

Tech Note 891

Moving Historian Data Files to Another Partition

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Introduction

This *Tech Note* explains how to move Historian system data files and database files from one partition to another in the same host.

When planning storage for your Historian system, the **History Blocks** are the files that require more disk space than the Runtime database.

This document explains how to move the file system files and database to another location when you have installed in the C:\ partition and need to move to a larger file system location.

Application Versions

- Historian 10.0 and later

Moving the Runtime Database

Shut Down and Disable the Historian

- From the Wonderware Historian SMC, Shutdown (and disable) Historian by clicking **All Tasks/Shutdown (and disable) Historian** (Figure 1 below).

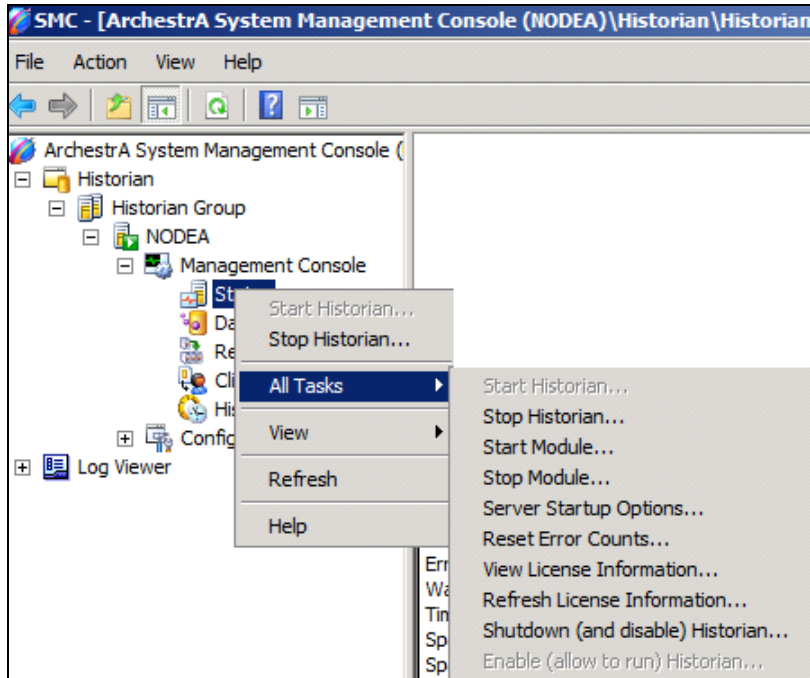


FIGURE 1: SHUTDOWN AND DISABLE HISTORIAN

Make a Backup of Runtime Database

1. From SQL Server Management Studio, select the **Runtime** database.
2. Right-click and click **Tasks/Backup**.

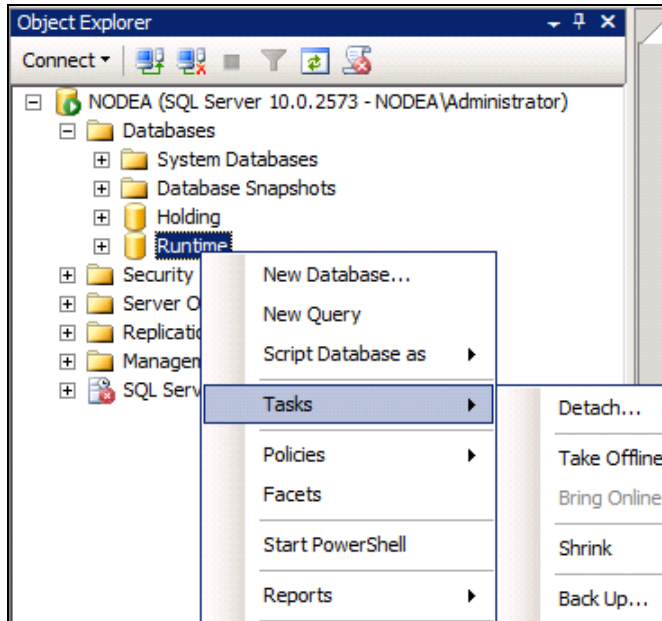


FIGURE 2: BACKUP THE RUNTIME DATABASE

You can also back up the Database by using the following script.

- From SQL Server Management Studio, paste the following script into a New Query window, modify the backup location path, and click **Execute**.

```
USE Runtime;
ALTER DATABASE Runtime SET RECOVERY FULL;
GO
--Backup Runtime Database
BACKUP DATABASE Runtime
TO DISK = 'X:\backup\Runtime.bak'
WITH FORMAT;
GO --Create log
BACKUP LOG Runtime TO DISK = 'X:\backup\Runtime.log';
GO
```

The screenshot displays the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the server instance 'NODEA (SQL Server 10.0.2573 - NODEA\Administrator)' with the 'Runtime' database selected. The main window shows a SQL query script in the 'SQLQuery2.sql ...istrator (56)*' editor. The script is as follows:

```

USE Runtime;
ALTER DATABASE runtime SET RECOVERY FULL;
GO
-- Backup Runtime Database
BACKUP DATABASE runtime
TO DISK = 'C:\backup\runtime.bak'
WITH FORMAT;
GO
-- Create Log
BACKUP LOG runtime TO DISK = 'C:\backup\runtime.log'
GO

```

The Messages pane at the bottom shows the following output:

```

Processed 1088 pages for database 'runtime', file 'Run100Dat' on file 1.
Processed 3 pages for database 'runtime', file 'Run100Log' on file 1.
BACKUP DATABASE successfully processed 1091 pages in 2.682 seconds (3.175 MB/sec).
Processed 17 pages for database 'runtime', file 'Run100Log' on file 2.
BACKUP LOG successfully processed 17 pages in 0.290 seconds (0.447 MB/sec).

```

The status bar at the bottom indicates 'Query executed successfully.' and provides details: 'NODEA (10.0 SP1) | NODEA\Administrator (56) | Runtime | 00:00:03 | 0 rows'. The status bar also shows 'Ready', 'Ln 11 Col 3 Ch 3 INS', and the Windows taskbar with the time '12:45 PM'.

FIGURE 3: BACKUP DATABASE SCRIPT

Detach the Runtime Database

1. From SQL Server Management Studio, select the **Runtime** database, right-click and click **Tasks/Detach**.

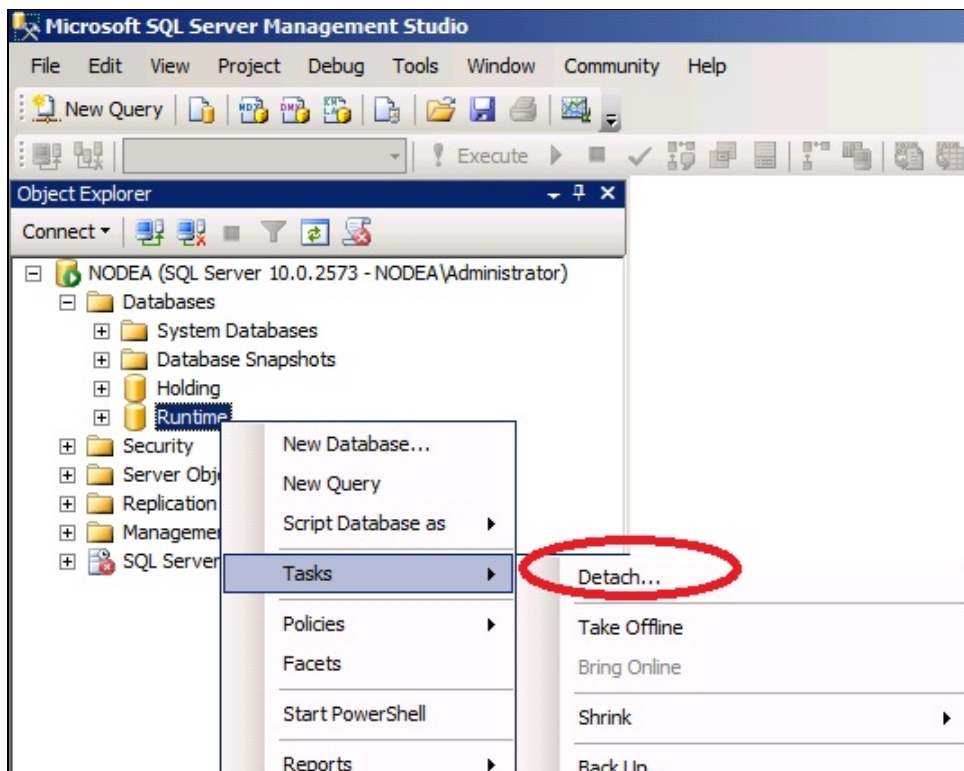


FIGURE 4: DETACH RUNTIME DATABASE

2. Check the **Runtime** database and click **OK**.

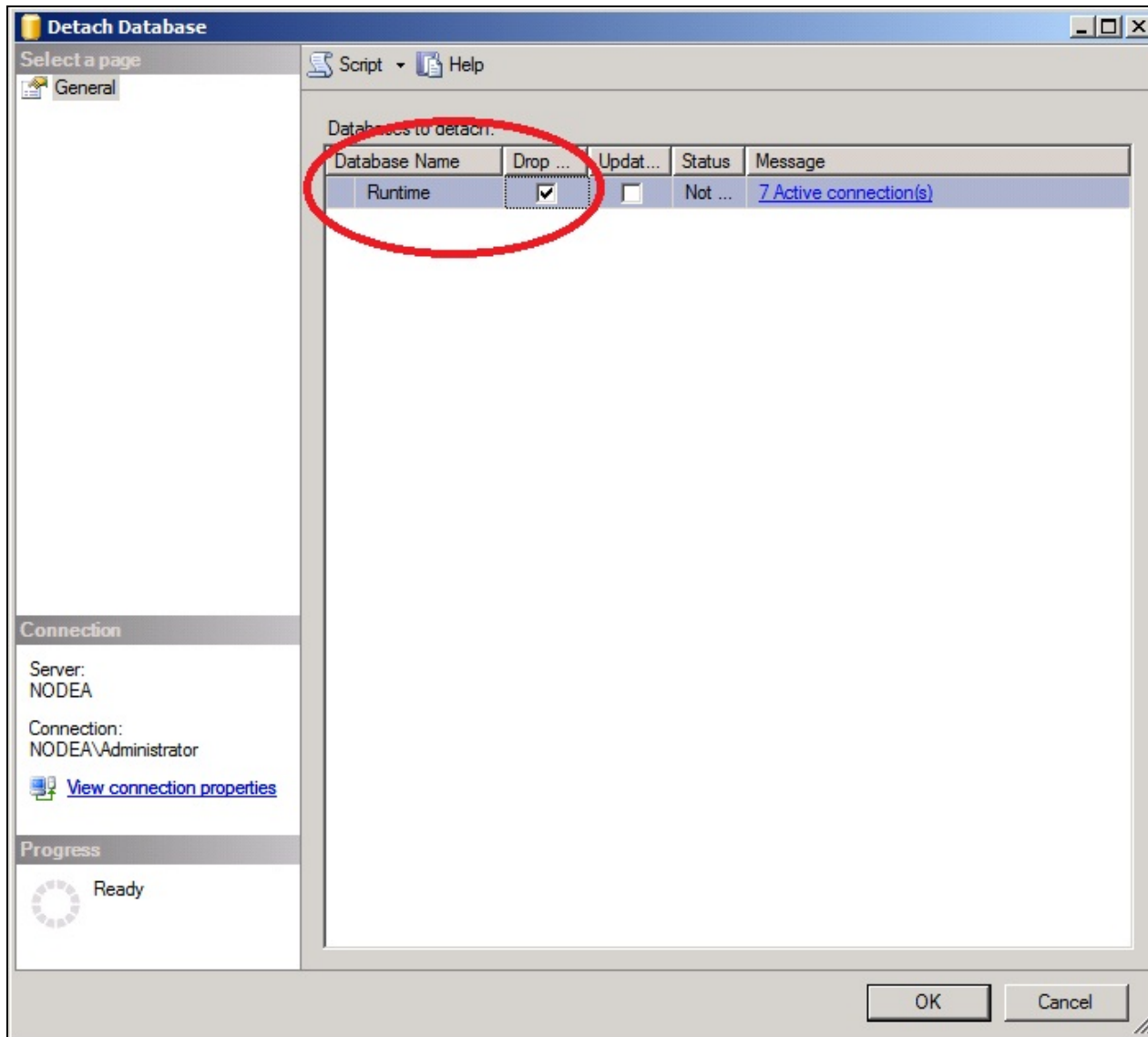


FIGURE 5: DETACH DATABASE

3. After detaching the database, cut and paste the **Run100Dat.mdf** and **Run10oLog.ldf** to a new location in the new Partition from file system.

In other words, copy from **C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\Data** and paste to

D:\SQLData\Databases

The default SQL Server database locations are:

In 32-bit systems

- C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\Data\Run100Dat.mdf
- C:\Program Files\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\Data\Run100Log.ldf

In 64-bit systems

- C:\Program Files (x86)\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\Data\Run100Dat.mdf
- C:\Program Files (x86)\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\Data\Run100Log.ldf

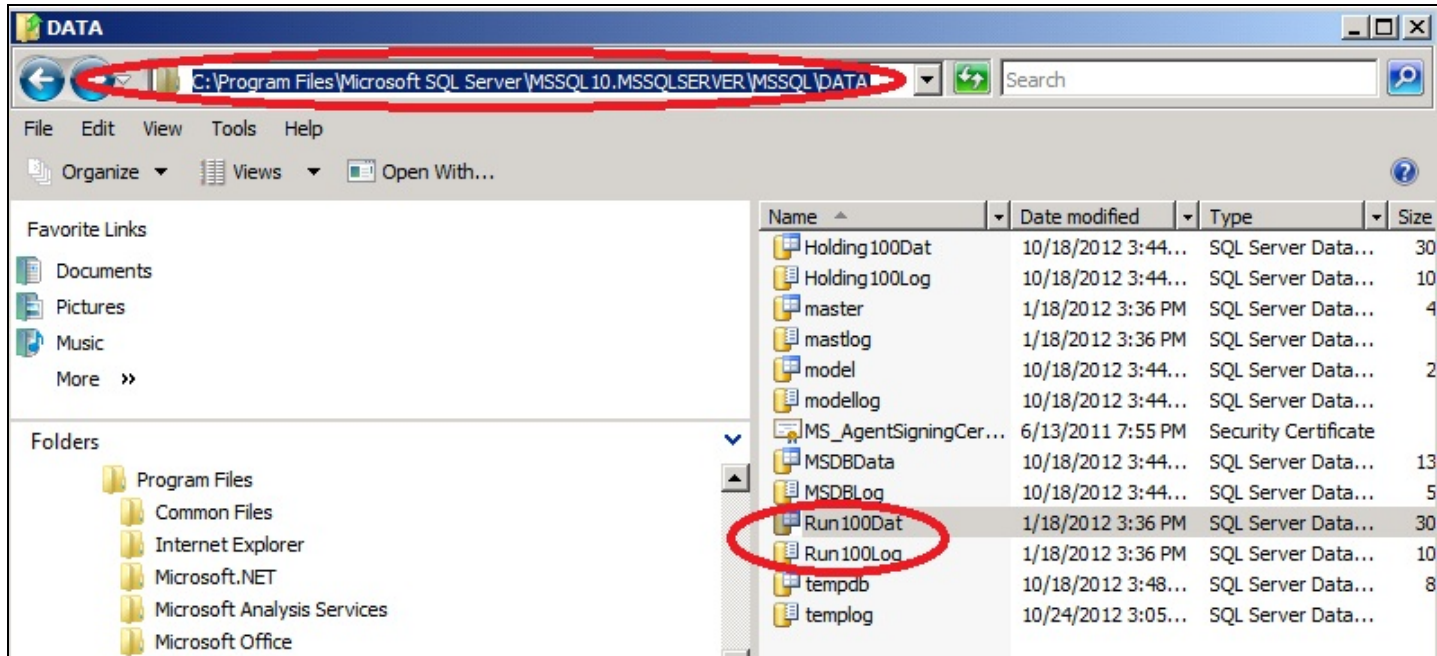


FIGURE 6: DEFAULT DATABASE LOCATIONS

Attach the Runtime Database

1. From SQL Server Management Studio, select databases, then right-click and click **Attach**.
2. Browse to the new (pasted) location of the files. For this example, they are at: **D:\SQLData\Databases\Run100Dat.mdf**.

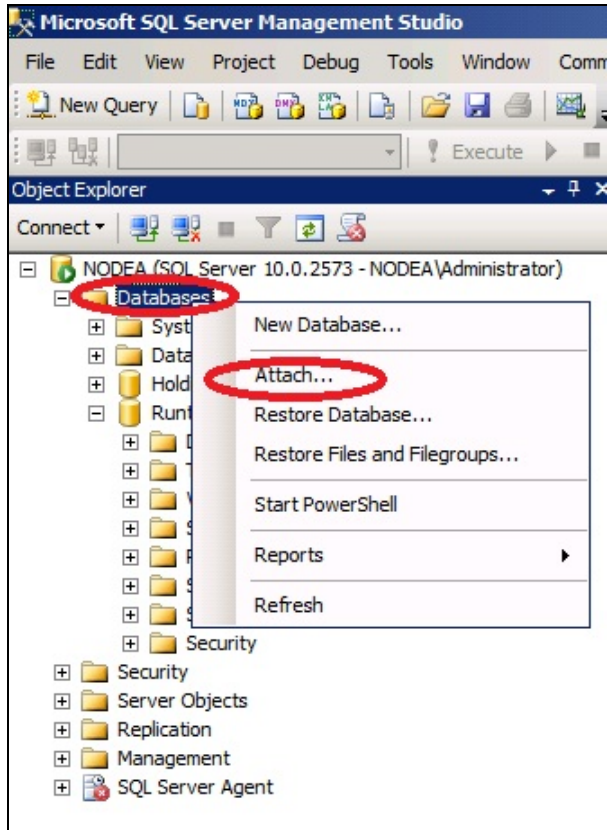


FIGURE 7: ATTACH THE RUNTIME DATABASE

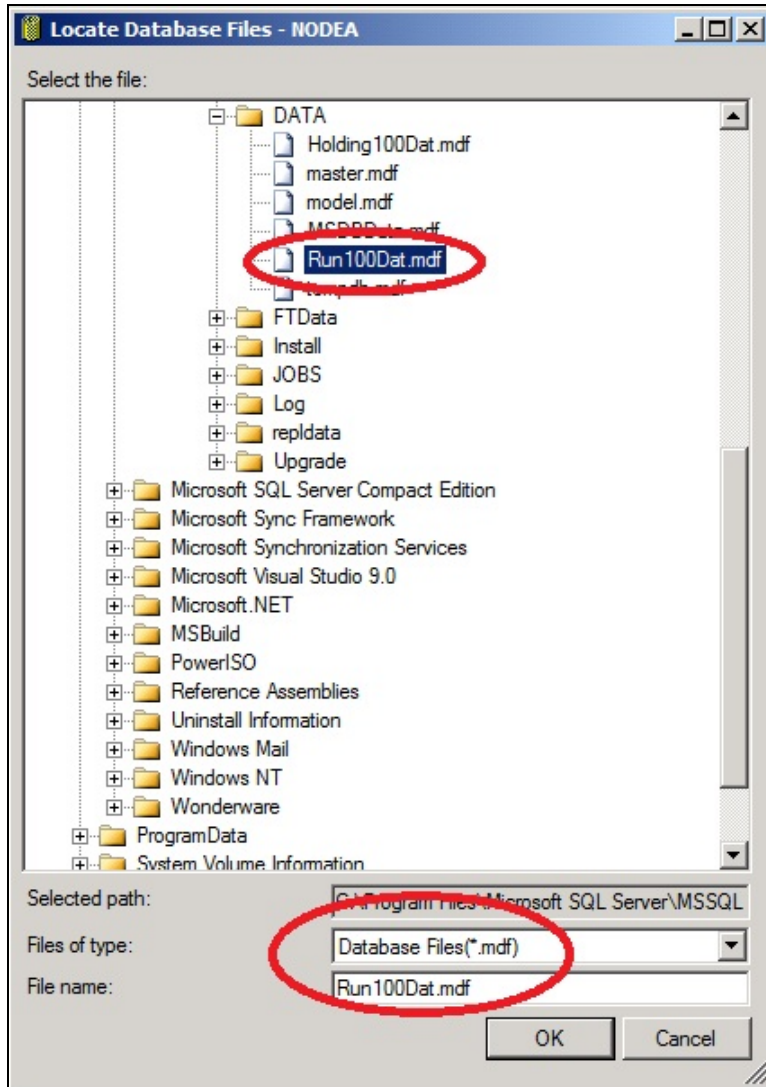


FIGURE 8: RUNTIME DATABASE AT NEW LOCATION

The log files are automatically picked up (Figure 9 below).

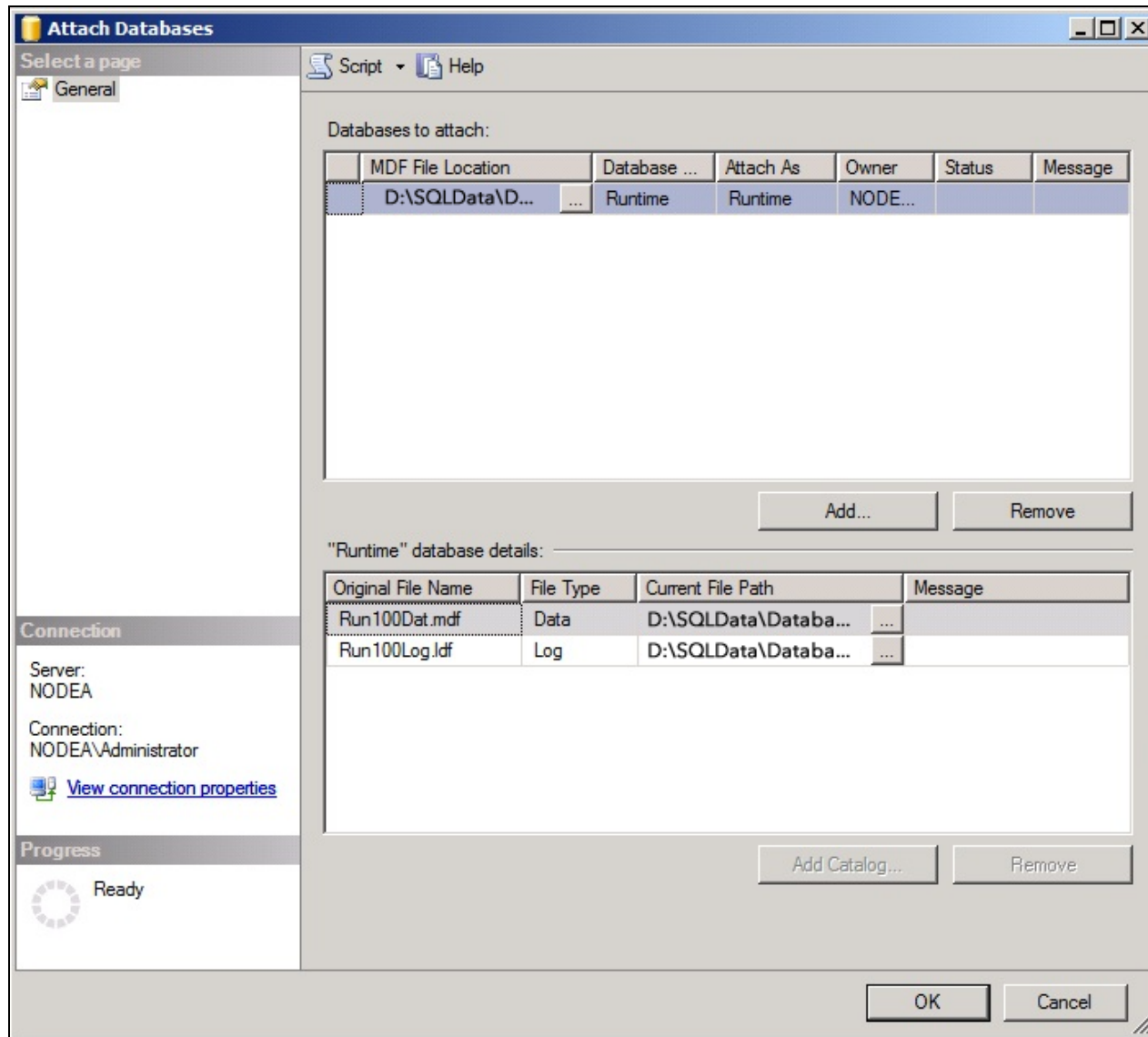


FIGURE 9: RUNTIME DATABASE AND LOG FILES

Moving History Blocks

Make a safe copy of the History Blocks from the file system. The default location is **C:\Historian\Data**. Include all sub-directories.

1. Move the History blocks from the file system folder to the new location.

For example, from **C:\Historian\Data** to **D:\Historian\Data**.

2. Launch the Wonderware Historian SMC but don't start the services yet.
3. Expand **Configuration Editor > Storage > Storage Locations**.

- Update the path with the new location by selecting each one of the **Storage Location Type** items (Figure 11 below).

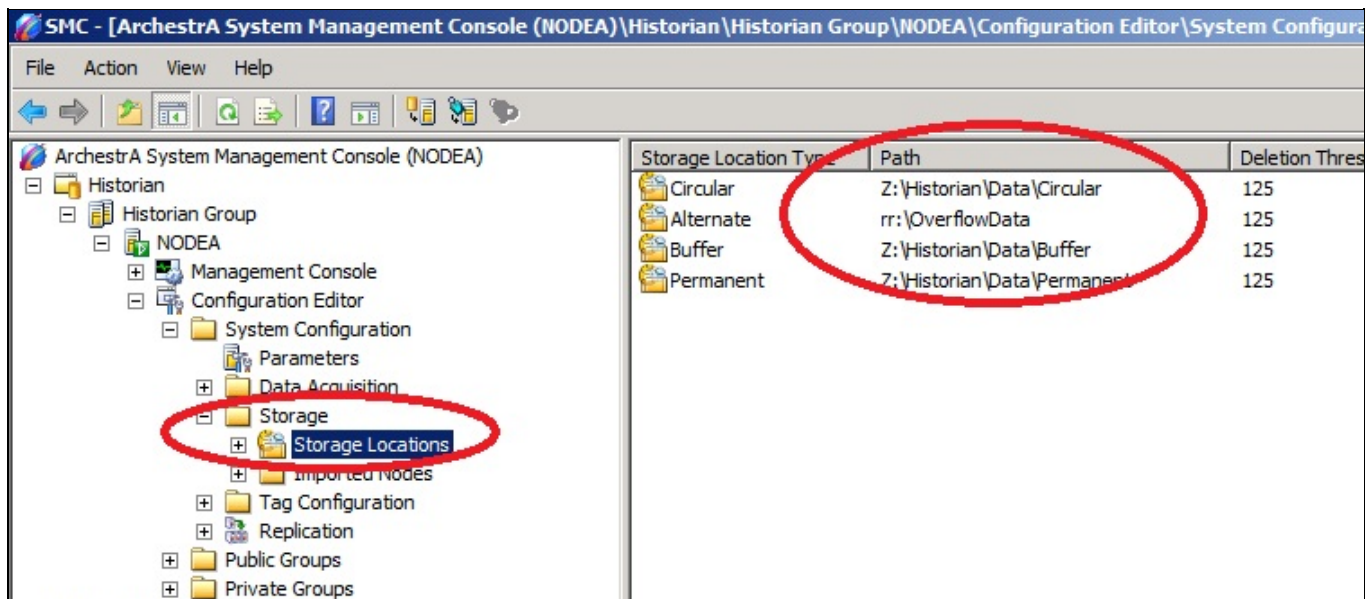


FIGURE 10: STORAGE LOCATION TYPES

- Right-click the item, then click **Properties**.
- Click the **Apply** button when it is enabled, then **OK**.

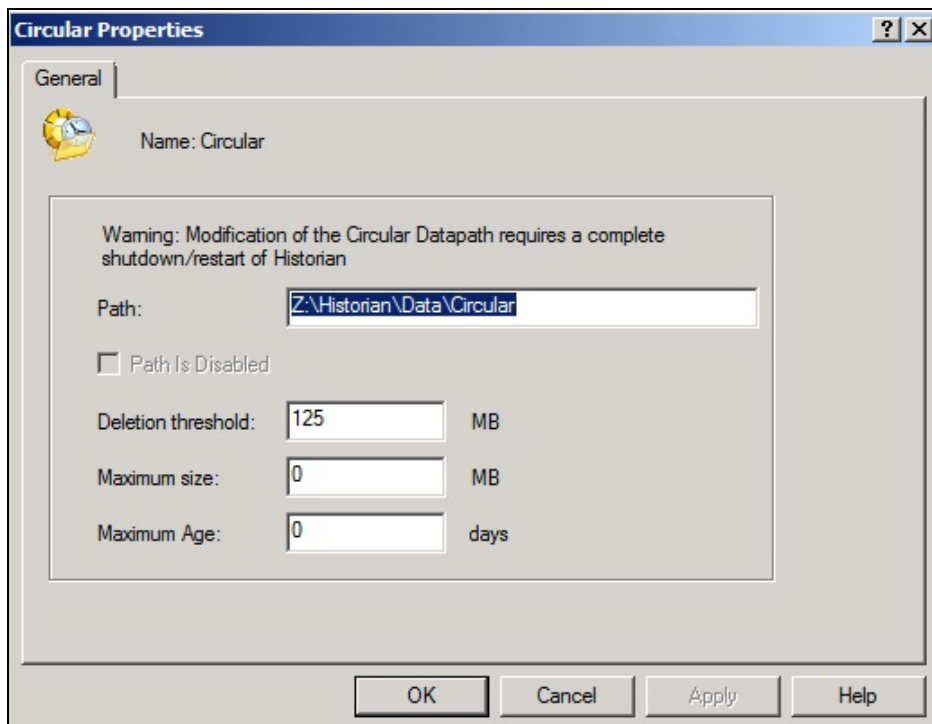


FIGURE 11: STORAGE LOCATION TYPE PROPERTIES WINDOW

8. Expand **System Configuration > Parameters** and highlight the **DataImportPath** parameter (Figure 13 below).

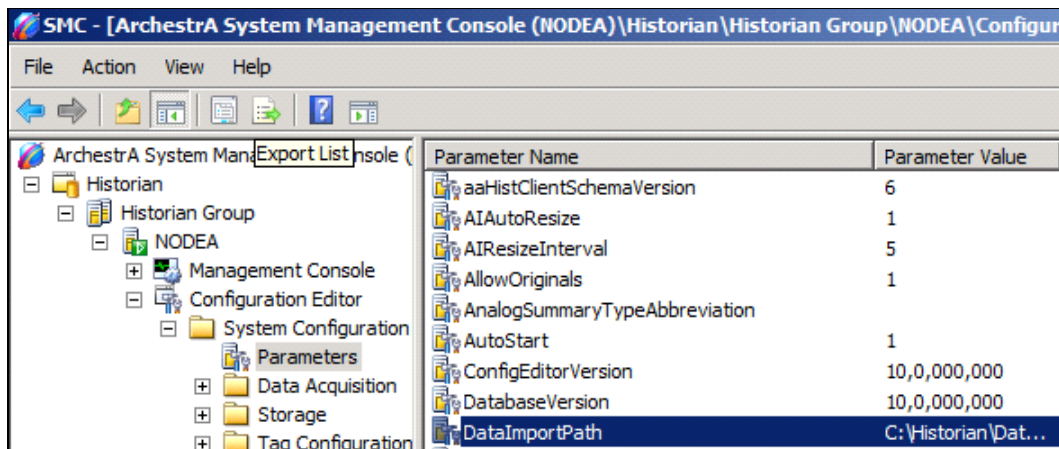


FIGURE 12: MODIFY THE DEFAULT DATAIMPORTPATH PARAMETER FOR THE NEW LOCATION

9. Modify the **DataImportPath** parameter to reflect the new History blocks location by right-clicking it and selecting **Properties**.
 10. Change the path to the new one. In this example, **Z:\Historian Data**.

Start Historian from Wonderware Historian SMC

1. From the Wonderware Historian SMC, re-enable Historian by clicking **All Tasks/Enable (allow to run) Historian**.
2. From Wonderware Historian SMC, right-click on **System Configuration** and click **Commit Pending Changes**.
3. Double-check the modification by running a query from SQL Server management studio. The query output should reflect the new History block location.

```
USE runtime
SELECT * FROM storagelocation
```

Moving the History Blocks Using a SQL Query

If you prefer to use a script to move the History Blocks location, copy/paste the following script into a Command Prompt window:

```
@echo off
echo Shutdown (and disable) Historian
echo This script is not supported by Wonderware - Customer may use it as suggestion and on your own risk !!!!

sc config InSQLConfiguration start= disabled
net stop InSQLConfiguration

echo New storage location in SQL Server
osql -U wwAdmin -P wwAdmin -Q "Update Runtime.Dbo.StorageLocation set Path = 'c:\Historian\Data\Circular' where Path
like 'x:\Historian\Data\Circular'"
osql -U wwAdmin -P wwAdmin -Q "Update Runtime.Dbo.StorageLocation set Path = 'c:\Historian\Data\Buffer' where Path like
'x:\Historian\Data\Buffer'"
osql -U wwAdmin -P wwAdmin -Q "Update Runtime.Dbo.StorageLocation set Path = 'c:\Historian\Data\Permanent' where Path
like 'x:\Historian\Data\Permanent'"

echo Update SQL Server with new Log file path...

osql -U wwAdmin -P wwAdmin -Q "Update Runtime.Dbo.SystemParameter set Value = 'x:\Historian\Data\DataImport' where Name
= 'DataImportPath'"

echo Moving Historian Folder from C to X...
move c:\Historian X:\

echo Start and enable Historian

sc config InSQLConfiguration start= auto
net start InSQLConfiguration
echo Complete
```

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