ABB UNIVERSITY COURSE DESCRIPTION

T315F&H

System 800xA - Engineering using Function Designer

Learn to use Function Designer to engineer a complete control project using System 800xA with AC800M controllers.

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.

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

Prerequisites
Students should have fundamental working knowledge of control systems, Windows/Windows Server and networking technologies.

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

- Explain the System 800xA architecture and the function of the different components
- Navigate in the system and create new objects
- Create a new control project and configure the AC800M hardware and I/O's
- Setup the OPC connectivity to AC800M
- Create function diagrams, parameterize signal objects, configure MMS communication
- Create simple sequences using SPL
- Configure process graphic displays, navigation links, graphic elements and faceplates
- Configure alarms and events
- Setup basic historical data collection and configure trend displays
- Create and customize operator workplaces
- Configure user accounts and security
- Create reports using Microsoft Excel data access
- Backup and restore System 800xA data

Main topics

- System 800xA architecture
- Engineering Workplace/Plant Explorer
- Project and application structures
- AC800M hardware
- System 800xA backup and restore
- Libraries, variables and data types
- OPC connectivity
- Task assignment and memory
- Function Designer concepts and engineering
- Function Designer Templates
- Sequential Programming Language (SPL)
- Communication
- User defined object types (optional)
- Graphic displays, Graphic elements, and faceplates
- Alarms and events
- Basic history and trends
- Operator Workplace and user security
- Simple reports
- Import/Export Tool

Duration
The duration is 10 days

Course Outline

Day 1	Day 2	Day 3	Day 4	Day 5
• Course overview • System 800xA architecture • Engineering Workplace/Plant Explorer • Project and application structures • AC800M hardware	• AC800M hardware • Project backup • Libraries • OPC connectivity • Task assignment and memory • Variables and data types	• Function Designer concepts • Engineering with Function Designer	• Engineering with Function Designer • Function Designer templates • Sequential Programming Language (SPL)	• Sequential Programming Language (SPL) • Communication • User defined object types (optional)

Day 6	Day 7	Day 8	Day 9	Day 10
• Plant modeling • Graphic displays • Graphic elements	• Faceplates • Alarm and events	• Historical data collection • Trend displays • Workshop “engineering”	• Operator Workplace • User security • Backup and restores • Import and export	• Simple reports • Document manager • National Language Support (NLS) • Bulk data handling

To register, contact the North America Customer Service Center or visit us online
ABB Inc.
+1 800 HELP 365 Option 2, Option 4
Fax: +1 919 666 1388
abbuniversity@us.abb.com

abb.us/abbuniversity

3BUS095189