

Are you ready to leverage AI to optimize your HVAC system?

usa.siemens.com/energyservices

Your building and its ventilation system present complex problems – but they don't have to be tough to solve.

Facilities professionals are among our most important lines of defense when it comes to creating safe, healthy, supportive work environments. Not only are you charged with improving the wellbeing, comfort, and performance of buildings, you're also looking for strategies that help reduce energy consumption and operational costs while achieving these priorities.

They're complex problems to tackle—but they don't have to be.

The connection between buildings and our health

The buildings in which we live and work are inextricably connected to our health and wellbeing—it's never been more important to create indoor environments in ways that help protect all of us. We know, for example, that optimizing ventilation rates, humidity levels, and air filtration practices are among the precautions* that facilities professionals can implement in buildings to support a healthy and safe work environment.

Studies have shown that intelligently raising both temperature and humidity levels in a building can achieve pathogen inactivation. These settings can be achieved overnight, thus making spaces safer to reoccupy the next day.**

Adding to daily challenges and priorities

These new priorities have been added to your already-strained workload and daily challenges of reducing energy consumption and costs, reducing hot/cold calls, and solving for rogue zone behavior.

HVAC systems affect building operations staff, energy use, as well as the comfort, productivity, and health of building occupants. This requires a flexible platform that can optimize not just for energy, but for a range of operating parameters as circumstances require—including, for example, optimizing humidity levels in ways that create healthy buildings.

Simply put, truly optimizing HVAC controls is just too complex of a problem for typical BAS programming to solve.

But, this is exactly the type of problem that artificial intelligence and machine learning algorithms were invented for.


The journey toward a smart building starts with you.

Smart buildings are uniquely equipped to help solve complex problems like:

- Supporting healthy work environments
- Improving comfort
- Managing workload
- Reducing hot/cold calls
- Optimizing energy consumption
- Leveraging digital strategies to improve operations
- Solving rogue zone behavior

*Center for Active Design

**TheLancet.com, NIH.gov



What if you could predict changes,
instead of reacting to them?

Intelligently optimize your HVAC system with AI-powered strategy

Instead of the traditional trial-and-error based approach, Siemens offers Dynamic VAV Optimization, an HVAC optimization strategy that relies on a cloud-based, artificial intelligence (AI) powered algorithm to control AHU fan speed and supply temperature as well as humidity levels.

What if...

- ...you could implement strategies that enable your building safer to reoccupy after an extended shutdown?
- ...when you made a change, your automation system could remember and learn from how your spaces responded?
- ...you stopped seeing responses in a space, your automation system would know it had gone rogue?
- ...you could predict changes in load, instead of always reacting to them?

Dynamic VAV Optimization's algorithm does all of this and more. It collects temperature and humidity data from the throughout the building and learns how the system responds to changes in load throughout the day. The AI engine continuously evaluates zone-level operating data and sends back static pressure, humidity, and supply air temperature setpoints to your HVAC system.

In this way, Siemens solution helps ensure better occupant comfort and health while also removing potential points of failure from the control algorithm. With our AI-powered strategy, our customers benefit from a range of operating improvements:

- Achieve optimal humidity conditions that can minimize airborne contaminants
- Dynamically adapt to occupants' comfort requirements
- Minimize operating costs and energy consumption
- Reduce number of hot/cold calls

The strategy can be applied with a minimum of operator training and with a secure VPN connection.

For more information, visit usa.siemens.com/energyservices

In a review of Siemens customer data, Dynamic VAV Optimization generated an average savings of nearly 25% in facilities with no existing reset. In facilities that had reset strategies in place, average savings of 10% were still achieved.

Siemens Industry, Inc.
Smart Infrastructure
1000 Deerfield Parkway
Buffalo Grove, IL 60089

usa.siemens.com

© 2020 Siemens Industry, Inc.
(Part# 153-SBT-1205)