

# ControlLogix/Studio 5000 Logix Designer

Accelerated Logix5000 Programmer  
Certificate Course Level 1



## Course Number

CCP250

## Course Purpose

This accelerated course is for individuals who can quickly learn and apply Logix5000™ concepts, terminology, hardware, and the Studio 5000 Logix Designer® programming environment.

You will quickly move from these early concepts to using producer/ consumer technology and messages to multicast input and output devices, share data between controllers, and control remote I/O.

This course prepares you for the Accelerated Logix5000 Programmer Certificate Course Level 1 certificate exam, which is included in the course price.

Upon completion of this course, given a functional specification for a Logix5000 application, you should be able to develop a project to meet the specification requirements.

This course covers tasks common to the following hardware, which use the Logix5000 control engine, or operating system:

- ControlLogix® controllers
- CompactLogix™ controllers

These tasks include creating a new project, programming an application, and adding advanced functionality (e.g. data arrays, add-on instructions, produced/consumed data, and messages) to the application.

## COURSE AGENDA

### DAY 1

- Understanding Control Systems
- Locating ControlLogix System Components
- Identifying and Connecting to Industrial Networks
- Creating a Studio 5000 Logix Designer Project
- Downloading, Uploading, and Going Online

### DAY 2

- Configuring Modules in a Studio 5000 Logix Designer Project
- Creating Tags and Monitoring Data
- Drafting Basic Ladder Logic
- Programming Bitwise Instructions
- Testing a Ladder Diagram

### DAY 3

- Programming Timer and Counter Instructions
- Programming Comparison, Math, and Move Instructions
- Integrated Practice: Programming a Basic Application in Studio 5000 Logix Designer Software
- Creating a User-Defined Data Type

### DAY 4

- Creating and Using Arrays
- Creating Add-On Instructions
- Searching Within and Managing Files
- Configuring a Logix5000 Controller to Produce and Consume Data

### DAY 5

- Configuring a Logix5000 Message
- Retrieving and Setting Controller Status Values
- Leveraging Studio 5000 Logix Designer Tools
- Identifying and Correcting Faults in a Logix5000 System

## WHO SHOULD ATTEND

Ideal course attendees are those who:

- Are responsible for programming Logix5000 controllers using the Studio 5000 Logix Designer application
- Need to learn how to draft ladder logic for any application

**Curriculum Note:** Along with new material and labs, this course contains lessons from courses CCP146, CCP151, and CCP143 – in an accelerated five-day format. Do not take all three courses in addition to this one.

## PREREQUISITES

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

- Completion of at least one Rockwell Automation Logix5000 course in the last two years (course completed on or after 3/31/2016).
- Pursuing a Logix5000 Certificate for Programmers.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.

- Studio 5000 Logix Designer and Logix5000 Procedures Guide
  - Provides the steps required to complete basic software tasks common to all Logix5000 controllers. By following the procedures in this job aid, you can immediately apply what you learn to your own work.

## CERTIFICATE ASSESSMENT

Access to the certificate assessment is valid for 90 days from end of class and will be provided by email.

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using a ControlLogix with 5069 Compact I/O workstation (Catalog No. ABT-TDCLX4). Exercises focus on the skills introduced in each lesson.

## COURSE LENGTH

This is a five-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 3.5 CEUs for this program.







## 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>

Rockwell Automation is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU. [Click here](#) to view the Rockwell Automation Certificate of Accreditation.

To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

Connect with us.    

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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 NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, 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

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