

S7 Service 1 Course (ST-SERV1)

Short Description

This course introduces the customer to a Siemens integrated automation system. Participants will build skills on commissioning, troubleshooting and upgrading an automation system complete with HMI, PLC, drive and communications network. Students will learn to navigate STEP7, use the built-in diagnostics tools and perform basic program modifications. Profibus DP configuration and troubleshooting are included using remote I/O, a touch panel display and a drive system. The course format is a combination of instruction and hands-on exercises. A realistic conveyor model is used for demonstrations and participant exercises. Exercises allow students to practice tasks such as testing, debugging and using diagnostic tools.

[Also available as Online-Training](#)

Objectives

On completion of this course the participant will be able to:-

Identify the components and performance characteristics of the SIMATIC S7-300/400 PLC

Install a PLC system, including the communication cabling and wiring of I/O.

Use the various address types to edit, reload, structure and run a program. Document, test, and basically troubleshoot the control system and its program.

Diagnose and repair simple hardware problems.

Utilize binary operations, timers, counters, comparators, and arithmetic operations for program modifications.

Integrate and troubleshoot an HMI and Drive system within the control system.

Configure and troubleshoot Profibus DP nodes

Target Group

This course is aimed at service/maintenance personnel who install or maintain automation systems and their application programs.

Content

SIMATIC S7 System Family overview

Installation and maintenance of a PLC

The SIMATIC Manager software package

Hardware configuration

Hardware commissioning

Block architecture and Program Editors

Symbols

Binary Operations

Digital Operations

Introduction to HMI and Profibus DP

Rewiring

Introduction to Drive Systems

Program documenting, saving and archiving

Basic Troubleshooting

Prerequisites

A basic ability to use a Windows PC, keyboard and mouse to open and close programs, locate files, drag, drop, copy and paste objects. A basic understanding of electrical components such as switches and solenoids would be very useful.

You can use the online tests below to find out whether you have sufficient prior knowledge to participate effectively in the course you wish to attend. If you answer more than 70 % of the questions correctly you are well prepared to take part in the course.

[Test ST-SERV1](#)

Note

This course is not a Programming Course (although programming elements exist within), for Programming, please consider the 'S7 Programming 1 Course'.

Completion of this course satisfies part of the examination entry requirements for the Siemens Certified Service Technician Levels 1 and 2. This training course is not appropriate for trainees using S7-200, S7-1200 or S7-1500 based systems. For more information concerning details of S7-200, S7-1200 or S7-1500 training contact Sitrain on 08458 507600 or our website at www.siemens.co.uk/sitrain.

Type

Face-to-face training

Duration

5 days

Language

en

Fee

2,930 GBP