

# VERSION CONTROL WITH GIT

## ROB'S TECHNICAL SEMINAR

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# Outline

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- What is version control? Why is it useful?
- Why git(hub)?
- Advantage = Disadvantage?
- How git works
- How to get it
- How to use it
- What to do after the seminar



What is version control?  
Why is it useful?

# What is version control? Useful?

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- Everyone is developing code
- **Backups...**
- Why did the code run but now not?
- Why did I do that?
- „Werewolf“ effect (beer, coffee, sleep...)
- Working with different computers and users (Dropbox?)
- Reproducing data with old scripts?
- Conflicts?

# What is version control? Useful?

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- CVS / SVN / GIT
- Backups with history
- See changes between different versions
- Why did I do that? Comments! Explain what you did! At least YOU have to understand it!
- Why not Dropbox? You are working with the same files!
- You can easily use an older version!
- Take one day to get to know it! It helps!!!



Why git(hub)?

# Why git?

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- Git is free, not depending on local staff
- Can be on your own server or on e.g. github
- Easy to learn, very fast.
- If a file changes, only the differences are transferred (especially for long scripts...)!
- Changes can be committed (reported) on your own machine! Later sync with server (not possible with svn).
- Different users? Different branches!
- Releases

# Why github?

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- Online readable access to textfiles
- Issues
- Pull requests
- Wikipage
- Pulse / statistics (How much did I really work?)
- Checking out other repositories, perhaps someone already did something (similar) you want to do...



The image features a decorative header with two horizontal bars. The left bar is orange and the right bar is blue. The text "Advantage = Disadvantage?" is centered in white on the blue bar.

Advantage = Disadvantage?

# Advantage = Disadvantage?

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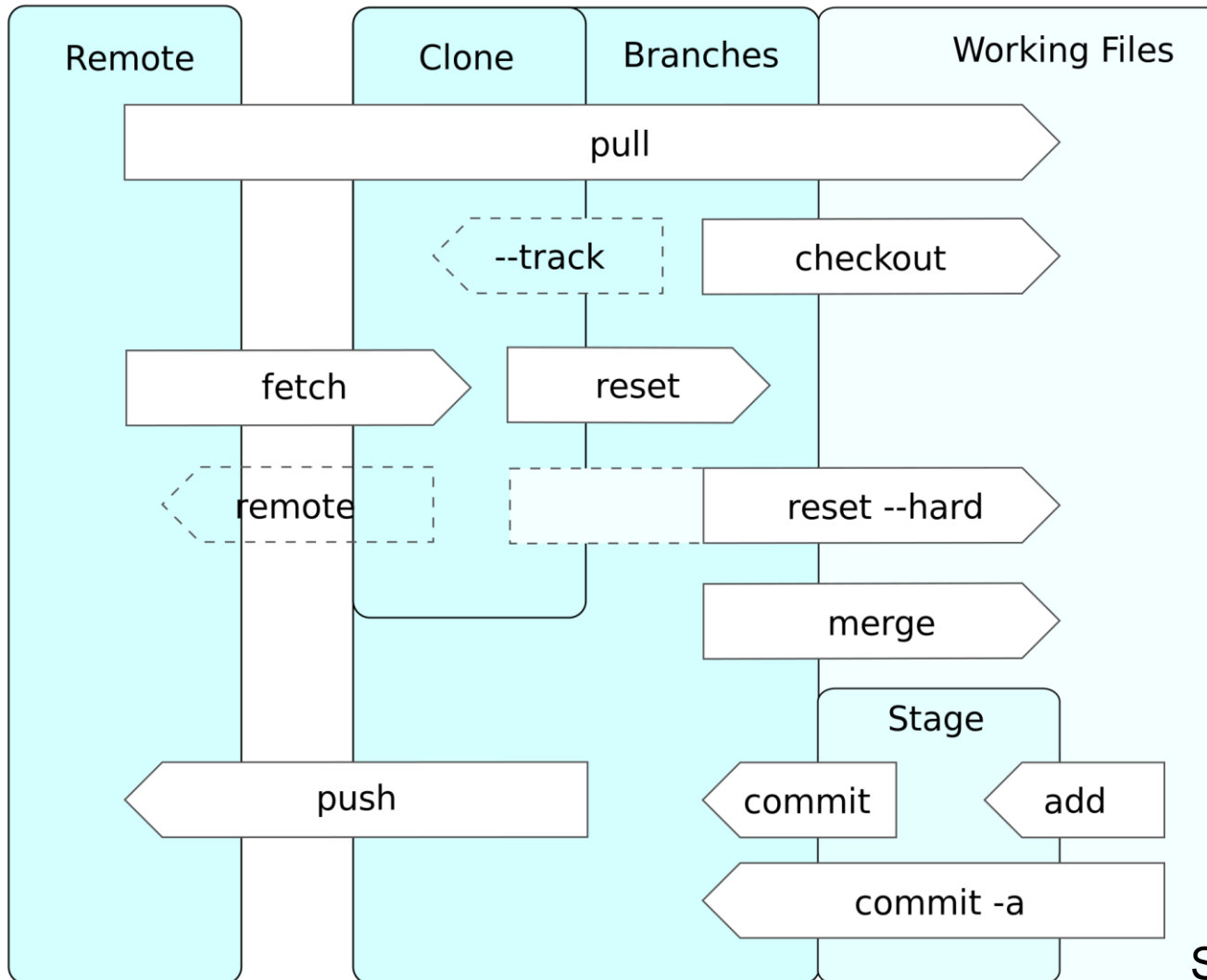
- On github all projects are freely available but „closed“ repositories are available for money.
- Statistics mean too much „control“



# How git works

# How git works

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Source: Wikipedia



How to get it

# How to get it

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- Already installed at AlfA!
- Otherwise: Check your software center, it's not hard!



# How to use it

# How to use it

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- ❑ `git clone` : Clone a repository from source
- ❑ `git add [FILE]` : Add a file that is under version control
- ❑ `git commit` : Commit to repository with a comment
- ❑ `git push` : Copy all changes to server
- ❑ `git pull` : Get all changes to local machine
- ❑ `git tag -a [VERSION]` : Tag a version





# What to do after the seminar

# What to do after the seminar

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- Take a coffee
- Go to your computer
- Go to <http://www.github.com>
- Create an account
- Create a repository
- Start working with it
- Enjoy!

See also: <http://git.or.cz/course/svn.html>

# Questions?

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