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PowerShell Get-Help on command 'Optimize-Volume'

PS C:\Users\wahid> Get-Help Optimize-Volume

NAME

Optimize-Volume

SYNOPSIS

Optimizes a volume.

SYNTAX

Optimize-Volume [-DriveLetter] <Char[]> [-Analyze] [-AsJob] [-CimSession <CimSession[]>] [-Confirm] [-Defrag] [-NormalPriority] [-ReTrim] [-SlabConsolidate] [-ThrottleLimit <Int32>] [-TierOptimize] [-WhatIf] [<CommonParameters>]

Optimize-Volume [-Analyze] [-AsJob] [-CimSession <CimSession[]>] [-Confirm] [-Defrag] -FileSystemLabel <String[]> [-NormalPriority] [-ReTrim] [-SlabConsolidate] [-ThrottleLimit <Int32>] [-TierOptimize] [-WhatIf] [<CommonParameters>]

Optimize-Volume [-Analyze] [-AsJob] [-CimSession <CimSession[]>] [-Confirm] [-Defrag] -InputObject <CimInstance[]> [-NormalPriority] [-ReTrim] [-SlabConsolidate] [-ThrottleLimit <Int32>] [-TierOptimize] [-WhatIf]

[<CommonParameters>]

Optimize-Volume [-Analyze] [-AsJob] [-CimSession <CimSession[]>] [-Confirm] [-Defrag] [-NormalPriority] -ObjectId <String[]> [-ReTrim] [-SlabConsolidate] [-ThrottleLimit <Int32>] [-TierOptimize] [-WhatIf] [<CommonParameters>]

Optimize-Volume [-Analyze] [-AsJob] [-CimSession <CimSession[]>] [-Confirm] [-Defrag] [-NormalPriority] -Path <String[]> [-ReTrim] [-SlabConsolidate] [-ThrottleLimit <Int32>] [-TierOptimize] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The Optimize-Volume cmdlet optimizes a volume, performing defragmentation, trim, slab consolidation, and storage tier processing. If no parameter is specified, then the default operation will be performed per the drive type as follows.

- HDD, Fixed VHD, Storage Space. -Analyze -Defrag.

- Tiered Storage Space. -TierOptimize.

- SSD with TRIM support. -Retrim.

- Storage Space (Thinly provisioned), SAN Virtual Disk (Thinly provisioned), Dynamic VHD, Differencing VHD. -Analyze -SlabConsolidate -Retrim.

- SSD without TRIM support, Removable FAT, Unknown. No operation.

PARAMETERS

-Analyze [<SwitchParameter>]

Analyzes the volume specified for fragmentation statistics. Performs analysis only and reports the current optimization state of the volume.

-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.

-Confirm [<SwitchParameter>]

Prompts you for confirmation before running the cmdlet.

-Defrag [<SwitchParameter>]

Indicates that the cmdlet initiates defragmentation on the specified volume. Defragmentation consolidates fragmented regions of files to improve performance of sequential reads or writes.

-DriveLetter <Char[]>

Specifies the drive letter of the volume to optimize.

-FileSystemLabel <String[]>

Specifies the file system label of the volume to optimize.

-InputObject <CimInstance[]>

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

-NormalPriority [<SwitchParameter>]

Indicates that this cmdlet the operation at normal priority. By default, the priority is low.

-ObjectId <String[]>

Specifies the ID of the volume to optimize.

-Path <String[]>

Specifies the path of the volume to optimize.

-ReTrim [<SwitchParameter>]

Generates TRIM and Unmap hints for all currently unused sectors of the volume, notifying the underlying storage that the sectors are no longer needed and can be purged. This can recover unused capacity on thinly provisioned drives.

-SlabConsolidate [<SwitchParameter>]

Indicates that the cmdlet performs slab consolidation on the storage to optimize slab allocations and to reduce the number of used slabs.

-ThrottleLimit <Int32>

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 PowerShellr 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.

-TierOptimize [<SwitchParameter>]

Indicates that the cmdlet performs tier optimization of the volume, which places file data on the optimal storage tier according to heat or desired placement. This parameter only applies to tiered spaces volumes with more than one storage tier.

-WhatIf [<SwitchParameter>]

Shows what would happen if the cmdlet runs. The cmdlet is not run.

<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: Perform TRIM optimization ----------

PS C:\>Optimize-Volume -DriveLetter H -ReTrim -Verbose

This example optimizes drive H by re-sending Trim requests. This is useful on

SSD media, and thinly provisioned storage.

---------- Example 2: Analyze a volume ----------

PS C:\>Optimize-Volume -DriveLetter H -Analyze -Verbose

This example reports only the current optimization state of drive H.

---------- Example 3: Defragment a volume ----------

PS C:\>Optimize-Volume -DriveLetter H -Defrag -Verbose

This example defragments drive H.

---------- Example 4: Perform slab consolidation ----------

PS C:\>Optimize-Volume -DriveLetter H -SlabConsolidate -Verbose

This example performs slab consolidation on the storage space backing volume H.

---------- Example 5: Tier optimize a volume ----------

PS C:\>Optimize-Volume -DriveLetter H -TierOptimize

This example performs tier optimization on the tiered storage space backing

volume H.

REMARKS

To see the examples, type: "get-help Optimize-Volume -examples".

For more information, type: "get-help Optimize-Volume -detailed".

For technical information, type: "get-help Optimize-Volume -full".

For online help, type: "get-help Optimize-Volume -online"