

SIDAT

AUTOMATION —
— INFORMATICS

COURSES AND TRAINING

Overview of courses, training sessions,
seminars and workshops

ENGLISH

COMPREHENSIVE AUTOMATION

INDUSTRIAL INFORMATICS

INTEGRATION PROJECTS, INDUSTRY 4.0

CUSTOMER CARE

Our Training Centre organises standardised courses and specialised training sessions, seminars and workshops.

Standardised courses are authorised by **Siemens** and completed by issuing the respective certificate. **The Centre** is authorised to provide educational activities reimbursed from the **EU funds**.

The programme of specialised training sessions, seminars and workshops is prepared by the Training Centre on the basis of a specific requirement of the customer and as agreed upon with him.

Most training events which are part of the Training Centre programme may be:

- held outside the Training Centre (for example at the customer's site or that of his business partner)
- held in Czech or English language, some of them also available in German or Russian
- adapted to suit the operating mode of automated production systems (this for example concerns courses and training sessions focused on diagnostics, trouble-shooting, hot-fixes, service-packs and up-grades, held at the customer's site.
- adapted to meet the individual educational needs and requirements of the customers.

ST-MICRO1

BASIC PROGRAMMING COURSE FOR SIMATIC S7-1200 IN TIA PORTAL

DESCRIPTION basic programming course focused on the basics of configuration, programming and diagnostics of **PLC SIMATIC S7-1200** and **TIA Portal STEP 7 Basic**

COURSE TYPE programming and service course

COURSE IS INTENDED FOR The course is designed for electrical maintenance staff, designers and programmers who develop and modify new and current projects for **SIMATIC S7-1200** control systems in the **TIA Portal** environment.

DURATION 3 days

MAXIMUM NUMBER OF PARTICIPANTS 6 participants maximum of 2 participants per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** cz

PREREQUISITES it is required to have a general knowledge of **PLC** and basic computer skills

COURSE CONTENT

- System overview
- STEP 7 basics
- Devices and Networks
- Online tools
- PLC tags
- Programming blocks
- Binary and digital operations
- Data blocks
- Organization blocks
- Introduction to HMI
- Troubleshooting

COURSE DATES regularly held course

PRICE 9,900 CZK / 399 €

ST-SERV1

SERVICE COURSE 1 FOR SIMATIC S7-300/400 IN STEP 7

DESCRIPTION basic service course focused on the basics of configurations, programming and diagnostics of **PLC SIMATIC S7-300/400** in **STEP 7**

COURSE TYPE service course

COURSE IS INTENDED FOR for electrical maintenance staff, service technicians who are design basic service and diagnostics operations with **SIMATIC S7-300/400** control systems in **STEP 7**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants
maximum of 2 participants per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** cz, en

PREREQUISITES it is required to have a general knowledge of **PLC** and basic computer skills

COURSE CONTENT

- The SIMATIC S7 system family
- Installation and maintenance of the PLC
- The SIMATIC Manager
- Hardware configuration
- Hardware commissioning
- Block architecture and block editor
- Symbols
- Binary operations
- Digital operations
- Rewiring a user program
- Documenting, saving and archiving

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

ST-SERV2

SERVICE COURSE 2 FOR SIMATIC S7-300/400 IN STEP 7

DESCRIPTION extension service course focused on programming and diagnostics of **SIMATIC S7-300/400** control systems in **STEP 7**

COURSE TYPE service course

COURSE IS INTENDED FOR electrical maintenance staff, service technicians who design service and diagnostics operations with **SIMATIC S7-300/400** control systems in **STEP 7**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants
maximum of 2 participants per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** cz, en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **ST-SERV1** course

COURSE CONTENT

- Hardware and software commissioning
- Data storage in data blocks
- Functions and function blocks
- Troubleshooting
- System information
- Organization blocks
- Analog value processing
- Documenting, Saving and Archiving
- MPI communication

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

ST-PRO1

PROGRAMMING COURSE 1 FOR SIMATIC S7-300/400 IN STEP 7

DESCRIPTION programming course focused on programming and designing **SIMATIC S7-300/400** control systems in **STEP 7**

COURSE TYPE programming course

COURSE IS INTENDED FOR programmers and designers, who work on current devices or commission **SIMATIC S7-300/400** control systems in **STEP 7**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants
maximum of 2 participants per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** cz, en

PREREQUISITES it is required to have a general knowledge of **PLC** and basic computer skills

COURSE CONTENT

- The SIMATIC S7 system family
- The SIMATIC Manager
- Hardware configuration
- Block architecture and block editor
- Binary operations
- Digital operations
- Symbols
- Test functions
- Data storage in data blocks
- Functions and function blocks
- Troubleshooting
- Organization blocks
- Analog value processing
- Documenting, saving and archiving
- MPI communication

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

ST-PRO2

PROGRAMMING COURSE 2 FOR SIMATIC S7-300/400 IN STEP 7

DESCRIPTION extension programming course focused on **SIMATIC S7-300/400 PLC**

COURSE TYPE programming course

COURSE IS INTENDED FOR programmers and designers who want to extend their programming knowledge in the **STEP 7** environment

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants
maximum of 2 participants per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** cz, en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **ST-PRO1** course

COURSE CONTENT

- Instructions independent of the RLO bit
- Accumulator functions
- Real numbers instructions
- Indirect addressing and address register instructions
- Data types and variables in STEP 7
- Block call and multi-instance model
- Library utilization
- Handling of asynchronous and synchronous errors
- Generating program in text editor
- Basic and advanced communication
- SIMATIC S7-400
- Distributed I/O and parameters assignment
- Technological tools for S7/M7
- Indirect FC and FB parameters access

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

ST-PRO1/2

INTENSIVE PROGRAMMING COURSE FOR THE SIMATIC S7-300/400 IN STEP 7

DESCRIPTION intensive programming course for the **PLC SIMATIC S7-300/400**

COURSE TYPE intensive programming course

COURSE IS INTENDED FOR programmers and designers who work on or commission devices with **SIMATIC S7-300/400** control systems

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants maximum of 2 participants per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** cz, en

PREREQUISITES it is required to have an advanced knowledge of **SIMATIC** series **S5** programming or programming knowledge in the equivalence of the **ST-PRO1** course

COURSE CONTENT

- The SIMATIC Manager
- Hardware configuration
- Binary and digital operations
- Data storage in data blocks
- Functions and function blocks
- Organization blocks
- Instructions independent of the RLO bit
- Accumulator functions
- Real numbers functions
- Indirect addressing and address register instructions
- Data types and variables in STEP 7
- Block call and multi-instance model
- Basic and advanced S7 communication
- SIMATIC S7-400
- Indirect FC and FB parameters access
- Handling of asynchronous and synchronous errors

COURSE DATES regularly held course

PRICE 13,990 CZK / 549 €

ST-BWINCCS

DESIGNING SCADA SYSTEMS IN WINCC

DESCRIPTION course focused on designing control and dispatch systems in **WinCC**

COURSE TYPE programming and design course

COURSE IS INTENDED FOR programmers and designers who work with **SCADA systems**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants Maximum of 1 participant per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the minimum equivalence of the **ST-PRO1** course

COURSE CONTENT

- WinCC system overview
- Creating a project (WinCC Explorer)
- PLC coupling (WinCC Explorer)
- Cross-reference
- Graphics screens
- Password protection
- Message display
- Message archiving
- Trend display
- Measured value archiving
- User archives
- Background processing
- Windows Standard Interfaces
- User open API interface

COURSE DATES course date on-demand

PRICE price on-demand

ST-WCCFSYS

HMI DESIGNING IN WINCC FLEXIBLE

DESCRIPTION course is focused on designing Siemens control panels in **WinCC Flexible** environment

COURSE TYPE programming and design course

COURSE IS INTENDED FOR programmers who work on devices with **SIMATIC S7-300/400** control systems and control panels

DURATION 3 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants
Maximum of 1 participant per workstation

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **ST-PRO1** course

COURSE CONTENT

- SIMATIC panels overview
- Creating a project
- PLC coupling
- Basic panel graphics
- Advanced panel graphics
- Operation report system
- Users management
- Value archivation
- Recipe management
- „Runtime-Scripting„ function
- „Sm@rt Access„ service
- „Sm@rt Service„ service

COURSE DATES regularly held course

PRICE 9,990 CZK / 399 €

ST-PCS7/SYS1

PROJECTING SIMATIC PCS7 PROCESS CONTROL SYSTEMS

DESCRIPTION course is focused at projecting **SIMATIC PCS 7 Process Control Systems**

COURSE TYPE programming and design course

COURSE IS INTENDED FOR programmers and designers who work and commission **SIMATIC PCS 7** control systems

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 6 participants
Maximum of 1 participant per workstation

COURSE LANGUAGE cz, en **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **ST-PRO1** course

COURSE CONTENT

- System design and component specification
- Project setup
- Station and network configuration
- Connection to the process
- Basics control functions
- Basics operating and monitoring
- Basics automatic mode control
- SFC sequence control configuration
- Customizing the OS
- Archiving system
- Locking functions and operating modes
- Mass data engineering
- Final steps of configuration
- User block- attributes and visualization
- Demonstration server – client system
- Syntax rules
- SIMATIC PCS 7 documentation and support

COURSE DATES course date on-demand

PRICE price on-demand

TIA-SERV1

SERVICE COURSE 1 FOR SIMATIC S7-1500 IN THE TIA PORTAL

DESCRIPTION basic service course focused on service, programming and diagnostics basics in control systems **SIMATIC S7-1500** using the **TIA Portal**

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have at most two participants available

COURSE TYPE service course

COURSE IS INTENDED FOR electrical maintenance staff and service technicians who design basic service and diagnostics operations with **SIMATIC S7-1500** control systems in the **TIA Portal** software platform

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have a general **PLC** knowledge and computer skills

COURSE CONTENT

- SIMATIC S7 system family
- TIA Portal
- Installation and maintenance of the automation system
- Hardware configuration and memory operations
- PLC Variables
- Commissioning of the device
- Block types and their architecture
- Binary operations
- Digital operations
- Introduction to HMI
- Rewiring a user program
- Introduction to the PROFINET/PROFIBUS
- Introduction to the G120 drive

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-SERV2

SERVICE COURSE 2 FOR SIMATIC S7-1500 IN THE TIA PORTAL

DESCRIPTION extension service course focused on expansion of service and programming skills in control systems **SIMATIC S7-1500** using the **TIA Portal**

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have at most two participants available

COURSE TYPE service course

COURSE IS INTENDED FOR electrical maintenance staff and service technicians who practice basic service and diagnostics operations with **SIMATIC S7-1500** control systems in the **TIA Portal** software platform

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-SERV1** course

COURSE CONTENT

- S7-1500 system family overview
- Hardware commissioning
- Data saving in the data blocks
- Functions and function blocks
- Organizational blocks
- Analog value processing
- System reports in the HMI
- Time synchronization of the HMI
- The “Trace” function in the CPU
- Web interface for the CPU and the HMI
- System diagnostics
- Introduction to GRAPH
- Introduction to SCL
- Data communication with the G120 drive

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-PRO1

PROGRAMMING COURSE 1 FOR SIMATIC S7-1500 AND THE TIA PORTAL

DESCRIPTION basic programming course focused on programming basics of **SIMATIC S7-1500** in the **TIA Portal** software platform

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have at most two participants available

COURSE TYPE programming course

COURSE IS INTENDED FOR programmers and designers who work with current devices or commission devices using the control systems **SIMATIC S7-1500** in the **TIA Portal**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have a general **PLC** knowledge and computer skills

COURSE CONTENT

- The SIMATIC S7 system family
- Engineering software TIA Portal
- Devices and networks
- Online tools and HW configuration
- PLC Tags
- Hardware commissioning
- Block types and their architecture
- Binary operations
- Digital operations
- Data saving in the data blocks
- Distributed I/O
- Introduction to HMI
- Functions and function blocks
- Organization blocks
- Troubleshooting
- Introduction to the G120 drive

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-PRO2

PROGRAMMING COURSE 2 FOR SIMATIC S7-1500 AND THE TIA PORTAL

DESCRIPTION extension course focused on expansion of programming skills in control systems **SIMATIC S7-1500** and **STEP 7** using the **TIA Portal**

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have at most two participants available

COURSE TYPE programming course

COURSE IS INTENDED FOR planners and designers who work with and commission devices with control systems **SIMATIC S7-1500** using the **TIA Portal** software platform

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-PRO1** course

COURSE CONTENT

- Hardware configuration
- Program design methods
- Jump statement
- Analog value processing and arithmetic
- Block call and multi-instance model
- Addressing options
- Optimized block structure
- Report system in the HMI
- System diagnostics
- SCL editor
- GRAPH editor
- Introduction to the G120 drive

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-SY SUP

TRANSITIONAL COURSE FROM SIMATIC S7-300/400 TO S7-1500

DESCRIPTION extension programming and service course to gain knowledge in the difference between **SIMATIC S7-300** in **STEP 7** using the **TIA Portal** and **SIMATIC S7-1500**

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have at most two participants available

COURSE TYPE programming course

COURSE IS INTENDED FOR programmers, service technicians and designers who replace and commission **S7-300/400** system family for the new **SIMATIC S7-1500** system family

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 8 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **ST-PROI** course

COURSE CONTENT

- The SIMATIC S7 system family
- Introduction to TIA Portal
- SW migration
- Hardware configuration
- Distributed I/O
- PLC variables
- Block types and their architecture
- HMI coupling
- Advanced programming
- Troubleshooting
- Introduction to SCL
- Introduction to the G120 drive

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-WCCS

SCADA SYSTEM DESIGN IN THE WINCC PROFESSIONAL TIA PORTAL

DESCRIPTION this course is focused on design of process visualization using the **SIMATIC** control systems in the **WinCC Professional TIA Portal**

COURSE FORM full-time course in the form of PowerPoint presentation while using **WinCC** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have all participants available

COURSE TYPE programming and design course

COURSE IS INTENDED FOR designers and programmers who design and commission **SCADA** systems

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-PROI** course

COURSE CONTENT

- System overview
- Configuring interface
- The project
- Screens editor
- Runtime scripts
- Functions and tasks
- Faceplates
- Alarm system
- User management
- Tag logging
- Recipe management

COURSE DATES course on-demand

PRICE price on-demand

TIA-WCCM

DESIGN OF HMI SYSTEM IN THE WINCC TIA PORTAL

DESCRIPTION this course is focused on **HMI** system design in the **TIA Portal** software platform in the **WinCC Advance**

COURSE FORM full-time course in the form of PowerPoint presentation while using WinCC at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have all participants available

COURSE TYPE programming and design course

COURSE IS INTENDED FOR designers and programmers who design and commission HMI systems

DURATION 3 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES to attend this course, it is required to have an advanced knowledge in the equivalence of the **TIA-PROI** course

COURSE CONTENT

- System overview
- Interface configuration
- The project
- Downloading the project to the HMI device
- Configuration – basics
- Life bit and time synchronization
- Alarm system
- User administration
- Tag logging
- Recipe management

COURSE DATES regularly held course

PRICE 9,900 CZK / 399 €

TIA-MICRO1

BASIC PROGRAMMING COURSE FOR SIMATIC S7-1200 IN THE TIA PORTAL

DESCRIPTION basic programming course focused on configuration basics, programming and diagnostics of the **PLC SIMATIC S7-1200** and the **TIA Portal STEP 7 Basic**

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have all participants available

COURSE TYPE programming and service course

COURSE IS INTENDED FOR electrical maintenance staff, designers and programmers who develop and edit new and current projects for the **SIMATIC S7-1200** control systems in the **TIA Portal** software platform

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have a general **PLC** knowledge and computer skills

COURSE CONTENT

- System overview
- STEP Basic
- Devices and networks
- PLC Tags
- Programming blocks
- Binary operations
- Digital operations
- Functions and function blocks
- HMI KTP600 connection
- Troubleshooting

COURSE DATES regularly held course

PRICE 9,900 CZK / 399 €

TIA-SCL1

PROGRAMMING COURSE IN THE SCL (STRUCTURED CONTROL LANGUAGE)

DESCRIPTION basic programming course focused on programming and usage of an **SCL**. **SCL** (Structured Control Language) is one of the standard programming languages in the **STEP 7** in the **TIA Portal** and it is defined by the standard **IEC 61131**

COURSE FORM full-time course in the form of PowerPoint presentation while using **STEP 7** at the same time, training workstation with necessary HW and a PC with the **TIA Portal** software platform have all participants available

COURSE TYPE programming course

COURSE IS INTENDED FOR designers and programmers who want to learn how to program application in an **SCL** using **STEP 7**. The whole course is realized in the **TIA Portal** software platform

DURATION 3 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-PRO1** course

COURSE CONTENT

- Introduction to SCL
- First statements and the SCL editor
- IF and Case statements
- Data types and conversions
- SCL loops
- Complex data types

COURSE DATES regularly held course

PRICE 9,900 CZK / 399 €

TIA-PRO1 ONLINE

PROGRAMMING COURSE 2 FOR SIMATIC S7-1500 AND THE TIA PORTAL

DESCRIPTION basic programming course focused on programming basics of **SIMATIC S7-1500** and the **STEP 7** in the **TIA Portal** software platform

COURSE FORM online course, using the **3CX** online conference call, each course participant has the ability to connect to a workstation with **TIA Portal** preinstalled, virtual **PLC** and virtual product line model or is allowed to use his own PC with **TIA Portal** preinstalled

COURSE TYPE programming course

COURSE IS INTENDED FOR programmers and designers who work with current devices or commission devices using the control systems **SIMATIC S7-1500** in the **TIA Portal**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have a general **PLC** knowledge and computer skills

COURSE CONTENT

- The SIMATIC S7 system family
- Engineering software TIA Portal
- Devices and networks
- Online tools and HW configuration
- Hardware commissioning
- Block types and their architecture
- Binary and digital operations
- Data saving in the data blocks
- Distributed I/O
- Functions and function blocks
- Organization blocks

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-PRO2 ONLINE

PROGRAMMING COURSE 2 FOR SIMATIC S7-1500 AND THE TIA PORTAL

DESCRIPTION extension programming course focused on expansion of programming skills in control systems **SIMATIC S7-1500** and the **STEP 7 TIA Portal**

COURSE FORM online course, using the **3CX** online conference call, each course participant has the ability to connect to a workstation with **TIA Portal** preinstalled, virtual **PLC** and virtual product line model or is allowed to use his own PC with **TIA Portal** preinstalled

COURSE TYPE programming course

COURSE IS INTENDED FOR programmers and designers who work with current devices or commission devices using the control systems **SIMATIC S7-1500** in the **TIA Portal**

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have a general **PLC** knowledge and computer skills

COURSE CONTENT

- Hardware configuration
- Program design methods
- Jump statement
- Analog value processing and arithmetic
- Block call and multi-instance model
- Addressing options
- Optimized block structure
- Report system in the HMI
- System diagnostics
- SCL editor
- GRAPH editor

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-WCCM ONLINE

DESIGN OF HMI SYSTEM IN THE WINCC TIA PORTAL

DESCRIPTION course is focused on system design in the **TIA Portal** software platform in the **WinCC**

COURSE FORM online course, using the **3CX** online conference call, each course participant has the ability to connect to a workstation with **TIA Portal** preinstalled, virtual **PLC** and virtual product line model or is allowed to use his own PC with **TIA Portal** preinstalled

COURSE TYPE programming and design course

COURSE IS INTENDED FOR designers and programmers who design and commission **HMI** systems

DURATION 3 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-PRO1** course

COURSE CONTENT

- System overview
- Interface configuration
- The project
- Downloading the project to the HMI device
- Configuration – basics
- Life bit and time synchronization
- Alarm system
- User administration
- Tag logging
- Recipe management

COURSE DATES regularly held course

PRICE 9,900 CZK / 399 €

TIA-SERV1 ONLINE

SERVICE COURSE 1 FOR SIMATIC S7-1500 IN THE TIA PORTAL

DESCRIPTION basic service course focused on service, programming and diagnostics basics in control systems **SIMATIC S7-1500** using the **TIA Portal**

COURSE FORM online course, using the **3CX** online conference call, each course participant has the ability to connect to a workstation with **TIA Portal** preinstalled, virtual **PLC** and virtual product line model or is allowed to use his own PC with **TIA Portal** preinstalled

COURSE TYPE service course

COURSE IS INTENDED FOR electrical maintenance staff and service technicians who design basic service and diagnostics operations with **SIMATIC S7-1500** control systems in the **TIA Portal** software platform

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have general **PLC** knowledge and computer skills

COURSE CONTENT

- SIMATIC S7 system family
- TIA Portal
- Installation and maintenance of the automation system
- Hardware configuration, memory operations
- PLC variables
- Hardware commissioning
- Block types and their architecture
- Binary and digital operations
- Introduction to the HMI
- Rewiring a user program
- Introduction to the PROFINET/PROFIBUS

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-SERV2 ONLINE

SERVICE COURSE 2 FOR SIMATIC S7-1500 IN THE TIA PORTAL

DESCRIPTION extension service course focused on expansion of service and programming skills in control systems **SIMATIC S7-1500** using the **TIA Portal**

COURSE FORM online course, using the **3CX** online conference call, each course participant has the ability to connect to a workstation with **TIA Portal** preinstalled, virtual **PLC** and virtual product line model or is allowed to use his own PC with **TIA Portal** preinstalled

COURSE TYPE service course

COURSE IS INTENDED FOR electrical maintenance staff and service technicians who design basic service and diagnostics operations with **SIMATIC S7-1500** control systems in **TIA Portal** software platform

DURATION 5 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-SERV1** course

COURSE CONTENT

- S7-1500 system family overview
- Hardware commissioning
- Data storage in the data blocks
- Functions and function blocks
- Organization blocks
- Analog value processing
- System reports in the HMI
- Time synchronization of the HMI
- The “Trace” function in the CPU
- Web interface for the CPU and the HMI
- System diagnostics
- Introduction to GRAPH
- Introduction to SCL

COURSE DATES regularly held course

PRICE 13,290 CZK / 499 €

TIA-SCL1 ONLINE

SCL PROGRAMMING COURSE (STRUCTURED CONTROL LANGUAGE)

DESCRIPTION basic programming course focused on programming and usage of **SCL**. **SCL (Structured Control Language)** is one of the standard programming languages in the **STEP 7** in the **TIA Portal** and it is defined by the standard **IEC 61131**

COURSE FORM online course, using the **3CX** online conference call, each course participant has the ability to connect to a workstation with **TIA Portal** preinstalled, virtual **PLC** and virtual product line model or is allowed to use his own PC with **TIA Portal** preinstalled

COURSE TYPE programming course

COURSE IS INTENDED FOR designers and programmers who want to learn how to program application in an **SCL** using **STEP 7**. The whole course is carried out in the **TIA Portal** software platform

DURATION 3 days

MAXIMUM NUMBER OF PARTICIPANTS 4 participants

COURSE LANGUAGE cz **DOCUMENTS LANGUAGE** en

PREREQUISITES it is required to have an advanced knowledge in the equivalence of the **TIA-PRO1** course

COURSE CONTENT

- Introduction to SCL
- First statements and the SCL editor
- IF and Case statements
- Data types and conversions
- SCL loops
- Complex data types

COURSE DATES regularly held course

PRICE 9,900 CZK / 399 €

Contact

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AUTOMATION —
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