

# Copeland Supervisory Control Platform

*Streamline critical decision making with the next generation of connected refrigeration and facility management controls.*



**COPELAND**



## ***Achieve comprehensive, supervisory control of your retail operation.***

Managing an entire retail facility and its critical systems is a complex undertaking. Refrigeration, HVAC and lighting systems must operate at peak performance and in seamless harmony to achieve a wide range of operational goals.

To drive profits and maximize operational efficiencies, facility operators, store managers and service technicians need tools and strategies to help them:

- Simplify store management and scheduling
- Limit equipment disruptions
- Minimize service calls and truck rolls
- Optimize energy management and meet sustainability goals
- Lay a foundation for future expansion

Achieving all these goals requires visibility to critical systems and real-time access to information that helps you to quickly identify and resolve any potential issues.

## ***Simplify operational complexities***

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The supervisory control platform from Copeland is designed to streamline facility management and simplify these operational complexities. This seamless, integrated control platform enables top-down visibility and robust control of all systems within your network.

Smart software serves as the platform's foundation, delivering an intuitive, user-friendly and web-accessible experience for two powerful facility management control device options:

- All-new E3 supervisory control with an integrated touch-screen display
- Copeland site supervisor with optional mounted display



## ***Building upon a legacy of innovation and industry leadership***

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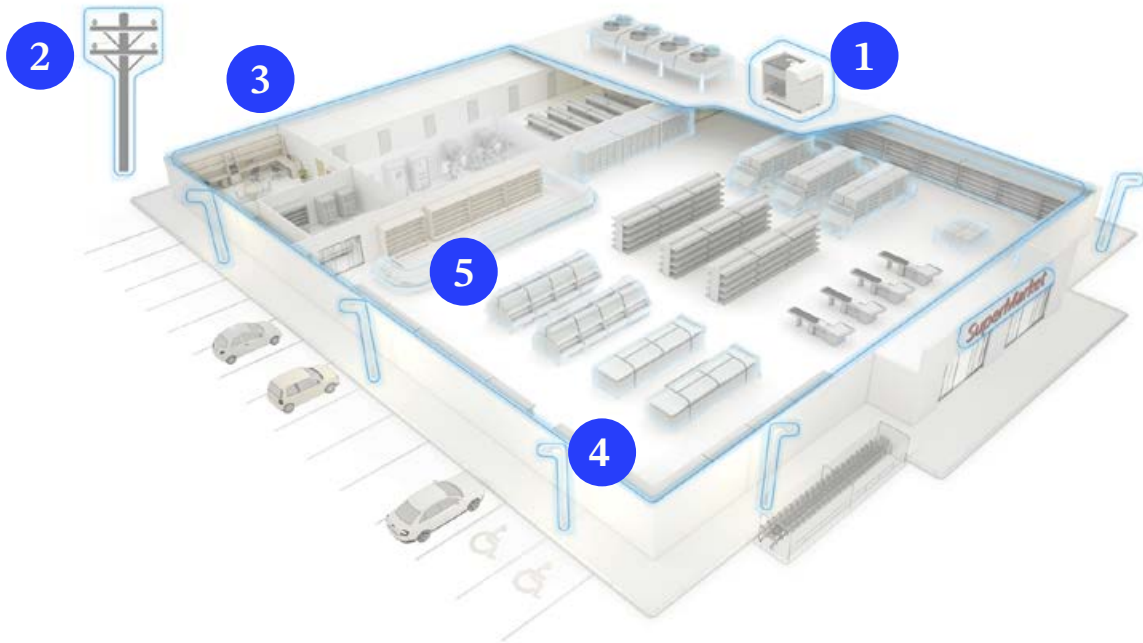
For more than 40 years, Copeland has been a leading innovator in the development of refrigeration and facility management control devices and software systems. Today, our building management controls can be found in more than 150,000 applications around the globe, helping store owners, operators and technicians to achieve optimal performance in their mission-critical refrigeration, HVAC and lighting systems.

The Copeland supervisory control platform is the realization of our decades-long commitment to innovation and ongoing collaboration with our customers. This powerful, user-friendly platform gives you the robust control you need to fine-tune your operations today within a flexible, open architecture that is built to scale with your future business needs.



## Gain visibility and exercise control over critical systems.

The Copeland supervisory control platform provides control over and visibility to the critical systems within your operation.



### Building controls

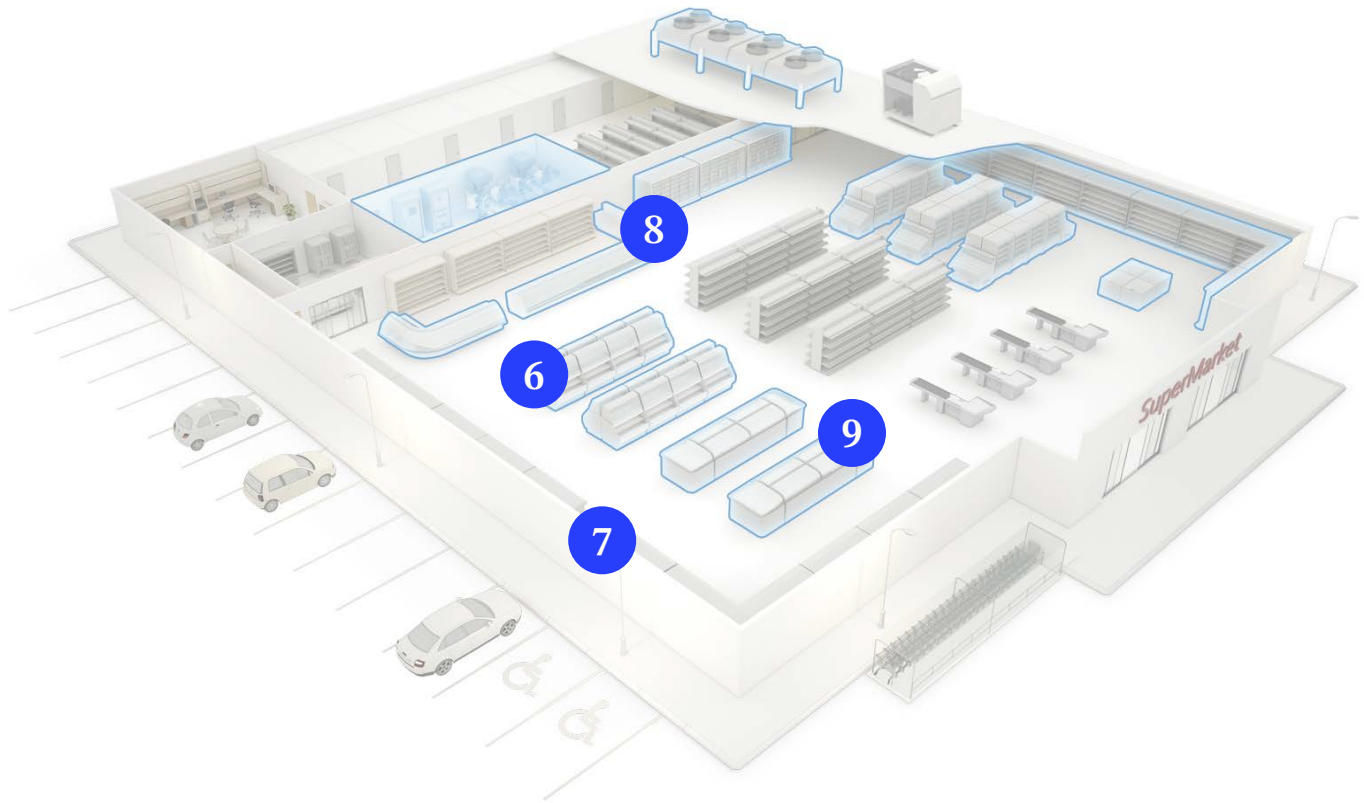
**1 HVAC** — Group air handler and rooftop units into zones for simplified control over heating and cooling setpoints, occupancy schedules, emergency override, indoor air quality, alarms, remote unit reset and variable-speed drive management.

**2 Utility monitoring** — Implement demand-response strategies for optimal energy savings and interactivity with utility companies. View detailed power usage logs to spot trends and optimize facility operations. Connect water, gas and energy meters to monitor consumption and ensure your facility is operating at peak performance.

**3 Scheduling** — Enhance energy savings by creating up to 64 schedules with 15 custom events per schedule. Override standard time schedules with up to four different holiday schedules.

**4 Lighting** — Leverage advanced scheduling features to help optimize lighting system control on the store floor, in the parking lot and on exterior signage. Maximize the energy-saving benefits of daylight harvesting with light-level sensors and override options.

**5 Refrigerant leak detection** — Drive sustainability initiatives with reliable leak notifications from Copeland's single- and multi-zone refrigerant leak detection devices. Supports programming of multiple setpoints for each device to customize leak detection levels.



## Refrigeration controls

- 6 Condensers** — Implement a variety of condenser, compressor and evaporative control strategies via traditional controls and advanced control algorithms to improve operating and maintenance costs.
- 7 Suction groups** — Manage up to four compressor racks with up to 16 compressors and a variety of refrigerants with algorithm-driven control strategies that extend compressor life and increase energy savings.
- 8 Circuits/display cases** — Monitor and control temperature, defrost and alerts for out-of-tolerance conditions; choose from either centralized or distributed refrigeration/case control strategies.
- 9 Anti-condensate heater controller** — Drive energy savings by ensuring door frame heaters run only when necessary while maximizing anti-condensate control via a closed-loop algorithm and data from the relative humidity sensor.

## Empowering decisions for all stakeholders in your organization.

The Copeland supervisory control platform is designed to benefit end users of varying skill levels and empower them to quickly take decisive actions. Its intuitive, icon-based navigation allows novice end users to immediately leverage the platform's comprehensive supervisory control capabilities. Experienced operators and technicians can take a much deeper dive to optimize system performance, perform detailed analyses, and fine-tune facility controls.

### Floor Plans: See the big picture.

Easily access views of your store's floor plans to monitor each device, locate active alarms, and streamline your team's prioritization and response.

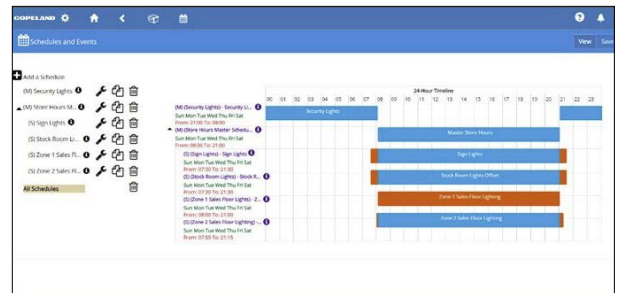
- Monitor multiple devices in one view.
- Provide 2D/3D visualizations of equipment layout.
- Quickly identify alarms at the asset/fixtures levels.
- Accelerate issue resolution.



### Graphical Scheduling: Easily make changes.

User-friendly, click-and-drag functionality and a graphical interface make it easy to set, change and duplicate key store schedules.

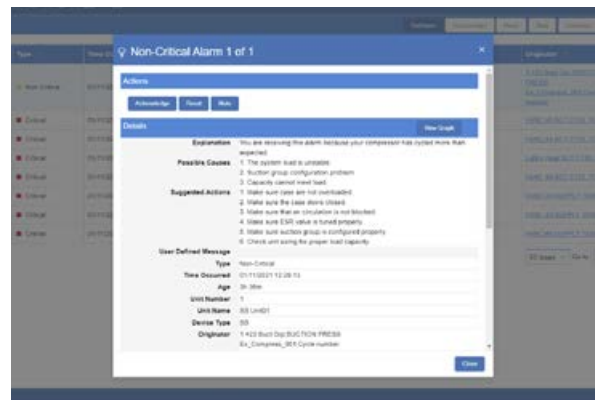
- Defrost
- Master occupancy
- Store hours
- Occupancy
- Energy set-back



### Smart Alarms: Prioritize and take action.

Smart Alarms is built with intuitive features and straightforward language — not cryptic or confusing codes — and is designed to help your team quickly detect, prioritize, troubleshoot and resolve issues. Email and text alarms provide clear explanation of priority alarms, list possible causes, and suggest next actions.

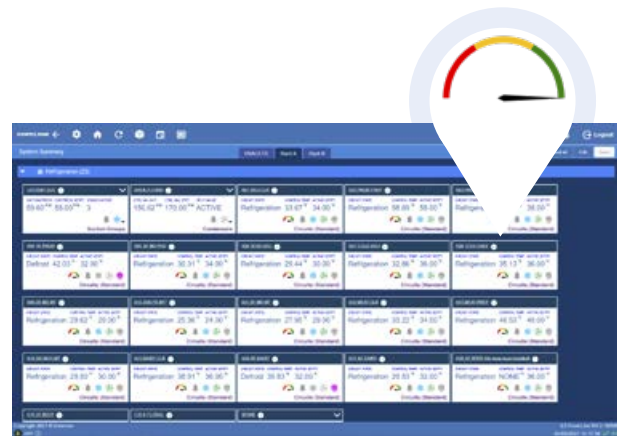
- Elevate only priority alarms.
- Keep critical systems running efficiently.
- Maximize technician productivity, regardless of skill level.
- Reduce truck rolls.
- Create user-defined messages.



## Performance Meter: Monitor refrigeration asset performance.

Performance Meter allows you to quickly determine if your site's refrigeration fixtures and equipment are performing as expected.

- Review status by color-coded indicators: red, yellow and green.
- Track refrigerated fixture and circuit performance.
- Format data in graphical view or download a more detailed report.
- Access up to 13 months of performance history.



### Key benefits

**Access from anywhere** — Intuitive navigation and a responsive, web-based design provide easy access and a familiar user experience, whether online from a mobile device, web browser or on-site with a control device.

**Streamline store management** — Graph operating data to determine operating conditions. Customize graph screen content for your preference.

**Graphical system status** — Monitor system status and performance visually with graph-based reports that identify historical patterns, trends and issues.

**User-friendly control algorithm configuration** — Interface wizard prompts new and experienced technicians through a guided setup of custom or advanced control algorithms.

**Quickly respond and resolve issues** — Act quickly with access to detailed information of possible causes and actions needed for resolution.

**Accelerate startup** — Manage and control your entire equipment inventory and set up from one location to simplify and accelerate the installation and startup processes.

**Simplify device management** — Back up, restore and update firmware; install or remove files; and access the list of applications from one location. Includes SD and USB ports for local backup and restoration.

**Safeguard data and user access** — Securely manage information, user access and permissions based on your preference— locally, on your own network or in the Copeland cloud.





## *Connecting to deliver data and insights across the enterprise.*

Food retail establishments are continuously expanding their capabilities and introducing new technology to meet ever-evolving consumer demands.

Control systems must be able to communicate with legacy devices, support the complexities of modern operations and provide the flexibility to meet future facility expansions. The Copeland supervisory control platform is adaptable to a variety of operational needs and can be used in multiple capacities:

- Stand-alone refrigeration controller
- Building management system
- Site aggregator across multiple system controls

The Copeland supervisory control platform utilizes industry standard protocols to communicate with and control downstream Modbus or BACnet devices. Simply put, it is designed to give your store the forward scalability and backward compatibility to meet consumer demands and facilitate your ongoing evolution.

**Data integration** — Integrate enterprise data into the Copeland supervisory control platform via an API for Copeland's Connect+ enterprise management software, as well as other connection methods such as Rest, MQTT and SOAP. Connect+ integration enables data analytics, insights and intelligence across the enterprise to support continuous commissioning, condition-based maintenance, food quality reports and much more.

**Site aggregator** — Bring the control network of your existing store into a consolidated view by adding a site aggregator controller — either an E3 controller or site supervisor controller. A site aggregator controller model provides connectivity to legacy Copeland devices (such as E2 controllers) as well as third-party devices.

**Third-party device integration and compatibility** — enable connection to a variety of downstream third-party devices using Modbus and BACnet protocols. Capture and integrate device data into the larger data stream to deliver consolidated system insights.

## Flexible control architecture

Copeland Managed Services  
(Formerly ProAct Services)



Connect + enterprise  
management

Data integration via API



Site aggregator  
(optional)



Rack A controller



Rack B controller



HVAC/lighting/  
site controller



Multiflex I/O  
modules



Case controls



HVAC systems



Lighting systems



Third-party devices



Future devices



Future devices

## Powerful control devices.

Flexible hardware options for operations large and small.

The Copeland supervisory control software is at the core of Copeland's leading facility management and refrigeration control devices, including:

- The all-new Copeland E3 with an integrated touch-screen display
- The site supervisor controller with displays of varying sizes available

Both options provide access to the same comprehensive platform functionality and enable online, remote access to the same user-friendly interface. Devices can be configured to function as either site aggregator or a device-level controller to suit your operation's specific supervisory control requirements. The E3 controller and site supervisor controller models are designed with backward compatibility with existing IONet and Multiflex boards.

### **Site supervisor: Big performance in a smaller form factor**

This flexible device is ideal for applications with little room for a larger panel or where minimal refrigeration and building controls are needed. The site supervisor controller delivers the same robust Copeland supervisory control software performance in a smaller footprint.

- Web-enabled interface or remote displays are required to access the Copeland supervisory control software.
- Option to add a mounted touch-screen display (available in three sizes) or no screen at all
- Ability to serve as a device aggregator or stand-alone control device



*Copeland site supervisor*

### **Copeland E3: ideal form, fit and function**

Designed as a true drop-in replacement for the industry standard E2, the E3 controller offers the same familiar form and fit, only with greatly enhanced functionalities. The back of the E3 controller enclosure is designed to fit into existing panels to eliminate the need for new wiring while reducing installation costs and headaches via:

- Identical wiring holes, mounting points and vents
- Consistent COM port configuration and power connections

A completely redesigned device interface features an integrated 10-inch, touch-screen display that provides on-site access to the robust Copeland supervisory control platform software interface. Web-enabled capability supports online remote visibility from a web browser or mobile device while delivering a consistent user experience. The E3 controller processing power is 12 times faster and includes 16 times the built-in memory for faster response time and increased storage capabilities than the E2.



*Copeland supervisory control*



## *End-to-end support services*

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### **From on-site support to additional software integration**

Copeland provides a variety of support services to help you deploy the Copeland supervisory control platform in your facility and extend its control capabilities:

- Conversion from E2 to E3 controller
- Panel design and integration of E3 controller or site supervisor (controller and display)
- Creation of custom 3D floor plans of your store layout
- Installation, setup and training support

Regardless of the hardware platform you choose, the Copeland supervisory control platform interface will be the same, whether accessed at the controller or remotely via tablet, etc.





## ***About Copeland***

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Copeland (NYSE: EMR), headquartered in St. Louis, Missouri (USA), is a global technology and software company providing innovative solutions for customers in industrial, commercial and residential markets. A leader in industrial automation, Copeland helps process, hybrid and discrete manufacturers optimize operations, protect personnel, reduce emissions, and achieve their sustainability goals through its Automation Solutions and AspenTech businesses. Copeland's business helps ensure human comfort and health, protect food quality and safety, advance energy efficiency, and create sustainable infrastructure. For more information, visit [Copeland.com](https://www.copeland.com).

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