

# New-PSDrive – How to use PowerShell Net Use alternative

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We all know the Net Use command that we can use to map network drives from the command line. Although we can use Net Use in PowerShell, there is a more powerful alternative, the New-PSDrive cmdlet.

With the New-PSDrive cmdlet, we cannot only map network drives but also create drive mappings to local folders or registry keys on our computer. Drives created with the cmdlet can be temporary for only the current PowerShell sessions or persistent so they can be used in Explorer.

In this article, we are going to take a closer look at all the possibilities of the New-PSDrive cmdlet with some useful examples for you to use.

## Temporary vs Persistent drives

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Before we are going to take a look at how to create network drives, I first want to explain the difference between temporary and persistent drives.

Temporary drives can only be used in the current PowerShell session. They won't be visible in Windows Explorer and will be gone when you close the PowerShell session. They are great to use when you need to interact with a remote folder or a long folder path on your local computer.

Persistent drives are assigned a drive letter and therefore can also be used in Explorer. They will remain available when you close the PowerShell session or even reboot your computer.

## Adding a new network drive with New-PSDrive

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To map a network drive with PowerShell, we are going to create a persistent network connection. This way the network drive will be available in Explorer and other tools and not only in PowerShell.

There are a couple of required parameters to create a network connection:

Parameter	Description
<b>Name</b>	Must be an available drive letter
<b>PSPProvider</b>	Set to <b>FileSystem</b> for network shares and folders
<b>Root</b>	The network location that you want to map
<b>Persist</b>	To make it available outside PowerShell (in Explorer)

So to map the network share \\VBoxSvr\Win11 and assign it the drive letter v: we can use the following command:

`New-PSDrive -Name V -PSPProvider FileSystem -Root \\VBoxSvr\Win11 -Persist`

```
PS C:\> New-PSDrive -Name V -PSPProvider FileSystem -Root \\VBoxSvr\Win11 -Persist
```

Name	Used (GB)	Free (GB)	Provider	Root	CurrentLocation
V	225.44	11.62	FileSystem	\\VBoxSvr\Win11	

```
PS C:\> |
```

New-PSDrive network mapping

The network location will now be available in Explorer or any other tool that you want to use.

## Using different credentials for the mapped network drive

Just like with Net Use we can use different credentials to open a remote network drive. For this, we first need to create a credential object that we can use to map the network drive.

```
# Get the credentials
$cred = Get-Credential
# Create the drive mapping with the credentials
New-PSDrive -Name V -PSPProvider FileSystem -Root \\VBoxSvr\Win11 -Persist -
Credential $cred
```

## Creating a Temporary Drive Mapping in PowerShell

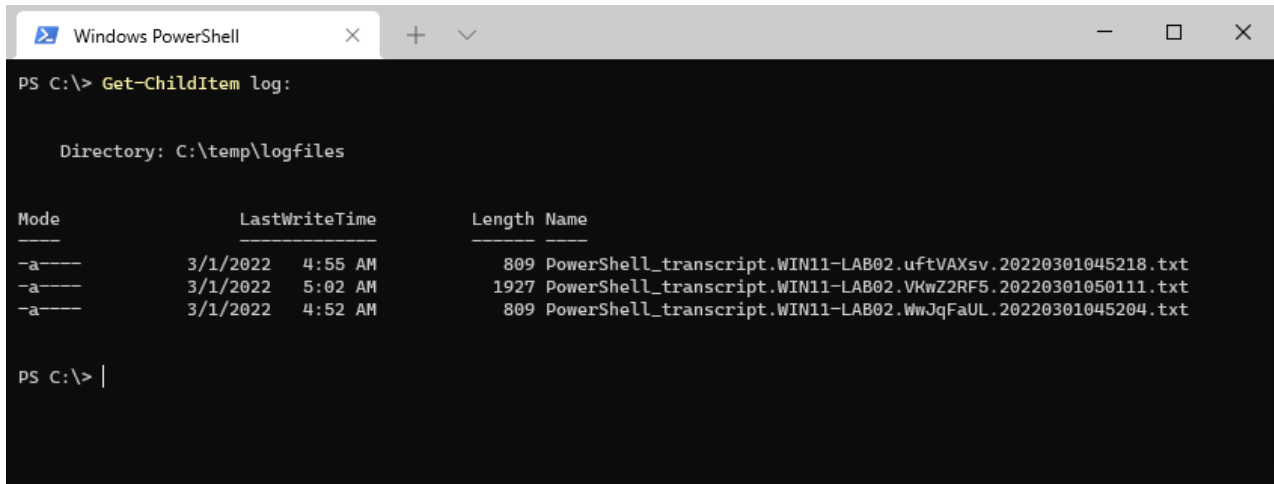
As mentioned we can also create a temporary drive mapping with PowerShell. With temporary mappings, we are not limited to letters only. We can give any name we want to the mapping. Also, we can create a mapping to a local folder on our computer.

For example, we can create a mapping to our log folder with:

```
New-PSDrive -Name Log -PSProvider FileSystem -Root c:\temp\logfiles -Description "Log Folder"
```

This way we can quickly navigate to the log files with `cd log:`. But we can not only navigate to the folder, we now also reference the mapping in other cmdlets. For example:

Get-ChildItem log:



```
PS C:\> Get-ChildItem log:

Directory: C:\temp\logfiles

Mode                LastWriteTime         Length Name
----                -
-a-----         3/1/2022   4:55 AM             809 PowerShell_transcript.WIN11-LAB02.uftVAXsv.20220301045218.txt
-a-----         3/1/2022   5:02 AM            1927 PowerShell_transcript.WIN11-LAB02.VKwZ2RF5.20220301050111.txt
-a-----         3/1/2022   4:52 AM             809 PowerShell_transcript.WIN11-LAB02.WwJqFaUL.20220301045204.txt

PS C:\> |
```

new-PSDrive

## Creating a persistent mapping to a local folder

Temporary mappings are gone after you close the PowerShell window. There is no option to store mappings to local folders with New-PSDrive. But when you need to access a long folder path often from PowerShell then you could add the cmdlet to your [PowerShell Profile](#). This way the mapping will be recreated every time you open PowerShell.

First, open your profile:

ise \$profile

If you get an error that your profile is not found, then follow [this article to quickly create one](#).

In your PowerShell profile add the following line:

```
# Create shortcuts to long folder paths
```

```
New-PSDrive -Name Log -PSProvider FileSystem -Root c:\temp\logfiles -Description "Log Folder" | Out-Null
```

Note that we added `| Out-Null` to the cmdlet. By default, the cmdlet will output the results of the drive mapping. But we don't want that every time when we open a new PowerShell session.

## Mapping Registry keys with New-PSDrive

Besides mapping network drives and folders, we can also map registry keys with the New-PSDrive cmdlet. By default, you will find already a mapping to the HKEY\_CURRENT\_USER key and HKEY\_LOCAL\_MACHINE key. You can see these with the command:

```
Get-PSDrive -PSProvider Registry
```

```
# Result
```

```
Name Used (GB) Free (GB) Provider Root CurrentLocation
```

```
-----
```

```
HKCU Registry HKEY_CURRENT_USER
```

```
HKLM Registry HKEY_LOCAL_MACHINE
```

If you want to create a mapping to the HKEY\_USERS hives you can do the following:

```
New-PSDrive -Name HKU -PSProvider Registry -Root HKEY_USERS
```

We are not limited to the top-level registry hives, you can create mappings to any registry key you want. For example, the HKCU Windows NT key:

```
New-PSDrive -Name WinNT -PSProvider Registry -Root  
HKEY_CURRENT_USER\Software\Microsoft\Windows NT
```

You can now easily add, edit or remove registry keys using the create mapping:

```
# WinNT: is the mapping that we created earlier
```

```
New-Item -Path WinNT: -Name LazyAdmin
```

## Wrapping Up

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To be honest, there is little advantage to using the New-PSDrive if you only want to map a network share that is also available in Explorer. The [Net-Use command](#) is shorter and more convenient to use.

But when you only need to create a mapping in a PowerShell session, or when you want to create a shortcut to local folders or the registry, then the cmdlet can be quite useful.

If you have any questions, just drop a comment below!

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