

Permissives, Interlocks, Control Schemes, and Alarms: Using Better Terminology to make SCADA Systems Easier to Design, Build, Understand and Use

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Keywords:

SCADA, Automation, Instrumentation, Control, Datalogging, Compliance, Interlocks, Permissives, Alarms, Situational Awareness, Troubleshooting, Alarm Management, Situational Awareness

Format: 30 minute presentation, plus written paper

Abstract:

In modern water utilities, SCADA (supervisory control and data acquisition) systems play a vital role for both operations and compliance. SCADA enables operators to remotely view, monitor, and control water facilities. SCADA also automatically controls much of our water infrastructure. Furthermore, SCADA has a vital role in maintaining regulatory compliance at all times, through the automatic control of critical control points, automatic shutdowns, generating alarms, and continuous logging of critical regulatory data.

Enforcing consistency, and avoiding complexity, is the hallmark of a well designed and implemented SCADA system. Drawing on work done by the ISA112 SCADA Systems Standards Committee this talk will provide best practices for using clear terminology and concepts when developing SCADA systems. It is through clear and concise terminology that the design and functionality of SCADA systems can be greatly simplified, yielding systems that are much easier to use, and also much easier (and less expensive) to design/implement, as well as much easier to troubleshoot/maintain over time.

About the Speaker



Graham Nasby, P.Eng, PMP, CAP holds the position of Water SCADA & Security Specialist at City of Guelph Water Services, a publicly-owned/operated water utility located in Guelph, Ontario, Canada. Prior to joining Guelph Water, he spent 10 years in the engineering consulting community after completing his B.Sc.(Eng) at the University of Guelph. He is senior member of the International Society of Automation (ISA) and co-chair of the ISA112 SCADA System Standards Committee. He is also a named SCADA expert on the IEC-TC65 committee, and a voting member of the ISA's Alarm Management and HMI Design committees. Mr. Nasby is a member of both AWWA and WEF, and currently sits on the Ontario Water Works Association's Automation Committee. In 2014, he was recognized with the "Mid-Career Achievement Award" from his alma mater, the University Of Guelph's School of Engineering. Contact: graham.nasby@guelph.ca