Siemens HMI with WinCC Comfort/Advanced Outline

This two day course will provide students the skills necessary to develop and maintain applications with the Siemens TIA Portal WinCC Comfort/Advanced software.

Course Length & Time: Two days. 8:30 AM - 4:30 PM

Topics:
- WinCC Comfort/Advanced HMI System Overview
- Siemens HMI Panel Overview
- WinCC flexible Migration to Comfort/Advanced
- Project Creation
- Communication Setup
- Graphics Design
- Library Utilization
- Alarm System
- Tag Logging
- Recipe Management
- User Administration
- VB Scripting
- Cross Reference
- Multi-Language Setup
- Project Transfer
- TIA Portal Step 7 Integration
- WinCC Comfort/Advanced Options:
  - Sm@rt Server
  - Audit

Prerequisite: None
Part # PCC-TRN-SCH2-HMTP

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting PCC at (262) 251-3000 or emailing training@pccweb.com.

Siemens WinCC Unified Outline

This two day course will provide students the skills necessary to develop and maintain applications with the Siemens TIA Portal WinCC Unified software.

Course Length & Time: Two days. 8:30 AM - 4:00 PM

Topics:
- WinCC Unified HMI System Overview
- Siemens HMI Panel Overview
- Project Creation
- Communication Setup
- Graphics Design
- Library Utilization
- Alarm System
- Tag Logging
- Recipe Management
- User Administration
- Scripting
- Cross Reference
- Multi-Language Setup
- Project Transfer
- TIA Portal Step 7 Integration

Prerequisite: None
Part # PCC-TRN-SCH2-WUNI

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Siemens S7-1500 Programming with TIA Portal Outline

This fast paced three day course assumes the student has a basic knowledge of programming PLCs and focuses on how to use TIA Portal Step 7 Professional software to create a complete PLC system. The focus includes configuration of the Siemens S7-1500 PLC hardware, PROFINET configuration, programming using ladder logic and basic diagnostic functions

Course Length & Time: Three days. 8:30 AM - 4:30 PM

Topics:
• S7 Family Hardware Overview
• TIA Portal Project and Portal Views
• Configuring the S7-1500 PLC Hardware
• Configuring a PROFINET Network
• S7-1500 Addressing & Memory
• Using Various Programming Methods (Linear, Partitioned, Structured)
• Using Basic Instruction Set (Contacts, Coils, Timers, Counters)
• How To Use Function (FC) & Function Block (FB)
• Using IEC Functions & Function Blocks
• Using Libraries
• Using Simatic Automation Tool
• Data Block Usage & Data Types
• Understanding the Most Used Organization Blocks
• Analog Value Processing
• Monitoring Logic & Using Watch Tables
• Use of Trace
• Online Diagnostics & Troubleshooting
• Use of PLCSIM Simulation Tool
• Using the Integrated Web Server on the PLC
• Using a Multi-Instance Function Block (Time Permitting)

Prerequisite: Basic Understanding of PLCs
Part # PCC-TRN-SCH3-15TP

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting PCC at (262) 251-3000 or emailing training@pccweb.com.

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Siemens S7-1200 Jumpstart with TIA Portal Outline

This one day course is a fast paced jumpstart to programming the S7-1200 PLC with TIA Portal Step 7 Basic software. It is assumed that the student is already familiar with programming PLCs and wants to understand how the TIA Portal Software can be used to program the S7-1200 PLC.

Course Length & Time: One day. 8:30 AM - 4:30 PM

Topics:
• S7-1200 Family Hardware Overview
• TIA Portal Project & Portal Views
• Configuring the S7-1200 PLC Hardware
• S7-1200 Addressing & Memory
• Using Basic Instruction Set (Contacts, Coils, Timers, Counters)
• Using Simatic Automation Tool
• Function (FC) & Function Block(FB)
• Data Blocks (DB) & Data Types
• Monitoring Logic & Using Watch Tables
• Online Diagnostics & Troubleshooting
• Using the Integrated Web Server on the PLC
• Configuring a PROFINET Network

Prerequisite: Basic Understanding of PLCs
Part # PCC-TRN-SCH1-12TP

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting PCC at (262) 251-3000 or emailing training@pccweb.com.

Siemens Step 7 Classic for Maintenance Personnel Outline

This three day course assumes the student has a very basic understanding of PLCs and will introduce students to the Step 7 software package, used to program and maintain the S7-300/400 PLC systems. The class focuses on maintaining & troubleshooting the S7 PLC using Step 7.

Course Length & Time: Three days. 8:30 AM - 4:30 PM
Topics:
• S7 Family Hardware Overview
• S7 Hardware Installation & Maintenance
• Remote I/O Installation & Maintenance
• Using Simatic Manager
• Editing/Adding Symbols to a Project
• Overview of PROFIBUS & PROFINET Networks
• Using a Variable Table for Troubleshooting
• Overview of S7 Addressing
• Why Various Programming Methods Are Used (Linear, Partitioned, Structured)
• Basics of Organization Blocks
• Basics of Functions (FC) & Function Blocks (FB)
• Basics of Data Blocks
• Monitoring PLC Program Blocks
• Overview of Basic Instruction Set (Contacts, Coils, Timers, Counters)
• Overview of IEC Functions & Function Blocks
• What Are Libraries Used For
• Rewiring a User Program
• Comparing Programs
• Using Cross Reference, Usage Table & Program Structure Tools
• Troubleshooting a S7 PLC Using LEDs
• Troubleshooting a S7 PLC Using Step 7
• Troubleshooting a S7 PLC Using the Integrated Web Server
• How to Force a Value

Prerequisite: Basic Understanding of PLCs
Part # PCC-TRN-SCH3-S7CM

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting PCC at (262) 251-3000 or emailing training@pccweb.com.

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Siemens WinCC Professional SCADA Outline

This three day course will provide students the skills necessary to develop and maintain applications with the Siemens WinCC Professional SCADA software in TIA Portal.

Course Length & Time: Three days. 8:30 AM - 4:30 PM

Topics:
- WinCC Pro System Overview
- Help System
- Project Creation
- Screen Design
- Menus and Toolbars for Runtime
- Library Utilization
- Faceplates
- Indirect Addressing Methods
- Cross Reference
- Alarm Logging
- Tag Logging
- C Scripting
- VBScript
- Scheduled Tasks
- Recipes
- Reporting
- User Administration
- Multi-Language
- TIA Portal S7 PLC and WinCC Tag Integration
- Communication Channels

Prerequisite: None
Part # PCC-TRN-SCH3-SWCP

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting Kelsey Laager at (262) 251-3000.

Siemens WinCC SCADA V7.x Outline

This three day course will provide students the skills necessary to develop and maintain applications with the SIEMENS WinCC SCADA software.

Course Length & Time: Three days. 8:30 AM - 4:30 PM

Topics:
- WinCC System Overview
- Information System
- Step 7 and WinCC Tag Integration
- Communication Channels
- WinCC Explorer
- Graphics Designer
- Library Utilization
- Customized Objects
- Faceplates
- Indirect Addressing Methods
- Cross Reference
- Alarm Logging
- Tag Logging
- C Scripting
- VBScript
- Reporting
- User Administration
- Multi-Language
- WinCC Diagnostic Tools

Prerequisite: None
Part # PCC-TRN-UNSCH3-WCSP

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting PCC at (262) 251-3000 or emailing training@pccweb.com.

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Siemens S7-1500 Safety with TIA Portal

This two day course will provide students the skills necessary to develop and maintain applications with the Siemens TIA Portal software & Safety PLCs.

Course Length & Time: Two days. 8:30 AM - 4:30 PM

Topics:
- Why Safety
- Machine Safety Standards Overview
- PROFIsafe
- Safety Controllers
- Safety I/O Systems
- Safety Hardware Configuration
- Safety Programming & Tags
- Reintegration After Error
- Safety Instructions
    - E-Stop
    - Feedback Monitoring
    - Working with Safety Door Switches
- Data Transfer Between Safety & Standard Program
- Fail-safe Communications Between Processors
- Calculating Response Time
- Testing & Diagnostics

Prerequisite: PCC Class: Siemens S7-1500 Programming with TIA Portal or equivalent Siemens course
Part # PCC-TRN-SCH3-SFTP

Complete training schedule can be found at www.pccweb.com/education | Registration can be done online or by contacting PCC at (262) 251-3000 or emailing training@pccweb.com.