

CODING FOR HUMANITIES

HOW TO GIT, GITHUB & GITLAB

Dr. Thomas Köntges,
Digital Humanities, University of Leipzig

I. Seminar

VIRTUAL MACHINE

STACK OVERFLOW



And now for something
completely different...

OVERVIEW

COLLABORATIVE EDITING

- E.g. Google Documents
- Perseids Editing Environment
- Version Control is Important

GIT

- Version Control System
- Open Source
- Collaborative Editing/
Working
- Git vs. Github / Gitlab

GIT

THIS IS GIT. IT TRACKS COLLABORATIVE WORK ON PROJECTS THROUGH A BEAUTIFUL DISTRIBUTED GRAPH THEORY TREE MODEL.

COOL. HOW DO WE USE IT?

NO IDEA. JUST MEMORIZIZE THESE SHELL COMMANDS AND TYPE THEM TO SYNC UP. IF YOU GET ERRORS, SAVE YOUR WORK ELSEWHERE, DELETE THE PROJECT, AND DOWNLOAD A FRESH COPY.



GITHUB EXAMPLES

- Perseus
- Perseus Canonicals
- Perseids
- Open Philology
- Open Greek and Latin

EXAMPLE PUBLICATIONS

- Perseus Digital Library
- Perseus Catalog
- Perseids

GIT VS. GITLAB

GIT

Version Control System

GITLAB

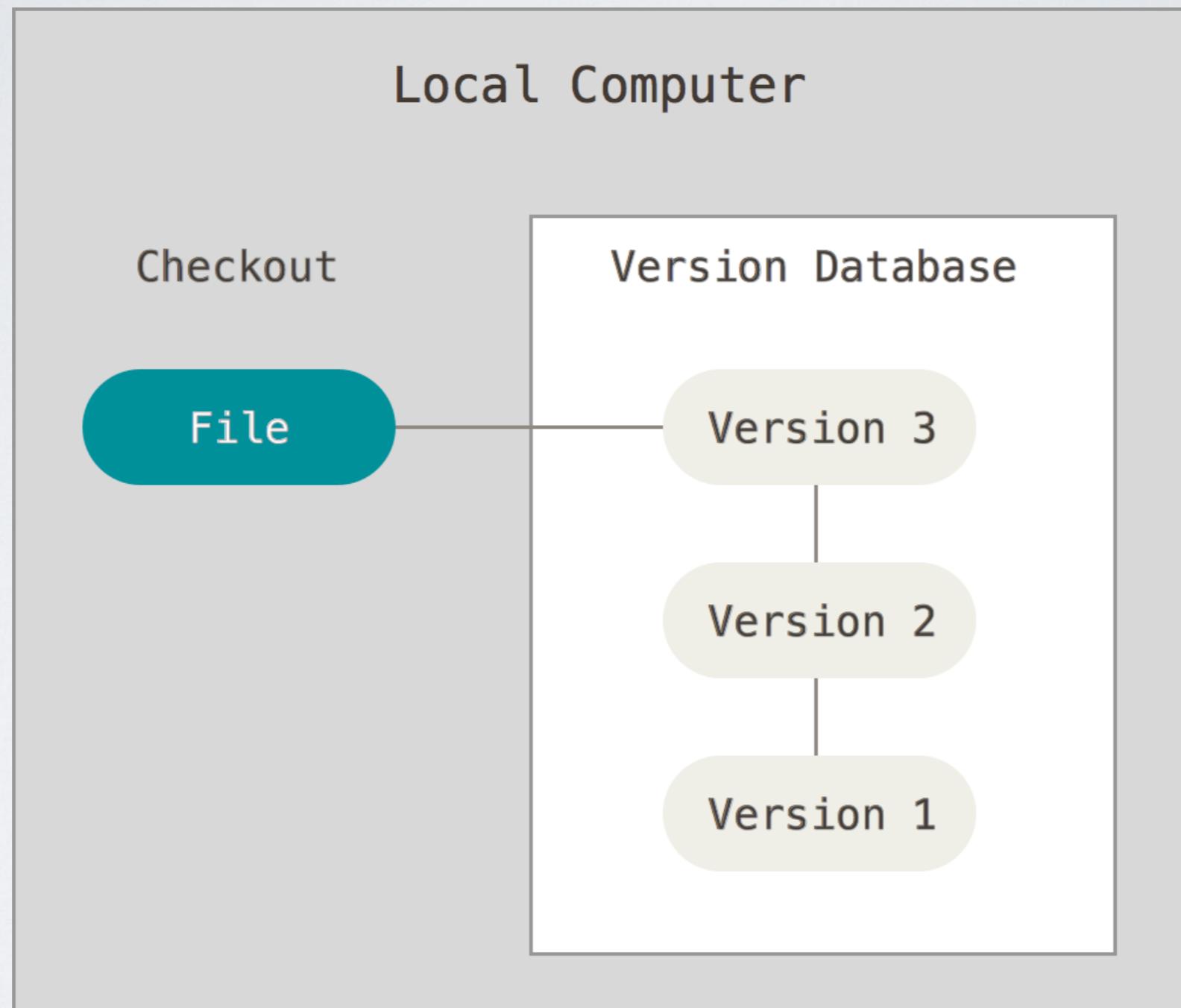
Git repository manager
(&hosting service)

GITHUB

Git repository
hosting service (53)

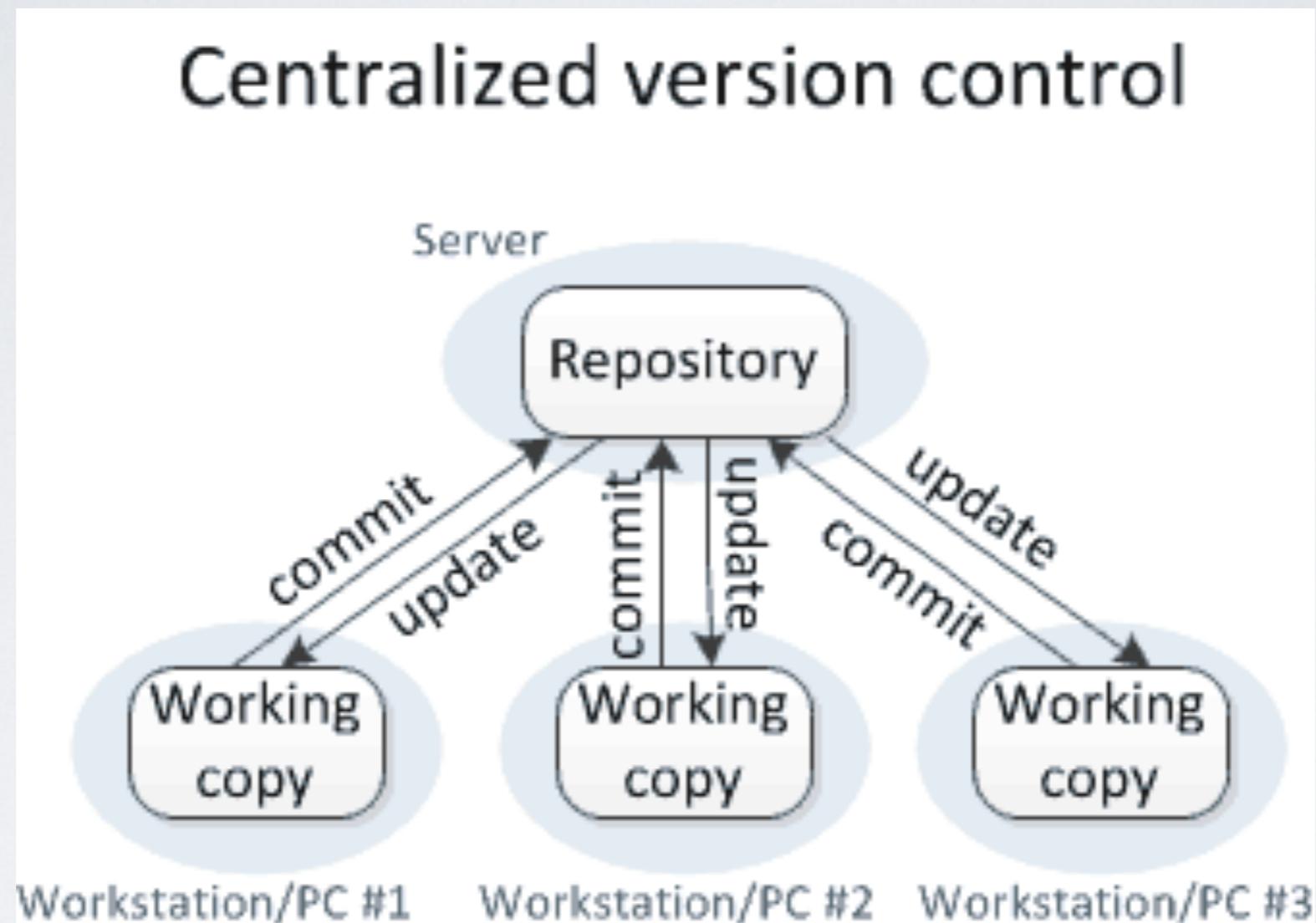
VERSION CONTROL

LOCAL VERSION CONTROL SYSTEM

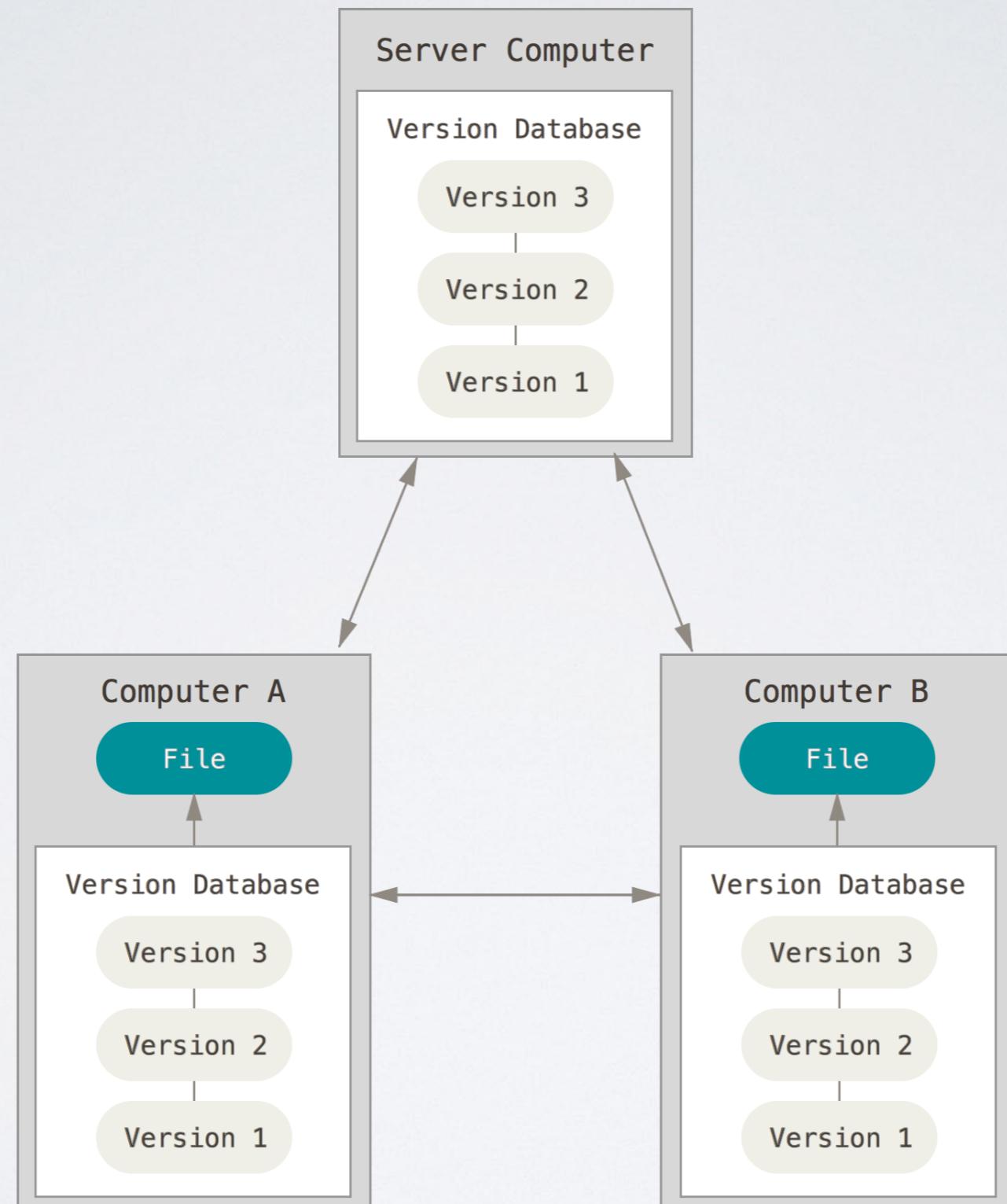


CENTRAL VERSION CONTROL SYSTEM

Centralized version control

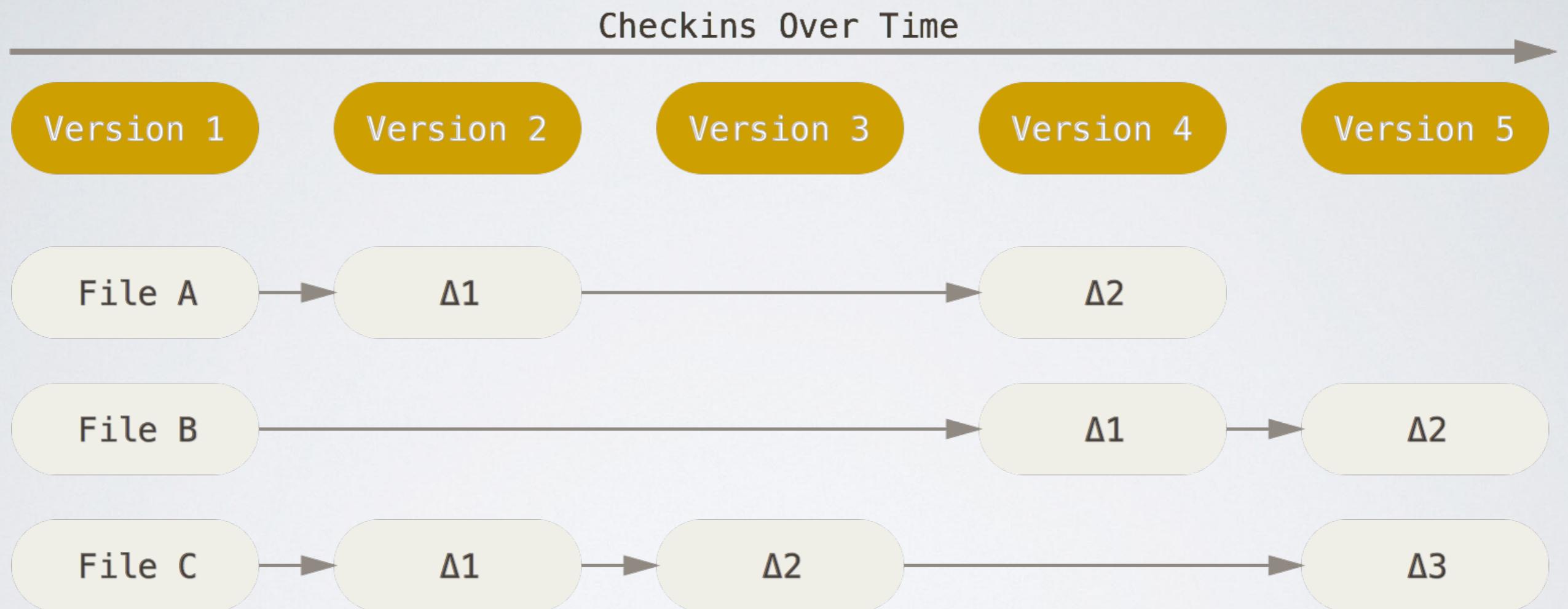


DISTRIBUTED VERSION CONTROL SYSTEM

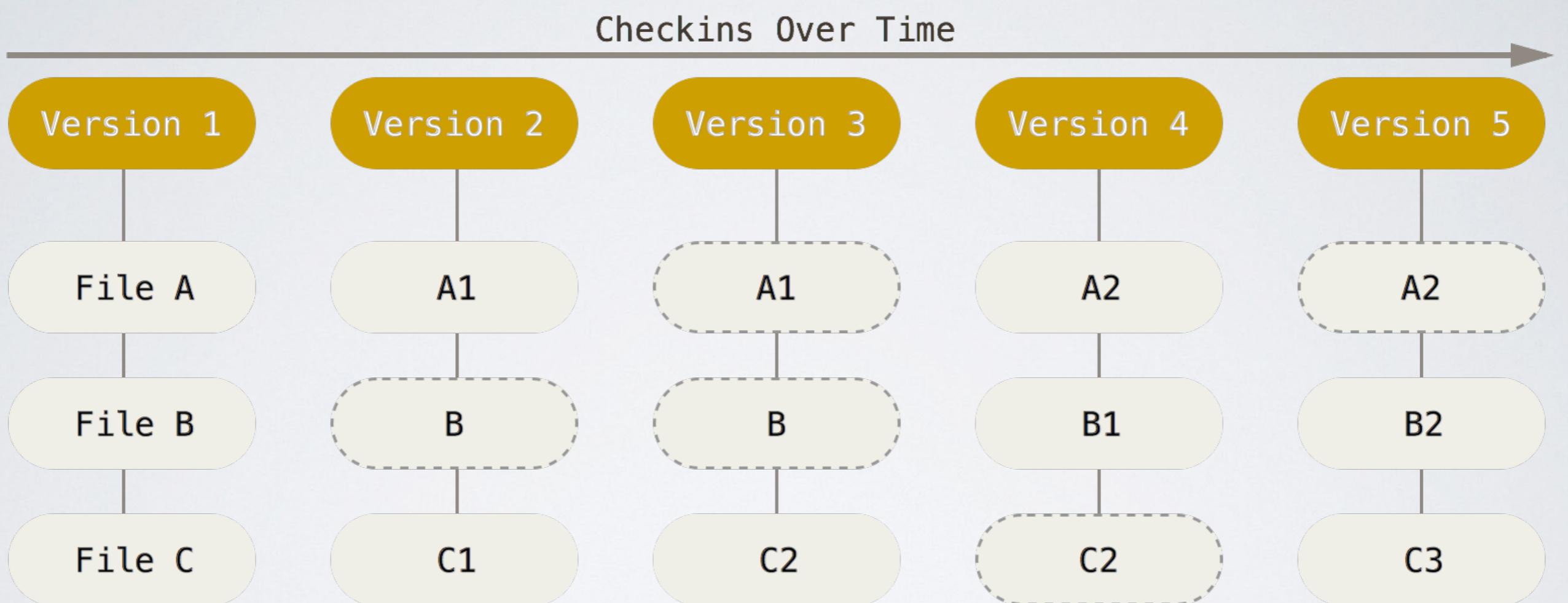


HOW CHANGES ARE MADE AND RECORDED

ORIGINAL FILES AND CHANGES

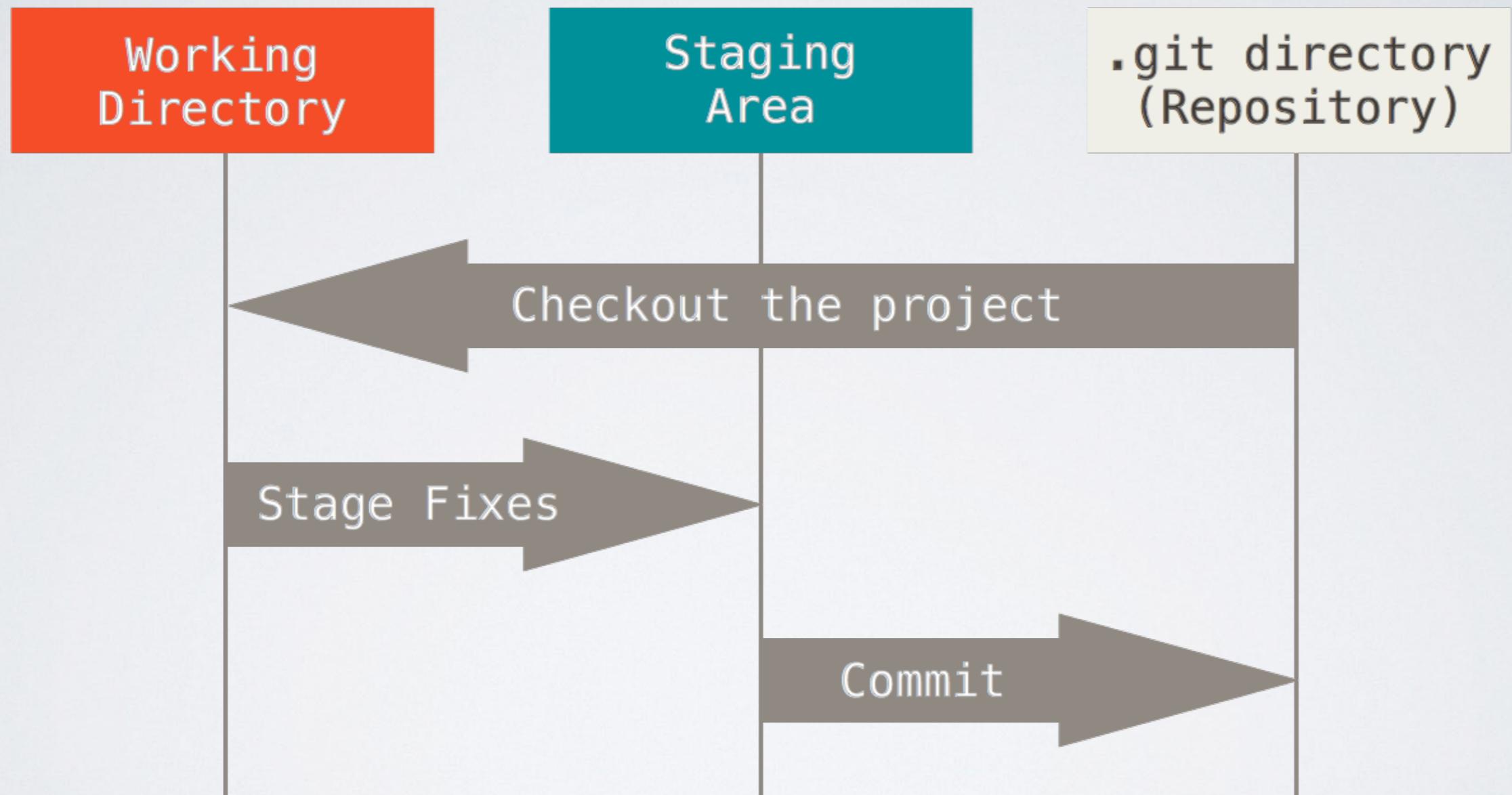


SNAPSHOTS OF DIFFERENT STAGES

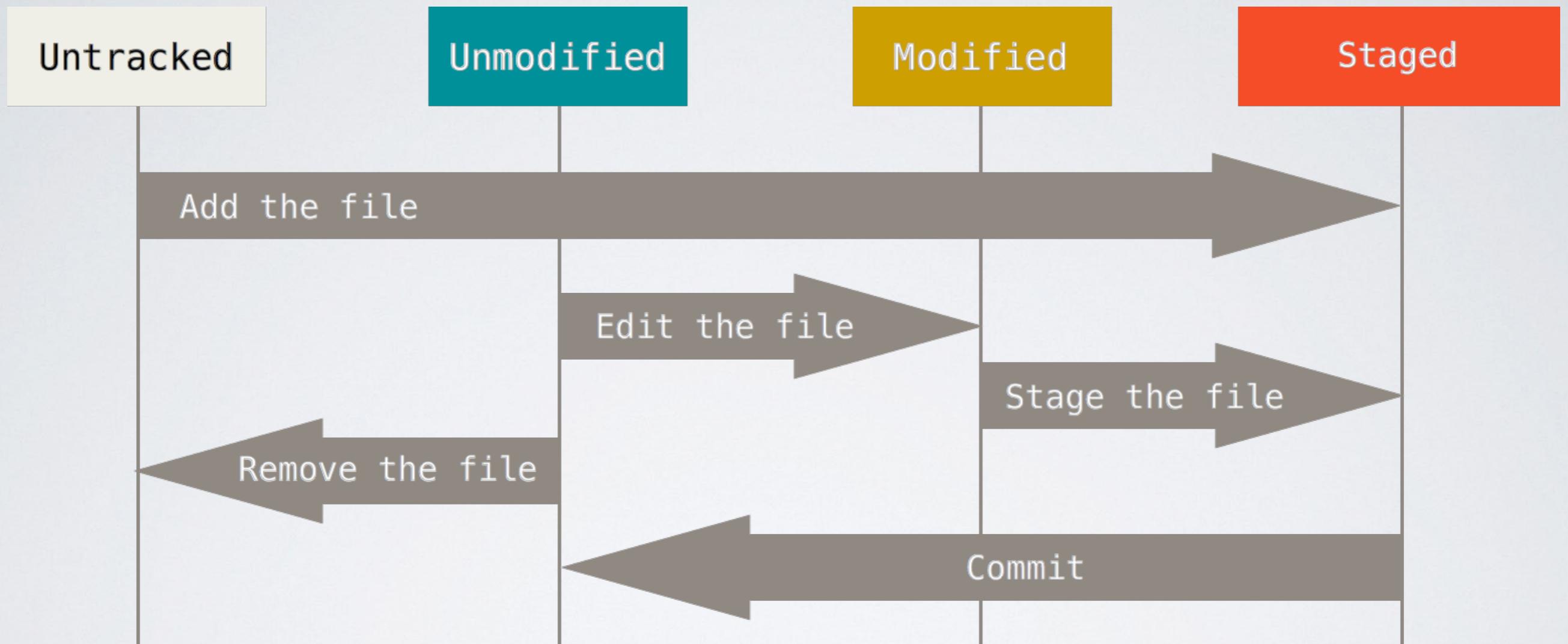


HOW GIT WORKS

THREE AREAS



KNOW THYSELF (GIT LIFECYCLE)



INSTALL GIT

GIT (LINUX)

Download for Linux and Unix

It is easiest to install Git on Linux using the preferred package manager of your Linux distribution.

Debian/Ubuntu

```
$ apt-get install git
```

Fedora

```
$ yum install git
```

Gentoo

```
$ emerge --ask --verbose dev-vcs/git
```

Arch Linux

```
$ pacman -S git
```

openSUSE

```
$ zypper install git
```

FreeBSD

```
$ cd /usr/ports/devel/git
```

```
$ make install
```

Solaris 11 Express

```
$ pkg install developer/versioning/git
```

OpenBSD

```
$ pkg_add git
```

GIT (OSX, WINDOWS)

- OS X
- Windows

GIT CONFIG

Setting Email

```
git config --global user.email "your_email@example.com"
```

Setting Username

```
git config --global user.name "Billy Everyteen"
```

GIT COMMANDS

```
git status
```

```
git add filename
```

```
git commit
```

```
git commit -a -m "comment"
```

```
git fetch
```

```
git pull
```

```
git push
```

GIT CLONE

Create Directory "Classes"

```
mkdir Classes
```

```
cd Classes
```

Clone the repository

```
git clone https://github.com/ThomasK81/IntroDH.git
```

Status

```
git status
```

GIT COMMIT -M “ECPLICATIVE”

	COMMENT	DATE
O	CREATED MAIN LOOP & TIMING CONTROL	14 HOURS AGO
O	ENABLED CONFIG FILE PARSING	9 HOURS AGO
O	MISC BUGFIXES	5 HOURS AGO
O	CODE ADDITIONS/EDITS	4 HOURS AGO
O	MORE CODE	4 HOURS AGO
O	HERE HAVE CODE	4 HOURS AGO
O	AAAAAAA	3 HOURS AGO
O	ADKFJSLKDFJSDFKLJ	3 HOURS AGO
O	MY HANDS ARE TYPING WORDS	2 HOURS AGO
O	HAAAAAAAAANDS	2 HOURS AGO

AS A PROJECT DRAGS ON, MY GIT COMMIT MESSAGES GET LESS AND LESS INFORMATIVE.

MARKDOWN

QUESTIONS?

