Studio 5000 Logix Designer Level 2: ControlLogix Maintenance and Troubleshooting

OEM: Rockwell Automation • Duration: 4 Days (32 hrs) • Code: CCP153

COURSE MODULES & TOPICS

Objectives

- Optional: Locate ControlLogix system components
- Interpret project organization and execution, frequently used instructions, arrays, and tags of user-defined data types
- Locate and edit tag values
- Force I/O and toggle bits
- Troubleshoot digital, analog, and remote I/O
- Update Logix5000 firmware
- Troubleshoot controller, power supply, noise related, and digital I/O module problems
- Analyze and troubleshoot a system using trend chart
- Edit ladder logic online
- Optional: Edit FDB's online
- Document, print, and search project components

Student Materials

- 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
- Studio 5000 Logix Designer and Logix5000 Procedures Guide provides the steps required to complete basic software tasks that are common to all Logix5000 hardware platforms
- ControlLogix Troubleshooting Guide – Contains a systematic approach to diagnosing and troubleshooting common ControlLogix system problems

Next Level Learning

- Studio 5000 Logix Designer Level 3: Basic Ladder Logic Interpretation course (CCCL21)
- DeviceNet and RSNetWorx Configuration and Troubleshooting course (CCP164)
- ControlNet and RSNetWorx Maintenance and Troubleshooting course (CCP173)

Course Agenda

Day 1

- Optional Locating: ControlLogix System Components
- Connecting a Computer to a Network
- Interpreting Project Organization and Execution
- Locating and Editing Tag Values
- Interpreting Frequently Used Instructions

Day 2

- Interpreting Arrays
- Interpreting Tags of User-Defined Data Types
- Searching for Project Components
- Integrated Practice-Interpreting a Basic Project
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Module Problems

Day 3

- Troubleshooting Analog I/O Module Problems
- Troubleshooting Remote I/O Problems
- Updating Logix5000 Firmware
- Troubleshooting Controller Problems
- Troubleshooting Power Supply Problems
- Analyzing and Troubleshooting a System Using a Trend Chart

Day 4

- Integrated Practice-Troubleshooting Basic Projects
- Editing Ladder Logic Online
- Optional: Editing FBDs Online
- Managing Project Files
- Documenting and Printing Project Components
- Troubleshooting Noise-Related Problems