DeltaV™ Simulation Cloud

- Multi-user capability creates an environment for collaboration

- Increased flexibility provides scalability to fit lifecycle needs

- Provides process plants with a digital twin at reduced costs

Introduction

Making online changes to a running production system can introduce risk of process downtime or failure. To improve the operation of the plant or train operators on achieving desired outcomes with confidence, best practice involves verifying changes in an offline digital twin of your plant. DeltaV™ Simulation Cloud provides you with the ability to create and maintain your digital twin in the cloud. This increases the flexibility and ease of collaboration by providing access to multiple users at multiple sites, while reducing costs associated with physical equipment and footprint.

DeltaV Simulation Cloud integrates dynamic process models with control simulation, creating a comprehensive digital twin that supports:

- Control Strategy Development and Testing

- Operator Training and Competency Assessment

- Operability Studies and Improvement Projects

- Standards Management

- Virtual Commissioning Support

Benefits

The multiuser capability securely creates an environment for collaboration

DeltaV Simulation Cloud's multiuser, multi-factor authentication access method creates an efficient, secure connection to an engineering environment for development and testing on a single database. This secure, easy-to-use solution provides accessibility from any site for operational decision support and training needs.

Increased flexibility provides scalability to fit lifecycle needs

DeltaV Simulation Cloud packages fit the needs and budgets of your plant and can be upscaled for increased engineering capacity or simulation capabilities. DeltaV Simulation Cloud provides an offline environment for change management processes as well as a centralized location for Emerson experts to support maintenance and continuous improvement activities.

Provides process plants with a digital twin at reduced costs

DeltaV Simulation Cloud significantly reduces costs associated with on-premise equipment and maintenance by leveraging an Emerson-managed, in-house solution infrastructure and expertise, providing users with digital twin capabilities at the lowest initial investment.

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Product Description

DeltaV Simulation Cloud is a SaaS offering and is available in a DeltaV only setup or with Mimic™ Simulation Software. It provides the essential software and services needed to create a secure, scalable digital twin by providing:

- Secure cloud hosted solution

- Zero footprint to the plant

- Subscription based

- 24 x 7 x 365 support

DeltaV Simulation Cloud offers six packages in order to meet the needs of multiple industries, use cases and system sizes.

DeltaV Simulate

The DeltaV Simulate with Mimic capabilities can accommodate up 15,000 DSTs and allow for multiple concurrent engineers to develop and edit a shared control system project database as well as build and verify control system configurations. The DeltaV Simulate with Mimic features allow for Process and IO models in a dynamic simulation system.

Using this feature set allows users to:

- Obtain Global Access to Hosted Solution

- Maintain Standards Reference Library

- Develop Control Strategies and Graphics

- Familiarize Users with Control Software Platform

And Contain licenses for each of the following:

- DeltaV ProPlus and Workstations

- DeltaV Simulate PRO Multi-Node

DeltaV Simulate with Mimic

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- Test Base Module Control Configuration and Dynamic Responses

- Validate MOC Process for Control Strategies

- Automate Regression Testing and Reporting with Test Scripts

And Contain licenses for each of the following:

- DeltaV ProPlus and Workstations

- DeltaV Simulate PRO Multi-Node

- Mimic Foundation

- Mimic Test Bench

Optional Add-Ons

- **Mimic Train**

Adding Mimic Train to a DeltaV Simulation Cloud package provides the user the ability to:

- Train Operators on the Control System Platform

- Manage Training Sessions and Track Learning Progress

- Assess and Report on Operator Performance

- Utilize Flexible Instructor Controls with Rewind and Playback

- **Mimic Process Core**

Adding Mimic Process to a DeltaV Simulation Cloud package provides the user the ability to:

- Simulate Material Handling with Mass and Energy Balance

- Test Sequence, Batch, or State Based Control Strategies

- Conduct Virtual Startup and Commissioning Prior to Startup

- **Mimic Process Plus**

Adding Mimic Process Plus to the DeltaV Cloud Hosted package provides the user the ability to:

- Simulate Complex Process Responses including Separations, Reactions, etc.

- Test Control System Functional Design

- Conduct Control and Process Improvement Engineering Studies

System Functionality

DeltaV Simulaton Cloud Package Features	DeltaV Simulate	DeltaV Simulate with Mimic	Standalone	
Global access to hosted solution	•	•	•	DeltaV
Maintain standards reference library	•	•	•	DeltaV
Develop control strategies & graphics	•	•	•	DeltaV
Familiarize users with control software platform	•	•	•	DeltaV
Test base module control configuration and dynamic responses	–	•	•	Mimic Foundation
Validate moc process for control strategies	–	•	•	Mimic Foundation
Automated regression testing and reporting with test scripts	–	•	•	Mimic Foundation
Train operators on control system platform	–	–	✓	Mimic Train
Manage training sessions and track learning progress	–	–	✓	Mimic Train
Assess and report on operator performance	–	–	✓	Mimic Train
Utilize flexible instructor controls wth rewind and playback V14	–	–	✓	Mimic Train
Simulate material handling with mass and energy balance	–	–	✓	Mimic Process Core
Test sequence, batch, or state based control strategies	–	–	✓	Mimic Process Core
Conduct virtual startup and commisioning prior to startup	–	–	✓	Mimic Process Core
Simulate complex process responses including separations, reactions, etc.	–	–	✓	Mimic Process Plus *
Test control system functional design	–	–	✓	Mimic Process Plus *
Conduct control and process improvement engineering studies	–	–	✓	Mimic Process Plus *

*Mimic Process Plus requires Mimic Process Core

Attributes	DeltaV Simulate	DeltaV Simulate with Mimic	Standalone
Maximum DSTs	15,000	15,000	1,000
Concurrent Users	1 - 16	1 - 16	1
Supported DeltaV Versions	V13.3.2 V14 V15	V13.3.2 V14 V15	V13.3.2 V14 V15
Mimic Software Version	-	5.X	5.X
Mimic Foundation	-	Included	Included
Mimic Process Core	-	Optional	Optional
Mimic Process Plus*	-	Optional	Optional
Mimic Train	-	Optional	Optional
Additional Named Users (10)	Optional	Optional	Optional
Virtual CIOCs (10)	Optional	Optional	Optional
SIS (SZ/CSLS)	Optional	Optional	N/A

*Requires Process Core

Service Description

Managed System Subscription

DeltaV Simulation Cloud systems are commissioned by Emerson per the specifications for the DeltaV Distributed Control System (DCS) and Mimic Simulation Software. The hosted systems and infrastructure are fully managed and supported by Emerson. Subscriptions are renewable on an annual basis.

Support is available 24x7x365.

Secure Access

Secure access to your solution will be available via URL combined with two factor authentication.

System Architecture

Based on the package selected, DeltaV Simulation Cloud architecture includes virtualized DeltaV nodes such as workstations, controllers, and CIOCs. With support for single-monitor configurations, DeltaV Simulation Cloud is designed to fit your simulation and configuration needs.

Included Services

The following services are included with each hosted system:

- 24 x 7 x 365 Support
- 99.6% Uptime and Availability
- World-wide access via URL
- Managed Host environment

System Setup

Initial environment setup includes:

- Guided assistance in selecting from standardized package components
- Creation of authorized end user accounts
- System setup including virtual machines, networks, etc.
- DeltaV and Mimic installation and Licensing
- Solution verified prior to handover Data Transfer

DeltaV Simulation Cloud provides the ability to upload configuration data files to deployed system using a secure file transfer application, which includes virus scanning to protect your hosted solution.

Product Support for DeltaV Simulation Cloud

Product support and access to our Guardian platform are included with every DeltaV Simulation Cloud solution. With your subscription, you gain access to our Guardian platform to easily connect to expert technical phone support, manage DeltaV DCS software updates, Mimic software updates, knowledge base articles, and stay informed about operating system software updates.

Additional Services

Although not included with DeltaV Simulation Cloud, additional simulation and project services are available to fulfill all your solution needs. Contact your Emerson sales representative if you wish to learn more about these optional services, including:
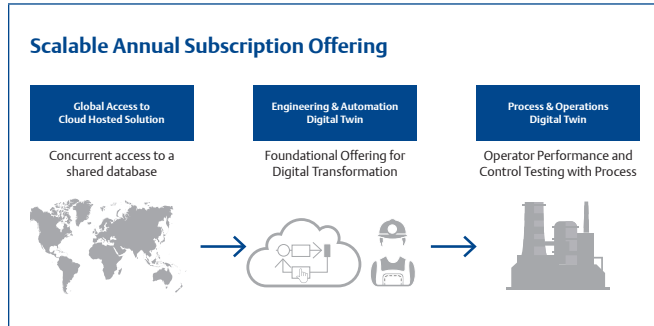
- DeltaV Configuration
- Mimic Process Model Development
- Account administration and Management
- Software Upgrades

Changes During Subscription Period

DeltaV Simulation Cloud packages can scale as your needs increase, offering the ability to add more capacity or capabilities as needed. From basic, small team change verification to enterprise-wide access to high fidelity simulation models used for loop tuning and/or parameter studies, DeltaV Simulation Cloud provides plants with a digital twin throughout the entire plant lifecycle.

Scalable Annual Subscription Offering

Global Access to Cloud Hosted Solution	Engineering & Automation Digital Twin	Process & Operations Digital Twin
Concurrent access to a shared database	Foundational Offering for Digital Transformation	Operator Performance and Control Testing with Process

Ordering Information

Subscriptions are purchased and renewed on an annual basis. Contact your local Emerson sales office or representative for a quote.

Contact Us
🌐 **www.emerson.com/contactus**

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