The goal of this workshop is to learn the engineering workflow of a complete automation project using the Extended Automation System 800xA with AC 800M controllers.

The participants will learn to identify the critical issues and will gain the basic knowledge to start a project in an efficient manner. It is highly recommended to utilize the ABB technical coaching after this course in order to implement best practices.

**Course objectives**

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

- Identify the critical issues with respect to an efficient engineering workflow in 800xA
- Create a new control project and plan the structure of application programs
- Select the suitable existing building blocks and describe the necessary steps to develop project specific libraries
- Configure basic control applications by using a variety of IEC 61131-3 languages
- Describe the principles to integrate other devices with various communication protocols
- Configure simple graphic displays, faceplates and operator workplaces
- Identify the critical issues to manage, structure and configure alarm and events
- Configure historical data logging and trends
- Describe the principles of user security
- Backup / restore System 800xA data
- Describe the steps to use bulk data handling
- CAD Drawing and VideONet

**Course type and methods**

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

**Student Profile**

This training is targeted to project and technical sales support engineers from ABB channel partners.

**Prerequisites**

Students shall have working experience with Control Systems and have basic knowledge of Windows and networking technologies. The e-learning course T360e must have been completed upfront.
Main topic
- Engineering workflow
- AC 800M hardware configuration
- Available libraries
- Variables and data types
- IEC 61131-1 applications
- Diagrams, Control modules
- Sequential Function Charts (SFC)
- Task assignment
- Communication and device integration
- OPC connectivity
- Diagrams
- Graphic displays and faceplates
- Alarm and events
- Historian and trends
- Operator Workplaces
- User security
- Backup / restore
- Bulk data handling
- Simple reports (MS Excel Data Access)
- CAD Drawing and VideONet
- Historian and trends
- Operator Workplaces
- User security
- Backup / restore
- Bulk data handling
- Simple reports (MS Excel Data Access)
- CAD Drawing and VideONet

Duration
The duration is 5 days

Course Outline

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<td>Task assignment Diagrams Control modules (PID loops etc.) Sequential Function Charts (SFC)</td>
<td>Communication and device integration OPC connectivity Function Designer Graphic displays</td>
<td>Faceplates Alarm and events Historian and trends Operator Workplace</td>
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