Rockwell Automation

Logix5000™ Controllers

Programming Basic Ladder Logic Instructions in an RSLogix™ 5000 Project   CCP151

Course Purpose

This course is a skill-building course that provides programmers with a basic understanding of RSLogix 5000 ladder logic instructions and terminology. This course also provides the resources and hands-on practice required to efficiently program basic ladder logic instructions for a Logix5000 controller. Students will have an opportunity to use RSLogix 5000 software to perform basic software tasks to meet the requirements of a given functional specification. In addition to using ladder logic instructions, students will be introduced to programming techniques, established standards, and common rules for programming ladder logic.

Who Should Attend

Programmers who have little or no practical experience with controllers, who are responsible for programming Logix5000 controllers using RSLogix 5000 software, and who need to learn how to draft ladder logic for any application should attend this course.

Prerequisites

To successfully complete this course, the following prerequisites are required:

- Completion of *Fundamentals of Logix5000 Systems* course (Course No. CCP146) or the ability to go online, configure I/O modules, download, assign tags, verify a project, change operating modes on a controller, and enter or edit basic ladder logic instructions in RSLogix 5000 software
- Ability to perform basic Microsoft® Windows® tasks, such as using a mouse, browsing for files, opening, closing, sizing and moving windows

Course Agenda

Day 1
- Applying Programming Strategies and Techniques
- Documenting and Searching Ladder Logic
- Programming Timer and Counter Instructions
- Integrated Practice: Programming Basic Instructions
- Programming Program Control Instructions

Course Agenda (cont.)

Day 2
- Programming Compare Instructions
- Programming Compute and Math Instructions
- Integrated Practice: Programming Ladder Logic Instructions
- Programming Move Instructions

Rockwell Automation
Global Manufacturing Solutions

Rockwell Automation

Logix5000™ Controllers

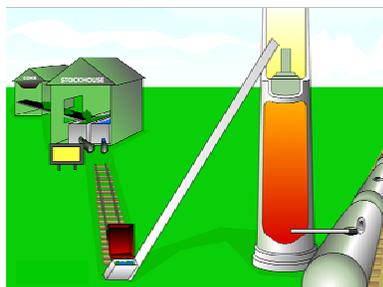### Programming Basic Ladder Logic Instructions in an RSLogix™ 5000 Project   CCP151

Hands-On Practice

This course provides programmers with separate hands-on exercises that target their specific job responsibilities. To gain real-world programming experience, programmers will develop an entire RSLogix 5000 project for a fictitious application. As students develop the project, they will be given opportunities to verify it using a hardware workstation. This experience can then be transferred to their own job responsibilities.

Student Materials

To enhance and facilitate students' learning experience, the following materials are provided to each student 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.

- *Logix5000 Controllers Procedures Guide*, which provides all of the steps required to complete common Logix5000 tasks. By following the procedures in this job aid, students can immediately apply what is learned in the course to their own job.

Student Materials (cont.)

- *Logix5000 Controllers Programming Documentation Reference Guide*, which contains excerpts from several different technical publications. This guide contains the most frequently referenced programming information and is a quick and efficient on-the-job resource for programmers.

Next Learning Level

Once students have mastered the basic ladder logic skills covered in this course, they will have the knowledge and skills necessary to attend the next level of Logix5000 training. In particular, this course will benefit programmers enrolling in the *Developing a Logix5000 Project Using RSLogix 5000 Software* course (Course No. CCP143).

Course Length

This is a two-day course.

Course Number

The course number is CCP151.

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/services

Rockwell Automation
Global Manufacturing Solutions