CONTEMP

Manual

CONTEMP

Concrete Temperature & Maturity Monitoring Solution

Hardware

White Sensor

Black Sensor

Durable Waterproof Transmitter

4 x AA

4 x AA Batteries
Included with Accessory Pack
Alarm will be sent for Low Battery

Optional: NIST Certification

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CONTEMP is the reliable, economical and environmentally friendly solution to monitor a Mass Concrete Pour. No costly sacrificial loggers, hidden fees or subscriptions. CONTEMP's patented alarm based system safeguards your thermal control plan.

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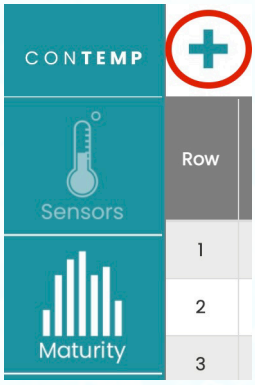
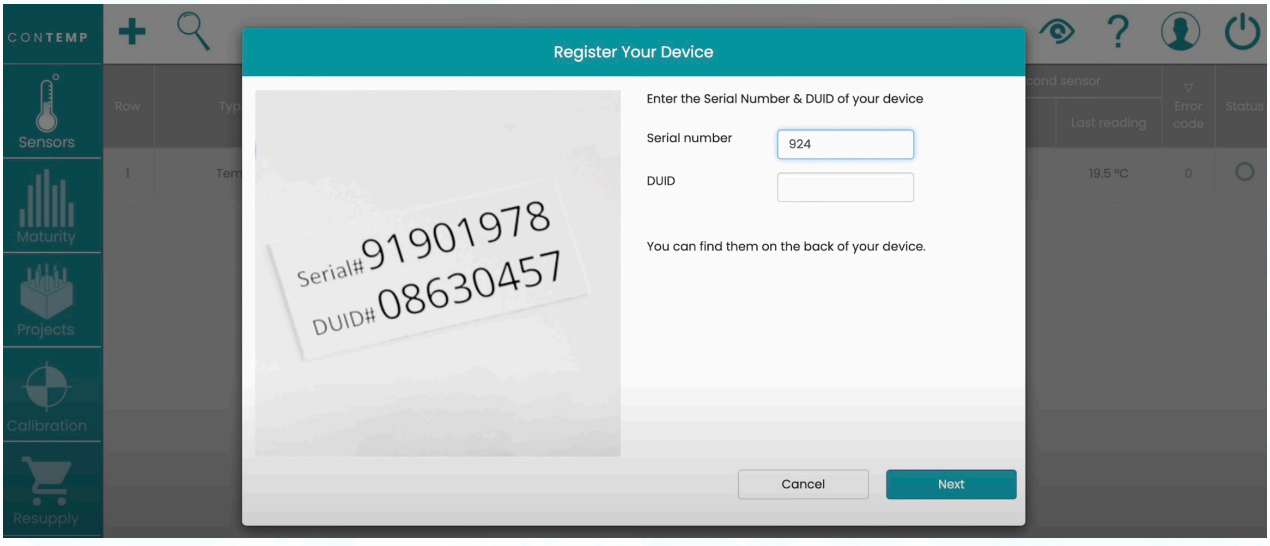
Registration Wizard

To get started visit app.contemp.live and register an account

Login to your account and select the '+' to register your device.



Enter the Serial Number and DUID that came with the device and click next to continue the Start-Up Wizard.



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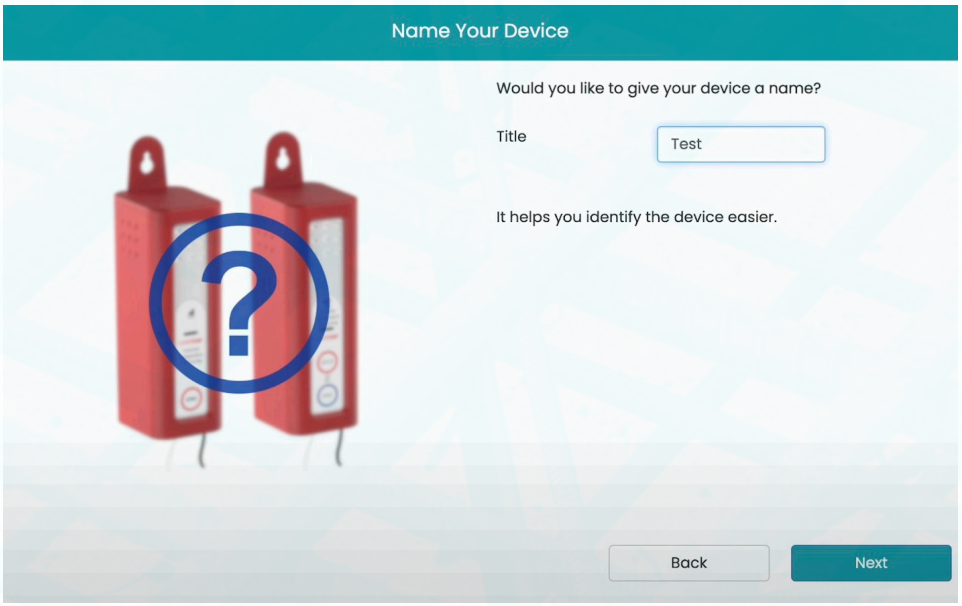
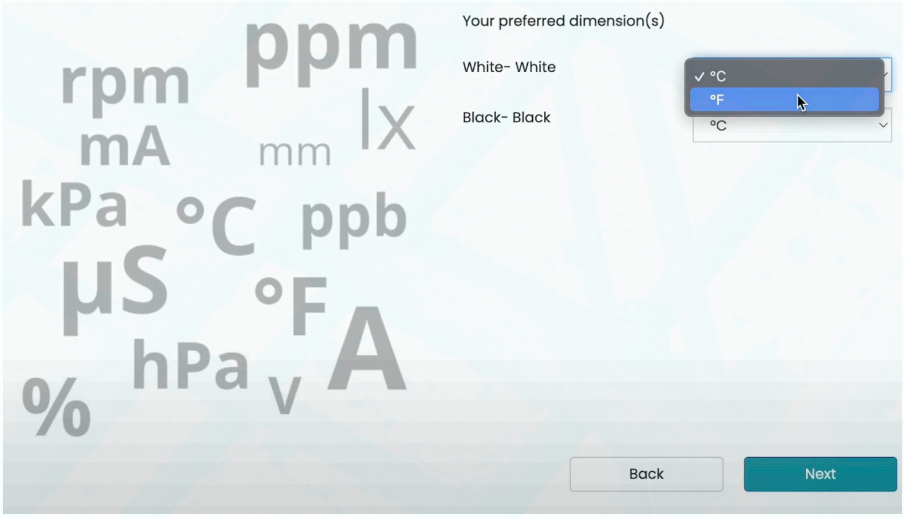
Name your CONTEMP Device.

Proper Nomenclature will assist with keeping your projects organized.

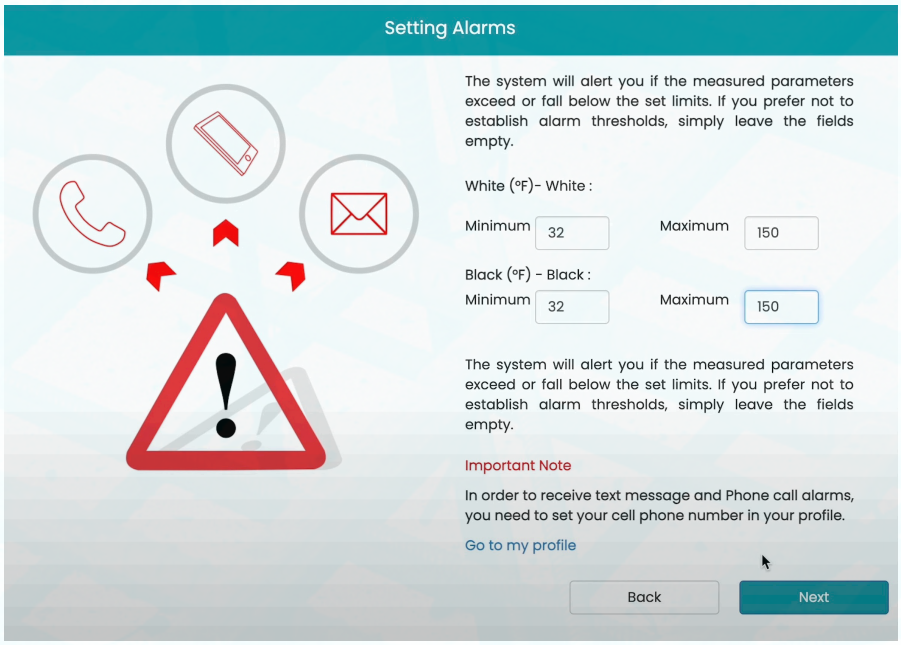


Set the device for C° or F°

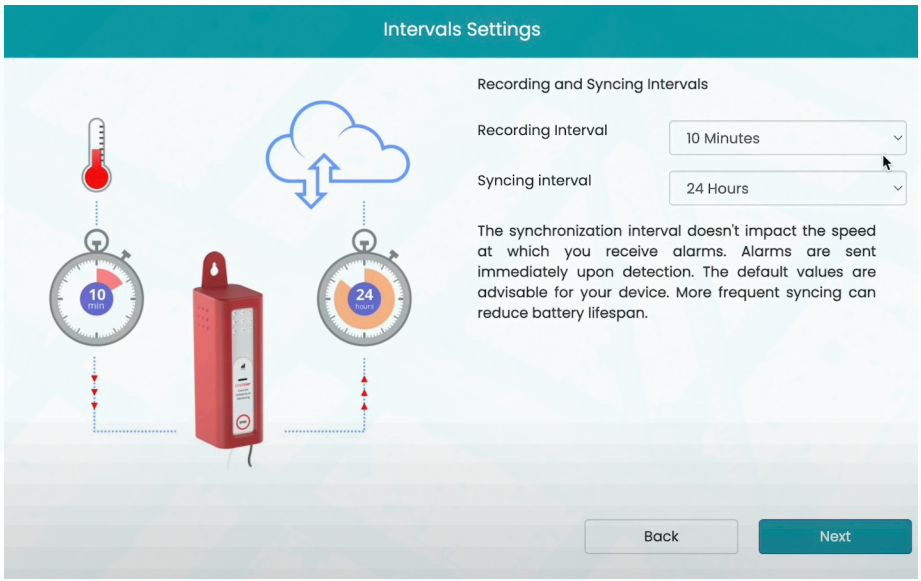


CONTEMP is driven by alarms. When an alarm is triggered, you will be immediately notified.

Set a min/max alarm for each channel



Set your logging intervals
(Recommended: Recording - 15 min & Syncing - 6 Hours



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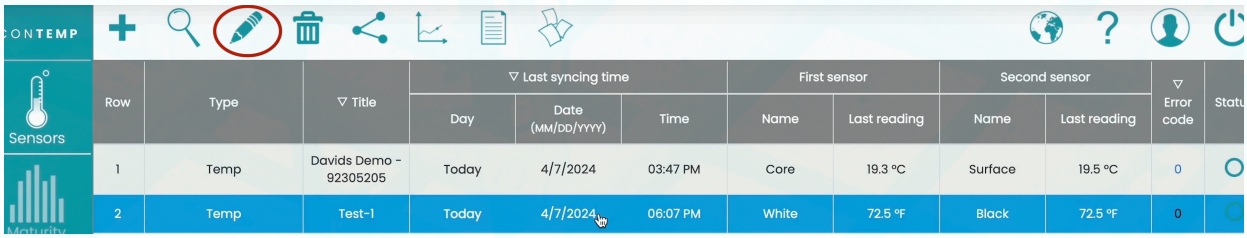
Configure your Device

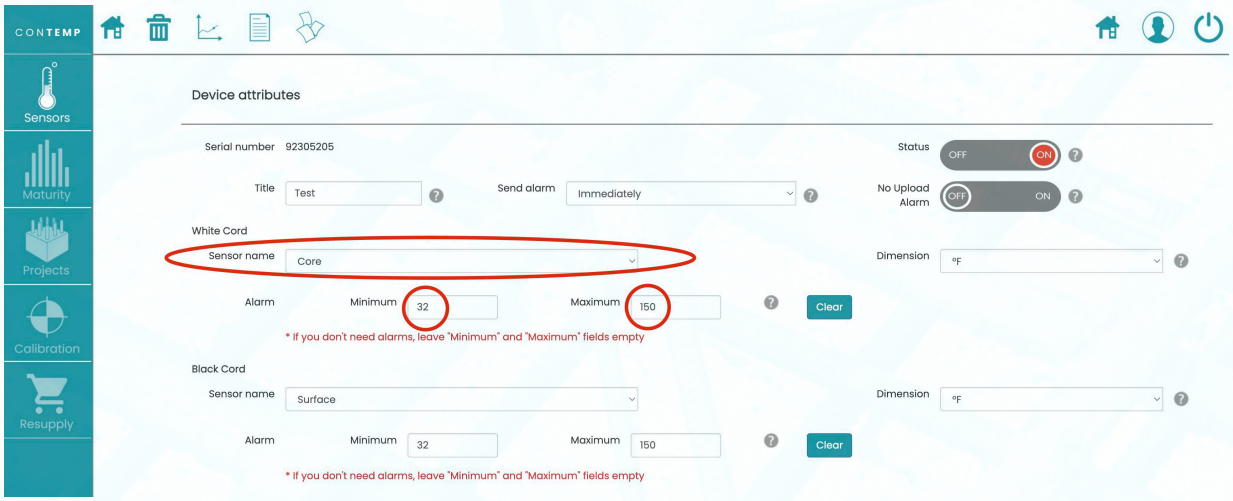
The new Logger should be listed on the dashboard.

Select the Pencil Icon from the top Menu bar to Edit the settings on the device.



Row	Type	▽ Title	▽ Last syncing time			First sensor		Second sensor		▽ Error code	Statu
			Day	Date (MM/DD/YYYY)	Time	Name	Last reading	Name	Last reading		
1	Temp	Davids Demo - 92305205	Today	4/7/2024	03:47 PM	Core	19.3 °C	Surface	19.5 °C	0	
2	Temp	Test-1	Today	4/7/2024	06:07 PM	White	72.5 °F	Black	72.5 °F	0	

Name each channel and ensure the Min/Max alarms you set during the wizard are correct



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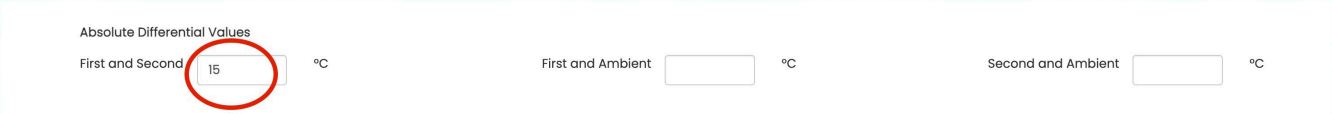
Differential Alarm

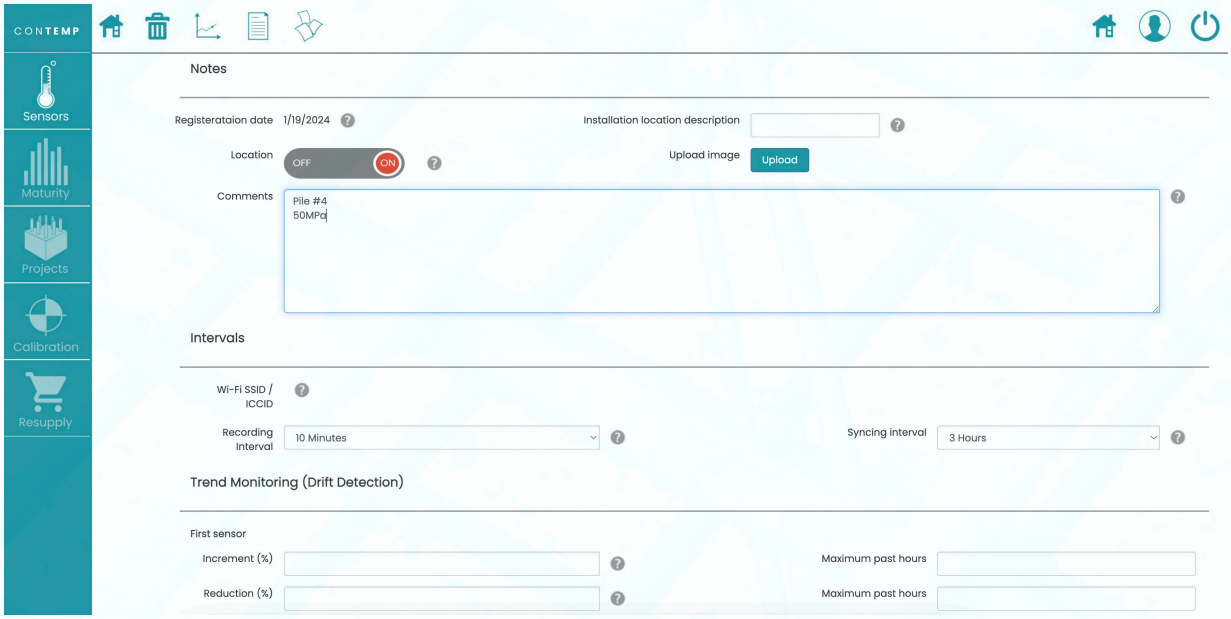
During the monitoring of Mass Concrete, a sensor is typically placed at the core and near a surface. There are often specifications citing a 68°F / 20°C differential cannot be exceeded to ensure proper curing.

You may want to receive an alarm when a 59°F/ 15°C differential is exceeded between Channel 1 and Channel 2, allowing you an opportunity to proactively manage it (ie/heaters).



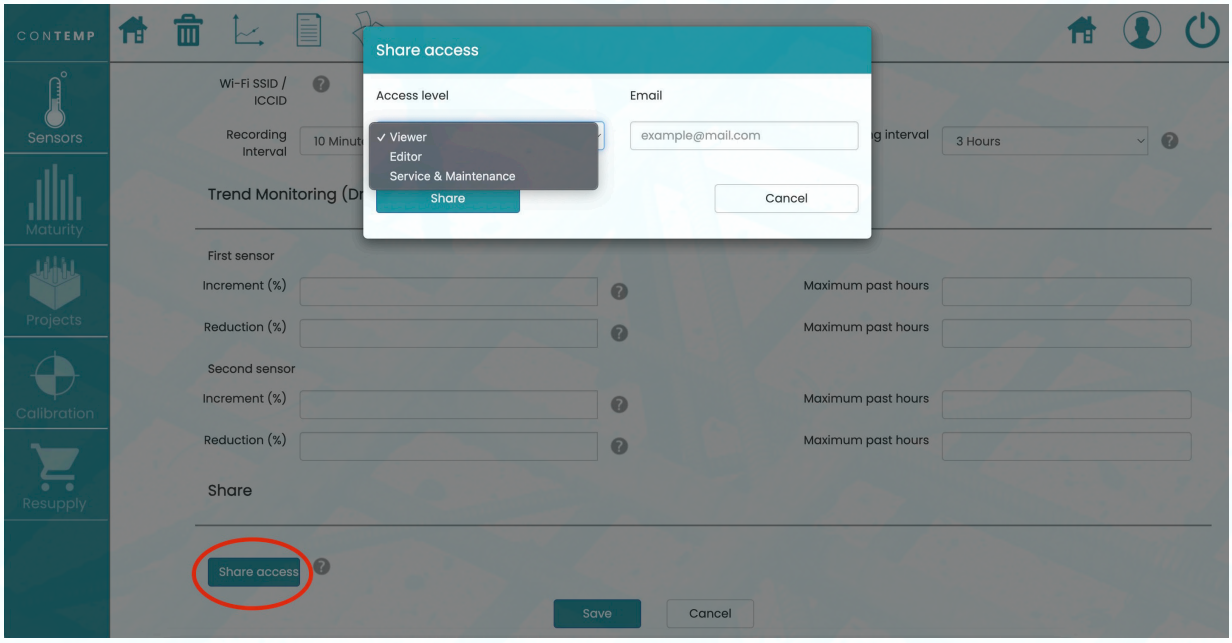
You can leave notes or take/upload a picture.

Intervals - Recording and Syncing frequency affect battery life. We suggest taking a reading every 15 minutes and syncing every 6 hours. If your alarms are triggered, the device will automatically sync and immediately send you the notification. If batteries are getting low, you will be sent an alarm.



Trend Monitoring - Allows you to set an alarm for a Percentage of Change.

Share Access - Allows you to share data with different levels of permissions with people in and outside your organization.

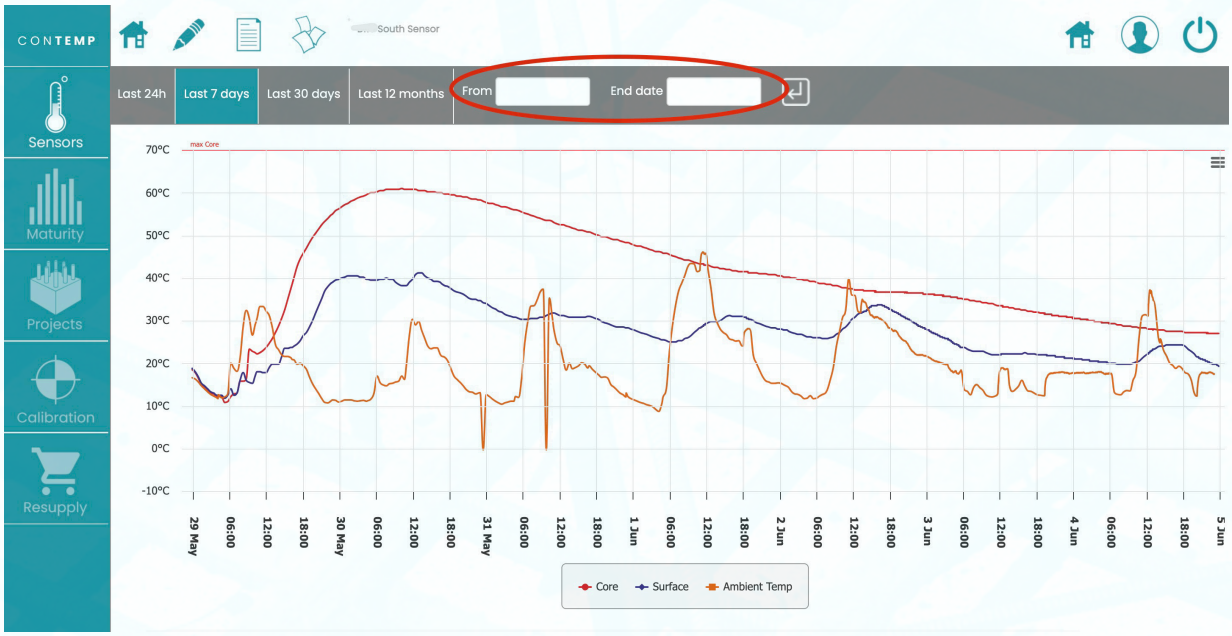


You can also share data from your logger using the share icon on the top menu bar.

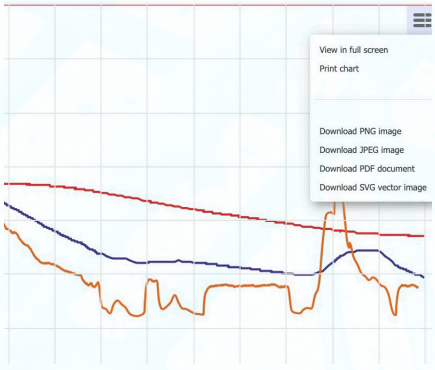
Graphical Data

To view the data graphically, select a logger and then the graph from the top menu.

You can view specific time periods:



Or export in different formats.



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View Data

To view the Raw Data, select the 'Details' icon from the Top Menu.

This is how the raw data is displayed:

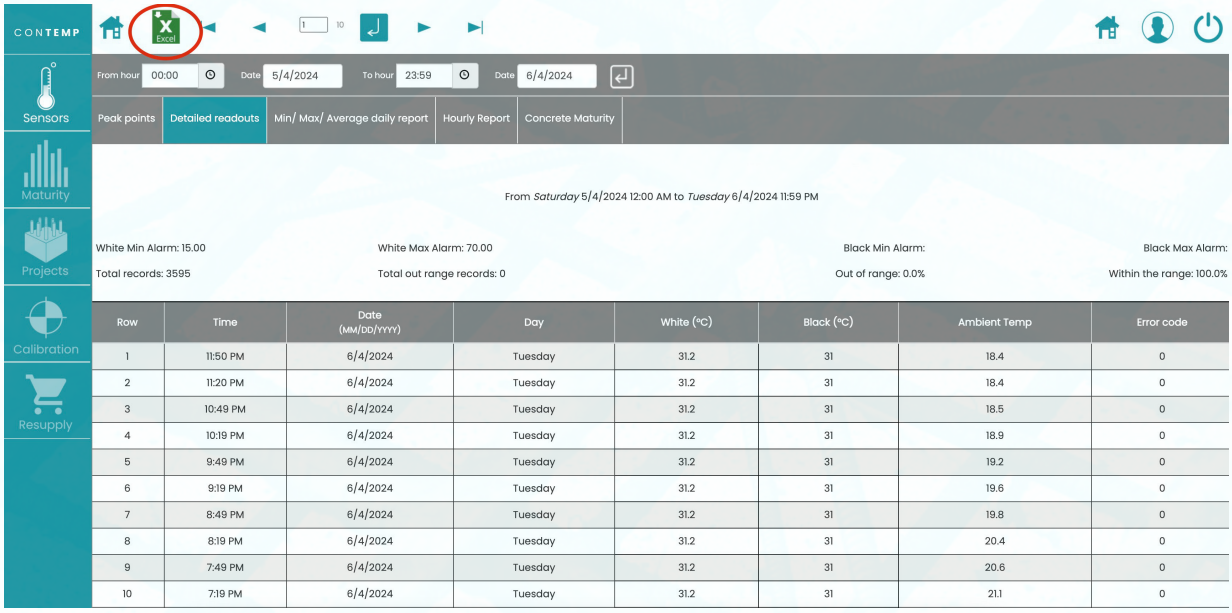
Row	Day	Date (MM/DD/YYYY)	Time	Core (°C)	Surface (°C)	Sensors difference - °C	Ambient Temp (°C)	Error
1	Tuesday	6/4/2024	09:50 PM	28.7	23.5	5.2	15.4	No error
2	Tuesday	6/4/2024	09:49 PM	28.7	23.5	5.2	14.6	No error
3	Tuesday	6/4/2024	09:48 PM	28.7	23.5	5.2	14.6	No error
4	Tuesday	6/4/2024	09:48 PM	28.7	23.5	5.2	13.6	No error
5	Tuesday	6/4/2024	09:47 PM	28.7	23.5	5.2	13.6	No error
6	Tuesday	6/4/2024	09:47 PM	28.7	23.5	5.2	12.8	No error
7	Tuesday	6/4/2024	09:46 PM	28.7	23.5	5.2	12.8	No error
8	Tuesday	6/4/2024	09:27 PM	28.7	23.7	5	19.4	No error
9	Tuesday	6/4/2024	09:26 PM	28.7	23.7	5	19.4	No error
10	Tuesday	6/4/2024	09:26 PM	28.7	23.7	5	19.5	No error

Reports

The last tab on the top menu is the Reports tab.

There are various reports and ways to view the data.

This is also where you can export all of the raw data to Excel.

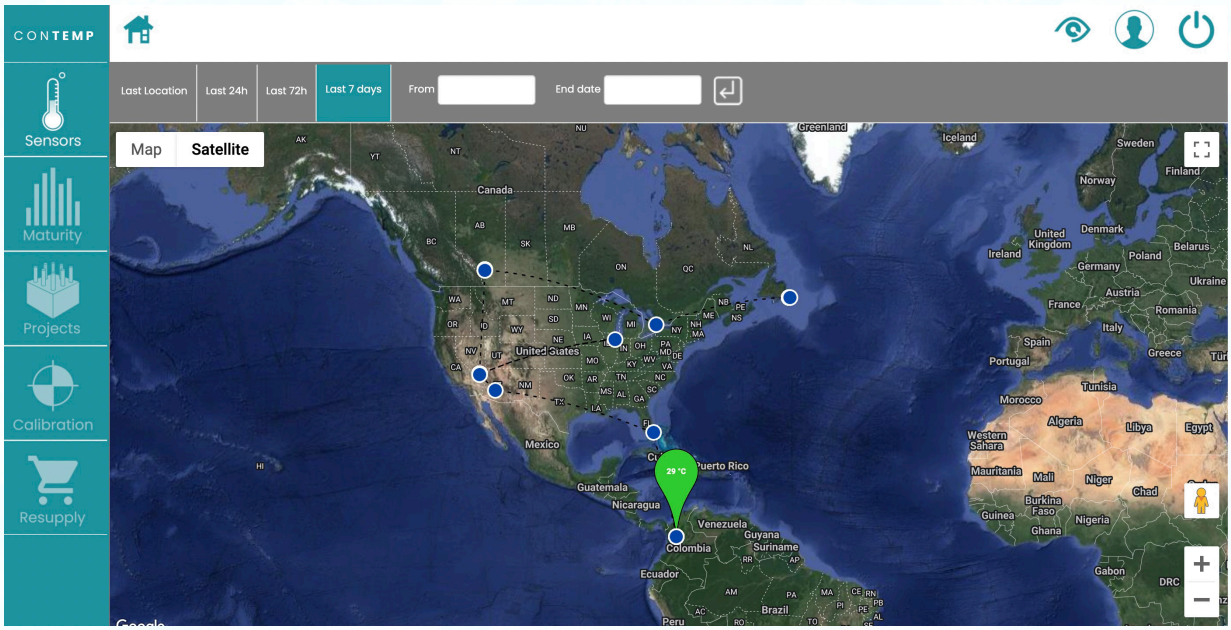


Row	Time	Date (MM/DD/YYYY)	Day	White (°C)	Black (°C)	Ambient Temp	Error code
1	11:50 PM	6/4/2024	Tuesday	31.2	31	18.4	0
2	11:20 PM	6/4/2024	Tuesday	31.2	31	18.4	0
3	10:49 PM	6/4/2024	Tuesday	31.2	31	18.5	0
4	10:19 PM	6/4/2024	Tuesday	31.2	31	18.9	0
5	9:49 PM	6/4/2024	Tuesday	31.2	31	19.2	0
6	9:19 PM	6/4/2024	Tuesday	31.2	31	19.6	0
7	8:49 PM	6/4/2024	Tuesday	31.2	31	19.8	0
8	8:19 PM	6/4/2024	Tuesday	31.2	31	20.4	0
9	7:49 PM	6/4/2024	Tuesday	31.2	31	20.6	0
10	7:19 PM	6/4/2024	Tuesday	31.2	31	21.1	0

Geolocating

Select a sensor and select the 'Globe' icon on the top right menu.

You can now view the approximate location of the logger on google maps.



View Photo

Select a sensor that has a photo uploaded. Click the 'Eye' icon on the top right menu.

Maturity Overview

The maturity module in CONTEMP calculates strength development based on temperature history and a defined calibration curve as called for by ASTM C1074.

How it works:

Calibration Curve Definition

The calibration curve represents the relationship between temperature history and concrete strength. Users input lab-tested strength data into the system, either manually or by uploading an Excel file. The system automatically stores and applies the calibration curve for future projects.

Maturity Calculation

CONTEMP continuously monitors concrete temperature and applies maturity equations (Time Factor / Nurse-Saul) to estimate strength development. The system tracks cumulative temperature exposure over time to determine concrete curing progress.

Project Tracking Dashboard

Displays ongoing and completed projects, showing:

Current maturity level based on temperature history.
Target strength required for project completion.
Estimated time remaining until full strength is achieved.
Users receive automatic notifications once the concrete reaches its specified strength.

Comprehensive Maturity Reports

Users can generate reports that include:

Daily strength development progress.
Temperature readings from all sensors involved in the project.
The applied calibration curve and corresponding calculations.
Reports are available in PDF and Excel formats and include any images or project notes added by the user.

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CONTEMP Online Application

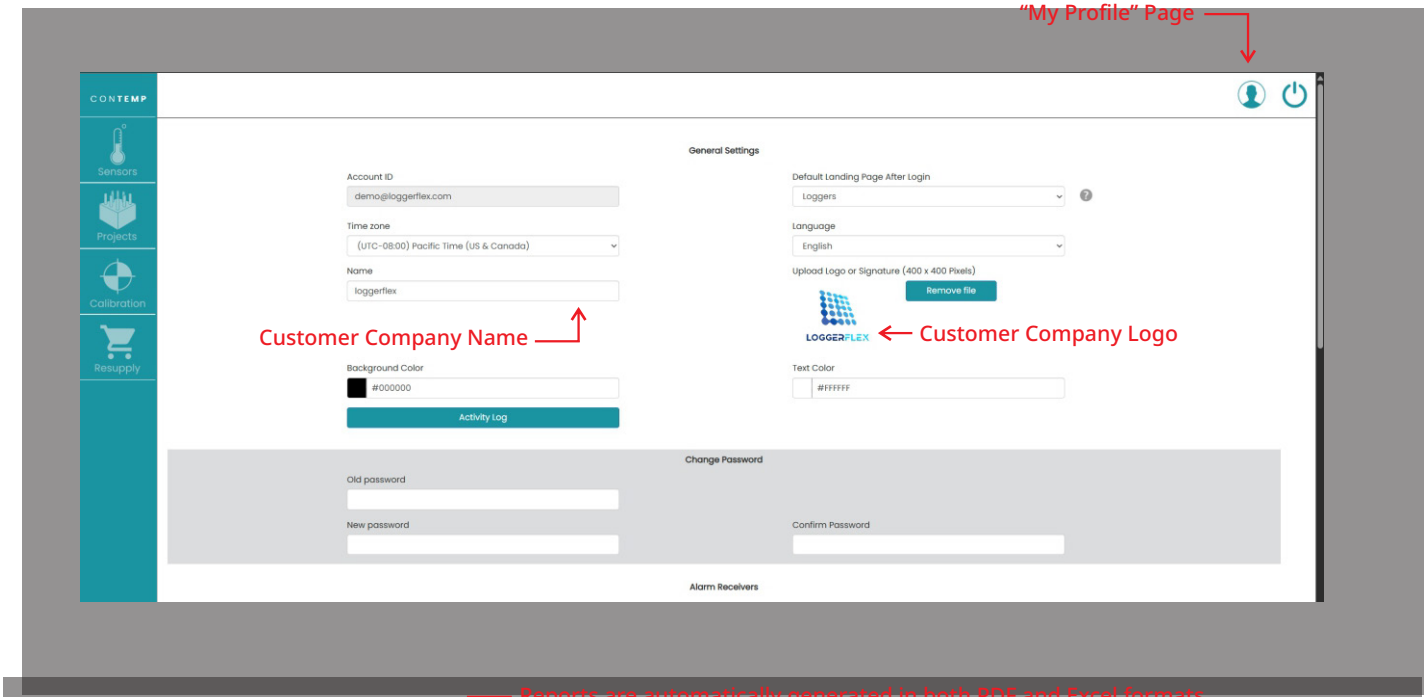
How to Download Concrete Maturity Report

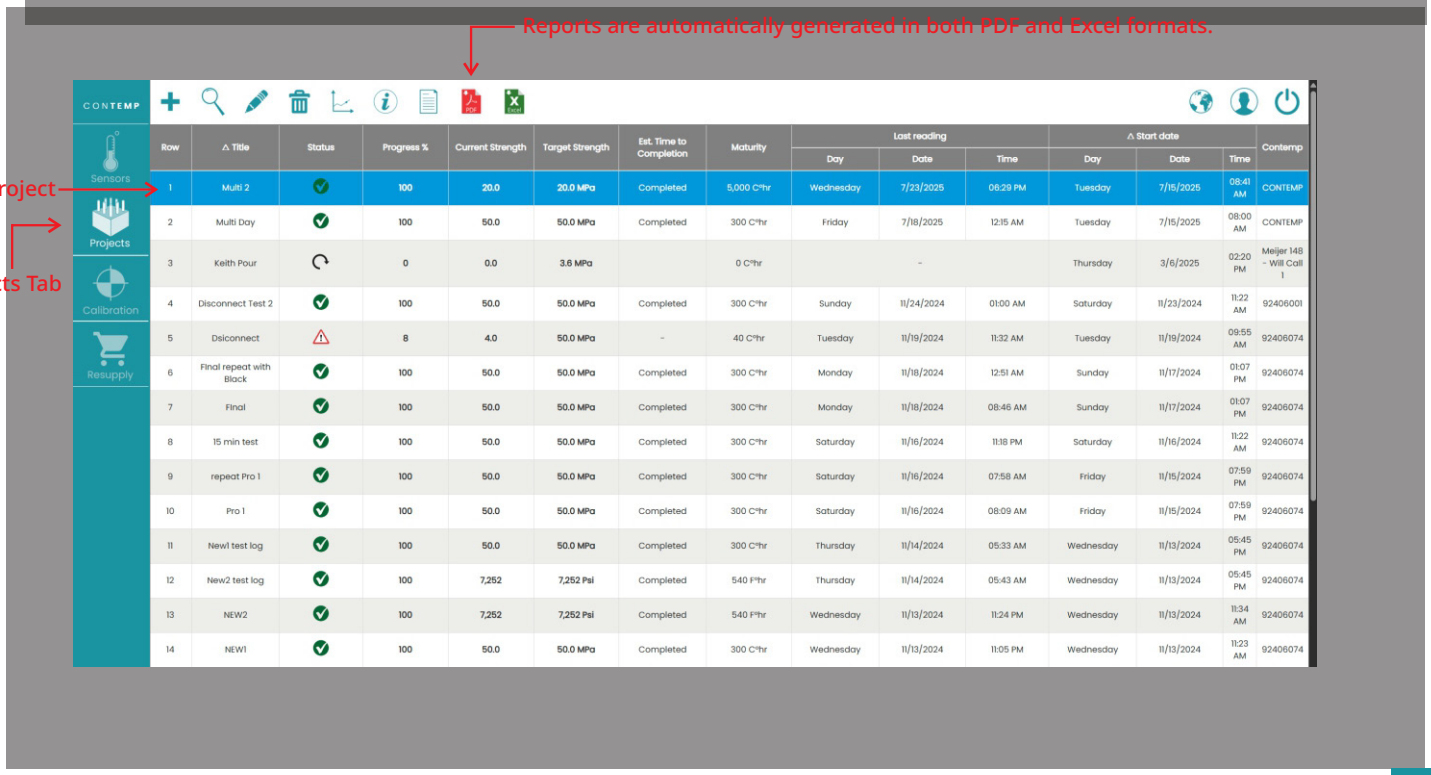
Maturity Notification

SMS — TEXT

@ — EMAIL

Smart Notifications: Automatic email and text alerts are sent to all project team members once the final strength is reached.





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Concrete Maturity Report Structure

Customer Company Logo (Configured in "My Profile"- logo size: 400x400 px) Customer Company Name (Configured in "My Profile")

Project Image

Project Title

Pour Title

CONTEMP

Multi 2

Pour # A-9

LOGGERFLEX

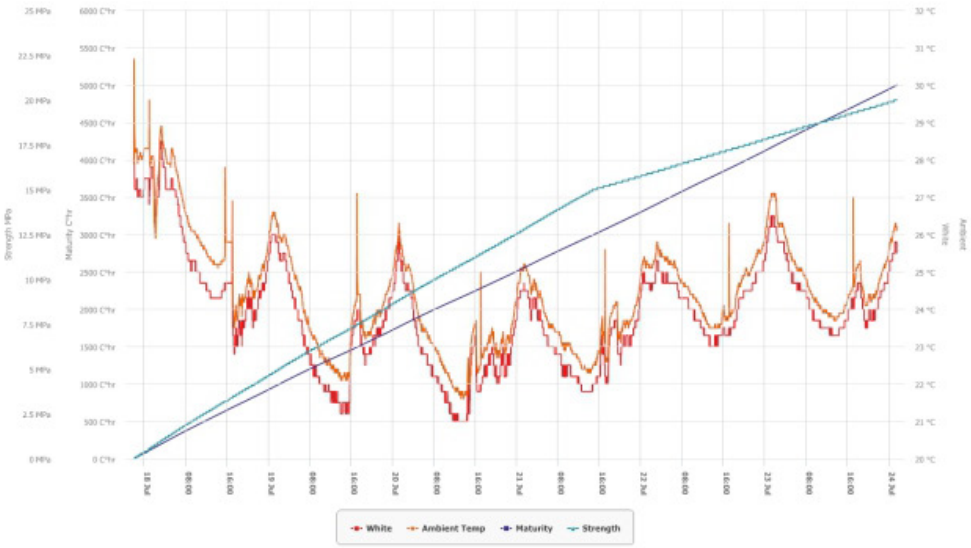
loggerflex

Start date	7/15/2025 8:41:00 AM
End date	7/23/2025 6:29:36 PM
Duration	8 Days and 9 Hours
Final Strength	20.00 MPa
Calibration (mix)	NEW Auto

Date	Min Temp (°C)	Time of Min	Max Temp (°C)	Time of Max	Maturity (C°hr)	Strength (MPa)
07-17-2025	26.0	19:05	30.3	14:56	337	1.7
07-18-2025	22.8	10:19	26.2	00:00	1,168	5.8
07-19-2025	21.2	06:54	26.0	18:09	1,962	9.8
07-20-2025	21.0	04:36	24.7	18:24	2,745	13.7
07-21-2025	21.8	05:30	25.3	19:59	3,544	16.4
07-22-2025	23.0	06:11	26.5	18:04	4,370	18.4
07-23-2025	23.3	05:28	25.8	18:06	5,000	20.0

Daily Summary:
Key data from each curing day is summarized in a single line, covering the full curing period.

Project Overview:
Complete timeline with temperature, maturity, and strength progression charts.



CONTEMP
CONCRETE TEMPERATURE MONITORING

Field Installation

Once your logger has been configured and appears synced in the dashboard, it is ready.

It is safe for outdoor use to temperatures as low as -30°C/-22°F.

Secure one sensor near the core and one near the surface. Label each channel properly (Page 5)

The first 2" / 50mm of cable (BNC - Female) permanently attached to the device DOES NOT go into the Concrete

Up to 4 x 3m extension cables can be added to each channel if required for larger structures. Since these are digital cables, make sure to match the number of extension cables used in each channel.