Top 5 PowerShell Modules You Need to Know About

lazyadmin.nl/powershell/top-5-powershell-modules

May 30, 2024

I have been using PowerShell for quite some years now, and over the years I have installed a lot of PowerShell modules. Most are purely functional, to connect to Exchange Online for example, but others are just really handy tools to have.

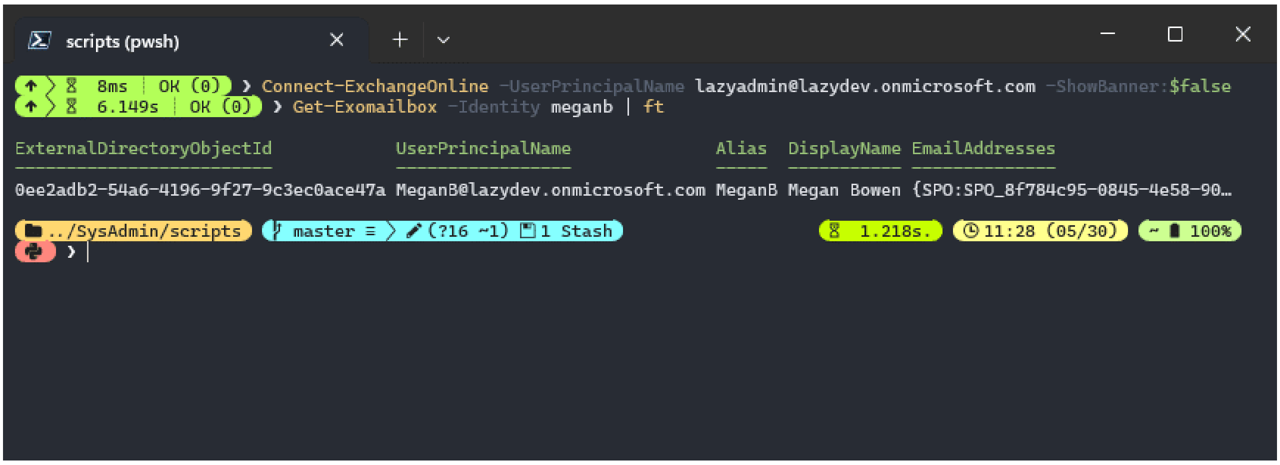
Even though there are a lot more PowerShell Modules that are worth to install, these are probably the best PowerShell modules that I used the most. If you have some good suggestion, make sure you let me know in the comments.

In this article, I will show you my Top 5 PowerShell modules that you should need to know about.

Oh-My-Posh

We of course have to start with one of the best PowerShell modules, Oh My Posh. This is a custom prompt engine that can be used with any shell and allows you to fully customize your terminal.

The latest version of Oh My Posh works with theme files, allowing you to easily create and share your custom theme. There is an extensive list of themes available, allowing you to easily pick one and get started.



```
↑ ❯ ⌛ 8ms ¦ OK (0) ❯ Connect-ExchangeOnline -UserPrincipalName lazyadmin@lazydev.onmicrosoft.com -ShowBanner:$false
↑ ❯ ⌛ 6.149s ¦ OK (0) ❯ Get-Exomailbox -Identity meganb | ft

ExternalDirectoryObjectId            UserPrincipalName             Alias  DisplayName EmailAddresses
-------------------------            -----------------             -----  ----------- --------------
0ee2adb2-54a6-4196-9f27-9c3ec0ace47a MeganB@lazydev.onmicrosoft.com MeganB Megan Bowen {SPO:SPO_8f784c95-0845-4e58-90…

../SysAdmin/scripts  master ≡ ❯ (?16 ~1) 1 Stash                    ⌛ 1.218s.  11:28 (05/30)  ~ 100%
 ❯ |
```

You can not only add colors to your terminal but also useful information, like the Git status, user information, or system information.

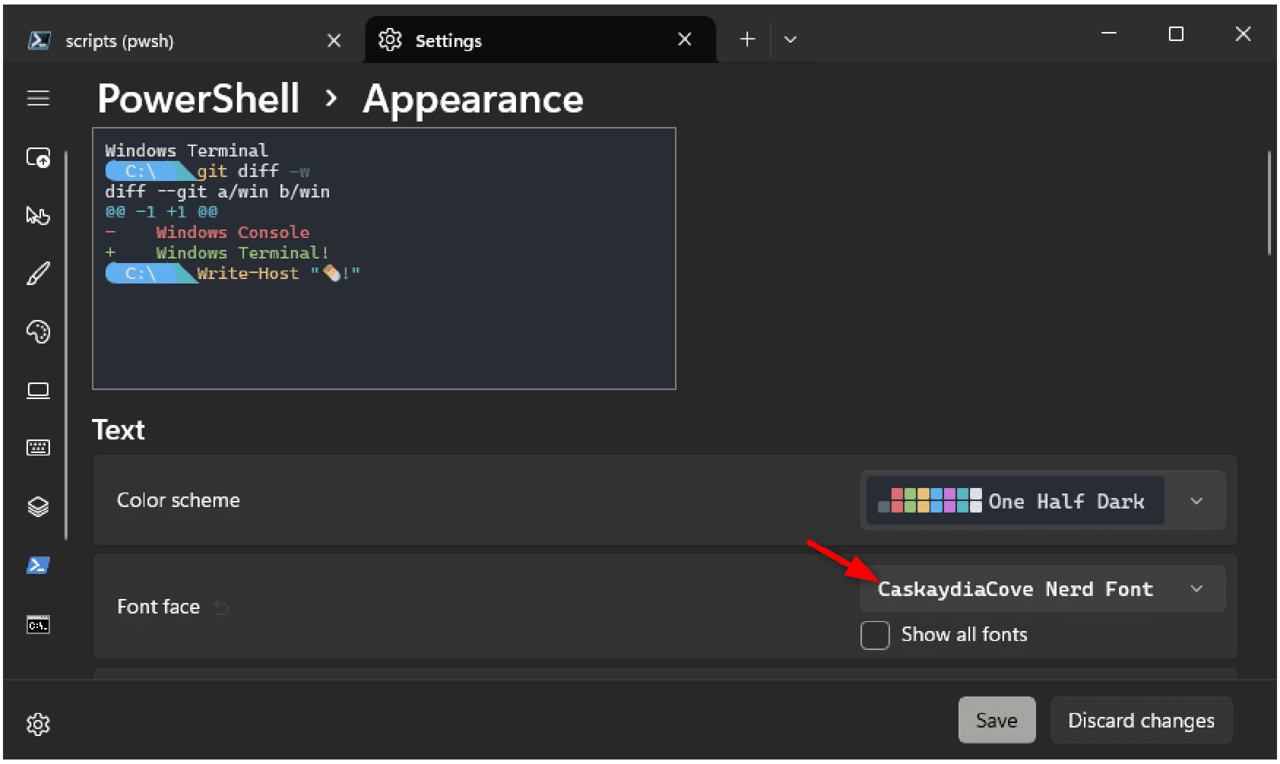
To get started with Oh My Posh, you can install it using the following command:

winget install JanDeDobbeleer.OhMyPosh -s winget
To fully use all the capabilities of Oh My Post, you will need to install a Nerd Font as well. Nerd Fonts are popular fonts where icons are added too. Installing one of the Nerd Fonts is pretty easy, simply type:

oh-my-posh font install

You can select one of the fonts to install. The recommended font is Meslo LGM NF, but in the screenshot above I have used CaskaydiaCove Nerd Font. After you have installed the font, you will need to set it as your default font for your PowerShell sessions.

- Open Windows Terminal
- Click on the dropdown arrow and choose **Settings**
- Select **PowerShell** in the sidebar, and open **Appearance** (all the way at the bottom)
- Set the **Font Face** to your installed Nerd Font



PowerShell › Appearance

```
Windows Terminal
 C:\  git diff -w
diff --git a/win b/win
@@ -1 +1 @@
-    Windows Console
+    Windows Terminal!
 C:\  Write-Host "🍕!"
```

Text

Color scheme: One Half Dark

Font face: CaskaydiaCove Nerd Font

□ Show all fonts

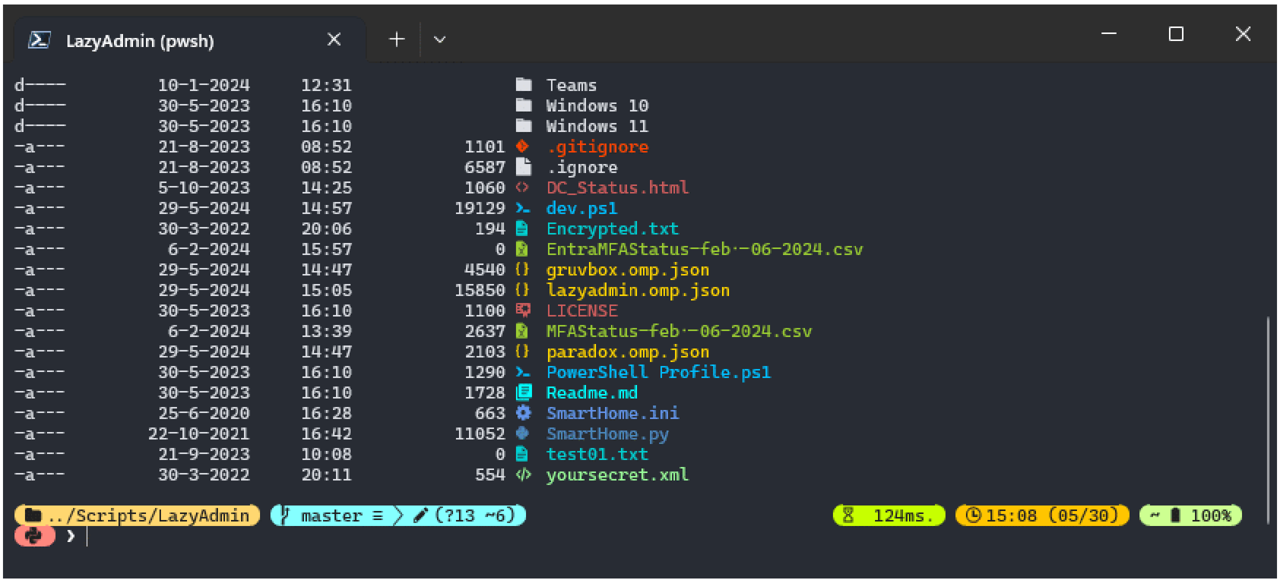
With the fonts installed, we can select one of the Themes to use or as a starting point to customize. To view all the Themes, you can use the cmdlet `Get-PoshThemes`. This will show examples of all the themes in your console.

To install the theme, I recommend saving the JSON file locally. You can then enable the theme with:

oh-my-posh init pwsh --config 'd:\scripts\lazyadmin\lazyadmin.omp.json' | Invoke-Expression

Terminal Icons

The Terminal Icons PowerShell modules really accomplish the Oh My Post themes. Terminal Icons will add files and folder icons (and colors) in your shell. This really helps with quickly finding the right file or folder.



```
d----         10-1-2024    12:31                Teams
d----         30-5-2023    16:10                Windows 10
d----         30-5-2023    16:10                Windows 11
-a---         21-8-2023    08:52           1101 .gitignore
-a---         21-8-2023    08:52           6587 .ignore
-a---         5-10-2023    14:25           1060 DC_Status.html
-a---         29-5-2024    14:57          19129 dev.ps1
-a---         30-3-2022    20:06            194 Encrypted.txt
-a---          6-2-2024    15:57              0 EntraMFAStatus-feb·-06-2024.csv
-a---         29-5-2024    14:47           4540 gruvbox.omp.json
-a---         29-5-2024    15:05          15850 lazyadmin.omp.json
-a---         30-5-2023    16:10           1100 LICENSE
-a---          6-2-2024    13:39           2637 MFAStatus-feb·-06-2024.csv
-a---         29-5-2024    14:47           2103 paradox.omp.json
-a---         30-5-2023    16:10           1290 PowerShell Profile.ps1
-a---         30-5-2023    16:10           1728 Readme.md
-a---         25-6-2020    16:28            663 SmartHome.ini
-a---        22-10-2021    16:42          11052 SmartHome.py
-a---         21-9-2023    10:08              0 test01.txt
-a---         30-3-2022    20:11            554 yoursecret.xml

 ../Scripts/LazyAdmin   master ≡  (?13 ~6)                    124ms.   15:08 (05/30)   ~  100%
 ❯
```

Terminal Icons uses, just like Oh My Posh, a Nerd Font for all the icons. If you already have installed Oh My Posh, then you can simply install the Terminal Icons module with:

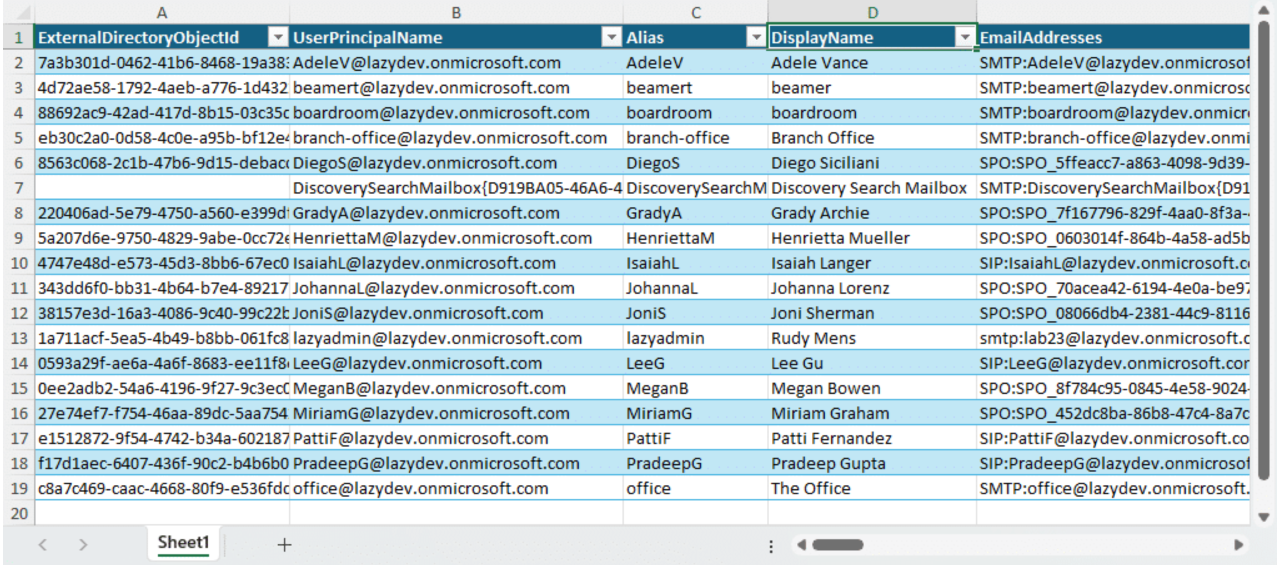
```
# Install the module
Install-Module -Name Terminal-Icons -Repository PSGallery
# Load the module - add this to your PowerShell Profile:
Import-Module -Name Terminal-Icons
```

If you are not using Oh My Posh, then make sure that you install a Nerd Font as well. You can checkout this guide for more information on how to get it to work in PowerShell.

ImportExcel – Import and Export Excel

When you have used PowerShell for quite sometime then you probably have created an report more then once. Most will use the `Export-CSV` cmdlet to export data from PowerShell and use in Excel. But there is an easier way to do this.

The ImportExcel module does not only allow you to import data from an Excel file, but it can also export to an Excel, with a fully functional table init as well. And it doesn't stop there, charts, pivot tables, conditional formatting, is all possible.



1	ExternalDirectoryObjectId	UserPrincipalName	Alias	DisplayName	EmailAddresses
2	7a3b301d-0462-41b6-8468-19a38:	AdeleV@lazydev.onmicrosoft.com	AdeleV	Adele Vance	SMTP:AdeleV@lazydev.onmicrosof
3	4d72ae58-1792-4aeb-a776-1d432	beamert@lazydev.onmicrosoft.com	beamert	beamer	SMTP:beamert@lazydev.onmicrosc
4	88692ac9-42ad-417d-8b15-03c35c	boardroom@lazydev.onmicrosoft.com	boardroom	boardroom	SMTP:boardroom@lazydev.onmicr
5	eb30c2a0-0d58-4c0e-a95b-bf12e	branch-office@lazydev.onmicrosoft.com	branch-office	Branch Office	SMTP:branch-office@lazydev.onmi
6	8563c068-2c1b-47b6-9d15-debac	DiegoS@lazydev.onmicrosoft.com	DiegoS	Diego Siciliani	SPO:SPO_5ffeacc7-a863-4098-9d39-
7		DiscoverySearchMailbox{D919BA05-46A6-4	DiscoverySearchM	Discovery Search Mailbox	SMTP:DiscoverySearchMailbox{D91
8	220406ad-5e79-4750-a560-e399d	GradyA@lazydev.onmicrosoft.com	GradyA	Grady Archie	SPO:SPO_7f167796-829f-4aa0-8f3a-
9	5a207d6e-9750-4829-9abe-0cc72	HenriettaM@lazydev.onmicrosoft.com	HenriettaM	Henrietta Mueller	SPO:SPO_0603014f-864b-4a58-ad5b
10	4747e48d-e573-45d3-8bb6-67ec0	IsaiahL@lazydev.onmicrosoft.com	IsaiahL	Isaiah Langer	SIP:IsaiahL@lazydev.onmicrosoft.c
11	343dd6f0-bb31-4b64-b7e4-89217	JohannaL@lazydev.onmicrosoft.com	JohannaL	Johanna Lorenz	SPO:SPO_70acea42-6194-4e0a-be9
12	38157e3d-16a3-4086-9c40-99c22	JoniS@lazydev.onmicrosoft.com	JoniS	Joni Sherman	SPO:SPO_08066db4-2381-44c9-8116
13	1a711acf-5ea5-4b49-b8bb-061fc8	lazyadmin@lazydev.onmicrosoft.com	lazyadmin	Rudy Mens	smtp:lab23@lazydev.onmicrosoft.c
14	0593a29f-ae6a-4a6f-8683-ee11f8	LeeG@lazydev.onmicrosoft.com	LeeG	Lee Gu	SIP:LeeG@lazydev.onmicrosoft.cor
15	0ee2adb2-54a6-4196-9f27-9c3ec	MeganB@lazydev.onmicrosoft.com	MeganB	Megan Bowen	SPO:SPO_8f784c95-0845-4e58-9024-
16	27e74ef7-f754-46aa-89dc-5aa754	MiriamG@lazydev.onmicrosoft.com	MiriamG	Miriam Graham	SPO:SPO_452dc8ba-86b8-47c4-8a7c
17	e1512872-9f54-4742-b34a-602187	PattiF@lazydev.onmicrosoft.com	PattiF	Patti Fernandez	SIP:PattiF@lazydev.onmicrosoft.co
18	f17d1aec-6407-436f-90c2-b4b6b0	PradeepG@lazydev.onmicrosoft.com	PradeepG	Pradeep Gupta	SIP:PradeepG@lazydev.onmicrosof
19	c8a7c469-caac-4668-80f9-e536fdc	office@lazydev.onmicrosoft.com	office	The Office	SMTP:office@lazydev.onmicrosoft.
20					

To quickly export your data to Excel and format it into a table, you can use the following command:

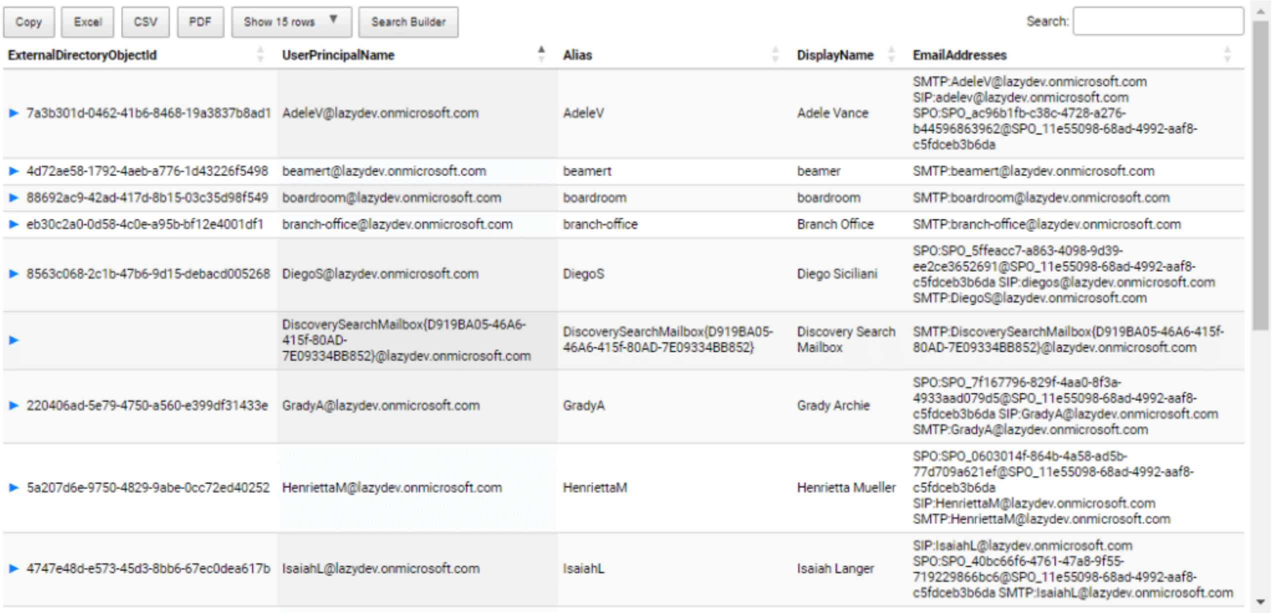
```
# First install the module
Install-Module -Name ImportExcel
# Get some data and export it to Excel with a formatted table
Get-EXOMailbox | Export-Excel -AutoSize -BoldTopRow -FreezeTopRow
```

PSWriteHtml – Export to HTML

Wether you are using PowerShell to automate tasks or to create reports, you often need to communicate the results. One way to do this is by sending an email from PowerShell with the results.

But a simple, plain text email isn't going to it anymore. We want it nicely formatted, maybe a table in it, or some colors. That is where HTML comes in. Now you can write and format your own HTML, but the PowerShell module PSWriteHTML makes it a lot easier for you.

Another great feature of PSWriteHTML is that you can quickly export to results to an HTML file. So instead of Out-GridView, you can now use Out-HtmlView, which gives you an interactive HTML file. From the HTML view you can quickly export it again to CSV or PDF, or just share the HTML view if needed.



ExternalDirectoryObjectId	UserPrincipalName	Alias	DisplayName	EmailAddresses
▶ 7a3b301d-0462-41b6-8468-19a3837b8ad1	AdeleV@lazydev.onmicrosoft.com	AdeleV	Adele Vance	SMTP:AdeleV@lazydev.onmicrosoft.com SIP:adelev@lazydev.onmicrosoft.com SPO:SPO_ac96b1fb-c38c-4728-a276-b44596863962@SPO_11e55098-68ad-4992-aaf8-c5fdceb3b6da
▶ 4d72ae58-1792-4aeb-a776-1d43226f5498	beamert@lazydev.onmicrosoft.com	beamert	beamer	SMTP:beamert@lazydev.onmicrosoft.com
▶ 88692ac9-42ad-417d-8b15-03c35d98f549	boardroom@lazydev.onmicrosoft.com	boardroom	boardroom	SMTP:boardroom@lazydev.onmicrosoft.com
▶ eb30c2a0-0d58-4c0e-a95b-bf12e4001df1	branch-office@lazydev.onmicrosoft.com	branch-office	Branch Office	SMTP:branch-office@lazydev.onmicrosoft.com
▶ 8563c068-2c1b-47b6-9d15-debacd005268	DiegoS@lazydev.onmicrosoft.com	DiegoS	Diego Siciliani	SPO:SPO_5ffeacc7-a863-4098-9d39-ee2ce3652691@SPO_11e55098-68ad-4992-aaf8-c5fdceb3b6da SIP:diegos@lazydev.onmicrosoft.com SMTP:DiegoS@lazydev.onmicrosoft.com
▶	DiscoverySearchMailbox{D919BA05-46A6-415f-80AD-7E09334BB852}@lazydev.onmicrosoft.com	DiscoverySearchMailbox{D919BA05-46A6-415f-80AD-7E09334BB852}	Discovery Search Mailbox	SMTP:DiscoverySearchMailbox{D919BA05-46A6-415f-80AD-7E09334BB852}@lazydev.onmicrosoft.com
▶ 220406ad-5e79-4750-a560-e399df31433e	GradyA@lazydev.onmicrosoft.com	GradyA	Grady Archie	SPO:SPO_7f167796-829f-4aa0-8f3a-4933aad079d5@SPO_11e55098-68ad-4992-aaf8-c5fdceb3b6da SIP:GradyA@lazydev.onmicrosoft.com SMTP:GradyA@lazydev.onmicrosoft.com
▶ 5a207d6e-9750-4829-9abe-0cc72ed40252	HenriettaM@lazydev.onmicrosoft.com	HenriettaM	Henrietta Mueller	SPO:SPO_0603014f-864b-4a58-ad5b-77d709a621ef@SPO_11e55098-68ad-4992-aaf8-c5fdceb3b6da SIP:HenriettaM@lazydev.onmicrosoft.com SMTP:HenriettaM@lazydev.onmicrosoft.com
▶ 4747e48d-e573-45d3-8bb6-67ec0dea617b	IsaiahL@lazydev.onmicrosoft.com	IsaiahL	Isaiah Langer	SIP:IsaiahL@lazydev.onmicrosoft.com SPO:SPO_40bc66f6-4761-47a8-9f55-719229866bc6@SPO_11e55098-68ad-4992-aaf8-c5fdceb3b6da SMTP:IsaiahL@lazydev.onmicrosoft.com

To quickly generate a view like the example above, you can use the following PowerShell code:

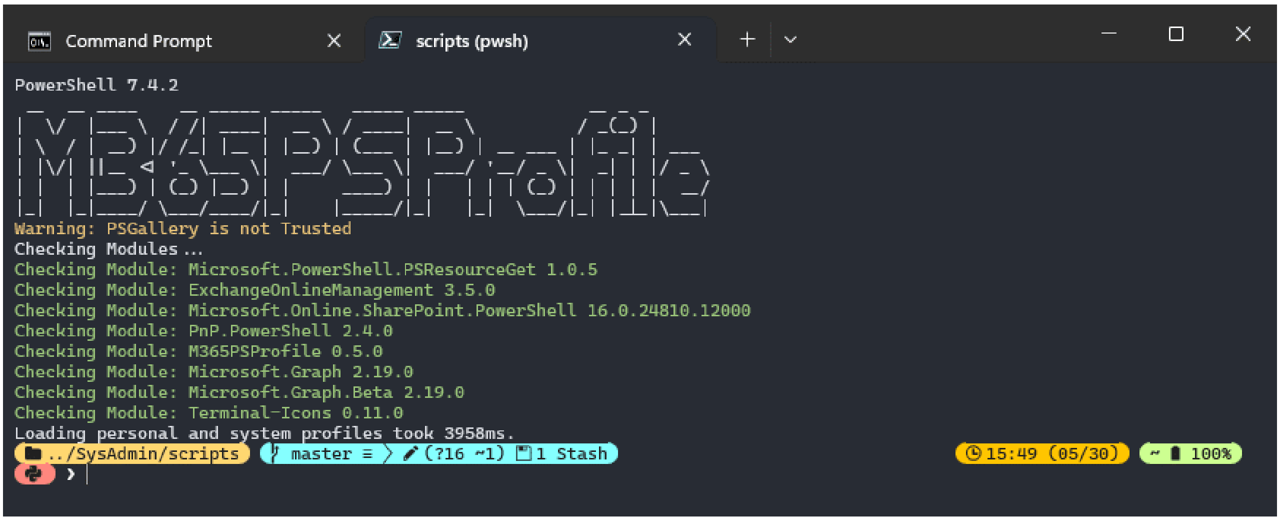
```
# Install the module
Install-Module -Name PSWriteHTML
# Gather some data and output to HTML
Get-Exomailbox | Out-HtmlView
```

M365PSProfile – Keeping your Modules up-to-date

The last module that I wanted to share with your is the module M365PSProfile. To goal of this module is to simplify the installation and updating of all the Microsoft 365 related PowerShell modules.

Although the intention of the module is to only manage the Microsoft 365 modules, you can also use it to automatically install and keep other modules up to date.

The module will check all the listed modules when you open PowerShell and make sure that you have the latest version installed.



```
PowerShell 7.4.2
Warning: PSGallery is not Trusted
Checking Modules ...
Checking Module: Microsoft.PowerShell.PSResourceGet 1.0.5
Checking Module: ExchangeOnlineManagement 3.5.0
Checking Module: Microsoft.Online.SharePoint.PowerShell 16.0.24810.12000
Checking Module: PnP.PowerShell 2.4.0
Checking Module: M365PSProfile 0.5.0
Checking Module: Microsoft.Graph 2.19.0
Checking Module: Microsoft.Graph.Beta 2.19.0
Checking Module: Terminal-Icons 0.11.0
Loading personal and system profiles took 3958ms.
../SysAdmin/scripts  master ≡ (?16 ~1) 1 Stash                    15:49 (05/30)  ~ 100%
 ❯
```

To get started with the module, you will of course need to install it first. When done, you can add a list of modules in your PowerShell Profile that you want to keep up-to-date:

# Install the module
Install-Module -Name M365PSProfile -Scope CurrentUser
#Install or Updates the Modules in the Array
Install-M365Module -Modules @("ExchangeOnlineManagement","Microsoft.Online.SharePoint.PowerShell","PnP.PowerShell", "M365PSProfile","Microsoft.Graph","Microsoft.Graph.Beta","Terminal-Icons")

Wrapping Up

PowerShell modules are a great way to make your work a lot easier or working with PowerShell a lot nicer to look at. There are of course a lot more great PowerShell modules, these are only some of the best module in my opinion.

If you have a great PowerShell module that you highly recommend, then please let me know in the comments below!

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