

Behaving like a Git and getting away with it

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leelss tumblr



git – The Stupid Content Tracker

"git" can mean anything, depending on your mood.

- random three-letter combination that is pronounceable, and not actually used by any common UNIX command. The fact that it is a mispronunciation of "get" may or may not be relevant.
- stupid. contemptible and despicable. simple. Take your pick from the dictionary of slang.
- "global information tracker": you're in a good mood, and it actually works for you. Angels sing, and a light suddenly fills the room.
- "goddamn idiotic truckload of sh*t": when it breaks

<https://github.com/git/git/blob/e83c5163316f89bfbde7d9ab23ca2e25604af290/README>

DVCS

- Your working repository is a clone
- Changesets are local
- Network connections not required (working on a train is easy)

Getting started

A terminal window with a title bar that reads "demo — bash — 80x24". The window contains the following text:

```
ed@Callisto:~$ git init repo
Initialized empty Git repository in /Users/ed/repo/.git/
ed@Callisto:~$ █
```

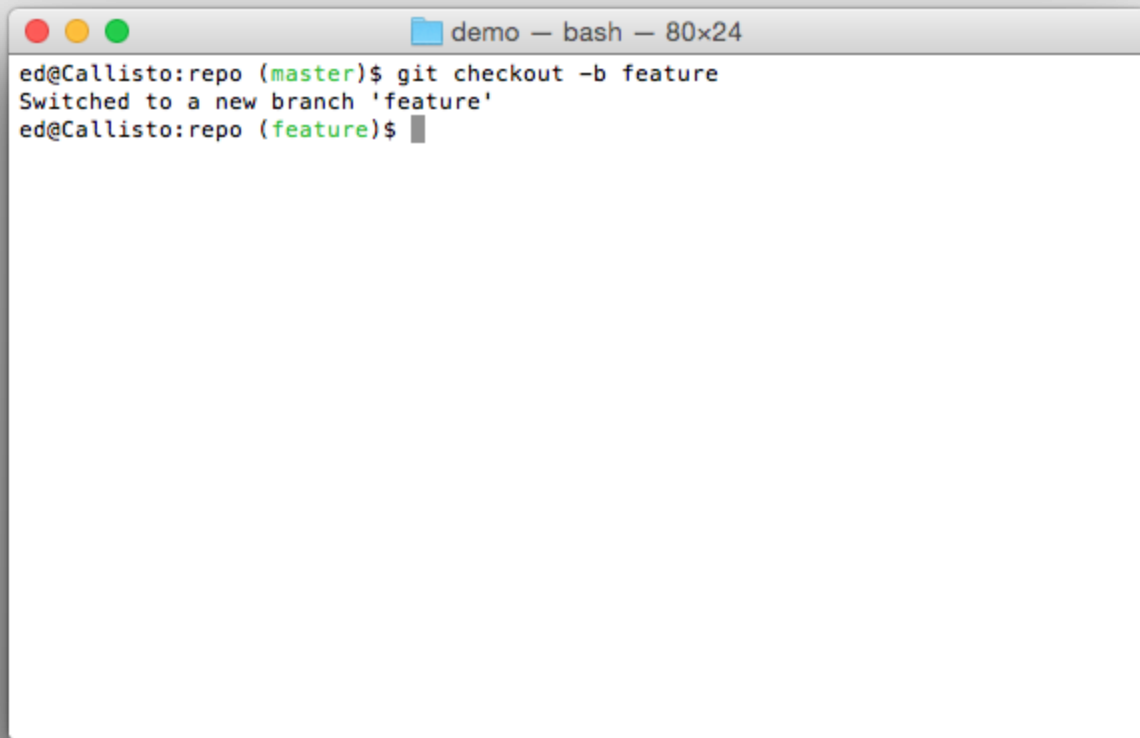


```
demo — bash — 80x24
ed@Callisto:~$ cd repo
ed@Callisto:repo (master)$ git status
On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)
ed@Callisto:repo (master)$
```

Branching and merging

A terminal window with a title bar containing three colored window control buttons (red, yellow, green) on the left and a title "demo — bash — 80x24" on the right. The terminal content shows a user at a shell prompt in a directory named "repo" on a machine named "ed@Callisto". The user enters the command "git checkout -b feature". The terminal outputs "Switched to a new branch 'feature'", and the prompt changes to "(feature)".

```
ed@Callisto:repo (master)$ git checkout -b feature
Switched to a new branch 'feature'
ed@Callisto:repo (feature)$
```



```
demo — bash — 80x24
ed@Callisto:repo (feature)$ for i in {1..20}; do echo "Line $i"; done > numbers
ed@Callisto:repo (feature)$ git add numbers
ed@Callisto:repo (feature)$ git commit -m "Add numbers"
[feature bb3060d] Add numbers
 1 file changed, 20 insertions(+)
 create mode 100644 numbers
ed@Callisto:repo (feature)$
```



```
demo — bash — 80x24
ed@Callisto:repo (feature)$ for i in {1..20}; do echo "Line $i"; done > numbers
ed@Callisto:repo (feature)$ git add numbers
ed@Callisto:repo (feature)$ git commit -m "Add numbers"
[feature bb3060d] Add numbers
 1 file changed, 20 insertions(+)
 create mode 100644 numbers
ed@Callisto:repo (feature)$ for i in {21..40}; do echo "Line $i"; done > morenum
bers
ed@Callisto:repo (feature)$ git add morenumbers
ed@Callisto:repo (feature)$ git commit -m "Add more numbers"
[feature a6e8746] Add more numbers
 1 file changed, 20 insertions(+)
 create mode 100644 morenumbers
ed@Callisto:repo (feature)$ █
```



```
demo — bash — 80x24
ed@Callisto:repo (feature)$ git checkout master
Switched to branch 'master'
ed@Callisto:repo (master)$ git merge feature
Updating 2d6f487..a6e8746
Fast-forward
 morenumbers | 20 ++++++
 numbers     | 20 ++++++
 2 files changed, 40 insertions(+)
 create mode 100644 morenumbers
 create mode 100644 numbers
ed@Callisto:repo (master)$
```


but...


```
demo — bash — 80x24
ed@Callisto:repo (feature)$ git checkout master
Switched to branch 'master'
ed@Callisto:repo (master)$ curl -s http://horseebooksipsum.com/api/v1/ >> README.md
ed@Callisto:repo (master)$ git add README.md
ed@Callisto:repo (master)$ git commit -m "Extended README"
[master db6f3a5] Extended README
 1 file changed, 10 insertions(+)
ed@Callisto:repo (master)$
```

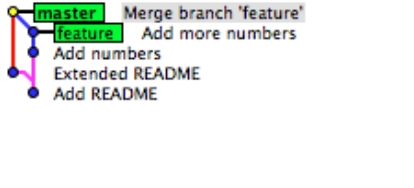


```
demo — bash — 80x24
ed@Callisto:repo (master)$ git merge feature
Merge made by the 'recursive' strategy.
 morenumbers | 20 ++++++
 numbers     | 20 ++++++
 2 files changed, 40 insertions(+)
 create mode 100644 morenumbers
 create mode 100644 numbers
ed@Callisto:repo (master)$
```



```
demo — less — 80x24
*   commit 92580d45556b2a1688c726773b019482f7f67ebf
| \ Merge: db6f3a5 a6e8746
| | Author: Ed Courtenay <ed@edcourtenay.co.uk>
| | Date:   Sun Mar 22 12:56:56 2015 +0000
| |
| | Merge branch 'feature'
| |
*   commit a6e874685c2d640037b1385612a455e51cddb440
| | Author: Ed Courtenay <ed@edcourtenay.co.uk>
| | Date:   Sun Mar 22 12:33:35 2015 +0000
| |
| | Add more numbers
| |
*   commit bb3060dfc91bde4158f29fee4f8c272b4974dd9a
| | Author: Ed Courtenay <ed@edcourtenay.co.uk>
| | Date:   Sun Mar 22 12:32:21 2015 +0000
| |
| | Add numbers
| |
*   commit db6f3a5fa2d9784d8ad21d2a318202c7bbf2efef
| / Author: Ed Courtenay <ed@edcourtenay.co.uk>
| | Date:   Sun Mar 22 12:51:18 2015 +0000
| |
: |
```

gitk: repo



Commit history:

Ed Courtenay <ed@edco	2015-03-22 12:56:56
Ed Courtenay <ed@edco	2015-03-22 12:33:35
Ed Courtenay <ed@edco	2015-03-22 12:32:21
Ed Courtenay <ed@edco	2015-03-22 12:51:18
Ed Courtenay <ed@edco	2015-03-22 12:21:28

SHA1 ID: Row 1 / 5

Find commit containing:

Patch Tree

Diff Old version New version

Comments

Author: Ed Courtenay <ed@edcourtenay.co.uk> 2l
Committer: Ed Courtenay <ed@edcourtenay.co.uk>
Parent: [db6f3a5fa2d9784d8ad21d2a318202c7bbf2ef](#)
Parent: [a6e874685c2d640037b1385612a455e51cddb4](#)
Branch: [master](#)
Follows:
Precedes:

Merge branch 'feature'

HEAD

- A head is simply a reference to a commit object.
- Each head has a name.
 - By default, there is a head in every repository called **master**.
- A repository can contain any number of heads. At any given time, one head is selected as the “current head.” This head is aliased to **HEAD**, always in capitals.

Rebasing

Demo: interactive
rebasing

Forking

Why are line endings a pain?

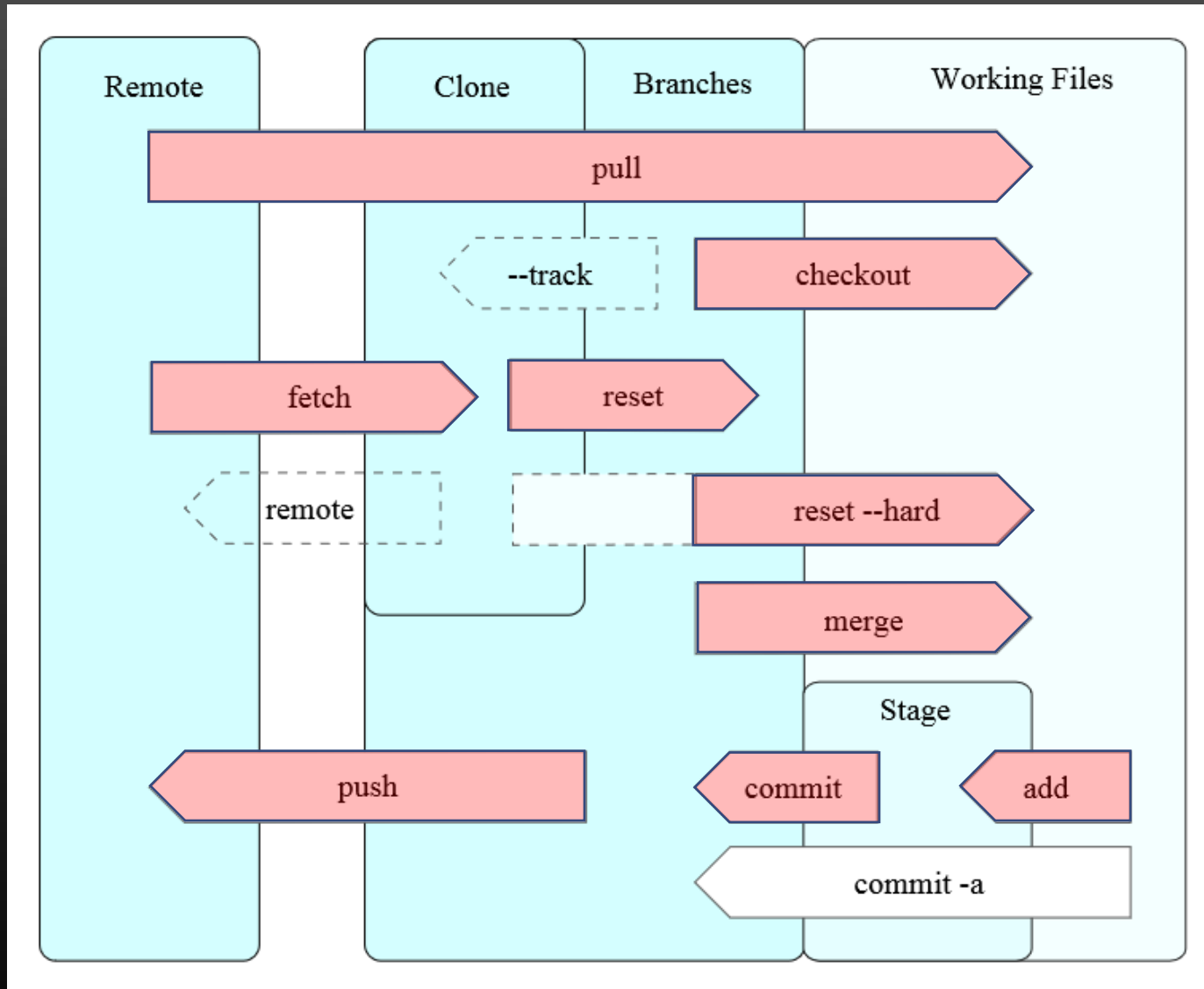
Windows	CR LF
Linux	LF
Mac (old)	CR
OSX/MacOS	LF

```
git config --global core.autocrlf true
```


Demo: aliases

Useful aliases

- wipe
 - `!git add -A && git commit -qm 'WIPE SAVEPOINT' && git reset HEAD~1 -hard`
- undelete
 - `!git checkout $(git rev-list -n 1 HEAD -- "$1")^ -- "$1"`
- hist
 - `log --pretty=format:'%C(yellow)[%ad]%C(reset)
%C(green)[%h]%C(reset) | %C(bold red)%s%C(reset)
%C(red){%an}%C(reset) %C(cyan)%d%C(reset)' --graph --
date=short`



http://upload.wikimedia.org/wikipedia/commons/d/d8/Git_operations.svg

Questions?