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emco **Elektronische Mess- u. Steuerungstechnik GmbH**

Manual

emco IBT User Tool

Internal Bond Tester

Version 2.2.25



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1. Installation

1.1. Scope of delivery

The following components are supplied on a USB flash drive:

- folder emcoIBT_User Tool
- this manual
- example data file

1.2. Requirements

The programme operates on Windows 11 and is backward compatible.

1.3. Installation

Installation of the programme is not necessary.
Copy the above folder to your PC.
To use the tool, open the file ibt_pc_user_tool.exe.

Note: When launching a new version of the emcoIBT User Tool for the first time, you may need to run the programme with administrator rights.

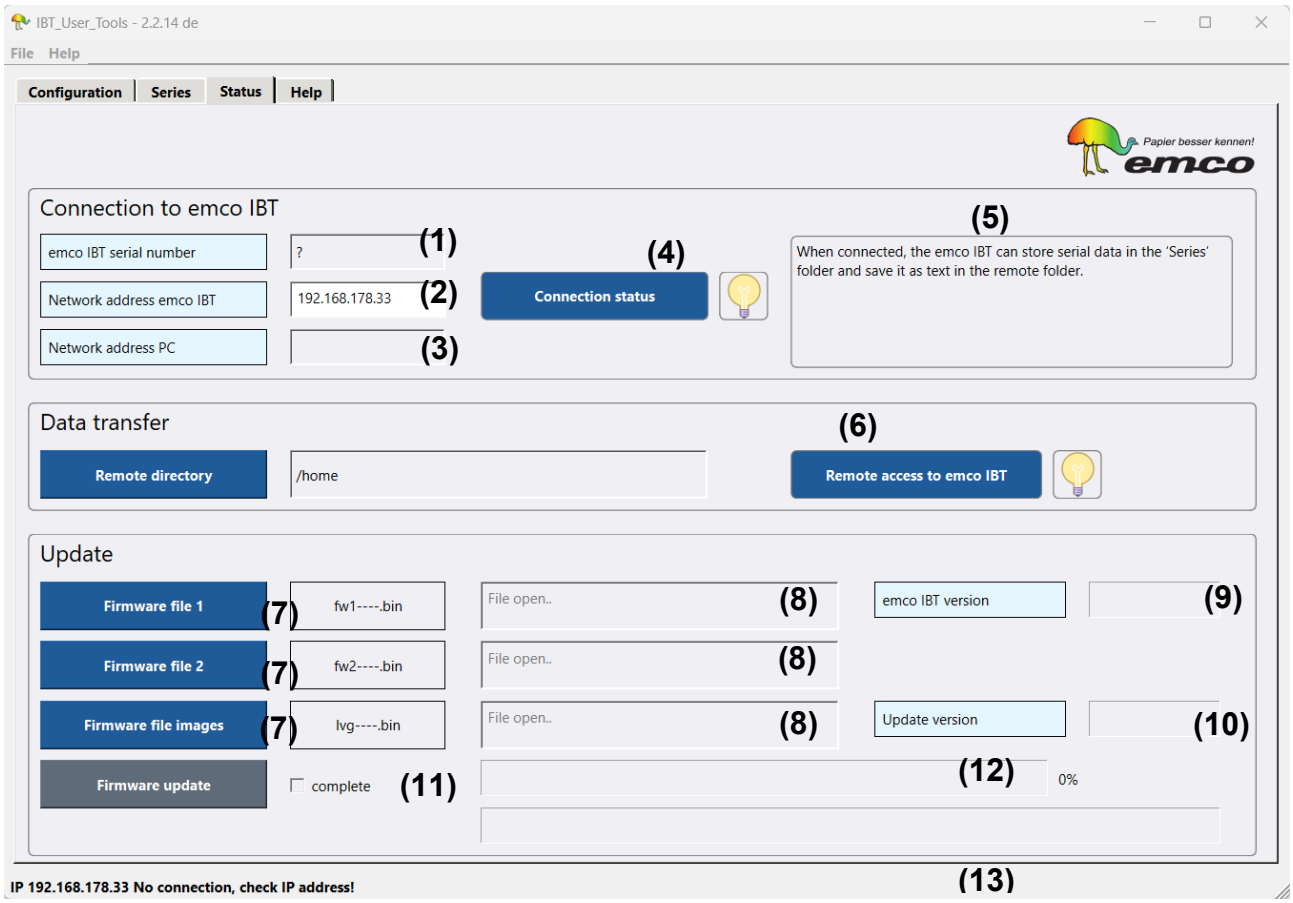
Depending on the security settings of your PC or network, a Windows security message may appear. In this case, follow the on-screen instructions to allow the programme to run.

If a User Account Control prompt or other security mechanism appears, confirm this using the relevant administrator login details or grant the necessary permission so that the programme can be launched.

2. Software description

There are three tabs to choose from in the User Tool: Configuration, Series, Status and Help.
The application starts in the Status window.

3. Status



(1) Serial number of the connected *emco* IBT
(2) Network address of the *emco* IBT – input field
(3) Network address of the PC – input field
(4) Establish direct connection PC → *emco* IBT
(5) Status window
(6) Connection status
(7) Selection window for firmware update files
(8) Status window for loaded firmware files
(9) Version of the current *emco* IBT firmware
(10) Version of the firmware update
(11) Button to execute a firmware update and check box for file completeness
(12) Status bar for firmware update progress and feedback line
(13) Information bar on the current status of the *emco* IBT User Tool

3.1. Firmware update

Click on *Firmware file1* field (7). The file explorer will open. Navigate to the location where you saved the update files received from *emco* GmbH. Select the file and click Open. The file will now appear in the field (8).
Repeat the procedure for *Firmware file 2* and *Firmware file images.*
Once the update files have been loaded correctly, a tick will appear in the window (11). The update can only be started by clicking on the *Firmware update* button (11).

The update status lines will be updated during the procedure. Once the update has been loaded, the *emco* IBT will restart.

Please wait until the following message appears: *emco* IBT is rebooted.
After that, the update is complete and you can continue working with the *emco* IBT.

3.2. Remote access *emco* IBT

The *Remote access for* emco *IBT* button (4) enables 1:1 communication between *emco* IBT and PC without a network connection. To do this, the *emco* IBT must be connected to the PC using the Ethernet cable included in the scope of delivery. The IP addresses of the PC and *emco* IBT must be in the same range.
The button also activates “polling mode.”

When the *emco* IBT is connected via a network, the device is automatically connected and you can work directly with the *emco* IBT User Tool.

Click on *Remote access for* emco *IBT* button (4). The respective IP addresses for the PC and *emco* IBT are displayed. If the addresses are not in the same range, the IP address on the *emco* IBT must be set manually (device manual, page 26). Assign the IP address on the *emco* IBT so that the first nine digits of the address match the address of your PC.

Once the connection has been established correctly, the lamp symbol changes to dark yellow  and the message *Server is ready* appears in the status window (5).

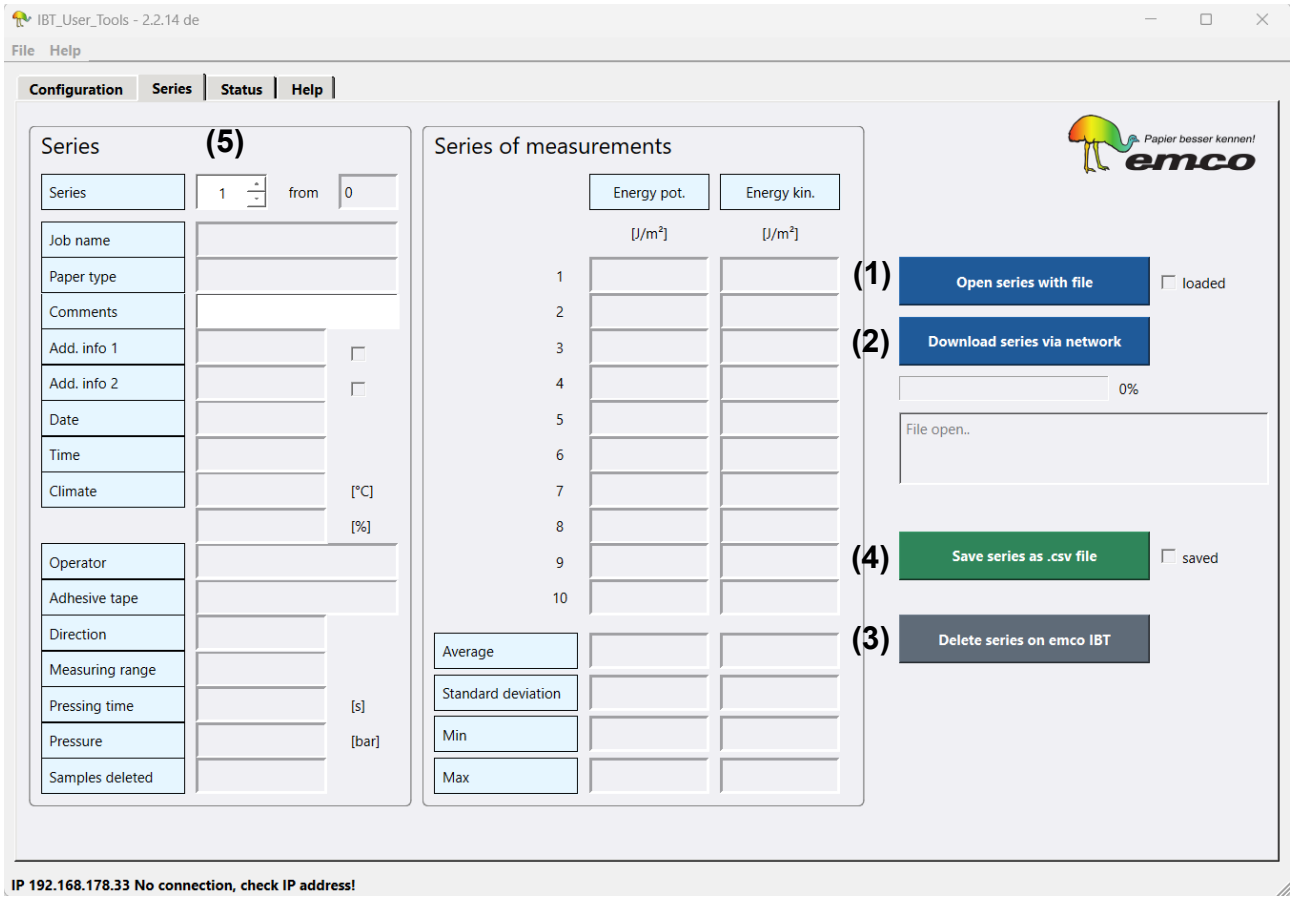
Polling mode
Polling mode involves the live transmission of the current measurement to the user tool and the simultaneous saving of the measurement file to a folder.
By clicking the ‘Remote directory’ button, you can specify the folder in which the measurement file is to be saved.
The file is automatically generated after every measurement carried out on the emco IBT.

3.3. Connection status

Used to test the connection. When a connection is established, a dark yellow lamp symbol is also visible .

4. Series

This tab is used to display and further process recorded measurement values. Measurement series can be downloaded from the *emco* IBT and previously saved measurement series can be imported into the programme.



4.1. Open series with file

The button *Open series with file* (1, see screenshot) opens the file explorer to search for a measurement file on a USB flash drive connected to the PC or on a network.
The measurement file is a jsn file. By default, the *emco* IBT saves the file under the name SERIES:JSN.
Once a file has been loaded, a tick appears in the *loaded* checkbox and the data from the measurement series is displayed.

The individual measurement series can now be viewed. Use the arrow keys (5)  to switch between the measurement series.

4.2. Load series via network

The button *Load series via network* (2) loads the measurement series stored on the *emco* IBT into the tool. Clicking on the *Load series via network* button starts the download of the measurement series from the connected *emco* IBT. The status bar shows the progress of the download.

When the status reaches 100%, the measurement series appear on the display and can be scrolled through using the arrow keys (5) .

4.3. Delete series on the *emco* IBT

If series were loaded directly from the *emco* IBT into the PC tool, the *Delete series on* emco *IBT* button lights up red, see picture (3).

The measurement series on the *emco* IBT can now be deleted.

Caution!
Deletion is irreversible. The measurements can only be saved as a csv file using the tool.

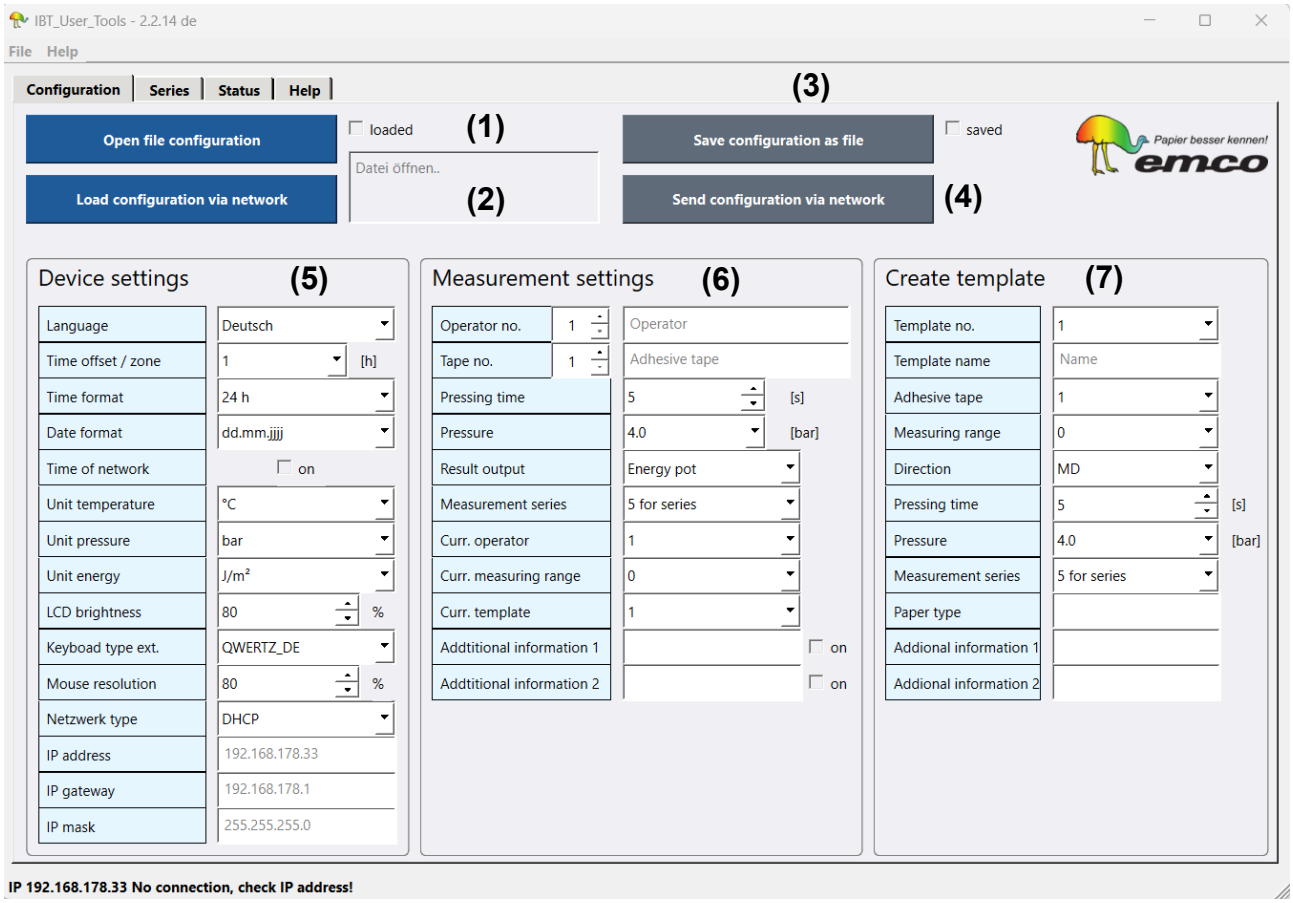
4.4. Save series as .csv file

If the field *Save series as .csv file* (4) is used, the file explorer opens and you are asked to select a storage location for the csv file. After selecting the storage folder, a csv file is created and the *Saved* checkbox is ticked.

The csv file is named *series_date_sequential number.csv*.
csv files can be opened and further processed using Excel and editor programmes.

5. Configuration

The Configuration tab is used to change and transfer device and measurement settings and to create templates for measurement jobs.



5.1. Load configuration via network

The button *Load configuration via network* (2) retrieves the settings currently stored on the device into the *emco* IBT User Tool. If the loading was successful, the *Loaded* checkbox is ticked.

The parameters **Device settings**, **Measurement settings** and **Create templates** can now be edited.

The fields *Save configuration as file* (3) and *Send configuration via network* (4) turn green and become selectable.

5.2. Device settings

The device-specific settings can be changed under Device settings (5) (see picture).
The following parameters can be changed using drop-down menus

- Language

- Time offset / zone
- Time format
- Unit temperature
- Unit pressure
- Unit energy
- External keyboard type
- Network type

The following parameters can be changed using the control panels 
- LCD brightness
- Mouse resolution

The following parameters can be switched on or off using a checkbox 

- Network time

The following fields are input fields:
- IP address
- IP gateway
- IP mask

5.3. Measurement settings

Under Measurement settings (6) you can view the options for the individual parameters of a measurement and create specifications for a measurement.
- Operator
- Tape
- Pressing time
- Pressure
- Energy (pot and kin)
- Measurement series
- Current operator
- Current measuring range
- Current template
- Additional information 1 and 2

Use the buttons to switch between the operators and tape already stored in the device. Names can be changed or added in the input field.
There are 8 options available for the operator and 4 options for the adhesive tapes.

5.4. Create templates

Under Create templates (7) you can modify or create new templates. The possible parameters can be modified using drop-down menus, buttons and input fields.

5.5. Save configuration

Once all desired changes have been made, the settings can be saved as a file. After pressing the button, the file explorer opens and the storage location can be selected. The configuration is saved as *config_date_time.jsn*.

It is possible to save the configuration to a USB flash drive and transfer the settings to the device via the USB interface. See *emco* IBT Update Status operating instructions for more information.

5.6. Send configuration via network

Once all the desired changes have been made, the settings can be sent directly to the *emco* IBT. After pressing the button, the settings in the device will be overwritten with the changed configuration of the *emco* IBT User Tool.