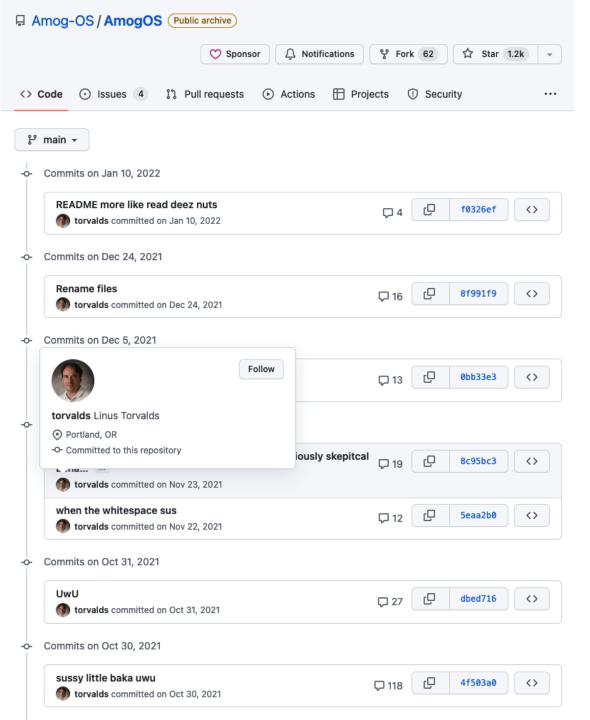
Deal with (g)it

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.



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

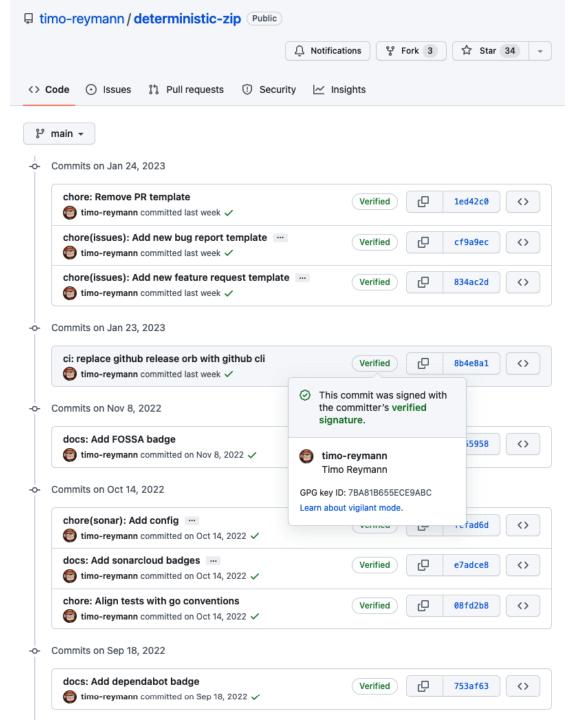
So you can set up your local config ...

```
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 thats what its going to look like



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

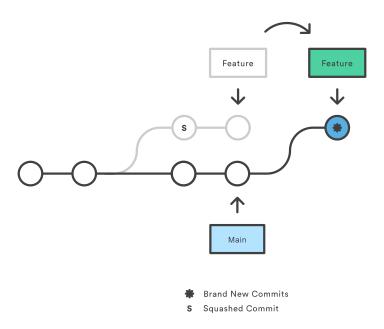
- 1. create a GPG key (Tutorial)
- 2. add the key to your user profile on the git hosting platform (e.g. GitHub)
- 3. configure your local git installation:

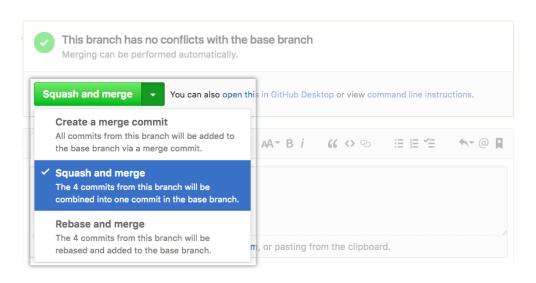
```
git config --global user.signingkey <key-id>
```

#2 Keep your history clean

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

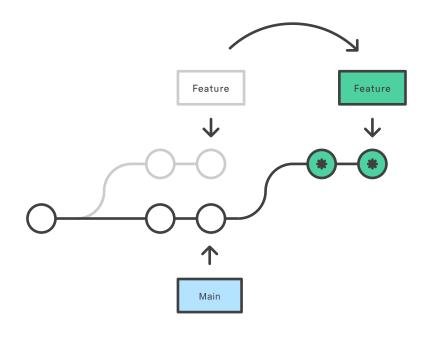
But luckily we are not accountants!





Squash your feature branches

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



* Brand New Commits

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 thats 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 pointer
- 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

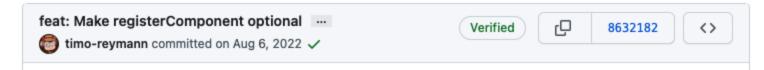
- be specific about your impact
- short and concise description
- explain details in the body

The format is super simple:

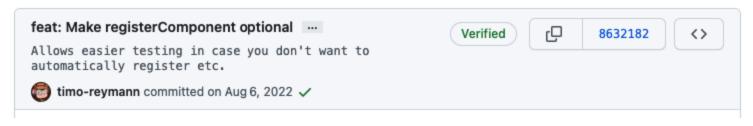
```
<type>[(optional scope)]: <description>
[optional body]
[optional footer(s)]
```

Use the commit body

- the commit can have a body, use it when required
- collapses by default in web Uls 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 it

Slides (Source):

github/timo-reymann/slides-deal-with-git

Slides (HTML):

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

Twitter: @timo_reymann

GitHub: timo-reymann

In case of fire





3. leave building