Golang #1

Golang in real work

Vu Nguyen
vu.nguyen@will.vn

Golang #1

Golang in real work

- Go is not new!
- Myths and truths about Go.
- What make Go unique?
- People are switching to Go.
  And they’re happy!

Go is not new!

Go 1.0 was released in Mar 2012

Search

stars:>0

- **Repositories** 22,463
- Code
- Issues 187,602
- Users 11,041

Languages

JavaScript	371,865
Ruby	245,139
Java	213,398
Python	204,142
PHP	167,570
C	97,485
C++	88,020
Objective-C	62,205
Shell	58,670
C#	57,874

We've found 22,463 repository results

ethereum/go-ethereum

Jeffrey Wilcke's Go implementation of the Ethereum y/w paper

Updated 4 minutes ago

wcong/ants-go

ants in go

Updated 5 minutes ago

hkwi/gopenflow

golang openflow implementation

Updated 10 minutes ago

golang Meetups

Find out what's happening in golang Meetup groups around the world and start meeting up with the ones near you.

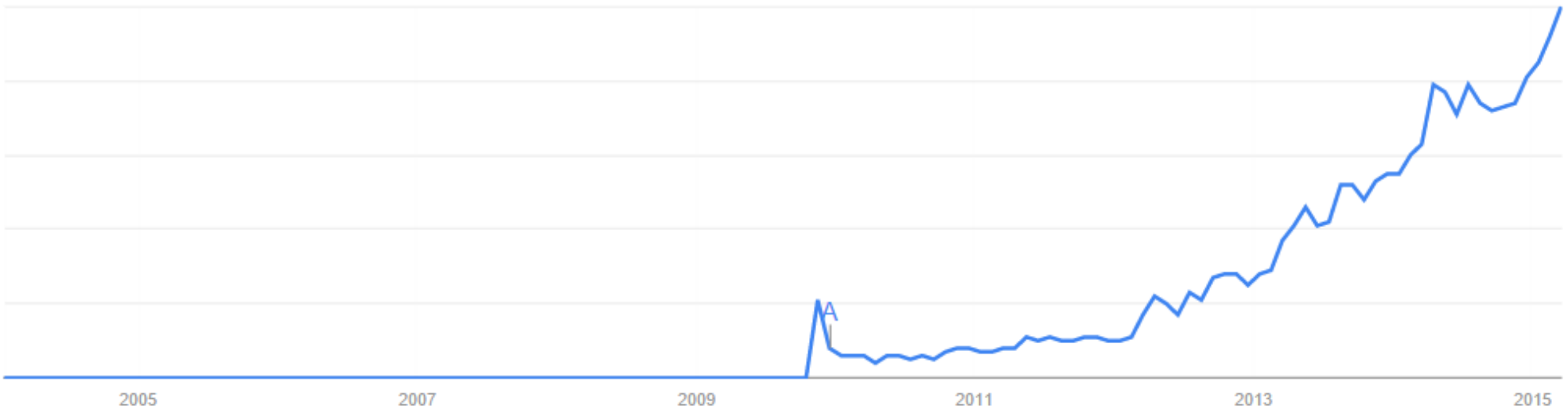
Groups	Members	Interested	Cities	Countries
134	26,104	2,216	112	40

golang
Search term

+ Add term

Interest over time

News headlines Forecast



php
Search term

+ Add term

Interest over time

News headlines Forecast

java
Search term

+ Add term

Interest over time

News headlines Forecast

Go versions

1.0 – 3/2012	• First release
1.1 – 5/2013	• Performance improve (30-40%) Race detector
1.2 – 12/2013	• Better scheduler Test coverage
1.3 – 6/2014	• Speed up GC New platform: NaCl
1.4 – 12/2014	• Translate compiler from C to Go Continuous stacks New platform: Android ARM
1.5 – 6/2015	• Concurrency GC Completely support Android

Myths and truths about Go!

1. Is Go “system language” ?

- Initialize, Go is described as “system language”.
- Today, they call it “general purpose language”.
- Not suitable for writing drivers, OS or low-level performance-critical app.
- Can not replace C/C++.

2. Is Go “compile once, run everywhere”?

- Instead, Go is “write once, run everywhere”.
- You must compile for each platform.
- It’s basically “C in 2015”.

3. Go has no OOP?

- No. Go is not an OOP language.
- The closest to inheritance is “embedded type”.
- Go follows “composition over inheritance” principle.

4. Writing code in Go is verbose and ugly?

- Yes. It is more verbose than Python or even JavaScript.
- But this make Go better readable and easier collaborating.
- Your code looks same as my code!

What make Go unique?

Go has nothing special !

Go has nothing special !

- Go is not elegant as Python.

Go has nothing special !

- Go is not elegant as Python.
- Go is not excel at meta programming like JavaScript or Ruby.

Go has nothing special !

- Go is not elegant as Python.
- Go is not excel at meta programming like JavaScript or Ruby.
- Go is not type safe as Rust or Haskell.

Go has nothing special !

- Go is not elegant as Python.
- Go is not excel at meta programming like JavaScript or Ruby.
- Go is not type safe as Rust or Haskell.
- Go does not have macro or pre-processing.

Go has nothing special !

- Go is not elegant as Python.
- Go is not excel at meta programming like JavaScript or Ruby.
- Go is not type safe as Rust or Haskell.
- Go does not have macro or pre-processing.
- Go does not have VM to execute code cross-platform.

Go only focus on one thing:

Go only focus on one thing:

Get the work done !

Go only focus on one thing:

Get the work done !

- Write code.
- Pass all test cases.
- Sleep well.
- Watch your business grow up.
  And earn money!

Really?

Really?

- Single binary deployment.
- Optimize readability.
- Powerful standard libraries.
- Full development environment.
  gofmt, godoc, go build, go test, oracle, etc.
- Easy & effective concurrency.

GOLANG bình luận liên quan muõ

31

Honest question: what do you consider Go's biggest strength?

(self.golang)

[–] **Queue29** 37 điểm 1 tháng trước đây

Static binary deploys.

[–] **thesnowmancometh** 35 điểm 1 tháng trước đây

I never realized the benefits of having a small language.

[–] **CorgiMann** 20 điểm 1 tháng

Go is very minimalistic.

Java:
Code -> WAR -> Classloader -> Micro Kernel (JBoss) -> JVM -> Docker -> Operating System -> Hardware

Ruby:
Code -> Rails -> RVM -> Docker -> Operating System -> Hardware

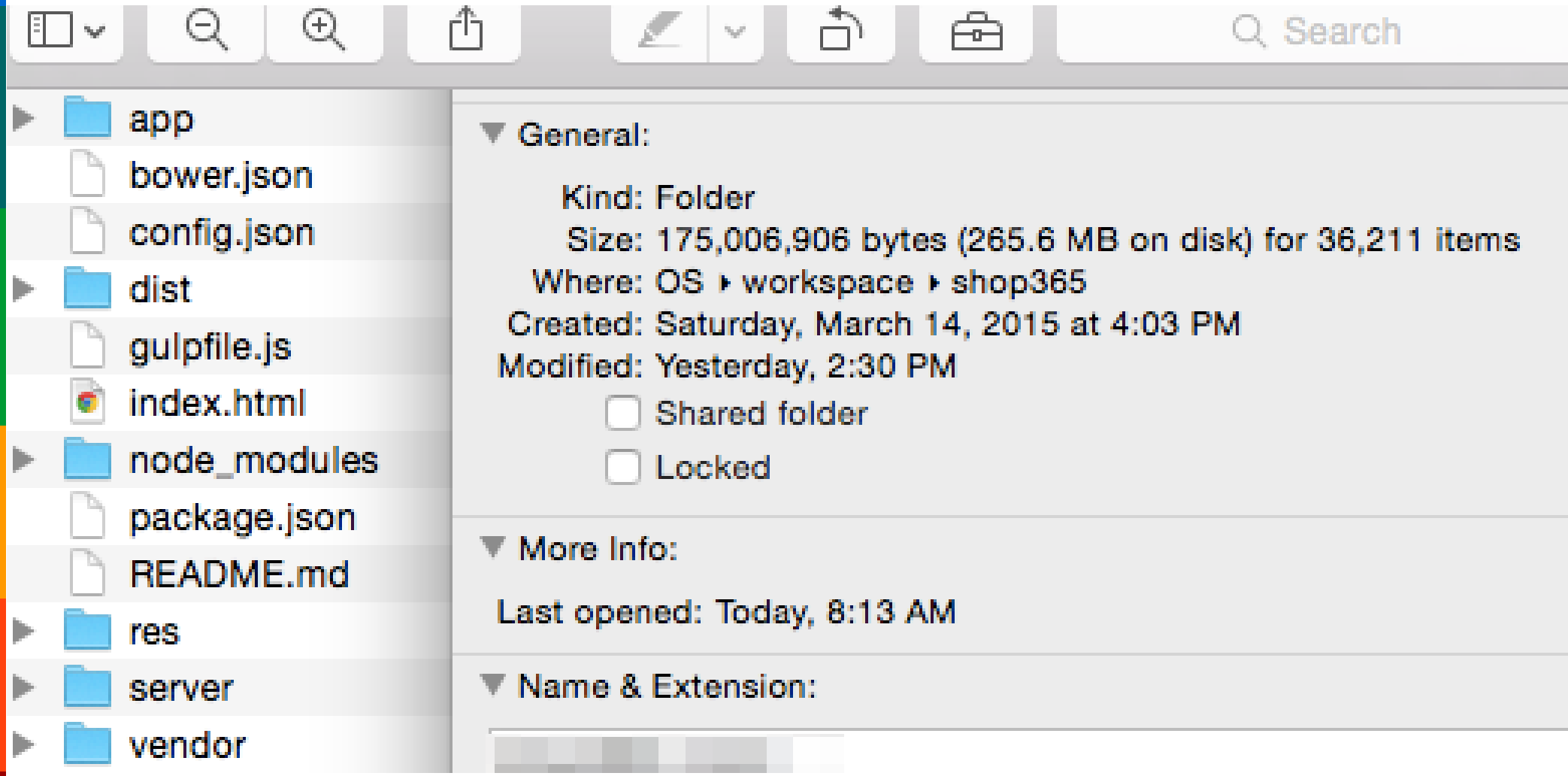
Python:
Code -> Framework -> PVM -> Docker -> Operating System -> Hardware

Javascript:
Code -> Node.js -> V8 -> Docker -> Operating System -> Hardware

Go:
Code -> Operating System -> Hardware

Copy and run the compiled binary to deploy.

- Writing and running code like how we were in ‘90s.
- No dependency nightmare.
- No VM. No Docker.
  Just single binary.


Search
app
bower.json
config.json
dist
gulpfile.js
index.html
node_modules
package.json
README.md
res
server
vendor
General:
Kind: Folder
Size: 175,006,906 bytes (265.6 MB on disk) for 36,211 items
Where: OS ▸ workspace ▸ shop365
Created: Saturday, March 14, 2015 at 4:03 PM
Modified: Yesterday, 2:30 PM
Shared folder
Locked
More Info:
Last opened: Today, 8:13 AM
Name & Extension:

Gogs

A painless self-hosted Git service written in Go

Username or E-mail *

Password *

Sign In

Register

Easy to install

Simply run the binary for your platform. Or ship Gogs with Docker or Vagrant, or get it packaged.

Cross-platform

Gogs runs anywhere Go can compile for: Windows, Mac OS X, Linux, ARM, etc. Choose the one you love!

Really?

- Single binary deployment.
- Optimize readability.
- Powerful standard libraries.
- Full development environment.
  gofmt, godoc, go build, go test, oracle, etc.
- Easy & effective concurrency.

Who are using Go?

- Web servers
- Command line tools

Stories about Go!

People are switching to Go.
And they’re happy.

Build, Ship and Run Any App, Anywhere

Docker - An open platform for distributed applications for developers and sysadmins.

Why Go?

- Static compilation
- Neutral
- Asynchronous, low-level interfaces
- Full development environment
- Multi-arch build

Blog

SEARCH

TUESDAY, MARCH 12, 2013

How We Went from 30 Servers to 2: Go

When we built the first version of IronWorker, about 3 years ago, it was written in Ruby and the API was built on Rails. It didn't take long for us to start getting some pretty heavy load and we quickly reached the limits of our Ruby setup. Long story short, we switched to Go. For the long story, keep reading, here's how things went down.

The Original Setup

- Memory
- Concurrency
- Reliability
- Deployment
- Talent

SUNDAY, AUGUST 18, 2013

Rewriting a large production system in Go

My team at Google is wrapping up an effort to rewrite a large production system (almost) entirely in Go. I say "almost" because one component of the system -- a library for transcoding between image formats -- works perfectly well in C++, so we decided to leave it as-is. But the rest of the system is 100% Go, not just wrappers to existing modules in C++ or another language. It's been a fun experience and I thought I'd share some lessons learned.

Plus, the Go language has a cute mascot ... awwww!

GOBOT

Docs Platforms Resources Blog Github

Go, Robot, Go!

Golang Powered Robotics

Next generation robotics framework with support for 15 different platforms

Start Now

Star 1,224 Fork 105 Tweet Follow @gobotio

Gobot is a framework for robotics, physical computing, and the Internet of Things, written in the Go programming language

Gogs

A painless self-hosted Git service written in Go

Username or E-mail *

Password *

Sign In

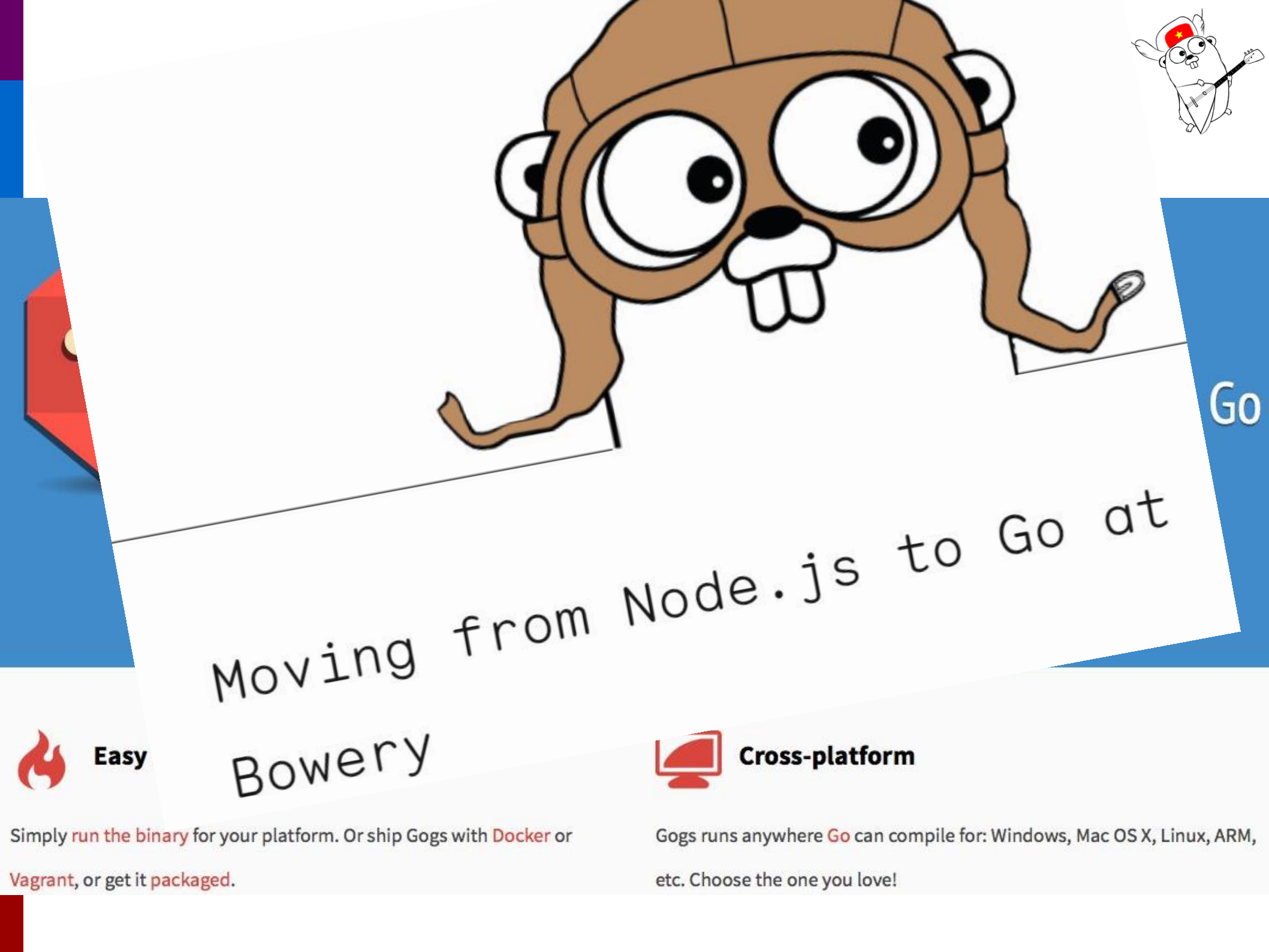
Register

Easy to install

Simply run the binary for your platform. Or ship Gogs with Docker or Vagrant, or get it packaged.

Cross-platform

Gogs runs anywhere Go can compile for: Windows, Mac OS X, Linux, ARM, etc. Choose the one you love!


Moving from Node.js to Go at
Bowery
Go
Easy
Cross-platform
Simply run the binary for your platform. Or ship Gogs with Docker or Vagrant, or get it packaged.
Gogs runs anywhere Go can compile for: Windows, Mac OS X, Linux, ARM, etc. Choose the one you love!

Cockroach

PASSED | godoc reference | status alpha

A Scalable, Geo-Replicated, Transactional Datastore

Table of Contents

WIRED KLINT FINLEY

Cockroach

PASSED | godoc reference | status alpha

A Scalable, Geo-Replicated, Transactional Datast

Table of Contents

- St
- D
- A

reddit PROGRAMMING comments related other discussions (2)

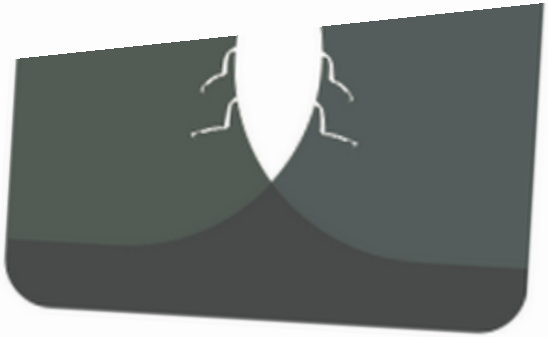
2769

Samsung develops sorting algorithm which sorts 3.7 TB data in a minute, breaking the record of 1.5 TB (sortbenchmark.org)

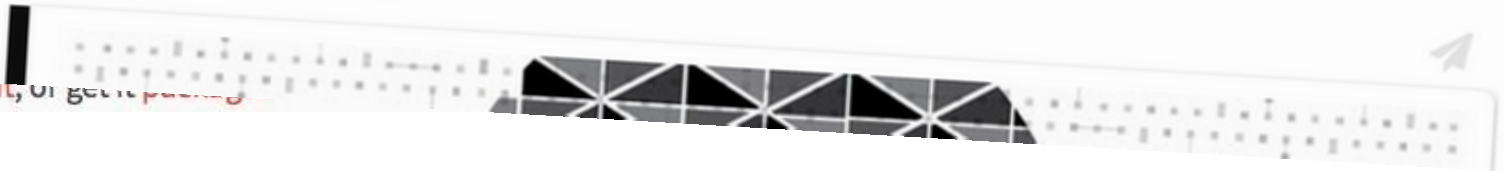
submitted 3 months ago by cbruegg

379 comments share pocket

Client Architecture



WIRED KLINT FINLEY



Sim

ARM,

Vagrant, or get it packag

When not use Go?

- Prototyping.
- Low-level code.
- Media encoding/decoding.
- Platform specific code
  (Android, iOS, .NET, etc.)

Golang #1: Golang in real work

Thanks for listening!

Vu Nguyen
vu.nguyen@will.vn