

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: Siemens S7 300/400 Level 2 Using Simatic Manager

The Siemens S7 Controller Level 2 training course has been designed to familiarise Electricians, Technicians and Maintenance Engineers with previous experience of S7 systems to the intermediate level features associated with the operation and maintenance of Siemens S7 controllers and the Siemens Simatic Manager programming software.

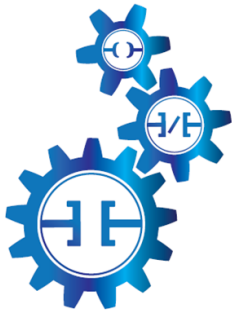
Where possible, application specific exercises, actual drawings and plant programs will be used to allow the students to gain the greatest possible benefit from the course.

Course Objectives:

- ☒ To revise and further develop an understanding of Siemens S7 Ladder (LAD) instructions.
- ☒ To introduce students to Statement List (STL) representation and operation.
- ☒ To introduce students to Function Block Diagram (FBD) representation and operation.
- ☒ To be able to use and understand the operation of a number of extended PLC instructions in all three programming languages depending on plant program usage.
- ☒ To understand the operation of the Organisation Blocks (OB's) commonly used in application programs.
- ☒ Creating and understanding Function Blocks (FB's) within the project.
- ☒ Profibus and Profinet hardware configuration, operation and fault finding methods.

Course Content:

Creating the level 2 training project and level 1 topics revision.
Configuring the CPU options.
Ladder programming exercises using intermediate instructions.
Creating, monitoring and understanding Siemens STL logic.
Creating, monitoring and understanding Siemens FBD logic.
Intermediate programming exercise to demonstrate the 3 programming languages.
Adding typical project OB's to the level 2 training project.
Creating a Function Block using the interface within the editor.
Adding the newly created FB's into the level 2 training project.
Level 2 searching exercise using the cross reference including STL/FBD/LAD and FB's.
Creating and configuring a Profibus network with ET200S I/O and a VSD.
Creating the program logic to control and monitor the VSD from the plant ET200S I/O.



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Profibus fault finding using Simatic Manager.
Creating and configuring a Profinet network with I/O and a VSD.
Creating the program logic to control and monitor the VSD from the plant I/O.
Profinet fault finding using Simatic Manager.

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: Siemens S7 300/400 Level 2 Training Manual.
Equipment per student: Siemens S7 300/400 controller
 Programming laptop
 Plant simulator

Web link: [Siemens S7 300/400 Level 2 Using Simatic Manager](#)