Microsoft

Perfmon Data Collection Automation Using Logman

Prepared by

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1 Introduction

The purpose of this document is to collect Performance Monitor Data from SQL Server Farm. We discover and Assess 100's of SQL Server Instance, collecting Perfmon Data for baseline from this server's is very manual process, customer and we get into many issues for this collection.

This tool uses logman.exe to create the command which will create, start, stop and delete the performance counter set on the remote SQL Server Machine.

2 Prerequisites

In the excel sheet Named CounterList, add your counters separated by space, make sure you avoid new lines.

Default Counters

"\Memory\Available Mbytes" "\LogicalDisk(*)\% Idle Time" "\LogicalDisk(*)\Avg. Disk sec/Read" "\LogicalDisk(*)\Avg. Disk sec/Transfer" "\LogicalDisk(*)\Avg. Disk sec/Write" "\Processor(*)\% Privileged Time" "\Processor(*)\% Processor Time" "\Processor(*)\% User Time" "**\<sqlinstance>**:Databases(*)\Log Bytes Flushed/sec" **"\<sqlinstance>**:Databases(*)\Log Flushes/sec" "**\<sqlinstance>**:Databases(*)\Log Growths" "**\<sqlinstance>**:Databases(*)\Log Shrinks" "\<sqlinstance>:Databases(*)\Log Truncations" "**\<sqlinstance>**:Databases(*)\Percent Log Used" "**\<sqlinstance>**:Buffer Manager\Buffer Cache Hit Ratio" "**\<sqlinstance>**:Buffer Manager\Checkpoint pages/sec" "**\<sqlinstance>**:Buffer Manager\Lazy Writes/sec" "**\<sqlinstance>**:Buffer Manager\Page Life Expectancy" "**\<sqlinstance>:**Memory Manager\Target Server Memory (KB)" "**\<sqlinstance>:**Memory Manager\Total Server Memory (KB)"

If you want to add counters make sure we add in the above given format

- You must write SQL Instance as <sqlinstance>, which is the variable / place holder we have used in the excel for command generation.
- Each counter should be separated by single space and we should not have any new line.

In LogmanAutomation You should maintain the list of Server and Instance Name in the below format for which you need to collect the perfmon logs,

Default Instance as **SQLServer** and Named Instance as **MSSQL$Instance_Name**

ServerName	InstanceName
Server1	SQLServer
Server2	SQLServer
Server3	MSSQL$SQLINST1
Server4	MSSQL$SQLINST2
Server5	MSSQL$SQLEXPRESS

3 Logman Automation

This Excel sheet creates commands for the following Logman Activity which can simply use as execution batch.

- Logman Create Counter
- Logman Start
- Logman Stop
- Logman Delete

You need to just drag the formula and depending on the CounterList and Server / Instance Name will generate the command for Logman.

Copy all the command and schedule / execute this as a Batch. Using this method, you can create, start, stop, and delete the perfmon counters on each remote server.

This method identifies multiple unique instances on each server and create the perf counter container accordingly.

This method also collects perfmon counters every 15 seconds and max file size up to 1024 MB. After every 1024 MB, it will create the new file in circular way and not override it.

-f bincirc - Specifies the log format for the data collector
-v mmddhhmm

-max 1024 - Maximum log file size in MB or maximum number of records for SQL logs.

-si 00:00:15 - Specifies the sample interval for performance counter data collectors.

4 Appendices

Logman
https://docs.microsoft.com/en-us/windows-server/administration/windows-commands/logman

Logman create counter
https://docs.microsoft.com/en-us/windows-server/administration/windows-commands/logman-create-counter

Logman start and logman stop
https://docs.microsoft.com/en-us/windows-server/administration/windows-commands/logman-start-stop

Logman Delete
https://docs.microsoft.com/en-us/windows-server/administration/windows-commands/logman-delete

5 Feedback and suggestions

If you have feedback or suggestions for improving this data migration asset, please contact the Data SQL Ninja Engineering Team (datasqlninja@microsoft.com). Thanks for your support!

Note: For additional information about migrating various source databases to Azure, see the Azure Database Migration Guide.