bndtools

Mostly Painless Tools for OSGi
“ Mostly..?!? ”
No Pain – No Gain
Good Pain vs Bad Pain
Eclipse PDE
birthday present to myself next weekend? 60km trail race #fb

5:46 PM Aug 9th via Nambu

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Challenges

★ Dependencies are based on Java packages.
★ If we use a package we must import it.
★ Packages are too numerous to manage by hand.
★ Sometimes we are not aware we used a package (e.g. superclasses, return types, JRE packages).
Bnd

★ Written by Peter Kriens
★ Used by OSGi Alliance to build 1,300+ bundles
★ Very accurate analysis of package usage based on bytecode scanning
★ Does the “right thing”
Doing the “Right Thing”

★ Import generated for each export
★ Package-uses constraints generated
★ Import ranges based on Semantic Versioning
Descriptor-Based

Bundle-Version: 1.1.1
Export-Package: org.jdom*; version=${Bundle-Version}

Manifest-Version: 1.0
Bundle-Version: 1.1.1
Tool: Bnd-1.0.0
Bnd-LastModified: 1276770707148
Bundle-Name: org.example.libs.jdom
Bundle-ManifestVersion: 2
Created-By: 1.6.0_15 (Apple Inc.)
Bundle-SymbolicName: org.example.libs.jdom
bnd tools features

★ Assisted editing of bnd descriptors

★ Continuous builds: your bundle is *always* built (it’s the Eclipse Way!)

★ 100% fidelity between Eclipse builds and offline builds

★ Don’t shut out NetBeans/IntelliJ users
bndtools

★ Encourages best practices:

★ Service/Component Oriented Programming

★ Use of Declarative Services
bnd tools

★ 1-n bundles per project
★ Don’t define bundle boundaries too early
★ Easy to refactor bundle contents
Demo
Conclusion

★ Docs and Installation Guide:

★ [http://njbartlett.name/bndtools.html](http://njbartlett.name/bndtools.html)

★ Both Bndtools and Bnd are hosted on GitHub:

★ Bndtools: [http://github.com/njbartlett/bndtools](http://github.com/njbartlett/bndtools)

★ Bnd: [http://github.com/bnd/bnd](http://github.com/bnd/bnd)

★ Please report bugs through GitHub’s issue tracker
To Learn More

★ Marcel Offermans’ tutorial tonight 20:00
★ Tutorial tomorrow: “Distributed OSGi”
★ “OSGi Masterclass”, 12-15 October in Girona, Spain with me and Peter Kriens
★ http://www.aquite.biz/MasterClass
Thanks!