System Integrator

SI: Logix5000™ Project Development and Basic Ladder Logic Programming Course Description

COURSE AGENDA

Day 1

- Locating Control System Components
- Creating and Modifying a Project
- Organizing project
- Connecting a Computer to a Communication Network
- Downloading and Going Online
- Communicating with Local and Remote I/O Modules

Day 2

- Updating Logix5000 Firmware
- Starting a Ladder Diagram
- Creating tags and Monitoring Data
- Entering Ladder Logic Components
- Organizing Arrays
- Creating UDTs
- Selecting Basic Ladder Logic Instructions
- Programming Timer Instructions
- Programming Counter Instructions

Day 3

- Programming Move Instructions
- Programming Math Instructions
- Programming Compare Instructions
- Documenting and Searching Ladder Logic
- Configuring Produce/Consume Messaging
- Configuring Controllers to Share Date over an EtherNet/IP Network
- Configuring a Message Instructions

Day 4

- Creating a Periodic Task
- Creating an Event Task
- Developing an Add-On Instruction
- Testing a Ladder Diagram
- Handling a Major Fault
- Importing Logix Designer Components
- *Optional: Understanding Control Systems*
- *Optional: Managing Logix Designer Project Files*

COURSE NUMBER: SI100

Course Purpose

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

You will have an opportunity to use the RSLogix™ 5000 application to perform basic software tasks to meet the requirements of a given functional specification. In addition, you will be introduced to basic Logix5000 concepts and terminology.

Who Should Attend

This course is intended for System Integrator Programmers who have little or no working experience with Logix5000 controllers, and are responsible for programming Logix5000 controllers using the RSLogix 5000 application.

Curriculum Note: This course contains many of the lessons in courses CCP143, CCP146, and CCP151 – in a consolidated format. Do not take all 4 courses.

Prerequisites

To complete this course successfully, you must be able to:

- Perform basic Microsoft Windows® tasks
- Read wiring diagrams

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
- *RSLogix 5000 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 you have learned through a variety of hands-on exercises:

- Exercises focus on the skills introduced in each lesson.
- Exercises are performed on a ControlLogix workstation

Next Learning Level

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

- *Studio 5000 Logix Designer Level 4: Function Block Programming* (Course No. CCP152)
- *DeviceNet and RSNetWorx Configuration and Troubleshooting* (Course No. CCP164)
- *ControlNet and RSNetWorx Configuration and Troubleshooting* (Course No. CCP173)

Course Length

This is a four-day course.

Course Number

The course number is SI100.

IACET CEUs

CEUs Awarded: 2.8

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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