

SLC 500 Processors

SLC 500 and RSLogix 500
Maintenance and Troubleshooting



Course Number

CCPS43

Course Purpose

This skill-building course provides you with the necessary practice needed to interpret, isolate, and diagnose common hardware problems related to noise, power, and discrete and analog I/O. In troubleshooting scenarios, you will be introduced to basic ladder logic interpretation, which is applied to diagnostic tasks. You will practice these diagnostic skills by tracing through ladder logic instructions in an RSLogix 500® project. An integrated practice of multiple troubleshooting skills completes the training.

COURSE AGENDA

DAY 1-4

- Identifying SLC 500 System Components
- Getting Started with RSLogix 500 Software
- Communicating with a SLC 500 Processor
- Identifying Memory Layout and SLC 500 System Addresses
- Monitoring and Entering Data
- Interpreting Bit Instructions
- Editing Ladder Logic
- Documenting an RSLogix 500 Project
- Searching Ladder Logic
- Interpreting Timer and Counter Instructions
- Integrated Practice: Tracing Through Ladder Logic
- Interpreting Comparison Instructions
- Interpreting Data Handling Instructions
- Interpreting Program Control Instructions
- Configuring and Previewing a Project Report
- Creating a Histogram
- Forcing Inputs and Outputs
- Troubleshooting Noise-Related Problems
- Troubleshooting Processor and Power Supply Problems
- Troubleshooting Discrete I/O Problems
- Troubleshooting Analog I/O Problems
- Integrated Practice: Maintaining and Troubleshooting an SLC 500 System

WHO SHOULD ATTEND

Individuals who are responsible for maintaining and troubleshooting advanced SLC 500 applications using RSLogix 500® software should attend this course.

PREREQUISITES

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

- Experience maintaining electrically controlled systems
- Working knowledge of programmable controllers or completion of the PLC-5/SLC 500 and RSLogix Fundamentals (Course No. CCP122)
- Experience operating a personal computer within a Microsoft Windows 98, Windows 2000, Windows ME, Windows NT, or Windows XP environment

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
- RSLogix 500 and SLC 500 Procedures Guide
 - Provides all the steps required to complete common RSLogix 500 software tasks, including the tasks in the exercises. By following the procedures in this job aid, you can immediately apply what is learned in the course to your own job.

- SLC 500 and RSLogix 500 Troubleshooting Guide
 - Contains diagnostic algorithms that efficiently lead the user to possible maintenance and troubleshooting solutions

HANDS-ON PRACTICE

Diagnostic and problem-solving skills are sharpened through hands-on exercises using a troubleshooting guide and an SLC 500 processor linked to an interactive I/O simulator. Throughout the course, you will maintain and troubleshoot a real-world RSLogix 500 project that controls a simulated, two-compressor, cooling unit.

NEXT LEARNING LEVEL

Once you have mastered the maintaining and troubleshooting skills covered in this course, you may want to expand your logic and programming knowledge by attending the *SLC 500 and RSLogix 500 Programming* course. (Course No. CCPS41).

COURSE LENGTH





This is a four-day course.

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/training>

To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

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AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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