

## Git / GitHub

### PAT Setup



From the 13<sup>th</sup> August 2021, GitHub no longer supports password authentication for Git operations (<https://github.blog/2020-12-15-token-authentication-requirements-for-git-operations/>), this includes:

- Command line Git access
- Desktop applications using Git (including RStudio)

This means you are required to use a personal access token (PAT) over HTTPS instead of your password (SSH authentication remains unaffected). This is done in 2 steps, creating a token and using the token (<https://docs.github.com/en/github/authenticating-to-github/keeping-your-account-and-data-secure/creating-a-personal-access-token>).

#### 1 – Create a PAT

1. Go to your 'Personal access tokens' settings page within 'Developer Settings':  
<https://github.com/settings/tokens>
2. Generate a new token and give it a descriptive name.
3. Select the necessary permissions to grant to token, this is likely to be all of 'repo'. Click 'Generate token'.
4. Copy the given token to your clipboard. Note: *for security, after you leave the page, you will no longer be able to retrieve the token. Therefore, it may be useful to make a secure note of this token.*

#### 2 – Use a PAT

A token can now be used in place of your password when performing Git operations over HTTPS. However, instead of manually entering this information for every Git operation, you can cache the information. If you already have cached these details or have made an error, clear the cache by entering this command in the terminal:

```
git config --global --unset credential.helper
```

Then enter this command in the terminal:

```
git config --global credential.helper store
```

After performing a Git operation, you will be asked to enter your credentials. Make sure to use your usual GitHub username and the **newly created PAT**. Following this, your credentials should be stored for future Git operations. *You will need to perform this same action on each application/computer that you use.*