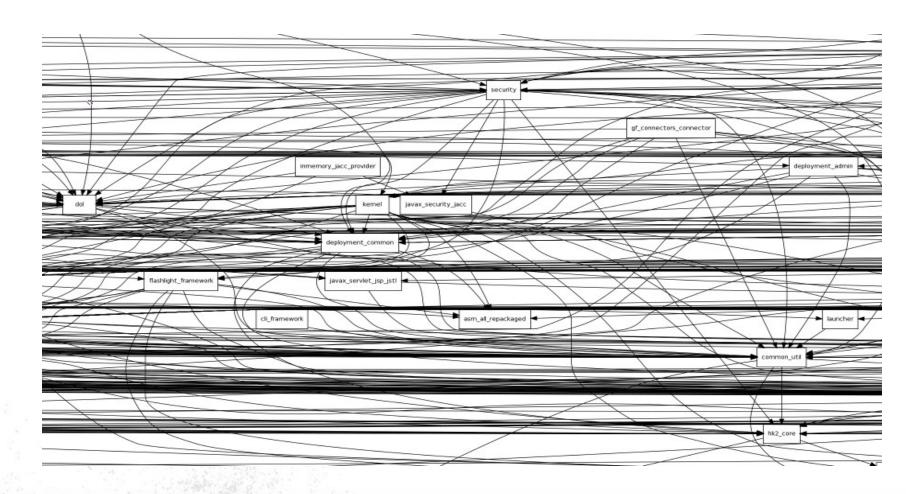# Tattletale

- What is Tattletale ?
- Enterprise archives
- JBoss Application Server 7
- Putting it all together
- Roadmap

Problems

- You are faced with a lot of Java archives and you don't know how they relate

- You need to know in which archive(s) a class is located or if it is missing from the class-path

- You need quick access to version identifiers and the OSGi status

- You need help with removing illegal API usage

Jar hell

Goals

- Help identify dependencies
  - within the project
  - on standard APIs
- Help getting an overview of all Java archives
  - which classes are provided
  - which classes are required
  - version information
- Help locate class information

Goals

- Generate reports that can help you improve the software quality of your project - f.ex.
    - splitting your project into the right number of archives
    - removing black listed API usage
    - And all this without having access to the source code !!

Features

- Command line tool
  - java -jar tattletale.jar sourcedir outputdir
  - uses Javassist for its foundation
- Integrates with Apache Ant
  - <tattletale:report>
- Integrates with Apache Maven
  - tattletale-maven/report

Features

- Analyzer records
  - Archive information
  - Archive level dependencies
  - Package level dependencies
  - Class level dependencies
- Can resolve dependencies against standard profiles
  - JDK5, JDK6, EE5, EE6, Seam, CDI and Spring
- Ability to filter unwanted results from the reports

Reports

- Three categories of reports
  - Dependency
  - General
  - Archive
- Each report focus on a specific area
  - Severity: INFO, WARNING, ERROR
  - Status: GREEN, YELLOW, RED
  - Very easy to implement new reports
  - All reports are available in HTML

Dependency

- Class: Dependants, Depends On
- Package: Dependants, Depends On
- Jar: Dependants, Depends On
- Graphical Dependencies
- Transitive Dependants
- Transitive Depends On
- Circular Dependency

General

- Class Location
- OSGi
- Sealed information / Signed information
- Eliminate Jar files with different versions
- Invalid version / No version
- Multiple Jar files / Multiple Locations
- Unused Jar
- Black listed API
- JBoss AS7

Archive

- JAR
- WAR
- EAR

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Enterprise archives

- Tattletale reports for applications
  - EAR
  - WAR
- Remember to enable the profiles you are using
  - EE5, EE6, ...

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JBoss Application Server 7

- Features
  - Unparalleled Speed
  - Modular Design
  - Exceptionally Lightweight
  - Elegant Administration
  - Strict Compliance
  - Easily Testable
  - First class, modern components
- JBoss Modules

Creating a shared module

- Create module structure
  - modules/com/acme/common/main
  - modules/com/acme/common/<slot>
- Copy resources to the directory
- Create module.xml which describes the module and its dependencies

module.xml

```xml
<module xmlns="urn:jboss:module:1.1" name="com.acme.common">
    <resources>
        <resource-root path="lib1.jar"/>
        <resource-root path="lib2.jar"/>
    </resources>
    <dependencies>
        <module name="javax.api"/>
        <module name="javax.transaction.api"/>
    </dependencies>
</module>
```

Declaring dependencies

- Linking our application to modules
- MANIFEST.MF
  - Dependencies: <module>[,<module>]*
- jboss-deployment-structure.xml
  - https://docs.jboss.org/author/display/AS71/Class+Loading+in+AS7

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Demo

- JBoss Application Server 7 QuickStarts
  – KitchenSink/EAR

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Roadmap

- Cover the enterprise archives
  - JBoss specific too
- XML format
  - HTML, PDF, ...
- Jenkins plugin
  - Initial release is out
  - Lead: Vaclav Tunka

JBoss Cake

- Extension developed by Red Hat Consulting

- Helps to migrate applications
  - Vendor to JBoss
  - JBoss to JBoss

- Custom reports
  - Vendor specific code (.java, .jsp, ...)
  - Deployment metadata

Links

- Latest: Tattletale 1.2.0.Beta2
- Homepage
  - http://www.jboss.org/tattletale
- Documentation
  - http://www.jboss.org/tattletale/docs
- Get involved through our forums
  - New reports
  - New enterprise archives
  - ...

Links

- Git repository
  - https://github.com/jesperpedersen/tattletale
- Jenkins plugin
  - https://wiki.jenkins-ci.org/display/JENKINS/Tattletale+Plugin

Join our hack fest !

- Geek'ing out !
  - 8.30 PM -> 2.00 AM
  - Meet core JBoss developers and fellow hackers
  - Get a quick introduction to several projects
  - Start hacking on your issue of interest :)
    - Don't worry; I have enough tasks for you all !