

# Go Modules in day to day life

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- A brief history of package management
- Go Modules explained
- Resources

# 1. A brief history of package management

- go get
- various community solutions (xkcd 927)
- godep
- Go Modules

# 1.1. go get

- add new dependencies to project (GOPATH)
- update existing dependencies (only to latest version)
- cannot remove unused dependencies

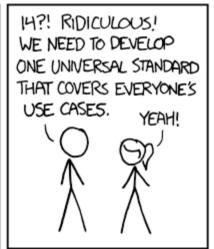
# 1.2. Various community solutions

- too many tools created (hard to choose a single one)
- different levels of support
- different level of features (some seemed to converge)
- no clear winner

### 1.2.5. Various community solutions

HOW STANDARDS PROLIFERATE: (SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)

SITUATION: THERE ARE 14 COMPETING STANDARDS.





Copyright: <a href="https://xkcd.com/927">https://xkcd.com/927</a>

# **1.3.** godep

- Go Team's experiment on Package Management
- Implemented mostly by community
- Converge to a single, widely used, tool

#### 2. Go Modules

- Announced in February 2018
- Based on learnings from godep
- Changes how we think about dependency management
- Optional in Go 1.11 (GO111MODULES=on)
- Default outside of GOPATH since Go 1.12
- Default since Go 1.13
- Supported in GoLand since May 2018

#### 2.1. New features

- New files "go.mod' and "go.sum"
- Definition of GOPROXY
- Can work outside of GOPATH

#### 2.2. Go Modules commands

- go mod init create new module
- go get add/update dependencies
- go mod tidy remove unused dependencies
- go list -m all list dependencies
- go mod vendor vendor dependencies

## 3. Demo Time

#### 4. Resources

- https://github.com/goproxy/goproxy.cn
- https://blog.golang.org/using-go-modules
- https://github.com/golang/go/wiki/Modules
- https://research.swtch.com/vgo
- https://blog.jetbrains.com/go

# Thank you for your attention