OpenJDK 7

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OpenJDK 7

What
How
When
Who
You

Features $\left\{\begin{array}{l} \textbf{Sun} \\ \textbf{Others} \end{array}\right.$

Features **{** Sun
Others

PROVISIONAL
SUBJECT TO CHANGE

4

Features from Sun: Big

- Modularization (JSR 294 + Jigsaw)
- JSR 292: VM support for dynamic languages
- JSR 203: More New I/O APIs
- JSR TBD: Small language changes
- JSR 296: Swing Application Framework
- Forward-port 6u10 features
  > Java Kernel, Quickstarter, New Plug-In, *etc.*

Features from Sun: Small

- SCTP (Stream Control Transmission Protocol)
- SDP (Sockets Direct Protocol)
- Upgrade class-loader architecture
- Method to close a URLClassLoader
- Unicode 5.0 support
- Swing updates
  > JXLayer, DatePicker, CSS styling — *maybe*

Features from Sun: Fast

- Yet more HotSpot run-time compiler enhancements

- G1 garbage collector

- Compressed-pointer 64-bit VM

Features from others

- XRender Pipeline for Java 2D
  - > Clemens Eisserer
- JSR 308: Annotations on Java Types
  - > Prof. Michael Ernst, Mahmood Ali
- Concurrency and collections updates
  - > Doug Lea, Josh Bloch, *et al.*
  - > Fork/join framework
  - > Phasers — Generalized barriers
  - > LinkedTransferQueue — Generalized queue
  - > ConcurrentReferenceHashMap
  - > Fences — Fine-grained read/write ordering

Features not in 7*

- Closures
- Other language features
  - > Reified generic types
  - > First-class properties
  - > Operator overloading
  - > BigDecimal syntax
- JSR 295: Beans Binding

Well, at least some of them

How: Milestone-based schedule

- New Milestone (M1, M2, …) every 6-8 weeks
  - > Synchronized with QA cycles
  - > Last two weeks are for stabilization
  - > Later cycles have longer stabilization periods
    - – Final cycle likely entirely for stabilization

- Features
  - > Will be targeted to specific milestones
    - – Few will be scheduled for the final pre-freeze cycle
  - > Will be integrated when (nearly) complete
    - – No dribbling code in over time

When: Schedule*

M1 2009/2/23
M2 2009/4/13
M3 2009/6/1   *JavaOne Preview*
M4 2009/7/20
M5 2009/9/7
M6 2009/10/26   *Freeze*
M7 2009/12/14
M8 2010/3/10   *FCS*

* Dates & details still subject to fine tuning

Who: Team structure (DRAFT)

- Release Team
  - > Owns feature list, controls change, delivers the release
  - > MR, Joe Darcy, Paul Hohensee, Phil Race, Vita Santrucek
- Change-Review Team = Release Team ++
  - > Reviews all API/interface/compatibility changes
  - > Reviews code (sometimes)
  - > Broad group of senior engineers
    - – Including key non-Sun contributors
- Implementation Teams
  - > One per feature
  - > Cross-functional (dev, qe, jck, docs, ue)

I NEED YOU for JDK DEVELOPMENT

http://openjdk.java.net

You can help!

- Review changes
  - > Subscribe to -dev lists of interest
  - > Participate in code reviews
    - – http://cr.openjdk.java.net
    - – *Thanks: Tim Bell*

- Build and test
  - > Especially on platforms that Sun doesn't cover
  - > Report bugs: http://bugs.sun.com

- Submit fixes, enhancements, & features
  - > http://hg.openjdk.java.net/jdk7/jdk7/...
  - > http://bugs.openjdk.java.net

Poll question @ FOSDEM 2008

Bugzilla

or

JIRA?

http://bugs.openjdk.java.net

- Brand-new Bugzilla instance
  - > *Thanks: Brad Wetmore*
- Now: For submitting and tracking patches against OpenJDK 6 and 7
  - > Create bug, attach patch
  - > Set sponsor flag to "?"
  - > Current committers can then consider sponsoring your patch
- Later: For submitting and tracking all bugs
  - > First need to build a bridge to Sun's internal legacy systems

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http://openjdk.java.net/projects/jdk7