

AUTOMATION ACADEMY

A u t o m a t i o n S y s t e m s T r a i n i n g S p e c i a l i s t s

Course Title: Allen Bradley ControlLogix Maintenance Course

The Allen Bradley Logix maintenance training course has been designed to familiarise Electricians, Technicians and Maintenance Engineers with little or no experience of AB ControlLogix controllers to the many different aspects associated with the operation and maintenance of ControlLogix controllers and RSLogix 5000 or Studio 5000 programming software.

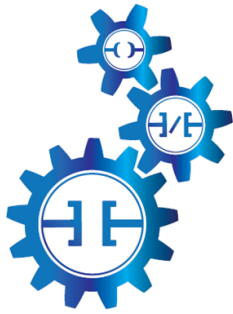
Where possible, application specific exercises, actual drawings and plant programs will be used to allow the students to gain the greatest possible benefit from the course.

Course Objectives:

- ☒ To introduce students to the concepts and operation of AB ControlLogix controllers.
- ☒ To recognise and understand the hardware associated with a ControlLogix controllers.
- ☒ To be able to understand the structure of the PLC project in the programming software and to have the confidence to implement minor changes to the program.
- ☒ To be able to use the programming software to connect online to monitor and be able to use the search and cross reference facilities to chase through the AB ControlLogix program to determine problems on plant.
- ☒ To be able to locate and replace faulty modules by understanding and using the system diagnostics available in the programming software when an error is present.
- ☒ To be able to create a backup copy of the Logix controllers program. To be able to restore a program back into the controller from a backup copy.

Course Content:

The hardware architecture of the AB ControlLogix range of controllers.
Understanding AB ControlLogix I/O modules, their plant wiring and LED indicators.
Tags used in the AB Logix range of controllers.
An overview of the ControlLogix project structure within RSLogix 5000/Studio 5000.
First steps using RSLogix/Studio 5000 programming software.
Creating a training project to demonstrate plant programming examples.
Getting an online connection to the AB ControlLogix controller using RS Linx.
Downloading the project to the controller using serial or Ethernet connections.
Online monitoring and the cross reference search facility within RSLogix 5000.
Creating and using watch tables to monitor the PLC tags.



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A demonstration of simple program editing and modifying plant programs.
Reading the AB ControlLogix controllers instruction set.
Programming examples including relay, timers, maths, move, and comparisons.
Binary, Decimal and Hex numbering systems and their use in a ControlLogix program.
Data types including floating point values.
Using and creating program documentation.
Analogue modules and analogue signal processing.
Understanding and using the controllers status and error information for fault finding.
Comparing offline and online programs.
Forcing and toggling operations on the AB ControlLogix controllers.

Customised training included in the course cost.

As part of this training course we will include custom application exercises for your own plant and processes, this value added option creates immediate payback for students on plant. It will have the benefit of the students becoming familiar with key areas of your PLC project(s) during the training course. This option does require the supply of your plant drawing and program listings at least 2 weeks prior to the course start date.

Course Duration: 4 Days

Documentation: AB ControlLogix Training Manual.

Equipment per student: AB ControlLogix controller
Programming laptop
Plant simulator

Web link: [Allen Bradley ControlLogix Maintenance Course](#)