Tech Note 948 Quick Reference Guide: Migrating IndustrialSQL Server 9.0 to Historian 2012 R2

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Introduction

Historian Server v11.0 (included in System Platform 2012-R2) does not support a direct migration from prior versions older than Historian Server v10.0. For example, in order to migrate from IndustrialSQL Server v9.0 you must first upgrade to v10.0, and then upgrade the v10.0 to v11.0.

If you are planning on using the same computer throughout the upgrade process, simply follow the product documentation instructions *for each version* in turn. However, due to advancements in technology it may be beneficial or desirable to use a brand-new computer system.

The product documentation for each version covers the migration process in detail, but you should use this *Tech Note* as a quick reference guide to make sure each of the tasks are completed properly when migrating to a new version on a different system than the original.

Application Versions

- IndustrialSQL Server 9.x
- Historian 10.x
- Historian 2012 R2

Prerequisites

Ideally you will use three computers to perform this upgrade:

- 1. The original production machine, presumably running InSQL v9.0.
- 2. A "staging" computer where Historian v10.0 will be installed temporarily.
- 3. The "final destination" computer, where Historian v11.0 will be installed.

The final destination computer can serve as the staging computer if necessary, but it is recommended to use separate computers if at all possible, so no legacy components will be installed during the final stage.

Note: Virtual technologies such as VMWare and Hyper-V can be used for the staging computer.

Migrating From v9.0 to v10.0

The most straightforward way of migrating is to

- Backup the **Runtime** database from the original v9.0 computer.
- Restore it onto the staging computer.
- Install the Historian v10.0 software.

See Tech Note 817 Moving the Historian Runtime Database from One Machine to Another for detailed instructions.

If you have any custom tables, stored procedures, etc. you must transfer them manually from the "Runtime90" database to the new **Runtime** (v10.0) database. The migration process does not copy those objects for you.

Also, if you have created any SQL logins for particular users or groups, you should create those same SQL logins on the staging computer before you install the Historian software. This preserves any **Private** Groups you may have created (**Public** Groups are migrated automatically).

Migrating From v10.0 to v11.0

The most straightforward way of migrating is to

- Backup the Runtime database from the v10.0 computer,
- Restore it onto the new computer.
- Install the Historian v11.0 software.

However, the migration process for v11.0 is slightly different than for v10.0.

In prior versions, the Historian installation program automatically renamed the existing **Runtime** database, created a new one with the updated data structures, and copied the configuration from the old database to the new one.

In Historian v11.0 the migration process uses the existing Runtime database and modifies it directly with the new data structures.

You don't have an "automatic copy" of your previous Runtime database, but on the bright side any custom tables, stored procedures, etc. are automatically preserved without the need to transfer them from the old database. However, you will still need to create any SQL logins on the target computer *before* installing Historian software if you wish to migrate any **Private** Groups.

Post-Migration Tasks

If the computer name of the final destination is not the same as your original computer name or your staging computer name, you may need to update some tables within Runtime to reflect the final computer name.

Refer to Tech Note #777 Changing the Server Name for Historian Server.

Finally, you can copy the History Blocks from the original computer's storage locations (Circular, Alternate, etc.) if you wish to be able to retrieve old history data. No conversion is required; simply copy & paste the folder contents from one location to the other.

Note: You cannot copy the current history block while the InSQL/Historian system is running; you must shutdown & disable the historian, or wait until after a block changeover to copy the history block.

Summary

To summarize, here is an outline of the steps mentioned above, with references to content that will enable success:

- 1. Backup the original v9.0 Runtime database. See Tech Note 817 Moving Historian Runtime DB from One Machine to Another.
- 2. Install MS SQL Server onto the staging computer. See Tech Note 682 Installing SQL Server 2008 for Historian (SQL-2005 is also acceptable).
- 3. Create any custom SQL logins that may be using Private Groups. Refer to MS SQL documentation.
- 4. Restore Runtime onto the staging computer. See Tech Note 817.
- 5. Install Historian v10.0.
- 6. Copy any custom tables, stored procedures, etc. from the old **Runtime90** database to the new **Runtime** v10.0. See Tech Note 918 Moving Custom Historian Tables.
- 7. Backup the v10.0 Runtime database from the staging computer. See Tech Note 817.
- 8. Install MSSQL onto the final destination computer. See Tech Note 682 for SQL-2008, or Tech Note 958 for SQL-2012.
- 9. Create any custom SQL logins that may be using Private Groups. Refer to MS SQL documentation.
- 10. Restore Runtime onto the final destination computer. See Tech Note 817.
- 11. Install Historian v11.0.
- 12. Update Runtime tables to use new computer name if needed. See Tech Note 777 Changing the Server Name for Historian Server 10.0.
- 13. Copy history blocks from the original v9.0 to the final destination computer.
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