

## **Current Trends in SCADA Systems: Situational Awareness, Alarm Management, Data Availability, and System Robustness/Redundancy**

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### **Keywords:**

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**Format:** 30 minute presentation

### **Abstract**

This presentation provides overview of current trends of leading-edge SCADA (supervisory control and data acquisition) systems used in the water sector. Based on his experiences in the consulting community, international SCADA standards committee work (including ISA, WEF, AWWA and IEC committees), and the OWWA Automation committee, Mr. Nasby will provide a brief snapshot of “what’s new” when it comes to SCADA best practices.

Topics that will be covered include:

- Designing SCADA systems to promote Situational Awareness to enable Operators to run water facilities proactively, instead of reactively.
- High Performance HMI’s – designing SCADA screens that are focused around supporting Situational Awareness, including a guide to the recently released ISA-101 HMI Design standard.
- Alarm Management: More effective design, documentation, and reporting of SCADA alarm systems in accordance with ISA-18, for more effective operator response and reduced operator fatigue.
- Safeguarding the SCADA system to ensure high availability and data integrity.
- Improved techniques for improving SCADA network reliability for remote water site connectivity.
- Best practices for improving overall SCADA system reliability and uptime.

### **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 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, and a voting member of the ISA101 HMI Design standards committee. He is a member of both OWWA and WEAO, and currently sits on the OWWA Automation Committee. In 2014, Graham was recognized with a ‘Mid-Career Achievement’ award from his alma mater, the University of Guelph’s School of Engineering. Contact: [graham.nasby@guelph.ca](mailto:graham.nasby@guelph.ca)