ECLIPSE CHEAT SHEET

This cheat sheet is aimed at people with some experience in eclipse but who may not be aware of many of its features.

SHORTCUTS

These are some of the most useful shortcuts in eclipse. You can find others listed beside their function in eclipse's menus.

Menu	Key Combination	Use
Source	`Ctrl+Space`	Auto-complete / Content Assist
	`Ctrl+1`	Quick Fix (on current selection)
	`Ctrl+D`	Delete Current Line
	`Ctrl+Alt+Up`	Copy Lines Up
	`Alt+Up`	Move Lines Up
	`Alt+Shift+Z`	Surround (current selection) With
	`Ctrl+I`	Fix Indentation (on selection)
	`Ctrl+Shift+F`	Fix Formatting (on selection)
	`Ctrl+/`	Toggle Comments (on selection)
Refactor	`Alt+Shift+M`	Extract Method
	`Alt+Shift+R`	Rename
Search	`Ctrl+Shift+G`	Find All References (of selection)
	`Ctrl+H`	Advanced Search
Run	`Alt+Shift+X, J`	Run Current Class
	`Alt+Shift+X, D`	Debug Current Class

AUTO-COMPLETE

These are some of the most useful options given to you after using the `Ctrl+Space` auto-complete shortcut.

Text Written So Far	What the Auto-Complete Function Does
<start of variable/method name>	<end of variable/method name>
main	Creates a new main method
public / private	Creates a new public/private method
randomstring	Creates a new void method named *randomstring*
sysout	Creates a new System.out.println();
syserr	Creates a new System.err.println();
for	Creates a new for loop
foreach	Creates a new iterator loop
while	Creates a new while loop
try	Creates a new try-catch block

You can also create your own auto-complete statements. Go to Window->Preferences, then on the left pane go to

`Java->Editor->Templates`

For example the following template creates a println outputting the contents of a specific variable:

NAME: `debug`
PATTERN: `System.err.println("${word_selection}: " + ${word_selection}); ${cursor}`

This can be used now in eclipse by selecting a variable and pressing `Ctrl+Space`, then typing `'debug'` and pressing enter.

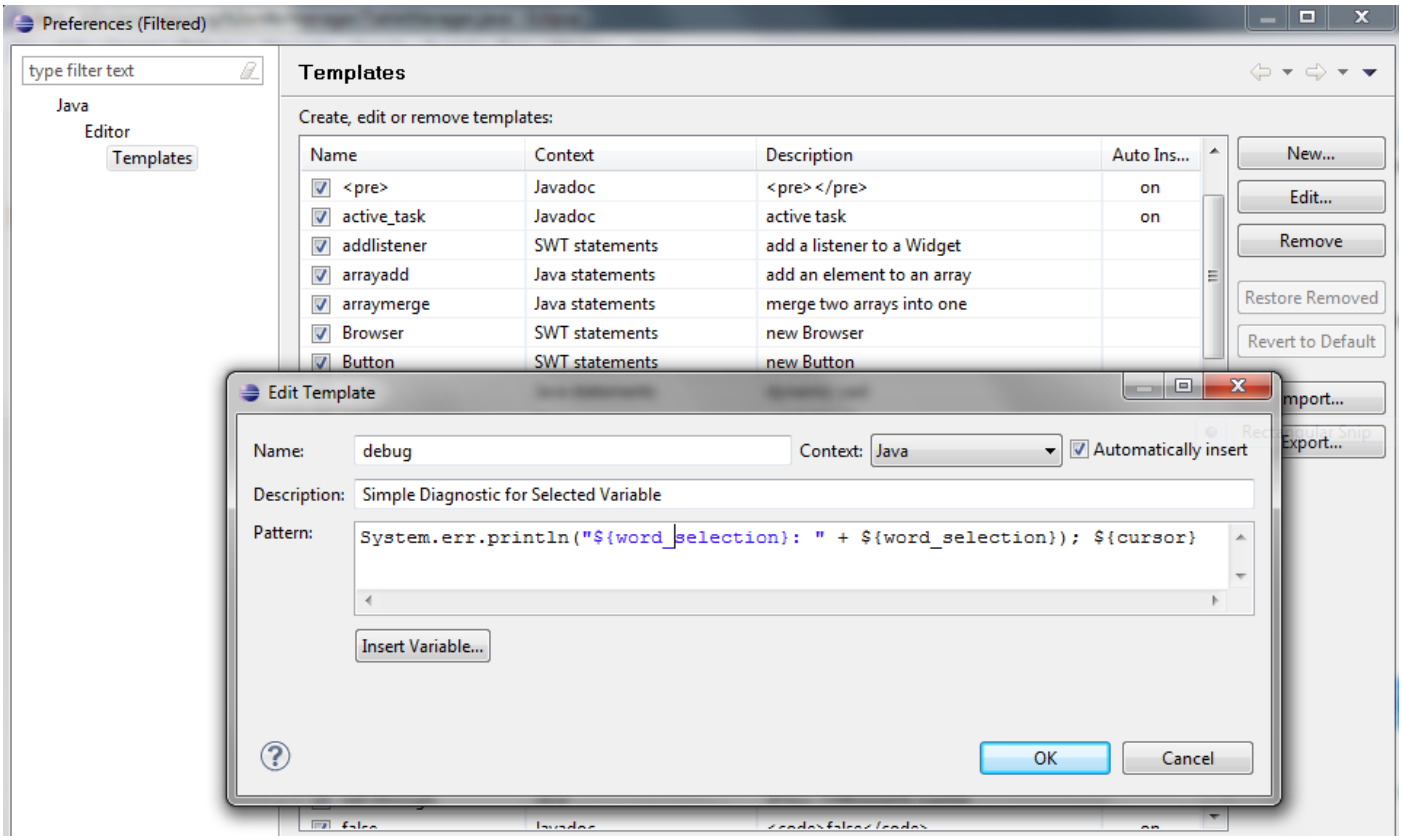


Figure 1: Creating a new auto-complete template

VIEWS IN ECLIPSE

Eclipse displays various views on the left and bottom of the screen that you may find useful. You can add new views if they are not already displayed by going to `Window->Show View`, or by clicking on the following icon at the bottom left of your workspace: 

TASK MANAGEMENT

The task pane (pictured below) is a useful way of keeping track of incomplete sections of code, or places where code needs tidied up.

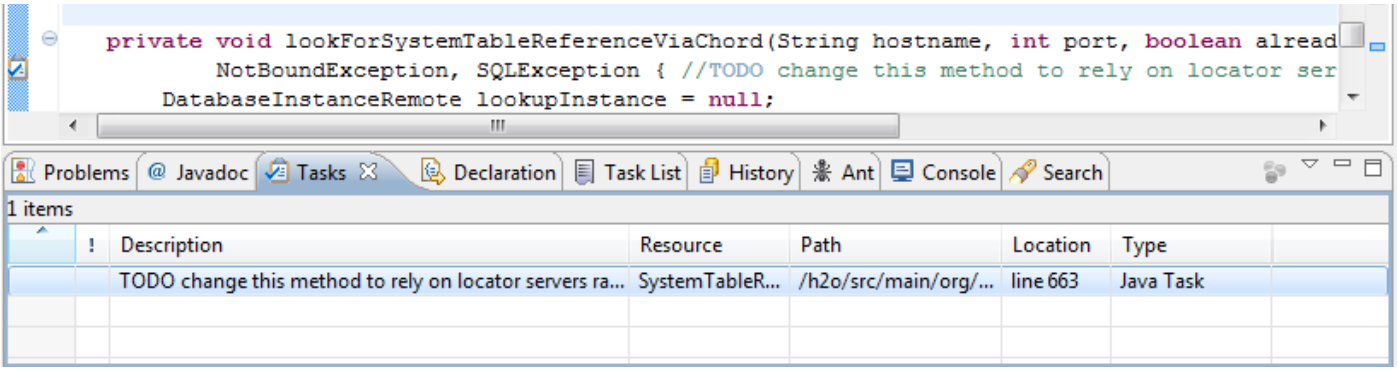


Figure 2: Tasks Pane

Comments will automatically be shown in the task pane if you start a comment with either `XXX` or `TODO`.

You can also create your own custom markers by clicking on the down arrow in the top right of the task pane and opening *Configure Contents*. Duplicate the TODO task you can then use your own custom tag by changing the description section.

PROBLEMS

The problems tab displays compiler warnings and errors.

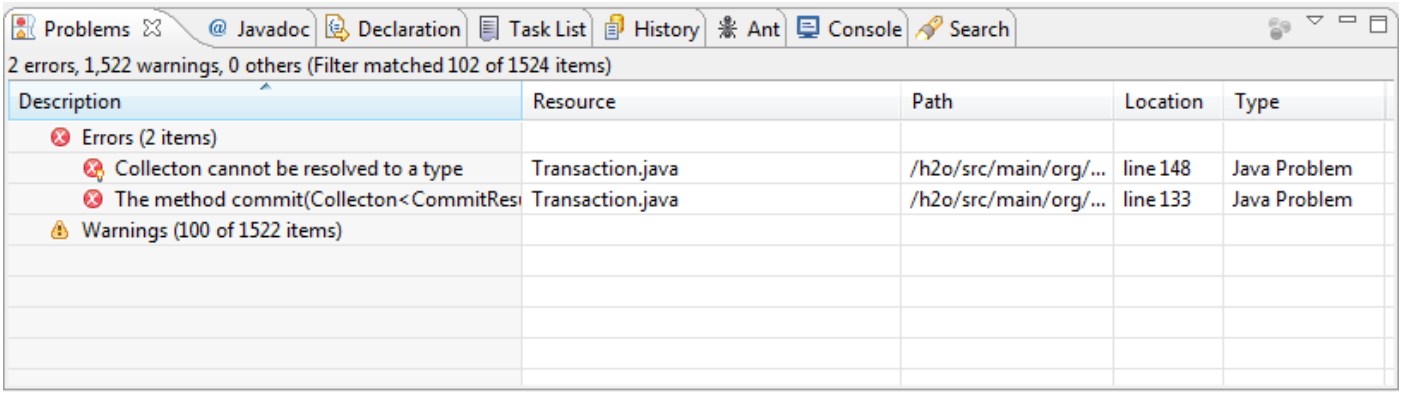


Figure 3: Problems Pane

You can filter the contents of this tab so that it only displays local problems by clicking on the down arrow (in the top right) and opening *Configure Contents*. Here you can change the scope of the problems shown for various types of errors and warnings.

PACKAGE EXPLORER VIEW

The package explorer displays projects in your workspace, with java files organized by package structure. You can choose to view packages flat or in a hierarchy.

To link the currently open java file with the contents of the package explorer select the 'link with editor' option.

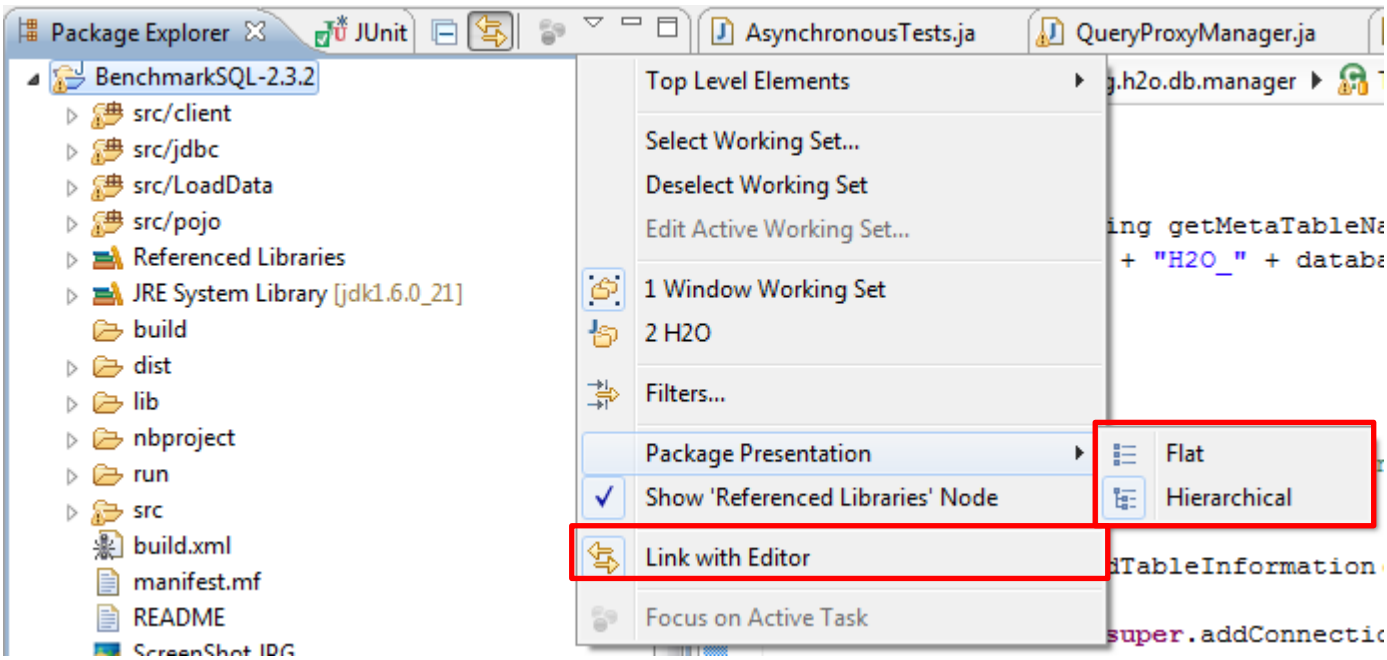


Figure 4: Package Explorer Pane

You can also filter the projects and classes that are shown in the package explorer to allow you to focus on only relevant classes. To do this click on the down arrow at the top of the package explorer and click on SELECT WORKING SET (shown above in Figure 4). You can then create new working sets that filter on various conditions. For example, you can filter certain projects or show on classes with specific debugging breakpoints. The menu with these options is illustrated below in Figure 5.

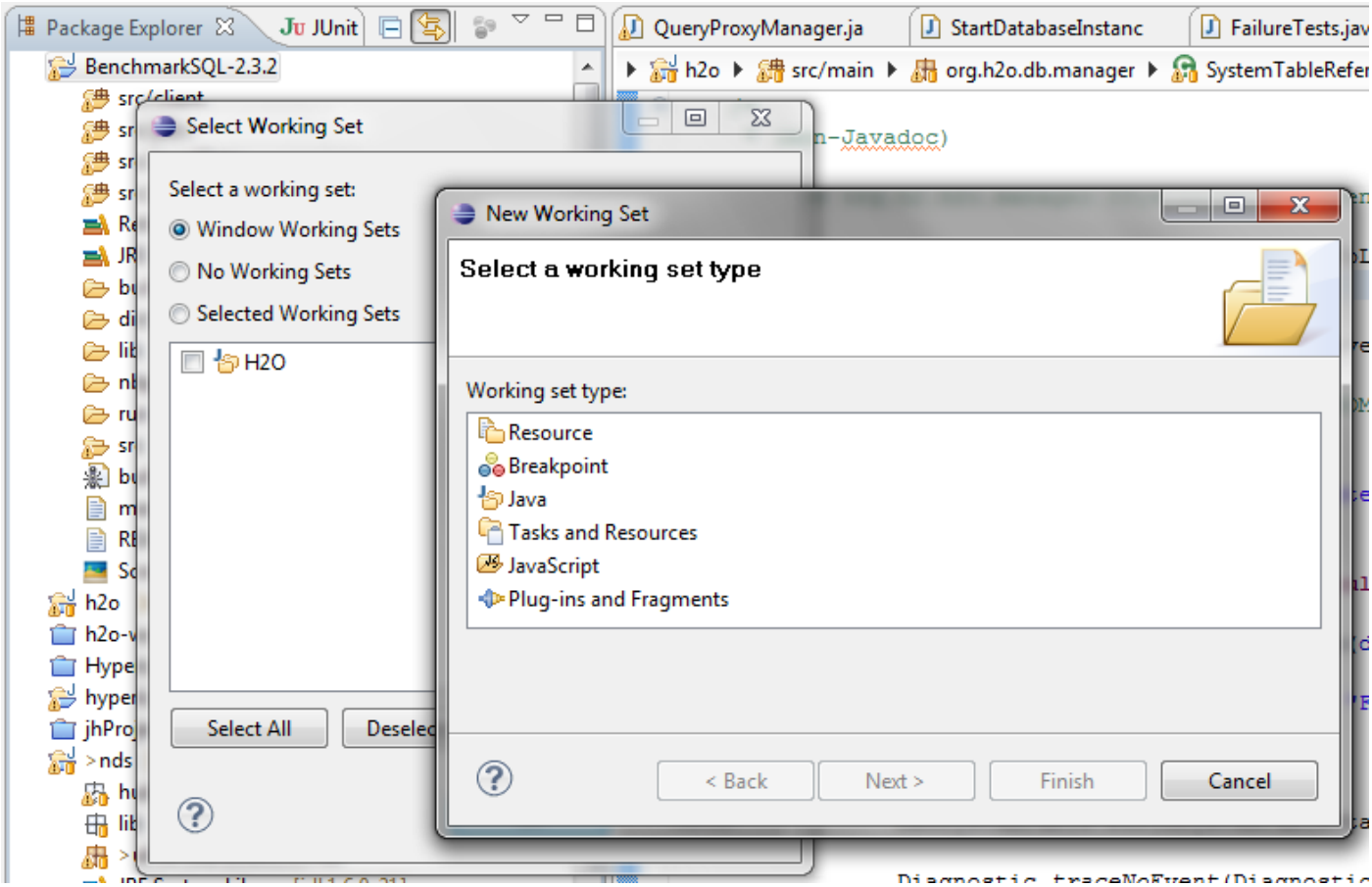


Figure 5: Working Sets

BREADCRUMBS

To enable the breadcrumb feature in eclipse, click on the  icon at the top of the workspace.

Breadcrumbs can be a quicker way of navigating between methods, classes, or packages in eclipse (as shown below).

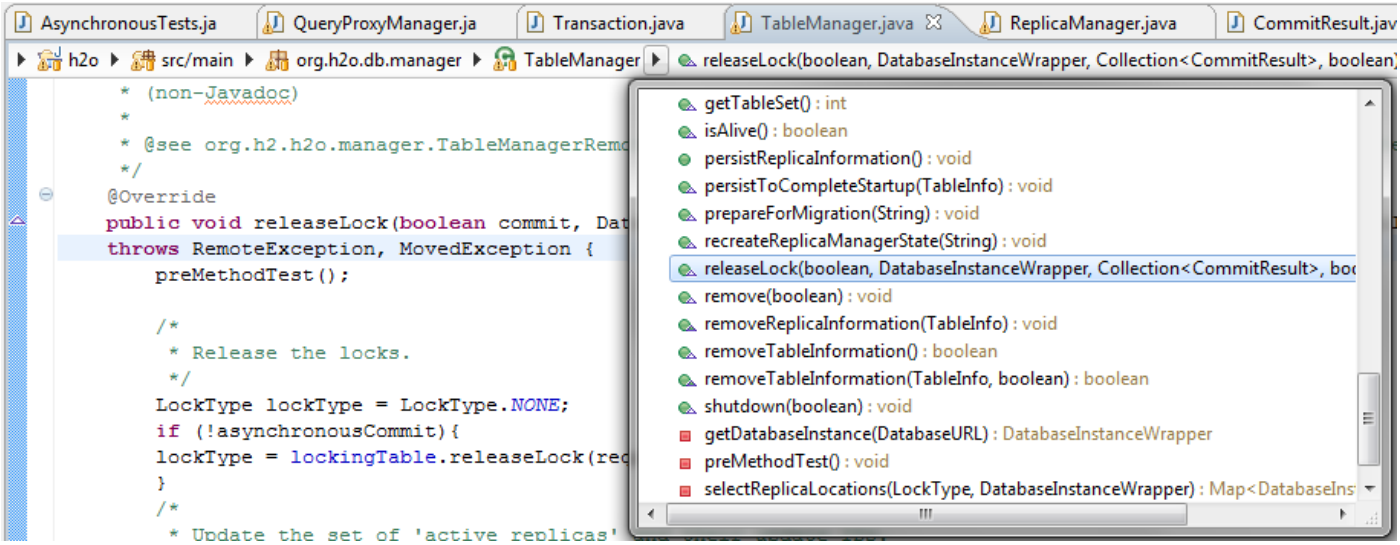


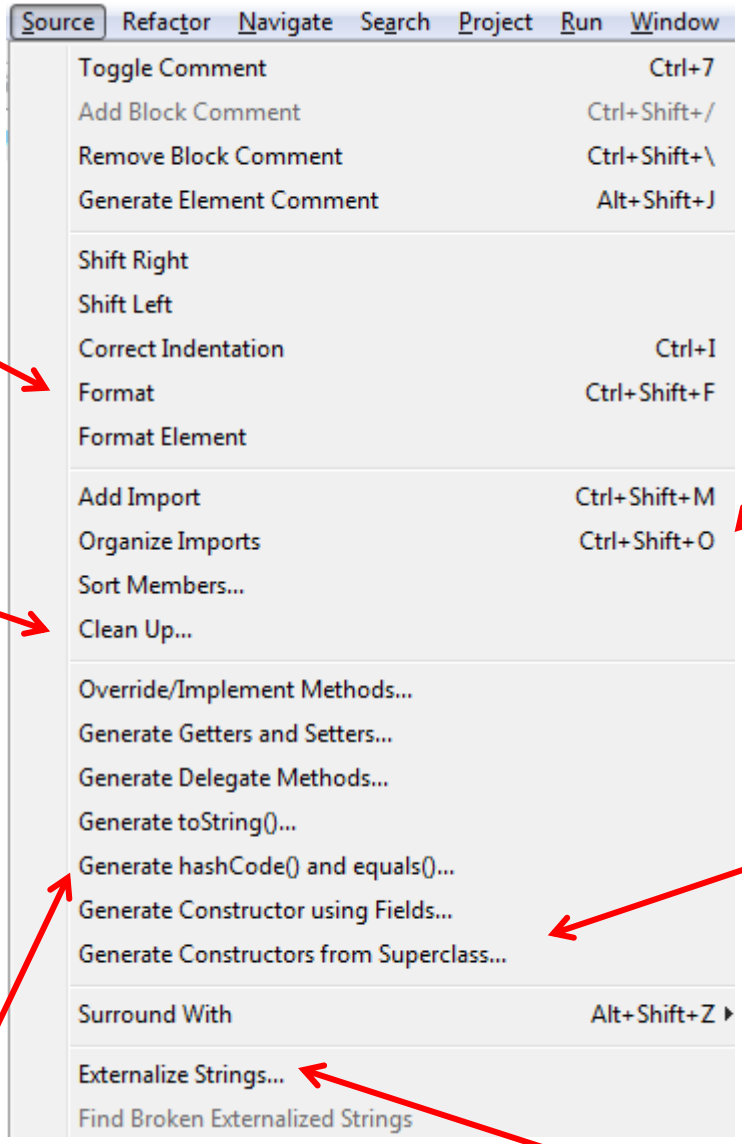
Figure 6: Breadcrumbs

MENU OPTIONS

The next couple of pages summarise some of the most useful menu options that eclipse provides.

THE SOURCE MENU

Used for cleaning up source files and generating code.



Correct indentation and spacing for the current selection.

A much more comprehensive formatter that can be run on multiple classes at once.

Gets rid of unused imports among other things.

Avoid repetition in writing constructors and creating fields.

You need to implement Object.hashCode() and/or Object.equals to be able to add your own objects to hash-based data structures (hashmaps, hashsets) and perform object comparisons repspectively, but you don't need to write them yourself.

This function places the contents of a specified set of strings in a properties file. It is a simple way of avoiding 'magic constants' in your code.

THE REFACTOR MENU

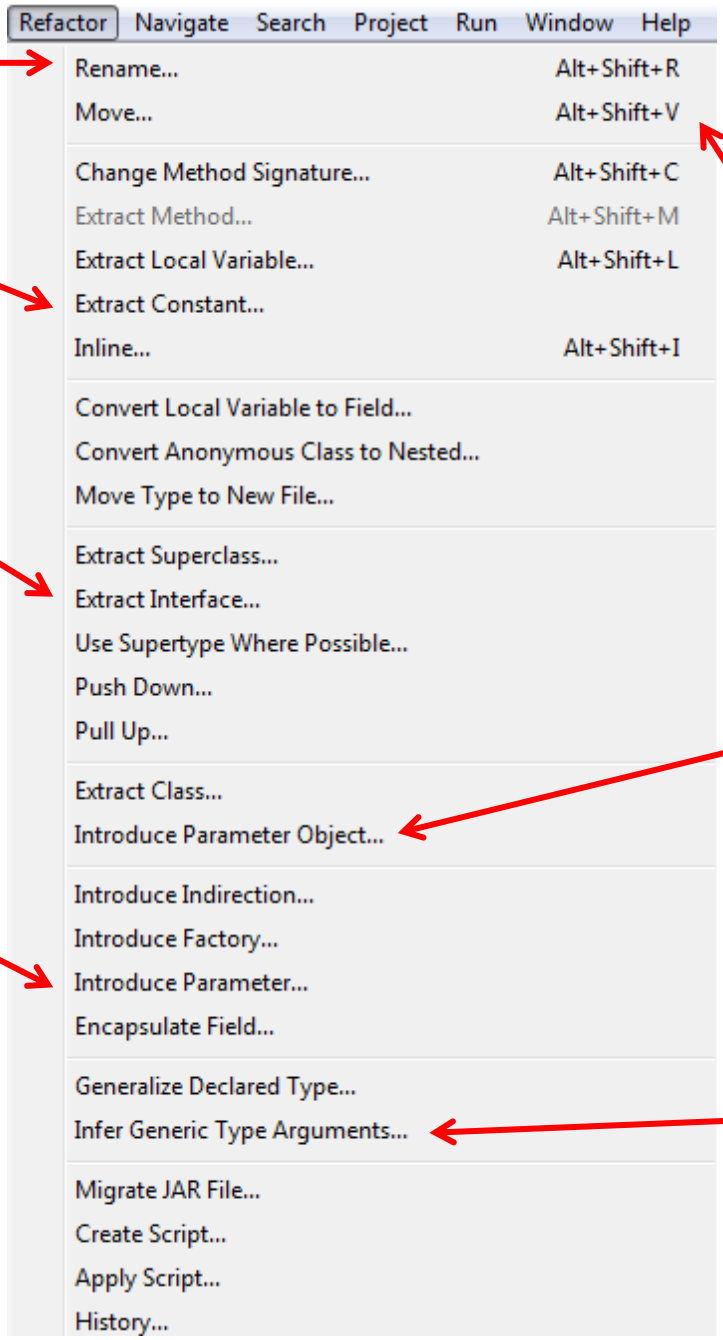
Used for making changes to code without breaking the program (changes are reflected everywhere so, for example, renaming a public field will change the field's name everywhere it is accessed).

Rename all occurrences of a variable, method, class, or package.

Create a constant field from a selected expression.

Create an interface for this class based on the current set of methods.

Add a selected expression as a parameter to a method call.



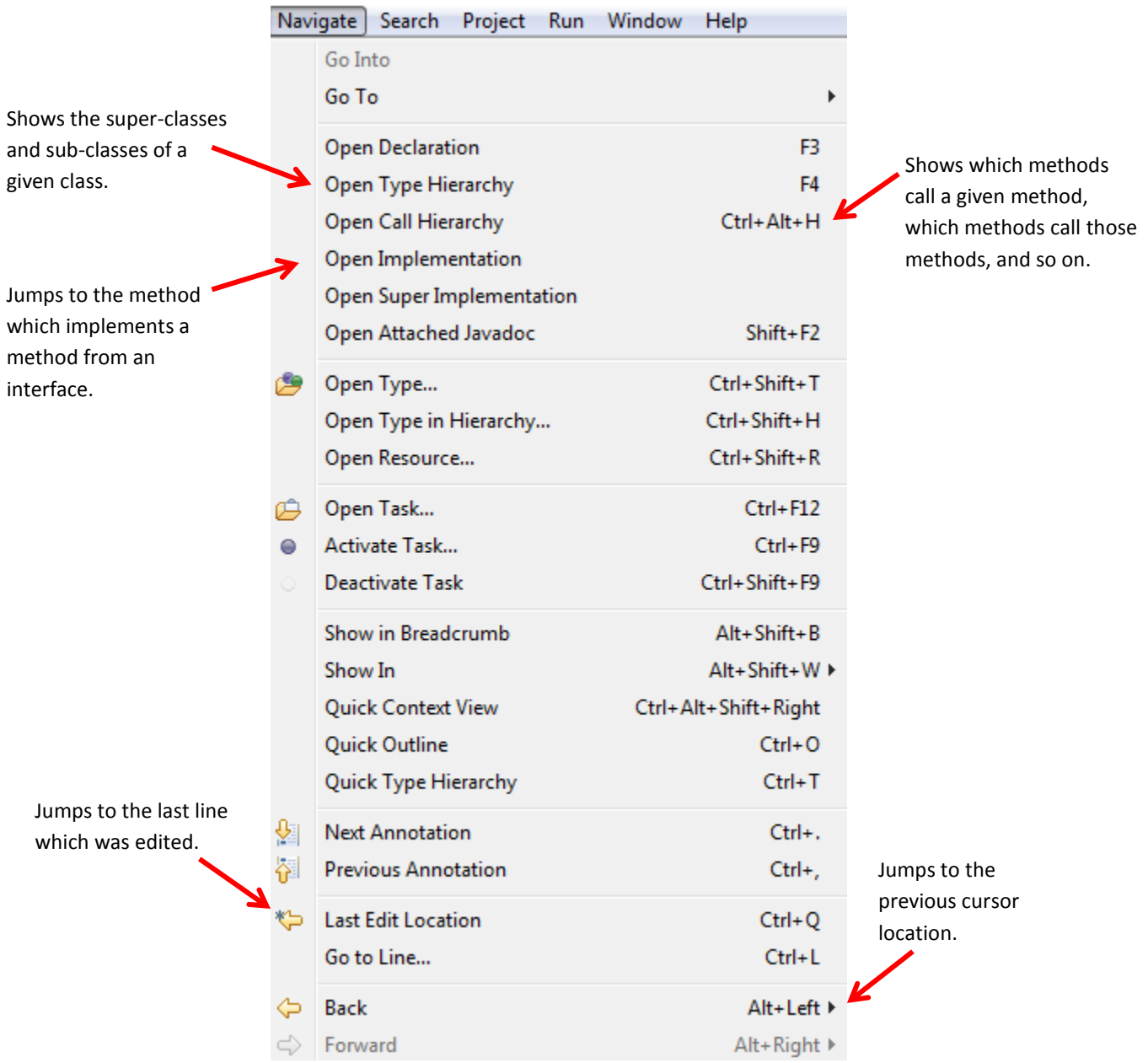
Move a method or field to a different location.

Wrap a number of method parameters into a single class.

Attempts to add types to generic interfaces/classes such as List and Map.

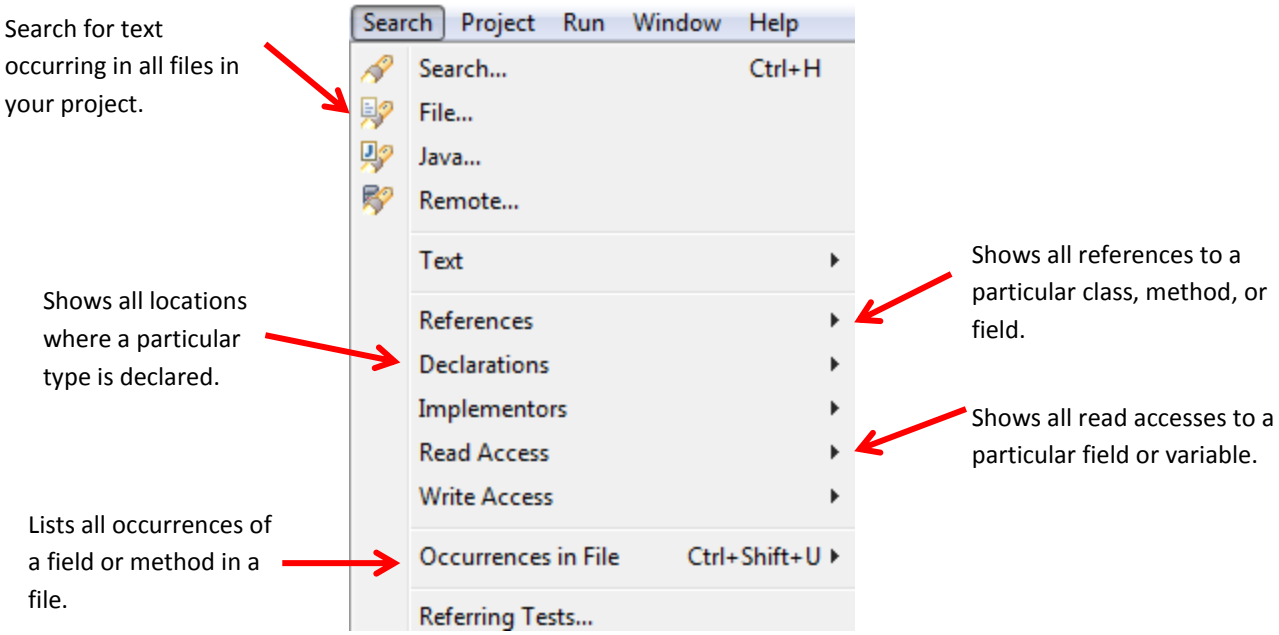
THE NAVIGATE MENU

Used for navigating between classes.



THE SEARCH MENU

Used for searching for text and specific operations in Java classes.



THE RUN MENU

Used to start programs and debug them at runtime.