Course Description

T316
System 800xA using PROFIBUS/HART
Field Device Integration with Asset Optimization

Course Goal
The goal of this course is to learn the planning, configuration and commissioning of automation solutions with PROFIBUS/HART devices in System 800xA. Another goal is the maintenance and optimization of these devices.

Course Objectives
Upon completion of this course, students will be able to:
- Explain the fundamentals of Fieldbus technologies especially PROFIBUS/HART
- Design and plan the topology of a System 800xA with PROFIBUS/HART device
- Configure and commission HART devices out of the ABB Device Library
- Use DTM and Fieldbus Builder for parameterization, diagnostic and simulation
- Use PROFIBUS data in applications for alarms, graphics etc.
- Understand Wireless HART, Configuration of the Gateway and DTM Configuration

Student Profile
This training is targeted to application and instrumentation engineers, commissioning and maintenance personnel, service engineers and system integrators.

Prerequisites and Recommendations
Students should have attended either the Basic Configuration course T314 or the Engineering course T315 or have knowledge and experience associated with the content of these courses.

Topics
PROFIBUS/HART fundamentals
- System 800xA topology with PROFIBUS/HART field devices
- HART devices on Module bus and PROFIBUS
- PROFIBUS DP slaves
- PROFIBUS PA slaves
- Wireless HART (Overview)
- Introduction to Wireless HART, Configuration of the Gateway and DTM Configuration
- Asset Monitoring (Overview)

Course Type
This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 50% of the course is hands-on lab activities.

Course Duration
The duration is 4 days.
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Course outline

**Day 1**
- Course overview
- PROFIBUS/HART fundamentals
- System 800xA topology with PROFIBUS/HART field devices

**Day 2**
- PROFIBUS DP master
- Web interface
- PROFIBUS DP slaves
- HART devices
- PROFIBUS

**Day 3**
- Introduction to Wireless HART, Configuration of the Gateway and DTM Configuration
- PROFIBUS DP slaves
- PROFIBUS PA slaves

**Day 4**
- PROFIBUS PA slaves (cont.)
- Asset Monitoring overview