

JRuby Everywhere!



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JRubyConf!

- Our first conference! (Thanks, EY!!)
- Sunday, this hotel, all day, 30min talks
- Free!
- “Sold out”! (in 5 hours!)
- www.jrubyconf.com

Since Last Year

- 3 major production releases
- Thousands of commits
- Mo' betta' compatibility
- Many Java integration fixes, perf work
- Memory, startup time improvements
- Moved to Engine Yard

JRuby 1.4.0

- Released November 2
- 300+ bug fixes
- 1.8 support based on 1.8.7p174
- Improved (not complete) 1.9 support
- Installer + native .exe for Windows
- Java integration improvements

JRuby 1.4.0

- New embedding API “RedBridge”
- Bug-for-bug port of Syck (YAML)
- More memory reductions
- RubyGems, Rake, RSpec updates
- Focused perf fixes (IO, JI)

Note on Compatibility

- ~37,000 passing rubyspecs
- ~22,000 passing assertions
- Continuous integration
 - On commit: ~3 Java versions * 4 vendors
 - Nightly: 30 minute “full” run

Incompatibilities

- Missing some POSIX behavior (e.g. `fork()`)
- No continuations (`callcc`)
- Slower startup
- Cannot run native C extensions
 - Java-based equivalents (`ar-jdbc`, `yaml`, ...)
 - Foreign Function Interface (FFI)

Carnival of Venice

Demo

Enterprise Ruby

- The enterprise exists
- The enterprise has lots of money
- You like money
- You like Ruby
- You can take money from the enterprise
- This is good!

What Do They Want

- Fire and forget deployment
- Long uptimes
- Locked-down servers (no GCC)
- Windows (sucks, but that's life)
- Legacy libraries, applications

JRuby to the Rescue!

- Deploy to Java app servers
- Use any v1.5+ JVM (there's several)
- No recompiling for the server
- Works great on Windows
- Use Ruby or Java libraries + legacy code

JVM = Awesome

- Mature
- Pervasive
- High performance
- Awesome GC

Maturity

- Decade+ of debugging, optimization
- Incredibly long uptimes
- Still improving
- Many competing implementations
- Excellent tool support

JConsole

Demo

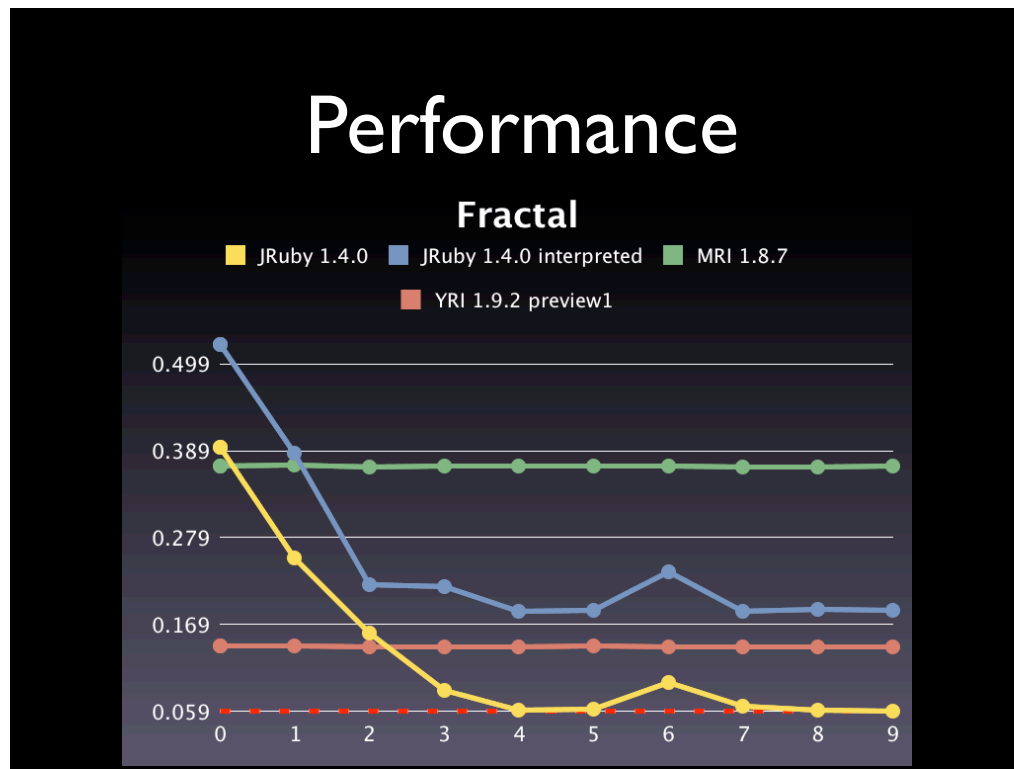
Pervasive

- Every major platform has a JVM
- Usually already installed
- All have to pass (rigorous!) Java TCK

Android

Demo

Performance



These fractal iterations are short to get better resolution on hotspot optimizations

Notice at 6 iteration something in Java 6 causes a deopt and then re-opts. New optimization in 6 which recovers by applying a new optimization

MADNESS!?!?!?

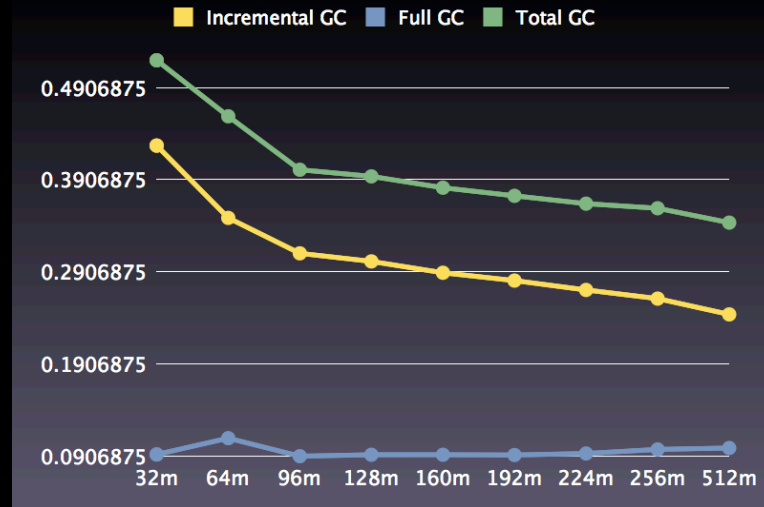
Demo

Garbage Collection

- Several GC options for each JVM
 - Incremental, compacting, generational, parallel, concurrent, more?
- Armies of GC experts
- Best GC of all Ruby platforms

GC Times

GC time vs heap (gem install rake)



New Users

- Gilt Group
- Oslo Gardermoen Airport (now live!)
- Allen Telescope Array
- PONS.eu
- Lots and lots of Rails deployments

JRuby Futures

- Clean up known perf issues
- New optimizing compiler
- Java integration parity with JVM langs
- Java 7 “invokedynamic” support
- MLVM tail calls, continuations, fixnums
- Engine Yard Cloud, JRuby Support

Jibernate

Demo

Get Started!

- Download from www.jruby.org
- Unpack/install and run!
- Join ML, IRC
- Spread the word!

Linkity

- www.jruby.org
- wiki.jruby.org => kenai.com wiki page
- headius@headius.com, @headius
- tom.enebo@gmail.com, @tom_enebo
- www.engineyard.com