

An Overview of the ISA112 SCADA Systems Management Lifecycle

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Format: 45-minute presentation, followed by Question & Answer session

Abstract:

In this session, Mr. Nasby who is co-chair of the ISA112 SCADA systems standards committee, and a member of the ISA’s Standards and Practices Board, will provide a brief introduction to the ISA112 SCADA Systems Management lifecycle, the rationale behind it, and how it can be applied to various types of SCADA systems across multiple industries.

In Summer 2022, the ISA112 SCADA Systems Standards committee released the second official draft of its new ISA112 SCADA Systems Management Lifecycle. The Lifecycle is comprised of 8 core activity groups, each broken down into individual work processes. The activity groups are: Continuous Processes, SCADA System Standards, System Design, System Development, Hardware/Fabrication, Installation/Deployment, Commissioning/Start-up, and Operation/Maintenance. Together these eight groupings of work processes provide an organized method and framework for the long-term management of SCADA systems. Not surprisingly, the ISA112 SCADA management lifecycle places a special emphasis on having clear end-user system standards, standardized workflows, consistent management change processes, and ensuring system documentation is kept up to date.

Since its draft release in 2017, the ISA112 SCADA management lifecycle is now being used by numerous pipelines and utility companies across North America, and around the world, for both project-based and long-term management of SCADA systems. Currently, the ISA112 committee has over 300 members from around the world from a wide variety of industries including the municipal water/wastewater, upstream oil/gas, pipeline, electricity, mining and environmental monitoring sectors. Active since 2016, the committee is currently on track to release the first written part of the standard: “Part 1: ISA112 SCADA management lifecycle, terminology and diagrams” in early 2024, with parts 2 and 3 to follow in 2025 and 2026. Part 1 of the standard covers the overall ISA112 framework for managing SCADA systems and SCADA projects. The upcoming parts 2 and 3 will provide further details about individual lifecycle work processes and SCADA architectures. More information about the ISA112 committee, including a freely downloadable copy of the ISA112 SCADA management lifecycle diagram, can be found at www.isa.org/isa112.

About the Speaker



Graham Nasby, P.Eng., FS Eng, PMP, CAP, CISSP, CISM is an industry-recognized leader in the OT (operational technology), SCADA, and industrial automation sector for his efforts in cyber security best practices, standards development, alarm management, and operational efficiency. Through his work with the ISA, CSA, ANSI and IEC, Graham has co-authored international standards on systems design, cyber security, industrial automation, alarm management, and HMI systems. Graham has over 25 years of multi-industry experience, ranging from technical to project/program management, in the pharmaceutical, water/wastewater, nanotechnology, process, and rail transport industries.

His experience includes 8 years in enterprise IT, 3 years in the pharma sector, and 12 years in the municipal water/wastewater sector, and in multiple roles including end-user, consultant, engineer and vendor representative. Graham currently holds the role of Senior Manager of OT Security Architecture at CN Rail, one of North America’s largest Class 1 railroad and logistics companies. Graham has been the co-chair of the ISA112 SCADA systems standards committee since it was formed in 2016. He lives in Guelph, Ontario, Canada.