

2) Obtenir de l'aide sur une commande

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> Get-PSDrive -Name c | Select-Object *

Name                : 99457667072
Provider             : C
Provider             : Microsoft.PowerShell.Core\FileSystem
Root                 : C:\
Description          : Windows-SSD
MaximumSize          :
Credential           : System.Management.Automation.PSCredential
DisplayRoot          :
Used                  : 155263459328
CurrentLocation      : WINDOWS\system32
```

```
PS C:\WINDOWS\system32> Get-Help Get-Alias -Examples
>>

Do you want to run Update-Help?
The Update-Help cmdlet downloads the most current Help files for Windows PowerShell modules, and
installs them on your computer. For more information about the Update-Help cmdlet, see
https://go.microsoft.com/fwlink/?LinkId=210614.
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y

NAME
----
Get-Alias

SYNOPSIS
-----
Gets the aliases for the current session.

----- Example 1: Get all aliases in the current session -----

Get-Alias

CommandType      Name
-----
Alias             % -> ForEach-Object
Alias             ? -> Where-Object
Alias             ac -> Add-Content
Alias             asnp -> Add-PSSnapin
Alias             cat -> Get-Content
Alias             cd -> Set-Location
Alias             chdir -> Set-Location
Alias             clc -> Clear-Content
Alias             clear -> Clear-Host
Alias             clhy -> Clear-History
...

This command gets all aliases in the current session.

The output shows the `<alias> -> <definition>` format that was introduced in Windows PowerShell
3.0. This format is used only for aliases that do not include hyphens, because aliases with
hyphens are typically preferred names for cmdlets and functions, rather than nicknames.
----- Example 2: Get aliases by name -----

Get-Alias -Name gp*, sp* -Exclude *ps

This command gets all aliases that begin with gp or sp, except for aliases that end with ps.
----- Example 3: Get aliases for a cmdlet -----

Get-Alias -Definition Get-ChildItem

This command gets the aliases for the `Get-ChildItem` cmdlet.
```

```

PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> Get-Alias -Name g*

CommandType      Name                                     Version      Source
-----
Alias            gal -> Get-Alias
Alias            gbp -> Get-PSBreakpoint
Alias            gc -> Get-Content
Alias            gcb -> Get-Clipboard
Alias            gci -> Get-ChildItem
Alias            gcm -> Get-Command
Alias            gcs -> Get-PSCallStack
Alias            gdr -> Get-PSDrive
Alias            ghy -> Get-History
Alias            gi -> Get-Item
Alias            gin -> Get-ComputerInfo
Alias            gjb -> Get-Job
Alias            gl -> Get-Location
Alias            gm -> Get-Member
Alias            gmo -> Get-Module
Alias            gp -> Get-ItemProperty
Alias            gps -> Get-Process
Alias            gpv -> Get-ItemPropertyValue
Alias            group -> Group-Object
Alias            gsn -> Get-PSSession
Alias            gsnp -> Get-PSSnapin
Alias            gsv -> Get-Service
Alias            gtz -> Get-TimeZone
Alias            gu -> Get-Unique
Alias            gv -> Get-Variable
Alias            gwmi -> Get-WmiObject

```

```

PS C:\WINDOWS\system32> Get-Command -Name sl

CommandType      Name                                     Version      Source
-----
Alias            sl -> Set-Location

PS C:\WINDOWS\system32> Get-Alias | Where-Object { $_.Definition -eq "Get-ChildItem" }

CommandType      Name                                     Version      Source
-----
Alias            dir -> Get-ChildItem
Alias            gci -> Get-ChildItem
Alias            ls -> Get-ChildItem

```

```

PS C:\WINDOWS\system32> Get-Alias -Definition "cmd.exe", "bash"
Get-Alias : This command cannot find a matching alias because an alias with the definition 'cmd.exe'
does not exist.
At line:1 char:1
+ Get-Alias -Definition "cmd.exe", "bash"
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (cmd.exe:String) [Get-Alias], ItemNotFoundException
+ FullyQualifiedErrorId : ItemNotFoundException,Microsoft.PowerShell.Commands.GetAliasCommand

Get-Alias : This command cannot find a matching alias because an alias with the definition 'bash' does
not exist.
At line:1 char:1
+ Get-Alias -Definition "cmd.exe", "bash"
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (bash:String) [Get-Alias], ItemNotFoundException
+ FullyQualifiedErrorId : ItemNotFoundException,Microsoft.PowerShell.Commands.GetAliasCommand

```

```

PS C:\WINDOWS\system32> Get-PSDrive -Name C | Select-Object *

Used          : 155369660416
Free          : 99351465984
CurrentLocation : WINDOWS\system32
Name          : C
Provider      : Microsoft.PowerShell.Core\FileSystem
Root         : C:\
Description   : Windows-SSD
MaximumSize   :
Credential    : System.Management.Automation.PSCredential
DisplayRoot   :

PS C:\WINDOWS\system32> (Get-Location).PSObject.Properties | Format-Table Name, MemberType

Name          MemberType
----          -
Drive         Property
Provider      Property
ProviderPath  Property
Path          Property

PS C:\WINDOWS\system32> Get-PSDrive | Get-Member -MemberType Property, Method

    TypeName: System.Management.Automation.PSDriveInfo

Name          MemberType Definition
----          -
CompareTo     Method      int CompareTo(System.Management.Automation.PSDriveInfo drive), int Compar...
Equals        Method      bool Equals(System.Object obj), bool Equals(System.Management.Automation...
GetHashCode   Method      int GetHashCode()
GetType       Method      type GetType()
ToString      Method      string ToString()
Credential    Property    pscredential Credential {get;}
CurrentLocation Property  string CurrentLocation {get;set;}
Description   Property    string Description {get;set;}
DisplayRoot   Property    string DisplayRoot {get;}
MaximumSize   Property    System.Nullable[long] MaximumSize {get;}
Name          Property    string Name {get;}
Provider      Property    System.Management.Automation.ProviderInfo Provider {get;}
Root          Property    string Root {get;}

```

Résumé des commandes pour obtenir de l'aide et explorer des informations spécifiques dans PowerShell :

1. ****Afficher l'aide sur la commande Get-Alias :****

```

``powershell
Get-Help Get-Alias
``

```
2. ****Afficher l'aide avec les exemples sur la commande Get-Alias :****

```

``powershell
Get-Help Get-Alias -Examples
``

```
3. ****Afficher tous les alias dont le nom commence par la lettre "g" :****

```

``powershell

```

```
Get-Alias -Name g*
```

```
...
```

4. ****Afficher la commande qui correspond à l'alias dont le nom est "sl" :****

```
``powershell
```

```
Get-Alias -Definition Get-ChildItem
```

```
...
```

5. ****Afficher tous les alias dont la définition est "Get-ChildItem" :****

```
``powershell
```

```
Get-Alias | Where-Object { $_.Definition -eq 'Get-ChildItem' }
```

```
...
```

6. ****Afficher les informations du volume nommé "C" avec l'exemple de Get-PSDrive :****

```
``powershell
```

```
Get-Help Get-PSDrive -Example 2
```

```
Get-PSDrive -Name C
```

```
...
```

7. ****Afficher les méthodes et les propriétés des objets retournés par la commande Get-Location :****

```
``powershell
```

```
(Get-Location).GetType().GetMembers()
```

```
...
```

8. ****Afficher les méthodes et les propriétés des objets retournés par la commande Get-PSDrive :****

```
``powershell
```

```
Get-PSDrive | Get-Member
```

```
...
```

3) Gérer les fichiers et les dossiers

```
PS C:\WINDOWS\system32> Set-Location C:\
PS C:\> Get-ChildItem

Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d-----            6/7/2021   9:45 PM         Drivers
d-----            5/6/2023  12:26 PM          Fraps
d-----            5/7/2022   7:24 AM        PerfLogs
d-r---            1/3/2024   1:05 AM      Program Files
d-r---            7/5/2023   1:43 PM      Program Files (x86)
d-----            7/5/2023  11:23 AM      Riot Games
d-r---            4/11/2023   4:10 AM        Users
d-----            1/7/2024   9:10 PM        Windows
-a-----            6/21/2023   3:50 PM          2 AMFTrace.log

PS C:\> New-Item -ItemType Directory -Name testPowerShell

Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d-----            1/9/2024   4:29 PM          testPowerShell

PS C:\> Set-Location C:\testPowerShell
PS C:\testPowerShell> New-Item -ItemType Directory -Name testdossier

Directory: C:\testPowerShell

Mode                LastWriteTime         Length Name
----                -
d-----            1/9/2024   4:29 PM          testdossier
```

```
PS C:\testPowerShell> Set-Content -Path .\test1.txt -Value "Tp PowerShell 1"
PS C:\testPowerShell> Get-ChildItem

Directory: C:\testPowerShell

Mode                LastWriteTime         Length Name
----                -
d-----          1/9/2024   4:29 PM             testdossier
-a-----          1/9/2024   4:30 PM             17 test1.txt

PS C:\testPowerShell> Copy-Item -Path .\test1.txt -Destination .\test2.txt
PS C:\testPowerShell> Rename-Item -Path .\test1.txt -NewName essai1.txt
PS C:\testPowerShell> Copy-Item -Path .\essai1.txt -Destination .\testdossier\essai1.txt
PS C:\testPowerShell> Get-ChildItem -Recurse

Directory: C:\testPowerShell

Mode                LastWriteTime         Length Name
----                -
d-----          1/9/2024   4:29 PM             testdossier
-a-----          1/9/2024   4:30 PM             17 essai1.txt
-a-----          1/9/2024   4:30 PM             17 test2.txt

Directory: C:\testPowerShell\testdossier

Mode                LastWriteTime         Length Name
----                -
-a-----          1/9/2024   4:30 PM             17 essai1.txt

PS C:\testPowerShell> Copy-Item -Path .\testdossier -Destination .\test2dossier -Recurse
PS C:\testPowerShell> Move-Item -Path .\test2.txt -Destination .\testdossier\test2.txt
PS C:\testPowerShell> Remove-Item -Path .\test2dossier -Recurse
PS C:\testPowerShell> Test-Path C:\windows
True
```

```
True
PS C:\testPowerShell> Get-ChildItem C:\windows
```

Directory: C:\windows

Mode	LastWriteTime	Length	Name
d-----	4/11/2023 1:57 PM		addins
d-----	9/6/2023 5:19 AM		appcompat
d-----	1/7/2024 9:10 PM		apppatch
d-----	1/9/2024 3:53 PM		AppReadiness
d-r----	9/3/2023 4:50 PM		assembly
d-----	1/7/2024 9:10 PM		bcastdvr
d-----	5/7/2022 7:42 AM		Boot
d-----	5/7/2022 7:24 AM		Branding
d-----	5/7/2022 8:01 AM		BrowserCore
d-----	1/7/2024 7:44 PM		CbsTemp
d-----	5/7/2022 7:24 AM		Containers
d-----	5/7/2022 7:24 AM		Cursors
d-----	4/17/2023 9:08 PM		debug
d-----	5/7/2022 7:42 AM		diagnostics
d-----	1/3/2024 1:54 AM		DiagTrack
d-----	5/7/2022 8:01 AM		DigitalLocker
d---s-	5/7/2022 7:24 AM		Downloaded Program Files
d-----	5/7/2022 8:10 AM		en-US
d-----	4/11/2023 2:09 PM		Firmware
d-r-s-	10/16/2023 3:42 AM		Fonts
d-----	4/11/2023 1:58 PM		fr-FR
d-----	5/7/2022 7:24 AM		GameBarPresenceWriter
d-----	4/11/2023 2:05 PM		Globalization
d-----	5/7/2022 8:01 AM		Help
d-----	5/7/2022 7:42 AM		IdentityCRL
d-----	4/11/2023 1:57 PM		IME
d-r----	1/7/2024 9:10 PM		ImmersiveControlPanel
d-----	1/7/2024 9:10 PM		InboxApps
d-----	1/9/2024 11:26 AM		INF
d-----	5/7/2022 7:42 AM		InputMethod
d-----	5/7/2022 7:24 AM		L2Schemas
d-----	4/11/2023 2:07 PM		Lenovo
d-----	7/23/2023 8:50 PM		LiveKernelReports
d-----	11/21/2023 10:46 PM		Logs
d-----	5/7/2022 7:42 AM		Media
d-r----	1/9/2024 11:26 AM		Microsoft.NET
d-----	5/7/2022 7:24 AM		Migration
d-----	5/7/2022 7:24 AM		ModemLogs
d-----	4/11/2023 1:58 PM		OCR

```
PS C:\testPowerShell> Get-ChildItem C:\windows -Filter *.exe

Directory: C:\windows

Mode                LastWriteTime         Length Name
----                -
-a----            11/22/2023   8:34 PM         110592 bfsvc.exe
-a----             1/7/2024   7:37 PM        5298768 explorer.exe
-a----             1/7/2024   7:39 PM        1093632 HelpPane.exe
-a----             5/7/2022   7:20 AM         36864 hh.exe
-a----            11/22/2023   8:42 PM         364544 notepad.exe
-a----             5/7/2022   7:20 AM         552960 regedit.exe
-a----            11/22/2023   8:34 PM         192512 splwow64.exe
-a----             5/7/2022   7:20 AM         12288 winhlp32.exe
-a----             5/6/2022  10:16 PM         28672 write.exe

PS C:\testPowerShell>
```

**# Afficher le chemin du dossier courant
Get-Location**

**# Se déplacer à la racine de la partition C:
Set-Location C:**

**# Afficher la liste des dossiers et fichiers
Get-ChildItem**

**# Créer un dossier nommé testPowerShell
New-Item -ItemType Directory -Name testPowerShell**

**# Se déplacer dans le dossier c:\testPowerShell
Set-Location C:\testPowerShell**

**# Créer un dossier nommé testdossier
New-Item -ItemType Directory -Name testdossier**

**# Créer un fichier nommé test1.txt, contenant la phrase "Tp PowerShell 1"
Set-Content -Path .\test1.txt -Value "Tp PowerShell 1"**

Afficher la liste des dossiers et fichiers

Get-ChildItem

Copier le fichier test1.txt sous le nom test2.txt

Copy-Item -Path .\test1.txt -Destination .\test2.txt

Renommer le fichier test1.txt avec le nom essai1.txt

Rename-Item -Path .\test1.txt -NewName essai1.txt

Copier le fichier essai1.txt dans le dossier testdossier\essai1.txt

Copy-Item -Path .\essai1.txt -Destination .\testdossier\essai1.txt

**# Afficher la liste des fichiers du dossier et des sous-dossiers de
testPowerShell**

Get-ChildItem -Recurse

**# Copier le dossier testdossier (avec ses fichiers) dans un nouveau
dossier test2dossier**

Copy-Item -Path .\testdossier -Destination .\test2dossier -Recurse

Déplacer le fichier test2.txt dans le dossier testdossier

Move-Item -Path .\test2.txt -Destination .\testdossier\test2.txt

Supprimer le dossier test2dossier (avec ses fichiers)

Remove-Item -Path .\test2dossier -Recurse

Tester l'existence du dossier c:\windows

Test-Path C:\windows

Afficher le contenu du dossier c:\windows

Get-ChildItem C:\windows

Afficher la liste des fichiers .exe du dossier c:\windows

Get-ChildItem C:\windows -Filter *.exe