

Learn About:

- ControlLogix™ System Overview
- ControlLogix™ Terminology and Definitions
- Communications Using ControlLogix™
- Configuring Ethernet/IP Drivers
- ControlLogix™ Hardware and Wiring
- Select and Configure Input and Output Modules
- Understanding Number Systems
- ControlLogix™ I/O Addressing
- How to Create and Monitor RSLogix 5000 Tags
- Basic Relay Instructions
- Ladder Logic Fundamentals
- Learn ControlLogix™ Timer and Counter Functions
- Learn How Comparison Instructions are Used
- Learn to Edit Programs
- How to Troubleshoot Using the Program
- Learn to Troubleshoot Input and Output Modules
- Learn RSLogix 5000 Project Organization

ControlLogix™

Fundamentals, Communications, Applications and Troubleshooting



Develop confidence, fundamentals, and troubleshooting techniques to eliminate wasted time and guesswork!

- This seminar can also be presented at your facility for larger groups
- Reserve your space now! **CALL 1-877-978-7246**
- Check us out online at **www.TPCTrainco.com** for a complete listing of all seminars coming to your area



“Great Course. Great Instructor.”

Don N. - Electrical Supervisor

ControlLogix™

Fundamentals, Communications, Applications and Troubleshooting

SEMINAR OVERVIEW

In the field of equipment maintenance, installation or modification, the ability to understand and work confidently on programmable logic controllers is a must. This course is designed to introduce technicians to the AB ControlLogix™ system architecture and the software that controls it.

Understanding the basic hardware associated with a system including input modules and output modules and how they are configured is a key component to being able to troubleshoot a PLC controlled machine. Beyond the hardware side you will learn how to communicate with the ControlLogix™ system and how to upload and download projects with a complete understanding of the different CPU modes.

TRAINING OUTCOMES

Ladder logic fundamentals will be covered including numbering systems, addressing, relay instructions, timers and counters, and comparison instructions as well as proper program documentation which can be crucial for troubleshooting in the future. The training will include exercises on how to troubleshoot a ControlLogix™ system. It includes a complete understanding of the status lights associated with the system as well as I/O forces, troubleshooting techniques, and potential safety issues.

If you have a ControlLogix™ system that you work with, this is the seminar for you. And because we know time is money, this seminar is designed to have immediate impact so that you can start eliminating costly guesswork on your repairs today. We approach our students as if they were our own employees. We give them real world, practical knowledge, and students attending this course are expected to go back to their workplace and immediately apply what they have learned.

WHO SHOULD ATTEND?

These courses are designed for maintenance personnel, electricians and others responsible for conducting maintenance and other work on PLC controlled equipment. This training is perfect for those who want to be able to speak the PLC language, read and interpret PLC ladder logic, troubleshoot PLC systems and components, and fix common PLC problems. Our instructors have broad industrial and commercial knowledge so students come from a large variety of industries, skill-levels, company sizes and job titles. Anyone needing a solid foundation of PLCs will benefit from this class.

CONTINUING EDUCATION UNITS

Upon completion of this seminar, the student will receive a three-star certification of completion with 8 classroom hours (.8 TPC Trainco CEUs) per day attended. Most employers and many government agencies accept TPC Trainco CEUs to fulfill their continuing education requirements.

TESTING & CERTIFICATION

Our optional ATMT® testing and certification sets the standard for measuring maintenance worker knowledge. Employers can use it to assess training needs prior to training or to measure training outcomes, or as documentation for a qualified electrical worker program or other internal safety or training program. Individuals use our testing and certification to demonstrate knowledge to a current or potential employer.

Our exams can be done online or on paper. The paper exam can be taken in a proctored or non-proctored setting.

Please contact our Testing Administrator at 303-867-5035 or at testing@tpctrainco.com for a study guide or exam orders, proctor applications, or specific certification questions.

OUR EXPERT INSTRUCTORS

Our team of 60 field-experienced instructors is the backbone of training seminar schedule, from HVAC certification and maintenance to PLC courses. Together they've logged more than 200,000 hours in the classroom — by far the deepest experience in the industry.

Our instructors must meet three core requirements:

- Relevant formal education in the seminar topic area
- Documented hands-on work experience
- Specific experience as a maintenance training instructor

Many of our instructors' credentials extend even further, including experience as authors, speakers, and industry organization board members within their fields of expertise. And they stay current on technology and industry trends through their own ongoing education, field visits, and peer review meetings.

TRAINING PHILOSOPHY

Our training is designed with practical, real-world facility and industrial applications in mind. It is unbiased, unaffiliated and non-commercial so you are assured of a real education and not a product sales pitch. It focuses less on theory and more on the actual steps students need to properly maintain equipment or fix specific problems at their own plant or facility.

Our instructors will simplify the subject matter for the novice or go in-depth to answer an engineer's toughest question. We have over thousands of hours of experience of live classroom training using these methods, and it is why our students keep coming back.

SEMINAR OVERVIEW

DAY ONE - DISCUSSION TOPICS

This seminar is all about ControlLogix™ and Day One starts with a system overview, terminology, definitions, hardware and communications.

ControlLogix™ System Fundamentals

- Introduction to ControlLogix™
- ControlLogix™ Architecture
- System Overview
- Project Organization
- Operator interfaces

Communications

- RSLinx
- Configuring Ethernet Modules
- Communication Networks
- Network Addressing
- CPU Modes
- Uploading Projects
- Downloading Projects

ControlLogix™ Hardware

- Input Modules
- Output Modules
- CPU
- Communication Modules
- Digital vs. Analog
- Remote I/O

DAY TWO - DISCUSSION TOPICS

Day Two emphasizes more complex ControlLogix™ functions such ladder logic, I/O addressing, editing programs and troubleshooting.

Program Management

- Numbering Systems
- ControlLogix™ I/O
- Addressing Relay Type Instructions
- Ladder Logic Basics
- Timers
- Counters
- Comparison Instructions
- Creating and monitoring tags
- Rung documentation
- Configuring I/O

Troubleshooting

- Documentation
- Proper troubleshooting technique
- Searching and Cross Reference
- Status Light Indicators
- Input/Output Troubleshooting
- Safely working with Forces

Software Resources and Applications

▶ **“Excellent”**

Mike B. - Water Operator

▶ **“Just right”**

Daniel M. - Engineer

SEMINAR AGENDA

7:30 am	Registration
8:00 am	Class Begins
12:00 -1:00 pm	Lunch (on your own)
4:30 pm	Class Ends

SEMINAR FEE

\$1100 Both Days

NO RISK REGISTRATION & MONEY-BACK GUARANTEE

If you're not yet sure you'll be able to attend this seminar, we can still hold a spot for you in the class. While payment is due prior to the start of the seminar, you may choose a full refund or credit for cancellations made at least 24 hours in advance. Substitutions are also freely allowed. Please register early!

IN-HOUSE TRAINING

TPC Trainco offers an extensive list of courses available for convenient, in-house training at your facility. We can provide the same expert air conditioning, boilers, HVAC, facility and plant management, Fluid hydraulics, piping, and electrical training courses at your facility that we offer in public seminars.

Advantages of On-Site Training

1. Modify the content to your specific needs
2. Protect company privacy
3. Workers remain on site in case of an emergency
4. Saves time and travel costs
5. Instructors can discuss your specific equipment
6. Problems can be openly discussed
7. Flexible scheduling
8. Increased price savings as the groups get larger
9. Promote teamwork & camaraderie among workers
10. More comfortable learning environment

Contact us if you have any questions and to get a no-obligation quote.

Reserve Your Space Risk-Free!

CALL 1-877-978-7246

or Online at www.TPCTrainco.com



Only \$1100 for Both Days

PLEASE HELP OUR LOGISTICS TEAM AND REGISTER EARLY. CANCEL UP TO 24 HOURS IN ADVANCE WITHOUT PENALTY.

ATTENDEE NAME	ATTENDEE EMAIL	COURSE TITLE	DATE(S)	CITY/STATE	PRICE
		ControlLogix			

(*See Public Seminar Pricing Schedule on Previous Page)

TOTAL \$ _____

AUTHORIZING PERSON / SUPERVISOR:

Name _____

Title _____ Company Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ Email _____

(Needed for Confirmation & Sending Pre-Reading Materials)

BILL TO: *(If Different than Authorizing Person)*

Name _____

Title _____ Company Name _____

Address _____

City _____ State _____ Zip _____

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(Needed for Confirmation & Sending Pre-Reading Materials)

PAYMENT METHOD: *(Please make Checks Payable to TPC Trainco)*

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Signature (Required) _____ Name on Card _____

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QUESTIONS & HOW TO REGISTER

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Send by Mail: TPC Trainco, P.O. Box 3397, Englewood, CO 80155

