

Emerson Movicon NExT Advanced Training

COURSE CONTENT

GET IN TOUCH



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About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

About Course

Emerson Movicon NExT Advanced Training by Multisoft Systems is designed for professionals aiming to master high-level SCADA and HMI development for modern industrial environments. This course goes beyond the fundamentals and focuses on advanced configuration, scripting, and deployment techniques required to build scalable, secure, and intelligent automation systems.

Module 1: Advanced Movicon NExT Architecture & Project Design

- ✓ Deep dive into Movicon NExT architecture and scalable project structure
- ✓ Multi-user and distributed system configuration
- ✓ Client/Server and Web Client architecture setup
- ✓ Project deployment strategies for enterprise environments
- ✓ Performance tuning and system optimization fundamentals

Module 2: Advanced Graphics & Visualization Development

- ✓ Advanced screen design and dynamic visualization techniques
- ✓ Vector graphics, symbols, and reusable templates
- ✓ Faceplates and object-oriented HMI development
- ✓ Multi-resolution and responsive UI design
- ✓ Advanced animation and runtime visualization control

Module 3: Scripting & Automation Logic

- ✓ Advanced scripting using VB.NET within Movicon NExT
- ✓ Event-driven programming and custom functions
- ✓ Script debugging, error handling, and performance tuning
- ✓ Creating reusable libraries and automation workflows
- ✓ Integration of scripts with alarms, events, and UI

Module 4: Alarm, Event & Notification Management

- ✓ Advanced alarm configuration and prioritization
- ✓ Alarm filtering, suppression, and escalation strategies
- ✓ Event handling and system logging
- ✓ Notification systems (Email, SMS, OPC-based alerts)
- ✓ Alarm analytics and KPI-based monitoring

Module 5: Data Logging, Historian & Reporting

- ✓ Advanced data logging configuration and storage optimization
- ✓ Historian setup and real-time data tracking
- ✓ SQL database integration and query execution
- ✓ Trend analysis and advanced charting tools
- ✓ Custom report generation and export (PDF/Excel)

Module 6: Communication & Protocol Integration

- ✓ OPC UA advanced configuration and secure communication
- ✓ Integration with PLCs (Siemens, Rockwell, etc.)
- ✓ Modbus TCP/IP, Ethernet/IP, and industrial protocols
- ✓ Driver configuration and troubleshooting
- ✓ Real-time data exchange and redundancy setup

Module 7: IIoT & Cloud Integration

- ✓ Introduction to IIoT architecture in Movicon NExT
- ✓ MQTT protocol configuration and IoT gateway setup
- ✓ Cloud connectivity (Azure, AWS, or private cloud)
- ✓ Edge computing and remote monitoring solutions
- ✓ Integration with enterprise systems and dashboards

Module 8: Security, Redundancy & System Reliability

- ✓ User authentication and role-based access control
- ✓ Data encryption and secure communication setup
- ✓ Redundant server configuration (Hot/Standby systems)
- ✓ Backup, restore, and disaster recovery strategies
- ✓ Compliance with industrial cybersecurity standards

Module 9: Web HMI & Mobile Access

- ✓ Web client configuration and HTML5 visualization
- ✓ Mobile SCADA deployment and remote access
- ✓ Dashboard publishing for remote users
- ✓ Secure remote monitoring setup
- ✓ Performance optimization for web-based SCADA

Module 10: Deployment, Testing & Troubleshooting

- ✓ Project testing and validation techniques
- ✓ Debugging tools and performance monitoring
- ✓ System diagnostics and issue resolution
- ✓ Version control and project lifecycle management
- ✓ Best practices for deployment in live industrial environments

Module 11: Advanced Use Cases & Industry Applications

- ✓ Smart manufacturing and Industry 4.0 implementation
- ✓ Energy management and utility monitoring
- ✓ Predictive maintenance using SCADA data
- ✓ Integration with MES/ERP systems
- ✓ Real-world industrial case studies and project walkthrough