

GuardLogix Application Development and Troubleshooting

OEM: Rockwell Automation • Duration: 3 Days (24 hrs) • Code: SAF-LOG104

COURSE MODULES & TOPICS

Course Purpose

- Learning GuardLogix concepts and terminology
- Creating and configuring a GuardLogix project
- Adding and configuring CompactBlock™ Guard I/O™ and POINT Guard I/O™ safety modules
- Generating Safety Signatures and locking/unlocking a GuardLogix controller
- Programming safety instructions
- Troubleshooting a GuardLogix project

Prerequisites

- Understanding of international machine safety standards
- Verified completion of either of the following courses: Studio 5000 Logix Designer Level 3: Project Development course (CCP143)
- Accelerated Logix 5000 Programmer Certificate Course Level 1 course (CCP250)

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 and solutions are included after each exercise for immediate feedback

Hands-on Practice

- Exercises that focus on the skills introduced in each lesson
- Exercises are performed on a GuardLogix workstation

Next Level Learning

- Safety Relays and Devices Maintenance and Troubleshooting course (SAF-COM101)

Course Agenda

Day 1

- Identifying GuardLogix Controller Functionality

- Identifying GuardLogix System Hardware Components
- Configuring GuardLogix Controller Properties and Safety Options
- Configuring Guard I/O Safety Modules for a GuardLogix Project
- Downloading and Uploading a GuardLogix Project

Day 2

- Producing and Consuming GuardLogix Safety Data
- Over an EtherNet/IP Network and Mapping Safety Tags
- Programming a Dual Channel Input Stop Instruction
- Programming a Dual Channel Input Stop with Test and Mute Instruction
- Programming Sensor Muting Instructions
- Programming a Configurable Redundant Output Instruction
- Programming a Five Position Mode Selector Instruction
- Programming a Safety Mat Instruction

Day 3

- Troubleshooting GuardLogix Controller Problems
- Troubleshooting and Replacing Guard I/O Safety Modules
- Integrated Practice: Programming Safety Instructions
- Integrated Practice: Troubleshooting GuardLogix
- System Components