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ABB Automation & Power World
March 2-5, 2015 | Houston, TX

Curriculum for Harmony

Monday, March 2

401101 **Windows XP support: what to do when no one is plugging the holes in the Swiss cheese**
Dan Duncan, ABB; Jennifer Love, ABB | 01:00 PM – 02:00 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 | 01:00 PM – 02:00 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.

701001 **Collecting and analyzing motion, electrical and temperature data for better drive performance**
Patrik Boo, ABB | 01:00 PM – 02:00 PM | Room 370F
Every process industry producer has motion in common: drive control motors turn, take energy and produce heat. To keep production moving, those three factors must be monitored. This session introduces methodologies to collect motion, electrical and temperature data and then analyze it to produce key drive performance indicators. Indicators outside thresholds are prioritized and displayed so users can identify issues before motion is affected. These approaches also produce recommendations for continued smooth drive performance, even sending notifications when indicators exceed thresholds.

801701 **Symphony Plus operations**
Joseph Trimble, ABB Inc. | 01:00 PM – 03:30 PM | Room 371A
In this 2-hour hands-on technical training session, find out about the Symphony Plus human/machine interface, the Symphony Plus architecture, the function of the different components, navigation within the SPlus Operation Explorer and graphic elements.

401102 **Optimizing Harmony DCS performance**
Aleksandar Veloff, ABB; David Macy, ABB | 02:30 PM – 03:30 PM | Room 360E
Learn about advanced Harmony diagnostics available in your system, how to assess system performance and how to proactively assess potential performance problems. Communication loop performance issues may cause temporary system performance degradation; and some system settings restrict maximum communication and module reporting errors. The Harmony Performance Fingerprint can be delivered on site or remotely through the ServicePort Service Delivery Platform. ABB service engineers can help analyze data and identify issues to improve performance.

701402 **Solve system and process issues fast with automated analysis and remote-enabled access to expertise**
Kevin Starr, ABB Inc. | 02:30 PM – 03:30 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.

401003 **Styron case study: MOD5 migration to System 800xA**
Joe Beatrice, ABB; Joop Peters, Styron; Kent Morrisey, ABB | 04:00 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 | 04:00 PM – 05:00 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. | 04:00 PM – 05:00 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

801702 **Symphony Plus hardware**
Joseph Trimble, ABB Inc. | 10:00 AM – 11:30 AM | Room 371A
This hands-on technical training session introduces the Symphony Plus architecture and the functions of different components, including S+ Communications, setup of the S+ controllers, basic function codes and configuration changes using engineering tools.

401104 **Harmony OPC Evolution success story: North Pacific Paper Corporation (NORPAC)**
Steve Elliott, North Pacific Paper Corporation (NORPAC); Wayne Krysko, ABB | 01:00 PM – 02:00 PM | Room 360E
Evolving your distributed control system components and interfaces to current technologies is a key part of maintaining a reliable and supportable control infrastructure. This session reviews one recently completed project, from requirements, planning, design and engineering to installation and troubleshooting. The case study features Symphony Harmony components, but touches on goals, themes and benefits that can be applied to the most challenging evolution projects.

401404 **Advanced integrated operations and FPSO solutions**
Erlend Ingebrigtsen, ABB AS; Håvard Devold, ABB AS | 01:00 PM – 02:00 PM | Room 370B
Digital oilfield integration is a key enabler, contributing to process performance, asset health, productivity, safety and lean operations. Real use cases of offshore oil and gas projects reveal that integrated operations facilitate safe and efficient project handover and asset operation. Floating production storage and offloading (FPSO) and floating production units (FPU) offer unique challenges: remoteness, limited storage and accommodation and long turnover cycles. Discover how advancements in FPSO and FPU solutions help meet production targets.

801604 **What do you need to know about cyber security?**
Eric Feldmeyer, DuPont; Patrik Boo, ABB | 01:00 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).

701304 **Symphony Plus: enhancing plant control system security**
Jim Lemanowicz, ABB; Mike Radigan, ABB | 01:00 PM – 02:00 PM | Room 360B
ABB's systems are designed with security in mind. This session explains how ABB's organizational approach ensures that cyber security is properly addressed during product development and highlights the security features and capabilities built into Symphony Plus to enable the concepts of secure by design, secure by default and secure in deployment.

701305 **S+ Operations**
Carsten Beuthel, ABB; Ralph Porfilio, ABB | 02:30 PM – 03:30 PM | Room 360B
S+ Operations is the human/machine interface (HMI) for the supervision and operation of all Symphony Plus control systems as well as a SCADA solution for distributed applications like water management networks, solar power installations and wind farms and fleets. Designed for improved operator effectiveness, S+ Operations provides an intuitive, easy-to-use environment to facilitate process monitoring and control, fault mitigation and optimization. In addition to providing an overview of the key features of S+ Operations, this session shows what's new in S+ Operations 2.0.

401106 **Panel on automation DCS evolution for industry**
AJ Smith, ABB; Kent Morrisey, ABB; Wayne Stefancin, ABB Inc.; Phil Coulton, ABB Inc. | 04:00 PM – 05:00 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

801704 **Symphony Plus hardware**
Joseph Trimble, ABB Inc. | 10:00 AM – 11:30 AM | Room 371A
This hands-on technical training session introduces the Symphony Plus architecture and the functions of different components, including S+ Communications, setup of the S+ controllers, basic function codes and configuration changes using engineering tools.

401207 **Best practices for optimized performance of your System 800xA**
Aleksandar Veloff, ABB; David Macy, ABB | 01:00 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 callup times and catch system degradation.

801607 **Staying alert without being alarmed: managing alarm systems for improved operator response**
Ken Praprost, ABB; Ted Matsko, ABB | 01:00 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.

801705 **Symphony Plus operations**
Joseph Trimble, ABB Inc. | 01:00 PM – 03:30 PM | Room 371A
In this 2-hour hands-on technical training session, find out about the Symphony Plus human/machine interface, the Symphony Plus architecture, the function of the different components, navigation within the SPlus Operation Explorer and graphic elements.

401208 **Automation service solutions for the 21st century**
Kevin Starr, ABB Inc. | 02:30 PM – 03:30 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.

701308 **S+ Control and I/O**
J Ruhe, ABB; Mark Bitto, ABB; Ralph Porfilio, ABB | 02:30 PM – 03:30 PM | Room 360B
S+ Control and I/O is a comprehensive suite of standards-based hardware and software that meets the requirements for total plant control. The portfolio includes the SD Series (Symphony DIN) and HR Series (Harmony Rack). The energy efficient SD Series features modular DIN rail packaging; flexible, high-performance, Ethernet-based plant network; intelligent electrical and field device integration; PROFIBUS, HART, IEC61850 (MMS and GOOSE) and Modbus TCP communication protocols; and an integrated turbine control solution.

801608 **Assessing proper grounding and power distribution for improved system performance and reliability**
David Macy, ABB | 02:30 PM – 03:30 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.

401109 **Squeezing maximum benefit from your service provider network with remote access solutions**
Aleksandar Veloff, ABB; Jennifer Love, ABB | 04:00 PM – 05:00 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.

Wednesday, March 5

801706 **Symphony Plus operations**
Joseph Trimble, ABB Inc. | 10:00 AM – 11:30 AM | Room 371A
In this 2-hour hands-on technical training session, find out about the Symphony Plus human/machine interface, the Symphony Plus architecture, the function of the different components, navigation within the SPlus Operation Explorer and graphic elements.

401110 **Cyber securing your site throughout its lifecycle**
David Macy, ABB | 01:00 PM – 02:00 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.

301108 **ABB extends main automation contractor capability with EPC/SI partners**
Matthew Burton, Hargrove Controls + Automation, LLC | 01:00 PM – 02:00 PM | Room 330AB
Today's market for capable automation resources becomes more challenging by the week. With an aging workforce and constant movement in technology, finding consistent and experienced resources is a problem. ABB is solving this problem by extending its own main automation contractor (MAC) capabilities beyond just ABB systems to include full-service engineering capabilities along with independent systems integration (SI), by engaging experienced partners with resources.

801610 **Important issues in industrial boiler control and how the EPA's MACT Rules affect you**
Ken Praprost, ABB; Ted Matsko, ABB | 01:00 PM – 02:00 PM | Room 371F
Various metrics can be used to assess boiler performance in terms of reliability, efficiency and performance of key control loops. Diagnostic methods, such as inspections of boiler equipment and control logic, testing and data analysis, can be used to assess current boiler performance and compare that performance to expectations. Learn about typical problems associated with boiler equipment, instrumentation and controls; improvements that can increase operating efficiency and reliability; and the Environmental Protection Agency's rule known as Boiler MACT.

2701312 **Symphony Plus condition monitoring**
Richard Vesel, ABB | 04:00 PM – 05:00 PM | Room 360B
The power generation and process industries depend on the reliable and predictable operation of rotating machinery. Nearly every plant monitors its critical and essential rotating machinery assets with a continuous online protection system. Symphony Plus' condition monitoring products integrate powerful hardware with intelligent software. When used along with a proactive maintenance policy, they can reduce and often eliminate costly machine failures. ABB has solutions for continuous improvement that help increase your plant's uptime and profitability.

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