# SIEMENS

## Virtual Commissioning for Machines - Totally Integrated Automation in the Digital Enterprise (DI-VIRTCOM)

### Objectives

Digital Enterprise, Your Way to Industry 4.0 - discover the possibilities. Today's technologies are so complex that training on the software and the appropriate training equipment is almost indispensable to keep up to date.
Target group of this course are project engineers, project planners and programmers of mid-level and big industries, who deal with the design and virtual commissioning of machines.
This course provides you with an overview of the interaction among the various software packages such as NX, MCD, TIA Portal, PLCSIM Advanced and SIMIT.
The objective of the course is to achieve greater efficiency in the design, automation and commissioning of machines. Through an overview of the tool landscape, you will learn to better understand and evaluate the resulting possibilities and types of simulation.
This is achieved by:
New possibilities for the interaction of design and automation, from serial processes to parallel work. Automation can already begin and be tested during the design phase. The interaction of design and automation allows initial tests and virtual commissioning in the office without the need for a real machine or PLC.

### Target Group

Configuration engineers
Project planners
Programmers
Planners

### Content

• Introduction of concepts for virtual commissioning
• Complete software-in-the-loop approach
Working with PLCSIM Advanced and TIA Portal
Introduction to Siemens PLM Software NX and MCD
• Creating drawings in the NX CAD system
• Creating and positioning machine elements in the NX CAD system
• Preliminary planning of the program flow in NX MCD
Connection of NX / MCD models to PLCSIM Advanced (with TIA Portal)
• Automating using the virtual machine model
• Virtual commissioning of custom machines
Expansion and modification of the virtual machine
Introduction of process simulation with SIMIT

### Prerequisites

Good knowledge of automation technology
SIMATIC S7 knowledge relevant for TIA-PRO2 or TIA-SYSUP, and practical experience of the application of this knowledge

### Type

Face-to-face training

### Duration

5 days

### Language

en