

DATA 120

GIT(1)

Git Manual

GIT(1)

NAME

git - the stupid content tracker

SYNOPSIS

```
git [-v | --version] [-h | --help] [-C <path>] [-c <name>=<value>]
[--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
[-p|--paginate|-P|--no-pager] [--no-replace-objects] [--bare]
[--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
[--super-prefix=<path>] [--config-env=<name>=<envvar>]
<command> [<args>]
```

DESCRIPTION

Git is a fast, scalable, distributed revision control system with an unusually rich command set

that provides both high-level operations and full access to internals

.

See **gittutorial(7)** to get started, then see **giteveryday(7)** for a useful minimum set of commands.

The **Git User's Manual**[1] has a more in-depth introduction.

Have you interacted with github before?

- Some webpages use github for hosting. Git manages the source files and github serves the HTML.
- Many software / data projects use github landing pages as the homepage of their project.
- Because github has free hosting, you can put stuff up there, as long as it isn't too big.
- Some organizations use github to manage and distribute some of their "content" .. like class notes, textbooks, and websites.

This "install pattern" may be familiar to some of you:

git clone

http://github.com/someone/something

cd something

./configure

make build

sudo make install

```
git clone  
http://github.com/  
someone/something
```

Download a (compressed file containing) a directory and all its contents from the web.

```
cd something
```

Change PWD to something.

```
./configure
```

Run the package-provided "configure" command.

```
make build
```

Run the shell scripts buried inside Makefile that do "build" whatever that is.

```
sudo make install
```

Ask the OS for more privileges and run the shell scripts that create the "install" target.

```
git clone  
http://github.com/  
someone/something
```

Download a (compressed file containing) a directory and all its contents from the web.

```
cd something
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Change PWD to something.

```
./configure
```

Run the package-provided "configure" command.

When you install something on your laptop, commands like these are running in a shell where you can't see the output / error messages / progress.

```
sudo make install
```

Ask the OS for more privileges and run the shell scripts that create the "install" target.

Version control

- Database of content + changes + metadata.
- Have you ever used the editor's "undo" button?
- But undo is only one application, and it's not the one that motivates software monkeys to use VCS.



☰ Abortion in the United States

文 A 9 languages ▾

Article Talk

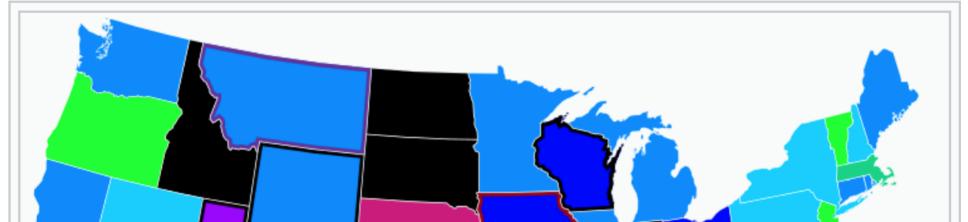
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Compare selected revisions

- (cur | prev)  22:09, 2 January 2024 OAbot (talk | contribs) m .. (248,176 bytes) (+24) .. (*Open access bot: pmc updated in citation with #oabot.*)
- (cur | prev)  13:21, 9 December 2023 Hekerui (talk | contribs) .. (248,152 bytes) (-249) .. (*restructure for legibility, use plain links, rm redundancy*) ([thank](#))
- (cur | prev)  00:19, 7 December 2023 Citation bot (talk | contribs) .. (248,401 bytes) (+47) .. (*Add: date, pages, issue. I Use this bot. Report bugs. I Suggested by Andrevan I #UCB_toolbar*)
- (cur | prev)  23:06, 6 December 2023 David Eppstein (talk | contribs) .. (248,354 bytes) (+28) .. ([Holly Shulman](#)) ([thank](#))
- (cur | prev)  01:53, 24 November 2023 GreenC bot (talk | contribs) .. (248,326 bytes) (+207) .. (*Rescued 1 archive link. Wayback Medic 2.5*)
- (cur | prev)  01:55, 14 November 2023 Avatar317 (talk | contribs) .. (248,119 bytes) (+811) .. (*→Safety of abortions: Update mortality rate from 2022 CDC.*) ([thank](#))
- (cur | prev)  04:49, 13 November 2023 KlayCax (talk | contribs) .. (247,308 bytes) (-24) .. ([thank](#)) (*Tag: Visual edit*)
- (cur | prev)  06:48, 12 November 2023 AndAllForWhat? (talk | contribs) .. (247,332 bytes) (+100) .. ([thank](#))
- (cur | prev)  16:39, 8 November 2023 Mad Mismagius (talk | contribs) .. (247,232 bytes) (-17) .. (*better burger image*) ([thank](#))

- Wikipedia's revision history database is exactly what it looks like.
- DATE, AUTHOR, USER-PROVIDED COMMENT.
 - Why?

When your content is text, you can report differences "diff's in a helpful way:

Revision as of 09:48, 8 November 2023 (view source)

Malcolmmwa (talk | contribs)

(Tags: Reverted, Visual edit)

← Previous edit

Revision as of 09:50, 8 November 2023 (view source) (thank)

Parksfan1955 (talk | contribs)

(Reverting edit(s) by Malcolmmwa (talk) to rev. 1184062975 by

RenewIR: Not providing a reliable source (RW 16.1))

(Tags: RW, Undo)

Next edit →

Line 9:

{{abortion map of the United States}}

The [[United States]] is a global [[outlier]] among [[Developed country|developed countries]] on the issue of [[abortion]], with the subject being divisible in [[American politics]] and [[culture war]]s to an extent not found elsewhere. However, the majority of American voters across all parties favor abortion rights, as indicated by statewide referendums. There are widely different [[abortion laws in U.S. states|abortion laws depending on state]].<ref>{{Cite web |last=Staff |date=2022-06-24 |title=Roe Abolition Makes U.S. a Global Outlier |url=https://foreignpolicy.com/2022/06/24/roe-v-wade-overturned-global-abortion-laws/ |access-

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Editing a document with five authors.

- Uncontrolled; everyone has read/write access to the official version of the document on the server.
- "Hot potato" method: Sarah has control of the document on Monday, then gives the document to Jason, who gives it to Stephanie on Wednesday...
- "star merge" method. The spokesperson solicits modified versions from the other four authors and merges all the changes herself.

But why VCS again?

- A database to track changes is a lot of hassle.
(Take my word for it? It's a lot of hassle)
- How do you combine the inputs of multiple people working on the same document/project/codebase?
- When multiple people have read/write access to a common digital resource, how do you know what to do when something gets messed up?
- When you have something that used to work, and then you fixed something, and now it doesn't work anymore, how do you find the change that broke it?

Can you restate those as benefits?

- VCS tells you who did what and who gets credit (blame) or responsibility (expertise) to fix mishaps.
- VCS facilitates rewinding multi-file software / document projects to previous versions. Maybe mistakes were made; you can think of this as a supercharged undo button.
- VCS facilitates combining contributions from different people. When the contributions don't interact with each other, merging is automatic.

git vs. github

- git is the no-frills text-interface system to allow you to bless your changes and commit them to THE RECORD. **git does not automatically decide when changes should be added**, you have to do this yourself.
- github is the startup-company-acquired-by-microsoft that puts web-based file browsing, editing, downloads, storage, typesetting, documentation, and has social media aspects to it. (Invite your friends! Star your favorites! Your content will feed Microsoft's LLMs...).
- Bitbucket, a competitor, also provides free hosting for git; it has a less flashy interface.

This and that

- Once upon a time (2005), there were a handful of version control systems.
- Centralized VCS: cvs, svn, whatever mediawiki uses
- Distributed VCS: mercurial, git.
- Now everybody uses git.
- Don't forget, programming is a social endeavor.



<https://github.com/nomic-ai/gpt4all>

nomic-ai / gpt4all

Type to search | > | + | ⌂ | ⌂ | ⌂ | ⌂

Code Issues 302 Pull requests 28 Discussions Actions Projects 1 Security Insights

 gpt4all Public Watch 596 Fork 6.6k Star 59.5k

main ▾ 253 Branches 12 Tags Go to file Add file Code

manyoso	Bump the version for our next release.	233f0c4 · 4 days ago	1,569 Commits
.circleci	fix/macm1ts (#1746)	last month	
.github	issue template: remove "Related Components" section	3 months ago	
gpt4all-api	Refactor engines module to fetch engine details	2 months ago	
gpt4all-backend	Explicitly clear the kv cache each time we eval tokens to ...	last week	
gpt4all-bindings	app.py: add --device option for GPU support (#1769)	3 weeks ago	
gpt4all-chat	Bump the version for our next release.	4 days ago	
gpt4all-docker	mono repo structure	9 months ago	
gpt4all-training	gpt4all-training: delete old chat executables	3 months ago	
.codespellrc	make codespell happy again (#1574)	3 months ago	
.gitignore	Update .gitignore and Dockerfile, add .env file	2 months ago	
.aitmodules	remove old llama.cpp submodules	3 months ago	

About

gpt4all: open-source LLM chatbots that you can run anywhere

[gpt4all.io](#)

Ilm-inference

Readme

MIT license

Activity

59.5k stars

596 watching

6.6k forks

Report repository

Releases 6

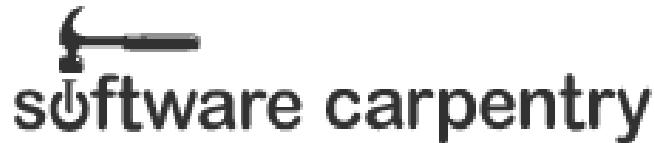
v2.5.4 Latest on Nov 21, 2023

+ 5 releases

To manage a directory full of files.. we need more than just wikipedia's history.

- When we tell git that we have made changes, git will faithfully preserve what we tell it to.
- Changes can involve one or more files at once.
- Changes must have a comment. We're talking to the future here.
- Anything that you put into git that you don't like can be undone, up to the point that someone else has their changes on their laptop (that is outside of your control). Finding out the magic words to undo XXX sometimes requires a search engine.

...tutorial time...



Version Control with Git

- <https://swcarpentry.github.io/git-novice/key-points.html>
- <https://learngitbranching.js.org> has a git video game...