ControlLogix/Studio 5000 Logix Designer

Accelerated Logix5000 Programmer Certificate Course Level 1
Course Description

AB QUALITY *Allen-Bradley*

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

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.

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.

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.

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.

Next Learning Level

Once you have an understanding of the topics and skills covered in this course, you may want to attend specific Studio 5000 Logix Designer training such as:

- *Studio 5000 Logix Designer Level 4: Function Block Programming* (Course No. CCP152)
- *Studio 5000 Logix Designer Level 4: Structured Text / Sequential Function Chart Programming* (Course No. CCP154)

Course Length

This is a five-day course.

IACET CEUs

CEUs Awarded: 3.5

AUTHORIZED
IACET
PROVIDER

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