

# SCADA Operational Training Workshops

Supporting Operational Consulting and Oversight

## Workshop 1: Contracting and Project Foundations for SCADA Systems

**What changes:** Emphasize inevitability.

This workshop focuses on 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

**What changes:** Tie design directly to operations.

This workshop examines how SCADA 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 and operator trust**.

## **Workshop 3: Commissioning and System Startup Risk Management**

**What changes:** Position commissioning as exposure, not a milestone.

This workshop concentrates on the highest-risk phase of the SCADA lifecycle—where accumulated design, contracting, and integration 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 recognize commissioning risk early and support a controlled transition from project delivery to operational service.

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## **Workshop 4: SCADA Operations, Maintenance, and Troubleshooting**

**What changes:** Emphasize inheritance.

This workshop focuses on operating and maintaining SCADA systems after commissioning—often systems that operators 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 tools to support stable operations, faster issue resolution, and reduced unplanned downtime.

## Workshop 5: Control Systems Governance, Cybersecurity, and Compliance

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

### 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 and cybersecurity practices **reduce long-term operational, regulatory, and organizational risk.**