

## SIEMENS SIMATIC S7 SEQUENCE CONTROL WITH S7-GRAPH

### COURSE SPECIFICATIONS

**Course Code:** ST-7GRAPH

**Course Length:** 3 Days

### PRE-REQUISITES

Participants should have knowledge of SIMATIC S7 equivalent to the ST-SERV2 or ST-PRO2 courses.

### COURSE OBJECTIVES

The course is designed for individuals who need to configure, program, and commission sequential controls using S7-GRAPH. It is ideal for those seeking to enhance their knowledge and skills in sequential control programming with Siemens' S7-GRAPH. By the end of the course, participants will be equipped to create or effectively enhance sequential controls.

### TARGET AUDIENCE

Programmers Commissioning engineers, configuring engineers.

### LEARNING OUTLINE

- 1. Design and Structure:** Understanding the design, structure, and representation methods of sequencers with S7-GRAPH
  - Basic elements of sequencer structure.
  - Standard step and transition programming
  - Step interlocks
- 2. Planning and Configuring:** Learning how to plan and configure sequencers
- 3. Programming:** Documenting and starting up sequence blocks, programming interlocks, and monitoring
  - Interlock-dependent operations.
  - FB parameters (in, out, inout) and static variables
- 4. Event-Driven Actions:** Using event-driven actions and understanding properties of simultaneous and alternative branches
  - Event-dependent operations
  - "Qualifier commands"
  - Query of Binary Sequencer Data
  - Examples of step interlocks

- 5. Documentation:** ASCII storage and integrating manual mode
  - Storing as ASCII file
  - GRAPH7 source files
- 6. Testing and Diagnostics:** Utilizing test functions and diagnostics facilities
  - Elementary test and monitoring functions
  - "Control sequencer" test function
  - "Synchronization" test function
- 7. Practical Exercises:** Deeper understanding of contents through hands-on practice with the SIMATIC S7-300 system model

### CERTIFICATION

Successful participants will receive an **international Siemens certificate**. Siemens LTD is accredited by **merSETA** to fulfil the functions as contemplated in SAQA regulation 13 for the standards and qualification as detailed in the statement of accreditation.

### MERSETA TRAINING PROVIDER

Onetrust Training Solutions has received full accreditation as a **merSETA Training Provider**. (Certification number: 17-QA/ACC/2313/21.) We are in the process of extending our scope of accreditation for most of our individual training courses and skills programmes.

### CONTACT DETAILS

Further enquiries may be directed to:

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