Welcome to SI Academy!

Introduction to the Learning Environment
In today’s competitive market, a highly skilled workforce is vital for success. Our training offerings integrate best practices and new learning technologies to offer flexibility in maximizing your training dollars.

- Instructor-Led Training with Hands-on Training Simulators
- Web-Based Training
- Virtual Instructor-Led Training with Virtual Simulators
- Customized Training Offerings
- Onsite Training

"For the best return on your money, pour your purse into your head."
- Benjamin Franklin

Training Paths and Training Tiers
Completing a training path is an investment in the future of your building. It will lead you to master level skills and ensure you have the necessary knowledge to maintain that investment. Our award-winning training paths have been found to:

- Improve productivity
- Increase job satisfaction
- Gain on-the-job confidence
- Take the guess work out of class selection

Training tiers are guides that better align your company for success. They can be used in conjunction with training paths to determine training options available for multiple levels of users. For more information or to receive customized training tiers for your organization, contact SI Academy at smart.infrastructure.academy@siemens.com.

ES Online
ES Online, www.siemens.com/esonline, is our Learning Management System where you can access your training path, view your training history, locate upcoming classes, launch web-based training and obtain copies of your course certificates.
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Key to the Graphic Symbols

Instructor-Led  Virtual Instructor-Led  Web-Based  Duration in Days  Time in Hours  Enroll
Building Automation Training Offerings
Take control of your professional development by completing the Desigo CC Master Operator Training Path. The Desigo CC Master Operator Training Path provides the critical knowledge to confidently make informed decisions when navigating through the Desigo CC Management Station.

Each class in the path builds upon each other ending with a capstone scenario based training class. It is recommended that you complete the courses listed in the path in the order they are shown; from the top down. Upon successful completion of the entire path, you will receive Master Operator status.

Knowledge and skills assessments are part of the instructor-led classes to provide an opportunity for you to assess the knowledge gained during the class and prove your proficiency in operating a Desigo CC Management Station.

For experienced operators, a test-out is available for the ST 9203 - Desigo CC Workstation I class. The test-out is available at: www.siemens.com/esonline.
Desigo CC Overview

Course Code: ST 5091

Target Audience
For users who need an overview of the Desigo CC Management Station.

Prerequisites
None

Description
Learn Desigo CC basic knowledge on navigation of the System Manager, Event/Alarm Configuration, Graphics Editor Basics, Trending, Reports, Log Viewer and Remote Notifications.

Students will interact with an online instructor and other classmates to work through real world scenarios using the Desigo CC user interface. This virtually instructor-led training is comprised of two, 2-hour sessions.

Objectives
Upon completion of the course, students should be able to:
• Explain the Desigo CC GUI layout, panes and tabs
• Navigate within the System Manager
• Navigate through Desigo CC Graphic Viewer
• Recognize points that have been commanded to Operator Priority
• Open and run Desigo CC reports
• Manually collect trend data
• Explain and navigate through a BACnet schedule
• Create exceptions and add them to existing BACnet schedules
• Explain how Remote Notifications send messages to recipients.

Topics
• Navigation
• Event Management
• Graphic Viewer
• Trending
• Scheduler
• Reports
• Remote Notification

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Desigo CC Workstation I

Course Code: ST 9202

Target Audience
For users of Desigo CC whose role is to perform day-to-day operations on a Desigo CC Management Station.

Prerequisites
None

Description
Learn Desigo CC basic knowledge on common Operator applications. Students interact with an online instructor through demonstrations and then work independently through lab scenarios using the Customer Web Portal to log into the Siemens secure environment and navigate through a Desigo CC student project. This online training is comprised of three 6-hour sessions held on four consecutive days.

Objectives
Upon completion of the course, students should be able to:
• Perform Event Management
• Explain the workflow of Desigo CC
• Navigate a Desigo CC graphic
• Command and release points from a graphic
• Manually collect trend data
• Utilize Log Viewer to locate historical data
• Run, execute, modify and save reports
• Initiate Remote Notification

Topics
• Navigation
• Event Management
• Commanding from Graphics
• Trending
• Scheduler
• Log Viewer
• Reports
• Remote Notification

---

Desigo CC Workstation I

Course Code: ST 9203

Target Audience
For users of Desigo CC whose role is to perform day-to-day operations on a Desigo CC Management Station.

Prerequisites
None

Description
Learn how to monitor and control your Desigo CC Management Station through hands-on guided exercises and discussions. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
• Perform Event Management
• Explain the workflow of Desigo CC
• Navigate a Desigo CC graphic
• Command and release points from a graphic
• Manually collect trend data
• Utilize Log Viewer to locate historical data
• Run, execute, modify and save reports
• Initiate Remote Notification

Topics
• Navigation
• Event Management
• Commanding from Graphics
• Trending
• Scheduler
• Log Viewer
• Reports
• Remote Notification
• Knowledge Assessment
• Skills Assessment

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Building Automation

4.0 Hrs.
Desigo CC Workstation II

Course Code: ST 9263

Target Audience
For advanced users of Desigo CC whose role is to create and modify graphics, security groups and user accounts.

Prerequisites
ST 9203 or ST 9202 - Desigo CC Workstation I

Description
Building on Desigo CC Workstation I, you will learn how to build and modify system objects. Students interact with an online instructor through demos and then work independently through lab scenarios. This online training is comprised of four 6-hour sessions held on four consecutive days.

Objectives
Upon completion of the course, students should be able to:
• Utilize Engineering Mode to modify system settings
• Differentiate between Intrinsic Alarms and Event Enrollment Objects and modify as necessary
• Navigate Desigo CC graphics and graphics editor
• Create and Modify existing schedule entries, Scopes, recipients list and contact groups, new reports and associated report folders, and users for Desigo CC and associated security groups
• Create new BACnet calendar objects
• Navigate Desigo CC graphics and graphics editor and add symbols to graphics and associated graphical symbols to building points
• Add object target links to graphics
• Utilize Simple, Linear, and Discrete Evaluations

Topics
• Alarm Configuration
• Scheduling
• Graphics
• Address Book
• Users and Security
• Log Viewer and Reports
• Scopes
• Remote Notification

Desigo CC Workstation II

Course Code: ST 9254

Target Audience
For advanced users of Desigo CC whose role is to create and modify graphics, security groups and user accounts.

Prerequisites
ST 9203 or ST 9202 - Desigo CC Workstation I

Description
Building on Desigo CC Workstation I, you will learn how to build and modify system objects. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
• Modify intrinsic alarm settings
• Create notification class objects
• Modify an existing schedule
• Build a system schedule from scratch
• Modify an existing graphic
• Use the evaluation editor
• Understand how Desigo CC uses the address book
• Create new users
• Configure security settings
• Use the log viewer to locate historical data
• Modify a report
• Create new scopes
• Use scopes to control user access to system objects
• Monitor an active remote notification
• Configure contact and escalation rules

Topics
• Alarm Configuration
• Scheduling
• Graphics
• Address Book
• Users and Security
• Log Viewer and Reports
• Scopes
• Remote Notification

Desigo CC Master Operator

Course Code: ST 9273

Target Audience
For advanced users of Desigo CC whose role is to perform configuration changes and troubleshoot using the Desigo CC Management Station.

Prerequisites
ST 9203 or ST 9202 - Desigo CC Workstation I and ST 9254 or ST 9263 - Desigo CC Workstation II

Description
Configure and modify applications within Desigo CC to increase your efficiency in monitoring and controlling building systems.

Upon successful completion of the training path, you will earn Master Operator status on the latest Desigo CC market package.

Objectives
Upon completion of the course, students should be able to:
• Demonstrate automatic and non-automatic symbol association
• Create point properties on a graphic
• Modify a template graphic for all TECs of the same application
• Associate an object or a point to a document
• Apply custom views related for divisions, roles or equipment
• Perform database maintenance at the field panel level, project level and SQL server level
• Use Desigo CC as a troubleshooting tool to identify an abnormal condition

Topics
• Troubleshooting
• Graphics
• Database Configuration
• Conditional Trending
• Reaction Processor
• User Accounts
• Security Groups
• Custom Scopes and Views
• Database Maintenance
Insight to Desigo CC Migration

Course Code: ST 8004

Target Audience
For advanced users of Insight that are responsible to
the high-level oversite of setting up Desigo CC after
the facility has been migrated from Insight to Desigo
CC.

Prerequisites
ST 6214 - Insight for APOGEE Systems

Description
Learn the skills to take an active role in your Insight to
Desigo CC migration/setup. We recommend this
course to users who are the power users of Insight
and will have the same user responsibility with Desigo
CC.

Objectives
Upon completion of the course, students should be
able to:

• Understand the Insight to Desigo CC migration
  workflow
• Configure system settings to manage users,
  security access and alarm behaviors
• Perform activities with Desigo CC applications to
  facilitate the migration and enhance the long-
  term operation of Desigo CC

Topics
• User and Security Groups
• Desigo CC Scopes
• Edit Graphics
• Reports in Desigo CC
• Scheduling
• Migrating Trends and Trend View Definitions
• Remote Notification
• Configure Assisted and Automated Event
  Treatment
• Desigo CC Functionality
The Insight Master Operator Training Path provides information on the Insight Workstation platform that has been proven in the building automation industry for over 20 years.

Each class in the path builds upon each other ending with a capstone scenario-based training class. It is recommended that you complete the courses listed in the path in the order they are shown; from the top down. Upon successful completion of the entire path, you will receive Master Operator status. Knowledge and skills assessments are part of the instructor-led classes to provide an opportunity for you to assess the knowledge gained during the class and prove your proficiency in operating an Insight Workstation.

### Insight Basics

**Course Code:** ST 102  
**Target Audience:** For users who need an overview of the Insight Workstation.  
**Prerequisites:** None  
**Description:** This web-based training course introduces common Insight applications.  
**Objectives:** Upon completion of the course, students should be able to:
- Navigate through graphic links
- Display information text and alarm messages
- Command a point from a graphic
- Acknowledge an alarm
- Add a point memo
- Start the Report Viewer application
- Run a report
- Run a Panel Point Log report
- Customize the Insight main menu

**Topics:**
- Graphics
- Alarm Status
- Main Menu
- Report Viewer
- Panel Point Log Screen
## Insight Fundamentals

**Course Code:** ST 6201  
**Target Audience**  
For users of Insight who need fundamental skills for day-to-day operations.  
**Prerequisites**  
None  
**Description**  
Learn the fundamental features of the Insight software, including the basic operations that personnel might utilize during their workday. Both APOGEE and BACnet concepts are included for the different operations. This online training is comprised of four 2-hour sessions held on two consecutive days.  
**Objectives**  
Upon completion of the course, students should be able to:  
- Create and save a report definition  
- Schedule automatic reports  
- Setup COV and Interval trends for APOGEE and BACnet points  
- Describe Command Priorities for BACnet and APOGEE points  
- Command points using the Commander  
- Release APOGEE points using the Global Commander  
- Command TEC subpoints using the Global Commander  
- Schedule Zones, Events and BACnet objects  
**Topics**  
- System Tools  
- Reports  
- Commanding Points  
- Trending and Retrieving Data  
- Scheduling  

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## Insight for APOGEE Systems

**Course Code:** ST 6214  
**Target Audience**  
For users of Insight whose role is to perform day-to-day operations on an Insight Workstation, as well as basic system setup and configuration.  
**Prerequisites**  
None  
**Description**  
Learn to setup, monitor and control your Insight Workstation through hands-on guided exercises and discussions. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.  
**Objectives**  
Upon completion of the course, students should be able to:  
- Configure the Insight Main Menu  
- Describe the system architecture  
- Create and modify points  
- Command subpoints and change the command priorities  
- Create, run and schedule reports  
- Define trend definitions  
- Collect and retrieve trended data using reports  
- Create and schedule Zones and Events  
- Create a new Event and Zone  
- Describe features of Program Editor  
- Utilize the System Activity Log to  
**Topics**  
- HVAC Concepts  
- System Architecture and Tools  
- Alarm and Network Messages  
- Point Evaluation, Command and Control  
- Trend Data  
- Scheduling  
- Dynamic Plotter  
- BACnet Fundamentals  
- Point and Global Commander  
- Knowledge Assessment  
- Skills Assessment  

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## Insight Operator Master

**Course Code:** ST 6273  
**Target Audience**  
For advanced users of Insight whose role is to perform configuration changes and to troubleshoot using the Insight Workstation.  
**Prerequisites**  
ST 6214 - Insight for APOGEE Systems  
**Description**  
Configure and modify applications within Insight to increase your efficiency in monitoring and controlling building systems. Upon successful completion of the training path, students will earn Master Operator status on Insight version 3.15.  
**Objectives**  
Upon completion of the course, students should be able to:  
- Create individual user accounts with assigned privileges  
- Verify system configuration and connectivity  
- Import and enable a PPCL program  
- Schedule zones and mode points  
- Import and enable a PPCL program to control the system  
- Create report templates and run reports to verify proper system operation and configuration  
- Create and modify graphics to monitor system operation  
- Create trend definitions and trend reports  
- Schedule recurring backups of the Insight database  
- Use Insight as a troubleshooting tool to identify an abnormal condition  
**Topics**  
- Troubleshooting  
- User Accounts  
- System Profile  
- Trending  
- Database Maintenance  
- Graphics  
- Database Operations
**Introduction to Control Programming**  
ST 103  
(Web-Based)  

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**PPCL Programming I**  
ST 6304  
(Instructor-Led)  
CEUs: 2.7  

3.5 Days  

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**PPCL Syntax Review**  
ST 104  
(Web-Based)  

1.5 Hours  

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**PPCL Programming II**  
ST 6354  
(Instructor-Led)  
CEUs: 2.7  

3.5 Days  

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**PPCL Master Programmer**  
ST 6373  
(Instructor-Led)  
CEUs: 2.3  

3.0 Days  

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**PPCL Programming**

Learn Powers Process Control Language (PPCL) in simple and easy steps starting from basic to advanced concepts.

Each class builds upon each other ending with a capstone scenario-based training class. It is recommended that you complete the courses listed in the path in the order they are shown; from the top down. To become a Master Programmer, you will need to complete the required classes in the training path.

This training path is not based on a management station. If your facility uses PPCL, this training path is for you.
Introduction to Control Programming

Course Code: ST 103

Target Audience
For users whose role is to work with Powers Process Control Language (PPCL) and the Program Editor.

Prerequisites
None

Description
This web-based training course covers the flow and functionality of creating, editing and saving a building's control program.

Objectives
Upon completion of the course, students should be able to:
• Define a PPCL program
• Define how a control program is structured
• Identify the logical flow of a typical control program
• Define the 5 steps of writing a control program
• Navigate and perform multiple operations using Program Editor
• Save and download a modified program to a field panel
• Run a Panel PPCL report for testing and troubleshooting a control program

Topics
• Program Editor
• Building Automation PPCL Programs
• PPCL Reports

PPCL Programming I

Course Code: ST 6304

Target Audience
For users whose role is to read or develop PPCL programs.

Prerequisites
ST 103 - Introduction to Control Programming

Description
Learn to develop and modify a PPCL program. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
• Create a decision table and flowchart for a sequence of operation
• Use the five-step problem solving process to write PPCL programs
• Use Datamate Advanced to access the Program Editor application
• Run PPCL reports using the Report Builder application
• Describe and use the features of Program Editor
• Use various navigational tools in Program Editor
• Write a control LOOP to modulate equipment
• Use a dead band for cycling equipment on and off
• Write PPCL code to command FLN devices
• Use Report Builder to test and troubleshoot programs
• Use the Point Monitor to monitor point commands by the PPCL program

Topics
• Programming Planning and Flowcharts
• PPCL Syntax
• Datamate Advanced
• Program Editor
• Point Control
• FLN Devices
• Troubleshooting
• Skills Assessment

PPCL Syntax Review

Course Code: ST 104

Target Audience
For advanced users who need to write or edit PPCL statements using proper syntax.

Prerequisites
ST 6304 - PPCL Programming I

Description
This web-based course provides information on PPCL syntax and structure.

Objectives
Upon completion of the course, students should be able to:
• Use decision tables
• Identify and interpret flowchart symbols
• Define Resident Points
• Understand use of local variables
• Define Point Status Indicators and Logical Operators
• Write PPCL statements for a variety of basic control strategies using proper syntax

Topics
• PPCL Rules and Guidelines
• PPCL Statement Review
• PPCL Composition
PPCL Programming II

Course Code: ST 6354

Target Audience
For advanced users whose role is to create or modify programs using advanced program control strategies for energy efficiency.

Prerequisites
ST 6304 - PPCL Programming I

Description
Learn to build and optimize PPCL programs to improve building efficiency and incorporate staging and rotating of equipment. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
• Edit programs to rotate equipment based on a schedule or totalization
• Determine proper number of devices required based on a calculated demand
• Modulate a set point of a loop statement to improve system performance
• Fine tune loop gains to ensure efficient equipment performance
• Incorporate Adaptive Control into an existing program
• Implement temperature and enthalpy economizer damper control strategies
• Design a program to control a variable volume air handler
• Implement Optimization (SSTO) to a scheduled work area and its equipment

Topics
• Ramping
• Rotating and Staging Equipment
• Cascading and Floating Loops
• Adaptive Control
• Enthalpy Optimization
• VAV Control
• Start/Stop Time Optimization
• Knowledge Assessment
• Skills Assessment

PPCL Master Programmer

Course Code: ST 6373

Target Audience
For advanced users whose role is to troubleshoot and to implement programming strategies.

Prerequisites
ST 6304 - PPCL Programming I and ST 6354 - PPCL Programming II

Description
This course provides complex PPCL programming scenarios for you to read, troubleshoot and correct. Upon successful completion of the training path, students will earn Master Programmer status.

Objectives
Upon completion of the course, students should be able to:
• Troubleshoot and correct an air handler control strategy
• Implement control strategies based on a sequence of operations
• Identify ways to improve existing control strategies
• Discuss multiple options for staging and rotating the equipment
• Daily
• Weekly
• Totalization
• Fail Safe
• Develop and test a chiller and secondary equipment staging and rotating program

Topics
• Troubleshooting
• Control Strategies
• Staging and Rotating
• Sequencing of Equipment
• PPCL Scenarios
• Datamate Advanced
# Field Panel and FLN Curriculum

## Terminal Equipment Controller (TEC) Basics

**Course Code:** ST 105  
*(Web-Based)*

- **Topics:**
  - TEC Basics
  - TEC Components
  - TEC Subpoints
  - Datamate Advanced Operations Tool
  - TEC Internal Logic

## PXC-Modular Field Panel and TX-I/O

**Course Code:** ST 106  
*(Web-Based)*

- **Topics:**
  - PXC Modular Series Product Overview
  - APOGEE Automation Networking
  - Principles of PXC Modular Operation
  - TX-I/O Product Line

## Field Panel and FLN Operations

**Course Code:** ST 5504  
*(Instructor-Led)*

- **Target Audience:** For users whose role is to monitor, interpret and command Terminal Equipment Controllers (TECs) subpoint data.

- **Description:** This web-based training course provides basic information about TECs.

## DXR and ABT Site Operations I

**Course Code:** ST 5553  
*(Instructor-Led)*

- **Target Audience:** For users whose role is to work with the PXC-Modular Field Panel.

- **Description:** This web-based training course explains the operation and features of the PXC-Modular Field Panel.

## DXR and ABT Site Operations II

**Course Code:** ST 5554  
*(Instructor-Led)*
Field Panel and FLN Operations

Course Code: ST 5504

Target Audience
For users whose role is to control and monitor building control systems from field panels and Terminal Equipment Controllers.

Prerequisites
ST 105 - Terminal Equipment Controller (TEC) Basics

Description
Learn to monitor, control and configure building automation systems locally from field panels and FLN devices using Datamate Advanced. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

This course covers proprietary and BACnet protocols.

Objectives
Upon completion of the course, students should be able to:
- Communicate with ALN and FLN devices
- Create and command points at the ALN level
- Identify the three types of subpoints in a Terminal Equipment Controller
- Display FLN subpoint information at the field panel

Topics
- Datamate Advanced Field Panel
- Terminal Emulation
- System Profile
- Database Operations
- Point Operations
- FLN Hardware
- Knowledge Assessment
- Skills Assessment

DXR and ABT Site Operations I

Course Code: ST 5553

Target Audience
For users whose role is to use the ABT Site software to communicate with DXR Controllers.

Prerequisites
None

Description
Learn to connect ABT Site to the network and to discover, backup and restore a DXR controller. Review ABT Go functionality and how to load a DXR replacement. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
- Use ABT Site to restore DXRs
- Use the web interface
- Use ABT Go to view alarms and overrides
- Connect ABT Site to the network
- Replace a failed DXR

Topics
- ABT Site
- ABT Go
- DXR Replacement
- Software Tools
- Knowledge Assessment
- Skills Assessment

DXR and ABT Site Operations II

Course Code: ST 5554

Target Audience
For advanced users whose role is to use the ABT Site software to communicate with DXR Controllers.

Prerequisites
ST 5553

Description
Learn to use the software ABT Site to load and work with pre-existing projects as well as Pack & Go and Pack & Return files. The application for VAV with Hot Water will be reviewed using Application Help and Application Notes. Several DXR applications will be examined and the Application Functions will be explained. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
- Identify different DXR platforms and applications available
- Identify various KNX PL-Link devices and explain their uses
- Discuss the operation of the QMX7 room unit
- Use the ABT Site software and ABT SSA to communicate with DXRs
- Use ABT Site to load a project and change DXR parameters
- Configure and download an application to a DXR
- Use ABT Site Application Help and Application Notes to understand Application Functions and to analyze the sequence of operation for a VAV with Hot Water application
- Discuss the different types of Total Room Automation available for use with the DXR platform

Topics
- Hardware
- Communication
- Room Unit Operation
- Applications
- Total Room Automation
- Knowledge Assessment
- Skills Assessment
Supplemental Training Courses

Fume Hood and Laboratory Room Controls

Course Code: ST 6704

Target Audience
For users whose role is to monitor laboratory controls.

Prerequisites
None

Description
Learn to monitor and control laboratory spaces using the Datamate Advanced (DMA) Software Package. This class includes hands-on exercises using full-size fume hoods in a laboratory set-up.

Objectives
Upon completion of the course, students should be able to:

• Describe the function of the Fume Hood Controller (FHC)
• Interpret the readings on an Operator Display Panel
• Create a sequence of operation for various FHCs
• Describe the operation of a Lab and Pressurized Room Controller with Off-Board Air Velocity Sensor (LCM-OAVS)
• Describe how a LCM-OAVS controls room pressurization, ventilation and temperature
• Monitor and command sub-points of a LCM-OAVS
• Describe the sequence of operation for a Room Pressurization Control
• Describe the sequence of operation of the Siemens Room Condition Monitor (SRCM) and Room Pressure Monitor
• Use Datamate Advanced to monitor / command subpoints
• Identify and explain Fume Hood Emergency and Fail Safe Operations

Topics
• Fume Hood and Lab Room Control Strategy
• Room Pressurization Control and Monitoring
• Accessing Information
• Verifying Various Fume Hood Configuration Settings
• Knowledge and Skills Assessment

Niagara N4 TCP

Course Code: AUT 8054

Target Audience
For users whose role is to design, engineer and program projects using the Niagara 4 Framework.

Prerequisites
Must attend an online 2-hour course (AUT 8050) to obtain software and licensing required for the class.

Description
Learn to design, engineer, and program projects using the Niagara 4 Framework. This class is delivered online by an instructor in five sessions over 5 days. Class content is presented through online instruction with lab work and homework to be completed by the students between sessions. All course work meets the minimum requirements for Tridium University Niagara TCP certification. Students must successfully complete the self-paced exam on the last day of class to be certified.

Objectives
Upon completion of the course, students should be able to:

• Startup software and establish a station and platform connection
• Import points and assign Niagara Common Object Model
• Edit point properties, facets, status flags, and priority levels
• Create and modify schedules, and services
• Create, modify, and use extensions
• Create, modify, and use Graphics
• Connect to non-Niagara networks and modify network architecture
• Commission a JACE

Topics
• Platforms and Stations
• Points, Logic and Controls
• Graphical User Interfaces
• Secure Networks in Niagara
• Certification Exam
# Web-Based Training Courses

Our self-paced web-based training allows you to select topics specific to your needs and set your own pace for completing the chosen courses.

*All course material can be accessed on ES Online: www.siemens.com/esonline.*

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</tr>
<tr>
<td>PXC-Modular Field Panel</td>
<td>ST 106</td>
<td>.5 Hour</td>
</tr>
</tbody>
</table>
Introduction to Desigo CC

Course Code: ST 101
Target Audience
For users who need an overview of the Desigo CC Management Station.
Description
This web-based training course provides an introduction to the Desigo CC Management Station.
Topics
- Platform Design
- Workflow
- Applications

Insight Basics

Course Code: ST 102
Target Audience
For users who need an overview of the Insight Workstation.
Description
The web-based training course introduces common Insight applications.
Topics
- Graphics
- Alarm Status
- Main Menu
- Report Viewer
- Panel Point Log Screen

Introduction to Control Programming

Course Code: ST 103
Target Audience
For users whose role is to work with PPCL and the Program Editor.
Description
The web-based training course covers the flow and functionality of creating, editing and saving a building's control program.
Topics
- Program Editor
- Building Automation PPCL Programs
- PPCL Reports

PPCL Syntax Review

Course Code: ST 104
Target Audience
For advanced users who need to write or edit PPCL statements using proper syntax.
Description
The web-based training course provides information on PPCL syntax and structure.
Topics
- PPCL Rules and Guidelines
- PPCL Statement Review
- PPCL Composition

Terminal Equipment Controller (TEC) Basics

Course Code: ST 105
Target Audience
For users whose role is to monitor, interpret and command Terminal Equipment Controllers (TECs) subpoint data.
Description
This web-based training course provides basic information about TECs.
Topics
- TEC Basics
- TEC Components
- TEC Subpoints
- Datamate Advanced Operations Tool
- TEC Internal Logic

PXC-Modular Field Panel and TX-I/O

Course Code: ST 106
Target Audience
For users whose role is to work on the PXC-Modular Field Panel.
Description
The web-based training course explains the operation and features of the PXC-Modular Field Panel.
Topics
- PXC-Modular Series Product Overview
- APOGEE Automation Networking
- Principles of PXC-Modular Operation
- TX-I/O Product Line
Insight Scheduler

Course Code: ST 107
Target Audience
For users whose role is to control buildings using the Insight Scheduler application.
Description
This web-based training course teaches the terms and concepts of the scheduler application including; how to schedule an event and zone, how to populate and schedule a replacement day and how to override an event schedule.
Topics
- Scheduler Navigation
- Creating a Schedule
- Modifying a Schedule
- Overriding a Schedule
- Adding Trend Collections, Reports, Events and Zones to a Schedule

Insight Trending

Course Code: ST 108
Target Audience
For users whose role is to place points into trend using the Insight Workstation.
Description
The web-based training course will demonstrate how to place a point into trend and examine trend data using multiple Insight Applications.
Topics
- Trend Concepts
- Trend Types
- Trend Definitions
- Trend Collection Methods
- Trend Data Detail Report
- Scheduling Trend Reports

Fume Hood and Laboratory Control Basics

Course Code: ST 109
Target Audience
For users whose role is to control laboratory environments and equipment.
Description
The web-based training course provides an overview of the basic components of a fume hood and the operations of the controllers.
Topics
- Fume Hood Basics
- Fume Hood Controllers
- Laboratory Controllers

Remote Notification (RENO)

Course Code: ST 110
Target Audience
For users whose role is to configure or operate the RENO feature within the Insight Workstation.
Description
The web-based training course addresses all aspects of the RENO feature in the Insight Workstation.
Topics
- System Requirements and Settings
- Creating Contacts
- Escalation Lists
- Scheduling
- Point Setup
- Heartbeat

MBC-RBC Interactive Technical Manual

Course Code: ST 111
Target Audience
For users whose role requires technical knowledge of the MBC and RBC field panels.
Description
The web-based training course is an interactive technical manual that provides detailed information on the MBC and RBC field panels for quick reference on the job.
Topics
- Enclosure Box
- Internal Components
- Open Processor
- Power Modules
- Point Termination Modules
Security Training Offerings

Siveillance Video Operations

Course Code: ST 4211

Target Audience
For day-to-day Operators with Siveillance Video as their VMS system.

Prerequisites
None

Description
Learn Siveillance basic knowledge on common Operator applications. Students interact with an online instructor through demonstrations and then work independently through lab scenarios using the Customer Web Portal to log into the Siemens. This online training is comprised of two 6-hour sessions held on two consecutive days.

Objectives
Upon completion of the course, students should be able to:
- Monitor live video, watch recorded video, bookmark video clips, search recorded video, lock video and export video
- Create views containing various video elements
- Work with Maps and Camera Navigator
- Handle Alarms
- Log into and work with the Mobile Client

Topics
- Video Operations
- Creating Views
- Camera Navigator
- Alarms
- Mobile Client
SiPass Access Control

Course Code: ST 4203

Target Audience
For users whose role is to operate and administer a SiPass Integrated system.

Prerequisites
None

Description
This class is delivered online by an instructor in four, two-hour sessions over two consecutive days. Learn to navigate SiPass Integrated software and interface. The class familiarizes system operators and administrators with common system functionality, tips and tricks, and advanced system applications.

Objectives
Upon completion of the course, students should be able to:

- Configure the Operation and Configuration Client
- View, edit and search Cardholder records
- Customize the Audit Trail report
- Setup the SiPass alarm system
- Apply/Modify all levels of access privileges
- Use Time Schedules and Holidays to automatically allow and deny access
- Administer SiPass Integrated Operator Accounts and Operator Groups
- Use Reporting to find historical information
- Perform automatic and manual system backups
- Create simple programming statements using Event Tasks
- Use Offline Access mode to enhance system reliability

Topics
- SiPass Integrated Advanced Functions
- Operator Cardholder Administration and Access Control
- SiPass Integrated Hardware
- SiPass Integrated Alarming
- SiPass Integrated Reporting and Customized Reports

Siveillance Video Installation and Configuration

Course Code: SIV 2113

Target Audience
For users who need training on the Siveillance Video system

Prerequisites
Must attend an online 2-hour session to obtain software and licensing required for the class.

Description
This class is delivered online by an instructor in five, six-hour sessions over five consecutive days. Learn to install, configure, and administer the Siveillance VMS along with advanced features and functionalities for small to large projects and complex systems. It includes hands-on exercises to foster application based learning with evaluation.

Objectives
Upon completion of the course, students should be able to:

- Install Siveillance Video servers and clients
- Navigate the Video Client
- Develop a Client Profile with views incorporating various Video elements
- Create rules to facilitate system automation
- Configure and handle alarms
- Define storage strategies for video archiving
- Configure users, roles, and access security

Topics
- Product Overview and Key Features of Siveillance Video Core, Core Plus, Advanced, and Pro
- Video Client Administration and Functionalities
- Advanced features, redundancy, integrations, and system optimization
- Environmental topics including Network, Storage, Active Directory
- Troubleshooting and Maintenance
Fire and Life Safety Training Offerings
## Training by Management Station

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Code</th>
<th>CEUs</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Introduction to Desigo CC Fire Safety Management Station</td>
<td>FIS 411</td>
<td>3.4</td>
<td>4.5 Days</td>
</tr>
<tr>
<td>Cerberus DMS Overview</td>
<td>FIS 450</td>
<td>1.9</td>
<td>2.5 Days</td>
</tr>
<tr>
<td>Desigo CC Workstation Operations for Fire Safety</td>
<td>FIS 4203</td>
<td>1.9</td>
<td>2.5 Days</td>
</tr>
<tr>
<td>Cerberus DMS Workstation Operations for Fire Safety</td>
<td>FIS 4303</td>
<td>1.9</td>
<td>2.5 Days</td>
</tr>
<tr>
<td>Desigo CC Fire Installation and Startup Management Station</td>
<td>FIS 4114</td>
<td>3.4</td>
<td>4.5 Days</td>
</tr>
<tr>
<td>Cerberus DMS Fire Installation and Startup Management Station</td>
<td>FIS 4505</td>
<td>3.4</td>
<td>4.5 Days</td>
</tr>
</tbody>
</table>
Introduction to Desigo CC Fire Safety Management Station

Course Code: FIS 411

Target Audience
For users whose role requires an understanding of the Desigo CC Fire Safety Management Station.

Prerequisites
None

Description
This web-based course introduces the Desigo CC Fire Safety Management Station. You will learn the features of the management station and the benefits of using Desigo CC to control a Desigo or Desigo Fire Safety Modular system.

Topics
• Key Features of Desigo CC
• Characteristics of the Management Station
• Desigo CC Workflow

Desigo CC Workstation Operations for Fire Safety

Course Code: FIS 4203

Target Audience
For users whose role is to perform day-to-day operations on a Desigo CC Management Station.

Prerequisites
None

Description
Learn to monitor and control a Desigo CC Management Station through hands-on guided exercises and discussions. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
• Identify Desigo CC system types
• Create a user defined view
• Interact with the user interface to treat system events using fast and investigative treatment
• Build operating procedures and steps for assisted event treatment
• Use the graphic template to import and modify campus images and floor plans
• Map fire points to the graphic floor plan
• Design Desigo CC scopes, security groups and users
• Create custom macros and apply them to graphics
• Modify reports and apply them to system graphics

Topics
• Navigation
• Event Management
• Modify from Graphics
• Scopes
• Macros
• User Groups and Security
• Reports
• Reactions
• Knowledge Assessment
• Skills Assessment

Desigo CC Fire Safety Management Station

Course Code: FIS 4114

Target Audience
For users whose role is to engineer, install or maintain a Desigo CC Management Station.

Prerequisites
FIS 411 - Introduction to Desigo CC Fire Safety Management

Description
Learn to monitor and control a Desigo or Desigo Fire Safety Modular system using the Desigo CC Fire Safety Management Station.

Objectives
Upon completion of the course, students should be able to:
• Identify DCC system types
• Walk through the steps for installing DCC software on a Server
• Restore and modify DCC projects utilizing the System Management Console (SMC)
• Import a panel database into the DCC server
• Create a User Defined View (Site View)
• Use a graphic template to import, modify and map fire points to graphic floor plans
• Design DCC Scopes, Security Groups, and Users Accounts
• Create custom Macros
• Use reaction processor to back up system and history database
• Licensing requirements and activation processes

Topics
• License Management Console (LMC)
• System Management Console (SMC)
• User Interface
• Working with Views
• Event Treatment
• Graphics
• User Administration
• Macros and Reactions
Cerberus DMS Overview

Course Code: FIS 450

Target Audience
For users whose role requires an understanding of the Cerberus DMS Management Station.

Description
This web-based course introduces the Cerberus DMS Management Station. You will learn the features of the management station and the benefits of using Cerberus DMS to control a Cerberus PRO or Cerberus PRO Modular system.

Topics
- Key features of Cerberus DMS
- Characteristics of the Management Station
- Cerberus DMS Workflow

Cerberus DMS Workstation Operations for Fire Safety

Course Code: FIS 4303

Target Audience
For users whose role is to perform day-to-day operations on a Cerberus DMS Management Station.

Prerequisites
None

Description
Learn to monitor and control a Cerberus DMS Management Station through hands-on guided exercises and discussions. A scenario-based skills assessment at the end of the course allows you to put into practice the knowledge you have learned.

Objectives
Upon completion of the course, students should be able to:
- Identify Cerberus DMS system types
- Create a user defined view
- Interact with the user interface to treat system events using fast and investigative treatment
- Build operating procedures and steps for assisted event treatment
- Use the graphic template to import and modify campus images and floor plans
- Design Cerberus DMS scopes, security groups and users
- Create custom macros and apply them to graphics
- Modify reports and apply them to system graphics

Topics
- Navigation
- Event Management
- Modify from Graphics
- Scopes
- Macros
- User Groups and Security
- Reports
- Reactions
- Knowledge Assessment
- Skills Assessment

Cerberus DMS Fire Installation and Startup Management Station

Course Code: FIS 4505

Target Audience
For users whose role is to engineer, install or maintain a Cerberus DMS Management Station.

Prerequisites
FIS 450 - Cerberus DMS Overview

Description
Learn to monitor and control a Cerberus PRO or Cerberus PRO Modular system using the Cerberus DMS Management Station.

Objectives
Upon completion of the course, students should be able to:
- Explain and install the Cerberus DMS system and software
- License a dongle
- Describe the Graphical User Interface
- Create a user-defined and a physical view
- Create, edit and delete scopes and macros
- Modify UL reports
- Create and modify layered graphics
- Create security groups and user accounts
- Create, import and modify X-NET and BACnet networks

Topics
- Software Installation
- License Management Console (LMC)
- System Management Console (SMC)
- UL Template Project
- User Interface
- Working with Views
- Event Treatment
- Graphics
- Modify UL Reports
- User Administration
- Macros and Reactions
- Licensing
Desigo Fire Safety Modular Training

Desigo Fire Safety Modular

The Desigo Fire Safety Modular is a comprehensive fire safety system for fast, reliable fire detection as well as alarm signaling and control.

Each course is hands-on in the installation, operation and maintenance of the Desigo Fire Safety Modular system. You will learn common workflows to ensure you can comfortably operate and maintain a Desigo Fire Safety Modular system.

These courses build off the preceding course and include topics from basic installation to advanced networking and Global Voice configuration. It is recommended that you complete the courses in the order they are shown; from the top down. These courses are for Siemens customers.

This fire alarm system is formally known as FireFinder XLS.
Desigo Fire Safety Modular and Desigo Fire Safety Modular Voice Fire Panels and Components

Course Code: FIS 251

Target Audience
For users whose role requires an understanding of the Desigo Fire Safety Modular and the Desigo Fire Safety Modular Voice fire panels.

Prerequisites
None

Description
This web-based training introduces the field devices and components of the Desigo Fire Safety Modular and Desigo Fire Safety Modular Voice fire safety systems.

Topics
• Fire Alarm System Selection
• Desigo Fire Safety Modular Fire Alarm System Operations
• Desigo Fire Safety Modular Field Devices
• Desigo Fire Safety Modular Core System Components
• Desigo Fire Safety Modular System Components and Options

3.5 Hours

Desigo Fire Safety Modular - Installation, Operation and Maintenance

Course Code: FIS 2314

Target Audience
For users whose role is to engineer, install, test or maintain a Desigo Fire Safety Modular System.

Prerequisites
FIS 251 - Desigo Fire Safety Modular and Desigo Fire Safety Modular Voice Fire Panels and Components

Description
Learn to install, operate, maintain, test, troubleshoot and wire a Desigo Fire Safety Modular fire alarm system.

Objectives
Upon completion of the course, students should be able to:
• Update the panel and module firmware including the MLC
• Create and install maps and icons
• Silence and reset the panel
• Install field devices
• Add devices to the database using ZEUS
• View and change detector sensitivities
• Enable and disable points
• Test, inspect and troubleshoot a Desigo Fire Safety Modular System

Topics
• Basic Control Unit
• Devices
• Menu Functions
• Desigo Fire Safety Modular Programming Tool ZEUS

3.5 Hours

Desigo Fire Safety Modular - Installation, Operation and Maintenance

Course Code: FIS 2332

Target Audience
For users whose role is to engineer, install or maintain a Desigo Fire Safety Modular system.

Prerequisites
FIS 251 - Desigo Fire Safety Modular and Desigo Fire Safety Modular Voice Fire Panels and Components

Description
This class is delivered online by an instructor in four sessions over four consecutive days. Learn to install, operate, maintain, test, troubleshoot and wire a Desigo Fire Safety Modular fire alarm system.

Objectives
Upon completion of the course, students should be able to:
• State the core components of a Desigo Fire Safety Modular Fire Panel and identify the basic components
• Describe the functionality of card cage and components and the operating unit
• Describe optional cards NIC-C, Hnet, and Xnet wiring, CAN bus and CAN bus modules supported by the NIC-C
• Describe the differences between peripheral devices such as pull stations and input/output devices
• Identify the benefits of various modules such as the HZM, HLIM, HCP, and ILED
• Create and configure a basic configuration in Desigo Zeus and how to load firmware to cards and modules

Topics
• Basic Control Unit
• Devices
• Menu Functions
• Desigo Fire Safety Modular Programming Tool ZEUS

3.5 Hours
**ZEUS - Desigo Fire Safety Modular Programming Tool**

**Course Code:** FIS 2344  

**Target Audience**  
For users whose role is to administer or program a Desigo Fire Safety Modular system.

**Prerequisites**  
FIS 2314 or FIS 2332 - Desigo Fire Safety Modular - Installation, Operation and Maintenance

**Description**  
Learn how to design, modify, test or otherwise use the Desigo Fire Safety Modular system configuration tool (ZEUS).

**Objectives**  
Upon completion of the course, students should be able to:  
- Install and navigate through the ZEUS programming tool  
- Apply the ten steps of programming  
- Create functional block diagrams  
- Use basic and complex logic including inputs and outputs  
- Follow the steps from project specifications to compiling your configuration  
- Use functional diagrams to de-bug your program  
- Design a Desigo Fire Safety Modular system configuration

**Topics**  
- Basic System Operation  
- Ten Steps to Programming  
- Logic Functions  
- Functional Block  
- Diagrams

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**ZEUS - Desigo Fire Safety Modular Programming Tool**

**Course Code:** FIS 2342  

**Target Audience**  
For users whose role is to administer or program a Desigo Fire Safety Modular system.

**Prerequisites**  
FIS 2314 or FIS 2332 - Desigo Fire Safety Modular - Installation, Operation and Maintenance

**Description**  
This class is delivered online by an instructor in four sessions over four consecutive days. Learn how to design, modify, test or otherwise use the Desigo Fire Safety Modular system configuration tool (ZEUS).

**Objectives**  
Upon completion of the course, students should be able to:  
- Review the Zeus Tool layouts for physical, geographic, control, and function view  
- Discuss programming basics, including the proper use of an OR, AND, NOT, and ANY Ns functions  
- Discuss programming to include the proper use of D-Latch, Toggling functions, and Start Timers  
- Program Delayed Start Timers, Restart Timers, and Delayed Restart Timers  
- Use the geographic view to group input devices

**Topics**  
- Basic System Operation  
- Ten Steps to Programming  
- Logic Functions  
- Functional Block  
- Diagrams

---

**Desigo Fire Safety Modular Voice - Installation, Operation and Maintenance**

**Course Code:** FIS 2324  

**Target Audience**  
For users whose role is to engineer, install, test, program or maintain a Desigo Fire Safety Modular Voice system.

**Prerequisites**  
FIS 2314 or FIS 2332 - Desigo Fire Safety Modular - Installation, Operation and Maintenance

**Description**  
Knowledge of the Desigo ZEUS software is highly recommended.

**Description**  
Learn to install, operate, maintain and program the Desigo Fire Safety Modular Voice system.

**Objectives**  
Upon completion of the course, students should be able to:  
- Understand the basic principles of a digital voice system  
- Understand the concept of an 8-channel operation  
- Design a voice system with remote enclosures  
- Navigate through the Desigo ZEUS programming tool  
- Program and network a remote microphone in REMBOX-4 enclosure with access control  
- Wire and program a voice panel for Distributed, Bulk and Single Channel amplification  
- Operate a Desigo Fire Safety Modular Voice panel in emergency and maintenance situations

**Topics**  
- Voice System Basics  
- 8-Channel Voice Operations  
- Transponders  
- Software Design
# Desigo Fire Safety Modular Voice - Installation, Operation and Maintenance

**Course Code:** FIS 2352  
**Target Audience**  
For users whose role is to engineer, install, test, program or maintain a Desigo Fire Safety Modular Voice system.

**Prerequisites**  
FIS 2314 or FIS 2332 - Desigo Fire Safety Modular - Installation, Operation and Maintenance  
Knowledge of the ZEUS software is highly recommended.

**Description**  
This class is delivered online by an instructor in four sessions over four consecutive days. Learn to install, operate, maintain and program the Desigo Fire Safety Modular Voice system.

**Objectives**  
Upon completion of the course, students should be able to:
- Design, install, and commission a Desigo Fire Safety Modular Voice System
- Recognize Desigo Fire Safety Modular Voice Modules and Devices and use them
- Operate, test, troubleshoot and maintain the system
- Use the configuration tool, Desigo Zeus, to modify and transfer customer programs to the Desigo Fire Safety Modular Voice System

**Topics**  
- Voice System Basics  
- 8-Channel Voice Operations  
- Transponders  
- Software Design

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# Desigo Fire Safety Modular Advanced Networking

**Course Code:** FIS 2334  
**Target Audience**  
For users whose role is to engineer, install or maintain a Desigo Fire Safety Modular system.

**Prerequisites**  
FIS 2314 or FIS 2332 - Desigo Fire Safety Modular - Installation, Operation and Maintenance  
Knowledge of the ZEUS software is highly recommended.

**Description**  
Learn to setup, modify, test, troubleshoot and control a H-NET and X-NET system as well as use the Global PMI monitor.

**Objectives**  
Upon completion of the course, students should be able to:
- Configure and operate a Desigo Fire Safety Modular system in various networking configurations
- Use the test and maintenance menu
- Install basic option modules
- Create and test network configuration databases using the ZEUS software application
- Install, configure and test fiber optic network modules
- Setup and operate a X-NET system
- Install and operate Global PMI monitors

**Topics**  
- Basic System Operations  
- Basic Option Modules  
- Special Option Modules  
- X-NET  
- Global PMIs Monitors

---

# Desigo Fire Safety Modular Global Voice - Advanced Applications

**Course Code:** FIS 2354  
**Target Audience**  
For users whose role is to engineer, install or maintain a Desigo Fire Safety Modular Global Voice system.

**Prerequisites**  
FIS 2314 or FIS 2332 - Desigo Fire Safety Modular - Installation, Operation and Maintenance  
Completion of the FIS 2334 - Desigo Fire Safety Modular Advanced Networking is helpful.  
Comprehensive knowledge and the ability to work in the ZEUS programming tool is strongly recommended.

**Description**  
Learn to install, program and operate a global-advanced Desigo Fire Safety Modular Voice system.

**Objectives**  
Upon completion of the course, students should be able to:
- Understand the basic principles of the Desigo Fire Safety Modular Global Voice system
- Install the necessary hardware
- Use the ZEUS programming tool to program a Desigo Fire Safety Modular Voice system with Advanced Global Applications
- Operate a Desigo Fire Safety Modular Global Voice panel in emergency and maintenance situations

**Topics**  
- Global Voice System Basics  
- Software Design
## Desigo Life Safety Training

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Duration</th>
<th>CEUs</th>
<th>Delivery Method</th>
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<tbody>
<tr>
<td>Desigo Life Safety UL System Overview</td>
<td>1 Hour</td>
<td></td>
<td>Web-Based</td>
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<tr>
<td>Desigo Life Safety UL 250/500 PT</td>
<td>3.5 Days</td>
<td>2.7</td>
<td>Instructor-Led</td>
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<tr>
<td>OR Desigo Life Safety UL 250/500 PT Programming</td>
<td>4.0 Days</td>
<td>1.7</td>
<td>Virtual Instructor-Led</td>
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<tr>
<td>Desigo Life Safety UL 50/250/500 PT</td>
<td>4.0 Days</td>
<td>1.7</td>
<td>Virtual Instructor-Led</td>
</tr>
<tr>
<td>Desigo Life Safety UL Voice</td>
<td>3.5 Days</td>
<td>2.7</td>
<td>Instructor-Led</td>
</tr>
<tr>
<td>OR Desigo Life Safety UL Voice Programming</td>
<td>4.0 Days</td>
<td>1.7</td>
<td>Virtual Instructor-Led</td>
</tr>
</tbody>
</table>

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Fire Safety
Desigo Life Safety UL System Overview

Course Code: FIS 900

Target Audience
For users whose role requires an understanding of the Desigo Life Safety UL system.

Prerequisites
None

Description
This course is an introduction to the Desigo Life Safety UL system. Students will learn about the Desigo Life Safety UL portfolio and the devices available.

Topics
- What is Desigo
- System Overview
- FCnet Stations
- FDnet Peripherals
- Tools
- Documentation Available

Desigo Life Safety UL 250/500 PT

Course Code: FIS 9104

Target Audience
For users whose role is to engineer, install or maintain a Desigo Life Safety UL 250/500-point panel system.

Prerequisites
FIS 900 - Desigo Life Safety UL System Overview

Description
Learn to install, operate, maintain, test, troubleshoot and wire a Desigo Life Safety system using a 250/500-point panel.

Objectives
Upon completion of the course, students should be able to:
- Acknowledge Alarms, Supervisories, Troubles and Securities
- Install field devices
- Enable and disable points
- Create a Desigo Life Safety configuration
- Create detection zones
- Troubleshoot a Desigo Life Safety system

Topics
- Basic Control Unit
- Basic System Operations
- Devices
- Menu Functions
- Desigo Fire Safety Engineering Tool

Desigo Life Safety UL 50/250/500 PT

Course Code: FIS 9132

Target Audience
For users whose role is to engineer, install or maintain a Desigo Life Safety UL 50/250/500-point panel system.

Prerequisites
FIS 900 - Desigo Life Safety UL System Overview

Description
This class is delivered online by an instructor in four sessions on four consecutive days. Learn to install, operate, maintain, test, troubleshoot and wire a Desigo Life Safety system using a 50/250/500-point panel.

Objectives
Upon completion of the course, students should be able to:
- Identify the required and optional modules for the FC2025/FC2050 panels
- Demonstrate the operation of the Desigo Compact Operating Unit
- Demonstrate how System Trees are used to build a fire safety system at a customer site
- Use the inherit text and the create and assign features in the Desigo Compact Engineering Tool
- Identify the differences and benefits of C, S, H, and X series detectors and detector bases/housing
- Use DPU to address addressable devices
- Demonstrate the ability to check panel firmware, perform test functions from the panel, view sensitivity reports, and transfer panel databases

Topics
- Basic Control Unit
- Basic System Operations
- Devices
- Menu Functions
- Desigo Fire Safety Configuration Tool
- Programming Steps

30
Desigo Life Safety UL 250/500 PT Programming

Course Code: FIS 9142

Target Audience
For users whose role is to program a Desigo Life Safety system.

Prerequisites
FIS 9104 - Desigo Life Safety UL 250/500 PT or FIS 9132 - Desigo Life Safety UL 50/250/500 PT

Description
This class is delivered online by an instructor in four sessions on four consecutive days. Learn to program a Desigo Compact 250/500 fire alarm panels.

Objectives
Upon completion of the course, students should be able to:
- Identify the purpose of the Lifecycle Responsibility Concept
- Download and license the Desigo Compact Engineering Tool
- Describe the Engineering Tool layout to include the Hardware Tree, Detection Tree, and the Control Tree
- Discuss programming basics, including the proper use of an OR, AND, NOT, and ANY Ns functions
- Use the Boolean programming formulas to build control functions, including timer starts and delayed timers
- Group Zones in control functions
- Use Prioritized and Universal NAC Controls for various outputs
- Use Alarm Verification Concept (AVC)

Topics
- Lifecycle Responsibility Concept
- Programming Basics and Boolean Programming
- Group Zones
- Prioritized and Universal NAC Controls
- Alarm Verification Concept

Desigo Life Safety UL Voice

Course Code: FIS 9124

Target Audience
For users whose role is to engineer, install, maintain or program a Desigo Life Safety Voice system.

Prerequisites
FIS 9104 - Desigo Life Safety UL 250/500 PT or FIS 9132 - Desigo Life Safety UL 50/250/500 PT

Description
Learn to install, operate, maintain, test, troubleshoot and wire a Desigo Life Safety Voice system using a 250/500-point panel.

Objectives
Upon completion of the course, students should be able to:
- Identify the hardware components required to construct a Desigo Voice system
- Design Voice programs using the Desigo Engineering Tool
- Commission and test a stand-alone Desigo Voice system
- Operate a voice-command station
- Build, program, and commission a Desigo Voice network including a remote voice command station

Topics
- Basic Control Unit
- Basic System Operations
- Devices
- Menu Functions
- Desigo Fire Safety Engineering Tool

Desigo Life Safety UL Voice

Course Code: FIS 9152

Target Audience
For users whose role is to engineer, install, maintain or program a Desigo Life Safety Voice system.

Prerequisites
FIS 9104 - Desigo Life Safety UL 250/500 PT or FIS 9132 - Desigo Life Safety UL 50/250/500 PT

Description
This class is delivered online by an instructor in four sessions on four consecutive days. Learn to install, operate, maintain, test, troubleshoot and wire a Desigo Life Safety Voice system using a 250/500-point panel.

Objectives
Upon completion of the course, students should be able to:
- Identify the hardware components required to construct a Desigo Voice system
- Design Voice programs using the Desigo Engineering Tool
- Commission and test a stand-alone Desigo Voice system
- Operate a voice-command station
- Build, program, and commission a Desigo Voice network including a remote voice command station

Topics
- Basic Control Unit and Voice Hardware
- Basic Voice System Operations
- Devices
- Menu Functions
Cerberus PRO Modular Training

Cerberus PRO Modular and Cerberus PRO Modular Voice
Fire Panels and Components
FIS 252 (Web-Based)

Cerberus PRO Modular - Installation, Operation and Maintenance
FIS 2514 (Instructor-Led)
CEUs: 2.7
3.5 Days

ZEUS - Cerberus PRO Modular Programming Tool
FIS 2544 (Instructor-Led)
CEUs: 2.7
3.5 Days

Cerberus PRO Modular Voice - Installation, Operation and Maintenance
FIS 2524 (Instructor-Led)
CEUs: 2.7
3.5 Days

Cerberus PRO Modular Advanced Networking
FIS 2534 (Instructor-Led)
CEUs: 2.7
3.5 Days

Cerberus PRO Modular Global Voice - Advanced Applications
FIS 2554 (Instructor-Led)
CEUs: 2.7
3.5 Days

The Cerberus PRO Modular is a comprehensive fire safety system for fast, reliable fire detection as well as alarm signaling and control.

Each course is hands-on in the installation, operation and maintenance of the Cerberus PRO Modular system. You will learn common workflows to ensure you can comfortably operate and maintain a Cerberus PRO Modular system.

These courses build off the preceding course and include topics from basic installation to advanced networking and Global Voice configuration. It is recommended that you complete the courses in the order they are shown; from the top down. These courses are for Siemens Solution Partners and customers.

This fire alarm system is formally known as FireFinder XLS.
Cerberus PRO Modular and Cerberus PRO Modular Voice Fire Panels and Components

Course Code: FIS 252

Target Audience
For users whose role requires an understanding of the Cerberus PRO Modular and Cerberus PRO Modular Voice panels.

Prerequisites
None

Description
This web-based training introduces the field devices and components of the Cerberus PRO Modular and Cerberus PRO Modular Voice fire safety systems.

Topics
- Fire Alarm System Selection
- Cerberus PRO Modular Fire Alarm System Operations
- Cerberus PRO Modular Field Devices
- Cerberus PRO Modular Core System Components
- Cerberus PRO Modular System Components and Options

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Cerberus PRO Modular - Installation, Operation and Maintenance

Course Code: FIS 2514

Target Audience
For users whose role is to engineer, install, test or maintain a Cerberus PRO Modular fire alarm system.

Prerequisites
FIS 252 - Cerberus PRO Modular and Cerberus PRO Modular Voice Fire Panels and Components

Description
Learn to install, operate, maintain, test, troubleshoot and wire a Cerberus PRO Modular fire alarm system.

Objectives
Upon completion of the course, students should be able to:
- Update the panel and module firmware including the MLC
- Create and install maps and icons
- Silence and reset the panel
- Install field devices
- Add devices to the database using ZEUS
- Enable and disable points
- Test, inspect and troubleshoot a Cerberus PRO Modular System

Topics
- Basic Control Unit
- Devices
- Menu Functions
- Cerberus PRO Modular Programming Tool ZEUS

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ZEUS - Cerberus PRO Modular Programming Tool

Course Code: FIS 2544

Target Audience
For users whose role is to administer or program a Cerberus PRO Modular system.

Prerequisites
FIS 2514 - Cerberus PRO Modular - Installation, Operation and Maintenance

Description
Learn how to design, modify, test or otherwise use the Cerberus PRO Modular system configuration tool (ZEUS).

Objectives
Upon completion of the course, students should be able to:
- Install and navigate through the ZEUS programming tool
- Apply the ten steps of programming
- Create functional block diagrams
- Use basic and complex logic including inputs and outputs
- Follow the steps from project specifications to compiling your configuration
- Use functional diagrams to de-bug your program
- Design a Cerberus PRO Modular system configuration

Topics
- Basic System Operation
- Ten Steps to Programming
- Logic Functions
- Functional Block
- Diagrams
Cerberus PRO Modular Voice - Installation, Operation and Maintenance

Course Code: FIS 2524

Target Audience
For users whose role is to engineer, install, test, program or maintain a Cerberus PRO Modular Voice system.

Prerequisites
FIS 2514 - Cerberus PRO Modular - Installation, Operation and Maintenance
Knowledge of the Cerberus ZEUS software is highly recommended.

Description
Learn to install, operate, maintain and program the Cerberus PRO Modular Voice system.

Objectives
Upon completion of the course, students should be able to:
- Understand the basic principles of a digital voice system
- Understand the concept of an 8-channel operation
- Design a voice system with remote enclosures
- Navigate through the Cerberus ZEUS programming tool
- Program and network a remote microphone in REMBOX-4 enclosure with access control
- Wire and program a voice panel for Distributed, Bulk and Single Channel amplification
- Operate a Cerberus PRO Modular Voice panel in emergency and maintenance situations

Topics
- Voice System Basics
- 8-Channel Voice Operations
- Transponders
- Software Design

Cerberus PRO Modular Advanced Networking

Course Code: FIS 2534

Target Audience
For users whose role is to engineer, install or maintain a Cerberus PRO Modular system.

Prerequisites
FIS 2514 - Cerberus PRO Modular - Installation, Operation and Maintenance
Knowledge of the ZEUS software is highly recommended.

Description
Learn to setup, modify, test, troubleshoot and control a H-NET and X-NET system as well as use the Global PMI monitor.

Objectives
Upon completion of the course, students should be able to:
- Configure and operate a Cerberus PRO Modular system in various networking configurations
- Use the test and maintenance menu
- Install basic option modules
- Create and test network configuration databases using the ZEUS software application
- Install, configure and test fiber optic network modules
- Setup and operate a X-NET system
- Install and operate Global PMI monitors

Topics
- Basic System Operations
- Basic Option Modules
- Special Option Modules
- X-NET
- Global PMIs Monitors

Cerberus PRO Modular Global Voice - Advanced Applications

Course Code: FIS 2554

Target Audience
For users whose role is to engineer, install or maintain a Cerberus PRO Modular Global Voice system.

Prerequisites
FIS 2514 - Cerberus PRO Modular - Installation, Operation and Maintenance
Completion of the FIS 2534 - Cerberus PRO Modular Advanced Networking is helpful.

Knowledge of the ZEUS software is highly recommended.

Comprehensive knowledge and the ability to work in the ZEUS programming tool is strongly recommended.

Description
Learn to install, program and operate a global-advanced Cerberus PRO Modular Voice system.

Objectives
Upon completion of the course, students should be able to:
- Understand the basic principles of the Cerberus PRO Modular Global Voice system
- Install the necessary hardware
- Use the ZEUS programming tool to program a Cerberus PRO Modular Voice system with Advanced Global Applications
- Operate a Cerberus PRO Modular Global Voice panel in emergency and maintenance situations

Topics
- Global Voice System Basics
- Software Design
Cerberus PRO Training

Cerberus PRO is a comprehensive fire safety system for fast, reliable fire detection as well as alarm signaling and control.

Each course is hands-on in the installation, operation and maintenance of the Cerberus PRO system. You will learn common workflows to ensure you can comfortably operate and maintain a Cerberus PRO system. It is recommended that you complete the courses in the order they are shown; from the top down.

These courses are for Siemens Solution Partners and customers.
Cerberus PRO UL
250/500 PT

Course Code: **FIS 9504**

**Target Audience**
For users whose role is to engineer, install, maintain or program a Cerberus PRO 250/500-point panel system.

**Prerequisites**
FIS 950 - Cerberus PRO Overview

**Description**
Learn to install, operate, maintain, test, troubleshoot and wire a Cerberus PRO system using a 250/500-point panel.

**Objectives**
Upon completion of the course, students should be able to:
- Acknowledge Alarms, Supervisories, Troubles and Securities
- Install field devices
- Enable and disable points
- Create a Cerberus PRO configuration
- Create detection zones
- Troubleshoot a Cerberus PRO system

**Topics**
- Basic Control Unit
- Basic System Operations
- Devices
- Menu Functions
- Cerberus PRO Engineering Tool

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Cerberus PRO UL Voice

Course Code: **FIS 9524**

**Target Audience**
For users whose role is to engineer, install, maintain or program a Cerberus PRO Voice system.

**Prerequisites**
FIS 9504 - Cerberus PRO UL 250/500 PT

**Description**
Learn to install, operate, maintain, test, troubleshoot and wire a Cerberus PRO Voice system using a 250/500-point panel.

**Objectives**
Upon completion of the course, students should be able to:
- Describe the components used with the Voice architecture
- Draw a basic Cerberus PRO Voice wiring diagram
- Use the configuration tool to build basic voice system programs
- Demonstrate LED behavior for voice priority activations on a voice panel
- Create advanced voice systems with custom designed audio libraries
- Create and commission a voice network

**Topics**
- Basic Control Unit and Voice Hardware
- Basic Voice System Operations
- Cerberus PRO Fire Safety Engineering Tool
- Networking
MXL Training

MXL

MXL is one of the most successfully installed analog fire protection system in the US marketplace. It offers basic analog fire control panels and detectors that can be networked to meet changing needs.

Each course is hands-on in the installation, operation and maintenance of the MXL system. You will learn common workflows to ensure you can comfortably operate and maintain a MXL system. It is recommended that you complete the courses in the order they are shown; from the top down.

MXL and MXLV Fire Panel and Components
FIS 150
(Web-Based)

MXL - Installation, Operation and Maintenance
FIS 1114
(Instructor-Led)

Acculink - MXL Programming Tool
FIS 1144
(Instructor-Led)

MXL Voice - Installation, Operation and Maintenance
FIS 1124
(Instructor-Led)

Course Code: FIS 150

Target Audience
For users whose role requires an understanding of the MXL or MXL Voice Fire Safety system.

Prerequisites
None

Description
This web-based training introduces field devices and components of the MXL and MXLV fire safety systems.

Topics
- Fire Alarm System Selection
- MXL Fire Alarm System Operation
- MXL Field Devices
- MXL Core System Components
- MXL System Components and Options
MXL - Installation, Operation and Maintenance

Course Code: **FIS 1114**

**Target Audience**
For users whose role is to engineer, install, test or maintain a MXL system.

**Prerequisites**
FIS 150 - MXL and MXLV Fire Panels and Components

**Description**
Learn to install, operate, maintain, test, troubleshoot and wire a MXL advanced microprocessor-based fire alarm system.

**Objectives**
Upon completion of the course, students should be able to:
- Silence and reset the panel
- Install field devices
- Add devices to the database using Acculink
- View and change detector sensitivities
- Enable and disable points
- Create and transfer MXL configurations
- Test, inspect and troubleshoot a MXL system

**Topics**
- Basic System Operation
- Devices
- Menu Functions
- MXL Programming Tool (Acculink)

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Acculink - MXL Programming Tool

Course Code: **FIS 1144**

**Target Audience**
For users whose role is to program a MXL system.

**Prerequisites**
FIS 1114 - MXL - Installation, Operation and Maintenance

**Description**
Learn to use the MXL programming tool, Acculink (CSG-M), to design a MXL fire alarm system.

**Objectives**
Upon completion of the course, students should be able to:
- Install and navigate through the Acculink software
- Apply CSG-M and MXL security
- Follow the steps from project specifications to compiling your configuration
- Use basic and complex logic including inputs and outputs
- Create functional block diagrams
- Use functional diagrams to input programs into the software
- Apply the ten steps of programming
- Design a MXL fire alarm system configuration

**Topics**
- Basic System Operations
- Ten Steps to Programming
- Logic Functions
- Functional Block
- Diagrams

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MXL Voice - Installation, Operation and Maintenance

Course Code: **FIS 1124**

**Target Audience**
For users whose role is to engineer, install, maintain or operate a MXL Voice system.

**Prerequisites**
FIS 1114 - MXL - Installation, Operation and Maintenance

**Description**
Learn to install, operate and maintain an MXLV integrated voice evacuation system.

**Objectives**
Upon completion of the course, students should be able to:
- Understand the basic principles of an analog voice system
- Install proper shielding
- Explain the concepts of various Zone cards used for audio distribution
- Install networks for voice systems including master/remote and peer-to-peer networks
- Install proper shielding for low-level and high-level audio
- Operate a MXL Voice panel in emergency and maintenance situations

**Topics**
- Voice System Basics
- 3-Channel Voice
- Transponders
- Shielding
Sinorix Engineering and Design

Course Code: FIS 6213

Target Audience
For users whose role is to design or manage a Sinorix system.

Prerequisites
None

Description
Learn to design a Sinorix 227 system using Siemens Sinorix 227 FlowCalc software.

Objectives
Upon completion of the course, students should be able to:
• Understanding flooding agents and how to protect a hazard
• Describe hardware components including cylinders, valves and nozzles
• Use Sinorix 227 FlowCalc software to predict flow
• Design and build an isometric pipe network
• Describe enclosure integrity testing

Topics
• Sinorix
• Hardware
• Software
• Project Management
KNX Basic Certification (GAMMA Lighting)

Course Code: **KNX 4204**

**Target Audience**
For users whose role requires training on the KNX Technology.

**Prerequisites**
Students should have an understanding of basic electrical installation and complete the required prework.

**Description**
Learn the basics of data transmission for KNX communication technology. This course will also teach students to operate the latest engineering software tool.

At the completion of the training, there will be a theoretical and practical KNX exam. Upon successful completion, students will receive the KNX CERTIFICATE and can then conclude the KNX Partner Contract. The KNX CERTIFICATE is valid world-wide for the student’s lifetime and comes with continuous support from KNX headquarters.

**Objectives**
Upon completion of the course, students should be able to:
- Understand the fundamentals for serial data transmissions
- Review the KNX Technology
- Know the available bus devices in accordance with the product database
- Design, program and function the latest version of ETS
- Configure and commission a sample project
- Work with BACnet Gateway

**Topics**
- Serial Data Transmission
- KNX Technology
- Installation and Assembly Guideline
- Bus Devices
- ETS (Engineering Tool Software)
- Certification Exam
# Training Enrollment Form

Please email the completed form to SI Academy at smart.infrastructure.academy.us@siemens.com. We will notify you within two business days after we receive your enrollment form.

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<td>We are (choose one):</td>
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<td>If End User or Other, your Supplier is a*:</td>
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<td>State: ZIP:</td>
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<td>Local Contact at Supplier Company*:</td>
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<td>Sales Rep’s Name:</td>
<td>Client Service Admin/Engineer’s Name:</td>
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**Student Cancellation Policy:** Students who cancel within 22 calendar days of the class start date will be charged 50% of the tuition. Students will be charged 100% of the tuition if they cancel the day of the class or do not attend. The cancellation fee may be waived if your organization sends a qualified student as a substitute. Cancellation request need to be requested on [www.siemens.com/esonline](http://www.siemens.com/esonline).

**Note:** Siemens SI Academy reserves the right to cancel classes and assumes no liability for expenses incurred by students due to class cancellation. All students will be notified of cancellations approximately one month before classes begin.