How to Create a PowerShell Profile – Step-by-Step

lazyadmin.nl/powershell/powershell-profile

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Do you want to get more out of your PowerShell? Then make sure you configure your PowerShell Profile to boost your PowerShell console.

The PowerShell Profile is a script that runs when you open PowerShell. It allows you to load PowerShell scripts or modules automatically, create aliases for cmdlets that you use often, and change the look of your console.

In this article, we are going to take a look at the different PowerShell Profile locations, explain how to create a profile, and give you some useful examples.

PowerShell Profile Location

What most people don't know is that there are different profiles. You can create a profile for the PowerShell Console/Terminal and a separate one for PowerShell ISE. But it's also possible to create one profile that is used on all locations.

To find your PowerShell Profile location we are going to use PowerShell.

1. Open **PowerShell**
2. Type **$profile**

```
$profile
#result:
C:\Users\rmens\Documents\WindowsPowerShell\Microsoft.PowerShell_profile.ps1
```

The $profile variable returns the profile for the current user in the current program (host). But as mentioned, there are different profiles. If you also work a lot in PowerShell ISE, then makes more sense to use the Current User – All Hosts profile.

> Note
>
> *The term Host is a bit confusing here. With Host Microsoft means in this case a PowerShell program, like the PowerShell Console or editor ISE.*

Description	Path	Command to open
Current user – Current host	$Home\[My]Documents\PowerShell\Microsoft.PowerShell_profile.ps1	$profile
Current user – All hosts	$Home\[My]Documents\PowerShell\Profile.ps1	$profile.CurrentUserAllHosts
All Users – Current Host	$PSHOME\Microsoft.PowerShell_profile.ps1	$profile.AllUsersCurrentHost
All Users – All Hosts	$PSHOME\Profile.ps1	$profile.AllUsersAllHosts

PowerShell Profile Locations

To create a specific profile for PowerShell ISE you will need to run the command from within PowerShell ISE itself.

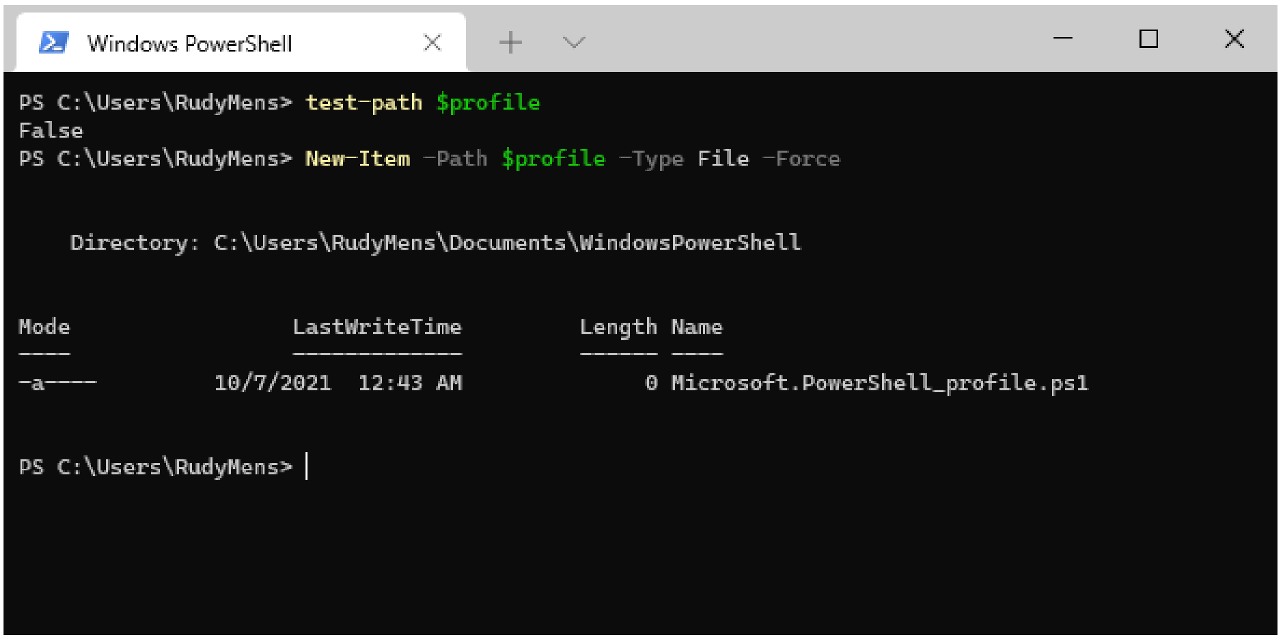
How to create your PowerShell Profile

Using PowerShell Profiles can really make your daily work a lot easier. You no longer need to navigate to the correct folder to run a script that you often use. Or you can create easy-to-use aliases for cmdlets that you use often.

The first step in creating your own profile is to test if you already have a profile. Open PowerShell and type:

test-path $profile
If it returns False, then we need to create the profile first, type:

New-Item -Path $profile -Type File -Force



```
PS C:\Users\RudyMens> test-path $profile
False
PS C:\Users\RudyMens> New-Item -Path $profile -Type File -Force


    Directory: C:\Users\RudyMens\Documents\WindowsPowerShell


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         10/7/2021  12:43 AM              0 Microsoft.PowerShell_profile.ps1


PS C:\Users\RudyMens> |
```

You can use the same method to create the profile of all hosts or all users using the command in the table above.

To use the profile you will need to make sure you have set the Execution Policy to Remote Signed. Otherwise, you won't be able to run the script when PowerShell opens. Make sure you run PowerShell with elevated permissions (admin mode) to change the execution policy:

```
Get-ExecutionPolicy
# Set the ExecutionPolicy to RemoteSigned:
Set-ExecutionPolicy RemoteSigned
```

Edit the PowerShell Profile

The profile is now created, allowing you to open and edit the PowerShell Profile. Again we are using the PowerShell command to open the profile file:

```
ise $profile
```

This will open the profile in PowerShell ISE, showing a completely blank profile file. Keep in mind that the more you add to your profile, the longer it may take before PowerShell is started.

PowerShell Profile Examples

The profile is a PowerShell script, so we can right pretty much any PowerShell function in it. But basically, you want to do a couple of things in your profile:

- Style your PowerShell console
- Set default location
- Load different paths (folders) with scripts
- Set default variables
- Import modules
- Create aliases

Style your PowerShell Console

You can style your PowerShell console, settings the font and background color, and windows title for example. Personally, I use Windows Terminal and use a customized theme for it. You can read more about Windows Terminal in this article.

```
# Style default PowerShell Console
$shell = $Host.UI.RawUI
$shell.WindowTitle= "PS"
$shell.BackgroundColor = "Black"
$shell.ForegroundColor = "White"
# Load custom theme for Windows Terminal
Import-Module posh-git
Import-Module oh-my-posh
Set-Theme LazyAdmin
```

Set Default Location

By default, PowerShell starts in your home folder `$home`. But when I am working with PowerShell, most of the time I want to have easy access to my scripts folder. So we can set the default location to start PowerShell in:

```
# Set Default location
Set-Location D:\SysAdmin\scripts
```

Load scripts from different locations

To have quick access to your scripts, you can load the folders that contain the scripts into your environment path `$env:path`. This allows you to have access to all your script without the need to change directories every time:

```
# Load scripts from the following locations
$env:Path += ";D:\SysAdmin\scripts\PowerShellBasics"
$env:Path += ";D:\SysAdmin\scripts\Connectors"
$env:Path += ";D:\SysAdmin\scripts\Office365"
```

Set default variables

Another useful tip is to set default variables in your profile. For example, I often need to connect to Office 365. By settings the SharePoint Admin URL, or my UserPrincipalName as a variable in the profile, I can quickly connect to the different endpoints.

This works the best in combination with the connection scripts that you can find here on my GitHub.

```
# Set default variables
$adminUPN = "lazyadmin@lazydev.onmicrosoft.com"
$sharepointAdminUrl = "https://lazydev-admin.sharepoint.com"
```

Import modules or Scripts

Most of my scripts are writing as a function. But to really use them as a function you will need to create a PowerShell Module from it. And those module files need to be placed in your modules folder: `$HOME\Documents\PowerShell\Modules`.

My modules folder isn't connected to my GitHub repository, so changes made in the scripts need to be copied to the module folder, which I always forget.

An easier method, in my opinion, is to use an alias for your scripts. This way you can call your scripts as a function, without the need of making modules from them:

```
# Lazy way to use scripts as module
Set-Alias ConnectTo-SharePointAdmin ConnectTo-SharePointAdmin.ps1
Set-Alias ConnectTo-EXO ConnectTo-EXO.ps1
Set-Alias Get-MFAStatus MFAStatus.ps1
Set-Alias Get-MailboxSizeReport MailboxSizeReport.ps1
```

```
Set-Alias Get-OneDriveSizeReport OneDriveSizeReport.ps1
```

Create Aliases for commands

You can also create aliases for commands that you often use, like:

```
# Create aliases for frequently used commands
Set-Alias im Import-Module
Set-Alias tn Test-NetConnection
```

After you have made all the changes, save your profile file and restart your PowerShell console.

Wrapping Up

A good configured PowerShell Profile can really save you time when working with PowerShell. It gives you direct access to often-used scripts, variables, and functions.

If you have suggestions or tips for the profile, then please share them below. Also if you have questions, just drop a comment below.

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