INT308
System 800xA with AC800M Hardware Maintenance and Troubleshooting

Course goal

The goal of this course is to learn how to troubleshoot the AC 800M hardware in an Extended Automation System 800xA.

Learning Objectives

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

- Explain the System 800xA architecture and the function of the different components
- Operate objects through faceplates Configure IT assets
- Handle alarms
- Navigate in the Project Explorer
- Describe the structure of application programs i.e. variables, libraries, programs, tasks
- Configure the AC 800M hardware and corresponding I/O's
- Load the controller and work in online mode
- Troubleshoot and exchange AC 800M hardware
- Troubleshoot Profibus and Module bus communication to the S800 I/O's
- Troubleshoot the OPC communication to the AC 800M controller
- Monitor control applications
- Trace alarms from the Human System Interface (HIS) down to control logic
- Trace signals in Control Builder

Participant profile

This training is targeted to first level maintenance personnel. **Note**: There is some overlap in T308 with the material of T314 Basic Configuration. Since both courses are intended not to require prerequisite knowledge of 800xA, there is introductory material in both courses that is very similar.

Prerequisites

Students shall know the fundamentals of working with Control Systems and have basic knowledge of Microsoft Windows.

Topics

- System 800xA architecture
- Operation
- Project Explorer
- AC 800M hardware
- Hardware diagnostics
- Hardware redundancy
- Monitoring applications
- Alarm tracing
- Signal tracing
- I/O communication
- OPC communication

Course type and methods

This is an instructor led workshop with short presentations and demonstrations, extended exercises, hands on sessions and discussion. Approximately 50% of the course is hands-on lab activities. The language of the course is English.

Duration

The duration of the course is five days.

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Course outline

Day 1	Day 2	Day 3	Day 4	Day 5
■ Course overview ■ System architecture ■ Operation ■ AC 800M hardware ■ Controller preparation	■ Control builder overview ■ Plant explorer workplace ■ Hardware troubleshooting ■ Signal tracing in function block diagrams	■ Signal tracing in structured text ■ Signal tracing in control modules ■ Signal tracing in sequential function charts	■ MMS communication ■ Signal tracing from 800xA workplace	■ System troubleshooting

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