DEWESoft®
measurement innovation

Watchdog User Guide

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DEWESoft d.o.o.
Gabrsko 11a, 1420 Trbovlje, Slovenia
www.dewesoft.com

support@dewesoft.com

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1. Revision history

Table 1: Revision history

Revision	Author	Date	Comment
1.0	Miloš Dimitrijević	25.09.2015	First release
1.1	Miloš Dimitrijević	25.09.2015	Small corrections
1.2	Aljaž Kropivšek	27.03.2017	Small corrections

2. Basic description

The Watchdog functionality enables an external way to monitor the behavior of the Dewesoft software.

To be able to use the watchdog a SIRIUS instrument with a Digital out is needed or when using a single instrument, the Sync signals can also be used. The instrument must be connected in order to set up the watchdog.

3. Settings

The watchdog is enabled within the Settings menu of each SIRIUS instrument.

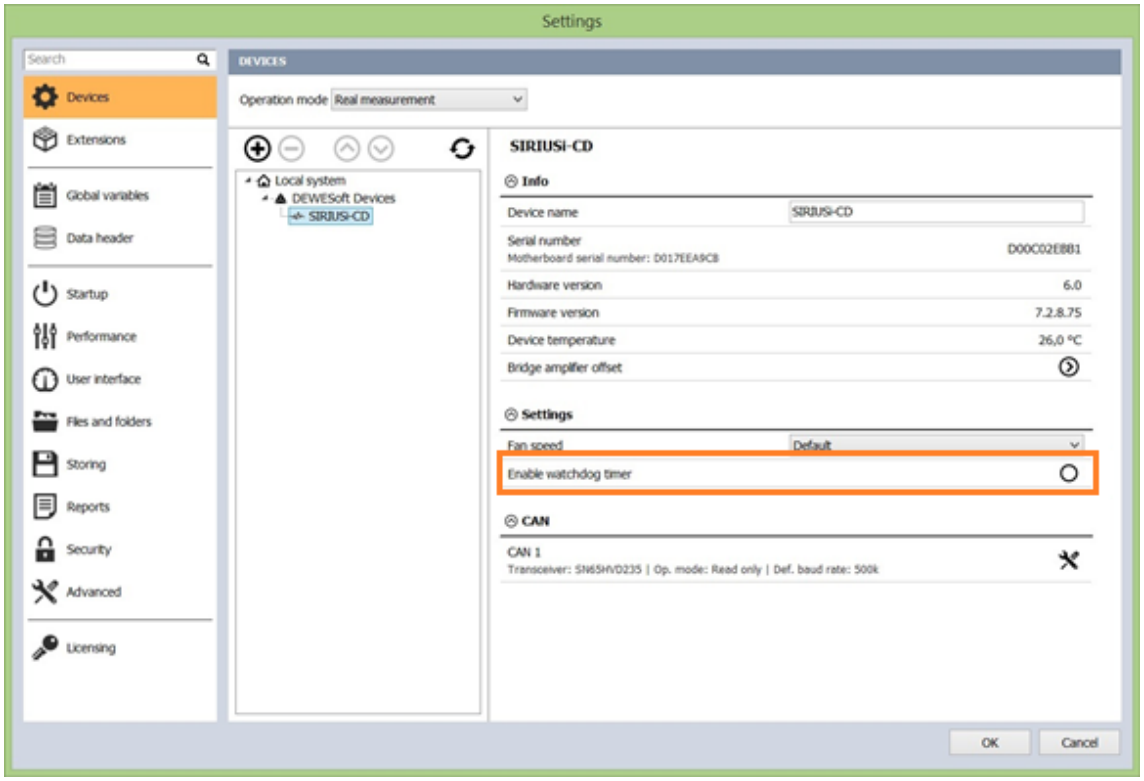

Figure 1: Enable watchdog timer

Once enabled, the output selection can be made. Default settings are:

- Digital output: Ctrl DO Clk
- Timeout : 2 sec
- Active in Ch. Setup : Not ticked

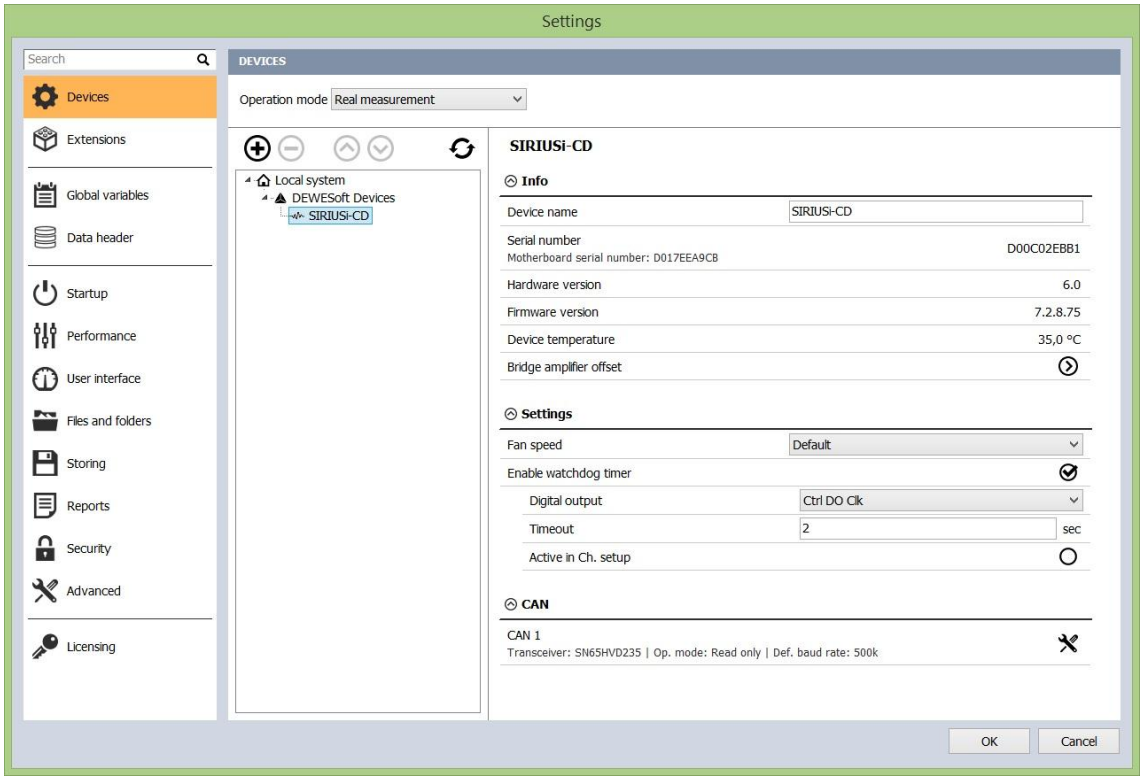

Figure 2: Default settings

Digital output menu selects on which digital output the watchdog functionality is enabled. When using the Watchdog module, which is connected to the SIRIUS instrument via a 25 pin cable, this selector should be set to Ctrl DO 1. **The watchdog can be only mapped to one digital output.**

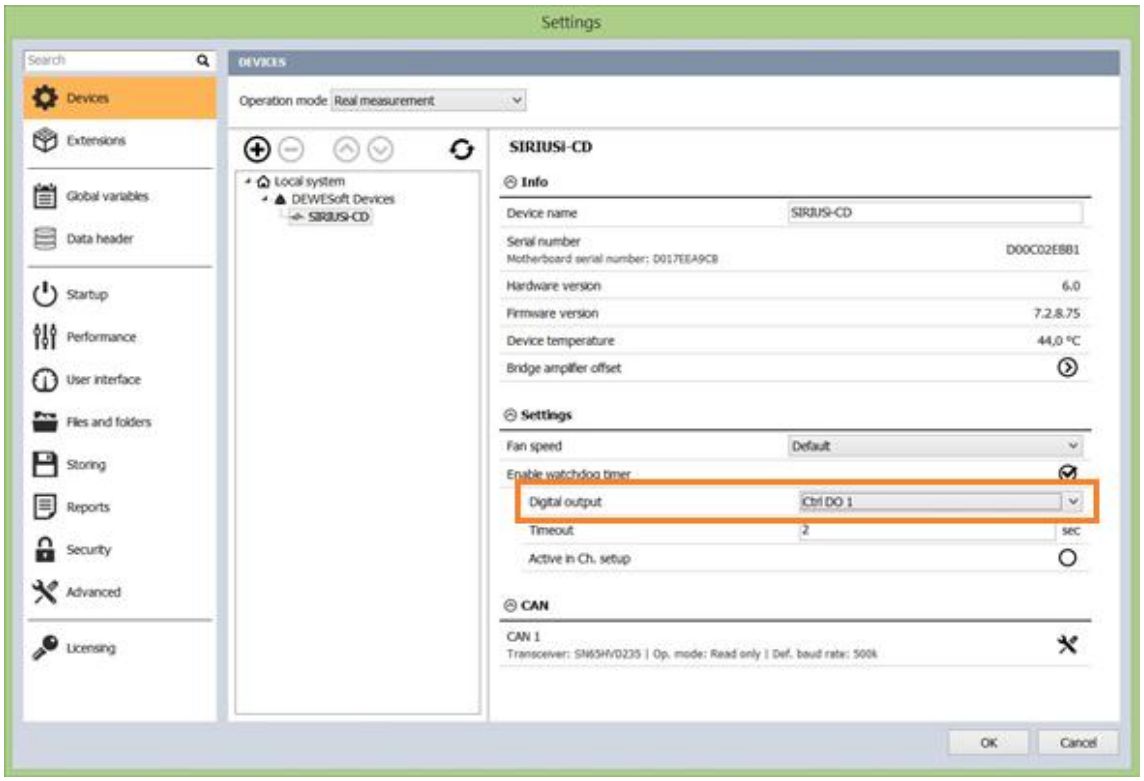

Figure 3: Digital output selection

The timeout value specifies the time in which the DEWESoft must reset the watchdog.

Active in Ch. Setup: if this is ticked, then the watchdog functionality is also active while in channel setup, otherwise the watchdog is only active in Measure mode.

The watchdog is not active while in Analysis mode.

4. Behavior of the watchdog module

The watchdog behavior is as follows:

- When the instrument is powered up, the module is in Alarm state (Watchdog LED is **RED**).
- When DEWESoft is started and no watchdog functionality was set for the instrument in a previous session the LED light is **RED.**
- When the watchdog functionality is set, the following occurs:
    - Active in Ch. Setup is not set: The watchdog LED light is **RED** until the user switches to Measure mode; then the watchdog LED is **GREEN**. When switching back to channel setup mode the LED turns back to **RED**.
    - Active in Ch. Setup is set: The watchdog LED light is **GREEN** in both Channel setup and in Measure mode.
- When disconnecting the instrument from USB or turning off DEWESoft software the watchdog will trigger (after the preset time in case of disconnect or computer/software freeze or immediately when exiting DEWESoft). The LED light will turn **RED.**

The watchdog module itself has 3 additional outputs which are user controlled via the A/D module. The respective A/D outputs are CTRL DO 2, CTRL DO 3 and CTRL DO 4.

All four outputs are relay based with a possibility to connect with a NO (Normally open) or NC (Normally closed) position.

When the watchdog has triggered or upon power up the watchdog relay is not energized – meaning that the NO position is OPEN and the NC position is SHORTED.