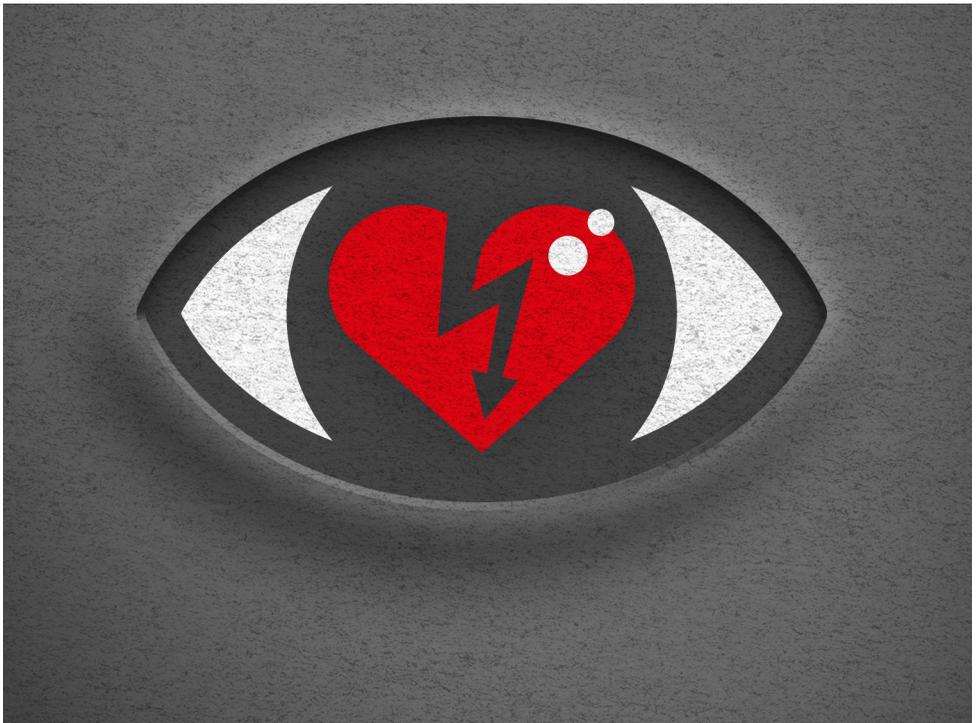


DEFIview

PC software for MEDUCORE Standard² and MEDUCORE Standard

Instructions for use from software version 3.1



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1 Introduction

1.1 Product description

The DEFView PC software can be used to export and analyze session data from MEDUCORE Standard² and MEDUCORE Standard. DEFView is not intended for medical diagnosis or therapeutic purposes.

1.2 System requirements

To use DEFView, you will require a PC with the following specifications:

- Operating system:
Microsoft[®] Windows[®] 10, Microsoft[®] Windows[®] 7
- Adobe Acrobat Reader
- E-mail program:
Microsoft[®] Outlook[®] or Mozilla Thunderbird
- SD card slot
- Graphics card: Minimum resolution 1920 × 1080 pixels

Microsoft, Microsoft Windows, Windows, Windows 10, Windows 7 and Outlook are registered trademarks of the Microsoft Corporation in the USA and/or other countries. Adobe and Acrobat Reader are registered trademarks of Adobe Systems Incorporated in the USA and/or other countries.

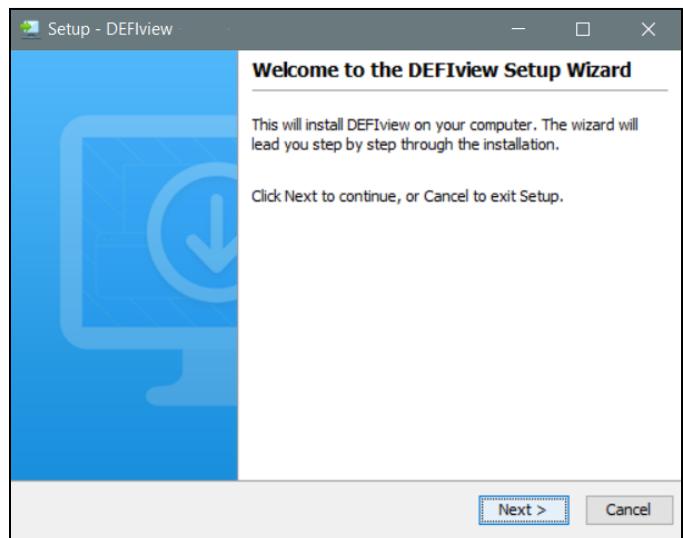
Mozilla and Thunderbird are registered trademarks of the Mozilla Foundation in the USA and/or other countries.

2 Safety

Read these instructions for use carefully. Also follow the respective instructions for use for the devices and the accessories.

3 Installation

1. Save installation file **DEFIview3.exe** to the PC.
2. Run the **DEFIview3.exe** file.
The installation wizard starts up.
3. Follow the instructions of the installation wizard.
The installation wizard guides you through the installation process.



Result The installation is complete.
DEFIview can now be used.

4 Preparation

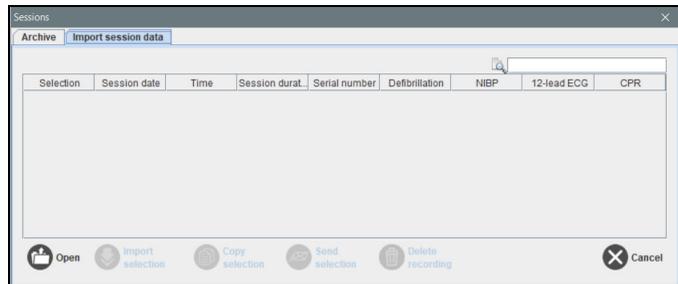
4.1 Starting DEFView

1. Start the software:
 - By double-clicking the DEFView desktop icon
 - or
 - Via the start menu.

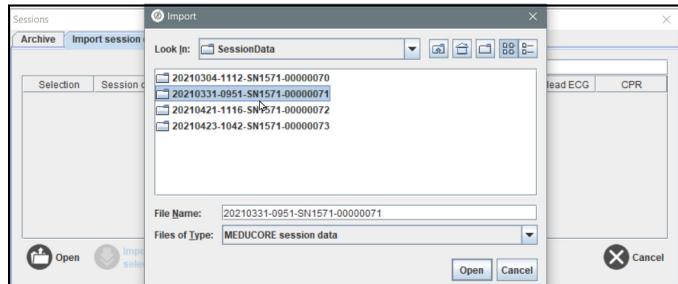
Result DEFView starts up.

4.2 Importing session data

After the program starts, the **Sessions** window opens.

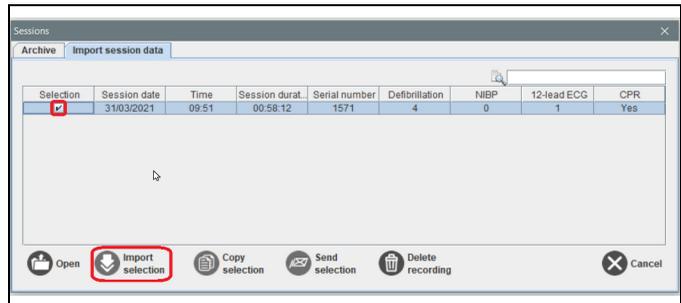


1. Select the **Import session data** tab.
2. Select the **Open** button.
3. Select the storage location for the session data.



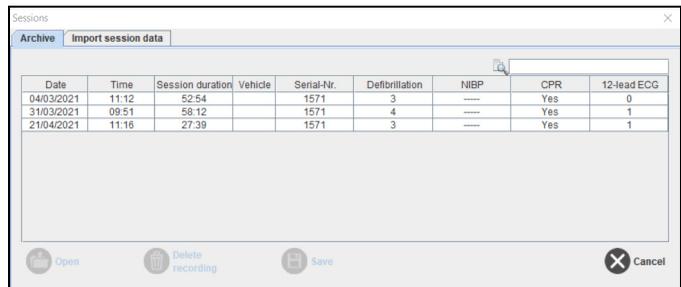
- Mark a folder and select **Open**.

The session data are displayed in the **Import session data** tab.



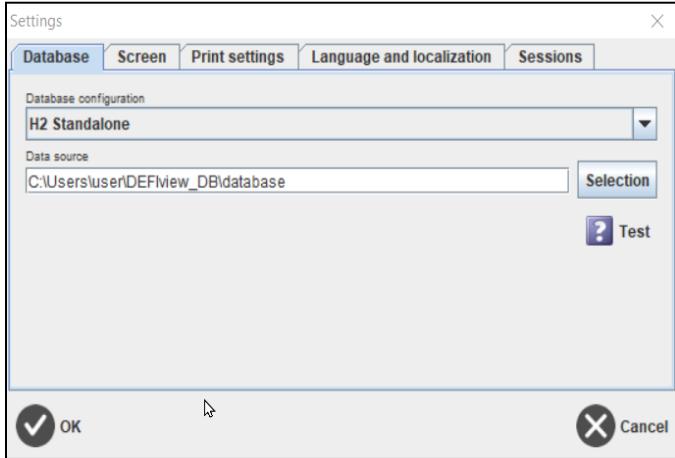
- To import the session data, activate the checkbox and select the **Import selection** button.

Result The session data are displayed in the **Archive** tab.



4.3 Defining the settings

1. Select **File | Settings** in the menu.
The **Settings** window opens.



2. Confirm settings with **OK**.
3. Close DEFView and restart it.

Result The amended settings have been adopted by DEFView.

Parameter		Possible values	Description
Database		Database configuration	Here you can select the type of database (default selection: H2 Standalone).
		Data source	Here you can select the directory in which the database is saved.
		Test	Tests whether there is a link to the database.
Screen	mm/sec	2 5 10 20 25 40 50	Here you can set the speed of the ECG curve display and thus increase the temporal resolution.
		mm/mV	1 2 5 10 20
		Background	Here you can set the background color of the grid.
		Signal	Here you can set the color of the ECG curves.
		Grid	Here you can set the color of the grid lines.
		Text	Here you can select the font color.
		Default settings	Here you can reset the all the parameters for the screen to the factory settings.
		Grid spacing	You can use the controls on the x and y axes to set the height and width of the grid cells.

Parameter		Possible values	Description	
Print settings	Title page	<input checked="" type="checkbox"/>	Here you can select whether the printout should be preceded by a title page.	
	Events list	<input checked="" type="checkbox"/>	Here you can select whether a list of the events is printed.	
	Shocks	<input checked="" type="checkbox"/>	Here you can select whether the associated ECG is to be printed out for every shock administered.	
	12-lead ECG	<input checked="" type="checkbox"/>	Here you can select whether the 12-lead ECGs recorded are printed out.	
	Print ECG overview of session duration	No		No ECG will be printed.
		Lead II		The ECG from lead II will be printed out for the whole session time.
		Lead Pad		The ECG from the Pad lead will be printed out for the whole session time.
	Length	Overview		Print the whole session.
		Current page		Print the current page.
		Selected events		Print selected events.
		No		Do not print any parameter curves.
	Grid	<input checked="" type="checkbox"/>	Here you can select whether a grid should be included on the printout.	
	mm/sec	Screen 2 5 10 20 25 40 50		Here you can set the speed of the ECG curve display on the printout and thus increase the temporal resolution.
mm/mV	Screen 1 2 5 10 20		Here you can preset amplitude scaling and thus the amplitude of the ECG curve on the printout.	
Printer			Here you can specify the printer or the output form for the session data.	

Parameter		Possible values	Description
Language and localization	Language	<ul style="list-style-type: none"> • Français • Español • Deutsch • English 	The set language becomes active once the software restarts.
	Height unit	cm in	You can set the height unit for the curve display here.
	Weight unit	kg lbs	You can set the unit for patient's weight here.
	Line frequency	Europe (50 Hz) Americas (60 Hz)	Here you can select the network frequency of the power supply system.
Sessions	Target directory		Here you can specify the directory for the session data archive.
		Autom. <input checked="" type="checkbox"/>	Here you can specify that session data are copied to the session data archive during the import process.
	E-mail recipient	E-mail	Here you can specify e-mail recipients for the Send session data function. For several e-mail recipients, use ";" as the separator.
		Autom. <input checked="" type="checkbox"/>	Here you can set that session data are to be sent to the stored e-mail addresses automatically during the import process.
E-mail subject	Subject line of e-mail	Here you can specify a default subject for the e-mail.	

4.4 Using the SD card

NOTICE

Loss of data due to incorrect SD card!

SD cards not purchased from WEINMANN Emergency may have reduced functionality or result in loss of data.

⇒ Only use SD cards from WEINMANN Emergency.

⇒ Do not use the SD card for third-party files.

4.4.1 Inserting the SD card

Requirement

- The session data are on the SD card.
 - The program has started (see “4.1 Starting DEFView”, page 6).
1. Connect the SD card to the PC (e.g. using an external card reader).

Result

The session data are displayed in the **Sessions** tab.



Further information on using the SD card in the device can be found in the MEDUCORE Standard² instructions for use.

4.4.2 Deleting data from the SD card

Requirement

There is an SD card in the PC's SD card slot or in a connected external card reader.

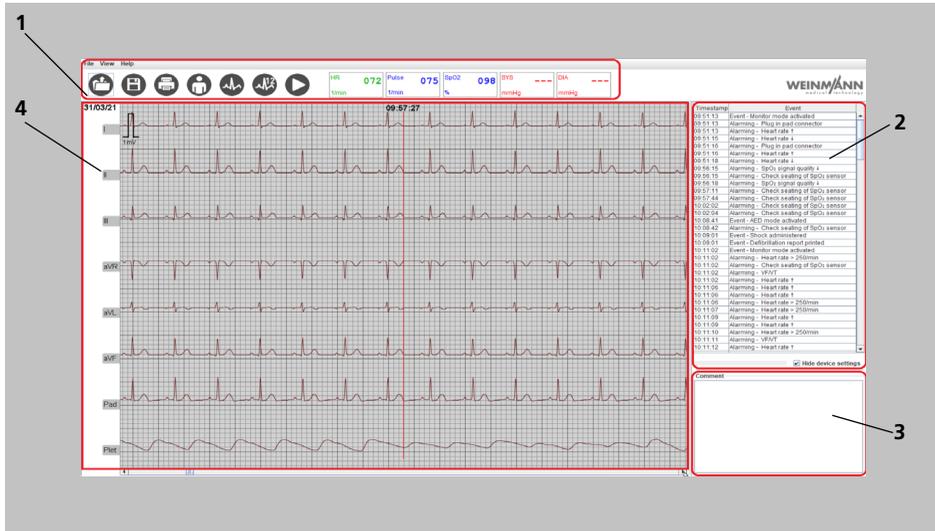
1. Mark all the files to be deleted.
2. Delete the files.
3. Confirm the prompt.

Result

All the data are deleted from the SD card.

5 Menu structure

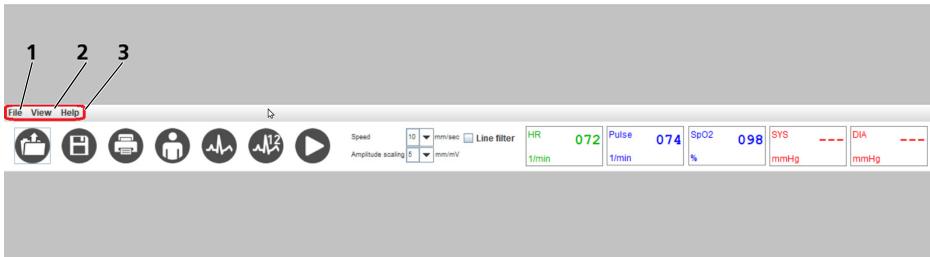
5.1 Overview



5-1 Complete menu

No.	Designation	Description
1	Menu and icon bar	Contains command keys and patient and settings information (see "5.2 Menu bar", page 14).
2	Event list	Displays the events within a session. The device presets are listed at the start of the list (see "5.4 Event list", page 16).
3	Comment window	Input field for adding comments to a session.
4	Curve area	Displays the ECG leads (I, II, III, aVR, aVL, aVF, Pads and the plethysmogram) (see "5.5 Curve area", page 17).

5.2 Menu bar



5-2 Menu bar

No.	Designation	Description	
1	File	Open	Opens the archive with an overview of individual sessions. Here you can export and delete sessions and import new sessions.
		Patient data	Here it is possible to enter supplementary patient data and comments which are stored with the data set.
		Device data	Shows the last passed or failed function checks. The user is given information about enabled, activated or deactivated options. Available only for MEDUCORE Standard ² session data.
		Print	Opens the print settings.
		Save	Saves session data in wmd format. Alternatively, session data can be saved in zip format and unpacked. This delivers one file in edf format and one file in xml format.
		Send via e-mail	Sends the session data by e-mail. This generates a pdf file appended to an e-mail as an attachment. Supported e-mail programs are Microsoft Outlook and Mozilla Thunderbird.
		Settings	Opens Settings.
		Quit program	Exits and closes DEFView.
2	View	Standard	Sets curve view to ECG leads II, Pad and to the plethysmogram.
		6-lead ECG	Sets curve view to ECG leads I, II, III, aVR, aVL and aVF.
		12-lead ECG	Opens the "12-lead ECG" window to display a recorded 12-lead ECG in the form of a PDF file. Available only if a 12-lead ECG was recorded during the session.

3	Help	Instructions for use	Opens the instructions for use in the relevant language set in the menu under Settings Language and localization .
		About DEFView	Opens information and contact details for the manufacturer.

5.3 Icon bar

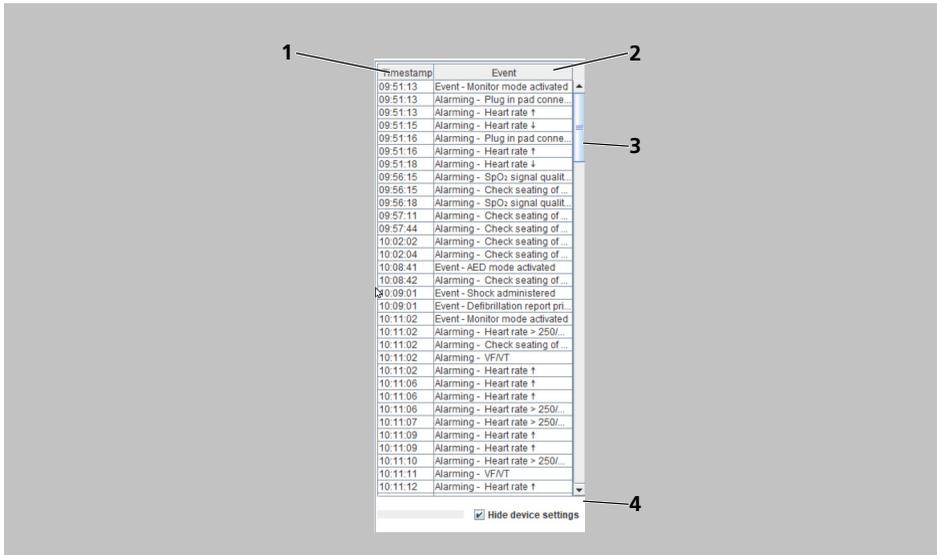


5-3 Icon bar

No.	Designation	Description
1	Open session data archive	Opens archive of saved session data (see "6.1.1 Opening session data", page 18).
2	Save	Opens the window for saving session data.
3	Print	Opens "Print settings" window to print session data (see "4.3 Defining the settings", page 8).
4	Edit patient data	Opens the "Patient data" window (see "6.2 Editing patient data", page 22).
5	ECG lead	Allows selection of the curves to be displayed: <ul style="list-style-type: none"> • I, II, III • aVR, aVL, aVF • II, Pad, Plet (plethysmogramm) • I, II, III, aVR, aVL, aVF, Pads, Plet
6	12-lead ECG	Opens the "12-lead ECG" window to display a recorded 12-lead ECG in the form of a PDF file. Available only if a 12-lead ECG was recorded during the session.
7	Start/stop	Allows the ECG curves to run in real time.
8	Speed	Here you can set the speed of the ECG curve display and thus increase the temporal resolution.

No.	Designation	Description
9	Amplitude scaling	Here you can set amplitude scaling and thus the amplitude of the ECG curve.
10	ECG filter	Here you can minimize ECG disturbances caused by the power supply system: <ul style="list-style-type: none"> • No filter • Line filter (50 Hz)
11	Parameter fields	Displays the following parameters: <ul style="list-style-type: none"> • Heart rate (HR) • Pulse rate (MEDUCORE Standard only with the SpO₂ option) • Oxygen saturation (MEDUCORE Standard only with the SpO₂ option) • Systolic/diastolic blood pressure (MEDUCORE Standard² only)

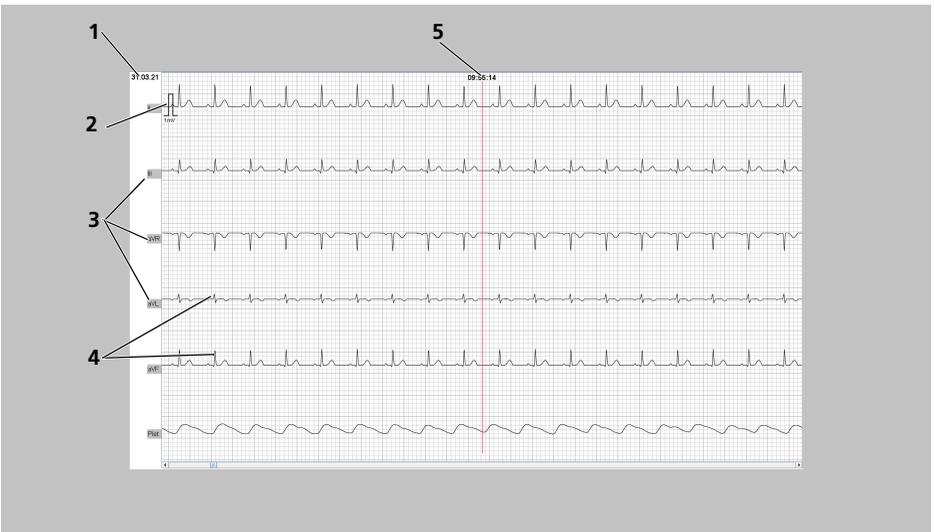
5.4 Event list



5-4 Event list

No.	Designation	Description
1	Timestamp	Displays the exact time of the event in the format hour:minute:second. You can sort events in ascending or descending order by clicking on Timestamp .
2	Event	Displays the event. You can sort events in ascending or descending alphabetical order by clicking on Event .
3	Scroll bar	Allows you to reach the events in the list.
4	Hide device settings	Activating the checkbox hides the lines at the start of the list which include the device presets.

5.5 Curve area



5-5 Curve area

No.	Designation	Description
1	Date	Indicates the session date.
2	ECG calibration mark	Shows the curve corresponding to 1 mV of the ECG signal.

No.	Designation	Description
3	ECG lead	Provides the name of the ECG lead: <ul style="list-style-type: none"> • I • II • III • aVR • aVL • aVF • Pad: Shows the lead of the defibrillation electrode. • Plet: Plethysmogram
4	Curve display	Displays the course of an ECG lead.
5	Event	Marks an event in the curve using a vertical red line.

6 Operation

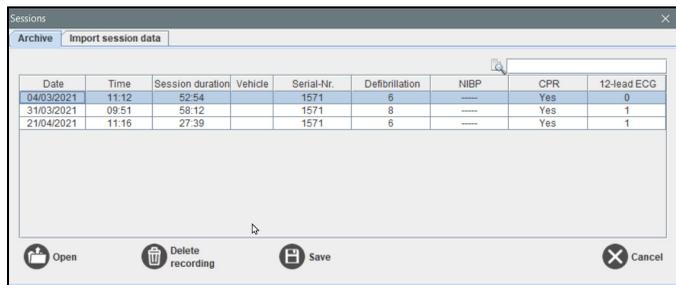
6.1 Managing session data

6.1.1 Opening session data

Requirement

- The program has started.
 - The session data are already saved on the PC.
- To open the Sessions window:
 - Select **File | Open** in the menu.
 - In the icon bar, click on the **Open** button.

The **Sessions** window opens.

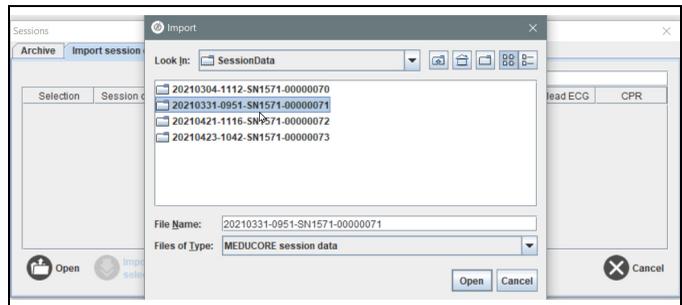


- To open session data in the **Archive** tab:
 - Mark a line and select the **Open** button.
 - Double-click a line.

Result Session data are displayed (see “5 Menu structure”, page 13).

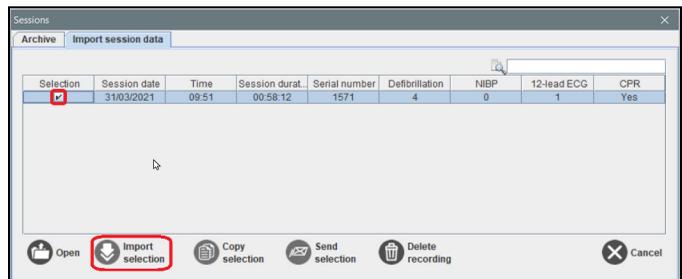
6.1.2 Importing session data

- Select the **Import session data** tab.
- Select the **Open** button.
- Select the storage location for the session data.



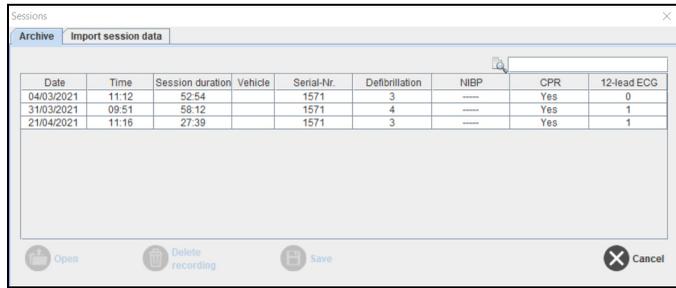
- Mark a folder and select **Open**.

The session data are displayed in the **Import session data** tab.



- To import the session data, activate the checkbox and select the **Import selection** button.

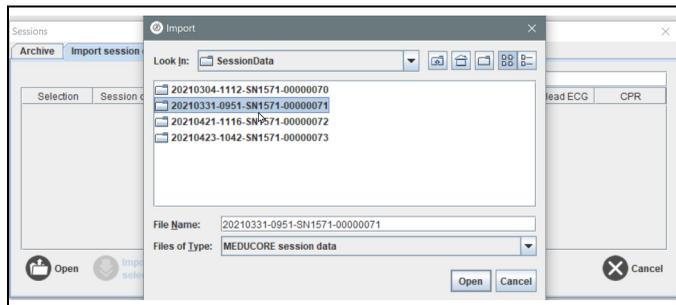
Result Another line appears in the **Archive** tab.



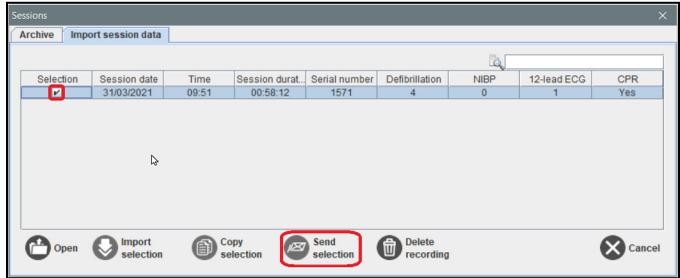
6.1.3 Sending session data

Requirement

- An e-mail program is installed (Microsoft Outlook or Mozilla Thunderbird).
 - E-mail dispatch is configured in the settings.
1. Select the **Import session data** tab.
 2. Select the **Open** button.
 3. Select the storage location for the session data.



4. Mark session data and select **Open**.
The session data are displayed in the **Import session data** tab.



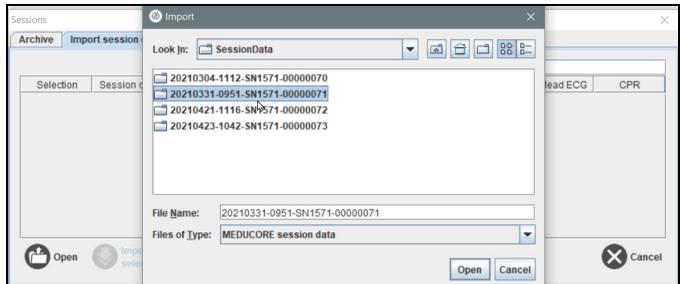
- To send the session data, activate the checkbox and select the **Send selection** button.

Result The session data are added to an e-mail as an attachment.

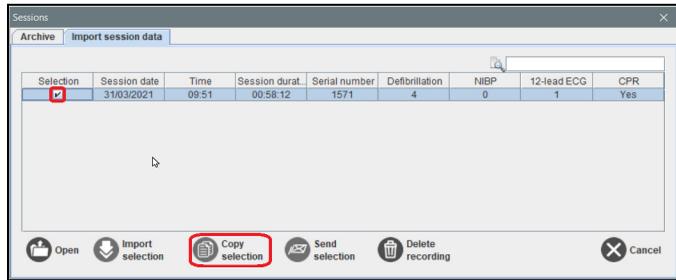
6.1.4 Copying session data to the default target directory

Requirement The default directory has been configured in the settings (see "4.3 Defining the settings", page 8).

- Select the **Import session data** tab.
- Select the **Open** button and select the storage location for the session data.



- Mark session data and select **Open**.
The session data are displayed in the **Import session data** tab.



4. To copy the session data, activate the checkbox and select the **Copy selection** button.

Result The session data are copied to the specified directory.

6.2 Editing patient data

Requirement The session data are open (see “6.1.1 Opening session data”, page 18).



1. Click the **Patient data** button
- or**
2. Select **File | Patient data** in the menu.

Result The **Patient data** window opens. Here you can enter or edit the patient and session data and any other comments.

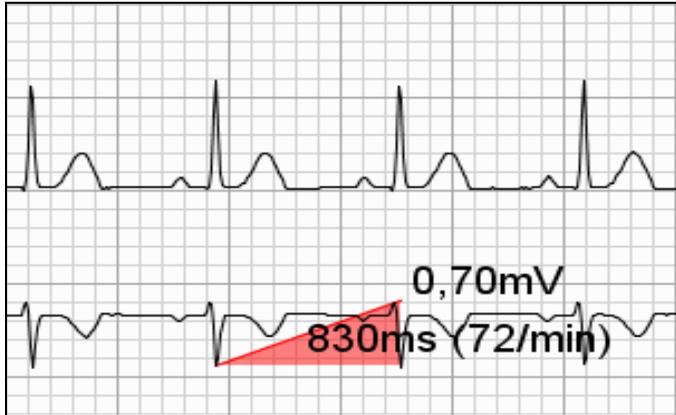
3. Edit data.
4. Click **OK**.

Result The data are saved. The window closes.

6.3 Measuring ECG amplitudes

Requirement The session data are open (see “6.1.1 Opening session data”, page 18).

1. Select a starting point in the ECG leads with the cursor.
2. Click the left mouse button once.
3. Draw the cursor across the range to be measured.



Intermediate result



A red coordinate triangle appears.

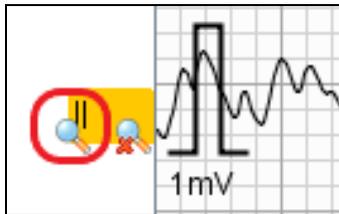
The size of the coordinate triangle can be altered as required and in all four quadrant directions by moving the mouse. The horizontal side measures the time difference between the starting point and end point in milliseconds (ms), the vertical side measures the amplitude in millivolts (mV).

4. Select the end measuring point.
5. Click the left mouse button once.
6. Read off the measured values next to the selection.

6.4 Displaying ECG leads

Requirement The session data are open (see “6.1.1 Opening session data”, page 18).

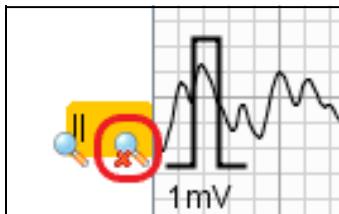
6.4.1 Displaying an ECG lead individually



1. Use the mouse to point at the name of an ECG lead at the left hand edge of the page.
The **Magnifying glass** and **Close magnifying glass** icons are displayed.
2. Click the **Magnifying glass** icon.

Result The required ECG lead is displayed individually.

6.4.2 Hiding an ECG lead

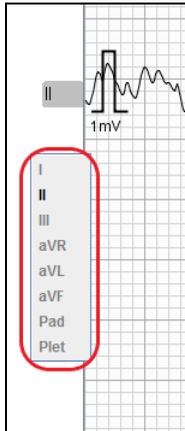


1. Click the **Close magnifying glass** icon.

Result The required ECG lead is hidden.

6.4.3 Adding and hiding ECG leads

1. Use the right mouse button to click on the left-hand edge of the page.



A list of ECG leads appears.

2. Use the left mouse button to click on any ECG leads.

Result The required ECG leads are added or hidden.

Manufacturer

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