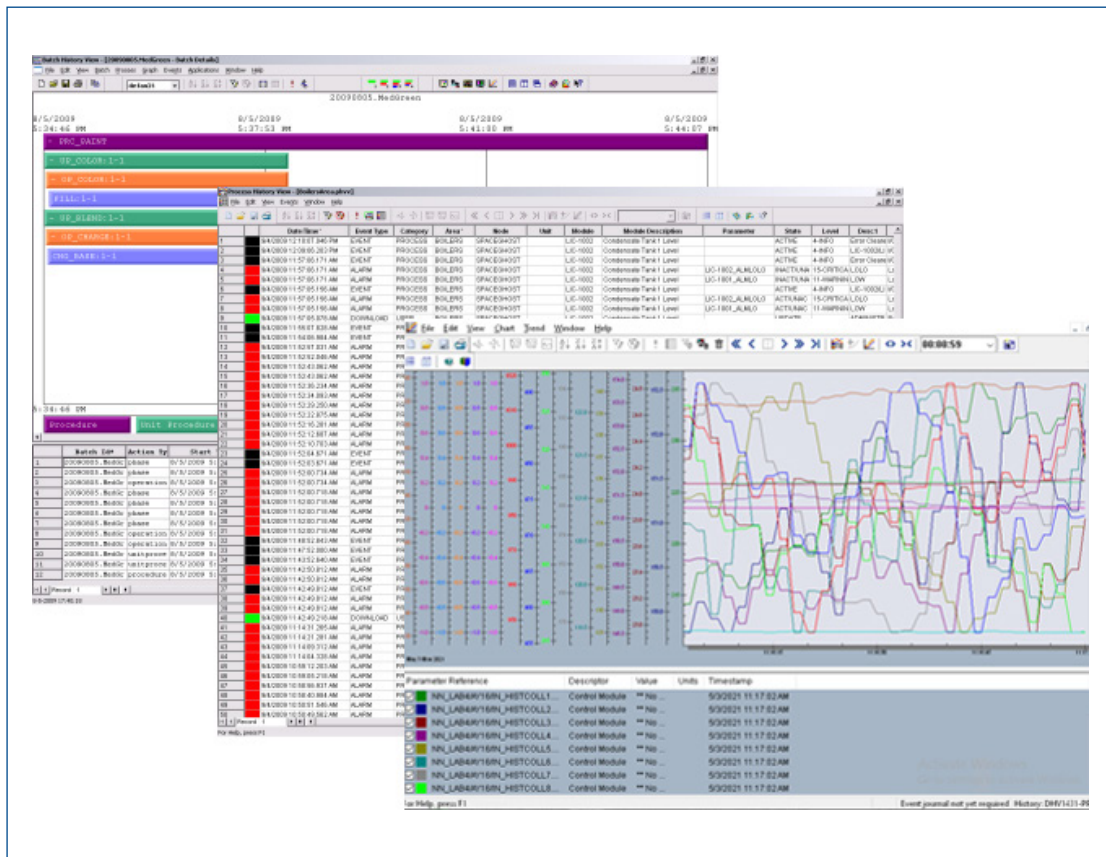


History View Software Suite



View all DeltaV™ process, batch, alarm, and control data.

- Displays all DeltaV™ historian information
- Displays real-time and historical data in a single view
- Combines continuous and event data into a single view
- Features comprehensive analysis capabilities

Introduction

Ever wonder why sudden spikes occur in trend data? Are you looking for a product that helps you analyze your process? Are you ready to eliminate the need for using separate windows to view real-time and historical data for the same tag?

The DeltaV History View Software Suite is the window into your operation’s continuous, event, and batch data. It provides easy access to real-time and historical-trend monitoring—with seamless movement between the two.

History View also graphically provides both real-time and historical batch execution data. The DeltaV system automatically generates this data on a batch-by-batch basis.

Benefits

Displays all DeltaV historian information. View continuous, event, or batch historical data, whether collected locally or on another DeltaV node. This viewing allows you to centralize or decentralize your historical collection.

Displays real-time and historical data in a single view. Easily monitor your process over time. Track today, yesterday, or a year ago by simply scrolling forward or backward. Real-time and historical data are combined into a single view. Integration of status on the historical and real-time trend display enables better decision making.

Combines continuous and event data combined into a single view. Combine continuous and event data on a single screen to see when and how an event affects continuous data.

Features comprehensive analysis capabilities. Analyze historical data such as individual trend movement, time-shift, compress, amplify, and zoom. Collect and maintain recipe data on a batch-by-batch basis so you can make batch-to-batch comparisons and analyses.

to automation history and control. Each control module, the fundamental building block of your control strategy, maintains the historical configuration information for all of the module parameters.

History View provides several types of charts to match your viewing requirements. A chart contains a graph and an event area. Also, charts can be viewed with a single area—events or continuous trends.

History View can be launched in context. For example, if an operator has a faceplate selected in the Operator Interface and selects to view historical data for that tag, History View shows a chart with only the information for that tag.

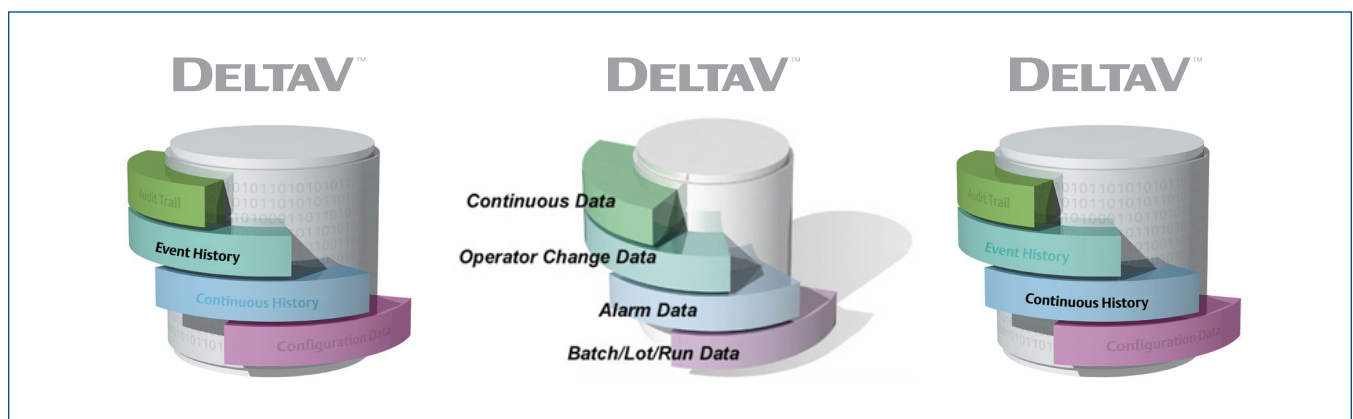
Process History View and Batch History View make up The History View Software Suite.

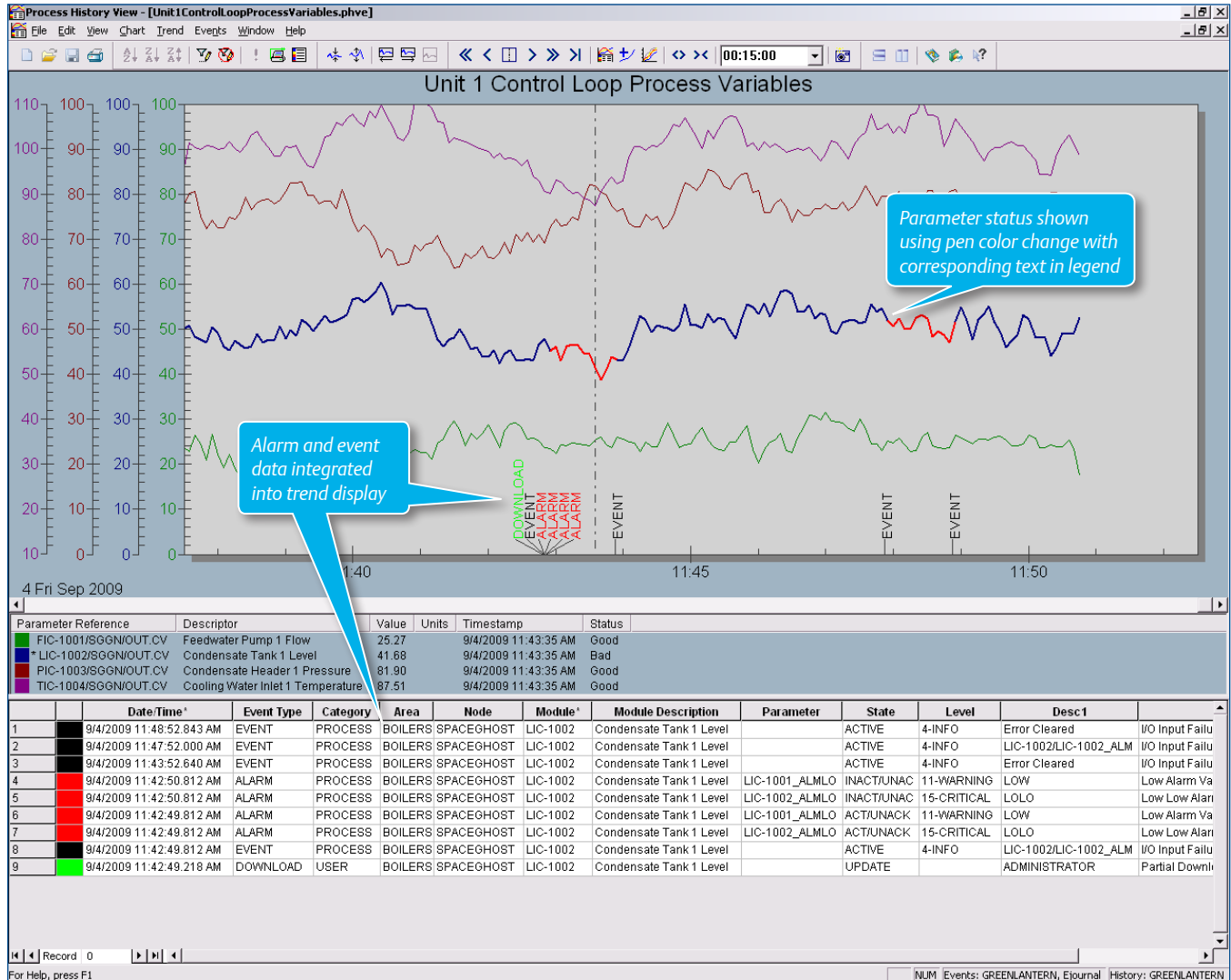
The History View Suite displays data from all DeltaV historical databases.

Product Description

The DeltaV History View Software Suite gives you a simple, integrated method of configuring charts and monitoring and viewing your operation’s historical and real-time trend data on your DeltaV workstations.

The DeltaV system brings a new level of historian integration





Integrated continuous and event history with status in a single view.

Process History View

Process History View provides the unique capability of integrating related continuous and event data in a single chart!

This view combines the historical information from two DeltaV Historians—the Event Chronicle and the Continuous Historian— into a single view. Process History View can also be directed to see data from continuous and event historians on other workstations.

While a chart is being viewed, a new parameter can be added on the fly to the existing chart. If the parameter is not already being collected in the Continuous Historian, the trend values are shown as real-time values. Events for this added parameter are also displayed from the Event Chronicle, if available.

A chart contains a graph and an event area. The graph area shows continuous trends with events placed in the chart at the

appropriate time. The event area shows a tabular listing of all the related events.

Each graph displays up to eight trended parameters. Starting with DeltaV v14.FP2, each graph can display up to twenty trended parameters. A graph contains analog, digital, and text data. A graph references real-time and historical parameters.

Each trend on the graph may have unique time references and can be compressed, amplified, and moved vertically. A trend can be selected and moved forward and backward in time relative to other trends for useful variable/trend comparisons.

Trends on a graph are displayed as a curve-to-fit, area, or step-line graph. Each trend can be easily scaled and zoomed in/out. DeltaV security ensures that unauthorized users cannot permanently modify charts.

The status of the historical and real-time data values stored in a DeltaV Continuous Historian can optionally be displayed on the trend. Knowing the status along with the values provides greater understanding of the process for better decision making.

As an alternative to the DeltaV Continuous Historian, a PI Server from OSIsoft may be used in the DeltaV system to serve as the system historian, providing enterprise historian functionality while fully integrated into the DeltaV system engineering and operator functions. In DeltaV v10.3 and later releases, the PI Server may be installed and used on the DeltaV Application Station. In DeltaV v12.3 and later releases, the PI Server may be installed and used on a non-DeltaV PC on any network that has connectivity to a DeltaV Application Station. All of these alternative continuous historian options can be used with Process History View, but do not support the presentation of parameter status.

In DeltaV v14.LTS Process History View can be configured to display statistics of a history parameter, such as minimum, maximum, time weighed average and integral values.

In DeltaV v14.FP2, several enhancements have been made to Process History View. Process History View can display up to twenty trends (pens) and sixteen Y-Axes per trend chart. A user can show and hide one or more trends (using multiselect capability) by a simple click on a checkbox in the legend. A user can show and hide one or more Y-Axis (using multiselect

capability) by selecting the required rows in the legend. A user can drag and drop datalinks and GEMs directly from DeltaV Live to a Process History View chart. This drag and drop capability will only be available with DeltaV Live Premium Performance Pack licensing (for Pro Plus and the Workstations).

Each chart can be configured and saved by name. This is done after the graph is configured. The events for each module referenced in the graph are automatically displayed in the graph and event areas.

The Process History View shows you any events for that module at the correct time, right in the graph. All events are also shown in a tabular format below the graph, in the event area.

All events collected in the Event Chronicle can be displayed. Operational events include operator changes, tuning parameter changes, control module installations, alarms (new, acknowledged, and cleared) and device status.

Events are displayed in chronological order and are color-coded by event type. You can easily analyze operational events by filtering the list of events—simply double-click on an item and the view is filtered for just that selection. So if, for instance, you want to see all the changes that Joe made, just double click on his name!

Event filters are easily enabled and users may define or pre-set filters for querying capability based on time, event, user and an individual module, among others.

	Date/Time	Event Type	Category	Area	Node	Unit	Module	Module Description	Parameter	State	Level	Desc 1
1	9/4/2009 12:10:07.046 PM	EVENT	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		ACTIVE	4-INFO	Error Clear I/C
2	9/4/2009 12:09:06.203 PM	EVENT	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		ACTIVE	4-INFO	LIC-1002/LI I/C
3	9/4/2009 11:57:06.171 AM	EVENT	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		ACTIVE	4-INFO	Error Clear I/C
4	9/4/2009 11:57:06.171 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level	LIC-1002_ALMLOLO	INACT/JUNA	15-CRITICA	LOLO Lc
5	9/4/2009 11:57:06.171 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level	LIC-1001_ALMLLO	INACT/JUNA	11-WARNIN	LOW Lc
6	9/4/2009 11:57:05.156 AM	EVENT	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		ACTIVE	4-INFO	LIC-1002/LI I/C
7	9/4/2009 11:57:05.156 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level	LIC-1002_ALMLOLO	ACT/JUNAC	15-CRITICA	LOLO Lc
8	9/4/2009 11:57:05.156 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level	LIC-1001_ALMLLO	ACT/JUNAC	11-WARNIN	LOW Lc
9	9/4/2009 11:57:05.078 AM	DOWNLOAD	USER	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		UPDATE		ADMINISTR P:
10	9/4/2009 11:55:07.828 AM	EVENT	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		ACTIVE	4-INFO	Error Clear I/C
11	9/4/2009 11:54:06.984 AM	EVENT	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level		ACTIVE	4-INFO	LIC-1002/LI I/C
12	9/4/2009 11:52:57.031 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		PIC-1003	Condensate Header 1 Pressure	PIC-1003_ALMLLO	INACT/JUNA	11-WARNIN	LOW Lc
13	9/4/2009 11:52:52.046 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		PIC-1003	Condensate Header 1 Pressure	PIC-1003_ALMLOLO	INACT/JUNA	15-CRITICA	LOLO Lc
14	9/4/2009 11:52:43.062 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		PIC-1003	Condensate Header 1 Pressure	PIC-1003_ALMLOLO	ACT/JUNAC	15-CRITICA	LOLO Lc
15	9/4/2009 11:52:43.062 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		PIC-1003	Condensate Header 1 Pressure	PIC-1003_ALMLLO	ACT/JUNAC	11-WARNIN	LOW Lc
16	9/4/2009 11:52:36.234 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		PIC-1003	Condensate Header 1 Pressure	PIC-1003_ALMLLO	INACT/JUNA	11-WARNIN	LOW Lc
17	9/4/2009 11:52:34.093 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		PIC-1003	Condensate Header 1 Pressure	PIC-1003_ALMLOLO	INACT/JUNA	15-CRITICA	LOLO Lc
18	9/4/2009 11:52:29.250 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level	LIC-1001_ALMHI	INACT/JUNA	11-WARNIN	HIGH HI
19	9/4/2009 11:52:22.875 AM	ALARM	PROCESS	BOILERS	SPACEGHOST	BOILER_1	PIC-10-101	Header Master Control	HI_ALM	INACT/JUNA	11-WARNIN	HIGH HI
20	9/4/2009 11:52:16.281 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		LIC-1002	Condensate Tank 1 Level	LIC-1002_ALMHIHI	INACT/JUNA	15-CRITICA	HIHI HI
21	9/4/2009 11:52:12.687 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		FIC-1001	Feedwater Pump 1 Flow	FIC-1001_ALMHI	INACT/JUNA	11-WARNIN	HIGH HI
22	9/4/2009 11:52:10.703 AM	ALARM	PROCESS	BOILERS	SPACEGHOST		FIC-1001	Feedwater Pump 1 Flow	FIC-1001_ALMHIHI	INACT/JUNA	15-CRITICA	HIHI HI
23	9/4/2009 11:52:04.671 AM	EVENT	PROCESS	BOILERS	SPACEGHOST	BOILER_1	FIC-10-201	Gas Flow	DV_HI_ALM	INACT/JACK		DEV D:
24	9/4/2009 11:52:03.671 AM	EVENT	PROCESS	BOILERS	SPACEGHOST	BOILER_1	FIC-10-201	Gas Flow	DV_HI_ALM	ACT/JACK		DEV D:

Events displayed in chronological order from the Event Chronicle.

Batch History View

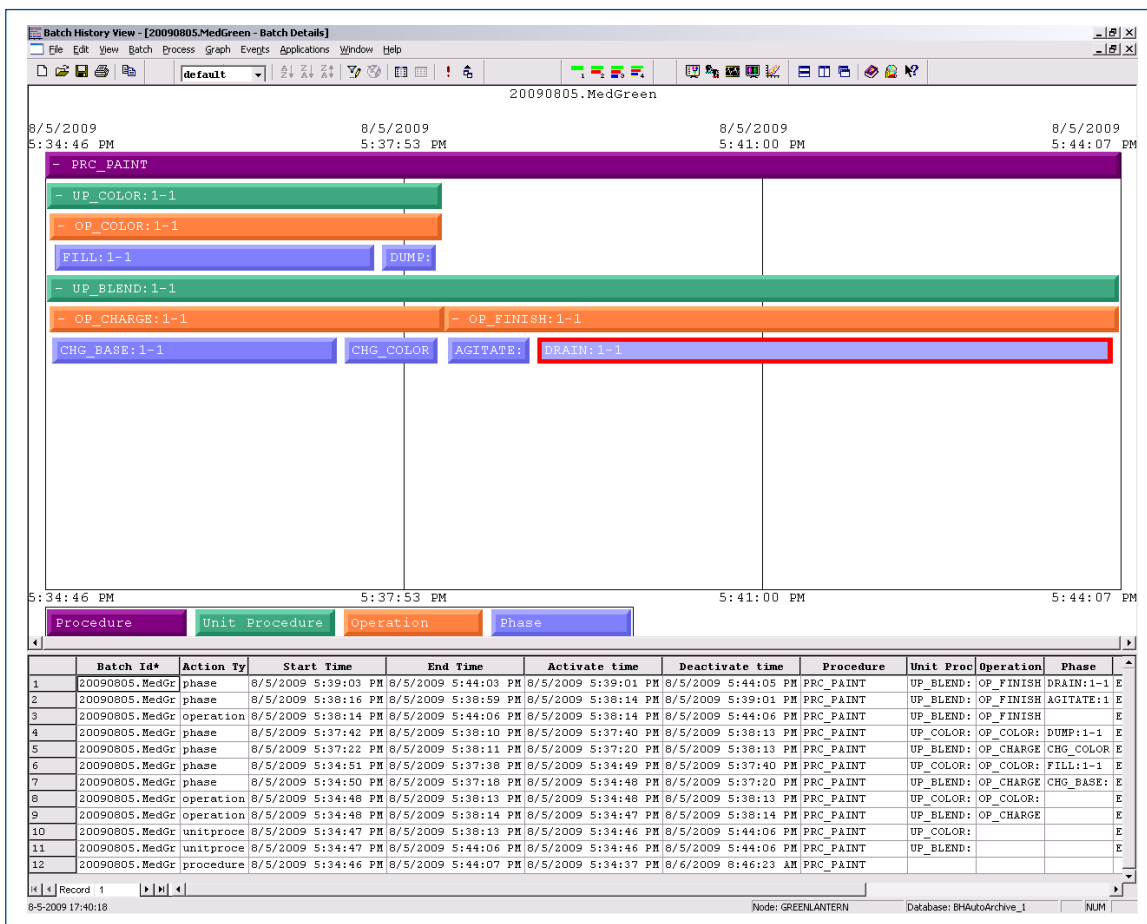
Batch History View provides several ways to view batch history in a graphical format. Allows you to filter the list of available batches based on criteria such as specific date/time period or batch ID name.

Batch historical data is displayed on a batch-by-batch basis for easy comparison and analysis. The Batch Overview display presents all of the available batches in a common chart, making it easy to locate anomalies among batches.

You can also learn more about what occurred during the execution of a particular batch by selecting the Batch Details view. From here, you can “drill down” into any element of the procedure and get a listing of events using the Batch Events view. This view lists all of the batch events that were automatically recorded and stored during that portion of the procedure.

The Batch Comparison view allows you to do the same thing for two different batches. Batches can be synchronized at a particular point in the recipe such as the start or end of a procedure, unit procedure, operation or phase and can be displayed in batch-relative time to facilitate comparing the behavior between the batches.

DeltaV software also tightly integrates batch history with process history. This means you can easily view process history for a module over a time period that corresponds to any element of the batch. By selecting an element of the batch from the chart, you can not only obtain a historical trend for the module, but also obtain any process-alarms and events that occurred during that portion of the batch. Process History View is launched in context when viewing process trends from Batch History View.



Batch History View displays batch details in a Gantt chart view.

Ordering Information

Description	Model Number
History View Software Suite	VE2145

Related Products

- DeltaV Continuous Historian.** Captures analog, discrete, text and parameter status data and stores for future analysis. Each DeltaV workstation includes a collection of 250 parameters, with optionally scalable to 3,250 or 30,000 parameters depending on the workstation type. The Application Station can optionally collect data for up to 30,250 parameters.
- Advanced Continuous Historian.** Captures analog, discrete and text data and stores for future analysis. This system historian option to the DeltaV Continuous Historian runs on an Application Station, can collect data for up to 60,000 parameters and is based on embedded OSIsoft technology to enable seamless integration with an OSIsoft PI Server.
- Event Chronicle.** Captures process, system and user alarms and events and stores them in a Microsoft SQL Server database.
- Batch Historian.** Automatically collects and stores batch recipe execution data from the DeltaV Batch Executive and process alarm and event data from the DeltaV Event Chronicle.
- History Analysis.** Provides Web-based viewing and analysis of DeltaV batch, continuous and alarm and event data.

- Enterprise Historian.** OSIsoft PI Server used as the DeltaV system historian, providing enterprise historian functionality while fully integrated into the DeltaV system engineering and operator functions.

Prerequisites

- The History View Suite is provided with the ProfessionalPLUS, Professional and Operator Station software suites and may be optionally added to the Base Station and Application Station.
- A DeltaV Continuous Historian, Advanced Continuous Historian, legacy historian or enterprise historian is required for viewing continuous process data.
- The DeltaV Continuous Historian is required for viewing parameter status data.
- An Event Chronicle is required for viewing alarm and event data.
- A Batch Historian is required for viewing batch data.
- Enterprise historian functionality requires the purchase of the OSIsoft PI Server and PI DeltaV Smart Connector interface from OSIsoft.
- To avail the Drag and Drop capability, DeltaV Live Premium licensing will be required for Pro Plus and Workstations. This feature is available with DeltaV v14.FP2.

©2021, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. The DeltaV logo is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

Contact Us

www.emerson.com/contactus