



python



PowerShell

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### **PowerShell Get-Help on command 'Initialize-Volume'**

**PS C:\Users\wahid> Get-Help Initialize-Volume**

#### NAME

Format-Volume

#### SYNOPSIS

Formats one or more existing volumes or a new volume on an existing partition.

#### SYNTAX

```
Format-Volume [-DriveLetter] <Char[]> [-AllocationUnitSize <UInt32>] [-AsJob]
[-CimSession <CimSession[]>] [-Compress] [-Confirm] [-DevDrive]
[-DisableHeatGathering] [-FileSystem {FAT | FAT32 | exFAT | NTFS | ReFS}]
[-Force] [-Full] [-IsDAX <Boolean>] [-NewFileSystemLabel <String>]
[-SetIntegrityStreams <Boolean>] [-ShortFileNameSupport <Boolean>]
[-ThrottleLimit <Int32>] [-UseLargeFRS] [-WhatIf] [<CommonParameters>]
```

```
Format-Volume [-AllocationUnitSize <UInt32>] [-AsJob] [-CimSession
<CimSession[]>] [-Compress] [-Confirm] [-DevDrive] [-DisableHeatGathering]
[-FileSystem {FAT | FAT32 | exFAT | NTFS | ReFS}] -FileSystemLabel <String[]>
[-Force] [-Full] [-IsDAX <Boolean>] [-NewFileSystemLabel <String>]
[-SetIntegrityStreams <Boolean>] [-ShortFileNameSupport <Boolean>]
[-ThrottleLimit <Int32>] [-UseLargeFRS] [-WhatIf] [<CommonParameters>]
```

Format-Volume [-AllocationUnitSize <UInt32>] [-AsJob] [-CimSession  
<CimSession[]>] [-Compress] [-Confirm] [-DevDrive] [-DisableHeatGathering]  
[-FileSystem {FAT | FAT32 | exFAT | NTFS | ReFS}] [-Force] [-Full]  
-InputObject <CimInstance[]> [-IsDAX <Boolean>] [-NewFileSystemLabel <String>]  
[-SetIntegrityStreams <Boolean>] [-ShortFileNameSupport <Boolean>]  
[-ThrottleLimit <Int32>] [-UseLargeFRS] [-WhatIf] [<CommonParameters>]

Format-Volume [-AllocationUnitSize <UInt32>] [-AsJob] [-CimSession  
<CimSession[]>] [-Compress] [-Confirm] [-DevDrive] [-DisableHeatGathering]  
[-FileSystem {FAT | FAT32 | exFAT | NTFS | ReFS}] [-Force] [-Full] [-IsDAX  
<Boolean>] [-NewFileSystemLabel <String>] -ObjectId <String[]>  
[-SetIntegrityStreams <Boolean>] [-ShortFileNameSupport <Boolean>]  
[-ThrottleLimit <Int32>] [-UseLargeFRS] [-WhatIf] [<CommonParameters>]

Format-Volume [-AllocationUnitSize <UInt32>] [-AsJob] [-CimSession  
<CimSession[]>] [-Compress] [-Confirm] [-DevDrive] [-DisableHeatGathering]  
[-FileSystem {FAT | FAT32 | exFAT | NTFS | ReFS}] [-Force] [-Full] [-IsDAX  
<Boolean>] [-NewFileSystemLabel <String>] [-Partition <CimInstance>]  
[-SetIntegrityStreams <Boolean>] [-ShortFileNameSupport <Boolean>]  
[-ThrottleLimit <Int32>] [-UseLargeFRS] [-WhatIf] [<CommonParameters>]

Format-Volume [-AllocationUnitSize <UInt32>] [-AsJob] [-CimSession  
<CimSession[]>] [-Compress] [-Confirm] [-DevDrive] [-DisableHeatGathering]  
[-FileSystem {FAT | FAT32 | exFAT | NTFS | ReFS}] [-Force] [-Full] [-IsDAX  
<Boolean>] [-NewFileSystemLabel <String>] -Path <String[]>  
[-SetIntegrityStreams <Boolean>] [-ShortFileNameSupport <Boolean>]  
[-ThrottleLimit <Int32>] [-UseLargeFRS] [-WhatIf] [<CommonParameters>]

## DESCRIPTION

The Format-Volume cmdlet formats one or more existing volumes, or a new volume on an existing partition. This cmdlet returns the object representing the

volume that was just formatted, with all properties updated to reflect the format operation.

To create a new volume, use this cmdlet in conjunction with the Initialize-Disk and New-Partition cmdlets.

## PARAMETERS

`-AllocationUnitSize <UInt32>`

Specifies the allocation unit size to use when formatting 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 (/powershell/module/cimcmdlets/new-cimsession)` or

`[Get-CimSession](https://go.microsoft.com/fwlink/p/?LinkId=227966)cmdlet.`

The default is the current session on the local computer.

`-Compress [<SwitchParameter>]`

Enables compression on all files and folders created on the specified NTFS volume.

`-Confirm [<SwitchParameter>]`

Prompts you for confirmation before running the cmdlet.

`-DevDrive [<SwitchParameter>]`

Formats the volume as a dev drive (`/windows/dev-drive/`). A dev drive is optimized for performance of developer scenarios and gives administrators control over what minifilters are attached to the volume.

-DisableHeatGathering [<SwitchParameter>]

Indicates that the cmdlet does not gather file activity on the specified tiered volume. You can override file placement based on the desired storage tier. This parameter is only valid for tiered volumes.

-DriveLetter <Char[]>

Specifies the drive letter of the volume to format.

-FileSystem <String>

Specifies the file system with which to format the volume. The acceptable values for this parameter are:NTFS, ReFS, exFAT, FAT32, and FAT.

-FileSystemLabel <String[]>

Specifies the label to use for the volume.

-Force [<SwitchParameter>]

Specifies the override switch.

-Full [<SwitchParameter>]

Performs a full format. A full format writes to every sector of the disk, takes much longer to perform than the default (quick) format, and is not recommended on storage that is thinly provisioned.

-InputObject <CimInstance[]>

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

-IsDAX <Boolean>

Formats a volume as a DirectAccess (DAX) volume.

DAX provides applications with direct access and byte-addressability options via memory mapping on storage class memory (SCM) devices, such as NVDIMM-N.

If you do not specify the `IsDAX` parameter, the cmdlet defaults to a regular, non-DAX volume.

`-NewFileSystemLabel <String>`

Specifies a new label to use for the volume.

`-ObjectId <String[]>`

Specifies the ID of the volume to format.

`-Partition <CimInstance>`

Specifies the partition object on which to create the new volume. Enter a Partition CIM object, which is exposed by the `Get-Partition` and `New-Partition` cmdlets.

`-Path <String[]>`

Specifies the path of the volume to format.

`-SetIntegrityStreams <Boolean>`

Enables integrity streams on the volume to be formatted.

`-ShortFileNameSupport <Boolean>`

Specifies that support for short file names should be enabled on this volume.

`-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.

-UseLargeFRS [<SwitchParameter>]

Specifies that large File Record Segment (FRS) should be used.

-WhatIf [<SwitchParameter>]

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

The WhatIf switch does not work with this cmdlet.

<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: Quick format -----

```
PS C:\>Format-Volume -DriveLetter D
```

This example performs a format of the D volume.

----- Example 2: Full format using FAT32 -----

```
PS C:\>Format-Volume -DriveLetter D -FileSystem FAT32 -Full -Force
```

This example performs a full format of the D volume using the FAT32 file system.

----- Example 3: Format all D drives across a cluster -----

```
PS C:\> Get-Volume -DriveLetter D
```

DriveLetter	FileSystemLabel	FileSystem	DriveType	HealthStatus	OperationalStatus	SizeRemaining	Size
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D	Server1	NTFS	Fixed	Healthy	OK		
---	---------	------	-------	---------	----	--	--

126.76 GB 126.87 GB

D Server2 NTFS Fixed Healthy OK

126.76 GB 126.87 GB

PS C:\> Format-Volume -DriveLetter D

DriveLetter FileSystemLabel FileSystem DriveType HealthStatus

OperationalStatus SizeRemaining Size

-----

-----

D NTFS Fixed Healthy OK

126.76 GB 126.87 GB

D NTFS Fixed Healthy OK

126.76 GB 126.87 GB

Be careful, if using this cmdlet on a Windows Cluster, it would format all drives returned by the Get-Volume cmdlet.

-- Example 4: Full format using NTFS and allocation size 8192 --

PS C:\> Format-Volume -DriveLetter D -FileSystem NTFS -AllocationUnitSize 8192

This example performs a full format of the D volume using the NTFS file system and allocation size 8192.

#### REMARKS

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

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

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

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