

ControlLogix®/Studio 5000™

Studio 5000 Logix Designer Level 2: Basic Ladder Logic Programming Course Description

COURSE AGENDA

Day 1

- Starting a Ladder Diagram
- Testing a Ladder Diagram
- Programming Timer Instructions
- Programming Compare Instructions
- Programming Move Instructions
- Programming Math Instructions

Day 2

- Programming Counter Instructions
- Handling Expressions
- Documenting and Searching Ladder Logic
- Programming a Procedure
- Separating the Procedure from Equipment Control
- Copying and Filling an Array



COURSE NUMBER: CCP151

Course Purpose

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

You will have an opportunity to use the Logix Designer application to perform basic software tasks to meet the requirements of a given functional specification. In addition, you will set up a sequencer to run equipment through a predefined procedure and separate production procedure from equipment control.

Who Should Attend

Programmers who have little or no working experience with controllers, and are responsible for programming Logix5000 controllers using the Logix Designer application, 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:

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

Technology Requirements

All technology is provided for student use in the classroom by Rockwell Automation. It is not necessary for students to bring any technology with them when attending this course.

Student Materials

To enhance and facilitate your learning experience, the following materials are provided as part of the course package:

- *Student Manual:*
 - Contains the topical outlines and exercises
 - Used to follow presentations, take notes, and work through exercises
- *Studio 5000 Logix Designer and Logix5000 Procedures Guide:*
 - Provides the steps required to complete basic software tasks that are common to all Logix5000 hardware platforms
- *Logix5000 Documentation Reference Guide:*
 - Searchable, electronic resource
 - Contains frequently referenced technical documentation

Hands-On Practice

Throughout this course, you will have the opportunity to practice the skills learned through a variety of hands-on exercises.

Next Learning Level

After completing this training, you may be interested in one or more of the following courses:

- *Studio 5000 Logix Designer Level 3: Project Development* (Course No. CCP143)
- *DeviceNet and RSNetWorx Configuration and Troubleshooting* (Course No. CCP164)
- *ControlNet and RSNetWorx Configuration and Troubleshooting* (Course No. CCP174)

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>

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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