PM2

ujihisa
http://twitter.com/ujm
http://github.com/ujihisa

Nov 8, 2014
VimConf2014

What's PM2? (short version)

"ProcessManager" version 2

A vital.vim library to provide higher layer synchronous concurrent non-blocking read/write interface.

Requirement: vimproc

PM2 Keynote Agenda

Part 1
- ~~What's PM2? (short version)~~
- What was PM1?
  - Background
  - Distributed systems
- PM2 (long version)

Part 2

What was PM1?

Check my VimConf2013 slides
  http://ow.ly/DXMVe

Already used in
- thinca/quickrun.vim
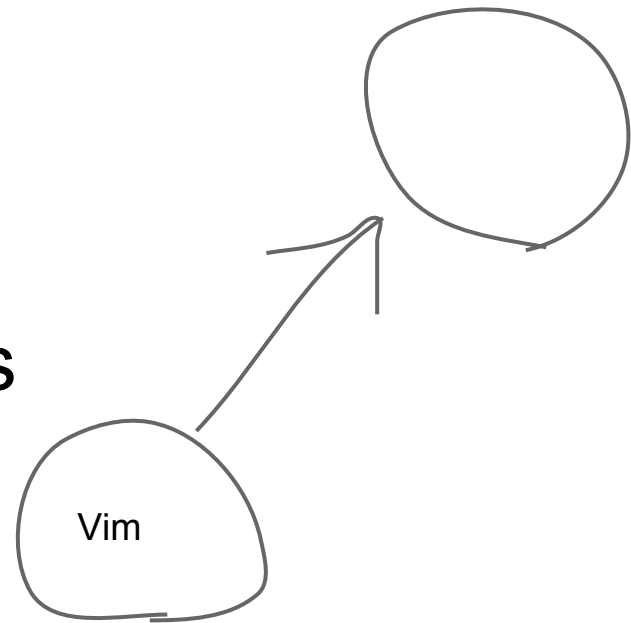- rhysd/unite-ruby-require

PM background stories

- new programming language
  - syntax/indent files
  - development/debugging support
- external process: bootup speed
  - JVM
  - Even in Ruby w/ libraries

Distributed Systems

are harder than you know (even if you knew.)

- Asynchronous
- Failures everywhere

Plus Latency really matters

Vim

Composability / idempotency

Application shouldn't be able not to take care of failure

- automatic retry
- manual retry
- explicit error
- restartable at any time
  - recovery from weird state

Asynchronous process library

Not a framework
  Don't put abstract layers too much

The law of leaky abstractions

issue: timeout management

"Some application developers may push for no timeout and argue it is OK to wait indefinitely. I typically propose they set the timeout to 30 years.[...] Why is 30 years silly but infinity is reasonable?" - Pat Helland

PM1 problems

(Still) Hard to use

Lots of cases to cover in application

PM1 https://github.com/thinca/vim-quickrun/blob/master/autoload/quickrun/runner/process_manager.vim

PM2 https://github.com/ujihisa/neoclojure.vim/blob/master/autoload/quickrun/runner/neoclojure.vim

https://twitter.com/kamichidu/status/344966720378789889

https://twitter.com/kamichidu/status/344863136555356160

https://gist.github.com/ujihisa/5761509

ProcessManager version 2.0

PM2

- Different Interface
  - reserve_read()
  - writeln()
  - go()
- Similar Interface
  - return flag (e.g. 'reading')

PM2

Working examples
- quickrun
- neoclojure
  - as a neocomplete plugin
  - as a quickrun runner
- ref
  - clojure doc
  - TODO (integrate to neoclojure)
- unite-build (WIP)

PM2 Status

- Working In Progress
  - I'll release stable version today
  - TODO: name
- Uses
  - merge req to quickrun.vim

Last update was couple months ago

Summary

- Making a Vim plugin with another process is hard
- Vital.ProcessManager makes it easy and doesn't hide details
- ProcessManager2 has better UI for plugin authors

Part2

Before Part 2

What's the name of the scripting language for Vim?

Vim script / Vim scripts

Not VimScript, Vimscript, or VimL

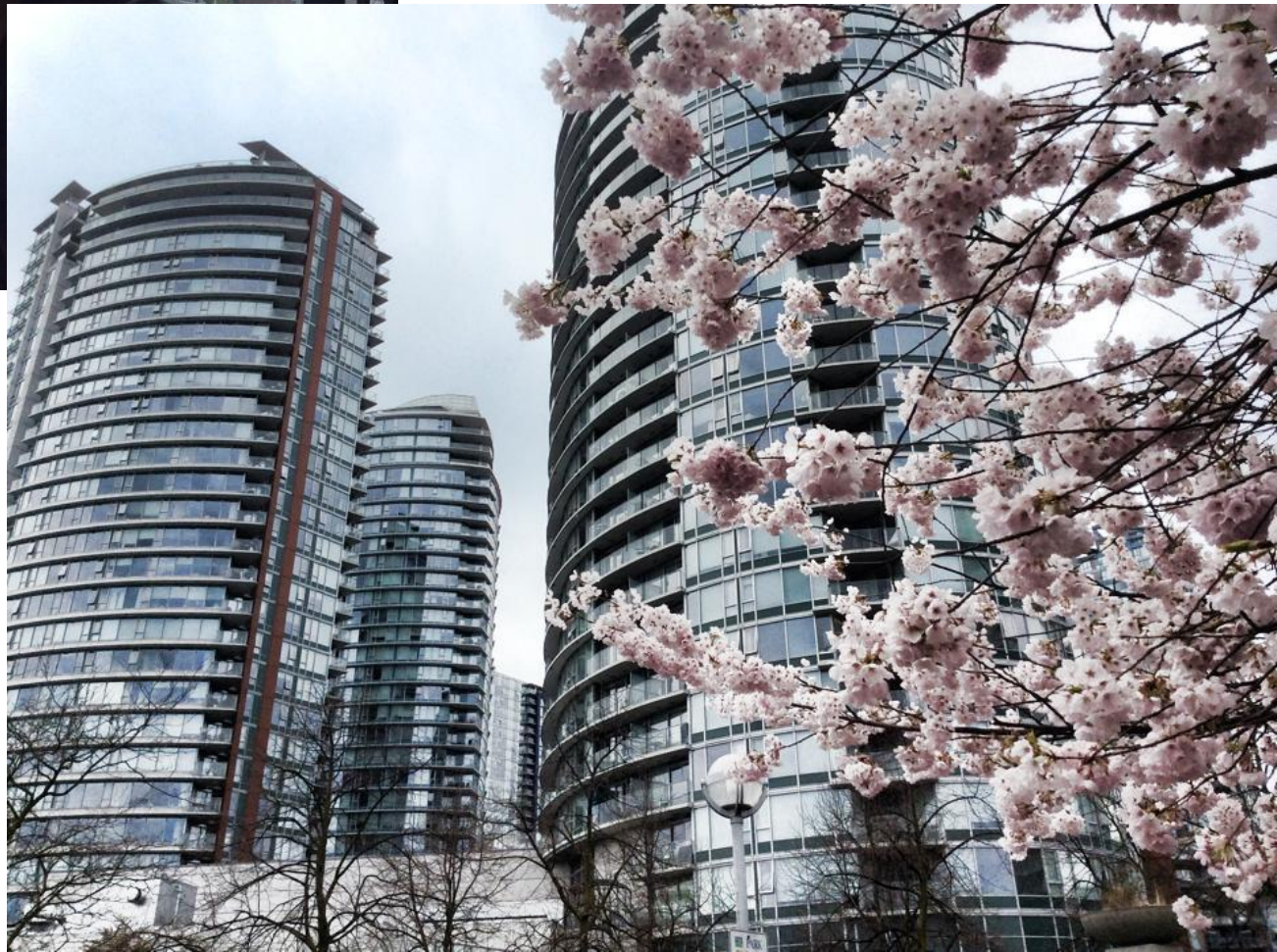# ujihisa

Tatsuhiro Ujihisa

~2009 Osaka, Japan

2009~ Vancouver, BC, Canada

2010~

   Hootsuite Media Inc

Vancouver

Hootsuite

PHP + JS

Scala

akka, play framework, zeromq, rabbitmq, mysql, mongodb, riak, redis, zookeeper, and lots more

PHPStorm for PHP
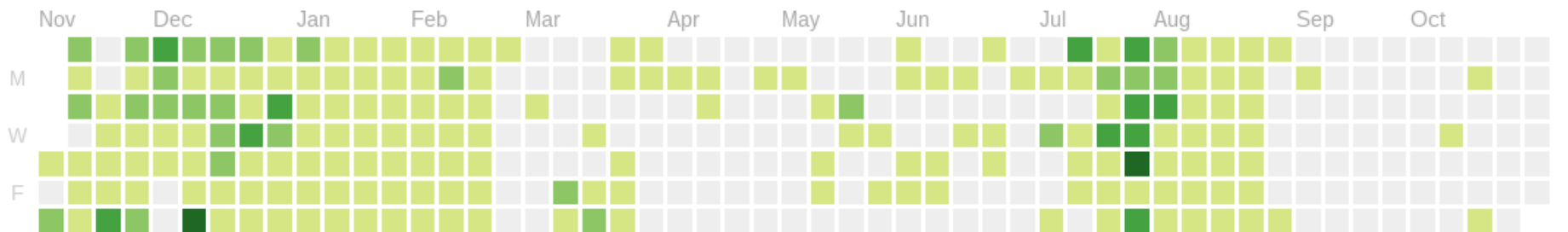
IntelliJ IDEA for Scala

Hootsuite is hiring!

https://hootsuite.com/about/careers

ujihisa

http://twitter.com/ujihisa

http://github.com/ujihisa

Clojure, Vim script, Haskell, Scala, Ruby
Minecraft, Civilization 5

http://github.com/ujihisa

+371   473 (+95)   84   GOLDEN AGE! (2)   652/2215 (+118)   96 (+24)   0   1   0   3   4   Turn: 309 2029 AD | HELP | MENU

Penicillin (9)

23 HIPPO REGIUS

20 9 ROTTERDAM 2

2
96

17 PRAGUE

79

21 8 ★ AMSTERDAM 4

85

26 7 UTRECHT 5

70

A UNIT NEEDS ORDERS

GEORGE DEWEY (GREAT ADMIRAL)

Movement 4/6

15 2 GRONINGEN 15

66

Civilization 5 (Brave New World)

やばい

bonus points
- likes world history
- likes optimizations
- likes hacks

やばい

Lessons learned

- Friendship really matters
  - Why bullying / discrimination happens
- Diplomacy is fun
  - Global peaceful is bad in Civ5

Q?