

Product Release Summary

System 800xA Extended Automation 5.1

The Power of Integration

July, 2010. The System 800xA 5.1 release includes enhancements to help customers improve performance, usability and operator effectiveness with a substantially reduced system footprint.

System 800xA serves as the foundation for a number of unique industry-specific automation applications. Designed from the beginning to act as an integration platform, it has been proven to promote collaboration, improve operator effectiveness, achieve seamless control solutions, and provide flexible evolution paths through integrating diverse, usually separate plant systems, applications, information or fieldbus and controller platforms. Since its introduction in 2004, System 800xA has been sold to more than 6,000 new and existing ABB customers in a diverse range of industries. This figure includes new system installations, as well as existing ABB system evolutions to 800xA.

System 800xA 5.1 is based on Microsoft's latest operating system, Windows 7 / 2008 Server. It includes many new features that will help customers in all industries improve productivity, operator effectiveness, and overall process performance while saving time, money and resources, including:

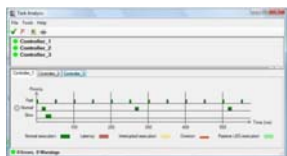
Improved operator effectiveness: System 800xA 5.1 includes advanced alarm management capabilities that help users implement successful alarm management strategies, as well as provide operations personnel with better control of responsibility between control rooms and other operating locations. New Alarm Shelving and Alarm Analysis features have been added to an already long list of alarm management capabilities in order to help keep alarms in check. In addition to traditional reporting of alarm statistics, the built-in Alarm Analysis displays are natively accessible to operators via graphics based on Microsoft Windows Presentation Foundation (WPF) thereby involving them in the process and ensuring your alarm management strategy's continued success.



Alarm Analysis Built into 800xA Operations

A new Point of Control feature of System 800xA allows an operator in a different area of a facility (in a remote locale) to request permission to control a plant area or unit from the currently responsible operator. Once approved, permission to operate that part of the facility is transferred to the requesting operator and captured in the audit trail log. The area or unit alarm and event messages are now routed to the new operator, thereby reducing the number of alarms sent to the original operator. 'Point of Control' improves the coordination of operators during critical periods such as shift change providing a safer, more secure, operating environment.

Improved engineering and change management: System 800xA 5.1 includes multiple engineering improvements such as simplified bulk data handling when engineering FOUNDATION Fieldbus projects. In addition, two new features improve and streamline change management procedures:



Task Analysis Tool

The Task Analysis Tool lets the user evaluate how his/her application will be executed based on the current task rates assigned prior to downloading. It clearly shows any latency or conflicts and then prevents the new application from being downloaded to avoid a controller error. It also performs "what if" scenarios to pinpoint where problems may occur when modifying task execution cycle times.



Detailed Difference Report

The Detailed Difference Report provides a way to easily see changes made in control applications and graphics and provides a report of exactly what has been modified, added, or removed in an easy-to-read user interface. It provides the engineer and quality personnel with precisely the information needed to pinpoint changes and evaluate their impact. This is especially useful in change management processes, as it can verify that no other changes have been made except the ones present in the change request, saving hours of change request verification and testing.

Improved performance: Several performance enhancements make System 800xA's already robust Control and I/O offering even more versatile, flexible, and scalable. The latest version of System 800xA includes a new member of the AC800M controller family, the PM891. It has approximately 3 times the clock speed (450Mhz) and 4 times the memory of its predecessor making it the most powerful controller in its class. The PM891 helps customers do more with less, requiring fewer controllers for complex applications and providing 1-1 controller evolution for previous generation ABB and third party controller platforms



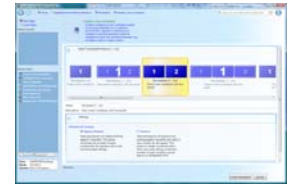
PM891 Controller

HSE Linking Device



Reduced footprint: The latest version of System 800xA uses virtualization to reduce the physical number of PCs required for installations by as much as 75%. This significantly reduced footprint also reduces energy consumption and maintenance requirements. In addition, improvements made to System 800xA's FOUNDATION Fieldbus architecture has greatly reduced the infrastructure requirements for its High Speed Ethernet (HSE) network approach, increasing the number of devices that can be connected to one node by 400%.

Enhanced maintainability: Based on User Centered Design practices, the newest version of System 800xA includes a System Administration Console and a Security Update Tool to help keep the system running securely and at an optimum level. The Security Update Tool will allow users to download Security Patches from Microsoft and cross match that to ABB's qualified list. The user can then create a loadable set of supported, tested security updates that can be rolled out to System 800xA. This helps the user save valuable time and effort while providing a more robust, secure system.



System Admin Console

Improved connectivity: System 800xA has added to and enhanced its portfolio of communication interfaces to help users further leverage its powerful integration capabilities. These include new communication interfaces for PROFINET, DeviceNet via Ethernet IP, and WirelessHART. System 800xA's WirelessHART solution seamlessly integrates Pepperl+Fuchs WirelessHART Gateway providing wireless connectivity to HART enabled devices, such as sensors and actuators, making the process variables and diagnostic data available in System 800xA's controller, HMI, and integrated Asset Optimization application. System 800xA's FOUNDATION Fieldbus interfaces also now support EDDL. These interfaces make it easier for customers to access and use diagnostic data from smart instruments, regardless of manufacturer or physical device location.



P+F WirelessHART Gateway

To provide even deeper and wider integration with electrical systems, System 800xA's IEC61850 Communications Interface capability has been enhanced by increasing the number of supported Intelligent Electrical Devices (IEDs) per communication interface card and by improving alarm and event support.

By integrating power and process systems on the common 800xA platform, customers optimize the design and performance of their electrical and automation systems and see additional benefits in reduced maintenance, engineering and overall lifecycle costs. According to ARC, typical savings can result in a 20% reduction in CAPEX (capital expenditures) and OPEX (operating expenditures) by integrating these two, usually separate, automation infrastructures.



IEC61850 Communication Module

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