Eclipse IAM, Maven integration for Eclipse

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About me

During the day
Sr. Solutions Architect at G2iX

At night
Member of Apache Maven PMC
IAM project co-lead at Eclipse Foundation
Maven in the IDE

Q4E

[Q for Eclipse]

code.google.com/p/q4e
Maven in the IDE

Eclipse IAM

[Eclipse Integration for Apache Maven]

www.eclipse.org/iam
Goals
Simplicity
Simplicity
Simplicity
Simplicity
Integration
Integration

JDT
Integration

JDT
And allow Integration
And allow Integration
And allow Integration
And allow Integration yours?
Importing Maven projects

direct import of Maven 2 projects
Importing Maven projects

direct import of Maven 2 projects
New project from Archetype

wizard for creation of new projects using the archetype mechanism
Checkout project

checkout and import from SVN
Running Maven goals

easy access to common goals
Running Maven goals

launch configurations
Running Maven goals

Profile management
Maven Builder

Automatically execute Maven goals as part of Eclipse build

Configurable list of goals to exclude from auto builds
Maven Builder

Leading the Wave of Open Source
POM editor

Form based editor

Bidirectional synchronization
Preserves XML formatting
POM editor

Form based editor

<table>
<thead>
<tr>
<th>Maven 2 Basic Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic POM Information</td>
<td>Dependencies</td>
</tr>
<tr>
<td>Maven 2 Basic Information</td>
<td></td>
</tr>
<tr>
<td>These basic informations act like a coordinate system for Maven projects.</td>
<td></td>
</tr>
<tr>
<td>Group Id</td>
<td>org.appfuse</td>
</tr>
<tr>
<td>Artifact Id</td>
<td>appfuse-selenium</td>
</tr>
<tr>
<td>Version</td>
<td>2.0.2-SNAPSHOT</td>
</tr>
<tr>
<td>Packaging</td>
<td>war</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More Project Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Add more project information to this POM.</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>AppFuse Selenium testing</td>
</tr>
<tr>
<td>Description</td>
<td>Struts 2 Module for AppFuse: includes Struts 2 and Display Tag</td>
</tr>
<tr>
<td>URL</td>
<td></td>
</tr>
<tr>
<td>Inception Year</td>
<td></td>
</tr>
<tr>
<td>Model Version</td>
<td>4.0.0</td>
</tr>
</tbody>
</table>
POM editor

Form based editor

Maven 2 Basic Information

<table>
<thead>
<tr>
<th>Group Id</th>
<th>Artifact Id</th>
<th>Version</th>
<th>Type</th>
<th>Classifier</th>
<th>Scope</th>
<th>SystemPath</th>
</tr>
</thead>
<tbody>
<tr>
<td>$(pom.groupId)</td>
<td>appfuse-struts</td>
<td>2.0.2</td>
<td>war</td>
<td>pom</td>
<td>test</td>
<td>false</td>
</tr>
<tr>
<td>$(pom.groupId)</td>
<td>appfuse-struts</td>
<td>2.0.2</td>
<td>pom</td>
<td>pom</td>
<td>test</td>
<td>false</td>
</tr>
<tr>
<td>org.seleniumhq.selenium-java-client-core</td>
<td>1.0-beta</td>
<td>test</td>
<td>test</td>
<td>false</td>
<td></td>
<td></td>
</tr>
<tr>
<td>org.testng</td>
<td>testng</td>
<td>5.8</td>
<td>jdk15</td>
<td>test</td>
<td>false</td>
<td></td>
</tr>
</tbody>
</table>

Dependency Exclusions
Contains information required to exclude an artifact from the project.

<table>
<thead>
<tr>
<th>Group Id</th>
<th>Artifact Id</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
POM editor

Form based editor
POM editor

Form based editor

### Maven 2 Basic Information

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>cargo.install.directory</td>
<td>${project.build.directory}/installs</td>
</tr>
<tr>
<td>servlet.port</td>
<td>18880</td>
</tr>
<tr>
<td>selenium.background</td>
<td>true</td>
</tr>
</tbody>
</table>
POM editor
## POM editor

### Build

#### Plugins

<table>
<thead>
<tr>
<th>Plugin</th>
<th>Group/Artifact Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>org.apache.maven.plugins, maven-warpath-plugin</td>
<td>2.0.2</td>
</tr>
<tr>
<td>org.apache.maven.plugins, maven-compiler-plugin</td>
<td>2.0.2</td>
</tr>
<tr>
<td>org.apache.maven.plugins, maven-dependency-plugin</td>
<td>2.0.2</td>
</tr>
<tr>
<td>copy-dependencies, process-resources</td>
<td></td>
</tr>
<tr>
<td>org.apache.maven.plugins, maven-codehaus-cargo-plugin</td>
<td>1.0-beta-2</td>
</tr>
<tr>
<td>start-container, pre-integration-test</td>
<td></td>
</tr>
<tr>
<td>start</td>
<td></td>
</tr>
<tr>
<td>stop</td>
<td></td>
</tr>
<tr>
<td>org.apache.maven.plugins, maven-surefire-plugin</td>
<td>2.4.3</td>
</tr>
<tr>
<td>integration-test</td>
<td></td>
</tr>
<tr>
<td>org.codehaus.mojo, selenium-maven-plugin</td>
<td>1.0-rc-1</td>
</tr>
<tr>
<td>start-selenium, pre-integration-test</td>
<td></td>
</tr>
<tr>
<td>start-server</td>
<td></td>
</tr>
<tr>
<td>org.mortbay.jetty, maven-jetty-plugin</td>
<td>6.1.15</td>
</tr>
</tbody>
</table>

### Reporting

#### Plugin Management

Section for management of default plugin information for use in a group of POMs.
POM editor

XML editor

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <parent>
    <groupId>org.appfuse</groupId>
    <artifactId>appfuse-web</artifactId>
    <version>2.0.2</version>
  </parent>
  <groupId>org.appfuse</groupId>
  <artifactId>appfuse-selenium</artifactId>
  <version>2.0.2-SNAPSHOT</version>
  <packaging>war</packaging>
  <name>AppFuse Selenium testing</name>
  <description>
    Struts 2 Module for AppFuse: includes Struts 2 and Display Tag. Include this module in your dependencies if you want to use Struts 2 as your web framework.
  </description>
  <scm>
    <connection>scm:svn:https://appfuse.dev.java.net/svn/appfuse/trunk/web/struts</connection>
    <developerConnection>scm:svn:https://appfuse.dev.java.net/svn/appfuse/trunk/web/struts</developerConnection>
    <url>https://appfuse.dev.java.net/source/browse/appfuse/trunk/web/struts</url>
  </scm>
  <dependencies>
  </dependencies>
</project>
```
Settings Editor

From Eclipse properties
Dependency search

Search in central repository
Dependency search
Dependency search

Search in
Dependency search

Search in

Nexus repository manager
Dependency search

Search in

Nexus repository manager
Apache Archiva repository manager
Dependency search

Search in

Nexus repository manager
Apache Archiva repository manager
Local repository
Dependency search

Extension points to plug other providers
Dependency management

Project dependencies are hard to keep on track
Dependency management

Project dependencies are hard to keep on track
Dependency management using the POM
Dependency management

automatic download of dependencies and sources!
Dependency management

Integrates with
Dependency management

Integrates with JDT
Dependency management

Integrates with

JDT
WTP
Dependency management

Integrates with

Providing transitive dependencies

JDT

WTP
dependency graphing
dependency analysis
Features

- modular approach to improve reusability by other Eclipse projects
- ability to import parent projects (pom projects)
- ability to cancel Maven builds
Maven Plugin development

plugins can be resolved from the workspace

you can create and debug Maven MOJOs
Integration with Buckminster

automating build, assemble & deploy

integration with Maven through IAM
High activity

10 committers
7 active
Known issues
Maven Version
Maven Version

Maven 2.1

now called Maven 3.0
Alternatives
Maven Eclipse Plugin

mvn eclipse:eclipse

command line
limited functionality
m2eclipse

historically different

merging to same set of functionality
Work in progress
Performance
Roadmap
Roadmap

Integration with other plugins
Scala, Candy for Appfuse, SpringIDE,…

UI tooling to work around Maven limitations
That was easy!: spackletoe
Magic!: Kaptain Kobold