

# The Groovy Eclipse Plugin



2007

# GRAILS EXCHANGE

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# Agenda

- § Project History
- § Production Use
- § Project Setup
- § Running and Testing
- § Editing
- § Debugging
- § Misc
- § Tips And Tricks
- § A Look Ahead
- § Real World Experience



# Brief Plugin History

- § Development began pre-JSR
- § Development stopped for quite a long time
- § I started working with it in March, 2006
- § We now have 4 committers



# Functionality History

- § Spring 2006 - builder, debugger, static color highlighting work began
- § Summer 2006 - work on builder stability, outline view
- § Fall 2006 - first attempts at code browsing, code assist, launcher improvements, editor improvements, GroovyConsole, GroovyShell
- § January 2007 – version 1.0 released
- § July 2007 - code completion, type inference, major refactoring released
- § Currently working on Groovy 1.1 compatibility



## Production Use

- § In use on a production project at a Fortune 500 company since May, 2006
- § Large code base of 45,000 SLOC
- § Project team of 10 users
- § Project is primarily Groovy with a few utility Java classes
- § Project is packaged as jar for others to use as part of large J2EE app



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# Project Setup

- § Create a New Project
- § Add Groovy Nature
- § Adding Groovy to the Build Path
- § Mixing Groovy and Java
- § Understanding the Groovy Builder
- § Multi-Project Setup



# Create a New Project

- § create Java Projects
  - § use separate bin / src directories
- § add Groovy Nature
  - § adds Groovy Builder
  - § adds Groovy minimal runtime to classpath
- § You need to add Groovy supporting libs into lib folder from standard Groovy distribution



# Groovy Builder

- § Project -> Properties -> Builders
- § Builders are invoked when resources change
- § Groovy builder looks for .groovy files that have changed and tries to compile them
- § Project -> Properties -> Groovy
  - § output folder
  - § toggle class file generation



# Mixing Groovy and Java

## What works well

- § Some ways are easier than others
- § Groovy compiled into .jar and imported looks just like any other Java jar library
- § Groovy and Java dependencies within a project can work
- § The compilers do *\*not\** know about each other. That's changing for Groovy but not on the radar yet for Eclipse.



# Mixing Groovy and Java

- § Less experience with:
  - § two way dependencies in the same project
  - § pulling projects into the classpath
  - § using Ant builders



# Running and Testing

## § Run As Groovy

- § right click in editor, package explore

- § option-shift-x

## § Running Scripts

## § JUnit

- § Run As Groovy

- § Run As JUnit

## § Stack Trace Hyper Links



# Editing

- § Color Syntax Highlighting
- § Code Assist
- § ctrl-/
- § ctrl-.
- § bracket matching
- § error markers
- § outline view



# Code Assist What Works!

- § method completions
  - § app.getM\_
  - § app.gM\_
  - § app.getMessage().len\_
- § static types
- § def x = new ...
- § class properties
- § Default Groovy Methods
- § Groovy and Java Classes



# Code Assist

## Still in Progress

- § class names
- § imports



# Debugging

- § Run As ->Groovy
- § Debug As ->Groovy
- § Step Into Groovy Runtime
- § Filtering Groovy Runtime Classes



## Misc

- § Package names have match folders name in Eclipse (not required for Groovy)
- § Launch Configurations
- § Groovy Console
- § Groovy Shell
- § CST Viewer
- § AST View



# Tips and Tricks

- § Ant Build Scripts
- § Eclipse Startup Options
  - § Heap
  - § Permgen



# A Look Far Ahead

- § Code Assist
- § Code Browsing
- § Refactoring Support
- § Eclipse Dynamic Languages Toolkit
- § Grails Support



# Real World Experience

- § The Plugin Is Not Perfect
- § Mitigate Risk with Ant
- § It's Good Enough To Use for Real Projects
- § It's Open Source - Contribute!



# Resources

- § Plugin Update Site
- § Groovy Wiki
- § My test site
- § eclipse-plugin-dev and groovy-user mail lists
- § My codehaus page



# Questions?

- § Adding Groovy to your project
- § Real world experience
- § New features
- § Contributing



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