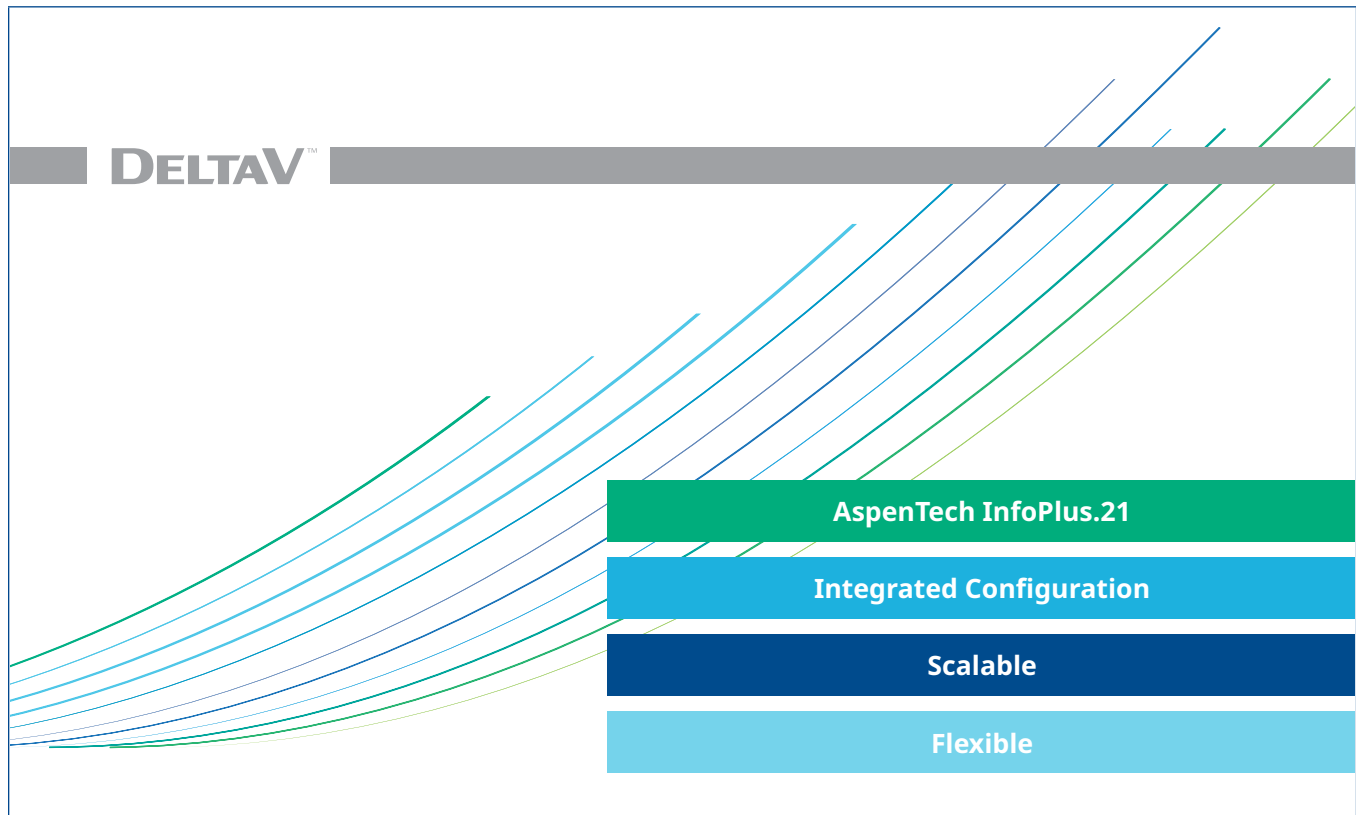


DeltaV™ Continuous Historian Elite



Continuous process data is collected by the DeltaV™ Continuous Historian Elite powered by AspenTech's InfoPlus.21 (IP.21) Technology.

- Continuous process data historian powered by AspenTech's InfoPlus.21 database (IP.21) technology
- Integrated DeltaV™ history configuration and data collection
- Scalable tag count and seamless connectivity with various DeltaV clients
- Seamless connectivity to a site IP.21 server via Replication Interface
- Subscription based historian solution enabling reduced initial project cost

Introduction

The DeltaV™ Continuous Historian Elite (DVCH Elite) provides highly scalable and flexible storage of continuous process data for a single DeltaV DCS and is designed for easy seamless integration to a standalone site IP.21 Server. The DVCH Elite is fully integrated into the DeltaV engineering and operations environments. In addition, it provides connectivity to AspenTech Process Explorer (PE) for effective data visualization.

Benefits

State-of-the-art historian powered by AspenTech.

DVCH Elite uses embedded historian technology developed by AspenTech, Emerson's partner for embedded and enterprise historian functionality.

Seamless connectivity to a site IP.21 Server.

DVCH Elite provides seamless connectivity to a site IP.21 Server with AspenTech's replication interface. This enables native, high performance data transfer between the two historian platforms. Connectivity to a site IP.21 Server opens up an entire suite of enterprise applications available for purchase from AspenTech and their application integration partners as well as connectivity to enterprise business systems.

Integrated DeltaV DCS configuration and data

collection. The DeltaV parameters required for history collection in DVCH Elite are configured using the familiar DeltaV engineering tools: DeltaV Explorer and Control Studio. No third-party engineering tools are required.

IP.21 and DeltaV client connectivity. A wide range of both IP.21 and DeltaV client applications seamlessly connect and present data collected in the DVCH Elite. This provides flexibility for how data can be examined and visualized.

Scalable tag count and on-line data storage.

The DVCH Elite parameter count can be scaled up, to support large DeltaV systems, from 250 up to a maximum of 60,000 historical data parameters. DVCH Elite can support a scan rate of 10,000 parameters per second. The DVCH Elite's highly scalable on-line storage capacity enables you to keep years of operational data available at your fingertips, primarily limited by the configured archives (number and size of file sets), the available disk space, as well as the maximum number of unique records that can be stored.

Product Description

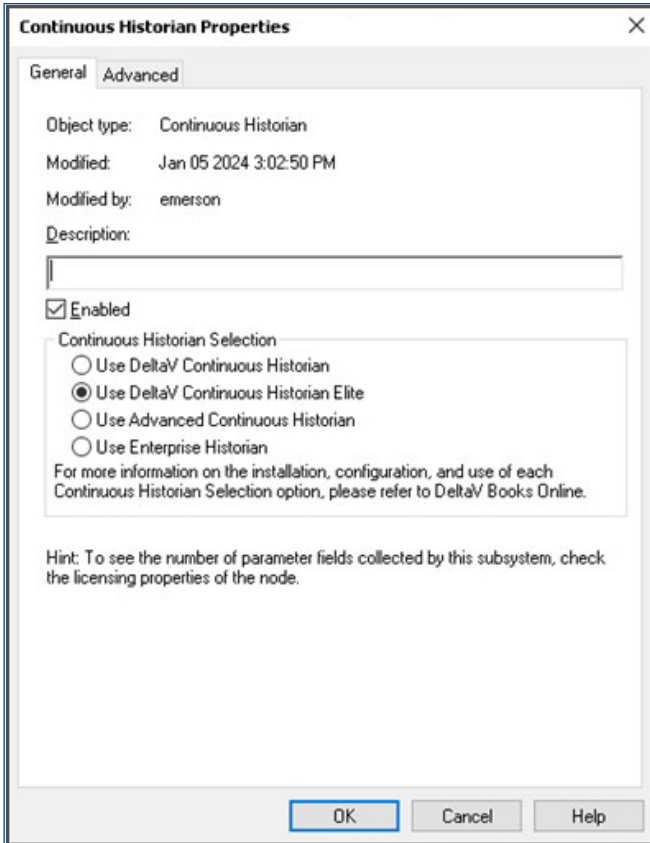
DVCH Elite is the result of collaboration between Emerson's DeltaV and AspenTech brands to embed IP.21 historian technology in the DeltaV DCS. The addition of the DVCH Elite with DeltaV v15.FP3, expands the historian options available to the DeltaV DCS and gives you a choice of historian platforms: The DeltaV Continuous Historian, the Advanced Continuous Historian, DeltaV Continuous Historian Elite, DeltaV Embedded or Integrated Enterprise Historians.

DVCH Elite provides access to the historical data using both IP.21 and DeltaV clients. This provides ultimate flexibility to the user for data visualization and analysis. Users can select their client of preference when creating trends for runtime data or extracting data to spreadsheets for detailed analysis in a tabular view. The IP.21 applications that come with the DVCH Elite are Aspen Process Explorer, Aspen Process Data Excel Add-in and Aspen InfoPLus.21 OPC UA Server.

Configuring the parameters that need to be collected by the historian is an integral component of a DeltaV control module. Each control module, the fundamental building block of your control strategy, contains the historical configuration information for all module parameters that are being historized. The status of the parameter can also be configured for data collection and associated with the parameter value for a complete picture of the process.

When a new module is created, either from the module library or an existing module, it includes history configuration, as well as alarms, display information, etc. Conversely, if a module is deleted, the DVCH Elite is notified, and parameter collection from that module is suspended. Because the DVCH Elite uses AspenTech's technology, these configuration changes can be natively transferred to a site IP.21 Server, easing your overall history collection configuration effort.

The DVCH Elite can be sized from 250 to a maximum of 60,000 parameters per Application Station on a DeltaV v15.FP3 system. It can be configured up to a recommended data collection rate of 10,000 samples per second.



Select DeltaV Continuous Historian Elite in DeltaV Explorer.

Multiple DVCH Elite's are supported in a single DeltaV DCS, but only one per Application Station.

Configuration of the DVCH Elite is easy – simply select the DeltaV Continuous Historian Elite from the Application Station's Continuous Historian Properties dialog in DeltaV Explorer, enable, and download.

History collection for the DVCH Elite is identical to the DeltaV Continuous Historian: in DeltaV Explorer, simply drag and drop plant areas onto any historian to choose where data collection for those areas will occur. Once the workstation is downloaded, communications and history collection will begin automatically.

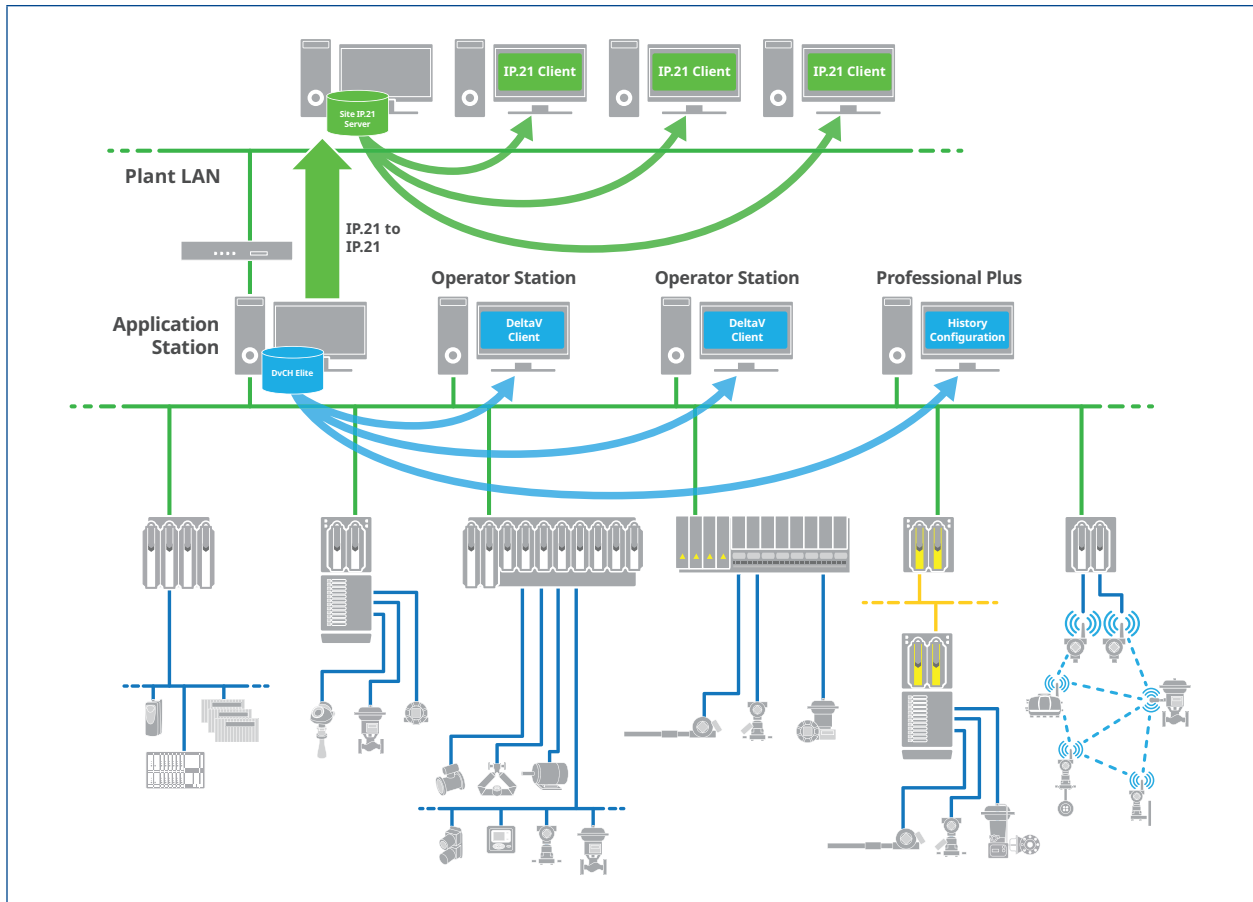
Repository Management. The DVCH Elite system stores data using the history repositories. Each repository consists of a number of file sets held in separate directories. Each file set has three files: key file, data file and long-record data file. File sets are arranged in a circular pattern. The active file set grows until it reaches its size limit or exceeds the specified time (both values are configurable). Then the system shifts into the next available file set. When we have no more file sets available, DVCH Elite performs a switch from the active file set to the file set containing the oldest data and begins to overwrite it. **Key File:** This file contains the index or keys that map to the data records. It is essential for quickly locating and accessing the data stored in the data file. **Data File:** This file stores the actual historical data records. It holds the time-series data collected from the system, which is indexed by the key file for efficient retrieval. **Long-Record Data File:** This file is used to store data records that are too large to fit into the standard data file format. It ensures that all data, regardless of size, can be stored and accessed efficiently.

The DVCH Elite includes a copy of the InfoPlus.21 Administrator for managing its repositories, configuring file sets and setting parameters for data storage and compression. In addition, the InfoPlus.21 Manager tool is used for managing the IP.21 database, including starting and stopping the database, managing snapshots, and performing backups and restores. It is essential for tasks such as creating and restoring backups, managing snapshot files, and ensuring the database's proper functioning.

DeltaV Clients. The DeltaV DCS historian client applications provide seamless connectivity with the DVCH Elite. The DeltaV history client applications may reside on any DeltaV workstation and access the historical data collected in the DVCH Elite.

The DeltaV historian client applications supported in the DeltaV v15.FP3 release and higher include Process History View, Embedded trend objects in DeltaV Live, DeltaV History Web Service, History Analysis, Adapt, Insight Basic, MPC Operate, DeltaV Neural, Predict, PredictPro, and PredictPlus.

Please note that DeltaV clients such as DeltaV Mobile, DeltaV Operate, DeltaV Reporter, DeltaV Insight Reporter and DeltaV OPC Historical Data Access Server are not supported in DVCH Elite in v15.FP3.



DeltaV Continuous Historian Elite (DVCH Elite) typical architecture with a site IP.21 Server.

InfoPlus.21 System. Since the DeltaV Continuous Historian Elite is based on AspenTech's technology, it provides seamless connectivity to a site IP.21 Server. A site IP.21 Server is not required, but if you do have a site IP.21 Server in your enterprise, you can easily transfer configuration and data values from the DeltaV Continuous Historian Elite to a site IP.21 Server using the replication interface also known as the gold connector.

InfoPlus.21 Clients. The DeltaV Continuous Historian Elite provides connectivity to several popular IP.21 Clients: Aspen Excel Add-in, Aspen Process Explorer (PE), IP.21-IP.21 Interface (Replication Interface/Gold Connector), and Aspen InfoPlus.21 OPC UA Server, providing an option to connect to 3rd party client such as SyTech XL Reporter. Please note, MS Excel needs to be purchased separately and installed prior to DeltaV installation. Please note 3rd party clients such as SyTech XL Reporter need to be purchased separately and are not included with DVCH Elite licensing.

Subscription Licensing

- DVCH Elite is licensed on a subscription basis that provides flexibility in term length (license terms are available in 1 year, 3 years or 5 years).
- If a DeltaV Continuous Historian Elite software license is allowed to expire, the continued use of the software is not permitted. The software will continue running the currently loaded configuration in this unlicensed state, but you will not be able to download any changed configuration to the unlicensed license. Please contact your sales representative to know more about the subscription contract process.
- Please note DVCH Elite is only available for purchase to Product Support subscribers.

Ordering Information

Description	Model Number
DeltaV Continuous Historian Elite Scale-Up, 250 Parameters	VE22SwUPS083_YyFYzz
DeltaV Continuous Historian Elite Scale-Up, 1,000 Parameters	VE22SwUPS084_YyFYzz
DeltaV Continuous Historian Elite Scale-Up, 5,000 Parameters	VE22SwUPS085_YyFYzz
DeltaV Continuous Historian Elite Scale-Up, 10,000 Parameters	VE22SwUPS086_YyFYzz
DeltaV Continuous Historian Elite Scale-Up, 20,000 Parameters	VE22SwUPS087_YyFYzz
DeltaV Continuous Historian Elite Version Upgrade, 250 Parameters	VE21SwUPG015_YyFYzz
DeltaV Continuous Historian Elite Version Upgrade, 1,000 Parameters	VE21SwUPG016_YyFYzz
DeltaV Continuous Historian Elite Version Upgrade, 5,000 Parameters	VE21SwUPG017_YyFYzz
DeltaV Continuous Historian Elite Version Upgrade, 10,000 Parameters	VE21SwUPG018_YyFYzz

The model numbers above are for initial subscription term lengths only; renewal model numbers are available with a “-R” at the end of the model number string.

“w” represents the length of the subscription term in years (1, 3, or 5).

“y” represents the specific year of the subscription term (1, 2, 3, 4, or 5).

“zz” represents a two-digit indicator of the year of purchase (e.g. 24).

For a 60,000-parameter DeltaV Continuous Historian Elite, purchase three (3) 20,000-parameter scale-up licenses. For a 50,000-parameter DeltaV Continuous Historian Elite, purchase three (3) licenses: Two (2) 20,000-parameter scale-up and one (1) 10,000-parameter scale-up.

The DeltaV Continuous Historian Elite (DVCH Elite) upgrade licenses can only be used to replace existing DeltaV Continuous Historian (DVCH) licenses but only up to the size of the existing DeltaV Continuous Historian (DVCH). For example, to upgrade to a 5,250 parameter DeltaV Continuous Historian Elite, you would purchase one 250 parameter version upgrade license and one 5,000 parameter version upgrade license.

Note: Please note that virtual templates for DVCH Elite are not available in v15.FP3. Deployment and use of DVCH Elite in a virtual environment, will require a manual install of DeltaV.

Related DeltaV Products

- **History View Software Suite.** Monitors the DeltaV Continuous Historian, Batch Historian, and real-time data.
- **Backup and Recovery.** Provides data backup and disaster recovery for DeltaV DCS and associated process control data.
- **DeltaV Continuous Historian.** Fully integrated, native, DeltaV historian for easy access, retrieval, installation, and visualization.
- **DeltaV Advanced Continuous Historian.** System continuous historian powered by OSIsoft Technology.
- **Enterprise Historian.** OSIsoft PI Server used as the DeltaV system historian, providing enterprise historian functionality while fully integrated into the DeltaV DCS engineering and operator functions.
- **DeltaV Simulate – DVCH Elite** will be available in DeltaV Simulate environment

Related AspenTech Products

- **Aspen Process Explorer (APE)**
- **Aspen Process Data Excel Add-in**
- **IP.21 to IP.21 Interface (also known as Replication Interface/Gold Connector).** An interface used for transferring historical data between the DVCH Elite and a site IP.21 Server. Please note, this interface is a separate install.
- **Aspen InfoPlus.21 OPC UA Server.** Allows data access to real-time data tags and permits integration with other systems and devices through the use of open standards.

Prerequisites

- The DeltaV Application Station software suite.
- DVCH Elite is available for purchase starting DeltaV v15.FP3.
- DVCH Elite is only available for purchase to product support subscribers.
- To use Aspen Process Data Excel Add in, MS Excel needs to be purchased separately and installed prior to DeltaV installation.
- A server class PC is required to host the Application Station for DVCH Elite, with proper version of operating system installed. The DVCH Elite in DeltaV v15.FP3 Application Station requires Windows Server 2022.
- The Application Station used for DVCH Elite cannot be set up as Domain Controller or Backup Domain Controller.
- Virtual templates for DVCH Elite are not available in v15.FP3. Deployment and use of DVCH Elite in a virtual environment, will require a manual install of DeltaV.

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