

Core

| | |
|---------------|--------------------------------------|
| Ctrl+1 | Quickfix |
| Ctrl+3 | Open "Quick Access" search |
| Ctrl+L | Content Assist |
| Alt+⇧Shift+Z | Surround with (do, for, if, try, ..) |
| Ctrl+Z | Undo |
| Ctrl+⇧Shift+Z | Redo |

Testing

| | | |
|-----------------|--------------------------------|----------|
| Alt+⇧Shift+X, T | execute Tests | |
| Ctrl+R | execute Tests | moreUnit |
| Ctrl+J | jump to test or implementation | moreUnit |

Comment

| | |
|---------------|---|
| Ctrl+/ | Comment / uncomment line or selection (adds '//') |
| Ctrl+⇧Shift+7 | Add Block Comment around selection (adds '/* ... */') |
| Ctrl+⇧Shift+B | Remove Block Comment |
| Alt+⇧Shift+J | Add Element Comment (adds '/* ... */ JavaDoc') |

Text Editing

| | |
|-------------------|--|
| Ctrl+⇧Shift+Y | lowercase selected text |
| Ctrl+⇧Shift+X | uppercase selected text |
| Ctrl+D | Delete line |
| Ctrl+⇧Shift+Del | Delete until end of line |
| Ctrl+Del | Delete next element |
| Ctrl+⌘ | Delete previous element |
| Ctrl+Alt+↓/↑ | Copy line below/above |
| Alt+/ | Propose word completion - after typing at least one letter. Repeatedly press until reaching correct name |
| Alt+⇧Shift+A | Column (block) selection, Multiline block editing |
| ⇧Shift+Enter | Adds a blank line below the current line |
| Ctrl+⇧Shift+Enter | Adds a blank line above the current line |

Generate

| | |
|-----------------|------------------------------|
| Alt+⇧Shift+S, R | Generate Getters and Setters |
|-----------------|------------------------------|

Movement

| | |
|--------------------|---|
| Alt+↑/↓ | Move current line or selection up or down |
| Ctrl+←/→ | Jump one word to the left / right |
| Ctrl+⇧Shift+↑/↓ | Jump to previous / next method |
| Ctrl+L | Jump to Line Number. To hide/show line numbers, press Ctrl+F10 and select 'Show Line Numbers' |
| Ctrl+Q | Jump to last location edited |
| Ctrl+.,/ | Jump to next / previous warning or error |
| Ctrl+↑ | Scroll up |
| Ctrl+↓ | Scroll down |
| Ctrl+⇧Shift+P | Go to the matching bracket |
| Alt+⇧Shift+↑/↓ | Select the previous / next syntactical element |
| Alt+⇧Shift+↑/↓/←/→ | Extending / reducing the selection of the previous / next syntactical element |

Tip: Use bookmarks. Add them on left margin of the code view (where you set the breakpoints) with "right click → Add bookmark". Add the Bookmarks-View (Window → Show View → Bookmarks).

Selection

| | |
|--------------|--|
| Alt+⇧Shift+↑ | Expand selection to current element |
| Alt+⇧Shift+↓ | Reduce previously expanded selection by one step |

Search / Information

| | |
|---------------|--|
| Ctrl+⇧Shift+T | Open Type |
| Ctrl+⇧Shift+H | Open Type In Hierarchy |
| Ctrl+⇧Shift+R | Open Resource |
| Ctrl+O | Show Outline (second press shows the inherited members) |



Search / Information (cont)

| | |
|------------------------|--|
| F2 | Open class, method or variable information (tooltip text) |
| F3 | Open Declaration: Jump to Declaration of selected class, method or parameter |
| F4 | Open Type Hierarchy window for selected item |
| Ctrl+T | Show Quick Type Hierarchy (toggles between supertypes and subtypes when pressed again) |
| Ctrl+U | Find occurrences of expression in current file |
| Ctrl+mouse over method | Open Declaration or Implementation |
| Ctrl+⇧+L | List of shortcuts (depending on the context) |
| Ctrl+⇧+␣ | Method cursor is located at the parameter Parameter specification for method reference Hints |
| Ctrl+⇧+G | Search workspace for references to selected method or variable |
| Ctrl+G | Search workspace for declarations of to the item under the cursor |
| Ctrl+F | Quick search |
| Alt+↵ | Show properties (in Package or Project Explorer) |

Cleanup

| | |
|----------|----------------------------------|
| Ctrl+⇧+O | Organize Imports |
| Ctrl+⇧+F | Format Source |
| Ctrl+I | Intend selected source |
| Ctrl+⇧+M | Add Import / also static imports |

Refactoring

| | |
|-----------|---|
| Alt+⇧+R | Rename Element |
| Ctrl+2, R | Rename locally (in file), faster than Alt+⇧+R |
| Alt+⇧+L | Extract to local variable |
| Alt+⇧+M | Extract to method |
| Alt+⇧+T | Opens the context-sensitive refactoring menu |
| Alt+⇧+R | Rename |
| Alt+⇧+V | Move |
| Alt+⇧+C | Change Method Signature |
| Alt+⇧+M | Extract Method |
| Alt+⇧+L | Extract Local Variable |
| Alt+⇧+I | Inline |

Editor Window

| | |
|--------------------|--|
| F12 | Jump to Editor Window |
| Ctrl+PgDn/ PgUp | Next / previous Editor - in the order of their tabs in the editor area |
| Ctrl+M | Maximize or un-maximize current Editor Window |
| Ctrl+E | Show list of open Editors. Use arrow keys and enter to switch |
| Alt+←/→ | Backward / Forward editor navigation history |
| Alt+- | Open Editor Window Option menu |
| Ctrl+F6 | Next Editor - if released it immediately, Eclipse will take you to the last active editor |



Editor Window (cont)

| | |
|--|--|
| Ctrl+ ↑ Shift+F6 | Previous Editor |
| Ctrl+E | Quick Switch Editor |
| Alt+F7 | Multipage editor - next Page |
| Alt+ ↑ Shift+F7 | Multipage editor - previous Page |
| Ctrl+- | Toogle Split Editor old: Ctrl+_ (Horizontal) - since Luna |
| Ctrl+< | Toogle Split Editor old: Ctrl+{ (Vertical) - since Luna |
| Ctrl+ ↑ Shift+"N um Keypad /" | Collapse all code blocks |
| Ctrl+ ↑ Shift+"N um Keypad ** | Open all code blocks |
| ↑ Shift (and hover over element) | Show source (in tooltip) settings: Window → Preferences → Java → Editor → Hovers |

Outline View

| | |
|---|--|
| Reorder class members with Drag & Drop | Disable "Sort Order" - otherwise not possible Automatic reordering: Select the class, Source → Sort Members |
|---|--|

Package / Project Explorer

| | |
|--------|---------------------------|
| Alt+F5 | Maven → Update Project... |
|--------|---------------------------|

Problems View

| | |
|---|--|
| Configure to view only warnings and errors associated with a particular resource or group of resources | Problems View - Configure Contents e.g. select "on any element in same project" to restrict to current selected project |
|---|--|

Templates (Java → Editor → Templates)

| | |
|------|----------------------|
| test | Created test method |
| for | Creates for loop |
| new | Creates new instance |
| try | Creates try..catch |

Templates (Java → Editor → Templates) (cont)

| | |
|--------------------------|---|
| sysout, syserr, systrace | Creates System.out... |
| strf | Format string here |
| if | if null/if not null |
| for | iterate over map |
| static_final | static final field |
| before | junit before method |
| after | junit after method |
| beforeclass | junit beforeclass method |
| afterclass | junit afterclass method |
| quote | surround selection with quotes here |

Tip: It is possible to select text and use completion (Ctrl+␣) including typing of template name

Changed Eclipse Keybindings

Windows → Preferences → General → Keys

Required modifications due to the german QWERTZ keyboard layout:

1. Add Block Comment - **new:** Ctrl+ ↑ Shift+7, **old:** Ctrl+ ↑ Shift+/
2. Remove Block Comment - **new:** Ctrl+ ↑ Shift+β, **old:** Ctrl+ ↑ Shift+\
3. Toogle Split Editor (Horizontal) - **new:** Ctrl+ ↑ Shift+-, **old:** Ctrl+_
4. Toogle Split Editor (Vertical) - **new:** Ctrl+ ↑ Shift+<, **old:** Ctrl+{

Update 12/2016: had to add ↑ Shift to 3. and 4. because of new Eclipse Neon Zoom functionality with Ctrl+-

Project Specific Configuration

1. Import project **Java formatter configuration**
2. Download **Checkstyle configuration** file from sonar server and reference the config file as a file resource url
3. Download **Findbugs configuration** file from sonar server and add the config file under "include filter files"
4. Download **PMD configuration** file from sonar server and first "clear all" existing rules and then import the config file

Plugins

| | |
|----------------------|-------------|
| Testing Support | moreUnit |
| | Infinittest |
| Test Coverage | EclEmma |
| Source Code Analyzer | FindBugs |
| | Checkstyle |
| | PMD |
| | Update-Site |
| | Usus |

Plugins (cont)

⚡ SonarCube or SonarLint
Ignore certain warnings with //NOSONAR or @SuppressWarnings("squid:S00112")

Refactoring [JDeodorant](#)

Subversion [Subclipse](#)

Eclipse Team

Provider

Plugin

use Subclipse instead of Subversive because it is **much faster**

use JavaHL native/JNI provider

Task based working [Mylyn](#)

Nice: Task-focused Change Sets

Subclipse includes an optional Mylyn connector

JavaDoc [JAutoDoc](#)

Maven integration [M2Eclipse \(m2e\)](#)

add needed m2e connectors. follow pom.xml hints/problems. e.g:

m2e connector for build-helper-maven-plugin

m2e connector for the Eclipse JDT Compiler

m2e connector for the Maven Dependency Plugin

Groovy-Eclipse m2e integration

Decompiler [Eclipse Class Decompiler](#)

XUbuntu specific Configuration Changes

Delete following keyboardings in **XFCE Settings → Window Manager →**

Keyboard:

1. Ctrl+Alt+↓/↑
2. Ctrl+F6
3. Alt+F5

If running **IBus-Applet** delete keybinding definition for "Ctrl+Space" (Content Assist) in IBus-Settings

Use **gnome-color-chooser** and change options:

1. **This only works for Eclipse < 4.5, because Eclipse Mars 4.5 and higher uses GTK3 by default (gtkrc-2.0 settings will not be used).**

You can force Eclipse 4.5 and higher to use GTK2 with the following export or change GTK3 theme options: export SWT_GTK3=0

2. Tooltip colors (background: yellow, foreground: black)
3. Global colors → Input field selected (foreground: black)

Disable "pink/purple highlights" in Xubuntu 14.10 and higher: disable custom highlight-color in **gtk-theme-config**

Settings

show "." files in package explorer **"Package Explorer → View Menu → Filters → uncheck .**"** or "Package Explorer → Customize View... → Filters → uncheck .**"

Package Explorer Option "Link with editor" Link file to package explorer

Favorites Imports Windows → Preferences → Java → Editor → Content Assist → Favorites, New Type... **x1**

Add types for Assertion library Hamcrest and/or AssertJ, Mockito and JUnit-Assert



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Settings (cont)

| | |
|---|--|
| Show line numbers | Window → Preferences → General → Editors → Text Editors → "Show line numbers" |
| Show print margin | Window → Preferences → General → Editors → Text Editors → "Show print margin" |
| Paste multiline strings | Window → Preferences → Java → Editor → Typing → "Escape text when pasting into a string literal" |
| Import code templates collection | x ² |
| Import code template "surround with quotes" | x ² |
| MoreUnit Configuration | Test source folder: "src/test/java" |
| | Test Type: "JUnit4" |
| | uncheck "Use test-prefix for test-methods" |
| | Rule for naming test files → Pattern: \${srcFile} (Test IT ITCase) |
| | if you have legacy tests with Test prefix: Rule for naming test files → Pattern: (Test)\${srcFile} (Test IT ITCase) |

Settings (cont)

| | | |
|--|--|---|
| Formatter Options | Window → Preferences → Java → Code Style → Formatter → Off/On Tags for | here |
| | //@formatter:off and // @formatter:on | |
| | Check the Never join lines preference accessible on the Line Wrapping and the Comments tabs of the Java Formatter preference page | here |
| Improve Performance | Window → Preferences → Validation, Disable All | |
| | Add -Xverify:none to eclipse.ini | tell the VM not to validated all the .class files it is loading |
| | Window → Preferences → General → Startup and Shutdown | remove plugins not needed |
| | increase -Xms and -Xmx heap memory options (start and max) in eclipse.ini | e.g. -Xms512m -Xmx2048m |
| | increase -XX:MaxPermSize option (if java < 1.8) | e.g. -XX:MaxPermSize=512m |
| Enable informative Eclipse Compiler Warnings | Window → Preferences → Java → Compiler → Errors/Warnings | set to Warning and keep sub checkboxes checked (if any) |
| | <i>Potential Programming problems</i> | Potential resource leak |
| | <i>Unnecessary code</i> | Value of parameter is not used |



Settings (cont)

| | |
|----------------------|---|
| | Unused type parameter |
| | Unnecessary declaration of thrown exception |
| | Unnecessary 'else' statement |
| | Unnecessary cast of 'instanceof' operation |
| <i>Generic types</i> | Redundant type arguments (1.7 and higher) |
| <i>Annotations</i> | Unhandled token in '@SuppressWarnings' set to "Ignore" |
| <i>Null analysis</i> | Redundant null check |
| Indent using spaces | Window → Preferences → XML Files → Editor Select "Indent using spaces" and set "Indentation Size: 4" |
| | Window → Preferences → General → Editors → Text Editors Set "Displayed tab width: 4" and select "Insert spaces for tabs" |
| Save Actions | Window → Preferences → Java → Editor → Save Actions |
| | check "Perform the selected actions on save" |
| | check "Format source code", "Format all lines" |
| | check "Organize imports" |
| | check "Additional actions" and add the following: |

Settings (cont)

| | |
|---------------------------------------|---|
| Code Style | <ul style="list-style-type: none"> "Use blocks in if/while/for/do statements" Use lambda where possible if you use Java >= 8 |
| Add final modifier to private fields* | <ul style="list-style-type: none"> Add final modifier to private fields Add final modifier to local parameter Add final modifier to local variables |
| Unused Code | <ul style="list-style-type: none"> Remove unused imports Add missing '@Override' annotations Add missing '@Override' annotations to implementations of interface methods Add missing '@Deprecated' annotations Remove unnecessary casts Remove unnecessary '\$NON-NLS\$' tags |
| Limit maximum number of open editors | Window → Preferences → General → Editors |
| | check "Close editors automatically" |
| | choose value (e.g. 20) for "Number of opened editors before closing" |



Settings (cont)

JDT Core/Null Analysis to avoid NPEs Window → Preferences → Java → Compiler → Errors/Warnings, Section *Null analysis* if you use Java < 8 (cannot use Optional) and cannot use Guava Optional e.g. for legacy projects

check "Enable annotation-based null analysis" you can use the Eclipse annotations, the JSR-305 annotations (old), custom ones or the JSR-308 annotations from Checker Framework

Maven Window → Preferences → Maven → User Interface

check "Open XML page in the POM editor by default" **Reason:** show pom.xml source code is faster than loading the "Overview" tab all the time

JUnit Window → Preferences → Java → JUnit enable "Add 'ea' to VM arguments when creating new JUnit launch configuration" enable JVM assertions by default

Show heap memory status Window → Preferences → General enable "Show heap status"

Enable "Quick Diff" Window → Preferences → General → Editors → Text Editors → Quick Diff enable checkboxes and select correct reference source option

x¹: TDD-Style mockito: `org.mockito.Mockito`, BDD-Style mockito: `org.mockito.BDDMockito`, `org.junit.Assert`, `org.hamcrest.Matchers`, `org.assertj.core.api.Assertions`
x²: Java → Editor → Templates

General

Refresh all In **Package Explorer** Ctrl+A, F5
 Projects (with some closed in between)

Use Working Sets for better performance Package Explorer → open the drop-down menu → Select Working Set

If Ctrl+⬆ Shift+R and Ctrl+⬆ Shift+T does not reflect active Working Set check the small arrow on the top right of the dialogue to select Working Set

Troubleshooting Projects

Maven dependency issues **try without eclipse project resolution** [Project] → Properties → Maven

uncheck "Resolve dependencies from Workspace projects" to check with jars from local ~/ .m2 repository instead of eclipse projects within workspace/workingset

clean projects

don't mix usage of maven CLI and m2e eclipse plugin

if mixed - make a mvn eclipse:clean (CLI) and import again in eclipse

Error message The archive: `<path_to_jar_file>` which is referenced by the classpath, does not exist.

find project with `.classpath` file where old/wrong jar is referenced

make a mvn eclipse:clean (CLI) and import again in eclipse

Troubleshooting Projects (cont)

you can use this command to search for the projects referencing old jar:

```
find -name '.classpath' -exec grep -Hin  
'example-1.2.3.jar' {} \;
```



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