

**Deploying Industrial Control Systems to Leverage the Industrial Internet of Things (IIoT):
Challenges and Opportunities with Piecemeal vs. Integrated Approaches for PLC and DCS Systems**

Graham Nasby, P.Eng, PMP, CAP¹ and Andrew Brodie²

¹City of Guelph Water Services, 29 Waterworks Place, Guelph, Ontario, N1E 6P7, Canada

²Honeywell Process Solutions, 1250 W Sam Houston Pkwy S #150, Houston, Texas, 77042, USA

Format: 60 minute Webinar

Date/Time: 12noon Eastern on November 10, 2018

Overall Format:

- 05min: Introduction
- 20min: Selecting an Architecture: Pros/Cons of various approaches to PLC & DCS based Industrial Control Systems
- 25min: Common Challenges when harnessing the power of IIoT-ready PLCs
- 10min: Questions & Answers

Part A: Pros and Cons of Integrated Solutions for PLC and DCS based Industrial Control Systems

- Format: Webinar (live)
- Length: 20 minute presentation
- Format: slides with narration
- Presenter: Graham Nasby, P.Eng., PMP, CAP

Part A: Presentation Outline (Slides) – Graham Nasby

1. Title Slide
2. List of Functions of Modern Control System (I/O, controllers, tags, screens, alarms, call-out, historian, reporting)
3. Presentation Outline
4. Traditional PLC System
5. Traditional DCS System
6. Required Layers of Control System (I/O, Communications, Controllers, OT Network, Data Servers, HMI Application, HMI Nodes, Firewall, IT network, reporting & corporate data)
7. I/O and Device Level Communications
8. Controllers & Controller Programming
9. OT Network: Media, Traffic, Firewalls and Security
10. Data Servers: Setup & Configuration
11. HMI Screens & Programming
12. Alarm System & Setup/Configuration
13. Bringing data into the Corporate/IT side of things & Firewalls
14. Using Process Data: Reporting & Corporate Systems
15. Traditional Pros & Cons of PLC Systems
16. Traditional Pros & Cons of DCS Systems
17. Recent with PLC & DCS Systems – Opportunities for Integrated Development
18. Opportunities with IIoT: making Integration Easier
19. Summary

Part B: Common Challenges when harnessing the power of IIoT-ready PLCs (Slides) – Andrew Brodie

- Format: Webinar (live)
- Length: 25 minute presentation
- Format: slides with narration

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. He is senior member of the International Society of Automation (ISA) and past director of the ISA's water/wastewater technical division. As an AWWA and WEF member, he continues to promote the importance of automation and cyber security in the municipal water sector. Graham sits on several international standards committees, including the ISA-99 cybersecurity committee, the IEC TC65 industrial automation committee, and the ISA-18 alarm management committee. In 2013, Graham received the ISA's Technical Division Leader of the Year his contributions to the municipal water/wastewater sector. In 2014, he was recognized with a 'Mid-Career Achievement' award from his alma mater, the University of Guelph's School of Engineering.



Andrew Brodie, MBA is a Process Measurement and Control Global Marketing Leader with Honeywell Process Solutions. He is based out of Honeywell's Houston, Texas office and has global responsibilities for strategic planning, product management/marketing, and project team leadership. He has a MBA in Technology Management and a BS in Information Systems from University of Phoenix.