SONOTEC ◩

SONAPHONE ⌇⫼

User Documentation:
DataViewer for Test Data from LevelMeter App

Content

1 Notes on the software

1.1 Brief description

The SONAPHONE DataViewer software can be used to evaluate test data recorded with the LevelMeter app on a Windows PC or tablet.

> **i** **Note!**
>
> Please note that only test data from the LevelMeter app can be loaded onto the software.
>
> Some display options depend on the version of the app used to record the test data (there may be minor deviations from the following figures).

The folders and measurements selected when exporting test data are clearly listed together with the associated photos, text comments and voice memos in order that individual measurements can be retrieved more quickly.

Recorded test data can be played back and is represented by means of suitable diagrams for level graph and spectrogram. Individual areas can be focused on here over the time progression of the test data, and can be exported for further processing.

Language settings can be adjusted as described in Chapter 5.1.

1.2 Open-source software

SONAPHONE DataViewer uses components from open-source software projects. The names, license conditions and copyright notices for these projects can be found in the enclosed file 3RD-PARTY-NOTICES.

Alternatively, these may also be displayed within the application (see Chapter 5.4).

2   Installation

System requirements

PC or Tablet, Windows 7 upwards

You receive the SONAPHONE DataViewer on a USB flash drive. For the installation an activation key is required. You will find the key on the delivered plastic card or you will receive it via email from the SONOTEC support.

> **i**   **Note!**
> There is no update service for the software. The latest release of the software and the related description you can download on www.sonotec.de/dataviewer.

⇨ Insert the USB flash drive into a free USB port and save the ZIP file locally on your device.

  Example: C:\Programme\SONOTEC\DataViewer

⇨ Unpack the ZIP file.

⇨ Start the EXE file to initiate the installation of the software.

⇨ Insert the activation key in the dialog box.

↳ The software starts, shows the list view and is ready for loading test data.

For loading test data see chapter 5.2.

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3 Structure of the user interface

SONAPHONE DataViewer has two selectable main displays. One display has a compact list view (following chapter) for the selection of folders and measurements and the display of associated photos, voice memos and text comments. The other has a detailed view (see Chapter 3.2) for the audiovisual evaluation of measurements using suitable diagrams (Chapters 3.2 and 3.4).

3.1 List view
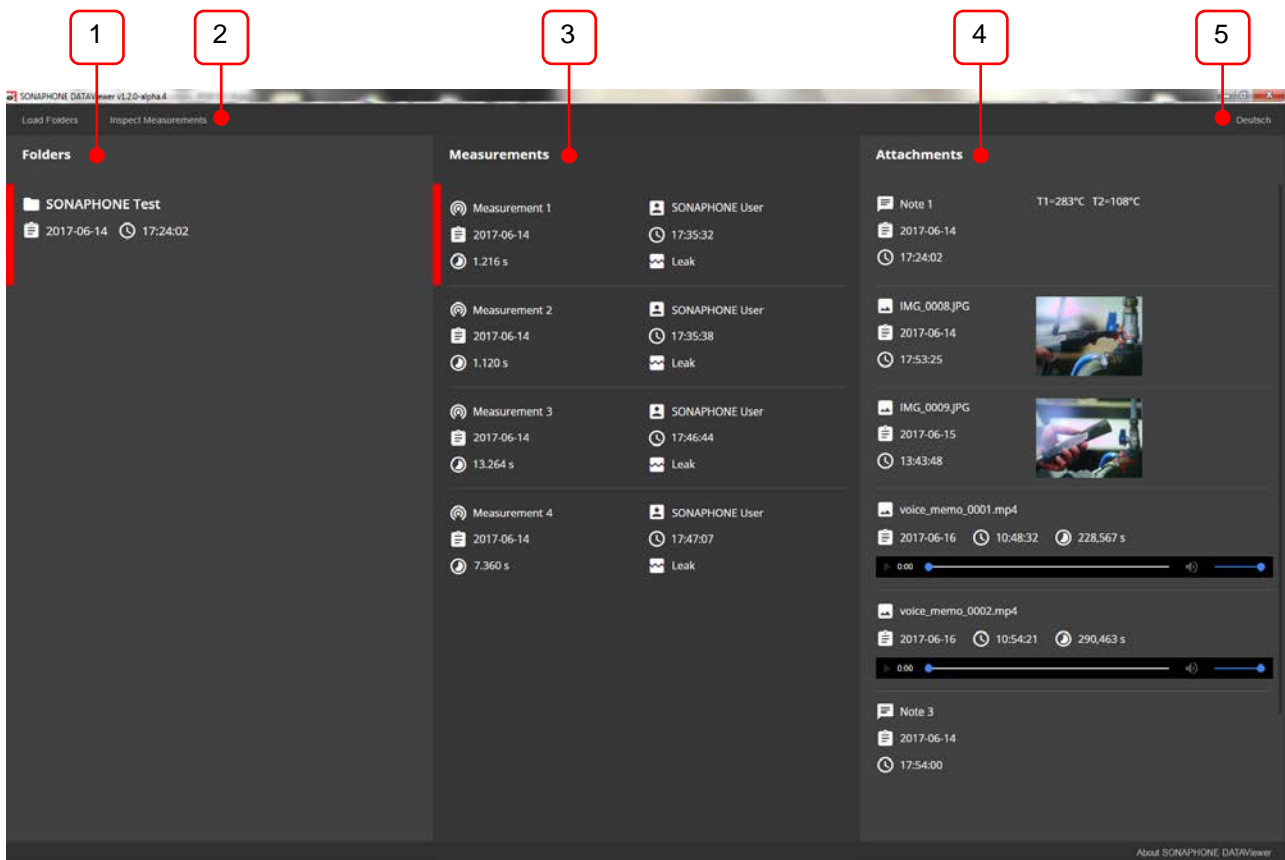
1	List of folders containing loaded test data (active folder: red bar)
2	Menu bar
3	Measurements in the selected folder (select to show attachments)
4	Attachments for the selected folder/measurement
5	Set language: German/English

3.2 Detailed view
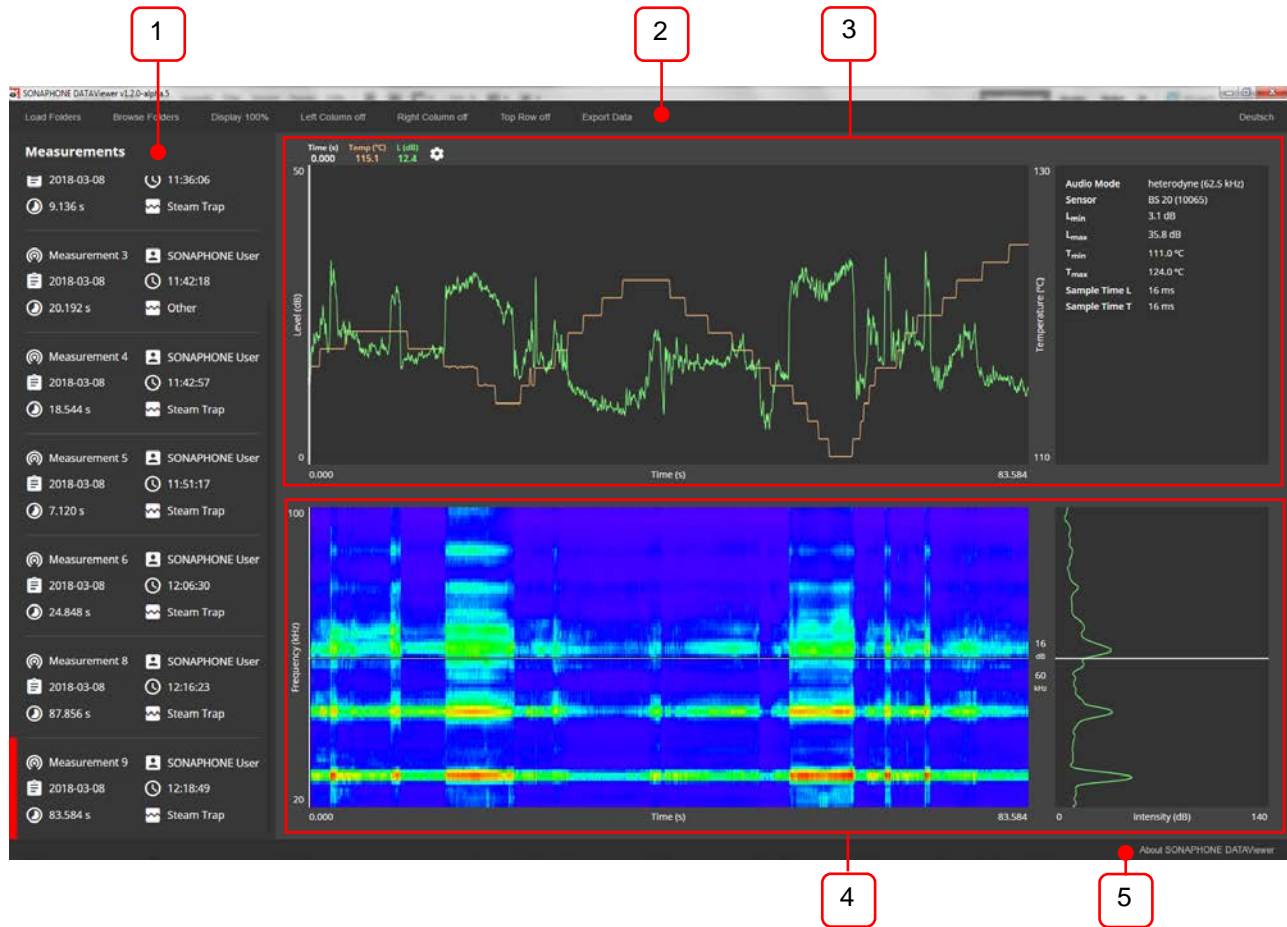
1	Measurements in the active folder (active measurement: red bar)
2	Menu bar
3	Level graph and temperature curve (Chapter 3.3)
4	Spectrogram and spectrum (Chapter 3.4)
5	Status bar for the display of error messages; Notes on open-source software (Section 5.3)

3.3 Diagram for level graph and temperature
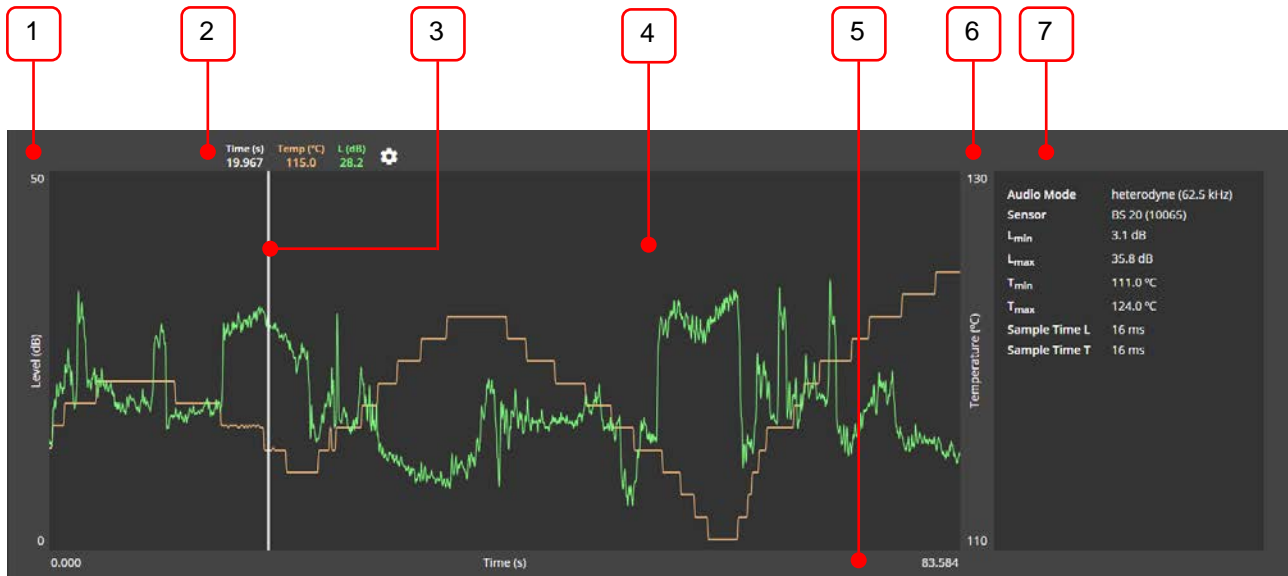
1	Level axis [dB], (to adjust: click on the value and change/use the mouse wheel)
2	Legend with time and level values (selection/display of the different levels: ⚙ Settings)
3	Time cursor (to change position: click and drag)
4	Main area with curve progressions (color-coded, see legend)
5	Time axis (to adjust: click on the value and change/use the mouse wheel)
6	Temperature axis (°C)
7	Meta data for the measurement

The scaling of time and level axis can be adjusted by entering new values (see chapter 7.2)

3.4 Spectrogram and spectrum
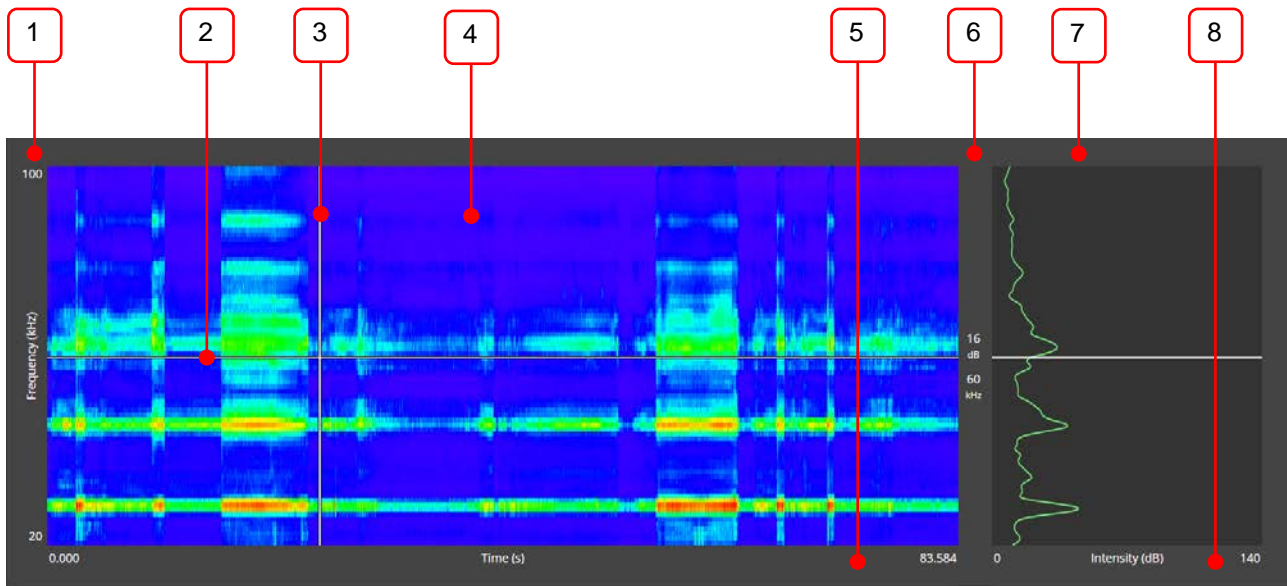
1	Frequency axis [kHz], (to adjust: click on value and change/use mouse wheel)
2	Frequency cursor (to change position: click and drag)
3	Time cursor (to change position: click and drag)
4	Main area for the spectrogram
5	Time axis (to adjust: click on the value and change/use the mouse wheel)
6	Frequency and dB value of the time cursor in the spectrum (kHz, dB)
7	Spectrum (power spectral density) with indication of selected frequency (cursor: click and drag)
8	dB scaling of spectrum

The spectrum (power spectral density, right window) is shown in dB. The displayed frequency range relates to the spectrogram and the relevant spectrum at the selected time (time curser position). The corresponding values (frequency and dB value of the time cursor in spectrogram) are displayed on the left of the spectrum. The scaling of time and frequency can be adjusted by entering new values (see chapter 7.2).

> **Note!**
> Depending on the app version, dB values cannot be displayed for older SONAPHONE measurement data. The spectrally resolved data is shown without the specification of a dB value.

4 First steps

This section will start by describing the basic elements involved in operating the SONAPHONE DataViewer.

4.1 Preparing test data on the SONAPHONE for export

In order to evaluate test results using the SONAPHONE DataViewer, the results will firstly need to be exported as a ZIP file onto your SONAPHONE using the LevelMeter app. More information on this can be found in the description of the LevelMeter app.

4.2 Providing the test data on the target device

Make sure that your exported test data is available in the file system of the target device on which you wish to use the SONAPHONE DataViewer. You may need to connect your SONAPHONE to your target device via USB.

4.3 Starting up the SONAPHONE DataViewer

The SONAPHONE DataViewer software is started up directly from where it is saved (hard drive or USB dongle).

1. Click on the file SONAPHONE-DataViewer-vx.x.x.exe with the icon to start up the software.

   ✤ The application starts up and the test values can be loaded as a ZIP file (see also the description of the LevelMeter app).

5 General functions

5.1 Changing the language

The language for the user interface can be set to German or English.

Tap or click on the control element "English" or "German" on the right-hand edge of the menu bar to set the desired language.

5.2 Loading test data

1. Tap or click on the control element "Load folders" in the menu bar.

2. In the window dialog, open the ZIP file in the storage location of your exported data.

   ✎ The folders contained in the test data will be displayed in the left-hand column in the list view; see position 1 in Chapter 3.1.

5.3 Tracking status messages

In the status bar at the bottom edge of the user interface (position 5 in Chapter 3.2), messages on the loading progress will be shown with a blue background, and any errors with a red background.

To hide error message, tap or click anywhere on the user interface.

5.4 Displaying information on open-source software

Tap or click on the control element "About SONAPHONE DataViewer"
on the right-hand edge of the status bar to open a window with all relevant information.

6 List view functions (overview of loaded folders)

6.1 Selecting folders and measurements, displaying the attachments

If you have loaded test data (as per Chapter 5.2), the contained folders will be displayed in the left-hand column of the list view (Folders) (position 1 in Chapter 3.1).

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

↳ The active element is marked in red (see figure).

Measurements recorded in the folder will be displayed in the middle column of the list view (position 3 in Chapter 3.1).

Photos, voice memos and text comments (attachments) for the active folder will be displayed in the right-hand column of the list view (position 4 in Chapter 3.1).

Click or tap on a photo to enlarge. Click or tap anywhere in the user interface to exit the enlarged photo display.
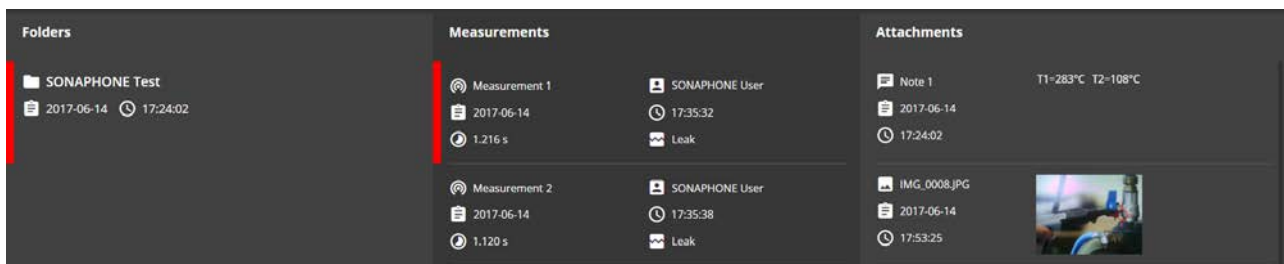
6.2 Changing to the detailed view

⇨ Tap or click on the control element "Inspect measurements" in the menu bar to go to the detailed view for single measurements in a selected (red) measurement folder.

i	**Note!** This menu item will only be available if a folder is active (marked in red). .

7   Detailed view functions (overview of measurements)

7.1   Selecting a measurement

In the same way as the folder view, available measurements for the active folder will be displayed in the left-hand column (position 1 in Chapter 3.2).

You may need to firstly show the left-hand column (see next chapter).

⇨ Tap or click on a measurement to select it.

↳ The selected measurement will be marked in red. After the loading process, the associated diagrams and information will be displayed, provided that you have not chosen to hide them.

7.2   Editing diagram axes

The limits for all diagram axes can be edited directly:

⇨ Click or tap on the numerical value on an axis limit and edit the value in the input field that appears.

i	**Note!** When a measurement is loaded, the axis limits will be defined automatically by the min. and max. value for the recording. They can then be edited as described.

The time axis can also be modified using the mouse or finger movements.

⇨ Tap or click either in the main area for the spectrogram or the main area for the diagram for level graph and temperature. Do not release your finger or the mouse, and drag the cursor horizontally to the desired position.

OR

⇨ To modify the view, either scroll downwards with the mouse wheel or move two fingers towards each other, or scroll upwards with the mouse wheel or move two fingers apart.

↳ The display will change based on the selected option.

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i	**Note!** To cancel the selection, release your finger or the mouse outside of the diagram in which you set the starting position.

7.3 Resetting diagram axes

⇨ Tap or click on the control element "Display 100 %"
in the menu bar to reset all axis limits at the same time.

7.4 Displaying and hiding columns and rows

To maximize the display of the level curve and in particular the spectrogram on the screen, individual areas can be hidden from the detailed view.
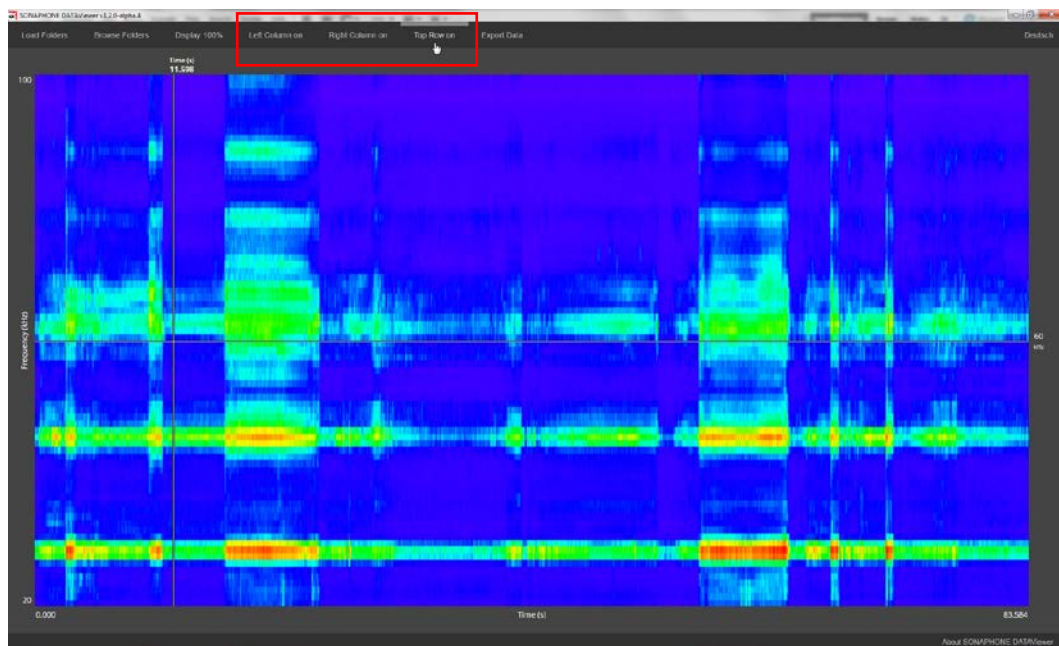
⇨ Tap or click on the corresponding function, e.g. "Left column off" or
"Left column on" to display or hide the elements.

7.5   Displaying and hiding different level types

1. Tap or click on the Settings icon ⚙ in the legend for the diagram for level graph and temperature

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	✓

2. Tap or click on a value to display it in the diagram or to hide it:

   Colored element = active: Tap or click to hide the associated level graph
   Gray element = inactive: Tap or click to display the level graph

3. Tap or click on the tick in the legend to hide the list of available level types.

7.6   Starting audio playback

⇨ Briefly tap or click in the main area for the spectrogram or in the main area for the diagram for level graph and temperature in order to play back the audible audio data for the selected measurement.

↳ The playback will start at the position of the time cursor and will end when this has reached the end of the time axis at the latest. During playback, the time cursor and the legend for the diagram for level graph and temperature will move in line with the playback position.

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i	**Note!**
	The volume of audio playback can be adjusted externally via the Computer settings.

Once the time cursor has reached the end of the time axis, it will move to the start of the time axis and playback will stop.

⇨ Click or tap in an area again to manually stop playback.

7.7 Exporting data in CSV format

Measurement data can be exported via the software for further processing as a CSV file as follows:

1. Display a level on the screen that you want to be taken into account for the data export (see Chapter 7.5 Displaying and hiding different level types).

2. Tap or click on the control element "Export data" in the menu bar.

3. In the window dialog that appears, change the path and file name if necessary and then click "Save" to confirm.

✎ The saved CSV file contains the data for all displayed levels.

7.8 Changing to the list view (overview of loaded folders)

⇨ Tap or click on the control element "Browse folders" in the menu bar to display the list view.

8   Error rectification and error messages

Note!

In very rare cases (if the application or computer crashes), there may be irregularities in the saving process when writing large amounts of data to the cache. In this case, inconsistent/incorrect data will be stored in the cache.

In order to ensure that the application can be started up correctly, it may be necessary to reset the cache for the application using the following key combination:

Ctrl + Shift + F8.

Status and error messages are displayed in the footer (see Chapter 5.3).

For any other problems or malfunctions, please contact our Service team. If possible, please have the software version and any error messages to hand.

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