

Studio 5000 Logix Designer Level 4: Kinetix 5700 (CIP) Programming

OEM: Rockwell Automation • Duration: 4 Days (32 hrs) • Code: CCN-144A

COURSE MODULES & TOPICS

Objectives

- Configuring a Studio 5000 Logix Designer Project for Integrated Motion over an EtherNet/IP Network
- Adding and Configuring EtherNet/IP Drives and Configuring CIP Servo Axes
- Testing Hardware for Integrated Motion over an EtherNet/IP Network
- Tuning Axes over an EtherNet/IP Network
- Programming Instructions to Turn on and Turn off Servo Control
- Programming Instructions to Home and Stop Axes
- Programming Shutdown and Recovery Instructions
- Programming Group Motion Instructions
- Dynamically Altering Move Parameters and Adding a Virtual Axis
- Programming Gearing Instructions
- Programming Position Camming and Time Camming Instructions

Prerequisites

- Completion of the Motion Control Fundamentals course (CCN130) or equivalent knowledge of or experience with motion drives, feedback devices, and velocity and position loop systems
- Completion of the Studio 5000 Logix Designer Level 3: Project Development course (CCP143) or equivalent experience

Student Materials

- 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 steps required to complete common motion-related tasks within a Logix Designer project, as well as basic project organization tasks

Next Level Learning

- Studio 5000 Logix Designer Level 5: Advanced Motion Programming course (CCN190).

Course Agenda

Day 1

- Configuring a Studio 5000 Logix Designer Project for Integrated Motion over an EtherNet/IP Network
- Adding and Configuring EtherNet/IP Drives and Configuring CIP Servo Axes
- Testing Hardware for Integrated Motion Over an EtherNet/IP Network
- Tuning Axes over an EtherNet/IP Network
- Applying Programming Best Practices for Integrated Motion Applications Over an EtherNet/IP Network

Day 2

- Programming Instructions to Turn on and Turn off Servo Control
- Programming Instructions to Home and Stop Axes
- Programming Instructions to Move and Jog Axes
- Programming Shutdown and Recovery Instructions

Day 3

- Integrated Practice: Creating a Basic Integrated Motion Application Controlled over an EtherNet/IP Network
- Programming Group Motion Instructions
- Dynamically Altering Move Parameters
- Adding a Virtual Axis

Day 4

- Programming Gearing Instructions
- Programming Position Camming Instructions
- Programming Time Camming Instructions
- Integrated Practice: Programming Dependent Motion Instructions for an Integrated Motion Application Controlled over an EtherNet/IP Network