



case study

Modernization: School Complex with Niagara®-based Smart Room System

The Favoriteschule Kuppenheim, located 5 km east of Rastatt, is a typical school complex, where the OAS "Smart Room System" is used in addition to other OAS Smart Building Solutions (SBS). The elementary and vocational school with 465 students is being comprehensively modernized and equipped with state-of-the-art HVAC technology. With OAS components based on the Niagara Framework, the room and building automation will be realized in the main complex as well as in the gymnasium.

THE CHALLENGE

The project is divided into two parts. First, the renovation of the GA of the school complex and renewal of the building automation of the entire sports hall. The building automation of the school complex of the Favoriteschule Kuppenheim will be renovated.

Around the system integration and digitalization of the building technology, the network infrastructure of the school is extended by a separate intranet for the building automation.

When modernizing the heating and ventilation in the sports hall, the focus is on equipping it with energy-efficient technology. Here, too, the OAS SBS components are used for integration into the building management: the OAS SBS JACE 8N4 automation station, the touch screens for the direct operation of the systems and the different OAS fieldbus devices.

THE OPEN AUTOMATION SOLUTION

The new automation and integration platform in the Favoriteschule is an OAS SBS JACE 8N4 controller from the TRIDIUM Niagara® Framework. IoT-enabled and BACnet-certified, it enables integration of all components. As an authorized Tridium distributor, OAS supports system integration and end-to-end digitalization of building equipment.

THE RESULTS

The control technology (BMS) is web-based and operated through the user-friendly OAS touch panels in the control cabinets or at any client PC with access authorization. The control technology is based on the OAS Supervisor Utilities, embedded in the Niagara Supervisor. OAS Supervisor Utilities "powered by Niagara" can be used to create effective and structured BMS solutions with complex building, room and facility structures. 3D graphics of the school complex facilitate the user's orientation. The graphical user interface (GUI) for all building technology systems provides information on current values and settings.



"We are proud to be able to contribute to this modernization project."

Ralf Rostock
Managing Director
OAS Open AutomationSystems GmbH

FAST FACTS

Gebäudetyp: School complex and sports hall

Kunde: Stadt Kuppenheim

Projekttyp: Renovation of building automation and renewal of measurement, control and regulation technology

Projektumfang: System integration and digitalization of building technology, modernization of heating and ventilation in the sports hall, separate intranet

Schlüsseltechnologien: Niagara Framework, BACnet, multiple distributed OAS I/O fieldbus modules, Cloud based server hosting, OPC, M-Bus, Fallback visualization system installed on a controller.

Authorized Distributor: OAS Open AutomationSystems GmbH

System Integrator: PGA Automation



Example of a web visualization about our OAS Supervisor utilities embedded in Niagara Supervisor.

ABOUT OAS

OAS Open AutomationSystems GmbH is your Tridium Authorised Distributor for open energy management and building automation systems for the continuous digitalisation of technical building equipment. Our cloud-based portal solutions offer a secure, reliable and trouble-free system integration with a high level of ease of use. Our modular Niagara-Framework® components and OEM product developments communicate with BACnet and other common protocols and offer limitless integration from the field level through automation level up to the cloud.

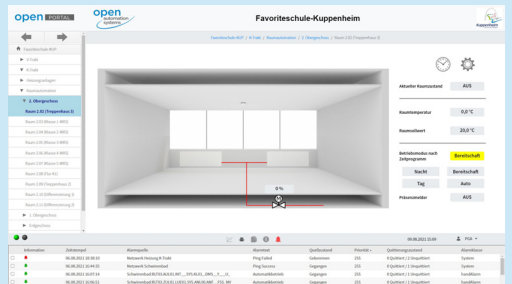
ABOUT PGA

With more than 20 years of experience, PGA Automation plans, develops and implements integrated system solutions across the entire range of modern digital automation technology. As a system integrator and solution provider, PGA Automation offers complete end-to-end solutions for all applications in process and industrial automation, room and building automation, environmental water/wastewater technology, energy management as well as web-based BMS, HMI, SCADA and management solutions.

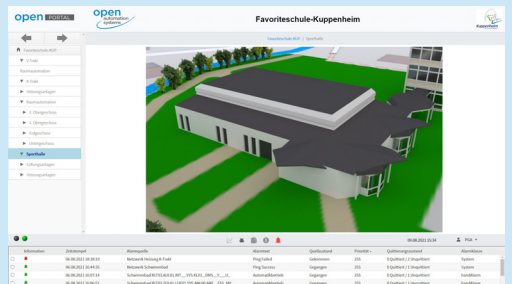
ABOUT TRIDIUM

For over 20 years, Tridium has been a world leader in open-protocol application frameworks for operational data. Our products enable different monitoring, control and automation systems in buildings, data centres, manufacturing systems, smart cities and more to communicate and collaborate. We create smarter, safer and more efficient businesses and communities - bringing intelligence and connectivity to the edge of the network and back.

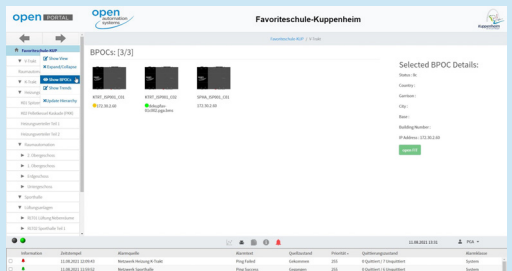
MORE IMPRESSIONS:



Room automation - single room visualization



Visualization of the gym



Selected BPOC (Building Point of Connection)