

**Modernization of a Municipal Waterworks with SCADA Standardization:  
Past, Present, and Planning for the Future**

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The need for standardization of its SCADA infrastructure led the City of Guelph, Ontario, Canada (population: 120,000) to develop a set of comprehensive SCADA standards to guide the continuing expansion and upgrading of its water facilities.

This presentation will focus on the steps the City of Guelph Water Services Department took during the last five years to develop a set of comprehensive SCADA standards, the successes/challenges from implementing them, and how the standards were adopted as part of the workflow for all new capital projects. Comments will be made on which standards documents (tagging, hardware selection, programming standards, etc.) were most useful in practice and what aspects of the system may be left up to the discretion of the system integrator. Four short case studies will illustrate how the City applied the new standards to existing facilities in order to upgrade them in an organized manner while controlling cost and risk. A fifth case study will outline how the new standards were applied to one of the City's brand new waterworks facilities.

**About the Speaker:**

**Graham Nasby, P.Eng., PMP** is a licensed professional engineer who has worked in various industries ranging from IT and software development to pharmaceuticals and semiconductor manufacturing. He currently designs automated control and monitoring systems for the municipal water/wastewater sector at Eramosa Engineering Inc. He is also a contributing member of the ISA18 "Alarm Management" standards committee and Director-elect for the ISA's Water/Wastewater Division. Contact: graham.nasby@eramosa.com

**Additional Information:**

*The above presentation is based on a paper that was co-presented by Graham Nasby (Eramosa Engineering Inc.) and Matthew Phillips (City of Guelph Water Services Department) at the 2011 ISA Water/Wastewater and Automatic Controls Symposium that has held on June 22-23, 2011 at the Chase Park Plaza Hotel in St. Louis, Missouri, USA. The paper won 1<sup>st</sup> prize for Best Paper at the symposium.*