Introduction

Partnered with Rockwell Automation, this course aims to impart knowledge and skills to operate RSLogix 5000 software and ControlLogix System Hardware. Our course is delivered in a blend of both theoretical principals with hands on practice. Many of the principals taught are reinforced with exercise performed on actual work station simulators. The skills taught in this course can be applied to all Logix5000 platforms

Allen-Bradley · Rockwell Software Rockwell Automation

Duration

4.5 Days

CEU's Awarded: 3.2

ACCREDITED IACET PROVIDER

This program is designed for:

This course is intended for individuals who need to maintain and troubleshoot a ControlLogix system – but have no current working experience with ControlLogix systems.

Learning Outcome

Upon completion of this course, you should be able to troubleshoot a previously operational ControlLogix® system and restore normal operation.
You will have the opportunity to develop and practice these skills by:

- Learning basic concepts and terminology used with:
  - ControlLogix system hardware
  - Studio 5000 Logix Designer® application
- Practicing a systematic strategy for diagnosing and troubleshooting problems:
  - Configuration issues
  - Electrical noise
  - Faulty/malfunctioning field devices
  - Controller I/O, or other hardware issues
- Performing hands-on exercises

Minimum Pax

6 Pax

All Logix5000™ systems use the same control engine; therefore, tasks are similar. You will see applicable references for other systems

Course Program

- Optional: Understanding Control Systems
- Locating ControlLogix Components
- Operating RSLogix 5000 Software
- Optional: Selecting Industrial Networks
- Connecting a Computer to a Communications Network
- Downloading and Going Online
- Updating Logix5000 Firmware
- Interpreting RSLogix 5000 Project Organization and Execution
- Locating and Editing Tag Values
- Determining Local I/O Tags
- Drafting Basic Ladder Logic
- Selecting Ladder Logic Instructions
- Editing Ladder Logic Online
- Optional: Modifying Timer and Counter Instructions
- Interpreting Arrays and Tags of User-Defined Data Types
- Documenting /Printing Components
- Searching for Project Components
- Integrated Practice - Interpreting a Basic Project
- Applying Preventative Maintenance and Troubleshooting Strategies
- Troubleshooting Controller Problems
- Interpreting GSV/SSV Instructions
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Problems
- Troubleshooting Analog I/O Problems
- Troubleshooting Remote I/O
- Troubleshooting Power Supplies
- Troubleshooting Noise Problems
- Analyzing and Troubleshooting a System Using a Trend Chart
- Managing Project Files
- Integrated Practice- Troubleshooting Basic Projects

Your Instructor

Our instructor is a member of the Allen Bradley- Rockwell team. He is an active field support engineer and is a specialist in systems integrations and trouble shooting. He actively supports operations in multiple industries and frequently conducts operations optimization studies. He is an excellent instructor being able to scale his explanations according to the experience of the participants.

Hands-On Practice

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises. Exercises focus on the skills introduced in each lesson using a ControlLogix workstation. Integrated practices combine and practice several key skills at once.

Prerequisites

- Ability to perform basic Microsoft Windows tasks
- Previous experience with common industrial control system concepts

Student Materials

To enhance and facilitate the students' are provided as part of the course package: learning experiences, the following 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.
- Logix5000 System Glossary - Contains terms and definitions specific to Logix5000 systems and defines key Logix5000 systems terminology
- Studio 5000 Logix Designer and Logix5000 Procedures Guide - Provides the steps required to complete basic tasks that are common to all Logix5000 hardware platforms
- ControlLogix Troubleshooting Guide: - Contains a systematic approach to diagnosing and troubleshooting common ControlLogix system problem