SIEMENS

S7 Programming 1 Course (ST-PRO1)

Short Description

This course is primarily aimed at personnel who program other vendors PLCs and are looking to migrate their skills onto the 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 an Integrated Automation environment including remote I/O, HMI and drives equipment over a Profibus network. Note: For service staff who want to attend this course please contact the SITRAIN UK Training Office before making a booking so that your existing skills and prior knowledge can be assessed. This course option is not suitable for service staff who are not PLC capable. They should start with the ST-SERV1 course.

Objectives

On completion of this course the participant will be able to:- Write programs and diagnose errors using S7 software package on S7-300/400 PLC's

Target Group

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Content

Introduction to the S7 family of controllers and concepts of TIA
Project creation and operation using Simatic Manager
Hardware configuration of S7 300/400 systems
Application and use of the Symbol Editor
Programming using the LAD/STL/FBD Editor
Binary operations - N/O, N/C, Set, Reset, edge detection
Digital operations - Accumulators, timers, counters, comparators
Tools for troubleshooting and debugging
Introduction to Profibus DP
Configuration and application example using ET200S remote I/O
Configuration and application example using an HMI Touch Panel
Configuration and application example using Micromaster MM420
Storing process Data in Data blocks
The role of functions and function blocks
Configuration and application of organisation blocks
Analogue value processing
Documentation facilities including archive & retrieve options
Each of the above topic areas are backed up by practical exercises using a conveyor model and simulator. Working examples are provided and tested out during the course.

Prerequisites

The ability to use a MS Windows PC (2000/XP), keyboard and mouse to include opening and closing programs, locating files, copy and paste objects /data (text, etc). Drag and drop files, objects/data (text, etc). Use of menus and multi-menus, manipulation of windows within a multi-window environment. Use of MS Windows Help.
A prior knowledge and practical experience of PLCs is essential.
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-PRO1

Note

Completion of this course satisfies part of the examination entry requirements for the Siemens Certified S7 Programmer.
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 Siemens Industry Training on 08458 507600 or our website at www.siemens.co.uk /sitrain.

Type

Face-to-face training

Duration

5 days

Language

en

Fee

2,670 GBP