



Instrumentation & Control Training

Maximize Engineer's &
Technician's Efficiency Within Your Plant

The Training Experience

- Classroom & Demo Room Environment
- Intro to Higher Level Training Courses
- Instructors with 30+ Years of Experience

Neal Systems offers instrumentation and control training using both a classroom and demo room environment. Suitable for junior engineers, maintenance technicians, field service personnel, design and control engineers and calibration techs, our courses have been designed by degreed engineers, all with over 30 years of experience.



Virtual & In-Person Courses

GeoSCADA Training (3 Day)

Designed to give integrators and end-users a hands-on overview of architecture, design, and implementation of a highly configurable SCADA solution. Upon completing this 3-day course, attendees will be able to:

- Install and configure GeoSCADA servers and clients
- Configure GeoSCADA security and data retrieval/control
- Create visualizations for data retrieved from the field devices (i.e. graphical pumps, tanks, buttons, etc.)
- Use templates to quickly design large systems
- Discuss backups/exports of database and architecture systems

iTools Training (Half or Full Day)

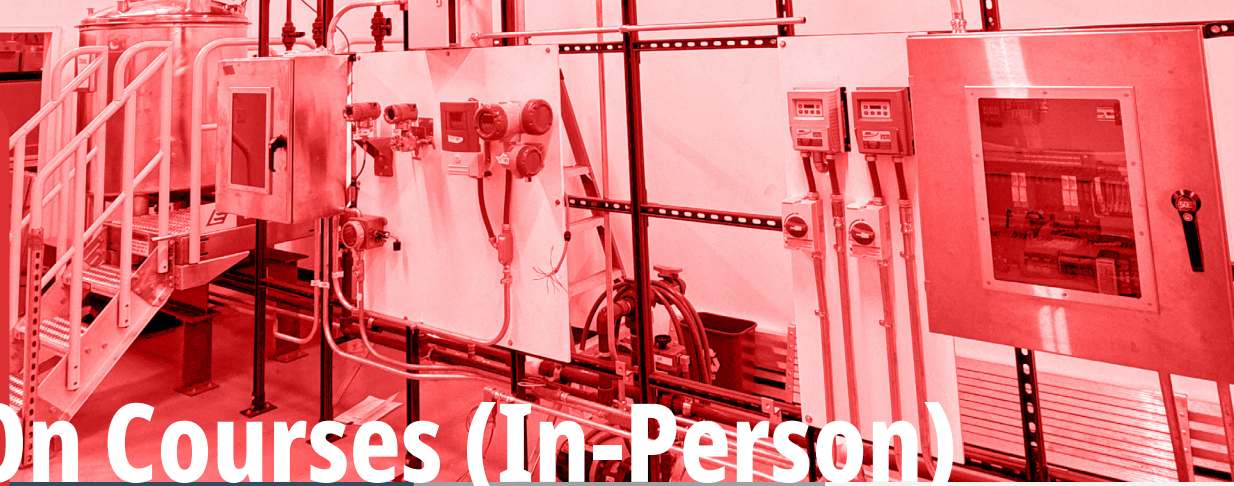
This course will introduce attendees to the Eurotherm programming package, Tools. iTools is used for all Eurotherm controller products e.g. Nanodac, EPC3000, Mini8, 3504, 3508, EPack, and EPower. At the end of a half-day, attendees will be able to connect to an instrument and save/download a file, make minor changes, set up a profile, and monitor a live program. The second half-day will cover PID control, totalizers, math functions, recipes, and communications.

AM

- The different mechanisms to connect to an instrument
- How to upload to/download from/an instrument
- Concepts of function block programming
- Differences in capabilities between controllers
- How to make changes to an existing program
- Monitoring and commenting a program
- Setting up and running a Setpoint profile
- OPC Scope

PM

- PID control
- Tuning a loop
- Adding math functions and totalizers
- Creating a recipe
- Setting up communications to other controllers/PLC's/SCADA



Hands-On Courses (In-Person)

Gas Detection

(Half, Single, or Two Day)

This course is designed to educate technicians and engineers on general toxic and combustible gas leak monitoring and detection practices such as:

- Strategies for implementing gas leak monitoring and detection systems
- Protocols when working in areas where toxic or combustible gas leak occurs
- Gas leak detection instrumentation and systems
- Basic theories and principles
- Configuration and maintenance of gas leak detection infrastructure

Overview of 4-20mA Loops

(Half Day)

This 4-hour course will provide application guidelines and the best installation practices that must be followed for successful implementation. Students will learn to **discover, diagnose, and correct issues that result in inaccurate or non-functioning loops and become familiar with HART protocol to monitor and configure devices.**

Temperature Measurement

(Half Day)

This course will cover the fundamentals of temperature measurement. Topics presented include:

- Definitions of heat/temperature
- Converting temperature scales
- Range/accuracy of common industrial temperature sensors
- Selection and application of sensors for industrial processes
- System design, troubleshooting and calibration

Upon completing this 4-hour course, attendees will be able to identify their appropriateness, and select appropriate sensors and installation methods for new systems.

Industrial Flow Measurement Theory

(Half Day)

This 3-hour course will examine the most common flow meter selections, provide an understanding of measurement principles and the advantages/ limitations of each type. Topics include:

- Why measure flow?
- How to select the appropriate flow meter for an application with hands-on demonstrations in the NSI flow lab
- Definitions of flow, volumetric, mass and standard volume units, accuracy, repeatability and rangeability
- Configuration and maintenance of gas leak detection infrastructure

About Neal Systems

Founded in 1986 by David Neal, serving first as a manufacturer's representative, NSI quickly expanded its distribution throughout the Northeast and Mid-Atlantic. NSI evolved from being simply a product provider to becoming a total solutions and service provider for plant and process automation.

Meet Our Trainers:

Dexter Vilar

Applications Engineer

30+ Years in Industrial Process Controls and Data Acquisition



Walter Freeman

Instrumentation and Valve Expert

30+ Years in Instrumentation, Gas Detection, Valves, & Data Acquisition



Book a Training Here!
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