BACnet/IP Gateway Integrates PLC into Building Automation System for Motorcycle Wind Tunnel Control

Automation Solutions LLC, an electrical contractor specializing in automation technology, based in Germantown, WI, was approached by a leading motorcycle manufacturer to implement a control system for the wind tunnels used to test the bikes. Beyond implementing the control for the wind tunnel, the motorcycle manufacturer in the Milwaukee, WI area required that the system be accessible to its building automation control system via BACnet/IP. With more than 40 years of industrial automation control experience, Automation Solutions LLC was confident they could implement a cost-effective control solution built around Allen-Bradley's MicroLogix PLC. However, they did not have a mechanism to enable the machine with BACnet/IP communications.

The 460ETCBS gateway from Real Time Automation (RTA) changed all that; the small, din rail module lets you use BACnet/IP Analog and Binary Properties to access the registers or tags in your Allen Bradley PLC.

After a quick Google search, Automation Solutions found the 460ETCBS from RTA, which happens to also be based in Wisconsin.

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>
> Steve Nordness
> President , Automation Solutions LLC

Education on new technology

"This project was the first time we were introduced to RTA," says Kevin Kline, Project Manager for Automation Solutions. "After our initial discovery, we were pleasantly surprised by their responsiveness and willingness to help educate us on BACnet/IP which was a relatively new technology to us." Using the 460ETCBS gateway, Automation Solutions was able to implement BACnet/IP communications without dramatically altering the control program.

"One of the coolest things about the gateway is that you don't have to implement any special messaging in the PLC. The gateway independently reads a defined block of register locations in the MicroLogix and writes another block," says Drew Baryenbruch, Product Manager, at RTA. "All the data transfer is controlled by the gateway."

This feature means integrators can implement alternative communication protocols with limited changes, or even no changes, in their established control programs - saving them time and limiting the risk associated with program changes.

Hands-on configuration

Beyond standard phone support, Automation Solutions was invited to the offices of RTA to learn how to configure the gateways for the application and to learn about BACnet/IP.

"Using an unknown component on a project for a large customer is not something we take lightly," says Steve Nordness, President Automation Solutions, LLC. "RTA's commitment to the project's success was clear from day one." The 460ETCBS gateway helped Automation Solutions LLC deliver a wind tunnel control solution based around a proven controller and also satisfy the applications requirement for BACnet/IP communications.