

## CDN-Drive Technology SIMOTION

### General Information

Course Code: CDN-MID10478  
Length: 4½ Days

### Audience

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

### Profile

This course provides a basic knowledge for the SIMOTION system and enables commissioning engineers, design engineers and programmers to start up, configure and program the SIMOTION control system. The course is designed with practical exercises that aid in quickly familiarizing attendees with the handling of SIMOTION control.

The SIMOTION platform is designed to be supported by either a D435, P350 computer or a C230-2 motion control module. This course will utilize the D435 motion control module and the SINAMICS servo drive controller for all exercises. Any differences between the P350 and the C230-2 motion control module hardware and functionality will be discussed.

Computers with pre-loaded SIMOTION software will be provided for the exercises.

This course is 65% hands-on exercises which are targeted at developing an understanding of SIMOTION functionality and programming concepts.

### Objectives

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

- Navigate the SIMOTION SCOUT desktop.
- Commission the SINAMICS servo controller for use with SIMOTION.
- Create, document, test, and troubleshoot a SIMOTION program.
- Properly utilize the various types of SIMOTION tasks, such as the background task, interrupt tasks, cyclic tasks, fault tasks and motion tasks.
- Create and monitor system variables.
- Interpret diagnostic codes and messages.

### Topics

1. Overview of the SIMOTION system.
2. Overview of the software/hardware release dates.
3. Hardware components of SIMOTION
4. Starting up the SIMOTION control
5. SCOUT engineering system
6. Configuring axes - Drive optimization and SCOUT configuration
7. Programming in MCC and ladder and testing simple user programs
8. Example of ST programming
9. Communications and HMI - Connecting peripheral components to PROFIBUS via SIMOTION
10. Troubleshooting - trace function and monitoring variables.