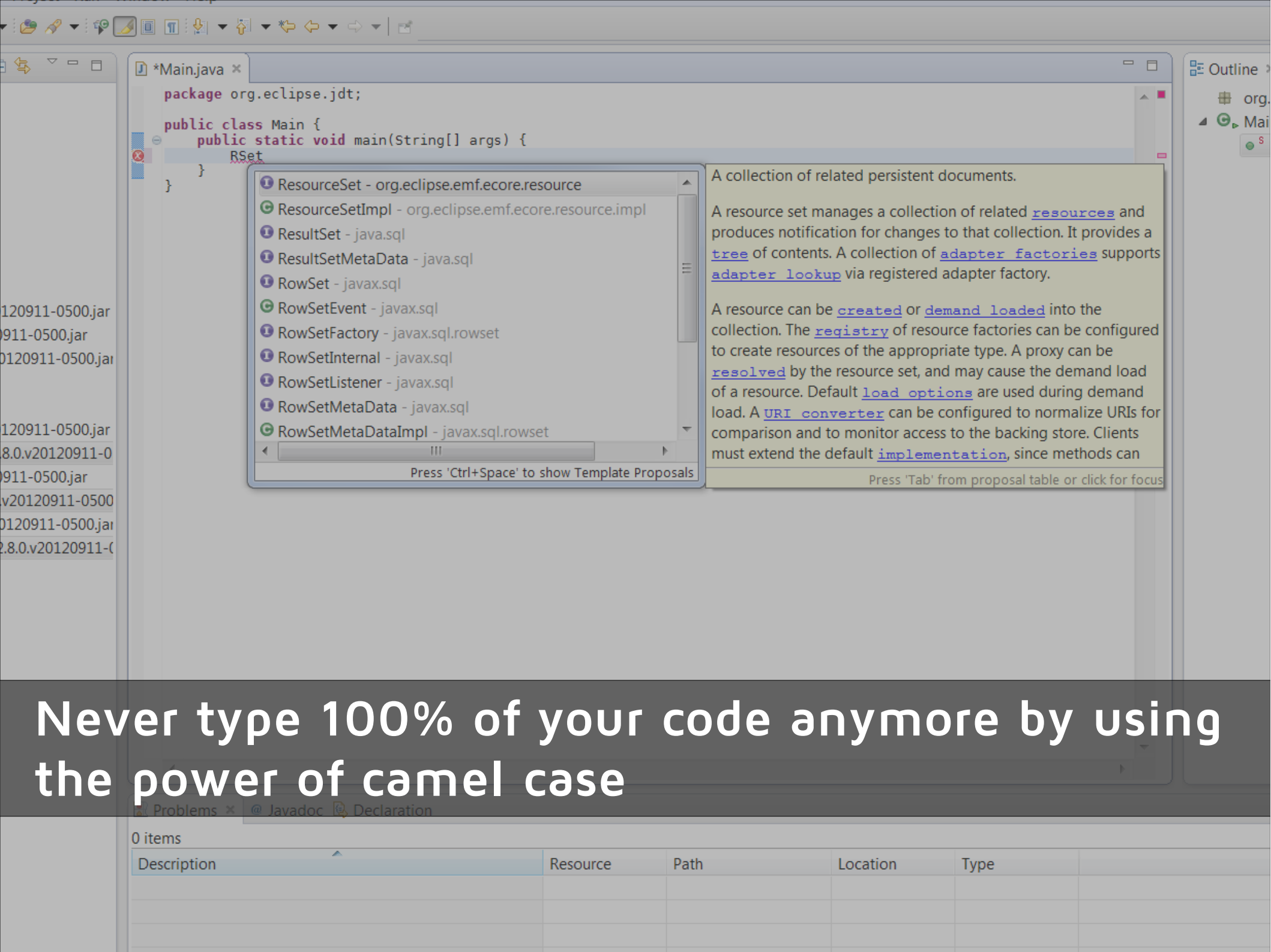
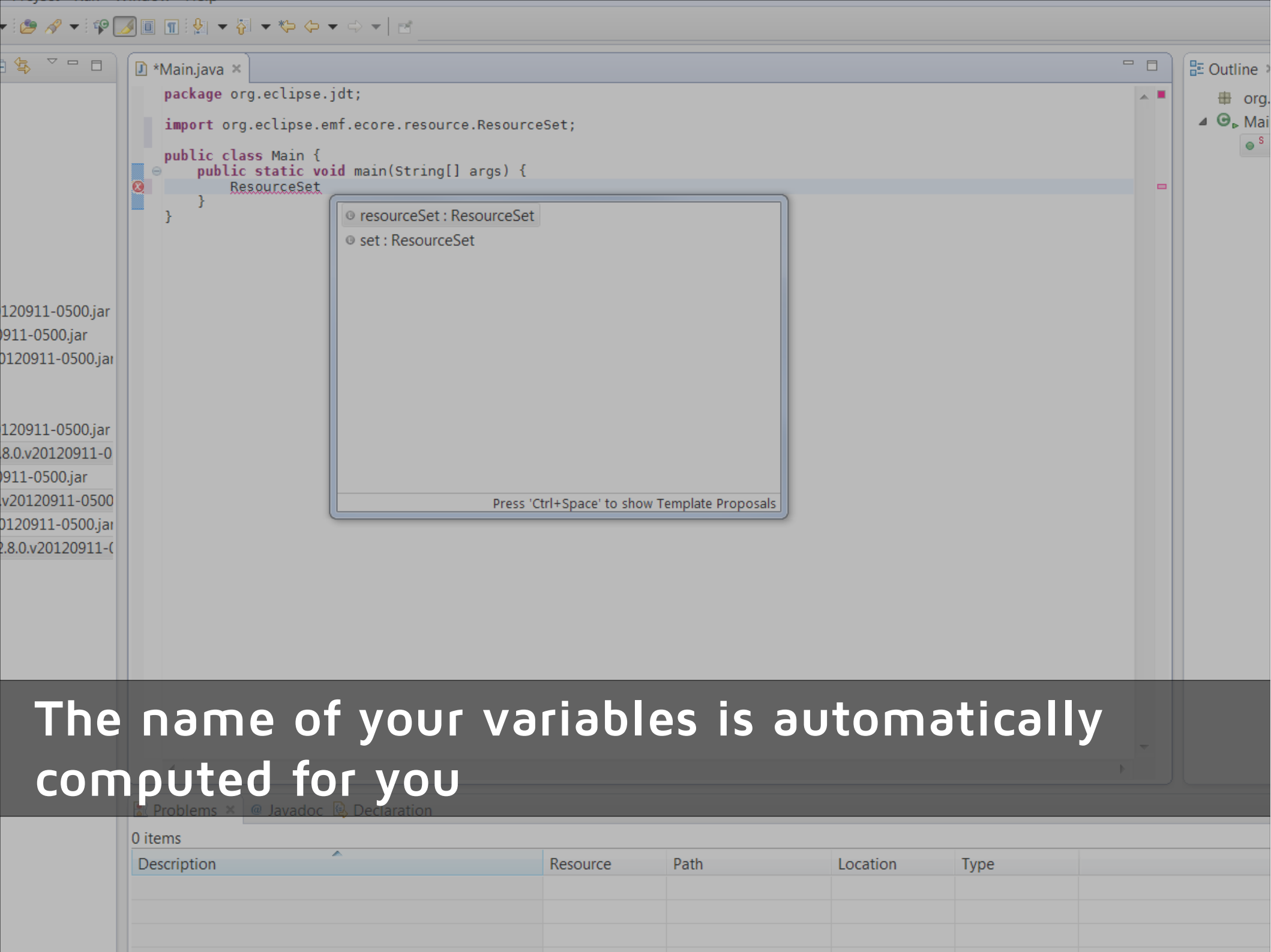
10 Effortless tricks to speed up your Java development in Eclipse

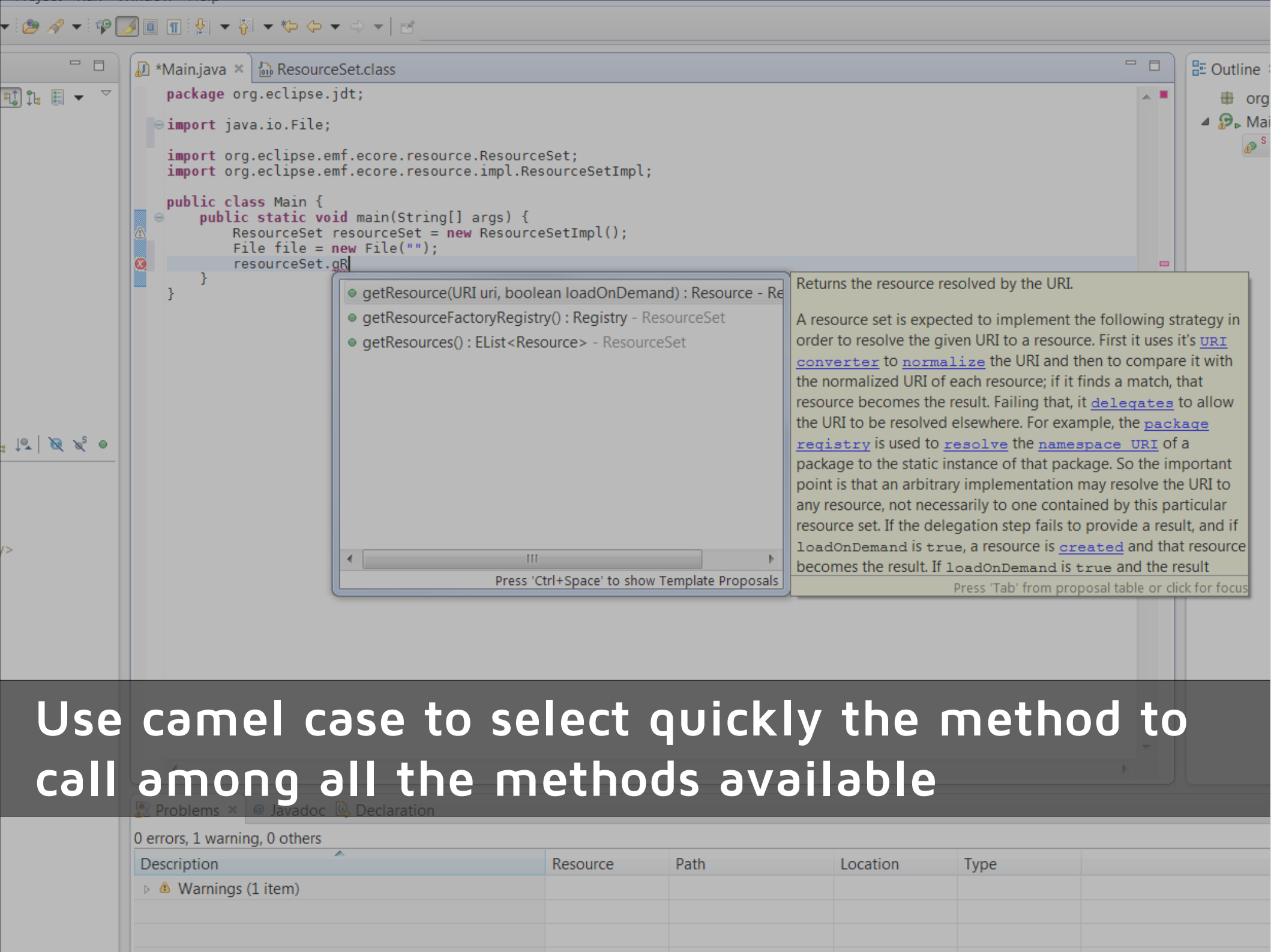
Ctrl +space

Code Completion



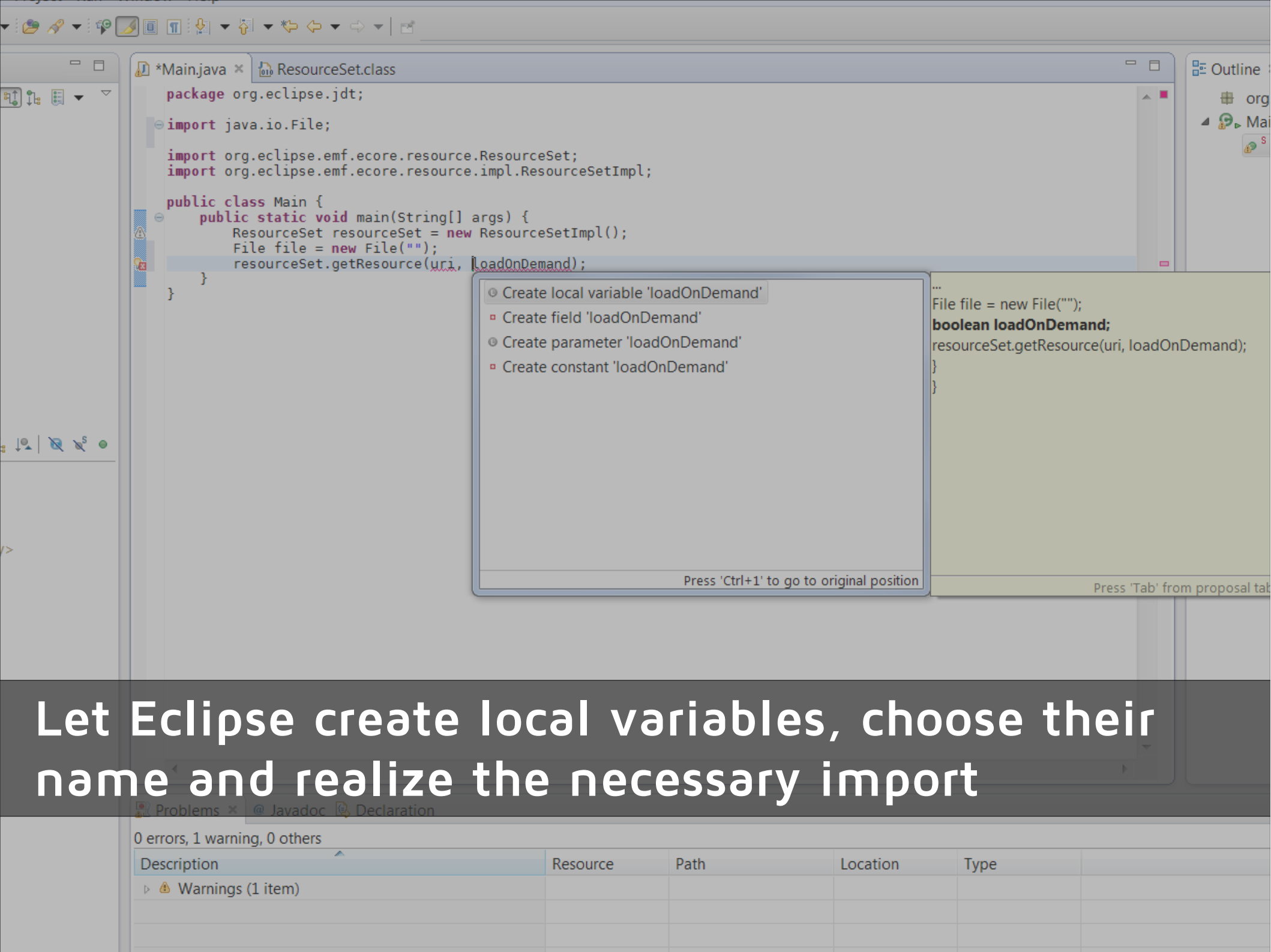
Never type 100% of your code anymore by using the power of camel case

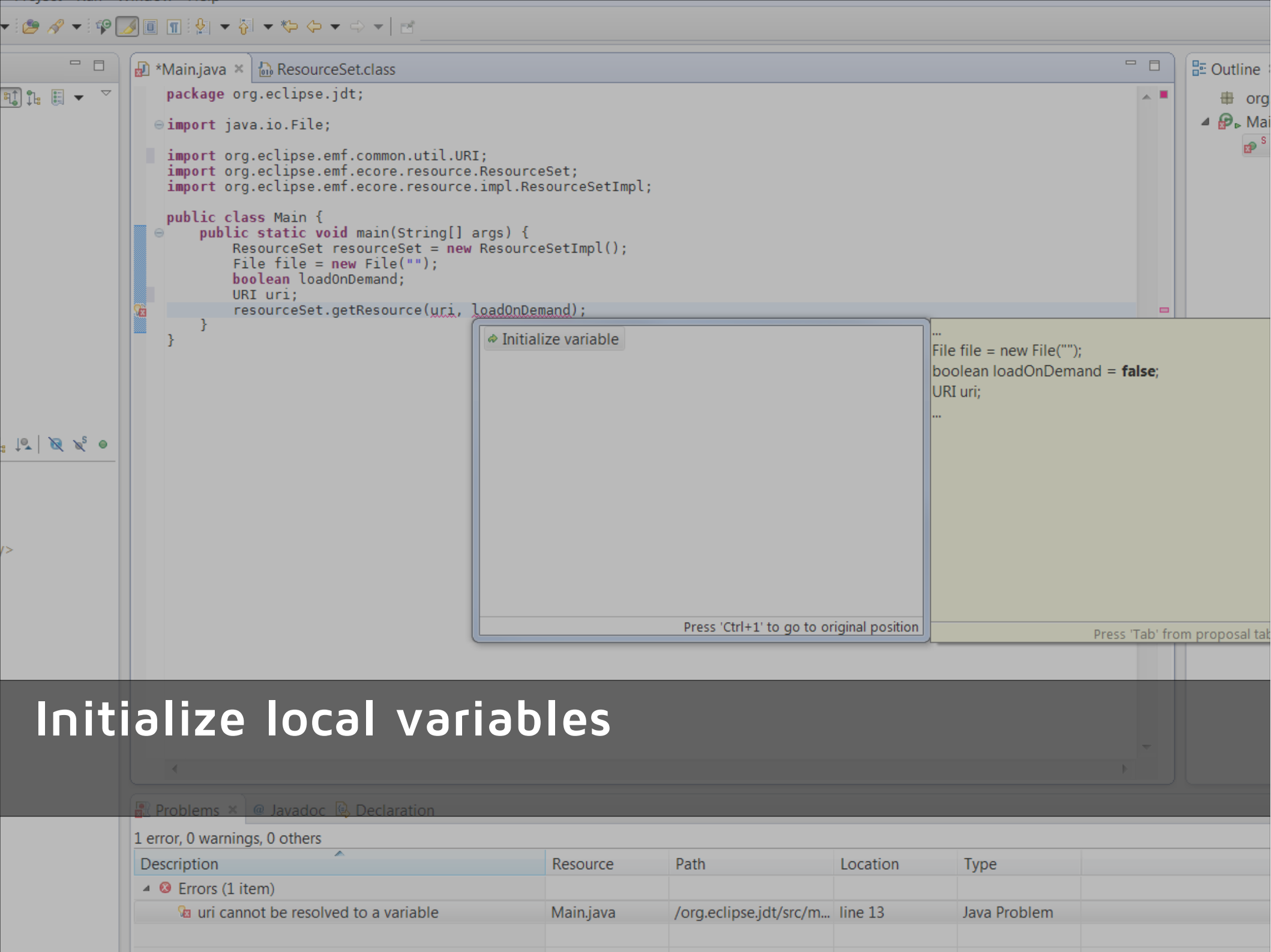

*Main.java
package org.eclipse.jdt;
import org.eclipse.emf.ecore.resource.ResourceSet;
public class Main {
public static void main(String[] args) {
ResourceSet
}
}
resourceSet : ResourceSet
set : ResourceSet
Press 'Ctrl+Space' to show Template Proposals
Outline
The name of your variables is automatically computed for you
Problems
Javadoc
Declaration
0 items
Description
Resource
Path
Location
Type

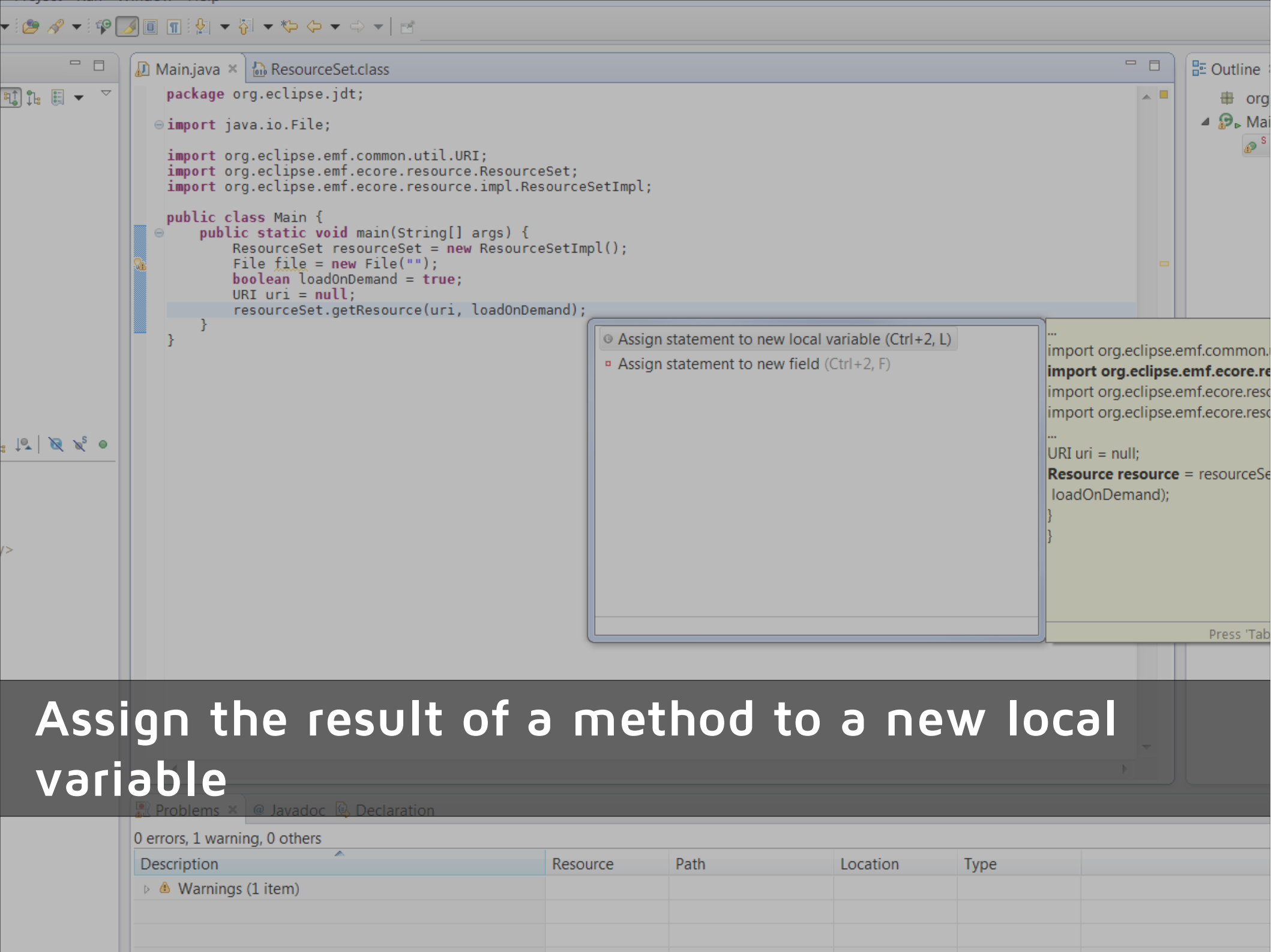

*Main.java
ResourceSet.class
package org.eclipse.jdt;
import java.io.File;
import org.eclipse.emf.ecore.resource.ResourceSet;
import org.eclipse.emf.ecore.resource.impl.ResourceSetImpl;
public class Main {
public static void main(String[] args) {
ResourceSet resourceSet = new ResourceSetImpl();
File file = new File("");
resourceSet.gR
}
}
getResource(URI uri, boolean loadOnDemand) : Resource - Re
getResourceFactoryRegistry() : Registry - ResourceSet
getResources() : EList<Resource> - ResourceSet
Press 'Ctrl+Space' to show Template Proposals
Returns the resource resolved by the URI.
A resource set is expected to implement the following strategy in order to resolve the given URI to a resource. First it uses it's URI converter to normalize the URI and then to compare it with the normalized URI of each resource; if it finds a match, that resource becomes the result. Failing that, it delegates to allow the URI to be resolved elsewhere. For example, the package registry is used to resolve the namespace URI of a package to the static instance of that package. So the important point is that an arbitrary implementation may resolve the URI to any resource, not necessarily to one contained by this particular resource set. If the delegation step fails to provide a result, and if loadOnDemand is true, a resource is created and that resource becomes the result. If loadOnDemand is true and the result
Press 'Tab' from proposal table or click for focus
Outline
Use camel case to select quickly the method to call among all the methods available
Problems
Javadoc
Declaration
0 errors, 1 warning, 0 others
Description
Resource
Path
Location
Type
Warnings (1 item)

Quick Fix

Ctrl+1

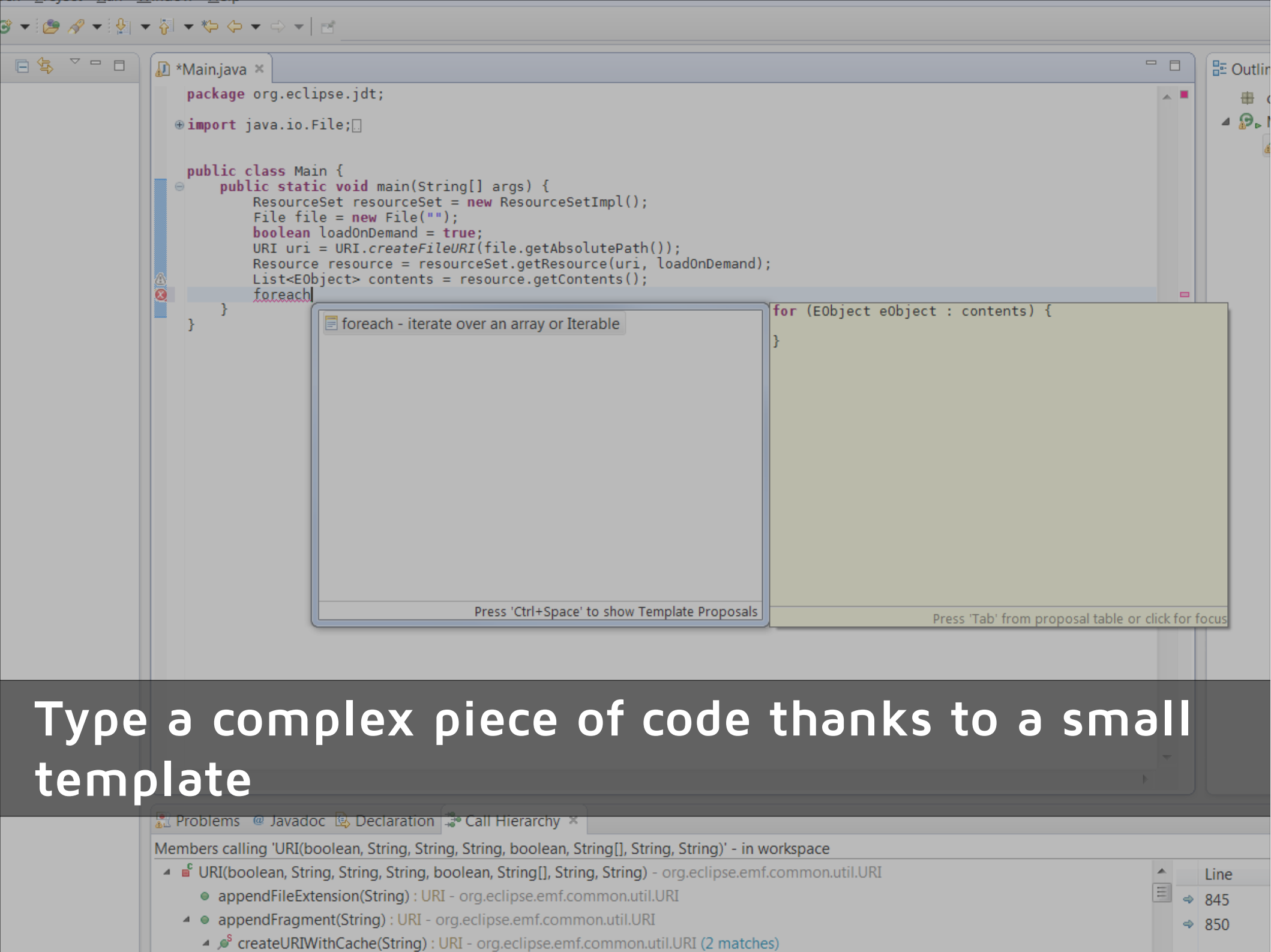

*Main.java
ResourceSet.class
Outline
package org.eclipse.jdt;
import java.io.File;
import org.eclipse.emf.ecore.resource.ResourceSet;
import org.eclipse.emf.ecore.resource.impl.ResourceSetImpl;
public class Main {
public static void main(String[] args) {
ResourceSet resourceSet = new ResourceSetImpl();
File file = new File("");
resourceSet.getResource(uri, loadOnDemand);
}
}
Create local variable 'loadOnDemand'
Create field 'loadOnDemand'
Create parameter 'loadOnDemand'
Create constant 'loadOnDemand'
Press 'Ctrl+1' to go to original position
...
File file = new File("");
boolean loadOnDemand;
resourceSet.getResource(uri, loadOnDemand);
}
}
Press 'Tab' from proposal tab
Let Eclipse create local variables, choose their name and realize the necessary import
Problems
Javadoc
Declaration
0 errors, 1 warning, 0 others
Description
Resource
Path
Location
Type
Warnings (1 item)

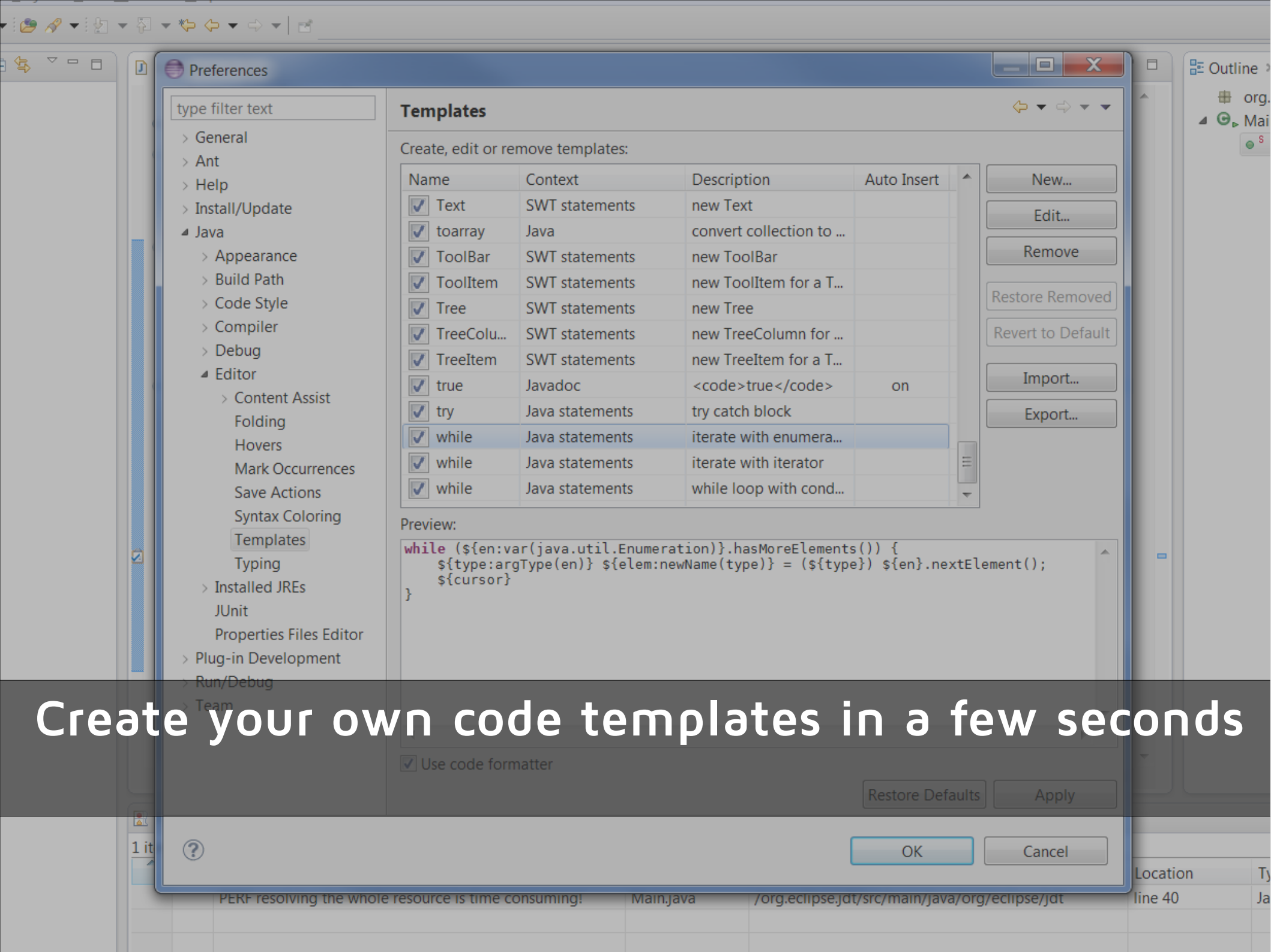

*Main.java
ResourceSet.class
package org.eclipse.jdt;
import java.io.File;
import org.eclipse.emf.common.util.URI;
import org.eclipse.emf.ecore.resource.ResourceSet;
import org.eclipse.emf.ecore.resource.impl.ResourceSetImpl;
public class Main {
public static void main(String[] args) {
ResourceSet resourceSet = new ResourceSetImpl();
File file = new File("");
boolean loadOnDemand;
URI uri;
resourceSet.getResource(uri, loadOnDemand);
}
}
Initialize variable
Press 'Ctrl+1' to go to original position
...
File file = new File("");
boolean loadOnDemand = false;
URI uri;
...
Press 'Tab' from proposal tab
Outline
Initialize local variables
Problems
Javadoc
Declaration
1 error, 0 warnings, 0 others
Description
Resource
Path
Location
Type
Errors (1 item)
uri cannot be resolved to a variable
Main.java
/org.eclipse.jdt/src/m...
line 13
Java Problem



Assign the result of a method to a new local variable

Code Templates

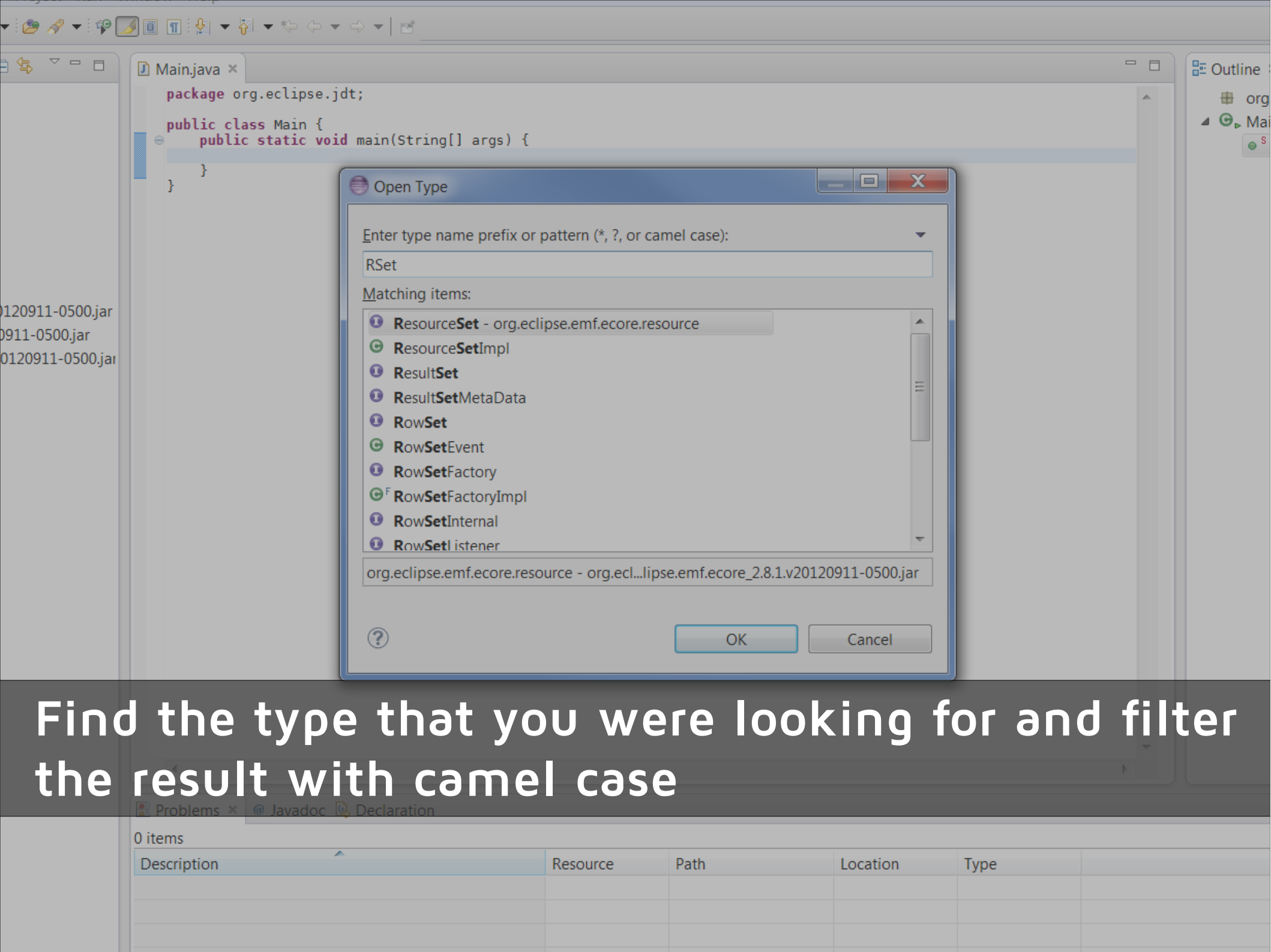

*Main.java
package org.eclipse.jdt;
import java.io.File;
public class Main {
public static void main(String[] args) {
ResourceSet resourceSet = new ResourceSetImpl();
File file = new File("");
boolean loadOnDemand = true;
URI uri = URI.createFileURI(file.getAbsolutePath());
Resource resource = resourceSet.getResource(uri, loadOnDemand);
List<EObject> contents = resource.getContents();
foreach
}
}
foreach - iterate over an array or Iterable
Press 'Ctrl+Space' to show Template Proposals
for (EObject eObject : contents) {
}
Press 'Tab' from proposal table or click for focus
Type a complex piece of code thanks to a small template
Problems
Javadoc
Declaration
Call Hierarchy
Members calling 'URI(boolean, String, String, String, boolean, String[], String, String)' - in workspace
URI(boolean, String, String, String, boolean, String[], String, String) - org.eclipse.emf.common.util.URI
appendFileExtension(String) : URI - org.eclipse.emf.common.util.URI
appendFragment(String) : URI - org.eclipse.emf.common.util.URI
createURIWithCache(String) : URI - org.eclipse.emf.common.util.URI (2 matches)
Line
845
850



Create your own code templates in a few seconds

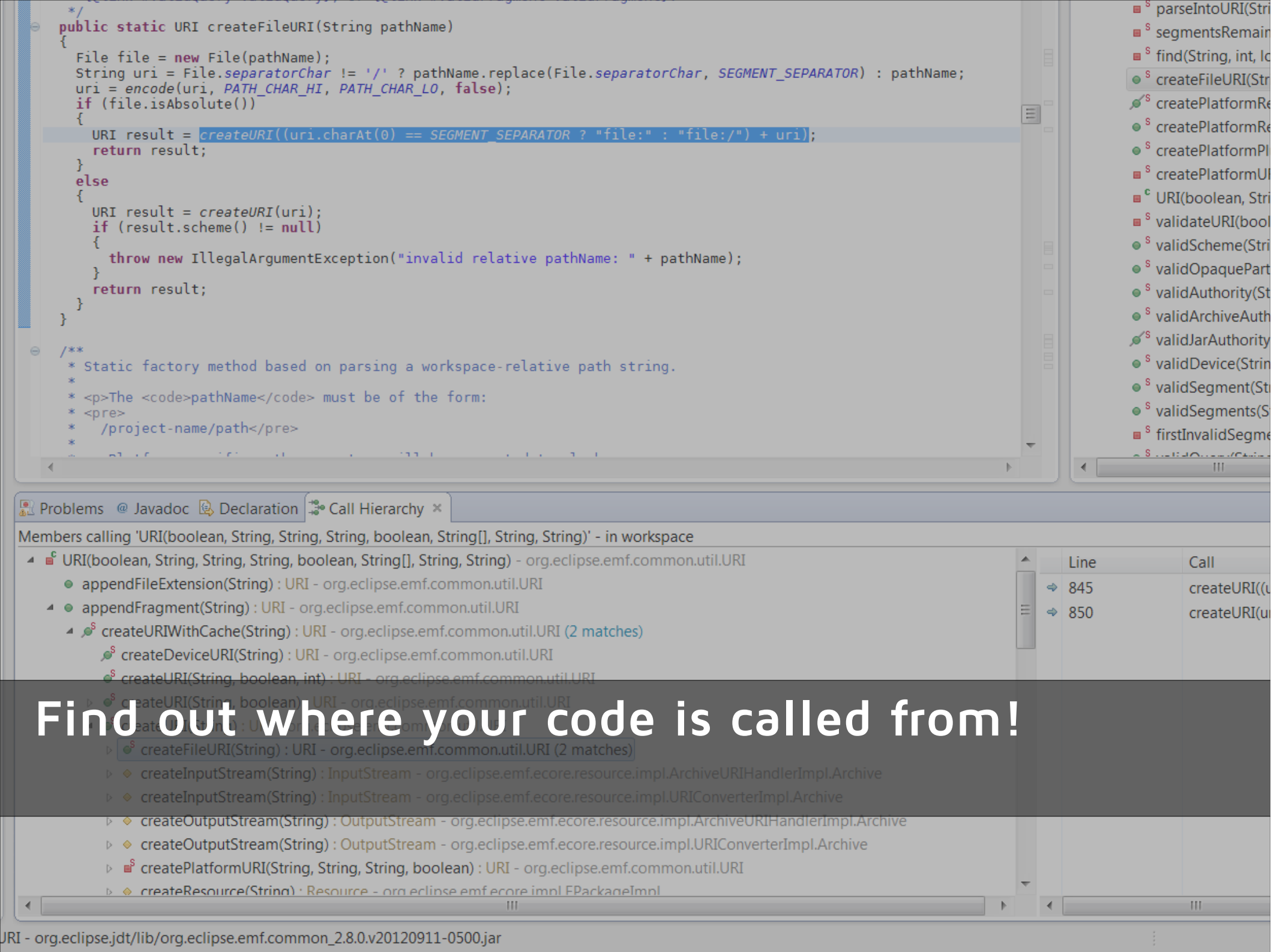
Open Type

Ctrl
+ Shift
+ T

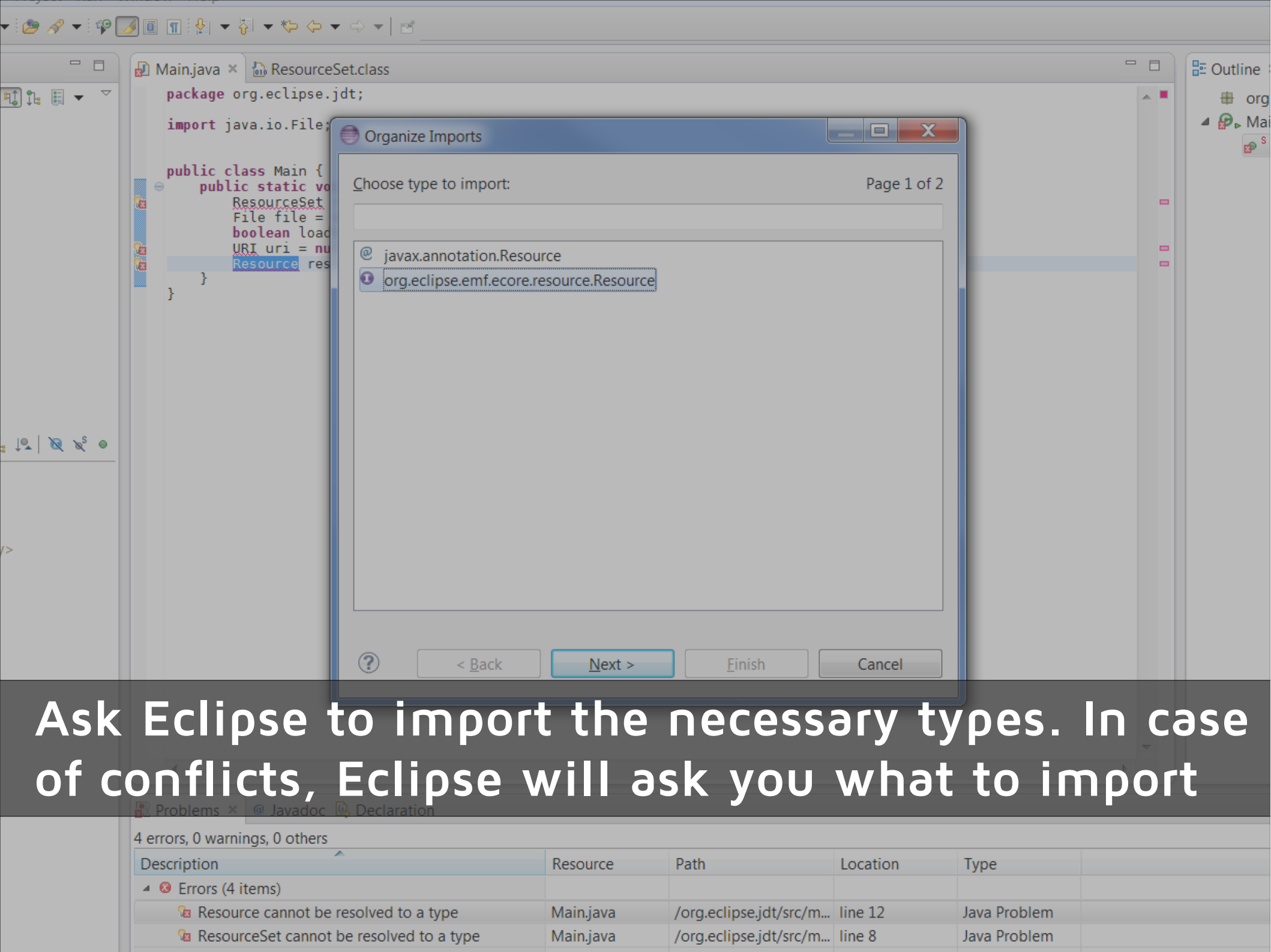

Main.java
package org.eclipse.jdt;
public class Main {
public static void main(String[] args) {
}
}
Outline
Open Type
Enter type name prefix or pattern (*, ?, or camel case):
RSet
Matching items:
ResourceSet - org.eclipse.emf.ecore.resource
ResourceSetImpl
ResultSet
ResultSetMetaData
RowSet
RowSetEvent
RowSetFactory
RowSetFactoryImpl
RowSetInternal
RowSetListener
org.eclipse.emf.ecore.resource - org.ecl...lipse.emf.ecore_2.8.1.v20120911-0500.jar
OK
Cancel
Problems
Javadoc
Declaration
0 items
Description
Resource
Path
Location
Type
Find the type that you were looking for and filter the result with camel case

Call Hierarchy

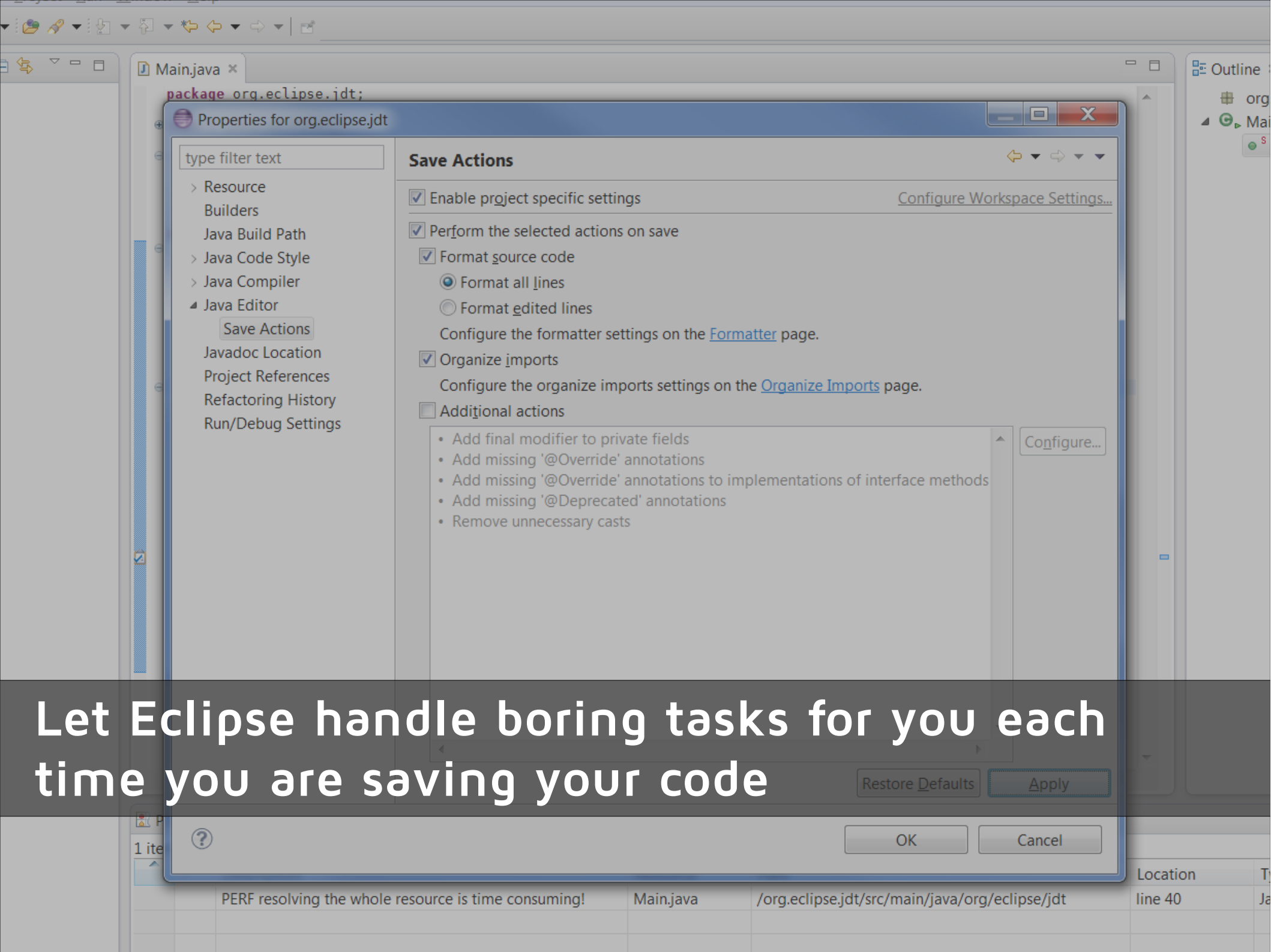
Ctrl + Alt + H


*/
public static URI createFileURI(String pathName)
{
File file = new File(pathName);
String uri = File.separatorChar != '/' ? pathName.replace(File.separatorChar, SEGMENT_SEPARATOR) : pathName;
uri = encode(uri, PATH_CHAR_HI, PATH_CHAR_LO, false);
if (file.isAbsolute())
{
URI result = createURI((uri.charAt(0) == SEGMENT_SEPARATOR ? "file:" : "file:/") + uri);
return result;
}
else
{
URI result = createURI(uri);
if (result.scheme() != null)
{
throw new IllegalArgumentException("invalid relative pathName: " + pathName);
}
return result;
}
}
/**
* Static factory method based on parsing a workspace-relative path string.
*
* <p>The <code>pathName</code> must be of the form:
* <pre>
* /project-name/path</pre>
*
parseIntoURI(Stri
segmentsRemain
find(String, int, Ic
createFileURI(Str
createPlatformRe
createPlatformRe
createPlatformPl
createPlatformUI
URI(boolean, Stri
validateURI(bool
validScheme(Stri
validOpaquePart
validAuthority(St
validArchiveAuth
validJarAuthority
validDevice(Strin
validSegment(St
validSegments(S
firstInvalidSegme
Problems
Javadoc
Declaration
Call Hierarchy
Members calling 'URI(boolean, String, String, String, boolean, String[], String, String)' - in workspace
URI(boolean, String, String, String, boolean, String[], String, String) - org.eclipse.emf.common.util.URI
appendFileExtension(String) : URI - org.eclipse.emf.common.util.URI
appendFragment(String) : URI - org.eclipse.emf.common.util.URI
createURIWithCache(String) : URI - org.eclipse.emf.common.util.URI (2 matches)
createDeviceURI(String) : URI - org.eclipse.emf.common.util.URI
createFileURI(String) : URI - org.eclipse.emf.common.util.URI (2 matches)
createInputStream(String) : InputStream - org.eclipse.emf.ecore.resource.impl.ArchiveURIHandlerImpl.Archive
createInputStream(String) : InputStream - org.eclipse.emf.ecore.resource.impl.URIConverterImpl.Archive
createOutputStream(String) : OutputStream - org.eclipse.emf.ecore.resource.impl.ArchiveURIHandlerImpl.Archive
createOutputStream(String) : OutputStream - org.eclipse.emf.ecore.resource.impl.URIConverterImpl.Archive
createPlatformURI(String, String, String, boolean) : URI - org.eclipse.emf.common.util.URI
Line
Call
845
850
Find out where your code is called from!
URI - org.eclipse.jdt/lib/org.eclipse.emf.common_2.8.0.v20120911-0500.jar


Ctrl +
Shift +
O
Organize
Imports

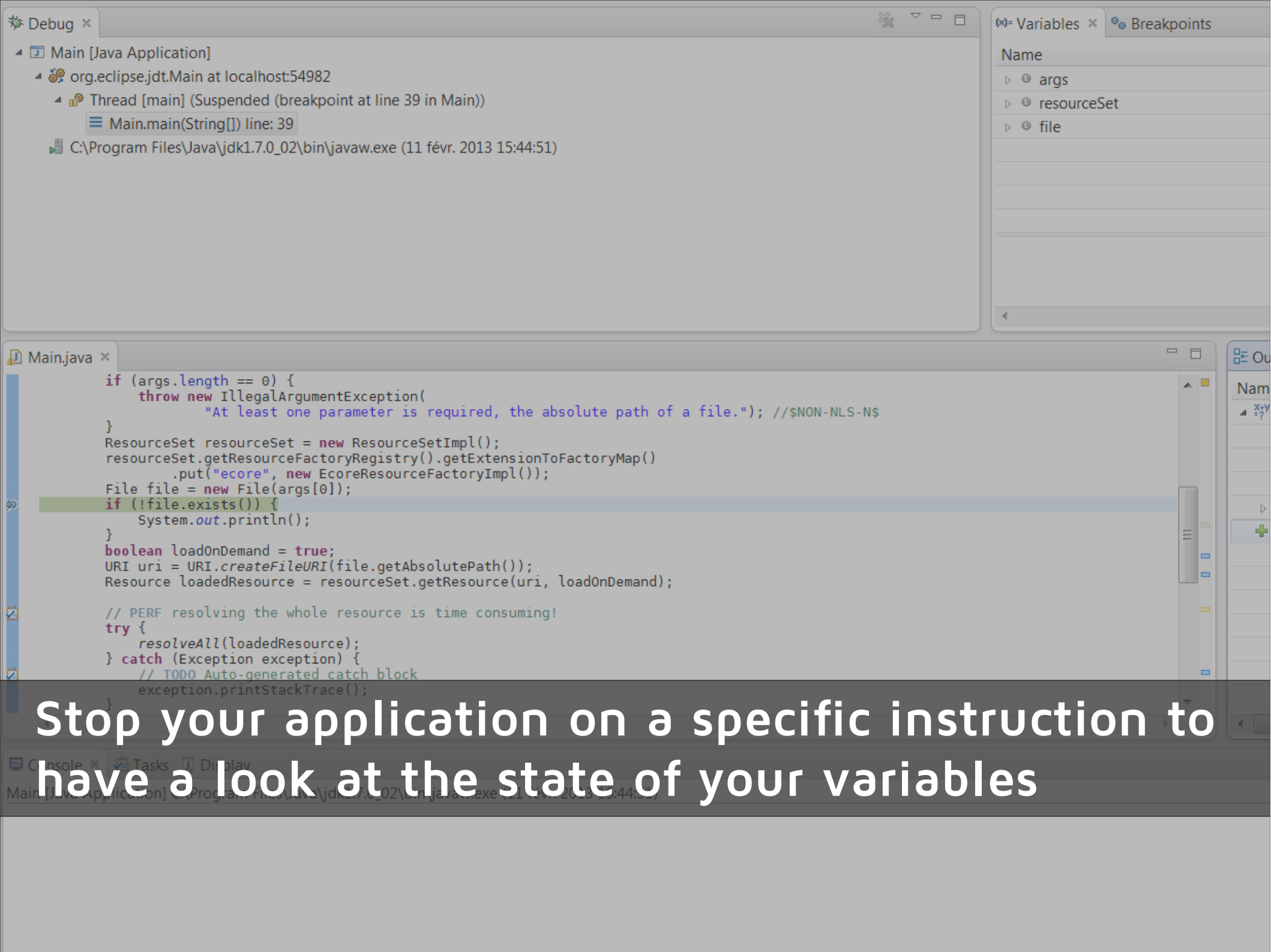

Main.java
ResourceSet.class
package org.eclipse.jdt;
import java.io.File;
public class Main {
Organize Imports
Choose type to import:
Page 1 of 2
javax.annotation.Resource
org.eclipse.emf.ecore.resource.Resource
< Back
Next >
Finish
Cancel
Outline
Problems
Javadoc
Declaration
4 errors, 0 warnings, 0 others
Description
Resource
Path
Location
Type
Errors (4 items)
Resource cannot be resolved to a type
Main.java
/org.eclipse.jdt/src/m...
line 12
Java Problem
ResourceSet cannot be resolved to a type
Main.java
/org.eclipse.jdt/src/m...
line 8
Java Problem
Ask Eclipse to import the necessary types. In case of conflicts, Eclipse will ask you what to import

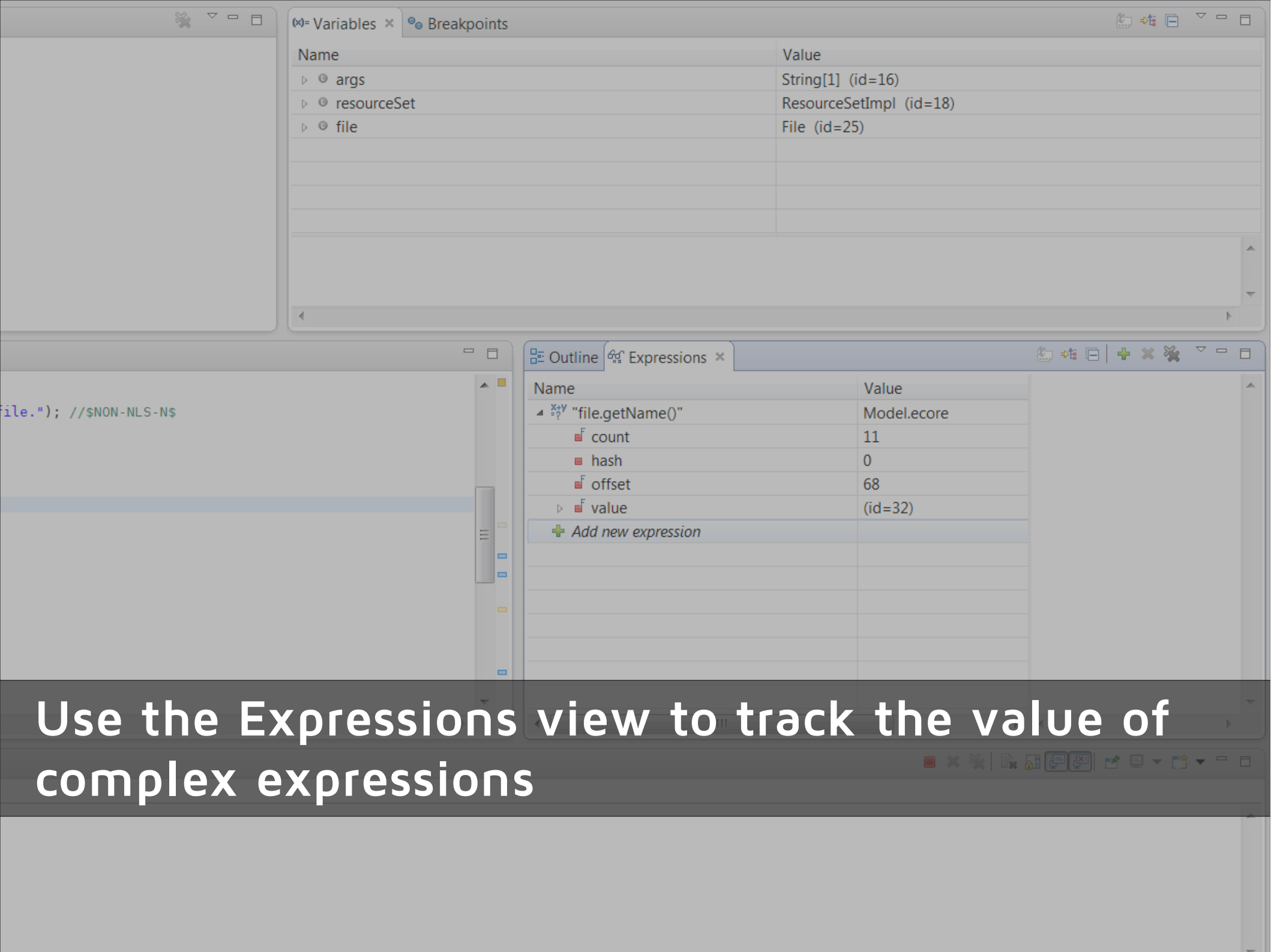
Save Actions



Let Eclipse handle boring tasks for you each time you are saving your code

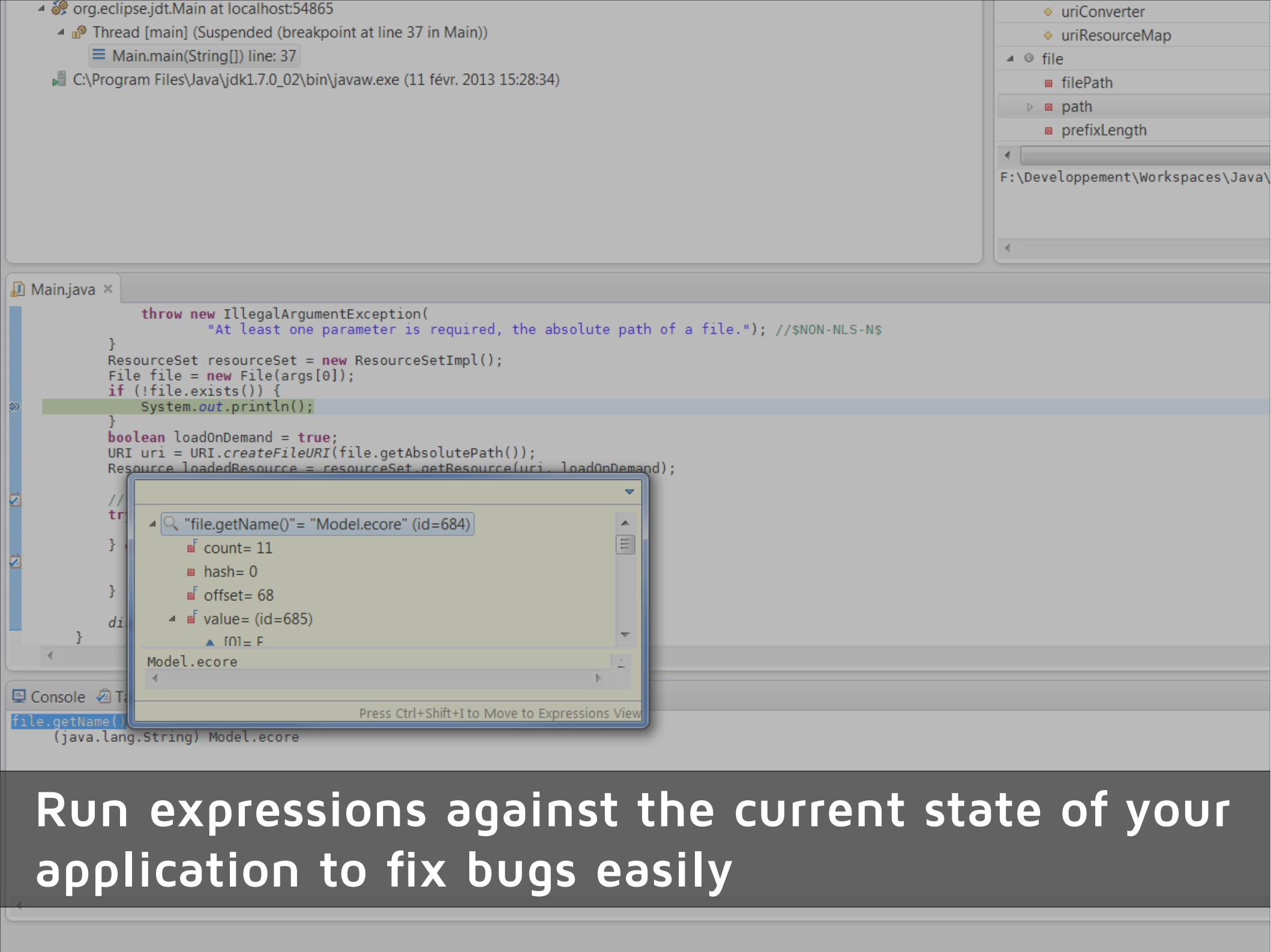
Debug
Debug
Debug !


Debug
Main [Java Application]
org.eclipse.jdt.Main at localhost:54982
Thread [main] (Suspended (breakpoint at line 39 in Main))
Main.main(String[]) line: 39
C:\Program Files\Java\jdk1.7.0_02\bin\javaw.exe (11 févr. 2013 15:44:51)
Variables
Breakpoints
Name
args
resourceSet
file
Main.java
if (args.length == 0) {
throw new IllegalArgumentException(
"At least one parameter is required, the absolute path of a file."); //$NON-NLS-N$
}
ResourceSet resourceSet = new ResourceSetImpl();
resourceSet.getResourceFactoryRegistry().getExtensionToFactoryMap()
.put("ecore", new EcoreResourceFactoryImpl());
File file = new File(args[0]);
if (!file.exists()) {
System.out.println();
}
boolean loadOnDemand = true;
URI uri = URI.createFileURI(file.getAbsolutePath());
Resource loadedResource = resourceSet.getResource(uri, loadOnDemand);
// PERF resolving the whole resource is time consuming!
try {
resolveAll(loadedResource);
} catch (Exception exception) {
// TODO Auto-generated catch block
exception.printStackTrace();
Stop your application on a specific instruction to
have a look at the state of your variables


Variables
Breakpoints
Name
Value
args
String[1] (id=16)
resourceSet
ResourceSetImpl (id=18)
file
File (id=25)
file."); //$NON-NLS-N$
Outline
Expressions
Name
Value
"file.getName()"
Model.ecore
count
11
hash
0
offset
68
value
(id=32)
Add new expression
Use the Expressions view to track the value of complex expressions

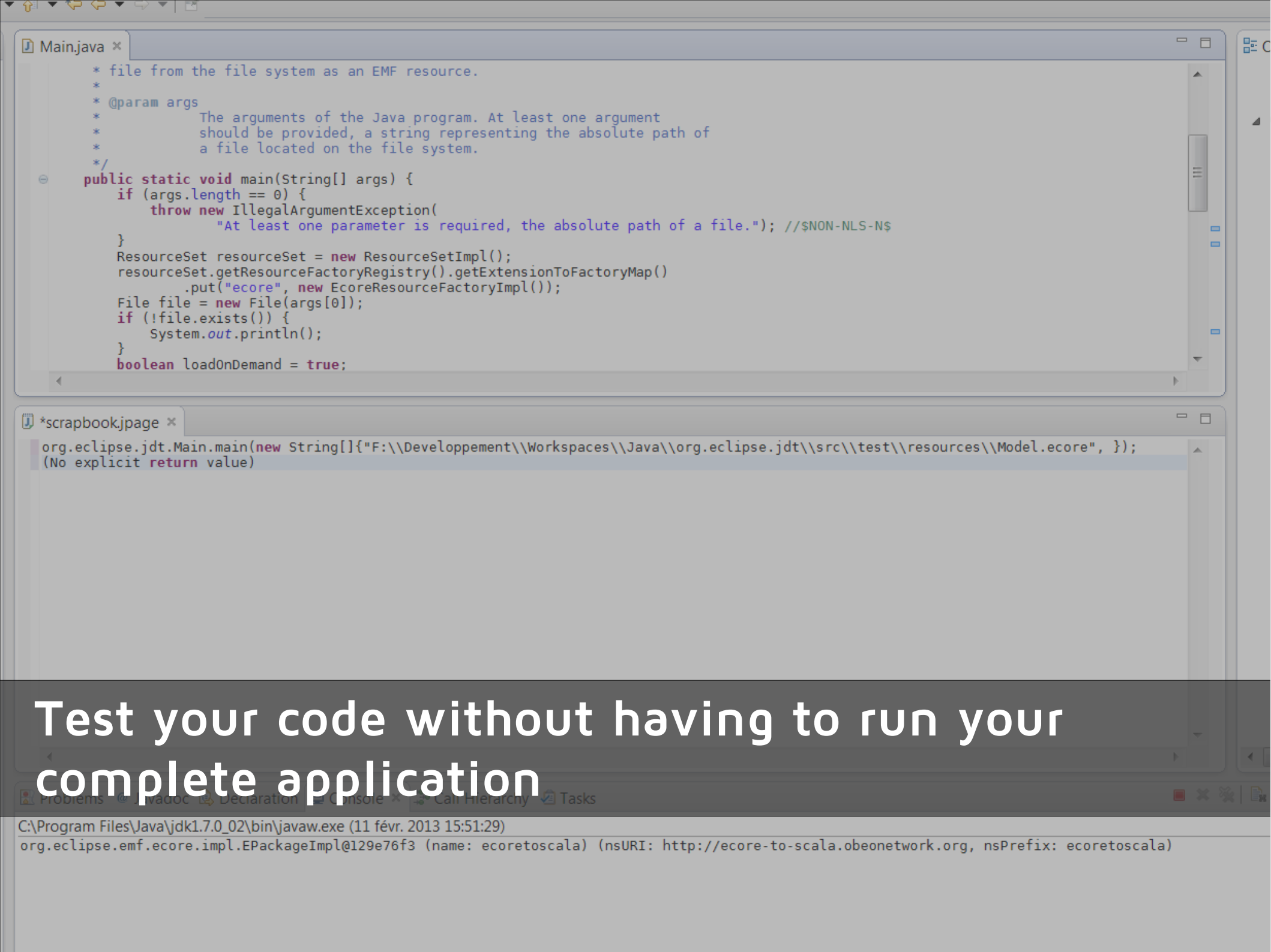
Display

View



Run expressions against the current state of your application to fix bugs easily

Scrapbook Page


Main.java
* file from the file system as an EMF resource.
*
* @param args
* The arguments of the Java program. At least one argument
* should be provided, a string representing the absolute path of
* a file located on the file system.
*/
public static void main(String[] args) {
if (args.length == 0) {
throw new IllegalArgumentException(
"At least one parameter is required, the absolute path of a file."); //$NON-NLS-N$
}
ResourceSet resourceSet = new ResourceSetImpl();
resourceSet.getResourceFactoryRegistry().getExtensionToFactoryMap()
.put("ecore", new EcoreResourceFactoryImpl());
File file = new File(args[0]);
if (!file.exists()) {
System.out.println();
}
boolean loadOnDemand = true;
*scrapbook.jpage
org.eclipse.jdt.Main.main(new String[]{"F:\\Developpement\\Workspaces\\Java\\org.eclipse.jdt\\src\\test\\resources\\Model.ecore", });
(No explicit return value)
Test your code without having to run your complete application
Problems
Javadoc
Declaration
Console
Call Hierarchy
Tasks
C:\Program Files\Java\jdk1.7.0_02\bin\javaw.exe (11 févr. 2013 15:51:29)
org.eclipse.emf.ecore.impl.EPackageImpl@129e76f3 (name: ecoretoscala) (nsURI: http://ecore-to-scala.obeonetwork.org, nsPrefix: ecoretoscala)

Thanks for watching!

More tips and tricks:
Blog: stephanebegaudeau.tumblr.com
Twitter: @sbegaudeau