PSBlueSky Help¹

https://jdhitsolutions.github.io

v2.2.1

¹https://github.com/jdhitsolutions/PSBluesky

Contents

PSBluesky	2
Installation	2
Authentication	4
Session and Tokens	4
Credentials	5
App Passwords	5
Rate Limits	7
Posting	7
Reposting and Quoting	8
Profiles	9
Followers	11
Searching for Users	11
	14
	14
	15
	16
Information and Troubleshooting	17
	18
	18
	19
	20
	20

PSBluesky



This module is a set of PowerShell functions designed to let you interact with Bluesky API from PowerShell. Technically, the module commands are wrappers around the AT protocol. The module is written for **PowerShell 7**, although it might work as written in Windows PowerShell with minimal changes if you wish to fork the GitHub repository. Commands *have not* been thoroughly tested for cross-platform compatibility, so please post an Issue if you encounter a problem.

The commands in this module are **not** intended to provide complete coverage of the Bluesky API or user experience. Instead, the module focuses on the most common tasks you might want to do with Bluesky from a PowerShell prompt.

For best results, you should run this module in a PowerShell console that supports emojis and ANSI formatting like Windows Terminal.

Installation

You can install the module from the PowerShell Gallery.

Install-Module -Name PSBluesky

Or using Install-PSResource from the Microsoft.PowerShell.PSResourceGet module.

Install-PSResource -Name PSBluesky -Repository PSGallery -TrustRepository

You might want to also install the following modules or related modules to securely store your Bluesky credentials:

Microsoft.PowerShell.SecretManagement

Microsoft.PowerShell.SecretStore

After installing this module, you should end up with these PSBluesky commands:

- Add-Bskylmage
- Find-BskyUser
- Get-BskyAccountDID
- Get-BskyBlockedList
- Get-BskyBlockedUser
- Get-BskyFeed
- Get-BskyFollowers
- Get-BskyFollowing
- Get-BskyLiked
- Get-BskyModuleInfo
- Get-BskyNotification
- Get-BskyProfile
- Get-BskySession
- Get-BskyTimeline
- New-BskyPost
- Open-BskyHelp
- Publish-BskyPost
- Start-BskySession
- Update-BskySession

After importing the module you can run Open-BskyHelp which will open a PDF version of this document in the default application associated with PDF files. Or you can use the -AsMarkdown parameter to read this file using markdown formatting. Not all markdown features may properly render in the console.

You can use Get-BskyModuleInfo to get a summary of the module. The default output includes clickable links to online command help and the module's GitHub repository.

PS C:\> Get-BskyModuleInfo					
Module: PSBlueSky	[v2.2.0]				
Name	Alias	Synopsis			
Add-BskyImage		Upload an image to Bluesky.			
Find-BskyUser	bsu	Search for Bluesky user acco			
Get-BskyAccountDID		Resolve a Bluesky account na			
Get-BskyBlockedList	bsblocklist	Get your subscribed blocked			
Get-BskyBlockedUser	bsblock	Get your blocked accounts.			
Get-BskyFeed	bsfeed	Get your Bluesky feed.			
Get-BskyFollowers	bsfollower	Get your Bluesky followers.			
Get-BskyFollowing	bsfollow	Get a list of Bluesky account			
Get-BskyLiked		Get your liked Bluesky posts.			

Get-BskyModuleInfo		Get a summary of the PSBlueSk	
Get-BskyNotification	bsn	Get Bluesky notifications.	
Get-BskyProfile	bsp	Get a Bluesky profile.	
Get-BskySession	bss	Show your current Bluesky ses	
Get-BskyTimeline	bst	Get your Bluesky timeline.	
New-BskyPost	skeet	Create a Bluesky post.	
Open-BskyHelp	bshelp	Open the PSBluesky help docum	
Publish-BskyPost	Repost-BskyPost	Repost or quote a Bluesky post	
Start-BSkySession		Start a new Bluesky session.	
Update-BskySession	Refresh-BskySession	Refresh the Bluesky session t	

Authentication

Session and Tokens

In order to send data, you must authenticate. Version 2.0.0 of this module introduces a new session model. After you import the module, you **must run** Start-BskySession to initialize the module and setup module-scoped variables.

```
Start-BskySession -credential $cred
```

The credential should be a PSCredential object representing your Bluesky username (handle) and password. (*See below*)

This command will create a hidden session object that will be called from other module commands to get the necessary authentication token for the Invoke-ResetMethod header. The access token has a limited lifetime unless it is refreshed. Beginning with version 1.2.0, the module will refresh the token every 15 minutes through a background runspace using a synchronized hashtable. If you remove the module, the runspace will be removed as well.

Run Get-BskySession to see your current session information.

If you want to manually test the Bluesky API in your own code, you can use the access and refresh token properties from this object.

```
PS C:\> $bskySession = Get-BskySession
PS C:\> $access = $bskySession.AccessToken
PS C:\> $refresh = $bskySession.RefreshToken
```

However, it is still possible you will encounter an expired token error message. If you do, you can run Update-BskySession to refresh the token.

```
Get-BSkySession | Update-BskySession
```

If this also fails, remove the module, re-import and start a new Bluesky session, including re-running Start-BskySession.

Credentials 2



You will need to create a PSCredential object with your Bluesky username and password. **The username is case-sensitive**. For automation purposes, you can use the Secrets management module to store your credential. Write your own code to retrieve the credential and pass it to the module commands.

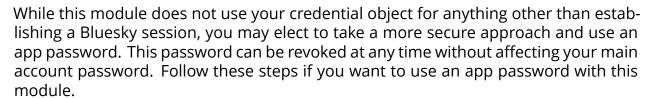
You might want to use PSDefaultParameterValues to set the credential for all commands.

```
$PSDefaultParameterValues['*-Bsky*:Credential'] = $BlueskyCredential
```

You should only need this credential for Start-BskySession.

This module does not use 2FA at this time. You must use an app password.

App Passwords 🖊



In the Bluesky app, go to your profile and select Settings. Then select App Passwords.



Figure 1: Bluesky app passwords

You will need to create a new app password. Give it a meaningful name.



Figure 2: Bluesky creating an app password

Click the button to create the app password.

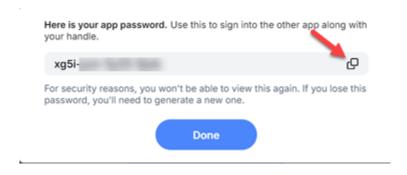


Figure 3: Bluesky app password

You will only see the password once. Copy the password and save it in a secure location such as a secrets management vault.

Next, you need to create a credential object in PowerShell. The user name will be the DID (decentralized identifier) for your account. The password will be the app password you just created. You can run Get-BskyAccountDID to get your DID. This command does not require authentication.

```
$did = Get-BskyAccountDID jdhitsolutions.com
```

Now you can create a credential object.

```
PS C:\> $cred = Get-Credential $did

PowerShell credential request
Enter your credentials.

Password for user did:plc:ohgsqpfsbocaaxusxqlgfvd7:
```

Enter the app password. You will use this credential object with Start-BskySession. I recommend you save the credential in a secrets management vault and retrieve it when you need to start a Bluesky session.

```
$cred = Get-Secret -Name PSBlueskyCredential
$PSDefaultParameterValues['*-*Sky*:Credential'] = $cred
```

You can revoke an app password at any time. If you do, you will need to create a new app password and update your credential object.

I recommend you use an app password with this module and protect your primary account password. If your Bluesky account is protected with 2FA, you *must* use an app password with this module.

Rate Limits

The commands in this module use the public Bluesky API which means there are rate limits. If you exceed the rate limit, you will get an error message. You will need to wait until the rate limit resets.

There is a rate limit of 300 new sessions per day. This shouldn't be an issue for most people unless you are testing code or running some sort of high-volume automation.

Posting

Use New-BskyPost, or its alias skeet, to post a message to Bluesky. There are parameters to include an image. If you include an image, the New-BskyPost command will call Add-BskyImage to upload the image. It is **strongly recommended** that you included ALT text for the image.

```
$param = @{
    Message = "Getting close to sharing my #PowerShell Bluesky code."
    ImagePath = "C:\work\MsPowerShell.jpg"
    ImageAlt = "Ms. PowerShell"
    Verbose = $true
}
New-BskyPost @param
```

The output is a URL to the post.

If your message contains a URL, it will be converted to a clickable link. Make sure your link is surrounded by white space. Beginning with v1.0.0, you can post Markdown

style links.

PS C:\> \$m = "Testing multiple Markdown style links from my [#PowerShell PSBluesky module](https://github.com/jdhitsolutions/PSBluesky) which you can find on the [PowerShell Gallery](https://www.powershellgallery.com/packages/PSBlueSky/0.6.0)"
PS C:\> skeet \$m



Jeff Hicks @jdhitsolutions.com · 13m

Testing multiple Markdown style links from my #PowerShell PSBluesky module which you can find on the PowerShell Gallery

♥1 ··

Figure 4: Markdown links in a Bluesky post

This example is using the skeet alias for New-BskyPost.

Reposting and Quoting

You can repost or quote a Bluesky post with Publish-BskyPost. You will need the CID and AT Uri (URI) of the post you want to repost or quote. These values should be part of items you can get with commands like Get-BskyFeed or Get-BskyTimeline.

PS C:\> Get-BskyTimeline -Limit 1 | Select-Object *

Author : joeydantoni.com AuthorDisplay : Joey D'Antoni

Date : 1/9/2025 12:11:13 PM

Text : I would likely denormalize the data a little bit, and

have a non-vector table with ref. data like date that you could filter on, before doing the heavier lifting of the vector query. Almost like a fact/dim join in a

DW. learn.microsoft.com/en-us/sample ... cc @mauridb.bsky.social for a better example

Liked : 0
Reposted : 0
Quoted : 0

URL : https://bsky.app/profile/did:plc:3dvxs53kzjez5oxcbucfsa

cf/post/3lfd6cfv7hs2o

/3lfd6cfv7hs2o

CID : bafyreih7yplygqrno2n3n5mhqs35fbwqovxsvc6xrictt4afzgnwrt7

epi

The easiest way to repost or quote a post is to pipe the object to Publish-BskyPost.

```
PS C:\> $tl[-1] | Publish-BskyPost -Verbose -WhatIf

VERBOSE: [12:14:47:7437 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:7440 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:7442 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:7446 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:7466 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:746 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:746 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:746 BEGIN ] Publish-BskyPost->

VERBOSE: [12:14:47:7
```

Figure 5: Reposting a Bluesky post

This example assumes that \$tl is an array of objects from Get-BskyTimeline. If you don't specify a quote, the command will repost the original message. If you do specify a quote, the command will quote the original message.

```
$f[-4] | Publish-BskyPost -Quote "Testing quoting with a PSBluesky command"
```

The command has an alias of Repost-BskyPost. If you include quote text, the post will be a quote, otherwise it will show as a repost from you.

Profiles

The module has a command to retrieve a Bluesky profile.

```
Get-BskyProfile jdhitsolutions.com
```

The module uses a custom format file.

```
PS C:\> Get-PSBlueskyProfile jdhitsolutions.com

Jeff Hicks [jdhitsolutions.com]

PowerShell Author/Teacher/MVP/Guide Aprof. PowerShell Emeritus Aprof. PowerShell Emeritus Aprof. PowerShell Emeritus Aprizzled and grumpy IT Pro - https://jdhitsolutions.github.io/
Aprizzled and grumpy IT Pro - https://jdhitsolutions.github.io/
Aprizzled and grumpy IT Pro - https://musescore.com/user/26698536

Wine drinker Apriz April A
```

Figure 6: A Bluesky user profile

The user's profile name should be a clickable link.

The object has been customized with aliases and script properties.

```
PS C:\> $jeff = Get-BskyProfile
PS C:\> $jeff | Select-Object *
Username : jdhitsolutions.com
            : Jeff Hicks
Display
            : 5/21/2023 10:44:48 AM
Created
Description : PowerShell Author/Teacher/MVP/Tour Guide D
              Prof. PowerShell Emeritus D
              Grizzled and grumpy IT Pro - https://jdhitsolutions.github.io/
              DAmateur composer - https://musescore.com/user/26698536
              Wine drinker □□ and dog lover
            : https://cdn.bsky.app/img/avatar/plain/did:plc:ohgsqpfsbocaaxus
Avatar
              xqlqfvd7/bafkreifdfahcjmytu3iw2aj2d3howu6q7twkta3h23qmlve2d2mv
              o5sily@jpeg
            : 1060
Posts
Followers
            : 1904
Following : 383
Lists
URL
            : https://bsky.app/profile/jdhitsolutions.com
            : did:plc:ohgsqpfsbocaaxusxqlqfvd7
DID
Name
            : jdhitsolutions.com
            : 596.06:49:09.1731955
Age
```



You can retrieve a list of your followers. You can specify a number of followers between 1 and 100. The default is 50.

```
Get-BskyFollowers -Limit 2
```

```
PS C:\> Get-PSBlueskyFollowers -Limit 2

Display Username Description Oscilation Description Descripti
```

Figure 7: Bluesky followers

The custom formatting includes a clickable link to the follower's profile if running in Windows Terminal or a console that supports hyperlinks.

You can pipe the follower object to Get-BskyProfile to retrieve more information.

The default behavior is to retrieve between 1 and 100 followers. Or you can use the -ALL parameter to retrieve all followers.

Searching for Users

You can search for Bluesky users with Find-BskyUser. The default behavior is to search for a user by name. The search is case-insensitive.

```
Find-BskyUser -UserName "jeff h" -Limit 3
```

The default output includes clickable links to the user's profile. This object too has been customized with aliases and script properties.

```
PS C:\> Find-BskyUser -UserName "jeff h" -Limit 3
Select-Object *Name, Description, Created, Age
DisplayName : Jeff (no, the other one)
            : jeff-notheotherone.bsky.social
Description: When I use a word, Humpty said, it means just what I choose it to
              mean - neither more nor less.
              The question is, said Alice, whether you can make words mean so
              many different things.
              H: The question is which is to be Master - that's all.
Created
            : 8/11/2023 6:27:08 AM
Age
            : 514.11:04:04.2416645
DisplayName : F-O Loignon
            : foloignon.bsky.social
UserName
Description : « Un p'tit gosseux » - MBC
              « Une caricature » - H. Buzetti
              « L'osti de tapette communiste woke » - Un pirate
              Je suis pas mal l'amalgame de tout ce que Jeff Fillion haït :
              prof, artiste, écolo, socialiste, LGBT, féministe, antiraciste,
              intello, etc.
Created
            : 10/5/2023 8:09:28 PM
            : 458.21:21:43.9869033
Age
DisplayName : Jeff H
            : jhorowitzmd.bsky.social
UserName
Description: Division Chief of Pulm, Crit Care and Sleep Med at OSU. Lung
              fibrosis investigator. Cubs. Star Wars, GoT, LoTR, Avengers. Dad,
              husband, son and brother. RT's do not mean endorsement.
              #horoblast.
Created
            : 11/13/2024 6:53:06 AM
Age
            : 54.10:38:05.3790593
```

The value you specify for the user name will also search the user's description property. This is a handy way of finding users with similar interests.

Find-BskyUser powershell

```
Username: Dave Carroll [thedavecarroll.com]
Created
                    Description
4/29/2023 6:52:59 AM #PowerShell #Developer and enthusiast with a side of
                    #DevOps, #Python, infrastructure, and #RetroComputing.
                    Lifelong #cinephile and #punster.
                    #Aspie #INTJ #9w1
                    He/Him
                    https://thedavecarroll.com
   Username: Sandro [kharec.info]
Created
                    Description
7/24/2023 3:46:02 AM F R /U S SysOps turned #DevOps 🚵
                    Python/Go/C++/Perl developper ∩ ♥ JSON/YAML/HCL lover ■
                    Bash/PowerShell eater 🐯 repressed DBA 🏶 pop culture nerd
                    Username: Frode [frodeflaten.com]
```

Figure 8: Find Bluesky users via their description

You can pipe the search results to Get-BskyProfile to retrieve more information.

Following

Likewise, you can get a list of all the accounts you are following.

Get-BskyFollowing -limit 3



Figure 9: Bluesky following

As with followers, the default behavior is to retrieve between 1 and 100 accounts you are following. Or you can use the -All parameter to retrieve all accounts you are following.

Feed

Use Get-BskyFeed to retrieve the latest posts from *your* feed. You can query for 1 to 100.

```
Get-BskyFeed -Limit 3
```

The default output uses a custom format file. The current behavior is to get posts and replies.

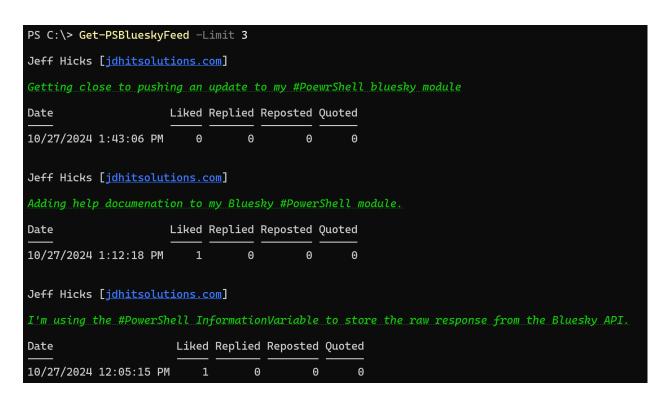


Figure 10: Getting your Bluesky feed

The formatted output includes clickable links to the the author, which might be different than you if reposting, and the post. For best results, run PowerShell 7 in Windows Terminal.

Notifications 4

You can retrieve your notifications with Get-BskyNotification. You can specify a limit of 1 to 100. The default is 50.

Get-BskyNotification -limit 10

The default formatted output includes clickable links to the author and the liked or reposted skeet.

- Like
 Follow
 Repost
- Reply



Figure 11: Getting your Bluesky notifications

Long account names will be truncated in the formatted output.

Timeline 17

If you want to view items from your timeline, use the Get-BskyTimeline command.

Figure 12: Getting your Bluesky timeline

You can specify a limit of 1 to 100. The default is 50.

```
Get-BskyTimeline -Limit 25
```

The command uses a custom format file. The default formatted output includes clickable links to the author and the post.

i Information and Troubleshooting

The commands in this module should write the raw response from the API request to the Information stream. Some commands might include additional information.

```
PS C:\> $me = Get-PSBlueskyProfile jdhitsolutions.com -InformationVariable v
PS C:\> $v | select *
                                      @{did=did:plc:ohgsqpfsbocaaxusxqlgfvd7; handle=jdhitsolutions.com; displayName=Jefavatar=https://cdn.bsky.app/img/avatar/plain/did:plc:ohgsqpfsbocaaxusxqlgfvd7/bafkassociated=; viewer=; labels=System.Object[]; createdAt=5/21/2023 2:44:48 PM; descProf. PowerShell Emeritus
MessageData
                                      Grizzled and grumpy 1: Pro - https://jdhitsolutions.github.io/
MAmateur composer - https://musescore.com/user/26698536

Wine drinker  and dog lover; indexedAt=10/26/2024 3:45:40 PM;

banner=https://cdn.bsky.app/img/banner/plain/did:plc:ohgsqpfsbocaaxusxqlgfvd7/bafk

followersCount=322; followsCount=177; postsCount=543}

C:\Scripts\PSBluesky\functions\Get-PSBlueSkyProfile.ps1
10/27/2024 12:02:44 PM
                                        Grizzled and grumpy IT Pro - https://jdhitsolutions.github.io/
 Source
 TimeGenerated
                                       {raw}
THINKX1-JH\Jeff
 Tags
                                       ThinkX1-JH
 Computer
 ProcessId
                                        20632
                                       20936
 ManagedThreadId
                                       17
```

Figure 13: Information stream

The output will be an object.

```
PS C:\> $v.MessageData | Select-Object did,handle,*count

did : did:plc:ohgsqpfsbocaaxusxqlgfvd7

handle : jdhitsolutions.com

followersCount : 322

followsCount : 177

postsCount : 543
```

You might want to set a default parameter value.

```
$PSDefaultParameterValues['*-*Sky*:InformationVariable'] = "iv"
```

Other Module Features

Custom Formatting

Many of the commands in this module use custom formatting files to provide a more visually appealing output. The module uses emojis and ANSI formatting. The formatting is designed for Windows Terminal or a console that supports ANSI formatting and emojis.

Some commands will also have alternative format views.

```
PS C:\> $tl | sort liked -desc | select -first 10 | format-table -view liked
                                                                                     On this day 12 years ago, @kcg.bsky.social posted the "This is Fine" comic.
       1/9/2025 11:32:07 AM Know Your Meme [knowyourmeme.com]
       1/9/2025 12:35:47 PM Aaron Rupar [atrupar.com]
                                                                                      Some of the responses we've seen to the CA fires
                                                                                     illustrate the same basic political dynamic that
                                                                                     helped Trump win last year. It's a given
                                                                                     Republicans will crap on Dems when things go
                                                                                     wrong. But it's also a given that the far left
                                                                                     does it too, often in equally misleading ways.
Californians are all too familiar with
      1/9/2025 12:34:56 PM NPR [npr.org]
                                                                                     flip flopping weather extremes, and new research suggests that weather whiplash is increasing as
                                                                                     the atmosphere warms due to human-caused climate
                                                                                     change. via @kqednews.bsky.social
       1/9/2025 12:34:10 PM David Roberts [volts.wtf]
                                                                                      To an asshole, all virtue is "virtue signaling."
       1/9/2025 12:42:44 PM Aaron Rupar [atrupar.com]
                                                                                     People are pressing me for an example, so here you go. Far left social media ran wild yesterday with the narrative that Karen Bass cut the LA
                                                                                     fire department. That's misleading at best, but
is the exact sort of talking point that gets
                                                                                     heavy plan in rightwing media.
       1/9/2025 8:02:54 AM Steve Kenson [stevekenson.com]
                                                                                      Welcome to Bluesky! A few tips:
```

Figure 14: Liked custom view

Command	Format	ViewName
Get-BskyLiked Get-BskyTimeline Get-BskyTimeline Get-BskyFeed Get-BskyModuleInfo	Table Table Table Table List	Liked Liked Default Liked Default

Type Extensions

You are encourage to pipe command results to Get-Member to discover additional properties you might find useful.

```
Created : 4/29/2023 6:52:59 AM
Age : 569.04:06:51.6915207
```

Custom Verbose Messaging

This module uses ANSI formatting with localized string data and customized verbose messaging.

```
PS C:\> $f = Get-BskyFeed -Limit 10 -Verbose
VERBOSE: [10:31:47:2888 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2891 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2892 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2892 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2894 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2895 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2895 BEGIN ] Get-BskyFeed->
VERBOSE: [10:31:47:2898 PROCESS] Get-BskyFeed->
VERBOSE: [10:31:47:2898 PROCESS] Get-BskyFeed->
VERBOSE: [10:31:47:2899 PROCESS] Get-BskyFeed->
VERBOSE: [10:31:47:2898 PROCESS] Get-Bsk
```

Figure 15: Custom verbose messaging

The color formatting the command names is not user-configurable at this time.

I am hoping to add localized strings for other languages as well as localizations to command help and the help PDF file.

Roadmap 🔤

I have a short list of items on my wish list:

- Add support for posting video
 - Add commands to work with direct messages, aka chat
 - Maybe create a TUI-base reader for your timeline

If you are testing the module and think you've found a bug, please post an **Issue**. For all other topics and questions, including feature requests, please use the repository's **Discussions** section. I am open to pull requests if you have a feature you'd like to add. I especially would love to see the Pester tests expanded and the pending tests completed.

Note: You can find me on Bluesky as jdhitsolutions.com.