

Enterprise Maven Infrastructure



Agile 2.0 - Sound software engineering practices put back into Agile Software development.



Who is Erik Drolshammer?

- Consultant Objectware AS – erik.drolshammer@objectware.no
- Author of the Enterprise Maven Infrastructure tactic
- Codehaus Mojo Committer

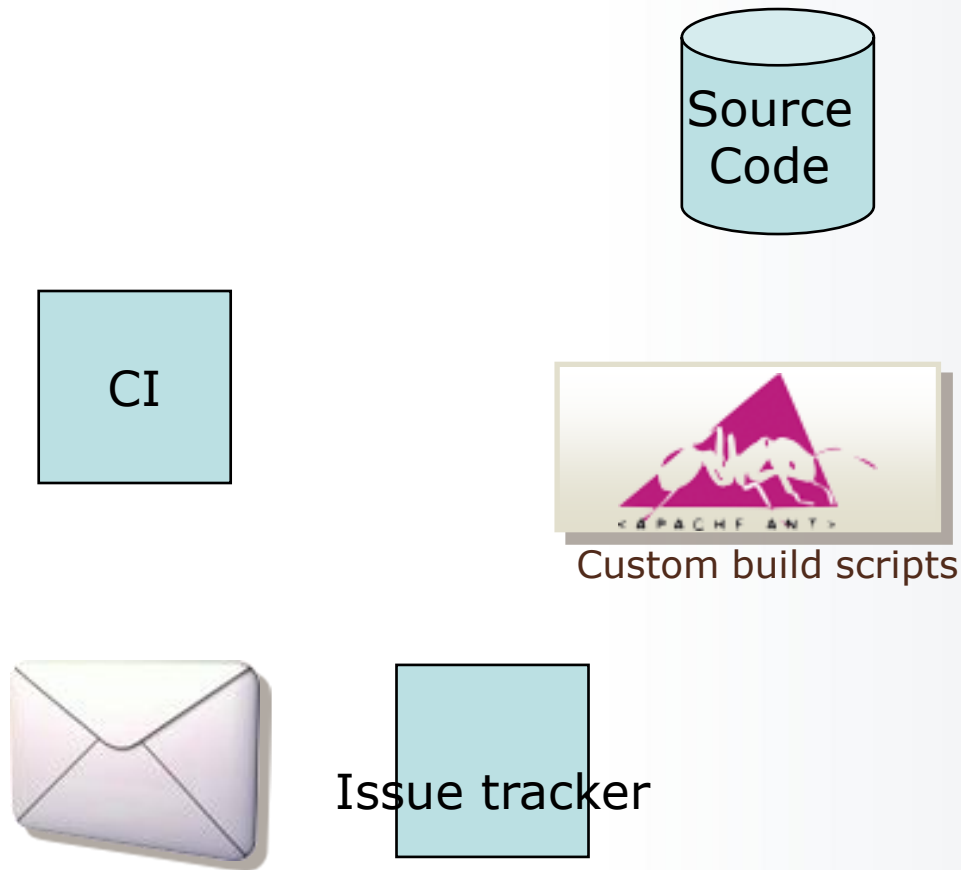
Agenda

1. What is Enterprise Maven Infrastructure?

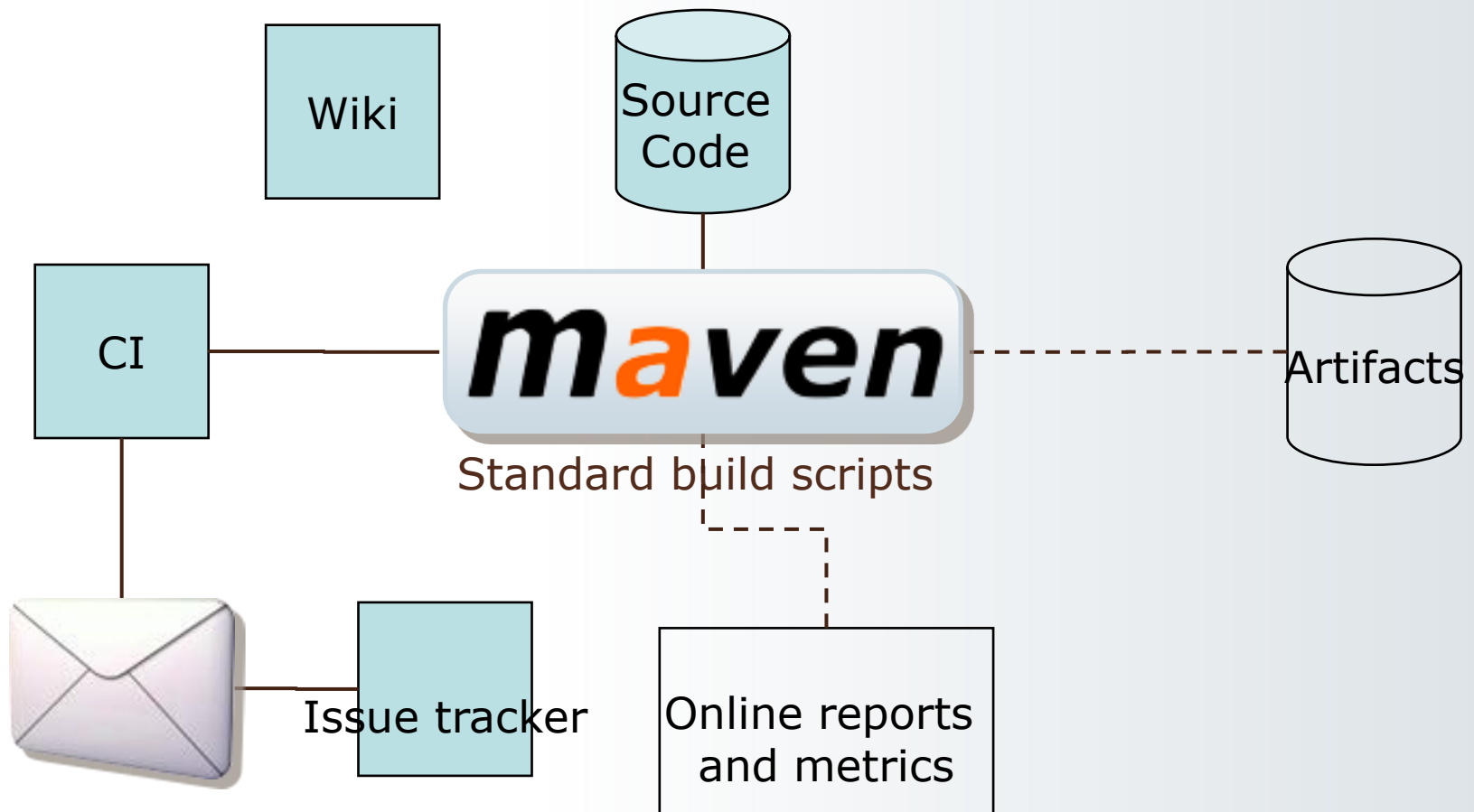
2. Why - What's in it for me?

1. What is Enterprise Maven Infrastructure?

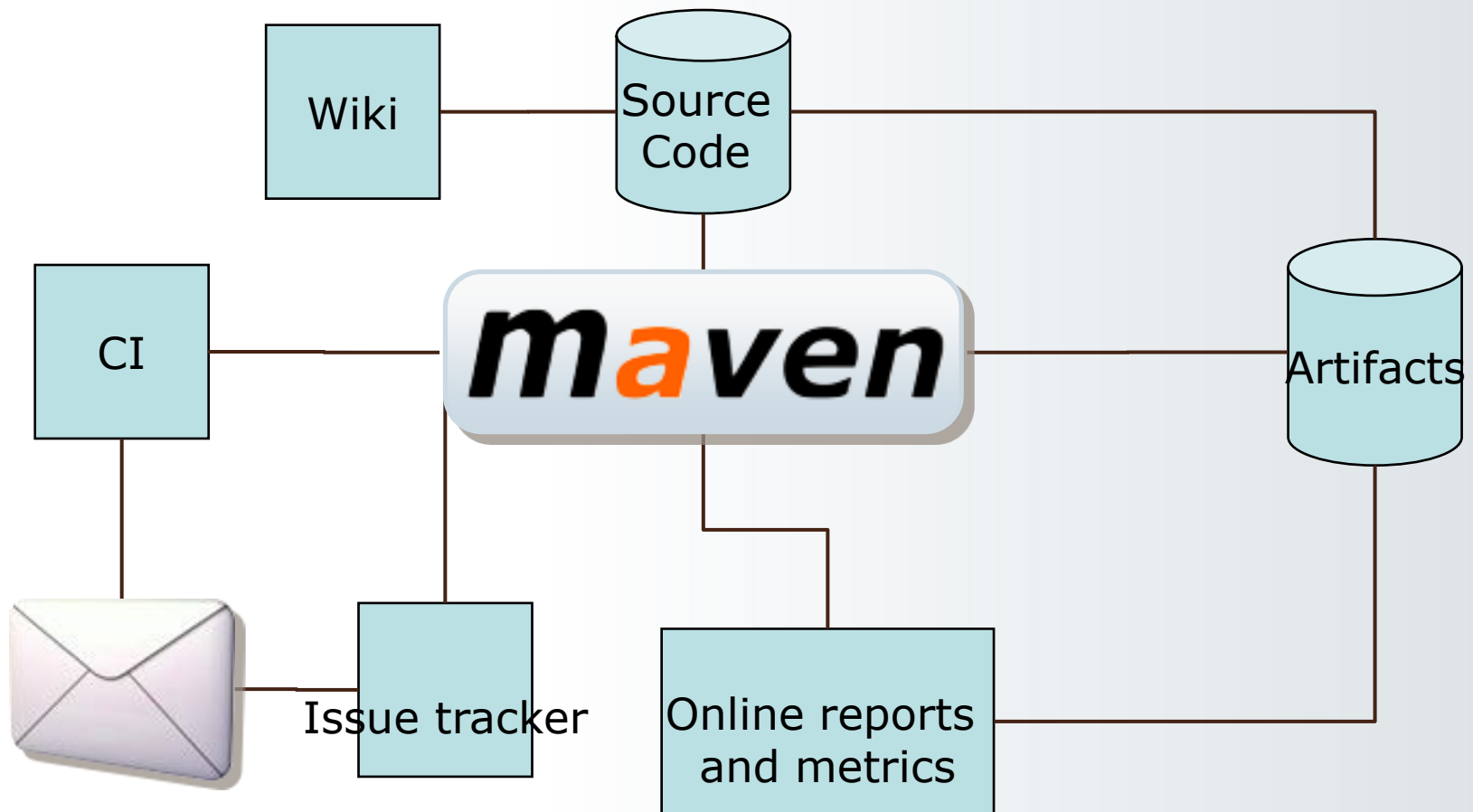
1st generation



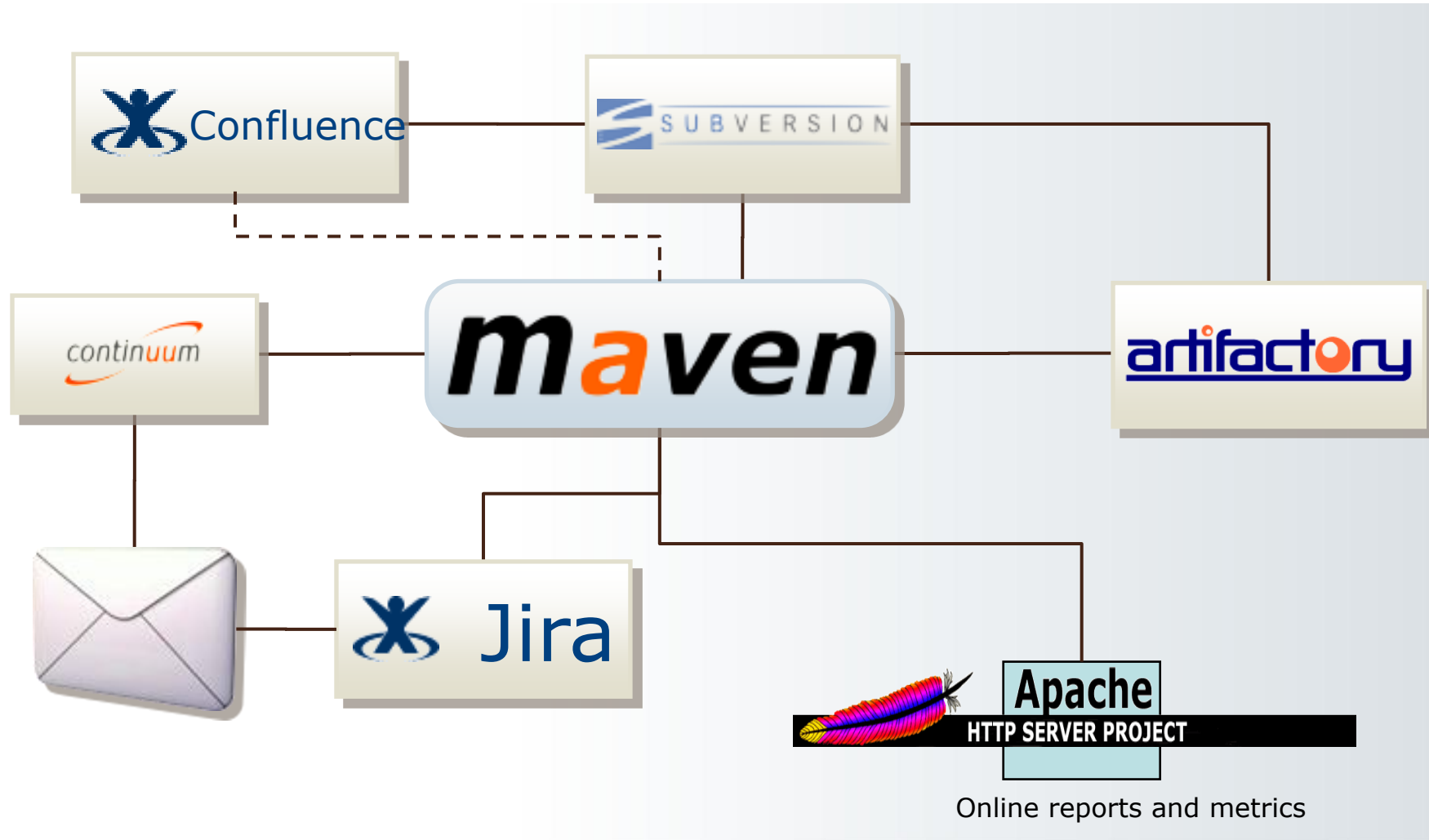
2nd generation



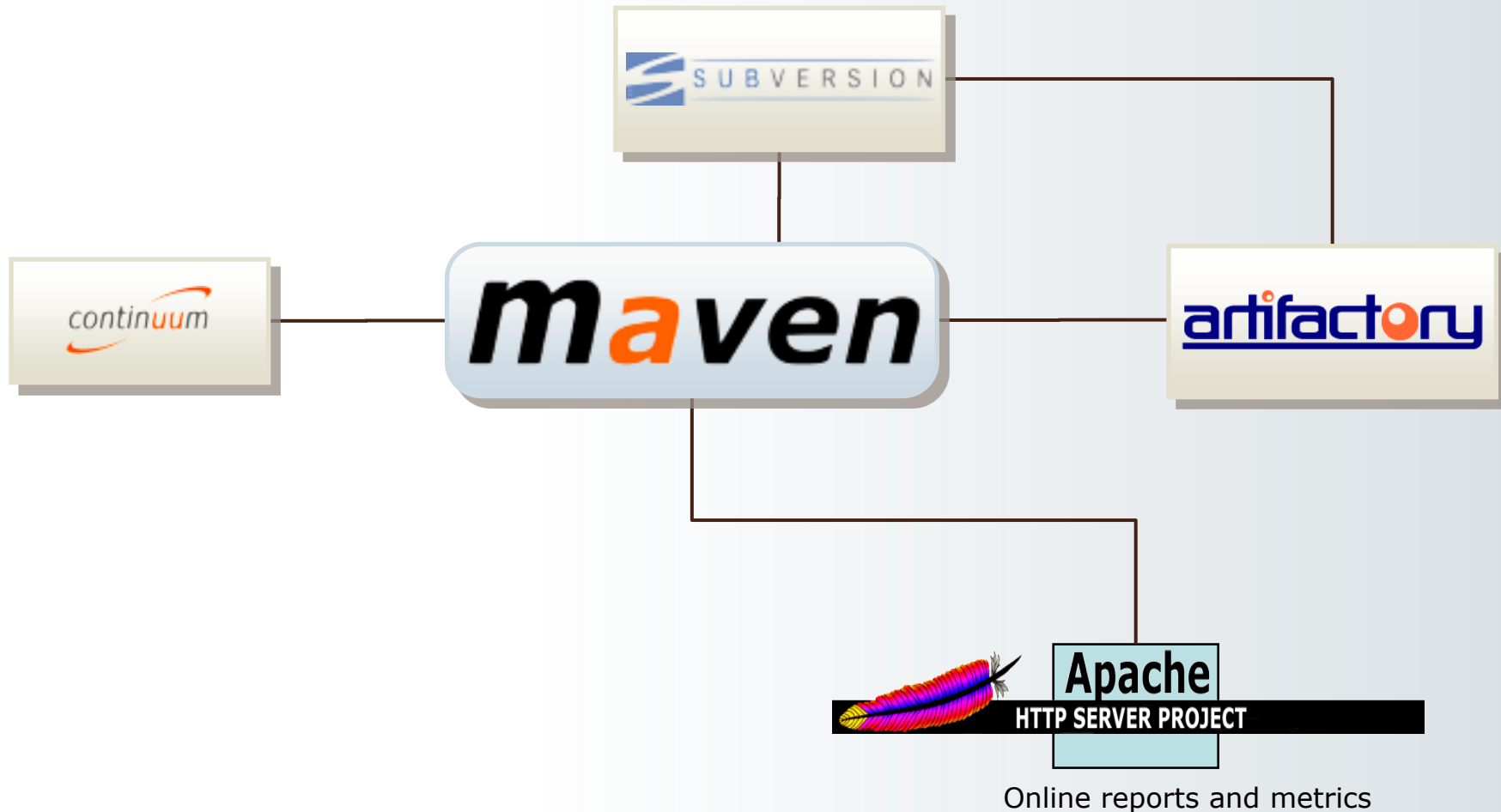
3rd generation: EMI (abstract view)



3rd generation: EMI (concrete view)



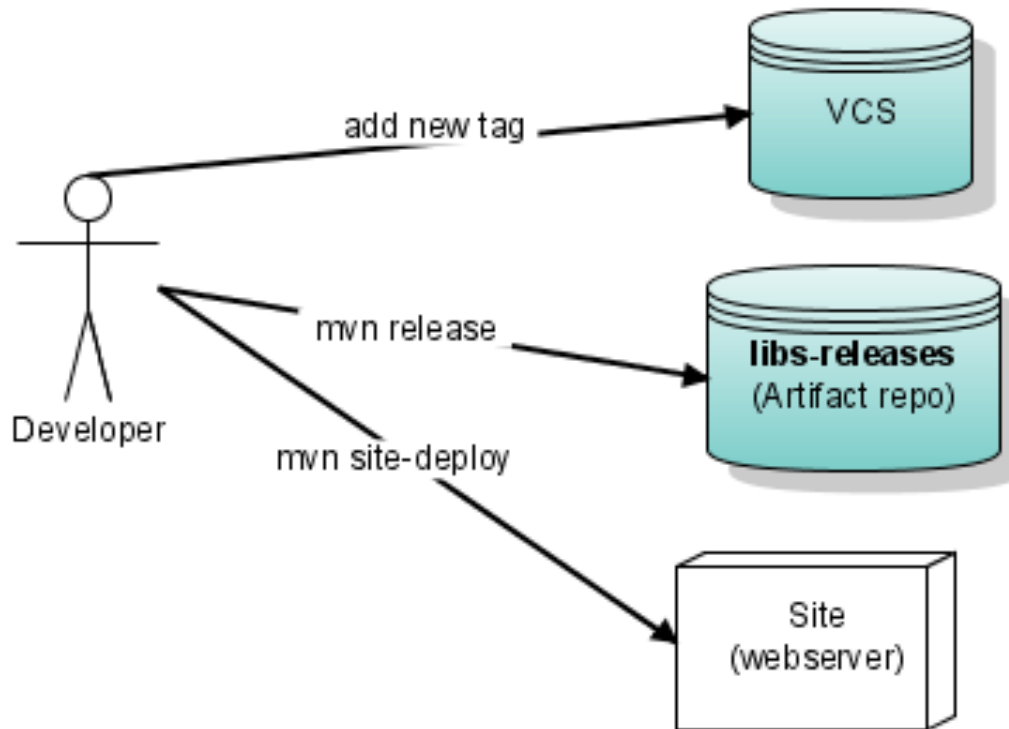
Minimal Enterprise Maven Infrastructure



Processes and practices

- Standardization
- Make the "best way", the easiest way.

Release



- build and run all tests
- add new tag to Subversion
- deploy artifact to Artifactory

Email Communication

- CI build results on email
 - projectName-ci@company.com
- Post-commit hooks
 - projectName-svn@company.com
- Email lists
 - projectName@company.com
 - projectName-dev@company.com

Automatic code review

- CPD, PMD and FindBugs errors break the build
- Ensure license header in all files
- Standardize code style
 - *Checkstyle*

2. **Why** - what's in it for me?

Reduce complexity

- Standardized project organization
- Many small projects instead of a few big ones.
- Automatic dependency tree generation
- Tool support for QA (CPD, PMD, FindBugs, Checkstyle)

Project Dependency Graph

Dependency Tree

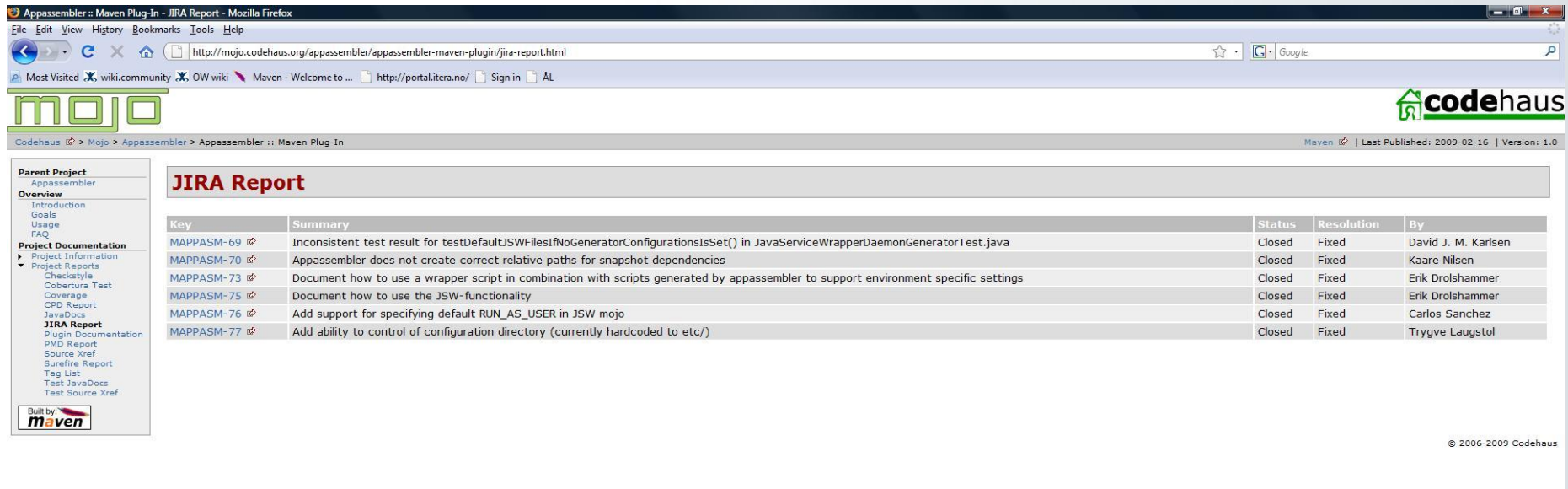
- org.codehaus.mojo:appassembler-maven-plugin:maven-plugin:1.0 ⓘ
 - org.codehaus.mojo.appassembler:appassembler-model:jar:1.0 (compile) ⓘ
 - org.codehaus.plexus:plexus-utils:jar:1.5.6 (compile) ⓘ
 - stax:stax-api:jar:1.0.1 (compile) ⓘ
 - net.java.dev.stax-utils:stax-utils:jar:20060502 (compile) ⓘ
 - stax:stax:jar:1.1.1-dev (runtime) ⓘ
 - junit:junit:jar:3.8.2 (test) ⓘ
 - org.codehaus.mojo.appassembler:appassembler-booster:jar:1.0 (test) ⓘ
 - org.codehaus.mojo.appassembler:appassembler-model:jar:1.0 (test) ⓘ
 - org.codehaus.plexus:plexus-utils:jar:1.5.6 (compile) ⓘ
 - org.apache.maven:maven-plugin-api:jar:2.0 (compile) ⓘ
 - org.apache.maven:maven-project:jar:2.0.6 (compile) ⓘ
 - org.apache.maven:maven-settings:jar:2.0.6 (compile) ⓘ
 - org.apache.maven:maven-profile:jar:2.0.6 (compile) ⓘ
 - org.apache.maven:maven-model:jar:2.0.6 (compile) ⓘ
 - org.codehaus.plexus:plexus-container-default:jar:1.0-alpha-9-stable-1 (compile) ⓘ
 - org.apache.maven:maven-model:jar:2.0.6 (compile) ⓘ
 - org.apache.maven:maven-artifact-manager:jar:2.0.6 (compile) ⓘ
 - org.apache.maven:maven-repository-metadata:jar:2.0.6 (compile) ⓘ
 - org.apache.maven:maven-artifact:jar:2.0.6 (compile) ⓘ
 - org.codehaus.plexus:plexus-container-default:jar:1.0-alpha-9-stable-1 (compile) ⓘ
 - org.apache.maven.wagon:wagon-provider-api:jar:1.0-beta-2 (compile) ⓘ
 - org.apache.maven:maven-plugin-registry:jar:2.0.6 (compile) ⓘ
 - org.codehaus.plexus:plexus-container-default:jar:1.0-alpha-9-stable-1 (compile) ⓘ
 - org.apache.maven:maven-artifact:jar:2.0.6 (compile) ⓘ
 - org.codehaus.plexus:plexus-container-default:jar:1.0-alpha-9-stable-1 (compile) ⓘ
 - org.apache.maven:maven-artifact:jar:2.0.6 (compile) ⓘ
 - stax:stax-api:jar:1.0.1 (compile) ⓘ
 - org.codehaus.plexus:plexus-container-default:jar:1.0-alpha-9-stable-1 (compile) ⓘ
 - junit:junit:jar:3.8.2 (test) ⓘ
 - classworlds:classworlds:jar:1.1-alpha-2 (compile) ⓘ
 - junit:junit:jar:3.8.2 (test) ⓘ
 - org.apache.maven:maven-settings:jar:2.0.6 (test) ⓘ
 - org.apache.maven:maven-model:jar:2.0.6 (test) ⓘ
 - org.codehaus.plexus:plexus-container-default:jar:1.0-alpha-9-stable-1 (test) ⓘ
 - org.apache.maven:maven-model:jar:2.0.6 (test) ⓘ

<http://mojo.codehaus.org/appassembler-plugin/dependencies.html>

Manage and reduce risk

- Standardized release scheme
- Reproducible builds
- Traceability in test and production environments

Release notes from Jira



Appassembler :: Maven Plug-In - JIRA Report - Mozilla Firefox

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http://mojo.codehaus.org/appassembler/appassembler-maven-plugin/jira-report.html

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mojo codehaus

Codehaus > Mojo > Appassembler > Appassembler :: Maven Plug-In

Maven | Last Published: 2009-02-16 | Version: 1.0

JIRA Report

Key	Summary	Status	Resolution	By
MAPPASM-69	Inconsistent test result for testDefaultJSWFilesIfNoGeneratorConfigurationsIsSet() in JavaServiceWrapperDaemonGeneratorTest.java	Closed	Fixed	David J. M. Karlsen
MAPPASM-70	Appassembler does not create correct relative paths for snapshot dependencies	Closed	Fixed	Kaare Nilsen
MAPPASM-73	Document how to use a wrapper script in combination with scripts generated by appassembler to support environment specific settings	Closed	Fixed	Erik Drolshammer
MAPPASM-75	Document how to use the JSW-functionality	Closed	Fixed	Erik Drolshammer
MAPPASM-76	Add support for specifying default RUN_AS_USER in JSW mojo	Closed	Fixed	Carlos Sanchez
MAPPASM-77	Add ability to control of configuration directory (currently hardcoded to etc/)	Closed	Fixed	Trygve Laugstol

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<http://mojo.codehaus.org/appassembler/appassembler-maven-plugin/jira-report.html>

Higher utilization and reuse

- Software portfolio
 - *Product lifecycle*
 - *Total Cost of Ownership*
- Artifact traceability
- Dependencies between artifacts

▼ Browsing

Repositories Tree

Virtual Repositories

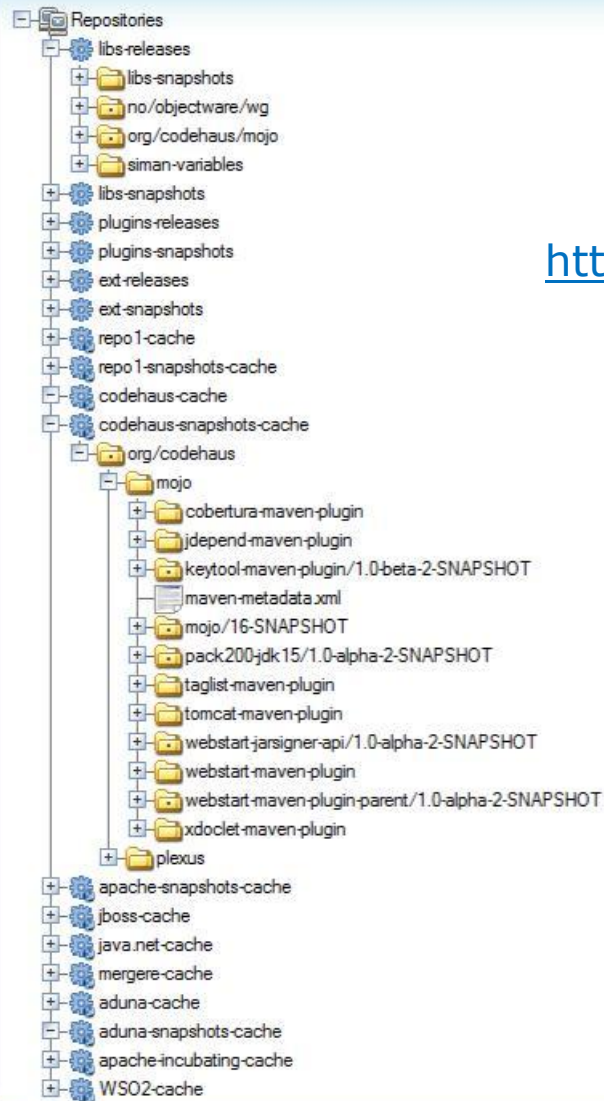
Search for Artifacts

Deploy an Artifact

► Security

► Export & Import

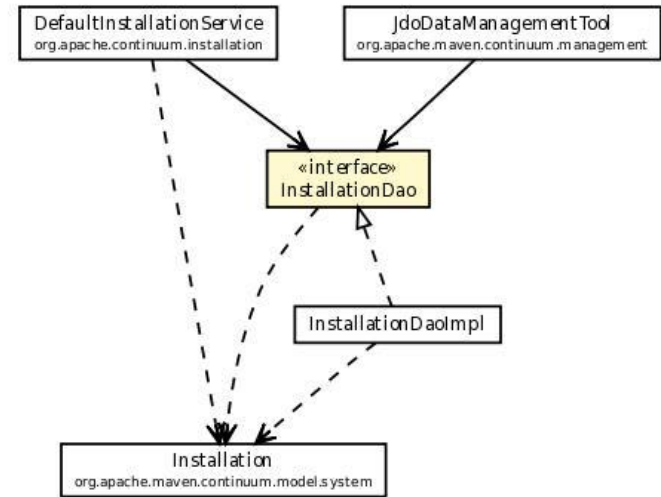
► Configuration



<http://m2repo.objectware.no>

org.apache.continuum.dao

Interface InstallationDao



All Known Implementing Classes:

[InstallationDaoImpl](#)

```
public interface InstallationDao
```

Version:

\$Id: InstallationDao.java 684085 2008-08-08 20:48:14Z evenisse \$

Author:

[Emmanuel Venisse](#)

Method Summary

[Installation](#) [addInstallation](#)([Installation](#) installation)

<http://continuum.apache.org/ref/1.3.1-SNAPSHOT/apidocs/org/apache/continuum/dao/InstallationDao.html>

Basis for other concepts

Enterprise Maven Infrastructur

- *JigZaw – Agile Testing Done Right*
- *RPM-based Deployment*
- *Confluence-based Documentation Release*
- *ConfigService*

RPM-based deployment

- Separate configuration from the business logic
- Generate start scripts
- Standard deployment routines
- Reuse
- Dramatically reduce deployment errors
- Dramatically reduce deployment time

**Time to
market ☺**

Summary

- Infrastructure is crucial for ***efficient*** development in the enterprise
- Work ***smarter*** to get more out of existing infrastructure!

Resources

<http://wiki.community.objectware.no/display/smidgeonull/Enterprise+Maven+Infrastructure>

<http://wiki.community.objectware.no/display/smidgeonull/RPM+Deployment+with+Java+Service+Wrapper>