

# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 4:  
Structured Text /Sequential Function  
Chart Programming



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCP154

## Course Purpose

Building on your project development skills, such as creating tags and programming control code, this course provides the skills and knowledge to program using the structured text and sequential function chart programming languages.

You will learn how to select instructions, expressions and constructs and then enter these elements and more into a routine. You will have an opportunity to translate a functional specification in to a sequential function chart. Also, you will learn how to test sequential function chart logic using forces and step throughs.

The instructor will demonstrate the relevant procedures required to program with structured text and sequential function charts. You will be provided ample opportunities to create and test their own projects.

## COURSE AGENDA

### DAY 1

- Programming Assignments, Expressions and Instructions in Structured Text within a Logix Designer Project
- Programming Constructs and Comments in Structured Text within a Logix Designer Project
- Designing a Sequential Function Chart

### DAY 2

- Programming a Sequential Function Chart in a Logix Designer Project
- Testing a Sequential Function Chart in a Logix Designer Project
- Storing and Resetting Sequential Function Chart Data in a Logix Designer Project
- Resetting and Pausing a Sequential Function Chart in a Logix Designer Project

## WHO SHOULD ATTEND

Individuals who are responsible for programming structured text and sequential function chart routines in Studio 5000 Logix Designer® projects for any Logix5000™ controller should attend this course.

## PREREQUISITES

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

- Ability to perform basic Microsoft Windows tasks
- Completion of the Studio 5000 Logix Designer Level3: Project Development course (Course No. CCP143)

OR

- Experience with basic Logix Designer projects (navigating the software, creating tags, creating routines, etc.)

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, 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

## HANDS-ON PRACTICE

Throughout the course, students will have the opportunity to practice skills they have learned through a variety of hands-on exercises using an ABT-TDCLX3 ControlLogix® workstation. Students will also have the chance to combine and practice several key skills by completing an integrated practice.

## NEXT LEARNING LEVEL

After mastering the skills covered in this course, students may be interested in attending other specialized courses, such as:

- Studio 5000 Logix Designer Level 4: Function Block Programming (Course No. CCP152)
- Studio 5000 Logix Designer Level 4: Motion Programming Using Ladder Logic (Course No. CCN142)

## COURSE LENGTH

This is a two-day course.

### 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>

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. 

[rockwellautomation.com](http://rockwellautomation.com)

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