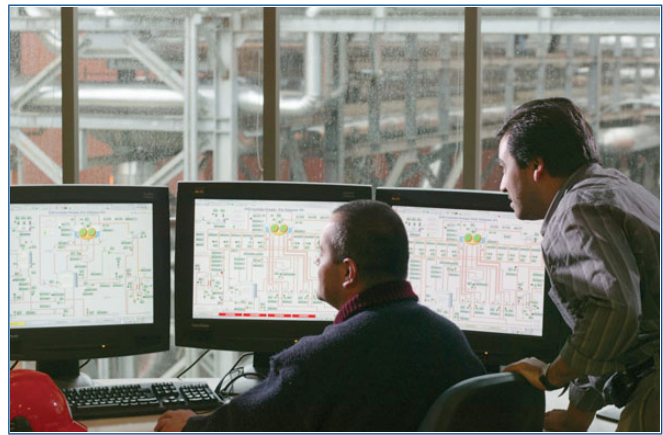


Operator Station Software Suite

- Robust and secure plant operations
- Real-time and historical-trend display
- Integrated system and device diagnostics



Operate your distributed control system at the DeltaV™ Operator Station.

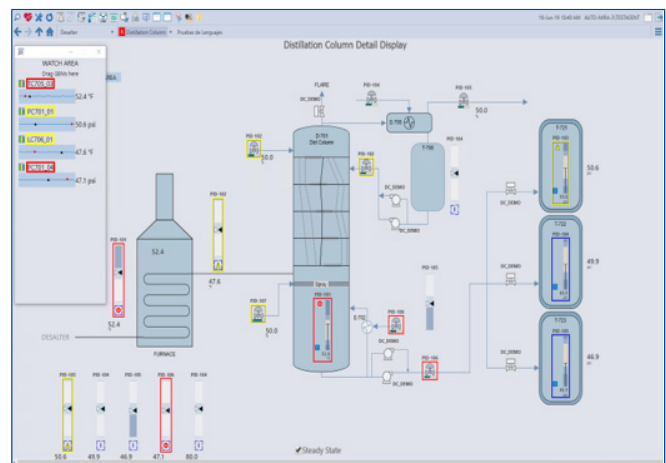
Introduction

Do you want to operate your distributed control system with a user-friendly interface, state-of-the-art graphics, real-time and historical trending capabilities, process alarms prioritized by the user, and system-wide, built-in security?

Run your distributed control system using the DeltaV™ Operator Station. An Operator Station is made up of the Operator Station Software Suite and the DeltaV hardware to run it. Take advantage of single-click access to graphics, directories, and other applications.

You get the most for your investment with the DeltaV Operator Station. This additional, independent operator station provides full operations capability for your DeltaV system.

If you are looking for an easy-to-use, plant-aware, operator workstation for your process control system, then the DeltaV Operator Station is for you. The DeltaV Operator Station can be either remotely or directly connected to your DeltaV system.



DeltaV Live provides complete, interactive graphics.

Benefits

Robust and secure plant operation. Every DeltaV workstation has direct access to all operating information, from the current process values and operating displays to having alarms with the proper alarm priority, timestamp and alarm help.

Operators are provided with a powerful environment for process operation, with built-in features for easy information access and situation analysis. Standard displays, faceplates and detail displays provide a consistent operating philosophy.

Built-in, reliable features such as prioritized alarms and user security increase usability. Easily customize the standard operating desktop to fit your specific operational philosophies and work preferences.

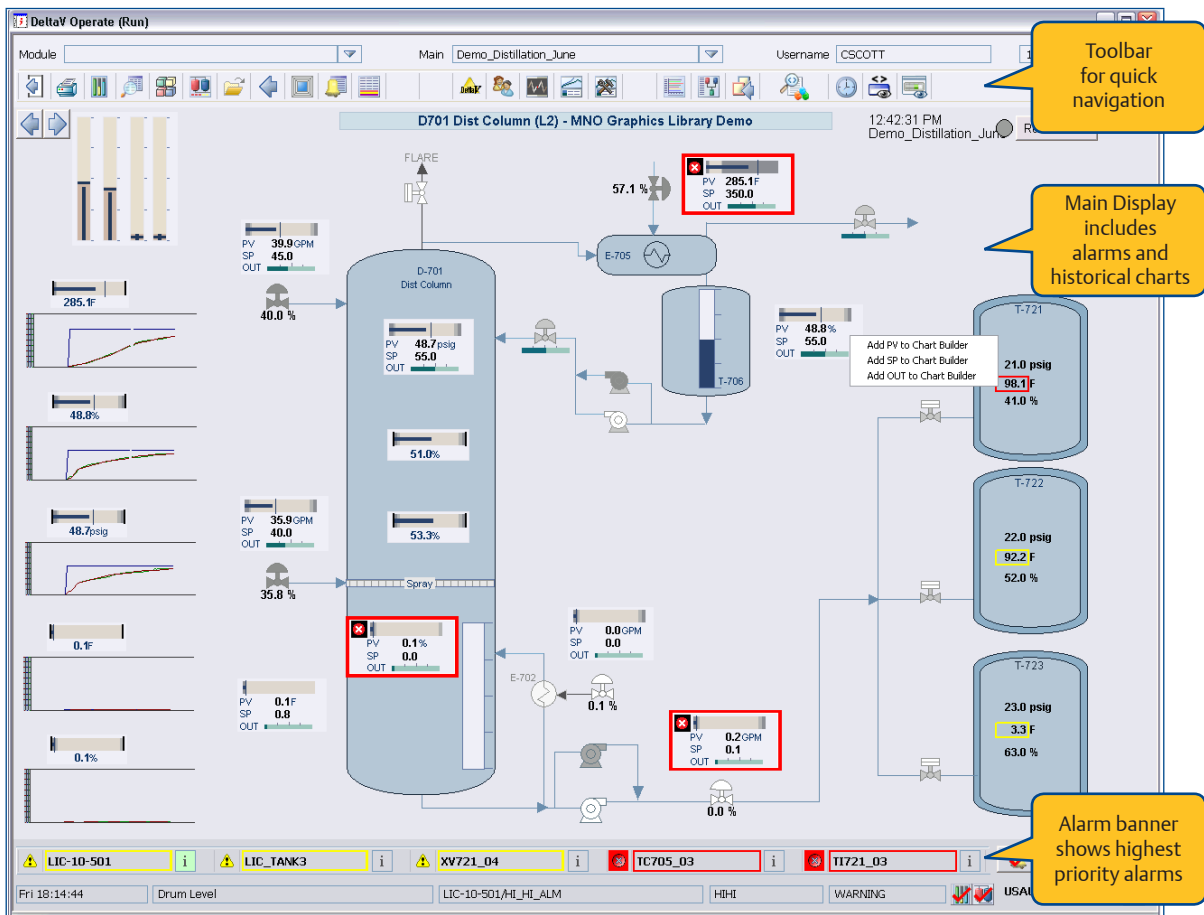
Use the unique DeltaV Flexlock feature to securely lock operators into the DeltaV system, limiting user access to only the applications that you chose, while also giving engineers the ability to access Windows applications, as needed.

Real-time and historical trends. Easily monitor your process over time. Track today, yesterday, or a year ago by simply scrolling forward or backward with History View. Real-time and historical data are seamlessly combined into a single view.

Integrated system and device diagnostics. The DeltaV system offers an integrated approach to diagnostics with the look and feel of the Windows Explorer. No longer do you have to remember which diagnostics package to use or how to work each package—critical when the plant operation depends on immediate diagnosis of the situation.

When your DeltaV process automation system is up and running, use the Operator Station to monitor, troubleshoot, and maintain your process.

Remotely operate with your Operator Station Software Suite with **DeltaV Remote Client** or **DeltaV Remote Access Service**.



Display color themes and a library of faceplates and dynamos facilitate a quick start.

Product Description

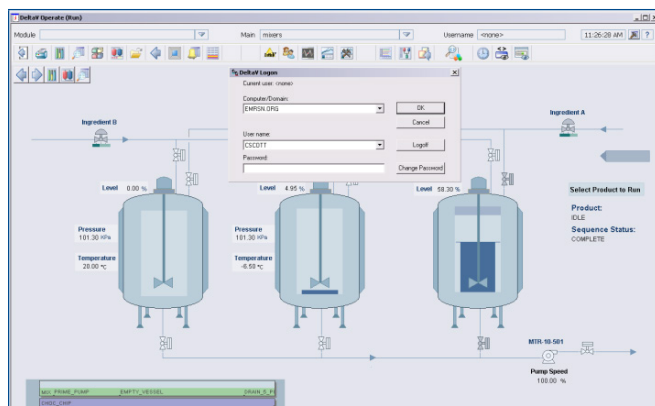
Powerful operator applications allow you to easily monitor and control the process, manage alarms and view events and historical trends. Whether remotely or directly connected to the DeltaV system, the Operator Station Software Suite provides the same capabilities.

Each workstation independently manages its own alarms and data access. This includes alarm information such as when the alarm occurred, whether the alarm is suppressed and even the current Alarm Help is maintained locally. With DeltaV, there is no additional server PC, or other intermediary required to be able to operate your plant.

Individual users can have specific privileges that determine which functions (e.g., operate and tune) they are allowed to perform and which parameters they are allowed to change. These user privileges can have a defined span of control, enabling the privileges to be tailored to certain plant areas.

Each Operator Station can be limited to certain plant areas for viewing and operating. This security feature can be defined for an individual station, as well as for specific users. Use the DeltaV exclusive Flexlock to ensure that operators remain dedicated to monitoring, troubleshooting, and maintaining the process according to plant operating philosophies.

Operator log on and log off are performed without needing to close DeltaV Operate, or any other DeltaV application. The DeltaV system automatically recognizes the different user and adjusts the user privileges accordingly.



Log on and off of the DeltaV system without disruption.

High-resolution operator graphics allow extensive detail and flexibility in the way information is displayed. Built-in, reliable operations features such as prioritized alarms and security increase usability.

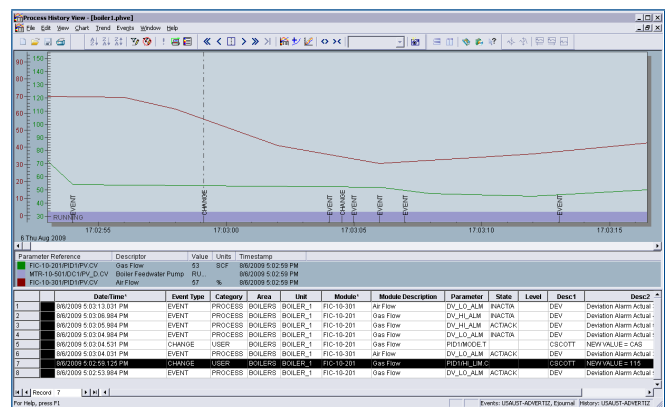
DeltaV Operate provides a powerful graphics environment for process operation, with built-in features for easy and direct information access. Whether you are viewing the highest-priority alarm, the next display, related historical information or detailed tag information, operator navigation is consistent and intuitive.

DeltaV Live is Emerson’s new modern, built-for-purpose operations experience that was introduced with DeltaV v14.3. The DeltaV Live Premium license tier is available for the Operator Station with v14.3, and the Standard tier will be included with the Operator Station software suite in 14.3.1. Please refer to the DeltaV Live product data sheet here for more details.

Standard displays, faceplates, detail displays and operations layouts for both single and dual monitors provide a consistent operating philosophy. With DeltaV Operate, you have the option to use the standard library, or create your own to meet your specific needs.

Alarm prioritization, presentation and management focus the operator on the most important alarms. The alarm banner provides constant visibility and access to the highest-priority alarms.

History View Software Suite gives you a simple, integrated method of defining charts and monitoring your historical and real-time trend data on your DeltaV workstations. History View provides several types of charts to match your viewing requirements.



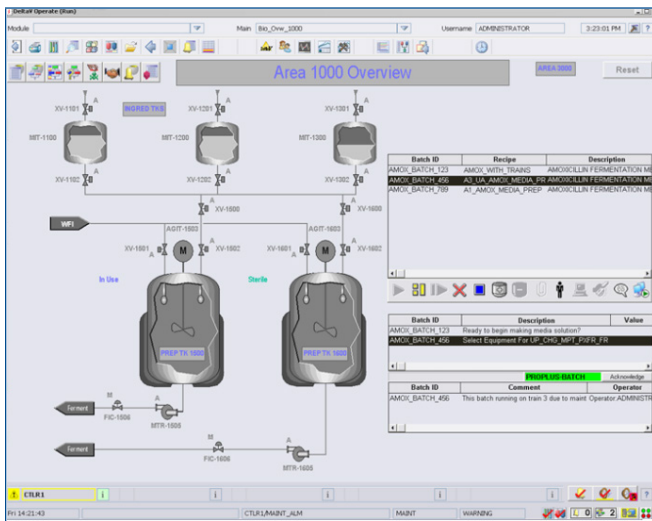
View Historical charts with Process History View.

The Process History View e-Chart provides an integrated view of historical trend information along with the events that occurred on that tag during the same time interval.

The DeltaV system brings a new level of historian integration to automation history and control. Each control module, the fundamental building block of your control strategy, maintains the historical configuration information for all of its parameters. Operators have one click access to the historical information for a tag and can easily create their own historical charts on-the-fly.

When historical information is important for day to day operation, historical charts can be embedded into the operator displays, improving operator productivity by placing the information right where it is needed and eliminates the need to launch separate historical trend charts.

With the appropriate system licenses, operators can add and operate batches, as well as view batch status from DeltaV Operate. Operators can also enter comments and answer prompts related to active batches.

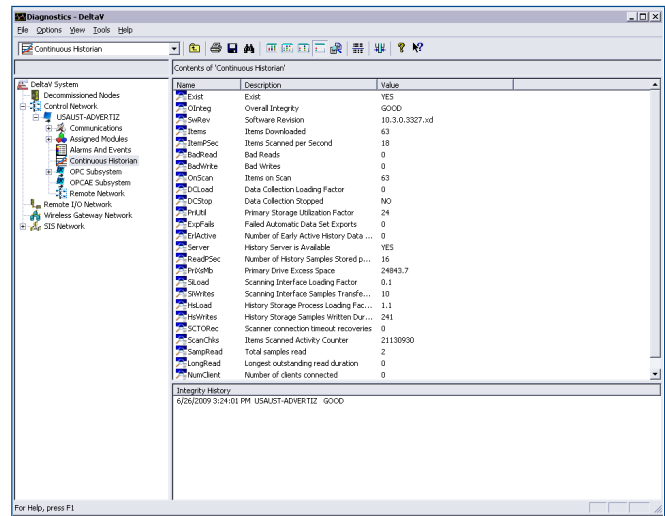


Integrated batch operation.

Display configuration for DeltaV Operate is included. Display configuration is intuitive and designed for process control. Display configuration is loaded with pre-defined functionality such as faceplates, trends, alarm summaries and display directories. Predefined functionality also includes Human Centered Design (HCD) display components, which follow recommendations and guidelines from the Center for Operator Performance (COP) and ISA 101.1 standards, including dynamos geared specifically for Level 1, Level 2 and Level 3 or 4 displays.

DeltaV Diagnostics lets you quickly know the status of you control system and intelligent field devices. Diagnostics information is included not only for your DeltaV Workstations, Control Network, Controller, and I/O, but also includes support for AS-i, DeviceNet, Profibus DP, Hart and FOUNDATION™ Fieldbus intelligent devices.

Taking advantage of smart field devices, DeltaV Diagnostics lets you look at information from internal device diagnostics to communications statistics—all from your desktop.



Diagnose the DeltaV system and intelligent devices.

Flexlock. Use the exclusive DeltaV Flexlock to ensure that operators remain dedicated to monitoring, troubleshooting, and maintaining the process according to plant operating philosophies. Operators are locked in to their system responsibilities so that nothing can preempt their duties.

Continuous Historian. The included Continuous Historian can collect history locally on this workstation. You can have additional Continuous Historians on other workstations. You can view continuous, event, or batch historical data, regardless of the DeltaV workstation collecting the data. This allows you to centralize or decentralize your historical collection.

The following software applications are included in the Operator Station Software Suite

For detailed information about the following applications, refer to the appropriate product data sheet:

- **DeltaV Continuous Historian.** A 250-parameter DeltaV Continuous Historian is included with every DeltaV workstation. This includes the ability for up to 250 analog, discrete, and text parameters and their status to be captured and stored for future analysis.

For DeltaV v12.3.1 and newer, three scale-up licenses are available that enable up to 3,250 parameters of DeltaV Continuous Historian capacity on any non-Application Station node, including the operator workstation:

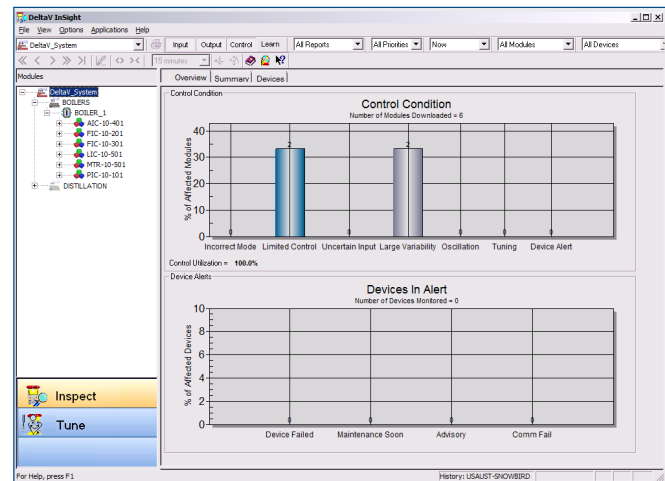
- **VE22UPS042OP1** – DeltaV Continuous Historian, Enable 1,250 Parameters
 - **VE22UPS042OP2** – DeltaV Continuous Historian, Scaleup from 1,250 to 2,250 Parameters
 - **VE22UPS042OP3** – DeltaV Continuous Historian, Scaleup from 2,250 to 3,250 Parameters
- **DeltaV Operate.** High performance operator graphics, trends and alarms offered in standard operating layouts and utilizing system-wide built-in security.
 - **DeltaV Live - Standard Tier.** In DeltaV v14.3.1, the Standard licensing tier will be available and includes all the functionality equivalent to DeltaV Operate (runtime and configure), with some enhancements and additions.
 - **DeltaV Reporter.** View, analyze and report historical process and alarm and event data from the DeltaV Continuous Historian and the Event Chronicle in your copy of Microsoft Excel.
 - **Diagnostics.** Facilitates checking the overall health of your system and quickly resolving system hardware, software, and configuration issues.

- **Dual Monitor.** DeltaV Operate support of two screens for monitoring your process.
- **Flexlock.** Creates dual desktops on a single workstation to ensure that operators remain dedicated to monitoring, troubleshooting, and maintaining the process according to plant operating philosophies while also giving engineers the ability to access restricted areas as needed.
- **History View Suite.** Monitor your plant's continuous and event data—historically and in real time. (Not included with View Only Operator Station - VE2110)

Products included with appropriate system licenses

When the appropriate system licenses are included in your DeltaV system, the following applications are provided:

- **AMS Device Manager Client SC for device status.** Provides the ability to view the status of HART and FOUNDATION Fieldbus devices (license from AMS Suite: Intelligent Device Manager required for configuration capability).
- **Campaign Manager Operator Interface.** The interface used by the operator to create and control campaign execution.
- **DeltaV Operate for Batch.** Batch Controls allow you to operate your batches from the same DeltaV Operate environment used to monitor and control your process.
- **DeltaV InSight.** Control performance monitoring and loop tuning application embedded in DeltaV. Identifies control problems and improves control performance with automatic process learning, loop diagnostics, on-demand and adaptive tuning, and automatic report generation.



Use DeltaV InSight for Performance Monitoring.

- **DeltaV Predict and PredictPro.** Model Predictive Control (MPC) provides multivariable control and optimization for small and large applications. Includes off-line model identification and simulation, plus on-line MPC with operator interface.
- **History View Suite.** Additionally monitor your plant's batch data—historically and in real time.

Operation-related Product Options

To enhance your Operator Station, the following options may be added:

- **DeltaV Live - Premium Tier.** In order to take advantage of the DeltaV Live Premium tier features, each workstation that will run DeltaV Live will require a DeltaV Live Operations Premium Performance Pack license (VE2104P01).

The following runtime features are included in the Premium tier of DeltaV Live, but they are not included in the Standard tier:

- Use of more than 2 content languages in runtime (up to 8 are supported)
- Watch areas
- Alarm rollups
- Display hierarchy navigation
- **Alarm Help.** Provides Operators with in-context access to approved alarm response procedures and Control Engineers with native system configuration capability to administer alarm rationalization data per ISA-18.2 - Management of Alarm Systems for the Process Industries.
- **Control Studio On-line.** Graphically monitor and troubleshoot running control strategies.
- **DeltaV Event Chronicle.** Captures process, system and user alarms and events and stores them in a Microsoft SQL Server database.

- **DeltaV Four-Monitor Workstation.** DeltaV Operate support of up to four screens to monitor your process. Refer to Workstation Hardware for workstation requirements.
- **DeltaV Excel Add-in.** OPC Data Access client application providing read/write access to DeltaV real-time information in your copy of Microsoft Excel.
- **DeltaV InSight Basic.** Basic control performance monitoring and on-demand loop tuning application available for a single DeltaV workstation. This option is only applicable when DeltaV InSight is not included on your system.

Configuration-related Product Options

To enhance your Operator Station, the following options may be added:

- **AMS Device Manager Client SC.** Add full configuration of HART and FOUNDATION Fieldbus devices using AMS Device Manager Server Plus located on a different workstation (license from AMS Suite: Intelligent Device Manager required for configuration capability).
- **Configuration Software Suite.** Makes it easy to create Control Strategies and System Graphics to get your plant up and running quickly and efficiently.
- **Recipe Studio.** Add powerful yet simple to use application for graphically configuring recipes (with formulas) for successful batch production.

Ordering Information

| Description | Model Number |
|---|--------------|
| Operator Station Software Suite, Full Span of Control* | VE2104 |
| Operator Station, View-Only** - DeltaV v12.3 and Later Only | VE2110 |
| DeltaV Live Operations Premium Performance Pack License | VE2104P01 |

*Span of Control is defined by how many DSTs can be assigned the Alarms and Events of a workstation (e.g., Full Span of Control = 30,000 DSTs)

**No Span of Control is included with, or may be added to, the Operator Station View-Only product. Additionally, no alarms will appear in the workstation's/session's alarm banner or alarm list displays; no events will be accumulated in an Event Chronicle if enabled/licensed on the workstation. The Operator Station, View-Only may not be assigned to nodes/sessions that already have another type of workstation license (e.g. Operator Station Software Suite, Full Span of Control) assigned. All other license bundles intended for Operator Station type nodes may be assigned on top of the Operator Station, View-Only license to increase the capabilities of the workstation (e.g. "Excel Add-In", "History View").

Related Products

Related Software Products

- **Application Station Software Suite.** Integrate DeltaV with 3rd party systems and applications on a DeltaV workstation. Includes a scalable DeltaV Continuous Historian and DeltaV OPC Data Access server.
- **Base Station.** Centralized DeltaV applications, where the combination of applications included are user selected on a DeltaV workstation.
- **DeltaV Remote Access Service.** Enables communications to a remote DeltaV workstation.
- **DeltaV Remote Client.** Remotely connect to your DeltaV system using thin-client technology
- **DeltaV Web Server.** Enables web-based viewing of operator displays and historical data.
- **Maintenance Station Software Suite.** Centralized system and device maintenance, including device calibration, device and hardware alerts and diagnostics on a DeltaV workstation.
- **Professional Station Software Suite.** Centralized operations, engineering and diagnostics on a DeltaV workstation.

- **DeltaV Engineering Seat Software Suite.** Access to engineering tools on-demand from a DeltaV workstation or Remote Client session.
- **ProfessionalPLUS Station Software Suite.** Centralized operations, engineering, configuration database and diagnostics on a DeltaV workstation.

Related Hardware Products

- **DeltaV Workstation Hardware.** Select from a variety of PC and server hardware, tested and preloaded with DeltaV software.
- **Touchscreen.** Allows displays to interact directly to operators' touch.

Prerequisites

- This software suite must be loaded onto a DeltaV workstation. A variety of hardware is available to meet your specific requirements. **Refer to the DeltaV Workstation Hardware Product Data Sheet.**
- One ProfessionalPLUS Station is required for each DeltaV system. Refer to the ProfessionalPLUS Station Software Suite Product Data Sheet.
- Use of the DeltaV Reporter or DeltaV Excel Add-in products require a copy of Microsoft Excel (provided by others).

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