

# Quick Guide Ambu® Manikin Management Module

## Export the raw data of a saved session

In these instructions you will find out how to export the raw data (ventilation volume, compression depth, etc.) of a saved session from the training device as a CSV-file.

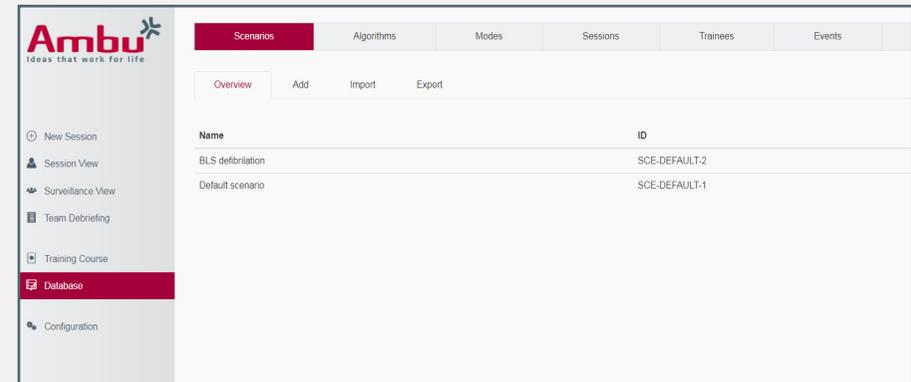
In addition, you will find out what to consider and how to open the CSV-file correctly in Microsoft Excel 2016.

### 1. Access „Controlled session“

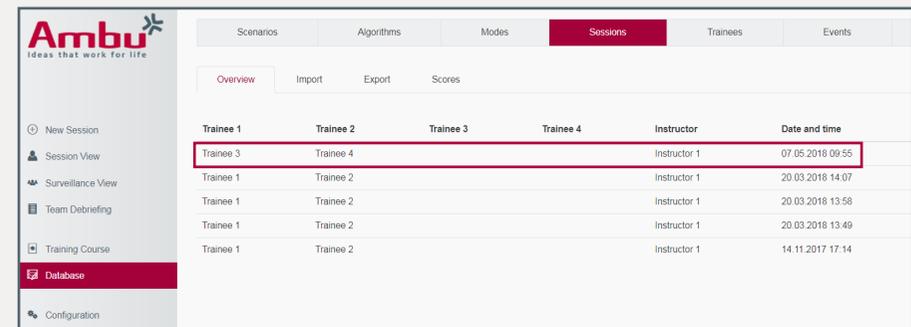


Start the training device and connect your end device with the training device. Open the browser and enter <http://Ambu.login> or [192.168.1.1](http://192.168.1.1) into the address line to get to the start screen of the Ambu Manikin Management Module. Finally, select the button "Controlled session".

### 2. Manage sessions

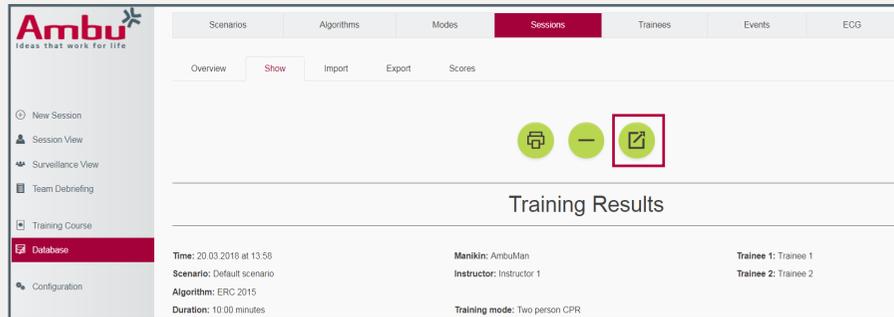


Now select the menu item "Database" on the left.



Here you can access the "Session" tab with an overview of all stored sessions on the manikin. To export the raw data of a session, click on a specific one.

### 3. Export the raw data as CSV-file



In this view you can review the results of the stored session. Export the raw data by clicking on the button "Export" and save the CSV-file on your computer.

You can open and edit the CSV-file with a suitable spreadsheet program (e.g. Microsoft Excel).

**Note:** In the CSV-file, decimal numbers are represented with a dot instead of a comma (as it is usual in many countries). Therefore, you should check whether the program recognizes the dot as a decimal separator or as a thousands separator. Otherwise the values may be incorrect. The changes can usually be done in the options/settings.

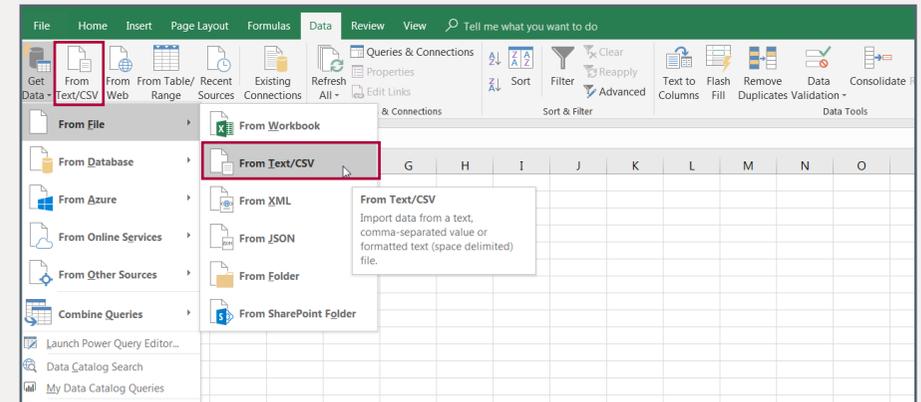
- ▶ If it is common in your country to use a dot as a decimal separator, your computer systems and programs should normally be configured accordingly and you can simply open the file. Proceed with section 5.
- ▶ If the separators are used differently in your country or display problems occur, you should check the settings for separators.

How to open the CSV-file correctly in Microsoft Excel 2016 is explained in section 4.

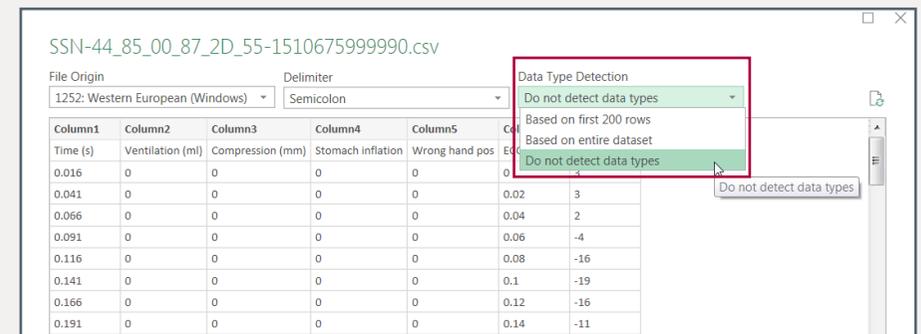
### 4. Open the CSV-file in Microsoft Excel 2016

To open the file correctly, there are the two following options:

#### • Import the CSV-file



Go to the "Data" tab and click on "From Text/CSV". Now select the desired CSV-file from your storage location and click on "Import". After a short time, the following view opens, in which you can make settings for the import.

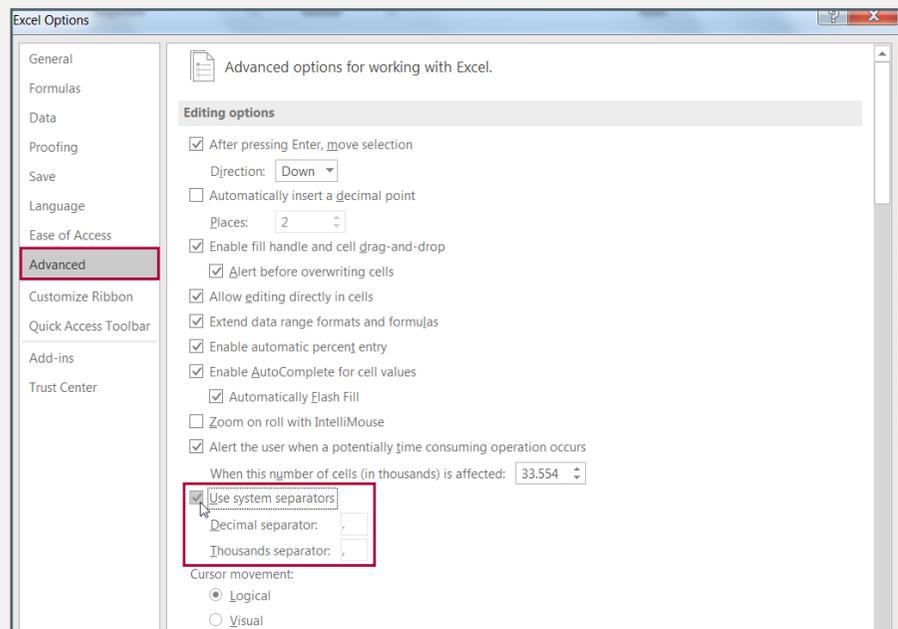


Here you set the data type detection to "Do not detect data types" and click on the "Load" button.

## Continuation: Open the CSV-file in Microsoft Excel 2016

### • Change the program settings

**Note:** These changes must be reversed if other files are also opened with Excel, which in turn contain a comma as decimal separator.



Go to the "File" tab → Options → Advanced, uncheck the box "Use system separators" and enter manually a dot as a decimal separator and a comma as a thousands separator. Close the program to apply the changes and open the CSV-file.

## 5. Structure of the CSV-file

| A        | B                | C                | D                 | E              | F            | G   | H |
|----------|------------------|------------------|-------------------|----------------|--------------|-----|---|
| Time (s) | Ventilation (ml) | Compression (mm) | Stomach inflation | Wrong hand pos | ECG time (s) | ECG |   |
| 63.716   | 0                | 0                | 0                 | 0              | 50.96        | 0   |   |
| 63.741   | 0                | 0                | 0                 | 0              | 50.98        | 3   |   |
| 63.766   | 0                | 2.8              | 0                 | 0              | 51           | 3   |   |
| 63.791   | 0                | 12.7             | 0                 | 0              | 51.02        | 12  |   |
| 63.816   | 0                | 24.1             | 0                 | 0              | 51.04        | 12  |   |
| 63.841   | 0                | 37               | 0                 | 0              | 51.06        | 3   |   |
| 63.866   | 0                | 49.4             | 0                 | 0              | 51.08        | -4  |   |
| 63.891   | 0                | 57.7             | 0                 | 0              | 51.1         | 0   |   |
| 63.916   | 0                | 59.3             | 0                 | 0              | 51.12        | -4  |   |
| 63.941   | 0                | 55.7             | 0                 | 0              | 51.14        | 12  |   |
| 63.966   | 0                | 48.7             | 0                 | 0              | 51.16        | 12  |   |
| 63.991   | 0                | 38.2             | 0                 | 0              | 51.18        | -4  |   |
| 64.016   | 0                | 26.3             | 0                 | 0              | 51.2         | -8  |   |
| 64.041   | 0                | 14.8             | 0                 | 0              | 51.22        | -11 |   |
| 64.066   | 0                | 6.3              | 0                 | 0              | 51.24        | -8  |   |
| 64.091   | 0                | 1.7              | 0                 | 0              | 51.26        | 0   |   |
| 64.116   | 0                | 0                | 0                 | 0              | 51.28        | 12  |   |
| 64.141   | 0                | 0                | 0                 | 0              | 51.3         | 14  |   |

The first column of the CSV-file shows the time in seconds. In the second column you will find the ventilation volume in milliliters and in the third column the compression depth in millimeters.

In the screenshot above in column three, you can see the values of a single compression - the marked compression was performed with a depth of 59.3 mm.

Columns four and five represent stomach inflation and wrong hand position, where either a 0 or a 1 is entered. The value "1" indicates that a stomach inflation was caused or the compression was performed with a wrong hand position.

The last two columns include the values of the ECG signal (only Ambu® Man Defib and Ambu® Man Advanced). So the column "ECG" shows the values for the ECG amplitude as number of data points and the column "ECG time" the corresponding times in seconds.