

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](#)
- [Add alternate Windows users](#)
- [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.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -ExtendedSessionDataCollection 1 - Enables extended data collection. Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -ExtendedSessionDataCollection 0 - Disables extended data collection.
-Credential	Sets SQL Authentication credentials.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -Credential sa - Uses SQL authentication. Note that PowerShell will prompt for the password. Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -WindowsAuthentication - Uses the credentials of the SQLDM Collection Service to connect to the monitored instance when collecting statistics.
- EncryptConnection	Enables or disables encrypt connection.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -EncryptConnection 1 - Enables encrypt connection. Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -EncryptConnection 0 - Disables encrypt connection.
- TrustServerCertificates	Enables or disables trust server certificates.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -TrustServerCertificates 1 - 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. Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name Serv eA\Instance1) -TrustServerCertificates 0 - 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".	SetSQLDmMonitoredInstance -Path (EscapeSQLdmName -Name Serve A\Instance1) -QMEnableTraceMonitoring
- QMEnableExtendedEvents	Enables "Collect Query Data using Extended Events".	SetSQLDmMonitoredInstance -Path (EscapeSQLdmName -Name Serve A\Instance1) -QMEnableExtendedEvents
- QMEnableCollectQueryPlan	Enables "Collect actual Query Plans".	SetSQLDmMonitoredInstance -Path (EscapeSQLdmName -Name Serve A\Instance1) -QMEnableCollectQueryPlan
- QMDisableCollectQueryPlan	Disables "Collect actual Query Plans".	SetSQLDmMonitoredInstance -Path (EscapeSQLdmName -Name Serve A\Instance1) -QMDisableCollectQueryPlan

- QMEnableCollectEstimatedQueryPlan	Enables "Collect Estimated Query Plans".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -QMEnableCollectEstimatedQueryPlan
- QMDisableCollectEstimatedQueryPlan	Disables "Collect Estimated Query Plans".	SetSQLdmMonitoredInstance -Path (EscapeSQLdmName -Name ServeA\Instance1) -QMDisableCollectEstimatedQueryPlan
- QMEnabled	Enables query monitoring.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMEnabled
- 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) -QMEnabled -QMCaptureBatches 1
- QMCaptureStatements	Captures SQL statements.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMEnabled -QMCaptureStatements 1
- QMCaptureProcs	Captures stored procedure and triggers.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMEnabled -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
- QMPPhysicalDiskWrites	Sets up threshold Physical disk writes.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMPPhysicalDiskWrites 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

Add alternate Windows users

Add alternate Windows users with the following cmdlet in different environments.

Cmdlet Name	Description	Examples
- WindowsAlternateAuthentication	Add alternate Windows users.	<pre>New-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Instance1) -WindowsAlternateAuthentication Domain1\User1</pre> - Adds the instance named Instance1 with a valid Windows user named User1. <pre>New-SQLDmMonitoredInstance -Path (Escape-SQLDmName -Name Instance1) -Cluster Cluster1 -WindowsAlternateAuthentication domain1\User1</pre> - Adds the instance named Instance1 with a valid Windows user named User1 in a DMSO environment.

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

- QMExcluded Databases	Excludes databases from the query monitor.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QMExcludedDatabases DB1,DB2,DB3
- QMExcluded Sql	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
- ReplicationStatistic sDataCollection	Disables replication statistics collection.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -ReplicationStatisticsDataCollection 0 Disables replication statistics collection for server named ServerA\Instance1.

Customize table statistics collection

Customize table statistics collection with the following PowerShell commands:

Cmdlet Name	Description	Example
- QTStart Time	Specifies the time of day for quiet time collection to occur.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -QTStartTime 02:30:00 -QTDays Monday,Tuesday -QTReorgMinTableSizeK 200 -QTEcludedDatabases Test
- QTDays	Specifies the days of the week to perform quiet time collection.	
- QTReorg MinTableSizeK	Specifies the quiet time minimum table size (in kilobytes) to collect reorganization statistics.	
- QTEcludedDatabases	Specifies the list of databases to exclude from quiet 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.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -MMNever
- MMAAlways	Sets maintenance mode to <i>Until further notice</i> . Schedule collection will not occur.	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -MMAAlways
- MMRecurring	Sets maintenance mode to <i>Recurring every week at the specified time</i> .	Set-SQLDmMonitoredInstance -Path (Escape-SQLdmName -Name ServeA\Instance1) -MMRecurring -MMModeDays Monday,Wednesday, Friday -MMModeStartTime 01:35:00 -MMModeDuration 01:00

- MModeDays	Specifies the days of the week recurring maintenance mode will be effective.	Set-SQLdmMonitoredInstance -Path (Escape-SQLdmName -Name ServerA\Instance1) -MMOnce -MModeStartDate "2013-03-25 15:00" -MModeEndDate "2013-03-25 15:30"
- MModeStartTime	Specifies the start time for recurring maintenance mode.	
- MModeDuration	Specifies the length of time for recurring maintenance mode.	
- MMOnce	Sets maintenance mode to <i>Occurring once at the specified time</i> .	
- 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) -QMEnabled -
QMCaptureBatches 1 -QMCaptureProc 0 -QMQueryDuration 200
-QMLogicalDiskReads 20 -QMCpuUsage 100 -QMPhysicalDiskWrites 10 -QMExcludedApps MyExcludedApp -
QMExcludedDatabases DB1,DB2,DB3
```