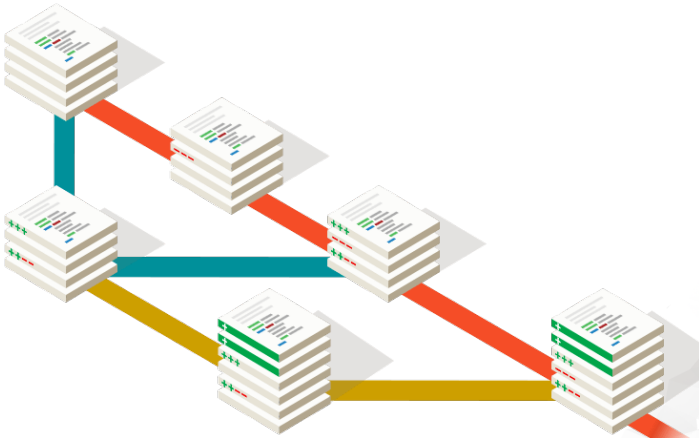

git

Workshop Version Control: Getting Started with Git

Markus Pawellek

March 8, 2023

Outline

Motivation

Literature and Resources

Basics

Git by Example

Rules of Thumb

Outlook

Motivation

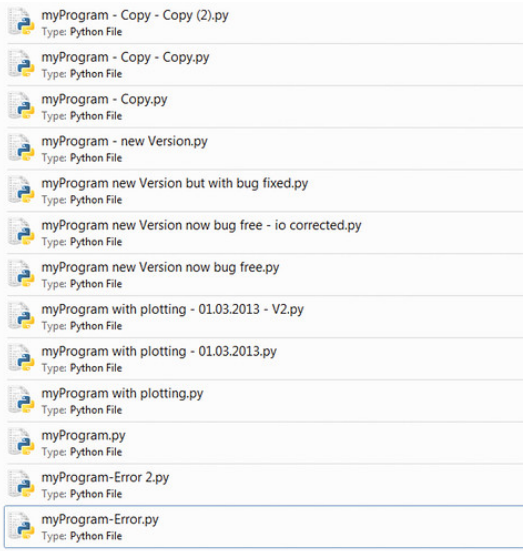

Image from *Version Control Gone Wrong*. URL:

https://live.staticflickr.com/5521/10511147624_ceb3520b12.jpg (visited on 03/08/2023).

Literature and Resources

Literature and Resources

- *Git*. URL: https://git-scm.com/ (visited on 03/08/2023)
- *Git Reference*. URL: https://git-scm.com/docs (visited on 03/08/2023)
- Scott Chacon. *Pro Git*. 2014. URL: https://git-scm.com/book/en/v2 (visited on 03/08/2023)
- *GitHub Docs*. URL: https://docs.github.com/en (visited on 03/08/2023)
- *GitHub Git Cheatsheet*. URL: https://education.github.com/git-cheat-sheet-education.pdf (visited on 03/08/2023)

Basics

Basics: Distributed Version Control

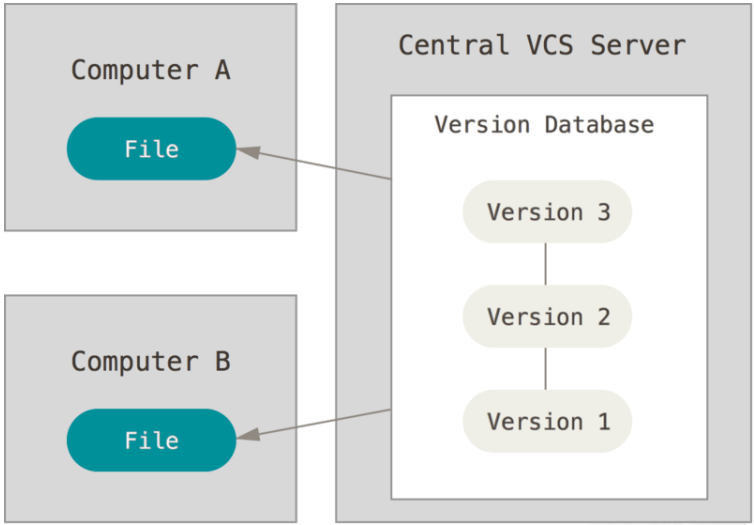

Image from Chacon (4).

Basics: Distributed Version Control

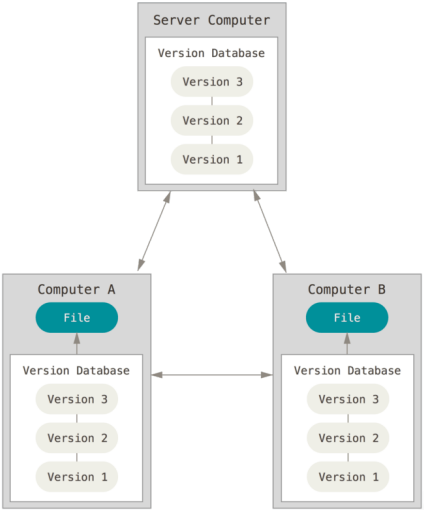

Image from Chacon (4).

Basics: Snapshots

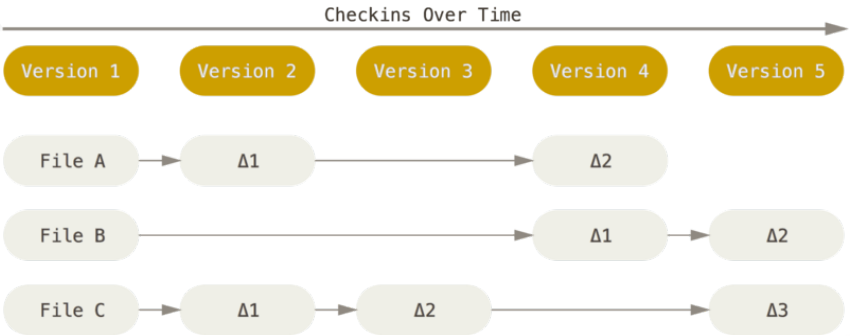

Image from Chacon (4).

Basics: Snapshots

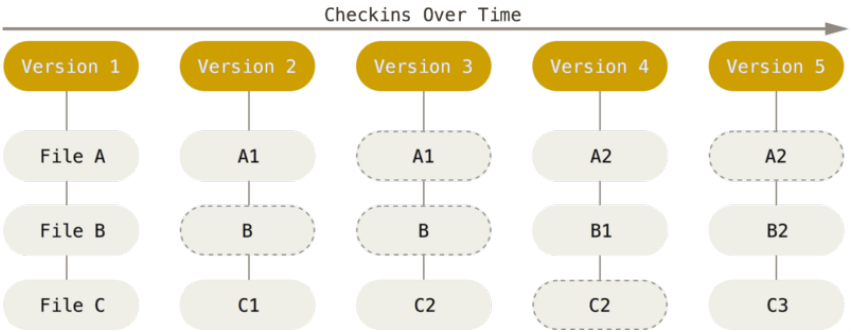

Image from Chacon (4).

Basics: The Three States

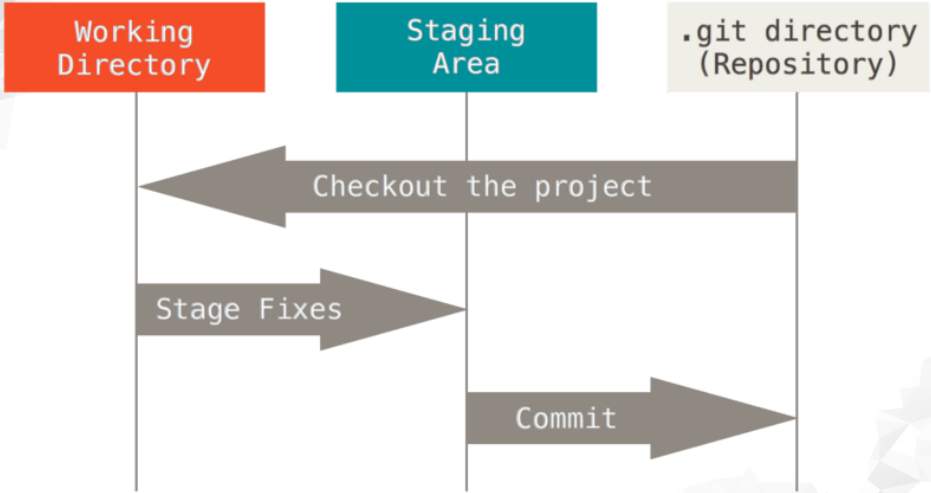

Image from Chacon (4).

Basics: Recording Changes

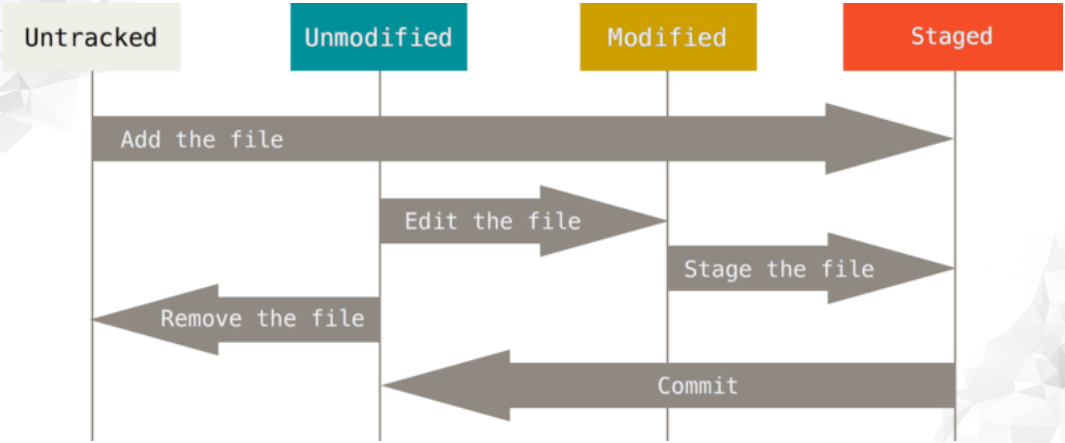

Image from Chacon (4).

Basics: Commits

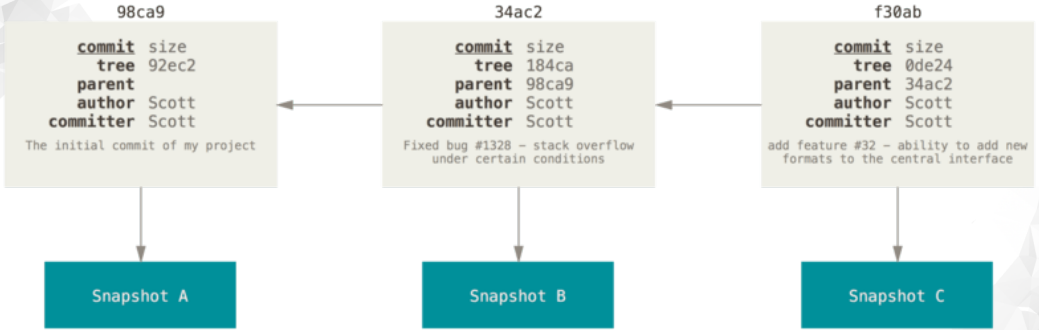

Image from Chacon (4).

Basics: Commit Tree

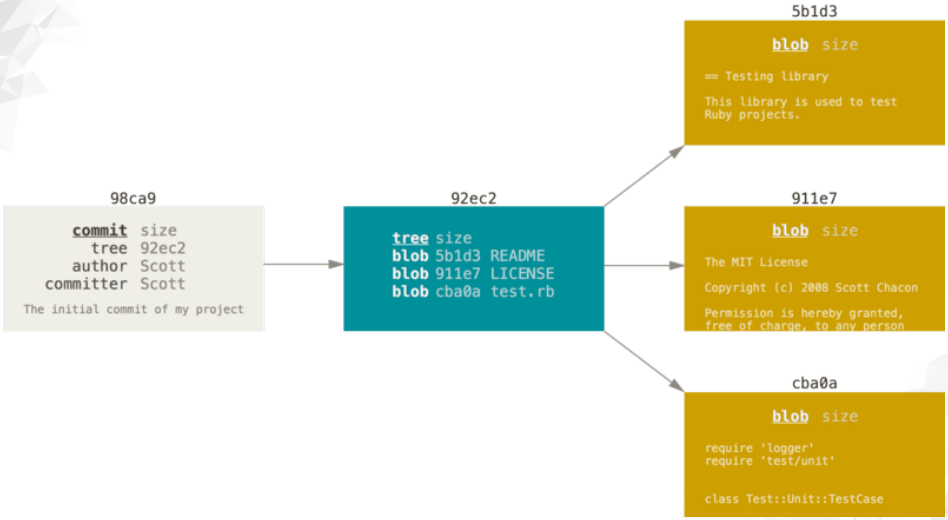

Image from Chacon (4).

Git by Example

Git by Example

1. Initial Setup
2. Initializing Repositories
3. gitignore
4. Branches
5. Remotes
6. Servers
7. Workflow

Rules of Thumb

Rules of Thumb: Commit Messages

Image from cbeams (7).

Rules of Thumb: Commit Messages

The seven rules of a great Git commit message

1. Separate subject from body with a blank line
2. Limit the subject line to 50 characters
3. Capitalize the subject line
4. Do not end the subject line with a period
5. Use the imperative mood in the subject line
6. Wrap the body at 72 characters
7. Use the body to explain what and why vs. how

Rules of Thumb

1. Use gitignore whitelisting
2. Use SSH keys
3. If you are alone, use the default branch
4. Use the rules of a good Git commit message
5. Thou shalt not kill

Outlook

Outlook

- Submodules
- Hooks
- Merge and Rebase
- Cherrypick
- Stashing
- Signing your Work
- Searching
- Attributes

Thank you for Your Attention!

References

(1) *Version Control Gone Wrong.* URL: https://live.staticflickr.com/5521/10511147624_ceb3520b12.jpg (visited on 03/08/2023).

(2) *Git.* URL: https://git-scm.com/ (visited on 03/08/2023).

(3) *Git Reference.* URL: https://git-scm.com/docs (visited on 03/08/2023).

(4) Scott Chacon. *Pro Git.* 2014. URL: https://git-scm.com/book/en/v2 (visited on 03/08/2023).

(5) *GitHub Docs.* URL: https://docs.github.com/en (visited on 03/08/2023).

(6) *GitHub Git Cheatsheet.* URL: https://education.github.com/git-cheat-sheet-education.pdf (visited on 03/08/2023).

(7) cbeams. *How to Write a Git Commit Message.* URL: https://cbea.ms/git-commit/ (visited on 03/08/2023).