Application Station Software Suite

- Integrates your DeltaV data with the rest of your enterprise

- Includes the DeltaV Continuous Historian

- Supports batch applications

- Fully integrates DeltaV configuration and management

- Provides capacity for the biggest data integration requirements

All you need to run custom DeltaV applications is available on the Application Station.

Introduction

Are you looking for a way to integrate data from your DeltaV system into the rest of your day-to-day operations? Do you need to extend your DeltaV™ system with applications tailored for your particular process? The DeltaV Application Station gives you the ability to integrate DeltaV and off-the-shelf applications into your enterprise.

The Application Station is made up of the Application Station Software Suite and the DeltaV hardware to run it. The Application Station has field- proven DeltaV OPC Classic and OPC Unified Architecture (OPC UA) for fast and reliable integration of all your real time, historic and alarms and events data.

The Application Station includes the DeltaV OPC Data Access Server and Continuous Historian. A suite of options and tools are available for the Application Station. Take advantage of the DeltaV suite of applications or use off-the-shelf tools to manage your batch execution, keep track of process, event, and batch history, and view your process on the Web.

Use the Application Station to extend your DeltaV system wherever your process needs it—from 3rd party system integration to your enterprise historian.

Benefits

Integrates your DeltaV system data with the rest of your enterprise: The Application Station uses the field-proven DeltaV OPC Data Access Server to integrate your process data with the rest of your enterprise. Capable of processing up to 30,000 values each second, the DeltaV OPC Data Access Server handles even your most bandwidth-hungry communication tasks. And because it is built to the OPC specification, you get reliable, secure data when and where you want it.

Optionally, the DeltaV OPC Events Server, OPC History Server, OPC UA server and OPC UA client can be added to the Application Station. The DeltaV OPC Events Server allows you to integrate real-time alarms and events from the DeltaV system with any OPC Alarms & Events compatible client application.

The DeltaV OPC History server allows you to integrate historical process data from the DeltaV Continuous Historian with any OPC Historical Data Access compatible client application.

The DeltaV OPC UA server wraps all the OPC Classic information into single a communication interface for accessing real-time, historical and alarm and event data.

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The DeltaV OPC UA client provides a native and easy way to bring real-time data from 3rd party systems into DeltaV.

Includes the DeltaV Continuous Historian: Capture analog, discrete, and text parameters and store them for future analysis, along with each parameter's status. On the Application Station you have the option to substantially increase the DeltaV Continuous Historian size, from the standard 250 points all the way up to 30,250 points.

And if you need to store more points, or need integration with an external OSIsoft PI Server, the Application Station can host a DeltaV Advanced Continuous Historian or Embedded Enterprise Historian.

Supports batch applications: If your process requires intense batch processing, dedicate an Application Station to handle batch storing, scheduling, and executing. The Application Station was designed for options to be easily added. To add these options, simply use the DeltaV Explorer on the ProfessionalPLUS Station or Professional Station to point-and-click configure these options. Batch licenses are available for the Basic Batch, Advanced Batch, and Professional Batch levels.

Fully integrates DeltaV system configuration and management: The Application Station was designed to totally integrate DeltaV software, off-the-shelf applications, and your enterprise. Pick your options, and then configure them with point-and-click ease, using the DeltaV Explorer on the ProfessionalPLUS Station or Professional Station.

Provides capacity for the biggest data integration requirements: The DeltaV system will support up to 20 Application Stations in a single system, providing enough workstation capacity for your biggest integration projects.

Performance

Processing OPC data values by the DeltaV OPC Data Access Server consumes a portion of the computing resources of the Application Station CPU. The amount of computing resources consumed by the DeltaV OPC Data Access Server depends upon the total number of OPC data values being processed and the number of data values that are changing. Therefore, the computing horsepower of the Application Station typically dictates the number of data values that the DeltaV OPC Data Access Server can process each second. The higher the performance of the Application Station, the greater the number of data values the DeltaV OPC Data Access Server can process.
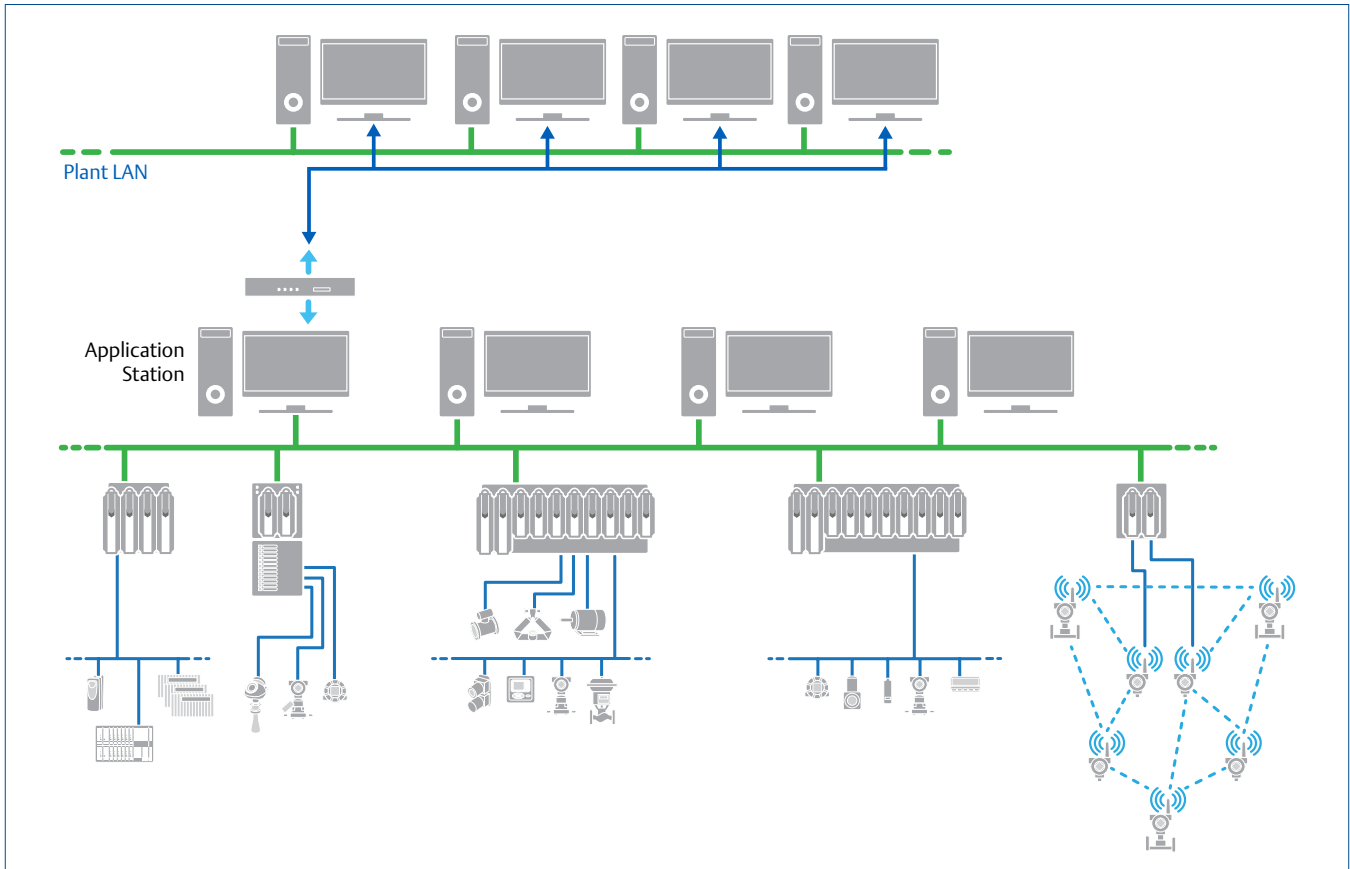
In addition, the OPC client application has an impact on the performance of the DeltaV OPC Data Access Server. The OPC client application receives and processes data that it requests from the DeltaV OPC Data Access Server. The DeltaV OPC Data Access Server will serve data to the OPC client application only as fast as the OPC client application can process this data. Processing this data consumes a portion of the CPU processing power of the PC running the OPC client application. The higher the performance of this PC, the greater the number of data values the DeltaV OPC Data Access Server can process and serve. This is true whether the OPC client is running on the Application Station (local) or is running on a separate PC (remote).

Note that not all of the OPC data values that the DeltaV OPC Data Access Server processes will be changing each second. Discrete values, text strings, and slow response analog signals (such as temperature measurements), are not likely to change every second. The typical number of changing data values that the DeltaV OPC Data Access Server will process each second represents roughly 20–25% of the total number of data values being processed.

Also consider that when enabling OPC UA server and OPC UA client in the Application Station, it adds to the CPU load since it needs to enable this communication protocol to read or write data. Refer to the System Planning Guide for more details.

Specifications	
Supported communications standards	OPC Data Access, OPC Alarms & Events, OPC Historical Data Access, OPC UA, SQL, Web services, OSIsoft PI .
Integration capacity and application details	Refer to the System Planning Guide for more details.
OPC Data Access communication rates	Sustained communication rates up to 30,000 values per second.
OPC UA Server	Same capacity as the OPC classic servers since it is wrapping the communications in OPC UA protocol.
OPC UA client capacity	30,000 values per second coming from up to 64 third party OPC UA servers.

Product Description

Integrate your DeltaV system enterprise-wide with the Application Station.

The Application Station Software Suite comes with the following DeltaV applications (for detailed information about these applications, refer to the appropriate product data sheet):

- **DeltaV Continuous Historian:** Captures up to 250 analog, discrete and text parameters along with their status and stores them for future analysis. Optionally scalable up to 30,250 parameters.

- **DeltaV Reporter:** View, analyze and report historical process and alarm and event data from the DeltaV Continuous Historian and Event Chronicle in your copy of Microsoft Excel.

- **OPC Data Server:** Supporting sustained communication rates of up to 30,000 real-time values per second, the DeltaV OPC Data Server delivers fast, secure, reliable communications to client applications on the same machine or anywhere on your network. Scalable from 250 to 30,000 data values.

- **OPC.NET Server (aka OPC Xi):** Delivers real-time and historical data communications between your distributed control systems and your enterprise.

- **DeltaV Excel Add-in:** OPC Data Access client application providing read/write access to DeltaV real-time information in your copy of Microsoft Excel.

- **Flexlock:** Creates dual desktops on a single workstation to enable operators to 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. Flexlock is a DeltaV exclusive.

- **DeltaV History Web Service:** Exposes all DeltaV continuous process and batch historical data in XML format using Internet-based Web services technology.

- **DeltaV Campaign Manager Web Service:** A comprehensive SOA Web Service that enables users to develop applications that interact with the Campaign Manager Executive.

Options

The following list contains the optional software applications that may be licensed on the Application Station. Maximize the power of the DeltaV system right on your workstation.

- **AMS Device Manager Server Plus:** Provides the engineering interface to device calibration and configuration software for HART and FOUNDATION fieldbus devices (licensed by AMS Suite: Intelligent Device Manager).

- **AMS Device Manager Client SC:** Provides the ability to configure and view the status of HART and FOUNDATION fieldbus devices (license from AMS Suite: Intelligent Device Manager required for configuration capability).

- **Diagnostics:** Facilitates checking the overall health of your system and quickly resolving system hardware, software, and configuration issues.

- **DeltaV Continuous Historian scale-up:** Increases the size of the standard 250 parameter DeltaV Continuous Historian up to 30,250 parameters in increments of 1,000, 5,000 or 10,000 parameters.

- **Event Chronicle:** Captures process, system and user alarms and events and stores them in a Microsoft SQL Server database.

- **History View Suite:** Monitor your plant's continuous, event and batch data—historically and in real time.

- **History Analysis:** Provides Web-based viewing and analysis of DeltaV batch, continuous and alarm and event data.

- **DeltaV Analyze:** Provides Web-based analysis of alarms and events in either the Event Chronicle or Plantwide Event Historian.

- **DeltaV Web Server:** Enables Web-based viewing of operator displays and historical data.

- **DeltaV Basic Batch:** Software that includes the Batch Executive, the batch engine which coordinates all batch processing activity, creates detailed batch history records and schedules recipes and resources.

- **DeltaV Advanced Batch:** Batch Software Suite that includes the Batch Executive, Batch Historian and Soft Phase Server products.

- **DeltaV Professional Batch:** Batch Software Suite that includes the Batch Executive, Batch Historian, Soft Phase Server, Campaign Manager and Recipe Exchange products

- **Campaign Manager Web Service:** A comprehensive SOA Web Service that enables users to develop applications that interact with the Campaign Manager Executive.

- **Recipe Exchange Web Service:** A comprehensive SOA Web Service that enables users to develop applications to create, modify and programmatically import and export DeltaV recipes.

- **OPC Mirror:** Transfers thousands of values back and forth between your DeltaV system and other OPC-compliant systems.

- **OPC Pager:** Keeps a 24-hour watch on your critical values and notifies you when they meet your alert criteria.

- **OPC Events Server:** Exposes all DeltaV alarm and event information using the industry standard OPC Alarms and Events interface.

- **OPC History Server:** Exposes all DeltaV historical data using the industry standard OPC Historical Data Access interface.

- **OPC UA Server:** Exposes all DeltaV OPC Classic servers in a single connection using the latest OPC UA standard.

- **OPC UA Client:** Native OPC UA client that runs in the application station and allow up to 64 connections to third party OPC UA servers

- **DeltaV Advanced Continuous Historian:** Captures analog, discrete and text parameters and stores them for future analysis. It 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.

- **Plantwide Event Historian:** Captures all alarms and events for your entire plant and integrates them into one database for easy viewing, retrieval, and analysis.

- **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.

- **Remote Access Server:** Enables communications to a remote DeltaV workstation.

- **Backup and Recovery:** Provides data backup and disaster recovery for DeltaV system and associated distributed control data.

- **DeltaV Connect Solution for Bailey Systems:** Integrates the DeltaV operator interface to a Bailey DCS.

- **DeltaV Connect Solution for Honeywell Systems:** Integrates the DeltaV operator interface to a Honeywell DCS.

- **DeltaV Connect Solution for Moore Systems:** Integrates the DeltaV operator interface to a Moore APACS DCS or QUADLOG system.

Ordering Information

Description	Model Number
Application Station Software Suite	VE2201Sxxxxx

Where xxxxx represents the number of OPC data values transmitted through the DeltaV OPC Data Access Server, up to a total of 30,000. Orderable data values range from 250 to 2,000 in 250 data value increments and from 2,000 to 30,000 in 1,000 data value increments.

Prerequisites

- One ProfessionalPLUS Station in a DeltaV system.

- This software suite must be loaded onto a DeltaV workstation. A variety of hardware is available to meet your specific requirements. Call your local sales office for details.

- Some options to the Application Station require the use of a Microsoft server class operating system. Refer to each option's product data sheet for details.

- Use of the DeltaV Reporter or OPC Excel Add-in requires a copy of Microsoft Excel (provided by others).

- Enterprise historian functionality requires the purchase of the OSIsoft PI Server and PI DeltaV Smart Connector interface from OSIsoft.

Emerson
North America, Latin America:
☎ +1 800 833 8314 or
☎ +1 512 832 3774

Asia Pacific:
☎ +65 6777 8211

Europe, Middle East:
☎ +41 41 768 6111

⊕ **www.emerson.com/deltav**

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