



**AUTOMATION**

**COURSE CCP298**

## **Studio 5000 Logix Designer Level 1: CompactLogix Fundamentals and Troubleshooting**

Upon completion of this course, you should be able to troubleshoot a previously operational CompactLogix™ system and restore normal operation.

In this course you will develop and practice these skills by:

- Learning basic concepts and terminology used with:
  - CompactLogix system hardware
  - Studio 5000 Logix Designer® application
- Practicing a systematic strategy for diagnosing and troubleshooting problems:
  - Faulty/malfunctioning field devices
  - Controller, I/O, or other hardware issues
  - Electrical Noise
  - Configuration issues
- Performing hands-on exercises

All Logix5000™ systems use the same control engine; therefore, tasks are similar. You will see applicable references for other systems.

**Monday, August 7**

12 PM - 5 PM

**Tuesday, August 8 -**

**Friday, August 11**

8AM - 5 PM

**SMC Joplin**

923 W 4th St

Joplin, MO 64801

**Cost: \$3,275**

Includes Lunch

\*Except Monday



**Authorized  
Service Provider**

A ROCKWELL AUTOMATION PARTNER

To register, please contact Suzan McPherson at [smcpherson@smcelectric.com](mailto:smcpherson@smcelectric.com)

# Course Agenda

REGISTER HERE



- Locating CompactLogix Systems Components
- Navigating through the Logix Designer Application
- Connecting a Computer to a Communications Network
- Downloading and Going Online
- Locating I/O Tags and Devices
- Interpreting Logix Designer Project Organization and Execution
- Interpreting Ladder Logic Structure
- Locating and Editing Tag Values
- Interpreting Bit Instructions
- Interpreting Frequently Used Instructions
- Interpreting Arrays
- Interpreting Tags of User-Defined Data Types
- Searching for Project Components
- Integrated Practice - Interpreting a Basic Project
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Problems
- Troubleshooting Analog I/O Problems
- Troubleshooting Banked Local I/O and Distributed I/O Problems
- Updating Logix5000 Firmware
- Troubleshooting Controller Problems
- Troubleshooting Power Supply Problems
- Analyzing and Troubleshooting a System Using a Trend Chart
- Integrated Practice-Troubleshooting Basic Projects
- Editing Ladder Logic Online
- Managing Logix Designer Project Files
- Documenting and Printing Components
- Troubleshooting Noise-Related Problems

## PREREQUISITES

- Ability to perform basic Microsoft Windows tasks
- Previous experience with common industrial control system concepts

To register, please contact Suzan McPherson at [smcpherson@smcelectric.com](mailto:smcpherson@smcelectric.com)