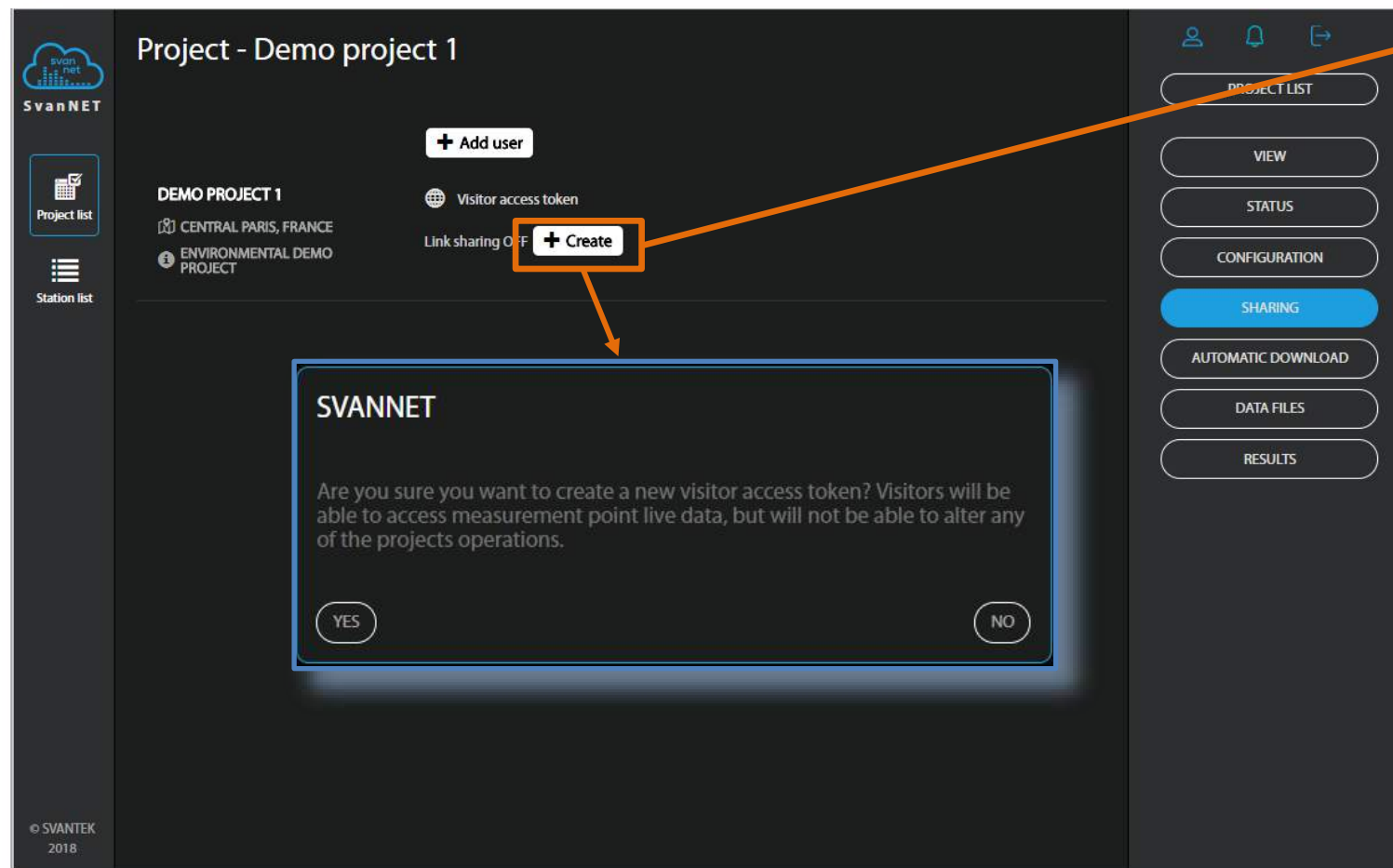


- Click **+Add user** to add new access to the project.
- In the section that will appear after clicking **+Add user**, enter e-mail address, select access level (**Administrator**, **Manager** or **Guest**) and
- click **Add user** to add new user or **Cancel** to delete it.

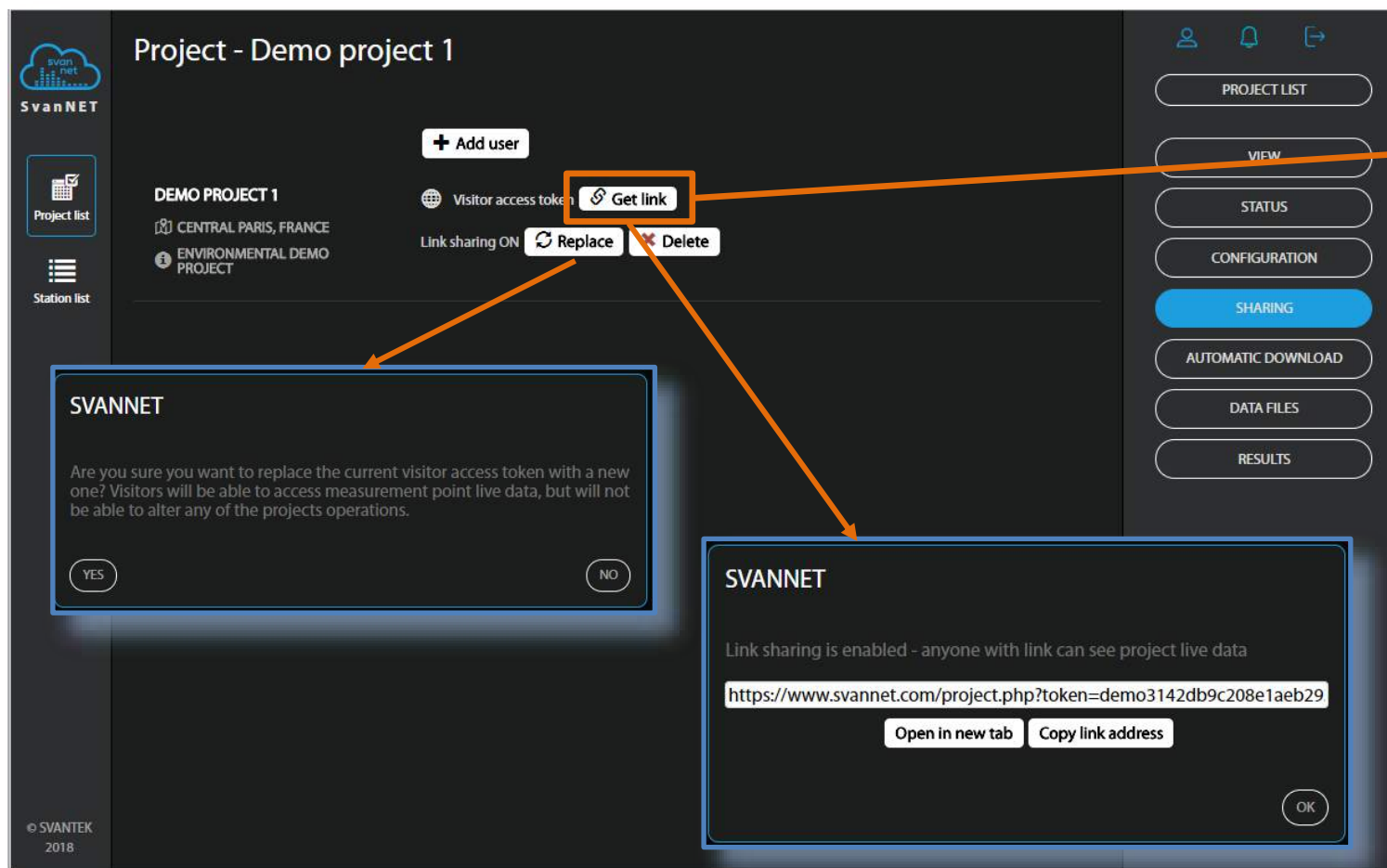


Note: User e-mail is his SvanNET account and LOGIN. If an account with a given email address exists, then the user will be invited to the Project; if not - an invitation to create an account on SvanNET will be sent to the given e-mail and the invitation to the Project will be attached after creating the account.

One exceptional feature of SvanNET is project sharing. The function of Sharing gives public access to a customized project, where users can view the measurement data from specific measurement points.



- Click **+Create** to create sharing link and click **YES** in the confirmation box.



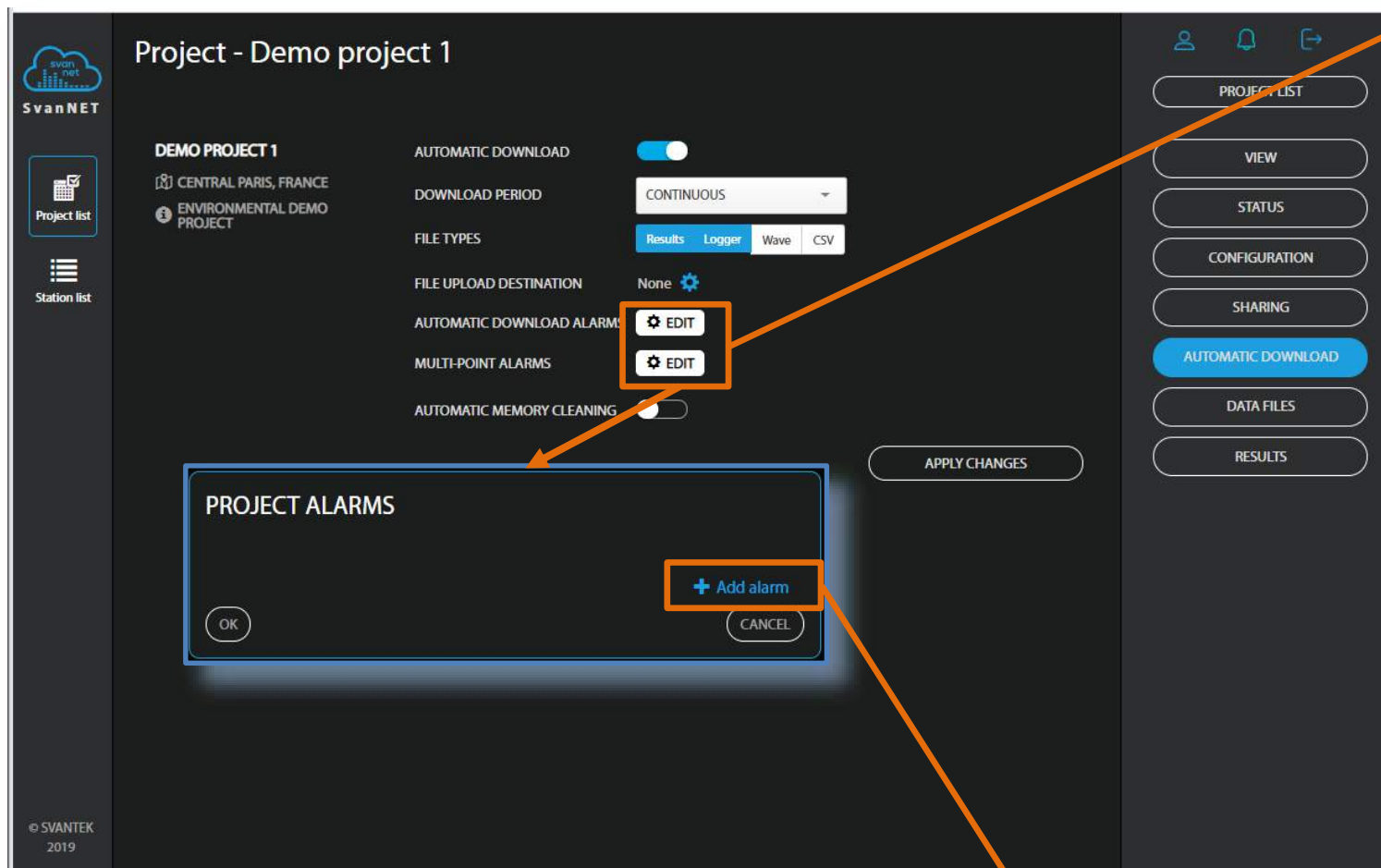
After sharing link creation, you can:

- copy the link to the clipboard clicking **Get link**,
- replace the current visitor access token with the new one clicking **Replace** or
- delete the delete the current access token clicking **Delete**.

2.6.4. AUTOMATIC DOWNLOAD view (Owner/Administrator access level)

The screenshot displays the SvanNET interface for the 'Project - Demo project 1'. The left sidebar contains the SvanNET logo, 'Project list', and 'Station list' icons. The main area shows the 'DEMO PROJECT 1' settings, including 'CENTRAL PARIS, FRANCE' and 'ENVIRONMENTAL DEMO PROJECT'. The 'AUTOMATIC DOWNLOAD' section features a toggle switch, a 'DOWNLOAD PERIOD' dropdown set to 'CONTINUOUS', 'FILE TYPES' (Results, Logger, Wave, CSV), 'FILE UPLOAD DESTINATION' (None), and 'AUTOMATIC DOWNLOAD ALARMS' (EDIT). A pop-up box titled 'ENTER CUSTOM REMOTE DESTINATION DETAILS' is open, showing fields for 'Type' (FTP), 'Host name' (Site address[:port]), 'User name' (Server authentication login), 'Password' (Server authentication password), 'Remote folder' (Remote subfolder to upload files to), and 'File upload types' (Instrument data files, CSV exported data). The 'APPLY CHANGES' button is visible at the bottom of the main settings area.

- Click this switch to toggle automatic download on/off.
- In these fields you can define download period and select types of files for automatic download.
- Click **FILE UPLOAD DESTINATION** to enter custom remote destination details in the pop-up box: Type, Host name, User name, Password, Remote folder, File upload types (Instrument data files or CSV exported data).



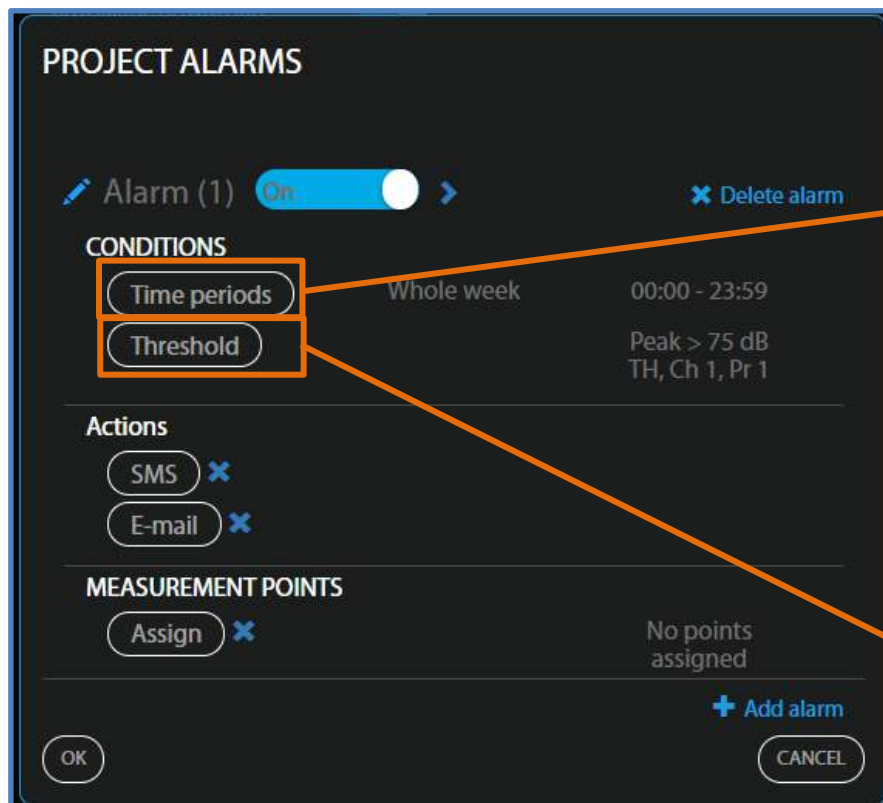
- Click **EDIT** to configure **AUTOMATIC DOWNLOAD ALARMS** or **MULTI-POINT ALARMS**.

Automatic download alarms are generated based on the information contained in the downloaded files (selected FILE TYPES).

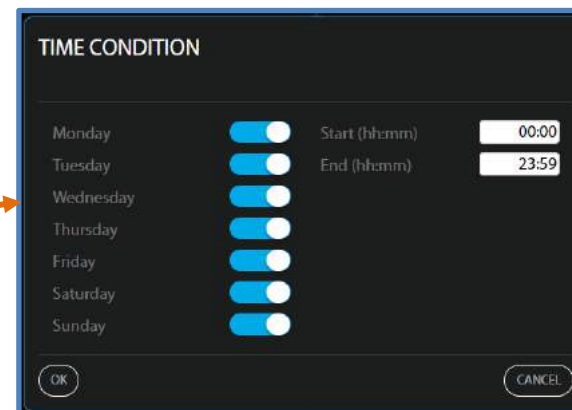
Multi-point alarms are generated when several automatic download alarms occur within specified time interval.

- To configure automatic download or multi-point alarm, click **+Add alarm** in the pop-up box.

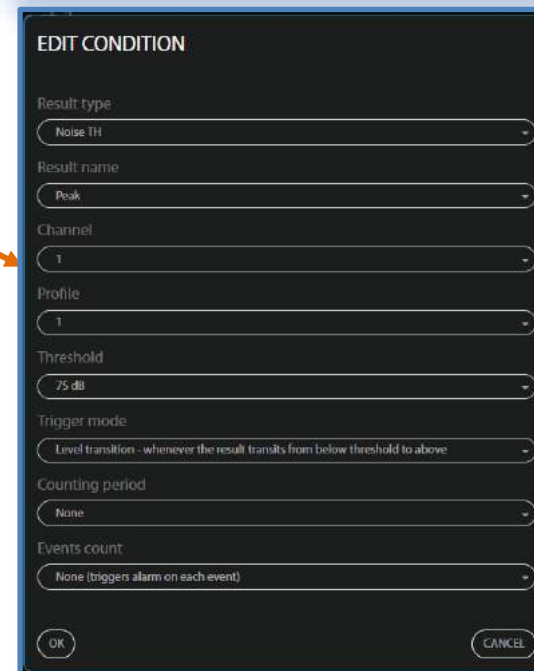
ALARMS are being generated when specific CONDITIONS appear and relate to ACTIONS, like SMS or E-mail notifications, and refer to some MEASUREMENT POINTS.



The 'PROJECT ALARMS' screen shows an alarm configuration interface. At the top, it says 'Alarm (1)' with a toggle switch set to 'On' and a 'Delete alarm' button. Below this is the 'CONDITIONS' section, which contains two sub-sections: 'Time periods' and 'Threshold'. The 'Time periods' section shows 'Whole week' and '00:00 - 23:59'. The 'Threshold' section shows 'Peak > 75 dB TH, Ch 1, Pr 1'. Below the conditions are 'Actions' (SMS and E-mail) and 'MEASUREMENT POINTS' (Assign). At the bottom are 'OK' and 'CANCEL' buttons. Two orange arrows originate from the 'Time periods' and 'Threshold' sections and point to the 'TIME CONDITION' and 'EDIT CONDITION' screens respectively.



The 'TIME CONDITION' screen allows for configuring the time periods for the alarm. It features a list of days from Monday to Sunday, each with a toggle switch. To the right of the toggles are input fields for 'Start (hh:mm)' and 'End (hh:mm)', both set to '00:00' and '23:59' respectively. At the bottom are 'OK' and 'CANCEL' buttons.



The 'EDIT CONDITION' screen allows for configuring the alarm conditions related to the measurements. It features several dropdown menus for 'Result type' (Noise TH), 'Result name' (Peak), 'Channel' (1), 'Profile' (1), 'Threshold' (75 dB), 'Trigger mode' (Level transition - whenever the result transits from below threshold to above), 'Counting period' (None), and 'Events count' (None (triggers alarm on each event)). At the bottom are 'OK' and 'CANCEL' buttons.

- Click **Time periods** to configure periodical alarms which will appear in the defined times and days of the week
- Click **Threshold** to configure alarm conditions related to the measurements. In the EDIT CONDITIONS box, you can define: **Result type, Result name, Channel, Profile, Threshold, Trigger mode, Counting period, Events count**

As type of the result that will be compared with the threshold level (**Result type**) you can select:

- time-history or summary results for noise measurements (**Noise TH, Noise SR**),
- time-history or summary results for acceleration vibration measurements (**Vib Acc TH, Vib Acc SR**),
- time-history or summary results for velocity vibration measurements (**Vib Vel TH, Vib Vel SR**),
- time-history or summary results for displacement vibration measurements (**Vib Dil TH, Vib Dil SR**).

Noise TH
Noise SR
Vib Acc TH
Vib Acc SR
Vib Vel TH
Vib Vel SR
Vib Dil TH
Vib Dil SR

The result (measured in the selected **Channel** and **Profile**) that will be compared with the **Threshold** level (**Result name**) depends on the selected **Result type**:

- **Noise TH**: Peak, Max, Min, Leq, Spectrum-Peak, Spectrum-Max, Spectrum-Min or Spectrum-Leq;
- **Noise SR**: Peak, Max, Min, Spl, Leq, Lden, Ltm3, Ltm5, Spectrum-Peak, Spectrum-Max, Spectrum-Min or Spectrum-Leq;
- **Vibration**: Peak, P-P, Max, RMS, Spectrum-Peak, Spectrum-RMS.

Peak
Max
Min
Leq
Spectrum - Peak
Spectrum - Max
Spectrum - Min
Spectrum - Leq

When Spectrum result is selected, additional position **Frequency** appears in the EDIT CONDITION box enabling setting the frequency (central octave/third octave or FFT) which will be considered while comparing the result with the threshold.

Trigger mode defines the way the threshold level is compared with the result:

- Level transition – whenever the result transits from below threshold to above,
- Level trigger – whenever the result's value is higher than threshold.

Level transition - whenever the result transits from below threshold to above
Level trigger - whenever the result's value is higher than threshold

Counting period and **Events count** define additional conditions for triggering the event. Counting period is a time-frame during which it is possible to:

- average the result (**Counting period** is other than None and **Events count** is None) or
- fix the number of threshold level exceeding (**Counting period** is other than None and **Events count** is other than None).

Counting periods start at 00:00 of the local time. After finishing of the previous period, the next one starts.

PROJECT ALARMS

Alarm (1) On ✕ Delete alarm

CONDITIONS

Time periods: Whole week 00:00 - 23:59

Threshold: Peak > 75 dB TH, Ch 1, Pr 1

Actions

SMS ✕

E-mail ✕

MEASUREMENT POINTS

Assign ✕ No points assigned

OK + Add alarm CANCEL

EDIT SMS RECIPIENTS

SMS recipients (comma separated)

User1, User2

OK CANCEL

EDIT E-MAIL RECIPIENTS

E-mail recipients (comma separated)

user1@svantek.com.pl; user2@svantek.com.pl

OK CANCEL

ASSIGN MEASUREMENT POINTS

Measurement point 1 - (SV 200A S/N 12345) ☒

Measurement point 2 - (SD 277A SVAN 977 S/N 23456) ☐

OK CANCEL

ACTIONS

SMS ✕

E-mail ✕

MEASUREMENT POINTS

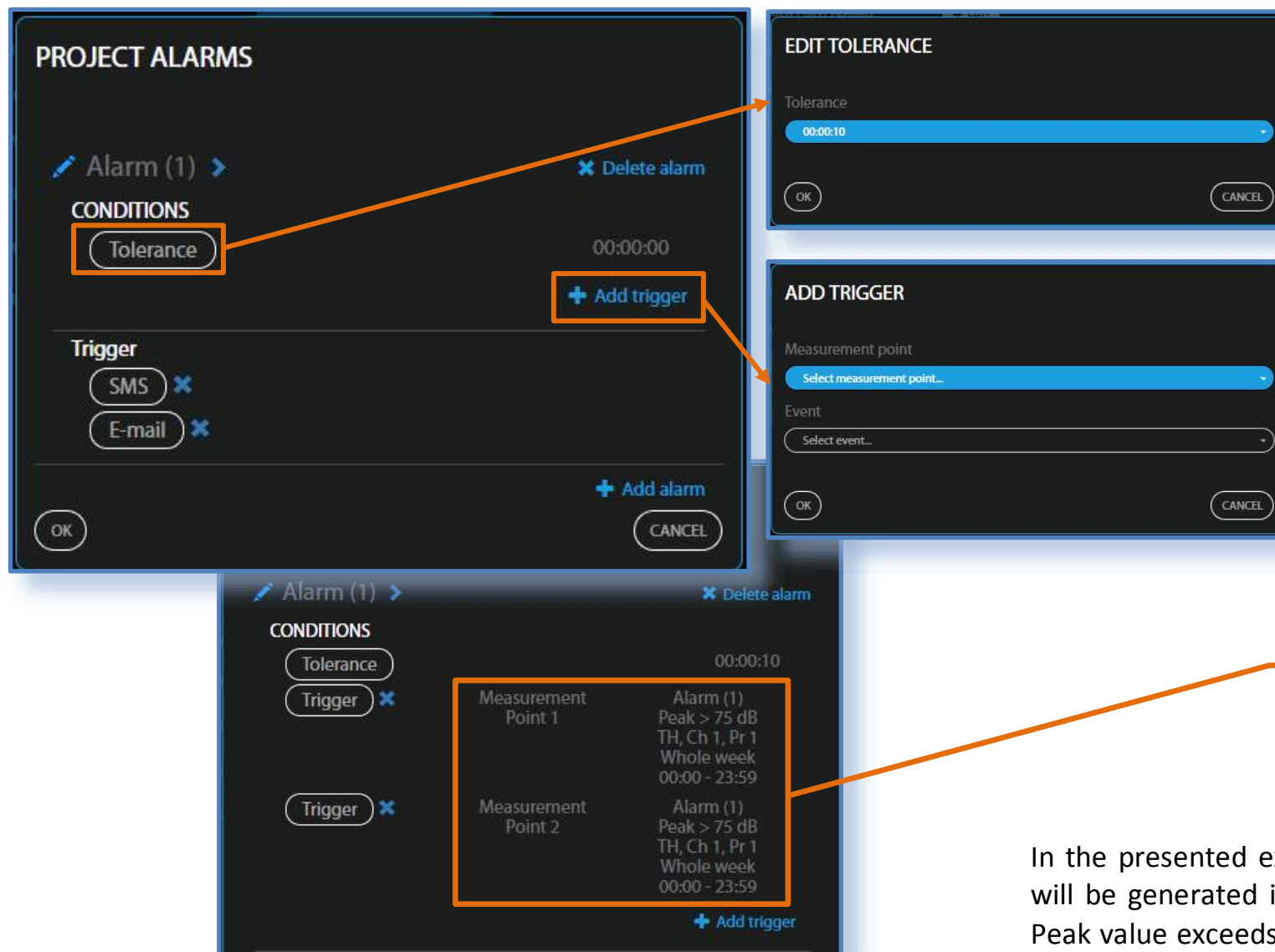
Assign ✕

User1	User2
	user1@svantek...
	user2@svantek...

Measurement point 1

OK + Add alarm CANCEL

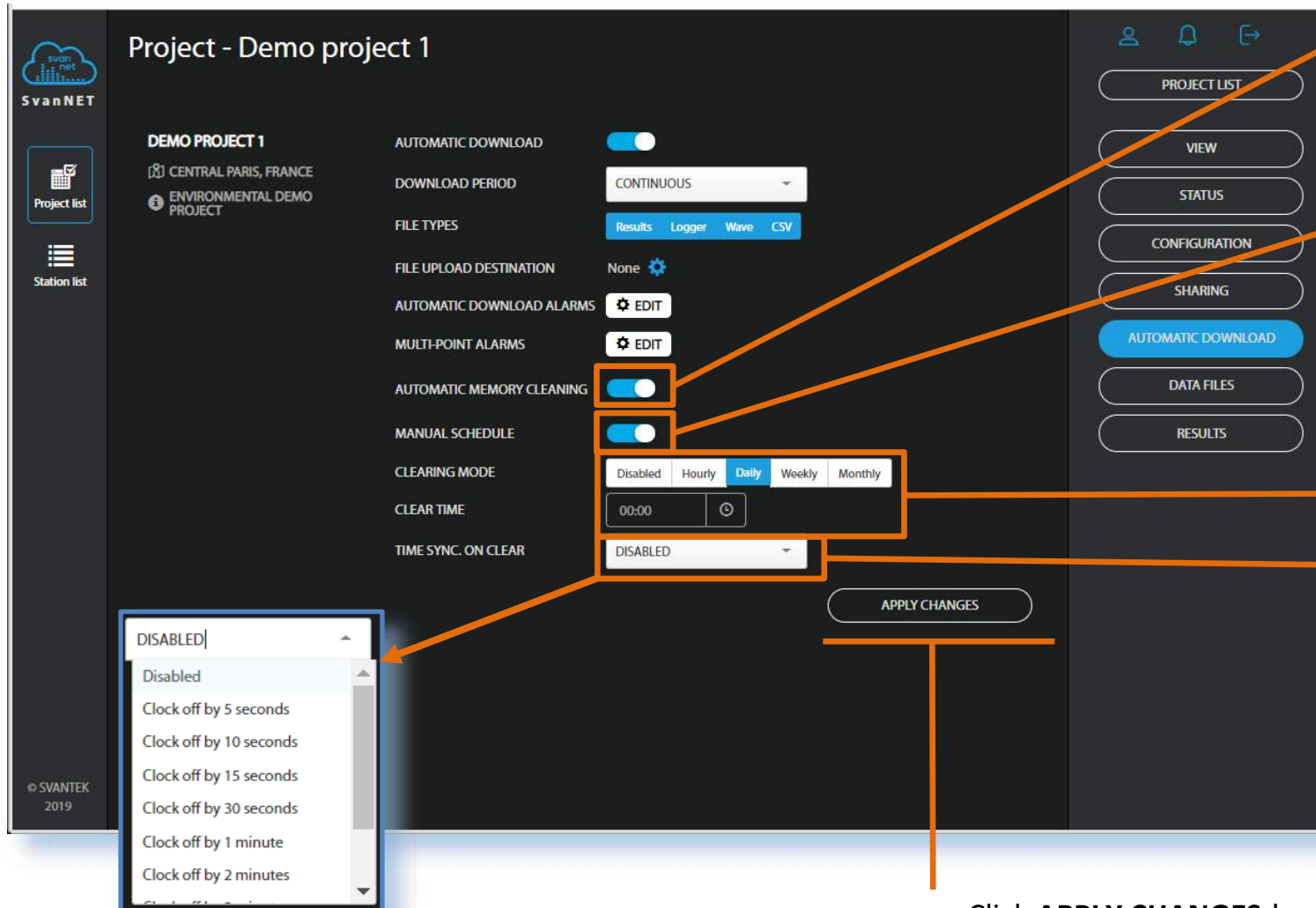
- Click the **SMS** button to enter/edit SMS recipients.
- Click the **E-mail** button to enter/edit e-mail recipients.
- Click the **Assign** button to assign alarm to the station(s).
- Made changes are displayed in the PROJECT ALARMS box.



- Click the **Tolerance** button to select in the EDIT TOLERANCE pop-up box the time interval that will cover alarms for the selected points.
- Click the **+ Add trigger** button to select in the ADD TRIGGER pop-up box the measurement point and the event definition for the selected point.
- Made selections are displayed in the PROJECT ALARMS box.

In the presented example the multipoint alarm will be generated if in both points 1 and 2 the Peak value exceeds the threshold level of 75 dB within time interval 10 seconds.

MEMORY CLEANING is important feature of SvanNET especially when the wave recording is activated, or you are going to use CSV files. Currently, memory cleaning requires stopping the measurement for some period. Automatic memory cleaning function performs memory cleaning by default daily at 2 a.m. local time to keep monitoring as much as possible continuous. You can also program memory cleaning schedule and enable instrument internal clock synchronization during the memory cleaning break.



- Click this switch to toggle automatic memory cleaning on/off.
- Click this switch to toggle automatic memory cleaning schedule configurator on/off.
- Select cleaning mode (Hourly, Daily, Weekly or Monthly) and configure the cleaning schedule.
- Click this field and select the minimum discrepancy in time which will initiate time synchronization.

• Click **APPLY CHANGES** !

2.6.5. DATA FILES view (Owner/Administrator and Manager access levels)

All data is safely stored on the SvanNET server and access is secured using SSL encryption which ensures safety of transmission. With user login and password, you are assured that any user only has access to appropriate data (statuses, logs, files, configuration of owned stations). Downloading data from SvanNET is fast and easy. You can download all or just selected results.

Project - Demo project 1

Demo project 1 - ALL PROJECT FILES

STORAGE USAGE: 47 KB FILE COUNT: 3

NAME	TYPE	DATE & TIME	TOTAL SIZE
mp-2-20180103_06_00_20_L82.SVL	Logger	2018-01-03 15:45:21	4.12 MB
mp-1-20180101_00_00_00_L3530.SVL	Logger	2018-01-01 09:07:03	2.40 MB
mp-1-20171231_00_00_00_L3529.SVL	Logger	2018-01-01 00:00:12	6.33 MB

Demo project 1 - ALL PROJECT FILES

Demo project 1 - ALL PROJECT FILES

Measurement point 1 - (SV 200A S/N 12345)

Measurement point 2 - (SD 277A SVAN 977 S/N 23456)

Authenticate Dropbox

PROJECT LIST

VIEW

STATUS

CONFIGURATION

SHARING

AUTOMATIC DOWNLOAD

DATA FILES

RESULTS

This view presents list of files that were created by the instruments of the measurement points.

- Click here to connect SvanNET to your Drop Box Account.
- Click here to download this file.
- Click here to open the drop-down list with filters for files.

Data are available in standard Svantek formats as well as in the popular and easy to edit .csv format.

Project - Demo project 1

Demo project 1 - ALL PROJECT FILES

STORAGE USAGE: 47 KB FILE COUNT: 3, SELECTED: 1

NAME	TYPE	DATE & TIME	TOTAL SIZE
<input type="checkbox"/> mp-2-20180103_06_00_20_L82.SVL	Logger	2018-01-03 15:45:21	4.12 MB
<input checked="" type="checkbox"/> mp-2-20180101_00_00_00_L3530.SVL	Logger	2018-01-01 09:07:03	2.40 MB
<input type="checkbox"/> mp-1-20171231_00_00_00_L3529.SVL	Logger	2018-01-01 00:00:12	6.33 MB

Project list

Station list

Authenticate Dropbox

PROJECT LIST

VIEW

STATUS

CONFIGURATION

SHARING

AUTOMATIC DOWNLOAD

DATA FILES

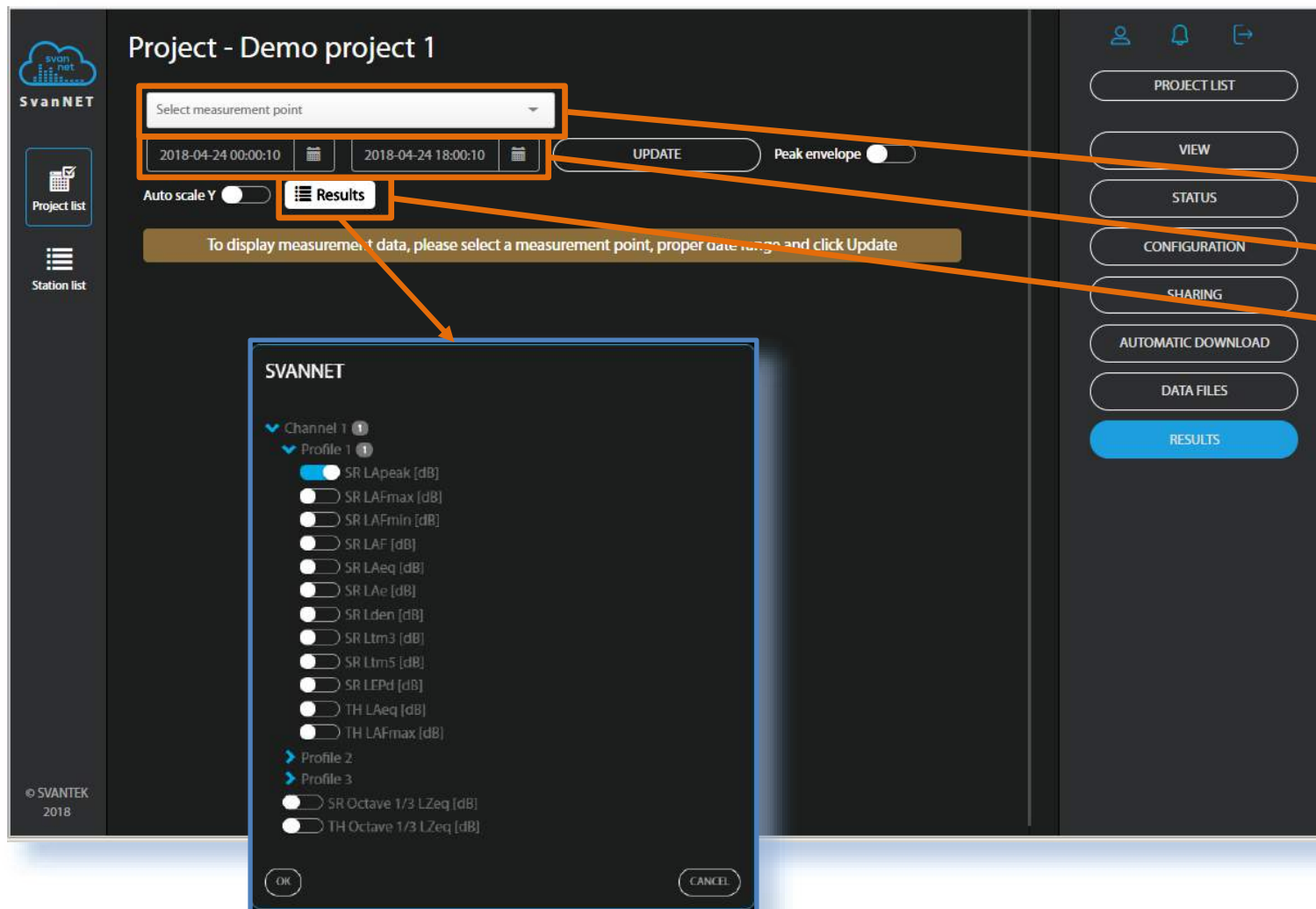
RESULTS

- Download files
- Download files as CSV
- Send files to FTP
- Send files to FTP as CSV
- Send files to dropbox
- Send files to dropbox as CSV
- Delete files from SvanNET

© SVANTEK 2018

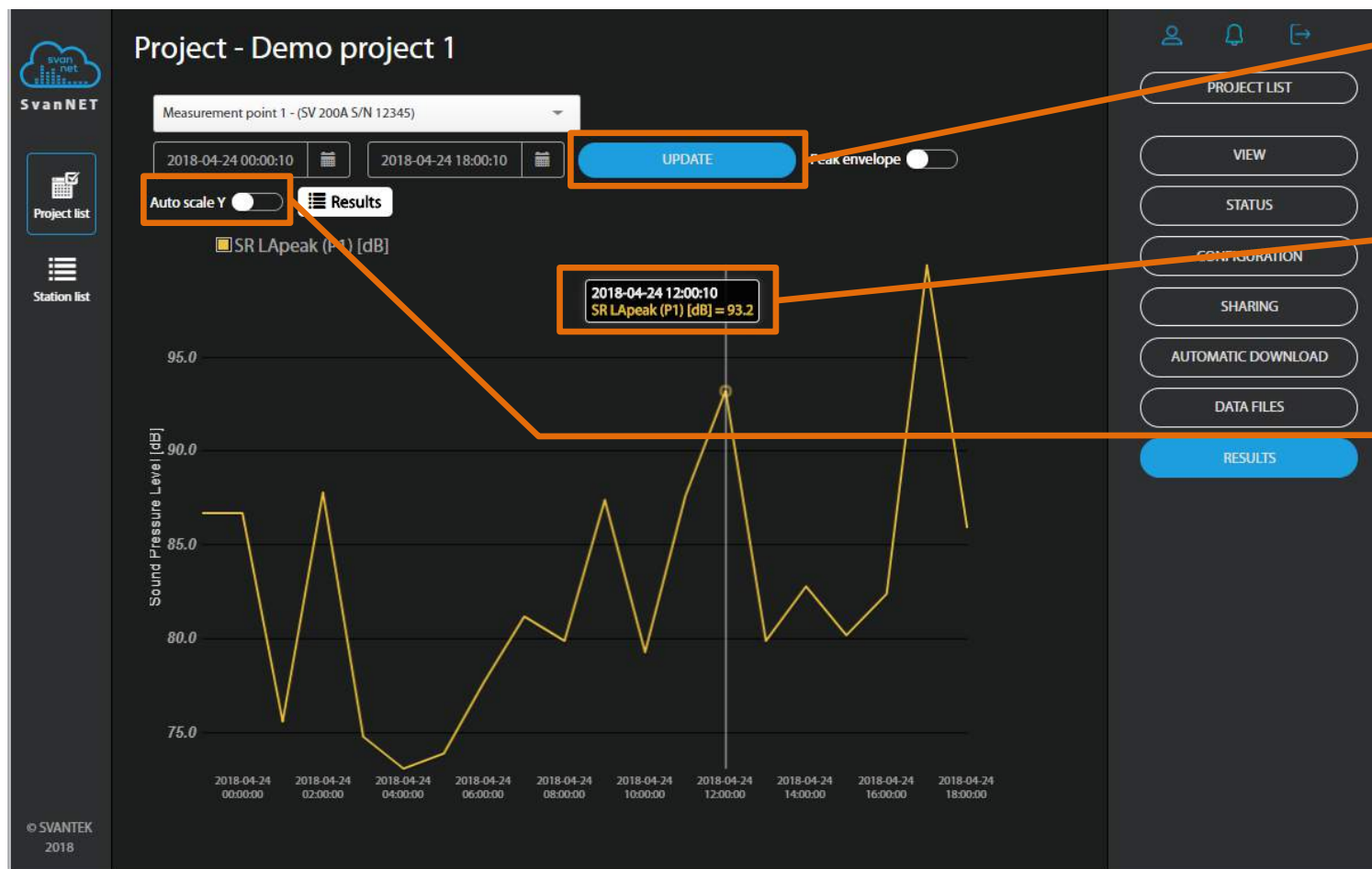
- If you check one or more boxes the download options appear on the Tool bar.
- These options apply to all checked files and allow:
Download files, Download files as CSV, Send files to FTP, Send files to FTP as CSV, Send files to dropbox, Send files to dropbox as CSV and Delete files from SvanNET.

2.6.6. RESULTS view (Owner/Administrator and Manager access levels)

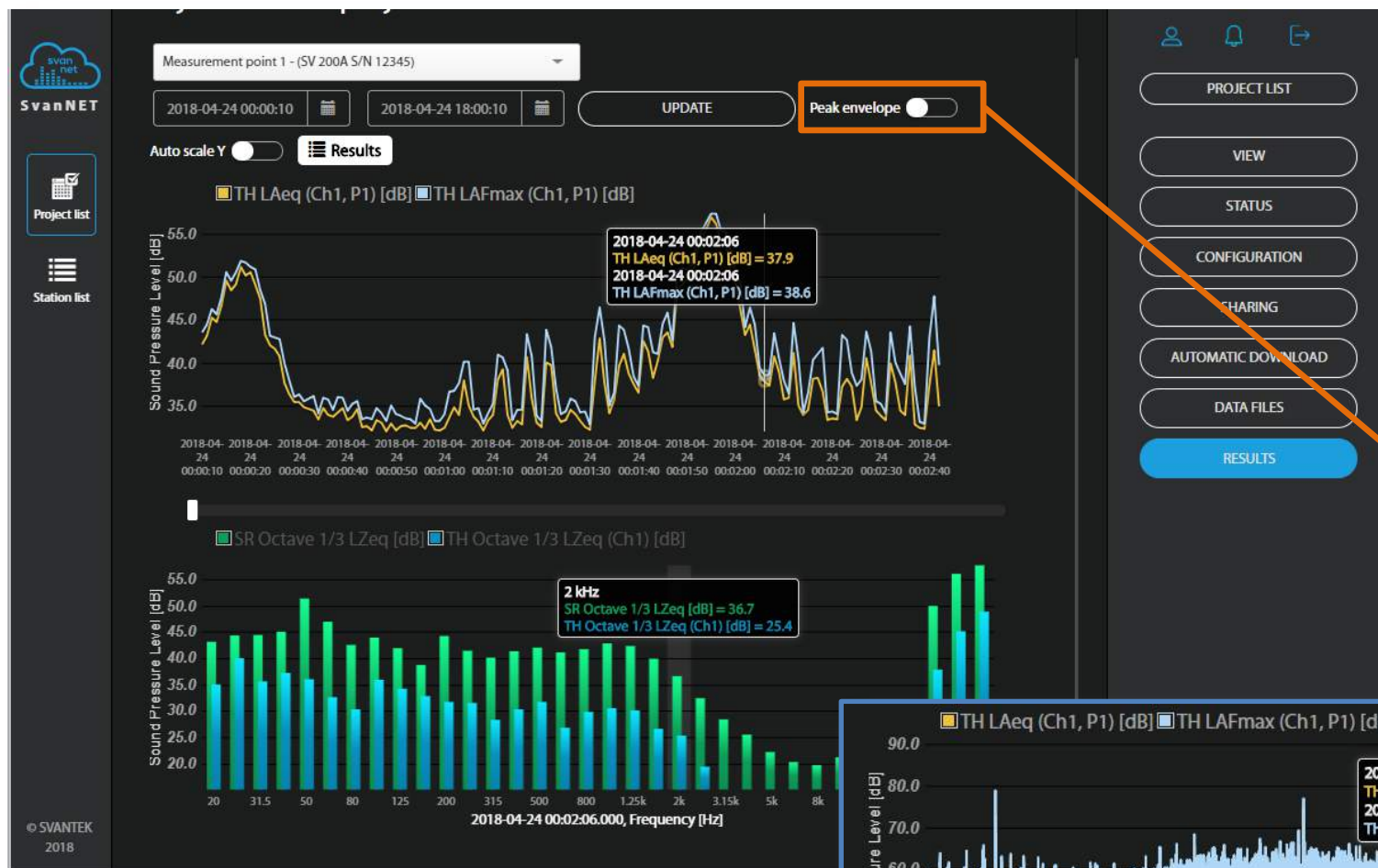


When you enter the Result view you should select:

- measurement point,
- date range,
- select results to be displayed.

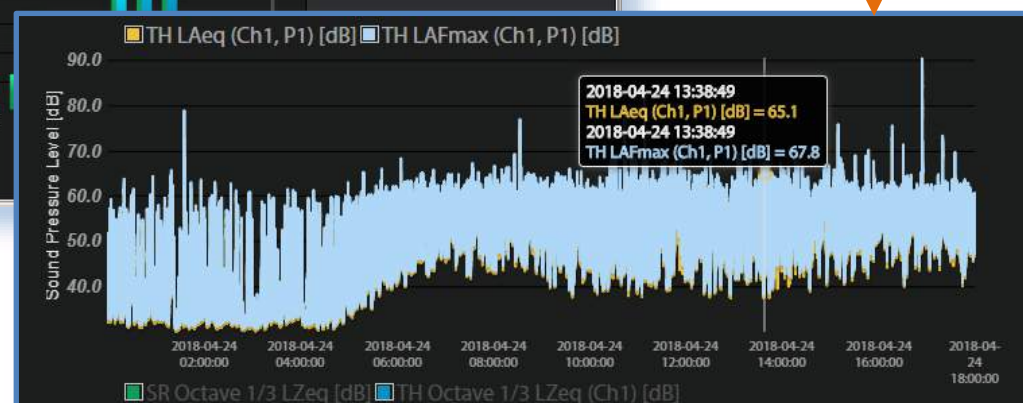


- Click **UPDATE** to view the history of the selected result(s).
- Point the cursor on the plot to view result(s) value(s) for the cursor position.
- Click **Auto scale Y** to switch auto scaling for Y-axis.



If you select broadband result(s) for Profile(s) and spectrum (SR Octave LZeQ and/or TH Octave 1/3 LZeQ) in the Results pop-up box, in the RESULTS view two plots will be displayed.

- Click Peak envelope to switch on peak enveloping function.



3 CONFIGURING INSTRUMENTS

3.1. Station list

Station list displays information about all stations assigned to the user account – turned on and off. You can select the required station by clicking the line with its name. The selection is marked as grey horizontal bar.

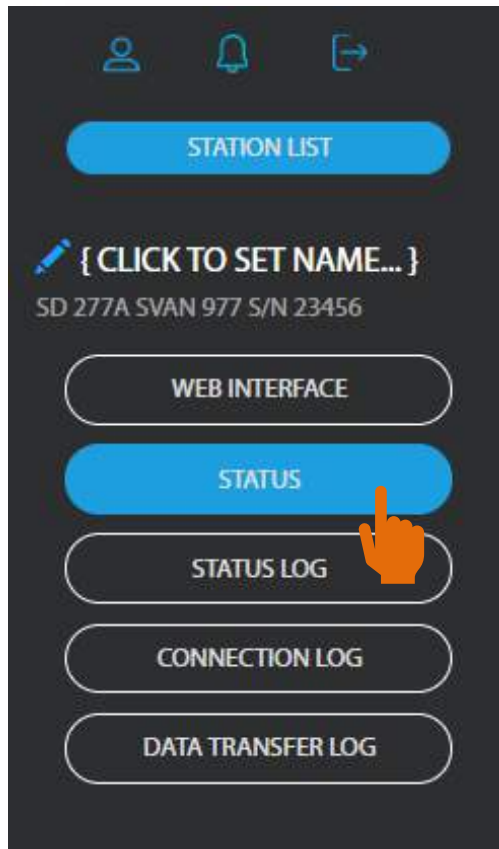



The station bar except the station name and its serial number includes five icons that indicate station states. When the station is disconnected from SvanNET all icons are of grey colour.

- Click the station name to display station information or status

The „bell” icon can be blue if there are no warnings, red if there is a warning (e.g. if the station battery is low) or grey if the station is not connected to SvanNET.

The Tool panel provides some functions for station control. To switch the function, point cursor on the appropriate button (it will change its colour to blue) and click it.



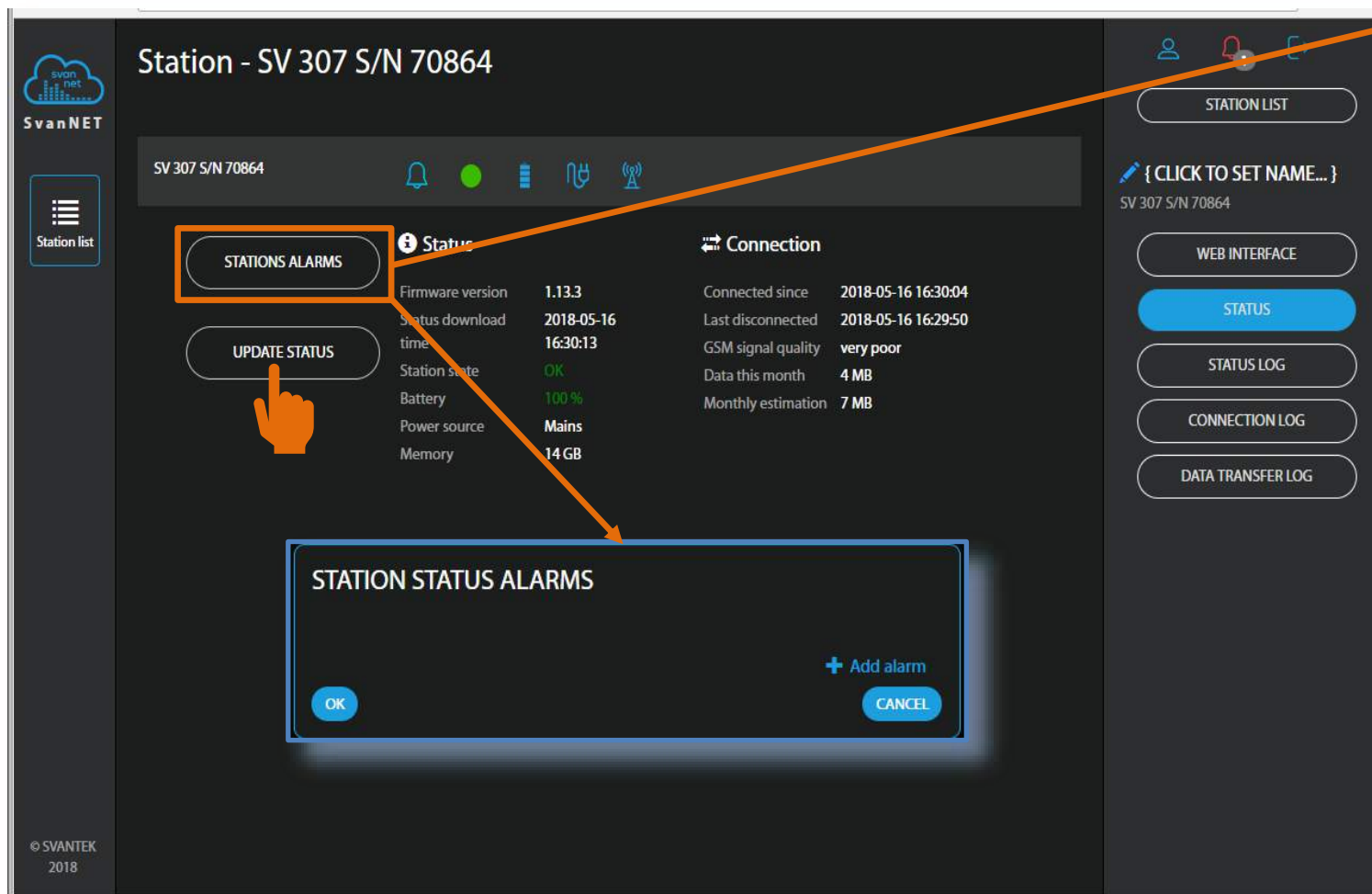
- The blue **STATION LIST** button just informs you that you are in the Station view.
- You can click  to set the new station name instead of the default.
- The **WEB INTERFACE** button switches you to the **Live data** view (see Chapter [3.2](#)) in which you can view measurement results and use additional tools to configure station parameters, download data files, start/stop measurements and perform station checking. This button is available for the stations connected to SvanNET.
- The **STATUS** button switches you to the Station STATUS view (see Chapter [3.1.1](#)) in which you can check the station status and configure status alarms.
- The **STATUS LOG** button switches you to the Status log view (see Chapter [3.1.2](#)) in which you can check the power source (type and charge level), memory free space, GSM signal quality and history of system checking.
- The **CONNECTION LOG** button switches you to the Status log view (see Chapter [3.1.2](#)) in which you can check the history of station connections.
- The **DATA TRANSFER LOG** button switches you to the Data transfer log view (see Chapter [3.1.2](#)) in which you can check the history of data transfers (uploads).



Note: Further screens depend on the type of instrument. In this manual, description of screens for **SV 307** monitoring station is given. The description of screens for other instruments is given in their user manuals.

3.1.1. STATUS view

This screen is used for checking the instrument status (firmware version, battery charging, memory etc.), its connection status and for configuring stations alarms.



- Click the **STATIONS ALARMS** button to configure status alarms (see Chapter [2.6.1](#)).
- Click the **UPDATE STATUS** button to update instrument's status.

3.1.2. LOG views

Status log - SV 307 S/N 70864

Date & time	Status	Battery	Power source	Charge / discharge time	Free space	GSM signal quality
2018-05-16 16:55:43	Ok	100 %	Mains		3.59 GB	Very poor (-105 dBm)
2018-05-16 16:40:39	Ok	100 %	Mains		3.59 GB	Very poor (-107 dBm)
2018-05-16 16:30:13	Ok	100 %	Mains		3.59 GB	Very poor (-105 dBm)
2018-05-16 16:16:49	Ok	100 %	Mains		3.59 GB	Very poor (-107 dBm)
2018-05-16 16:05:22	Ok	100 %	Mains		3.59 GB	Very poor (-107 dBm)
2018-05-16 15:50:17	Ok	100 %	Mains		3.59 GB	Very good (-81 dBm)

Connection log - SV 307 S/N 70864

Date & time	Result	Address	Version
2018-05-16 16:40:35	Success	5.172.237.3	SV 307 1.13.3
2018-05-16 16:40:23	Disconnected	5.172.237.3	SV 307 1.13.3
2018-05-16 16:30:04	Success	5.172.237.3	SV 307 1.13.3
2018-05-16 16:29:50	Disconnected	5.172.237.3	SV 307 1.13.3
2018-05-16 16:16:47	Success	5.172.237.3	SV 307 1.13.3
2018-05-16 16:16:41	Disconnected	5.172.237.3	SV 307 1.13.3
2018-05-16 15:20:05	Success	5.172.237.3	SV 307 1.13.3

Data transfer log - SV 307 S/N 70864

Current month: 4 MB Estimated: 7 MB - All times shown are expressed in Greenwich Mean Time

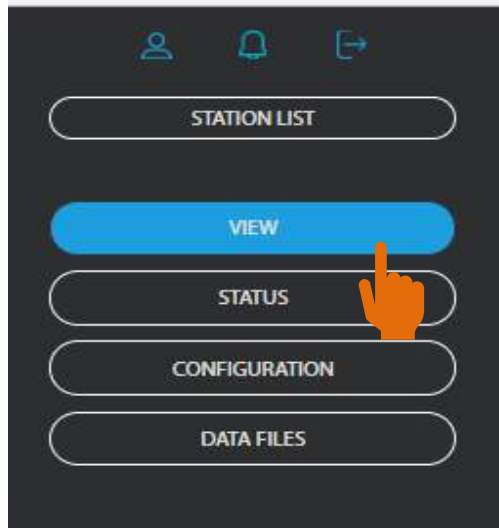
Date & time	Total transfer	Station upload	SvanPC++ upload
2018 May	4.23 MB	3.75 MB	497 kB

There are three station logs, that register system events, connections and data transfer.

- In this field you can select the required period of records and maximum number of presented records.
- Use these buttons to navigate through pages of records.
- Click here to refresh the log.
- Select the period for data transfer presentation: **Monthly, Weekly, Daily or Hourly.**

3.2. WEB INTERFACE

WEB INTERFACE provides live data viewing, instrument controlling and configuring through buttons: **VIEW**, **STATUS**, **CONFIGURATION** and **DATA FILES**.



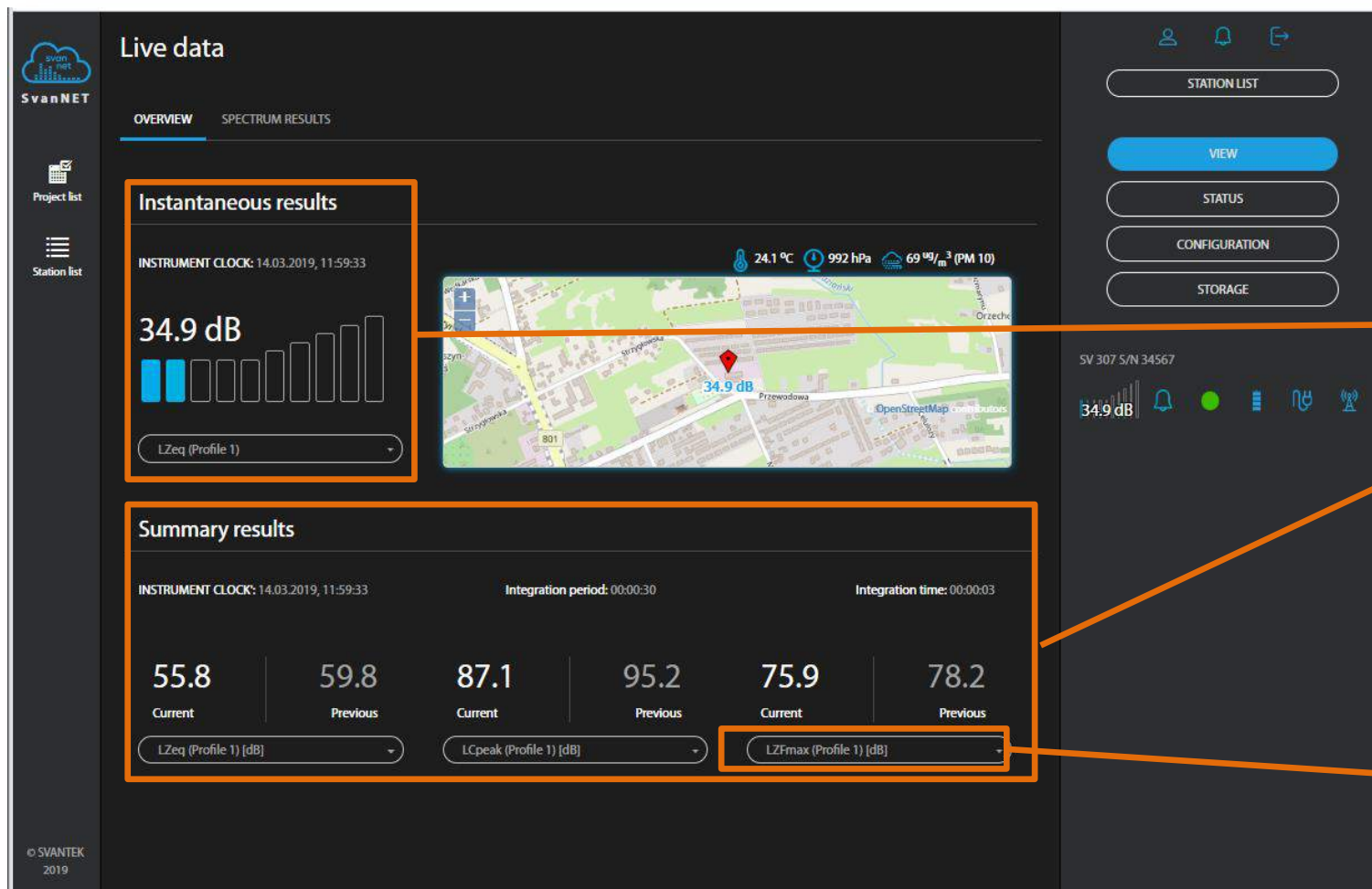
- The **VIEW** button switches you to the Live data view (see Chapter [3.2.1](#)) in which you can view broadband results, 1/1 or 1/3 octave spectra and time-history results.
- The **STATUS** button switches you to the station status view (see Chapter [3.2.2](#)) in which you can check the station status and start/stop measurements.
- The **CONFIGURATION** button switches you to the station Configuration view (see Chapter [3.2.3](#)) in which you can configure measurement and instrument parameters and perform calibration or check measurements.
- The **DATA FILES** button switches you to the Storage view (see Chapter [3.2.4](#)) in which you can download files manually.



Note: Content of the **Configuration** tabs depends on the selected parameters. The task of this manual is not the presentation of all possible combinations of parameters, but an indication of the principles of working with SvanNET.

3.2.1. VIEW results

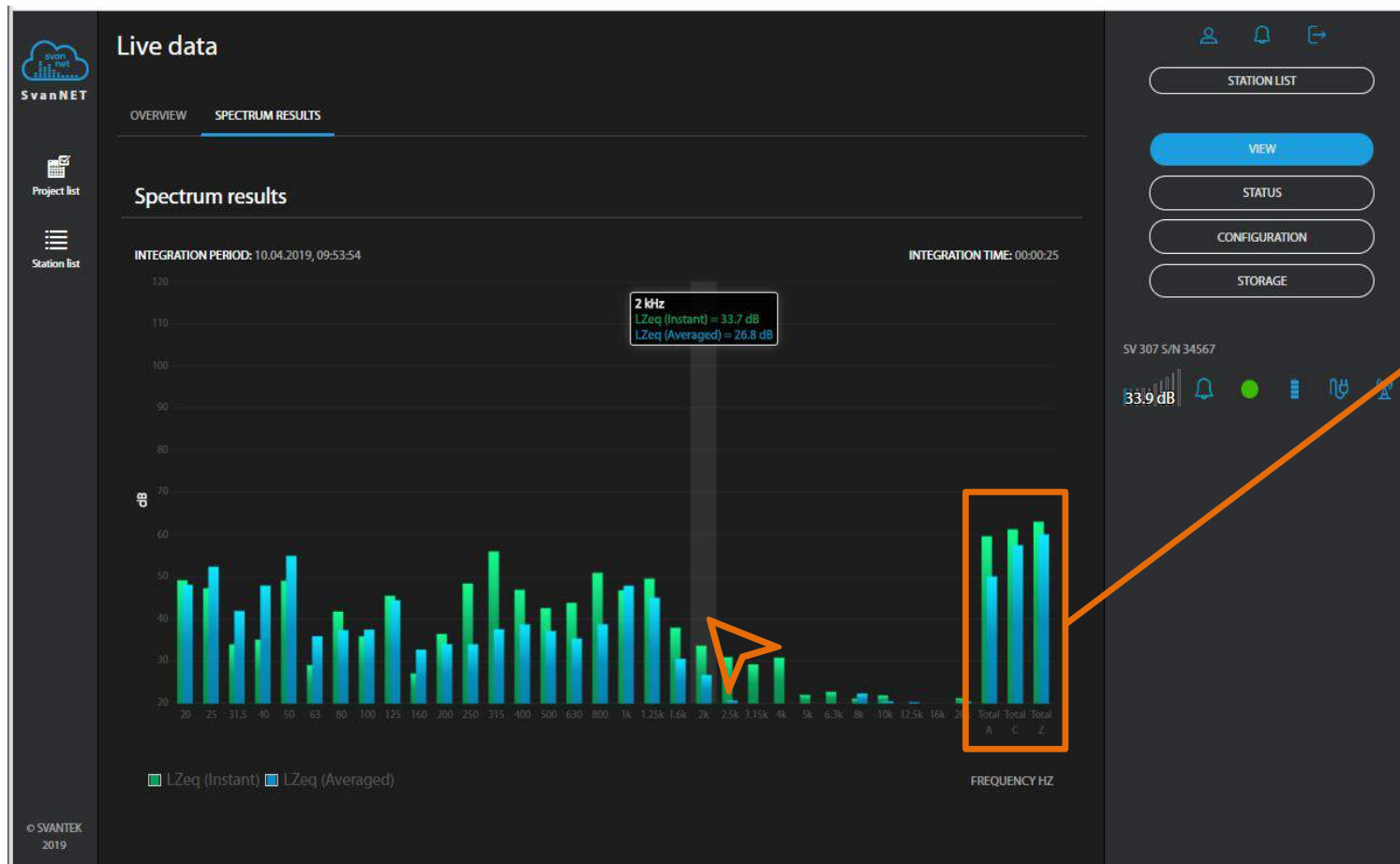
The **VIEW** button opens the **Live data** view which consists of three tabs: **OVERVIEW** and **SPECTRUM RESULTS**.



The **OVERVIEW** tab displays the map with the instrument's position and current results:

- **Instantaneous Results** calculated and refreshed with the time equal to 1 second and
- **Summary Results** for three profiles measured and refreshed every second (**Current**) and with the **Integration time (Previous)**.
- Click the appropriate selector and choose the required result.

The **SPECTRUM RESULTS** tab displays 1/1 or 1/3 octave spectra. Spectra are refreshed every second.

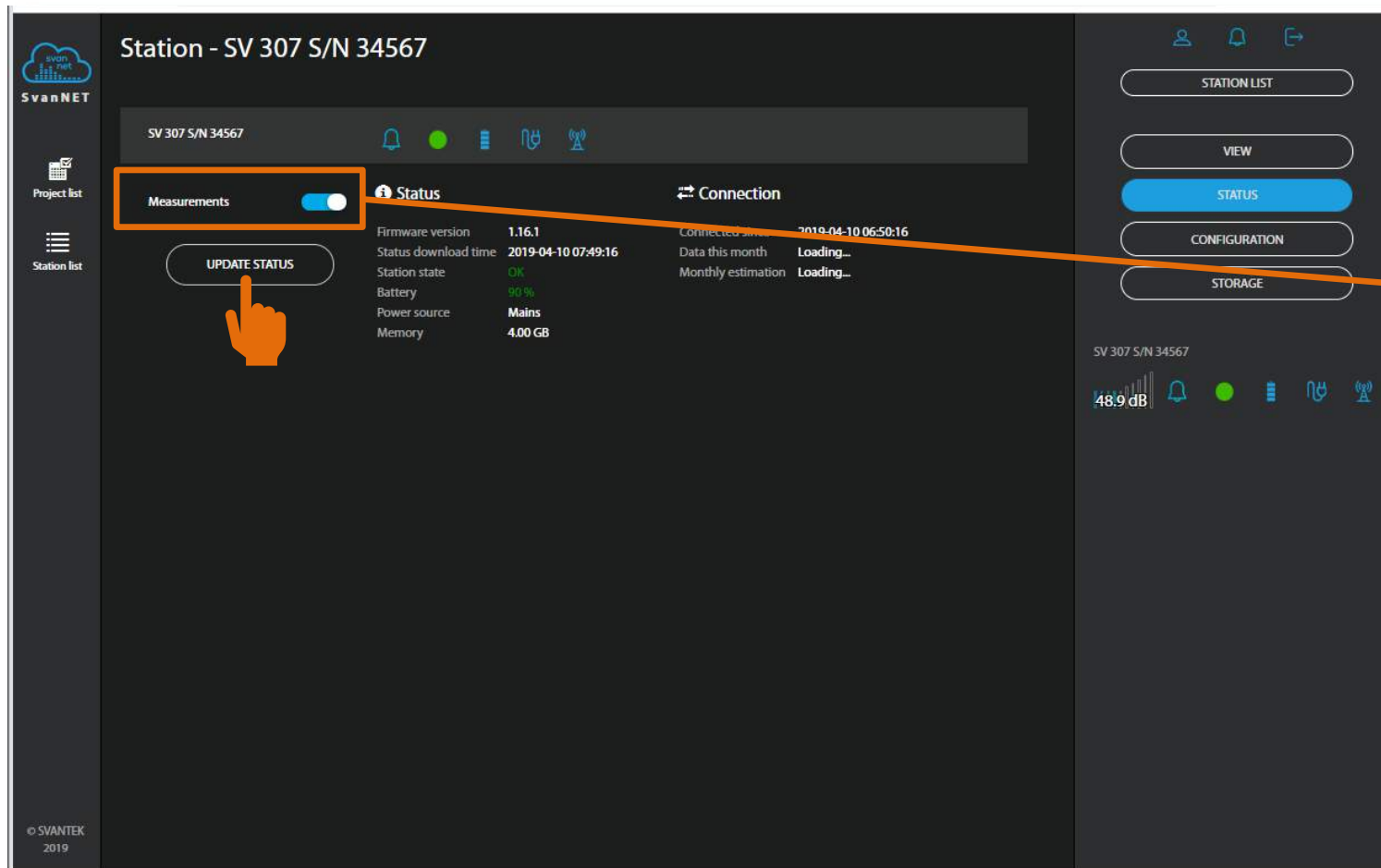


- Point your mouse cursor on the plot to readout the values of instantaneous and averaged results for each 1/1 or 1/3 octave band.
- Point your mouse cursor on the last three bars of the plot to readout the values of instantaneous and averaged three Total results.



Note: Spectrum can only be displayed, when Octave 1/1 or Octave 1/3 measurement functions has been selected in the Configuration → Measurement setup tab.

3.2.2. STATUS view



This STATUS view differs from the STATUS view available from the Station list in that instead of STATIONS ALARMS you can:

- start/stop measurements,
- update instrument's status clicking the **UPDATE STATUS** button.

3.2.3. CONFIGURATION view

Configuration view consists of several tabs that enable configuration of: measurement parameters (**MEASUREMENT SETUP**), data saving (**STORAGE**), export of measurement data into CSV files (**CSV EXPORT**), audio recording (**AUDIO RECORDING**), calibration of the instrument (**CALIBRATION**) and auxiliary settings (**AUXILIARY SETTINGS**).

MEASUREMENT SETUP tab

In this tab, you can:

Configuration

MEASUREMENT SETUP STORAGE CSV EXPORT AUDIO RECORDING CALIBRATION AUXILIARY SETTINGS FIRMWARE UPGRADE

APPLY SETTINGS

Measurement setup

Measurement function: Octave 1/3

Instrument clock: 15.04.2019, 15:19:52 Update to local time (15.04.2019, 15:19:48)

RMS / LEQ Integration: Linear

Start sync: 1 second

Profile 1: Filter A, Filter peak C, Detector Fast

Profile 2: Filter C, Filter peak C, Detector Fast

Profile 3: Filter Z, Filter peak Z, Detector Fast

Spectrum: Filter Z, Detector Linear

Microphone correction: Environment

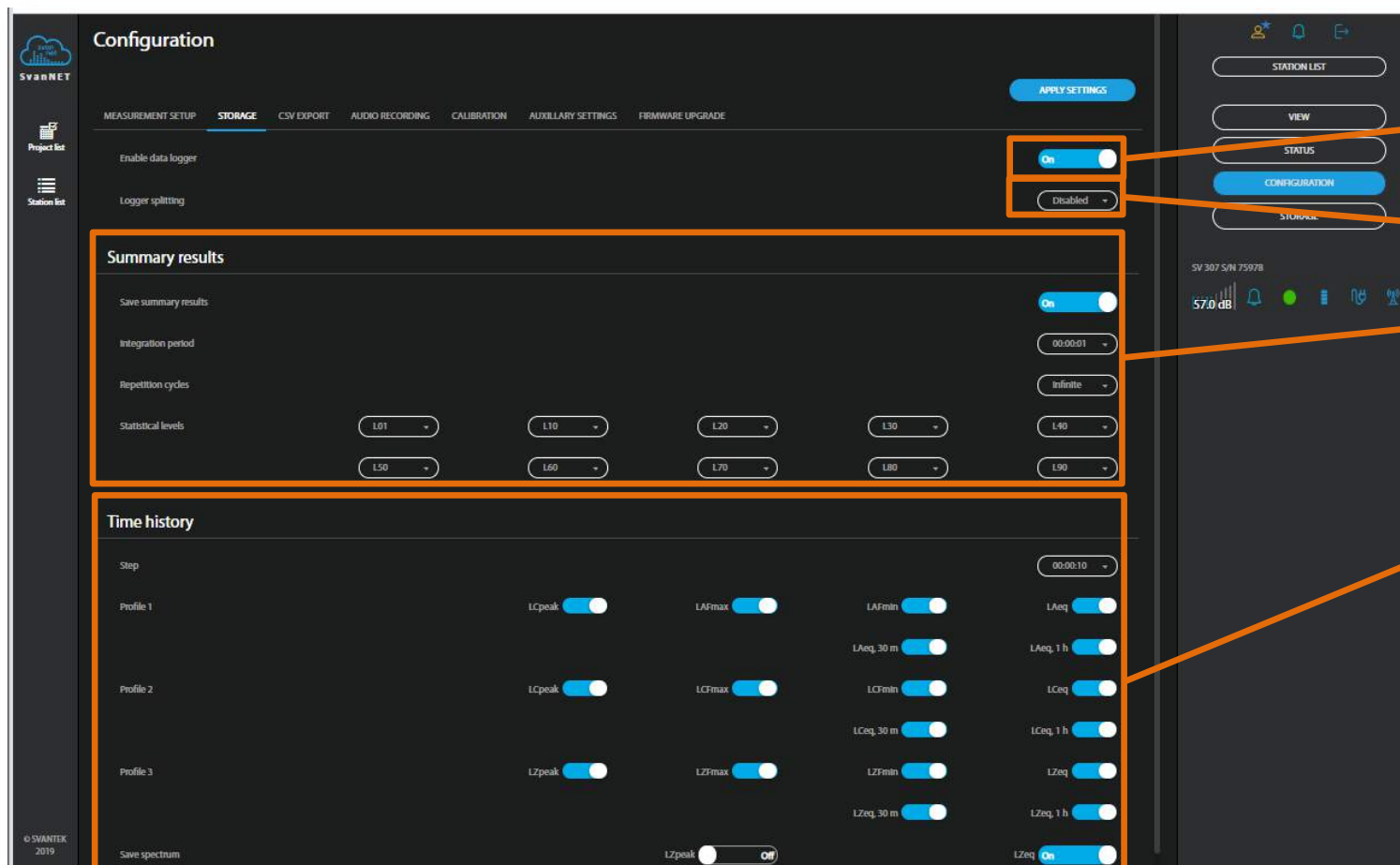
Rolling Leq: Time 1 30 minutes, Time 2 1 hour

SV 307 S/N 75978

62.9 dB

- select **Measurement function: Level Meter, Octave 1/1 or Octave 1/3**,
- update **Instrument clock**,
- select the type of **RMS/LEQ Integration: Linear or Exponential**,
- set synchronisation of the measurement start with **RTC**,
- select **Filter** and **Detector** type for profiles and spectrum,
- Switch **Microphone correction** On/Off or select **Environment** or **Airport** compensation.

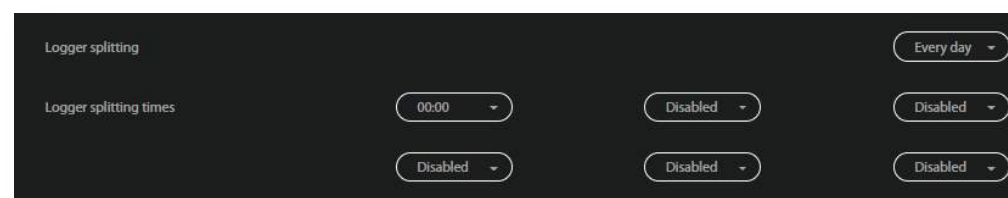
STORAGE tab



In the **STORAGE** tab, you can:

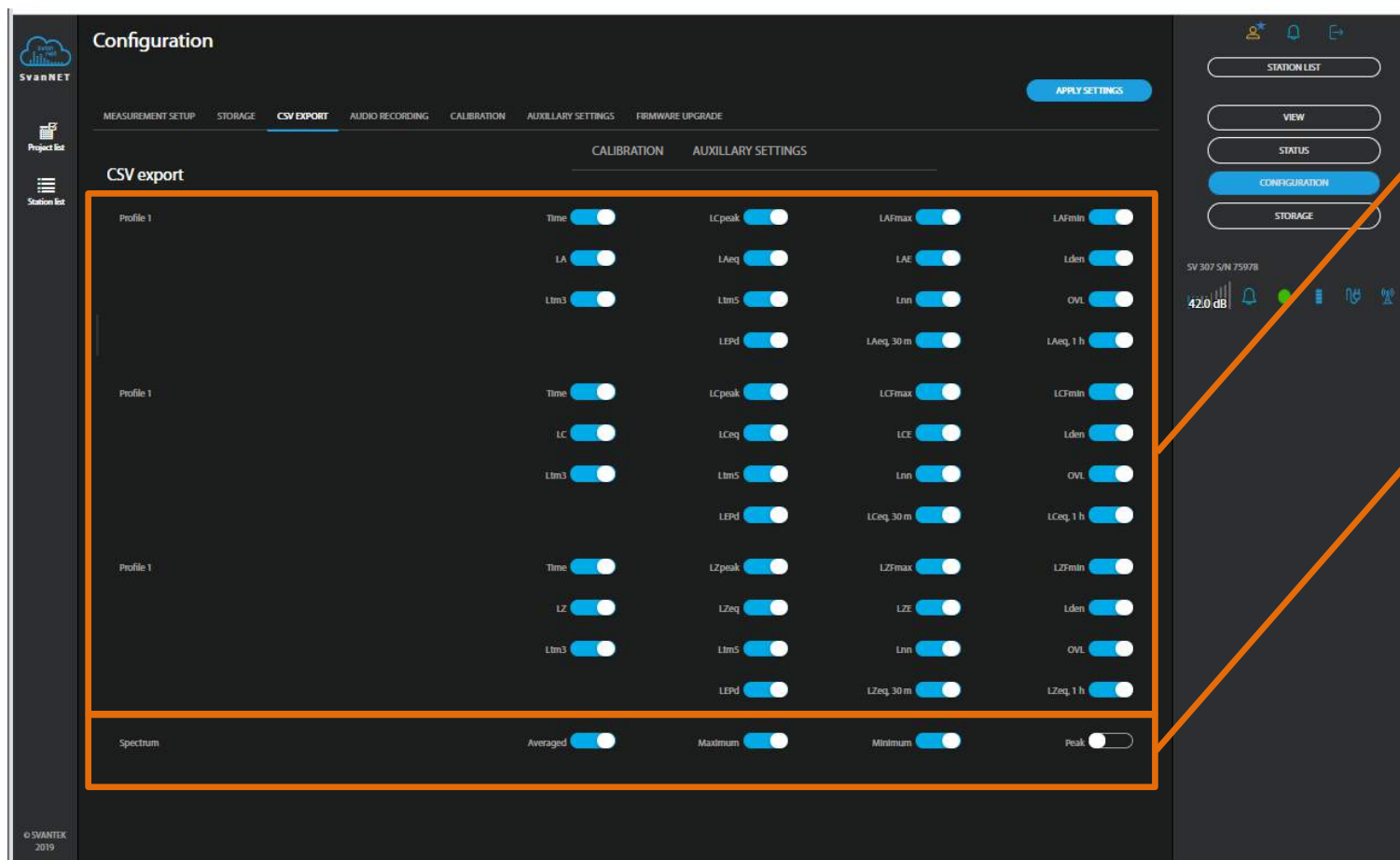
- switch on data logging,
- configure splitting of the logger file,
- configure of **Summary results** measurement: **Integration period**, **Repetition cycles** and **Statistics levels**,
- define measurement **Step** and select results to be saved as **Time history**, including spectra.

The **Logger splitting** position enables splitting of the time history files and selecting the splitting mode: Every 15 m, Every 30 m, Every 1 h and Every day. If Every day is selected, you can then define up to six points during a day when splitting will take place.



CSV EXPORT tab

In the **CSV EXPORT** tab, you can configure direct export of measurement data into CSV files (Comma Separated Values) and saving them in the instrument's memory.



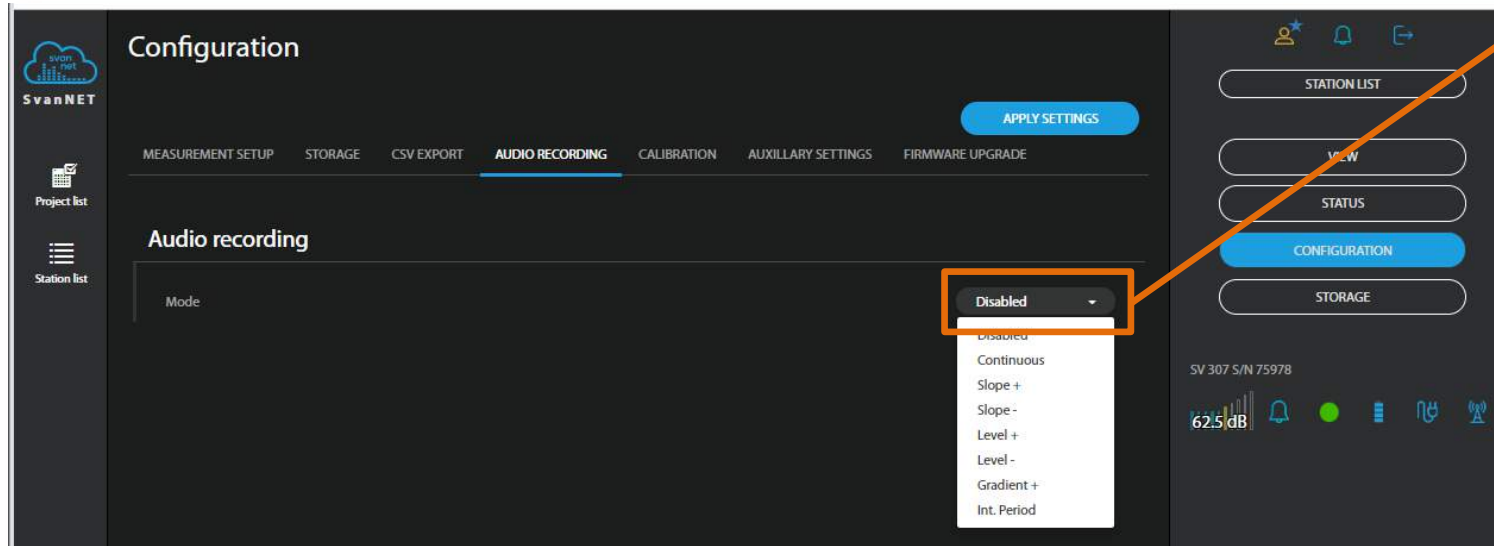
- You can select results to be exported for each profile individually.
- If the **Octave 1/1** or **Octave 1/3** function is enabled, **Maximum**, **Minimum** and **Averaged** spectra for each integration period can also be exported in the CSV format.



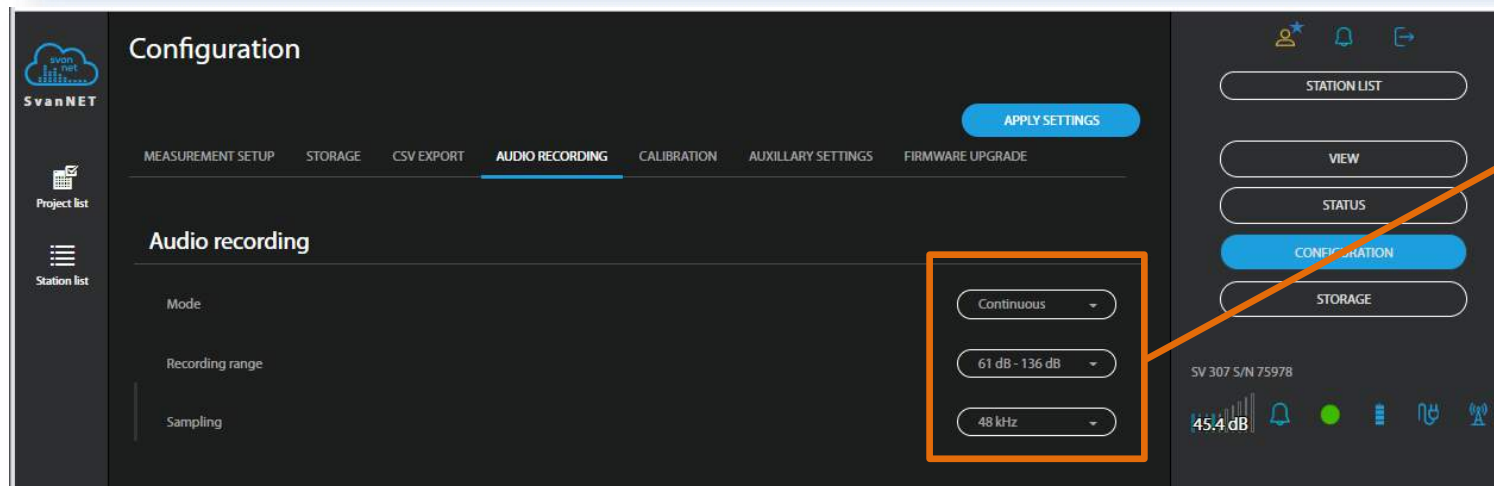
Note: CSV files can be quite large, and it is advised to use this feature when absolutely necessary.

AUDIO RECORDING tab

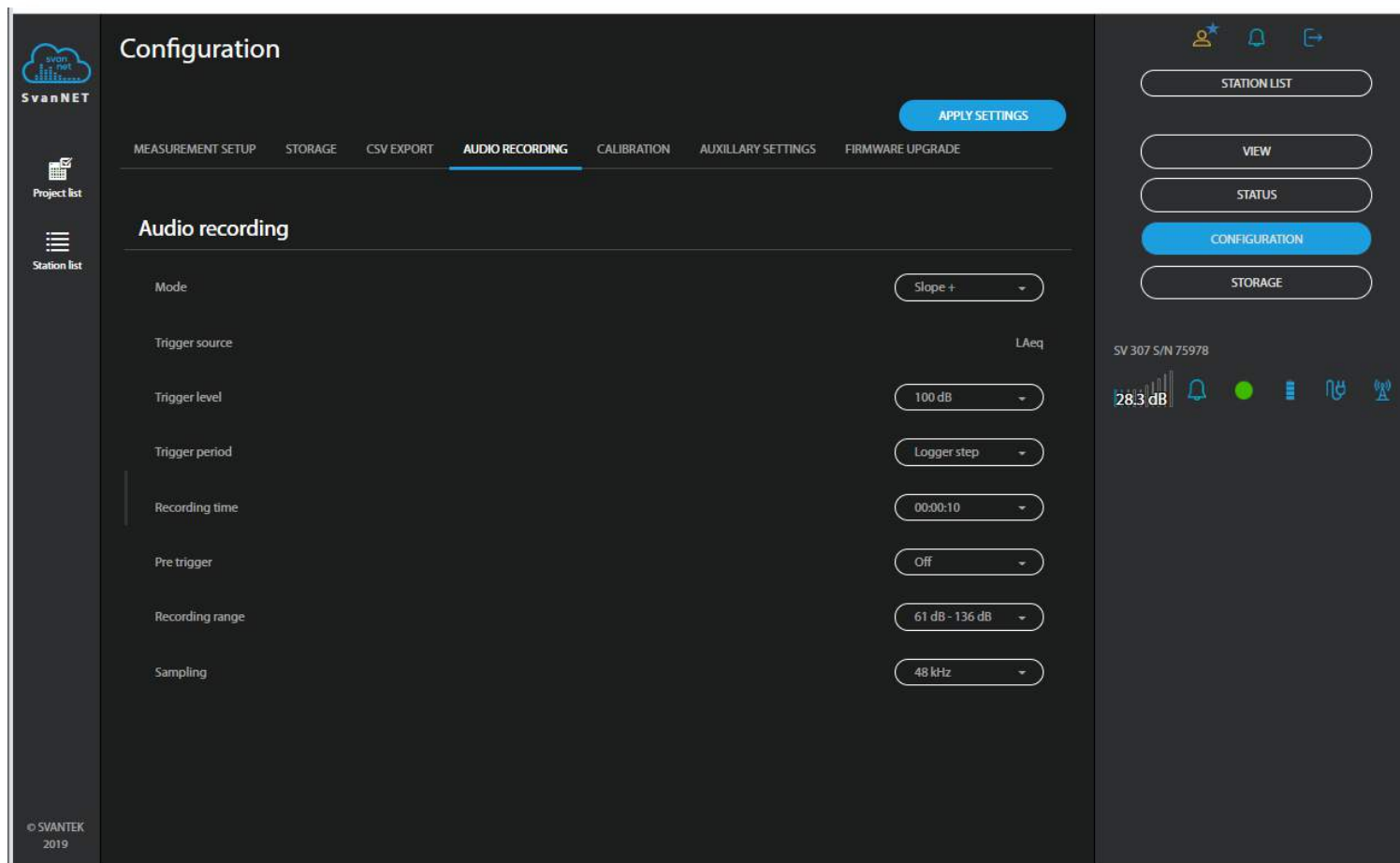
In the **AUDIO RECORDING** tab, you can configure an audio signal recording in a separate *.wav type file.



- Click the **Mode** selector to select the type of audio recording trigger: **Disabled**, **Continuous**, **Slope +**, **Slope -**, **Level +**, **Level -**, **Gradient +** and **Int. Period**. These modes require different sets of parameters and use different ways of signal recording (triggering).



- Continuous** mode means that the audio recording starts with the measurement start and stops with the measurement stop.

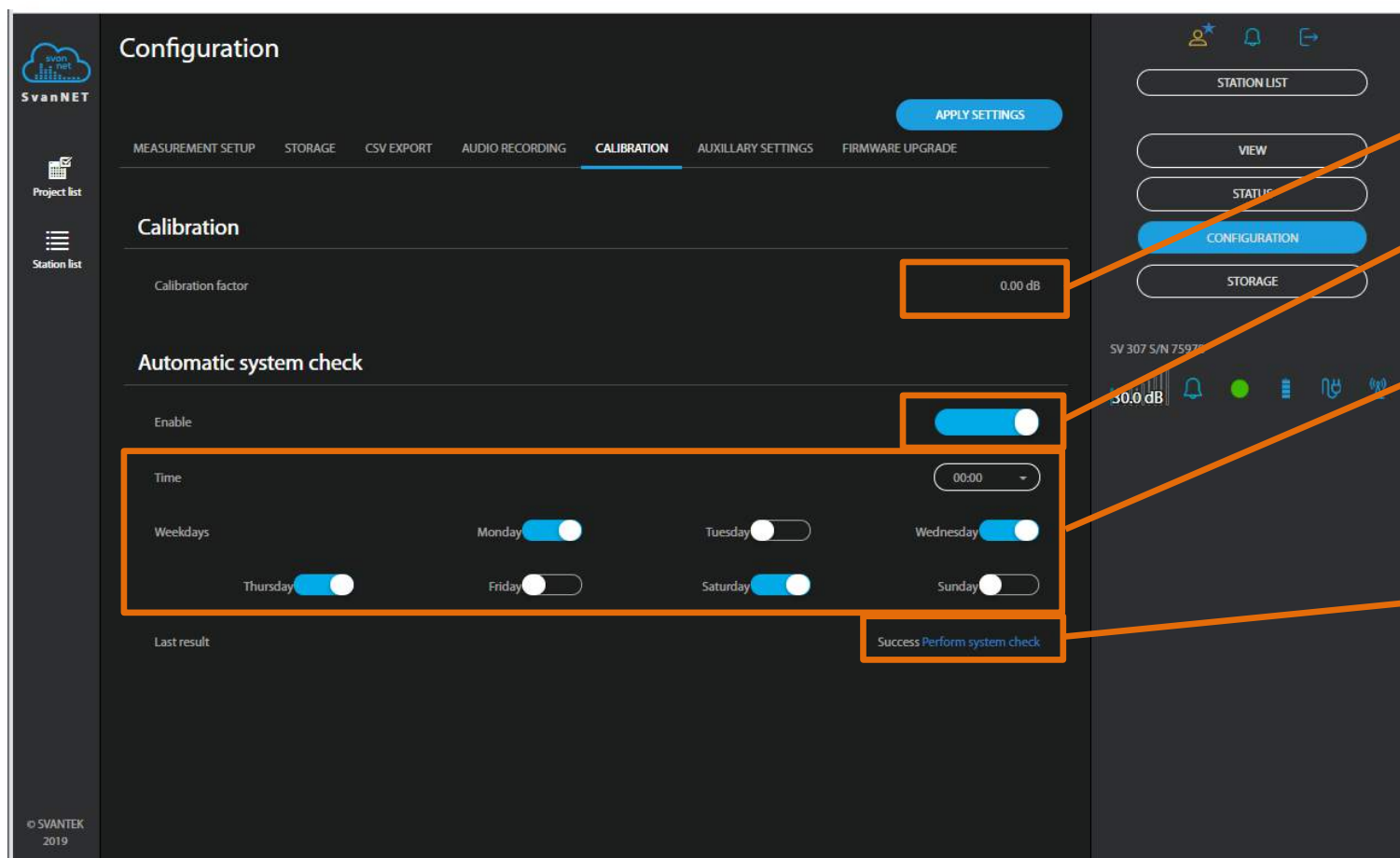


For example,

- **Level + / Level –** modes mean that the audio recording starts when the value of the **Trigger source (LZeq)** measured in the first profile by **Trigger period** (with value equal to Logger step, 0.5 ms, 0.1 seconds or 1 second) is greater/ lower than the threshold level (**Level**). In other cases, the recording doesn't start, but if it has been already started it can be continued until the **Recording time** has elapsed.

If during the **Recording time** a trigger condition appears, the recording will be prolonged for another **Recording time** from the moment of that trigger condition and so on. If during next recording time there are no triggers, the recording will be stopped after the last trigger plus **Recording time**.

CALIBRATION tab



In the **CALIBRATION** tab, you can:

- check the current calibration factor,
- switch on the **Automatic system check** and
- set time and days of the week when the system check will be performed automatically,
- manually **Perform system check**.

When **Automatic system check** enabled the calibration factor of the instrument will be periodically verified using built-in speaker.



Note: System check cannot be considered as a calibration. Calibration factor will not be updated during Automatic system check procedure.

AUXILIARY SETTINGS tab

Configuration

MEASUREMENT SETUP STORAGE CSV EXPORT AUDIO RECORDING CALIBRATION **AUXILIARY SETTINGS** FIRMWARE UPGRADE

Station descriptions

Station name: EuroLAB demo

Project name:

Location name: EuroLAB

Latitude: 50.266874

Longitude: 19.028165

External device

External device: None

APPLY SETTINGS

SV 307 S/N 75978

48.6 dB

STATION LIST

VIEW

STATUS

CONFIGURATION

STORAGE

© SVANTEK 2019

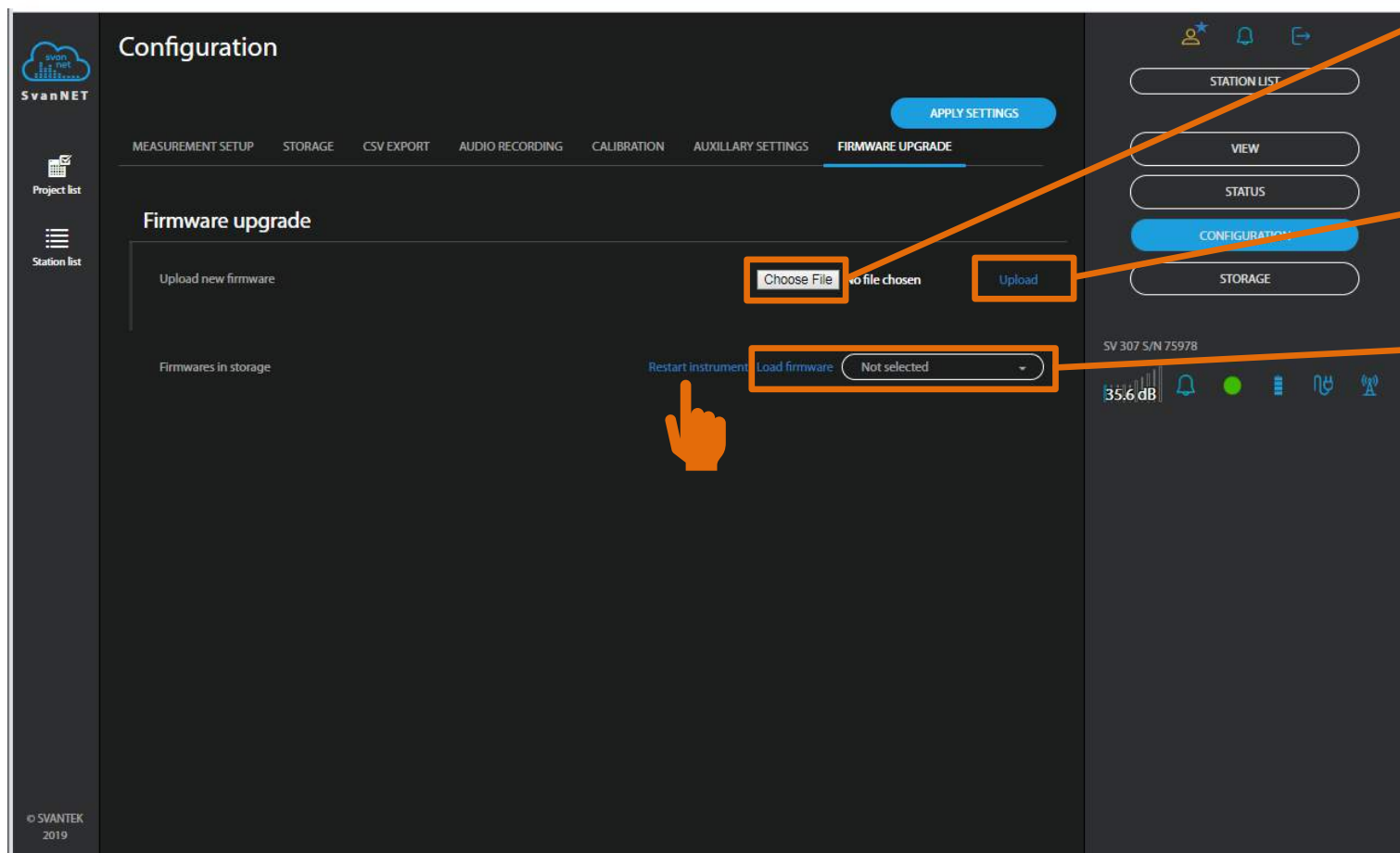
In the **AUXILIARY SETTINGS** tab, you can:

- enter **Station description**:
Station name,
Project name and
Location name,
- enter the instrument's geographical location in Latitude and Longitude coordinates (if GPS is switched on),
- select the External device: weather station (**Meteo-SP 275** or **Meteo-ES 642**).

FIRMWARE UPGRADE tab



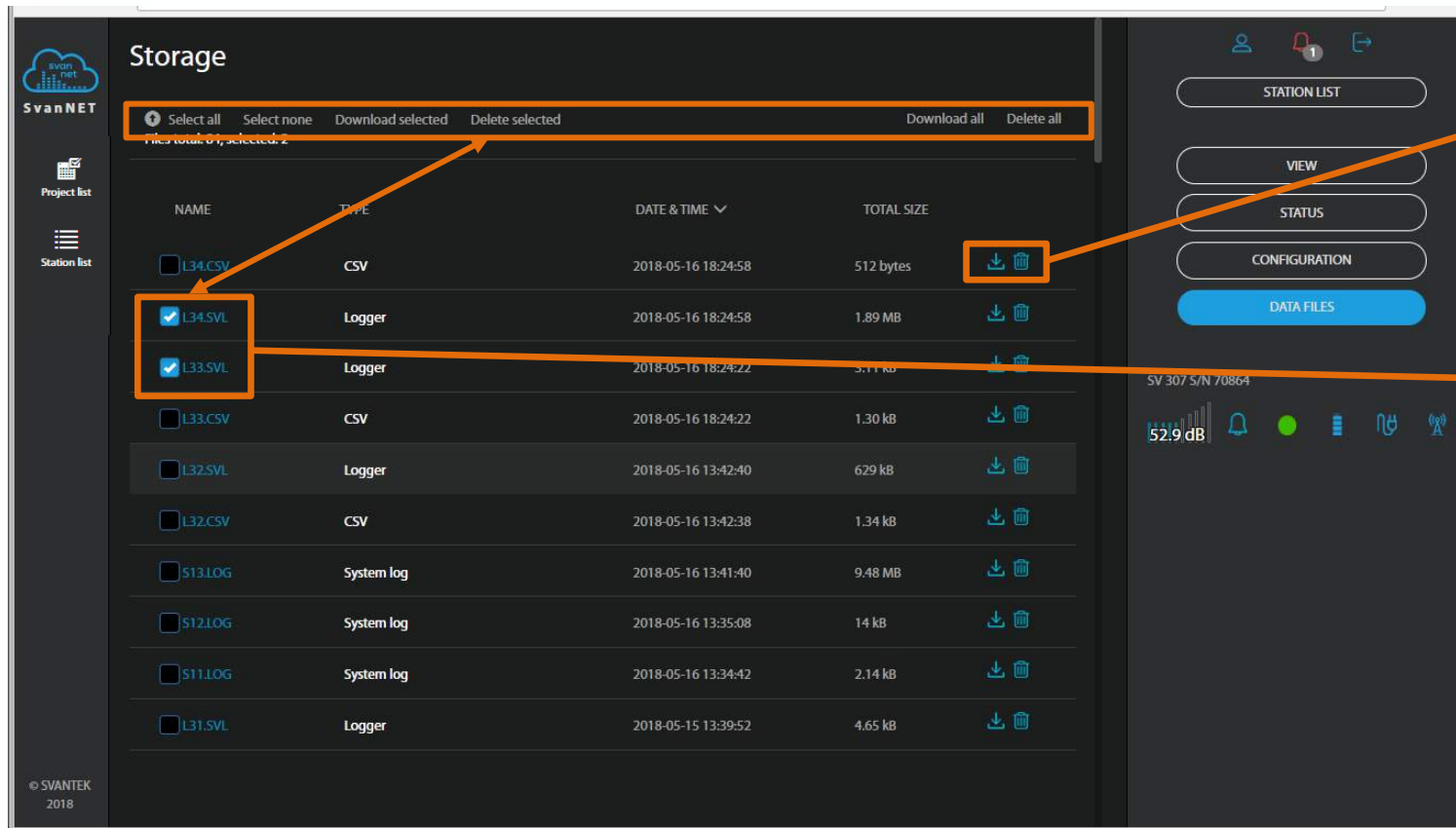
Note: Before upgrading the instrument firmware make sure the measurement is stopped.




- Click the browse button and select the new firmware *.bin file on the PC.
- Upload the selected file by clicking the **Upload** button.
- After the upload is finished select new firmware package in the firmware selector and click the **Load firmware** button.
- Click the **Restart instrument** button to finalize the process and wait 60 seconds for the connection to renew. The measurements will start automatically.

3.2.4. DATA FILES view

If you click the **DATA FILES** button being in the WEB INTERFACE mode, you will shift to the **Storage** view which presents a list of files saved in the instrument's SD-card memory. The list includes only files from a single directory on the memory card and it initially shows the content of the current working directory.



In the **Storage** view, you can:

- download or delete individual files by clicking the righthand icons on the file line,
- select several or all files and download or delete selected files or all files,
- navigate through the folder structure by clicking the “folder up” button .



Note: In the case the **AUTOMATIC DOWNLOAD** function is switched on the **Storage** view becomes inactive.

APPENDIX A – ICONS DESCRIPTION

The table below presents all icons, used in the SvanNET web-service, that enable next functionalities:

Table A.1. Icons with function

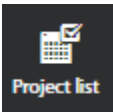





Icon	Description
	– Toggle to the Project list
	– Toggle to the Station list
	– Toggle panel with available stations in the Project VIEW
	– Add the plot in the Project VIEW
	– Change the measurement result for plots in the Project VIEW
	– Refresh data

Table A.1. Icons with function (cont.)







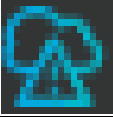
Icon	Description
	– Folder up
	– Logout from SvanNET
	– User options
	– Download file
	– Delete file
	– View status connection log
	– View station status log

Table A.2. Status icons




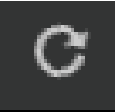
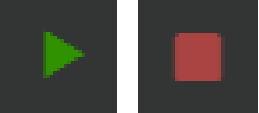
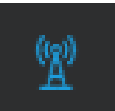


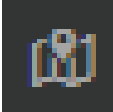


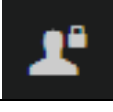
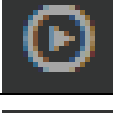

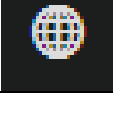
Icon	Description
	<ul style="list-style-type: none"> Warning about emergency situations. The icon is blue if everything is OK, red when something is happening. When you click this icon on the station bar, the information about the problems related to the station will be shown. Icon at the top of the window, next to the user account, informs about the number of alarms for all stations and displays the list of stations with problems
	<ul style="list-style-type: none"> Battery status. When you click this icon on the station bar, information about charging level will be displayed
	<ul style="list-style-type: none"> External power source status. When you click this icon on the station bar, information about external source will be displayed. If there is no external power the icon will be grey
	<ul style="list-style-type: none"> Automatic Download status: white, rotating icon means that downloading is in progress; blue, still - download is switched off or download not yet started
	<ul style="list-style-type: none"> Measurement status: green, blinking icon means that measurement is in progress; red, still square - no measurement
	<ul style="list-style-type: none"> Connection status. When you click this icon on the station bar, information about connection status and signal strength will be displayed
	<ul style="list-style-type: none"> Information about the communication with the station: green - correct, in progress; yellow - the station doesn't respond to the command for a long time; red – the station is not connected to SvanNET

Table A.2. Information icons

Icon	Description
	– Project description
	– Project localization
	– User with administrator access
	– User with manager access
	– User with guest access
	– Activate the item
	– Location of the measuring point
	– Access token