

From Contracts to Commissioning

The Operational Lifecycle of SCADA Systems

This program follows the full lifecycle of a SCADA system—from contract language through live operations—and demonstrates how early project decisions determine long-term performance, reliability, and risk.

Workshop 1: Contracting and Project Foundations for SCADA Systems

This workshop examines how early contracting, scope definition, and responsibility boundaries quietly lock in downstream SCADA risk—often before design begins.

Key topics:

- How SCADA scope definitions become operational constraints
- Vendor roles, responsibilities, and interface boundaries
- Contract gaps that routinely surface as commissioning failures
- How contract language controls testing, acceptance, and ownership
- Identifying embedded risk before it becomes expensive or unsafe

Outcome:

Participants learn how to identify and correct contractual and planning weaknesses before they are permanently embedded into system design and execution.

Workshop 2: SCADA System Design, Configuration, and Integration

This workshop shows how architecture, configuration, and integration decisions shape system behavior during commissioning and live operations.

Key topics:

- System architecture and control intent
- Alarm design and operational consequences
- Integration of field devices, control equipment, and communications
- Documentation practices that either support or undermine operations
- Design weaknesses that typically surface during commissioning

Outcome:

Participants develop a practical understanding of how design and configuration choices directly affect operational reliability, alarm performance, and operator trust.

Workshop 3: Commissioning and System Startup Risk Management

This workshop concentrates on the highest-risk phase of the SCADA lifecycle—where accumulated decisions are finally exposed.

Key topics:

- Commissioning intent versus reality
- Testing strategies for logic, alarms, and communications
- Vendor, contractor, and operations coordination
- Recognizing incomplete or misleading test results
- Preventing unresolved issues from entering live operations

Outcome:

Participants learn how to detect incomplete testing, prevent unresolved issues from entering service, and support a controlled transition to live operations.

Workshop 4: SCADA Operations, Maintenance, and Troubleshooting

This workshop focuses on operating and sustaining systems that operations teams did not design and cannot easily change.

Key topics:

- Operator interaction and alarm management
- Troubleshooting control and communication issues
- Using documentation as an operational tool
- Managing live system changes without introducing new risk
- Sustaining reliability over time

Outcome:

Participants gain practical methods to reduce unplanned downtime, resolve issues faster, and manage live system changes without introducing new risk.

Workshop 5: Governance, Cybersecurity, and Long-Term System Stewardship

This workshop addresses the oversight structures required to protect SCADA systems technically, operationally, and organizationally over time.

Key topics:

- Control system governance models
- Cybersecurity awareness in industrial environments
- Change management and configuration control
- Regulatory and compliance considerations
- Accountability and documentation for long-term stewardship

Outcome:

Participants understand how governance, change management, and cybersecurity practices reduce long-term operational and regulatory exposure.

Instructional Approach

All workshops are instructor-led, scenario-based, and focused on real-world operational outcomes rather than vendor-specific tools.

These classes exist because most SCADA failures are operational—not software-related. In consulting engagements, the same risks are repeatedly embedded during contracting, design, and commissioning and carried into operations, where they become cost, safety, and reliability problems.