

DEFlview

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

1.2 System requirements

To use DEFlview, 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

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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 **DEFlview3.exe** file. The installation wizard starts up.
- Follow the instructions of the installation wizard. The installation wizard guides you through the installation process.



Result

The installation is complete. DEFlview can now be used.

4 Preparation

4.1 Starting DEFlview

- 1. Start the software:
 - By double-clicking the DEFIview desktop icon

or

- Via the start menu.
- Result DEFlview starts up.

4.2 Importing session data

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

essions								;
Archive	Import session data							
						Q.		
Select	ion Session date	Time S	ession durat	Serial number	Defibrillation	NIBP	12-lead ECG	CPR
() or	ben import	Copy selec	tion	Send selection	Delete recording			Cancel
-	Selection	- Beller			- Inconting			-

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

Sessions	Ø Import ;	K X
Archive Import session	Look Jr: SessionData 20210304-1112-SN1571-00000070 20210421-1116-SN1571-00000071 20210421-1116-SN1571-00000072 20210423-1042-SN1571-00000073	ead ECG CPR
Open Impo	File Name: 20210331-0051-SN1571-00000071 Files of Type: MEDUCORE session data Open Cance	Cancel

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

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

Se	essions									×
ſ	Archive Imp	oort session data								
							ā			
	Selection	Session date	Time	Session durat	Serial number	Defibrillation	NIBP	12-lead ECG	CPR	
		31/03/2021	09:51	00:58:12	1571	4	0	1	Yes	
		₿			Cond	O State				
L	Open Open	Selection) (i) co	py lection	selection	Delete recording			Cance	al

- 5. To import the session data, activate the checkbox and select the **Import selection** button.
- *Result* The session data are displayed in the **Archive** tab.

S	sions ×								
(Archive Impo	rchive Import session data							
							ū,		
	Date	Time	Session duration	Vehicle	Serial-Nr.	Defibrillation	NIBP	CPR	12-lead ECG
	04/03/2021	11:12	52:54		1571	3		Yes	0
	31/03/2021	09:51	58:12		1571	4		Yes	1
	21/04/2021	11:16	27:39		1571	3		Yes	1
			Delete		A :				Cancel
	Open		W recording		W save				Cancer

4.3 Defining the settings

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

Settings		×
Database Screen Prin	t settings Language and localization	Sessions
Database configuration H2 Standalone		~
Data source		
C:\Users\user\DEFlview_DB	Ndatabase	Selection
		Test
Ок		Cancel

- 2. Confirm settings with **OK**.
- 3. Close DEFlview and restart it.
- *Result* The amended settings have been adopted by DEFlview.

Parameter		Possible values	Description
		Database configuration	Here you can select the type of database (default selection: H2 Standalone).
Database		Data source	Here you can select the directory in which the database is saved.
		Test	Tests whether there is a link to the database.
	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	Here you can set amplitude scaling and thus the amplitude of the ECG curve.
Screen		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.

4 Preparation

Parameter		Possible values	Description
	Title page	¥	Here you can select whether the printout should be preceded by a title page.
	Events list	¥	Here you can select whether a list of the events is printed.
	Shocks	¥	Here you can select whether the associated ECG is to be printed out for every shock administered.
	12-lead ECG	¥	Here you can select whether the 12-lead ECGs recorded are printed out.
		No	No ECG will be printed.
	Print ECG overview of	Lead II	The ECG from lead II will be printed out for the whole session time.
	session duration	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.
Print settings		Selected events	Print selected events.
· · ···· · · · · · · · · · · · · · · ·		No	Do not print any parameter curves.
	Grid	¥	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	 Français Español Deutsch English 	The set language becomes active once the software restarts.
Language and localiza- tion	Height unit	cm in	You can set the height unit for the curve display here.
	Weight unit	kg Ibs	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.
			Here you can specify the directory for the session data archive.
	Target directory	Autom.	Here you can specify that session data are copied to the session data archive during the import process.
Sessions	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.	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. \Rightarrow Only use SD cards from WEINMANN Emergency.

 \Rightarrow 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 DEFlview", 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 Even 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		
		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.		
1	Filo	Print	Opens the print settings.		
•	File	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 DEFIview.		
	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.		
2		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 languag set in the menu under Settings Language and localization .	
		About DEFlview	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: 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. Here you can minimize ECG disturbances caused by the power supply system: No filter Line filter (50 Hz) 			
10	ECG filter	 Here you can minimize ECG disturbances caused by the power supply system: No filter Line filter (50 Hz) 			
11	Parameter fields	 Displays the following parameters: 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

Timestamp	Event
09:51:13 E	Event - Monitor mode activated
09:51:13 A	Alarming - Plug in pad conne.
09:51:13 /	Alarming - Heart rate †
09:51:15	Alarming - Heart rate 4
09:51:16	Alarming - Plug in pad conne.
09:51:16 /	Alarming - Heart rate 1
09:51:18 /	Alarming - Heart rate 4
09:56:15 /	Alarming - SpO2 signal qualit.
09:56:15 A	Alarming - Check seating of
09:56:18	Alarming - SpO2 signal qualit.
09:57:11 /	Alarming - Check seating of
09:57:44	Alarming - Check seating of
10:02:02	Alarming - Check seating of
10:02:04	Alarming - Check seating of
10:08:41 F	Event - AED mode activated
10:08:42	Alarming - Check seating of
40:09:01 F	Event - Shock administered
10:09:01 E	Event - Defibrillation report pri.
10:11:02 F	Event - Monitor mode activated
10:11:02	Alarming - Heart rate > 250/
10:11:02	Alarming - Check seating of
10:11:02	Alarming - VE/VT
10:11:02	Alarming - Heart rate †
10:11:06	Alarming - Heart rate t
10:11:06	Alarming - Heart rate t
10:11:06	Alarming - Heart rate > 250/
10:11:07 4	Alarming - Heart rate > 250/
10:11:09 4	Alarming - Heart rate t
10:11:09 4	Alarming - Heart rate *
10:11:10 /	Marming - Heart rate > 260/
10:11:10	Marming - Healt Tale - 2001
10:11:11	Marming - Weat rate A
10.11.12	Harming - Heart rate T

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: 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.
- 1. To open the Sessions window:
 - Select File | Open in the menu.
 - In the icon bar, click on the **Open** button.

The Sessions window opens.

chive Imp	ort session d	ata						
Data		a contra de contra d	Mahlata	0	Definition	Q.	000	101-1500
Date	Time	Session duration	venicie	Senal-Nr.	Detibriliation	NIBP	CPR	12-lead ECG
21/02/2021	09:51	52:04		1571	0		Yes	1
21/04/2021	11:16	27:39		1571	6		Yes	1
			Þ					

- 2. 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

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

Sessions Archive Import session Selection Session c	Import Look In:	SessionData 1112.SN1571.00000070 0951.SN1571.00000071 1116.SNP571.00000072 1042.SN1571.00000073	a 1 1 88 1	lead ECG CPR
Open Open select	File <u>N</u> ame: Files of <u>T</u> ype:	20210331-0951-SN1571-00000071 MEDUCORE session data	Open Cancel	Cancel

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

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

Se	essions										×
	Archive	Impo	ort session data								
								a,			
	Selecti	tion	Session date	Time	Session durat	Serial number	Defibrillation	NIBP	12-lead ECG	CPR	
			31/03/2021	09:51	00:58:12	1571	4	0	1	Yes	
						Soud	Palata				
	0.	en	Import selection	Co set	py Jection	Send selection	Delete recording	l.		Cano	cel

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

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

Se	ssions								×
1	Archive Impo	ort session d	Jata						
							Ĩà,		
	Date	Time	Session duration	Vehicle	Serial-Nr.	Defibrillation	NIBP	CPR	12-lead ECG
	04/03/2021	11:12	52:54		1571	3		Yes	0
	31/03/2021	09:51	58:12		1571	4		Yes	1
	21/04/2021	11:16	27:39		1571	3		Yes	1
	Open	(Delete recording		B Save				

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.

Sessions	Import >	×
Archive Import session	Look (p: SessionData 20210304-1112-5N1571-00000070 20210331-0551-5N1571-00000071 20210421-1116-5NF571-00000072 20210423-1042-5N1571-00000073	lead ECG CPR
Open Open sele	File Name: 20210331-0951-SN1571-00000071 Files of Type: MEDUCORE session data Open Cancel	Cancel

4. Mark session data and select **Open**.

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

s	essions									×
ſ	Archive In	nport session data								
							ā,			
	Selection	Session date	Time	Session durat	Serial number	Defibrillation	NIBP	12-lead ECG	CPR	
		31/03/2021	09:51	00:58:12	1571	4	0	1	Yes	
				~~ (Soud	C Delate				
	C Open	Selection		lection	Send selection	Delete recording			Canc	;el

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



3. 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.

atient data			Rearimation
Last name	First name		○ Yes ○ No
			Number of shocks
Street		Region	4
Post code City		ountry	Comment
I		· · · · · · · · · · · · · · · · · · ·	
rnone	Mobile phone		1
]
Height	[om] Weight	[kg]	
0	0,0		
Date of birth/MM/dd/www1	City of birth	Gender	
oute of or of other in our y y y y j		Male O Female	
Name of Insurance			
ession data			
ession data	Organization	Session number	
ession data	Organization	Session number	
ession data /ehicle ID Session date	Organization	Session number	
ession data Vehicle ID Session date	Organization [MMrddlyyyyy] Distance	Session number	
Vehicle ID Session date Bession start	Organization [MM/dd/yyyy] Distance Session and	Session number	
ession data Vehicle ID Session date Session start :	Organization [MM/dd/yyyy] Distance [Seasion end] [:	Session number	
ession data Vehicle ID Session date Session start : Driver	Organization [MM/dd/yyyy] Distance Sastian end Codiver	Session number	
ession data Vehicle ID Session date Session start : : : : :	Oganization [MM/ddyyyy] Detance Seation and Codiver	Session number	
Vehicle ID Session date Session start .: Driver Start location	Oganzation [MI/64/yyyy] Datasoo Beakin and : Co-driver Session location	Session number	
Vehicle ID Session date Session start : : Driver Start location	Organization [MM108/yyyy] Database [MM108/yyyy] Database [Mm108/yyyy] Basean and [] Co-divert Gasean location Second location []	Session number	
vehicle ID Session date Session start : : : : : : : : : : : : : : : : : : :	Oganization	Sesion runder	
Vehicle ID Vehicle ID Beasion date Beasion start : : Driver Start location Destination	Organization IMI-06/yyyy1 Databate Imigration Imigratio	Session number	
Velicie ID Session date Session start Session start Driver Etart location Destination	Organization Mitidakyyyy2 Distance Salasse and 	Session number	
ession data Vehicle ID Bestion date Bestion start Core Barriconstant Destination Destination Destination	Organization Initialityyyy Distance Initialityyyy Distance Distance and Distance a	Session number	

- 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

i

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.



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