

## S5 Maintenance & Programming 1 (US-S5SP5G1A)

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### Type

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Instructor-led Learning

### Duration and Continuing Education Units (CEU)

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4.5 Days  
3 CEUs

### Target Group

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- Maintenance
- Engineer

### Short Description

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This course provides the basic skills necessary to troubleshoot S5 hardware and modify programs using STEP5 software. Students will build skills with a typical S5 hardware sustaining ranging from module wiring and configuration to parameterization and addressing. In addition, students will use STEP5 software to aid in troubleshooting the system. This course includes basic system program modifications and program development using the STEP5 Basic Operation Set. Students are taught to modify and develop programs with three program editors: Ladder Logic, Statement List and Control System Flow Chart. This is a hand-on course with the students actively downloading control program to the S5 and fully testing the workstation system.

### Objectives

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- Build a basic S5 hardware configuration
- Troubleshoot the system hardware using status indicators and STEP5 software tools
- Program discrete logic operations (AND, OR, etc.)
- Create and edit documentation
- Program timers and counters (time, count events, etc.)
- Program comparison operations
- Program integer math operations
- Troubleshoot common software errors

### Content

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- Fundamental control concepts
- Programming basics
- Hardware overview
- Digital operations
- Counters, compares, and arithmetic
- Timer operations
- Introduction to Data and Function blocks
- Troubleshooting

### Language

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English

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