

# Logix5000™ Controllers

## RSLogix™ 5000 Level 2: Basic Ladder Logic Programming Course Description

### COURSE AGENDA

#### *Day 1*

- Starting a Ladder Diagram
- Testing a Ladder Diagram
- *Optional Review: Selecting Basic Ladder Logic Instructions*
- Programming Timer Instructions
- Programming Compare Instructions
- Programming Move Instructions
- Programming Math Instructions

#### *Day 2*

- Programming a Procedure
- Separating the Procedure from Equipment Control
- Programming Counter Instructions
- Documenting and Searching Ladder Logic
- Handling Expressions
- Programming a BTM Instruction



### COURSE NUMBER: CCP151

#### *Course Purpose*

This course is a skill-building course that provides you with a basic understanding of RSLogix 5000 ladder logic instructions and terminology. This course also provides the resources and hands-on practice required to program basic ladder logic instructions for any Logix5000 controller.

You will have an opportunity to use RSLogix 5000 software to perform basic software tasks to meet the requirements of a given functional specification. In addition to using ladder logic, you will be introduced to ladder logic techniques, established standards, and common rules for programming ladder logic.

#### *Who Should Attend*

Programmers who have little or no practical experience with controllers, who are responsible for programming Logix5000 controllers using RSLogix 5000 software, and who need to learn how to draft ladder logic for any application should attend this course.

### **Prerequisites**

To successfully complete this course, the following prerequisites are required:

- Ability to perform basic Microsoft® Windows® tasks, such as using a mouse, browsing for files, opening, closing, sizing and moving windows)
- Completion of *RSLogix 5000 Level 1: ControlLogix System Fundamentals* course (Course No. CCP146)

Or

- Ability to go online, configure I/O modules, download, assign tags, verify a project, change operating modes on a controller, and enter or edit basic ladder logic instructions in RSLogix 5000 software

### **Student Materials**

To enhance and facilitate your learning experience, the following materials are provided 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.
- *RSLogix 5000 and Logix5000 Procedures Guide*, which provides all of the steps required to complete basic RSLogix 5000 software tasks that are common to all Logix5000 hardware platforms. By following the procedures in this job aid, you can immediately apply what is learned in the course to your own job.
- *Logix5000 Documentation Reference Guide* CD, which contains several relevant technical publications. This searchable, electronic resource contains the most frequently referenced programming information and is a quick and efficient on-the-job resource.

### **Hands-On Practice**

This course provides you with separate hands-on exercises that target your specific job responsibilities. To gain real-world programming experience, you will develop an entire RSLogix 5000 project for a fictitious application. As you develop the project, you will be given opportunities to verify it using a hardware workstation. This experience can then be transferred to your own job responsibilities.

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### **Next Learning Level**

Once you have mastered the basic ladder logic skills covered in this course, you will have the knowledge and skills necessary to attend the next level of ControlLogix/Logix5000 training. In particular, this course will benefit you when enrolling in the *RSLogix 5000 Level 3: Project Development* course (Course No. CCP143).

### **Course Length**

This is a two-day course.

### **Course Number**

The course number is CCP151.

### **IACET CEUs**

CEUs Awarded: 1.4



### **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>