

# Logix5000™ Controllers

## RSLogix 5000 Level 1: ControlLogix® Fundamentals and Troubleshooting Course Description

### COURSE AGENDA

- *Optional: Understanding Control Systems*
- Identifying System Components
- Identifying Software Components
- Connecting a Computer to a Communications Network
- Communicating with a Logix5000 Controller
- Interpreting RSLogix 5000 Project Organization and Execution
- Identifying Local I/O Tags
- Creating Tags and Monitoring Data
- Drafting Basic Ladder Logic
- Selecting Basic Ladder Logic Instructions
- Editing Ladder Logic Online
- Modifying Timer and Counter Instructions
- Monitoring Arrays and Tags of User-Defined Data Types
- Documenting and Printing Components
- Searching for Project Components
- Integrated Practice - Interpreting a Basic Project
- Applying Preventative Maintenance and Troubleshooting Strategies
- Troubleshooting Controller Problems
- Monitoring GSV/SSV Instructions
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Problems
- Troubleshooting Analog I/O Problems
- Troubleshooting Remote I/O
- Troubleshooting Power Supplies
- Troubleshooting Noise Problems
- Troubleshooting and Monitoring a System Using a Trend Chart
- Managing Project Files
- Integrated Practice-Troubleshooting Basic Projects
- Understanding Control Systems
- Identifying Industrial Networks



### COURSE NUMBER: CCP299

#### *Course Purpose*

This course will assist you in developing and building a solid foundation and fundamental knowledge of ControlLogix® and other Logix5000™ systems (i.e., CompactLogix™, FlexLogix™, DriveLogix™, and SoftLogix™). You will be introduced to basic concepts and terminology, and Logix5000 system hardware. This course builds upon this knowledge and provides you with the necessary resources and hands-on practice to efficiently troubleshoot a previously operational Logix5000™ system.

You will be presented with a systematic strategy for diagnosing and troubleshooting a variety of system problems, such as software configuration issues, electrical noise, controller, I/O, and other possible hardware issues.

#### *Who Should Attend*

This course is intended for individuals who need to maintain and troubleshoot a ControlLogix or other Logix5000 system – but have no current working experience with Logix5000 systems.

### ***Prerequisites***

To complete this course successfully, students must have the following prerequisites:

- Ability to perform basic Microsoft Windows® tasks, such as, using a mouse, browsing for files, and opening, closing, sizing and moving windows
- Knowledge of basic ladder logic instructions (bit, timer, counter, etc.) through previous training and/or personal experience

### ***Student Materials***

To enhance and facilitate students' learning experience, the following materials are provided to each student as part of the course package:

- *Student Manual*, which contains the key concepts, definitions, and examples presented in the course and includes the hands-on exercises.
- *Logix5000 Systems Glossary*, which contains terms and definitions specific to Logix5000 systems. This easy-to-use reference tool will help users understand Logix5000 concepts and identify Logix5000 systems terminology.
- *RSLogix 5000 and Logix5000 Procedures Guide*, which contains step-by-step procedures for basic system tasks.
- *ControlLogix Controllers Troubleshooting Guide*, which contains a systematic approach to diagnosing and troubleshooting common ControlLogix system problems.

### ***Hands-On Practice***

Hands-on practice is necessary for retaining new information and learning skills and to give students a working knowledge of Logix5000 systems.

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises. These exercises focus on the skills introduced in each lesson.

You will also have the opportunity to combine and practice groups of key skills by completing two integrated practices during the course.

### ***Course Length***

This is a four and a half-day course.

### ***Course Number***

The course number is CCP299.

### ***IACET CEUs***

CEUs Awarded: 3.2



### ***To Register***

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at <http://www.rockwellautomation.com/training>.

**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

### **Power, Control and Information Solutions**

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation SA/NV, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846