



python



PowerShell

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***PowerShell Get-Help on command 'Start-StorageDiagnosticLog'***

***PS C:\Users\wahid> Get-Help Start-StorageDiagnosticLog***

NAME

Start-StorageDiagnosticLog

SYNOPSIS

Starts Storage diagnostic logging.

SYNTAX

Start-StorageDiagnosticLog [-AsJob] [-CimSession <CimSession[]>] -InputObject  
<CimInstance[]> [-Level {Critical | Error | Warning | Informational |  
Verbose}] [-MaxLogSize <UInt64>] [-PassThru] [-ThrottleLimit <Int32>]  
[<CommonParameters>]

Start-StorageDiagnosticLog [-StorageSubSystemFriendlyName] <String[]> [-AsJob]  
[-CimSession <CimSession[]>] [-Level {Critical | Error | Warning |  
Informational | Verbose}] [-MaxLogSize <UInt64>] [-PassThru] [-ThrottleLimit  
<Int32>] [<CommonParameters>]

Start-StorageDiagnosticLog [-AsJob] [-CimSession <CimSession[]>] [-Level  
{Critical | Error | Warning | Informational | Verbose}] [-MaxLogSize <UInt64>]  
[-PassThru] -StorageSubSystemName <String[]> [-ThrottleLimit <Int32>]

[<CommonParameters>]

```
Start-StorageDiagnosticLog [-AsJob] [-CimSession <CimSession[]>] [-Level  
{Critical | Error | Warning | Informational | Verbose}] [-MaxLogSize <UInt64>]  
[-PassThru] -StorageSubSystemUniqueId <String[]> [-ThrottleLimit <Int32>]  
[<CommonParameters>]
```

## DESCRIPTION

The Start-StorageDiagnosticLog cmdlet starts Storage diagnostic logging. After you start logging, you can reproduce the issue that you're troubleshooting or wait for it to reoccur. Use the Stop-StorageDiagnosticLog cmdlet to stop logging. You can use Get-StorageDiagnosticInfo to get the diagnostic logs. Start-StorageDiagnosticLog creates an Event Tracing for Windows (ETW) session and subscribes to Storage real-time tracing sources. It uses a small circular log file located in C:\Windows\temp\storage\logs to capture the data.

Each trace session creates a unique file named diagnosticlog\_<timestamp>.etl. Because the file name incorporates a time stamp, you can create multiple trace sessions without overwriting the previous session.

## PARAMETERS

-AsJob [<SwitchParameter>]

Runs the cmdlet as a background job. Use this parameter to run commands that take a long time to complete.

-CimSession <CimSession[]>

Runs the cmdlet in a remote session or on a remote computer. Enter a computer name or a session object, such as the output of a New-CimSession (<https://go.microsoft.com/fwlink/p/?LinkId=227967>) or [Get-CimSession](<https://go.microsoft.com/fwlink/p/?LinkId=227966>)cmdlet.

The default is the current session on the local computer.

-InputObject <CimInstance[]>

Specifies the input object that is used in a pipeline command.

-Level <Level>

Specifies the maximum level of tracing to gather. The acceptable values for this parameter are:

- Critical

- Error

- Warning

- Informational

- Verbose

The default value is Informational.

-MaxLogSize <UInt64>

Specifies the log size, in bytes. The default size of 200 MB. The log is circular, so when the log is full, older entries are overwritten. You can use this parameter when you want to record more data or when you want to set a smaller log size to save disk space.

-PassThru [<SwitchParameter>]

Returns an object representing the item with which you are working. By default, this cmdlet does not generate any output.

-StorageSubSystemFriendlyName <String[]>

Specifies the friendly name of the Storage subsystem for which to gather storage diagnostics. It may denote the Storage subsystem of the local computer (on which the cmdlet is run) or a remote Storage subsystem (standalone or cluster).

Selecting the local subsystem:

- On a standalone machine, no remote subsystems: All logs are gathered for that computer.
- On a standalone machine, remote subsystems registered: All logs are gathered for the standalone machine, including the client-side remoting calls.
- On a cluster node: All logs for that particular cluster node are gathered, even ones that belong in the cluster subsystem for that node only. None of the other nodes are logged.

Selecting the cluster subsystem:

- All logs are gathered for each node in that cluster. This includes and logs or tracing that may correspond to a node's local subsystem.

Selecting a remote subsystem:

- Tracing and logs are only gathered for the remote endpoint. What logs and tracing are gathered depend on whether it is a cluster or a standalone

machine (see above cases).

- Tracing and logs for the client-side operations (running on the management node) are not collected. It is expected that if there is a failure, it is most likely in the remote subsystem.

In order to gather the client-side calls, you must also include the management node's local subsystem.

`-StorageSubSystemName <String[]>`

Specifies the name of the Storage subsystem for which to gather Storage diagnostics. It may denote the Storage subsystem of the local computer (on which the cmdlet is run) or a remote Storage subsystem (standalone or cluster).

Selecting the local subsystem:

- On a standalone machine, no remote subsystems: All logs are gathered for that computer.

- On a standalone machine, remote subsystems registered: All logs are gathered for the standalone machine, including the client-side remoting calls.

- On a cluster node: All logs for that particular cluster node are gathered, even ones that belong in the cluster subsystem for that node only. None of the other nodes are logged.

Selecting the cluster subsystem:

- All logs are gathered for each node in that cluster. This includes and logs or tracing that may correspond to a node's local subsystem.

Selecting a remote subsystem:

- Tracing and logs are only gathered for the remote endpoint. What logs and tracing are gathered depend on whether it is a cluster or a standalone machine (see above cases).

- Tracing and logs for the client-side operations (running on the management node) are not collected. It is expected that if there is a failure, it is most likely in the remote subsystem.

In order to gather the client-side calls, you must also include the management node's local subsystem.

-StorageSubSystemUniqueId <String[]>

Specifies the unique ID of the Storage subsystem for which to gather Storage diagnostics. It may denote the Storage subsystem of the local computer (on which the cmdlet is run) or a remote Storage subsystem (standalone or cluster).

Selecting the local subsystem:

- On a standalone machine, no remote subsystems: All logs are gathered for that computer.

- On a standalone machine, remote subsystems registered: All logs are gathered for the standalone machine, including the client-side remoting calls.

- On a cluster node: All logs for that particular cluster node are gathered, even ones that belong in the cluster subsystem for that node only. None of the other nodes are logged.

Selecting the cluster subsystem:

- All logs are gathered for each node in that cluster. This includes and logs or tracing that may correspond to a node's local subsystem.

Selecting a remote subsystem:

- Tracing and logs are only gathered for the remote endpoint. What logs and tracing are gathered depend on whether it is a cluster or a standalone machine (see above cases).

- Tracing and logs for the client-side operations (running on the management node) are not collected. It is expected that if there is a failure, it is most likely in the remote subsystem.

In order to gather the client-side calls, you must also include the management node's local subsystem.

Specifies the maximum number of concurrent operations that can be established to run the cmdlet. If this parameter is omitted or a value of `0` is entered, then Windows PowerShell calculates an optimum throttle limit for the cmdlet based on the number of CIM cmdlets that are running on the computer. The throttle limit applies only to the current cmdlet, not to the session or to the computer.

#### <CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see `about_CommonParameters` (<https://go.microsoft.com/fwlink/?LinkID=113216>).

#### ----- Example 1: Run Storage diagnostics -----

```
PS C:\> Start-StorageDiagnosticLog -StorageSubSystemName
"TestCluster.contoso.corp.microsoft.com"
PS C:\> Stop-StorageDiagnosticLog -StorageSubSystemName
"TestCluster.contoso.corp.microsoft.com"
PS C:\> Get-StorageDiagnosticInfo -StorageSubSystemName
"TestCluster.contoso.corp.microsoft.com -DestinationPath C:\logs\techsupport
```

The first command starts the on-demand Storage diagnostic log session on a cluster subsystem.

The second command stops the diagnostic logs session.

The third command gets the diagnostic files and places them in C:\logs\techsupport.

#### REMARKS

To see the examples, type: "get-help Start-StorageDiagnosticLog -examples".

For more information, type: "get-help Start-StorageDiagnosticLog -detailed".

For technical information, type: "get-help Start-StorageDiagnosticLog -full".



For online help, type: "get-help Start-StorageDiagnosticLog -online"