



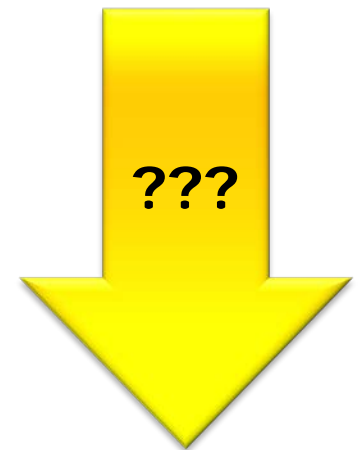
How to Git: GitHub Desktop

"RTF, well, I'll give you Step by Step instructions..."

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Learning Goals

- Quick step and introduction using GitHub Desktop
- Git Client, optimized for GitHub
- Learn basic actions
 - Add
 - Clone
 - Compare
 - Commit
 - Push/Sync
- Advanced
 - Delete



GitHub Desktop

- Simple, easy GUI Tool
 - Clone
 - Commit, Push/Sync
- Good tool for using with GitHub
- Download <https://desktop.github.com/> (Mac, Windows)

Simple collaboration from your desktop

GitHub Desktop is a seamless way to contribute to projects on GitHub and GitHub Enterprise.

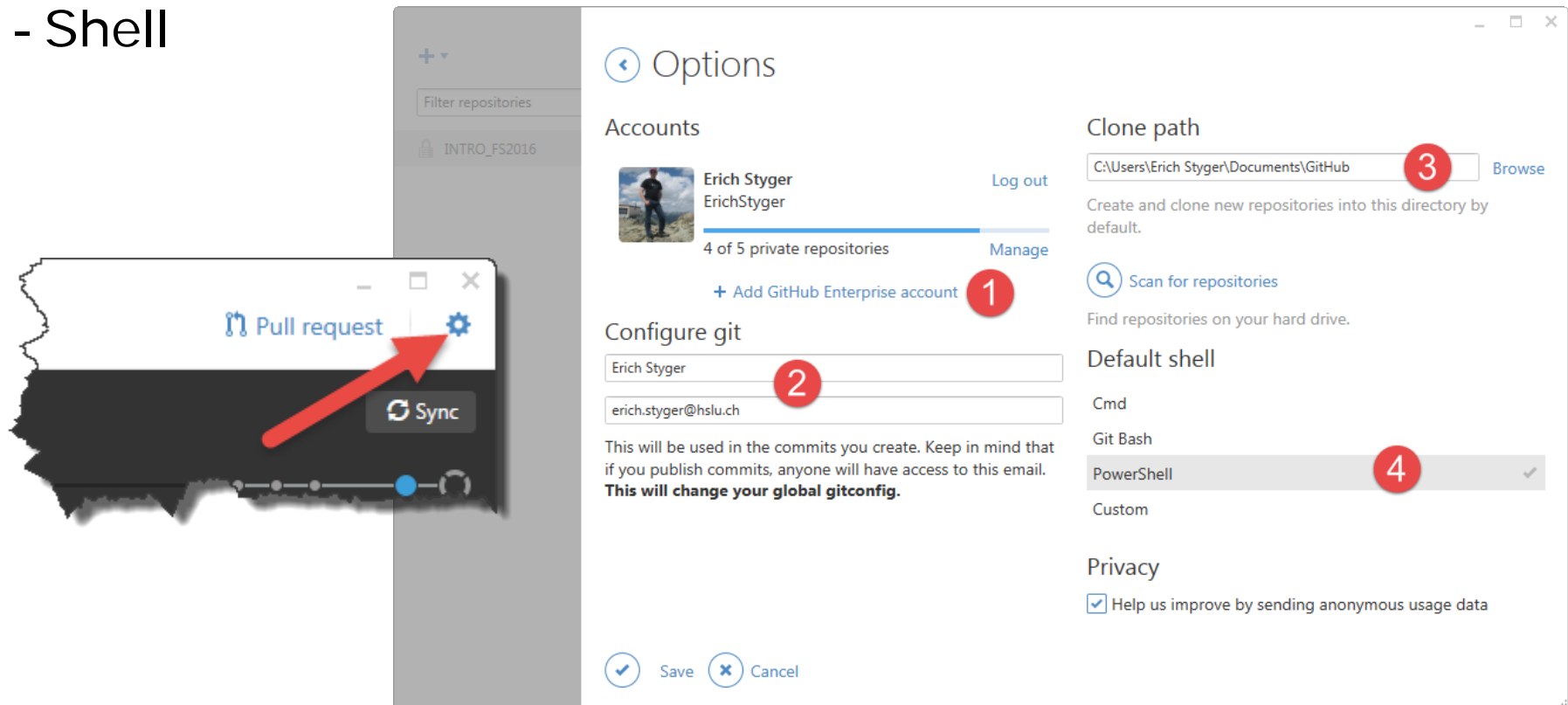
Available for Mac and [Windows](#)

Download GitHub Desktop
Windows 7 or later

By clicking the Download button you agree to the
End-User License Agreement

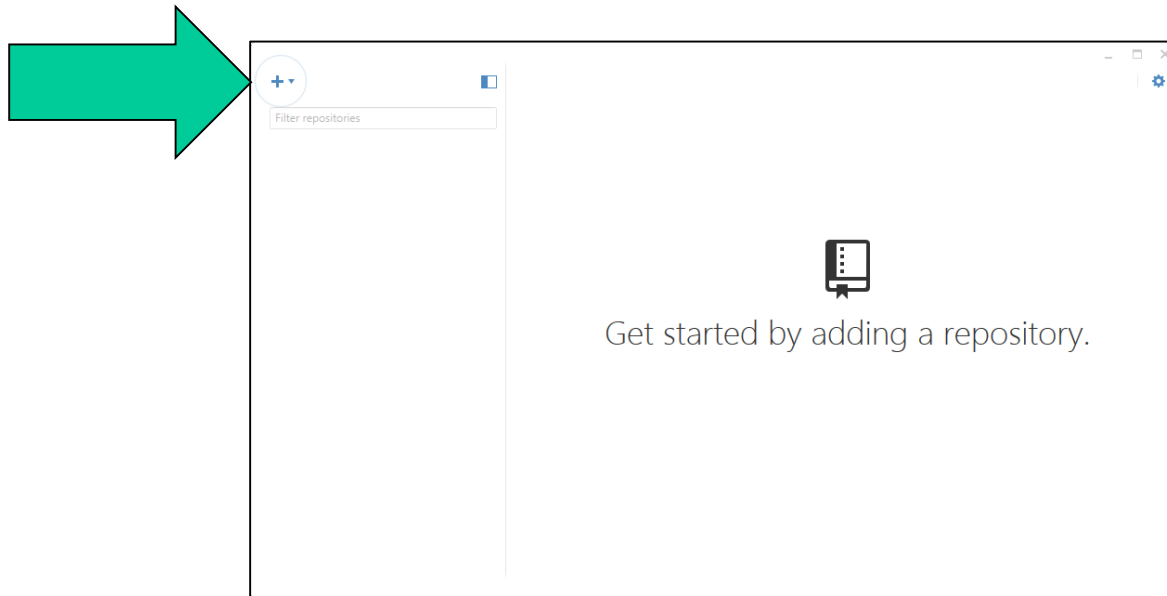
Setup

- Add account
- Name/email
- Default clone path
- Shell



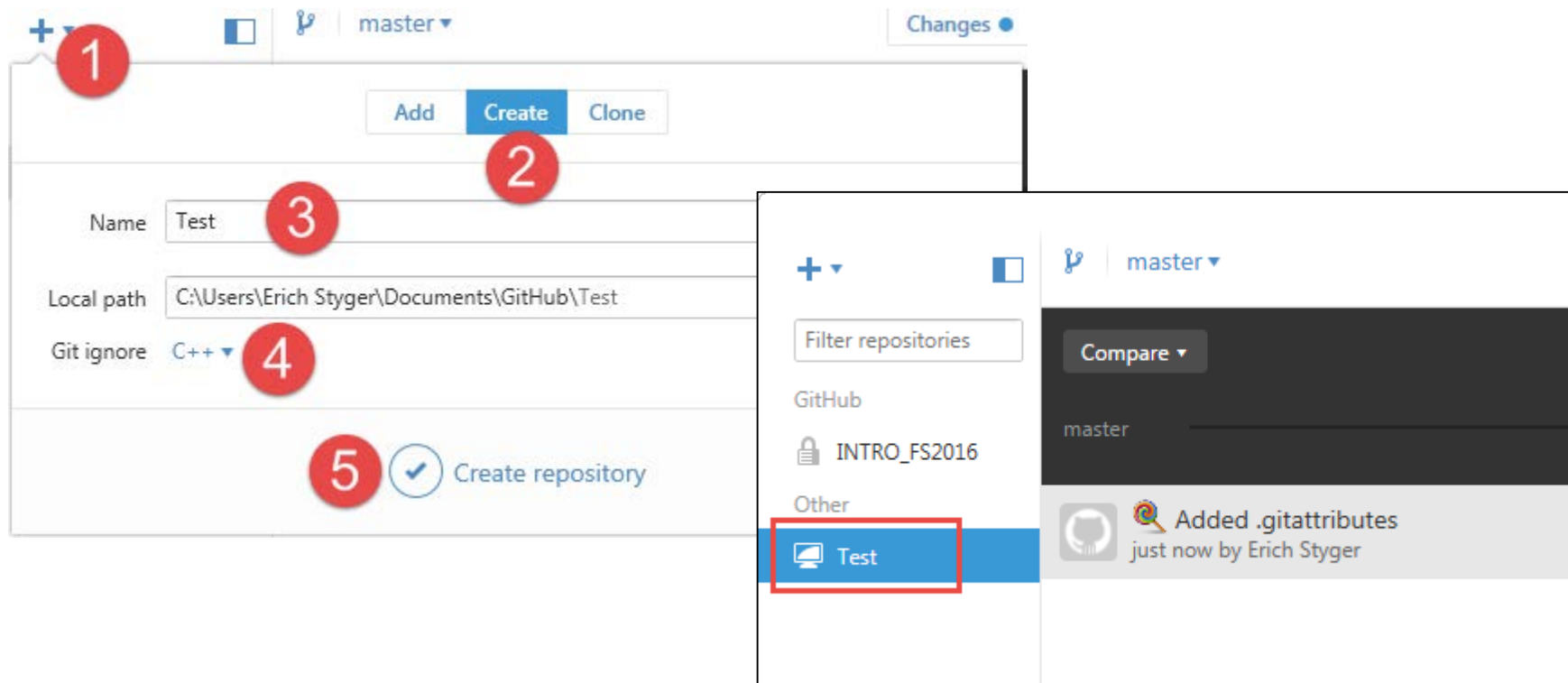
Cloning

- Launch Application
- Click on '+'
 - **Add**: add an local repo (or drag&drop)
 - **Create**: new repo, can push on server later
 - **Clone**: copy repository to local machine



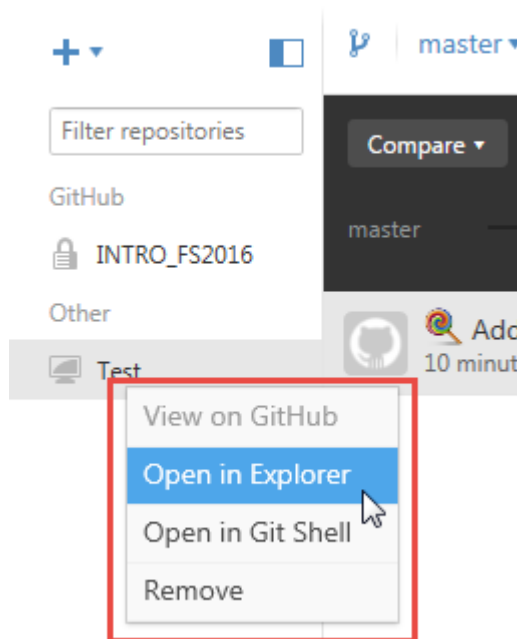
Create New Local Repo

- Creates local new repo
- Can keep it locally, no need to publish it



Repository Actions

- View on GitHub (if published)
- Open in Explorer
- Open Shell (git help)
- Remove it from repository list (not on disk!)
- Re-add repo tip: drag & drop



```
:/c/Users/Erich Styger/Documents/GitHub/Test

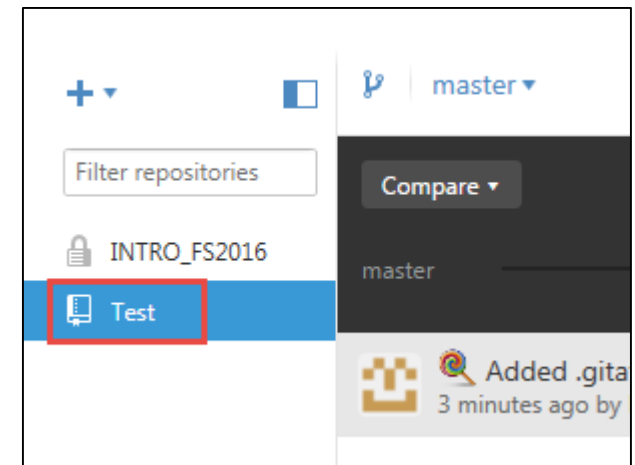
Erich Styger@ErichStyger-PC ~/Documents/GitHub/Test (master)
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
nothing to commit, working directory clean

Erich Styger@ErichStyger-PC ~/Documents/GitHub/Test (master)
$ |
```

Publish

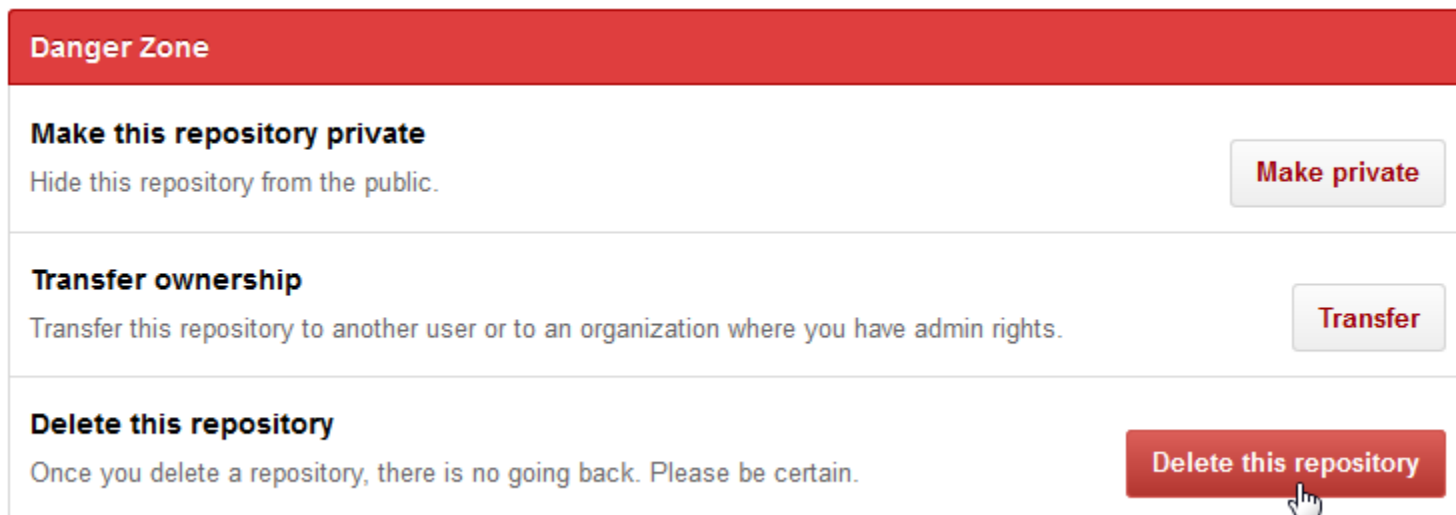
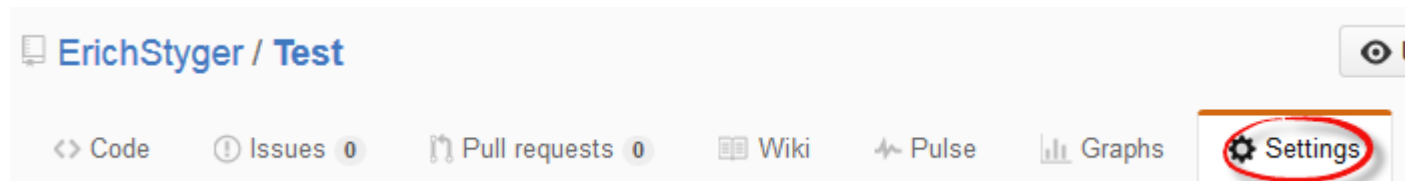
- Publish local repository to server/GitHub Account
- Delete on server if needed

The screenshot shows the GitHub 'Create new repository' page. It features a dark header with a 'Publish' button (1). Below the header, there are tabs for 'GitHub' (2) and 'Enterprise'. The main form includes a 'Name' field with the value 'Test' (3), a 'Description' field with the value 'my test repository' (4), a user selection dropdown showing 'ErichStyger' (5), and a 'Private Repository' checkbox. At the bottom, there is a 'Publish Test' button (6).



Deleting Repository (Server)

- Danger Zone!



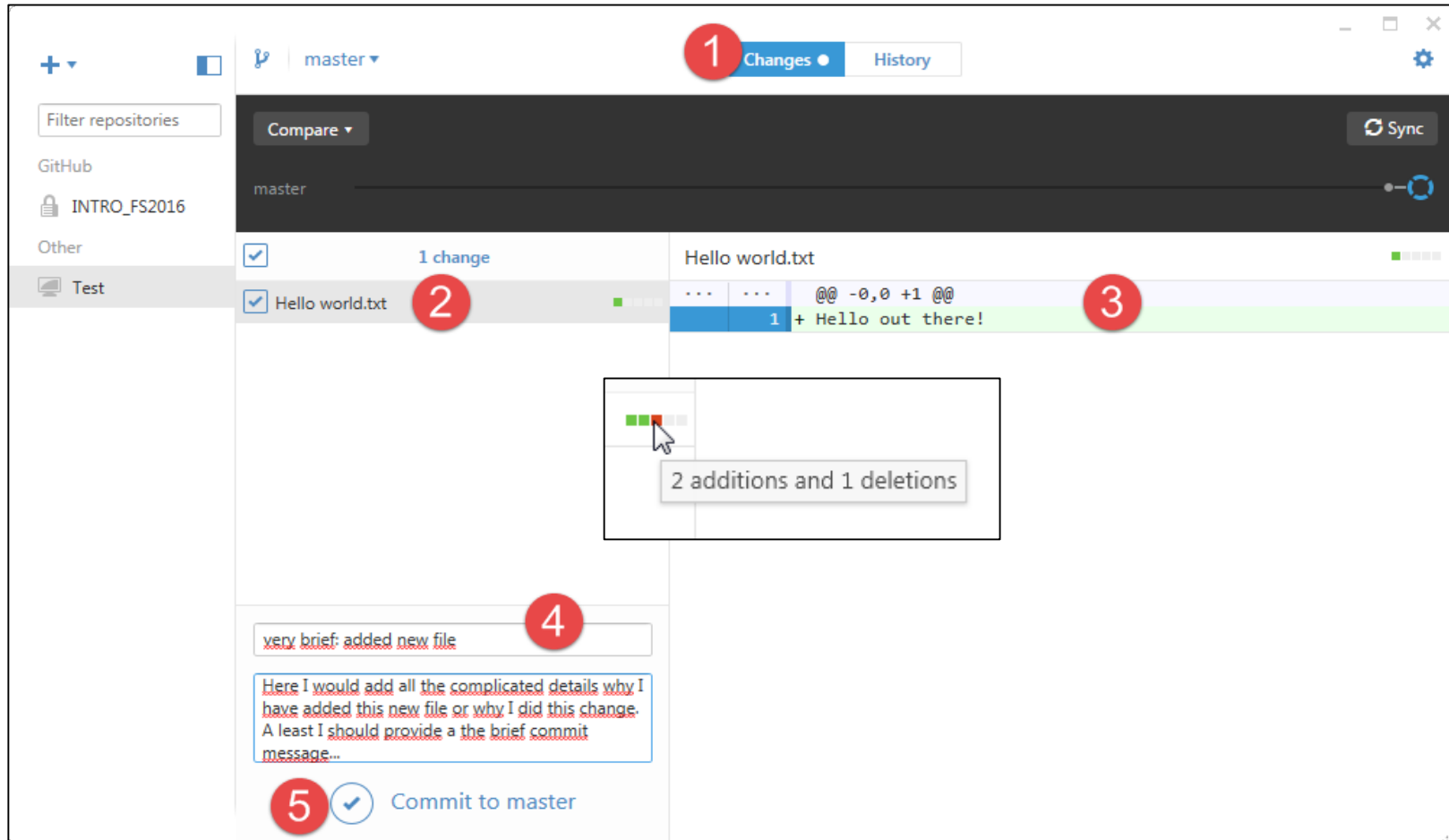
Compare

- Always inspect changes/files before commit!!!!
- (-) Line deletions
- (+) Line additions

<input checked="" type="checkbox"/>	1 change	test.txt		■■■■■
<input checked="" type="checkbox"/>	test.txt	■■■■■	...	@@ -1,2 +1,3 @@
		1	- hello	
		2	- world	
		1	+ hello out there	
		2	+ It is a new world	
		3	+ Enjoy	

Changes: Commit

- Provide a good (!!!) commit message



Conflicts

- Multiple changes on a line cannot be resolved → Conflict!
- Resolve the conflict in the sources!!!!
- Commit and sync

Sync conflicts

Please resolve all conflicted files, commit, then try syncing again.



test.txt ■■■■■

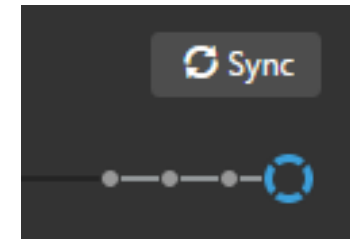
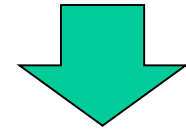
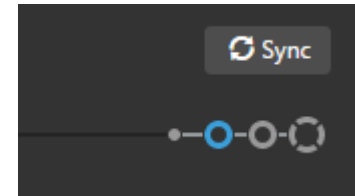
...	...	@@ -1,4 +1,8 @@
	1	+ <<<<<< HEAD
1	2	This should be just "hello out there" and nothing else!
	3	+ =====
	4	+ It should say: hello out there
	5	+ >>>>>> origin/master
2	6	It is a new world

<input checked="" type="checkbox"/>	2 changes	test.txt ■■■■■
<input checked="" type="checkbox"/>	new feature.txt ■■■■■	
<input checked="" type="checkbox"/>	test.txt ■■■■■	

...	...	@@ -1,4 +1,4 @@
1	1	- This should be just "hello out there" and nothing else!
		+ Hello, and welcome!
2	2	It is a new world
3	3	Enjoy
4	4	

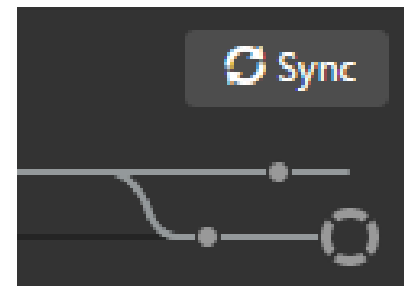
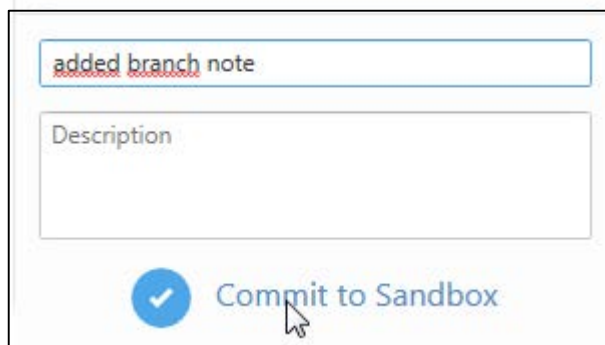
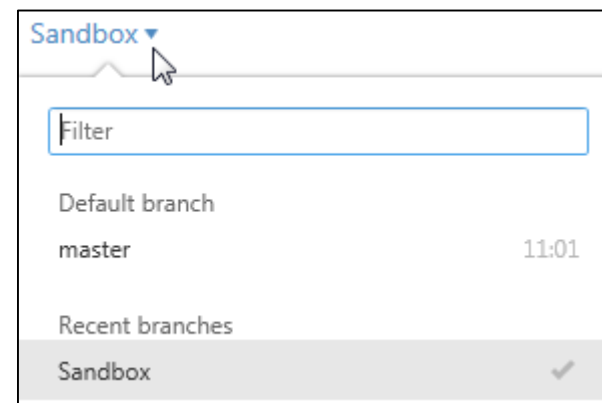
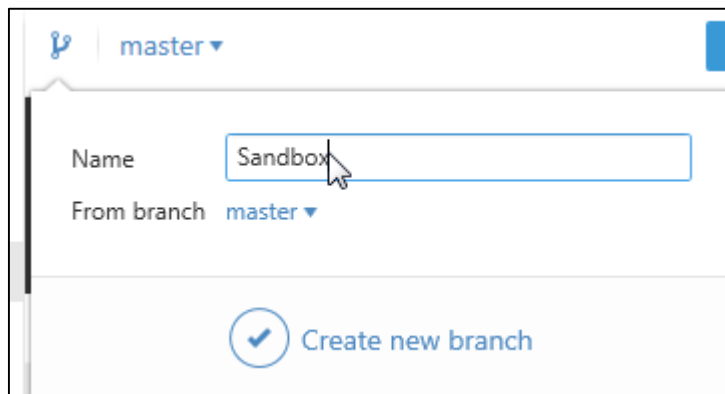
History Line

- Use history line to inspect changes
- Blue: current view/focus
- Dot: pushed history point on server
- Ring: committed, not on server yet
- Sync
 - Pulls changes from server
 - push commits to server



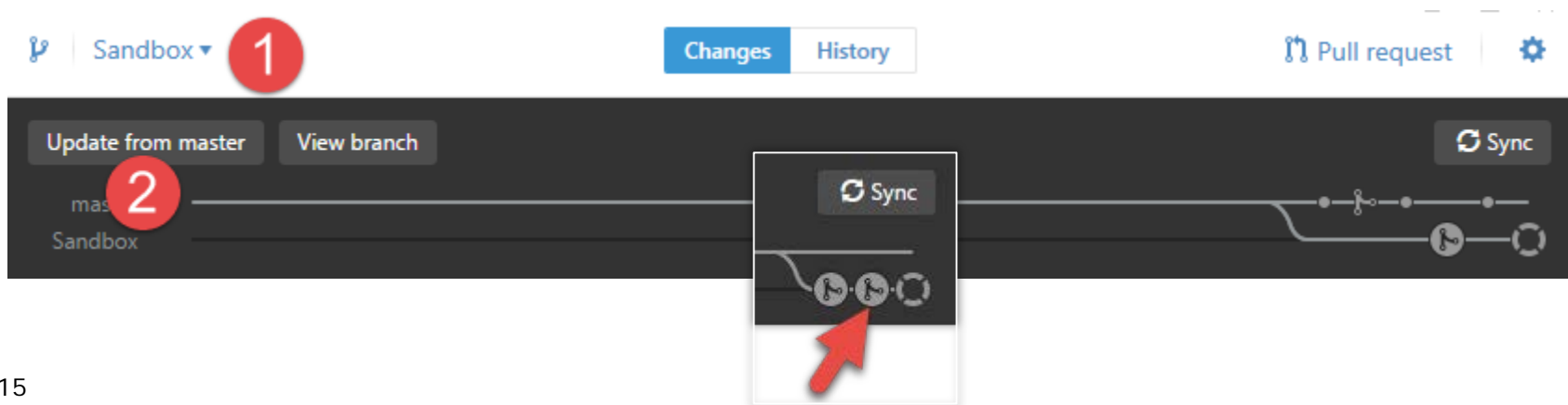
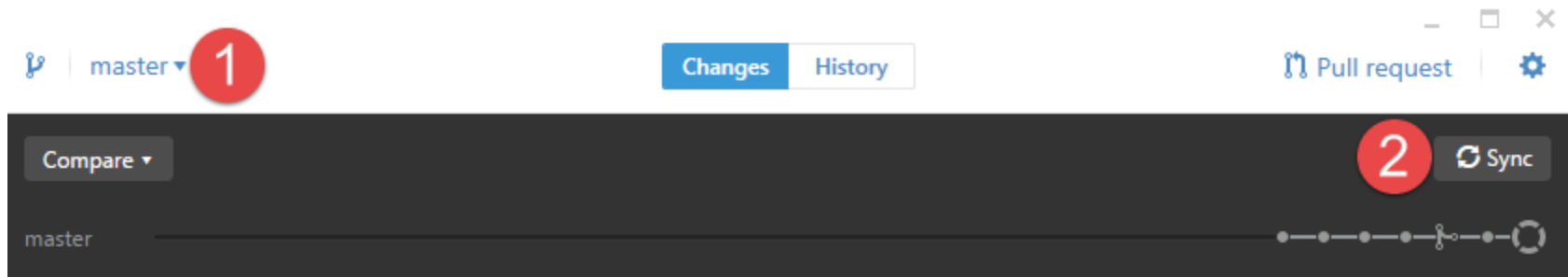
Branching

- Changes on branch do not affect master/mainline
- Create Branch, Switch between branches
- Careful if you have files open in applications!
- Commit to specific branch



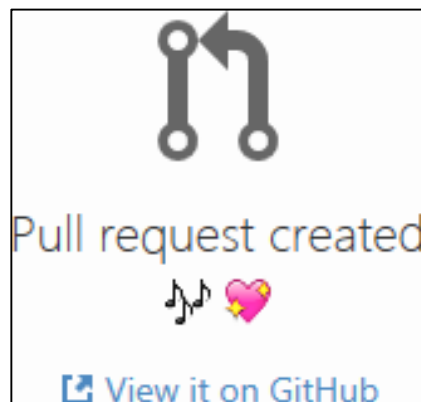
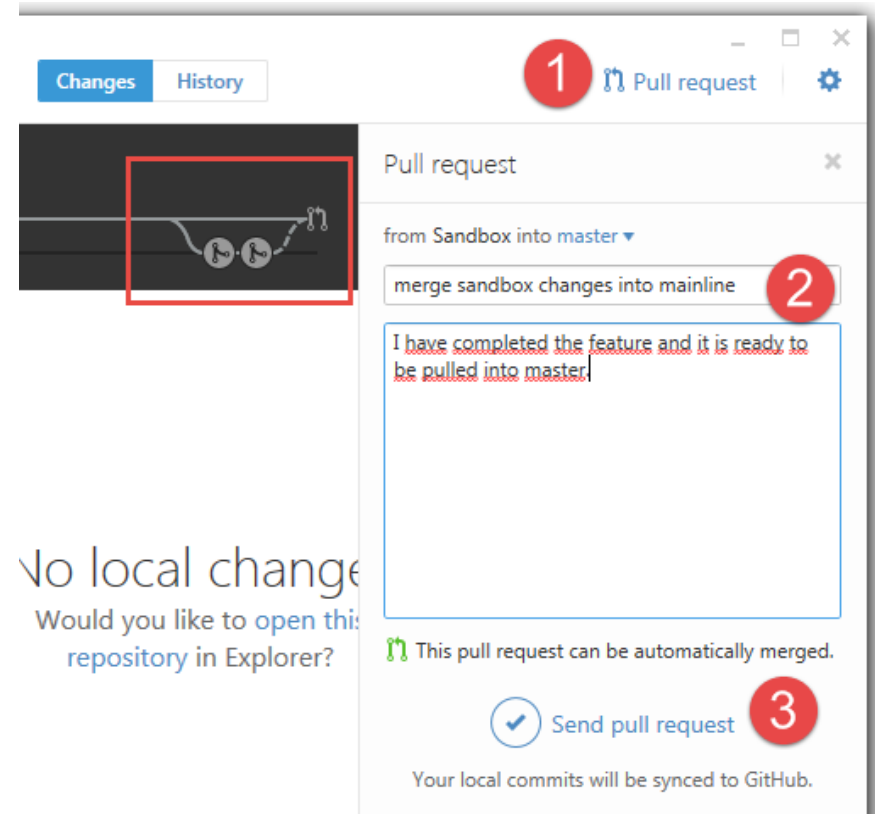
Synching Branch (master → branch)

- Make sure your upstream/master is up-to-date!
 - Select master, do a sync
- Go back to branch
- Press 'Update from master'
- ➔ merges changes from master into branch




Merging Branch into Mainline/Master

- 'Pull Request': starts 'discussion' to merge things into mainline
- Create pull request from branch
- View pull request on GitHub



Pull Request


 **ErichStyger** / **Test** Unwatch

Code Issues 0 **Pull requests 1** Wiki Pulse Graphs Settings

merge sandbox changes into mainline #1


Open **ErichStyger** wants to merge 2 commits into `master` from `Sandbox`



Conversation 0 Commits 2 Files changed 0




ErichStyger commented 2 minutes ago Owner


I have completed the feature and it is ready to be pulled into master.

 **tastyger** added some commits 13 minutes ago

-  Merge remote-tracking branch 'refs/remotes/origin/master' into Sandbox `d2e0ab5`
-  Merge remote-tracking branch 'refs/remotes/origin/master' into Sandbox `d6aaf24`

Add more commits by pushing to the **Sandbox** branch on **ErichStyger/Test**.

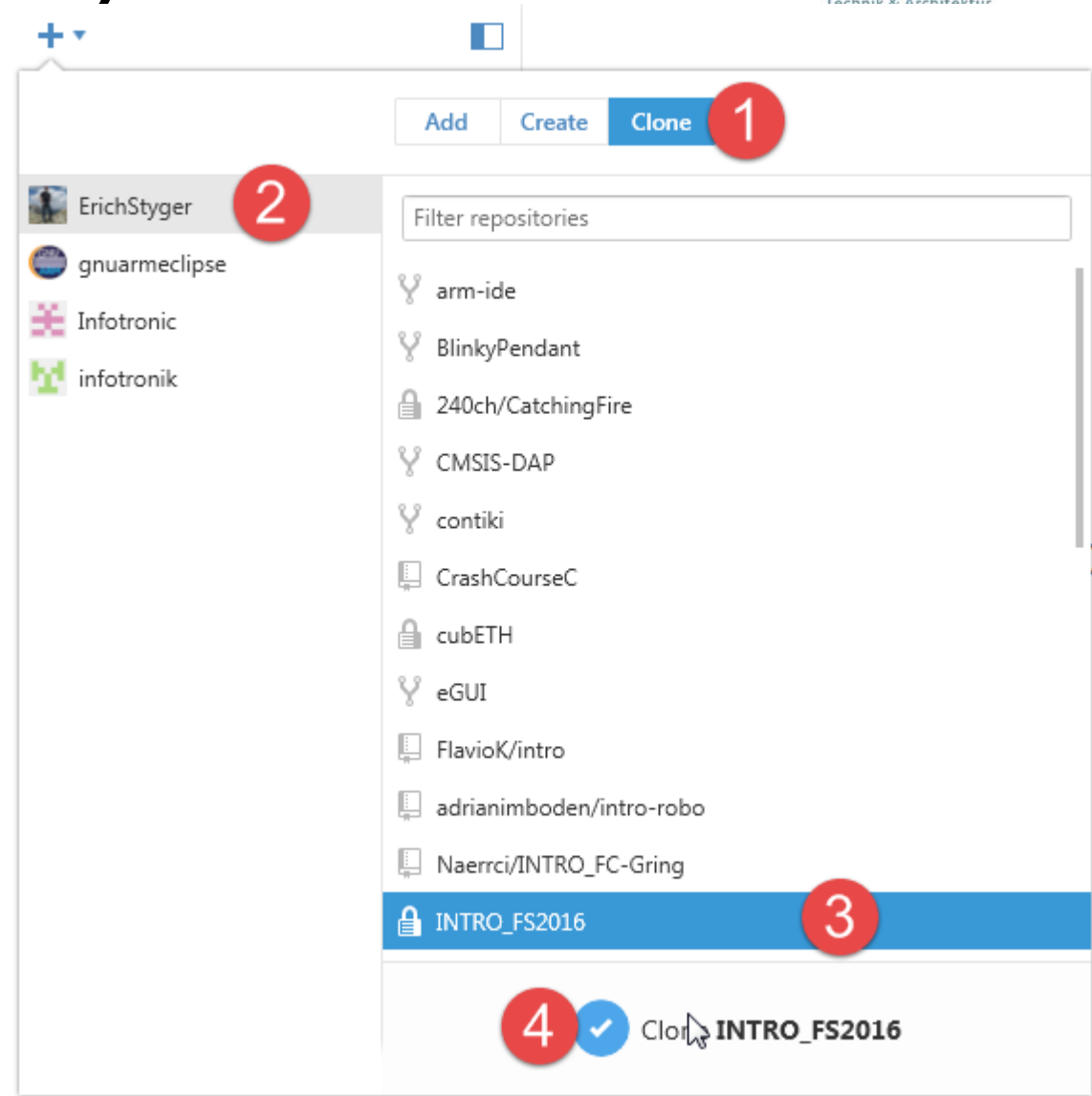


 **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Clone INTRO Repository

- Clone
- Select user account
- Select Repository
- Clone it
- (must have access to repo!)
- Specify folder where to clone



Summary

- GitHub Desktop
 - simple Git tool
 - optimized for GitHub usage
- Create, Add, Clone
- Commit and Push/Sync
- Conflicts
- Compare and History line
- Branch
 - Merge from master
 - Pull request to master
- Lab
 - practice, practice, practice!
 - Clone INTRO Repo

