

DeltaV™ Historian Upgrade Planning Guide

This guide contains information to plan an upgrade from a previous version of the historian to a historian option in the latest version of the DeltaV system.

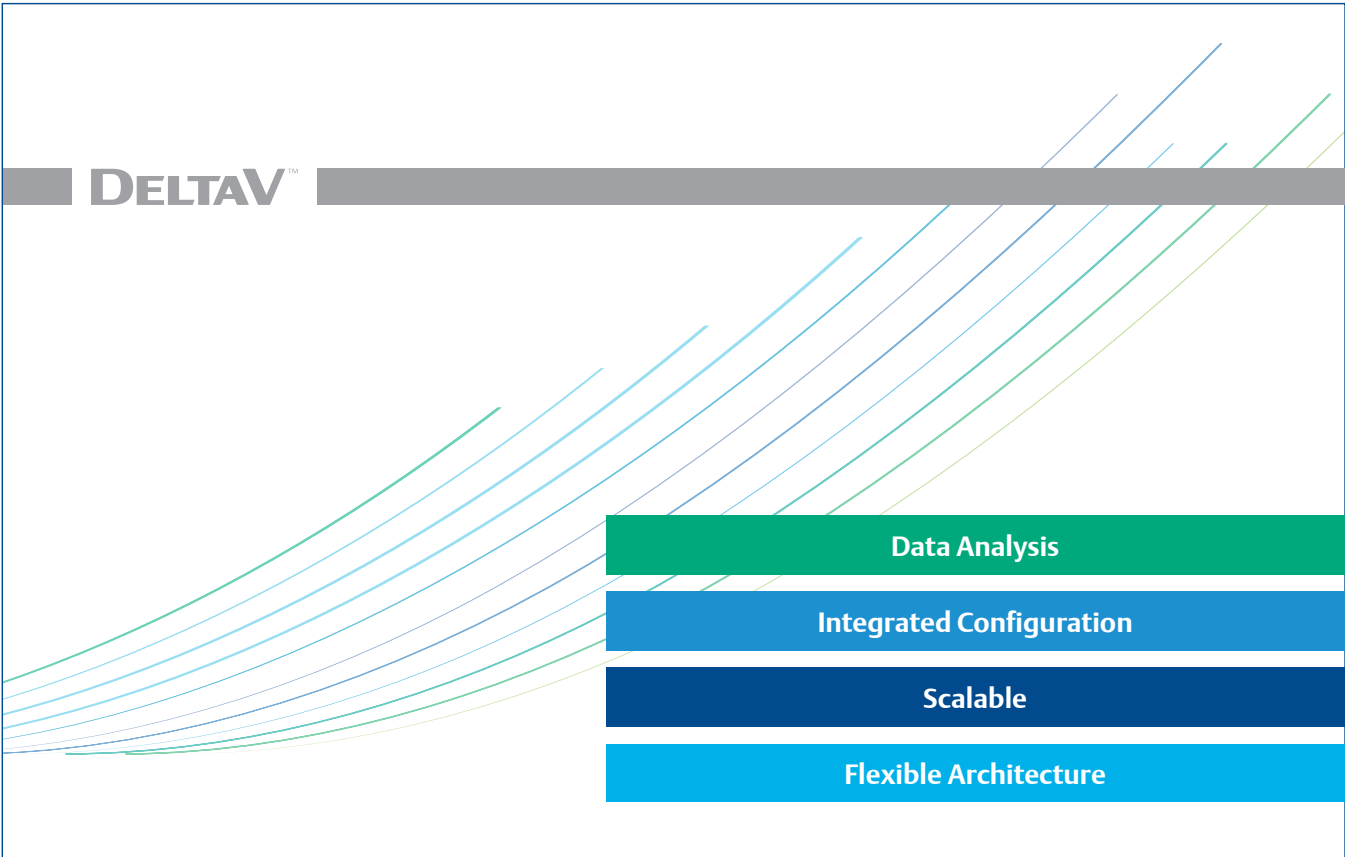


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1 Welcome

Welcome to the DeltaV Continuous Historian Upgrade Planning Guide. This manual contains general information for planning the upgrade of the system's historian in a previous version of DeltaV to a historian option in the latest version of DeltaV.

1.1 Terminology

In this manual, the following terms are used.

Legacy Historian: A continuous historian based on embedded OSIsoft technology, which was available on every DeltaV workstation from DeltaV v3.3 through v7.3. Continued use of the Legacy Historian on a DeltaV Application Station was available on upgrades to DeltaV v7.4 through DeltaV v11.3.1. This is also referred to as the "Legacy PI Historian."

DeltaV Continuous Historian: A continuous historian developed by Emerson as a replacement for the Legacy Historian, available in DeltaV v7.4 and later versions on every DeltaV workstation. The DeltaV Continuous Historian is available for new DeltaV systems and for DeltaV system upgrades.

Enterprise Historian: An OSIsoft PI Server integrated into DeltaV engineering and operations environments, as an alternative to the DeltaV Continuous Historian. The term "Embedded Enterprise Historian" refers to an Enterprise Historian available in DeltaV v10.3 and later versions where the PI Server is installed on an Application Station. The term "Integrated Enterprise Historian" refers to the Enterprise Historian option available in DeltaV v12.3 and later versions where the PI Server is installed on a non-DeltaV PC, typically on the plant/process LAN. The Enterprise Historian is available for new DeltaV systems and DeltaV system upgrades.

Advanced Continuous Historian: A continuous historian based on embedded OSIsoft technology, which is available on the DeltaV Application Station as an alternative to the DeltaV Continuous Historian. The Advanced Continuous Historian is available in DeltaV v12.3.1 and later versions for new DeltaV systems and DeltaV system upgrades.

Standalone Site PI Server: An OSIsoft PI Server developed and supported by OSIsoft. Emerson's historian solutions frequently send data to Standalone Site PI Servers for data integration purposes.

1.2 Background

The data historian is crucial to Emerson’s DeltaV users and has undergone many phases of development and enhancement throughout its lifespan. To meet the evolving needs of DeltaV users and address changing business needs, Emerson has introduced and retired historian products over the years. Throughout this process, Emerson has partnered with OSIsoft to leverage their expertise to deliver effective historian solutions to DeltaV users. As a result, historian solutions use OSIsoft technology embedded into DeltaV, use only DeltaV software, or use only OSIsoft PI software. The following graph shows a timeline of supported historian solutions over the course of the DeltaV releases.

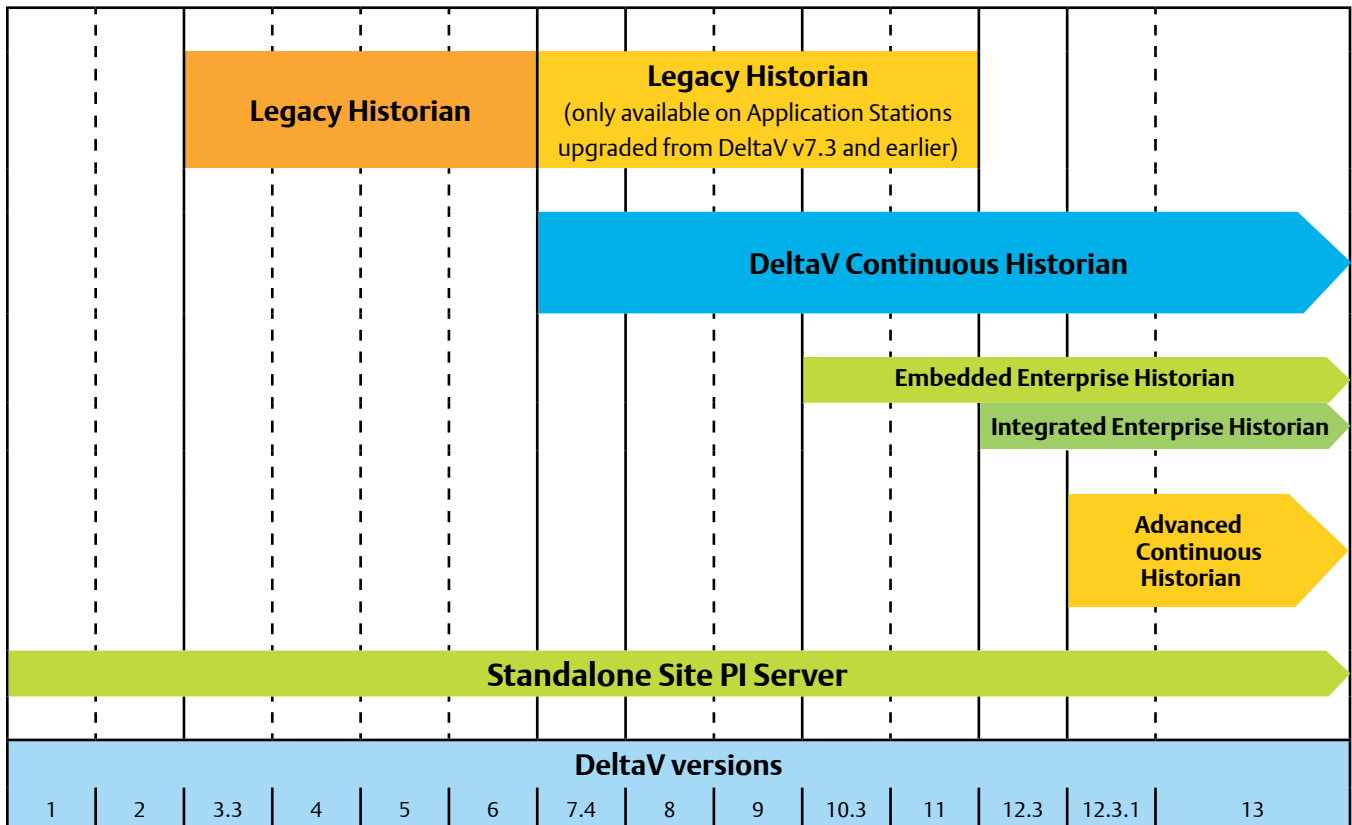


Figure 1 – Historian timeline.

The historians that use embedded OSIsoft technology within DeltaV are the Legacy Historian and the Advanced Continuous Historian. The Legacy Historian was the only continuous historian available for DeltaV systems from release v3.3 through v7.3. The Advanced Continuous Historian was introduced in v12.3.1 and will be the OSIsoft embedded historian going forward.

The DeltaV Continuous Historian is Emerson’s “homegrown” historian, uses only DeltaV software, and supports all the DeltaV history clients. Emerson introduced the DeltaV Continuous Historian in v7.4 as a replacement for the Legacy Historian. All DeltaV systems include the DeltaV Continuous Historian on every DeltaV workstation and it will be a supported solution going forward.

The Embedded Enterprise Historian and Integrated Enterprise Historian are OSIsoft developed products. Emerson does provide an “Enterprise Historian Configuration Interface” to provide an integrated engineering environment within DeltaV for easy history configuration. This solution will be supported going forward.

The Standalone Site PI Server is an OSIsoft developed and supported product.

1.3 DeltaV Historian Options

There are three continuous historian platforms available in the DeltaV system; the DeltaV Continuous Historian, the Advanced Continuous Historian, and the Enterprise Historian as highlighted in the figure below.

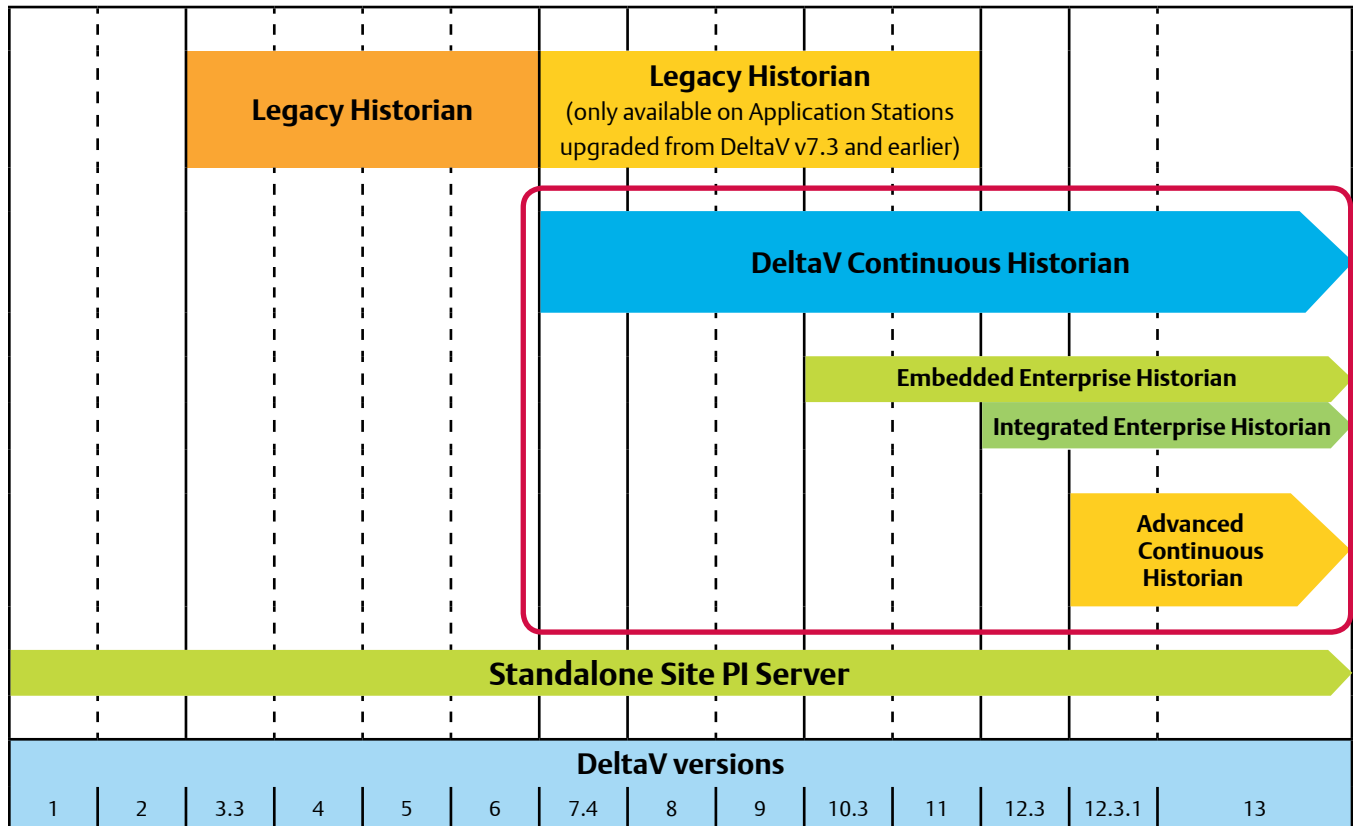


Figure 2 – Supported Historians.

The DeltaV Continuous Historian is the standard DeltaV system historian and is available on every DeltaV workstation.

The Advanced Continuous Historian was released in DeltaV v12.3.1 and is based on OSIssoft technology. It is available on the Application Station for new DeltaV systems and for DeltaV system upgrades. It provides an alternative to the DeltaV Continuous Historian for customers that want to use embedded OSIssoft historian technology in the DeltaV system.

The Enterprise Historian was released in DeltaV v10.3 and is an OSIssoft PI Server fully integrated with the DeltaV system. The enterprise historian is available on the Application Station for new DeltaV systems and for DeltaV system upgrades and provides a historian platform for customers that want to use full enterprise historian functionality with the DeltaV system. The embedded enterprise historian refers to the enterprise historian option available in DeltaV v10.3 and later versions where the PI Server is installed on an Application Station. The integrated enterprise historian refers to the enterprise historian option available in DeltaV v12.3 and later versions where the PI Server is installed on a non-DeltaV PC, typically on the plant/process LAN.

The following tables show the available historians for each workstation type and the migration option for each release.

DeltaV Workstation Type	Available Historian
ProfessionalPLUS	DeltaV Continuous Historian
Professional	DeltaV Continuous Historian
Operator Station	DeltaV Continuous Historian
Base Station	DeltaV Continuous Historian
Maintenance Station	DeltaV Continuous Historian
Application Station	DeltaV Continuous Historian, Advanced Continuous Historian, or Enterprise Historian
Remote Operator Station	DeltaV Continuous Historian
Remote Application Station	DeltaV Continuous Historian, Advanced Continuous Historian, or Enterprise Historian

Table 1 – Continuous historians available for each workstation.

DeltaV Release	Historian Upgrade Option
V9.3.1	DeltaV Continuous Historian, Legacy Historian
V10.3.1	DeltaV Continuous Historian, Legacy Historian, Enterprise Historian
V11.3.1	DeltaV Continuous Historian, Legacy Historian, Enterprise Historian
V12.3.1	DeltaV Continuous Historian, Advanced Continuous Historian, Enterprise Historian
V13.3	DeltaV Continuous Historian, Advanced Continuous Historian, Enterprise Historian

Table 2 – Historian upgrade options on an Application Station by DeltaV version.

2 Migration

This section outlines the supported migration paths between the DeltaV historians. Also, a list of steps and reference material is provided to help plan the migration.

2.1 Migration Options

The decision to migrate to a different historian is based upon the features offered by each of the historians. There is one scenario, however, that forces users to migrate to a different historian – upgrading a DeltaV system that currently has a Legacy Historian.

If a user originally purchased a DeltaV v7.3 or earlier version system with the Legacy Historian and upgraded that system to v7.4 through DeltaV v11.3.1, he/she had the option to keep the Legacy Historian on the DeltaV Application Station. The option to keep the Legacy Historian was discontinued beginning with the DeltaV v12.3 release. Customers with a DeltaV system containing a Legacy Historian who plan to migrate their system to a current release must also migrate their Legacy Historian to a DeltaV Continuous Historian, the Advanced Continuous Historian, or Enterprise Historian.

The following Figure displays the supported migration path for DeltaV’s historians. They are numbered in the figure as follows:

1. Migrate the Legacy Historian to the DeltaV Continuous Historian.
2. Migrate the Legacy Historian to the Enterprise Historian.
3. Migrate the Legacy Historian to the Advanced Continuous Historian.
4. Migrate the DeltaV Continuous Historian to the Advanced Continuous Historian.
5. Migrate the Advanced Continuous Historian from v12.3.1 to v13.3.

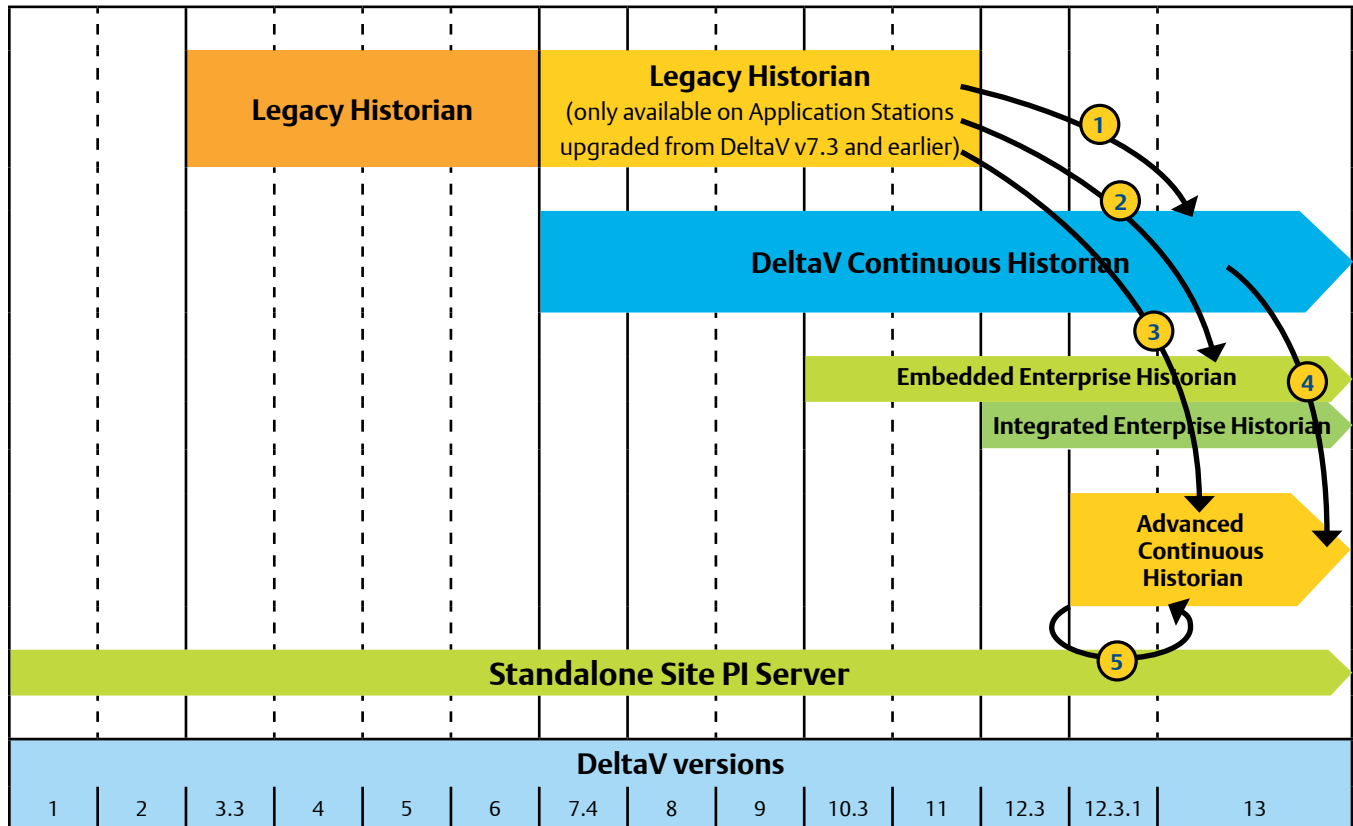


Figure 3 – Migration Paths.

2.2 Migration Planning

The following migration steps are required to upgrade from a historian used in a previous version of DeltaV to a historian option in a newer version of DeltaV:

1. Select the workstation on which to run the historian.

Historian	Workstation options
DeltaV Continuous Historian	Any DeltaV workstation
Advanced Continuous Historian	DeltaV Application Station
Embedded enterprise historian, OSIsoft PI Server	DeltaV Application Station
Integrated enterprise historian, OSIsoft PI Server	Non-DeltaV workstation

2. Order the PI OPC Server or PI ProcessBook client licenses, if required.

If you are migrating to the Advanced Continuous Historian and any clients on the system access historical data via OPC HDA (for example: Batch Analytics, Executive Portal, InfoBatch, or Sytech), order the PI OPC Server from OSIsoft or an Emerson reseller.

If you are migrating to the Advanced Continuous Historian and any clients on the system rely on PI ProcessBook clients to visualize historical data, order PI ProcessBook client licenses from OSIsoft or an Emerson reseller.

3. Order point licenses, if required.

For details about the availability of upgrade licenses or additional licenses to add point capacity, refer to the Product Data Sheet for the historian option to which you are migrating.

Note: If you are migrating to an enterprise historian, you can order licenses for tags directly from OSIsoft or from an Emerson reseller.

4. Install the historian to which you are migrating.

- By default, the DeltaV Continuous Historian is automatically installed during any DeltaV upgrade installation.
- Installing the Advanced Continuous Historian is a user-selectable option during a DeltaV upgrade installation.
- To install OSIsoft PI Server as an enterprise historian, follow the instructions provided by OSIsoft.

5. Download the instructions for your specific historian migration scenario from the Guardian web site, and then migrate your historical data to the new historian. To download the instructions for your specific historian migration scenario from the Guardian web site, complete the following steps:

- a. Navigate to the Guardian web site at <https://guardian.emersonprocess.com>.

- b. Log on by entering your email address and Guardian password.

- c. Click **Resources** at the bottom of the window.

- d. In the list of resources for DeltaV click **Product Manuals**.

- e. If prompted, log on by entering your email address and Foundation Support password.

- f. Click **DeltaV** in the blue ribbon at the top of the Support page.

- g. Click **Online Resources** in the orange ribbon on the DeltaV tab.

- h. In the list of Online Resources, click **Product Manuals**.

- i. On the DeltaV Product Manuals page, open the History Migration folder under the specific version of DeltaV to which you need to migrate historical data to a new historian.

- j. The following documents are available for download:

- DeltaV v13.3

Migrate the Legacy Historian to the DeltaV Continuous Historian for DeltaV v13.3

Migrate the Legacy Historian to a PI Server enterprise historian for DeltaV v13.3

Migrate the Legacy Historian to the DeltaV v13.3 Advanced Continuous Historian

Migrate the DeltaV Continuous Historian to the DeltaV v13.3 Advanced Continuous Historian

Upgrade the DeltaV v12.3.1 Advanced Continuous Historian to DeltaV v13.3

- DeltaV v13.3.1 (Windows Server 2008)

Migrate the Legacy Historian to the DeltaV Continuous Historian for DeltaV v13.3.1

Migrate the Legacy Historian to a PI Server enterprise historian for DeltaV v13.3.1 on Windows Server 2008

Migrate the Legacy Historian to the DeltaV v13.3.1 Advanced Continuous Historian on Windows Server 2008

Migrate the DeltaV Continuous Historian to the DeltaV v13.3.1 Advanced Continuous Historian on Windows Server 2008

Upgrade the DeltaV v12.3.1 Advanced Continuous Historian to DeltaV v13.3.1 on Windows Server 2008

- DeltaV v13.3.1 (Windows Server 2016)

Migrate the Legacy Historian to the DeltaV Continuous Historian for DeltaV v13.3.1

Migrate the Legacy Historian to a PI Server enterprise historian for DeltaV v13.3.1 on Windows Server 2016

Migrate the Legacy Historian to the DeltaV v13.3.1 Advanced Continuous Historian on Windows Server 2016

Migrate the DeltaV Continuous Historian to the DeltaV v13.3.1 Advanced Continuous Historian on Windows Server 2016

Upgrade the DeltaV Advanced Continuous Historian to DeltaV v13.3.1 on Windows Server 2016

3 Conclusion

Emerson is committed to supporting migration to all historian options available in DeltaV. After you review the instructions in any of the historian migration documents listed above, you can obtain additional assistance by contacting your local Emerson Field Sales Office or Local Business Partner for more details.

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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