

# QCOM 2.1

test software for automation units

## Operating Manual



## Table of contents

1	Introduction .....	3
2	Requirements.....	3
3	Installation.....	3
4	Start .....	3
5	Options.....	4
6	GUI Description.....	5
7	Support .....	6

## 1 INTRODUCTION

QCOM 2.1 is a program that offers a graphical user interface (GUI) to control lab automation instruments from QInstruments, e.g. BioShake, ColdPlate, HeatPlate.

The main purpose of QCOM 2.1 is to get easy access to the unit to execute initial testing.



**Caution:** QCOM2.1 is not meant to be used for any critical or production application

## 2 REQUIREMENTS

<b>HARDWARE</b>	
Minimal resolution [pixel]	800 x 600
USB connection	USB (type A) port version >= 2.0
Disc space	~50 MB (+ optional log file size)
<b>OS</b>	Tested with Windows 10 Professional (32/64-Bit)
<b>NETWORK CONNECTION</b>	-
<b>USER RIGHTS</b>	Write and Read access in the installation folder
<b>DEVICE</b>	Via USB connected BioShake / HeatPlate / ColdPlate unit

## 3 INSTALLATION

Copy the QCOM 2.1 folder to the desired local drive.

Ensure that user has read and write access for the program folder.  
 Ensure enough disc space for log files is available if logging is activated.

## 4 START

To start the program, execute QCOM2.1.exe.

By default, the program scans through the available COM ports and detects if a supported QInstruments device is connected to that port. The first valid device that is found is used, the scanning process is stopped, and the program starts using the identified device.

Device features will be detected at start-up, and the GUI will be adapted to the following features: mixing, ELM, temperature control.

At startup warnings will show up if

- the log directory size exceeds a certain value
- loading a specified configuration file is erroneous

## 5 OPTIONS

It is not necessary to provide command line options. If no options are provided default values will be used. The QCOM2.1.bat file can be used to set and start QCOM2.1 with options.

**-p <COM port number>** example: QCOM2.1.exe -p com4

Use the defined com port instead of the first that is found.

**-sn <serial number>** example: QCOM2.1.exe -sn 5979

Search for a device with the serial number 5979 and use that instead of the first that is found. If no device with that serial number is found the program exits.

**-c <file name>** example: QCOM2.1.exe -c qcom2.cfg

With this parameter the location and name of a configuration file can be defined. The values in the file will be used instead of the default values. The configuration file must be formatted using the JavaScript Object Notation (JSON). An example should be available in the install directory.

Parameter	Description	Unit	Default value at start-up
set_speed	Shaker speed	Rpm	200
set_acc	Shaker acceleration	Seconds	2
set_temp	Shaker temperature	°C	30
set_time	Shaker time	Seconds	60

Configuration file example:

```
{
  "set_speed":      "300",
  "set_acc":        "5",
  "set_temp":       "-4.3",
  "set_time":       "60"
}
```

If there are errors in the format of the configuration file, the default values will be used.

**-l** example: QCOM2.exe -l

With this parameter logging is activated. Two logfiles will be generated in the folder log\  
 - QCOM2.1\_start\_[date].log Information regarding the GUI  
 - pyQControl\_Kernel\_[date].log Information regarding the device communication

**-s <size number>** example: QCOM2.1.exe -s 2

With this parameter the size of the GUI can be set. Three size values (0, 1, 2) are supported. The higher the number the bigger the GUI. The following width and height values can be set (in pixel).

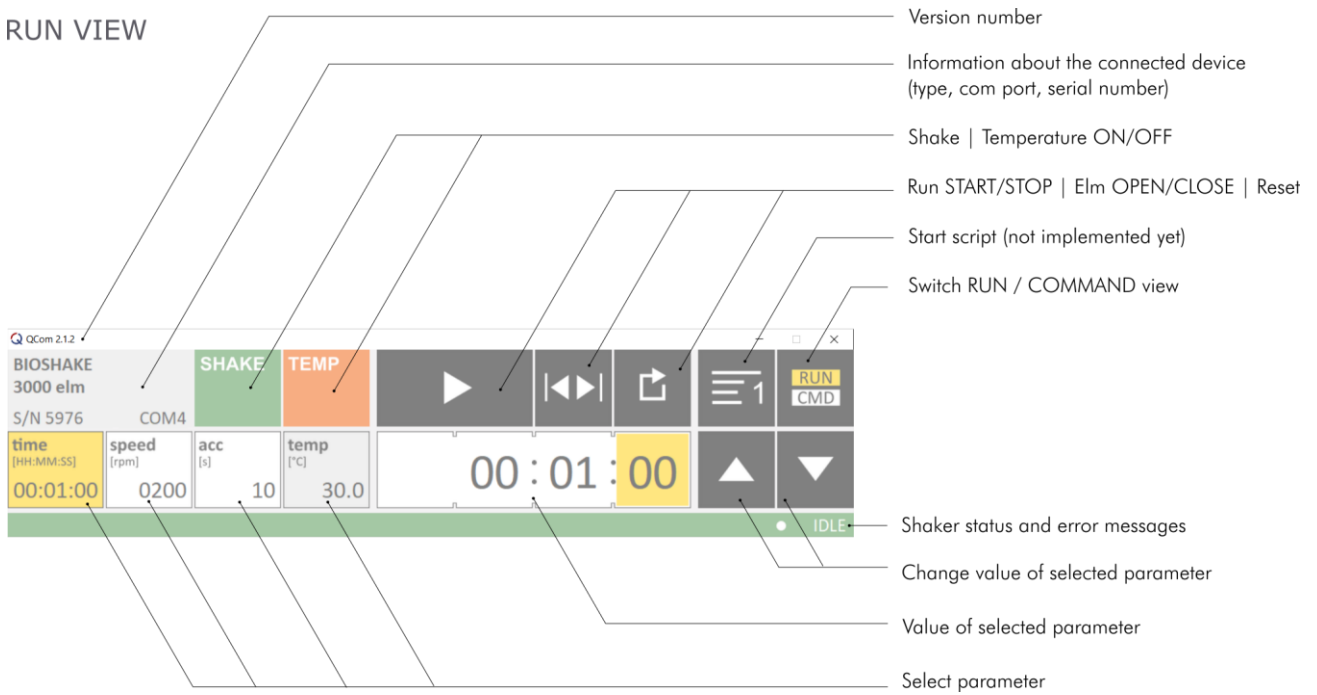
0 = 706x156            1 = 1059x234            2 = 2118x468

All options can be combined.

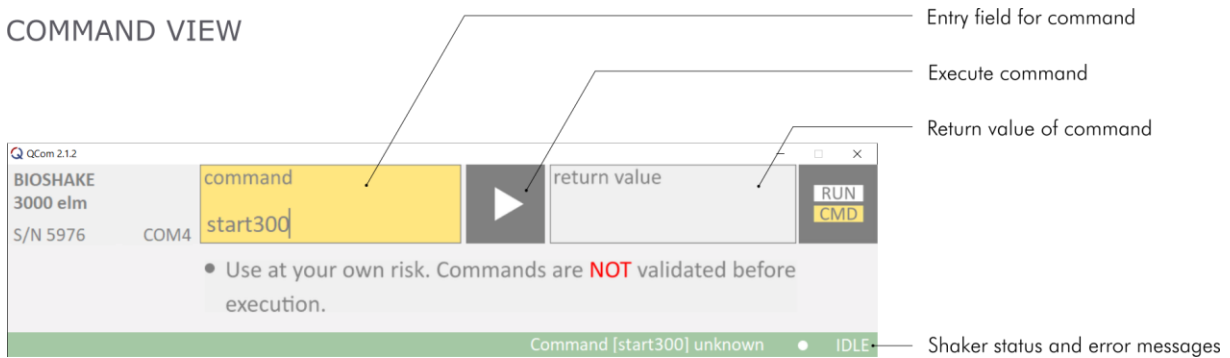
For example:            QCOM2.exe -p com4 -c cfg\qcom2.cfg -l -s

## 6 GUI DESCRIPTION

### RUN VIEW



### COMMAND VIEW



### SHORTCUTS

- 0 ... 9** Insert digit value
- ▲ ▼** Increase/Decrease value of digit
- ◀ ▶** Move to left/right digit of selected parameter
- SHIFT + ◀ ▶** Move to left/right parameter
- TAB** Move to right parameter

## 7 SUPPORT

We provide a range of technical material (e.g. application notes, bulletins, instruction manuals, and selection and use guides) that support our products and key applications.

All of our technical documents can be viewed and printed. Many documents are available as pdf files, which can be downloaded from our homepage.

Please contact QInstruments for additional information and availability about the BioShake. For this please use our online contact form or contact us directly via phone or email.

**Online:** [QInstruments.com](http://QInstruments.com)

**Email:** [support@QInstruments.com](mailto:support@QInstruments.com)

**Phone:** +49 3641 876120

**Address:** Quantifoil Instruments GmbH  
Loebstedter Strasse 101  
07749 Jena  
Germany

### DISCLAIMER, LEGAL NOTICES AND TRADEMARKS

All document design, text, graphics, the selection and arrangement thereof and all other materials in this document are copyright by QInstruments.

QInstruments is owner of numerous patents worldwide. Please respect our intellectual property.

**WO2008135565, US8323588, EP2144716:** Sample handling device for and methods of handling a sample

**WO2011113858, US9126162, EP2547431:** Positioning unit for a functional unit

**WO2013113847, US10052598, EP2809436:** Cog-based mechanism for generating an orbital shaking motion

**WO2013113849, US9371889, EP2809435:** Mechanism for generating an orbital motion or a rotation motion by inverting a drive direction of a drive unit

**WO2014207243, US20160368003, EP3013480:** Application-specific sample processing by modules surrounding a rotor mechanism for sample mixing and sample separation

Please notify us in writing, by email or mail to our designated agent, if you believe that a user has infringed our intellectual property rights.

QInstruments trademarks are recognised worldwide. Please respect our trademarks as we will vigorously protect their proper usage.

**BioShake®** (Quantifoil Instruments GmbH)

Trademarks of third parties may appear on this site when referring to those entities or their products or services. All registered names, trademarks, etc. used on this site, even when not specifically marked as such, are not to be considered unprotected by law. Any names and trademarks not specifically marked or listed are property of the respective owner.

Further trademarks used in this website and catalogs: Brand® (BRAND GmbH + Co KG), Corning® (Corning, Inc.), Eppendorf® (Eppendorf AG), Thermomixer® (Eppendorf AG), Eppendorf Tubes® (Eppendorf AG), Eppendorf twin.tec® (Eppendorf AG), Falcon® (Becton, Dickinson And Company), Greiner® (Greiner Labortechnik GmbH), MOXA® (Moxa, Inc.), NUNC® (Nunc NS Corporation), SILA Rapid Integration® (Association Consortium Standardization in Lab Automation), TECAN® (TECAN Group AG), Windows® (Microsoft Corporation). Technical specifications are subject to change without notice.

Technical specifications are subject to change without notice. All rights reserved.