Course description

GBW500
System 800xA with AC 800M
Overview & Engineering Considerations

Course goal
This workshop provides an overview of System 800xA and AC 800M hardware; in the process, giving insight to the considerations required during execution of projects using these technologies. Attendees will be introduced to terminology used within ABB to refer to the various software and hardware components of the resultant control system.

Learning objectives
Upon completion of this course the participants will be able to:

- Have an understanding of the System 800xA architecture, including the purpose of each server node and the configuration options
- Understand information in the ‘Wizard’ tool
- Know the inputs required to begin the phases of engineering identified in St. Neots standard processes
- Awareness of the different engineering methods available, their advantages and disadvantages
- Appreciate basic control applications, the use of Control Builder M and IEC 61131-3 languages
- Describe the principles to integrate other devices with various communication protocols
- Understand how graphic displays, faceplates and operator workplaces are configured
- Identify the critical issues to manage, structure and configure alarm and events
- Appreciation of the larger architectures possible and the limitations of System 800xA
- Knowledge of standard and extended system features

Participant profile
This training is targeted to senior project engineers and project managers working for ABB’s Process Automation Solutions, Oil & Gas Projects business.

Prerequisites
Delegates will preferably have knowledge of, or experience with, control systems or instrumentation.

Topics
- 800xA overview
- AC 800M hardware
- IEC 61131-1 applications
- Engineering methods
- Communication and device integration
- OPC connectivity
- Graphic displays and faceplates
- Alarm and events
- Historian and trends
- Operator Workplaces
- User security
- Backup / restore
- Added-value features
- Reference documentation

Course type and methods
This is an instructor led course with interactive classroom discussions.

Duration
The duration is 2 days.
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### Course outline

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
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</table>
| - System 800xA overview  
- AC 800M hardware  
- IEC 61131-1 applications  
- Engineering methods  
- IAC / MMS  
- Fieldbuses / 3rd party interfaces  
- Reference documentation/resources | - Functional safety projects (IEC 61508/11, FSMS)  
- AC 800M HI (safety controller)  
- Project execution  
- Process navigator  
- Extended architectures / advanced solutions  
- Added-value features |