Q7: Test automation for Eclipse-based applications

Eclipse Indigo DemoCamp
November 22, 2011, Kraków

Bartosz Czerwiński
czerwin@agh.edu.pl
Agenda

- Q7
  - Introduction
  - Components
  - Features
- Tests automation and Continuous Integration
- Live demo
Q7

Introducing different GUI testing approach
Q7 – Introduction

- *Do we need another testing tool?*
- Handcrafted for Eclipse
  - IDE, RCP
  - GEF/GMF, SWT/JFace
- Runtime Intelligence
- State Management
- Eclipse Command Language (ECL)
Q7 – Features

- Test cases
  - Capture and playback
  - Scripting support
- Reuse and maintainability
- Contexts
  - Test initialization and finalization
  - Workbench, workspace, properties, group, debug
- Image recognition and OCR (beta)
Q7 – Components

- Q7 Platform
- Q7 Test Development Environment
- Q7 Runner
Continuous Integration

- Provided by Q7 Runner via:
  - Command line
  - Maven/Tycho plug-in
- Q7 Server
- JUnit-style reports
- Compatible with Bamboo, Hudson/Jenkins
Continuous Integration

- Ant / Shell script

```java
java -jar /eclipse/plugins/org.eclipse.equinox.launcher_{...}.jar \
    -application com.xored.q7.runner.headless \
    -data /Users/q7user/runner-example/runner-workspace/ \
    -aut /Users/q7user/runner-example/aut/ \
    -autWsPrefix /Users/q7user/runner-example/aut-ws- \
    -autConsolePrefix /Users/q7user/runner-example/aut-console- \
    -htmlReport /Users/q7user/runner-example/q7report.html \
    -junitReport /Users/q7user/runner-example/q7report.xml \
    -import "/tests/aut-tests"
```
Continuous Integration

- Maven/Tycho

```xml
<project>
 ...
 <build>
  <plugins>
   <plugin>
    <groupId>com.xored.q7</groupId>
    <artifactId>q7-maven-plugin</artifactId>
    <version>1.1.1</version>
    <extensions>true</extensions>
    <configuration>
      <aut>
       <groupId>com.xored.f4</groupId>
       <artifactId>com.xored.f4.product</artifactId>
      </aut>
    </configuration>
   </plugin>
  </plugins>
 ...
 </build>
</project>
```
Summary

- Eligible **not only** for developers, but also **users**
- Test **automation**
- Extensibility (Nebula, ECL, Contexts)
- **Tight** integration with Eclipse Platform
- Licensing
  - **Free** for open-source projects
  - Commercial license
Web resources

- http://help.xored.com/display/Q7/Continuous+Integration
Live demo
Thank you for your attendance!

Bartosz Czerwiński (czerwin@agh.edu.pl)