

Main Porcelain Commands

add	Add file contents to the index
am	Apply a series of patches from a mailbox
archive	Create an archive of files from a named tree
bisect	Use binary search to find the commit that introduced
a bug	
branch	List, create, or delete branches
bundle	Move objects and refs by archive
checkout	Switch branches or restore working tree files
cherry-pick	Apply the changes introduced by some existing commits
citool	Graphical alternative to git-commit
clean	Remove untracked files from the working tree
clone	Clone a repository into a new directory
commit	Record changes to the repository
describe	Give an object a human readable name based on an
available ref	
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	
gitk	The Git repository browser
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
maintenance	Run tasks to optimize Git repository data
merge	Join two or more development histories together
mv	Move or rename a file, a directory, or a symlink
notes	Add or inspect object notes
pull	Fetch from and integrate with another repository or a
local branch	
push	Update remote refs along with associated objects
range-diff	Compare two commit ranges (e.g. two versions of a
branch)	
rebase	Reapply commits on top of another base tip
reset	Reset current HEAD to the specified state
restore	Restore working tree files
revert	Revert some existing commits
rm	Remove files from the working tree and from the index
shortlog	Summarize 'git log' output
show	Show various types of objects
sparse-checkout	Initialize and modify the sparse-checkout
stash	Stash the changes in a dirty working directory away
status	Show the working tree status
submodule	Initialize, update or inspect submodules
switch	Switch branches
tag	Create, list, delete or verify a tag object signed
with GPG	
worktree	Manage multiple working trees

Ancillary Commands / 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
remote	Manage set of tracked repositories
repack	Pack unpacked objects in a repository
replace	Create, list, delete refs to replace objects

Ancillary Commands / Interrogators

annotate	Annotate file lines with commit information
blame	Show what revision and author last modified each line
of a file	
bugreport	Collect information for user to file a bug report
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	
gitweb	Git web interface (web frontend to Git repositories)
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
show-branch	Show branches and their commits
verify-commit	Check the GPG signature of commits
verify-tag	Check the GPG signature of tags
whatchanged	Show logs with difference each commit introduces

Interacting with Others

archimport	Import a GNU 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	
p4	Import from and submit to Perforce repositories
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	

Low-level Commands / Manipulators

apply	Apply a patch to files and/or to the index
checkout-index	Copy files from the index to the working tree
commit-graph	Write and verify Git commit-graph files
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
multi-pack-index	Write and verify multi-pack-indexes
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, modify and delete 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
Low-level Commands / Interrogators	
cat-file	Provide content or type and size information for repository objects
cherry	Find commits yet to be applied to upstream
diff-files	Compares files in the working tree and the index
diff-index	Compare a tree to the working tree or index
diff-tree	Compares the content and mode of blobs found via two tree objects
for-each-ref	Output information on each ref
for-each-repo	Run a Git command on a list of repositories
get-tar-commit-id	Extract commit ID from an archive created using git-archive
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
rev-parse	Pick out and massage parameters
show-index	Show packed archive index
show-ref	List references in a local repository
unpack-file	Creates a temporary file with a blob's contents
var	Show a Git logical variable
verify-pack	Validate packed Git archive files

Low-level Commands / Syncing 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

Low-level Commands / Internal Helpers

check-attr	Display gitattributes information
check-ignore	Debug gitignore / exclude files
check-mailmap	Show canonical names and email addresses of contacts
check-ref-format	Ensures that a reference name is well formed
column	Display data in columns
credential	Retrieve and store user credentials
credential-cache	Helper to temporarily store passwords in memory

credential-store	Helper to store credentials on disk
fmt-merge-msg	Produce a merge commit message
interpret-trailers	Add or parse structured information in commit messages
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 git-merge-index
patch-id	Compute unique ID for a patch
sh-i18n	Git's i18n setup code for shell scripts
sh-setup	Common Git shell script setup code
strip-space	Remove unnecessary whitespace

External commands

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askyesno
credential-helper-selector
flow
lfs
```

Pattern	Explanation/Matches	Examples
	Blank lines are ignored	
<i># text comment</i>	Lines starting with # are ignored	
<i>name</i>	All <i>name</i> files, <i>name</i> folders, and files and folders in any <i>name</i> folder	/name.log /name/file.txt /lib/name.log
<i>name/</i>	Ending with / specifies the pattern is for a folder. Matches all files and folders in any <i>name</i> folder	/name/file.txt /name/log/name.log

		no match:
		/name.log
<i>name.file</i>	All files with the <i>name.file</i>	/name.file
		/lib/name.file
<i>/name.file</i>	Starting with / specifies the pattern matches only files in the root folder	/name.file
		no match:
		/lib/name.file
<i>lib/name.file</i>	Patterns specifying files in specific folders are always relative to root (even if you do not start with /)	/lib/name.file
		no match:
		name.file
		/test/lib/name.file
<i>**/lib/name.file</i>	Starting with ** before / specifies that it matches any folder in the repository. Not just on root.	/lib/name.file
		/test/lib/name.file
<i>**/name</i>	All <i>name</i> folders, and files and folders in any <i>name</i> folder	/name/log.file
		/lib/name/log.file

		/name/lib/log .file
/lib/**/name	All <i>name</i> folders, and files and folders in any <i>name</i> folder within the lib folder.	/lib/name/log .file
		/lib/test/name e/log.file
		/lib/test/ver1 /name/log.file
		no match:
		/name/log.file
*.file	All files with the . <i>file</i> extension	/name.file
		/lib/name.file
*name/	All folders ending with <i>name</i>	/lastname/log .file
		/firstname/lo g.file
name?.file	? matches a single non-specific character	/names.file
		/name1.file
		no match:
		/names1.file

<i>name[a-z].file</i>	[<i>range</i>] matches a single character in the specified range (in this case a character in the range of a-z, and also be numeric.)	/names.file
<i>e</i>		/nameb.file

no match:

/name1.file

<i>name[abc].file</i>	[<i>set</i>] matches a single character in the specified set of characters (in this case either a, b, or c)	/namea.file
<i>le</i>		/nameb.file

no match:

/names.file

<i>name[!abc].file</i>	[<i>!set</i>] matches a single character, except the ones specified in the set of characters (in this case a, b, or c)	/names.file
		/namex.file

no match:

/namesb.file

<i>*.file</i>	All files with the <i>.file</i> extension	/name.file
		/lib/name.file

<i>name/</i>	! specifies a negation or exception. Matches all files and folders in any <i>name</i> folder, except name/secret.log	/name/file.txt
<i>!name/secret.log</i>		/name/log/name.log

no match:

/name/secret
.log

*.file ! specifies a negation or exception. All files with the .file
extension, except name.file

/log.file

!name.file

/lastname.file

no match:

/name.file

*.file Adding new patterns after a negation will re-ignore a
previous negated file

/log.file

!name/*.file

/name/log.file

junk.* All files with the .file extension, except the ones in name
folder. Unless the file name is junk

no match:

/name/junk.fi
le