Git Cheat Sheet

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Basics

Use git help [command] if you're stuck.

default devel branch master origin default upstream branch

HEAD current branch HEAD^ parent of HEAD

HFAD~4 great-great grandparent of HEAD from branch foo to branch bar foo..bar

Create

From existing files

ait init git add .

From existing repository

git clone ~/old ~/new git clone git://... git clone ssh://...

View

git status git diff [oldid newid] git log [-p] [file|dir] git blame file git show id (meta data + diff) git show id:file git branch (shows list, * = current)

git tag -l (shows list)

Update

git fetch (from def. upstream)

git apply patch.diff

browse

status

log

blame

show

diff

In Git, commit only respects changes that have been marked explicitly with add.

Publish

git commit [-a]

create

init

clone

(-a: add changed files automatically)

git format-patch origin

(create set of diffs)

git push remote

(push to origin or remote)

git tag foo

(mark current version)

git fetch remote

git pull (= fetch & merge)

git am -3 patch.mbox

Forward-port local changes to

git remote add URL

for this tree

Temporarily set aside changes

(there's more to it)

aitk

Tk GUI for Git

Useful Tools

git archive

change

mark changes

to be respected

by commit:

add

Create release tarball

ait bisect

Binary search for defects

git cherry-pick

Take single commit from elsewhere

revert

reset

checkout

revert

update

pull

fetch

merge

am

git fsck

Check tree

git gc

Compress metadata (performance)

git rebase

remote branch

Register a new remote repository

git stash

git tag

Revert

In Git, revert usually describes a new commit that undoes previous commits.

git reset --hard (NO UNDO) (reset to last commit)

git revert branch

git commit -a --amend

(replaces prev. commit)

git checkout id file

Branch

git checkout branch

(switch working dir to branch)

git merge branch (merge into current)

git branch branch (branch current)

git checkout -b new other

(branch new from other and switch to it)

Conflicts

Use add to mark files as resolved

git diff [--base] ait diff --ours git diff -- theirs git log --merge gitk --merge

Tracking Files

branch

checkout

branch

git add files

ait my old new

ait rm files git rm --cached files

(stop tracking but keep files in working dir)

Structure Overview

(left to right) Command Flow

commit

commit

push

push

format-patch

