



**AUTOMATION**

**COURSE CCN144**

## **ControlLogix/Studio 5000 Logix Designer Level 4: Kinetix 6500 (CIP) Programming**

After completing this course, you should be able to configure, test, tune, and program CIP motion axes in the Studio 5000 Logix Designer® programming environment.

Building upon the skills gained in the Studio 5000 Logix Designer Level 3: Project Development (CCP143) course, you will learn how to apply the Logix5000™ architecture to a multi-axis CIP motion control system. You will also practice efficient programming skills necessary for translating a machine specification into reliable ladder logic code.

Because all Logix5000 products share common features and a common operating system, you will be able to apply the configuring and programming motion control skills you learn in this course to any of the Logix5000 controllers that are capable of motion control.

**Tuesday, August 20 -  
Friday, August 23**

**8 AM - 5 PM**

**SMC Cape Girardeau  
2333 Rusmar St  
Cape Girardeau, MO**

**Cost: \$3,046**  
Includes Lunch



**Authorized  
Service Provider**

A ROCKWELL AUTOMATION PARTNER

To register, please contact Aislinn Roberts at [aroberts@smcelectric.com](mailto:aroberts@smcelectric.com)

# Course Agenda

REGISTER HERE



## DAY 1

- Creating a Studio 5000 Logix Designer project for integrated motion on an EtherNet/IP network
- Adding drives and configuring axes for integrated motion on an EtherNet/IP network
- Testing hardware for integrated motion on an EtherNet/IP network
- Tuning axes for integrated motion on an EtherNet/IP network

## DAY 2

- Programming MSO and MSF instructions
- Programming MAH instructions
- Programming MAM instructions
- Programming MAJ instructions

## DAY 3

- Programming MAS and MASD instructions
- Programming MAFR and MASR instructions
- Programming MCD instructions
- Merging motion instructions

## DAY 4

- Adding a virtual axis
- Programming group motion instructions
- Programming electronic gearing
- Programming electronic position camming
- Programming electronic time camming



## PREREQUISITES

To successfully complete this course, completion of the Motion Control Fundamentals course (CCN130) and Studio 5000 Logix Designer Level 3: Project Development course (CCP143) or equivalent experience and knowledge in these areas.

To register, please contact Aislinn Roberts at [aroberts@smcelectric.com](mailto:aroberts@smcelectric.com)