

## S7 Programming 3 (US-S7TIAP3B)

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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
- Programmer

### Short Description

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This course is for advanced SIMATIC S7300/400 users who are involved with developing or maintaining automation systems and their control applications.

This course builds advanced skills in control system programming in a control systems environment. Workstations will include the S7 PLC, Touch Panel HMI, Drive system and both PROFIBUS and Ethernet networks. Students will be challenged with a number of advanced programming techniques including data management routines, advanced system functions, new program efficiency tools and error handling. Advanced level blocks, functions, tools and libraries are discussed and demonstrated. In addition, students will learn systems integration techniques which build efficiency in control systems management. Students will perform basic configurations and integration of the HMI and Drive systems maximizing system efficiency and diagnostics. The course concludes with a brief review of Siemens optional program editors and engineering tools.

### Objectives

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- Efficiently apply Data Blocks
- Efficiently use the various Data Types
- Manage program errors
- Build and manage Recipes
- Understand the advantages of each networking type
- Set up a basic Ethernet network
- Understand the optional program editors and their advantages

### Content

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- Training Units and Addressing
- Block calls and Multi Instance Model
- Complex Data Type Applications
- Indirect Addressing & Registers
- Block Calls & Parameters
- Error Handling
- Recipes
- S7 Communications
- S7 Ethernet

- S7 Engineering Tools Overview

### **Mandatory Prerequisites**

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[S7 Programming 2: US-S7TIAP2B](#)

### **Language**

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English

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