Harnessing the power of change
ABB Automation & Power World
March 2-5, 2015 | Houston, TX

Curriculum for System 800xA

Monday, March 2

401101   **Windows XP support: what to do when no one is plugging the holes in the Swiss cheese**
1:00 PM - 2:00 PM | Room 360E
Like the Swiss cheese in your refrigerator, Windows XP has holes and no one is going to patch them. If Windows XP is still in use with your control system, can you minimize the downside of no operating system support, no hardware manufacturer support and no independent software vendor support? Are there ways to lock down your system to protect it and reduce the need for patches? Are you struggling to justify to your organization a necessary upgrade? Find out how other industrial control system users are filling the holes in the cheese.

401401   **Migrating multiple vendors' control systems using state-of-the-art technologies with IT on board**
Frank Berry, AIR Products & Chemicals, INC | 1:00 PM - 2:00 PM | Room 370B
Air Products migrated a fleet of control systems over hundreds of sites and geographic locations. Existing systems from several control vendors had to be updated to the latest in Microsoft patchable systems, while conforming to current cyber security recommendations; they also had to be operable from a remote location with a common look and feel across all systems. Air Products was able to meet the requirements of the project within a focused time frame. Their success was enabled by a unified company organization and significant IT involvement.

401201   **Return on investment using 800xA asset monitoring and predictive maintenance**
Darrell Heimberger, Washington River Protection Solutions, LLC | 01:00 PM - 02:00 PM | Room 360F
Washington River Protection Solutions, a Department of Energy subcontractor, has implemented ABB 800xA asset monitoring as a predictive maintenance tool for the maintenance organization. Weekly monitoring using ABB's Maintenance Workplace has resulted in maintenance issues being identified prior to operational impacts and has reduced costs, as centralized predictive maintenance replaces annual field checks.

801801   **System 800xA engineering using ControlBuilder**
1:00 PM - 3:30 PM | Room 371B
This 2-hour, hands-on technical training session introduces the 800xA system, basic system architecture and fundamental configuration skills using the ControlBuilder engineering tool.

801807   **System 800xA alarm management**
1:00 PM - 3:30 PM | Room 371C
This session explores advanced features of alarm management in 800xA, including priority, grouping, shelving, hiding, response and analysis.

701402   **Solve system and process issues fast with automated analysis and remote-enabled access to expertise**
Kevin Starr, ABB Inc. | 2:30 PM - 3:30 PM | Room 370C
Demand for advanced system and process expertise is growing, and the question for producers is how to access and deliver this expertise, notably in remote locations. ABB created ServicePort to bring process expertise to customer sites through a secure, remote connection that helps diagnose, implement and sustain system and process performance. Learn how automated data gathering and analysis can help you swiftly address system and process issues. Wherever your site is, whenever support is needed, these tools deliver process expertise safely, securely and proactively.

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401402 **Maximizing return on investment using ABB 800xA**
Wesley Urbat, Washington River Protection Solutions, LLC | 2:30 PM - 3:30 PM | 370B
Washington River Protection Solutions, at the Department of Energy Hanford site in Washington State, has been implementing progressive upgrades to its installed ABB 800xA system to realize a significant return on investment. The upgrades include the ABB 800xA features of point of control, asset monitoring for predictive maintenance, Historian and SmartClient. Also, the 800xA system has enabled control room consolidation, a process training simulator, cyber security improvements, wireless features and virtualization. This session discusses the benefits derived from the upgrades.

401003 **Styron case study: MOD5 migration to System 800xA**
Joe Beatrice, ABB; Joop Peters, Styron; Kent Morrisey, ABB | 4:00 PM - 05:00 PM | Room 360D
How would you like the challenge of migrating legacy DCS systems at 38 plants scattered around the globe within the next 5 years? This is precisely the challenge that Styron has accepted. This session explains how Styron and ABB are working together to meet this challenge. It encompasses the management of a global engineering team and session, the application conversion tools developed to help streamline the overall effort and some of the successes and hurdles to date.

401103 **Control system cyber security: detect threats, reduce risk and begin the lifecycle security process**
David Macy, ABB; Patrik Boo, ABB | 4:00 PM - 5:00 PM | Room 360E
Cyber security is a new business risk. How do you assess it, identify threats and reduce risks? Will a cyber security investment only protect or can it improve performance? Cyber security can be addressed in a way that identifies threats, mitigates risks and improves performance. Yet control system cyber security is not a one-time event, but an ongoing process. This session identifies best practices, standards and services available for self-maintainers and those wanting more help. It covers basic controls, as well as how to identify and address gaps to minimize risk and maximize reward.

401203 **Keys to effectively deploying a reliability-centered maintenance strategy that maximizes asset life**
Dave Biros, ABB Inc. | 4:00 PM - 5:00 PM | Room 360F
This session explores the elements to effectively deploy a reliability-centered maintenance (RCM) strategy that supports operational excellence and financial performance. Run-to-failure (RTF), preventive maintenance (PM), predictive maintenance (PdM) and condition-based maintenance (CBM) are common. A blend of run-to-failure and preventive maintenance is the typical approach for many industrial plants. The challenge is to develop a balanced strategy that ensures asset performance, process availability and low lifecycle cost. A reliability-centered maintenance strategy provides this balance.

Tuesday, March 3

801802 **Cyber security for ABB automation systems**
David Willert, ABB Inc. | 10:00 AM - 11:30 AM | Room 371B
This hands-on technical training session provides information about cyber security services used to protect your ABB system. Topics include patch management, antivirus, malware remediation and disaster recovery. Laboratory exercises are associated with the patch management portion of this session.

801604 **What do you need to know about cyber security?**
Eric Feldmeyer, DuPont; Patrik Boo, ABB | 1:00 PM -02:00 PM | Room 371F
Cyber security isn't just about geopolitics, the banking system or the energy grid. Most cyber security issues are more basic, such as unsuspecting employees opening innocent-looking files that are really viruses or malware on a home PC that makes it onto a flash drive taken into work. This session addresses what you need to know about cyber security, but didn't know you should ask, such as how to begin addressing cyber security when you have no budget or resources; how to initially assess your situation; and how determine first steps to improve (useful when you need to ask for a budget).

401204 **Energy efficiency in a large-scale facility: the electrical system perspective**
Jose Catarino, Vale; Leandro Monaco, ABB | 1:00 PM - 2:00 PM | Room 360F
Improving energy efficiency is a key aspect for plant management, especially due to increasing electricity costs. Vale, a global mining company, expects to improve the production-energy balance by focusing on remotely maintaining and monitoring their electrical equipment at their new iron ore plant. The use of ABB's System 800xA to integrate production and electrical environments reduces downtime, improves safety and lowers maintenance costs to improve profitability.

801803 **System 800xA human/machine interface with PG2 graphics**
David Willert, ABB Inc. | 1:00 PM - 3:30 PM | Room 371B
In this 2-hour hands-on technical training session, learn about the 800xA console and PG2 graphics, including the operator workplace, graphic elements, faceplates and graphic displays.

801808 **System 800xA alarm management**
Brad MacDonald, ABB; Peter Metcalfe, ABB | 1:00 PM - 3:30 PM | Room 371C
This session explores advanced features of alarm management in 800xA, including priority, grouping, shelving, hiding, response and analysis.

401405 **Totally integrated mine operations: the vision and the results**
Anders Boman, ABB; Eduardo Gallestey, ABB | 2:30 PM -03:30 PM | Room 370B
In the worlds' most integrated mines, only one automation system (800xA) is needed for operators to run production. Among other equipment, the mine hoists, mine ventilation, power system and switchgear as well as advanced process control (APC), the maintenance system, PA system and building automation have all been integrated in System 800xA. Specific improvements (20-50%) were achieved for throughput, energy efficiency and product quality, through the implementation of the APC solution.

701405 **Application libraries for COG process control and safety**
Boban Gladovic, ABB | 2:30 PM - 3:30 PM | Room 370C
This session reviews the application libraries used in the oil, gas and petrochemical industries, their global distribution and their customer value in all the phases of automation system design, implementation and maintenance. The libraries are designed for the 800xA system and AC800M controller family. Newly added features in the latest release are covered as well as the roadmap for 2015 and beyond.

401106 **Panel on automation DCS evolution for industry**
AJ Smith, ABB; Kent Morrisey, ABB; Wayne Stefancin, ABB; Phil Coulton, ABB | 4:00 PM - 5:00 PM | Room 360E
Interested in evolving or modernizing your System 800xA or heritage ABB system? Concerned about the justification, where to start and what questions to ask? System modernization can extend the life of your DCS, lower the cost of ownership and increase the value it provides to your plant. In this session, ABB experts discuss best practices developed from performing hundreds of DCS evolution projects and taking advantage of new technology within the framework of an existing DCS. Topics include lifecycle audits, evolution planning, FEED studies, convert or enhance decisions and more.

Wednesday, March 4

801809 **Introduction to System 800xA**
Brad MacDonald, ABB; Peter Metcalfe, ABB | 10:00 AM - 11:30 AM | Room 371C
This session touches on many key components in System 800xA, including architecture, features/functions, graphics, integration and configuration.

401207 **Best practices for optimized performance of your System 800xA**
Aleksandar Veloff, ABB; David Macy, ABB | 1:00 PM - 02:00 PM| Room 360F
This session explains how to assess the performance of your System 800xA and help you determine proper configuration settings and maintenance practices. Learn how to determine if network settings are properly configured, monitor computer performance items, monitor controller performance, determine if the aspect database is in good health and check domain core functionalities. Monitoring and correcting some of the items covered in this session could help resolve intermittent connectivity issues, accelerate graphic call-up times and catch system degradation.

801607 **Staying alert without being alarmed: managing alarm systems for improved operator response**
Ken Praprost, ABB; Ted Matsko, ABB | 1:00 PM - 02:00 PM | Room 371F
This session examines alarm management practices, performance assessments and opportunities for improvements. Learn about evaluation methods for alarm data, operational practices, control room environment, alarm design and configuration. This information can be used to assess alarm system performance relative to desired baseline levels and identify areas for improvement. This session presents industry guidelines and standards, as well as typical issues and potential improvements to help meet industry guidelines, improve operator responses and optimize alarms.

701407 **System 800xA version 6 overview and update**
Roy Tanner, ABB | 1:00 PM - 2:00 PM | Room 370C
System 800xA's latest release is all about protecting customers against cyber threats, lowering their total cost of ownership and improving their personnel's productivity. Hear about the latest advancements in 800xA and its climb to be the most successful process automation system on the market today. In addition, a panel of experts answers questions on the upgrade process and new capabilities in version 6.

801804 **System 800xA engineering using ControlBuilder**
David Willert, ABB Inc. | 1:00 PM - 3:30 PM | Room 371B
This 2-hour, hands-on technical training session introduces the 800xA system, basic system architecture and fundamental configuration skills using the ControlBuilder engineering tool.

801810 **System 800xA alarm management**
Brad MacDonald, ABB; Peter Metcalfe, ABB | 1:00 PM - 3:30 PM | Room 371C
This session explores advanced features of alarm management in 800xA, including priority, grouping, shelving, hiding, response and analysis.

401208 **Automation service solutions for the 21st century**
Kevin Starr, ABB Inc. | 2:30 PM - 3:30 PM | Room 360F
Up to 75% of the automation investment is not providing benefit because of the lack of a comprehensive service approach. Based on the equivalent of 1000 years of recorded service activity, ABB has defined service distribution models that address today's service requirements. This session highlights preventive maintenance, reactive maintenance and optimization (process) maintenance. Today's service requires advanced solutions based on the latest technology, coupled with proven methods to ensure the optimal distribution of service effort.

801608 **Assessing proper grounding and power distribution for improved system performance and reliability**
David Macy, ABB | 2:30 PM - 3:30 PM | Room 371F
Unexplained intermittent operation, process trips and high failure rates of equipment can result from incorrect installation or poor quality power. Although equipment may operate reliably in one plant or one part of a plant, it may experience frequent problems in another location. A good first step in identifying and correcting ground faults and power quality deficiencies is to audit your installation for compliance with site planning manuals, the National Electric Code, IEEE 1100 and other standards. Learn how, with the same equipment used by ABB field service engineers.

701408 **New 800xA networks portfolio: making systems safer, more secure and more reliable**
Peter Ahlstrom, ABB | 2:30 PM - 3:30 PM | Room 370C
Industrial control systems depend more and more on Ethernet-based networks. In addition to an increase in use of Ethernet for system infrastructures and mobility, the use of communications protocols such as PROFINET, IEC 61850 and Ethernet/IP, is also growing. ABB has launched its own portfolio of network equipment for 800xA - 800xA networks. This new set of switches and routers for wired and wireless applications can make your system safer, more secure and more reliable.

401109 **Squeezing maximum benefit from your service provider network with remote access solutions**
Aleksandar Veloff, ABB; Jennifer Love, ABB | 4:00 PM - 5:00 PM | Room 360E
Discover how a remote access solution can augment your resources, identify potential issues before they become problems and help you leverage the full potential of your existing service provider network. During the session, process optimization engineers connect over HMI consoles to explain how all these goals can be achieved while keeping your IT department satisfied.

Thursday, March 3

801805 **Cyber security for ABB automation systems**
David Willert, ABB | 10:00 AM - 11:30 AM | Room 371B
This hands-on technical training session provides information about cyber security services used to protect your ABB system. Topics include patch management, antivirus, malware remediation and disaster recovery. Laboratory exercises are associated with the patch management portion of this session.

801811   **Introduction to System 800xA**
Brad MacDonald, ABB | Peter Metcalfe, ABB | 10:00 AM - 11:30 AM | Room 371C
This session touches on many key components in System 800xA, including architecture, features/functions, graphics, integration and configuration.

401110   **Cyber securing your site throughout its lifecycle**
David Macy, ABB | 1:00 PM - 2:00 PM | Room 360E
Establishing cyber security for a control system is not a one-time implementation but an ongoing part of maintenance. We'll explore best practices and standards, and services available both for those who are self-sufficient and those requiring more assistance. We'll cover baseline security controls which should be deployed, such as patch management, anti-virus, hardening, removable media, host firewalls, log review, and system backup, testing, and recovery and how they are related to each other. Identify the gaps in your life cycle maintenance plan and discover how to address them.

801806   **System 800xA human/machine interface with PG2 graphics**
David Willert, ABB | 1:00 PM - 3:30 PM | Room 371B
In this 2-hour hands-on technical training session, learn about the 800xA console and PG2 graphics, including the operator workplace, graphic elements, faceplates and graphic displays.

801812   **System 800xA alarm management**
Brad MacDonald, ABB; Peter Metcalfe, ABB | Room 1:00 PM - 3:30 PM | Room 371C
This session explores advanced features of alarm management in 800xA, including priority, grouping, shelving, hiding, response and analysis.

401411   **Phased approach to alarm management using ABB solutions and services**
Umesh Chitnis, ABB | 2:30 PM - 3:30 PM | Room 370B
Learn how to implement an effective alarm management strategy with the correct methodologies and practices to keep alarm annunciators quieter while achieving production, quality and safety goals. Denver Metro Wastewater Reclamation District (MWRD) used an 800xA distributed control system for phased alarm management. MWRD is the wastewater treatment authority for much of metropolitan Denver and parts of northern Colorado.

401412   **800xA simulator: current and future trends in lifecycle simulators**
Elise Thorud, ABB; Rikard Hansson, ABB | 4:00 PM - 5:00 PM | Room 370B
More and more customers worldwide use lifecycle simulators, such as ABB's 800xA simulator with a dynamic process model. The demand is growing for full-scope simulators that include new important system additions to the control systems, such as integrated safety, power management, electrical integration and APC, since the benefits of virtual commissioning and operator training are well known. Additionally, virtualization and cloud computing make it possible to have multiple systems available on demand. Lifecycle simulators reflect these new trends.

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