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learning content, dates, course locations,
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Publisher

Siemens AG 2018

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Article No. DFCS-B10088-00-7600

Printed in Germany
Dispo 46332
fb 8133 WS 09181.0

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A man in a blue shirt is pointing at a Siemens SITRAIN personal control panel. The panel features a large touchscreen display showing a 3D model of a mechanical part, a numeric keypad, and various physical buttons and indicators. The background shows a blurred office setting with windows.

SIEMENS

Ingenuity for life

SITRAIN personal –
SINUMERIK and
SINUMERIK Safety Training

SITRAIN – Digital Industry Academy

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Time for learning

SITRAIN – Digital Industry Academy

Today, the demands on your knowledge are as varied and dynamic as your profession. You are always learning more and for longer periods of time, both for your work and your career. Advancing digitalization is accompanied by new topics, and is also changing the way you absorb and process knowledge. With SITRAIN – Digital Industry Academy, we offer you the knowledge source you need, precisely tailored to when, where, and how you want it.

The time for learning is now. But how do you access expert knowledge? Where can you quickly find exactly the information you need for your project? How do you determine for yourself when and where you can expand your knowledge?

That's what SITRAIN – Digital Industry Academy is for. Here you'll find everything you need to know to be successful in your profession and to develop your skills in a targeted manner. It features documents that are available at any time, sample applications, FAQs and the Online Support App, a growing community with direct contact to experts, and an extensive range of SITRAIN training courses. These courses take advantage of advancing digitalization to constantly expand the content and offer new training methods.

Knowledge prepared for today's learning

Because knowledge is so diverse and everyone has their own rhythm and needs, SITRAIN is divided into three areas. This means that you will always be able to find the knowledge that suits you best.

Knowledge that you can always find

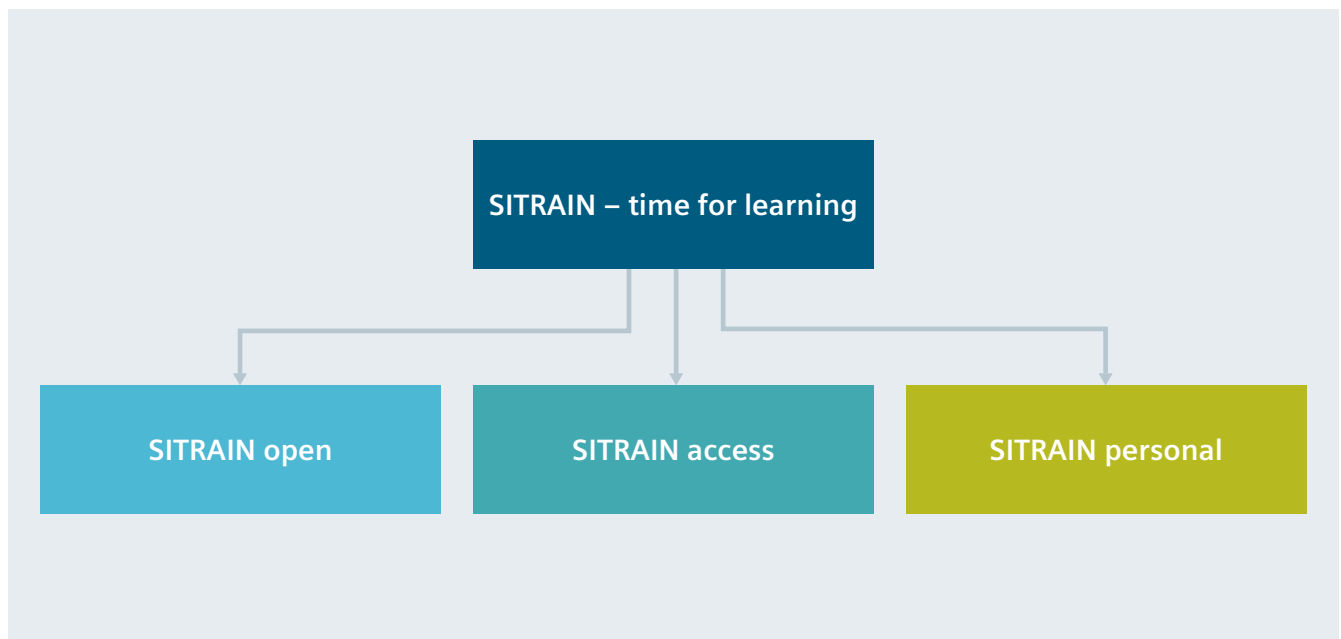
SITRAIN open bundles useful information, valuable data, and up-to-date expert knowledge on Siemens products for industry. Search at any time, find everything, and always the right thing.

Knowledge that helps you move forward

SITRAIN access is your personal way to tap into skillfully prepared and tested knowledge. A range of digital training courses and a constantly growing community help with your knowledge building.

Knowledge that you can experience

SITRAIN personal brings you together with experienced and certified experts from Siemens – in your company or in our classrooms with training devices.

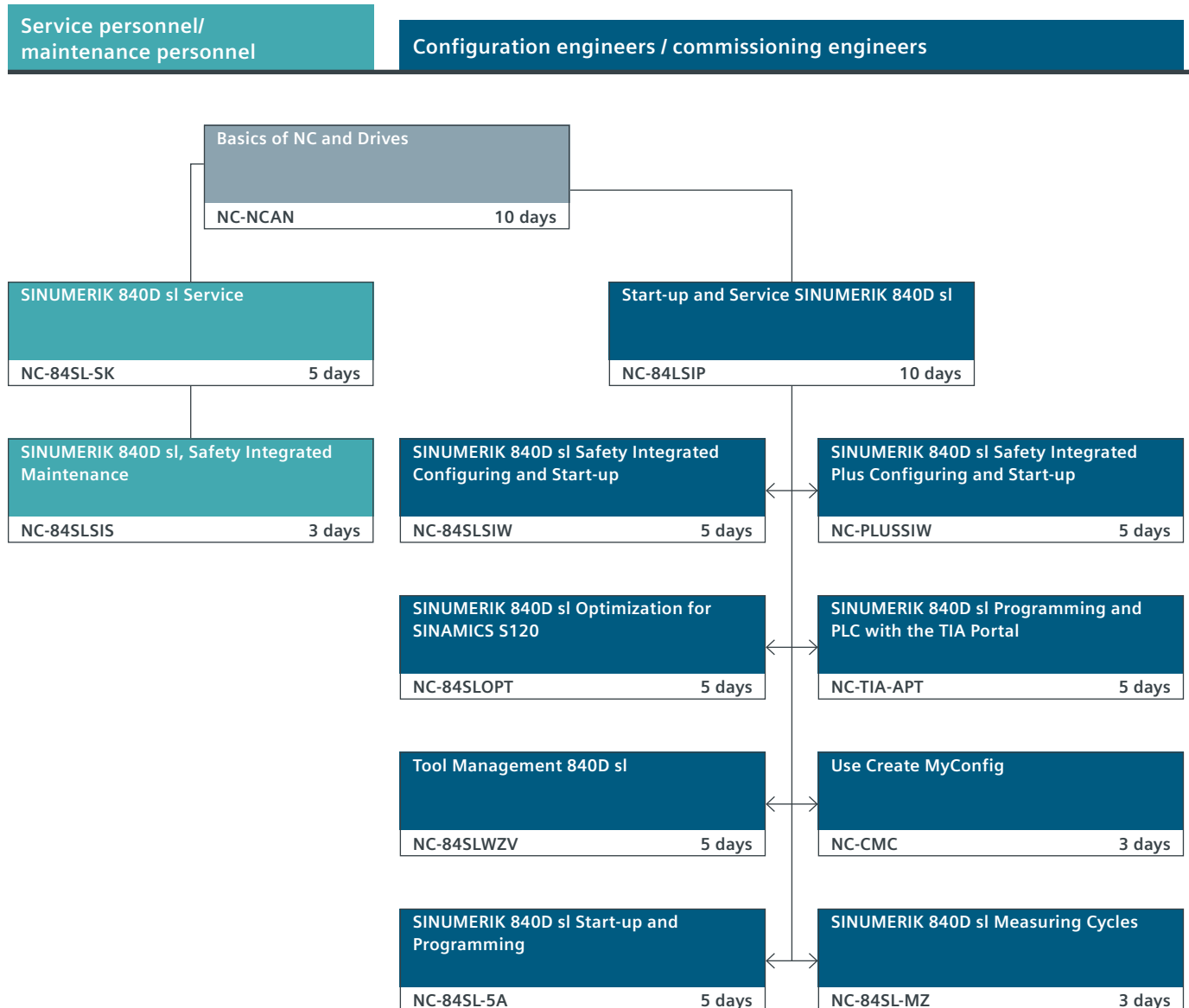


SITRAIN personal for SINUMERIK

Our range of training courses for SINUMERIK and SINUMERIK Safety offer both beginners and advanced users solid detailed knowledge and practical exercises. This lets you successfully pursue your path to becoming a digital enterprise and implement your digital transformation.

SITRAIN learning path for the SINUMERIK product portfolio

SITRAIN advanced training courses enable the systematic acquisition of knowledge in the areas of service, configuration, and programming and lay the foundation for even more efficient plant operation. The courses give beginners and advanced students alike basic information and in-depth, detailed information about SINUMERIK. The courses include many practical exercises on the training devices and ensure that attendees can apply the knowledge they've learned.



Higher productivity through greater knowledge

The SINUMERIK training courses provide an intelligent answer to the ever-increasing requirements of machines and plants and show how their functions can be optimally applied. This results in advantages for you in terms of immediate cost reduction due to reduced hardware requirements, faster installation, and more efficient engineering.

Operators / programmers

Operating SINUMERIK 828D/840D sl
with SINUMERIK Operate

NC-SINOP-B 5 days

SINUMERIK 828D/840D sl Programming
with SINUMERIK Operate

NC-SINOP-P 5 days

SINUMERIK 828D/840D sl Programming
with advanced functions

NC-SINOPHP 5 days



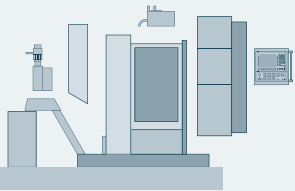
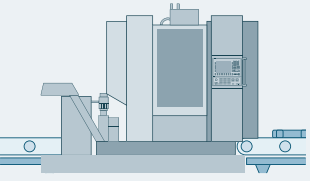
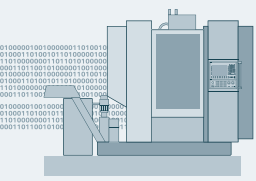
Course contents at a glance

Technology	Course title	Order code	Content
SINUMERIK basics	SIMATIC S7 Programming 1	ST-PRO1 (5 days)	<p>Basic knowledge of the design, configuration, and parameterization of the SIMATIC S7 automation system</p> <ul style="list-style-type: none"> • Operation of SIMATIC STEP 7 software and programming basics • Familiarization with SIMATIC S7 programming options
	Basics of NC and Drives	NC-NCAN (10 days)	<p>Structure and tasks of a machine tool with CNC control and drives</p> <ul style="list-style-type: none"> • Meaning of compensations, parameters, setting data, and machine data • Principle of position control, speed control, and current control
SINUMERIK 840sl configuring engineers, commissioning engineers	SINUMERIK 840D sl Service and Start-up	NC-84SLSIP (10 days)	<p>Training for configuring and commissioning the SINUMERIK 840D sl</p> <ul style="list-style-type: none"> • Axis/drive configuration and fundamentals of optimization • Adaptation of the control functions to the machine with machine data and interface signals
	SINUMERIK 840D sl Safety Integrated Configuring and Start-up	NC-84SLSIW (5 days)	<p>Configuring, testing, and commissioning of plant configurations with safety functions</p> <ul style="list-style-type: none"> • Safe basic functions and acceptance test • Switching examples for Safety Integrated
	SINUMERIK 840D sl Safety Integrated Plus Configuring and Start-up	NC-PLUSSIW (5 days)	<ul style="list-style-type: none"> • Working with the safety functions of SINUMERIK Safety Integrated Plus • You will be able to parameterize the different functions and program and test their control
	PLC Programming with the TIA Portal	NC-TIA-APT (5 days)	<ul style="list-style-type: none"> • Training for programming a PLC program for SINUMERIK 840D sl with the TIA Portal • Use of PLC basic program and migration of S7 projects • Generation of PLC program according to the Programming Style Guide from the TIA Portal
	SINUMERIK 840D sl Optimization for SINAMICS S120	NC-84SLOPT (5 days)	<ul style="list-style-type: none"> • Procedures for the optimization of feed drives with SINUMERIK 840D sl • Optimization using step response and frequency response analysis • Introduction to Automatic Servo Tuning
	Use Create MyConfig	NC-CMC (3 days)	<ul style="list-style-type: none"> • Configuration of a CMC project and creation of a configurable package from it • Use of the Diff, Expert, Topo, and Shield components • Adaptation of different machine configurations and SINAMICS topologies
	Tool management 840D sl	NC-84SLWZV (5 days)	<ul style="list-style-type: none"> • Design and start-up of Tool Management functions with SINUMERIK 840D sl • Sequences of tool management • Sample applications and configurations
	SINUMERIK 840D sl Start-up and Programming of 5-axis Machines	NC-84SL-5A (5 days)	<ul style="list-style-type: none"> • Start-up and optimization of 5-axis transformations, 5-axis machines, and machines with a swiveling tool • Machining oblique surfaces with a swiveling tool with and without 5-axis transformation
	SINUMERIK 840D sl Measuring Cycles	NC-84SL-MZ (3 days)	<ul style="list-style-type: none"> • Using measuring cycles for process-oriented measurement on milling machines and lathes • Measuring in JOG • Workpiece and tool measurement on milling machines and lathes

Technology	Course title	Order code	Content
SINUMERIK 840sl service personnel, maintenance personnel	SINUMERIK 840D sl service	NC-84SL-SK (5 days)	<ul style="list-style-type: none"> • Pinpoint and correct faults • Data backup and restart • Modification of the machine data following mechanical maintenance work
	SINUMERIK 840D sl, Safety Integrated Maintenance	NC-84SLSIS (3 days)	<ul style="list-style-type: none"> • Maintenance and servicing of a machine tool with SINUMERIK 840D sl and Safety Integrated • Targeted troubleshooting and fault correction • Checking of safety-related functions following repair or module replacement
SINUMERIK Operate operators, programmers	Operating SINUMERIK 828D/840D sl with SINUMERIK Operate	NC-SINOP-B (5 days)	<ul style="list-style-type: none"> • Operation of and working with SINUMERIK Operate • Making changes to part programs • Entering and changing tool offset data and zero offsets
	SINUMERIK 828D/840D sl Programming with SINUMERIK Operate	NC-SINOP-P (5 days)	<ul style="list-style-type: none"> • Programming of part programs using DIN 66025, ShopMill, and ShopTurn • Use of subroutine technique, program jumps, macro technology, and standard cycles • Reliable static swiveling of a rotary axis (B-axis)
	SINUMERIK 828D/ 840D sl Programming with advanced functions	NC-SINOPHP (5 days)	<ul style="list-style-type: none"> • Learning of advanced programming methods • Creation of cycles and complex programs • Use of control structures, interrupt routines, and synchronous actions

Digitalization in machine building with SINUMERIK courses – implement now!

Digitalization makes profound and sustainable changes to production. It enables both machine manufacturers and machine operators to flexibly respond to market requirements, shorten time to market, and increase their flexibility and efficiency. The convergence of the real and digital worlds is creating countless opportunities, but knowing exactly how to seize these opportunities requires specialized skills and knowledge. SITRAIN has the technical, specialized, and digital expertise to improve performance in the value chain.

Building machine tools	SINUMERIK course
 <ul style="list-style-type: none"> • Integrated Engineering • Machine Design • Virtual Commissioning • Automation 	Use Create MyConfig (NC-CMC)
Operating machine tools	SINUMERIK course
 <ul style="list-style-type: none"> • Vertical Integration – Plant Control • Integrated Engineering – Part Design • Operation Services 	Operating SINUMERIK 828D/840D sl with SINUMERIK Operate (NC-SINOP-B) SINUMERIK 828D/840D sl Programming with SINUMERIK Operate (NC-SINOP-P) SINUMERIK 828D/840D sl Programming with advanced functions (NC-SINOPHP)
Optimizing machines and production	SINUMERIK course
 <ul style="list-style-type: none"> • Vertical Integration – Plant Control • Integrated Engineering – Part Design • Operation Services 	