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Migrating the Runtime Database from Historian 2012 R2 and Later to Historian 2017 Update 1

SUMMARY

This *Tech Note* explains the steps to migrate the Historian database (Version 2012 R2 and above) to Historian Update 1.

SITUATION

PREREQUISITE:

Hot Fix **L00149050** - Configurator crashes upon opening.

APPLICATION VERSION:

- Windows Server 2012 R2
- Wonderware System Platform 2017 Update 1
- SQL Server 2016

ACTION

1. Copy the Runtime database you want to migrate and History Blocks to the Historian 2017 Update 1 machine.
2. Install **Hotfix L00149050** so that the configurator works properly.
3. Shutdown the Historian from the SMC and then connect to SQL Server (Figure 1 below).

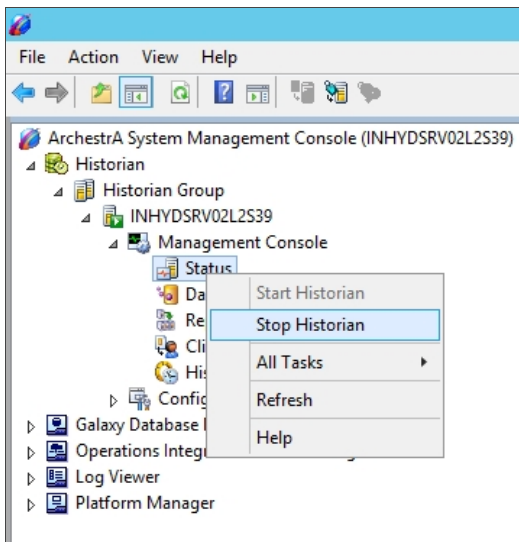


Figure 1: Shutting down Historian from the SMC

4. Start Microsoft SQL Server Management Studio. Make sure to login to SQL Server using either the sa login or your Windows-Authenticated account with local Administrative privileges.
5. Open a new query window and copy/paste the following Transact-SQL code into the query area and execute it. This query will rename the existing Runtime database on the destination server to **Runtime_Old** for safety purposes.

```
USE Master
```

```
ALTER DATABASE Runtime SET SINGLE_USER;

ALTER DATABASE Runtime MODIFY NAME = Runtime_Old;

GO
```

- In the Object Explorer, right-click the **Database** folder and click **Restore Database**. The **Restore Database** dialogue appears, click **Device** and Add the Runtime Database (.bak) (which you copied to the system) ,and click **OK** (Figure 2 below).

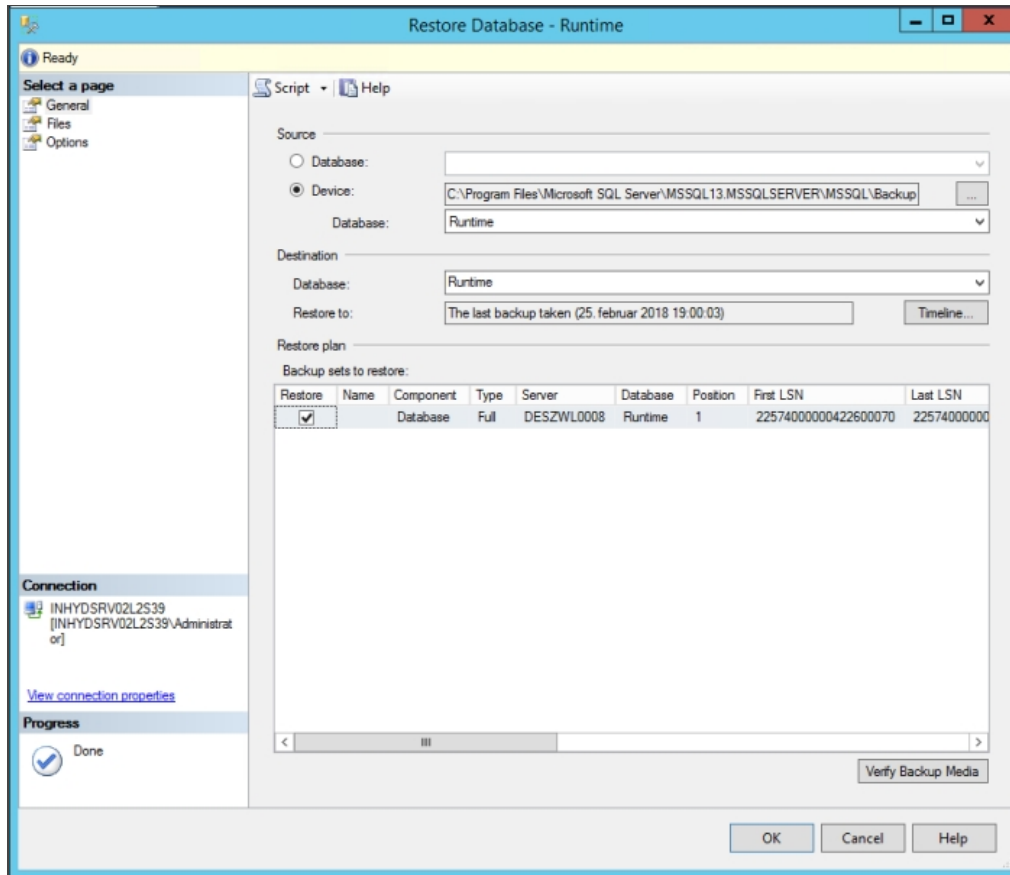


Figure 2: After clicking OK database restoration should be successful

- After the restore operation completes successfully, execute the following Transact-SQL script from the MS SQL Server Management Studio to ensure that all of the Historian Server's pre-configured user accounts and roles are properly connected.

```
USE Runtime

EXEC sp_change_users_login 'Auto_Fix', 'wwAdmin'

GO

EXEC sp_defaultdb 'wwAdmin', 'Runtime'

GO

EXEC sp_change_users_login 'Auto_Fix', 'wwUser'

GO

EXEC sp_defaultdb 'wwUser', 'Runtime'

GO

EXEC sp_change_users_login 'Auto_Fix', 'wwPower'

GO

EXEC sp_defaultdb 'wwPower', 'Runtime'

GO
```

```

EXEC sp_change_users_login 'Auto_Fix', 'aaAdmin'

GO

EXEC sp_defaultdb 'aaAdmin', 'Runtime'

GO

EXEC sp_change_users_login 'Auto_Fix', 'aaUser'

GO

EXEC sp_defaultdb 'aaUser', 'Runtime'

GO

EXEC sp_change_users_login 'Auto_Fix', 'aaPower'

GO

EXEC sp_defaultdb 'aaPower', 'Runtime'

GO

```

8. Execute the following queries in the Runtime Database according to the new node name and storage location:

a) The **ComputerName** field in the **StorageNode** table contains the node name where the Historian Server data is logged.

```

UPDATE StorageNode

SET ComputerName = 'NewNodeName'

WHERE ComputerName = 'OldNodeName'

```

b) The **ComputerName** field in the **ServerList** table also contains the node name where the Historian Server resides.

```

UPDATE ServerList

SET ComputerName = 'NewNodeName'

WHERE ComputerName = 'OldNodeName'

```

c) The **ComputerName** field in the **IODriver** table also contains the node name where the Historian Server resides.

```

UPDATE IODriver

SET ComputerName = 'NewNodeName'

WHERE ComputerName = 'OldNodeName'

```

d) The **ComputerName** field in the **IOServer** table contains the node names where the internal System Driver (SysDrv) and various I/O Servers or DAServers for IDAS Data collection are installed. If any I/O sources that were running locally to the Historian Server on the old node are not going to be running locally on the new node, you will need to manually modify the IOServer entries afterward using Historian Server Configuration Editor(SMC).

```

UPDATE IOServer

SET ComputerName = 'NewNodeName'

WHERE ComputerName = 'OldNodeName'

```

e) If necessary, use the following script to modify any paths that are different on this node, replacing the drive letter "x" with the drive letter that is appropriate for your installation.

```

UPDATE StorageLocation

SET path = 'x:\Historian\DATA\Circular'

WHERE StorageType =1

UPDATE StorageLocation

SET path = 'x:\Historian\DATA\Buffer'

WHERE StorageType =3

```

```

UPDATE StorageLocation
SET path = 'x:\Historian\DATA\Buffer'
WHERE StorageType =4

```

f) Use the following script to update the **System Parameter** table.

```

UPDATE SytemParameter
SET value = 'x:\Historian\Data\DataImport'
WHERE Name = 'DataImportPath'

UPDATE SytemParameter
SET value = 'x:\Historian\Data\Logs\EventStorage'
WHERE Name = 'EventStoragePath'

```

9. Open the configurator and click **Configure** to make the changes into the database according to the new version (Figure 3).

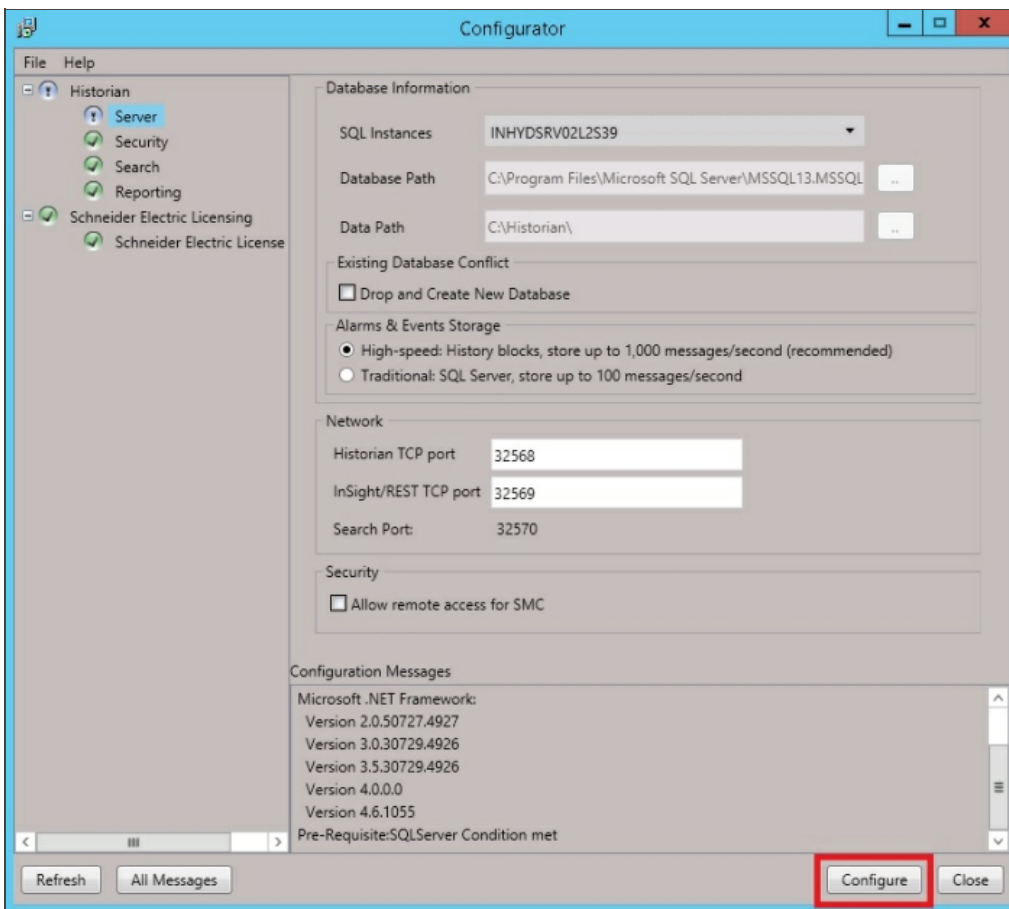


Figure 3: Click Configure and make sure it completes successfully

10. Enable and restart the Historian Server from the SMC by right-clicking **Status** and clicking **All Tasks/Enable (allow to run) Historian** (Figure 4).

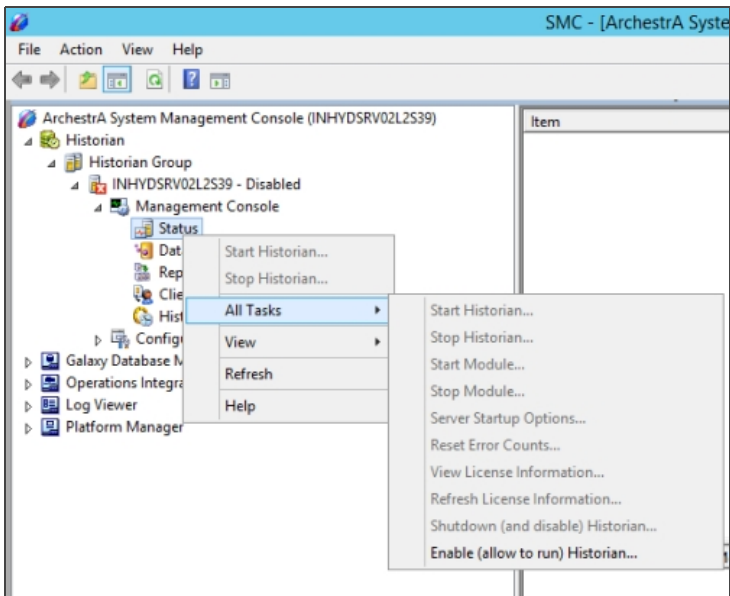


Figure 4: System Management Console - Start the Historian

ATTACHMENTS

[http://okmgcs.km.invensys.com/resources/sites/KPKA/content/live/TN/3000/TN3066/en_US/~secure/{ "SECUREDRESOURCE": "Y" }](http://okmgcs.km.invensys.com/resources/sites/KPKA/content/live/TN/3000/TN3066/en_US/~secure/{)