Hands On Java
Gradle

Date: April 25, 2012
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Agenda

What is Gradle, anyways?

Getting Gradle

Eclipse Integration

Setting up a project

Using Gradle

What is Gradle, anyways?

- Groovy based build system

- MUCH easier to use than Maven

- Much more "Build by Convention", although also much easier to override if needed

  - Override with caution!

- Readily extensible (you can add your own plugins VERY easily)

  - Did I mention Groovy?

  - Several plugins already available

What is Gradle, anyways?

- Supports
  - Versioning (although not for generated files by default, at least for the Gradle Milestone Releases)
  - Maven & Ivy Repositories
    - Has anyone noticed that the Maven Repositories have had their Web UI Updated lately?
  - Jenkins & Hudson plugins

Who is using Gradle

- From the Website
    - ORBITZ
    - Spring Group
    - Farm Credit Canada
    - EADS
    - Qi4J
- From my experience
    - One site recently, one site soon (sorry NDA'd, but let's intro a "surprise" guest!)

Getting Gradle

- Download from GITHUB

- http://www.gradle.org/downloads

- Your project lead

  – gradlew

    - Generally per project

    - Downloads & Installs Gradle

Eclipse Integration – Gradel Plugin

- Eclipse Plugin from Gradle
    - NOT RECOMMENDED!!!!
        - Buggy, poor integration, has issues with other plugins
        - Unless there has been a recent change, Eclipse generated files are written to a different location than the Gradle compile ones.
        - Its still extremely immature
    - apply plugin: "eclipse"
        - For wtp, use eclipse-wtp instead.

Eclipse Integration - STS

- Con: The entire (base level) STS must be installed to get access to Gradle (severe overhead)

  – If already doing a Spring Technology based product, this is irrelevant as STS would probably be installed for Spring Support)

- Steps

  1) Install STS

  2) STS Dashboard → Extensions Tab. Select Gradle & Groovy (and anything else you might need/want;))

Setting up a project

- Command line:

  1) Create a new project directory

  2) You are done (for basics! - adding more capability, covered later)

- From Eclipse/STS

  1) New Project (Java recommended, but not needed)

  2) Right Click → Configure → Gradle

Using Gradle (The Basics)

- gradle tasks
  - what tasks (equivalent to Maven Goals) are available in the current project or module

- build.gradle
  - the module (or project) script file.
  - Plugins go here
  - Note: by default, most stuff only apply's to the current module level

Using Gradle (The Basics)

- apply plugin: "java"

  – Enables the Java compiler, and various associated tasks.

  – NOTE: By default is JDK 1.5!

- Let's see some examples!

Using Gradle – Advanced setups

- Michael?

Useful Links

- http://www.gradle.org
- http://www.gradle.org/documentation