

Deal with (g)it

Top 5 tips to make the best out of (g)it



#1 Sign your commits

Make visible you are the real owner of a commit.



Code Issues 4 Pull requests Actions Projects Security ...

main ▾

Commits on Jan 10, 2022

README more like read deez nuts
torvalds committed on Jan 10, 2022

4 f0326ef ↗

Commits on Dec 24, 2021

Rename files
torvalds committed on Dec 24, 2021

16 8f991f9 ↗

Commits on Dec 5, 2021

 Follow torvalds Linus Torvalds

Portland, OR
Committed to this repository

iously skeptical

13 0bb33e3 ↗

torvalds committed on Nov 23, 2021

when the whitespace sus
torvalds committed on Nov 22, 2021

12 5eaa2b0 ↗

Commits on Oct 31, 2021

UwU
torvalds committed on Oct 31, 2021

27 dbed716 ↗

Commits on Oct 30, 2021

sussy little baka uwu
torvalds committed on Oct 30, 2021

118 4f503a0 ↗

Are these commit from Linus?

- this is a real github repo
- these are real commits

GitHub: Amog-OS/AmogOS

Fellow linux redditors may know this already

Anyone can be Linus!

- git config is not verifying anything

So you can set up your local config ...

```
git config --global user.name "torvalds"  
git config --global user.email "torvalds@osdl.org"
```

... and be Linus:

```
touch proof  
git stage proof  
git commit -m "I am Linus!"
```

... at least that's what it's going to look like

Commits on Jan 24, 2023

chore: Remove PR template	Verified	1ed42c0	🔗
chore(issues): Add new bug report template	Verified	cf9a9ec	🔗
chore(issues): Add new feature request template	Verified	834ac2d	🔗

Commits on Jan 23, 2023

ci: replace github release orb with github cli	Verified	8b4e8a1	🔗
--	--------------------------	-------------------------	-------------------

Commits on Nov 8, 2022

docs: Add FOSSA badge	Verified	55958	🔗
-----------------------	--------------------------	-----------------------	-------------------

Commits on Oct 14, 2022

chore(sonar): Add config	Verified	refad6d	🔗
docs: Add sonarcloud badges	Verified	e7adce8	🔗
chore: Align tests with go conventions	Verified	08fd2b8	🔗

Commits on Sep 18, 2022

docs: Add dependabot badge	Verified	753af63	🔗
----------------------------	--------------------------	-------------------------	-------------------

Verified commits to the rescue!

- signed with [GPG](#)
- visible on all git hosting platforms
- checkable with the git cli

GPG stands for GNU Privacy Guard and is a free tool to sign and encrypt things

Setting it up is easy - 3 steps to victory

1. create a [GPG key \(Tutorial\)](#)
2. add the key to your user profile on the git hosting platform (e.g. [GitHub](#))
3. configure your local git installation:

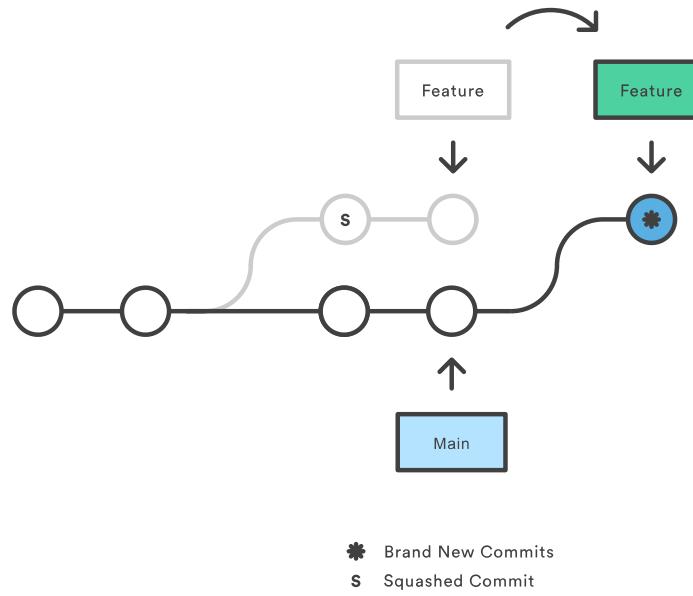
```
# set gpg key  
git config --global user.signingkey <key-id>  
  
# autosign commits  
git config --global commit.gpgsign true
```

Alternative: Use [GPG Key Creation Assistant](#) - created by me

#2 Keep your history clean

| accountants don't use erasers or they end up in jail

But luckily we are not accountants!



Squash your feature branches

- powerful feature allowing you to combine multiple commits
- supported by git hosts such as GitHub/GitLab on PRs

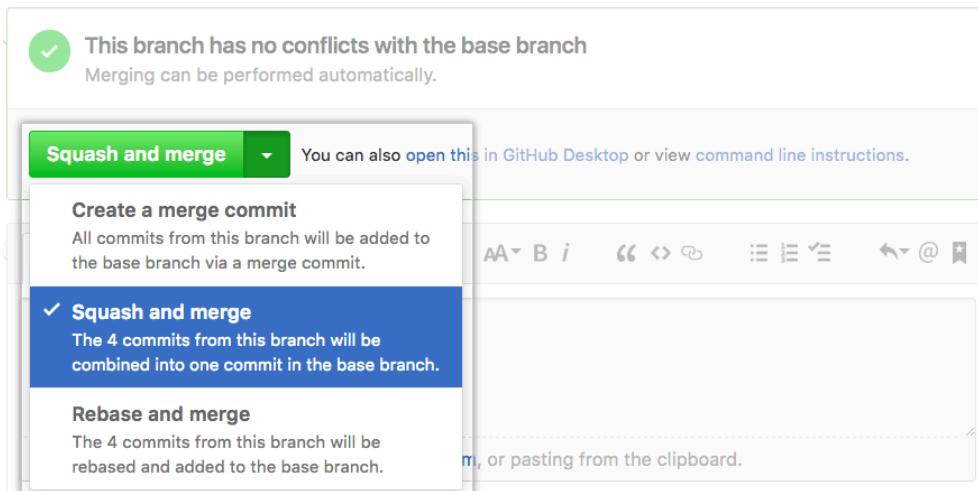
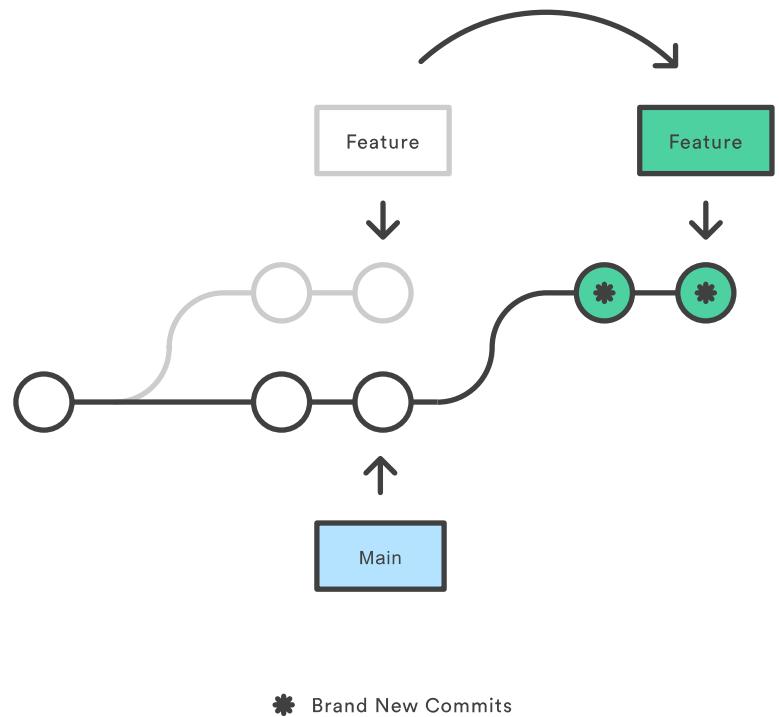


Image for git squash: atlassian.com



Rebase your changes

- local repo is not up to date
- main branch has evolved faster than feature branch
- smaller changes most of the time don't need to be merged

#3 Simplify your daily life

Git and your shell has more to offer than just builtin commands!

Add helper tools

- any command that's prefixed with `git-` can be a git command
- `git-semver-tag` becomes `git semver-tag`

Create alias in your git config

- entire shell command
- another subcommand

e.g. here are mine:

```
[alias]
p = pull
squash-all = "!f(){ git reset $(git commit-tree HEAD^{tree} -m \"${1:-A new start}\");};f"
sync = "f() { git pull --rebase && git push; };f"
```

Alias entire git commands

- for the extreme lazy
- add to your shellrc

```
# use gpush  
alias gpush = "git push"
```

```
# use commit "my message"  
alias commit = "git stage . && git commit -m"
```

#4 Use branches and tags wisely

Nothing is immutable by default.

Choose the right branching concept

- trunk based development is a valid choice
- build your workflow around the real world, not some theory
- committing to the main branch is not (always) a sin
- be creative and think out of the box
- don't see branching concepts as a religion

Tags are not immutable

- tags can be changed and deleted, making them also work as pointers
- that can break dependency pins
- only unique thing in git are commit hashes

#5 Rely on conventions

Who doesn't love conventions?

Commit with respect to conventional commits

- be specific about your impact
- short and concise description
- explain details in the body

The format is super simple:

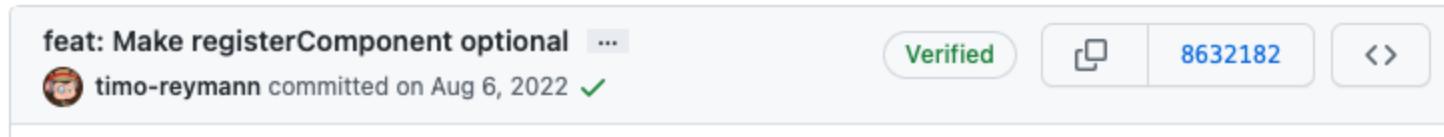
```
<type>[(optional scope)]: <description>
```

```
[optional body]
```

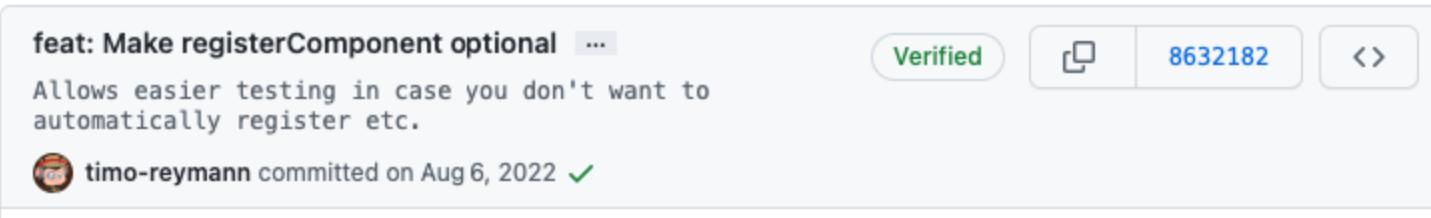
```
[optional footer(s)]
```

Use the commit body

- the commit can have a body, use it when required
- collapses by default in web UIs and toolings
 - when viewing the history:



- after clicking on the dots:



Use Conventional Comments on PRs

- no more undertone in your comments
- clear scope and less words to type and read
- take time for praise as well

The format, again, is super simple:

```
<label> [(decorations)]: <subject>
```

```
[discussion]
```

Recap

- sign your commits with GPG
- keep the history clean, dont hesitate to use erasers
- make your daily life easier with git and shell alias as well as third party packages and scripts
- be aware tags and branches are mutable all the way, only reliable thing are commit hashes
- use conventions for commits and PRs, don't forget about the message body



Q&A

Questions, concerns, ideas? - Now is the time

That's (g)it

Slides (Source):

[github/timo-reymann/slides-deal-with-git](https://github.com/timo-reymann/slides-deal-with-git)

Slides (HTML):

deal-with-git.slides.timo-reymann.de

Twitter: [@timo_reymann](https://twitter.com/timo_reymann)

GitHub: [timo-reymann](https://github.com/timo-reymann)

In case of fire



- ➊ 1. git commit
- ➋ 2. git push
- ➌ 3. leave building

