

# 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 SLC 500 Maintenance Course

The Allen Bradley SLC 500 maintenance training course has been designed to familiarise Electricians, Technicians and Maintenance Engineers with little or no experience of SLC 500 controllers to the many different aspects associated with the operation and maintenance of SLC 500 controllers and RSLogix 500 programming software.

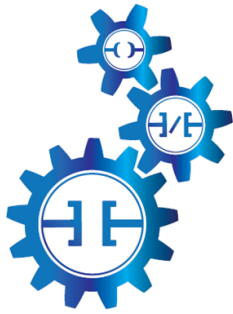
Where possible, application specific exercises, actual drawings and plant programs will be used to allow the students to gain the greatest possible benefit from the course.

### Course Objectives:

- ☒ To introduce students to the concepts and operation of SLC 500 controllers.
- ☒ To recognise and understand the hardware associated with a SLC 500 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 SLC 500 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 SLC 500 range of controllers.  
Understanding SLC 500 I/O modules, their plant wiring and LED indicators.  
Addresses used in the AB Logix range of controllers.  
An overview of the SLC 500 project structure within RSLogix 500.  
First steps using RSLogix 500 programming software.  
Creating a training project to demonstrate plant programming examples.  
Getting an online connection to the SLC 500 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 500.  
Creating and using Custom Data Monitor tables to monitor the PLC addresses.  
A demonstration of simple program editing and modifying plant programs.  
Reading the SLC 500 controllers instruction set.



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Programming examples including relay, timers, maths, move, and comparisons.  
Binary, Decimal and Hex numbering systems and their use in an SLC 500 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 SLC 500 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: 3 Days

Documentation: AB SLC 500 Training Manual.

Equipment per student: SLC 500 controller

Programming laptop

Plant simulator

**Web link: [Allen Bradley SLC 500 Maintenance Course](#)**