

# ControlLogix/Studio 5000



## Accelerated Logix5000 Maintainer Certificate Level 1 Course Description

### Course Agenda

#### Day 1

- Understanding Control Systems
- Locating Logix5000 System Components
- Connecting a Computer to a Communication Network
- Assigning IP Addresses for an EtherNet/IP Network using RSLinx Classic Software and Rotary Switches
- Navigating Through the Studio 5000 Logix Designer Application

#### Day 2

- Downloading, Uploading, and Going Online
- Locating I/O Tags and Devices
- Interpreting, Monitoring, and Editing Tag Values
- Isolating Problems in a Logix5000 System
- Troubleshooting Electrical Problems
- Troubleshooting Digital I/O Module Problems

#### Day 3

- Troubleshooting Analog I/O Module Problems
- Troubleshooting Logix5000 System EtherNet/IP Network Problems
- Troubleshooting Distributed I/O Module Problems
- Integrated Practice – Troubleshooting Logix5000 Hardware and EtherNet/IP Network Problems
- Interpreting Simple Ladder Logic Structure
- Documenting and Searching Ladder Logic

#### Day 4

- Forcing I/O and Toggling Bits
- Editing Ladder Logic Online
- Interpreting Timer and Counter Instructions
- Interpreting Math, Comparison, and Move Instructions
- Interpreting Copy and File Fill Instructions

#### Day 5 half day

- Interpreting Program Control Instructions
- Analyzing and Troubleshooting a System Using a Trend Chart
- Troubleshooting Logix5000 Controller Problems
- Updating Logix5000 Firmware
- Managing Studio 5000 Logix Designer Project Files



### Course Number

CCP300

### Course Purpose

This accelerated course is for individuals who can quickly learn and apply Logix5000™ concepts, terminology, hardware troubleshooting skills, and interpretation of ladder logic in a Studio 5000 Logix Designer® project.

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

You will have the opportunity to develop and practice these skills by:

- Learning basic concepts and terminology used with:
  - Logix5000 system hardware
  - The Studio 5000 Logix Designer application
  - RSLinx® Classic software
- Practicing a strategy for diagnosing and troubleshooting problems:
  - Configuration issues with controllers, I/O, or other hardware
  - Electrical noise
  - Faulty/malfunctioning field devices
  - EtherNet/IP™ network issues

Upon completion of this course, you should be able to troubleshoot a previously operational Logix5000 system and restore normal operation.

LISTEN.  
THINK.  
SOLVE.

## Who Should Attend

This course is intended for individuals who need to maintain and troubleshoot a Logix5000 system and have current working experience with Logix5000 systems.

**Curriculum Note:** This course contains many of the lessons in courses CCP153, CCP299, and CCCL21 – in an accelerated five-day format. Do not take all three courses.

## Prerequisites

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

- Experience reading wiring diagrams
- 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 Maintainers

## 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 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.

## 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). These exercises focus on the skills introduced in each lesson.

## Certificate Assessment

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

## Course Length

This is a 4.5-day course.

## IACET CEUs

CEUs Awarded: 3.5



## 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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