JDK 9 Outreach

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OpenJDK Quality Group Lead
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Java
Your
Next
(Cloud)

Safe Harbor Statement

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Program Agenda

1 OpenJDK Quality Outreach Update

2 Quality Outreach By The Numbers

3 JDK 9 Outreach Experiences

4 Where Do We Go Next?

OpenJDK Quality Outreach Update

- Doubled the number of participating FOSS projects
  - 19 added in last 6 months
  - 104 Open Source Projects
- Issues submitted by participating projects up almost 50% Y/Y
  - ~ 37 issues logged in the last six months
  - ~ 72 issues submitted in past year
  - ~185 issues submitted overall so far

104 Open Source Projects

Ant
Batik
Builds
Chemistry
Commons
VFS
CXF
HttpComponents
Derby
Jmeter
Karaf
Log4j
Lucene/Solr
Maven
Metamodel
PDFBox
POI
Tika

Antlr
Asciidoctorj
AssertJ
Arquillian
Byteman
BlueJ
Checkstyle
Classworlds
Clojure
CruiseControl
DataCleaner
Drools
EasyMock
Eclipse
Eclipse-AspectJ
Eclipse GEF
Eclipse-Jetty
Eclipse-Vert.x
FXGraphics2D

ECHache
ElasticSearch
Findbugs
FXGraphics
Gradle
GraphHopper
Greenfoot
Griffon
Groovy
Hadoop
Hazelcast
HeapStats
Hibernate
HSQLDB
IntelliJ
Jackson
JaCoCo

Javassist
JavaEWAH
jBPM
JBossForge
Jfreechart
JFreeSVG
JITWatch
Jline
JOSM
Qdox
Roaring
RxJava
ZXing
Ratpack
Objensis
Optaplanner
oVirt engine

Classworlds

Eclipse IBM
Eclipse GEF
EHCache
Golo
Hudson
Jogl-jogamp
Junit 5
Jython
Polygene
LWJGL

EJBCA
ISIS
Proguard
PMD
Reflections

MongoDB- Morphia
MongoDB - Java Driver
Redhat Infispan
Redhat Netty
Redhat Tools
Redhat Wildfly
Scala Team,Lightbend
SonarQube
Spring
SLF4J
Thermostat
Tomcat
Travis CI
Woodstox
Xstream
Xtend
Xtext

Projects added in the last 6 months

- Apache Polygene
- Qdox
- Jline
- Apache Karaf
- Apache HttpComponents
- RxJava
- Classworlds
- Zxing
- Eclipse GEF
- JavaEWAH
- Roaring

- BlueJ
- Greenfoot
- Thermostat
- oVirt engine
- SLF4J
- Javassist
- EHCache
- Golo

OpenJDK Quality Outreach Update

Easy To Join

- e-mail to quality-discuss@openjdk.java.net or rory.odonnell@oracle.com

- Someone will get back to you with details ...
  - Soon!

FOSS Bugs logged in the last year

	Issues submitted in past year (72)		Issues submitted in past year		Issues submitted in past year
Apache Lucene	14	Apache POI	5	Apache Derby	1
IntelliJ IDEA	10	Jboss Wildfly	4	Apache Ant	1
Apache Tomcat	8	PDF Box	3	Pmd	1
JOSM	8	Apache Commons	2	Scala	1
Apache Maven	6	Apache JMeter	2		
JaCoCo	6	Hibernate	2		

Issues Submitted - By Priority since Nov'13.

Two Dimensional Filter Statistics by Resolution

Priority	Unresolved	Fixed	Won't Fix	Duplicate	Incomplete	Cannot Reproduce	Not an Issue	T:
P1	0	11	0	0	0	0	0	11
P2	0	33	0	6	0	3	2	44
P3	5	53	3	15	2	5	10	93
P4	18	7	1	1	3	3	3	36
P5	0	1	0	0	0	0	0	1
Total Unique Issues:	23	105	4	22	5	11	15	185

Issues Submitted - By Component

Two Dimensional Filter Statistics by Priority					
Components	① P1	② P2	③ P3	④ P4	⑤ P5	T:
client-libs	0	2	17	9	0	**28**
core-libs	2	9	26	10	0	**47**
core-svc	1	0	3	0	0	**4**
deploy	0	0	2	2	0	**4**
hotspot	5	22	20	5	0	**52**
infrastructure	1	0	1	0	0	**2**
javafx	0	1	0	1	1	**3**
security-libs	2	0	2	4	0	**8**
tools	0	9	18	4	0	**31**
xml	0	1	4	1	0	**6**
Total Unique Issues:	**11**	**44**	**93**	**36**	**1**	**185**

JDK 9 Outreach Experiences

Increased Awareness & Participation

- 6x increase in JDK 9-related traffic in FOSS projects since 2014 Y/Y
  - 2014: 1015 messages on Markmail **outside of OpenJDK mailing lists**
  - 2015: 2545 messages
  - 2016: 6715 messages

- 1 year before JDK 9 GA: **more than 2x what it was for JDK 8 at same time**
  - 2013: 2386 messages on Markmail **outside** of OpenJDK mailing lists

JDK 9 Outreach Survey

- Targeting OpenJDK Quality Outreach participants

- Ran for two weeks before JavaOne

- Summary of results was posted on discuss@openjdk.java.net
  - 37 responses (out of 77 participating projects at the time)
  - 89% had tried building their FOSS project with JDK 9 EA builds
  - 16% planned to support JDK 9 immediately from JDK 9 GA
  - 54% planned to support JDK 9 in their project within six months after JDK 9 GA
  - 86% planned to support JDK 9 in their project within a year after JDK 9 GA
  - More: http://mail.openjdk.java.net/pipermail/discuss/2016-November/004089.html

JDK 9 Outreach Example

JDK–8163449 : Allow per protocol setting for URLConnection defaultUseCaches

- Submitted by Mark Thomas from the Apache Tomcat project
  - "The default behavior of URLConnection is to use caching. This can cause file descriptor leaks / locked files when using JarURLConnection.

    My suggestion is that the constructor for JarURLConnection be modified to change the default for useCaches to false for JarURLConnection instances. "

- Discussed on tomcat-dev@apache.org and core-libs-dev@openjdk.java.net

- Resolved by adding an API for this, while maintaining current behavior

- @since 9: public static get/setDefaultUseCaches in java.net.URLConnection

JDK 9 Outreach Example

JDK-8165116: redirect function is not allowed even with enableExtensionFunctions

- Outreach team can often help with simple problems
  - Use javac –release flag when cross compiling for older JDKs
  - See http://openjdk.java.net/jeps/247 for details
- If we can't help you directly
  - We might ask you to file an issue and let us know the ID
  - We might ask you to start a thread on an OpenJDK list

JDK 9 Outreach Example

JDK-8165116: redirect function is not allowed even with enableExtensionFunctions

- Submitted by Stefan Bodewig from the Apache Ant project
  - "This is our use-case: The user wants to execute **Ant**'s <xslt>-Task from within Eclipse which has installed a SecurityManager and the transform requires an extension. How can we make this work? "

- Discussed on core-libs-dev@openjdk.java.net

- Resolved by
  - fixing a bug in the JDK, and
  - adjustments to code in Apache Ant

Subject: Re: Last Ant Test Failure with JDK9 - JAXP Secure Processing and XSLT Extensions
From: Stefan Bodewig (bode...@apache.org)
Date: Sep 20, 2016 6:46:50 am
List: net.java.openjdk.core-libs-dev

Hi Joe

On 2016-09-08, Joe Wang wrote:

> It's great to know you've found the solution! Hopefully this is indeed the last issue for you with JDK 9 :-)

> I've checked in a fix for the redirect failure [1] into the dev repo. It would probably be included in the next week's build (b136). Please let me know if this doesn't work.

> [1] https://bugs.openjdk.java.net/browse/JDK-8165116

I can confirm it works, all of Ant's tests pass with b136 :-)

Many thanks

Stefan

JDK 9 Outreach Examples

Apache Logging Services

SUNDAY JULY 17, 2016

Moving on to Log4j 2: Log4j 1.2 is broken on Java 9

Log4j 1 has had a good run. First released in 1999, it is still widely used in a variety of Java-based projects. With Java 9, that is likely to come to an end: Log4j 1.2 is broken on Java 9. Essentially the MDC depends on the Java version string, which does not play well with Java 9's new version-string format.

The Apache Logging PMC announced in August 2015 that Log4j 1 reached End Of Life and there would be no further releases. The announcement encouraged users to upgrade to its successor, Log4j 2.

What does this mean, concretely? Most of Log4j 1.2 will still work on Java 9. The issue described above is with the MDC (what is now called the ThreadContext map). If you don't use the MDC you may not be impacted, and even if you are impacted this workaround may help.

What has changed is that doing nothing is no longer the safest option. You could endeavor to continue using Log4j 1.2 even on Java 9, but why would you?

LOG4J 2.6.2 ™

Julian Hyde
@julianhyde

Following ⌄

Are you on JDK 9 yet?

I've been upgrading various projects I maintain to JDK 9. Fairly straightforward since b150 fixed a critical bug.

RETWEET	LIKES	
1	7	

7:21 PM - 12 Jan 2017

Henri Tremblay
@henri_tremblay

Following

#Objenesis 2.5 is out! It includes @Java 9 support. Here or on Maven central
objenesis.org/download.html

RETWEETS	LIKES	
11	18	

3:44 PM - 13 Jan 2017

JDK 9 Outreach Examples

Robert Scholte
@rfscholte
Following

Apache Maven Compiler Plugin 3.6.1 has been released. Includes support of test-compile for JDK9 build 148+ #jigsaw #maven

RETWEETS 5   LIKES 5

6:29 PM - 16 Jan 2017

Robert Scholte
@rfscholte
Following

QDox 2.0-M5 released, which supports the new ModuleDeclaration as per JDK 9 b148 (e.g. open modules). m-compiler-p should follow soon.

RETWEETS 2   LIKE 1

5:17 PM - 11 Jan 2017

Robert Scholte
@rfscholte
Following

#maven dependency plugin 3.0.0 released! Check out the module names when running the list-goal with #Java9 #Jigsaw

```
[INFO] --- maven-dependency-plugin:3.0.0:list (default-cli) @ maven-dependency-plugin ---
[INFO]
[INFO] The following files have been resolved:
[INFO]    com.google.code.findbugs:jsr305:jar:2.0.1:compile -- module jsr (auto)
[INFO]    org.apache.maven.wagon:wagon-provider-api:jar:1.0-beta-6:compile -- module wagon.provider.api (auto)
[INFO]    org.apache.maven:maven-compat:jar:3.0:test -- module maven.compat (auto)
[INFO]    org.apache.maven.doxia:doxia-decoration-model:jar:1.4:compile -- module doxia.decoration.model (auto)
[INFO]    org.apache.maven:maven-settings-builder:jar:3.0:compile -- module maven.settings.builder (auto)
[INFO]    org.sonatype.aether:aether-util:jar:1.7:compile -- module aether.util (auto)
[INFO]    org.apache.maven:maven-core:jar:3.0:compile -- module maven.core (auto)
[INFO]    org.apache.maven:maven-model:jar:3.0:compile -- module maven.model (auto)
[INFO]    org.codehaus.plexus:plexus-velocity:jar:1.1.7:compile -- module plexus.velocity (auto)
[INFO]    org.apache.maven.shared:maven-common-artifact-filters:jar:3.0.0:compile -- module maven.common.artifact.filters (auto)
[INFO]    org.apache.maven.doxia:doxia-sink-api:jar:1.4:compile -- module doxia.sink.api (auto)
[INFO]    org.apache.struts:struts-taglib:jar:1.3.8:compile -- module struts.taglib (auto)
[INFO]    org.apache.maven:maven-artifact:jar:3.0:compile -- module maven.artifact (auto)
[INFO]    org.apache.maven.shared:file-management:jar:1.2.1:compile -- module file.management (auto)
[INFO]    org.apache.velocity:velocity-tools:jar:2.0:compile -- module velocity.tools (auto)
[INFO]    org.apache.struts:struts-tiles:jar:1.3.8:compile -- module struts.tiles (auto)
[INFO]    org.apache.maven.reporting:maven-reporting-api:jar:3.0:compile -- module maven.reporting.api (auto)
[INFO]    org.apache.maven:maven-model-builder:jar:3.0:compile -- module maven.model.builder (auto)
[INFO]    sslext:sslext:jar:1.2-0:compile -- module sslext (auto)
[INFO]    org.tukaani:xz:jar:1.5:runtime -- module xz (auto)
[INFO]    org.ow2.asm:asm:jar:5.0.2:compile -- module asm (auto)
[INFO]    org.apache.maven:maven-repository-metadata:jar:3.0:compile -- module maven.repository.metadata (auto)
```

RETWEETS 41   LIKES 48

5:18 PM - 16 Dec 2016

Where Do We Go Next?
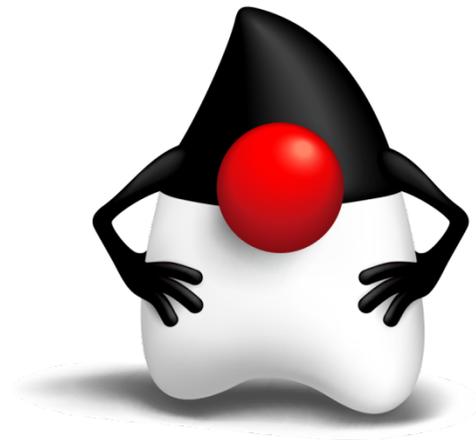
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