



**AUTOMATION**

**COURSE CCN201**

## ContoLogix/Studio5000 Kinetix 6500 Troubleshooting and Project Interpretation

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® 6500 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 (CCN130) course, you will develop skills 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.

### 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 Motion Control Procedures Guide
  - Provides the procedures for performing motion control tasks in a Logix5000™ system using Logix Designer and RSLinx® Classic software

Tuesday, October 22 -  
Thursday, October 24

8 AM - 5 PM

SMC Joplin  
923 W 4th St  
Joplin, MO 64801

Cost: \$2,583  
Includes Lunch



**Authorized  
Service Provider**

A ROCKWELL AUTOMATION PARTNER

For more information, please contact Suzan McPherson at [smcpherson@smcelectric.com](mailto:smcpherson@smcelectric.com)

# Course Agenda

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## 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 communication 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

## PREREQUISITES

- 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.

To register, please contact Suzan McPherson at [smcpherson@smcelectric.com](mailto:smcpherson@smcelectric.com)