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Case Study – Orange Unified School District

EDUCATION / HEALTH CARE / LODGING / MANUFACTURING / OFFICE BUILDING / RETAIL / SPECIAL

i-Vū® Web-Based Integrated Control System Enhances Productivity, Connectivity and Energy Efficiency

Project Objectives

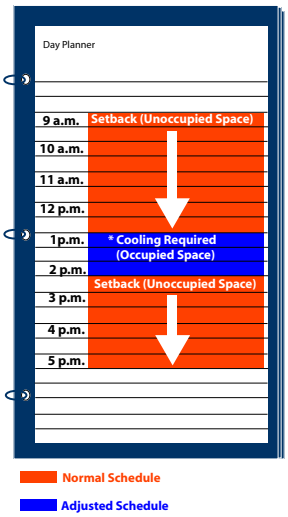
Orange Unified School District (OUSD) serves a growing community in Orange County, California, located between Los Angeles and San Diego. The OUSD educates more than 31,300 students a year at 45 elementary, middle and high schools. The district is renovating facilities and building new schools to meet the needs of the increasing population. At the same time, OUSD wanted to upgrade their Heating, Ventilating and Air Conditioning (HVAC) controls from TELink type to a web-based network system in order to maximize staff productivity, energy efficiency and system connectivity while providing comfortable learning conditions for students and teachers.

Solution

The school district's extensive experience with Carrier equipment and controls led them to consult HVAC contractor Evolution Systems and Southern California Sales and Distribution on the planned controls upgrade. Evolution Systems Vice President Sales Anthony Bermudez recommended the i-Vū® web-based integrated control system. The OUSD implemented a pilot installation at Villa Park High School. School district staff found the i-Vū system software easy to master, and have experienced increased productivity and better energy management thanks to the enhanced connectivity provided by the web-based i-Vū system.

The i-Vū web-based integrated control system's scheduling function allows the school district to institute self-terminating short-term schedule variations to keep conditions comfortable at special events. Once scheduled, the variation requires no additional attention from the staff and automatically reverts to energy-saving normal scheduling when the special event has ended.

i-Vū® Web-Based Integrated Control System Schedule



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"In addition to normal scheduling [with the i-Vū® web-based integrated control system], it's easy to add a special event schedule that terminates when the event has ended, with no further input from the staff. This conserves manpower and ensures efficient energy usage."

Andrew Durrett
Energy Director,
Orange Unified School District

Project Synopsis

Orange County, California, is a growing community located 37 miles southeast of Los Angeles and 68 miles north of San Diego. Orange Unified School District (OUSD) serves more than 31,300 students a year at 45 elementary, middle and high schools, including several charter, magnet and special-function schools. The district is renovating facilities and building new schools to meet the needs of the increasing population. As part of the modernization and construction program, OUSD wanted to upgrade their Heating, Ventilating and Air Conditioning (HVAC) controls interface from TELink type controls only accessible through the district's Wide Area Network and the telephone system to a web-based system. This upgrade would maximize staff productivity and enhance district energy efficiency while maintaining comfortable conditions for the students and staff. Anthony Bermudez, Vice President Sales at Evolution Systems and long-time Carrier contact for the district, recommended the i-Vū® web-based integrated control system. A pilot installation was conducted at Villa Park High School.

The i-Vū system uses state-of-the-art web-based interfaces to give school district staff members access to each piece of HVAC equipment and controls at Villa Park High School, including a rooftop unit with PremierLink™ controls; a VVT® zone controller with 3V™ controls; multizone air handling units with Comfort Controller; and a TEMP System rooftop unit. Facilities staff can view conditions in and adjust individual pieces of equipment, zones within the school or the entire school as a unit. The i-Vū system also makes scheduling and trending simple. As additional school properties are upgraded to the i-Vū system, staff members will be able to monitor the properties around the district from any web-enabled location, saving transit time and costs as well as increasing staff productivity.

According to Bermudez, the i-Vū web-based integrated control system is ideal for school settings. "One i-Vū system can facilitate control of up to 100 devices. This is critical on school campuses, which often have numerous pieces of equipment that must be coordinated. The facilities staff at OUSD fell in love with the i-Vū system—it was quick to set up and it makes everything associated with scheduling and trending so much easier."

Andrew Durrett, Energy Director for OUSD, confirmed the district's ease of transition to the i-Vū system at Villa Park. "We felt comfortable right away, and we especially like the built-in graphics and trending capabilities, so we didn't have to build those out manually. We also find the i-Vū system's scheduling capabilities particularly strong, because in addition to normal scheduling it's easy to add a special event schedule that terminates when the event has ended, with no further input from the staff. This conserves manpower and ensures efficient energy usage. We hope by this time next year, a quarter of our facilities will have the i-Vū system in place."

Project Summary

Location: Orange County, CA

Project Type: Controls interface upgrade

Building Type: Multiple one- to two-story school buildings

Number of Sites: 45

Project Main Objectives: District wanted to upgrade controls from TELink type to network type in order to achieve enhanced staff productivity, web-based connectivity and energy efficiency in both new construction and modernization renovations.

Main Decision Drivers: Extensive experience with Carrier equipment and controls led the district to meet the upgrade need by choosing i-Vū web-based integrated control system.

Unique Features: The i-Vū system's scheduling features facilitate effective energy management by automating routine conditions and enabling short-term, self-limiting schedule deviations from any web-enabled computer.

Controls Software Specified: i-Vu web-based integrated control system.

Project Cost: $6,000

Installation Date: 2008

For more information, contact your nearest Carrier representative, call 1.800.CARRIER or visit our web site at **www.carrier.com**

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