

## A-6000

### ALLEN-BRADLEY ControlLogix Programmable Controllers/Level One - Maintenance & Troubleshooting

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#### *Course Description*

This 36-hour training program provides students with hands-on experience in the troubleshooting and maintenance of the Allen-Bradley ControlLogix Programmable Controller. Hardware and software troubleshooting techniques are heavily emphasized throughout the course. Troubleshooting techniques include interpretation of status indicators, diagnostic messages and use of the programming terminal to quickly isolate faults and take proper corrective actions. The instructor will use examples of actual troubleshooting experiences to enhance the learning process.

#### *Topical Outline*

- Introduction to Programmable Controllers
- Hardware Description
- I/O Configurations
- Installation
- Programming Terminal Operation
- Instruction Familiarization
  - Ladder Diagram
  - Timer and Counter
  - Data Manipulation
  - Program Control
- Use Software Utilities to aid in the troubleshooting Process. (Trend Charts, Search, Cross Reference, Force)
- Program Editing
- Peripheral Operations
  - Program Loading
  - Program Printing
- Troubleshooting
  - Hardware
  - Software
- Application Projects Using Industrial Hardware
- RSLinx Driver Creation Overview/Hands-on Demonstration
- ControlNet, Ethernet or Data Highway Plus Overview (Time Permitting)

#### *Program Software*

Training utilizes Rockwell Software RSLogix5000, Microsoft Windows, 2000 and XP Software.

#### *Prerequisites*

Intellect Controls Group training program I-100, or a working knowledge of electromechanical control devices, relay ladder logic and Windows, 2000 or XP Software.

## **A-6000**

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***Course Length***

36 hours

***CEU's***

3.3

***Objectives***

Persons successfully completing this course will be able to:

- Identify hardware components of a ControlLogix Programmable Controller System.
- Configure and install a ControlLogix Programmable Controller System.
- Use a programming terminal for entering, editing and troubleshooting programs.
- Isolate processor and I/O faults to the module level.
- Troubleshoot simple programs using ladder instruction of the ControlLogix Programmable Controller.
- Properly use peripheral devices to store, copy and print programs.
- Properly connect and establish communications over a DF1/RS-232 cable.