

Digital Twin Starter Package



- Foundational step for Digital Transformation
- Cost-effective solution providing tangible benefits
- Flexible and scalable digital twin
- Get product to market quicker
- Quick deployment

Introduction

The digital twin is a practical investment for any plant, regardless of the size of asset or the industry. It allows plant operations to reduce the cost and risk of improving the operation and control of the plant and supports upskilling of the work force. It is proven to provide value to the execution of capital projects and control system modernization as well as the lifecycle operation performance of the plant.

Emerson's Digital Twin Starter Package serves as a first step towards a digital twin of your production facility. This consists of a replica of the production DeltaV™ Distributed Control System, non-intrusively integrated with a DeltaV Mimic tieback model. The starter package includes the development of a tieback model for up to 2000 IO, a cost-effective solution for testing DeltaV configuration and performing initial operator training. Over time, this initial package can be incrementally scaled into a complete digital twin solution.

Benefits

- **Foundational Step for Digital Transformation –**
Emerson’s Digital Twin Starter Package provides a solid foundation and entry into the Digital Transformation journey of your facility.
- **Cost-effective Solution Providing Tangible Benefits –**
DeltaV Simulate uses the exact same graphics, faceplates, controls, and alarms as the production system, while DeltaV Mimic provides a dynamic response to changes in the control system. Automation engineers can use the offline environment to test DeltaV configuration and graphics. Operators can use the simulation to familiarize themselves with the DeltaV environment and learn how to manage the plant.
- **Flexible and Scalable Digital Twin –** Get started simulating units in your facility while also establishing a foundation on which to build. Process modeling and training management tools can be added on top of the tieback models through the addition of Mimic Simulated I/O Drivers and Mimic Train.
- **Get Product to Market Quicker –** Shorten testing periods, reduce project cycle, and decrease time to startup by obtaining detailed testing results from automated scripts. The starter package includes Mimic Test Bench for automated testing of DeltaV configuration.
- **Quick Deployment –** Using the package templates, the system is up and available for use quicker than highly customized solutions.

Product Description

The Digital Twin Starter Package provides the essential software, hardware, and services needed to deliver the foundation of Emerson’s Digital Twin. Depending on your needs and use case, there are two available packages.

Standalone Digital Twin Starter Package

In addition to the benefits already described, the Standalone Digital Twin Starter Package provides:

- Lowest cost of entry
- A small physical footprint

Software

The Standalone Digital Twin Starter Package includes:

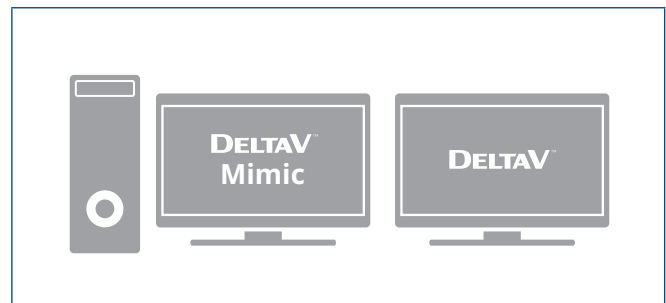
- DeltaV Mimic requires 31 FSUs to provide the following features:
 - DeltaV Mimic Foundation
 - DeltaV Mimic 1000 SIO Tag Base License
 - DeltaV Mimic Simulate OPC SIO Driver
 - DeltaV Mimic Test Bench
- DeltaV Simulate Professional Standalone
- Endpoint Security for DeltaV Systems

DeltaV Simulate and DeltaV Mimic licenses are available as 1, 3, or 5-year subscriptions. Both may be extended in duration. Mimic may be expanded to accommodate for additional features or more SIO Tags.

Hardware

The Standalone Digital Twin Starter Package includes the necessary hardware to quickly establish a single-user simulation system.

- DeltaV Tower Dual/Quad Monitor Workstation
- Dual 24-inch LED Widescreen Monitors



Services

The Standalone Digital Twin Starter Package includes engineering services needed to configure, test, and deploy a simulation system with tieback models for up to 1000 IO of DeltaV configuration. A User Manual which demonstrates how to start up and shut down the system is provided.

Multi-Node Digital Twin Starter Package

In addition to the benefits already described, the Multi-Node Digital Twin Starter Package provides:

- Virtualized simulation environment
- Ability to expand DeltaV architecture

The virtualized platform and DeltaV Simulate Multi-Node licensing provide the infrastructure for future expansion. The initial architecture can be expanded to accommodate larger systems through the addition of professional stations, operator stations, application stations, and controllers. The Multi-Node Digital Twin Starter Package offers accessibility, reliability, security, and flexibility to deliver maximum benefits for the digital twin investment.

Software

The Multi-Node Digital Twin Starter Package includes:

- DeltaV Mimic requires 31 FSUs to provide the following features:
 - DeltaV Mimic Foundation
 - DeltaV Mimic 1000 SIO Tag Base License
 - DeltaV Mimic Simulate OPC SIO Driver
 - DeltaV Mimic Test Bench
- DeltaV Simulate PPN with SimulatePro
- DeltaV Simulate OSN
- DeltaV Virtual Studio

- Endpoint Security for DeltaV Systems
- Optional: DeltaV Mimic 1000 SIO Tag Base License Upgrade (3 FSUs per 1000)
- Optional: DeltaV Simulate ASN with SimulatePro

DeltaV Simulate and DeltaV Mimic licenses are available as 1, 3, or 5-year subscriptions. Both may be extended in duration and expanded to accommodate for additional features or more SIO Tags.

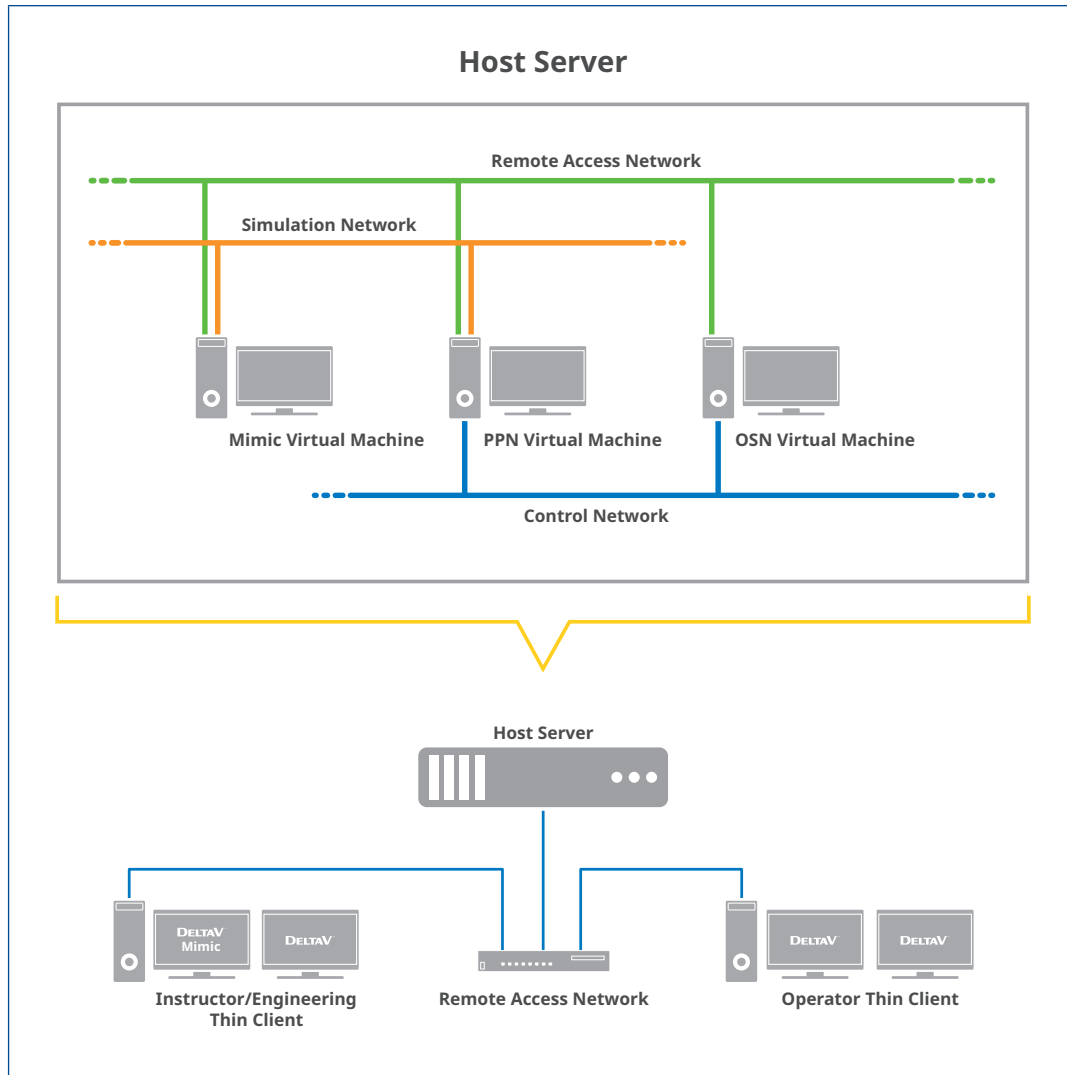
Hardware

The Multi-Node Digital Twin Starter Package includes the necessary hardware to quickly establish the virtualized environment.

- DeltaV Host Server
- DeltaV Thin Client to access PPN/Mimic
- DeltaV Thin Client to access Operator Station
- DeltaV Network Switch
- DeltaV USB to IP Converter

Services

The Multi-Node Digital Twin Starter Package includes engineering services needed to configure, test, and deploy a virtualized simulation system with tieback models for up to 1000 IO of DeltaV configuration. A User Manual which demonstrates how to start up and shut down the system is provided.



Digital Twin Starter Package Features

	Standalone	Multi-Node
Tieback Model for up to 2000 Simulated IO	X	X
Hardware/Software Configuration Services	X	X
User Manual	X	X
DeltaV™ Configuration Testing Support	X	X
Training Support for New DeltaV Operators	X	X
Virtualized Architecture		X
DeltaV Architecture Expansion Support		X
Additional Simulated IO Support		X
Multiple Users Access		X

Use Cases

Example use cases where the Digital Twin Starter Package provides value as a training, development, and testing tool are:

- DeltaV platform training
- First step in a phased simulation project
- DeltaV migrations
- Graphic updates and DeltaV Live conversions

Ordering Information

Contact your local Emerson sales office or representative for pricing specific to your system.

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