

## GIT QUICK REFERENCE CARD

© 2011 Gabriel Burca - Permissions on back. v1.0 Sep 2011

### Main commands

**add**..... Add file contents to the index

*-A [:/] adds all file changes including deletions to the staging area [for the whole tree]*

**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

**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

*-b create a branch and switch to it at the same time*

**cherry-pick**.. Apply the change introduced by an existing commit

**citool**..... Graphical alternative tocommit

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

**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 - correcting it with adding --amend*

**describe**..... Show the most recent tag that is reachable from a commit

**diff**..... Show changes between commits, commit and working tree, etc.

**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

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

**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

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

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

**revert**..... Revert an existing commit

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

*-r remove dirs 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 or inspect 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*

**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 usingarchive

**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** ... Compares the content and mode of blobs found via two tree objects

**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  
`stripspace ..` Filter out empty lines