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## **Configurator manual for ThermalCapture**

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# 1 Configuration of ThermalCapture devices

ThermalCapture devices are configured using ThermalCapture configuration tool, which is available here: <http://thermalcapture.com/thermalcapture-configurator>

Please note that depending on your device not all options are available.

## 1.1 General Use

ThermalCapture configuration software is a PC based program to configure your ThermalCapture.

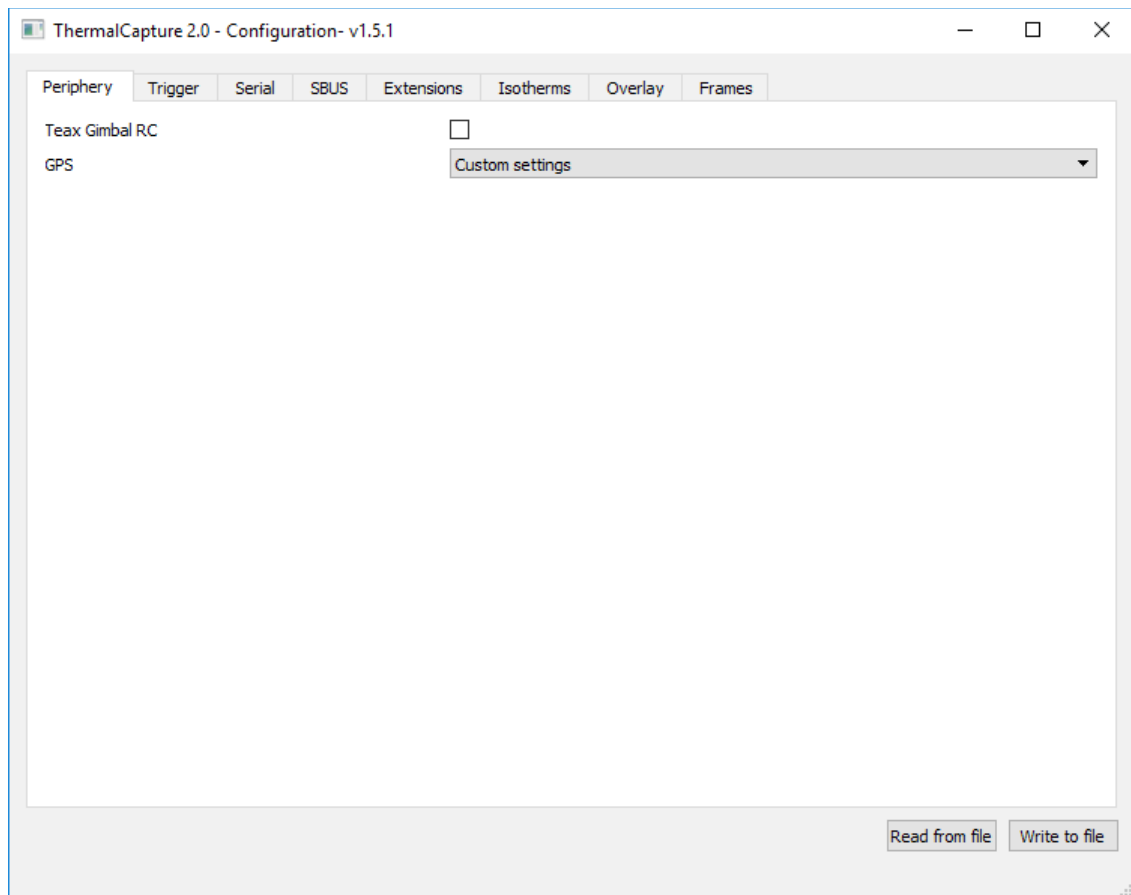
- **Button Read Configuration:** By pressing this button the current settings are read from your device and shown in the GUI.
- **Button Write Configuration:** This button transmits the current configuration to the connected device.

## 1.2 *Periphery*

*Periphery* tab allows easy access to preconfigured settings for various devices:

- TeAx Gimbal RC
- ThermalCapture GPS Receiver - based on u-blox 6 SuperSense® chipset
- ThermalCapture GPS Receiver - based on u-blox 8 Multi GNSS UBX-M8030-KT chipset

Please check the appropriate options to have all parameters setup automatically. If you are using your own remote control solutions and/or geo-tagging devices, please use custom settings here.



## 1.2.1 Trigger

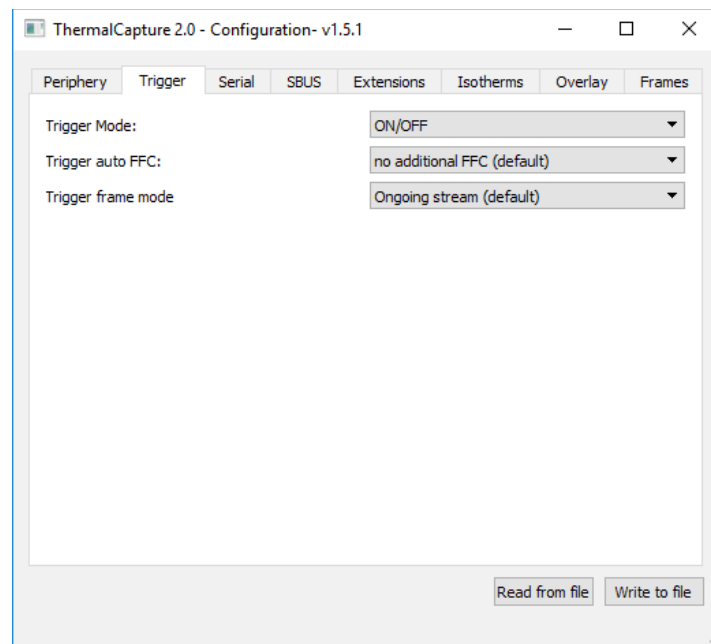
This tab controls the way ThermalCapture interprets signals connected to the trigger input.

Using **Trigger Mode**, ThermalCapture can be configured to your type of trigger signal. The following choices are possible:

- ON/OFF
- SBUS
- Serial input
- PWM
- PWM (inverted signal)

**Trigger auto FFC** ThermalCapture can be configured to enforce a flat field correction every time a recording is started.

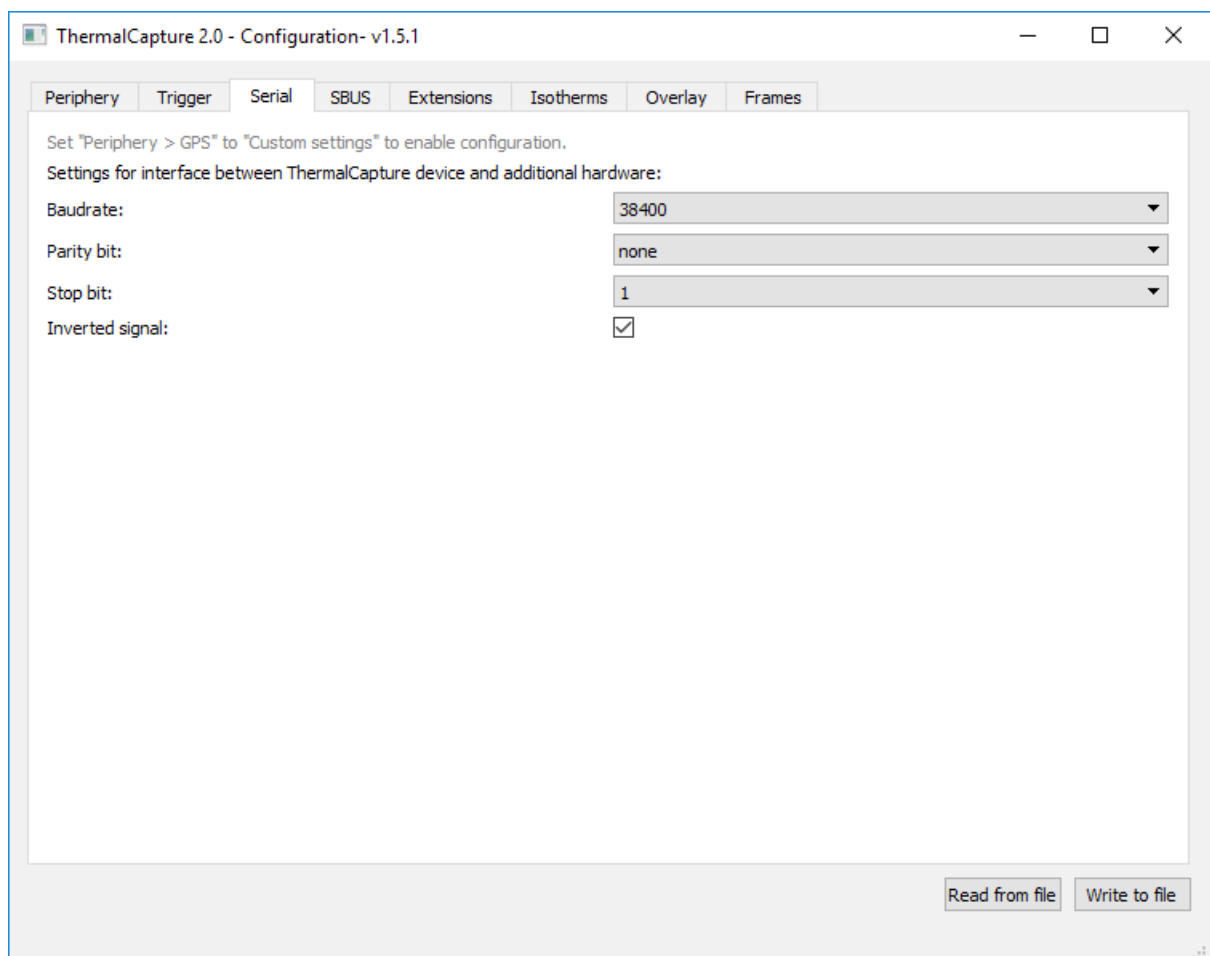
**Trigger frame mode** ThermalCapture can be configured to record an ongoing stream of images or just one single frame when recording is started.



## 1.2.2 Serial interface

If a serial input is used, it needs to be configured for a specific data source. ThermalCapture Fusion is delivered together with a configuration software to set up this serial interface. This chapter describes how to use the TC-Configurator software.

If ThermalCapture Fusion is used together with the official TeAx GPS receiver no configuration file is needed. ThermalCapture Fusion comes pre-configured for this add-on.



Settings for the serial interface are communicated to ThermalCapture Fusion by generating a configuration file and saving it onto the sd card, which is used for picture storage. This file contains information about the Baudrate, Parity Bit-, Stop Bit- and Inversion-settings. These settings must match with the settings of the connected hardware.

- Supported Baudrates range from 1200 to 115200
- Parity can be set to “none”, “odd”, or “even”
- 1 or 2 Stop bits
- Inverted signal check box determines, if inversion is active or not

Required settings for TeAx GPS receiver are the following ones:

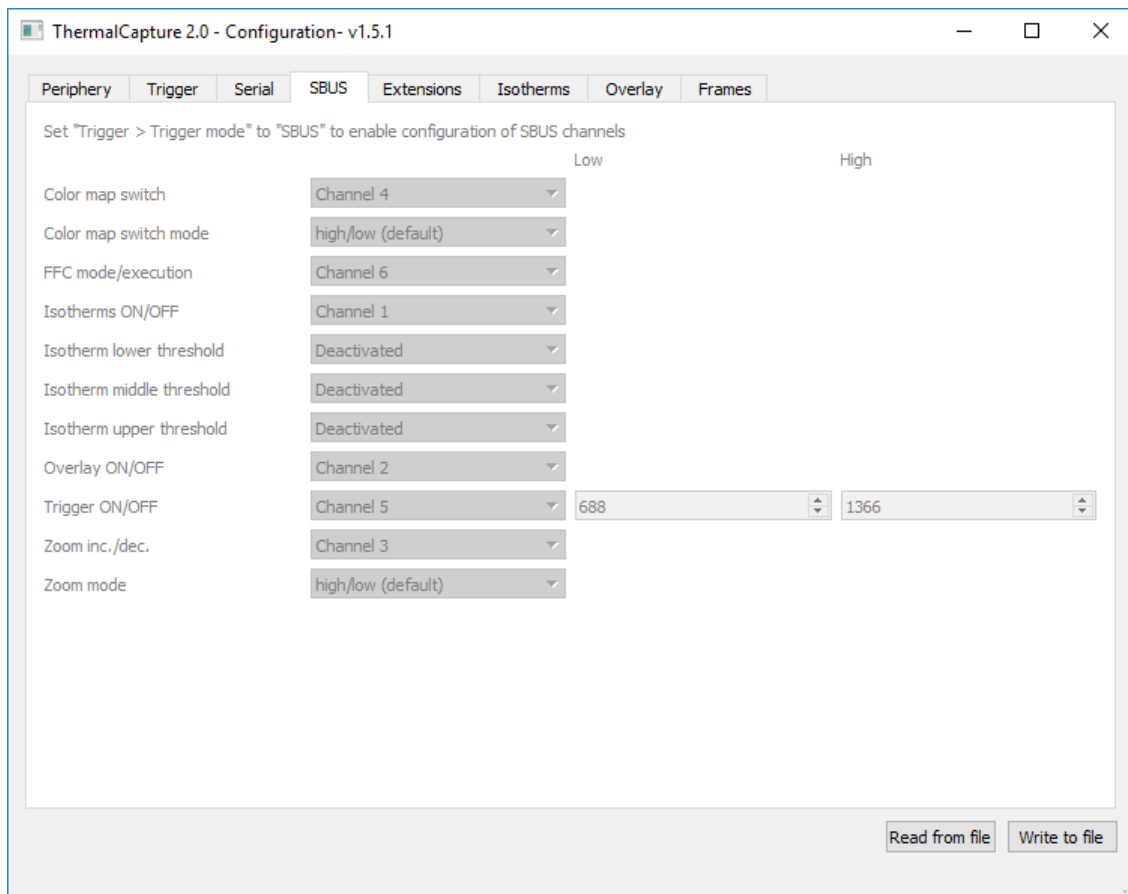
Baudrate: 9600  
Parity bit: none  
Stop bit: 1  
Inverted signal: yes

ThermalCapture comes preconfigured with this settings. They only have to be re-applied if changed before.

### 1.2.3 SBUS configuration

ThermalCapture can be controlled via SBUS. Adjustable features are the following:

- Color-palette for live video
- FFC mode/execution: Switch between Auto/manual and enforced execution of a FFC.
- Isotherms activated/deactivated the isotherms in live video
- Isotherms thresholds changes the lower/middle/upper thresholds of the isotherms.
- Activate/Deactivate overlay of hotspot marker in live video
- Trigger Start/Stop/Single recording. Switch between ongoing stream, stop recording and single frame capture. In stream mode the trigger starts/stops recording. In single frame mode a single frame is recorded when the trigger is started.
- Digital zoom level in live video



For each feature a single SBUS channel can be assigned.

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### **1.2.4 Extensions**

The two extension lines of ThermalCapture can be configured for specific tasks. Currently its possible to synchronize several ThermalCapture modules via expansion line 1 and enforce an FFC event via line 0. Please contact us before using this feature.

### **1.2.5 Isotherms**

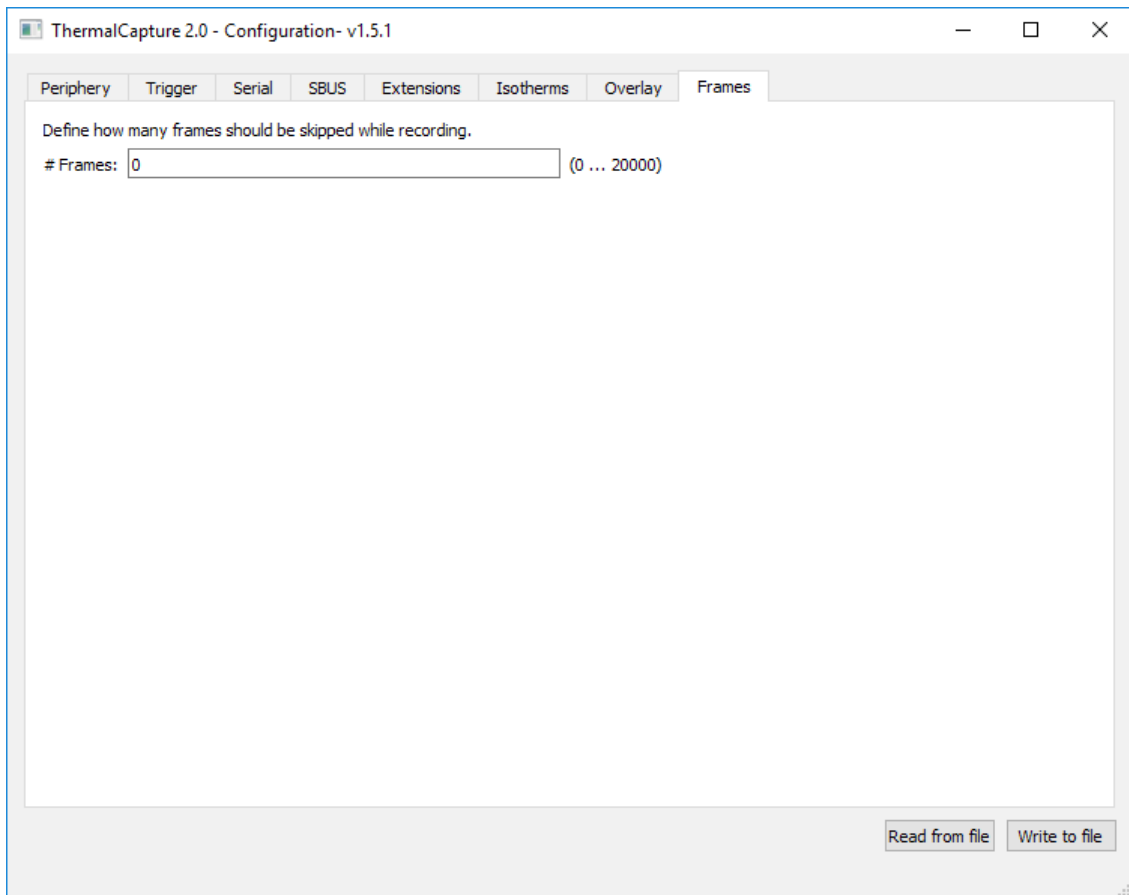
The isotherms mode for live view can be configured in this screen. In can be activated/deactivated and the default lower/middle/upper thresholds can be configured.

### **1.2.6 Overlay**

The overlay function can be configured to be automatically on upon startup.

## 1.2.7 Frame skip

For some applications it may not be necessary to record all frames coming from the Tau Core in order to reduce the amount of data in post-processing steps. Therefore it is possible to chose the amount of frames that should be skipped between each recording.



The Tau Core delivers frames with 8.33Hz in the not export restricted versions. If a recording frame rate of approximately 1Hz is desired a value of 7 skipped frames does exactly this. The result is 1 frame gets recorded; the next 7 frames are discarded; 1 frame is recorded; and so on.

This parameter is also useful if only one frame should be recorded with each trigger event. If for example the trigger is activated automatically by the waypoint functionality of the UAV, this parameter should be set to a number  $> 10$ . That ensures that even, if the UAV activates the trigger for 1 second, only one frame is stored. The number can be set even higher, because the counter is reset with every new trigger event.

## 2 Contact

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Phone: +49 2737 2182460

WEEE: DE47944405

Please provide the following information about the device when you make an inquiry:

- Name and manufacturer of your system
- Item and serial no. of the product

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