

# Configuration Audit Trail

Version	User	Date	Action	Archive Status
2	ADMINISTRATOR	8/19/2009 10:23:45 AM	Checked In	None
1	ADMINISTRATOR	8/19/2009 10:21:56 AM	Checked Out	None
1	ADMINISTRATOR	8/18/2009 6:13:06 PM	Download Label: sent to USAUST-MKTG008	None
1	ADMINISTRATOR	8/18/2009 6:09:29 PM	Label: Enabled Version Control	None
1	ADMINISTRATOR	8/18/2009 6:09:11 PM	Checked In	None
0	ADMINISTRATOR	8/18/2009 6:09:11 PM	Checked Out	None
0	ADMINISTRATOR	8/18/2009 6:09:11 PM	Created	None

*Configuration Audit Trail makes it easy to manage changes in the DeltaV™ system*

- Tracks configuration changes
- Displays differences between different versions of a configuration item
- Rolls back an individual item or the entire database to a prior version
- Creates change management reports
- Displays version identifiers online for downloaded configuration items
- Recipe authorization
- SIS Module download authorization
- Module testing approval

## Introduction

Configuration Audit Trail is a powerful tool that tracks changes and manages revision information for any item in the DeltaV™ configuration database, including Safety Instrumented System (SIS) items. This application creates and maintains a configuration change history for configuration items such as modules, SIS modules, phases, operations, unit procedures, user accounts, DeltaV Operate displays, etc.

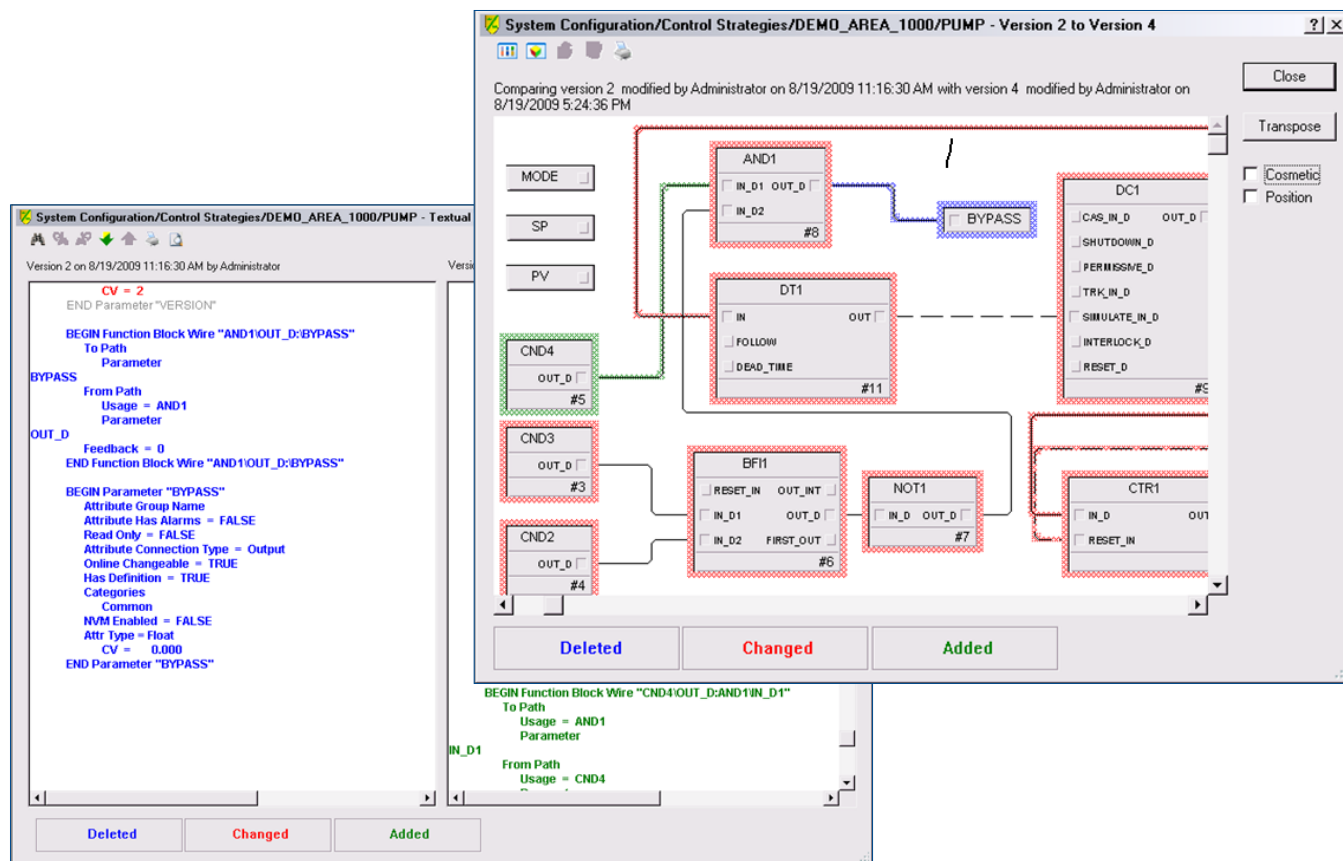
The DeltaV security system provides function locks, which allow the system administrator to control the privileges granted to individual users. Items may be checked out for editing only by approved users. When a change has been made, the version of a configuration item is automatically updated, the new version is time-stamped and a history comment can be recorded when the item is checked back in. Embedded reporting tools give engineers the ability to print configuration change histories for any item in the configuration database.

## Benefits

**Tracks configuration changes.** Keep a change history for modules, I/O, phases, and other configuration items in the DeltaV configuration database.

**Displays differences between different versions of a configuration item.** Immediately determine who made a change, when the change was made, and the detailed difference information for the two versions being compared.

**Rolls back an individual item or the entire database to a prior version.** The system provides a mechanism to roll back a specific item or the entire database to a previous version. Additionally, labels may be set on configuration items to facilitate rolling back to a common revision.



View differences in graphical or textual format

**Creates change management reports.** A variety of reports allowing the user to document the change history for any specific item, or the differences between different versions of a single item is available.

**Displays version identifiers online for downloaded configuration items.** All downloaded modules, phases, and procedural elements have a version identifier. This identifier may be viewed from DeltaV Operate or Control Studio On-line.

**Recipe authorization.** The recipe authorization feature provides for 1 to 5 electronic signature approvals before a recipe can be released to production for use. Unapproved recipes cannot be downloaded.

**SIS Module download authorization.** If enabled this feature enforces that electronic signatures, 1 to 5 depending on the SIL level, must be in place before a SIS module can be downloaded into the logic solver.

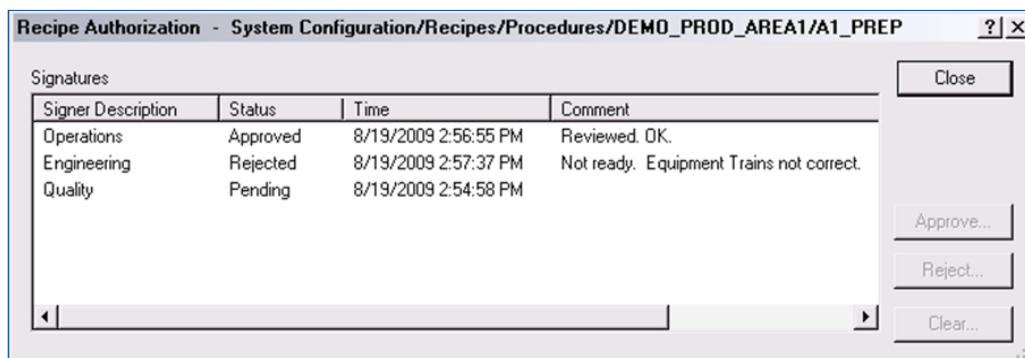
**SIS Module testing approval.** If enabled, this allows for 1 to 5 electronic signatures to be recorded, depending on the SIL level, when periodic functional tests are performed on SIS modules.

## Product Description

Configuration Audit Trail is a DeltaV tool that enables an engineer to collect and manage revision information for any item in the DeltaV configuration database. Keeping detailed historical information on configuration items ensures quality data for adhering to regulations.

Configuration Audit Trail is an optional feature that is tightly integrated with the configuration database. When enabled, it works seamlessly as part of the DeltaV configuration tools such as DeltaV Explorer, Control Studio, Recipe Studio and DeltaV Operate Graphics Configuration. Security function locks control access to Configuration Audit Trail.

Configuration Audit Trail tracks changes and creates a configuration change history for all types of configuration items in the DeltaV system. Each time a new version is made, the version identifier is automatically updated. Users easily check out, save, and check in configuration items.



*Electronic approvals of recipes*

A recursive checkout/in system enables users to check out/in the selected item and all nested items e.g. a unit and all items under it. Only checked-out items can be edited. A time-stamp and username are recorded in the Configuration Audit Trail whenever an item is checked in. It is also possible to include comments indicating the reason for the changes. These comments can be viewed at any time from the item's history log. Items can also be opened as read-only.

If a user makes changes to an item and other configuration items will be affected by the change, Configuration Audit Trail will attempt to perform a group checkout. If all items can be checked out, Configuration Audit Trail will check out the associated items and update their history logs.

The ability to set labels for configured items in the DeltaV database is also part of Configuration Audit Trail. Labels are strings that can be used to mark a particular version of an item to facilitate rollback to that version. The history log for each configuration item will be updated to reflect the label. Approved users can roll back a configuration item to a previous version or label. The history log will have an entry to say that a rollback to a previous version was performed.

History logs and difference reports can be viewed and printed from Control Studio and DeltaV Explorer.

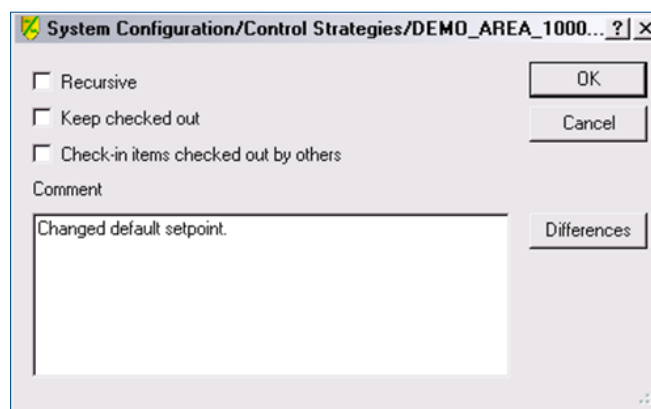
The configuration version identifier is included in the download from DeltaV Operate and Control Studio Online. The identifier is also readable within the control device.

DeltaV administrative tools allow the Configuration Audit Trail database and the DeltaV database to be backed up together in one operation. It is also possible to archive and restore versions of items in the audit trail database.

## Sizing

The DeltaV Configuration Audit Trail application uses a Microsoft® SQL Server database for the storage of versioned configuration items. The audit trail database size increases as

items in the DeltaV configuration database are modified and additional versions of those items are saved in the SQL Server database. Disk space can be conserved by archiving older versions. These can be selectively restored when required.



*Keep a running commentary of configuration changes*

## Hard disk requirements

You will want to ensure that there is adequate disk space to install Microsoft SQL Server and create the Configuration Audit Trail database with room for expansion of the database. Therefore, your ProfessionalPLUS Station should have a minimum amount of free space on the hard drive or partition where the DeltaV\DVDData directory is installed:

- For systems 10,000 DSTs or less: 13Gb
- For systems 10,000 DSTs to 20,000 DSTs: 17Gb
- For systems 20,000 DSTs to 30,000 DSTs: 21Gb

## Related Products

## Ordering Information

Description	Model Number
Configuration Audit Trail	VE2139Sxxxxx, where the xxxxx* represents the number of DSTs to be ordered

\* There are two options when enabling this application: Enable for SIS items only OR enable for all items. If enabled for SIS only, xxxxx must be sufficient to cover the total number of SIS DSTs. If enabled for the entire system, xxxxx must be sufficient to cover the sum of non-SIS and SIS DSTs.

- **Advanced Unit Management Software.**  
Provides class-based Unit Modules and aliasing to make developing unit-relative equipment strategies simple.
- **Batch Executive.** The batch engine which coordinates all batch processing activity, creates detailed batch history records and schedules recipes and resources.
- **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.
- **Configuration Software Suite.** Makes it easy to create Control Strategies and System Graphics to get your plant up and running quickly and efficiently.
- **DeltaV Operate.** High performance operator graphics, trends and alarms offered in standard operating layouts and utilizing system-wide built-in security.
- **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.
- **Recipe Exchange.** Provides an open, programmatic interface

to the DeltaV recipe management system. Recipe Exchange is based on an XML schema that provides the ability to programmatically import and export DeltaV recipes. A Service-Oriented Architecture Web Service is also available for Recipe Exchange.

- **Recipe Studio.** Powerful yet simple to use application for graphically configuring recipes (with formulas) for successful batch production.

## Prerequisites

- When enabled, Configuration Audit Trail is always resident on the DeltaV ProfessionalPLUS station. Configuration Audit Trail uses Microsoft SQL Server and thus requires a server-class computer and operating system for the ProfessionalPLUS station. For systems using Configuration Audit Trail, users simply check a box during installation to install the appropriate SQL Server software. EASY!

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