Go: The Big Picture

WHAT IS GO?

Course Outline

What is Go?

How Can Go Help You?

What is it Like to Use Go?

Where Do You Go From Here?

Overview

Who developed Go?

Go's history and future

Language Characteristics

Who is using Go?

Who Created Go?

Ken Thompson

B and C languages
Unix
UTF-8

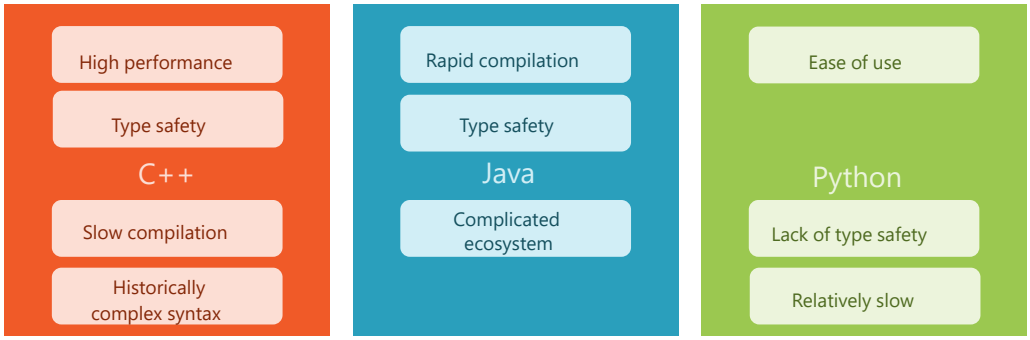
Rob Pike

Unix
UTF-8
Google

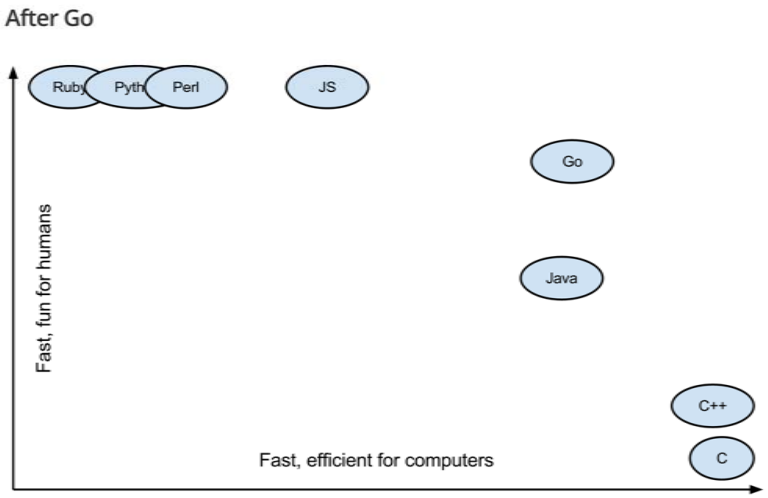
Robert Griesemer

Hotspot JVM

The Problem



Why Create Go?



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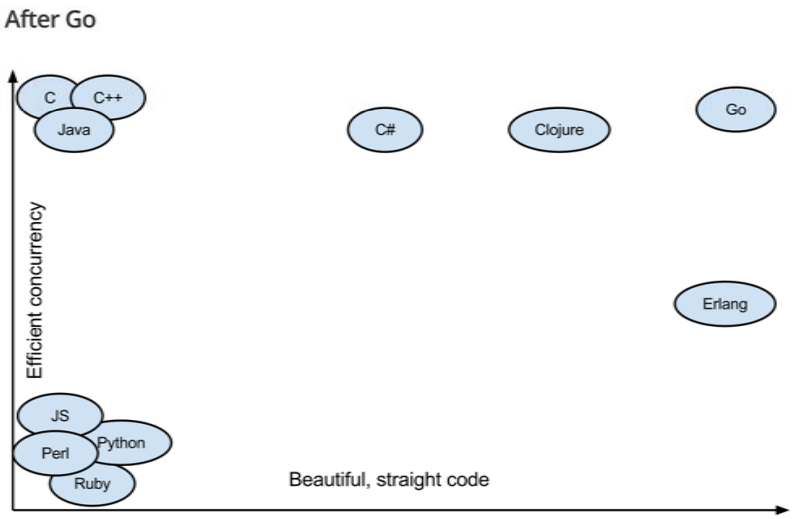
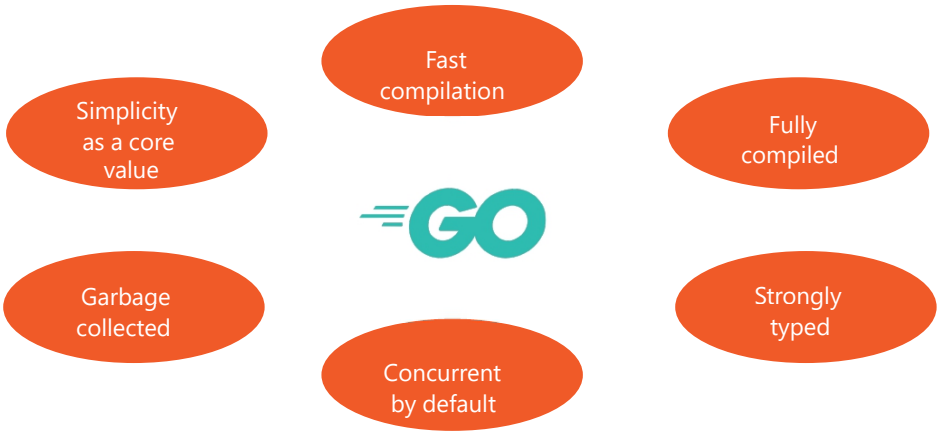
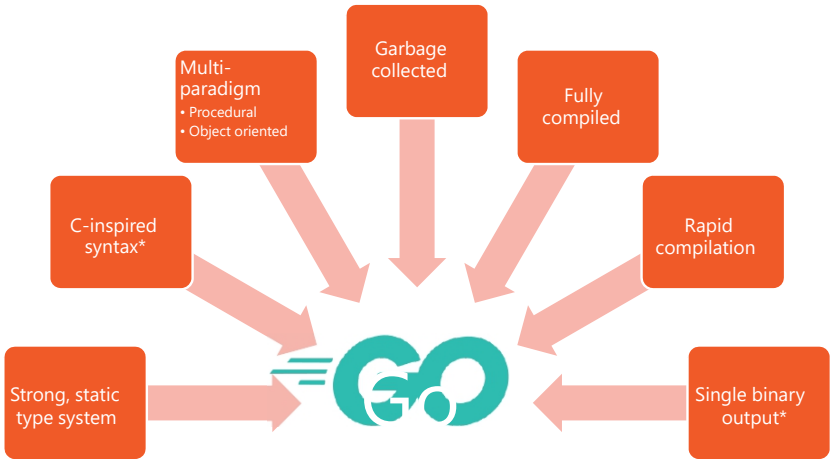


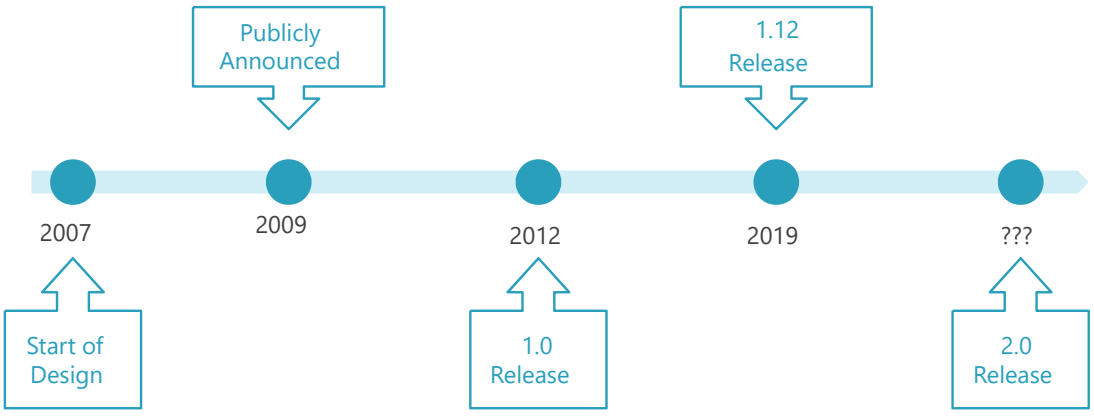
The Solution



Language Characteristics



Timeline



Who is Using Go?

"Initially, our Go-based system ran on 20 servers, with 20 million real-time connections in total. The system sent 2 million messages a day. That system now runs on 400 servers, supporting 200 million+ real-time connections. It now sends over 10 billion messages daily."

Dropbox Tech Blog

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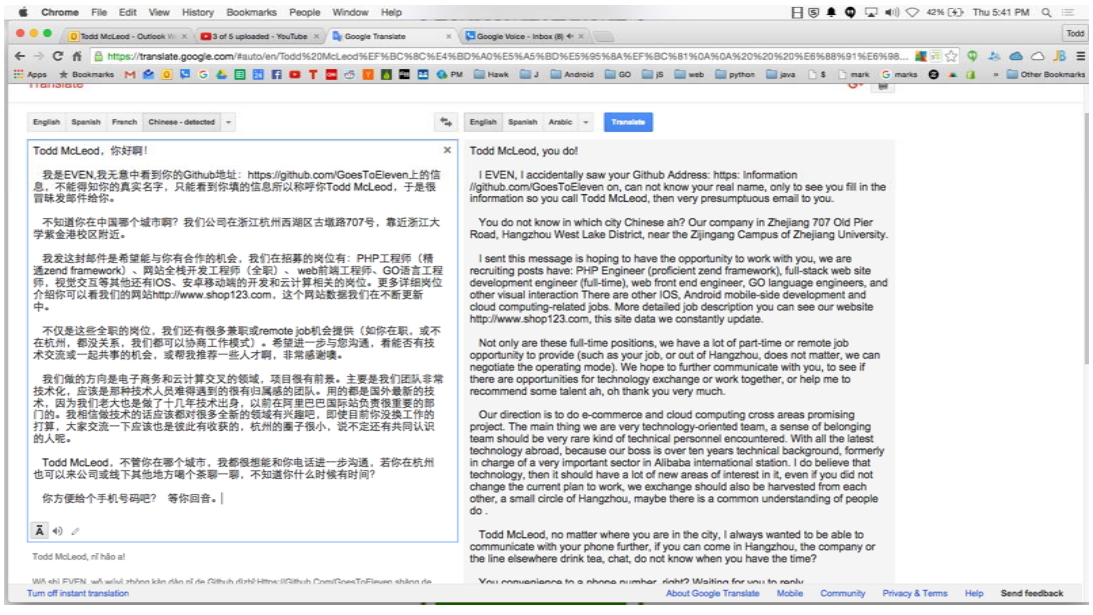
Open Sourcing Our Go Libraries

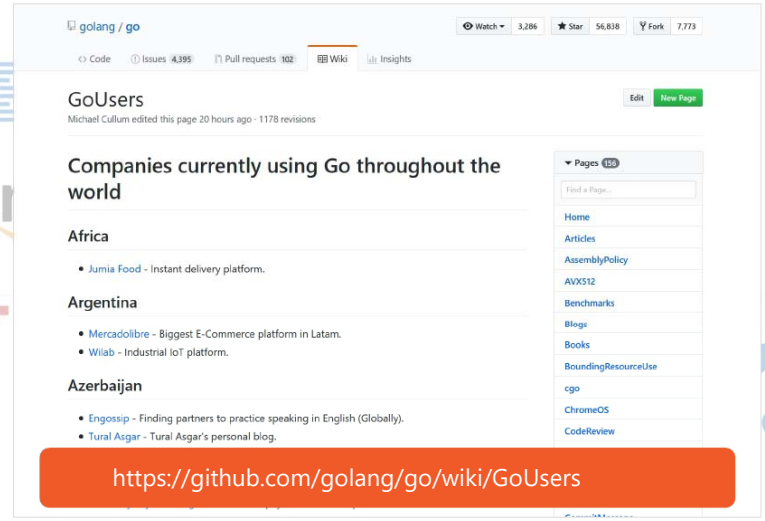
Patrick Lee | July 1, 2014 | 34 comments 639 8 160 482

Dropbox owes a large share of its success to Python, a language that enabled us to iterate and develop quickly. However, as our infrastructure matures to support our ever growing user base, we started exploring ways to scale our systems in a more efficient manner. About a year ago, we decided to migrate our performance-critical backends from Python to Go to leverage better concurrency support and faster execution speed. This was a massive effort–around 200,000 lines of Go code–undertaken by a small team of engineers. At this point, we have successfully moved major parts of our infrastructure to Go.

One recurring theme that hindered our development progress was the lack of robust libraries needed for building large systems. This is not surprising since Go is still a very young language. To address this issue, our team started building various libraries to provide better abstractions, such as connection management and a memcache client. We are very excited to announce that we are open sourcing these libraries to help the broader community build large scale production systems.



Who is Using Go?



https://github.com/golang/go/wiki/GoUsers

Summary

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Go's history and future

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