

GIT QUICK REFERENCE CARD

QRC of most often used GIT commands – Version v1.1 May 2014

Main commands

add..... Add file contents to the index	-A [:/] adds all file changes including deletions to the staging area [for the whole tree]	-f allow adding otherwise ignored files	-p choose hunks of patch between the index and the work tree and add them to the index
am..... Apply a series of patches from a mailbox	archive..... Create an archive of files from a named tree		
bisect..... Find by binary search the change that introduced a bug	e.g. search for existence of file in last commits: bisect run test -f file.txt		
branch..... List, create, or delete branches	-a lists all branches including the remote branches	-d delete ...branch	-m rename branch: ...old_name new_name
	-v lists more information about the branches		
bundle..... Move objects and refs by archive			
checkout..... checkout a branch or paths to the working tree (prepend -- before path to avoid ambiguity).	-b create a branch new_name and switch to it instantly	e.g. restore working tree and reset index: checkout HEAD - - dir	
cherry-pick. can be used to change order of commits			
citool..... Graphical alternative tocommit			
clean..... Remove untracked files from the working tree	-f force (required!)		
	-x include hidden files	-d directories as well	--ff only update the branch pointer, without creating a merge commit (default)
clone..... Clone a repository into a new directory			
commit..... Record changes to the repository	-a adding changes of files known by the Git repository to the commit	-m Set comment for commitment – correct it with prepending --amend to argument	mv..... Move or rename a file, a directory, or a symlink
describe..... Show the most recent tag that is reachable from a commit			
diff..... Show changes between commits, commit and working tree, etc.	--cached compare stage area with last commit	notes..... Add/inspect commit notes	pull..... Fetch from and merge with another repository or a local branch
	fetch..... Download objects and refs from another repository	push..... Update remote refs along with associated objects	e.g. delete branch in remote repo called origin: push origin :testbranch
format-patch Prepare patches for e-mail submission	gc..... Cleanup unnecessary files and optimize the local repository	rebase..... Forward-port local commits to the updated upstream head	-i rebase interactively
grep..... Print lines matching a pattern	gui..... A portable graphical interface to Git	--autosquash	When the commit log message begins with "squash! ..." (or "fixup! ..."), automatically modify the todo list of rebase -i
init..... Create an empty git repository or reinitialize an existing one	log..... Show commit logs (prepend -- before path to avoid ambiguity)	reset..... Reset current HEAD to the specified state (Remove a file from staging area)	--soft move HEAD pointer only
-p show diffs of each commit	--stat precise output with some stats	--mixed resets staging area to new HEAD (default!)	--hard resets staging area and working tree to new HEAD
--abbrev-commit shortend (but unique) SHA-1 values for the commit objects	--oneline show logs as shortened oneliner	revert..... Revert an existing commit	rm..... Remove files from the working tree and from the index
--reverse reverse log-history output	--follow entire history including renames	-r remove recursive – for removing additionally from repo, add --cached *	shortlog..... Summarize git log output
merge..... Join two or more development histories together	-s specify your merge strategy (see man git-merge)	show..... Show various types of objects	stash..... Stash the changes in a dirty working directory away
-X apply option to strategy (eg. ours, theirs)		status..... Show the working tree status	submodule... Initialize, update, add or inspect submodules
		--recurse-submodules	pull changes from main repo + submodules

tag..... Create, list, delete or verify a tag object signed with GPG
gitk..... The git repository browser

Manipulators

config..... Get and set repository or global options
fast-export.. Git data exporter
fast-import.. Backend for fast Git data importers
filter-branch
 Rewrite branches
mergetool... Run merge conflict resolution tools to resolve merge conflicts
pack-refs... Pack heads and tags for efficient repository access
prune..... Prune all unreachable objects from the object database
reflog..... Manage reflog information
relink..... Hardlink common objects in local repositories
remote..... Manage set of tracked repositories
 -v show details about the remotes

 e.g. remove all branches which are not in the remote anymore: remote update --prune

repack..... Pack unpacked objects in a repository
replace..... Create, list, delete refs to replace objects

Interrogators

annotate.... Annotate file lines with commit information
blame..... Show what revision and author last modified each line of a file
cherry..... Find commits not merged upstream
count-objects
 Count unpacked number of objects and their disk consumption
difftool.... Show changes using common diff tools

fsck..... Verifies the connectivity and validity of the objects in the database
get-tar-commit-id
 Extract commit ID from an archive created using archive
help..... Display help information about git
instaweb.... Instantly browse your working repository in gitweb
merge-tree.. Show three-way merge without touching index
rerere..... Reuse recorded resolution of conflicted merges
rev-parse... Pick out and massage parameters
show-branch.. Show branches and their commits
verify-tag.. Check the GPG signature of tags
whatchanged.. Show logs with difference each commit introduces

Interacting with Others

archimport.. Import an Arch repository into git
cvsexportcommit
 Export a single commit to a CVS checkout
cvsimport... Salvage your data out of another SCM people love to hate
cvsserver... A CVS server emulator for git
imap-send... Send a collection of patches from stdin to an IMAP folder
quiltimport.. Applies a quilt patchset onto the current branch
request-pull Generates a summary of pending changes
send-email.. Send a collection of patches as emails
svn..... Bidirectional operation between a Subversion repository and git

Manipulators (plumbing)

apply..... Apply a patch to files and/or to the index

checkout-index
 Copy files from the index to the working tree
commit-tree.. Create a new commit object
hash-object.. Compute object ID and optionally creates a blob from a file
index-pack.. Build pack index file for an existing packed archive
merge-file.. Run a three-way file merge
merge-index.. Run a merge for files needing merging
mktag..... Creates a tag object
mktree..... Build a tree-object from ls-tree formatted text
pack-objects Create a packed archive of objects
prune-packed Remove extra objects that are already in pack files
read-tree... Reads tree information into the index
symbolic-ref Read and modify symbolic refs
unpack-objects
 Unpack objects from a packed archive
update-index Register file contents in the working tree to the index
update-ref.. Update the object name stored in a ref safely
write-tree.. Create a tree object from the current index

Interrogators (plumbing)

cat-file.... Provide content or type and size information for repository objects
diff-files.. Compares files in the working tree and the index
diff-index.. Compares content and mode of blobs between the index and repository
diff-tree... show files which have been changed by last commit
 --name-only
 show only names of files
 -r recursively
for-each-ref Output information on each ref

ls-files Show information about files in the index and the working tree

ls-remote List references in a remote repository

ls-tree List the contents of a tree object

merge-base Find as good common ancestors as possible for a merge

name-rev Find symbolic names for given revs

pack-redundant Find redundant pack files

rev-list Lists commit objects in reverse chronological order

show-index Show packed archive index

show-ref List references in a local repository

unpack-file Creates a temporary file with a blobs contents

var Show a git logical variable

verify-pack Validate packed git archive files

Synching repositories

daemon A really simple server for git repositories

fetch-pack Receive missing objects from another repository

http-backend Server side implementation of Git over HTTP

send-pack Push objects over git protocol to another repository

update-server-info Update auxiliary info file to help dumb servers

Helper commands

http-fetch Download from a remote git repository via HTTP

http-push Push objects over HTTP/DAV to another repository

parse-remote Routines to help parsing remote repository access parameters

receive-pack Receive what is pushed into the repository

shell Restricted login shell for only SSH access

upload-archive Send archive back to archive

upload-pack Send objects packed back to fetch-pack

Internal helper commands

check-attr Display git attributes information

check-ref-format Ensures that a reference name is well formed

fmt-merge-msg Produce a merge commit message

mailinfo Extracts patch and authorship from a single e-mail message

mailsplit Simple UNIX mbox splitter program

merge-one-file The standard helper program to use with merge-index

patch-id Compute unique ID for a patch

sh-setup Common git shell script setup code

strip-space Filter out empty lines

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This TeXfile is based on Gabriel B. Burcas © git-qrc.tex and has then been modified to my own use.