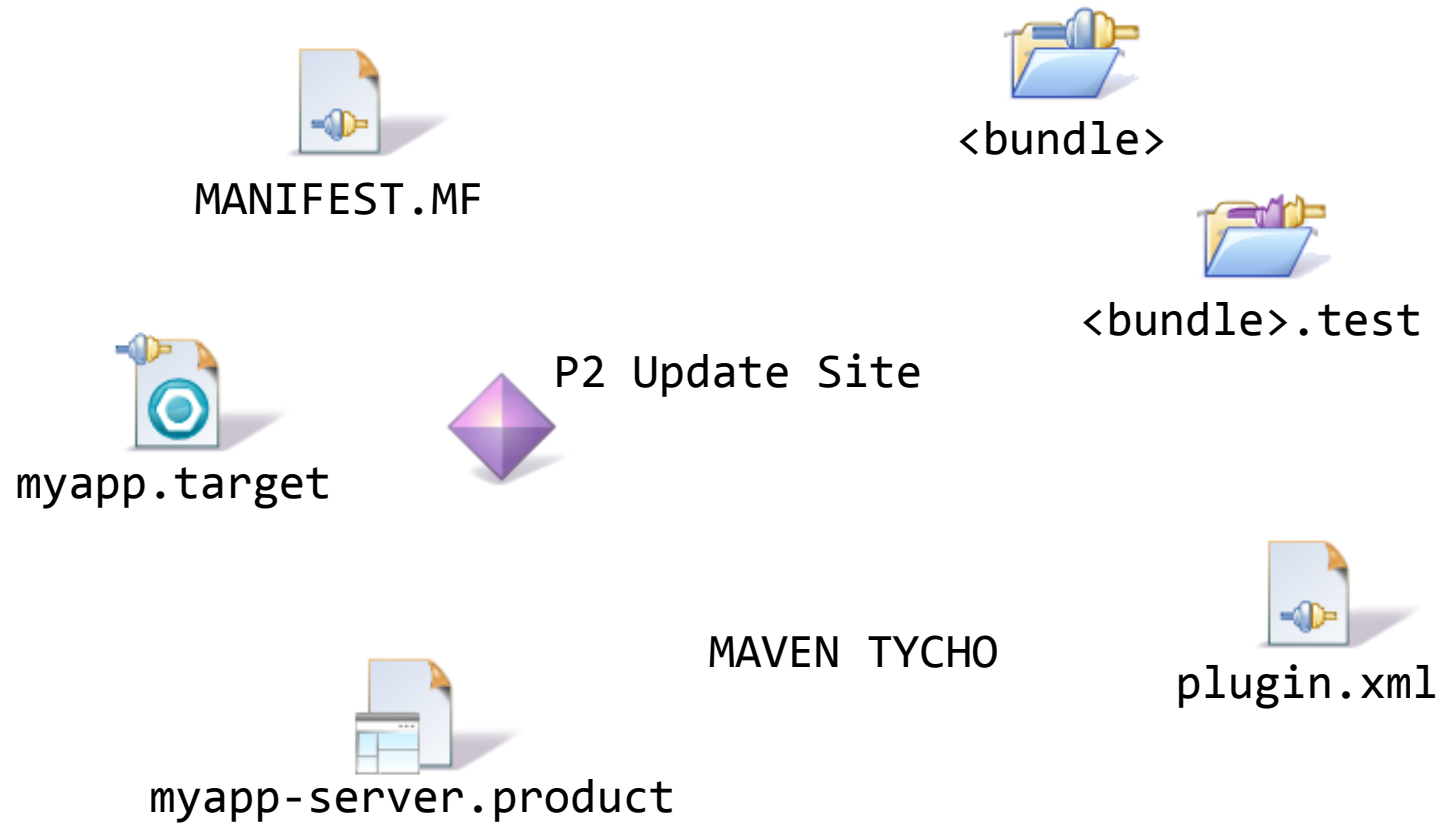


Maven Project Structure, Building, CI

Scout User Group Meeting 02.11.2015
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Once upon a time...



Maven (without Tycho)

One POM file in each project

```
<?xml version="1.0" encoding="UTF-8"?>  
<project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"  
  xmlns="http://maven.apache.org/POM/4.0.0"  
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">  
  
  <modelVersion>4.0.0</modelVersion>
```

```
  <parent>  
    <groupId>com.company.sandbox</groupId>  
    <artifactId>com.company.sandbox.parent</artifactId>  
    <version>1.0.0-SNAPSHOT</version>  
    <relativePath>../com.company.sandbox.parent</relativePath>  
  </parent>  
  
  <artifactId>com.company.sandbox.client</artifactId>
```

→ Maven coordinates (groupId, artifactId, version, parent)

```
  <dependencies>  
    <dependency>  
      <artifactId>org.eclipse.scout.rt.client</artifactId>  
      <groupId>org.eclipse.scout.rt</groupId>  
    </dependency>  
    <dependency>  
      <groupId>com.company.sandbox</groupId>  
      <artifactId>com.company.sandbox.shared</artifactId>  
    </dependency>  
    <dependency>  
      <groupId>org.eclipse.scout.rt</groupId>  
      <artifactId>org.eclipse.scout.rt.client.test</artifactId>  
    </dependency>  
  </dependencies>
```

→ Dependencies


```
</project>
```

Parent POM


- **Modules:** projects composing the scout application
- **Properties:** properties shared by all projects
- **Repositories:** maven repositories containing the dependencies
- **DependencyManagement:**
fix version and scope of the dependencies
- **Build:** configuration of the build

Start an application

 → {project name}.app.dev (project)

 → pom.xml (maven file)


- **Packaging:** war
- **Dependencies:** list of modules that are started
(and their transitive dependencies)

 → {name}-dev.launch (eclipse launcher file):

- Start with menu: Run/Debug as > {name}-dev

Export an application

 → {project name}.app.war (project)

 → pom.xml (maven file)

- **Packaging:** war
- **Dependencies:** list of modules that are included
(and their transitive dependencies)

Test code



{project}



src/main/java



com.company.sandbox.client.helloworld



HelloWorldForm



src/test/java



com.company.sandbox.client.helloworld



HelloWorldFormTest

Test code

- Include the corresponding dependency in your POM file:
 - org.eclipse.scout.rt.client.test
 - org.eclipse.scout.rt.shared.test
 - org.eclipse.scout.rt.server.test
- The required test scope is defined in the parent pom (DependencyManagement)

Resources

Resources are located in the corresponding folder:




`src/main/resources`




`src/test/resources`

→ Images


→ Texts properties files (for localization)

Side note: the  `Texts.nls` opens the well known NLS Editor for the corresponding Texts resources files

Configuration files

→  `config.properties`

in the corresponding resource folder:

 `src/main/resources`

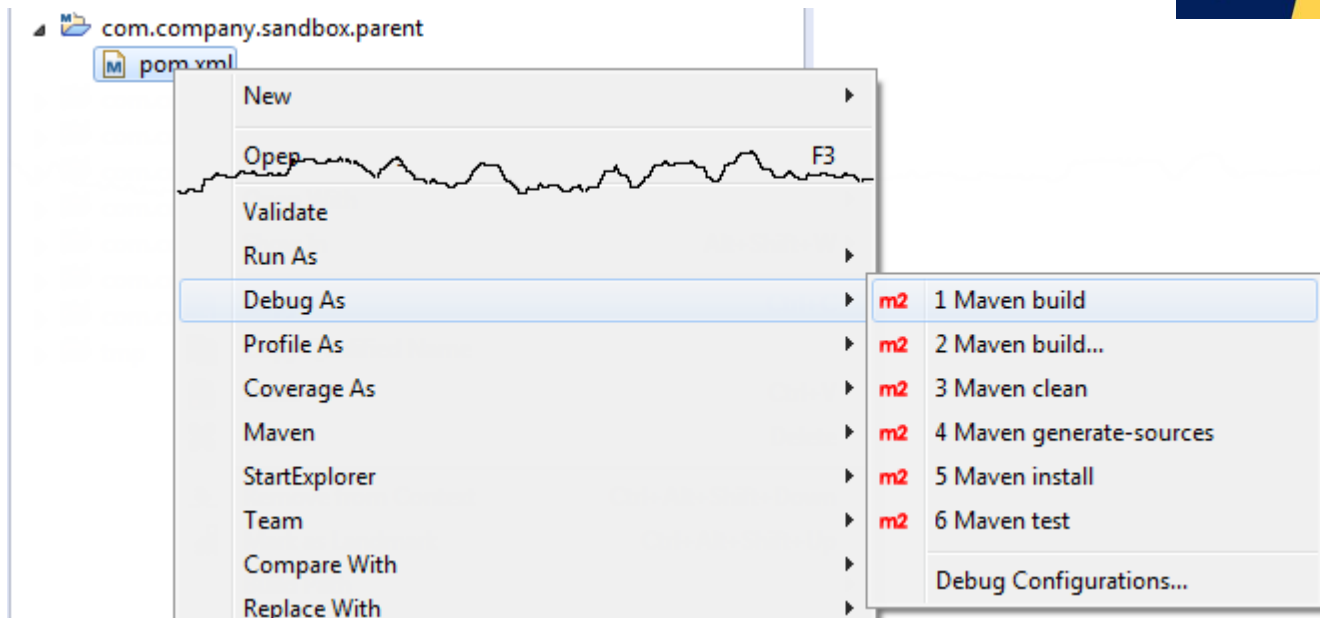
of the “application” projects:

- `{project name}.app.dev`
- `{project name}.app.war`

Tools for the build

Eclipse IDE

→ Works as expected with the m2e plugin
(Maven Integration for Eclipse)



Maven CLI

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\jbr\code\ugm2015\com.company.sandbox.parent>mvn clean verify
[INFO] Scanning for projects...
[INFO] -----
[INFO] Reactor Build Order:
[INFO]
[INFO] com.company.sandbox.parent
[INFO] com.company.sandbox.shared
[INFO] com.company.sandbox.server
[INFO] com.company.sandbox.client
[INFO] com.company.sandbox.server.app.war
[INFO] com.company.sandbox.ui.html
[INFO] com.company.sandbox.ui.html.app.war
[INFO] -----
[INFO] Building com.company.sandbox.parent 1.0.0-SNAPSHOT
[INFO] -----
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ com.company.sandbox.parent ---
[INFO]
[INFO] --- build-helper-maven-plugin:1.9.1:add-source (add-source) @ com.company.sandbox.paren
[INFO] Source directory: C:\Users\jbr\code\ugm2015\com.company.sandbox.parent\src\main\webapp
[INFO] Source directory: C:\Users\jbr\code\ugm2015\com.company.sandbox.parent\src\generated\ja
[INFO]
[INFO] >>> maven-source-plugin:2.4:jar (attach-sources) > generate-sources @ com.company.sandb
[INFO]
[INFO] --- build-helper-maven-plugin:1.9.1:add-source (add-source) @ com.company.sandbox.paren
[INFO] Source directory: C:\Users\jbr\code\ugm2015\com.company.sandbox.parent\src\main\webapp
[INFO] Source directory: C:\Users\jbr\code\ugm2015\com.company.sandbox.parent\src\generated\ja
```

Continuous Integration tools

Jenkins

The screenshot shows the Jenkins web interface in a browser window. The address bar indicates the URL is `localhost:8099/job/com.company.sandbox/1/console`. The page title is "Jenkins" and the breadcrumb navigation shows "Jenkins > com.company.sandbox > #1".

On the left side, there is a sidebar with several navigation options:

- Zurück zum Projekt
- Status
- Änderungen
- Console Output**
- View as plain text
- Build-Informationen editieren
- Maven-Prozess überwachen

The main content area is titled "Konsolenausgabe" (Console Output) and shows the following text:

```
Started by user anonymous  
Building in workspace C:\Tools\Jenkins\jobs\com.company.sandbox\workspace  
Parsing POMs  
Discovered a new module com.company.sandbox:com.company.sandbox.parent  
com.company.sandbox.parent  
Discovered a new module com.company.sandbox:com.company.sandbox.shared  
com.company.sandbox.shared  
Discovered a new module com.company.sandbox:com.company.sandbox.server  
com.company.sandbox.server  
Discovered a new module com.company.sandbox:com.company.sandbox.client  
com.company.sandbox.client  
Discovered a new module  
com.company.sandbox:com.company.sandbox.server.app.war  
com.company.sandbox.server.app.war  
Discovered a new module  
com.company.sandbox:com.company.sandbox.ui.html  
com.company.sandbox.ui.html  
Discovered a new module  
com.company.sandbox:com.company.sandbox.ui.html.app.war  
com.company.sandbox.ui.html.app.war  
Modules changed, recalculating dependency graph
```

At the top right of the console output area, there is a progress indicator labeled "Fortschritt:" followed by a blue progress bar and a small red icon.

SonarQube

The screenshot shows the SonarQube web interface in a browser window. The browser address bar shows the URL `localhost:9000/dashboard/index/1`. The SonarQube logo is in the top left, and the navigation menu includes 'Dashboards', 'Issues', 'Measures', 'Rules', 'Quality Profiles', 'Quality Gates', and 'More'. The user is logged in, and the version is 1.0.0-SNAPSHOT, dated November 2, 2015, at 11:10 AM.

The dashboard is for the project `com.company.sandbox.parent`. The 'Main Dashboard' section contains several metrics:

- Lines Of Code:** 628
- Files:** 18
- Java:** 14 Directories, 916 Lines
- Functions:** 76
- Classes:** 32
- Statements:** 166
- Accessors:** 0
- SQL Rating:** A
- Technical Debt Ratio:** 1.0%
- Debt:** 3h 6min
- Issues:** 28
 - Blocker: 0
 - Critical: 0
 - Major: 3
 - Minor: 22
 - Info: 3
- Directory Tangle Index:** 0.0%
- Dependencies To Cut:** Between Directories

Thanks

@EclipseScout 

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