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## Migrating InSQL 9.0 and later to Historian 2014 R2 SP1 on a new machine

### SUMMARY

This *Tech Note* provides the procedure to migrate earlier versions of Historian (InSQL 9.0 onward) to Historian 2014 (V11.5) and Historian 2014 R2 SP1 (V11.6) on a new machine with the same name.

Migration from InSQL V9.0 and below requires upgrading to Historian 2012 (V10.0) first.

Migration to Historian 2017 from Historian 2012 (V10.0) requires upgrading to Historian 2014 R2 SP1 first.

### SITUATION

Because Microsoft is phasing out support for earlier versions of Microsoft Operating Systems, you must migrate to a new machine with a newer Operating System version. With this move, older versions of Wonderware products must be migrated as well. This article describes the steps to migrate to the new Historian version.

### SYMPTOMS

In order for the new Historian machine to have the same configuration as the old machine, and to be able to read the History blocks, the Runtime database has to be migrated correctly.

For System Platform 2012 and earlier versions, you must perform a "same machine" upgrade. This means you install the new version on the same machine as the old version, so that the Runtime database can be upgraded, and in turn, can backup and restore the upgraded database to the new machine. The reason for this is that when you run the Historian configurator, it deletes the Runtime database and creates a new default one.

With Historian 2014 and Historian 2014 R2, there is no need for this process. The Historian configurator verifies the Runtime database and performs an upgrade as long as it is a valid Historian Runtime database, even when it is an earlier version. Any custom tables in the Runtime database are preserved.

### ACTION

Please read through the documentation as least once before proceeding with the steps.

1. On the new machine, make sure the machine name is exactly the same as the machine to be migrated. Install the required Microsoft SQL version and Historian.
2. Open Historian administrator to make sure the new installed Historian is running without any problem.

Item	Value	Module	Status
System time	6/19/2017 2:56:32 PM	Storage	Started
Time of last start	6/13/2017 11:02:16 AM	Classic data redirector	Started
Elapsed time since last start	6 dys 3 hrs 54 mins	Data import	Started
Time of last stop	6/13/2017 11:02:00 AM	Replication	Started
Time of last reconfiguration	6/13/2017 11:02:00 AM	Classic event system	Started
Configuration status	Normal	Retrieval	Started
System status	Running	Indexing	Started
License status	Valid	OLE-DB provider	Started
Total number of tags in dat...	1,444	Historian I/O server	Started
Number of licensed tags in ...	1,251	Client access point	Started
License tag count	500,000	Metadata server	Started
Total number of data value...	232,164,981	Event storage	Started
Overall data rate (per sec.)	1,251.46	System driver	Started
Fatal errors	0	Data acquisition on \\WIN-1RSTSFH5MMI	Started
Critical errors	0		
Errors	0		
Warnings	1		
Time of last error reset	6/13/2017 11:02:00 AM		
Space available on circular ...	26.6 GB		
Space available on alternati...	Undefined or invalid path		
Space available on buffer p...	26.6 GB		
Space available on perman...	26.6 GB		
System version	11,6,13100,000		

Figure 1: Historian running without any problem

- By default, all History blocks are stored in **C:\Historian\Data**. Check that the old machine are using the same path. If not, create the folder that is being used by the old Historian before proceeding. Older versions of Historian have the default path of **C:\InSQL\Data**.

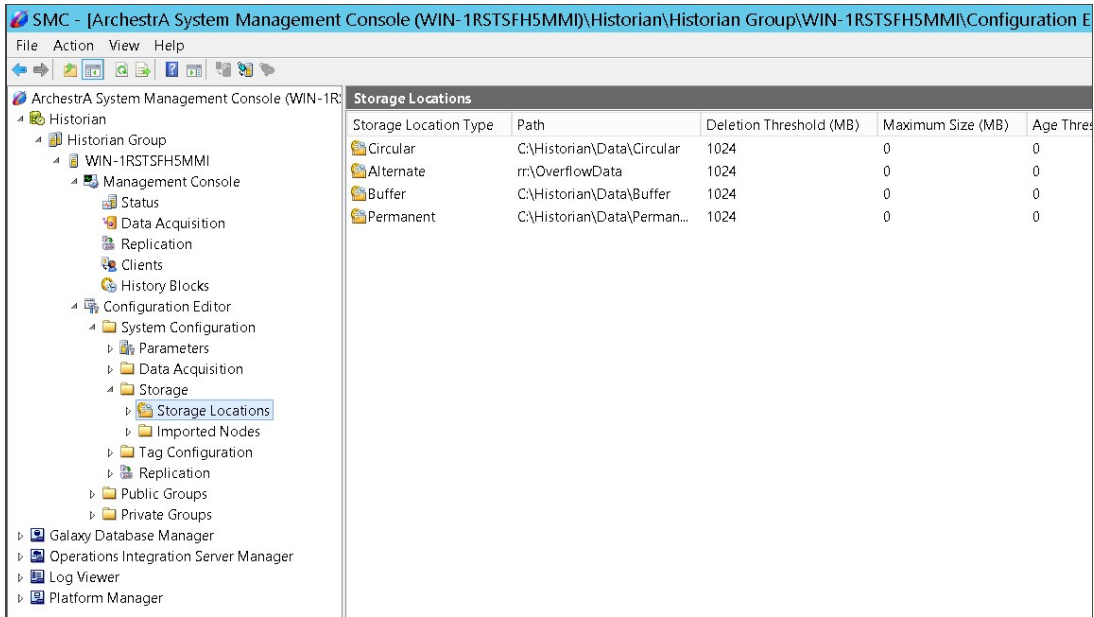


Figure 2: Default History block location

- On the old machine, open Microsoft SQL Server Management Studio. Right-click on the Runtime database and click **Task -> Backup**.

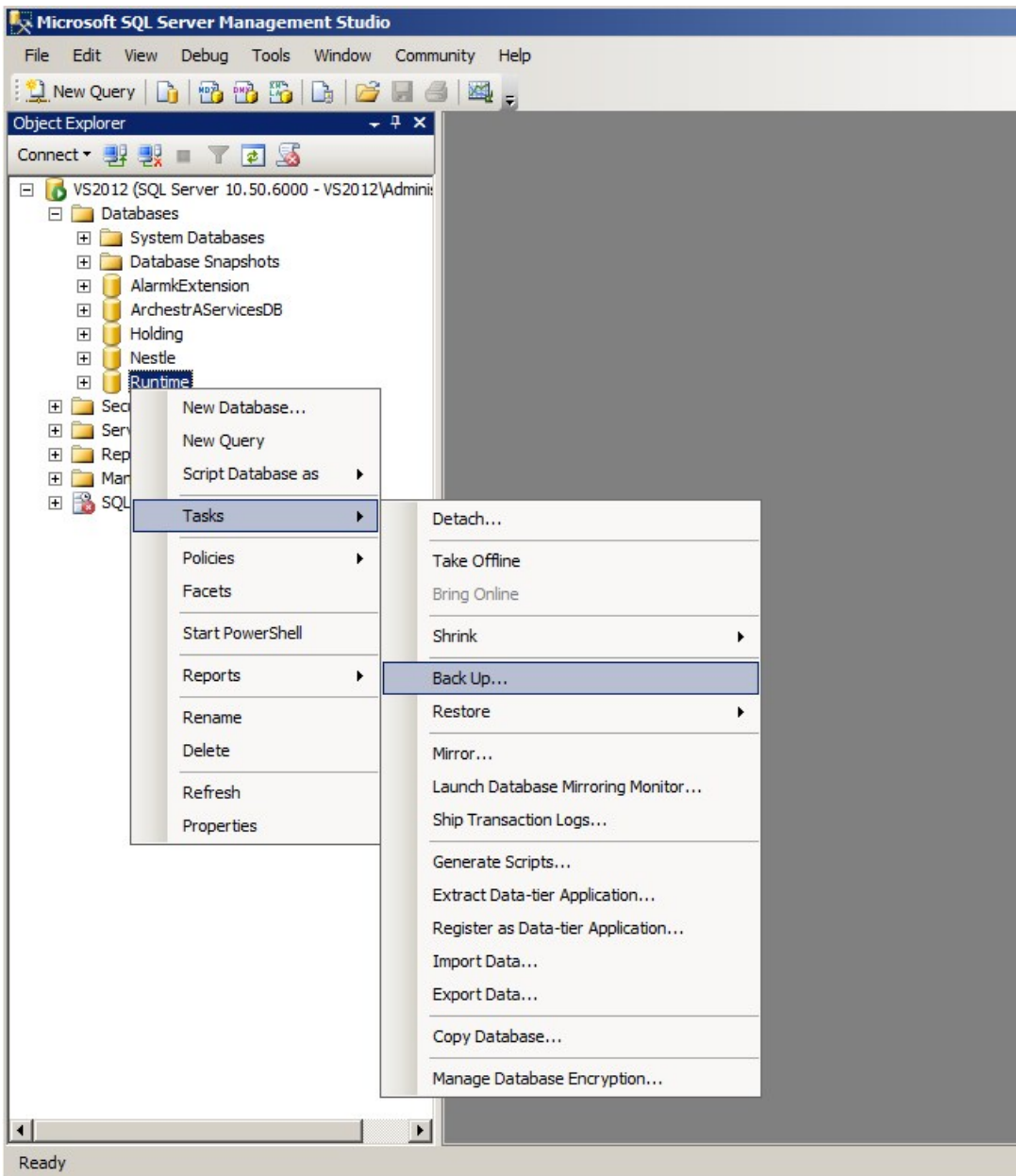


Figure 3: Example MS SQL 2008 backup menu

5. On the new machine, Shutdown and disable Historian. Make sure all modules are stopped before you proceed to next step.

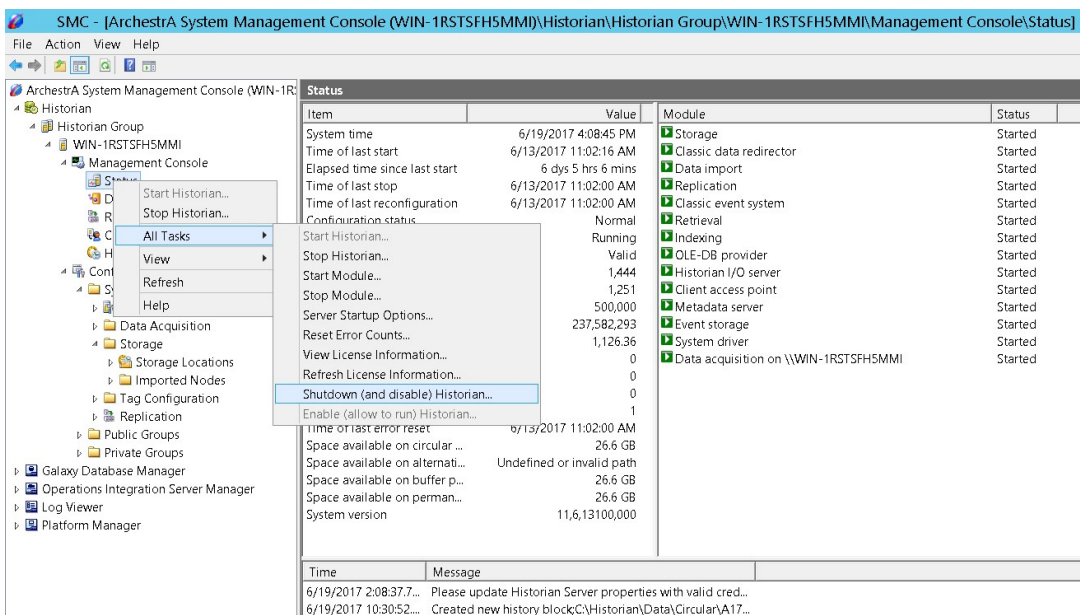


Figure 4: Shutdown and disable Historian

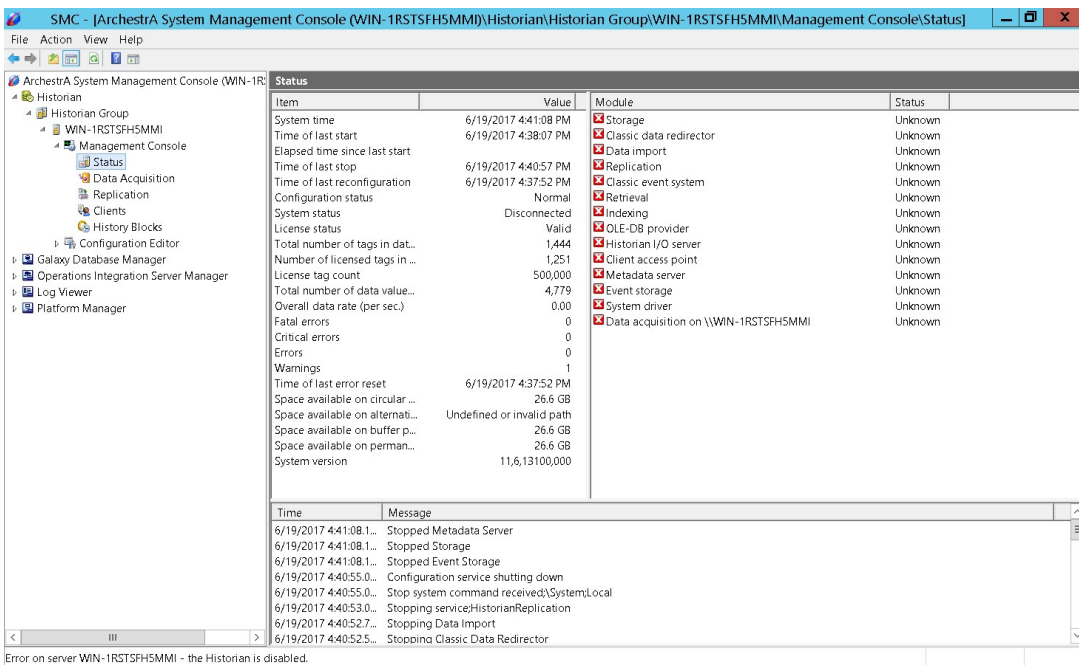


Figure 5: All Modules stopped

6. Open Microsoft SQL Management Studio and restore the backup Runtime database to the new machine.

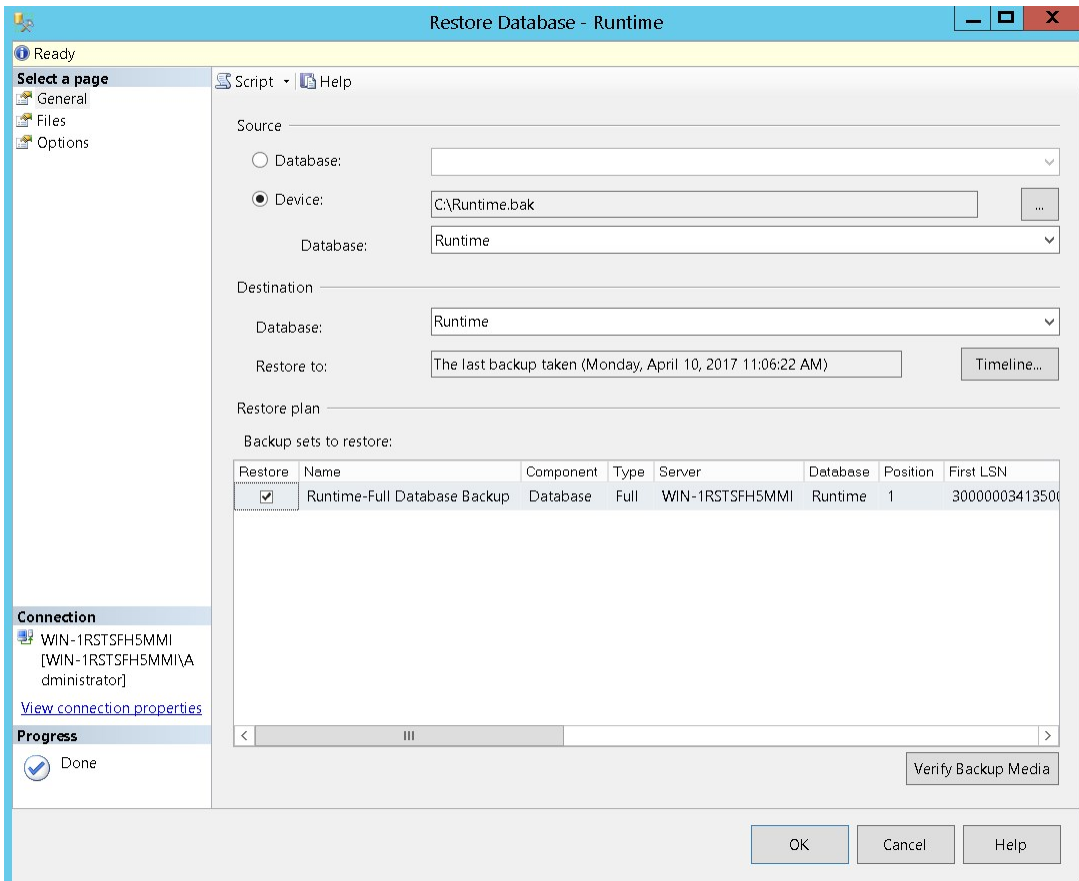


Figure 6: Restore Runtime database from the backup file

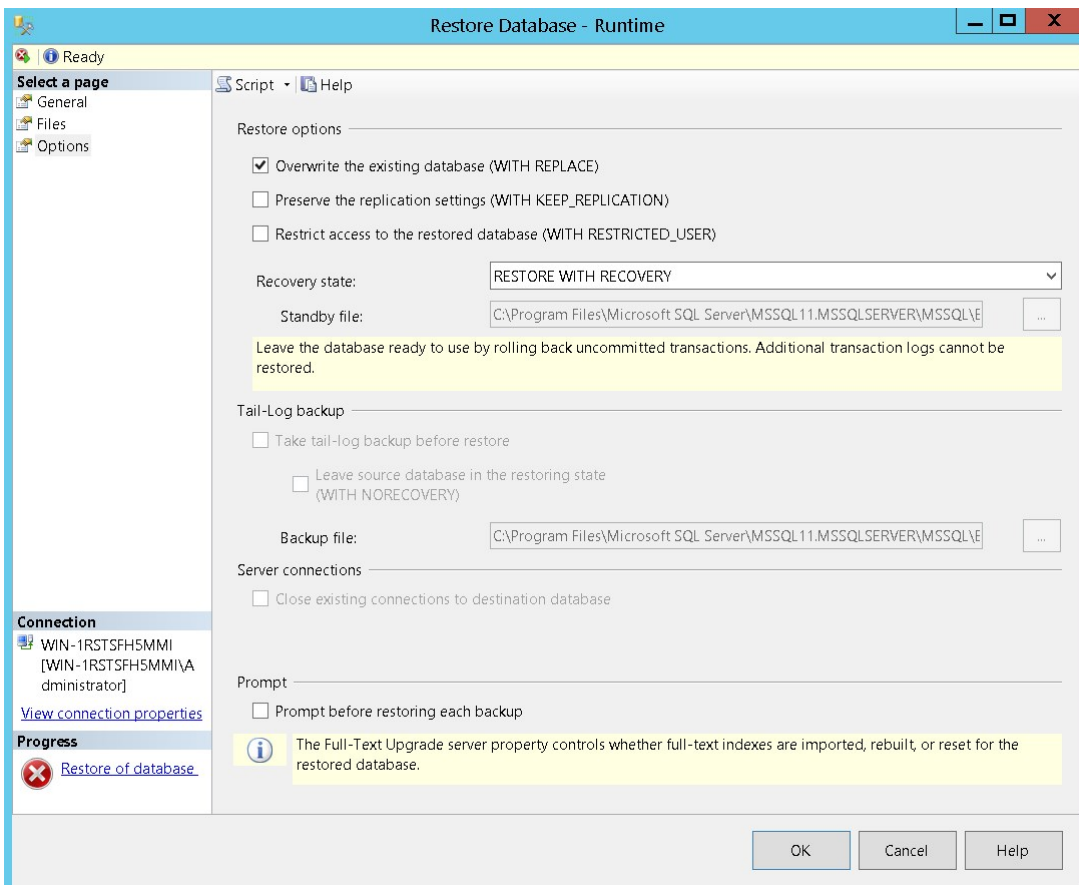


Figure 7: Enable options "Overwrite the existing database" and click "OK"

7. After the runtime database is restored without error, close Microsoft SQL Management Studio.
8. Run the Historian Configurator. It will update the Runtime database to the latest version.

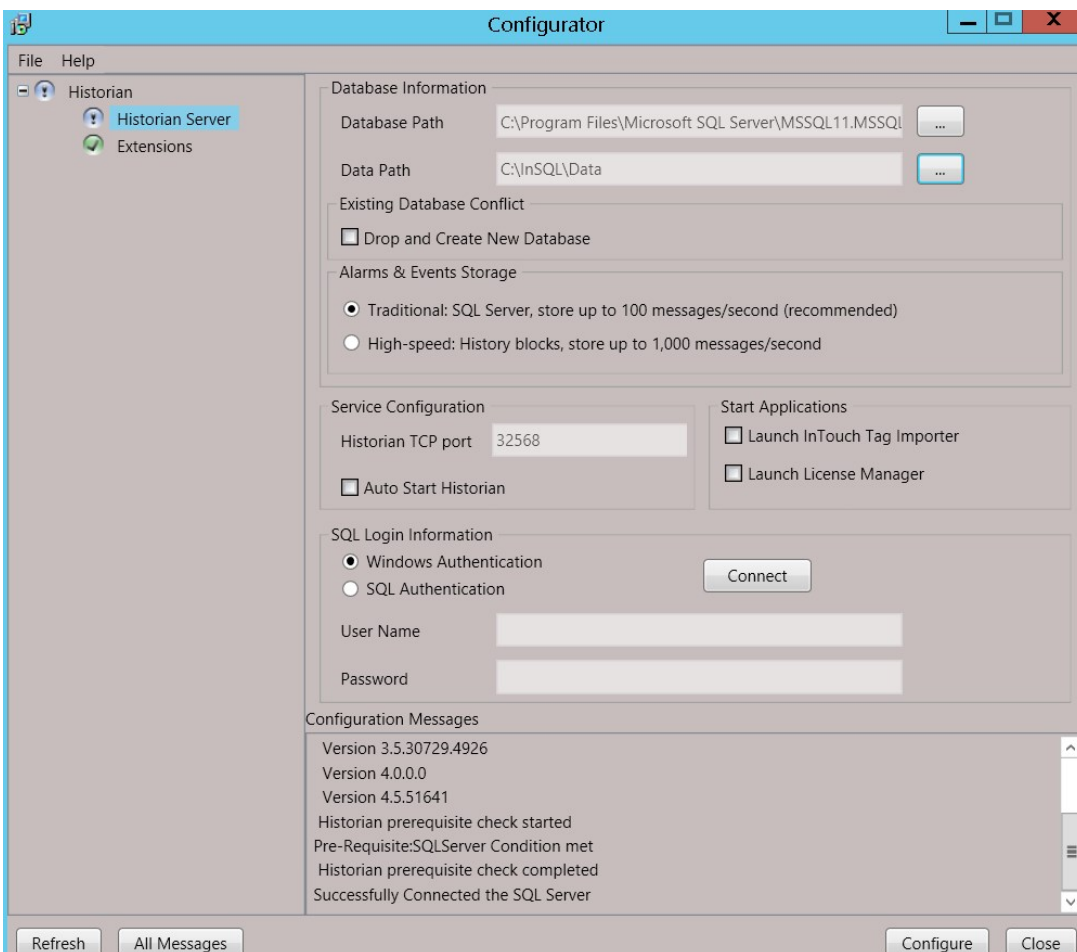


Figure 8: Update the Data Path noted in step 3 and click 'Configure'.

9. Start Historian administrator. Enable (allow to run) Historian.

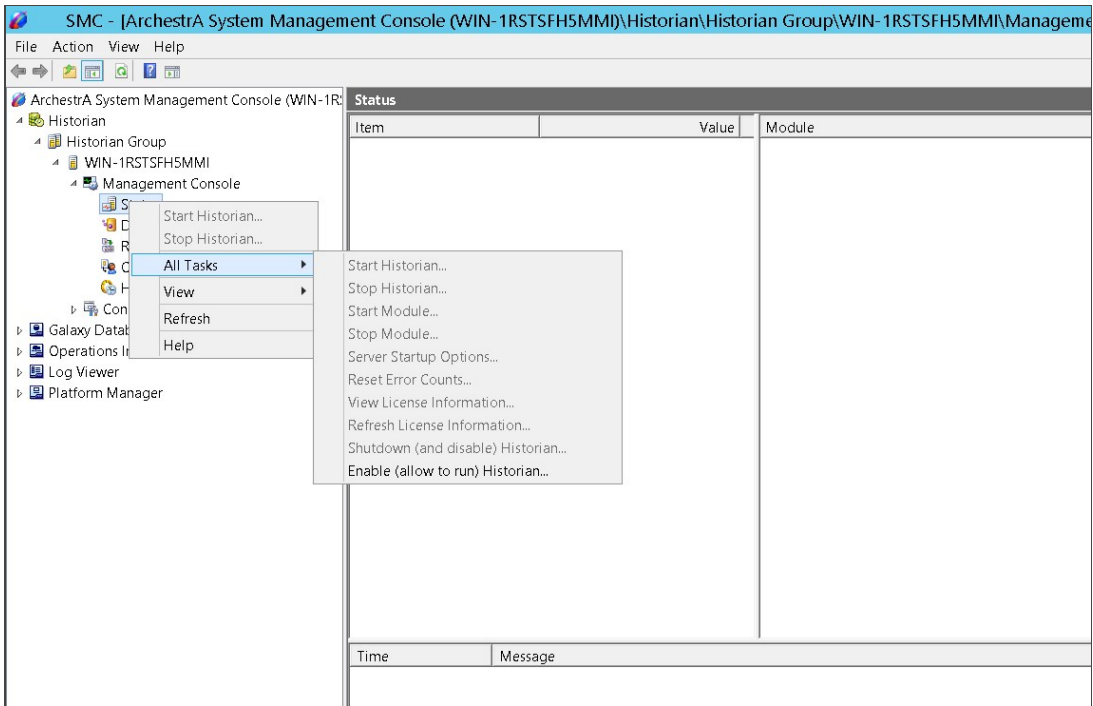


Figure 9: Enable (allow to run) Historian

10. Notice that not all modules are started. This is normal.

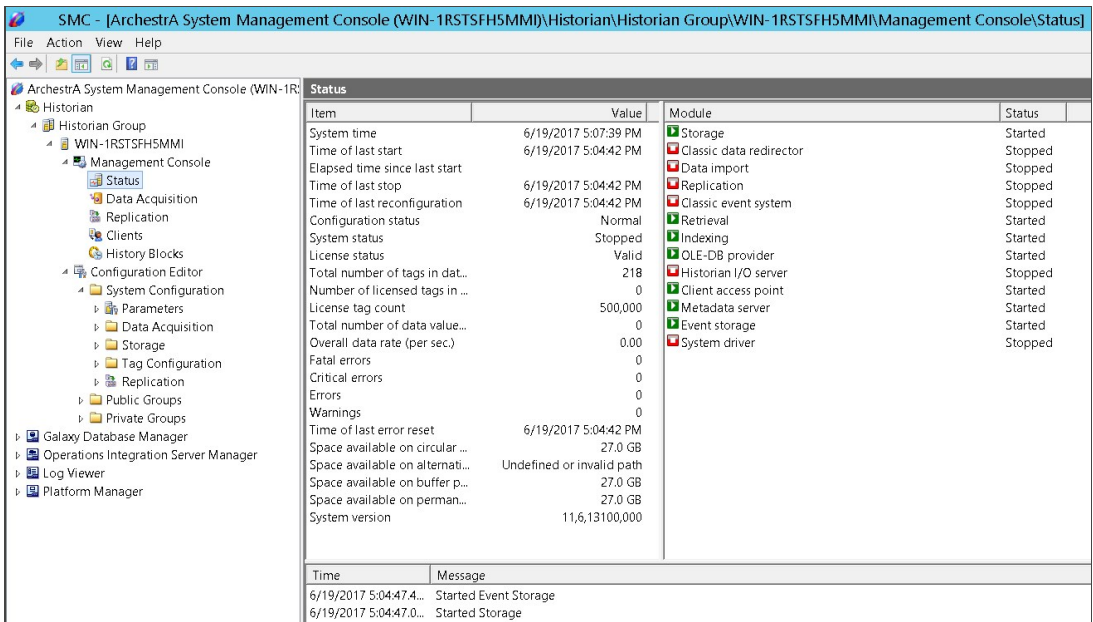


Figure 10: Not all modules are started

11. Go to Configuration Editor -> Parameters. Update all log paths to point to the same folder as the History Block for easy administration.



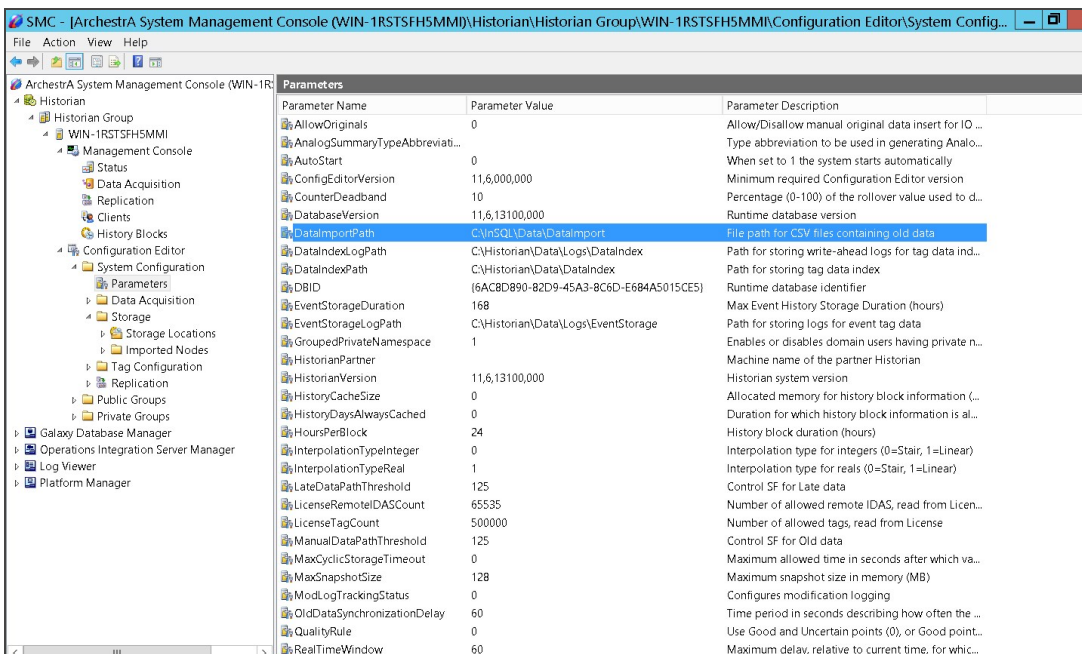


Figure 11: Optional - Update log path to use the same folder as History Block

12. Go back to Status and Start Historian.

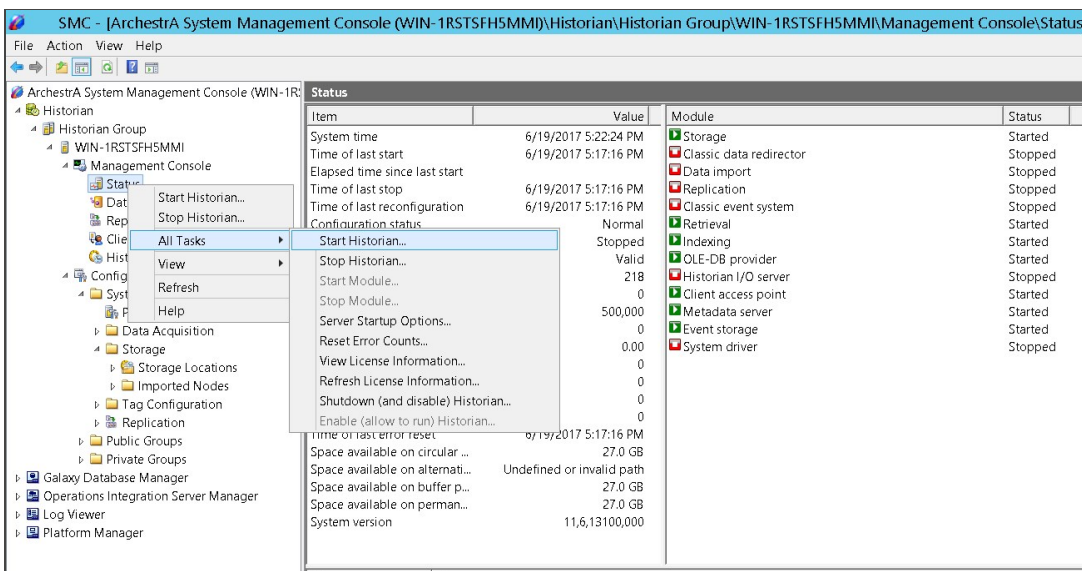


Figure 12: Start Historian

All modules should be started now

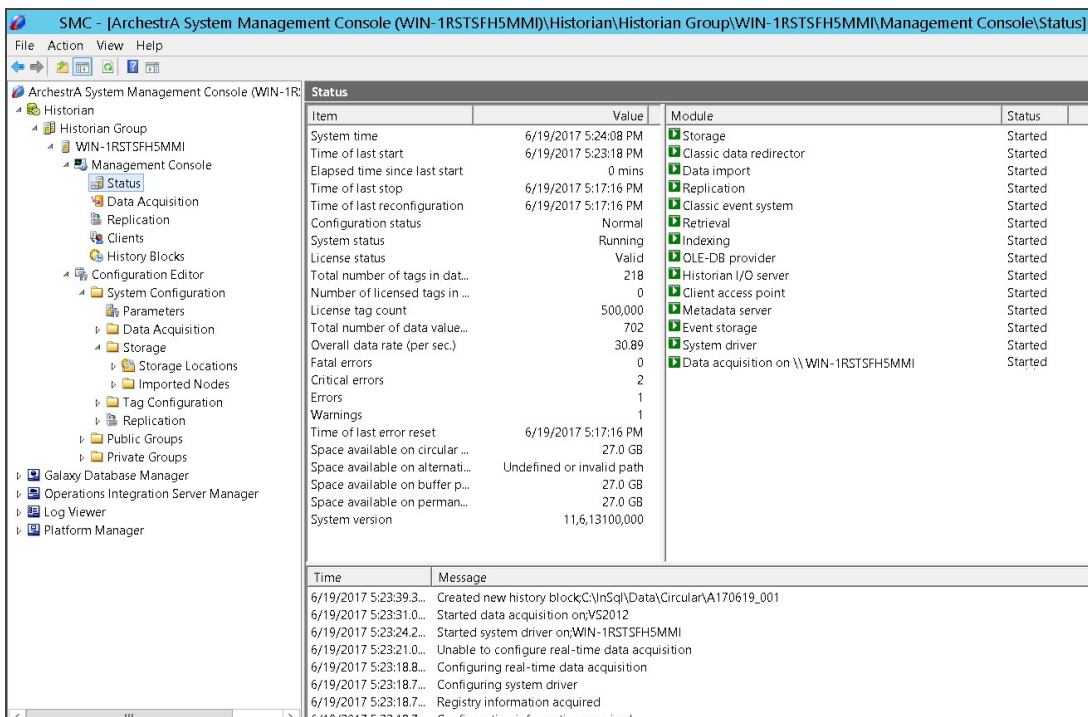


Figure 13: All modules should be started

## NOTES:

- Make sure the new computer name is the same as the old computer name
- Take note of the History Block path because it is the same folder that is required to be created on the new computer.
- Moving the History Blocks from the old computer to the new computer simply involves copying over the block files.
- For Historian 2014, please execute **Rescan History Blocks** after the blocks have been copied over. Historian 2014 R2 does not require executing this step.
- Older Historian versions create a new History Block when you restart Historian. Because of this it is possible to have many blocks for 1 day. But Historian 2014 R2 does not create a new block even when you restart. It creates a new block based on the **HoursPerBlock** parameter, which is 24 hours by default. In order to minimize the data gap or data lost, Wonderware Technical Support recommends switching over from the old machine to the new machine after midnight.

## SUPPORTING INFORMATION

- [TN544 - Migrating IndustrialSQL Server 9.0 to Historian 2012 R2](#)
- [TN432 - Moving the Historian Runtime Database from One Machine to Another](#)
- [TN676 - Moving the Historian runtime Database to Another Machine Using SQL 2012](#)