

# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 3:  
Basic Ladder Logic Interpretation



## Course Number

CCCL21

## Course Purpose

This course is a skill-building course that provides you with a more detailed understanding of Studio 5000 Logix Designer® ladder logic instructions and terminology. This course also provides you with the resources and hands-on practice required to interpret ladder logic instructions for any Logix5000™ controller.

You will have an opportunity to use the Logix Designer application to perform basic software tasks to meet the requirements of a given functional specification. In addition to using ladder logic, you will be introduced to ladder logic techniques, established standards, and common rules for interpreting ladder logic.

## COURSE AGENDA

### DAY 1

- Reviewing Basic Ladder Logic
- Interpreting Timer and Counter Instructions
- Interpreting Program Control Instructions
- Interpreting Compare Instructions
- Interpreting Move Instructions

### DAY 2

- Interpreting Math Instructions
- Interpreting Expression Handling Instructions
- Interpreting Copy and File Fill Instructions
- Integrated Practice: Interpreting Ladder Logic Instructions

## WHO SHOULD ATTEND

Maintainers who need to interpret ladder logic using the Logix Designer application should attend this course.

## PREREQUISITES

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

- Completion of Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals (Course No. CCP146) or equivalent experience
- Completion of Studio 5000 Logix Designer Level 2: ControlLogix Maintenance and Troubleshooting (Course No. CCP153)

## 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 lesson for immediate feedback.
- 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 this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using an ABT-TDCLX3-B ControlLogix® workstation. Exercises focus on the skills introduced in each lesson.

The skills taught in this course can be applied to all Logix5000 platforms.

## NEXT LEARNING LEVEL

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

- Introduction to the Integrated Architecture System (Course No. CIA101)
- Motion Control Fundamentals (Course No. CCN130)

## COURSE LENGTH

This is a two-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 1.4 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.

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