



python



PowerShell

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### **PowerShell Get-Help on command 'Get-VirtualDisk'**

**PS C:\Users\wahid> Get-Help Get-VirtualDisk**

#### NAME

Get-VirtualDisk

#### SYNOPSIS

Returns a list of VirtualDisk objects, across all storage pools, across all providers, or optionally a filtered subset based on provided criteria.

#### SYNTAX

```
Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-Disk <CimInstance>]
[-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot
<Boolean[]>] [-OtherUsageDescription <String[]>] [-ThrottleLimit <Int32>]
[-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem |
ReservedForReplicationServices | ReservedForMigrationServices |
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}]
[<CommonParameters>]
```

Get-VirtualDisk [[-FriendlyName] <String[]>] [-AsJob] [-CimSession

<CimSession[]> [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}]  
[-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-ThrottleLimit  
<Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem |  
ReservedForReplicationServices | ReservedForMigrationServices |  
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |  
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget  
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |  
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}]  
[<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy  
| Warning | Unhealthy | Unknown}] [-InitiatorId <CimInstance>] [-IsSnapshot  
<Boolean[]>] [-OtherUsageDescription <String[]>] [-ThrottleLimit <Int32>]  
[-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem |  
ReservedForReplicationServices | ReservedForMigrationServices |  
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |  
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget  
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |  
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}]  
[<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy  
| Warning | Unhealthy | Unknown}] [-InitiatorPort <CimInstance>] [-IsSnapshot  
<Boolean[]>] [-OtherUsageDescription <String[]>] [-ThrottleLimit <Int32>]  
[-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem |  
ReservedForReplicationServices | ReservedForMigrationServices |  
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |  
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget  
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |  
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}]  
[<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy

| Warning | Unhealthy | Unknown}} [-IsSnapshot <Boolean[>] [-MaskingSet  
<CimInstance>] [-OtherUsageDescription <String[>] [-ThrottleLimit <Int32>]  
[-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem |  
ReservedForReplicationServices | ReservedForMigrationServices |  
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |  
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget  
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |  
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}}]  
[<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[>] [-HealthStatus {Healthy  
| Warning | Unhealthy | Unknown}} [-IsSnapshot <Boolean[>] [-Name <String[>]  
[-OtherUsageDescription <String[>] [-ThrottleLimit <Int32>] [-Usage {Unknown  
| Other | Unrestricted | ReservedForComputerSystem |  
ReservedForReplicationServices | ReservedForMigrationServices |  
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |  
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget  
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |  
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}}]  
[<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[>] [-HealthStatus {Healthy  
| Warning | Unhealthy | Unknown}} [-IsSnapshot <Boolean[>] [-NoRedundancy]  
[-OtherUsageDescription <String[>] [-PhysicalDisk <CimInstance>]  
[-PhysicalRangeMax <UInt64>] [-PhysicalRangeMin <UInt64>] [-ThrottleLimit  
<Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem |  
ReservedForReplicationServices | ReservedForMigrationServices |  
LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget |  
RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget  
| DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer |  
CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}}]  
[<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-SourceVirtualDisk <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-StorageJob <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-StorageNode <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-StoragePool <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-StorageSubSystem <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-StorageTier <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-TargetPort <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-TargetVirtualDisk <CimInstance>] [-ThrottleLimit <Int32>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

Get-VirtualDisk [-AsJob] [-CimSession <CimSession[]>] [-HealthStatus {Healthy | Warning | Unhealthy | Unknown}] [-IsSnapshot <Boolean[]>] [-OtherUsageDescription <String[]>] [-ThrottleLimit <Int32>] [-Uniqueid <String[]>] [-Usage {Unknown | Other | Unrestricted | ReservedForComputerSystem | ReservedForReplicationServices | ReservedForMigrationServices | LocalReplicaSource | RemoteReplicaSource | LocalReplicaTarget | RemoteReplicaTarget | LocalReplicaSourceOrTarget | RemoteReplicaSourceOrTarget | DeltaReplicaTarget | ElementComponent | ReservedAsPoolContributer | CompositeVolumeMember | CompositeVirtualDiskMember | ReservedForSparing}] [<CommonParameters>]

## DESCRIPTION

The Get-VirtualDisk cmdlet returns a list of VirtualDisk objects, across all storage pools, across all providers, or optionally a filtered subset based on provided criteria.

## 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.

-Disk <CimInstance>

Accepts a Disk object as input. The Disk CIM object is exposed by the Get-Disk (<https://technet.microsoft.com/library/3929eb27-1365-42ca-8acf-68b364c3599f>)cmdlet.

-FriendlyName <String[]>

Specifies a friendly name for a disk. The friendly name may be defined by a user and is not guaranteed to be unique.

-HealthStatus <HealthStatus[]>

Specifies the status of an object and indicates if the object is Healthy or Warning Unhealthy .

-InitiatorId <CimInstance>

Accepts an InitiatorId object as input. The Initiator ID CIM object is exposed by the Get-InitiatorId (<https://technet.microsoft.com/library/56c96b69-33c0-402b-8813-d64a4434011d>)cmdlet.

-InitiatorPort <CimInstance>

Accepts an InitiatorPort object as input. The Initiator Port CIM object is exposed by the Get-InitiatorPort (<https://technet.microsoft.com/library/580a19cf-26d1-45bb-ad34-a6265e2efacf>)cmdlet.

-IsSnapshot <Boolean[]>

Specifies that the virtual disk is a snapshot of another virtual disk.

-MaskingSet <CimInstance>

Accepts a MaskingSet object as input. The Masking Set CIM object is exposed by the Get-MaskingSet (<https://technet.microsoft.com/library/a7ef71fd-f7f6-4231-8799-0e96dd9eac84>)cmdlet.

-Name <String[]>

Specifies the name of an object or setting.

-NoRedundancy [<SwitchParameter>]

Indicates that this cmdlet gets virtual disks that have one remaining copy of data stored on the physical disk.

-OtherUsageDescription <String[]>

Specifies the usage of this object.

-PhysicalDisk <CimInstance>

Accepts a PhysicalDisk object as input. The Physical Disk CIM object is exposed by the Get-PhysicalDisk (<https://technet.microsoft.com/library/a204dcde-bfac-43ac-9b79-d81384f255be>)cmdlet.

-PhysicalRangeMax <UInt64>



This parameter is reserved for future use.

**-PhysicalRangeMin <UInt64>**

This parameter is reserved for future use.

**-SourceVirtualDisk <CimInstance>**

Specifies a virtual disk as a CimInstance object. The cmdlet gets the snapshot or clone virtual disks that were created from the virtual disk that you specify. To obtain a virtual disk object, use the Get-VirtualDisk cmdlet.

**-StorageJob <CimInstance>**

Specifies an outstanding storage job as a CimInstance object. The cmdlet gets the virtual disks associated with the storage jobs that you specify. To obtain a virtual disk object, use the Get-StorageJob cmdlet.

**-StorageNode <CimInstance>**

Specifies a storage node as a CimInstance object. The cmdlet gets the virtual disks that belong to the storage node that you specify. The virtual disks that belong to the storage node have read/write permissions on the node. To obtain a virtual disk object, use the Get-StorageNode cmdlet.

**-StoragePool <CimInstance>**

Accepts a StoragePool object as input. The Storage Pool CIM object is exposed by the Get-StoragePool (<https://technet.microsoft.com/library/288acad9-7678-45c2-b7b4-3a0522fea499>)cmdlet.

**-StorageSubSystem <CimInstance>**

Accepts a StorageSubsystem object as input. The Storage Subsystem CIM object is exposed by the Get-StorageSubsystem (<https://technet.microsoft.com/library/ea364a0b-06d6-4653-b41c-be69b8038b54>)cmdlet.

#### -StorageTier <CimInstance>

Specifies a storage tier as a CimInstance object. The cmdlet gets the virtual disks included in the storage tier that you specify. To obtain a virtual disk object, use the Get-StorageTier cmdlet.

#### -TargetPort <CimInstance>

Accepts a TargetPort object as input. The Target Port CIM object is exposed by the Get-TargetPort (<https://technet.microsoft.com/library/4c139739-cda3-4379-b87b-60b1b4db8cd2>)cmdlet.

#### -TargetVirtualDisk <CimInstance>

Specifies a virtual disk as a CimInstance object. The cmdlet gets the virtual disk from which the snapshot or clone virtual disk that you specify were created. To obtain a virtual disk object, use the Get-VirtualDisk cmdlet.

#### -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 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.

#### -UniqueId <String[]>

Specifies an ID used to uniquely identify a Disk object in the system. The ID persists through restarts.

#### -Usage <Usage[]>

Indicates the intended usage of the virtual disk.

#### <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 -----

```
PS C:\> Get-VirtualDisk
```

This example returns all VirtualDisk objects across all visible StoragePool objects, across all visible StorageProvider objects.

----- EXAMPLE 2 -----

```
PS C:\> $stpool = (Get-StoragePool -FriendlyName "SpacesPool")
PS C:\> Get-VirtualDisk -StoragePool $stpool
```

This example lists only the virtual disks from the StoragePool object named SpacesPool.

----- EXAMPLE 3 -----

```
PS C:\> Get-VirtualDisk | Where-Object -FilterScript {$_.HealthStatus -Ne "Healthy"}
```

This example lists all virtual disks, across all pools, and all providers, which are not currently in a healthy state.

----- EXAMPLE 4 -----

```
PS C:\> Get-VirtualDisk -FriendlyName "VDisk01" | Get-Disk | Get-Partition | Get-Volume
```

This example gets the partition and volume associated with a virtual disk. The command gets the virtual disk named VDisk01 and passes the virtual disk to the Get-Disk cmdlet by using the pipeline operator. The Get-Disk cmdlet gets the disk associated with the virtual disk and passes the disk to the Get-Partition

by using the pipeline operator. The Get-Partition cmdlet gets the partition associated with the disk, and passes the partition to the Get-Volume cmdlet by using the pipeline operator. The Get-Volume cmdlet gets the volume associated with the partition.

#### REMARKS

To see the examples, type: "get-help Get-VirtualDisk -examples".

For more information, type: "get-help Get-VirtualDisk -detailed".

For technical information, type: "get-help Get-VirtualDisk -full".

For online help, type: "get-help Get-VirtualDisk -online"