# COURSE DESCRIPTION Logix5000<sup>M</sup> Motion Control

## **Topic Outline**

- Motion Control Components
- Configuring a Logix5000 System for Motion Control Applications
- Configuring SERCOS Axes
- Configuring Analog Axes
- Testing and Tuning Axes
- Programming Basic Motion Routines
- Programming a Fault Routine
- Programming Electronic Gearing Routines
- Programming Virtual and Consumed Axes
- Manual Tuning
- Programming Motion Event Functions
- Programming Electronic Position Cams
- Programming Output Cams
- Trending and Troubleshooting

### **Student Materials**

To enhance and facilitate each student's learning experience, the following materials are provided as part of the course package

- Student Manual, which contains the key concepts, definitions, and examples presented in the course and includes the hands-on exercises.
- Logix Controller Motion Instruction Set Reference Manual, which provides the details of the motion instructions available for Logix5000 controllers

#### Prerequisites

To successfully complete this course, the following prerequisites are required

- Ability to perform basic Microsoft Windows<sup>®</sup>
- Completion of the Development and Programming of ControlLogix Projects course (Course No. AU-CCP143) or ControlLogix Fundamentals & Troubleshooting course (Course No. AU-CCP299) or equivalent experience.

**Course Duration** Four Days

# Programming Logix5000 Motion Control



## COURSE CODE: AU-CCN142

### Course Purpose

This course is intended to provide plant personnel with the skills to configure and program Logix5000 applications specifically for integrated motion control functionality using ladder logic. Students will learn how to apply the Logix5000 architecture to a multi-axis motion control system.

Because all Logix5000 products share common features and a common operating system, students will be able to apply the skills they learn in this course to program and configure any of the Logix5000 controllers for motion control.

#### Hands-On Practice

Hands-on practice is an integral part of learning and this course offers extensive hands-on opportunities. Throughout the exercises, students will use a workstation containing real and simulated devices to practice the tasks involved in programming a motion control application. After configuring a project that contains the required hardware, students will program a variety of motion routines, including MAPC and virtual axis routines. Upon completion of the course, students will have a complete motion control program that runs an actual application.

#### Who Should Attend

Individuals who need to configure and program Logix5000 motion control systems should attend this course.

#### To Register

To register for this or any other Rockwell Automation training course, contact your local authorised 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:

Australia - <u>http://www.rockwellautomation.com/en\_AU</u> New Zealand - <u>http://www.rockwellautomation.com/en\_NZ</u>

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