

Building OSGi / RCP applications with Maven / Tycho

COURSE OUTLINE



Description

The “building OSGi and RCP applications with Maven / Tycho” training will teach you how to build bundles, features, products, p2 repositories, ... in a fully automated way using Tycho, a Maven-based build system from the Eclipse ecosystem.

After having taken you from introduction to all the good practices to follow in production, the course will conclude with how Tycho integrates with continuous integration.

Audience

Release engineers, software developers and architects

Prerequisites

Limited understanding of OSGi bundle metadata. No previous knowledge of Maven is necessary.

Duration and Format

1 day instructor-led class with at least 50% hands-on labs and tutorial.

<p>1. Introduction Maven / Tycho</p> <ul style="list-style-type: none">• Brief history• Overview, benefits, examples• Relationship with other build technologies• Brief introduction to Maven
<p>2. (interlude - installing Maven and Eclipse)</p>
<p>3. Building a plugin</p> <ul style="list-style-type: none">• Introduction of pom.xml• Review of the tycho configurations• Running our first build on the command line• Dealing with dependencies - target platform & repositories
<p>4. Building multiple plugins</p> <ul style="list-style-type: none">• Aggregation & parent pom• Build order / reactor

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5. Building features and p2 repositories

- The role of p2 repositories
- Categorizing content in a repository
- Good practices to manage p2 repositories

6. Building products

- What are RCP app / products
- Building a product archive
- Building a product repository
- Multi-platform builds

7. Running tests

- Create pom for plug-in test project
- Overview of SWTBot
- Dealing with the details (start level / additional dependencies)

8. Using non-OSGi libraries

- Strategies for dealing with non-OSGi libraries

9. Continuous Integration

- Integration into Jenkins / Hudson
- Jenkins / Hudson Quality plug-ins (sonar...)
- Git Commit Hook

10. Best practices and tips & tricks