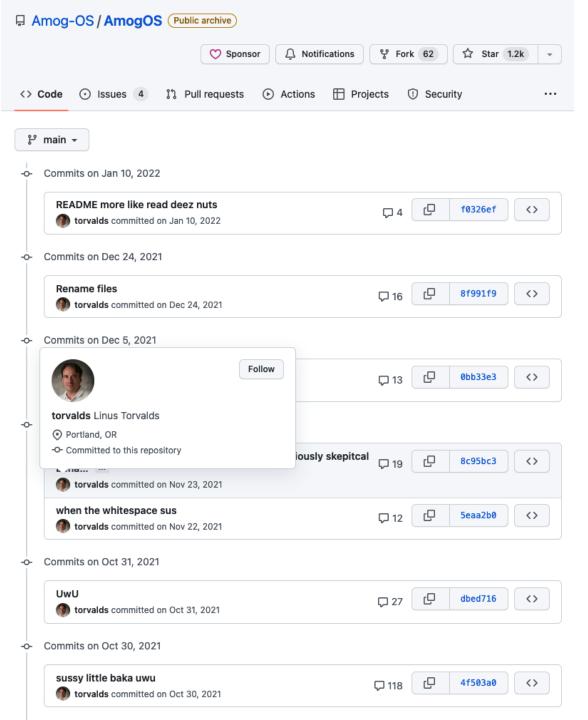
# Deal with (g)it

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

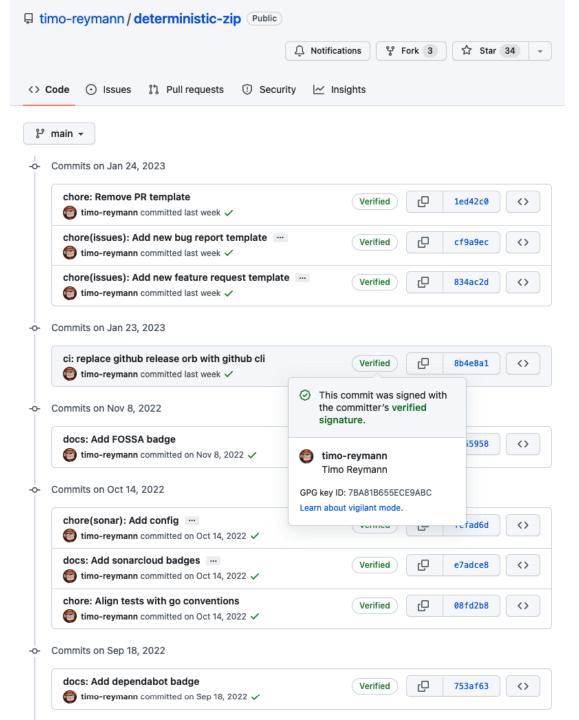
So you can set up your local config ...

```
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:

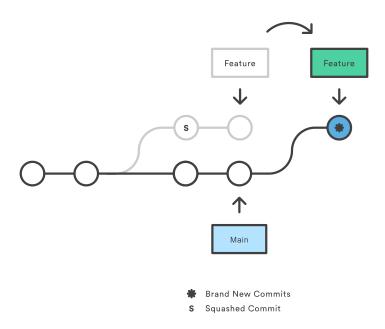
```
# set gpg key
git config --global user.signingkey <key-id>
# autosign commits
git config --global commit.gpgsign true
```

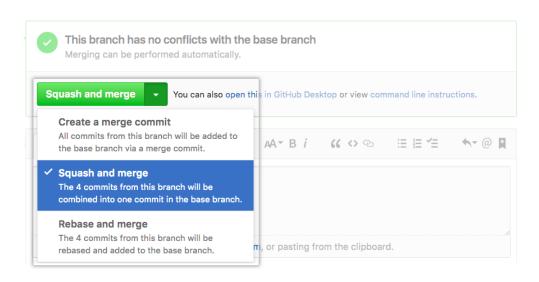
Alternative: Use GPG Key Creation Assitant - created by me

# #2 Keep your history clean

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

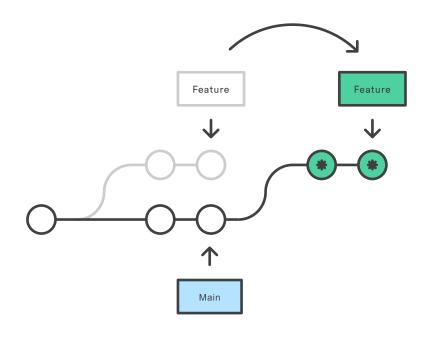
But luckily we are not accountants!





# Squash your feature branches

- powerful feature allowing you to combine multiple commits
- supported by git 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
- commiting 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

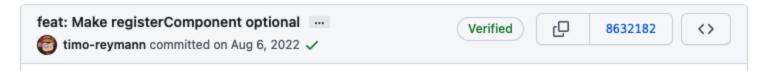
- be specific about your impact
- short and concise description
- explain details in the body

#### The format is super simple:

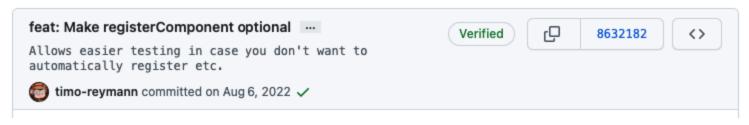
```
<type>[(optional scope)]: <description>
[optional body]
[optional footer(s)]
```

## 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, don't 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

Slides (HTML):

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

Twitter: @timo\_reymann

GitHub: timo-reymann

# In case of fire

- -0- 1. git commit
- 2. git push
- 3. leave building