

## SIMOTION System Course

### General Information

Course Code SCT-DVSMOM1A  
Global Code MC-SMO-DG  
Length 4½ Days  
CEUs 2.9

### Audience

This course is for SIMOTION system developers and users who are responsible for creating, commissioning, or maintaining SIMOTION based motion control systems.

### Prerequisites

- SINAMICS S120 Basic Maintenance  
OR
- SINAMICS S Setup and Maintenance

### Profile

This course is intended to provide knowledge and skills related to SIMOTION systems as it pertains to commissioning, operation, configuration, maintenance, diagnostics, and troubleshooting. It is formatted as a combination of instruction and carefully structured, hands-on exercises. This course will utilize the D425-2 DP/PN motion control module and the SINAMICS servo drive controller for all exercises. The skills acquired will be portable to SIMOTION C-based and P-based controllers

### Objectives

*Upon completion of this course, the student shall be able to:*

- Locate modules, terminals, options, and features of the SIMOTION Controller and the SINAMICS S120 Drive
- Commission the SINAMICS servo controller for use with SIMOTION.
- Upload, back-up, and download projects to SIMOTION and SINAMICS
- Create, document, test, and troubleshoot a SIMOTION program.
- Create and monitor system variables.
- Interpret diagnostic codes and messages.

### Topics

1. SIMOTION and SINAMICS construction, options, and features
2. Commissioning SINAMICS and SIMOTION
3. SIMOTION Execution System
4. Configuring axes - Drive optimization and SCOUT configuration
5. Programming in MCC, Ladder, Structured Text
6. Monitoring and Troubleshooting User Programs
7. Communications and HMI
8. Diagnostics and Troubleshooting
9. Monitoring the system with IT DIAG