Es Finite Labs **Essentials**

Overview

> DISCLAIMER: This software is neither affiliated with nor endorsed by Control4.

Aggregate multiple sensor inputs into single outputs using configurable aggregation functions. This driver receives TEMPERATURE_VALUE, HUMIDITY_VALUE, and CONTACT_SENSOR inputs from other Control4 drivers and produces aggregated output bindings.

Index

- System Requirements
- Features
- Installer Setup
  - DriverCentral Cloud Setup
  - Adding the Driver
  - Driver Properties
    - Cloud Settings
    - Driver Settings
    - Input Configuration
    - Aggregated Output
  - Driver Actions
- Programming
  - Connections
- Developer Information
- Support
- Changelog

System Requirements

- Control4 OS 3.3+

Features

- Aggregate up to 20 temperature and 20 humidity inputs
- Aggregate up to 20 contact sensor inputs
- Configurable numeric aggregation functions: Mean, Median, Mode, Min, Max, IQR Mean
- Configurable boolean aggregation functions: Any, All, Majority
- Separate aggregation settings for each sensor type
- Dynamic input and output bindings
- Real-time recalculation when inputs change

Installer Setup

DriverCentral Cloud Setup

> If you already have the DriverCentral Cloud driver installed in your project you can continue to Adding the Driver.

This driver relies on the DriverCentral Cloud driver to manage licensing and automatic updates. If you are new to using DriverCentral you can refer to their Cloud Driver documentation for setting it up.

Adding the Driver

1. Download the latest `control4-finite-labs-essentials.zip` from DriverCentral.
2. Extract and install the `sensor_aggregator.c4z` driver.
3. Use the "Search" tab to find "Sensor Aggregator" and add it to your project.

Driver Properties

Cloud Settings

Cloud Status (read-only)

Displays the DriverCentral cloud license status.

Automatic Updates [Off | *On*]

Enables or disables automatic driver updates via DriverCentral. Changing it on any item of this driver changes it on all of them.

Driver Settings

Driver Status (read-only)

Displays the current status of the driver.

Driver Version (read-only)

Displays the current version of the driver.

Log Level [0 - Fatal | 1 - Error | 2 - Warning | *3 - Info* | 4 - Debug]

Sets the logging level. Default is `3 - Info`. While a Support Code has Composer's Lua tab open, it also offers `5 - Trace` and `6 - Ultra`.

Log Mode [*Off* | Print | Log | Print and Log]

Sets the logging mode. Default is `Off`.

Support Code

Leave it blank unless Finite Labs support gives you a code: for an hour, it opens Composer's Lua tab to this driver and adds `5 - Trace` and `6 - Ultra` to Log Level.

Cloud Monitoring [Disabled | *Enabled*]

When Enabled, the driver sends Finite Labs a short report once an hour, and a report of each error it hits, at most 10 a minute. We use them to find and fix problems in the driver. Set it to Disabled to send nothing.

A report holds the controller's MAC address and OS version, the driver's name, version, device ID and DriverCentral license status, how much memory the driver uses, and the sizes of its largest internal tables. An error report also holds the error message and where in the driver it happened. Before a message is sent, anything in it that looks like a password, token, key, network address or email address is removed.

Input Configuration

Temperature Inputs [0 - 20, default: *2*]

Number of temperature input bindings to create. Each input accepts a TEMPERATURE_VALUE connection from another driver.

Humidity Inputs [0 - 20, default: *2*]

Number of humidity input bindings to create. Each input accepts a HUMIDITY_VALUE connection from another driver.

Contact Inputs [0 - 20, default: *0*]

Number of contact input bindings to create. Each input accepts a CONTACT_SENSOR connection from a contact sensor driver.

Temperature Aggregation [*Mean* | Median | Mode | Min | Max | IQR Mean]

The aggregation function used to combine temperature inputs.

Humidity Aggregation [*Mean* | Median | Mode | Min | Max | IQR Mean]

The aggregation function used to combine humidity inputs.

> **IQR Mean** excludes outliers before averaging. It calculates the interquartile range (IQR = Q3 - Q1) and removes values below Q1 - 1.5*IQR or above Q3 + 1.5*IQR, then computes the mean of the remaining values. With fewer than 4 inputs, it falls back to a regular mean.

Contact Aggregation [*Any* | All | Majority]

The aggregation function used to combine contact inputs. **Any** returns closed if any input is closed, **All** requires all inputs to be closed, and **Majority** requires more than half to be closed.

Aggregated Output

Aggregated Temperature C (read-only)

The aggregated temperature value in Celsius.

Aggregated Temperature F (read-only)

The aggregated temperature value in Fahrenheit.

Aggregated Humidity (read-only)

The aggregated humidity value as a percentage.

Active Temperature Inputs (read-only)

Number of temperature inputs currently providing values.

Active Humidity Inputs (read-only)

Number of humidity inputs currently providing values.

Aggregated Contact (read-only)

The aggregated contact state: "Closed", "Open", or empty if no inputs.

Active Contact Inputs (read-only)

Number of contact inputs currently providing values.

Driver Actions

Reset Driver

Resets the driver state, clearing all cached input values and re-creating bindings.

It also turns Cloud Monitoring back on, as a fresh install has it.

Parameters:

- **Are You Sure?** [***No*** | Yes] - Confirmation to reset the driver.

Print Calibration Report

Prints a report showing how each input sensor differs from the aggregate value. For each bound input, displays the device name, cached value, and the adjustment (delta) needed to match the aggregate. Useful for identifying sensors that need calibration offsets.

Diagnostics Snapshot

Prints a report in the Lua output, and sends it to Finite Labs only while Cloud Monitoring is Enabled.

Programming

Connections

Input Bindings (consumer)

Temperature and humidity input bindings are dynamically created based on the "Temperature Inputs" and "Humidity Inputs" properties. Connect these to TEMPERATURE_VALUE or HUMIDITY_VALUE provider bindings from other drivers.

Contact input bindings are dynamically created based on the "Contact Inputs" property. Connect these to CONTACT_SENSOR provider bindings from contact sensor drivers.

Output Bindings (provider)

Binding	Class	Description
Aggregated Temperature	TEMPERATURE_VALUE	Aggregated temperature in Celsius
Aggregated Humidity	HUMIDITY_VALUE	Aggregated humidity as a percentage
Aggregated Contact	CONTACT_SENSOR	Aggregated contact state

These output bindings can be connected to other Control4 devices that consume temperature, humidity, or contact sensor values.

Developer Information



Copyright © 2026 Finite Labs LLC

All information contained herein is, and remains the property of Finite Labs LLC and its suppliers, if any. The intellectual and technical concepts contained herein are proprietary to Finite Labs LLC and its suppliers and may be covered by U.S. and Foreign Patents, patents

in process, and are protected by trade secret or copyright law. Dissemination of this information or reproduction of this material is strictly forbidden unless prior written permission is obtained from Finite Labs LLC. For the latest information, please visit https://drivercentral.io/platforms/control4-drivers/utility/finite-labs-essentials

Support

If you have any questions or issues integrating this driver with Control4, you can contact us at driver-support@finitelabs.com or call/text us at +1 (949) 371-5805.

Changelog

v20261112 - 2026-11-12

Added

- Added the Device Programmer, Light Relay, Network Requests, Sensor Aggregator, Sensor Multiplexer and Variable Expressions drivers to DriverCentral.