

ControlLogix/Studio 5000 Logix Designer

Kinetix 5700 Troubleshooting
and Project Interpretation



Course Number

CCN202

Course Purpose

Upon completion of this course, you will be able to apply maintenance and troubleshooting techniques to diagnose and correct common problems which may occur with a Kinetix® 5700 servo drive system.

You will practice operating and troubleshooting the system through hands-on exercises using the Studio 5000 Logix Designer® application.

Building upon the skills you developed in the *Fundamentals of Motion Control* (Course No. CCN130) course, you will learn to maintain and troubleshoot a multi-axis motion control system. You will practice identifying faults related to hardware, software, and motion networks by leveraging tools such as web pages, system LEDs, and Studio 5000 Logix Designer status indicators.

COURSE AGENDA

DAY 1

- Identifying the Physical Components of a Kinetix 5700 Servo Drive System
- Retrieving System Status Information using Kinetix 5700 Servo Drive Hardware
- Retrieving System Status Information using a Studio 5000 Logix Designer Project
- Integrated Practice: Diagnosing a Kinetix 5700 Servo Drive System

DAY 2

- Troubleshooting Failed Communications for a Kinetix 5700 Servo Drive System
- Testing Wiring and Signals for a Kinetix 5700 Servo Drive System
- Trending Status Information for a Kinetix 5700 Servo Drive System using a Studio 5000 Logix Designer Project
- Accessing a Kinetix 5700 Servo Drive Web Page
- Interpreting Motion State and Motion Move Instructions in a Studio 5000 Logix Designer Project

DAY 3

- Troubleshooting Integrated Motion Application Code using a Studio 5000 Logix Designer Project
- Integrated Practice: Troubleshooting Integrated Motion Application Systems using Kinetix 5700 Servo Drives
- Removing and Replacing a Kinetix 5700 Servo Drive

WHO SHOULD ATTEND

Individuals who need to maintain and troubleshoot Kinetix 5700 motion control systems should attend this course.

PREREQUISITES

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

- Completion of the *Motion Control Fundamentals* course (Course No. CCN130) or equivalent knowledge of or experience with servo drives, feedback devices, and velocity and position-loop systems
- Completion of the *Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals* course (Course No. CCP146) or equivalent knowledge of or experience with the Logix5000™ platform and basic ladder logic

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 common motion-related tasks within a Logix Designer project, as well as basic project organization tasks

HANDS-ON PRACTICE

Hands-on practice is an integral part of learning, and this course offers extensive hands-on opportunities. You will use a workstation containing real and simulated devices to practice the tasks and concepts involved in maintaining and troubleshooting a Kinetix 5700 system.

After learning maintenance and troubleshooting techniques, you will learn how to interpret Logix Designer projects for motion applications and test and tune a replacement Kinetix 5700 system.

NEXT LEARNING LEVEL

Once you have mastered the skills covered in this course, you will be prepared to attend other Rockwell Automation courses depending on your needs:

- For motion programming, you can attend *Studio 5000 Logix Designer Level 4: Kinetix 5700 (CIP) Programming* (Course No. CCN144-A).
- To learn how to troubleshoot a ControlLogix system, you can attend *Studio 5000 Logix Designer Level 2: ControlLogix Maintenance and Troubleshooting* (Course No. CCP153).

COURSE LENGTH





This is a three-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.

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