

framatome

**IC academy**  
Training Solutions 2021

# IC academy

With more than 40 years of training experience, Framatome's full training portfolio includes courses on virtually every aspect of nuclear power plant construction and operation. We also design individually tailored training programs and courses to suit our customers' specific requirements. Our long-standing relationships with global experts, utilities, and institutions give us the necessary expertise to offer valuable insights into nuclear safety policy and procedures.

**Our training solutions focus on:**

- Certified, experienced instructors and experts in all fields of nuclear technology
- Competent advice and support regarding your intended training goals
- Practical courses with applied training on real-life systems
- Training curriculum customized to your needs
- High-quality training materials individually tailored for each course and customer

## Our promise to you

Framatome offers comprehensive training solutions for the development, construction and maintenance of nuclear power plants. Our IC academy is home to world-leading experts in the industry, ready to share their know-how and experience with your operational teams. Framatome delivers the training programs you need to help you achieve your team's development goals.

## Your performance

is **our** everyday **commitment**

# TRAINING LOCATIONS

**Framatome offers extensive system and operations training at our modern training facilities or on-site at customer locations worldwide.**

 **France**

Framatome France offers instrumentation and control trainings drawn from decades of operational experience and best practices. Courses are available at Framatome sites in Lyon and Paris, as well as at actual plant sites like Flamanville. To ensure the best training for all customers, classroom and hands-on instruction are provided by our training experts.

 **Germany**

For more than 40 years Framatome has provided extensive training courses covering both nuclear plant construction and operation at our Training Center in Karlstein and Erlangen. Comprehensive instrumentation and control training is further supported by actual platforms and component mock-ups allowing participants to learn in realistic environments.



**USA**

Located in Lynchburg, Va., Framatome's Technical Training Center is located on 3.5 acres, with full-scale mock-ups, classrooms, offices, and labs to meet the growing nuclear site maintenance needs in the U.S. and around the world. Course participants receive classroom and hands-on training for plant-specific instrumentation and control configurations and new procedures in a safe, realistic environment.

**China****Slovakia**

We also offer instrumentation and control academy training courses near customer locations in China and Slovakia for our local customers in Asia and Eastern Europe. The full list of courses is continually expanding and is also available in customers' native language. Our teams of trainers look forward to welcoming you at one of the Framatome facilities, or provide training at your local facility.



# FOXBORO CONTROL SOFTWARE

## Advanced FoxView Software

DURATION	LOCATION	LANGUAGES
5 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Plant Engineers

### OBJECTIVES

- Describe the purpose and function of AIM\*AT software applications.
- Operate the AIM\*Historian application to monitor various process variables.
- Configure and utilize reduction groups.
- Perform AIM\*Historian archiving operations.
- Access real-time and historical data in table format.
- Access real-time and historical data in trend format.
- Set up the AIM\*ODBC driver and access data with the SQL Select statement.
- Access data using AIM\*OPC and tools embedded in the AIM suite.
- Build and view HTML reports using AIM\*Inform.
- Access and modify instances using AIM\*Historian utilities.
- Configure an instance to include both events activated by user-defined conditions and MDE values.

### CONTENT

This course promotes effective HMI design using advanced features in the FoxView and FoxDraw applications. These features help you build and maintain graphical displays in a Foxboro system. In this course, you use display configuration tools, substitutions, Display Manager commands (dmcmd), and various utilities. You also use FoxView displays to interact with real-time data, historical field data, and process data. The course is ideal for Process Control Engineers who build or maintain FoxDraw displays and maintain the Process Operator human interface environment.

### PREREQUISITES

Course #2001v8 Foxboro Configuration Essentials


### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

Contact: [ic-academy@framatome.com](mailto:ic-academy@framatome.com)  
for more information

# FOXBORO CONTROL SOFTWARE

## AIM AT Historian

DURATION	LOCATION	LANGUAGES
5 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Plant Engineers, Process Engineers

### OBJECTIVES

- Describe the purpose and function of AIM\*AT software applications.
- Operate the AIM Historian application to monitor various process variables.
- Configure and utilize reduction groups.
- Perform AIM\*Historian archiving operations.
- Access real-time and historical data in table format.
- Access real-time and historical data in trend format.
- Set up the AIM\*ODBC driver and access data with the SQL Select statement.
- Access data using AIM\*OPC and tools embedded in the AIM suite.
- Build and view HTML reports using AIM\*Inform.
- Access and modify instances using AIM\*Historian utilities.
- Configure an instance to include both events activated by user-defined conditions and MDE values.
- Configure and execute reports using the I/A Series Report package.

### CONTENT

This course introduces you to the programming steps for accessing and engineering the AIM\*AT suite of software applications. In this course, among other tasks, you practice configuring an AIM\*AT server to retrieve data and report output into a Microsoft Excel spreadsheet or web-based application. Through hands-on lab exercises, you acquire up-to-date information on creating, managing, and querying this database. The course is ideal for plant personnel who retrieve data on process performance, plant performance, or plant operations.

### PREREQUISITES

Working knowledge of Microsoft Office tools; Course #2001 Legacy I/A Configuration Essentials, Course #2001v8 Foxboro Configuration Essentials or equivalent knowledge

### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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# FOXBORO CONTROL SOFTWARE

## Configuration Essentials with FoxView

### DURATION

5 days

### LOCATION



Customer on-site / Worldwide

### LANGUAGES



English

### TARGET GROUP

Process Engineers, System Engineers

### OBJECTIVES

- Identify hardware components of Foxboro Control Network, their functions, and the relationships between stations and modules.
- Construct simple process control schemes using Control Editor.
- Test control loops using default process displays.
- Construct process displays that interact with live process data, using FoxView software.
- Make online modifications to real-time and historical trend displays.
- Interpret results and modify predefined alarm schemes.
- Assign control block alarm events to Annunciator Keyboard LEDs and displays, and programs to Annunciator Keyboard pushbuttons.
- Describe standard diagnostic and support tools in System Manager.

### CONTENT

This course allows you to work with the Foxboro system, generating Control HMI displays, building simple control loops, and responding to general diagnostic messages. In this course, you identify the major hardware and software components of Foxboro DCS. Using various configuration tools, you enable and disable process alarm reporting. Course topics use the Control Software package Control Editor (Galaxy), FoxView software, and AIM Historian. Classroom instruction and practical lab exercises lay the groundwork for more advanced Foxboro DCS courses.

### PREREQUISITES

Working knowledge of plant processes;  
Minimum of 6 months of experience using process control computers




### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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# FOXBORO CONTROL SOFTWARE

## Continuous Control with FoxView

DURATION	LOCATION	LANGUAGES
5 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Process Control Engineers and Technicians

### OBJECTIVES

- Construct and verify the operation of cascade, feedforward, ratio, multiple output, and discrete control schemes using control block parameters.
- Create a safe control strategy for operational changes.
- Enable output tracking, alarm filtering, and loop initialization using control parameters.
- Configure fieldbus modules for fail-safe operation and measurement resolution.
- Implement complex real-time calculations in control loops using advanced calculation blocks.
- Configure and test adaptive control schemes using PIDA, FBTUNE, and other control blocks.
- Use different types of control algorithms available in Foxboro DCS.

### CONTENT

This course helps you become familiar with the control blocks and algorithms for designing continuous control databases using Foxboro DCS Control Editor. In this course, you focus on parameters and algorithms required for continuous control applications, such as cascade, ratio, feed-forward, and adaptive control loops. You execute complex real-time mathematical calculations at the loop level and leverage fail-safe strategies and procedures. Course topics use Control Software packages of only Control Editor (Galaxy) and Historian with FoxView as the Human/Machine Interface (HMI). Throughout the course, extensive lab sessions help you practice and test procedures. The course is ideal for Process Control Engineers and Technicians who design, install, test, or maintain control schemes using the Control Editor.

### PREREQUISITES

Course #5001FV Control Software Configuration Essentials With FoxView;  
 Course #6211 Process Control Technology or equivalent knowledge

### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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 for more information



# FOXBORO CONTROL SOFTWARE

## Maintenance with FoxView

DURATION	LOCATION	LANGUAGES
5 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Technicians

### OBJECTIVES

- List basic hardware components, their functions, and relationships between modules and workstations.
- Follow documented procedures to verify proper system installation.
- Gain the knowledge to identify each module and peripheral device, trace all bus and cable connections, and demonstrate proper removal and replacement procedures.
- Demonstrate knowledge of the procedures required to replace a control switch.
- Access displays, overlays, and Control Editor using FoxView HMI.
- Describe how power is distributed to fieldbus modules and control processors.
- Access status, configuration, and fault analysis information related to the network, individual modules, and peripheral devices using System Manager displays.
- Update the firmware of control stations and modules using System Manager displays.
- Resolve hardware using documentation and proper troubleshooting techniques.

### CONTENT

This course helps you become familiar with diagnostic and problem-solving procedures through lab exercises using Foxboro DCS hardware and software. In this course, you identify all essential hardware and software components of Foxboro DCS and verify proper installation. The course is ideal for Technicians who maintain Foxboro DCS and use the FoxView HMI.

### PREREQUISITES

Working knowledge of personal computers;  
Prior experience with digital process control equipment




### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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# FOXBORO CONTROL SOFTWARE

## Process Operations

DURATION	LOCATION	LANGUAGES
3 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Operators

### OBJECTIVES

- Use the devices provided by the operator's station to access displays, overlays, and environments, and to determine variables that are operator-changeable.
- Given a typical process situation, recognize the occurrence of a process alarm, determine the cause, and provide the appropriate response.
- Operate the standard Foxboro faceplate displays and custom graphical displays.
- Observe variations in process conditions and review historical data using real-time trends.
- Demonstrate the method of access and the information presented in operational reports and in scheduled and on-demand custom process reports.
- In the event of a failure, acknowledge the system alarm and identify the failed component.

### CONTENT

This course provides the background necessary to perform procedures normally encountered by a Process Operator in the control room. Through a series of simulated control schemes in this course, you identify the mechanics of operating the FoxView interface and interacting with typical process displays. This course is ideal for personnel who are responsible for day-to-day operations in a plant.

### PREREQUISITES

Prior control room experience using pneumatic, electronic, or digital systems

### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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# FOXBORO CONTROL SOFTWARE

## Secured System Administration

DURATION	LOCATION	LANGUAGES
5 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Application Engineers; Control Engineers

### OBJECTIVES

- Describe key enhancements in Foxboro system software, Version 8.8 and greater.
- Review and use the Secured Editor System Definition package.
- Perform workstation hardening on both Microsoft Windows 7 and server-class workstations.
- Review Active Directory enhancements, settings, and troubleshooting techniques.
- Save Active Directory settings from a Primary Domain Controller (PDC).
- Review procedures for Secured Edition installations of secured systems.
- Understand new software packages released with Secured Edition, the System Assessment tool, the Control Network configuration tool, and others.
- Work with functions and manipulate settings in the McAfee ePolicy console.
- Deploy McAfee Agent on client stations and review all software settings.
- Update a McAfee Virus Definition Update file using ePO.

### CONTENT

This course helps you gain experience with Foxboro Secured Edition releases. Specifically, you gain understanding of the secured setup for a Foxboro system through security management settings. Course topics address system definition, workstation hardening, all types of installation, Microsoft Active Directory modifications, and troubleshooting and recovery techniques required to meet cybersecurity standards. Course topics also address features added to the system from McAfee ePolicy Orchestrator (McAfee ePO) console, setup, and navigation.

### PREREQUISITES

Course #2001v8 Foxboro Configuration Essentials or 5001 Control Software Configuration Essentials; Minimum of 1 year of experience in process control system administration




### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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for more information

# FOXBORO CONTROL SOFTWARE

## Visualization Server

DURATION	LOCATION	LANGUAGES
3 days	  Customer on-site / Worldwide	 English

### TARGET GROUP

Application Engineers; Control Engineers

### OBJECTIVES

- Describe requirements and advantages of a virtualization server.
- Describe procedures to maintain a virtualization server and virtual images for Primary Domain Controller (PDC), the Galaxy repository, Display Server, and Historian Server.
- Describe network requirements and setup for connecting a virtualization server to the Control Network and engineering networks.
- Describe how to manage thin-client connections.
- Save and recover virtual stations using Microsoft Hyper-V tools.
- Consult all available documentation to use assigned configurators, tools, and utilities to analyze and troubleshoot the virtualization server.
- Understand endpoint protection and replication requirements using V91 documentation.
- Administrate virtualization host servers using centralized virtualization management.
- Create a replica of the virtual stations in different virtualization host servers and perform planned and unplanned failovers.
- Move virtual stations from one V91 host to another V91 host using the Hyper-V Manager Live Migration feature.

### CONTENT

This course covers the use of the Microsoft Hyper-V server and the administration of virtual images. In this course, you back up and restore virtual images to the server to demonstrate the reliability and versatility of this platform. This course is ideal for Engineers who support virtualization servers and operator workstations using thin clients.

### PREREQUISITES

Course #5012 Secured System Administration or equivalent knowledge; Minimum of 1 year of experience in process control administration

### OTHER INFORMATION

This course is delivered by Schneider Electric Process Automation Learning Services.

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# IC academy

Organization  
and information

## **SPECIFIC TRAINING REQUIREMENTS**

Do you have specific requirements for a training course? We can put together a tailor made course. Please contact us and we will be happy to advise you.

**Please email us at:**

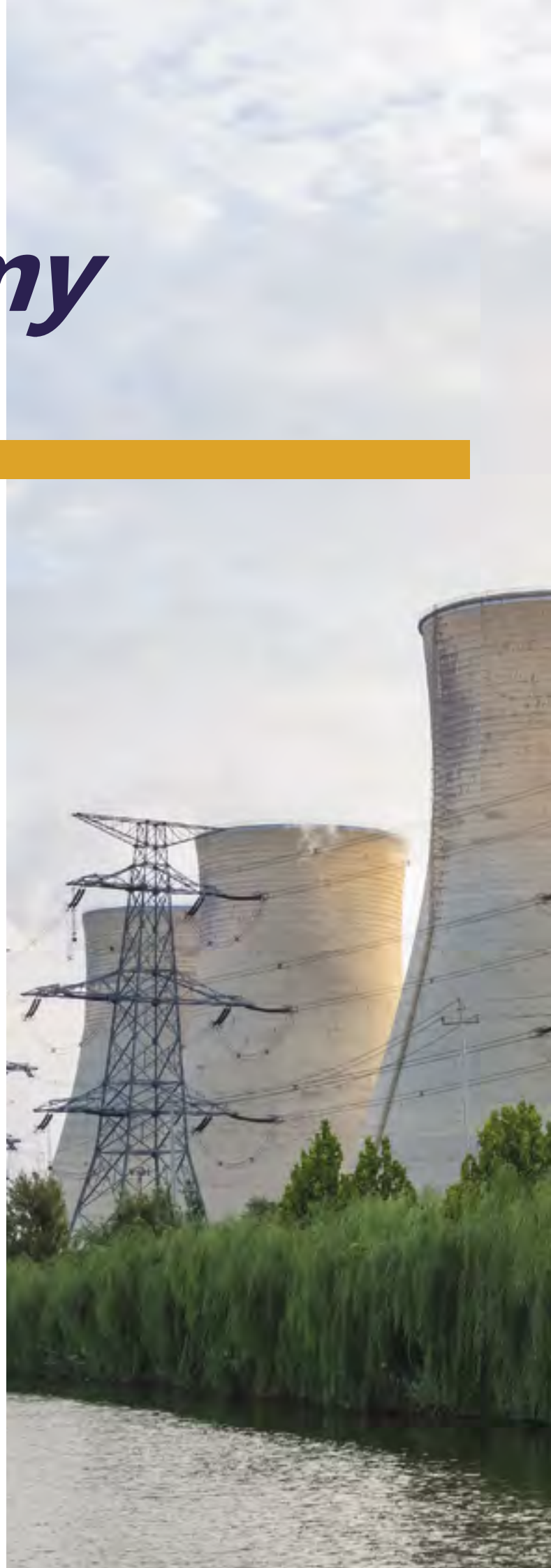
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## **Your performance**

is **our** everyday **commitment**



Framatome is an international leader in nuclear energy recognized for its innovative solutions and value-added technologies for the global nuclear fleet. With worldwide expertise and a proven track record for reliability and performance, the company designs, services and installs components, fuel, and instrumentation and control systems for nuclear power plants. Its more than 14,000 employees work every day to help Framatome's customers supply ever cleaner, safer and more economical low-carbon energy.

Visit us at: [www.framatome.com](http://www.framatome.com), and follow us on Twitter: @Framatome\_ and LinkedIn: Framatome.

Framatome is owned by the EDF Group (75.5%), Mitsubishi Heavy Industries (MHI – 19.5%) and Assystem (5%).



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# framatomē

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