

Git, Android Studio, and Beyond

How an open source tool integrates with an open
source platform

A Brief History of Open Source

- Linux
- Git
- The Cathedral and The Bazaar
- The spread of open source
- Android sits on Linux

Where did Linux come from

- Unix
- Linus Torvalds
- Open Source development
- Spread
- Something else

The need for Git

- Former VCS Bitkeeper, proprietary system
- Need for a new VCS with better performance and right functionality
- Developed in 2005
- Many possible origins of the name Git
- About a month to really get up and running and performing the way intended

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 Edit links

Releases [\[edit \]](#)

Version	Original release date ^{[<i>citation needed</i>]}	Latest version	Release date ^{[<i>citation needed</i>]}
0.99	2005-07-11	0.99.9n	2005-12-15
1.0	2005-12-21	1.0.13	2006-01-27
1.1	2006-01-08	1.1.6	2006-01-30
1.2	2006-02-12	1.2.6	2006-04-08
1.3	2006-04-18	1.3.3	2006-05-16
1.4	2006-06-10	1.4.4.5	2008-07-16
1.5	2007-02-14	1.5.6.6	2008-12-17
1.6	2008-08-17	1.6.6.3	2010-12-15
1.7	2010-02-13	1.7.12.4	2012-10-17
1.8	2012-10-21	1.8.5.6	2014-12-17
1.9	2014-02-14	1.9.5	2014-12-17
2.0	2014-05-28	2.0.5	2014-12-17
2.1	2014-08-16	2.1.4	2014-12-17
2.2	2014-11-26	2.2.3	2015-09-04
2.3	2015-02-05	2.3.10	2015-09-29
2.4	2015-04-30	2.4.12	2017-05-05
2.5	2015-07-27	2.5.6	2017-05-05
2.6	2015-09-28	2.6.7	2017-05-05
2.7	2015-10-04	2.7.5	2017-05-05
2.8	2016-03-28	2.8.5	2017-05-05
2.9	2016-06-13	2.9.4	2017-05-05
2.10	2016-09-02	2.10.3	2017-05-05
2.11	2016-11-29	2.11.2	2017-05-05
2.12	2017-02-24	2.12.3	2017-05-05
2.13	2017-05-10	2.13.4	2017-08-01
2.14	2017-08-04	2.14	2017-08-04
Legend: ■ Old version ■ Older version, still supported ■ Latest version ■ Latest preview version			

Basic Git commands

- `git add`
- `git commit`
- `git push`
- `git pull`
- `git log`
- `git status`

Git web site and demo

- Home for git -- <https://git-scm.com/>
- Tutorial to try git and learn basics -- <https://try.github.io/levels/1/challenges/5>

1.7 · Adding All Changes

Great! You also can use wildcards if you want to add many files of the same type. Notice that I've added a bunch of .txt files into your directory below.

I put some in a directory named "octofamily" and some others ended up in the root of our "octobox" directory. Luckily, we can add all the new files using a wildcard with **git add**. Don't forget the quotes!

→ `git add '*.txt'`

tryGit



```
TryGit—1300x310

# Changes to be committed:
#   (use "git rm --cached <file>..." to unstage)
#
#       new file:   octocat.txt
#
Success!

$ git commit -m "Add cute octocat story"

[master (root-commit) 20b5ccd] Add cute octocat story
1 file changed, 1 insertion(+)
create mode 100644 octocat.txt

Success!
```

1.7 · Adding All Changes

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→ **git add '*.txt'**



```
TryGit—1300x310

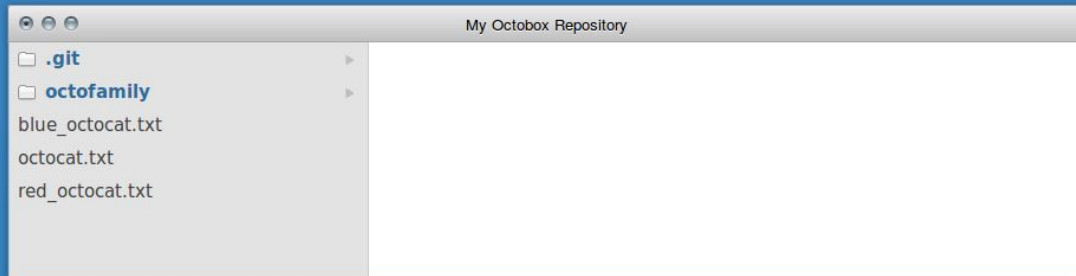
# Changes to be committed:
#   (use "git rm --cached <file>..." to unstage)
#
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Success!

$ git commit -m "Add cute octocat story"

[master (root-commit) 20b5ccd] Add cute octocat story
 1 file changed, 1 insertion(+)
 create mode 100644 octocat.txt

Success!

$
```



Advice



Wildcards:

We need quotes so that Git will receive the wildcard before our shell can interfere with it. Without quotes our shell will only execute the wildcard search within the current directory. Git will receive the list of files the shell found instead of the wildcard and it will not be able to add the files inside of the octofamily directory.



Learn Git in your browser for free with [Try Git](#).



About

The advantages of Git compared to other source control systems.



Documentation

Command reference pages, Pro Git book content, videos and other material.



Downloads

GUI clients and binary releases for all major platforms.



Community

Get involved! Bug reporting, mailing list, chat, development and more.



Pro Git by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).



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[Tarballs](#)



[Mac Build](#)



[Source Code](#)

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NETFLIX



PostgreSQL



This open sourced site is hosted on GitHub.
Patches, suggestions and comments are welcome.

Git is a member of Software Freedom Conservancy

```
matt (master) GitAndMore $ git help
usage: git [--version] [--help] [-C <path>] [-c name=value]
           [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
           [-p | --paginate | --no-pager] [--no-replace-objects] [--bare]
           [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
           <command> [<args>]

These are common Git commands used in various situations:

start a working area (see also: git help tutorial)
  clone      Clone a repository into a new directory
  init       Create an empty Git repository or reinitialize an existing one

work on the current change (see also: git help everyday)
  add        Add file contents to the index
  mv         Move or rename a file, a directory, or a symlink
  reset      Reset current HEAD to the specified state
  rm         Remove files from the working tree and from the index

examine the history and state (see also: git help revisions)
  bisect     Use binary search to find the commit that introduced a bug
  grep       Print lines matching a pattern
  log        Show commit logs
  show       Show various types of objects
  status     Show the working tree status

grow, mark and tweak your common history
  branch     List, create, or delete branches
  checkout   Switch branches or restore working tree files
  commit     Record changes to the repository
  diff       Show changes between commits, commit and working tree, etc
  merge      Join two or more development histories together
  rebase     Forward-port local commits to the updated upstream head
  tag        Create, list, delete or verify a tag object signed with GPG

collaborate (see also: git help workflows)
  fetch      Download objects and refs from another repository
  pull       Fetch from and integrate with another repository or a local branch
  push       Update remote refs along with associated objects

'git help -a' and 'git help -g' list available subcommands and some
concept guides. See 'git help <command>' or 'git help <concept>'
to read about a specific subcommand or concept.
matt (master) GitAndMore $
```

Basic Git concepts

- Repository
- Branch
- Fork
- Pull request
- Merge


```
Terminal
File Edit View Search Terminal Help

new file:   GitInit.png
new file:   GitStatus.png
```

Untracked files:
(use "git add <file>..

Screenshot from

```
matt (master +) GitAndMo
matt (master +) GitAndMo
On branch master
```

Initial commit

Changes to be committed:
(use "git rm --cached

```
new file:   Crea
new file:   GitA
new file:   GitI
new file:   GitS
```

```
matt (master +) GitAndMo
```

```
~/version-control/GitAndMore/.git/COMMIT_EDITMSG - Sublime Text (UNREGISTER... - + X
File Edit Selection Find View Goto Tools Project Preferences Help
```

```
COMMIT_EDITMSG
1 Initial Commit
2 # Please enter the commit message for your changes. Lines
  starting
3 # with '#' will be ignored, and an empty message aborts the
  commit.
4 # On branch master
5 #
6 # Initial commit
7 #
8 # Changes to be committed:
9 #   new file:   CreateDirectory.png
10 #   new file:   GitAdds.png
11 #   new file:   GitInit.png
12 #   new file:   GitStatus.png
13 #
14 # Untracked files:
15 #   GitCommit.png
16 #
17
```

Line 1, Column 15

Tab Size: 4

Plain Text

Logs



This repository

Search

Pull requests

Issues

Marketplace

Explore

+ ▾

MattBroihier / GitAndMore

Watch ▾ 0

Star 0

Fork 0

Code

Issues 0

Pull requests 0

Projects 0

Wiki

Settings

Insights ▾

No description, website, or topics provided.

Edit

[Add topics](#)

2 commits

1 branch

0 releases

1 contributor

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



MattBroihier Add 2 new screen prints

Latest commit 3a7d464 21 minutes ago

CreateDirectory.png

Initial Commit

an hour ago

EditCommitMessage.png

Add 2 new screen prints

21 minutes ago

GitAdds.png

Initial Commit

an hour ago

GitCommit.png

Add 2 new screen prints

21 minutes ago

GitInit.png

Initial Commit

an hour ago

GitStatus.png

Initial Commit

an hour ago

Help people interested in this repository understand your project by adding a README.

Add a README



