

Customize your Monitored SQL Server properties within PowerShell

SQL Diagnostic Manager allows you to customize your monitored SQL Server properties within PowerShell.

With PowerShell you can:

- Edit general settings
- Edit query monitor settings
- Edit query waits settings
- Edit activity monitor settings
- Exclude applications, databases, and SQL statements within PowerShell
- Disable replication collection settings
- Customize table statistics collection
- Customize maintenance mode settings



To use SQL Diagnostic Manager snap-in, you have to [enable the provider and register the SQLDM drive](#).

Edit general settings

Edit the general settings of your monitored SQL Server with the following PowerShell commands:

Cmdlet Name	Description	Examples
<code>-FriendlyServerName</code>	Sets friendly name to an instance.	<code>SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -FriendlyServerName stringName</code>
<code>-FriendlyServerNameBlank</code>	Clears the friendly name previously assigned to an instance.	<code>SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -FriendlyServerNameBlank</code>
<code>-InputBufferLimiter</code>	Defines an Input Buffer Limiter value.	<code>SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -InputBufferLimiter 100</code>
<code>-InputBufferLimiterEnable</code>	Enables the Input Buffer Limiter.	<code>SetSQLdmMonitoredInstance Path (EscapeSQLdmName -Name ServeA\Instance1) -InputBufferLimiterEnable</code>
<code>-InputBufferLimiterDisable</code>	Disables the Input Buffer Limiter.	<code>SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -InputBufferLimiterDisable</code>
<code>-addtag</code>	Associates tags to a server. Note that any tags that are specified have to already exist.	<code>Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -addtag NewTag,Tag2</code>
<code>-removetag</code>	Disassociates tags from a server. Note that any tags that are specified have to already exist.	<code>Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -removetag NewTag,Tag2</code>
<code>-ScheduledCollectionIntervalMinutes</code>	Specifies how often (in minutes) scheduled data collection takes place.	<code>Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -ScheduledCollectionIntervalMinutes 10</code>
<code>-DatabaseStatisticsIntervalMinutes</code>	Specifies how often (in minutes) database statistics collection takes place.	<code>Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -DatabaseStatisticsIntervalMinutes 120</code>

-ExtendedSessionDataCollection	Enables or disables extended data collection.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -ExtendedSessionDataCollection 1</pre> <ul style="list-style-type: none"> ◦ Enables extended data collection. <pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -ExtendedSessionDataCollection 0</pre> <ul style="list-style-type: none"> ◦ Disables extended data collection.
-Credential	Sets SQL Authentication credentials.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -Credential sa</pre> <ul style="list-style-type: none"> ◦ Uses SQL authentication. Note that PowerShell will prompt for the password. <pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -WindowsAuthentication</pre> <ul style="list-style-type: none"> ◦ Uses the credentials of the SQLDM Collection Service to connect to the monitored instance when collecting statistics.
-EncryptConnection	Enables or disables encrypt connection.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -EncryptConnection 1</pre> <ul style="list-style-type: none"> ◦ Enables encrypt connection. <pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -EncryptConnection 0</pre> <ul style="list-style-type: none"> ◦ Disables encrypt connection.
-TrustServerCertificates	Enables or disables trust server certificates.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -TrustServerCertificates 1</pre> <ul style="list-style-type: none"> ◦ Enables trust server certificates. Note that when specified with the EncryptConnection parameter, SQL Server will not validate the certificates sent from the client but the data will still be encrypted. <pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Serv eA\Instance1) -TrustServerCertificates 0</pre> <ul style="list-style-type: none"> ◦ Disables trust server certificates.

Edit query monitor settings

Customize the query monitor settings of your monitor SQL Server with the following PowerShell commands:

Cmdlet Name	Description	Examples
-QMEnableTraceMonitoring	Enables "Collect Query Data using SQL Trace".	<pre>SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name Serve A\Instance1) -QMEnableTraceMonitoring</pre>
-QMEnableExtendedEvents	Enables "Collect Query Data using Extended Events".	<pre>SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name Serve A\Instance1) -QMEnableExtendedEvents</pre>
-QMEnableCollectQueryPlan	Enables "Collect actual Query Plans".	<pre>SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name Serve A\Instance1) -QMEnableCollectQueryPlan</pre>
-QMDisableCollectQueryPlan	Disables "Collect actual Query Plans".	<pre>SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name Serve A\Instance1) -QMDisableCollectQueryPlan</pre>

-QMLEnableCollectEstimatedQueryPlan	Enables "Collect Estimated Query Plans".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -QMLEnableCollectEstimatedQueryPlan
-QMDisableCollectEstimatedQueryPlan	Disables "Collect Estimated Query Plans".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -QMDisableCollectEstimatedQueryPlan
-QMLEnabled	Enables query monitoring.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMLEnabled
-QMDisabled	Disables query monitoring.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMDisabled
-QMCaptureBatches	Captures SQL batches.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMLEnabled -QMCaptureBatches 1
-QMCaptureStatements	Captures SQL statements.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMLEnabled -QMCaptureStatements 1
-QMCaptureProcs	Captures stored procedure and triggers.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMLEnabled -QMCaptureProcs 1
-QMQueryDuration	Sets up threshold Duration (in milliseconds).	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMQueryDuration 20000
-QMLogicalDiskReads	Sets up threshold Logical disk reads.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMLogicalDiskReads 20
-QMCpuUsage	Sets up threshold CPU Usage (in milliseconds).	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMCpuUsage 500
-QMPhysicalDiskWrites	Sets up threshold Physical disk writes.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMPhysicalDiskWrites 20

Edit query waits settings

Customize the query waits settings of your monitor SQL Server with the following PowerShell commands:

Cmdlet Name	Description	Examples
-QWExtendedEnable	Enables "Use Extended Events (SQL Server 2012 +)".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name INSTANCE_NAME) -QWExtendedEnable
-QWExtendedDisable	Disables "Use Extended Events (SQL Server 2012 +)".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name INSTANCE_NAME) -QWExtendedDisable
-QWStatisticsDisable	Disables "Collect query wait statistics (SQL 2005+ only)".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name INSTANCE_NAME) -QWStatisticsDisable
-QWStatisticsDuration	Enables "Collect query wait statistics at a specified time and duration".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name INSTANCE_NAME) -QWStatisticsStartDate"yyyy-mm-dd-hh:mm" -QWStatisticsDuration mm:ss
-QWStatisticsCollectIndefinite	Enables "Collect query wait statistics with Collect indefinitely option".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name INSTANCE_NAME) -QWStatisticsCollectIndefinite

Edit activity monitor settings

Customize the activity monitor settings of your monitor SQL Server with the following PowerShell commands:

Cmdlet Name	Description	Examples
- NQAEnableSQLTrace	Enables "Use SQL trace".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQAEnableSQLTrace
- NQAEnableExtendedEvent	Enables "Use extended event (SQL 2012+)".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQAEnableExtendedEvent
- NQADisableAutoGrow	Disables "Capture Autogrow".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQADisableAutoGrow
- NQAEnableAutoGrow	Enables "Capture Autogrow".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQAEnableAutoGrow
- NQAEnableCaptureBlocking	Enables "Capture Blocking".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQAEnableCaptureBlocking
- NQADisableCaptureBlocking	Disable "Capture Blocking".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQADisableCaptureBlocking
- NQACaptureBlocking	Sets "blocking process threshold".	SetSQLDmMonitoredInstance -Path (EscapeSQLDmName -Name SRISHTIPUROHIT\SQLEXPRESS) -NQACaptureBlocking 100

Exclude applications, databases and SQL statements within PowerShell

Exclude applications, databases, and SQL statements with the following PowerShell commands:

Cmdlet Name	Description	Examples
- QMExcludedApps	Excludes applications from the query monitor.	Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instance1) -QMExcludedApps excludedApp1, excludedApp2, excludedApp3
- QMExcludedDatabases	Excludes databases from the query monitor.	Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instance1) -QMExcludedDatabases DB1,DB2,DB3
- QMExcludedSql	Excludes SQL statements from the query monitor.	Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instance1) -QMExcludedSql "Select 1","Select * from Table where ID=5"

Disable replication collection

Disable replication statistics collection with the following PowerShell command:

Cmdlet Name	Description	Example
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- ReplicationStatisticsDataCollection	Disables replication statistics collection.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instancel) -ReplicationStatisticsDataCollection 0</pre> <ul style="list-style-type: none"> ◦ Disables replication statistics collection for server named ServerA\Instance1.
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Customize table statistics collection

Customize table statistics collection with the following PowerShell commands:

Cmdlet Name	Description	Example
- QTStartTime	Specifies the time of day for quiet time collection to occur.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instancel) -QTStartTime 02:30:00 -QTDays Monday,Tuesday -QTreorgMinTableSizeK 200 -QTExcludedDatabases Test</pre>
- QTDays	Specifies the days of the week to perform quiet time collection.	
- QTReorgMinTableSizeK	Specifies the quiet time minimum table size (in kilobytes) to collect reorganization statistics.	
- QTExcludedDatabases	Specifies the list of databases to exclude from quite time data collection.	

Customize maintenance mode settings

Customize maintenance mode settings with the following PowerShell commands:

Cmdlet Name	Description	Examples
- MMNever	Sets maintenance mode to <i>Never</i> . Note that SQL Diagnostic Manager will collect data according to its normal scheduled collection interval.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instancel) -MMNever</pre>
- MMAlways	Sets maintenance mode to <i>Until further notice</i> . Schedule collection will not occur.	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instancel) -MMAlways</pre>
- MMRecurring	Sets maintenance mode to <i>Recurring every week at the specified time</i> .	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instancel) -MMRecurring -MMModeDays Monday,Wednesday, Friday -MMModeStartTime 01:35:00 -MMModeDuration 01:00</pre>
- MMModeDays	Specifies the days of the week recurring maintenance mode will be effective.	
- MMModeStartTime	Specifies the start time for recurring maintenance mode.	
- MMModeDuration	Specifies the length of time for recurring maintenance mode.	
- MMONce	Sets maintenance mode to <i>Occurring once at the specified time</i> .	<pre>Set-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name ServeA\Instancel) -MMOnce -MMModeStartDate "2013-03-25 15:00" -MMModeEndDate "2013-03-25 15:30"</pre>

- MModeStartDate	Specifies the start date and time for one-time maintenance mode.
- MModeEndDate	Specifies the end date and time for one-time maintenance mode.

Example: Editing several properties at once within PowerShell

PowerShell allows you to set up several properties in one command-line. On the PowerShell window, use Set-SQLdmMonitoredInstance followed by the corresponding cmdlets of the properties you want to edit. For example, consider the properties listed below:

- Enable Query Monitoring
- Capture Batches
- No capture procedures
- Set Query duration at 200 (ms)
- Set Logical disk reads at 20
- Set CPU usage at 100
- Set Physical disk writes at 10
- Exclude Application: MyExcludedApp
- Exclude Databases: DB1, DB2, and DB3

You can customize these settings with the following PowerShell command-line:

```
Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name QA- Name Server\Instance) -QMEEnabled -
QMCaptureBatches 1 -QMCaptureProc 0 -QMQueryDuration 200
-QMLogicalDiskReads 20 -QMCpuUsage 100 -QMPhysicalDiskWrites 10 -QMEExcludedApps MyExcludedApp -
QMEExcludedDatabases DB1,DB2,DB3
```

SQL Diagnostic Manager for SQL Server performance monitoring, alerting, and diagnostics for SQL Server.

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