



EclipseCon Feedback — Tycho

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(first slides borrowed to Pascal Rapicault 😊)

What is Tycho?

- A way to build, test and release Eclipse/OSGi artifacts with Maven
- Tycho feature list:
 - Build OSGi bundles / Eclipse plugins
 - Execute tests within the OSGi runtime
 - Build Eclipse Features
 - Build p2 repositories
 - RCP applications a.k.a. Products
 - ...
- Integrates with the rest of the Maven ecosystem

Relationship with Maven

- What is Maven? A build system
- Tycho is a set of Maven plugins
- How is it different from other Maven plugins?
 - It reuses the PDE metadata to configure the build
 - It alters the standard Maven resolution logic to support OSGi dependencies (MANIFEST.MF, feature.xml, etc.)
 - It adds the ability to Maven to read p2 repository

Relationship with p2

- What is p2? An OSGi-based provisioning system for OSGi.
- Tycho reads and downloads dependencies from p2 repositories.
- Tycho produces p2 repositories
- Internally, tycho embeds parts of p2 in order to perform the dependency resolution
 - **Maven + p2 = Tycho! 😊**

Quick demo

Personal feedback

- Tycho is way easier than PDE Build, and much more deterministic
- Lack of documentation, but lots of examples available
 - <https://github.com/sonatype/sonatype-tycho/tree/master/tycho-demo>
 - <https://github.com/sonatype/sonatype-tycho/tree/master/tycho-its/projects>
- For Eclipse projects, `eclipse-parent` POM
 - Checkstyle, Findbugs, PMD duplicate code detector
 - http://wiki.eclipse.org/Maven/Parent_POM
- Offline mode to build much faster! (`-o` option)
 - Only works with implicit target definition at the moment
- Build can be debugged

Personal feedback

- OSGi versions are duplicated in POMs ☹️
- Migration from PDE Build is quite easy
 - /!\ customBuildCallbacks
 - /!\ native fragments
 - /!\ product branding
 - /!\ features' build.properties
 - /!\ small overhead if you have custom sources layout
- **If you don't use Tycho yet, you should!**

Thanks!

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