

ControlLogix®/Studio 5000 Logix Designer™

Kinetix® 6500 Troubleshooting and Project Interpretation Course Description

COURSE AGENDA

Day 1

- Identifying the Physical Components and Wiring of a Kinetix 6500 Servo Drive
- Interpreting Kinetix 6500 Servo Drive Status Indicators
- Determining the Status of a Drive and its Associated Axis Using the Studio 5000 Logix Designer Application
- Verifying a Kinetix 6500 Servo Drive Configuration in a Studio 5000 Logix Designer Project
- Verifying a Kinetix 6500 Servo Drive Axis Configuration in a Studio 5000 Logix Designer Project

Day 2

- Troubleshooting Failed Communications for a Kinetix 6500 Servo Drive Control Module
- Testing Wiring and Signals for a Kinetix 6500 Servo Drive Axis Using the Studio 5000 Logix Designer Application
- Trending Status Information for a Kinetix 6500 Servo Drive Axis Using the Studio 5000 Logix Designer Application
- Tuning a Kinetix 6500 Servo Drive Axis Using the Studio 5000 Logix Designer Application

Day 3

- Interpreting Motion State Instructions for a Kinetix 6500 Servo Drive Axis in a Studio 5000 Logix Designer Project
- Interpreting Motion Move Instructions for a Kinetix 6500 Servo Drive Axis in a Studio 5000 Logix Designer Project
- Troubleshooting Ladder Logic for a Kinetix 6500 Servo Drive Axis in a Studio 5000 Logix Designer Project
- Accessing a Kinetix 6500 Servo Drive Web Page
- Removing and Replacing a Kinetix 6500 Servo Drive



COURSE NUMBER: CCN201

Course Purpose

This course is intended to provide you with the skills required to diagnose common problems on a Kinetix 6500 servo drive system. During class, you will practice operating and troubleshooting the system through hands-on exercises using the Studio 5000 Logix Designer™ application.

Building upon the skills developed in the *Fundamentals of Motion Control* (CCN130) course, you will learn how 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 Logix Designer status indicators.

Upon completion of this course, you will be able to apply maintenance and troubleshooting techniques to diagnose and correct common problems on a Kinetix 6500 servo drive system.

Who Should Attend

Individuals who need to maintain and troubleshoot Kinetix 6500 motion control systems 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 *Motion Control Fundamentals* course (Course No. CCN130) or equivalent knowledge of or experience with 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 ControlLogix platform and basic ladder logic

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*, which includes the key concepts, definitions, and examples presented in this course.
- *Lab Book*, which provides learning activities through practice and hands-on exercises. Solutions are included after each exercise for immediate feedback.
- *Studio 5000 Logix Designer™ and Logix5000™ Motion Procedures Guide*, which provides the steps required to complete common motion-related tasks within a Logix Designer project, as well as basic project organization tasks.
- *Motion Control Documentation Reference Guide*. This searchable, electronic resource contains relevant technical publications and is a quick and efficient on-the-job resource.

Hands-On Practice

Hands-on practice is an integral part of learning and this course offers extensive hands-on opportunities.

Throughout the exercises, you will use a workstation containing real and simulated devices to practice the tasks and concepts involved in maintaining and troubleshooting a Kinetix 6500 system.

After learning maintenance and troubleshooting techniques, you will learn how to interpret Logix Designer projects for motion applications and test and tune a new 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. If you need to learn motion programming, you can attend *Studio 5000 Logix Designer Level 4: Kinetix 6500 (CIP) Programming* (Course No. CCN144). If you need to learn to troubleshoot a ControlLogix system, the appropriate course to attend is *Studio 5000 Logix Designer Level 3: ControlLogix Maintenance and Troubleshooting* (Course No. CCP153)

Course Length

This is a three-day course.

Course Number

The course number is CCN201.



IACET CEUs

CEUs Awarded: 2.1

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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