

Bucherer Shines with Modern BMS

CHALLENGE

Founded in 1888, Bucherer has grown into the largest supplier of luxury watches and jewelry in Europe. In addition to its main location in Lucerne, Bucherer has 15 other retail outlets in Switzerland. In 2014, Bucherer began a project to modernize its building management system (BMS).

Stable and comfortable temperatures in sales outlets are crucial for purchasing behavior. Temperature irregularities must be detected and corrected quickly. If they are part of a pattern that points to a decline in equipment performance, Bucherer wants to recognize such fault trends and fix the equipment before the problem impacts the shopping experience for customers.

The retailer set a goal: a Bucherer BMS network that unites and visualizes all existing, instrument and control systems on a central server in Lucerne, while also easily integrating new systems such as fault detection and diagnosis (FDD) analytics software systems. Niagara partner pi-System was recommended to Bucherer as an experienced technical system developer and integrator that could get the job done.

SOLUTION

Today, Bucherer monitors temperatures and airflows at its retail outlets with the control system Saturn from pi-System which has Niagara Framework at its core.

"Saturn is the optimal solution to collect data at different locations and via different communication channels," said Boris Strebel, Head of Facility Management at Bucherer. "Saturn offers the necessary interfaces for the management of indoor environment at each of our branches via a central platform."

The controls retrofit plan needed to ensure that the HVAC and air comfort systems at all retail outlets would remain active and under centralized, remote control every day. Bucherer could not put at risk the comfort of its stores, especially on cold days. So, before pi-System completed the installation and networking of Saturn, the central Niagarabased BMS at Bucherer headquarters in Lucerne, it started with a rebuild of the controls cabinet in Zermatt. This cabinet houses a Niagara network consisting of a JACE Supervisor and 4,200 data points.

pisystem Automatisch mehr Effizienz

"By using different communication protocols, any I&C system can be integrated and visualized via saturn without any problems. The solution is worth its weight in gold to us. To keep it that way, we constantly review and optimize the processes and standards."

Boris Strebel Head of Facility Management Bucherer

FAST FACTS

Project Type: BMS, HVAC Integration

Building Type: Retail

Systems Integrated: HVAC, Air Comfort systems

Number of Control Points: 4,200 data points integrated through the Niagara Framework

ADVANTAGES

- Consolidate and visualize decentralized data efficiently
- Easy integration of external systems
- Record data without gaps, create trend analyses
- Optimal building management
- Professional energy data and troubleshooting management
- Simple and flexible expansion



For smooth communication between field control devices and Saturn, the pi-System team either placed separate Niagara JACE stations at individual Bucherer stores or integrated non-JACE field devices into an existing programmable logic controller (PLC) system. Saturn supports various communication protocols including BACnet, SaiaS-Bus, ADS protocol, Modbus, etc. The field JACE stations connect directly to the central Saturn BMS in Lucerne, where the data relevant to operations is collected across all stores.

RESULTS

Today, data analysis with Saturn begins with the central control system seamlessly recording data trends. Via Saturn visualization, employees can easily create trend analyses and evaluations and optimize the systems as needed. Using trend evaluation, Bucherer facilities staff can also determine at an early stage whether the energy values are optimally set and the systems are running correctly. Boris Strebel reports that staff particularly appreciate the fact that they can store the system documentation for each site in the system making ongoing maintenance easier.

In the event of an incident, technical service is alerted immediately and informed of the nature of the fault by e-mail, SMS or voice message. In this case, the existing alarm system is triggered via the control system with the information "store", "alarm text" and "priority." Many locations lack technical staff who can intervene quickly on-site in the event of an incident. However, now with automated fault detection and communication, Bucherer Facility Management team can resolve any incidents before the customer even notices them and it can better manage its buildings cost effectively. This all contributes to the desired business outcome of Bucherer customers experiencing maximum comfort and convenience.

Boris Strebel draws a positive balance. "By using different communication protocols, data from any field control device can be integrated and visualized via Saturn without any problems. The solution is worth its weight in gold to us. To keep it that way, we constantly review and optimize the processes and standards."

ABOUT PI-SYSTEM

pi-System uses the latest technology to network buildings and infrastructures and make them intelligent and efficient. Additional information about pi-System is available at <u>www.pi-system.ch</u>. Visit <u>https://www.pi-system.ch/projekte/case-studies/2017/bucherer</u> for the German version.

ABOUT TRIDIUM

For over 20 years, Tridium has led the world in business application frameworks — advancing truly open environments that harness the power of the Internet of Things. Our products allow diverse monitoring, control and automation systems to communicate and collaborate in buildings, data centers, manufacturing systems, smart cities and more. We create smarter, safer and more efficient enterprises and communities — bringing intelligence and connectivity to the network edge and back. Additional information about Tridium is available at www.tridium.com.



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