# PeakTech® Prüf- und Messtechnik



Spitzentechnologie, die überzeugt



PeakTech® DMM Tool

**Operation Manual** 

**Software for PeakTech Digital Multimeters** 



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## Installation

You can install the DMM tool on your computer. So you always have access to it, even if you just don't have the CD at hand. This is recommended, but not required. You can also start the DMM Tool directly from the CD.

To install the DMM Tool, insert the included CD into your computer and start the Setup.exe. Here you will be guided through each step of the installation.

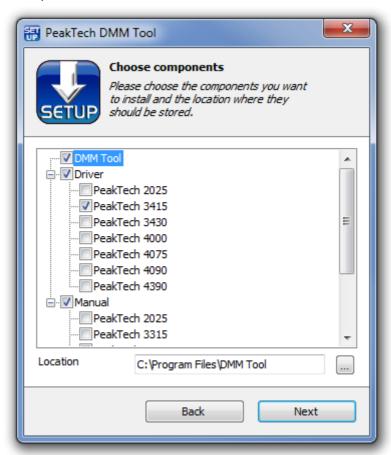
In the first step, you can select your language. This is automatically done based on the language of the operating system (if supported).





In the second step, you can choose which options you want to store on your computer. If a driver for your multimeter is required, you will find these in the list. It is advisable to check it, so that the drivers can be found on your computer, if you have not already installed the driver separately. You can also copy the user's manual for your device with this function.

Example for the PeakTech 3415:

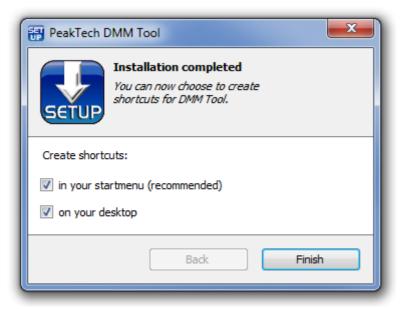


You are free to choose the destination folder, but it is advised to remain at the default setting.



In the third step, the DMM Tool and the selected drivers & manuals will be copied to your computer. Also the DMM Tool will be specially optimized for your computer. This may take up to one minute, please be patient.

In the fourth and last step, you can choose whether you want to create shortcuts to the DMM Tool. By default, *Desktop* and *Start Menu* are selected.



## Uninstallation

The uninstallation is done as with any other program using the *Windows Control Panel*.

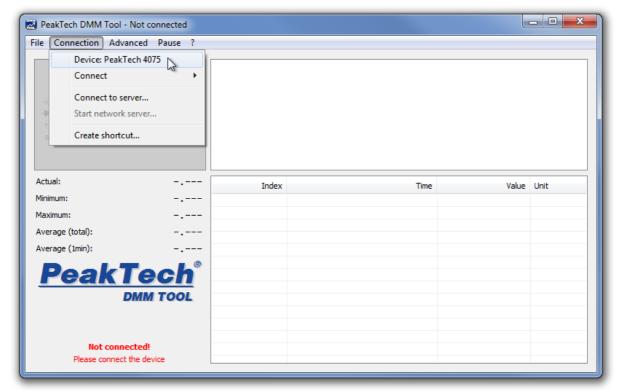




# **Quick Start**

Start the DMM tool.

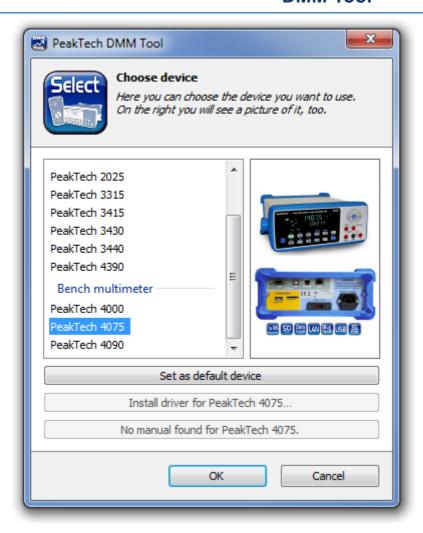
First you need to select the device you want to use:



In this window you can also install the device driver or open the device manual in .PDF format (if you have executed the DMM Tool directly from CD or have included them during the installation process).

By default the DMM Tool starts always with the first device selected, which is the PeakTech 2025. With the button "Set as default device", you can change this to the device you own.

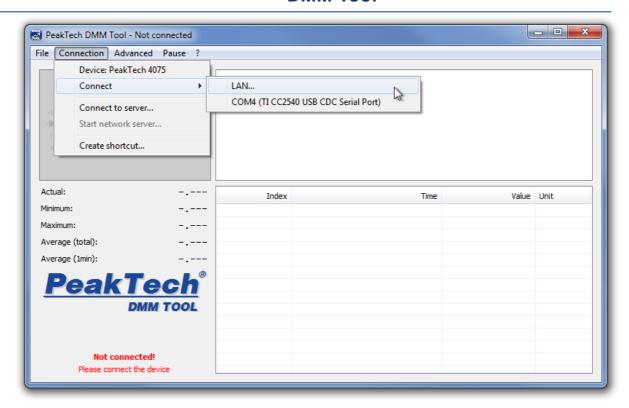




Select your device and click OK to confirm.

Then, under *Connection* click *Connect*. You may need to specify a COM port (depending on the meter). For devices that do not require a driver, this is unnecessary.





Once the connection is successful, the DMM Tool receives readings and displays them accordingly.

Please do not forget that you may need to activate the data transfer of the multimeter (RS232 / USB / PC-Link button). Please read how to do it in the respective user's manual. This can vary depending on the model of multimeter.

# **Graphical User Interface**

The graphical user interface is divided into 2 areas.

## The "LCD"

The "LCD" is an approximate replica of the display of your multimeter. So you can see on your PC what you would see on your multimeter.

Below you will see not only the current value and minimum & maximum values, but also averages of the active data recording time.

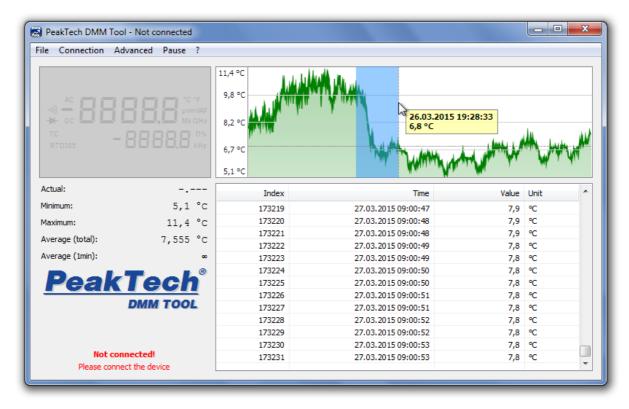
The left area (the "LCD" and the display of values) is always live, therefore not affected by any triggers set (see chapter <u>Trigger</u>) and runs even during the pause mode.

If you right-click on the LCD, you can save it as image file or copy it to the clipboard.



#### The Line Chart

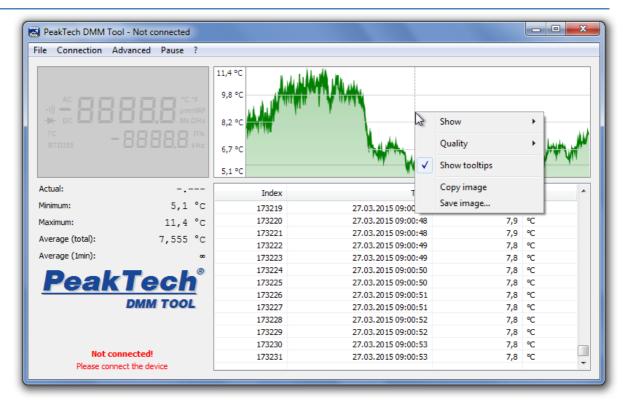
The graphical line chart displays all recorded readings in an automatic scale. If you want only a part of the measured data to appear, click with the left mouse button at the starting point  $\rightarrow$  hold mouse button  $\rightarrow$  drag a selection box to the desired end point. Then you are in the *detail view*, so you only see the selected area. This area is also automatically selected in the log. You can find more about the log area referring to the Chapter <u>Log</u>.



If you have a high amount of measurements, it can take a while to open the detail view.

The graphical line chart provides even more options. You will see them if you click on the chart with the right mouse button:





## Display

Here you can define which data is displayed in the chart. In *All*, each collected measured value is displayed, in *1 Minute* only the data of the last 60 seconds is displayed, etc.

#### Quality

Relevant if your computer is a bit older or you are performing a long-term measurement with very many recorded samples. In the highest quality each measured value is marked in the chart (often not needed - for many measurements very slow). At *Normal* quality (standard) the DMM Tool itself selects a number of displayed measured values (for example each third) in order to ensure a balance between performance and display quality. On *Low-quality*, the number of measured values is limited similar to the *Normal* view, but in addition it also disables anti-aliasing, as well as filling the graphic. This is recommended for older computers.

#### • Show Tooltips

Once you move your mouse cursor over the chart, you can see the measured value from the point where the mouse cursor is located. You can use this option to activate / deactivate this feature.

#### Copy image and Save image

You can copy the chart either to the clipboard as an image to paste it into a program of your choice, or save the chart directly as an image file.

#### The Menu

#### File

In this menu you will find options to load or save your data.



#### New

This will delete all previously collected data from the log and graph, just as if you've had restarted the DMM Tool.

#### Open

You can reload previously stored readings (only .xml format) to view it in the chart and log. Also, you can open log files generated by the measuring instrument (if the meter supports this function).

#### Save

Already collected measurement values can be saved in various formats. The .txt format is most suitable for the human evaluation, whereas the .csv format can be imported easily in spreadsheet programs like Microsoft Excel or OpenOffice. You can open previously saved data in the DMM Tool if they are stored in .xml format, to review the data. Also, this file format is very user friendly if you consider using self-written software which evaluates the data.

#### Disable standby

Especially for long-term measurements you don't want the PC to go into sleep mode (the measured values can't be saved then). This function disables the standby mode and is enabled by default, but you can disable it here.

#### Auto save

If this feature is enabled, all captured data will be automatically saved each 10 seconds as a .xml file on your desktop. Each time you connect to a device with this feature enabled, it creates a new file, named as the device name and the time stamp when the connection was established.

#### Language

The language is automatically selected depending on your operating system. However, here you have the option to use the DMM Tool in another language.

#### Exit

Exits the program with a warning for possible loss of unsaved readings.

#### Connection

#### Device: xxx

You need this menu to select your desired meter. For more details please refer to <u>device selection</u> in this guide.

#### Connect

This menu option connects (or disconnects) your meter to the PC. Depending on the meter, you may have to select the correct COM port. For some devices, the data transfer must firstly be activated by pressing a special key. You can find detailed information about this in the manual of the instrument.

#### Connect to Server and Start Network Server

Please refer to the chapter Network Server.



#### • Create shortcut...

Here you can create a shortcut which is preconfigured for your device, so you don't have to set the device and it's connection each time you start the application.



#### **Advanced**

In this menu, you can make different settings for *Triggers*. Please refer to the chapter *Trigger* to get more information.

## **Remote Control**

This menu item is only visible for those instruments, which can be operated remotely. Here you can remotely control the meter (change measuring ranges and types, get detailed information ...). Since these menu items are highly dependent on the used meter, this function is not described here.

#### **Pause**

This menu item pauses the recording of the data until you click again on the *pause* button. At the bottom left you will see a notification when logging is paused. The measurement display (left side) is not affected by this.

?

Here you can open the *Help* (this file) and view information about this application. Using the "Send feedback" you can send us your thoughts and improvement suggestions for the software.

#### Newer version available!

This menu entry is only visible if you don't use an older version as available. 1x a day it will check if there is an update available and informs you this way. If you

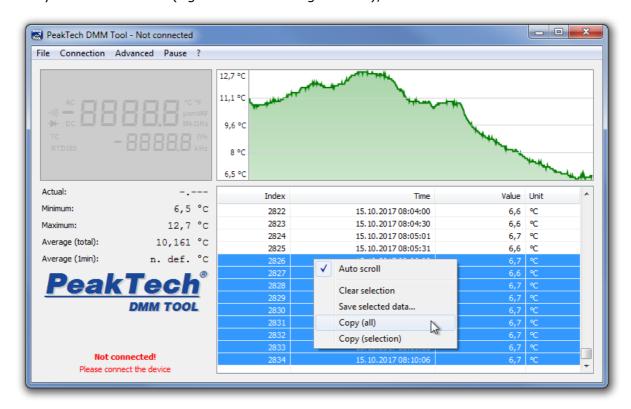


click on this button, your default browser will open our PeakTech homepage where you can download the latest version.

The DMM Tool will be continuously developed to include new devices and also new features.

#### Log

The *Log* window displays all recorded readings including the time when they have been recorded. It will always be scrolled to the end automatically – to the most recent entry - but you can always scroll up and this function will be disabled. To activate the automatic scrolling again, either scroll all the way down to the latest entry or use the menu (right click on the log window), and click *Auto Scroll*.



Here you can activate the auto-scroll function, remove the selection or store the selected entries separately as a file (see <u>Save File</u>).

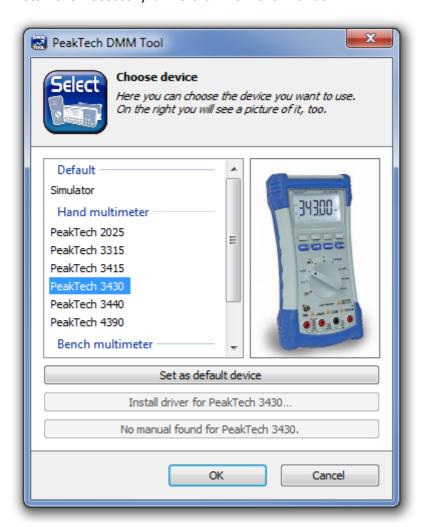
Also you can choose either to copy your selection or the whole data to the clipboard, so you can paste it into table calculation programs (like Excel).

#### **Device Selection**

In this dialog you can select your meter, which you want to use. On the right is a picture of the selected multimeter. Clicking on it takes you to the PeakTech homepage, where you will get more detailed technical information (such as measuring ranges and accuracy) for this device.



If the DMM tool is executed from CD or if the drivers and instruction manuals have been copied to your harddrive (see chapter <u>Installation</u>), you can also directly install the necessary drivers or view the manual.



## **Network Server**

You can use the DMM Tool over a network (such as WiFi). Example scenario: In your garage is placed a PC with a connected PeakTech 2025. This device measures the power consumption of your car battery. You can now start a network server in the DMM Tool at the measuring PC and access it from another PC on your network, for example the laptop in your living room, so you will see directly the same what is shown at your PC with the connected meter; previously collected data, as well as any new data displayed same as on the meter.

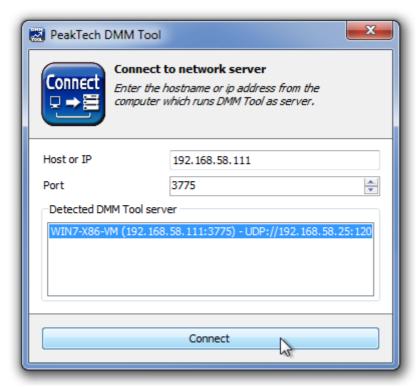
This naturally presupposes that both computers are connected on the same network and also access is allowed through the firewall. The DMM Tool is using the port 3775 UDP (AutoDiscovery) and 3775 TCP (Data Connection).

To start a network server, first connect the multimeter to the PC. Select the point *Network Server* on the *Connection* menu. Clicking this opens a dialog box where you can configure the server.



It is advised to keep the default settings. Changes to those settings should only be performed by technically qualified personnel. Then click on *Start Server*.

Start the DMM Tool at the second PC and click the below link Connect.



Here you can see a list of available DMM Tool Servers in your network. Click the server which you want to connect to, then click *Connect*.

If you have many measurement data, it may take a while before the connection is established.

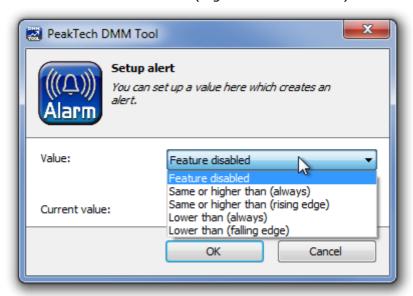


# **Trigger**

The Triggers are located under the menu item *Advanced*. They serve to facilitate your analysis of the collected data, for example by omitting results in long-term measurements or by notification when a threshold has been reached.

#### **Alert**

This function allows you to set a specific value for the activation of an alert. Once this is reached or exceeded (higher- or lower than) it will show an alert window.



You can define whether the alarm is triggered every time as soon as a measured value exceeds the set range / drops below or only when the measured value increases [rising edge] or decreases [falling edge].

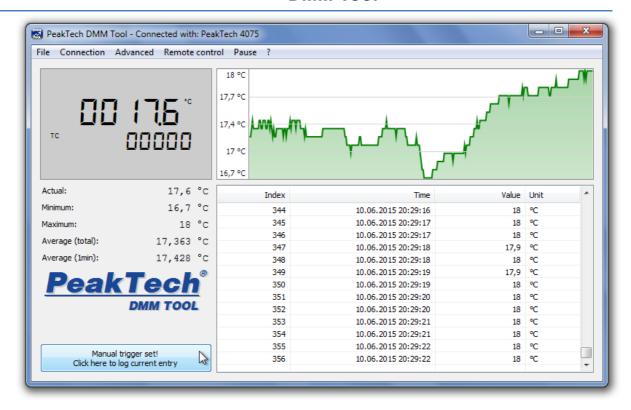
## **Manual Trigger**

This feature gives you the option to record readings only by pressing a button, rather than as usual permanently - as soon as the multimeter sends a new value.

The button to record the current measured value can be found in the application window on the lower left. Press this softkey and a new measured value is stored in the data table.

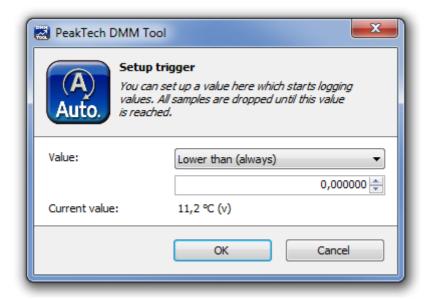
Manual trigger set! Click here to log current entry





## **Automatic Trigger**

This trigger offers you the opportunity to wait for a certain event (similar to the <u>Alert Trigger</u>). Only when this event occurs readings are recorded; before all measurement values are ignored and not logged.

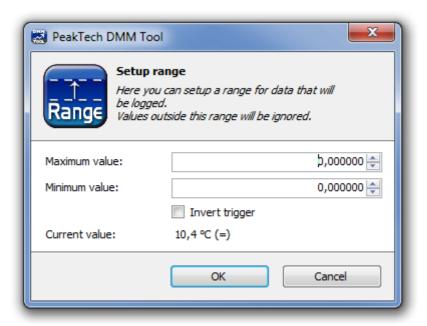


## **Range Trigger**

Allows you to select a specific range (for example 10°C - 20°C) of measurement values that are recorded. Readings outside this range will be discarded and not logged.

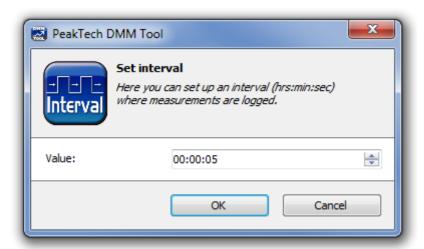


"Invert trigger" inverts this behavior. Once enabled, only data that are outside of the specified range will be logged. This is for example useful to log only erroneous behavior of a device, like too high current.



#### Interval

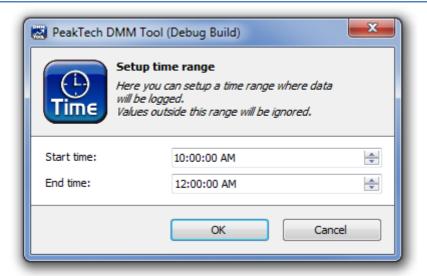
The interval trigger allows you to control the number of recorded measured values. So you can specify (for example), that only 1 reading every 5 minutes will be saved. This is useful for long-term measurements.



### **Time Range**

The DMM Tool gives you the ability to record data only in a specific time range (as for example between 10:00 am and 12:00 am). All measured values outside this time range are discarded and not logged. The time is controlled by the system clock.





# **Updates and Versions**

You can find new versions of the DMM Tool occasionally at our homepage:

www.peaktech.de

## **Service**

If you have technical questions please contact us via e-mail or phone. Please use our contact information listed below.

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