

DeltaV™ Mimic

EDUCATIONAL PROGRAM

DeltaV Mimic System Administration

7630 / 7630V

In this 3-day course, students explore the software deployment of DeltaV Mimic and examine key design specifications that are useful for defining and maintaining a Mimic system.

This course focuses on best practices for architecting a simulator system with Mimic, infrastructure requirements for communications between Mimic and a control system, Mimic installation, lifecycle management, administering Mimic users, and troubleshooting a Mimic system.

Audience: System Administrators and IT specialists responsible for managing and installing a Mimic system.

Prerequisites: None



3 Days, 2.1 CEUs



Virtual / In-Person

LEARNING TOPICS

- Mimic Overview
- System Architecture
- Licensing
- Installation Procedures
- Lifecycle Management
- User Management
- Troubleshooting

Dynamic Simulation Introduction

7631 / 7631V

In this 1-day course, students explore the use of DeltaV Mimic for dynamic process simulation. The course focuses on the use of dynamic process modeling to support operator training and other plant objectives through initial control development, software FAT, pre-commissioning, and post-startup.

Completion of this class will enable the student to explain how Mimic can tie into existing and new work processes to support their training and control system development needs.

Audience: Project Managers and plant Operations personnel interested in incorporating Mimic dynamic simulation into their work processes.

Prerequisites: None



1 Day, 0.7 CEUs



Virtual / In-Person

LEARNING TOPICS

- Define Dynamic Process Simulation
- Identify dynamic process simulation use cases throughout lifecycle of control system
- Recognize automated modeling use cases using Mimic's DeltaV FHX Utility
- Contrast simulation fidelity by use case
- Review operator training impact on commissioning
- Assess continual training

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DeltaV Mimic Introduction

7632 / 7632V

In this 2-day course, students will learn the basics of DeltaV Mimic. The course focuses on building a fundamental understanding of Mimic features, how each feature can provide additional functionality to a dynamic model, and how to communicate with the offline control system.

Completion of this class will enable students to build tieback models and explain how the models can be enhanced with additional Mimic features. Students will recognize the benefits of Mimic's built-in tools and how to apply these tools in the development of a dynamic simulation.

Audience: Process & process control engineers interested in dynamic simulation and people whose workflows would benefit by incorporating Mimic dynamic simulation.

Prerequisites: None



2 Days, 1.4 CEUs



Virtual / In-Person

LEARNING TOPICS

- Introduction to Mimic as Dynamic Simulation Software
- Navigate Mimic Software Components
- Dynamic Simulation Communications Path with DeltaV
- Tieback Simulation with built-in Utilities
- Process Modeling using Mimic
- Mimic Train Course Development
- Use of Mimic Utilities for Common Engineering Tasks

DeltaV Mimic Dynamic Simulation

7601 / 7601V

In this 3-day course, students will explore and configure fundamental features of DeltaV Mimic. The course focuses on installation and setup; building real-time, dynamic models; integration with offline control systems and emulators; and operator training through a mix of lecture, discussion, and hands-on workshop assignments.

Completion of this class will enable students to build dynamic models and integrate them with an offline control system for operator training and control strategy checkout.

Audience: Process & process control engineers responsible for configuring and maintaining communications and low fidelity modeling in Mimic Simulation Software.

Prerequisites: None



3 Days, 2.1 CEUs



Virtual / In-Person

LEARNING TOPICS

- Mimic Overview
- Offline Control Integration
- Discrete and Analog Modeling
- Database Generation Utilities
- Implementation of Training Scenarios using Mimic Operator Training Manager
- Testing using Mimic Test Bench
- Lifecycle Maintenance

DeltaV Mimic Fluid Modeling

7602 / 7602V

In this 2-day course, students will build on foundations taught in DeltaV Mimic Dynamic Simulation (7601) with focus on developing medium and high fidelity models. Mimic Process modeling objects will be used to create end-to-end, unified pressure driven flow networks while incorporating complete mass and energy balances across the entire model. The target fidelity, usage, and tuning for Mimic Process modeling objects is discussed to guide planning of medium to high fidelity dynamic simulation.

Completion of this class will enable students to design and build medium into high fidelity dynamic simulation in Mimic to achieve more realistic process responses for operator training and control strategy testing/experimentation.

Audience: Process & process control engineers responsible for configuring and maintaining medium to high fidelity modeling in Mimic.

Prerequisites: DeltaV Mimic Dynamic Simulation - 7601



2 Days, 1.4 CEUs



Virtual / In-Person

LEARNING TOPICS

- Mimic Database Architecture and Best Practices
- Flow Network Overview and Tuning
- Process Modeling Object Overview
- Vapor-liquid Equilibria Modeling
- Selecting the Right Objects and Tuning to Fidelity
- Reaction Modeling