



Allen-Bradley SLC-500 Advanced Programming & Troubleshooting Module: 214

To fully understand and troubleshoot a PLC based control system, you must have a thorough understanding of all aspects of the controller. The Advanced course completes the instruction set of the SLC-500 controller by delving into the bit manipulation, process control, and program control instructions. Placing the functionality of these instructions at your command will allow you to create functional, efficient programs. *This course is conducted using Rockwell RSLogix-500 or Advanced Interface (AI) software, depending on student preference.*

Objectives

- Briefly review the major functional components of the Allen-Bradley SLC-500 programmable control system.
- Review the instructions presented in the Maintenance & Troubleshooting and Intermediate courses.
- Explore and test the functionality of the bit modify and move instructions as they apply to your system.
- Work with the block transfer emulation capability of the 1747 RIO Scanner to read and write word level information on the RIO network.
- Discuss the program and process control functions and learn how to implement them into your control system.
- Apply these instructions to create and test your own programs in extensive hands-on lab sessions designed to stimulate a logical approach to problem solving.
- Read and write information on the Data Highway Plus (DH+) or DH-485 network using global data and the message instruction.
- Revisit the fault, discrete input interrupt (DII), and selectable timed interrupt (STI) subroutines.
- Create methods to test programs, develop traps, and to follow the flow of information through a series of mixed instructions.
- Develop advanced troubleshooting skills; learn to create logical circuits that will trap data for real-time analysis and circuit diagnostics.