PRESENTED BY

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OVERVIEW

• Mystery Reveal 1 - SCADA Terms - (starting with)
  • Supervisory Control And Data Acquisition

• Mystery Reveal 2 - Project Communication
  • Who, What, When, Where, Why, How
MYSTERY REVEAL 1 - TERMS

Provide a glossary of terms and specific suggestions for effective communication throughout a SCADA design project to equip operators and supervisors for their participation in the process.

The SCADA system is your interface with a complex and costly system. A well-designed system will make your day-to-day operations most effective.

A Glossary of Terms handout will be available at the end of this presentation.
SCADA TERMS

- P&ID
- Loop
- Process Control
- Inputs/Outputs
- Motor Control
- Instruments
- Process Flow
CONTROL PANEL TERMS

- I/O
- PLC
- UPS
- Surge Suppresser (TVSS)
- HMI
- Ethernet Switch/Router
NETWORK TERMS

- Ethernet
- Network – Business/Office vs. Industrial Control
- DeviceNet
- Fiber Optic
- Radio
- Firewall
PC TERMS

- Hardware
  - Workstation
  - Server
  - Phones/Tablets

- Software
  - HMI
  - Operational Reporting
  - Maintenance Management
  - SaaS (Software as a Service)

- Remote Access
  - SCADA Access
  - Maintenance Records Access
  - Alarm Management
  - Interactive/Text Messaging
MOTOR CONTROL TERMS

- MCC
- Bucket
- FVNR, FVR
- VFD
- SSRV
- Networked MCCs
POWER DISTRIBUTION TERMS

- Power (Quality) Monitor
- Standby Generator/Automatic Transfer Switch
- Switchgear (Draw-out)
- Switchboard
INSTRUMENTATION TERMS

• 4-20 mA
• Discrete
• Intrinsically Safe
• Networked
INTEGRATION TERMS

• System Integrator
• PLC Programmer
• HMI Designer/Programmer
  • PC and PLC
• “Qualified”
SECURITY TERMS

• Passive Infra-Red (PIR)
• Ultrasonic
• Break Glass
• Door Switch
• Video Monitoring
  • Streaming
  • Event Capture
PROJECT COMMUNICATION

HOW WHO WHAT WHEN WHERE WHY
SCADA ties everything together.
The design process can span several years.
It is especially important that operators and supervisors are involved in the planning.
MYSTERY REVEAL 2 - HOW

• Involve all team members in the project.
• Soliciting input and feedback throughout project design and execution.
• Provide education.
• Encourage involvement.
WHO

• Supervisors
• Operators
• Designers/Vendors
FACILITY PLAN PHASE

WHAT

Assessment of Existing System

WHY

Needs Analysis and Recommendations for Future
PRELIMINARY DESIGN PHASE

WHAT

Overall Conceptual Design

WHY

Immediate Needs
Future Needs
DESIGN PHASE

WHAT

• Loop Review Meeting
• Equipment Selection
• System Integrator Interviews

WHY

• Capture Critical Input
• Select the Right Equipment
• Determine the Best Fit for Your Project
CONSTRUCTION PHASE

WHAT – PRE-INSTALLATION

• Loop Review/Submittal Conference
  • Before Programming and Panel Construction Begins.

• Shop Test
  • Before Control System is Shipped out for Installation.
CONSTRUCTION PHASE

WHAT - IN THE FIELD

• Start-up

• Training
  • Control system
  • Software
    • Wastewater Data Management
    • Maintenance/Asset Management
    • Alarm notification

• Additional Services
  • Programming tweaks
  • HMI design enhancements
SCADA NETWORKS - MYSTERIES REVEALED!

Communication is the key to success

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