

GIT QUICK REFERENCE CARD

Most frequently 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

⇒ **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

⇒ **restore working tree and reset index:** `checkout HEAD - - dir`

cherry-pick. can be used to change order of commits

citool..... Graphical alternative to **commit**

clean..... Remove untracked files from the working tree

-f force (required!)

-x include hidden files

-d directories as well

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

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

fetch..... Download objects and refs from another repository

format-patch Prepare patches for e-mail submission

gc..... Cleanup unnecessary files and optimize the local repository

grep..... Print lines matching a pattern

gui..... A portable graphical interface to Git

init..... Create an empty git repository or reinitialize an existing one

log..... Show commit logs (prepend **--** before path to avoid ambiguity)

-p show diffs of each commit

--stat precise output with some stats

--abbrev-commit
 shortend (but unique) SHA-1 values for the commit objects

--oneline show logs as shortened oneliner

--reverse reverse log-history output

--follow entire history including renames

--graph show visual timeline

⇒ **show all files that ever existed in HEAD:**
`git log --pretty=format: --name-status | cut -f2- | sort -u`

merge..... Join two or more development histories together

-s specify your merge strategy (see **man git-merge**)

-X apply option to strategy (eg. *ours*, *theirs*)

--ff only update the branch pointer, without creating a merge commit (default)

mv..... Move or rename a file, a directory, or a symlink

notes..... Add/inspect commit notes

pull..... Fetch from and merge with another repository or a local branch

push..... Update remote refs along with associated objects

⇒ **delete branch in remote repo called origin:** `push origin :testbranch`

rebase..... Forward-port local commits to the updated upstream head

-i rebase interactively

--autosquash

 When the commit log message begins with "squash! ..." (or "fixup! ..."), automatically modify the todo list of **rebase -i**

reset..... Reset current HEAD to the specified state (Remove a *file* from staging area)

--soft move HEAD pointer only

--mixed resets staging area to new HEAD (default!)

--hard resets staging area and working tree to new HEAD

revert..... Revert an existing commit

rm..... Remove files from the working tree and from the index

-r remove recursive – for removing additionally from repo, add **--cached ***

shortlog..... Summarize git log output

show..... Show various types of objects

stash..... Stash the changes in a dirty working directory away

status..... Show the working tree status

submodule ... Initialize, update, add or inspect submodules

```
--recurse-submodules
    pull changes from main repo + sub-
    modules
tag..... Create, list, delete or verify a tag ob-
    ject signed with GPG
gitk..... The git repository browser
```

Manipulators

```
config..... Get and set repository or global op-
    tions
--list      show all items in config
--get-regexp
    show given pattern in my configura-
    tion, e.g. 'alias'
--global   write to global ~/.gitconfig file
--system   write to system-wide configuration
--local    to repository's configuration .git/config
⇒          set alias for staged file prompt:  con-
          fig --global alias.staged 'diff --cached'
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 repos-
    itory access
prune..... Prune all unreachable objects from the
    object database
reflog..... Manage reflog information
relink..... Hardlink common objects in local repos-
    itories
remote..... Manage set of tracked repositories
    -v show details about the remotes
⇒          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 ob-
    jects
```

Interrogators

```
annotate.... Annotate file lines with commit infor-
    mation
blame..... Show what revision and author last mod-
    ified 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 cre-
    ated using archive
help..... Display help information about git
instaweb.... Instantly browse your working reposi-
    tory in gitweb
merge-tree.. Show three-way merge without touch-
    ing 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 check-
    out
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 cur-
    rent branch
```

```
request-pull Generates a summary of pending chan-
    ges
send-email.. Send a collection of patches as emails
svn..... Bidirectional operation between a Sub-
    version 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 work-
    ing tree
commit-tree.. Create a new commit object
hash-object.. Compute object ID and optionally cre-
    ates 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 format-
    ted 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 infor-
    mation 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

⇒ list all files for specific branch: ls-tree -r master --name-only

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

<http://github.com/emzap79/QRCS>
emzap79@gmail.com

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