

ABB 800xA Administration

COURSE CONTENT

GET IN TOUCH



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About Multisoft

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About Course

ABB 800xA Administration Training focuses on the technical and operational responsibilities involved in maintaining System 800xA environments. Participants gain knowledge of system architecture, Aspect Directory, security administration, workplaces, system services, alarms and events, historical information, backup and recovery, diagnostics, and maintenance. The training combines conceptual understanding with practical administrative scenarios, helping professionals support reliable and well-managed industrial control environments.

Module 1: Introduction to ABB System 800xA Administration

- ✓ Overview of ABB Ability™ System 800xA
- ✓ Role of System 800xA in industrial automation
- ✓ System administration responsibilities
- ✓ Overview of engineering, operations, and administration environments
- ✓ Major system components and their functions
- ✓ Administrative workflow and system lifecycle considerations

Module 2: 800xA System Architecture and Administrative Environment

- ✓ System 800xA architecture overview
- ✓ Client-server and distributed system concepts
- ✓ System nodes and node functions
- ✓ Server and client roles
- ✓ Domain and network considerations
- ✓ System software components
- ✓ Understanding system dependencies
- ✓ Administrative tools and interfaces
- ✓ Navigating the system environment

Module 3: System Structure, Aspect Objects, and Aspect Directory

- ✓ Introduction to Aspect Object technology
- ✓ Objects, aspects, and object relationships

- ✓ Understanding system structures
- ✓ Functional Structure
- ✓ Control Structure
- ✓ Location Structure
- ✓ Workplace Structure
- ✓ Library and other relevant structures
- ✓ Navigating Aspect Directory
- ✓ Object organization and administration
- ✓ Searching and locating system objects
- ✓ Administrative considerations for object structures

Module 4: Workplace and Operator Environment Administration

- ✓ Understanding 800xA workplaces
- ✓ Workplace Structure
- ✓ Workplace profiles and configuration
- ✓ User-specific workplace considerations
- ✓ Workplace layout and navigation
- ✓ Display and application integration
- ✓ Workplace access configuration
- ✓ Managing workplace-related aspects
- ✓ Testing workplace configurations
- ✓ Maintaining consistent operator environments

Module 5: User Accounts, Roles, Permissions, and Security Administration

- ✓ 800xA security concepts
- ✓ User and group administration
- ✓ Windows/domain account relationship
- ✓ Roles and permission concepts
- ✓ Security definitions and access rights
- ✓ Object-level access considerations
- ✓ Assigning administrative privileges
- ✓ Operator and engineering access
- ✓ Authentication considerations
- ✓ Reviewing user access
- ✓ Security administration practices
- ✓ Principle of least privilege

Module 6: System Services and Service Structure Administration

- ✓ Introduction to System 800xA services
- ✓ Understanding Service Structure
- ✓ Service providers and service groups
- ✓ Service allocation concepts
- ✓ Service dependencies
- ✓ Primary and redundant service considerations
- ✓ Monitoring service status
- ✓ Starting and stopping relevant services

- ✓ Identifying service-related problems
- ✓ Administrative handling of service failures
- ✓ Maintaining service availability

Module 7: Connectivity and Communication Administration

- ✓ Overview of 800xA connectivity
- ✓ Communication between system nodes
- ✓ Connectivity server concepts
- ✓ Controller and system communication overview
- ✓ OPC communication concepts
- ✓ Network-related administration
- ✓ Node communication verification
- ✓ Communication status monitoring
- ✓ Identifying connectivity problems
- ✓ Basic communication troubleshooting
- ✓ Maintaining reliable system communication

Module 8: Alarm, Event, and Historical Data Administration

- ✓ Alarm and event architecture overview
- ✓ Alarm and event services
- ✓ Alarm configuration considerations
- ✓ Event collection and handling
- ✓ Alarm priorities and categories
- ✓ Alarm lists and filtering concepts
- ✓ Historical data architecture

- ✓ History services and storage concepts
- ✓ Data collection considerations
- ✓ Reviewing historical information
- ✓ Monitoring alarm and history services
- ✓ Administrative troubleshooting of alarm and history functions

Module 9: System Configuration and Administrative Maintenance

- ✓ Routine system administration activities
- ✓ Reviewing system configuration
- ✓ Managing system nodes
- ✓ Checking system health
- ✓ Configuration consistency considerations
- ✓ System status verification
- ✓ Log and event review
- ✓ Disk space and resource monitoring
- ✓ Administrative housekeeping
- ✓ Handling configuration changes
- ✓ Documentation of administrative changes
- ✓ Preventive maintenance practices

Module 10: Backup, Restore, and System Recovery

- ✓ Importance of system backup
- ✓ Backup strategy considerations

- ✓ Understanding configuration and system data
- ✓ Preparing for backup activities
- ✓ System backup procedures
- ✓ Backup verification
- ✓ Restore concepts and procedures
- ✓ Recovery planning
- ✓ Handling system configuration recovery
- ✓ Backup storage considerations
- ✓ Recovery validation
- ✓ Backup and recovery documentation

Module 11: Diagnostics, Troubleshooting, and Performance Monitoring

- ✓ System diagnostic concepts
- ✓ Monitoring system health
- ✓ Checking node and service status
- ✓ Reviewing Windows and system logs
- ✓ Identifying communication issues
- ✓ Diagnosing service failures
- ✓ Troubleshooting workplace-related problems
- ✓ User access and permission troubleshooting
- ✓ Alarm and history service troubleshooting
- ✓ Resource and performance monitoring
- ✓ Structured fault isolation
- ✓ Documenting incidents and corrective actions

Module 12: Administration Best Practices and Practical Exercises

- ✓ System administration checklist
- ✓ Daily and periodic system checks
- ✓ User and security review practices
- ✓ Service health verification
- ✓ Backup verification practices
- ✓ Configuration change control
- ✓ System documentation practices
- ✓ Preventive administration activities
- ✓ Troubleshooting scenarios
- ✓ Backup and recovery exercise
- ✓ User and permission administration exercise
- ✓ System health assessment
- ✓ Administration scenario based on an industrial 800xA environment