

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 TIA Update Course from Simatic Manager

The Siemens S7 TIA update course has been designed to familiarise Electricians, Technicians and Maintenance Engineers with experience of S7 Simatic Manager to the latest TIA Portal programming software. It will allow students to transfer their knowledge of S7 using Simatic Manager into the use of TIA Portal the latest programming software from Siemens. This update course will concentrate on S7 300/400 systems but most aspects can also be applied to S7 1200 and 1500 systems that can only be programmed using TIA.

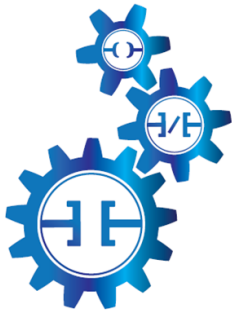
Where possible, application specific exercises, actual drawings and plant programs will be used to allow the students to gain the greatest possible benefit from the course.

Course Objectives:

- ☒ To acquire new skills to use the latest TIA programming software to carry out maintenance tasks and simple programming edits that would have previously be done using Simatic Manager.
- ☒ To introduce students to the operation of the TIA programming software.
- ☒ To introduce students to the navigation and structure of a TIA project.
- ☒ To understand where and how the hardware is configured in a TIA project.
- ☒ To understand where to locate the program blocks in a TIA Project.
- ☒ Setting up the Ethernet (Profinet) connection to the PLC.
- ☒ To be able to use TIA to go online to monitor the PLC program.
- ☒ To be able to search and use the cross reference in TIA Portal.
- ☒ To be able to make simple edits to the program using TIA Portal.
- ☒ To be able to use TIA Portal online diagnostics to locate faulty modules.

Course Content:

First steps using Siemens TIA Portal programming software.
Understanding the TIA project structure.
Creating a complete training project to demonstrate TIA operation.
Creating an Ethernet online connection to the Siemens S7 controller.
Downloading program blocks to the Siemens S7 300/400 controllers.



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Online monitoring and the Cross Reference search facility within TIA Portal.
Creating and using watch tables to monitor the PLC status.
A demonstration of simple program editing and modifying plant programs in TIA.
Programming examples in TIA including relay, timers, maths, move, and compares.
Data Blocks (DB's) in the TIA Portal.
Using and creating program tags and documentation.
Understanding and using TIA Portal Diagnostic Buffer information for fault finding.
Comparing offline and online programs, what the TIA icons mean.
Forcing and toggling operations on the S7 300/400 controllers.
Profibus and or Profinet configuration, operation and fault finding within TIA.
An overview of HMI's in TIA portal.

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: 2 Days

Documentation: Siemens S7 TIA Update Training Manual.

Equipment per student: Siemens S7 300/400 or 1200/155 controllers as required

Programming laptop

Plant simulator

Web link: [Siemens S7 TIA Update from Simatic Manager](#)