# How to Convert Traces to Exel Datasheet and Charts

All log traces are stored in internal memory on an Android device, located in the root folder »**COBOX WMeter**«.

Log trace records all data from both, the **COBOX Wattmeter** device transferred via wireless and the Android device (GPS coordinates, speed and altitude).

The log trace file name consists of »COBOX« followed by the date and time stamp. (COBOX_20150401110231).

The granularity of the trace log is 1 second. Every second, all the data are logged in to the binary file named »COBOX_date.trc«, which is located in the telephone internal directory »CoboxWMeter«.

To record the trace, the **COBOX Wattmeter device** has to be powered-up and connected to the Android device via Bluetooth. And also, logging option has to be choosen at the launch of the **COBOX Wmeter** Android application. The Android device must be »ON« the whole time for proper recording. Otherwise, the GPS data are not recorded properly.

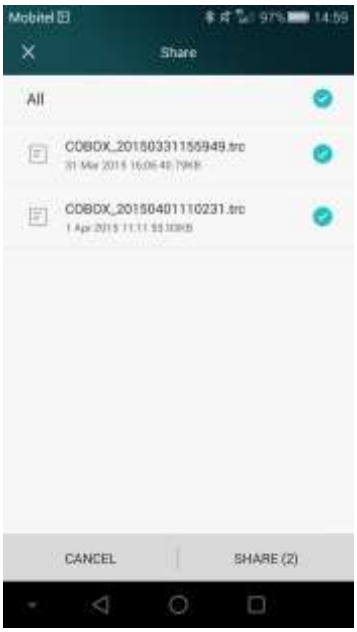
If power consumption during logging is too high because of screen backlight, you should either connect the Android device to external power source or reduce screen brightness in the device settings.

If a connection with the **COBOX Wattmeter** device is lost (red EV on first screen), there is no logging until the connection is reestablished. One can log data even when GPS signal is not present.

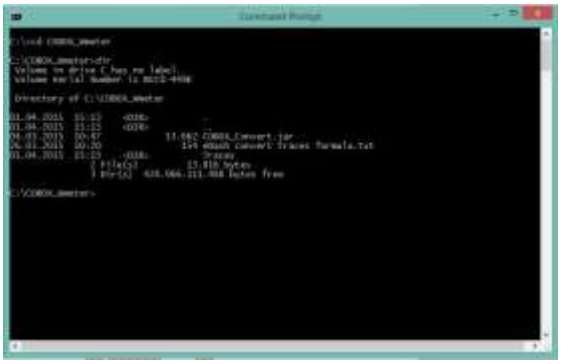
To suspend data recording, just tap on TR button to become yellow (TR). To exit and stop the logging of data from the **COBOX Wattmeter** device, a double tap on the »back« button on the Android device is required.

An easy way to transfer (share) recorded trace log files from an Android device to a PC is via email.

Open some File Manager application on the Android device, navigate to location »**Internal Memory\ COBOXWMeter«** and find recorded data log files. Choose »share« function and mark the traces that you want to share via email. Choose the mail application (Email or Gmail), enter the email address and send the email.


To convert the **trc** files to **csv** and **exel** files you need to save Java application (COBOX_Convert) in the directory where your traces will be stored. For this purpose (conversion) the JAVA has to be already installed on the PC. You can get it from [www.java.com](http://www.java.com) (it is a free download).



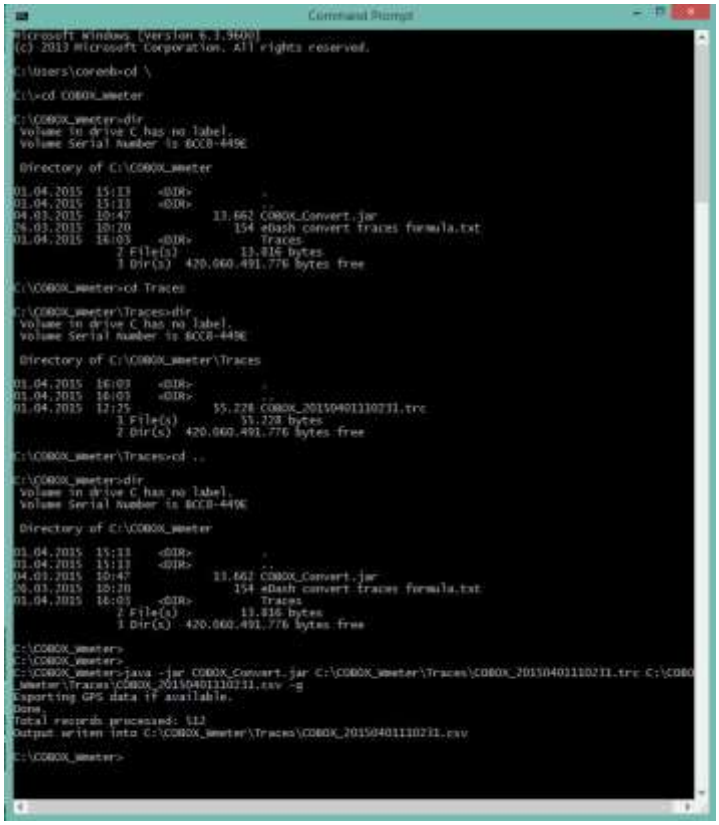
Save the traces in a folder (e.g. »C:\COBOX_Wmeter\Traces«). Names of folders must be without spaces in order to work properly.

The command for conversion from **trc** to **csv** files is:

**java -jar COBOX_Convert.jar** file path\file_name**.trc** file path\file_name**.csv –g**

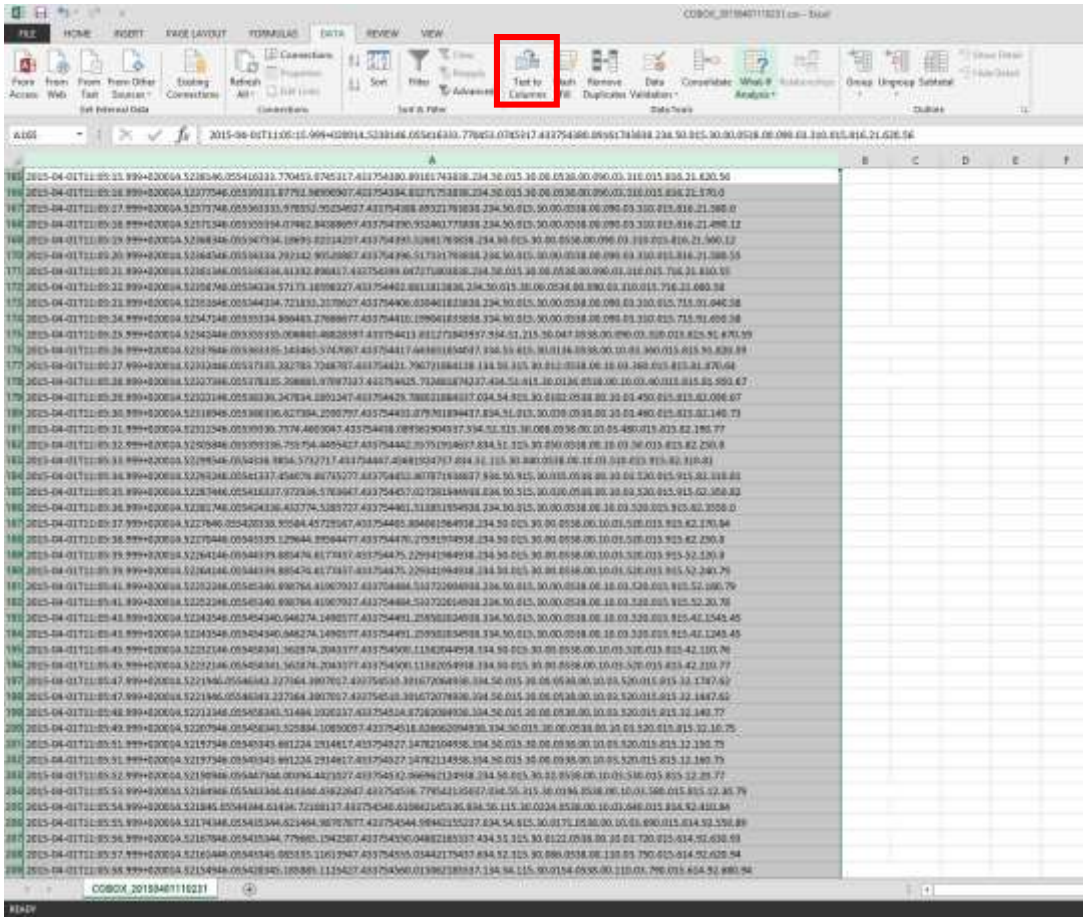
The command from the example above is located in the file **eDash convert traces formula.txt** and must be executed as a single line:

**java -jar COBOX_Convert.jar C:\COBOX_Wmeter\Traces\COBOX_20150401110231.trc C:\COBOX_Wmeter\Traces\COBOX_20150401110231.csv –g**



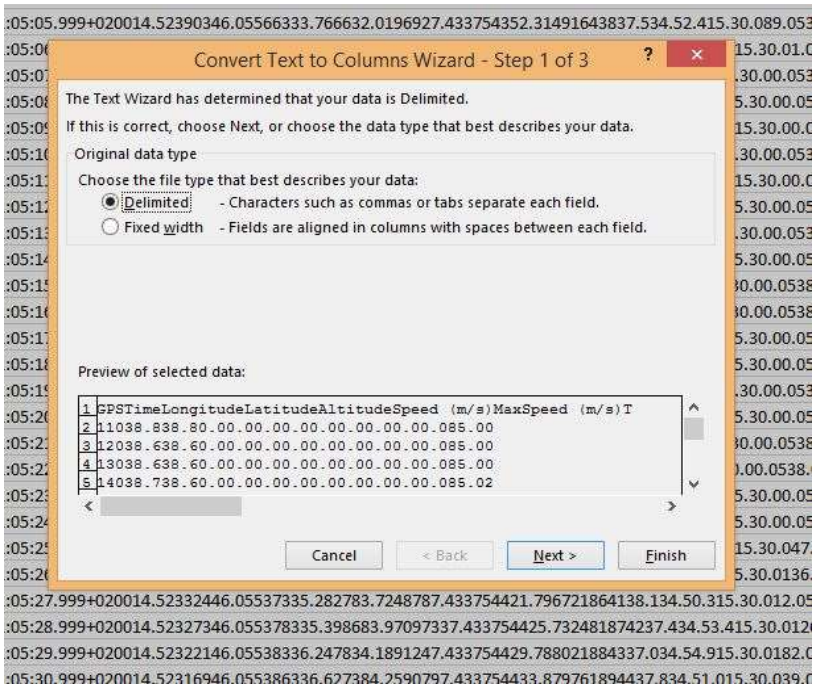

Now that we have a .csv file, we can easily convert it to the data sheet and make some useful chart for further data analyses.


Open the **csv** file in Excel, mark the column A and click on »Text to Columns« icon within the »Data« tab.

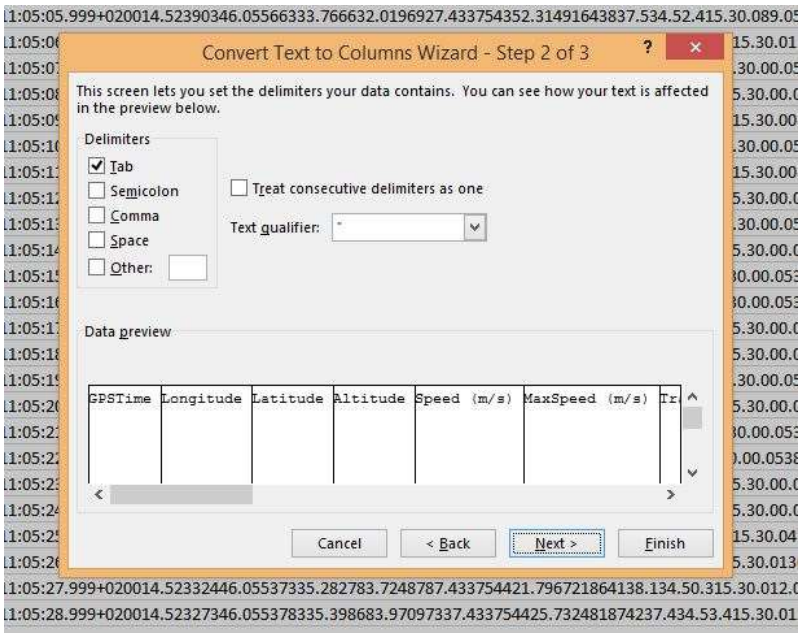


In step 1 of »**Convert Text to Columns Wizard**« window. Click **Next** button.

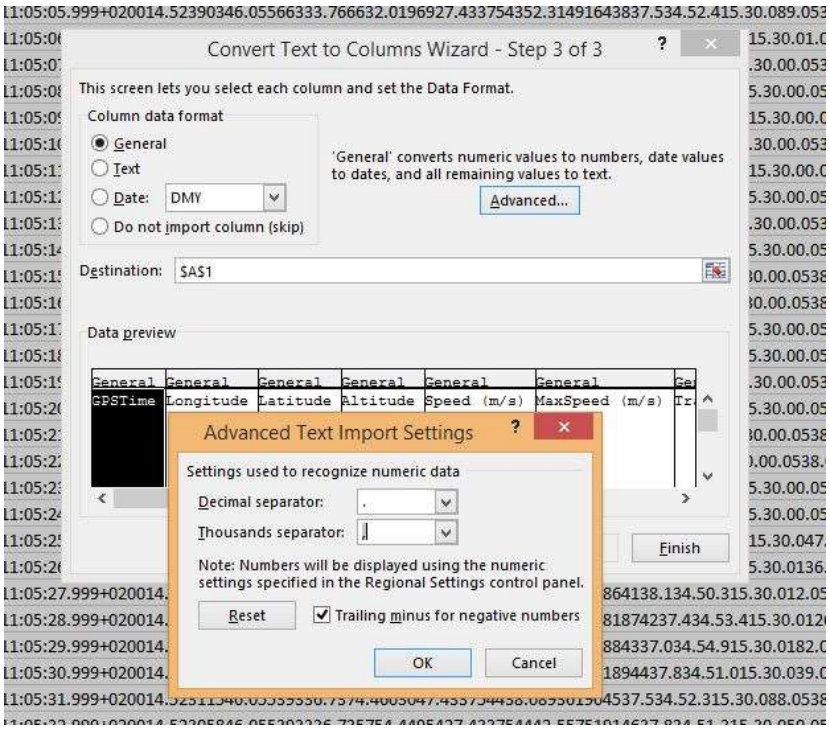
Chosen option: tabs separates each field



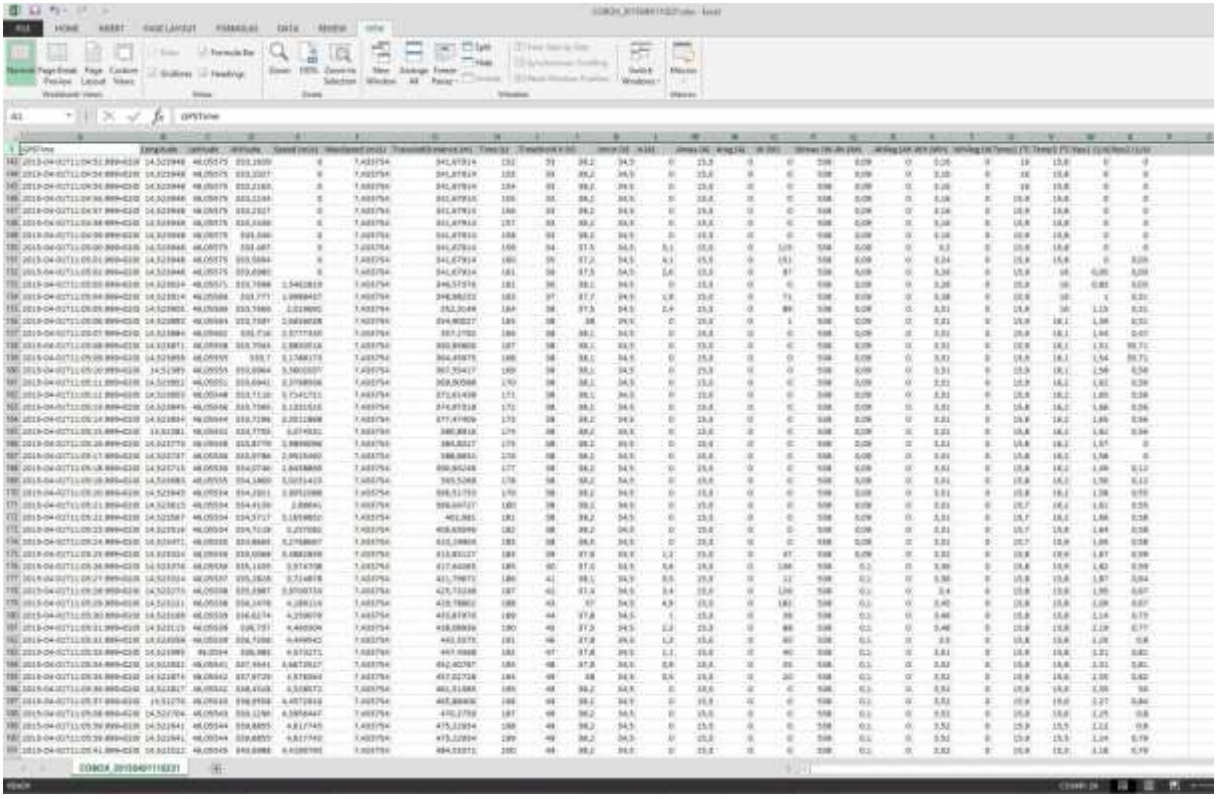
In step 2 click **Next** button again.



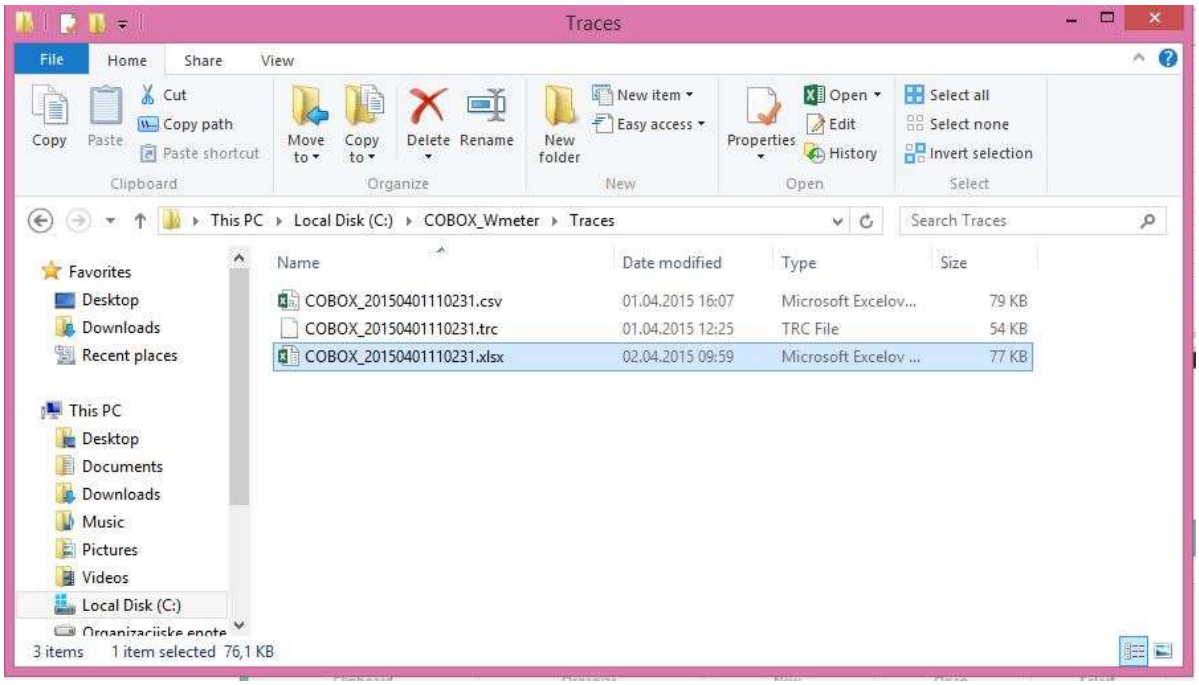

In step 3 click on »**Advanced«** options and chose a dot (».«) for a decimal separator and comma (»,«)for a »thousands« separator. Click »OK« to close »Advanced Text Import Settings« window. Then click »Finish« button to finish conversion.



Now we get the data in columns. We can freeze the first row (column names) for better viewing by clicking on »Freeze Panes« options in »View« tab and choose »Freeze Top Row«.



Save the file in »xls« or »xlsl« Exel format and create some useful charts:



Some graph examples are shown in the diagram below: