



SAAM



Adapt and evolve with the industry's first truly Industrial-Rated IoT controls platform designed to integrate the entire cultivation facility from grow environment, BMS, and Seed-to-Sale.



## The next generation of cannabis control platforms.

Adaptiiv's proprietary control platform was built specifically for our patented integrated commercial cultivation system. Built on ALC's industrial rated open source platform - our solution uses a complex array of both in-room sensors and IoT enabled equipment, proprietary PID Loops, and algorithm based Sequence of Operations software is designed to target and maintain VPD, RH, Temp.

SAAM is designed to operate all of the mechanical, electrical, and plumbing components in real-time. Since we manufacture the most critical components -Liquid Cooled LEDs, HVACD units, our system is unique to the market. We don't source outside components and attempt to re-create the proper Sequence of Operations and programming to tune the system



## A True IoT Controls Platform

Network of grow room sensors feed the environmental conditions to SAAM which then automatically drives the equipment to adapt and operate at certain conditions to maintain your custom environment set-points.

This is critical for non-static environments - as your grow room canopy and plant size expands throughout the grow cycle-the environmental conditions change substantially (Humidity, Temp, Light Intensity, and CO<sub>2</sub>), water consumption, transpiration rate, and fertigation requirements.

SAAM's software uses complex PID Loops - PID stands for proportional, integral and derivative. In building automation systems, PID loops are used to maintain precise control of temperature, pressure, flow, or any other physical property within the system. SAAM's PID loops are designed specifically to target and maintain VPD, by doing so SAAM is also managing the amount of dehumidification, cooling, heating, fertigation delivery and light intensity to maintain a specific VPD deadband (ex. 1.2 - 1.4) - all done automatically with no human interaction with the equipment.

## System Integration

SAAM (or System Automation & Management) is a real-time Adaptiiv machine learning control platform (IoT) that uses a complex network of grow room sensors, integrated with patented AGT manufactured Adaptiiv “smart” cultivation equipment, to automatically target and maintain environmental set-points.

## The Adaptiiv Difference

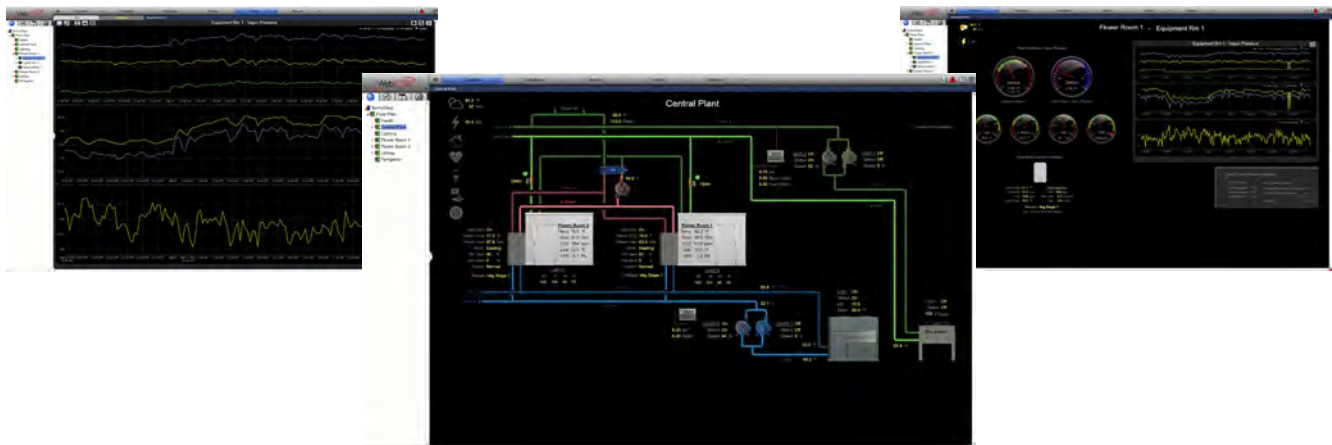
Data driven system and environment removes trial & error, and provides consistent repeatability for predictive harvests.

- Automatically control your entire environment through Adaptive IoT controls and full system integration w/ AGT Liquid Cooled LED’s, and HVACD units.
- Save your entire grow room environment recipe (Light spectrum and intensity scheduling, Relative Humidity,Temp, CO2 supplementation, nutrient control) and automatically repeat exact conditions on every harvest
- Automatically control/manage all of the mechanical, electrical, and plumbing components in real-time



## Efficient and Friendly User Interface

Full visibility into your entire cultivation operation. Whether its a room by room health page view, or a full facility and system analysis. SAAM gives you as little or as much data and visibility as you need



## Custom Homepage & Dashboards

Standard Control Dashboards: Homepage, System Health, Central Plant, Light, Utility, Fertigation, Traceability, Security, Manufacturing, Administration, Integrate w/ Seed-to-Sale





## Key Support Features

Built with standardized industrial hardware & protocols, DODRMF & TLS Protocol. A true industrial control platform with 24/7 remote monitoring and servicing.



**Unlimited ability to store data points on a daily basis (everything from environmental to mechanical, electrical and plumbing). On-site data storage with optional Cloud storage (AWS)**



**Real-time equipment/component diagnostics for failures or malfunction (all assets). Real-time alerts for rooms outside of set-points (automated text, email, phone call). Fault Detection diagnostics.**



**Integration of all assets including other sub-systems within the facility such as fire, life safety, security, compliance, etc**



**Proprietary algorithms for advanced control of grow facilities. Pre-programmed fail-safe modes.**



**24/7 remote and local servicing from Clima-Tech. Training videos.**

*Horticultural Applications Only.*

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**For more information or to set up a consultation with our experts, contact us today.**

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