Highlights from The State of Go

Go 1.8 release party, 2017 February 16, GolangDFW Meetup.

Jason E. Aten, Ph.D.
Computer Scientist/Gopher

slides courtesy of

The Google Go Team.

The video full presentation by

Francesc Campoy
Google Developer Advocate
@francesc
campoy@golang.org

source:

https://github.com/golang/talks

and

https://talks.golang.org/2017/state-of-go.slide

can be viewed

https://www.youtube.com/watch?v=tY4UKkgb5IY&feature=youtu.be

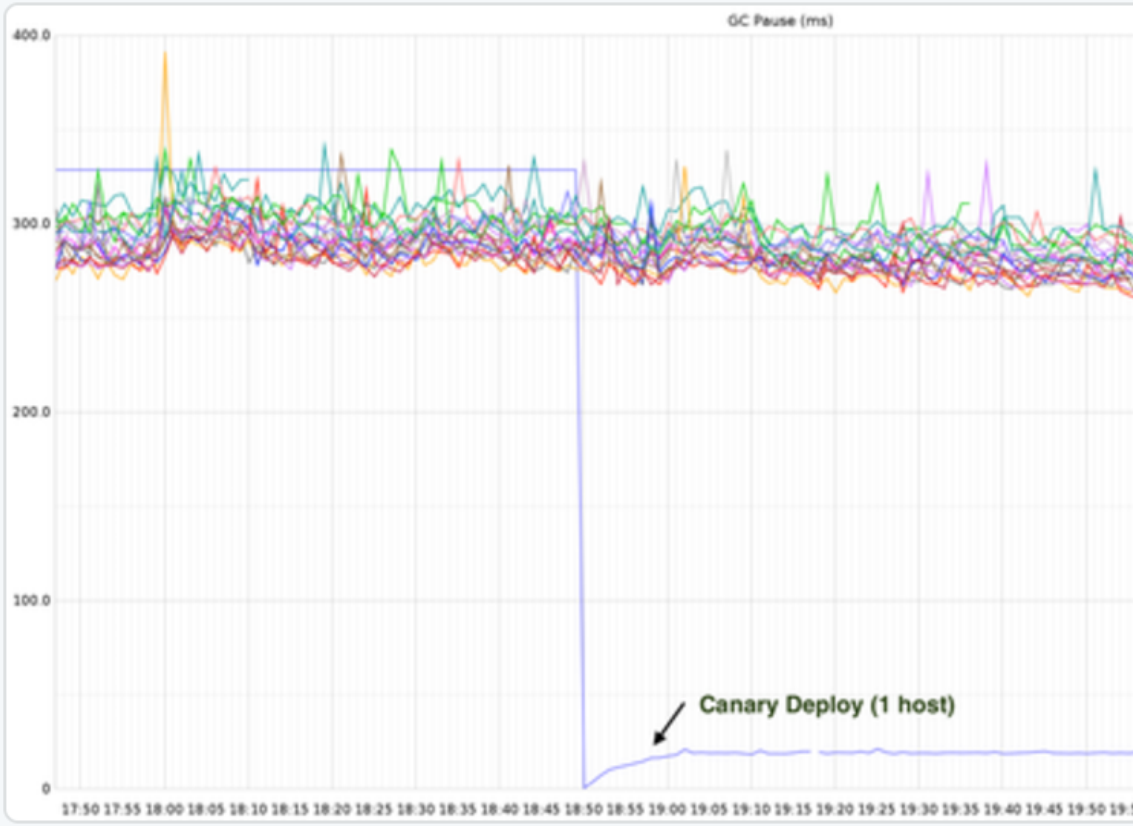
Highlight #1: garbage collection pause times

GC history in tweets

go 1.5

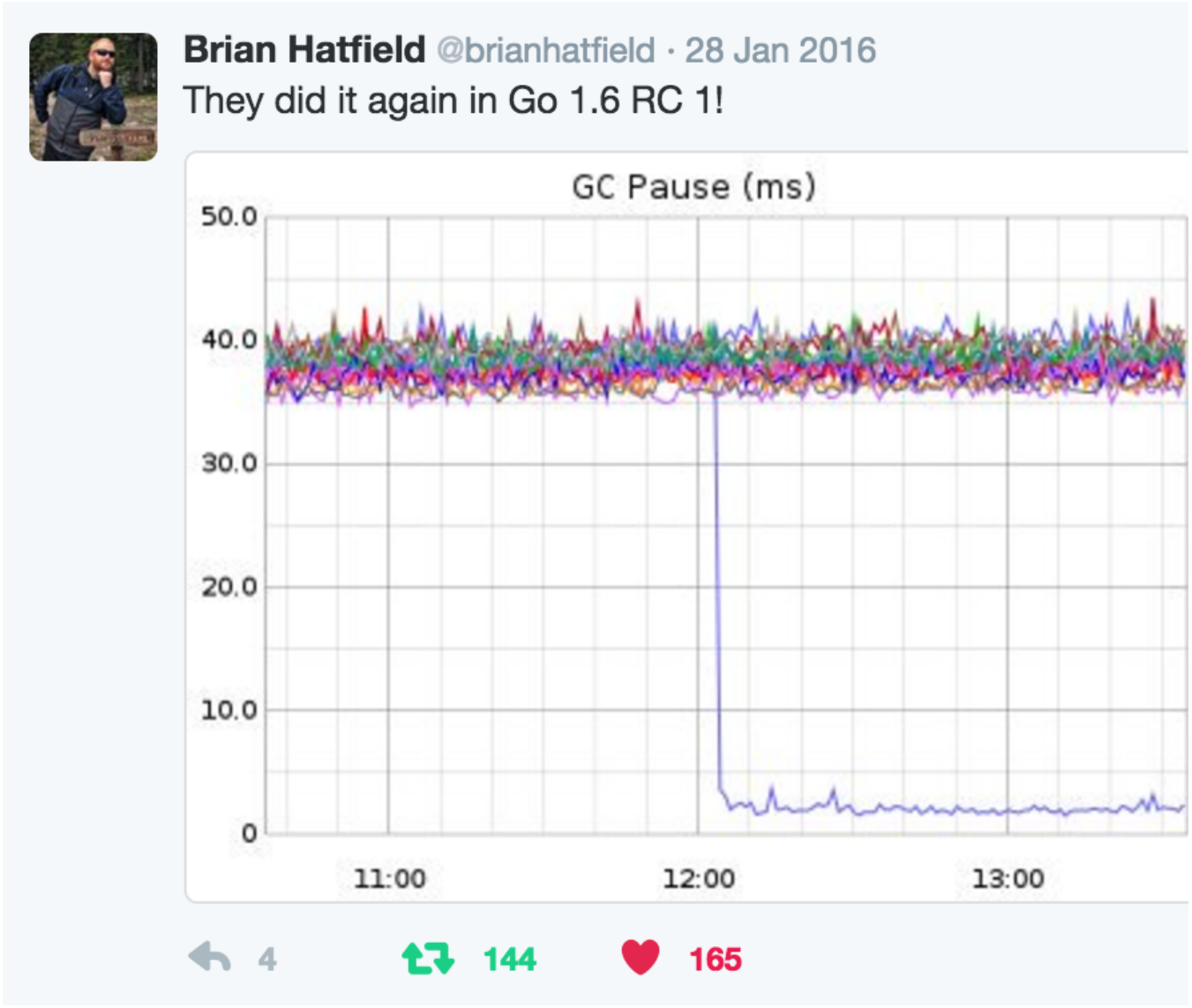
Brian Hatfield @brianhatfield · 19 Aug 2015

Amazing GC pause time improvements in Go 1.5.

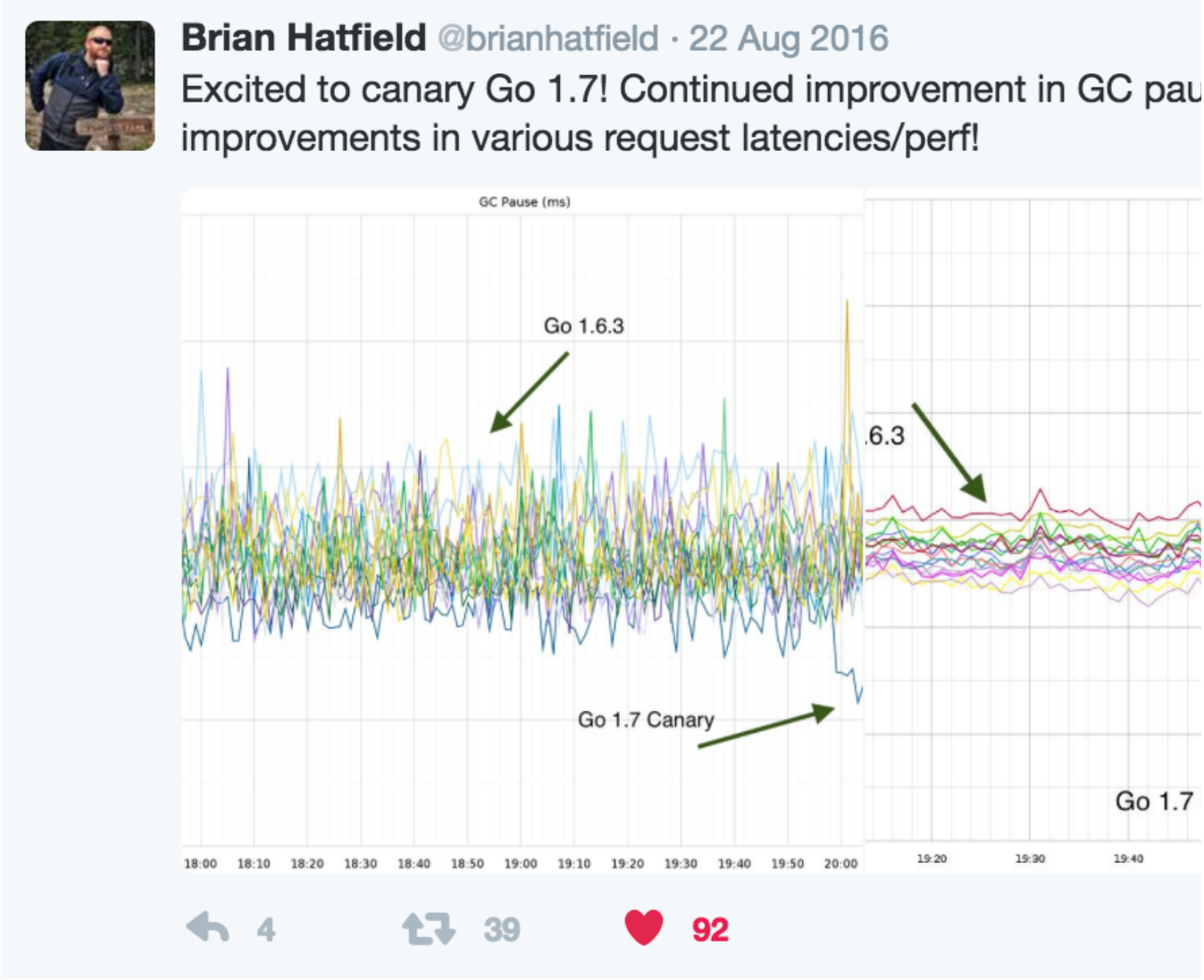


10 227 230

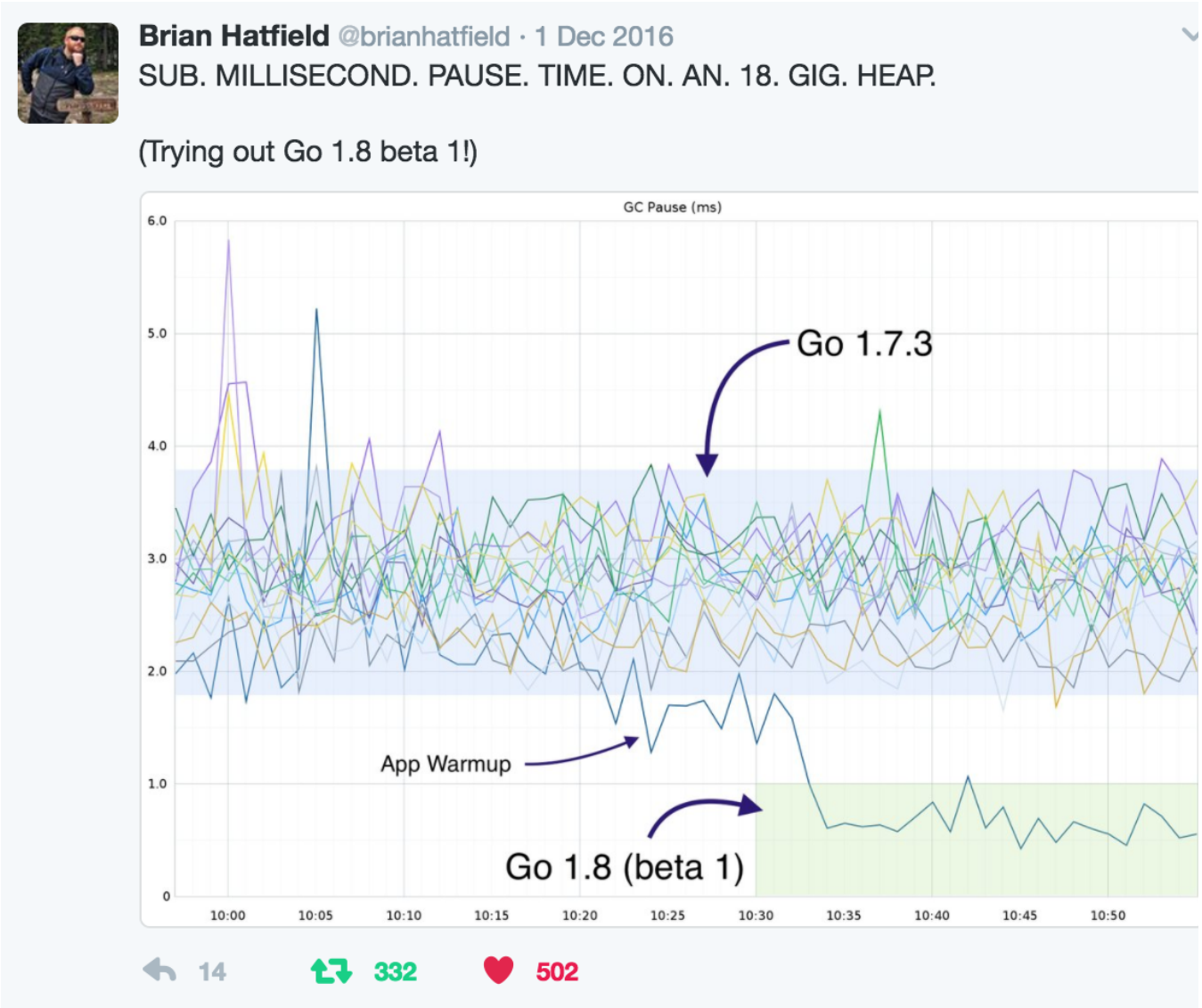
go 1.6


Brian Hatfield @brianhatfield · 28 Jan 2016
They did it again in Go 1.6 RC 1!
GC Pause (ms)
50.0
40.0
30.0
20.0
10.0
0
11:00
12:00
13:00
4
144
165

go 1.7


Brian Hatfield @brianhatfield · 22 Aug 2016
Excited to canary Go 1.7! Continued improvement in GC pau
improvements in various request latencies/perf!
GC Pause (ms)
Go 1.6.3
Go 1.7 Canary
.6.3
Go 1.7
18:00 18:10 18:20 18:30 18:40 18:50 19:00 19:10 19:20 19:30 19:40 19:50 20:00
19:20 19:30 19:40
4
39
92

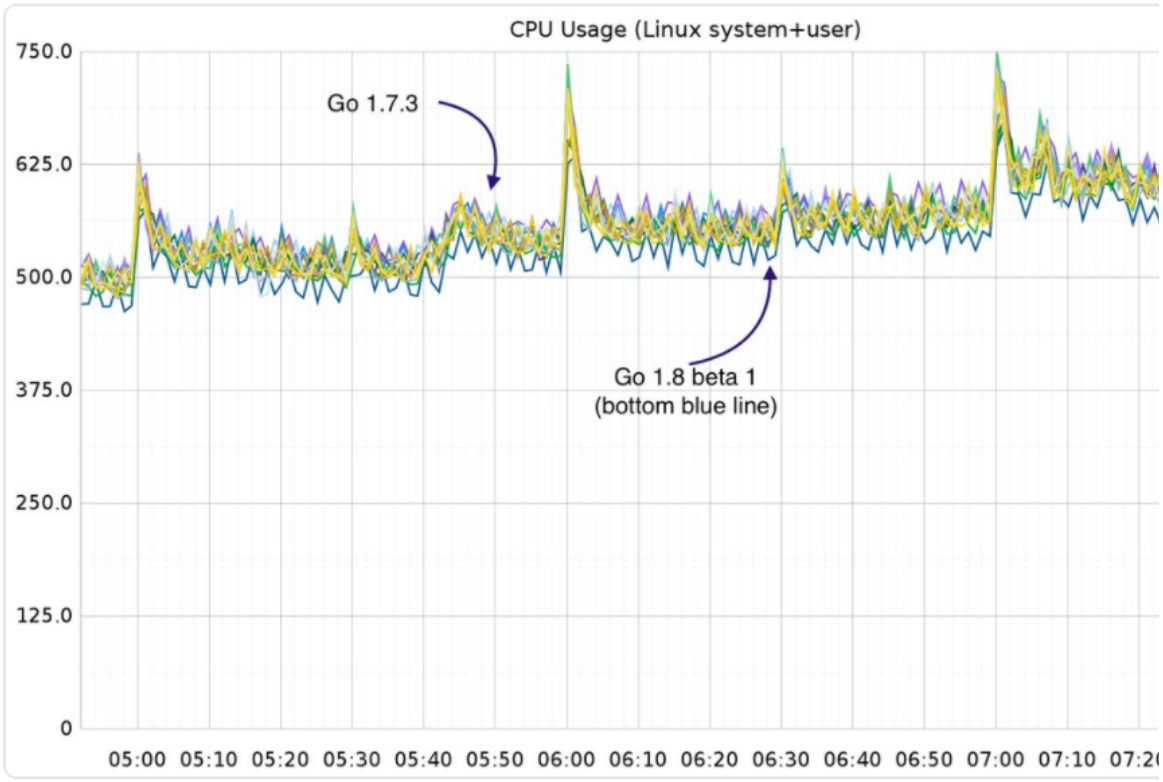
go 1.8 (beta 1)


Brian Hatfield @brianhatfield · 1 Dec 2016
SUB. MILLISECOND. PAUSE. TIME. ON. AN. 18. GIG. HEAP.
(Trying out Go 1.8 beta 1!)
GC Pause (ms)
6.0
5.0
4.0
3.0
2.0
1.0
0
Go 1.7.3
App Warmup
Go 1.8 (beta 1)
10:00
10:05
10:10
10:15
10:20
10:25
10:30
10:35
10:40
10:45
10:50
14
332
502

go 1.8 (beta 1) CPU

Brian Hatfield @brianhatfield · 2 Dec 2016

@tmornini On this particular service, properly scaled for what it does: different. Here's an imprecise measurement on Linux/amd64:



1 1 1

Highlight number 2: Plugins

Define a plugin:

```
package main

// No C code needed.
import "C"

import "fmt"

var V int

func F() { fmt.Printf("Hello, number %d\n", V) }
```

Then build it:

```
go build -buildmode=plugin
```

Note: This currently works only on Linux.

Plugins

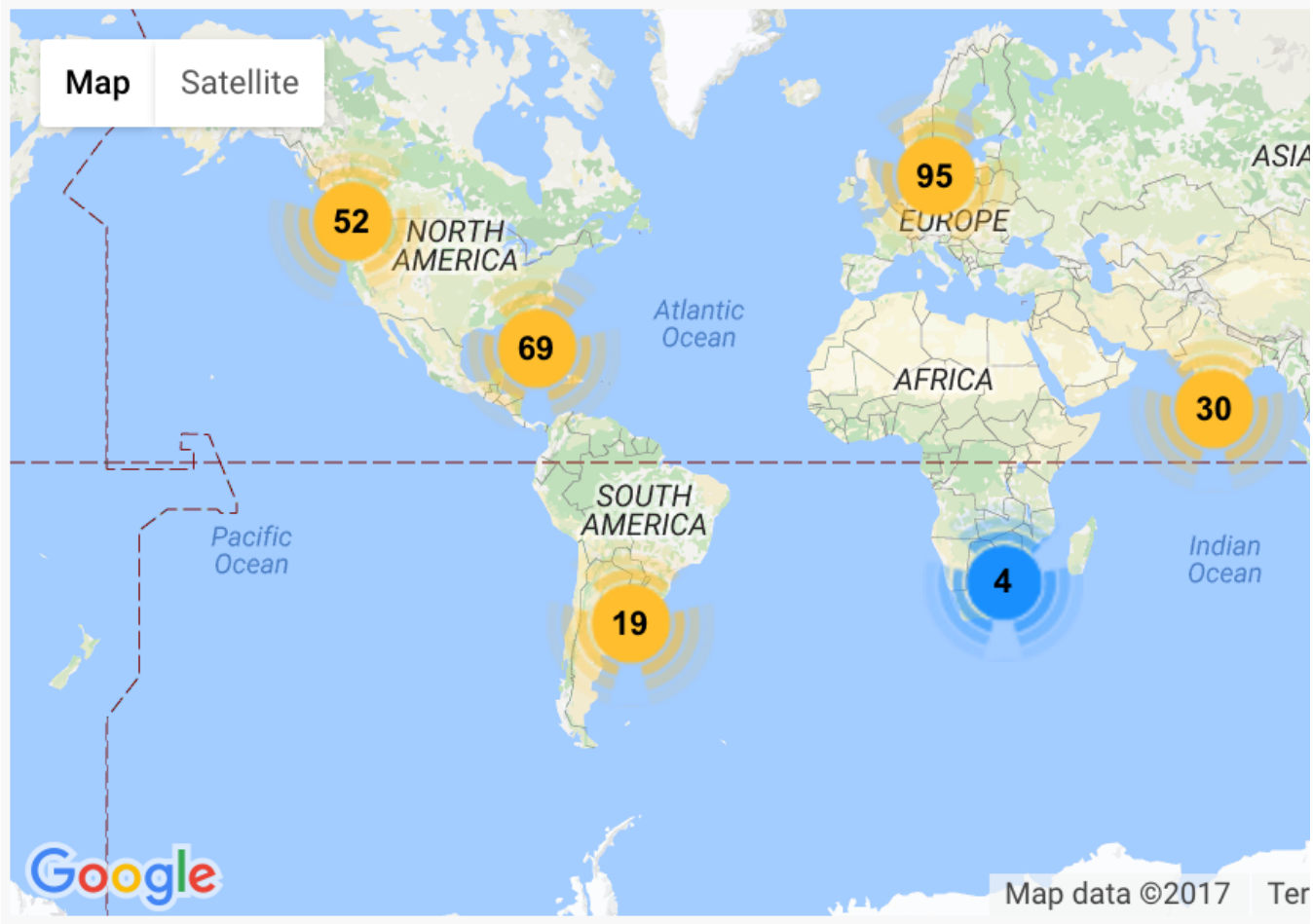
```
p, err := plugin.Open("plugin_name.so")
if err != nil {
    panic(err)
}

v, err := p.Lookup("V")
if err != nil {
    panic(err)
}

f, err := p.Lookup("F")
if err != nil {
    panic(err)
}

*v.(*int) = 7
f.(func())() // prints "Hello, number 7"
```

Plugins demo

Demo video: twitter.com/francesc (https://twitter.com/francesc/status/827851085943566336)

Source code: github.com/campoy/golang-plugins (https://github.com/campoy/golang-plugins)

Highlight #3: Go meetups and conferences



Gophers all around the world! go-meetups.appspot.com (http://go-meetups.appspot.com)

Conferences:

- FOSDEM (https://fosdem.org/2017/), earlier this month, these slides are from F. Campoy's talk there.
- GopherCon India (http://www.gophercon.in/), Feb 25-25th
- Gophercon Denver (https://gophercon.com/), Jul 12-15th
- Golang UK (http://golanguk.com/), August 16th-18th
- dotGo (http://2017.dotgo.eu/), Nov 6th

Thank you

Jason E. Aten, Ph.D.
Computer Scientist/Gopher
j.e.aten@gmail.com (mailto:j.e.aten@gmail.com)
GolangDFW Meetup