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Git Cheatsheet

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Git is one of the, if the not *the*, most popular version control systems available. Originally created by Linus Torvalds to help manage the Linux source code, it's now used by millions of projects across all languages.

Trying to remember all those commands to perform common git tasks can be a bit of a nightmare, so we've created this Git cheat sheet of the most common commands so you can print it out as a quick reference to have at your desk.

Creating Repositories

```
# create new repository in current directory
git init

# clone a remote repository
git clone [url]
# for example cloning the entire jquery repo locally
git clone https://github.com/jquery/jquery
```

Branches and Tags

```
# List all existing branches with the latest commit comment
git branch -av

# Switch your HEAD to branch
git checkout [branch]

# Create a new branch based on your current HEAD
git branch [new-branch]

# Create a new tracking branch based on a remote branch
git checkout --track [remote/branch]
# for example track the remote branch named feature-branch-foo
git checkout --track origin/feature-branch-foo

# Delete a local branch
git branch -d [branch]

# Tag the current commit
git tag [tag-name]
```

Local Changes

```
# List all new or modified files - showing which are to staged to be committed and which are not
git status
```

```
# View changes between staged files and unstaged changes in files
git diff
```

```
# View changes between staged files and files committed to version control
git diff --cached
# only one file add the file name
git diff --cached [file]
```

```
# Add changes to the next commit
```

```
# Add file to the next commit
```

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```
# Remove a file from the next commit
```

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```
# Add changes in < file> to the next commit
```

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```
# Remove a file from the next commit
```

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```
# Add changes in < file> to the next commit
```

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Watch these video's for a demo of git add -p - <http://johnkary.net/blog/git-add-p-the-most-powerful-git-feature-youre-not-using-yet/>
git add -p [file]

Commit all local changes in tracked files
git commit -a
git commit -am "An inline commit message"

Commit previously staged changes
git commit
git commit -m "An inline commit message"

Unstages the file, but preserve its contents

git reset [file]

Commit History

Show all commits, starting from the latest
git log

Show changes over time for a specific file
git log -p [file]

Show who changed each line in a file, when it was changed and the commit id
git blame -c [file]

Update and Publish

List all remotes
git remote -v

Add a new remote at [url] with the given local name
git remote add [localname] [url]

Download all changes from a remote, but don't integrate into them locally
git fetch [remote]

Download all remote changes and merge them locally
git pull [remote] [branch]

Publish local changes to a remote
git push [remote] [branch]

Delete a branch on the remote
git branch -dr [remote/branch]

Publish your tags to a remote
git push --tags

Merge & Rebase

Merge [branch] into your current HEAD
git merge [branch]

Rebase your current HEAD onto [branch]
git rebase [branch]

Abort a rebase
git rebase --abort

Continue a rebase after resolving conflicts
git rebase --continue

Use your configured merge tool to solve conflicts
git mergetool

Use your editor to manually solve conflicts and (after resolving) mark as resolved
git add <resolved- file>
git rm <resolved- file>

Undo

Discard all local changes and start working on the current branch from the last commit
git reset --hard HEAD

Discard local changes to a specific file
git checkout HEAD [file]

Revert a commit by making a new one so you can keep the previous commit
git revert [commit]

Reset your current branch to a previous commit and discard all changes since then
git reset --hard [commit]

Reset your current branch to a previous commit and preserve all changes as unstaged changes
git reset [commit]

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Follow your current branches to a previous commit and preserve staged local changes

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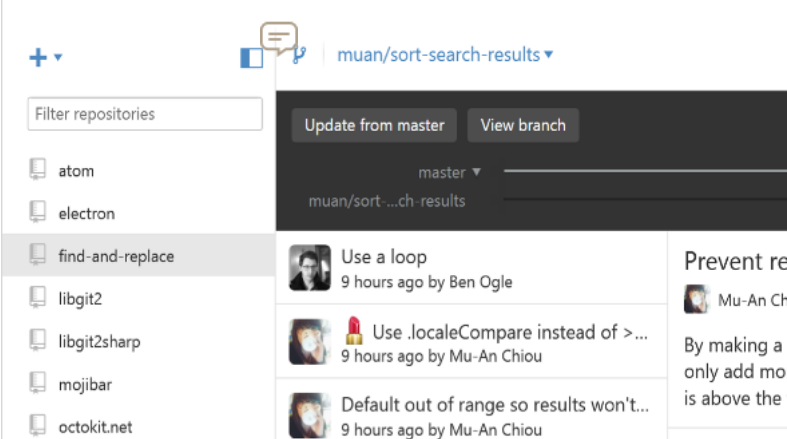
Git UI Clients

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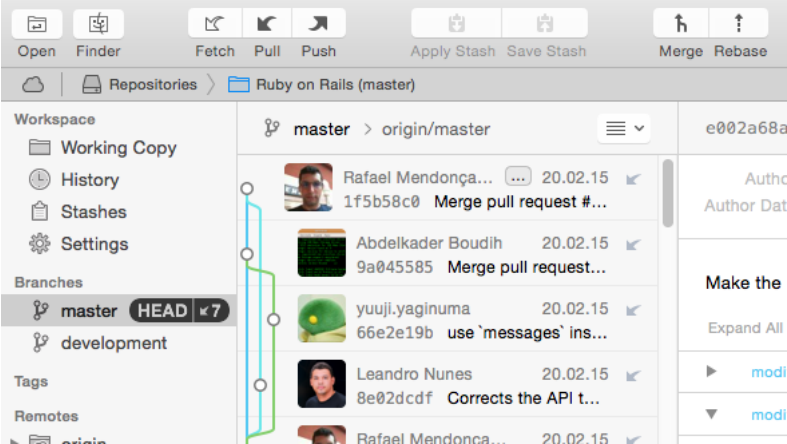
Of course if you're not a command line fan there's plenty of Git UIs you can use:

Github Desktop - Mac, Windows

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Tower - Mac, Windows - \$79



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Commit Pull Push Fetch Branch Merge Stash

WORKSPACE

File status

History

Search

BRANCHES

● master

TAGS

REMOTES

STASHES

SUBMODULES

SUBTREES

All Branches Show Remote Branches Ancestor Ord

Graph	Commit	Author	Description
	0de7467	Mike Minns...	Merge branch 'master' c
	1668ff8	Mike Minns...	Added standalone copy
	406c23d	Joel Unger <...>	Adding sidebar folder ti
	7a7f37c	Joel Unger <...>	Fix bb sizes ... again
	f99d729	Joel Unger <...>	Updated bitbucket and
	86463b7	Mike Minns...	Release 1.0.21 Metadata
	d799d45	Mike Minns...	Resized wizard navigati

Sorted by path

M SourceTree.UI.Theme.Wpf/SolutionInfo.cs

Release 1.0.21 Metadata

Commit: 86463b73674c3b954ca059c69096d...

Parents: [d799d45239](#)

Author: Mike Minns <mminns@atlassian.com>

Date: February 2, 2016 at 3:31:09 PM PST



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Viewing 112/151

LOCAL (7/11)

- fancier-refbar-changes
- fancy-responsive-refbar-it... 42 99+
- graph-color-test
- hopscotch 24 99+
- init-repo-gitignore-typeahead
- invite-system 6 99+
- jars-view-file-history
- master 5
- remote-panel-redesign 15 13
- settings-theme-styling
- view-file-history 24 99+

REMOTE (6/41)

- Jeff-Schinella (0/1)
- Jordan-Wallet (0/7)
- Justin-GK (0/1)
- Ken-Price (0/2)
- Kyle-Smith (2/8)
- Max-Korp (0/2)
- Sjehan-Rajko (0/8)
- ayresa (0/3)
- cbargren (0/5)
- origin (4/4)

TAGS (99/99)

0.1.40

0.1.39

- Fix un/stageall and stashing
- Keep rename detection stage/unstage all
- Bump to version 0.1.40
- Merge pull request #597 from Johnhaley81/fix-dispatc...
- Merge pull request #594 from Mr-Wallet/nicer-ref-nam...
- Fix `waitFor` bug in dispatcher
- Merge pull request #596 from Johndavidsparrow/gh-p...
- Revised custom variable script and switch
- Merge pull request #595 from Johndavidsparrow/gh-p...
- Resolved edge case where RefNodes could overlap
- /universe removal of in-app invite wording
- Bump to version 0.1.39
- Merge pull request #591 from Mr-Wallet/fix-graph-ref...
- Merge pull request #590 from srajko/div-be-gone
- Merge pull request #588 from Mr-Wallet/friendlier-app...
- Merge pull request #589 from Johndavidsparrow/gh-p...
- Merge pull request #592 from implausible/FixNSFW
- JS tidy up in form-validation.js
- Javascript update for /universe
- /universe page
- added maxwait to updateworkdir debounce
- Update NSFW for memory leak
- Fix NSFW segfault
- Fix flickering GraphRefColumn every time ... 6 days ago
- Preventing page reload on default pull click
- Eliminate console spam when conflicts exist in a statel...
- Upgrading to react-bootstrap v0.24.5

npm-shrinkwrap

```
@@ -1,6 +1
1 1
2 2
-3
+3
4 4
5 5
6 6
```

package.js

```
@@ -1,7 +1
1 1
2 2
3 3
-4
+4
5 5
6 6
7 7
```

Anything We Missed?

There's plenty more to Git than that just these commands. What commands or workflows did we miss out? Do you have any suggested tips or tricks too? Let us know in the comments below.

Related tutorials you might be interested in

- [Git Tutorial: 10 Common Git Problems and How to Fix Them](#)
- [Beginner's Guide to Using Git and GitHub](#)
- [Git Rebase Tutorial: Going Back in Time with Git Rebase](#)
- [Supercharging Your Git Productivity](#)

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