



OpenJDK

OpenJDK and the Free Java Packaging Roadmap

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Agenda

- Upstream Past & Future
- Free Java Packaging Roadmap
- Java Policy

Upstream Past & Future

Early launch: November 2006

- GPL v2 + “Classpath” exception
- JDK 7 HotSpot VM & Java compiler
- Source bundles & read-only Subversion
 - > Updated at each promoted build
- Current java.net infrastructure
 - > Static web pages, e-mail lists

Upstream Past & Future (2)

Full launch: JavaOne 2007 (May 8)

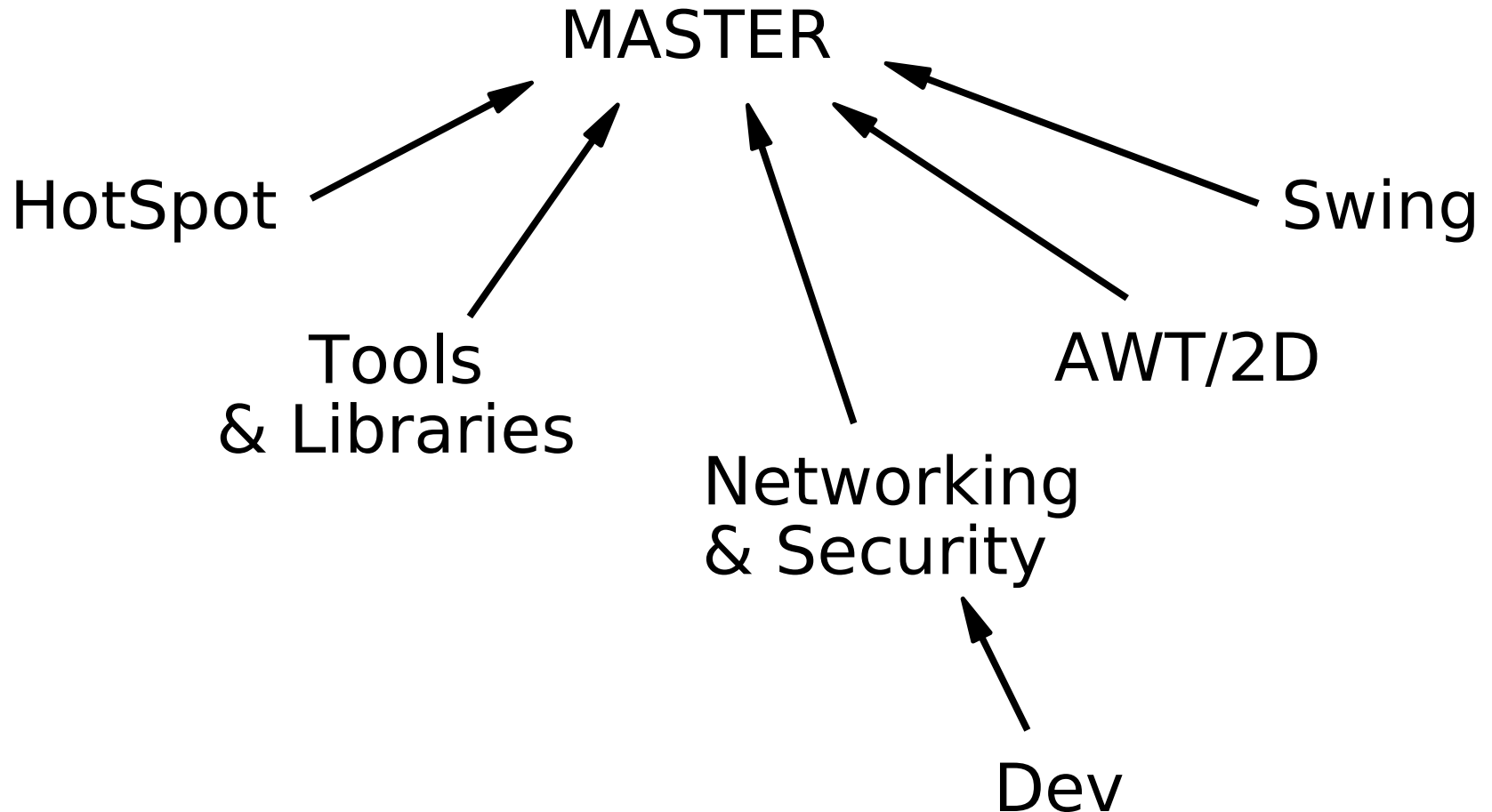
- Fully-buildable JDK 7
 - > With “binary plugs” for encumbered modules
 - > Interim measure until free replacements can be developed
- Source bundles & read-only Subversion
- Current java.net infrastructure
 - > Sorry.

Upstream Past & Future (3)

Following full launch, over time

- Improved java.net infrastructure!
 - > Dynamic content, wiki, source browser, ...
- Public Mercurial repository
 - > With support for external committers
- Processes & tools fully externalized
- Release deployment code (plugin, javaws)
- Additional OS/chip port source code
- OpenJDK TCK
 - > (required for “Java Compatible (TM)”

Code flow



Source-code management

Future: Mercurial

- Need fully distributed VCS
- Scales well across the net
 - > HTTP & SSH, not NFS

<http://selenic.com/mercurial>



Bug tracking

- Currently an internal system
 - > Cannot be open-sourced
 - > Cannot be externalized as-is
- Looking at open-source alternatives
- Complex problem!
 - > Tracking bugs across different projects
 - > Not just at Sun, but upstream (e.g. GNOME)
 - > and downstream (e.g. Debian)
 - > Sun's internal needs (gotta pay the bills)
 - > Service calls, customer escalations, *etc.*

Any suggestions?

Free Java Packaging Roadmap

- Build from 100% open source: IcedTea
- Complete and merge-in code to OpenJDK
- OpenJDK gets into main as Build-Depends
- Revitalize Java library packaging
- Revitalize Java application packaging

IcedTea

- OpenJDK w/o the binary plugs
- Wiki, Hg repository, Bugzilla
 - > <http://icedtea.classpath.org>
- Mailing list on OpenJDK: distro-pkg-dev
 - > <http://openjdk.java.net>
- Bootstrap with GCJ (then itself)
- Basis for open source replacements
- Will merge code to OpenJDK
 - > Under Sun Contributor Agreement (SCA)
 - > Working with FSF/SFLC for Classpath grantbacks
- Done by aph (et cie) at Fedora

IcedTea and Debian

- man-di initial packages
 - > icedtea-builddeps icedtea
 - > icedtea-7~b13-20070621-1
- IcedTea to be uploaded to experimental after upstream b14 (end of June)
- OpenJDK to be a release goal for lenny
- NOTE: OpenJDK is JDK 7 alpha
 - > openjdk-7~b30-20071001-1
- We will have a build option to make OpenJDK pass the JDK 6 TCK
 - > openjdk-6-1

Packages for the Free Java Platform

- tools: NetBeans
- libraries: JavaHelp, Jambi
- servers: glassfish, grizzly, wonderland, JavaDB
- client tools: jmaki, orbit (fast AJAX)
- applications: JOSM, powerrock, freebase

Java Policy

- Handle runtime alternatives
 - > /usr/lib/jvm/*
 - > priorities
- Handle universal set of alternatives
 - > javac, pack200, etc. (dummy runtime)?
- man pages to agree with selected runtime
- Commands to select alternatives
 - > update-java-alternatives
 - > equivalent GUI tool
 - > support system *and* user default choice?

Java Policy (2)

- Integration
 - > desktop files
 - > support binfmt_misc?
- Facility for command line tuning
 - > system vs. user
 - > may be runtime dependent

Java Policy (3)

- Packaging assistance
 - > upstream watchers
 - > provides: java[4567]-runtime? /usr/bin/java5?
 - > continue library ABI major version in pkg name?
 - > allow multiple library versions in the archive?
 - > dh_java (& CDBS) support?
- Drive better upstream library/app behavior
 - > Collaborate with Fedora on the dependency graph
 - > upstream/downstream/distro bug sharing
- Modularity
 - > Integration with JSR 277 (and friends)

Q&A



OpenJDK

