



Calibration User Guide

Contents

1	Introduction	3
2	Self Calibration Process	3

1 Introduction

The TempTrack® standard temperature sensors are digital microprocessors (factory rated at +/- 0.5 °C accuracy) and retains it's accuracy within +/- 0.2 °C during it's lifespan. The temperature reading is passed along the sensor cable as a digital value and as such, neither the sensor cable nor logger affects the temperature reading.

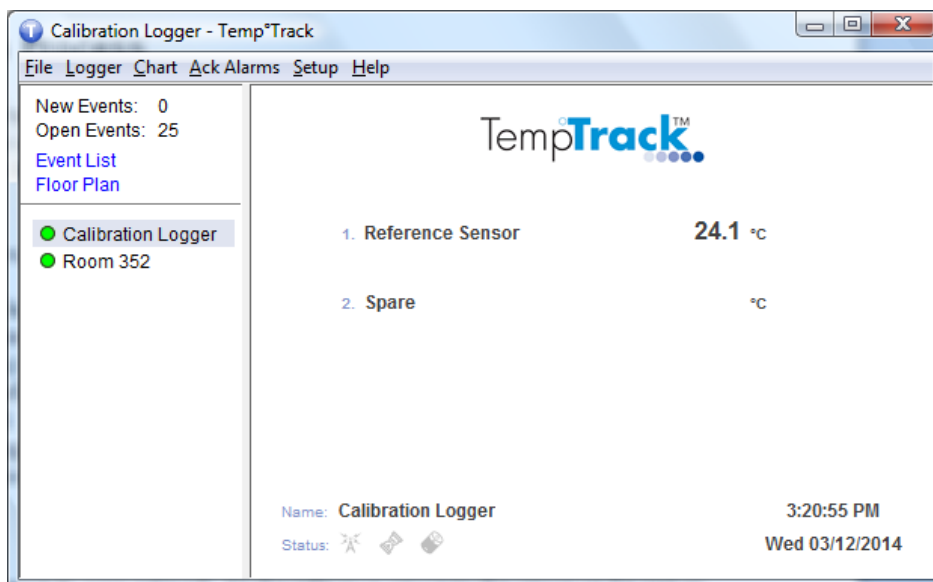
Whilst the sensors will retain it's accuracy, quality audit processes may require that the sensors are checked against a reference sensor periodically. The TempTrack® system was designed to enable customers to perform self calibration to minimize ongoing calibration costs.

2 Self Calibration Process

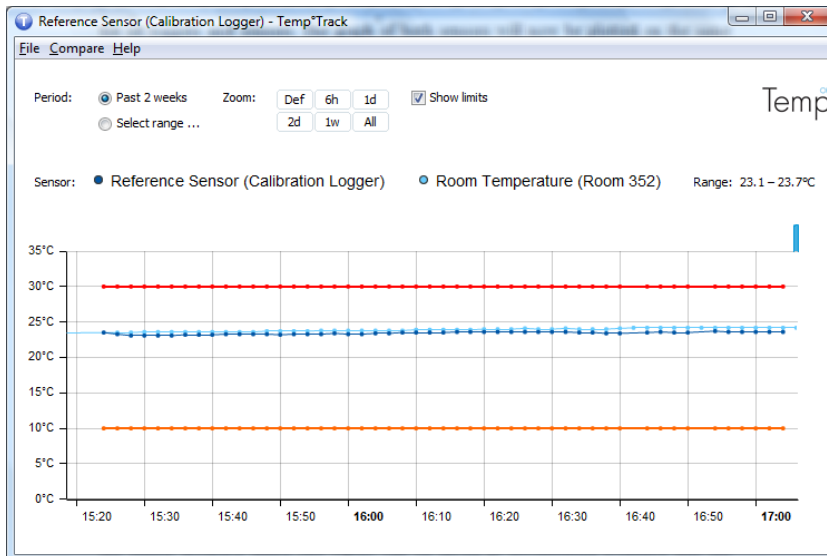
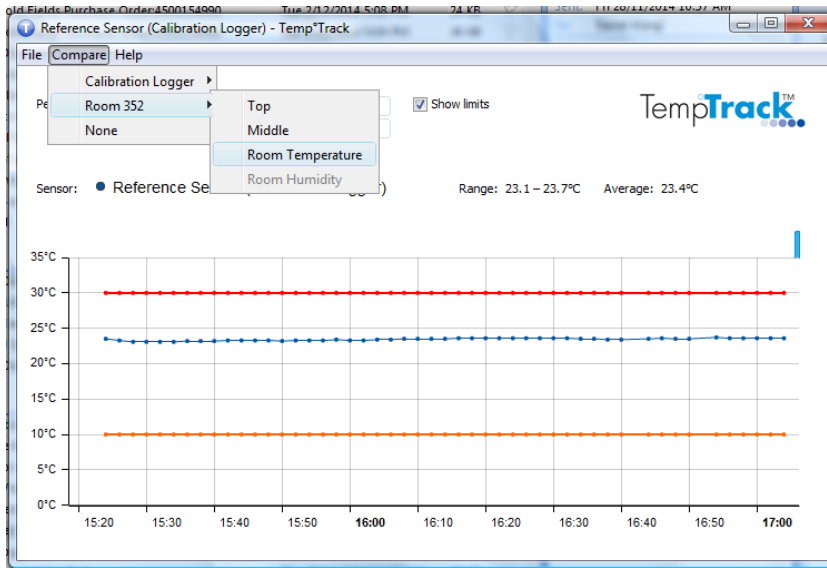
The TempTrack® software charting function has a Compare feature which allows two sets of sensor data to be plotted on the same graph. This allows data from a reference sensor and the sensor under test to be plotted which can then be signed off as proof of calibration.

The process for self calibration of sensors are as follows;

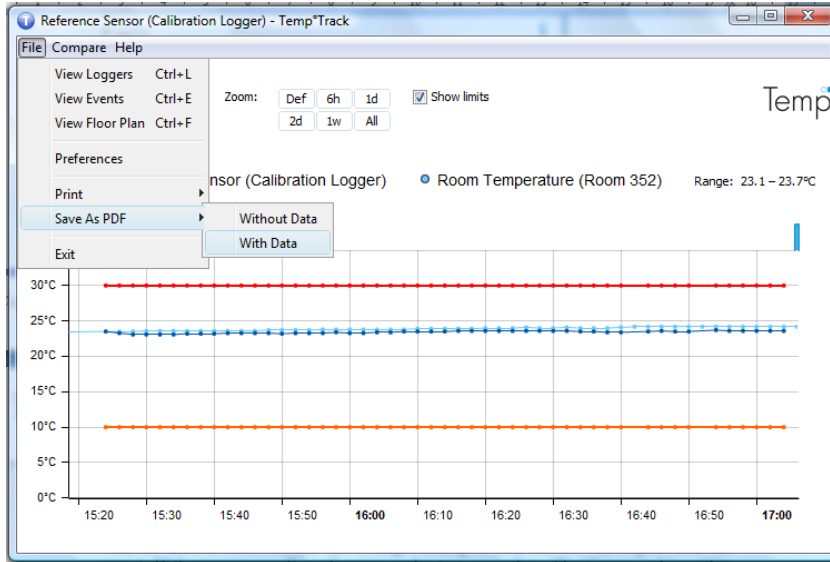
1. Obtain a NATA calibrated reference sensor with NATA certification. This can be purchased or rented through your TempTrack® system supplier.
2. If your logger(s) have a spare sensor channel, assign the sensor name as "Reference Sensor". The reference sensor can then be plugged into this channel for calibration purposes. If all channels on the loggers are used, assign a new logger named "Calibration Logger" with sensor name "Reference Sensor" to your system. This new logger can be purchased or rented through your TempTrack® system supplier.



3. To calibrate a sensor in your network, tie the reference sensor to the sensor under test so that both sensors are touching. This ensures that both sensors will be detecting the same temperature.
4. Set the logging interval of the reference sensor and the sensor under test to a high frequency, eg every 2 minutes, and allow the sensors to settle for 30 minutes. Log the temperature for both sensors for a minimum of 2 hours and ensure that the temperature is constant during this period, eg if calibrating a fridge sensor ensure that fridge door is not opened and closed during this period.
5. Plot the graph of the Reference sensor and zoom in to the desired monitoring period using the slider bar. Click on the Compare tab and select the sensor under test from the list of loggers and sensors. The graph of both sensors will now be plotted on the same chart.



- From the File tab select Save as PDF, With Data option.



- A PDF report will be produced with the data of both sensors. The average reading of both sensors will be printed in the report. If the average reading of the sensor under test over the calibration period is within the sensor accuracy limits this report can be saved as documented evidence that the sensor under test has been tested against a NATA calibrated reference sensor and has been found to be within specified accuracy.

Sensor Chart



Wed 03/12/2014 3:18 PM – Wed 03/12/2014 5:06 PM

Reference Sensor (Calibration Logger) PRIMARY

Type: Temperature (°C) Site:
 Min.: 23.1°C Location:
 Max.: 23.7°C
 Avg.: 23.4°C

Room Temperature (Room 352) SECONDARY

Type: Temperature (°C) Site: test
 Min.: 23.4°C Location: testsite
 Max.: 24.2°C
 Avg.: 23.9°C

Sensor Chart

