Maintenance Station Software Suite

You can easily engineer and operate your process automation system from the Maintenance Station,

■ Graphical view and annunciation of intelligent device alerts—Fieldbus and HART

■ Powerful online status and calibration capabilities

■ Integrated system and device diagnostics

Introduction

Are you looking for a digital automation system that gives you a single point-view for all of your maintenance functions? Are you tired of *wasting time* trying to find the cause of problems in your plant?

The DeltaV™ Maintenance Station Software Suite includes state-of-the-art graphics, calibration and diagnostics capabilities, providing you a *unique maintenance solution.* A Maintenance Station is made up of the Maintenance Station Software Suite and the DeltaV PC hardware to run it.

Graphically view *HART and Fieldbus device alerts,* including PlantWeb alerts (device alerts from HART and Emerson fieldbus devices and asset alerts from AMS Machinery Manager and AMS Performance Monitor), with process information, using *DeltaV Operate for Maintenance*.

The Maintenance Station includes all of the graphical capabilities of DeltaV Operate, tailored for your maintenance personnel.

Use the standard operating desktop or modify it to fit your specific maintenance philosophies and work preferences. Take advantage of single-click access to graphics, directories, and other applications.

Easily check device status and perform device calibration using *Configuration Studio for Maintenance*. Simply select the device and function—calibrate, stroke valve, etc.—that you wish to perform: all *online* at the Maintenance Station.

DELTAV

EMERSON
Process Management

Benefits

Graphical view and annunciation of intelligent device alerts—Fieldbus and HART. You get all of the graphics capabilities you expect for operators, *for your maintenance staff,* using *DeltaV Operate for Maintenance*.
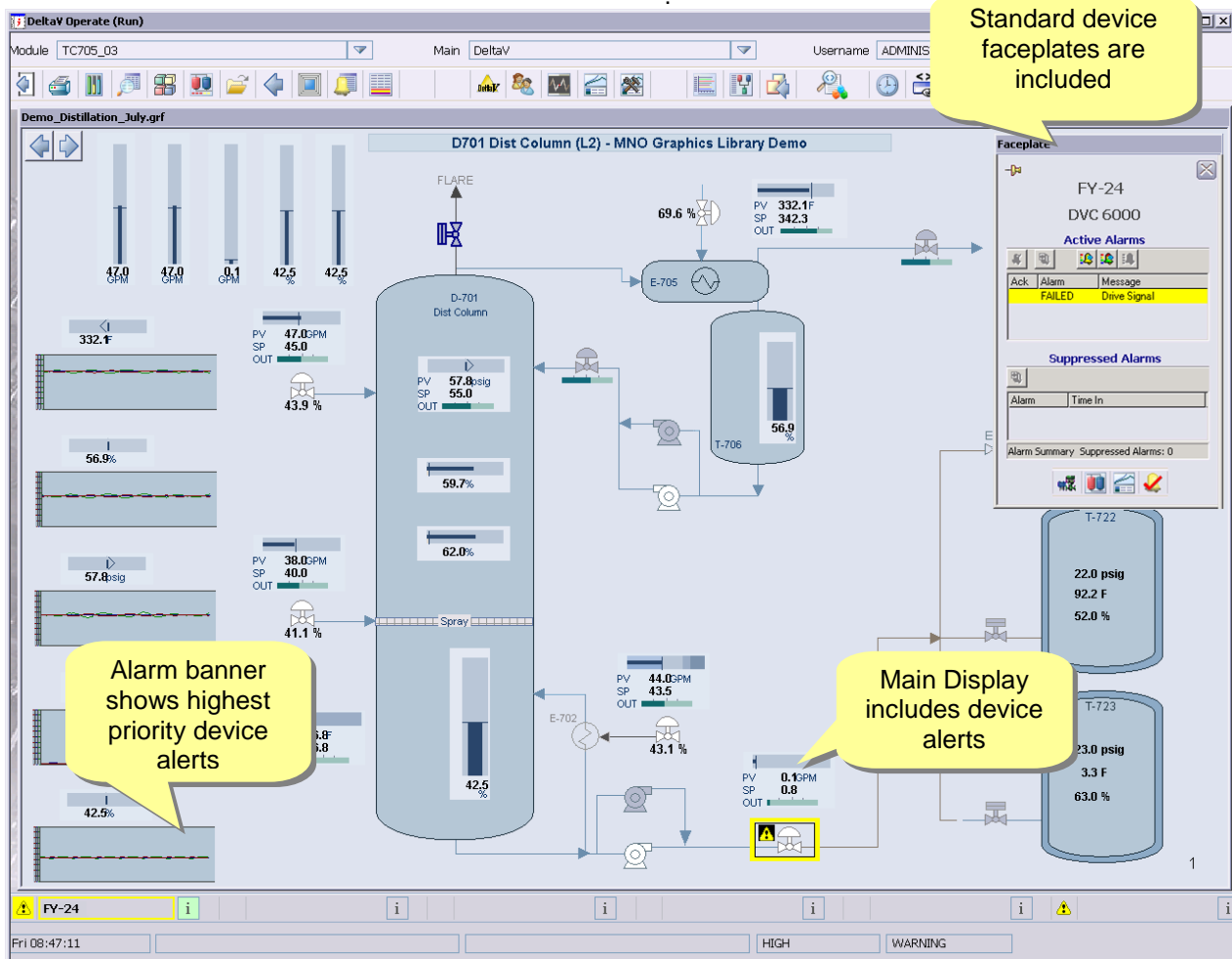
You can reuse the displays created for your operators or *create your own maintenance specific graphics*.   In either case, all process information is available to your maintenance staff using *DeltaV Operate for Maintenance*.

Maintenance personnel receive all of the asset and device alerts, *without being bothered with the process alarms. DeltaV Operate for Maintenance* is available only on the Maintenance Station.

Powerful online status and calibration capabilities. Easily check device status and perform device calibration using *Configuration Studio for Maintenance*.

This Configuration Studio has been tailored for your maintenance staff such that they can view configurations and calibrate devices, but cannot configure or download control strategies. *Configuration Studio for Maintenance* is available only on the Maintenance Station.

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.

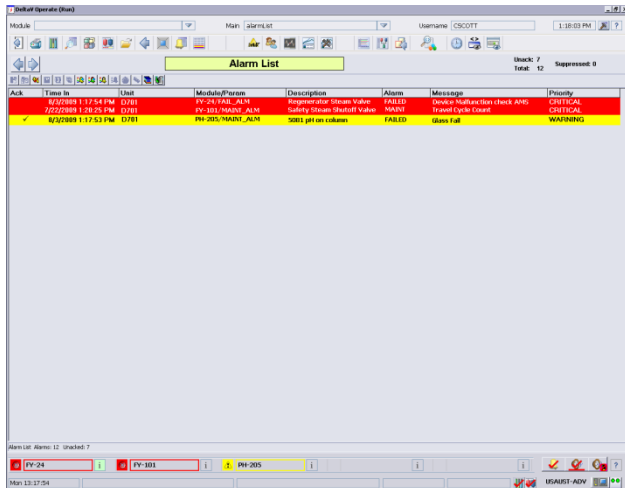*Your Maintenance Station is tightly integrated—one set of tools helps you do more.*

Product Description

The high-performance Maintenance Station Software Suite was developed following the Microsoft paradigm. Features such as windows, graphics, drag-and-drop, and cut-and-paste enable you to *concentrate on your plant maintenance*—not on the application.

The Maintenance Station provides many of the same applications as other DeltaV Stations, with those applications specifically tailored for maintenance.

Maintenance personnel now have a station designed for and dedicated to the tasks they most commonly perform. These tasks include diagnostics of the system and intelligent devices (AS-i, DeviceNet, Profibus DP, HART and FOUNDATION fieldbus) and monitoring prioritized lists of device alerts. Alerts can be shown in displays and in summaries by priority or time order.

Maintenance personnel receive *all of the asset and device alerts, without being bothered with the process alarms.* The Maintenance Station annunciates device and asset alerts only using *DeltaV Operate for Maintenance*.

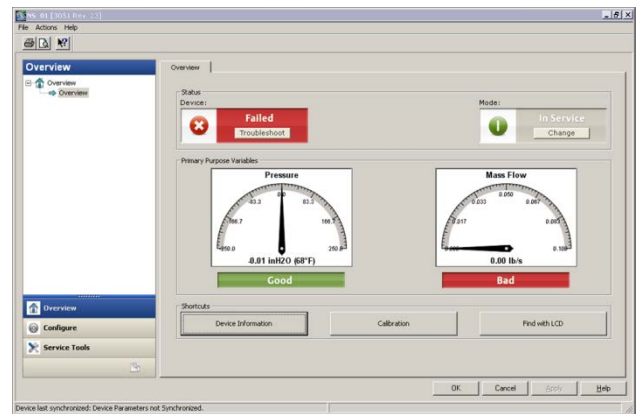*View asset and device alerts in order of priority or time*

You get all of the graphics capabilities you expect for operators, *for your maintenance staff.* High-resolution graphics allow extensive detail and flexibility in the way information is displayed. This easy-to-use system enables you to creatively present your important device and process control information.

Using *DeltaV Operate for Maintenance*, the displays provide all of the same process information (SP, PV, tuning information, etc.) traditionally shown to the operator. DeltaV security ensures that the currently logged on user can change only those parameters they have been given the authority to change. Regardless of who is logged on, users are only presented with the asset and device alerts.

Whether you are viewing the highest-priority device alert, detailed device information, or selecting a new display, common user navigation is consistent and intuitive.

Assets and devices are organized by unit and area, identically to process control tags. Select the alert from the alarm banner and view a user-defined graphic depicting the device or asset—perhaps a digital photograph pinpointing the its location in your plant—and a faceplate showing active alerts. For devices, *select details to view detailed device information directly from the device!*

Standard device faceplates and detail displays provide consistency. Standard asset faceplates provide operators with asset alert information.

Detail Display for 3051 fieldbus transmitter

The Maintenance Station displays and annunciates device and asset alerts. This includes:

- Standard FOUNDATION fieldbus device alerts generated from the block error in the resource block
- Standard HART device alerts generated from standard status data
- Device PlantWeb Alerts (generated from HART devices and Emerson FOUNDATION fieldbus devices
- Asset PlantWeb alerts generated from AMS Machinery Manager and AMS Performance Monitor

FOUNDATION fieldbus devices are provided by the device manufacturers with the alerts defined. The devices detect and report their alerts to the DeltaV System.

Emerson FOUNDATION fieldbus devices are provided with the device alerts organized into PlantWeb alerts.

PlantWeb Alerts organize the many device or asset alerts into 3 alarms – failed, maintenance and advisory – based on the importance of each alert to that device or asset. *With PlantWeb Alerts, not only are you notified of a problem, but you also know how important the problem is – and have a complete description of the problem!*

Standard HART device alerts are available for any HART device connected to DeltaV I/O or the DeltaV Logic Solver. *Dozens of devices are provided with HART device alerts.*

In addition, using the device defined command 48 diagnostics information, HART alerts are grouped into failed, maintenance and advisory in the DeltaV system. Create your own device templates to tailor the alert groupings to your specialized process requirements.

SIS HART device alerts can be viewed and annunciated separately from other device alerts in DeltaV Operate for maintenance.

HART device alerts are not currently offered for the DeltaV Interfaces to PROVOX and RS3 I/O.

A Maintenance Station can easily be configured to receive device and asset alerts by assigning the areas of interest to the Maintenance Station. Alerts from all of the configured devices and assets within those areas are then automatically reported to that Maintenance Station.

You can have several concurrent Maintenance Stations on a single DeltaV system, allowing you to consolidate or distribute alerts.

All alerts are time stamped and are captured in the Maintenance Station's Event Chronicle. Since there could be a relationship between the process alarms, asset alerts and device alerts, the Event Chronicle captures all alarms and allows maintenance to easily analyze process—and device-related events.

Easily check device status and perform device calibration using *Configuration Studio for Maintenance*. Maintenance personnel can also commission, decommission and download Fieldbus devices with the Replace Device function.

View devices and assets in DeltaV Explorer

Configuration Studio for Maintenance has the capabilities necessary for your maintenance staff such that they can view configurations and calibrate devices. Regardless of who is logged on, users are prevented from configuring or downloading control strategies.
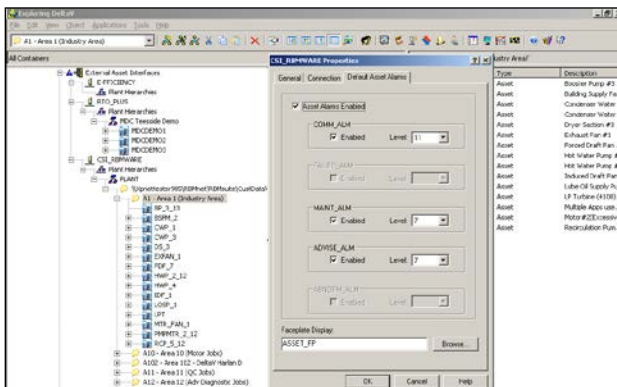
DeltaV Diagnostics lets you quickly know the status of you control system and intelligent field devices. Diagnostics information is included not only for your DeltaV Workstations, Control Network, Controller, and I/O, but also includes support for AS-i, DeviceNet, Profibus DP, HART and FOUNDATION fieldbus 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.
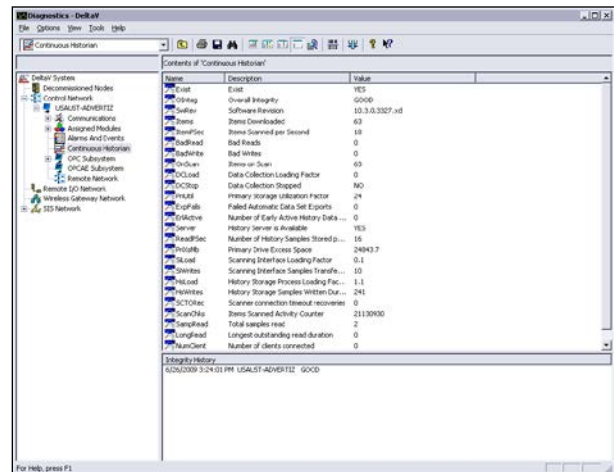
Use the exclusive DeltaV **Flexlock** to ensure that maintenance personnel remain dedicated to monitoring, troubleshooting, and maintaining the process according to plant maintenance philosophies. Maintenance personnel are *locked in* to their system responsibilities so that nothing can preempt their duties.

The Maintenance Station provides all capabilities, whether it's remotely or directly connected to your DeltaV system.

Emerson Process Management is the industry leader in scalable, plant-aware process automation systems. Our state-of-the-art, totally integrated applications give you the power to *do more.*

Diagnose the DeltaV system and intelligent devices

The following software applications are included in the Maintenance Station Software Suite.
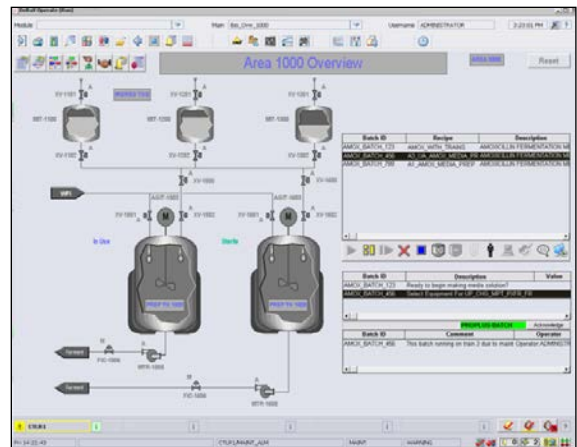
For detailed information about the following applications, refer to the appropriate product data sheet:

- **Configuration Software Suite for maintenance.** Focused on device maintenance, calibration and Fieldbus device commissioning. Control strategy configuration and downloads are prevented.

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

- **DeltaV Operate for maintenance.** High performance graphics focused on device and asset alerts and information for maintenance. Process Alarms are not displayed

- **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.

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

- **Flexlock.** Creates dual desktops on a single workstation to ensure that users 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.

Products included with appropriate system licenses or product options

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

- **AMS Device Manager Client SC for device status.** 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.

Integrated batch operation

- **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.

- **DeltaV Predict and PredictPro.** Model Predictive Control (MPC) which runs in DeltaV to provide 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.

Configuration and Maintenance related Product Options
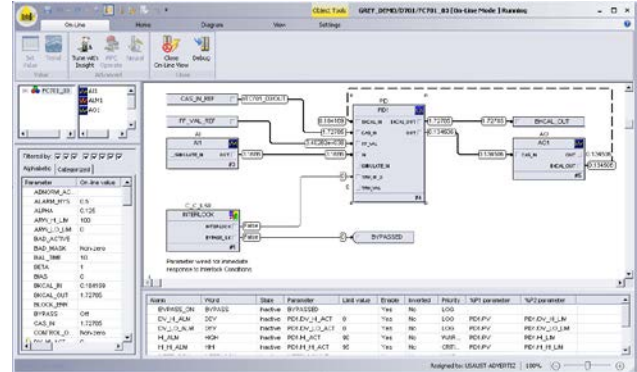
To enhance your Maintenance Station, the following options may be added:

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

- **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).

- **AMS SNAP-ON Product Options**. Choose from a variety of AMS configuration options. Refer to *to www.assetweb.com* for the list of AMS SNAP-ON product options.

- **Configuration Software Suite** Add full configuration and download capabilities to your maintenance capabilities

- **Recipe Studio** Add powerful yet simple to use application for graphically configuring recipes (with formulas) for successful batch production.
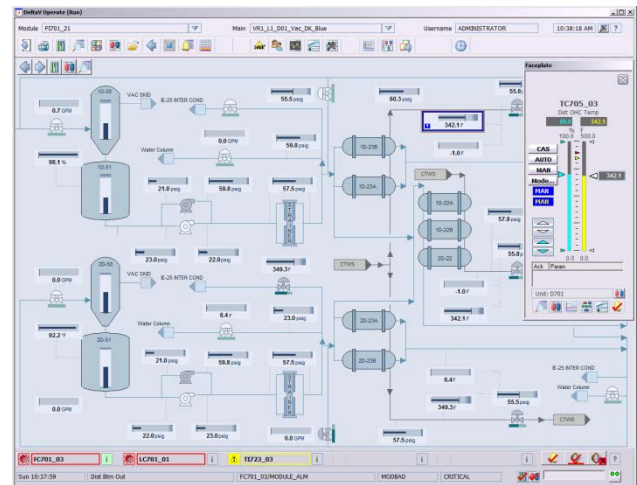
Operation related Product Options

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

- **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 (requires *DeltaV Operate*).

- **Control Studio On-line.** Graphically monitor and troubleshoot running control strategies.

Monitor your executing control strategies with Control Studio

- **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 Four-Monitor Workstation.** DeltaV Operate support of up to four screens to monitor your process. Refer to Workstation Hardware for workstation requirements.

- **DeltaV Operate.** Turn maintenance displays into full operator displays. Adds process alarms to the Maintenance station. Refer to Workstation Hardware for workstation requirements.

DeltaV Operate provides complete, interactive operator graphics

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.

Ordering Information

Description	Model Number
Maintenance Station Software Suite	VE2105

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

- **Operator Station Software Suite.** Centralized operations 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).

- MD controllers and Series 2 H1 cards or later are needed for Fieldbus device alerts.

To locate a sales office near you, visit our website at:
www.EmersonProcess.com/DeltaV
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                                   +1 512.832.3774

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