

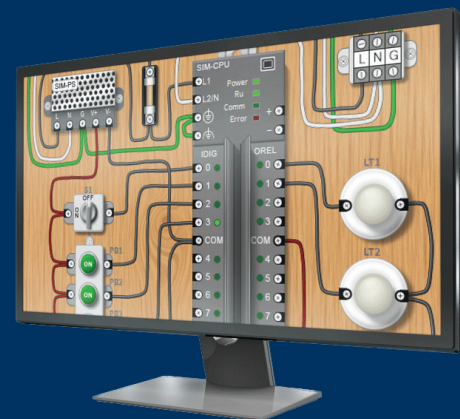
TROUBLESHOOTING PLC CIRCUITS

Troubleshooting PLC Circuits (TPLC) is the fourth in our series of simulation-based training modules. In this module, your professionals will diagnose and repair over 60 faults in each of three simulated circuits containing PLC controls. These circuits contain PLC CPU, digital input module, digital output modules, DC power supplies, relays, fuses, pushbuttons, and switches.

This module is designed to allow professionals to learn and practice troubleshooting on all electrical equipment and systems containing Programmable Logic Controllers (PLCs). PLCs are commonly used in companies that use automation systems, in industrial and manufacturing settings such as the food and beverage and petrochemical industries.

WHAT'S COVERED

1. The purpose and function of PLCs
2. Discrete or digital input modules, including connecting and testing
3. PLC control modules (CPUs), including connections, status lights, and managing ladder programs
4. PLC input and output modules, including connections and testing of relay, TRIAC, and transistor types
5. Reading and interpreting PLC ladder programs containing instructions such as Inputs, Outputs, Relays, Latches, Counters, Timers, and Clock Pulses
6. Shock and arc flash hazards
7. Application of Simutech Multimedia's Systematic Troubleshooting Approach to PLC circuits
8. Additional diagnostic strategies and techniques specific to PLC circuits



LEARNING OBJECTIVES

Your staff will:

- Learn how to determine the operation of PLC circuits using ladder diagrams, wiring diagrams, input/output schematics, and data sheets
- Develop and master a variety of specific techniques for diagnosing malfunctions in circuits containing any PLC make or model
- Perfect their PLC circuit troubleshooting process by troubleshooting more than 60 faults in a safe training environment

DESIGNED FOR

- Electrical and maintenance professionals who need to maintain and troubleshoot electrical equipment and systems containing PLC controls
- Learning skills that are directly transferable to the workplace
- Worldwide use: simulations on resources provided for NEMA and IEC electrical standards

ADDED BENEFIT

- In-depth videos and more than 12 hands-on labs deliver information on PLC operations
- Step-by-step guides help users apply new problem-solving techniques to different PLC circuit simulations
- Continual practice and evaluation with additional faults in the Maintenance section
- Printable resources including flowchart, worksheets, diagrams and datasheets

THE SIMULATIONS

4 instructional simulations teach students about the operation and behavior of PLC circuits and ladder programs.

3 unique troubleshooting scenarios develop and master professionals' troubleshooting skills, featuring:

- PLCs with separate control, digital input, and digital output modules
- DC power supplies and a variety of input components
- Relays and other output components

FEATURES

7 unique simulations provide scenarios for troubleshooting faults of various difficulties.

Lab exercises (core)	13
Practice exercises (core)	6
Practice faults (core)	6
Guided faults (core)	5
Skill Test faults (core)	18
Extra faults	24
Genius faults	8
Practice	Limitless

EVALUATING SKILLS

Managers can:

- Track skills development with comprehensive evaluations for each fault and overall individual performance
- Measure and record users' achievements in safety, accuracy, and efficiency
- Use all-inclusive reports to monitor professionals' progress, achievements, and areas that need improvement
- Print certificates when a professional finishes all skill test faults

TRUSTED BY OVER 500 COMPANIES AND 200 SCHOOLS GLOBALLY

