

T308

System 800xA - with AC800M Hardware Maintenance and Troubleshooting



Learn how to troubleshoot the AC800M hardware in Extended Automation System 800xA. Be able to explain System 800xA architecture and the function of the different components.

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.

Student 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/Windows Server.

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
- 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 AC800M hardware and corresponding I/O's
- Load the controller and work in online mode
- Troubleshoot and exchange AC800M hardware
- Troubleshoot Profibus and Modulebus communication to the S800 I/O's
- Troubleshoot the OPC communication to the AC800M controller
- Monitor control applications
- Trace alarms from the Human System Interface (HIS) down to control logic
- Trace signals in Control Builder

Main topics

- System 800xA architecture
- Operation
- Project Explorer
- AC800M hardware
- Hardware diagnostics
- Hardware redundancy
- Monitoring applications
- Alarm tracing
- Signal tracing
- I/O communication
- OPC communication
- Miscellaneous

Duration

The duration is 5 days

Course Outline

Day 1	Day 2	Day 3	Day 4	Day 5
<ul style="list-style-type: none">• Course overview• System architecture• Operation• AC800M hardware• Controller preparation	<ul style="list-style-type: none">• Control Builder overview• Plant Explorer Workplace• Hardware troubleshooting• Signal tracing in Function Block Diagrams	<ul style="list-style-type: none">• Signal tracing in structured text• Signal tracing in control modules• Signal tracing in sequential function charts	<ul style="list-style-type: none">• Signal tracing in function designer• MMS communication• Signal tracing from 800xA workplace	<ul style="list-style-type: none">• System troubleshooting

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