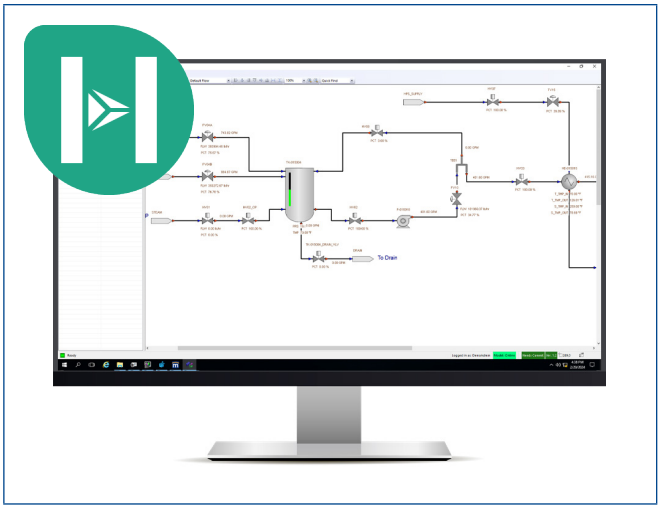
DeltaV™ Mimic Aspen HYSYS® Packages

- Best-in-class Operator Training Simulator and Multi-Purpose Dynamic Simulator with Aspen HYSYS
- Value-based licensing structure
- Training and integration capabilities of the Mimic simulation framework



Introduction

Aspen HYSYS® from AspenTech is the industry standard for engineering and design. Combined with Emerson's best-in-class DeltaV™ Mimic framework for integration, training, testing, and Immersive Training Simulator (ITS) capabilities, DeltaV Mimic Aspen HYSYS Packages provide a complete offering to support the industry's best Operator Training Simulator (OTS) and Multi-Purpose Dynamic Simulation (MPDS) solution.

Benefits

- **Best-in-class Operator Training Simulator and Multi-Purpose Dynamic Simulator with Aspen HYSYS –** Aspen HYSYS Dynamics provides a common platform that can be applied across the process lifecycle, from conceptual design and commissioning to operation and process optimizations. This allows users to meet tighter product specifications through improved understanding of process operability issues, ensure faster and safer start-ups, and avoid unplanned downtimes, resulting in maximum availability and productivity.
- **Value-Based Licensing Structure –** Mimic Aspen HYSYS Packages are optimized for use with Mimic, providing users with the licensing they need to access to the Aspen HYSYS engineering and design suite and optimization within the simulation framework of Mimic for powerful integration and operator training capabilities.
- **Training and Integration Capabilities of Mimic Simulation Framework –** Mimic provides control system agnostic framework that allows Aspen HYSYS to integrate to the offline emulated control system(s) for a MPDS or OTS that uses production configuration and operator displays for a realistic Digital Twin. Additional functionality and tools within Mimic support flexible and comprehensive training and testing.

Product Description

DeltaV Mimic Aspen HYSYS Packages provide licensing for Aspen HYSYS Dynamics that can be dedicated to operations so that engineering and operations can work simultaneously. The three following packages are available:

- **Mimic-HYSYS Run-Time Package –** Provides dedicated Aspen HYSYS Dynamics Run-Time licensing for operations and the Aspen HYSYS Crude modeling package.

- **Mimic-HYSYS Upstream Run-Time Package –** Provides dedicated Aspen HYSYS Dynamics Run-Time licensing for operations and the Aspen HYSYS Crude modeling package with OLGA-Link.
- **Mimic-HYSYS Maintenance Package –** Provides Aspen HYSYS Dynamics licensing so that engineering can update and maintain the models of the MPDS and the Aspen HYSYS Process, Aspen HYSYS Crude, and Aspen HYSYS Upstream modeling packages.

Aspen HYSYS Engineering Suite

Aspen HYSYS is a process modeling tool for steady-state simulation and dynamic simulation for the hydrocarbon and energy industries. It provides an intuitive and interactive process modeling environment that enables engineers to create steady-state and dynamic modes for operational improvement. The Aspen HYSYS Engineering Suite provides:

- Best-in-class physical properties through integration with Aspen properties.
- Optimization and estimation tools that enable parameter fitting, data reconciliation, and steady-state and dynamic process optimization.
- Equation-oriented architecture that allows fast and robust simulation of complex, highly integrated processes.
- Flexible Task Language to define transition schemes or to simulate equipment failures.
- Library of equipment models including rigorous reactive distillation with hydraulics and a full set of pressure relief models.

Components of Aspen HYSYS Engineering suite include:

- **Aspen HYSYS Dynamics –** convert steady-state models into dynamic process models, enabling design and verification of process control schemes, safety studies, relief valve sizing, failure analysis, and development of startup, shutdown, and operating mode changes.
- **Aspen HYSYS Dynamics Run-Time –** dedicated licensing for operations so that engineering and operations can work simultaneously.
- **Aspen HYSYS Crude –** characterizes the hydrocarbon fluid by determining the hypothetical components that make up the oil and predicts their thermophysical and transport petroleum properties. The generated crude assay information and components can be used in the Aspen HYSYS process simulation model.
- **Aspen HYSYS Upstream OLGA Link –** connection to OLGA simulator provides additional analyses for dynamic multiphase flow applications.

Mimic Simulation Framework with Aspen HYSYS Link

Mimic's simulation framework provides the communication backbone to support your dynamic simulation system. Mimic is built on the latest technology with a multi-threaded 64-bit real-time simulation engine, multi-user support, and is cloud ready to provide a robust and flexible framework for simulation. Mimic also has optional packages that support enhanced training and testing.

- Agnostic integration to one or multiple control systems maximizes the applications of Mimic as a simulation framework.
- Improve training and testing efficiency by running models and external systems faster or slower than real-time with Mimic's specialized SIO Drivers.
- Quickly restore a steady state, cold start, or abnormal condition with snapshots.
- Mimic Test Bench reduces repeated efforts through scripted testing protocols – automating loop-checks, interlock testing, and sequence quality checks.
- Mimic Train is Emerson's Operator Competency Suite, providing user management and access control systems, a training records database, state-based training exercises, built-in malfunction controls, and event and KPI tracking and reporting.

Product Support

Mimic Product Support is delivered through Guardian™. Guardian is Emerson's digital platform for addressing the end-to-end lifecycle needs of automation & control software and asset performance management solutions. The Guardian digital experience enables users to quickly connect to product support; securely manage subscriptions; get intuitive views into system health; and explore additional software and services that propel performance.

Ordering Information

The DeltaV Mimic Aspen HYSYS Package must be associated with a Mimic System ID.

DeltaV Mimic is licensed on a Flexible Subscription basis. Flexible Subscriptions can be used to access any Mimic feature that is licensed on a Flexible Subscription basis, with each feature requiring its own subscription count. The Flexible Subscriptions are offered in one-year, three-year, and five-year terms. To purchase, extend, or expand a license, please contact your Emerson Sales Representative.

Related Products

- DeltaV
- DeltaV Mimic Foundation
- DeltaV Mimic Field 3D
- DeltaV Mimic Process
- DeltaV Mimic Test Bench
- DeltaV Mimic Train

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