SONOLEVEL DATAVIEWER

For

SONOCHEK
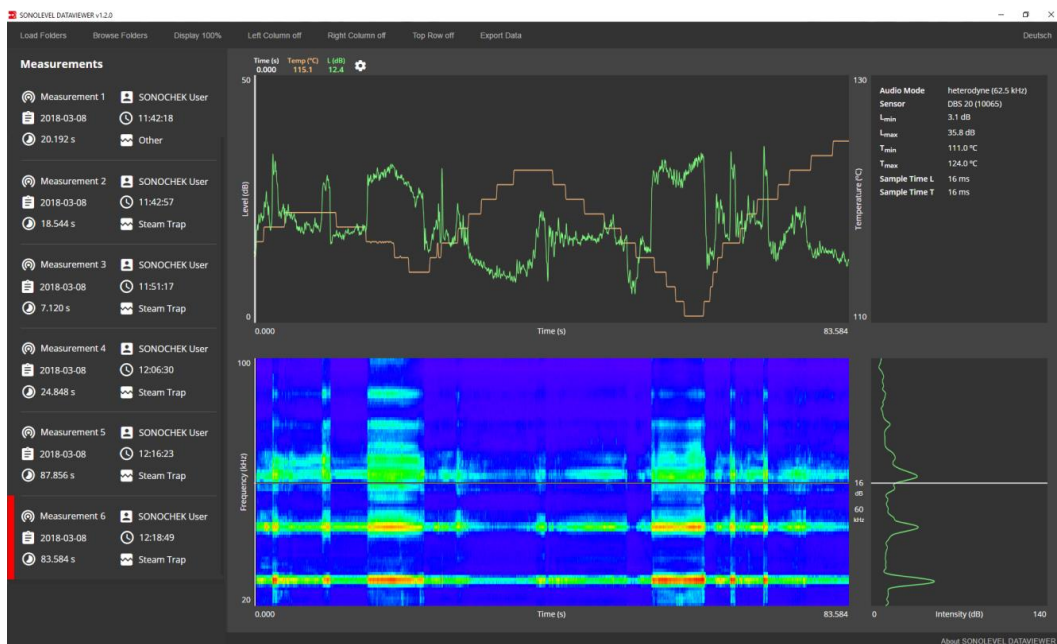
Operating Instructions

MANUFACTURER

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Content

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1   Intended use

Using the DataViewer software, the measurements recorded using the SONOLEVEL app on the SONOCHEK can be evaluated on a Windows PC or tablet.

The folders and measurements exported from the SONOCHEK are listed together with the corresponding photos, attachments, and voice memos.

Recorded measurement data can be played back and visualized using suitable graphs for level profile and spectrograph. Here, separate windows in the chronological course of the measurement data can be selected and exported for further processing.

> **Notes!**
> Please note that only measurement data from the SONOLEVEL app can be loaded.
> Some display options depend on the version of the app used for recording the measurements (the following figures could deviate slightly).

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2   First steps

2.1   Providing measurements

Before you can load measurements for evaluation into the DataViewer software, you must export the measurement data as zip file using the SONOLEVEL app on your SONOCHEK. Information can be found in the SONOCHEK operating instructions, in chapter 4.3 "Preparing measurement data for export."

Next, you must copy the exported measurement data into the file system of the PC or tablet, where DataViewer is running. For this purpose, connect the SONOCHEK to the PC or table via USB.

2.2   Starting the DataViewer software

DataViewer does not require a separate installation and is started directly from its storage location.

1. In Windows Explorer, open the folder with the program files of the DataViewer software.

> **Note!**
> Do not change the file or folder designation. Otherwise, the software cannot be started.

2. Click on the SONOLEVEL DataViewer ⬛ executable (exe).

2.3   Loading measurements

⇨ Tap or click on "Load Folders."

⇨ In the shown window dialog, open the zip file of the measurement data that you copied from the SONOCHEK onto the PC or tablet.

⭗ The folders with the measurement data are displayed in the left column of the list view.

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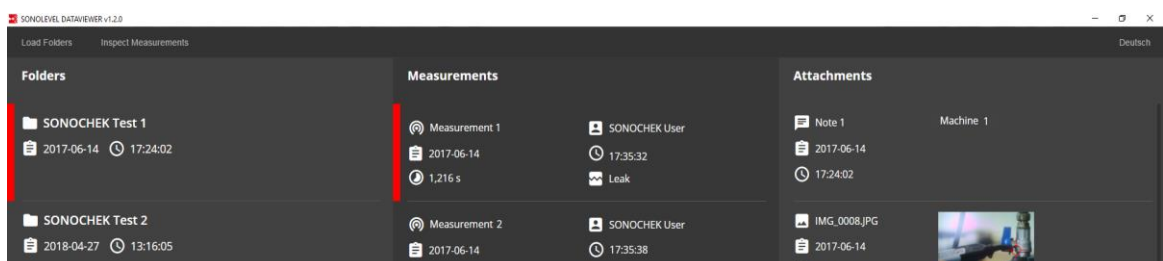
3   User interface

Two views can be activated in the DataViewer software. Folders and measurements can be selected in the **list view**, as well as corresponding photos, voice memos, and attachments. The **detail view** can be used for audio-visual measurement evaluation using suitable graphs.

3.1   List view
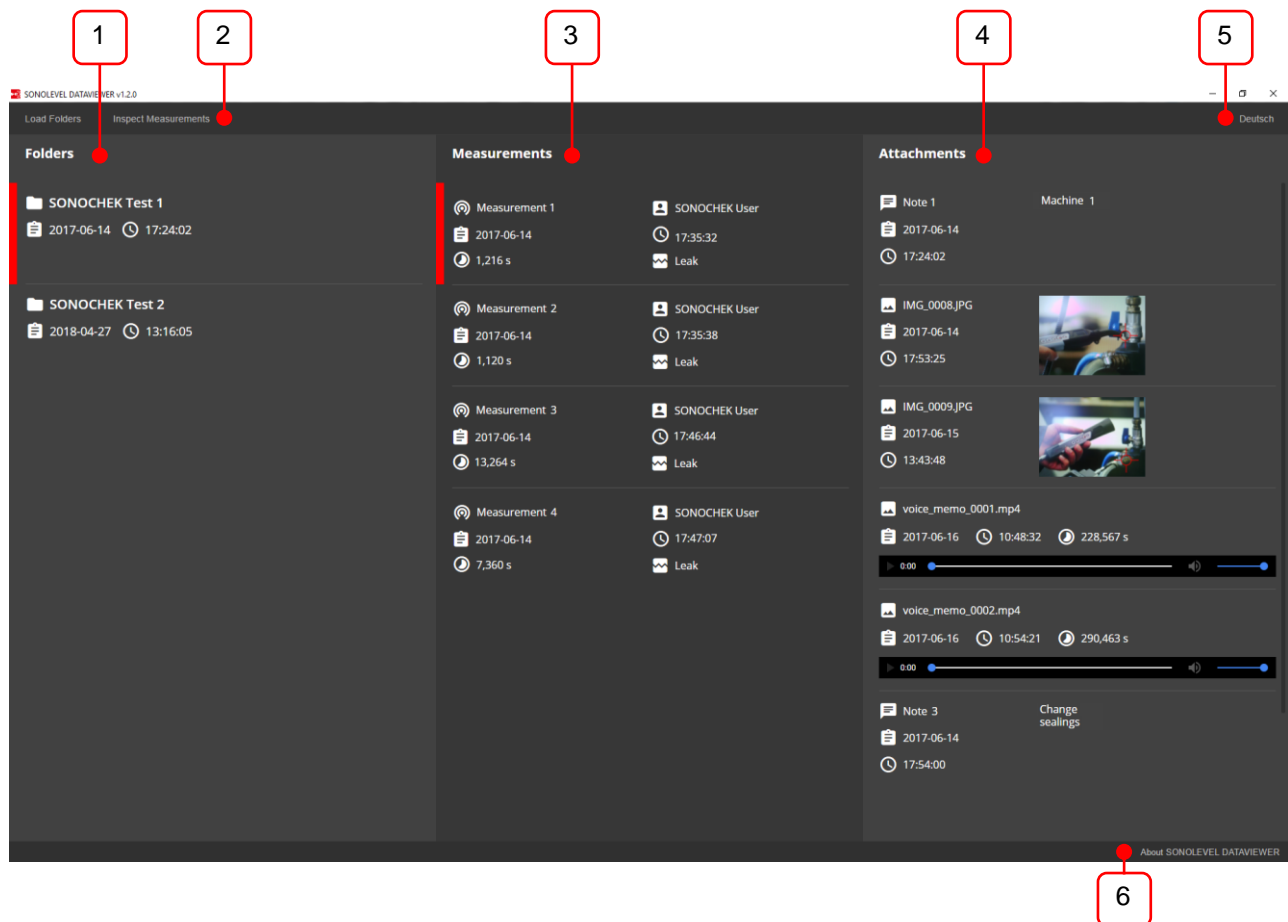
1	List of folders with measurements (active folder: marked red)
2	Menu bar
3	Measurements of the selected folder
4	Attachments of the selected folder/measurement
5	Language setting: German/English
6	Status bar for displaying fault messages; notes on the Open Source software (About SONOCHEK DataViewer)

> **i** **Note!**
>
> DataViewer uses parts of Open Source software projects. The names, license conditions, and copyright notices of these projects can be found in the 3RD-PARTY-NOTICES file.
>
> As an alternative, they can also be displayed within the software.
>
> Tap or click on "About SONOCHEK DataViewer" to display the window with all information.

3.2 Detail view
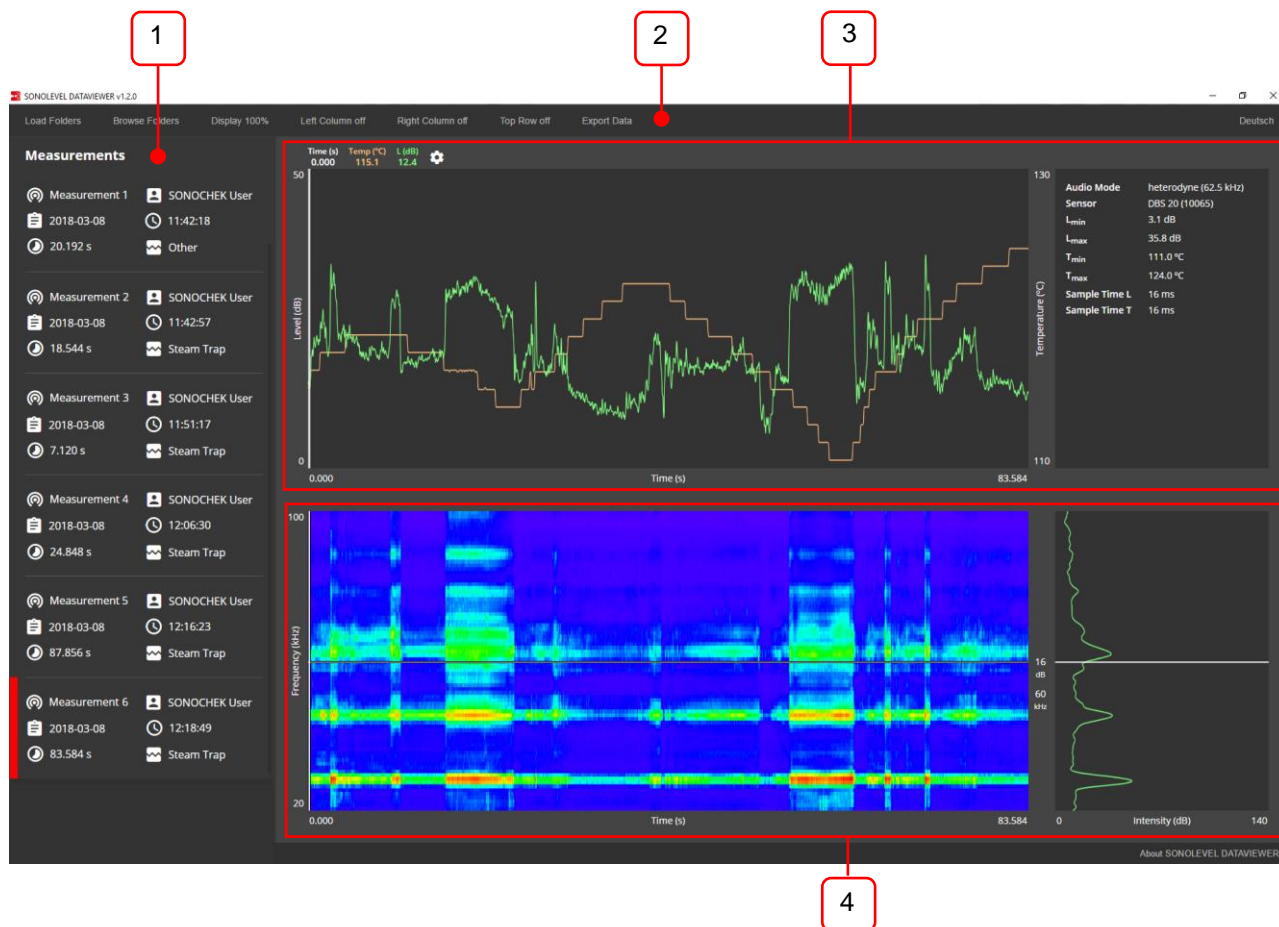
1	Measurements in the active folder (active measurement: marked red)
2	Menu bar
3	Level profile and temperature curve
4	Spectrograph and spectrum

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Detail view – graph for level profile and temperature
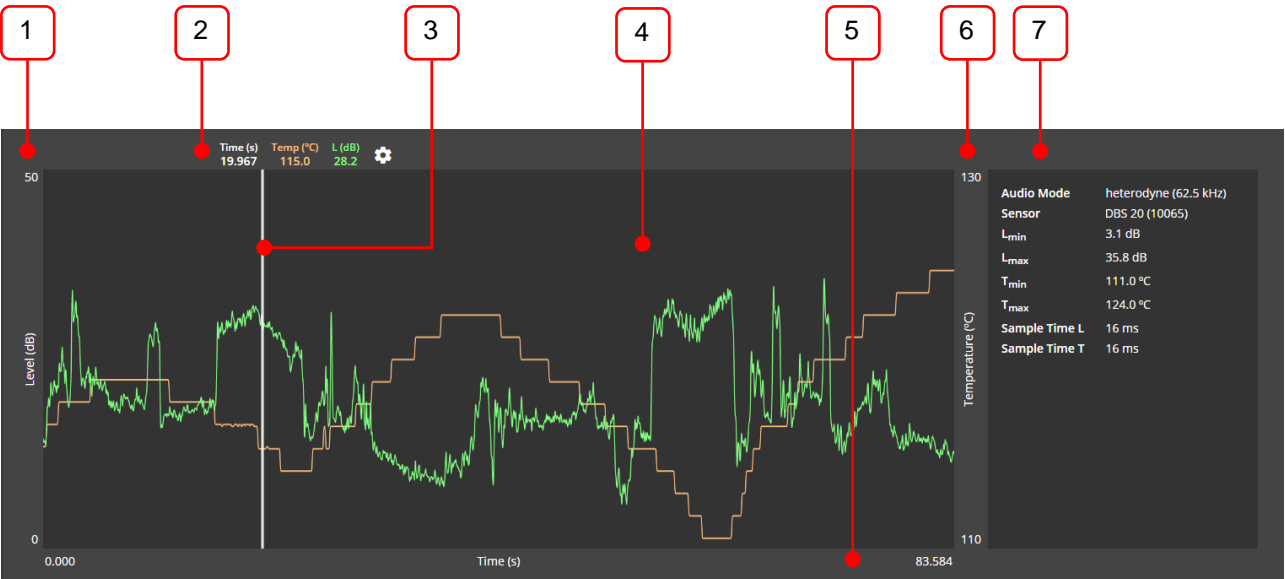
1	Level axis (dB)
2	Legend with time and level values (selection/display of different levels: ⚙ Settings)
3	Time cursor
4	Main area with curve profiles (color-marked, see legend)
5	Time axis
6	Temperature axis (°C)
7	Metadata of the measurement

Detail view – spectrograph and spectrum
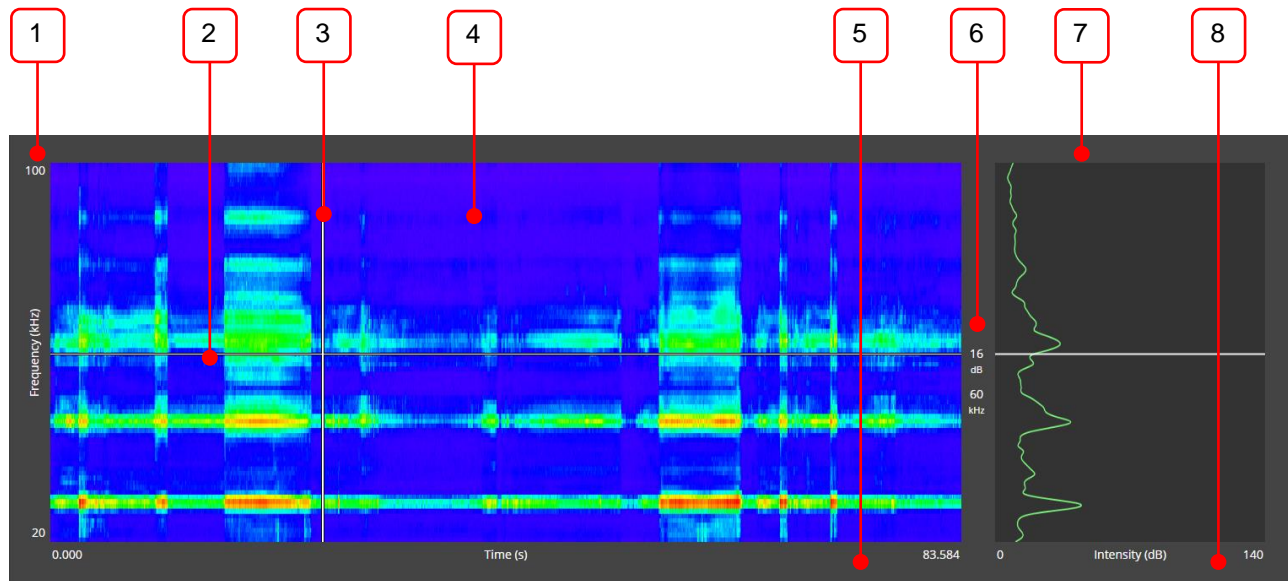
1	Frequency axis (kHz)
2	Frequency cursor
3	Time cursor
4	Display area of the spectrograph
5	Time axis
6	Frequency and dB range of the time cursor in the spectrum (kHz, dB)
7	Spectrum with marking of a selected frequency. The spectrum refers to the current time-cursor position in the spectrograph.
8	DB scaling of the spectrum

> **Note!**
> Depending on the app version, no dB value may be provided for older SONOCHEK measurement data. The spectrally resolved data is then displayed without specifying a dB value.

4   Operation

4.1   Setting the language

English and German are available as user interface languages.

Tap or click on the "English" or "German" operating element on the right in the menu bar to set the language respectively.

4.2   Editing graph axes

You can change the limits of all graph axes directly:

⇨ Click or tap on the numerical value on an axis limit and change it in the then appearing input field.

Note!

When loading a measurement, the axis limits are defined automatically by the minimum and maximum value of the recording. They can then be adjusted as described.

The time axis can be adjusted additionally using mouse and finger gestures:

⇨ Tap or click and hold in the display area of the spectrograph or the graph for level profile and temperature. Wait a moment, then drag the pointer horizontally to the desired position to mark the selection area.

⇨ Release the left mouse button at the desired position. The time axis is adjusted to the selected range

OR

⇨ Move the mouse wheel down or two fingers towards each other or move the mouse wheel up or two fingers apart to adjust the view.

Resetting the graph axes:

⇨ Tap or click on the "Display 100 %" operating element in the menu bar.

4.3   Functions in the list view

4.3.1   Selecting folders and measurements, displaying attachments

⇨ To select a folder and measurement, tap or click on the element.

✋ The active element is marked red (see figure).

The measurements contained in the folder are shown in the center column of the list view.

Photos, voice memos, and attachments corresponding to the active folder or measurement are shown in the right column of the list view.

Click or tap on a photo to enlarge and display it. Click or tap on any point of the user interface to exit the enlarged photo presentation.
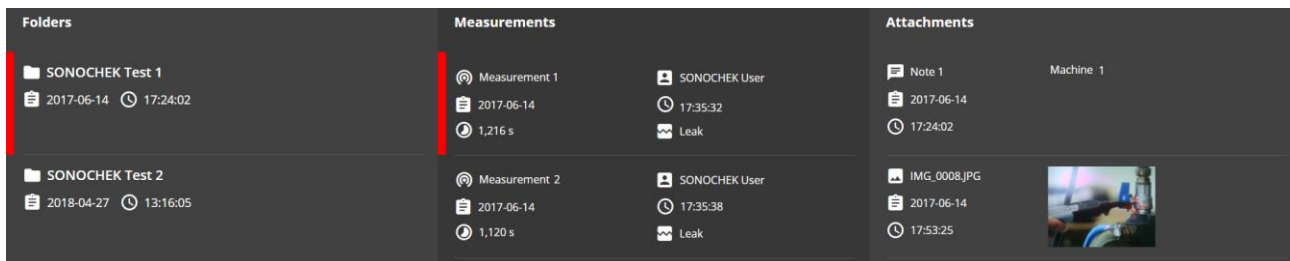
4.3.2   Switching to detail view

⇨ Select a folder.

The active element is marked red (see figure).

⇨ Tap or click on "Inspect Measurements" in the menu bar.

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4.4   Functions in the detail view

4.4.1   Selecting a measurement
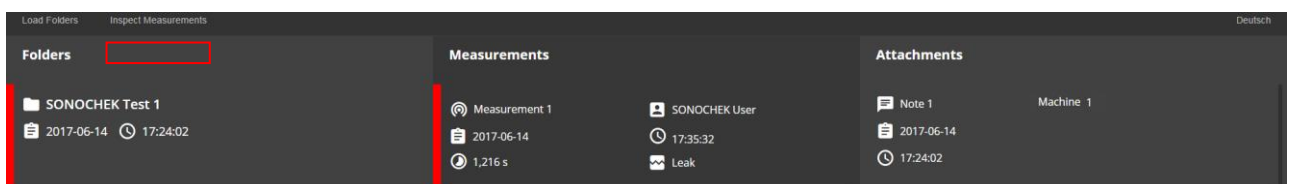
The available measurements of the active folder are shown in the left column.

⇨ Tap or click on the measurement to select it.

✣ The selected measurement is marked red. After loading, corresponding graphs and
   information are displayed, unless you hide them.

4.4.2   Showing and hiding columns and rows

To maximize the presentation of level profiles and particularly spectrographs on the screen,
individual areas can be shown or hidden in the detail view:
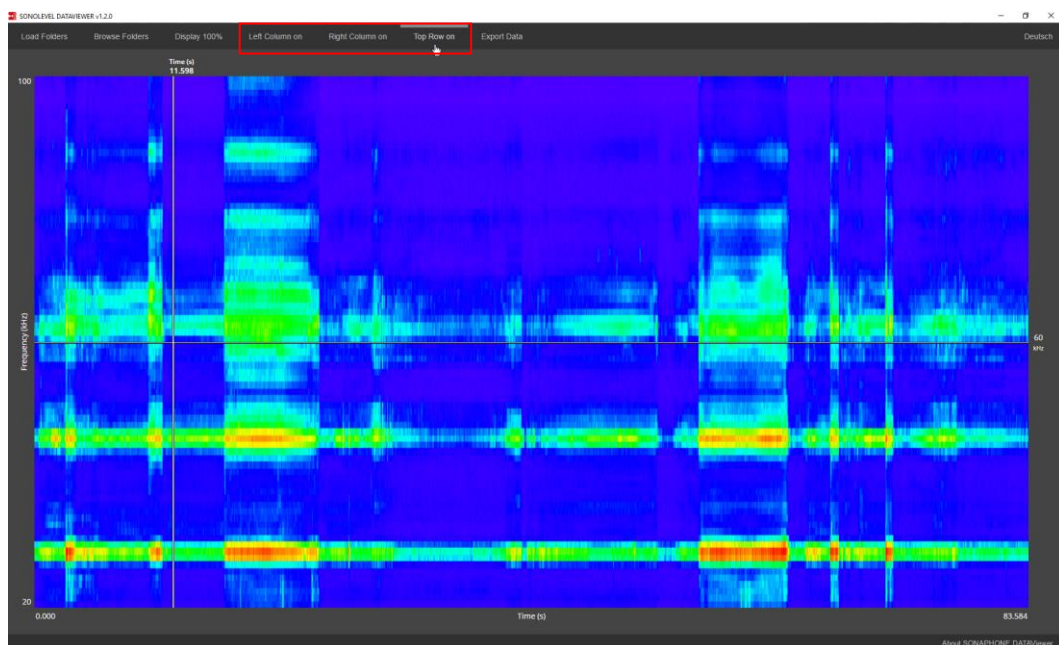
⇨ Tap or click on the respective functions, e.g., "Left column off" or "Left column on" to show or
   hide elements.

Further functions for showing or hiding content:

* Right Column on/off

* Top Row on/off

4.4.3 Changing the cursor position

Changing the position of the frequency or time cursor in the level profile or spectrograph:

⇨ Click next to the cursor, keep the left mouse button depressed and drag the time cursor directly to the left or right resp. the frequency cursor up or down.

Changing the position of the frequency and time cursor in the level profile or spectrograph:

⇨ Click in the area, where the frequency and time cursor intersect, keep the left mouse button depressed and drag the time and frequency cursor directly in any direction.

Changing the position of the frequency cursor in the spectrum:

⇨ Click next to the cursor, keep the left mouse button depressed and drag the frequency cursor up or down.

4.4.4 Showing or hiding different level types

⇨ Tap or click on the icon settings ✿ in the legend above the graph for level profile and temperature.

⇨ Tap or click on a value to show or hide it in the graph:

Time (s)	Temp (°C)	L (dB)	LF (dB)	Leq (dB)	Lmax (dB)	Lmin (dB)	Lpk (dB)	
0.000	106.1	30.3	29.6	26.1	32.4	21.3	43.1	✓

Colored elements = active: Tap or click to hide the corresponding level profile
Gray elements = inactive: Tap or click to show the level profile

⇨ Tap or click on the checkmark in the legend to hide the list of available level types.

4.4.5 Starting audio playback

⇨ Tap or click briefly on the display area of the spectrograph or the graph for level profile and temperature to play back the audible audio data for the selected measurement.

⮱ Playback starts at the current position of the time cursor and ends latest, when the cursor reaches the end of the time axis. During playback, time cursor and legend of the graph or level profile and temperature move synchronously to the playback position.

ℹ	**Note!**
	The volume of the audio output can be changed via the settings of the PC system.

As soon as the time cursor reaches the end of the time axis, it is set to the beginning of the time axis and the playback stops.

⇨ Tap or click again in the area during playback to manually end playback.

4.4.6 Exporting data into HTML format

Measured data can be exported in the software as CVS file as described below:

⇨ In the view, show the levels, which should be considered in the data export (see chapter 4.4.4 Showing or hiding different level types).

⇨ Tap or click on the "Export Data" operating element in the menu bar.

↳ The saving window dialog is opened.

⇨ Change the path and file name in the window dialog as needed and confirm the input with "Save."

↳ The saved CSV file contains the data for all shown levels.

4.4.7 Switching to list view

⇨ Tap or click on "Browse Folders" in the menu bar.

5   Fault messages and fault correction

	Note!
$\boxed{\mathbf{i}}$	In very rare cases (crashes of the application or the computer), irregularities can occur in the writing process when writing large amounts of data into the cache. In this case, inconsistent/faulty data is stored in the cache. To start the application correctly, it may therefore be necessary to reset the cache of the application cash using the following key combination: Ctrl + Shift + F8.

Status and fault messages are displayed in the software in the status bar at the lower right.

Please contact our Service in the case of further problems or malfunctions. If possible, have the software version and any fault messages ready.

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