aqua computer Revision 2 Farbwerk Installation Guide

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Contents

Preface

The farbwerk unit is a high power LED controller for PCs.
Considering the fast technical development, we reserve the right to perform alterations to the products at any time. It therefore is possible that your product does not correspond precisely to the descriptions or illustrations in this manual.

Safety precautions

The following safety precautions have to be observed at all times:

- Save your data onto suitable media before working on your hardware!
- The farbwerk unit may only be used inside a PC case!
- Never touch electronic components during operation! Do not connect or disconnect cables to/from the device while the device is powered! Components may get very hot during operation. After power off, let the device cool down for at least 30 minutes before touching it!
- Do not turn the PC on unless you are sure that all cable connections to/from the farbwerk unit are correctly attached!
- This product is not designed for use in life support appliances, devices, or systems where malfunction of this product can reasonably be expected to result in personal injury. Aqua Computer GmbH & Co. KG customers using or selling this product for use in such application do so at their own risk and agree to fully indemnify Aqua Computer GmbH & Co. KG for any damages resulting from such application!

Scope of delivery 3. Scope of delivery

- One farbwerk controller
- One internal USB cable (replacement part no. 53085)
- Mounting material
- This manual

Assembly instructions

The farbwerk controller can be installed inside the PC case using the supplied screws and nuts. In order to access the mounting holes, bend the rubber insulation away from the top cover of the farbwerk controller and remove the top cover. Reinstall the top cover afterwards.
Alternatively, double sided adhesive tape can be used to secure the farbwerk controller inside the PC case.

Make sure that the electric connectors do not have contact to metal parts or other electronic devices inside the PC case, otherwise malfunctions or destruction of the farbwerk unit or other devices may occur!

Electrical connections

1. **Connector overview**

   ATTENTION: Completely turn off your power supply or disconnect the mains power cord from the wall outlet before connecting or disconnecting any cables to/from the device!

2. **Power supply**

   Connect a power plug of your PC's power supply unit to this connector. Do not use excessive force but double check the polarity of the plug if you are having trouble to connect.

   Pin 1: +12 V

   Pin 2: GND

   Pin 3: GND

   Pin 4: +5 V

3. **LED output 1-4**

   Connect up to four RGB LED strips to these outputs. Maximum current rating for each separate color is 2.5 A at 12 V (corresponding to 30 Watts) and a total maximum combined current of 8 A at 12 V for all twelve color channels (corresponding to 96 Watts total).

   The LED outputs are not short-circuit proof!

   Pin assignment: Pin 1: +12 V

   Pin 2: GND blue (or green)

   Pin 3: GND red

   Pin 3: GND green (or blue)

4. **USB**

   This connector is used for USB communication to the PC and for power supply.

   Connect to an internal USB header of your motherboard. Take special care to make sure the pin alignment matches your motherboard!

   The corresponding connector on the motherboard is usually a 9 pin connector with two independent USB ports. Both rows of 4/5 pins can be used to connect an USB device. The black wires (GND) are to be connected to the side of the missing pin, see picture with colored pin assignment.

   Pin assignment:

   Pin 1: +5 V(red)

   Pin 2: D- (white)

   Pin 3: D+ (green)

   Pin 4: GND(black)

   Pin 5: not connected

5. aquabus 1/2

   Connector for communication with other Aqua Computer devices. Use a compatible aquabus cable (not included in delivery, article no. 53122/53162) to connect the farbwerk controller board to a suitable connector of a compatible device, for example an aquaero. USB and aquabus interface can be used at the same time.

   Pin assignment: Pin 1: GND

   Pin 2: SDA

   Pin 3: SCL

Compatible aquabus devices:

- aquaero 6 XT (53146, 53206, 53250, 53251, 53262, 53263)
- aquaero 6 PRO (53145, 53253)
- aquaero 6 LT (53234)
- aquaero 5 XT (53089, 53125, 53249)
- aquaero 5 PRO (53090, 53252)
- aquaero 5 LT (53095)

6. **Temperature sensors**

   Connector for up to four temperature sensor.

   Pin assignment: Pin 1/3/5/7: Signal 1-4

   Pin 2/4/6/8: GND

   Compatible sensors:

   - Temperature sensor inline G1/4 (53066)
   - Temperature sensor inner/outer thread G1/4 (53067)
   - Temperature sensor G1/4 (53147)
   - Temperature sensor plug&cool (53025)
   - Temperature sensor 70 cm (53026)

7. **Status LED**

   The blue status LED should always be active if power is supplied. For revisions 1 and 2 (black circuit boards), the LED is soldered into the circuit board and can not be removed.

   Revision 8 (white circuit boards) only: The status LED is removable and can be inserted from both sides. A red LED is also included in delivery and can be used in- stead of the originally installed blue LED. The polarity of the LED can be determined by differently shaped metal areas inside the LED, see figure in chapter 5.1. Alternatively, the device can be used without any status LED.

   Pin assignment: Pin 1: Supply voltage

   Pin 2: GND

aquasuite software

The Windows software aquasuite is an extensive software suite and can be used for configuration and monitoring. The software is not required for operation though. All configuration parameters can be saved into the device's memory.
Please note: Depending on the type of product you are using, some features may not be available for your device.

1. . Installation of the aquasuite software

   For configuration and monitoring of our products with USB interface, the aquasuite software is available for download from our **website : www.aqua-computer.de**.

   You will find the setup program in the support section of the website under Downloads/Software.

   The setup program checks all connected USB devices for embedded update service periods and offers various aquasuite versions depending on detected devices.

   If no device with update service for the latest aquasuite version is found, a warning is displayed and older aquasuite versions that do not require an update service purchase can be selected for installation. For installation and update service validation, an internet connection is required.
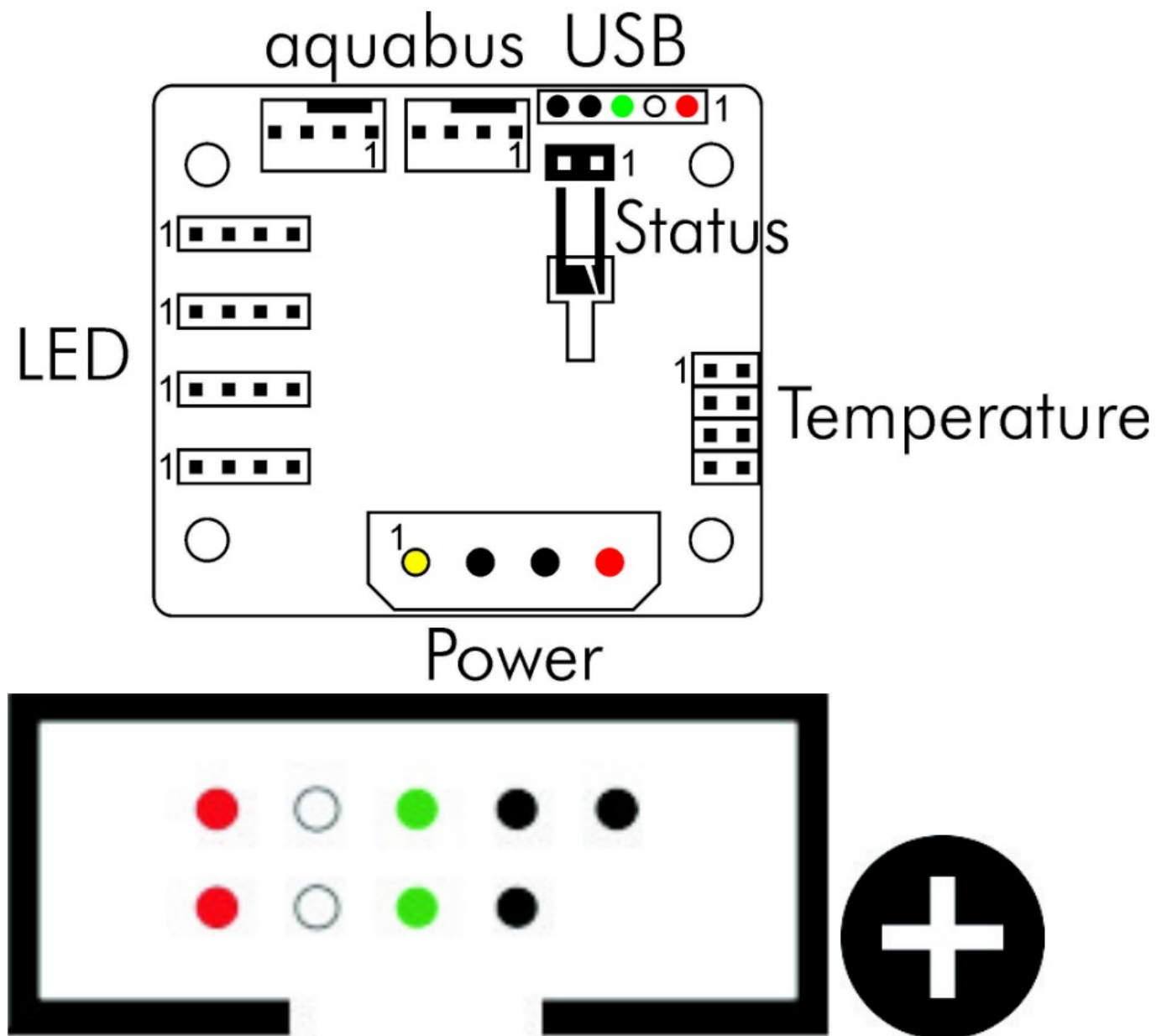
   The latest aquasuite version may also be installed if no suitable update service period has been found in a device. Subsequently, update service may be purchased or an existing key may be entered within the
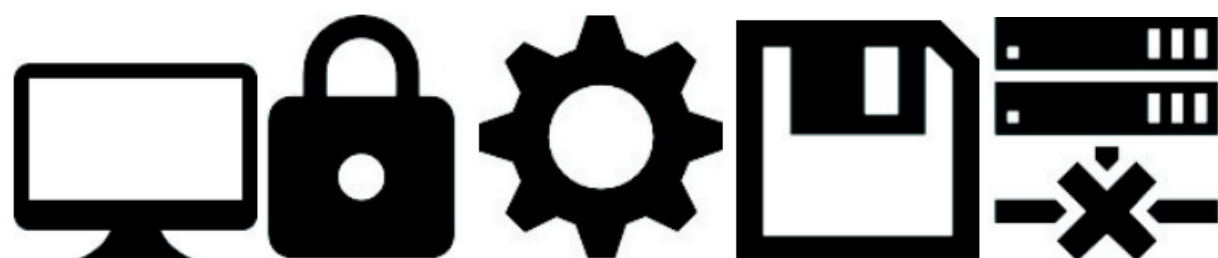
aquasuite. These functions can be accessed in the aquasuite/Updates tab.
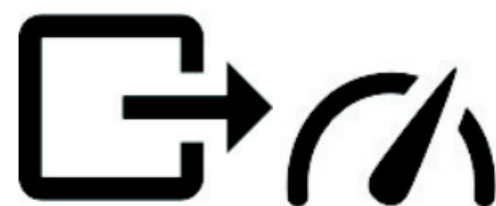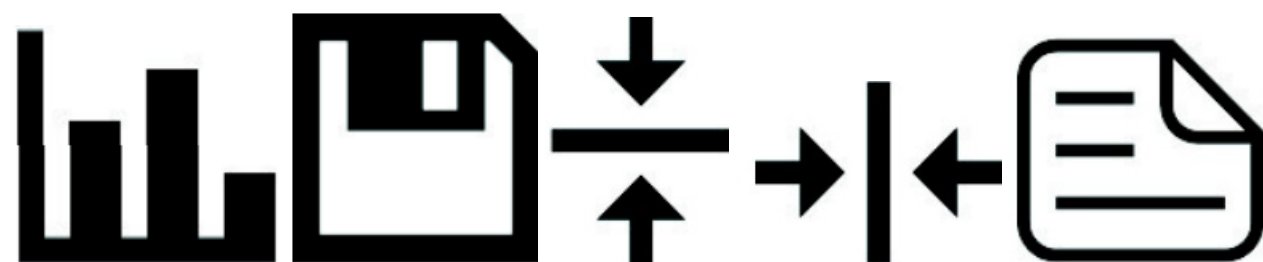
2. **Basic operation**

   The program window is divided into two main areas. On the left side, a list of "overview pages", data quick view, data logger, device pages, aquasuite web and aquasuite configuration is displayed, the right side shows the details of the currently selected list element. The list can be hidden or restored by clicking the arrow symbol in the upper left corner.
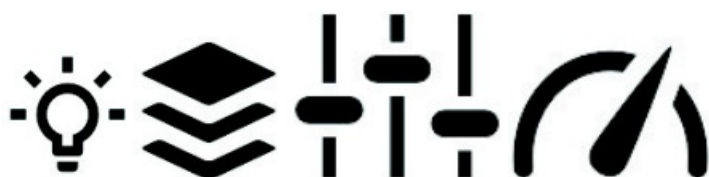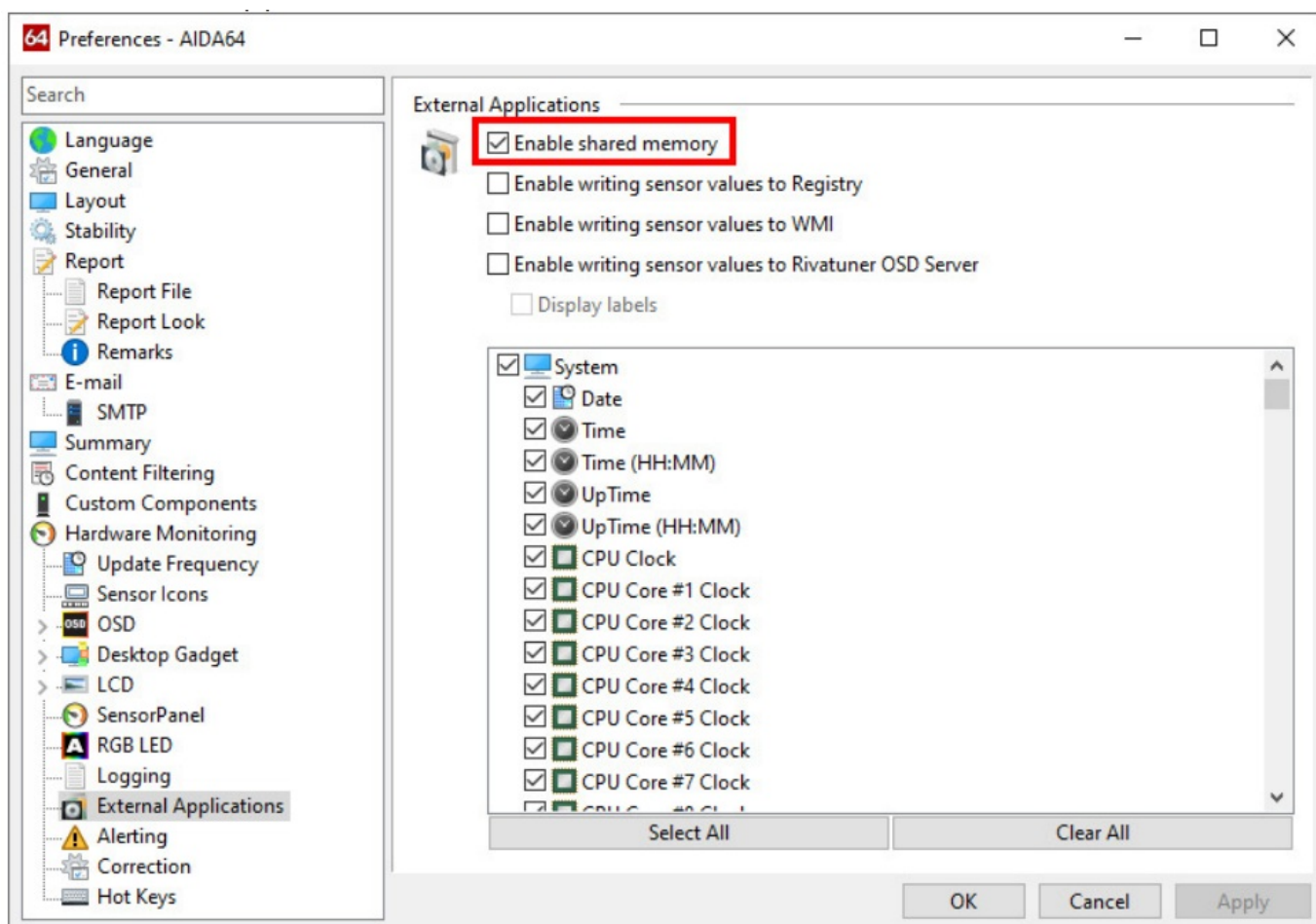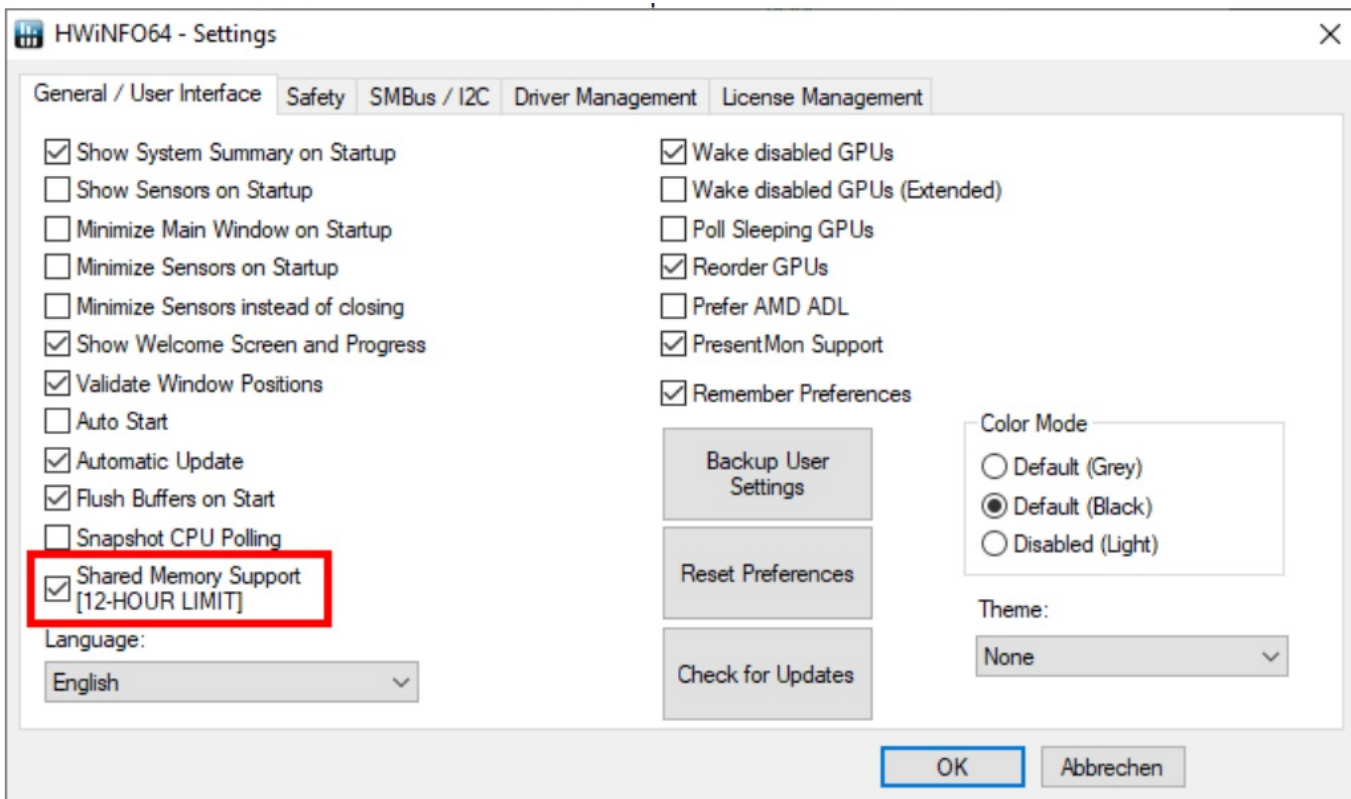
   List elements may be minimized or maximized for easier access by clicking the title bar. The title bars may contain various symbols that will be explained in the following chapter.
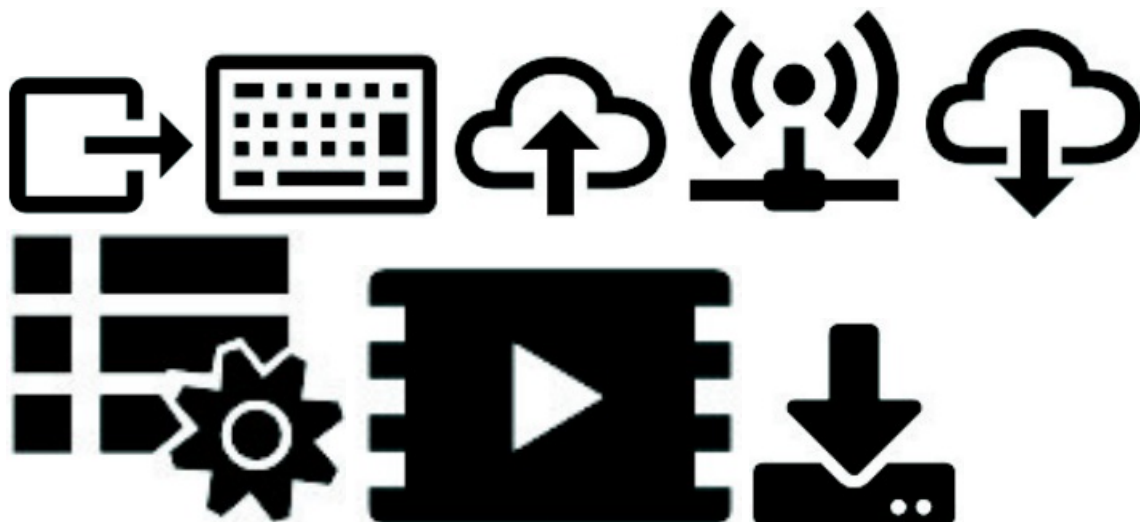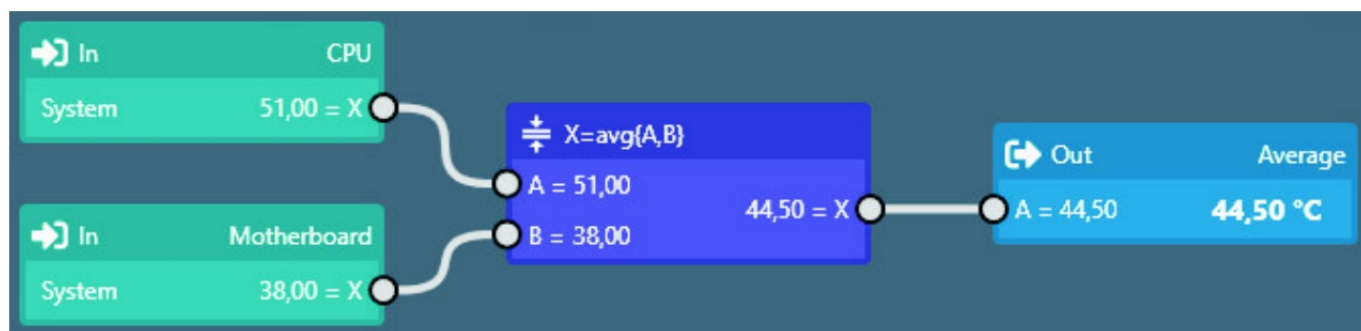
Bring to front

Layer up (+1)

Layer down (-1)

Send to background

Settings

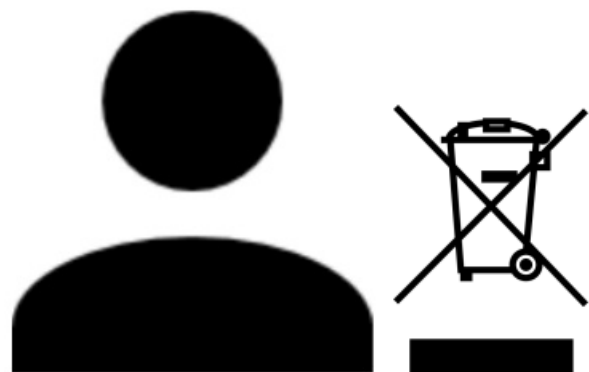Change data source

Export selected

Copy

Paste

Remove item

HWiNFO64 - Settings

General / User Interface | Safety | SMBus / I2C | Driver Management | License Management

- ☑ Show System Summary on Startup
- ☐ Show Sensors on Startup
- ☐ Minimize Main Window on Startup
- ☐ Minimize Sensors on Startup
- ☐ Minimize Sensors instead of closing
- ☑ Show Welcome Screen and Progress
- ☑ Validate Window Positions
- ☐ Auto Start
- ☑ Automatic Update
- ☑ Flush Buffers on Start
- ☐ Snapshot CPU Polling
- ☑ **Shared Memory Support [12-HOUR LIMIT]**

Language:

English

- ☑ Wake disabled GPUs
- ☐ Wake disabled GPUs (Extended)
- ☐ Poll Sleeping GPUs
- ☑ Reorder GPUs
- ☐ Prefer AMD ADL
- ☑ PresentMon Support
- ☑ Remember Preferences

Backup User Settings

Reset Preferences

Check for Updates

Color Mode
- ○ Default (Grey)
- ● Default (Black)
- ○ Disabled (Light)

Theme:

None

OK   Abbrechen

Preferences - AIDA64

Search

- 🌐 Language
- 🏭 General
- 🖥 Layout
- ⚙ Stability
- 📄 Report
  - 📄 Report File
  - 📝 Report Look
  - ℹ Remarks
- 📧 E-mail
  - 🖥 SMTP
- 🖥 Summary
- 📊 Content Filtering
- 📱 Custom Components
- 🌐 Hardware Monitoring
  - 🖥 Update Frequency
  - 🖥 Sensor Icons
  - OSD
  - 🖥 Desktop Gadget
  - 🖥 LCD
  - 🖥 SensorPanel
  - 🅰 RGB LED
  - 📄 Logging
  - 🖥 **External Applications**
  - ⚠ Alerting
  - 🏭 Correction
  - 🖥 Hot Keys

External Applications

- ☑ **Enable shared memory**
- ☐ Enable writing sensor values to Registry
- ☐ Enable writing sensor values to WMI
- ☐ Enable writing sensor values to Rivatuner OSD Server
  - ☐ Display labels

- ☑ 🖥 System
  - ☑ 🖥 Date
  - ☑ ⏰ Time
  - ☑ ⏰ Time (HH:MM)
  - ☑ ⏰ UpTime
  - ☑ ⏰ UpTime (HH:MM)
  - ☑ 🖥 CPU Clock
  - ☑ 🖥 CPU Core #1 Clock
  - ☑ 🖥 CPU Core #2 Clock
  - ☑ 🖥 CPU Core #3 Clock
  - ☑ 🖥 CPU Core #4 Clock
  - ☑ 🖥 CPU Core #5 Clock
  - ☑ 🖥 CPU Core #6 Clock
  - ☑ 🖥 CPU Core #7 Clock

Select All   **Clear All**

OK   Cancel   Apply

Add key

Key: DG27-7GNN-3NEE-H5HC

Assign key to the selected device

VISION   SN: 10313-00952

Update service valid until 01.06.2019

Register key

Documents / Resources

aqua computer Revision 2 Farbwerk [pdf] Installation Guide
Revision 2, Revision 8, Revision 2 Farbwerk, Revision 2, Farbwerk

References

- 🌐 **Computer News | Tests | Downloads | Shop | Computer.de**
- 64 **Home | AIDA64**
- 🌊 **Aqua Computer Homepage - Home**
- **User Manual**