Groovy language features

Editing

- Syntax highlighting
- Error highlighting
  - Unresolved classes marked as errors
  - Unresolved unqualified properties marked as warnings
  - Incompatible types assignments marked as warnings
  - Inapplicable method calls marked as warnings
- Code folding
- Code formatter
- Comments and "To Do" view support
- "add missing import" intention
- Intellectual errors and warning highlighting (types incompatibility, methods defining twice etc)

Execution, Debugging & Compilation

- Debugging support (setting breakpoints, view stack)

- GDK configuration
- Grails configuration
- Run configuration for Groovy scripts
- Make or rebuild java+groovy project entire

Code Completion

- context sensitive keyword completion
- Completion of methods, fields, classes
  - Completion makes use of type inference
  - Default methods completed
  - Swing builder methods are completed, swing properties are completed in method argument list
- Resolve
  - Resolve groovy to groovy classes, methods, fields
  - Resolve groovy to java classes, methods, fields
  - Resolve java to groovy classes, methods, fields

Surround with (Alt+Ctrl+T)

- (...)
- !(...)
- ((Type) ...)
- with (...)
- if() { ... }
- if() { ... } / else
- try / catch
- try / finally
- try / catch / finally
- while () { ... }
- { -> ... }.call()

Introduce

- Introduce variable (Alt+Ctrl+V)
  - Offer the default type and variable name
- Introduce parameter (Alt+Ctrl+P)
  - from expression
  - from variable
  - updates references in Groovy and Java
- Introduce closure parameter (Alt+Ctrl+P)
  - from expression
  - from several statements

- Introduce field
- Introduce constant

Extract method (Alt+Ctrl+M)

- from expression
- from several statements

Change signature (Ctrl+Shift+F6)

- updates all references (in Groovy and Java)

Inline (Alt+Ctrl+N)

- Inline variable and all occurrences
- Inline method

Rename (Shift+F6)

Renames

- packages
- classes
- local variables
- methods
  - declaration case
  - call case

Convert to Java

- converts Groovy code to equivalent Java

Structure view

Shows

- classes
- methods
- fields

founded in groovy file

File structure (Ctrl+F12)

- The popup window contains classes, methods, fields.

Find usage (Alt+F7)

- Implements groovy classes search

Parameter Info (Ctrl+F12)

- The usual ctrl-P shortcut shows signatures of candidate methods at method call site

Class search (Ctrl+N)

- Searches class by prefix of class groovy name

Imports Optimization (Alt+Ctrl+O)

- Delete unused imports

Builders support

- Convinient work with builder because of intellectual properties completion

Creation groovy classes and scripts

- Create groovy class or script action easy of access from every project file context menu

Notable intentions

- Grab annotation
- Declare explicit type
- String intentions
- Convert Groovy native map to class instance
- Style conversions
  - Convert Java-style array creation to Groovy style
  - Chage Java-style accessor invocation to Groovy-style property reference
- Convert method to property of closure type
- Convert property to method
- Add return type to method declaration
- Convert method or closure parameters to map entries

Grails

- Grails SDK configuration
- Grails controller, view, domain class, job, script, service, taglib creation
- Grails generators are built in; output to console

Supported AST transformations

- AutoClone
- AutoExternalize
- Tupleconstructor
- Immutable
- Canonical
- Delegate
- InheritConstructor
- Log
- Commons
- Log4j
- Slf4j
- IndexedProperty
- Newify
- Singleton
- Vetoable

Other supported annotations

- Mixin
- Bindable
- Category

Resolve features

- automatic inference of types of closure parameters used in DefaultGroovyMethods methods
- mixins into metaclasses: MyClass.mixin(MyOtherClass)
- DefaultGroovyMethods.with, use