Maiman BenchSoft

User Manual

v1.0.6 – 2020

v1.0.5:

Added warning when closing the application and saving status flags.

v1.0.6:

By default, the first time you connect to the software, the driver will be set to digital control.

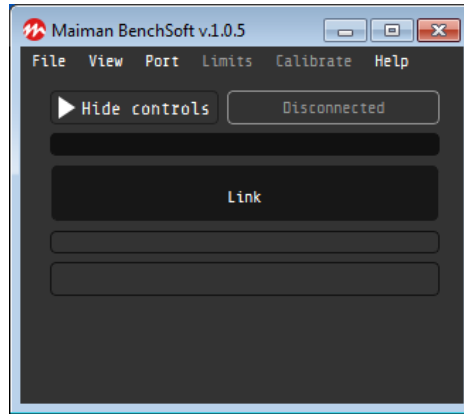Formulation "internal" replaced by "digital".

Table of content

1. System requirements

- Operational system: Windows 7 or higher;
- HDD usage: 100 MB.

2. Connection to device

Start up the software. The application window will appear (Pic. 1).

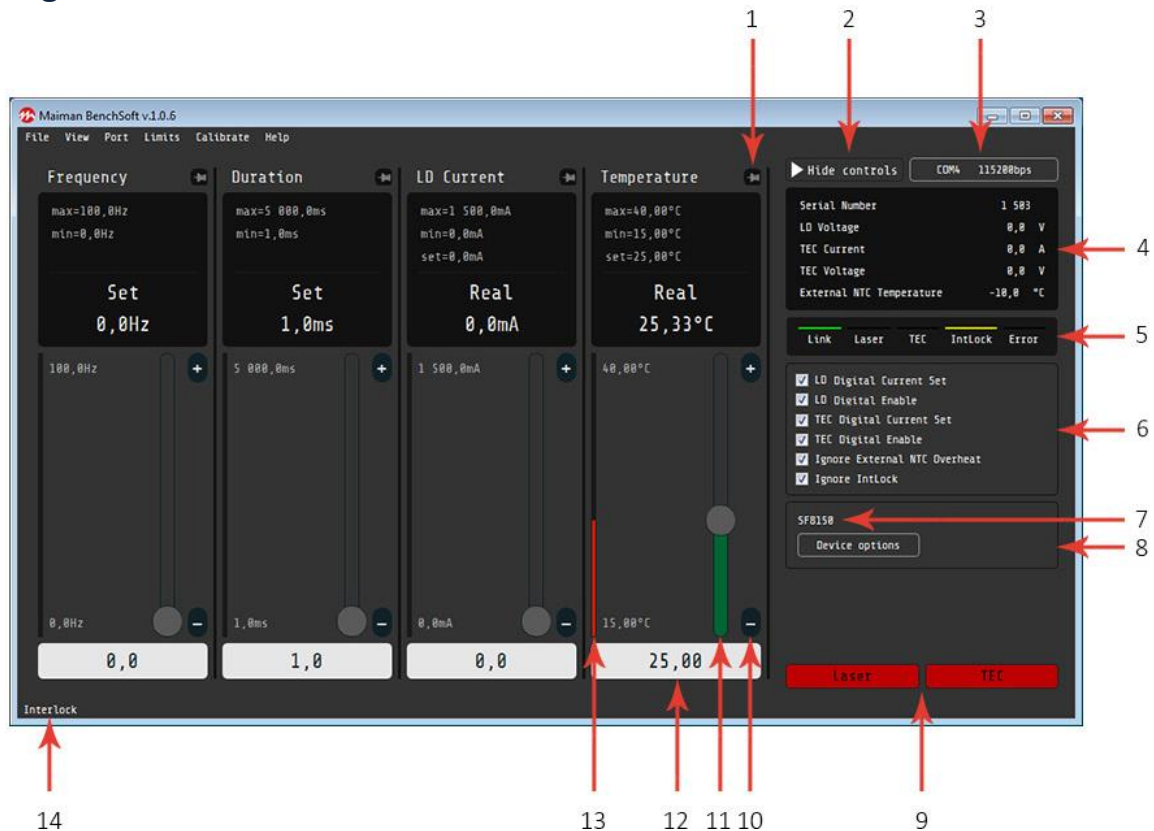Pic. 1. The appearance of the application when the device is disconnected.

1. Check port and baud rate settings at *Port* menu;
2. Click *Disconnected* button. *Disconnected* button is also indicator showing current state of COM-port:
   - "Disconnected" – port is not connected;
   - "COM7 115200 bps" (for example) – port number and baud rate value.
3. Software will request ID from the device and will load appropriate configuration of application window.

ATTENTION! Not all devices have a unique ID. When using software with a device without a unique ID, the software randomly selects the device model, which may not be true. If this is not the first launch of the program with this device, the software will remember the last choice. To make the model of the device match, click on the button *Select another device* and make your choice. The selected device model is displayed in the information window (Pic. 2) above the buttons.
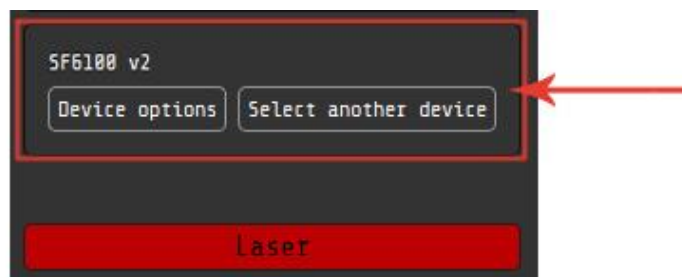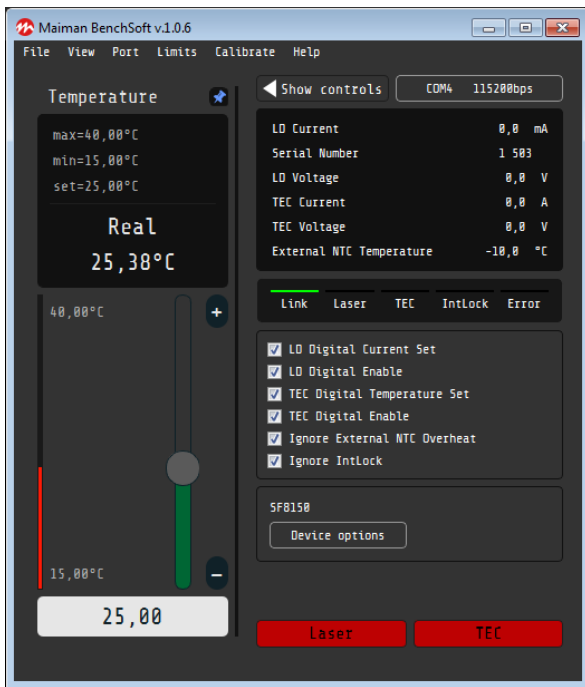

Pic. 2. Device information window

3. Program controls

Pic. 3. The appearance of the application when device is connected

1. Pin button allows to pin the parameter controller. The pinned parameter controller does not disappear from the screen when entering the "hiding control" mode (by clicking **Hide controls** button) (Pic. 4);

2. **Hide controls** button allows to hide unpinned parameter controllers;

3. Com-state button-indicator displays connection / disconnection and the current connection settings;

4. List of non-adjustable parameter values;

5. Device state indicators;

6. Device state flags. Configuration depends on device model. By default, the first time you connect to the software, the driver will be set to digital control. Flags will be saved in the program memory if the corresponding check in the menu is set (File – Keep checkboxes);

7. Model of the connected device;

8. **Device options** button. For more information about connected device, click **Device options** button to open device information window (Pic. 5). Here is the information about the device: a description, a link to a web page, a description of the device's capabilities and a slider for setting the period of communication between the PC and the device. **Select another device** button allows to change model of the device for some devices versions (Pic. 2);

9. **Laser** and **TEC** (if available) buttons controls the state of Laser and TEC, respectively;

10-12. Parameter regulators. Slider, plus and minus buttons, text-filed are used for set parameter value;

13. Indicator showing the real (measured) value of the parameter;

14. Error and / or warning messages.

4
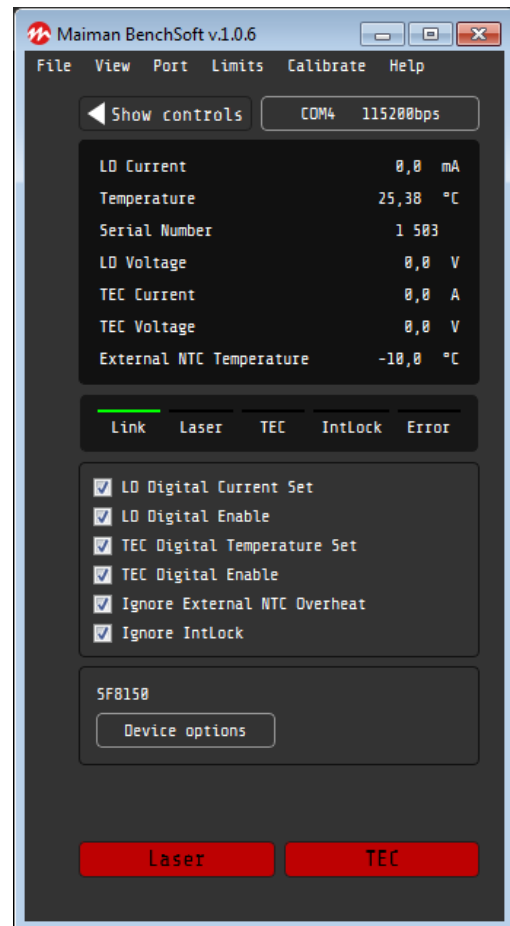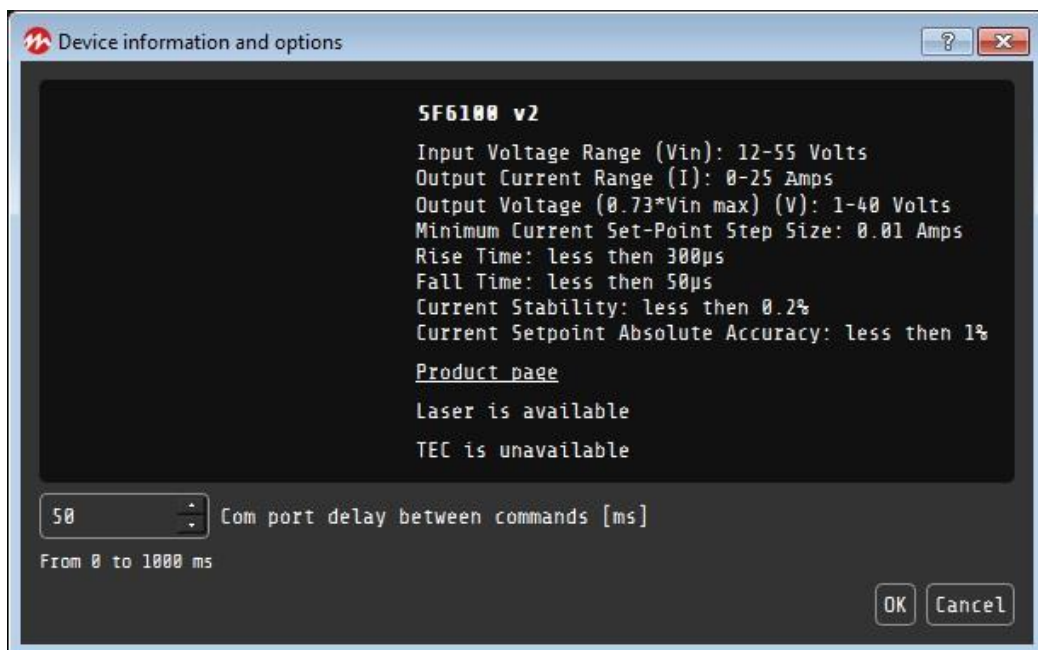
a)   b)

Pic. 4. Window application in the "hiding control" mode
a)   with pinned parameter controller b) without pinned parameter controller

Pic. 5. Device information window

4. Application menus

- File
  - ○ Load settings
  - ○ Save settings
  - ○ Keep checkboxes
  - ○ Exit
- View
  - ○ Temperature in °C
  - ○ Temperature in F
  - ○ Compact view
- Port
  - ○ Select port
  - ○ Select baudrate
  - ○ Stop bits
  - ○ Autoconnect
- Limits
  - ○ Depends of the connected device
- Calibrate
  - ○ Depends of the connected device
- Help
  - ○ About
  - ○ Check for updates
  - ○ Open logs folder

A detailed description of each submenu is given below.

Load settings and **Save settings** options allow, respectively, to restore or save the current configuration of the device. When saving the settings, the device records the current state of the device and the values of the adjustable parameters *(The data is received from the device and stored in the application memory, not the actual state of the device at the moment)*. When the configuration is downloaded, the device is placed in the required state and the adjustable parameters are set.

Keep checkboxes – If this option is set, the program will save device state flags.

Exit – close the application.

Temperature in °C/F options are mutually exclusive, when first option is enable, the second is being disabled. This option changes the temperature display units. By default, the temperature is displayed in degrees Celsius. Recalculation in degrees Fahrenheit occurs programmatically.

Compact view option allows to minimize the parameter controls to a minimum size (Pic 6).
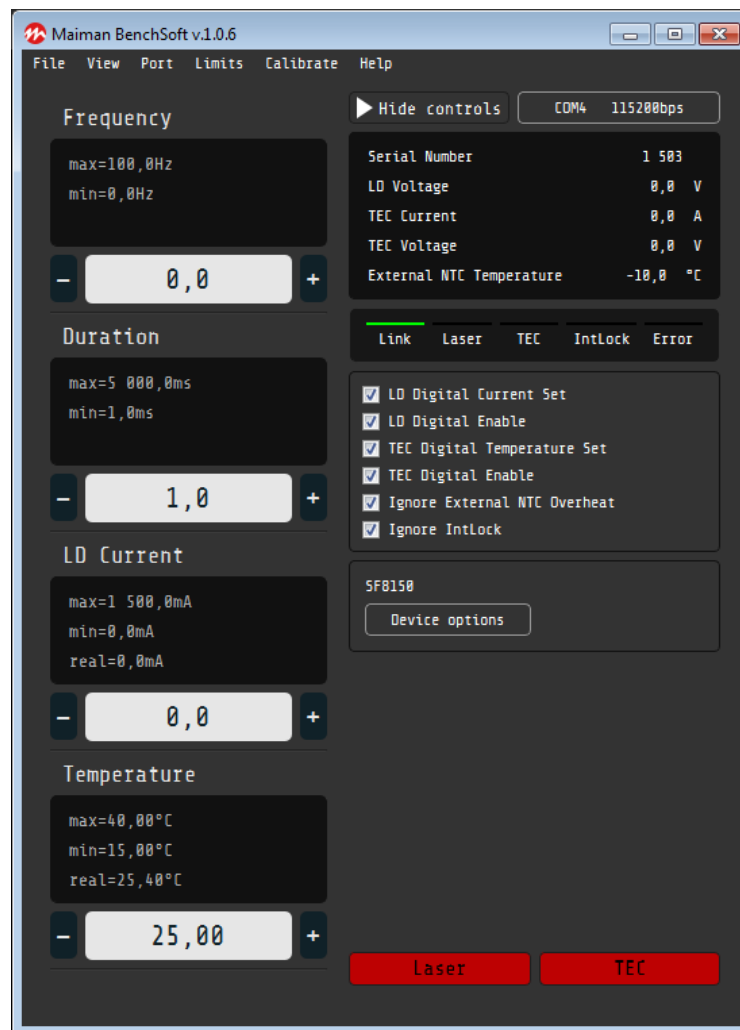
Pic. 6. Compact mode view

Select port – This option allows to select the port to communicate with the device. Changing the port is possible only when the port is disconnected.

Select baudrate – This option allows to select the baud rate of the COM-port. If the device is connected, the port will be disconnected and the connection will be performed with a new baud rate.

Stop bits – The number of stop bits must be set according to the device datasheet.

Autoconnect – If this option is set, the program will automatically connect to the port at startup.

Limits – This menu is device dependent. The limits (minimum / maximum) for some adjustable parameters can be set here, if it is allowed.

Calibrate – This menu is device dependent. A coefficient to a parameter change scale for some adjustable parameters, if it is allowed.

**About** – Some information about software, developers and contacts.

Check for updates – This menu starts to checking for an update for the software.

Open logs folder – This menu opens folder with program logs files.

5. Setting limits and calibration

If your device supports setting limits or the calibration coefficients, the corresponding menu will be displayed at the top of the program window.
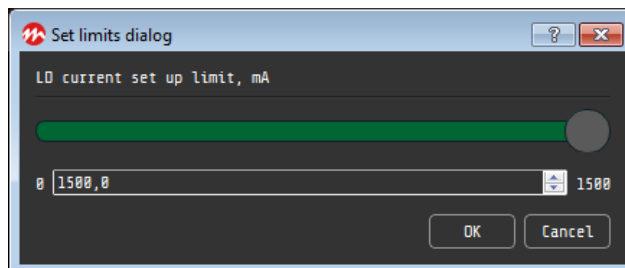
Calibration
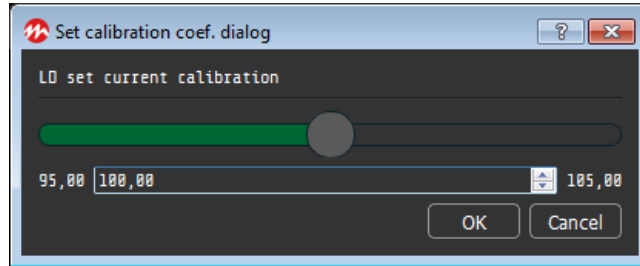
Pic. 7. Calibration window

To calibrate the parameters, set a coefficient taking values from 95,00 to 105,00, which corresponds to a parameter change scale from 95 to 105%. Select the required value of the coefficient and press the "OK" button to set.

Limits

The limits for setting some parameters can be changed by the user. Enter the new limit setting and click "OK" to set the value.

Pic. 8. Limits window