

## PLC Wiring & Troubleshooting for Maintenance

### WINTER 2021

(Location details on page 2)

February 15 - 18  
Knoxville, TN

February 22 - 25  
Grand Rapids, MI

March 8 - 11  
Kalamazoo, MI

March 22 - 25  
Saginaw, MI

April 5 - 8  
Fort Wayne, IN

### DETAILS

Monday - Thursday  
8:00am - 4:30pm

Lunch provided

### Instructor Led, Hands-on Training

At the completion of this training, the employee will be able to “talk through” and troubleshoot the PLC’s ladder logic using the Logix5000 software in order to locate a “real” faulty input or output device, replace it, and get the process back up and running. **It’s all about troubleshooting!**

Each participant will wire the actual input and output (I/O) field devices to the PLC. **The participants actually wire their own PLC Trainer!**

### Topics Covered:

- Ethernet communications set up using RSLinx
- Demonstrate the BootP utility using an “out of the box” controller to set the IP address and the configuration in RSLinx
- Ethernet/IP driver – explain “RSWho views” and RSLinx configuration
- Real and Simulated inputs and outputs
- Timers (TON, TOF, RTO, RTF), Counters (CTU, CTD), One-Shot (ONS)
- Compare blocks (EQU, NEQ, LES, GRT, LEQ, GEQ, LIM), First-Scan (S:FS)
- Math blocks (ADD, SUB, MUL, DIV, CPT), Set Bit Zero/Negative (S:Z, S:N)
- Jump (JMP), Jump to Subroutine (JSR), Master Control Reset (MCR)
- One/two Dimension arrays, Fill File (FLL), Copy File (COP), Average File (AVE)
- Bit-Shift Right/Left (BSR, BSL), First-In-First-Out (FIFO) Load/Unload (FFL, FFU)
- Last-In-First-Out (LIFO) Load/Unload (LFL, LFU), Masked Move (MVM)
- Sequencer Output (SQO) using the Array, Mask, and Output Tables
- Indirect Addressing, Add-On Instructions (AOI)

**NOTE:** Numerous **hands-on** labs utilizing troubleshooting skills are included.

## REGISTRATION INFORMATION:

Cost: \$1,895      Register at: [keinc.info/KCT-W21](http://keinc.info/KCT-W21)



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to view all training offered by Kendall Electric.

# KENDALL CONNECTED TRAINING

## PLC WIRING & TROUBLESHOOTING FOR MAINTENANCE WINTER 2021 SCHEDULE

CLASS DATES	LOCATION	VENUE	ADDRESS
February 15 - 18	Knoxville	Drury Inn & Suites	209 Advantage Place, Knoxville, TN 37922
February 22 - 25	Grand Rapids	Baymont Inn	8282 Pfeiffer Farms Drive, Byron Center, MI 49315
March 8 - 11	Kalamazoo	Four Points by Sheraton	3600 East Cork Street Court, Kalamazoo, MI 49001
March 22 - 25	Saginaw	Hampton Inn, Beacon Room	2695 Tittabawassee Road, Saginaw, MI 48604
April 5 - 8	Fort Wayne	Ceruti's, Summit Room	6601 Innovation Drive, Ft. Wayne, IN 46818

### **INSTRUCTOR:** Bob Draime

Bob provides electrical training for the customers of Electrical Distributors and for employees of all types of industries. His extensive experience in conducting electrical training has enabled him to recognize the special needs of countless companies and their employees.

He began providing electrical training at Dunwoody Industrial Institute while employed as an Electrical Engineer for Northern States Power (XCEL Energy) in Minneapolis, Minnesota. He then served as an Electrical Engineer for United Technologies. Later he spent several years as a college Professor, which provided him with extensive knowledge of how to clearly and effectively teach technical material.

Bob earned Electrical Engineering degrees from Michigan Technological University and the University of Tennessee.

### **COST AND ORDERING INFORMATION**

- Register at: [keinc.info/KCT-W21](http://keinc.info/KCT-W21)
- 4-Day Seminar, Monday - Thursday
- 8:00am - 4:30pm, Lunch Provided
- Cost: \$1,895 per student
- All training materials are provided in class
- Course ID # 3752291

***On-site training is also available!***

For more information, contact your Kendall Electric Account Manager or email our training coordinators at [training@kendallelectric.com](mailto:training@kendallelectric.com).



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