Not sure where to start…. This guide should make it easier for you.

Simatic S7 SERVICE TRAINING

Course route:
ST-SERV1, ST-SERV2 & ST-SERV3
<u>OR</u>
ST- PRO1, ST-SERV2 & ST-SERV3

ST-SERV1 – First level.   This course is ideal for delegates with very little or no PLC experience and is aimed at service/maintenance personnel who will install or maintain automation systems and their application programs. This course introduces delegates to a Siemens "Totally Integrated Automation" system. Participants will build skills on commissioning, troubleshooting and upgrading an automation system complete with HMI, PLC, drive and communication 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. The exercises allow students to practice tasks such as testing, debugging and using diagnostic tools.

NB: Delegates in a maintenance role but who have been working with Siemens or have other manufacturer PLC knowledge would benefit by starting with the ST-PRO1, however the pace of the ST-PRO1 assumes a sound underpinning knowledge of PLC's and factory automation systems.

ST-SERV2 – Second level. We highly recommend delegates in a service or maintenance role who complete the ST-SERV1 or ST-PRO1 continue with ST-SERV2 to maximise on the full potential of using Siemens S7 Software. The ST-SERV2 will give greater detailed information and exercises and this in turn will enhance and grow your delegate's knowledge in this product area thus giving more efficient maintenance cover.

This course is for SIMATIC S7-300-400 PLC users with basic SIMATIC control system knowledge who install or maintain automation systems and their application programs. This course continues skill development in troubleshooting and modifying a control system. Participants will use STEP7 software tools to build new features, diagnostics and communications into the application project. Program development using organization blocks, system functions, function blocks and data blocks along with analogue signal processing are included. Configuration and integration of an HMI and drive system into the student's application project builds experience managing a complete automated control system.

The course format consists of instruction and hands-on exercises. Students will use test, debug and diagnostic tools to complete the commissioning, programming and system integration exercises.

ST-SERV3 – Third level. This course is aimed at service/maintenance personnel who are interested in solving a variety of SIMATIC S7 tasks, and have attended the ST-SERV1 and ST-SERV2 courses. The course uses a 'hands-on' practical approach to reinforce the theoretical aspects of the training. Practical tasks are undertaken using a simulation rig, distributed Profibus nodes and S7-300. This course is for SIMATIC S7-300-400 PLC users with basic SIMATIC control system knowledge who install or maintain automation systems and their application programs. This course continues skill development in troubleshooting and modifying a control system focusing upon commissioning, maintenance and integration of system blocks into a program. Configuration and integration of an HMI and drive system into the student's application project builds experience managing a complete automated control system.

The course format consists of instruction and hands-on exercises. Students will use test, debug and diagnostic tools to complete the commissioning, programming and system integration exercises.

Simatic S7 PROGRAMMER TRAINING
Designed for programmers and more experienced service personnel

Course route:
ST-PRO1, ST-PRO2 & ST-PRO3

ST-PRO1 – First level. This course is primarily aimed at personnel who program other manufacturer PLCs and are looking to migrate their skills onto the Siemens S7 CPU. It is also particularly suitable for service staff, with a firm foundation of existing PLC skills and practical experience, whose role requires them to carry out programming related tasks. In addition, the course helps those who want a greater appreciation in program design, editing and configuration changes in a Totally Integrated Automation environment including remote I/O, HMI and drives equipment over a Profibus network. It introduces Function and Function Block subroutines; Data blocks; Organisation Blocks; Introduction to PROIBUS-DP implementation, Remote i/o, HMI & MM4 Inverters; Analogue signal processing; Diagnostics and diagnostic tools.

ST-PRO2 – Second level. This course is directed at personnel engaged in project engineering tasks who would like to become familiar with the extended programming possibilities of SIMATIC S7. After the course, the participant will be able to structure and create advanced S7 programs, making it possible to efficiently work with STEP 7 and thus reduce the engineering phase. This course uses a 'hands-on' practical approach to reinforce the theoretical aspects of the training and builds a deeper understanding of the topics covered on the ST-PRO1 course, developing programming strategies and processes.

ST-PRO3 – Third level.   This course is directed at personnel engaged in project engineering tasks who would like to become familiar with the complex programming possibilities of SIMATIC S7 and who would like to reinforce and build on their knowledge from the previous programming courses. This course uses a 'hands-on' practical approach to reinforce the theoretical aspects of the training and utilises the skills and processes covered on the ST-PRO1 & 2 courses. By the end of the course the participant will have a solid understanding of most aspects of programming the S7300/400 PLC, be able to develop sound strategies for implementation of programming solutions.

This information is just a guide to try and help you decide which courses are most suitable for you and your colleagues. If you would like anymore guidance then please don't hesitate to contact us +44 161 446 6111