LONDON
INTERNATIONAL
SOFTWARE DEVELOPMENT
CONFERENCE 2015

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Scaling Open Source Projects from 0-1000 Commits

Barak Michener

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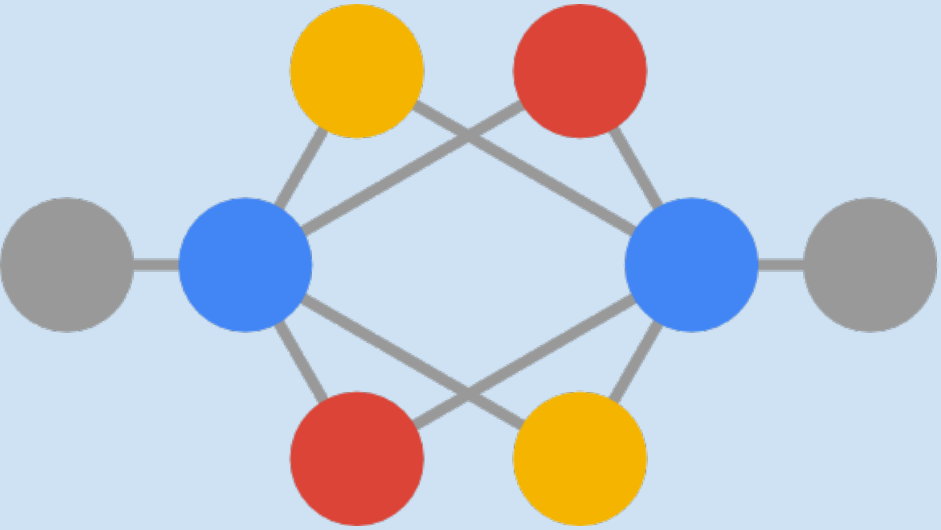
CoreOS

~100 Open Source repos on Github

dex, fleet,
mayday, etc...

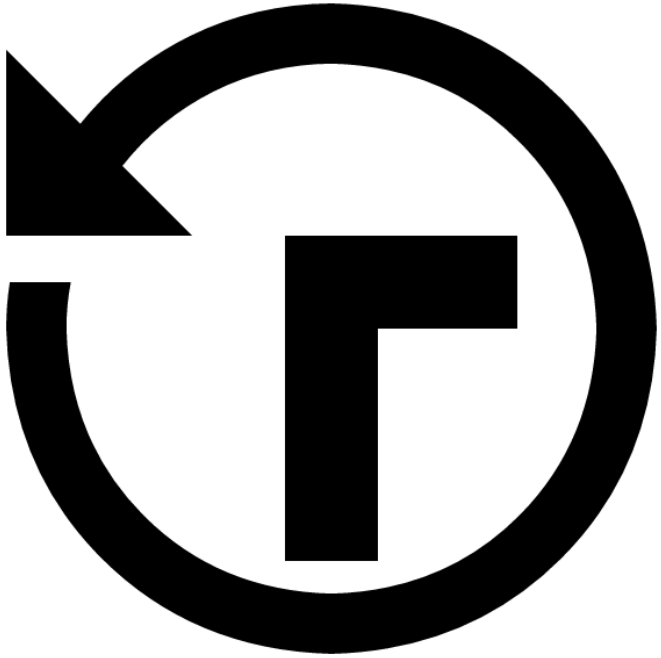
#gifee

Google's Infrastructure For Everyone Else



Cayley

http://github.com/google/cayley



0

commits

```
$ git init .
```

Skeleton

- You may want one for your org
- Standard choice of licenses, Make/BUILD files
- README.md
- CONTRIBUTING.md

A note on Licenses:

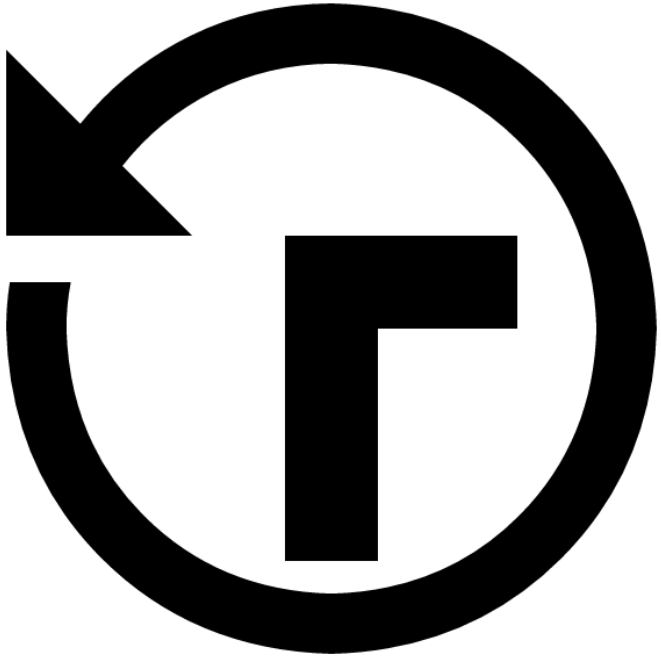
PICK ONE.

http://choosealicense.com/

Only ~20% of Github repos have a license. Don’t be “that project”.

Code Style

- Mandate by fiat for your project/org
  - Avoid bikeshedding
- Big plug for Go here, `gofmt` is awesome
- PEP8 for Python fans
- Always an option: Adopt (or fork) from Google
  - https://github.com/google/styleguide
- Mention this in CONTRIBUTING.md



200

commits

The past 200 commits

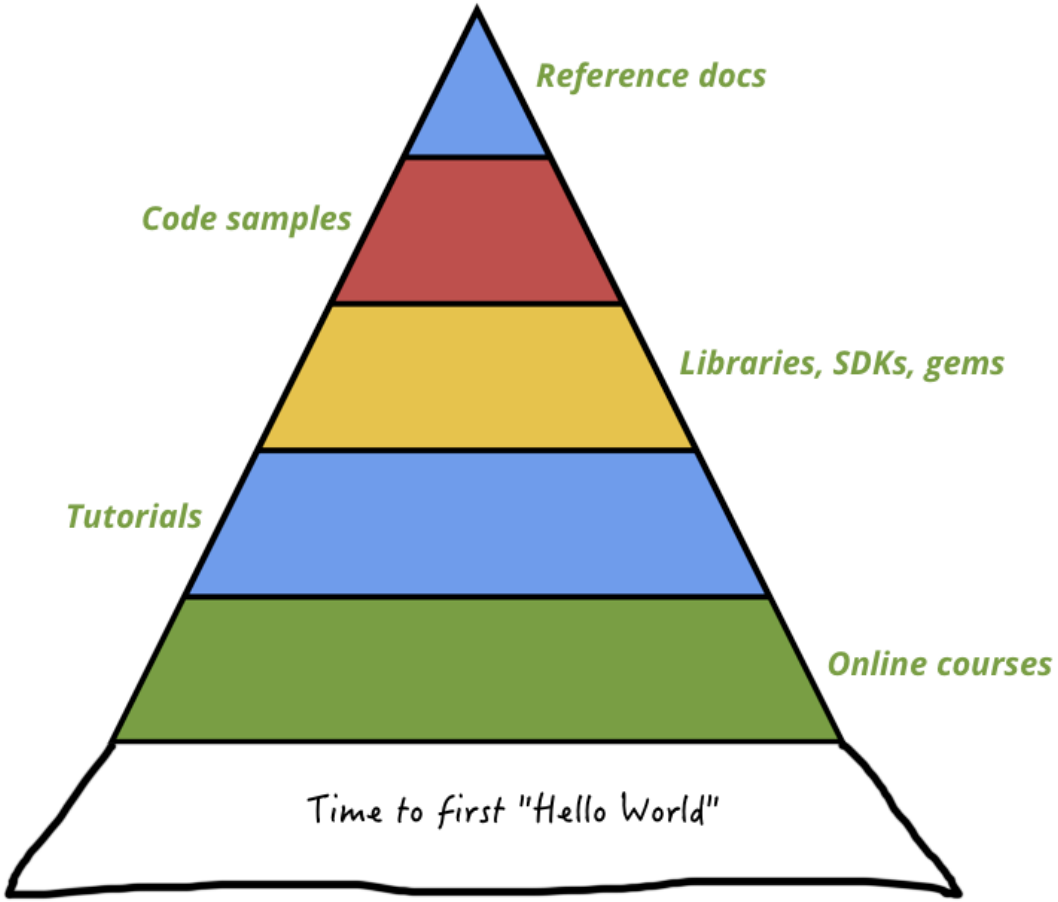
- Commit messages may have been messy
  - `more work`
  - `remove cruft, add test`
  - Don’t do this in general, but we all get started and rebasing is fine, until now.
- Getting things working
- Super fast iteration

What if it doesn’t work out?

- **That’s okay!**
  - Experimentation should be more encouraged
  - “Fail fast”
  - Rebasing early is okay too
    - Your teammates may hate you a little, but only a little.

Prepping for Announce

- Mailing list
- IRC Channel?
- ...And two important things



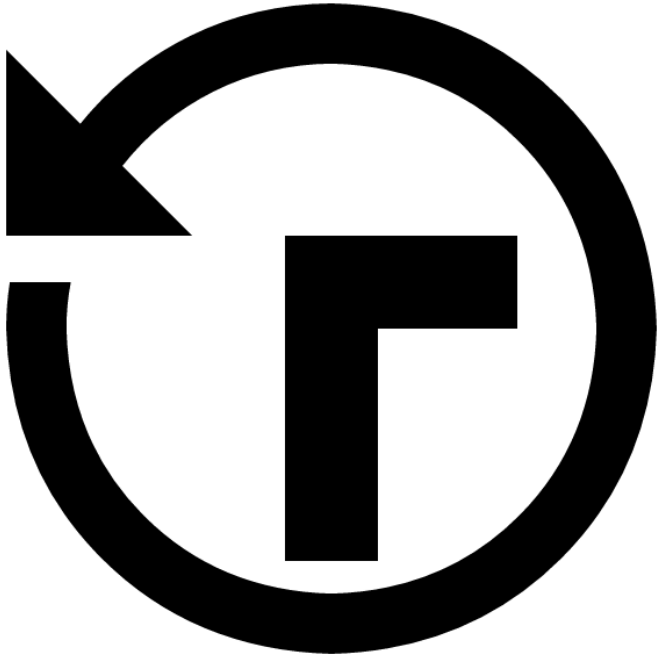
From “Hierarchy of Developer Needs” by +JuliaFerraioli

ROADMAP.md

(Pull requests accepted.)

Announce!

The sooner you're working in the public sphere, the better.



400

commits

The past 200 commits

- Real commit messages, PRs, code review
  - `subpackage: Add new feature doing X. Fixes #23.`
- Still early, things subject to change.
  - Don’t be afraid to experiment, and break a few things

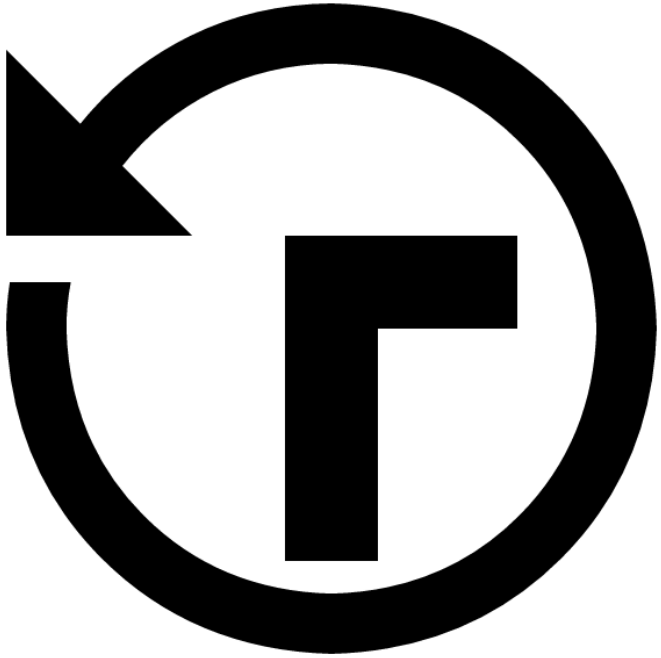
First external contributors!

- Treat them like gold.
- If you have to answer the same question three times, write a three paragraph answer. Start your wiki/FAQ.md/Documentation file.

Optional: Benchmarks

- They don’t have to be perfect
- Having them means measurement, and numbers help quantify decisions
- Shout-out for Go again

```
$ benchx boltnoproto boltwproto
benchmark                                old ns/op     new ns/op     delta   mult
BenchmarkNamePredicate                   536192        519102        -3.19%  -1.03x
BenchmarkLargeSetsNoIntersection         25406759      16517821      -34.99% -1.54x
BenchmarkVeryLargeSetsSmallIntersection  55738157      38773174      -30.44% -1.44x
BenchmarkHelplessContainsChecker         72689377      50568672      -30.43% -1.44x
BenchmarkHelplessNotContainsFilms        125709712     82282494      -34.55% -1.53x
BenchmarkHelplessNotContainsActors       101334859     67082261      -33.80% -1.51x
BenchmarkNetAndSpeed                     5530942       4847584       -12.36% -1.14x
BenchmarkKeanuAndNet                     4399839       4081278       -7.24%  -1.08x
BenchmarkKeanuAndSpeed                   5144942       4554785       -11.47% -1.13x
BenchmarkKeanuOther                      16995806      12897262      -24.12% -1.32x
BenchmarkKeanuBullockOther               26998991      19858152      -26.45% -1.36x
```



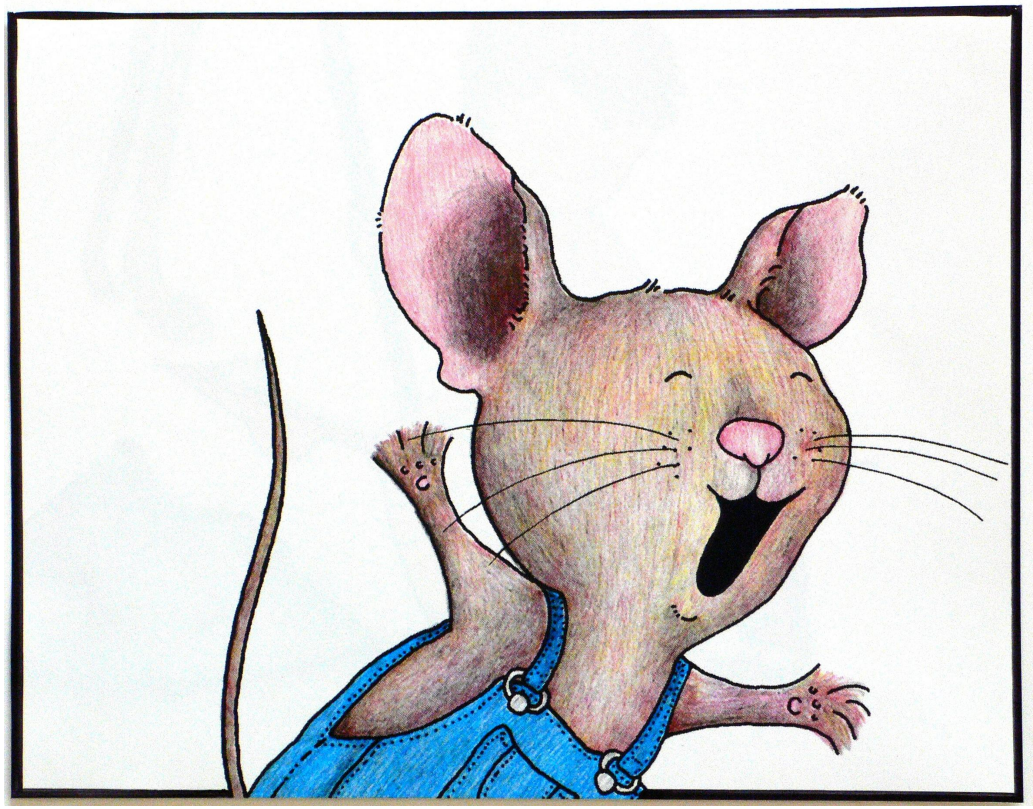
600

commits

The past 200 commits

- A couple of early releases
- Semantic versioning
- Support!

If you give a mouse a binary...



...he's going to put it into production.

Felicia Bond, Illustrator - CC BY-SA 3.0

Support is great

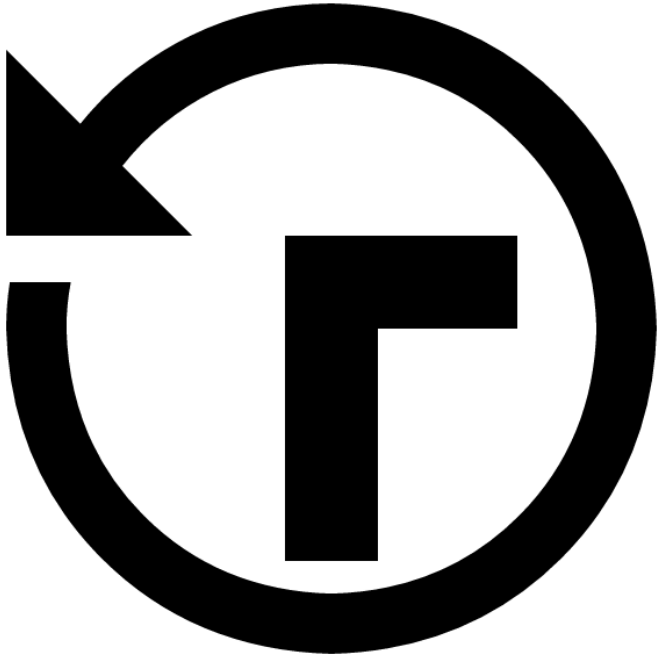
- Means people have a need for your project
- Finds bugs

However,

- Sometimes a burden on small teams

WTFM

- You’re the person who knows the most about your project
- Sourcing writers is hard, and you won’t have many at this stage
- Roll up your sleeves and write the docs
- Pay attention to UX as well
- Closing bugs with a pleasant “Hi, thanks for your question; we’ve committed an answer here based on it” helps everyone!



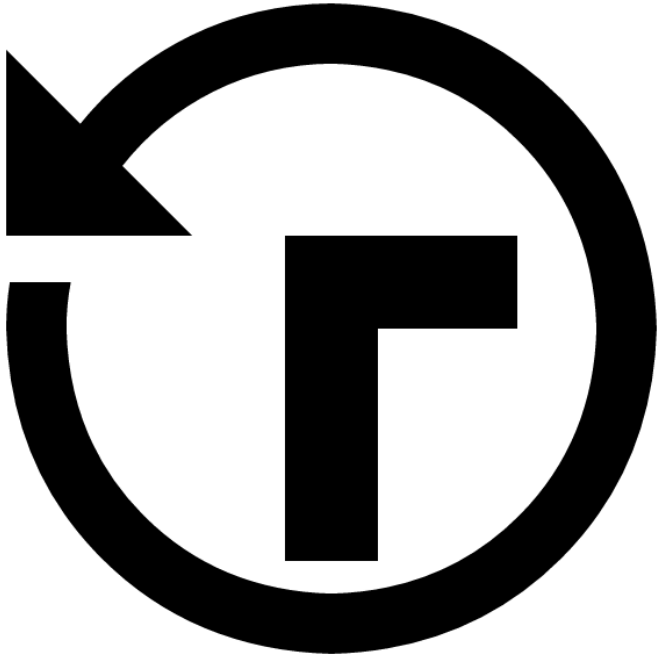
800

commits

The past 200 commits

- Prep for 1.0
- Stabilize APIs
- Major refactors tricky but possible

0.4.6 -> 2.0.0



1000

commits

Where do we go from here?

- Release cadence
- stable/master
  - 2.0.x on stable, 2.1alpha/rc on master
  - 2.1.x on stable, 2.2alpha/rc on master
- ???
- Profit!

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Please

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Thanks !

@barakmich

@coreoslinux