

The New Era of Go Package Management

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1. We write code

2. We use others' code

3. ow

**Package (dependency)
management *matters***

No, like...*more* than that

Tools -> Social Systems







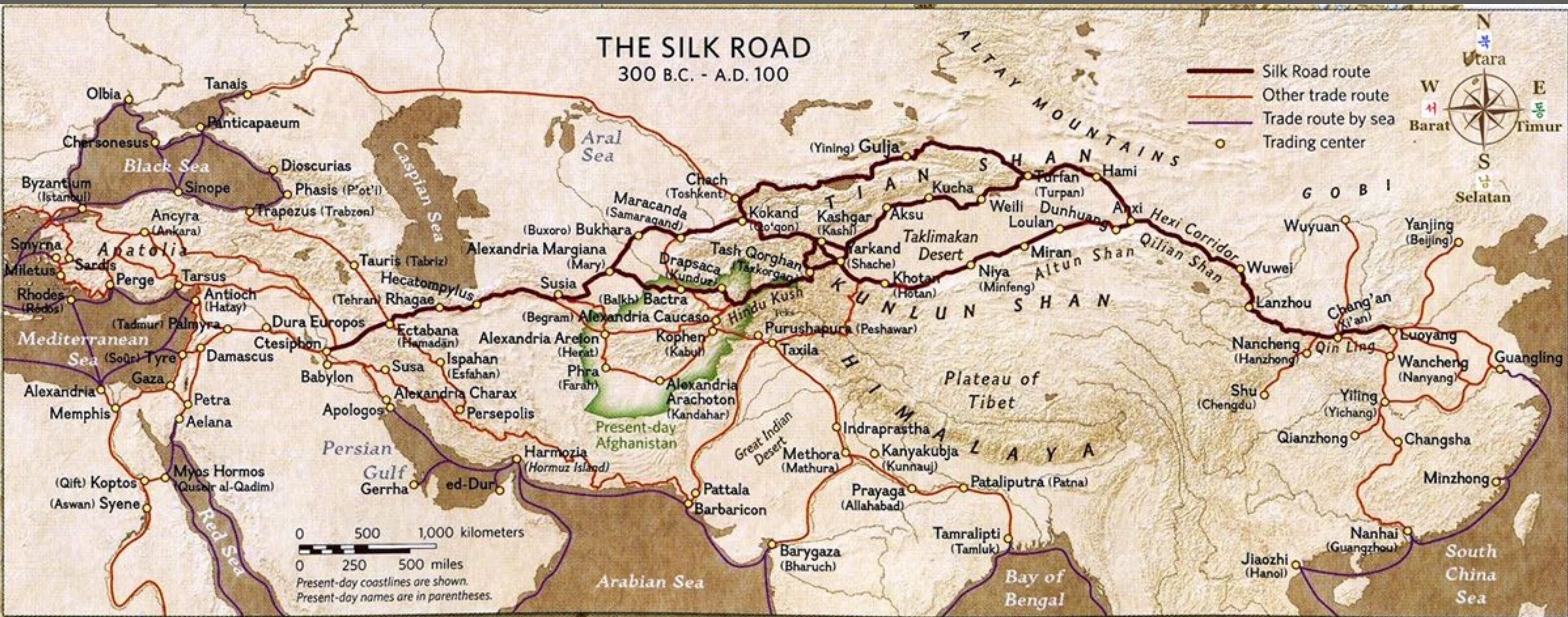


pidgin

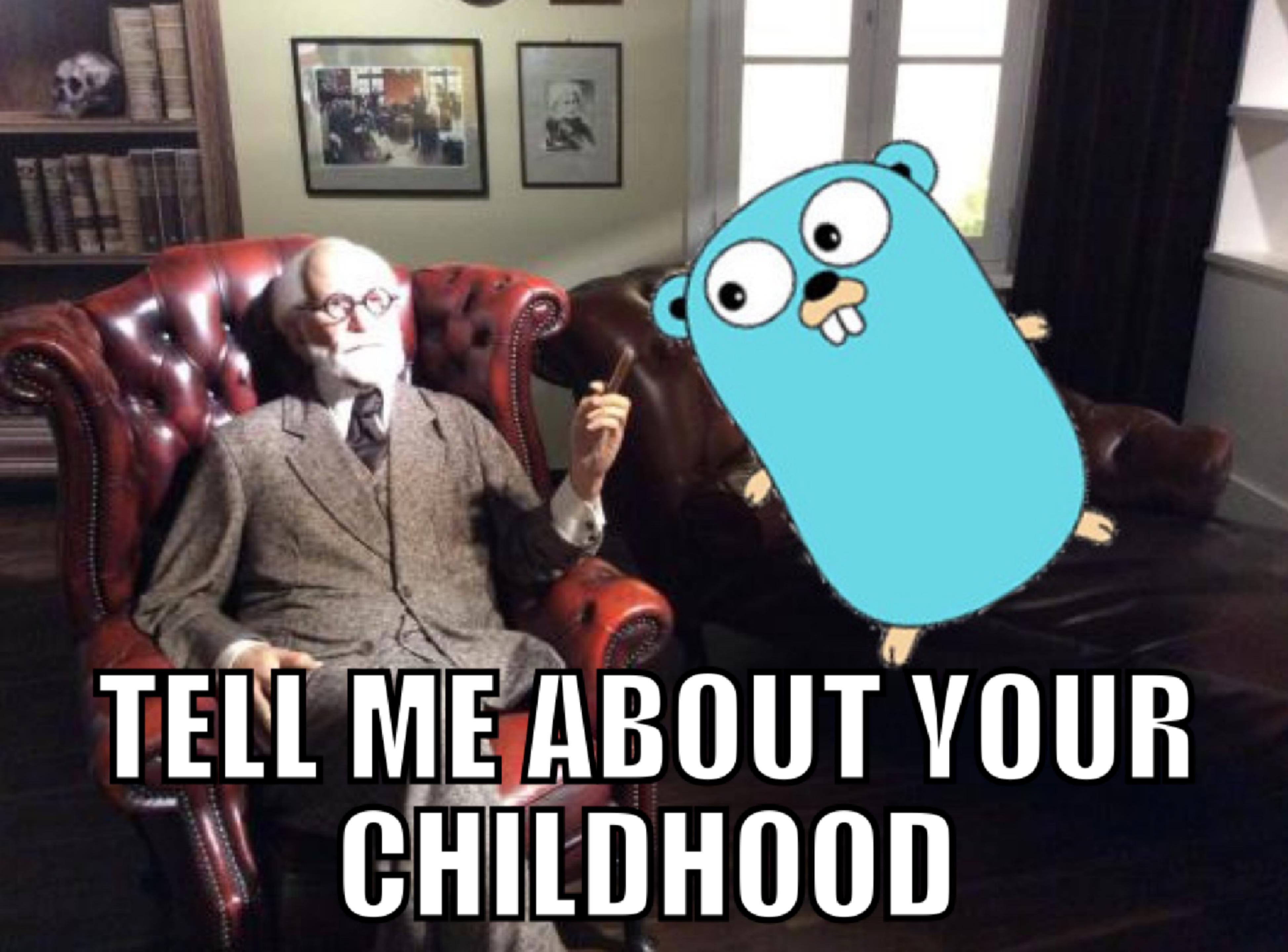
THE SILK ROAD

300 B.C. - A.D. 100

- Silk Road route
- Other trade route
- Trade route by sea
- Trading center







**TELL ME ABOUT YOUR
CHILDHOOD**

Roots of the problem

- GOPATH allows only one version
- No reproducibility
- Releases, ~pointless
- Updates, a crapshoot



Rise of the tools

- 2013: Godep, gom, et al. - 2013
- 2014: glide, gopkg.in, et al. - 2014
- 2015: gb, govendor, et al. - 2015

vendor/ on the scene

- Go 1.5: vendor/ added, off by default (Aug, 2015)
- Go 1.6: vendor/ on by default (Feb, 2016)
- Go 1.7: vendor/ always on (Aug, 2016)

HOW STANDARDS PROLIFERATE:

(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:
THERE ARE
14 COMPETING
STANDARDS.

14?! RIDICULOUS!
WE NEED TO DEVELOP
ONE UNIVERSAL STANDARD
THAT COVERS EVERYONE'S
USE CASES.



Soon:

SITUATION:
THERE ARE
15 COMPETING
STANDARDS.

godep

glide

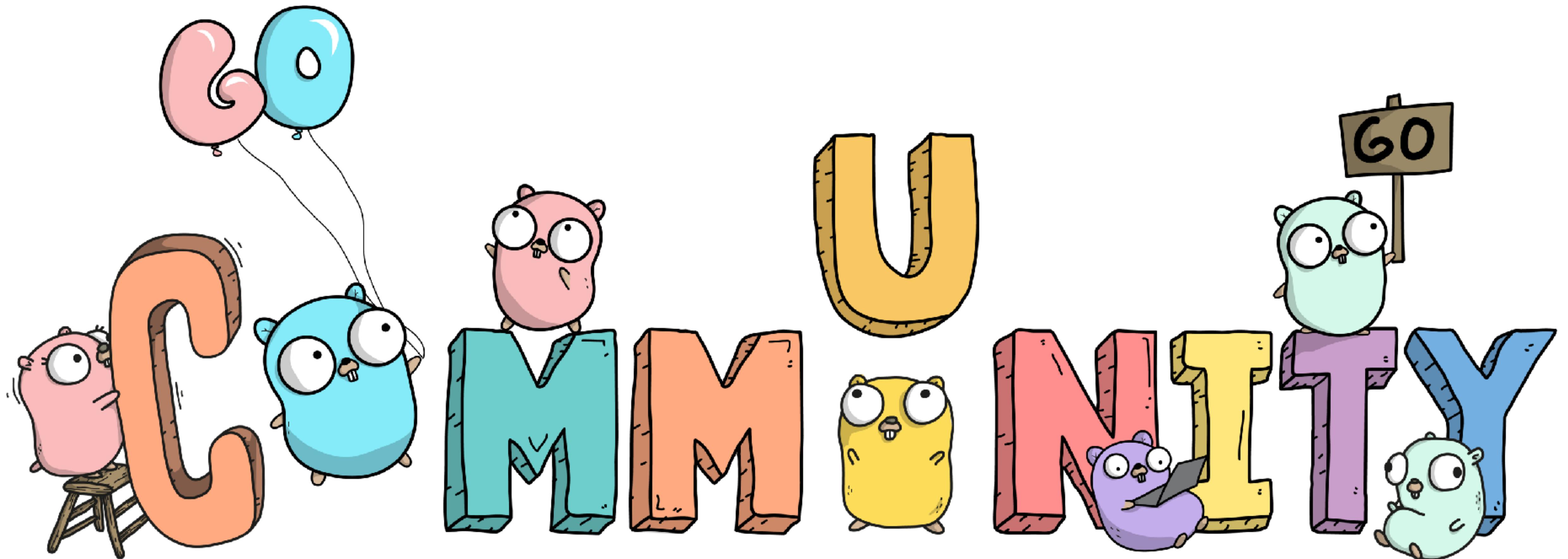
govendor

gb

(et al.)



github.com/golang/dep



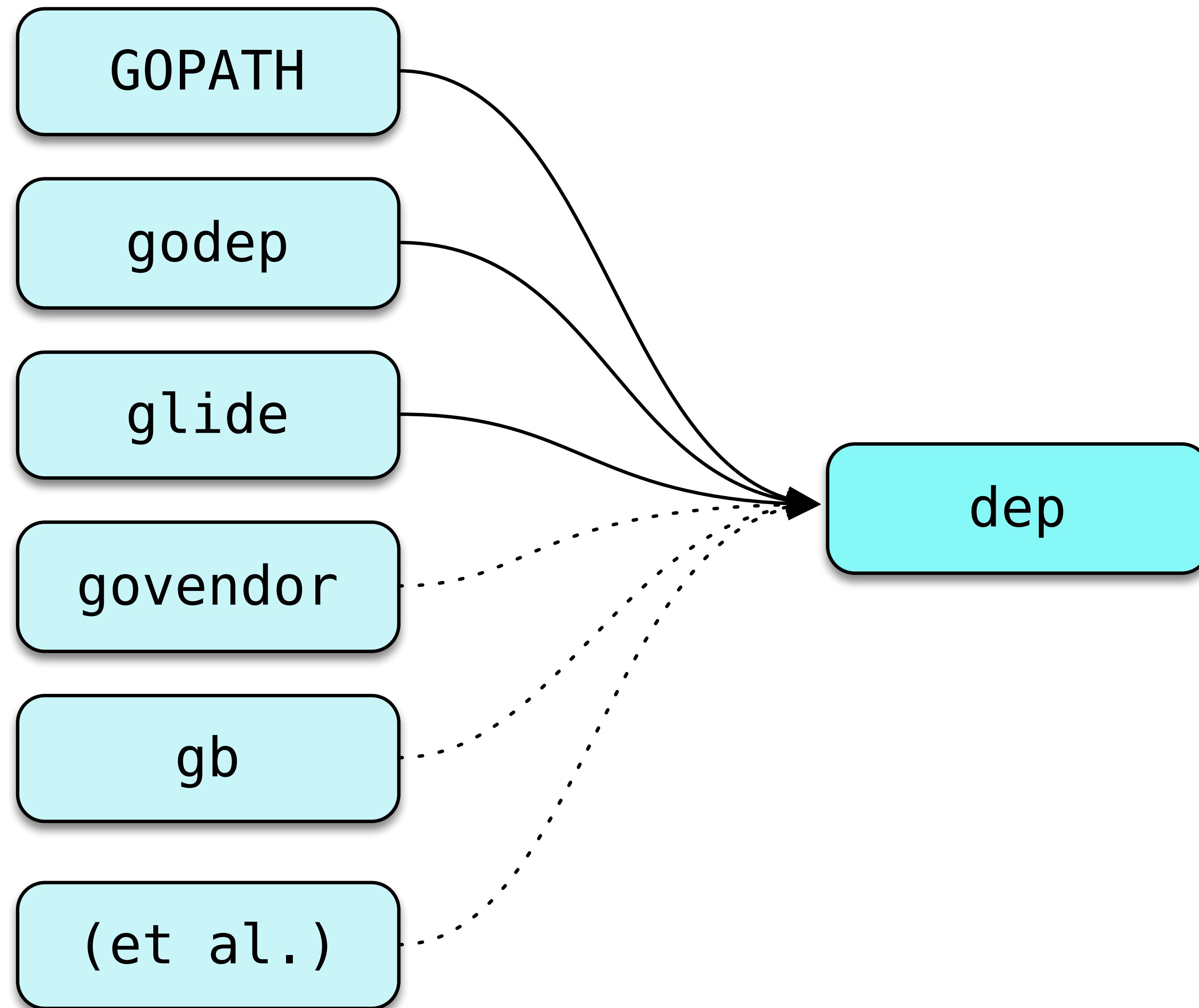
dep fundamentals

- Borrows from others, but is tailored to Go
- Imports are queen
- Two-file system: Gopkg.toml, Gopkg.lock
- Project-oriented
- Semver tagging
- vendor/-centric - (almost) no GOPATH

dep status

dep init

dep ensure

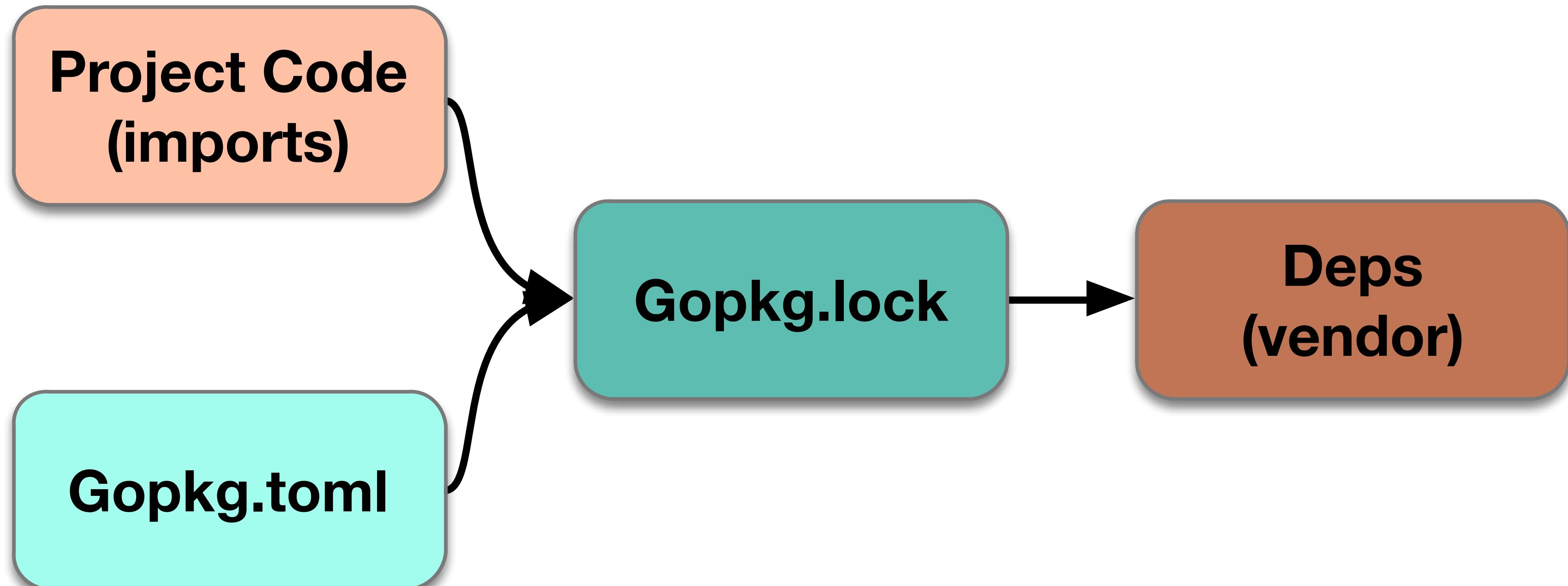


dep status

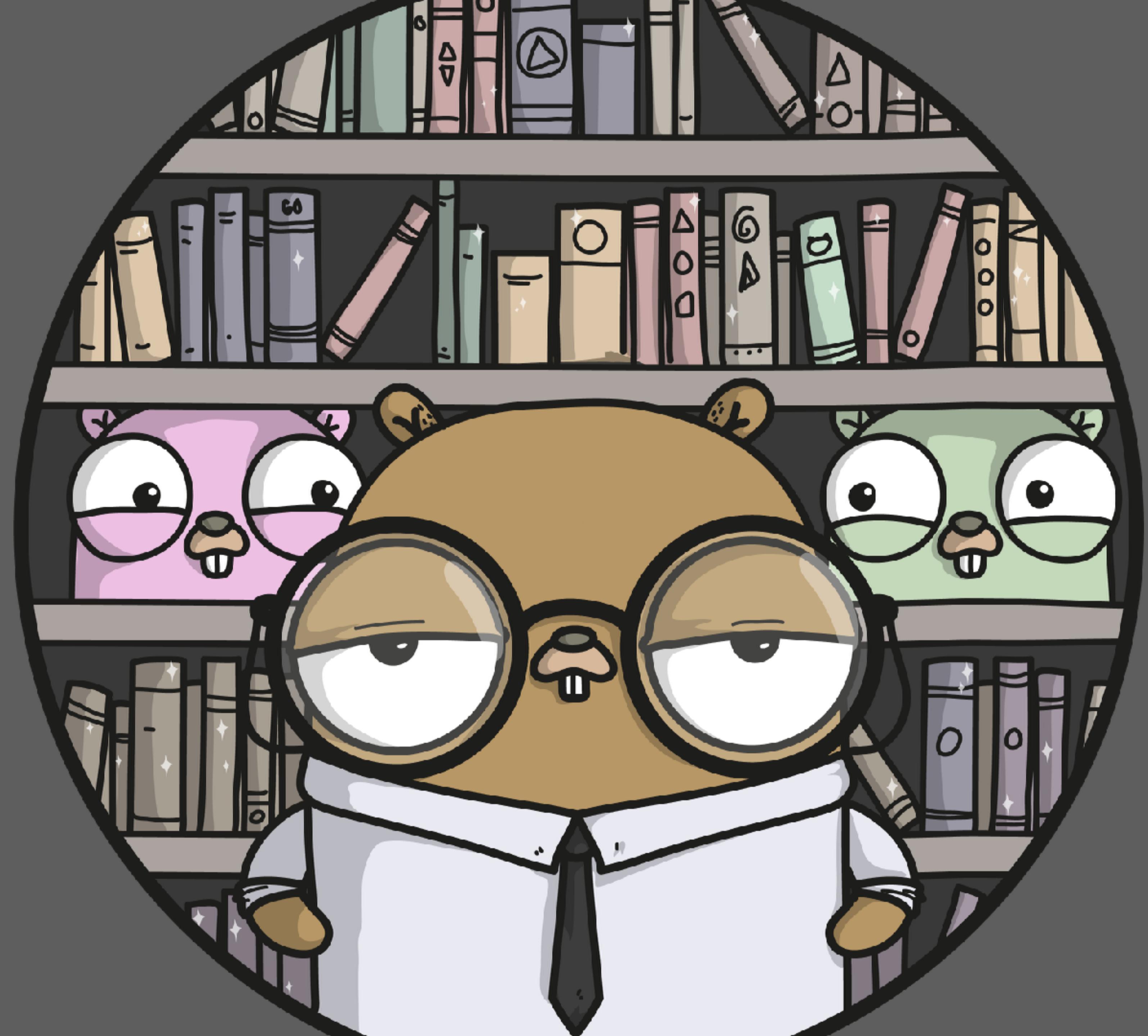
dep init

dep ensure

ensure keeps states in sync

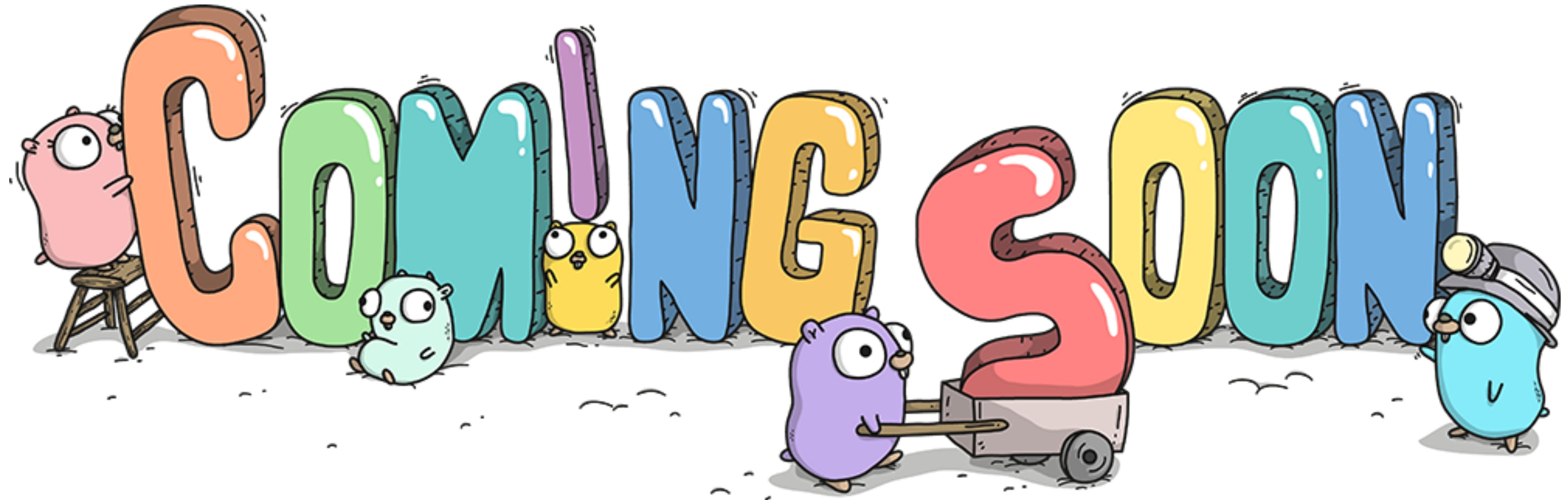


“Sync-based” tool



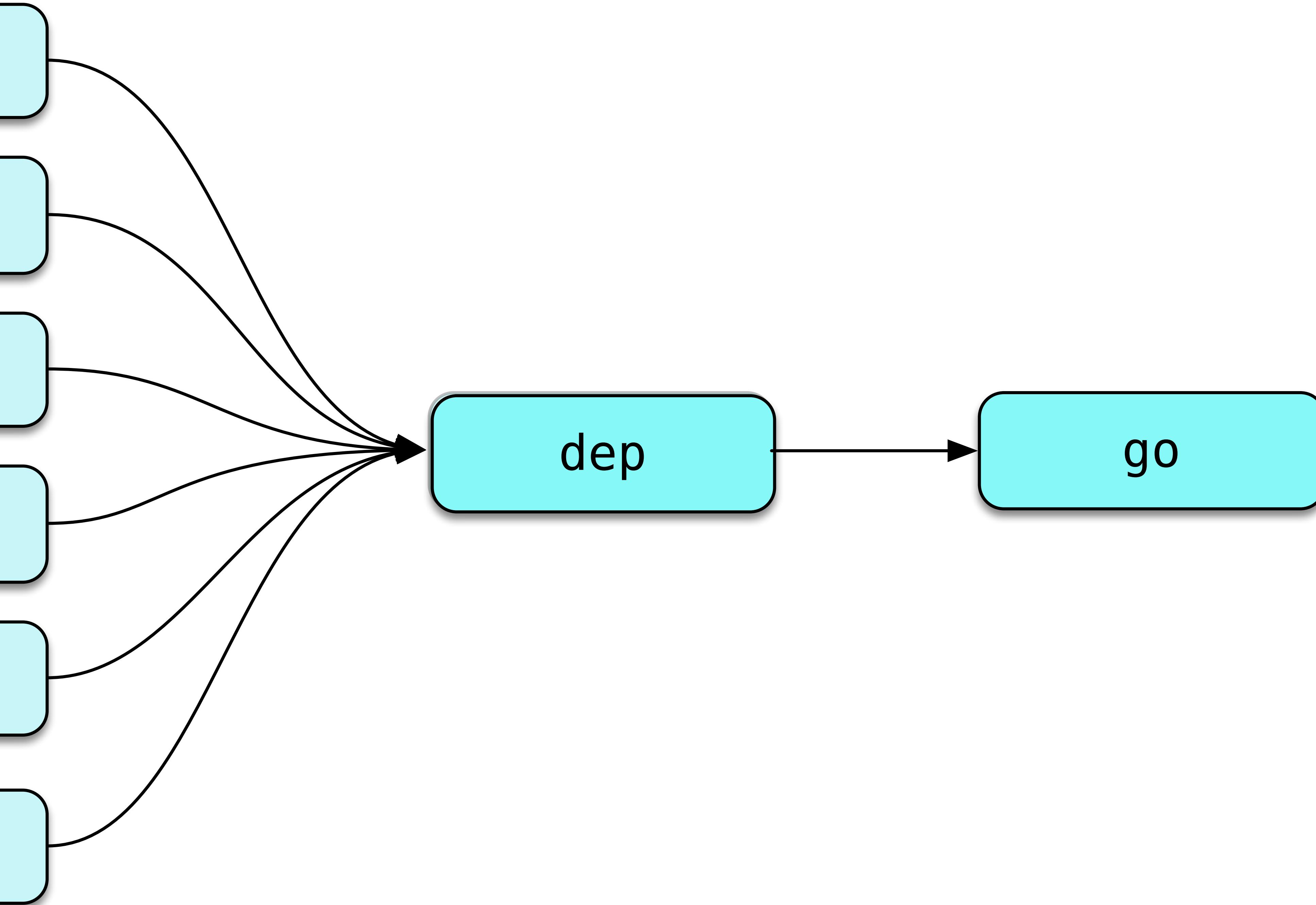
“Hey dep, ensure everything’s
shipshape, kthx”

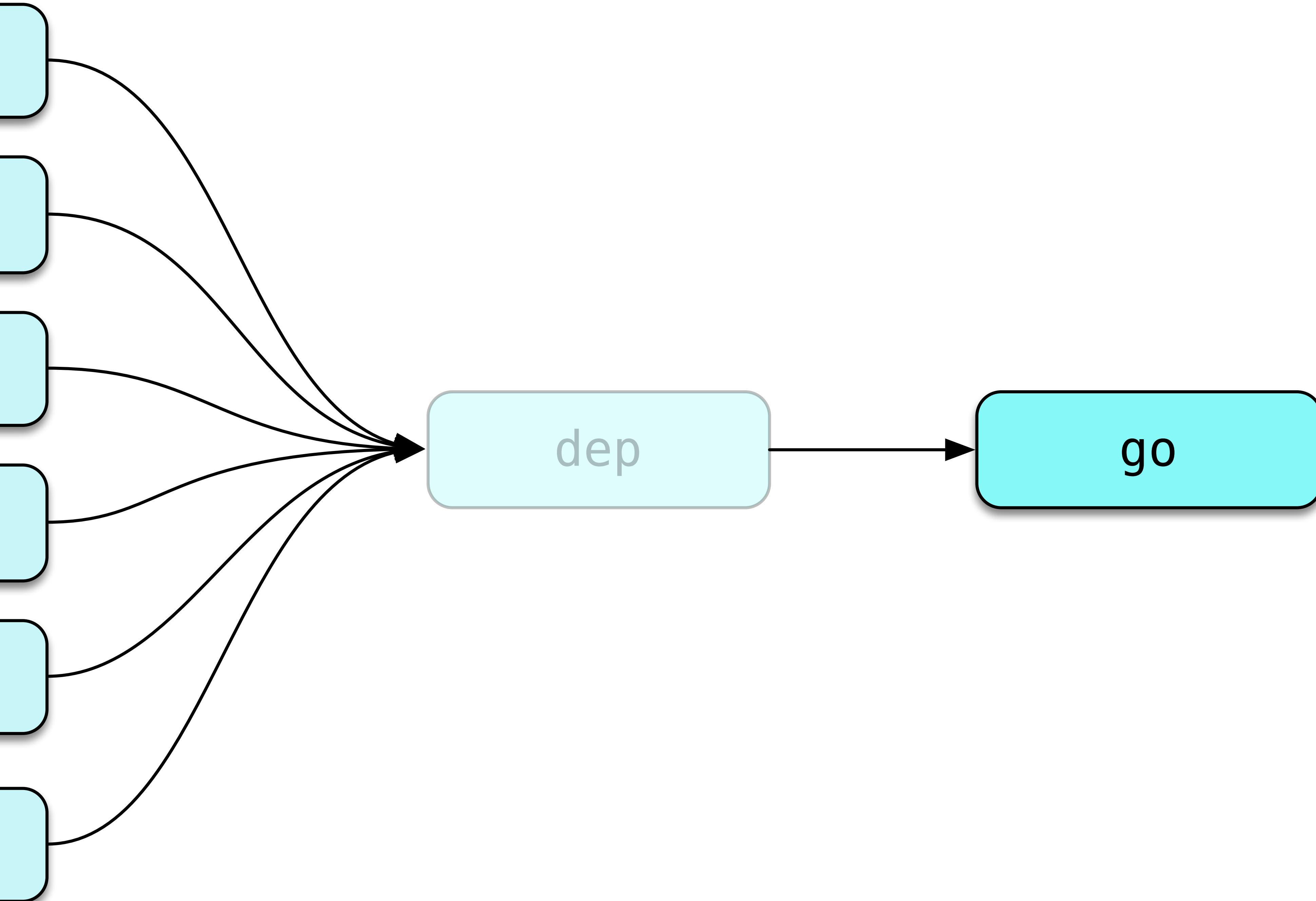






TO THE TOOLCHAIN!







Key insights from dep

- Two-file system
- Imports are queen
- Still sync-based
- Semver tagging
- vendor/, sorta

TODOs

- Multi-project workflow
- Semver suggestion tool
- Registries
- Editor integration patterns
- Security model
- Performance!
- Better failure feedback
- Private/enterprise patterns

TODOs...for YOU

- Tag your projects with semver
- Convert projects to dep (yes, it's ready!)
- Maybe jump in and contribute to dep - word is,
we're super friendly!
- Hackathon, tomorrow!
- Updates: sdboyer.io/dep-status

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