Using routes published on GitHub

V2 10-May-22

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Why use *GitHub*?

Users will want to use *GitHub* to get easy access to any improvements to a route after it is first released. The ability to download a ZIP archive is always available, but the free *GitHub Desktop* utility will download and unpack the archive, notify you of any improvements and, when required, seamlessly download and install them (and also uninstall them).

What are *GitHub* and *Git?*

GitHub is the world's largest hosting service for software. Digital assets such as Open Rails routes benefit just as much as software from this tracking capability.

Git is a free version control system designed to track the development of software projects. It was created to support the development of Linux and has become the leading version control system.

The free *GitHub Desktop* program includes a version of *Git* and communicates between your PC and the repositories (or repos) known to your free account at GitHub.com.

(Note that *GitHub Desktop* is for 64-bit Windows only.[1])

Public and private repositories

GitHub hosts public repositories that anyone can visit and download. Anyone can also own private repositories and may then choose to give access rights to individuals.

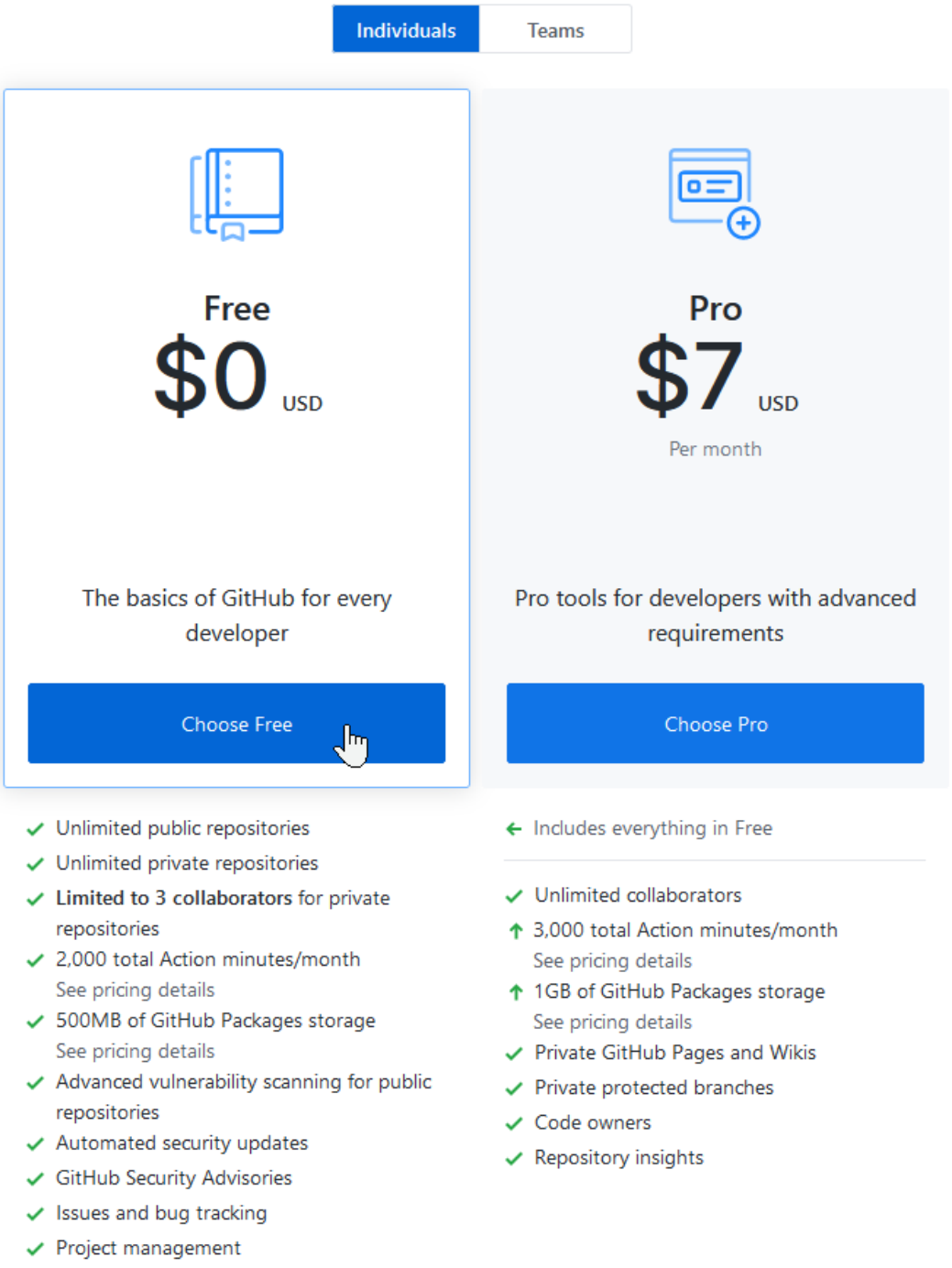
[1] For 32-bit Windows, many other graphical programs are available free (such as SourceTree) and Git can also be used from the command line using Git Bash.

Installing *GitHub Desktop*

Install *GitHub Desktop*

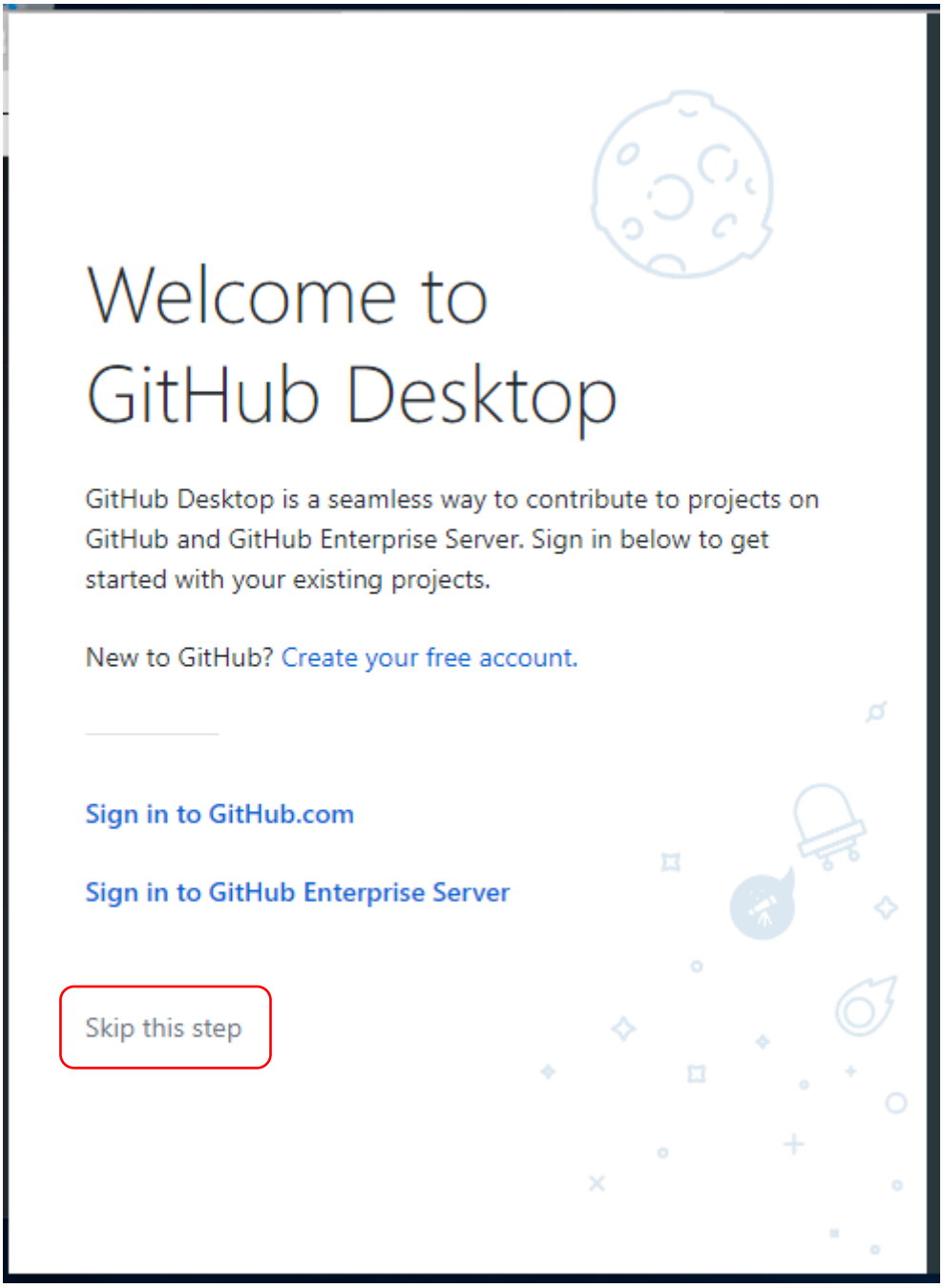
Browse to http://desktop.github.com, click on the *Download* button to download the installer, then run the installer.

Choose the free option:

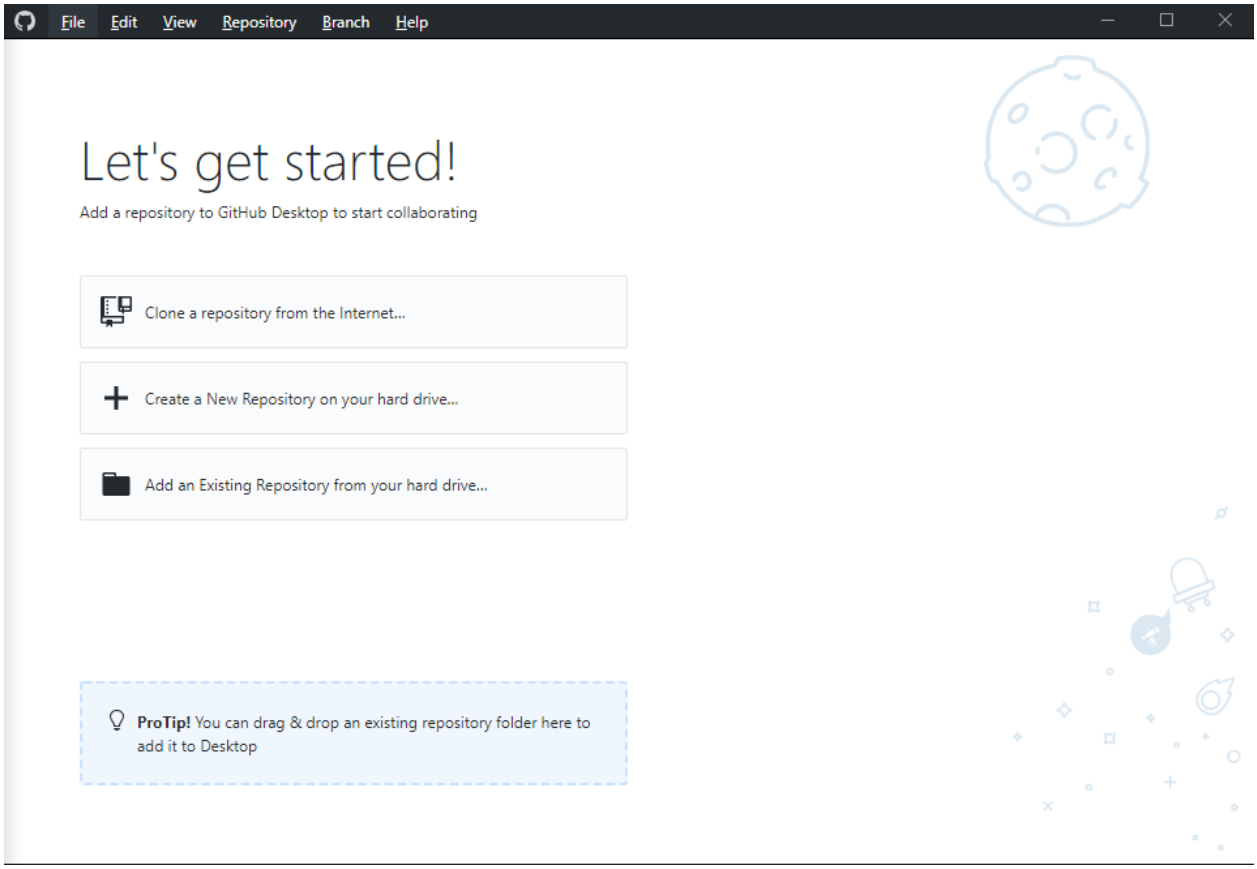


Create an account at GitHub.com

This is only needed if you are going to create and publish content or contribute to someone else's project. To just use someone else's content, click on *Skip this step*:

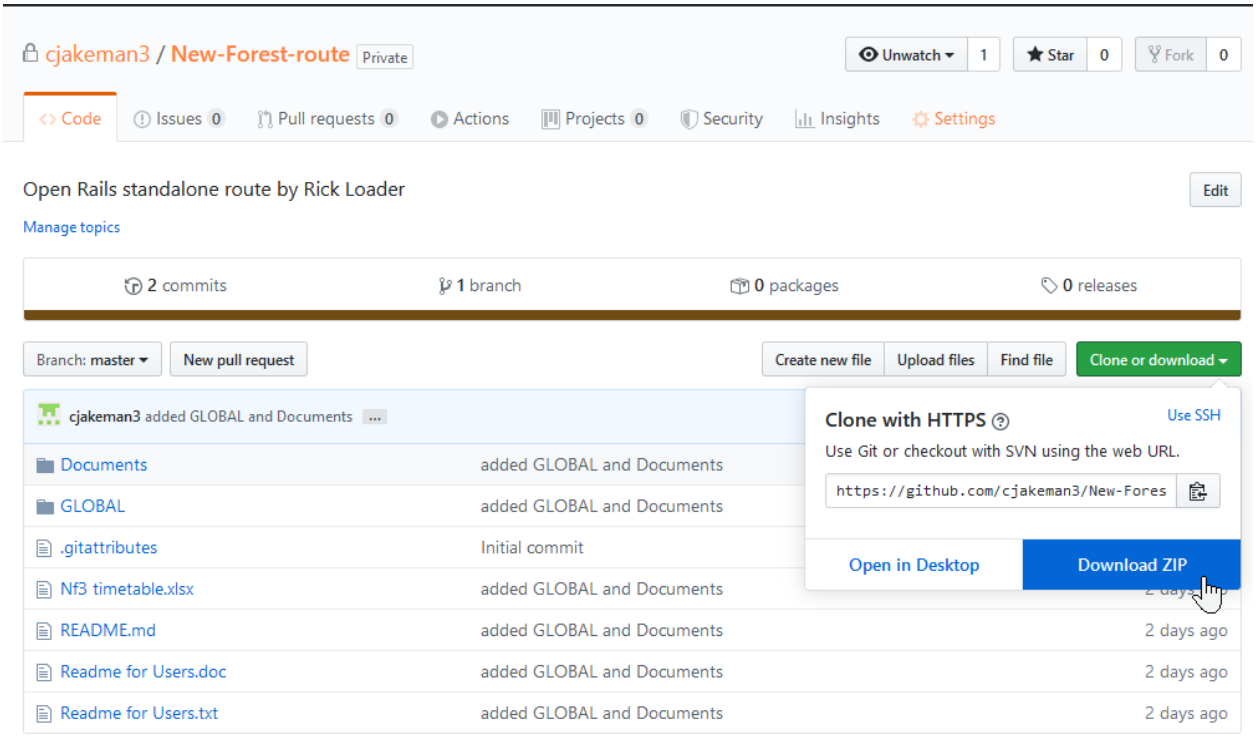


Finally, *GitHub Desktop* opens its launch page:



Downloading content using *Clone*

GitHub.com provides several ways to copy a remote repository to your local computer and you don't need a GitHub account to do this. Visit the URL for the remote repo on GitHub.com – e.g. https://github.com/cjakeman3/New-Forest-route



Download Zip

The simplest method is to download it as a Zip archive and then extract the files. However, this not the recommended method. *Open in GitHub Desktop* is the recommended method – see below.

Be warned that if the repository is large then the download may fail.

Once the files are extracted, then the hidden folder .git and the Zip archive may be deleted to save space.

Open in GitHub Desktop - recommended

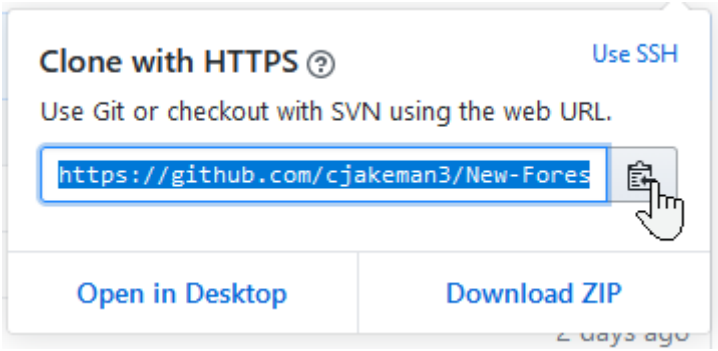
This method has benefits:

- *GitHub Desktop* will show you whenever new content is available and make it available easily and very quickly.
- Files are downloaded separately, then decompressed, so large downloads are not likely to fail.
- You can use *GitHub Desktop* to switch between different versions of the repo.[2]
- The disk space taken by multiple versions is much less than using *Download Zip*.

You can download using the Git operation *Clone* either by starting at the GitHub website or from the *GitHub Desktop* program.

Since *GitHub Desktop* is already open on the launch page and offering to *Clone a repository*, we will use that option.

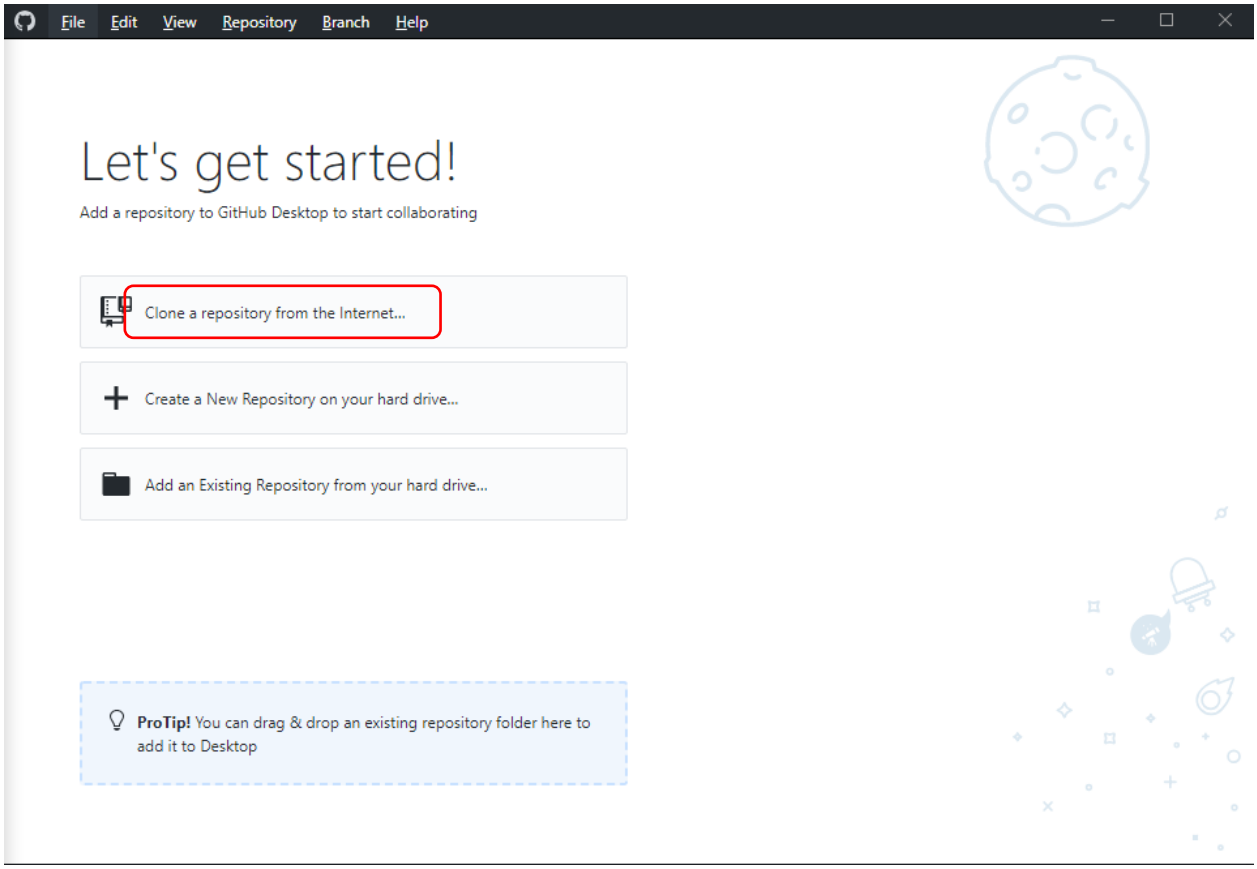
You will need the URL for the repository. If you don't have the URL, then search for the repo on www.GitHub.com and extract it from the *Clone with HTTPS* box:

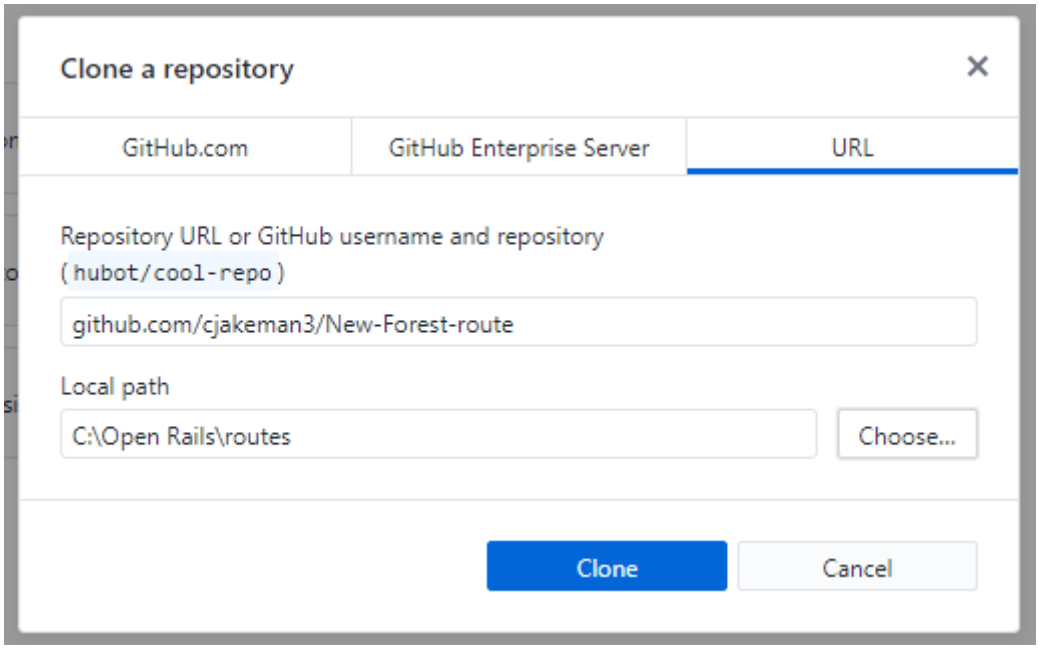


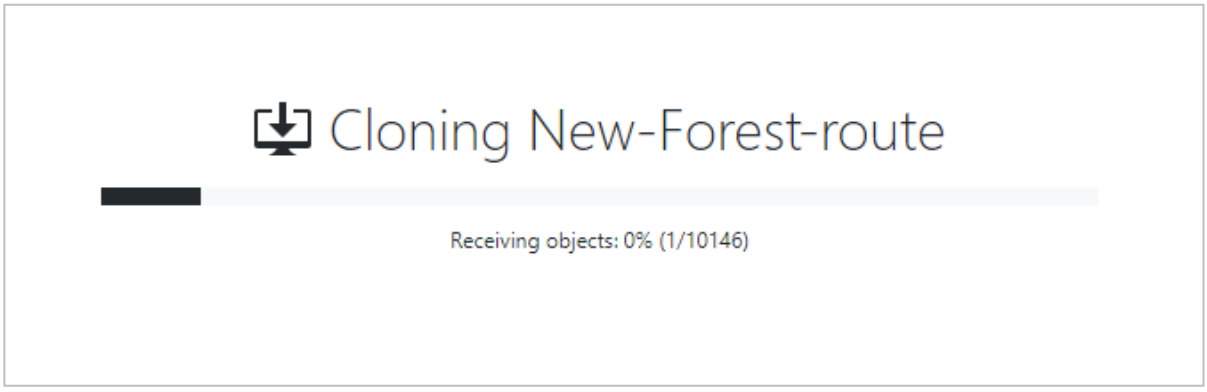
Now you can clone a repository as follows.

[2] Provided the developer of the content has used a separate Git branch for each version.

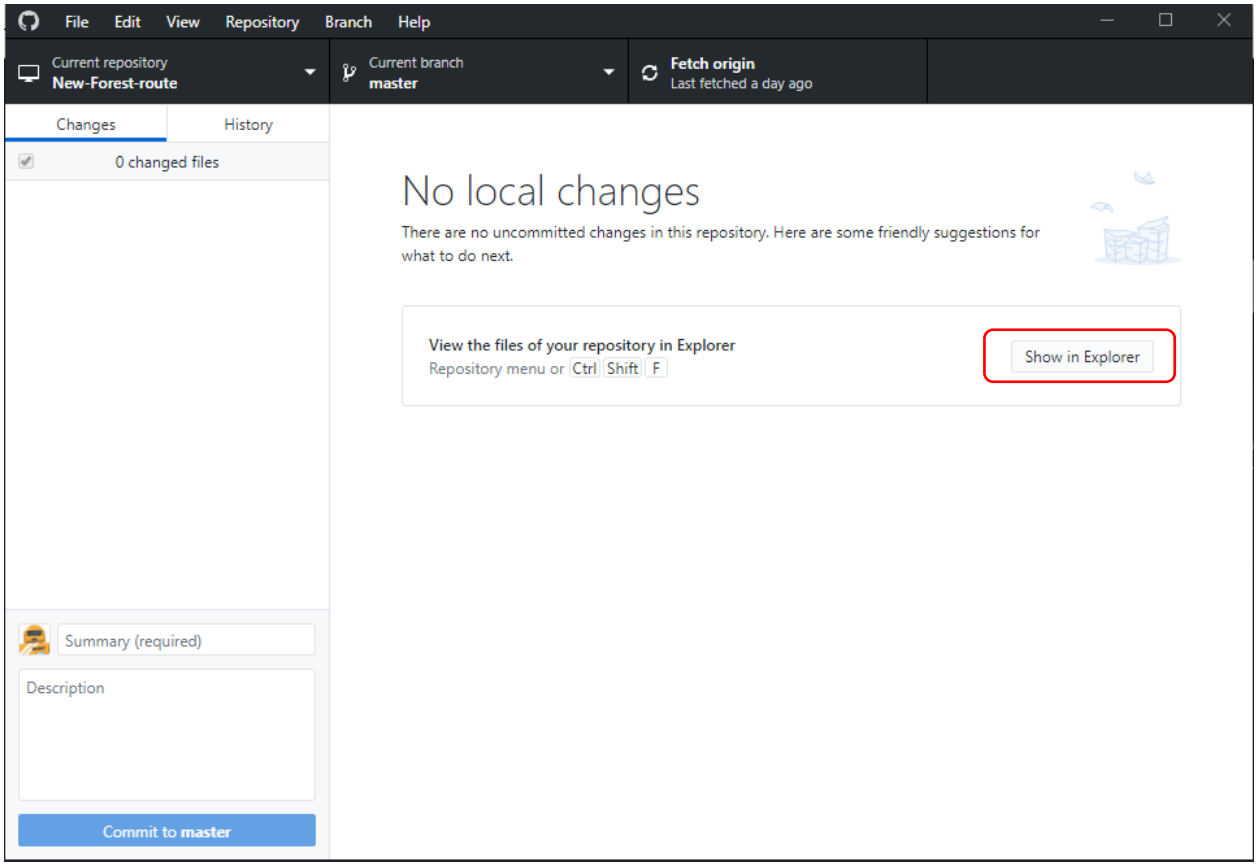
Back at *GitHub Desktop,* choose *Clone a repository from the Internet…*



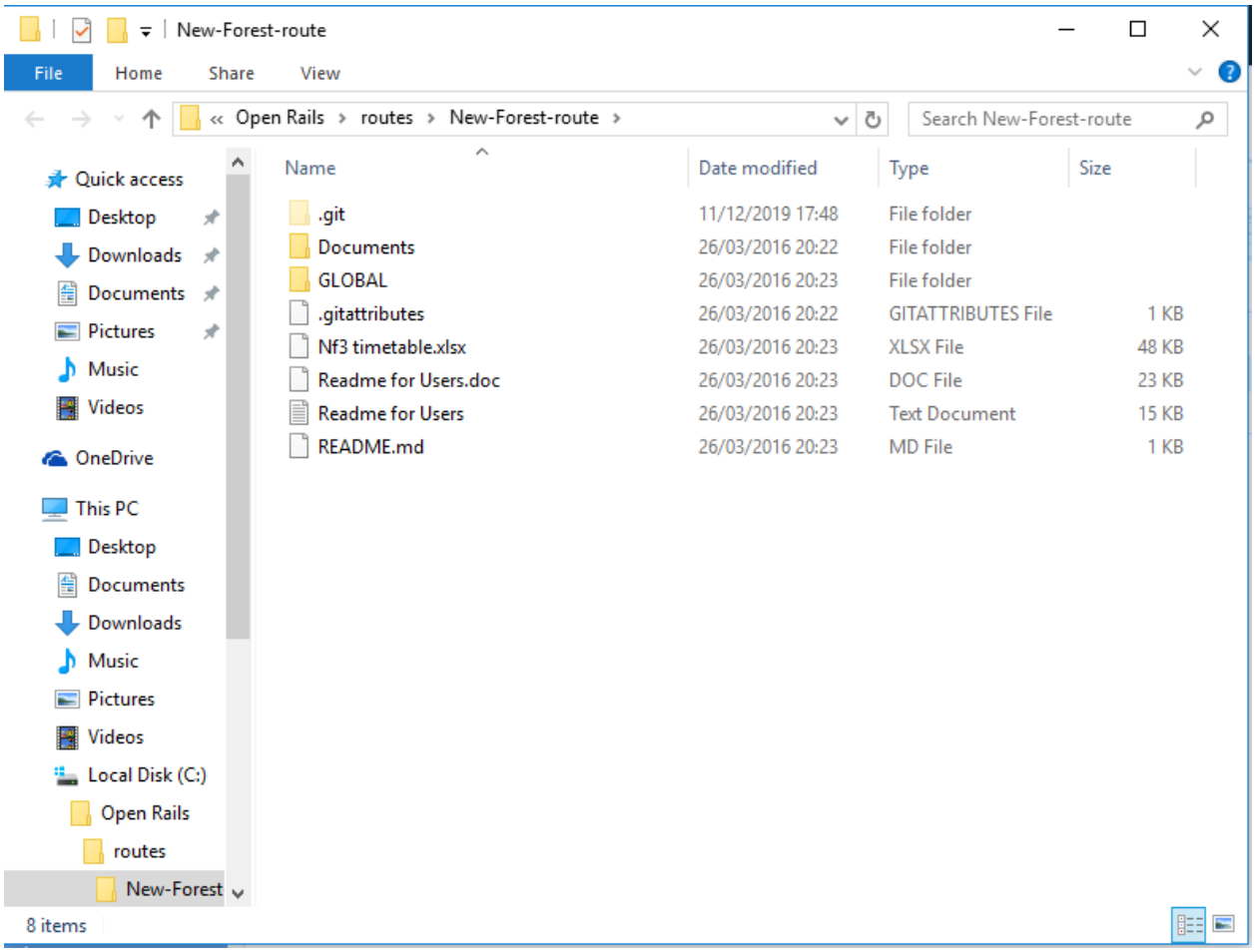




The progress bar completes and leads to the working screen for *GitHub Desktop:*



The *Show in Explorer* button takes you to the local repo which was just downloaded:



Inside your working folder *New-Forest-route* are your content folders and files and also the hidden folder *.git* which contains the internal files for the repo. *GitHub Desktop* manages this folder for you.

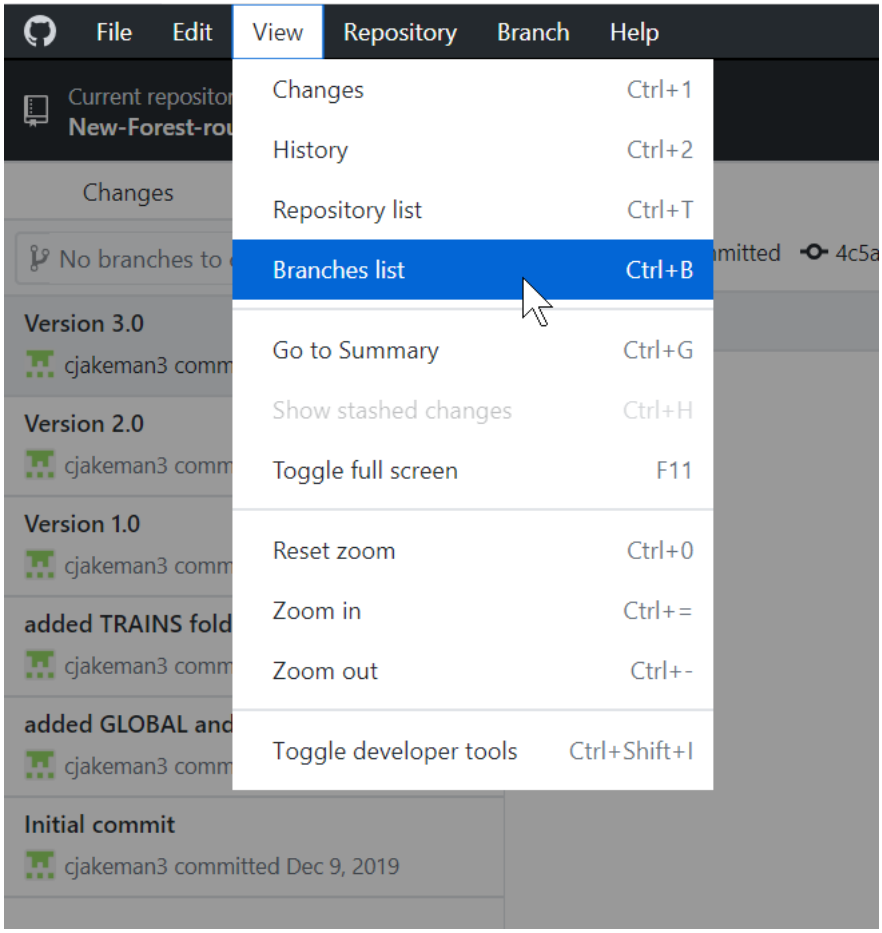
Moving between versions

If different versions of the content are published to the remote repo, then you can use *GitHub Desktop* to switch between versions.

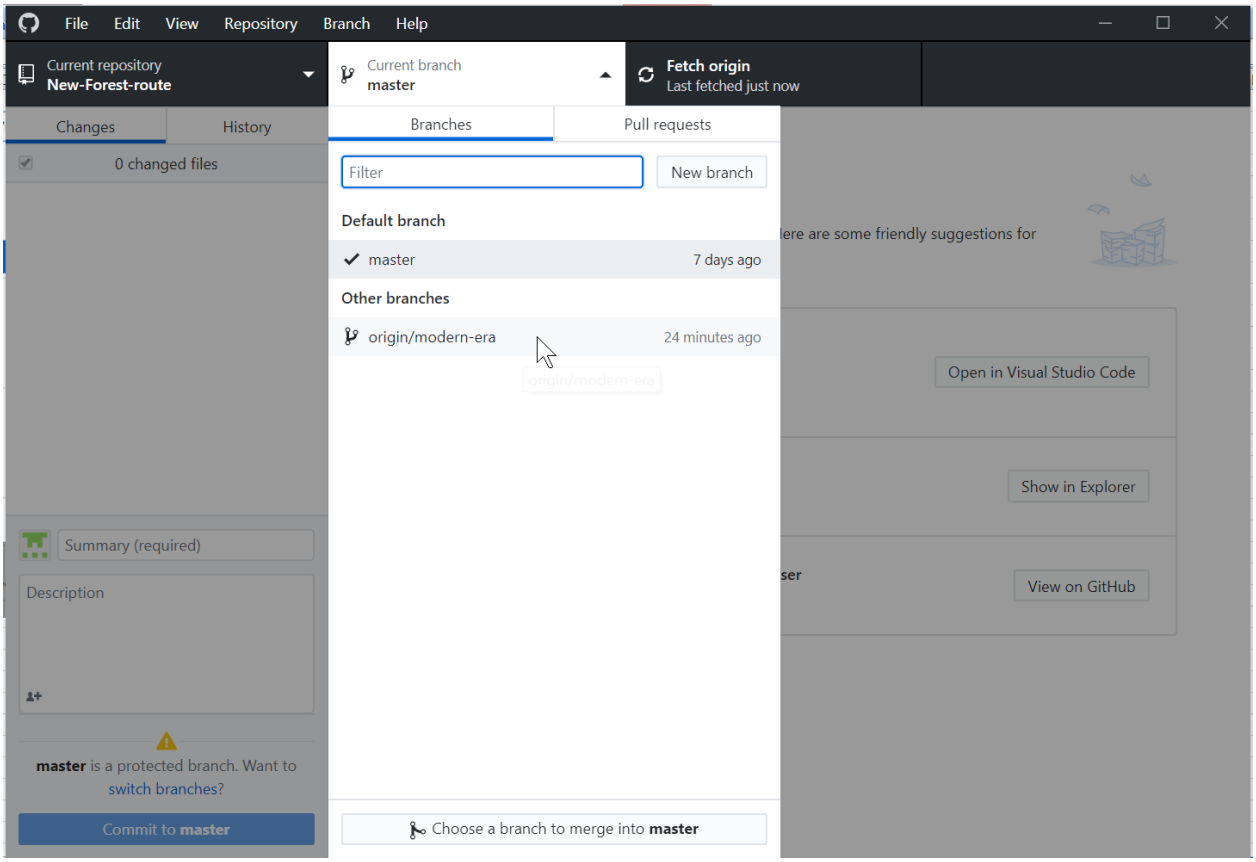
Once all the commits are stored on your local computer, then switching to a different version will change the files and folders in your working folder. All the committed files are still securely stored in the *.git* folder, so you can switch safely between versions as often as you wish.

In this example, we have two branches, ”master” and “modern-era”.

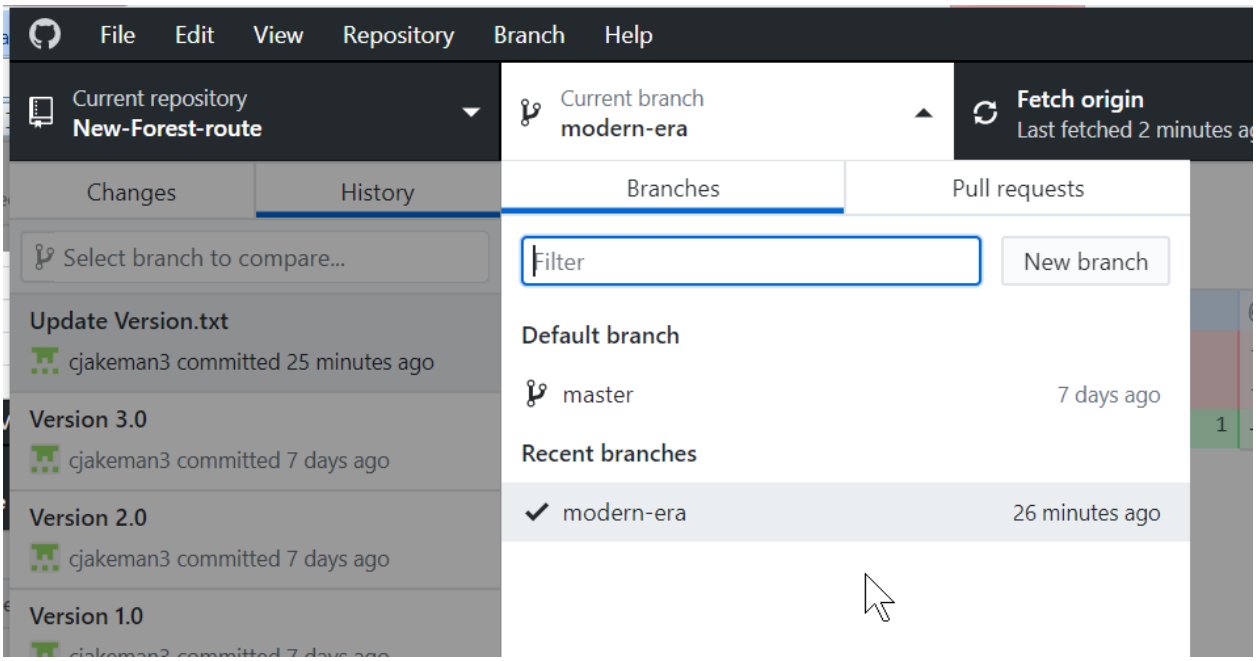
Find the branches in your repo with:



and switch from “master” branch to “modern-era” branch just by clicking the option:

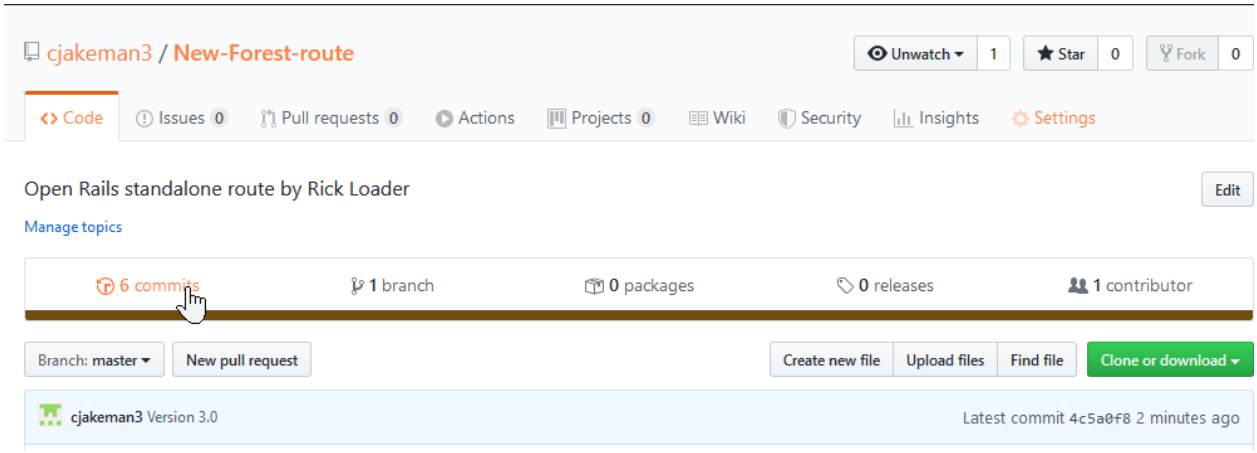


This action selects just those files in your working folder which differ and changes them to match the chosen branch. You can see which branch you are on with:

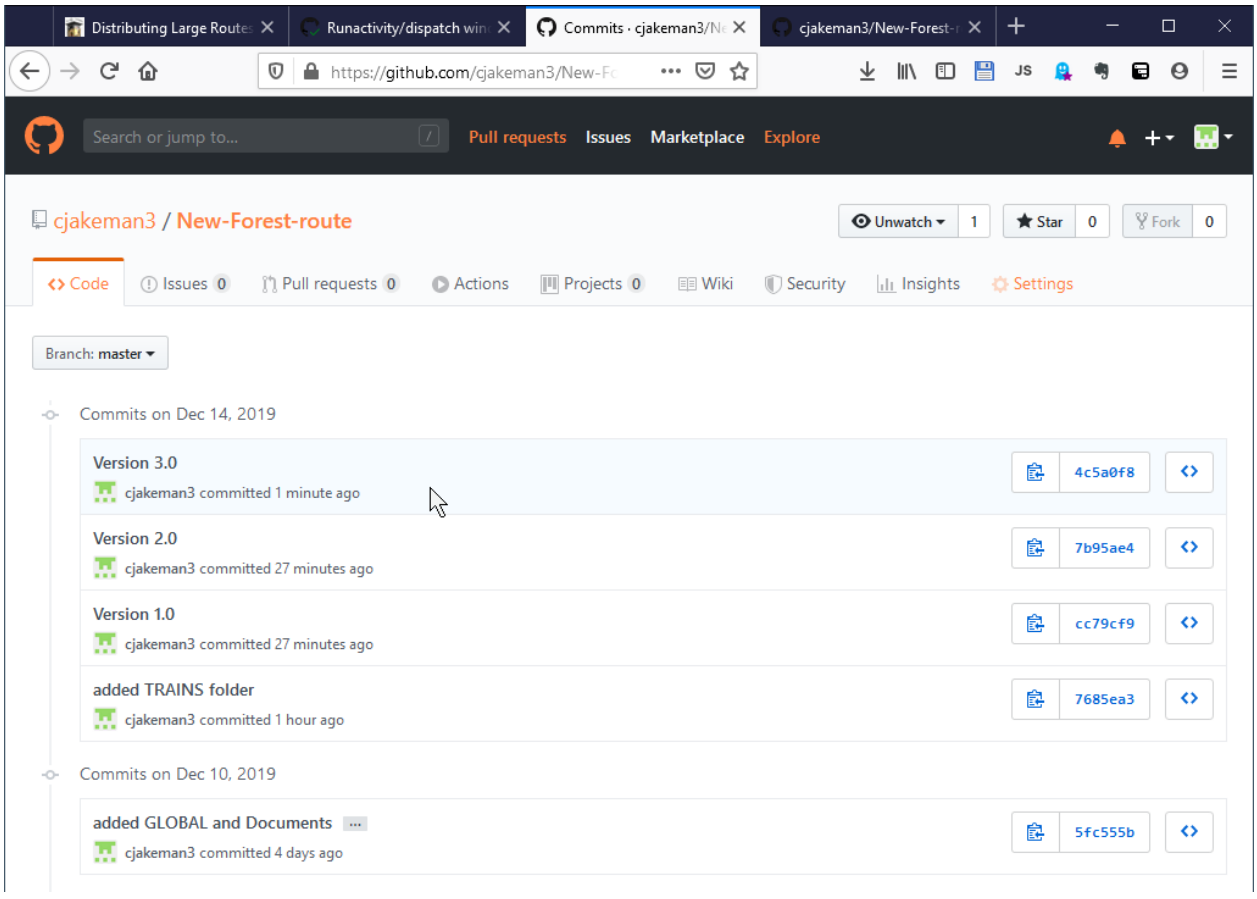


Fetching new commits

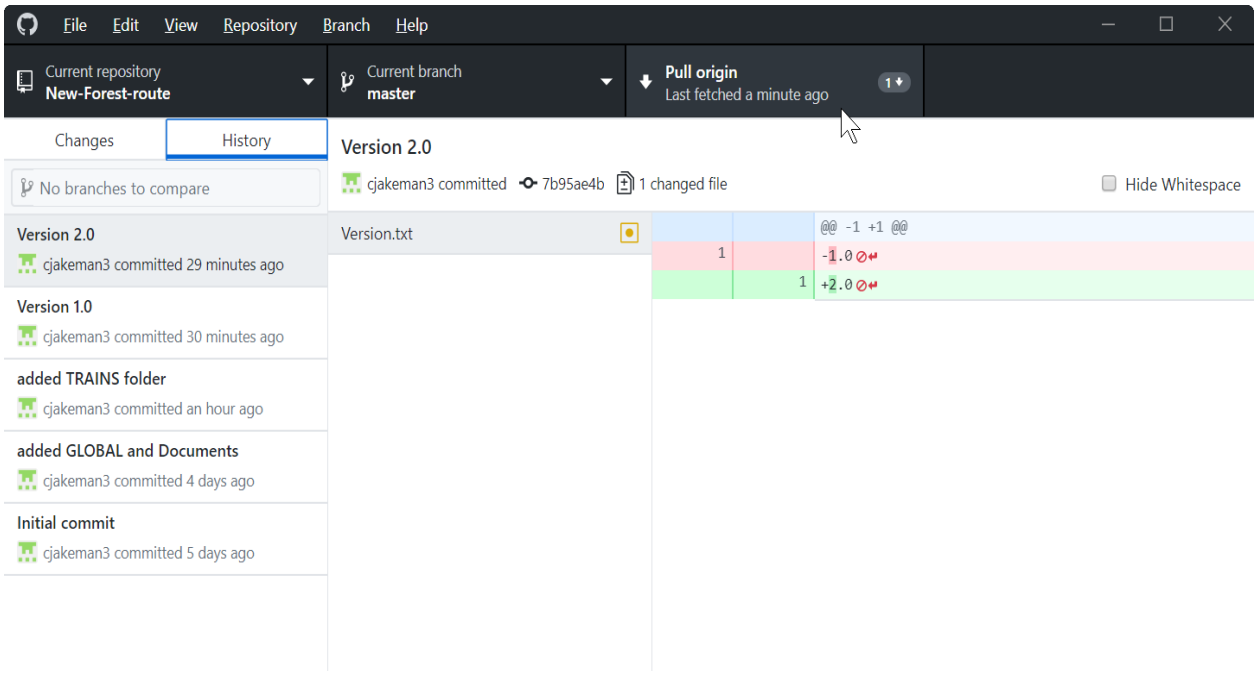
New commits are visible on GitHub.com under the *commits* tab:



which leads to:



However *GitHub Desktop* will check this for you automatically, fetching the commit files[3] but not including them into your repo until you "pull" them in from "origin".



This shows we are currently at Version 2.0 and Version 3.0 has been fetched automatically.

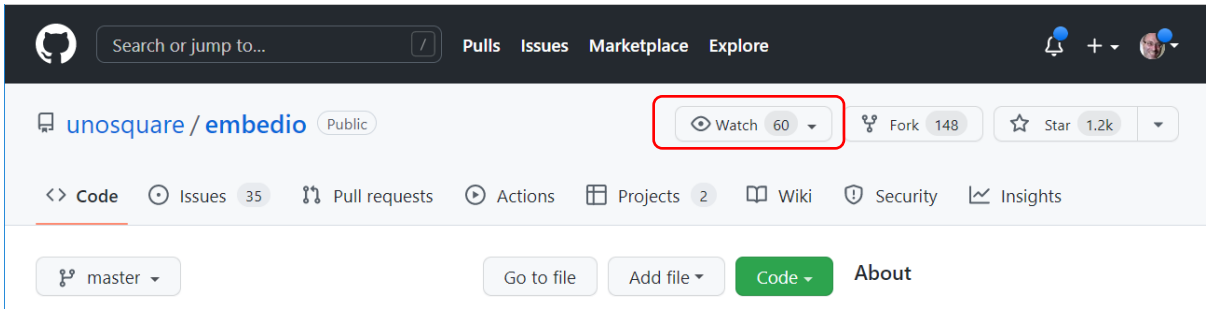
By clicking on *Pull origin*, we are including the new commit into our local copy of the repo and making that latest commit the current one in our working folder.

[3] Storing them inside *.git* in a local copy of the remote repo "origin".

Notified about new commits

GitHub Desktop won't notify you that new content has been committed until you launch it and, if you have more than one repo, selected the repo of interest.

The GitHub.com website offers a Watch button which appears to provide notifications.



This option (which is only seen when you have registered for an account on GitHub.com) does indeed send notifications by email, but these are not available for the individual commits which is what we need..

The simplest solution I have found (which you can also use for any website) is to register at www.followthatpage.com . This simple, free site has been on-line for ages and will send you a short email whenever it detects a change on a public page.