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

• 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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