

PLC Programming, Maintenance & Troubleshooting: Rockwell 5000 Based PLCs

Cost: \$2249.00

City & Prov	Dates	Code
Kelowna, BC	Feb 27, 2012 - Feb 29, 2012	OR12036
Toronto, ON	Sep 10, 2012 - Sep 12, 2012	OR12018
Calgary, AB	Nov 05, 2012 - Nov 07, 2012	OR12021

This is a three day course. Its purpose is to introduce trainees to working with controlLogix plc's and Rockwell 5000 software. This course is designed for people in industry, institutional and manufacturing industry who will be working with plc's in general and/or controlLogix plc's in particular.

At the end of this course the participant will have gained hands on experience working with controlLogix plc's and their software. This can provide a basis for work on any plc-controlled system, communicating with people about plc's and future development in the plc field. The skills and attitudes developed from taking this course will increase the participant's marketability working in management as well as the electrical and related trades.

Trainees will possess the skills, knowledge and attitudes required to create basic plc projects: tasks, programs and routines for controlLogix plc systems. As well they will have developed a solid foundation for building more in depth knowledge and experience. using plc's.

Just one example would be knowing what a plc and a plc network is and how to communicate with them without fear or frustration.

The person taking this course should have some familiarity with industrial and manufacturing control systems from the angle of a management work organizer, field 'hands on' technician or related trade. Some familiarity with computers is an asset. Having an open mind, willing to learn will help the trainee get the most out of this course. The course is designed with one-third theory, one-third application on keyboard working with software and one-third hardware exercises. It's offered over three days from 8 am to 4:30 pm. The course has been designed to fit in with a regular 8-hour work shift so as to be done in house on site or open registration off site. This is so as to fit in with the needs of the employer and the usual employee regimen.

There will be some theory instructional activity with facilitator guided trainee actions followed by individual participant applied activity. A cooperative learning hardware exercise will involve participants working as a team to do a controlLogix project: creating tasks, program and routines. The project is debugged and downloaded to a controlLogix plc, field devices hooked up and the project run. This or another similar project is used later for troubleshooting practice and online editing. Trainees are encouraged to bring in their own plc programs or ones they work with for evaluation and analysis by the facilitator and other course participants.

What makes this ControlLogix course unique is the hands on keyboard and hardware exercises as well as its portability to on site locations.

CONTROLLOGIX SCOPE

Objective: Understand the features and benefits of the ControlLogix platform.

SUBTOPICS:

- Network Accessibility
- Modularization

- Machine Language
- Multi-tasking
- Backup

COMMUNICATIONS

Objective: Learn the applications of the various comm protocols the ControlLogix can speak.

SUBTOPICS:

- Tapping into the Plc Controller
- Tapping into the network

ADDRESSING

Objective: Become fluent in the structure of descriptive addressing.

SUBTOPICS:

- Tags
- Data Types
- Memory Locations

PROJECT SETUP

Objective: Complete a project with the Rockwell 5000, consisting of tasks, programs and routines.

SUBTOPICS:

- Project Files
- Tasks
- Programs
- Routines
- Addition of I/O

BASIC INSTRUCTIONS

Objective: Learn the foundational language of the ControlLogix PLC.

SUBTOPICS:

- Favorites
- Timers
- Counters
- Program Control

DOING A PROJECT

Objective: Establish a sequence to accomplish a goal and then make a program to run that sequence.

SUBTOPICS:

- Flow Diagrams

ADVANCED INSTRUCTIONS

Objective: Work with large blocks of data and their movement; both locally and in the network.

SUBTOPICS:

- Compare Instruction
- Compute Instruction
- Sequencer Instructions
- Move Instructions

TROUBLE-SHOOTING

Objective: Use familiarity with the general operation of the equipment to establish a logical process to eliminate the problem as quickly and efficiently as possible.

SUBTOPICS:

- Isolating faults
- Diagnosing root cause