Η οργάνωση ενός project ΕΛΛΑΚ:
Πρότυπα γραφής και άλλες συμβάσεις

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17 / 07 / 2008

Περιεχόμενα Παρουσίασης

- Javadoc
- TODOs
- Checkstyle
- doxygen

Στοιχεία Επικοινωνίας

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Ιστοσελίδα Εργαστηρίου

http://gaijin.dmst.aueb.gr/~bkarak/lectures/dieptelo/index.html



Javadoc

```
/**
 *
 *
 * @author Vassilios Karakoidas (bkarak@aueb.gr)
 *
 */
class FooFoo extends HashMap<String, String> {
    // inner class

    public int whatYouGiveIsWhatYouGet(int i) {
        return i;
    }
}
```

Javadoc (2)

```
/**
 * Registers the text to display in a tool tip.   The text
 * displays when the cursor lingers over the component.
 *
 * @param text  the string to display.  If the text is null,
 *              the tool tip is turned off for this component.
 */
public void setToolTipText(String text) {
```

```
/**
 * @throws IOException  If an input or output
 *                      exception occurred
 */
public void f() throws IOException {
    // body
}
```

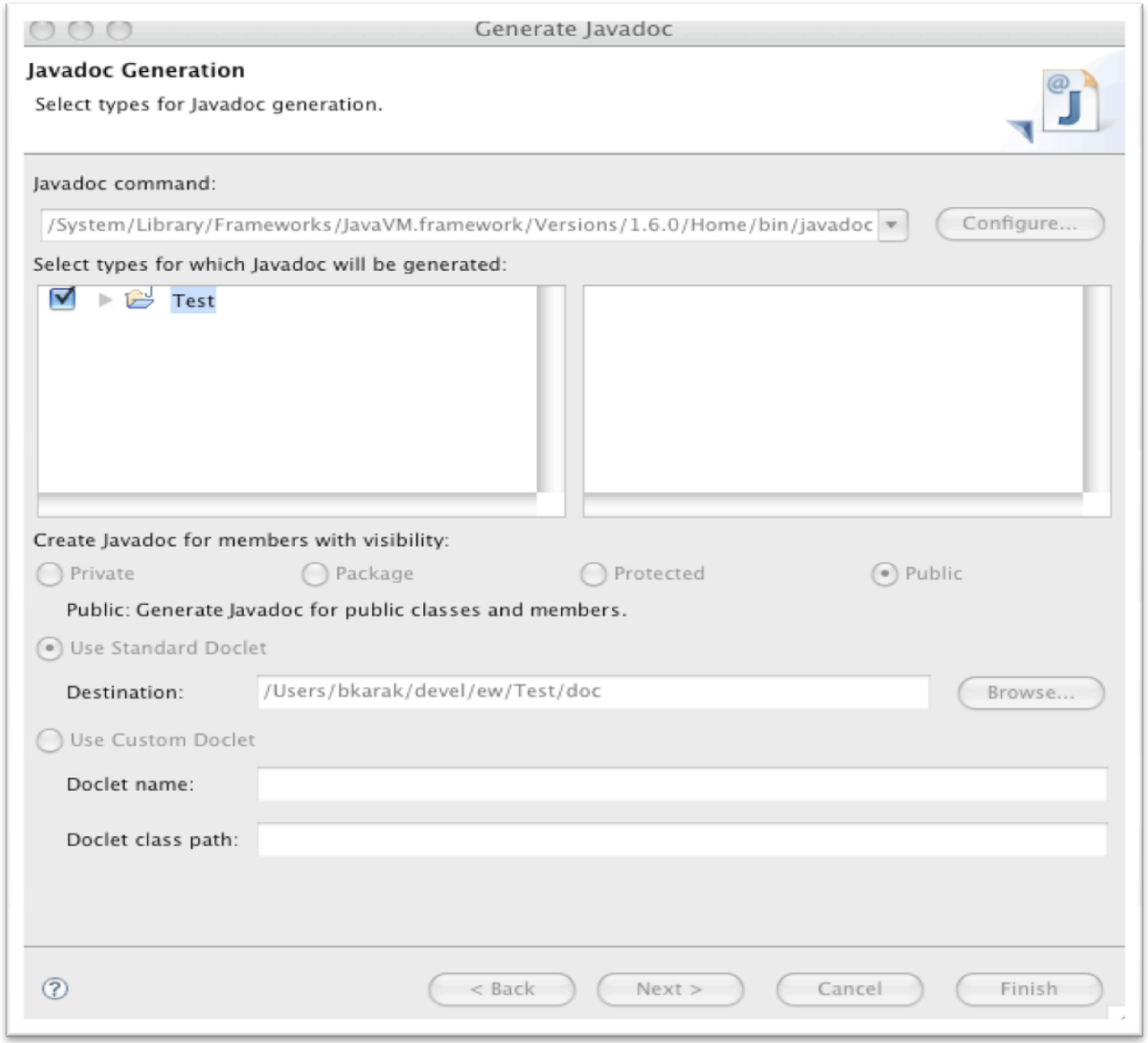
Javadoc (3)

```
/**
 * Returns an Image object that can then be painted on the screen.
 * The url argument must specify an absolute {@link URL}. The name
 * argument is a specifier that is relative to the url argument.
 * <p>
 * This method always returns immediately, whether or not the
 * image exists. When this applet attempts to draw the image on
 * the screen, the data will be loaded. The graphics primitives
 * that draw the image will incrementally paint on the screen.
 *
 * @param  url  an absolute URL giving the base location of the image
 * @param  name the location of the image, relative to the url argument
 * @return      the image at the specified URL
 * @see         Image
 */
public Image getImage(URL url, String name) {
      try {
          return getImage(new URL(url, name));
      } catch (MalformedURLException e) {
          return null;
      }
}
```

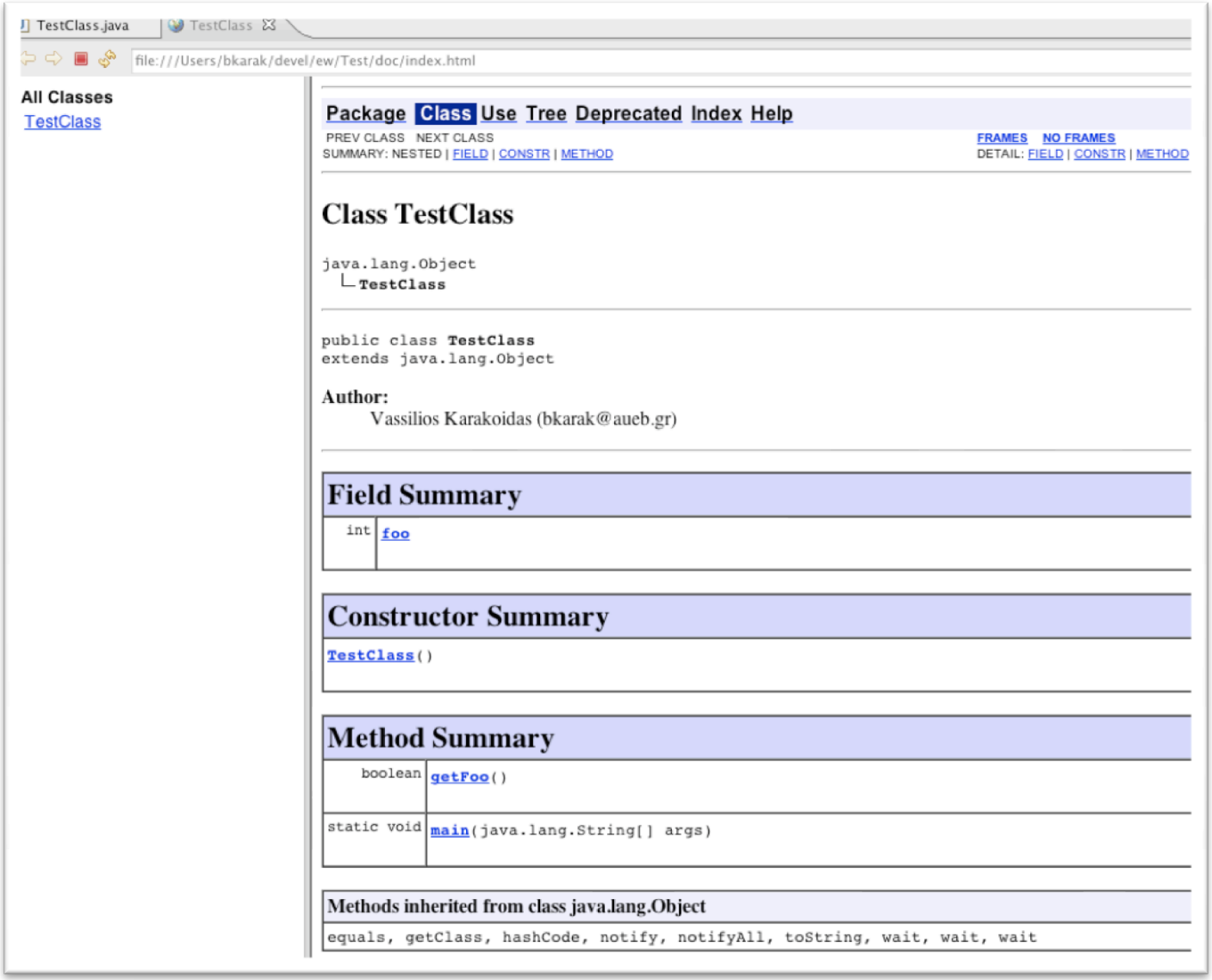
Javadoc (4)

```
* @param        (classes, interfaces, methods and constructors only)
* @return       (methods only)
* @exception    (@throws is a synonym added in Javadoc 1.2)
* @author       (classes and interfaces only, required)
* @version      (classes and interfaces only, required. See footnote 1)
* @see
* @since
* @serial       (or @serialField or @serialData)
* @deprecated   (see How and When To Deprecate APIs)
```

Javadoc (5)


Generate Javadoc
Javadoc Generation
Select types for Javadoc generation.
Javadoc command:
/System/Library/Frameworks/JavaVM.framework/Versions/1.6.0/Home/bin/javadoc
Configure...
Select types for which Javadoc will be generated:
Test
Create Javadoc for members with visibility:
Private
Package
Protected
Public
Public: Generate Javadoc for public classes and members.
Use Standard Doclet
Destination:
/Users/bkarak/devel/ew/Test/doc
Browse...
Use Custom Doclet
Doclet name:
Doclet class path:
< Back
Next >
Cancel
Finish

Javadoc (6)


TestClass.java
TestClass
file:///Users/bkarak/devel/ew/Test/doc/index.html
All Classes
TestClass
Package Class Use Tree Deprecated Index Help
PREV CLASS NEXT CLASS
SUMMARY: NESTED | FIELD | CONSTR | METHOD
FRAMES NO FRAMES
DETAIL: FIELD | CONSTR | METHOD
Class TestClass
java.lang.Object
└ TestClass
public class TestClass
extends java.lang.Object
Author:
Vassilios Karakoidas (bkarak@aueb.gr)
Field Summary
int foo
Constructor Summary
TestClass()
Method Summary
boolean getFoo()
static void main(java.lang.String[] args)
Methods inherited from class java.lang.Object
equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Άσκηση

```java
package org.clmt.io;

import java.io.InputStream;
import java.io.OutputStream;

public abstract class CLMTFile {

    public abstract boolean exists();

    public abstract boolean isDirectory();

    public abstract boolean isFile();

    public abstract CLMTFile[] listFiles();

    public abstract boolean delete();

    public abstract String getAbsolutePath();

    public abstract boolean mkdirs();

    public abstract String getName();

    public abstract InputStream getInputStream();

    public abstract OutputStream getOutputStream();

    public abstract CLMTFile newFile(String path);
}
```

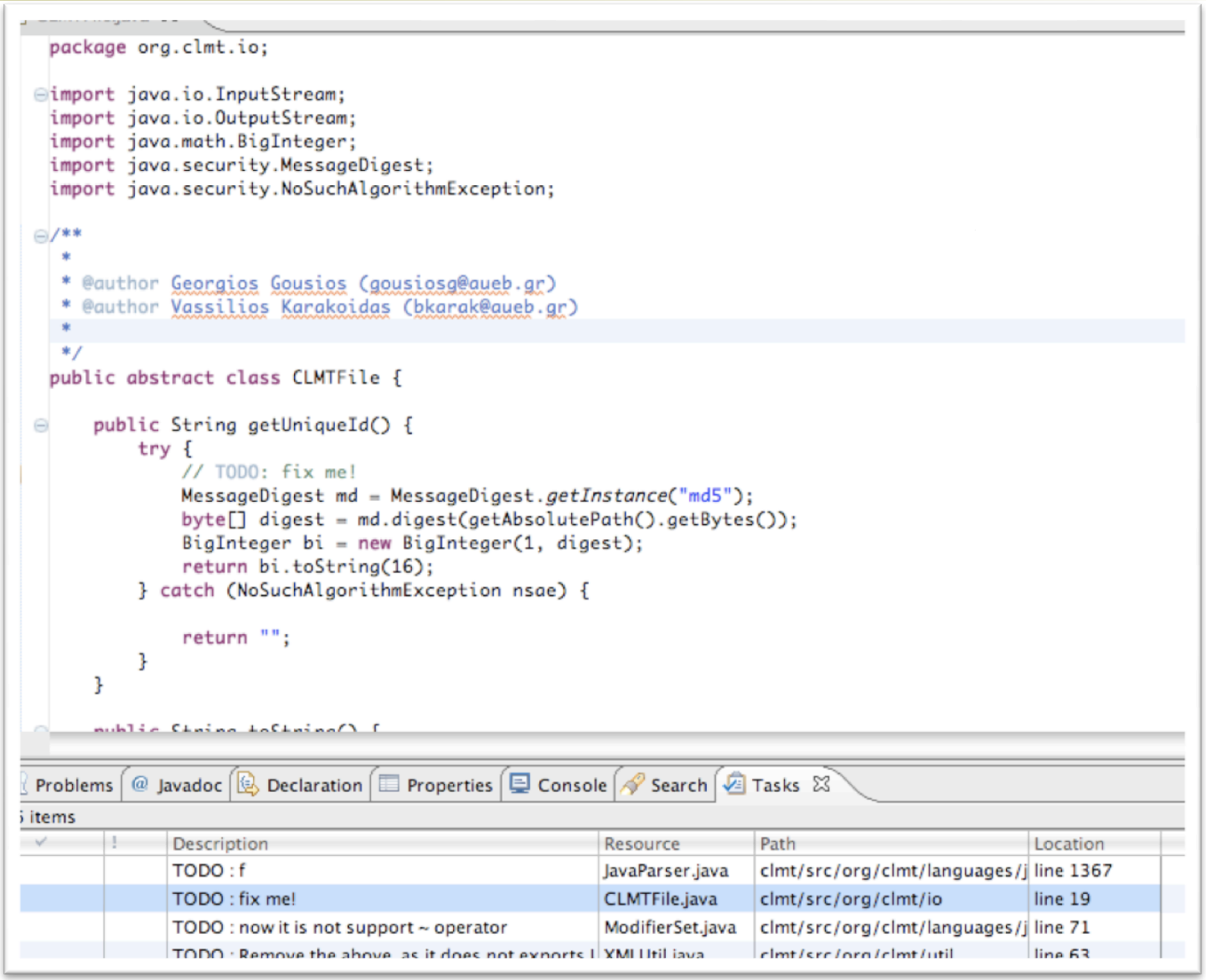
Άσκηση (2)

```
* @param        (classes, interfaces, methods and constructors only)
* @return       (methods only)
* @exception    (@throws is a synonym added in Javadoc 1.2)
* @author       (classes and interfaces only, required)
* @version      (classes and interfaces only, required. See footnote 1)
* @see
* @since
* @serial       (or @serialField or @serialData)
* @deprecated   (see How and When To Deprecate APIs)
```

TODOs

- Μη επίσημος τρόπος σχολιασμού
- Συνήθως χρησιμοποιούνται μεταξύ των προγραμματιστών ενός έργου για να «μαρκάρουν» σημεία του κώδικα που θέλουν αλλαγή ή βελτίωση

TODOs (2)



```java
package org.clmt.io;

import java.io.InputStream;
import java.io.OutputStream;
import java.math.BigInteger;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;

/**
 *
 * @author Georgios Gousios (gousiosg@aueb.gr)
 * @author Vassilios Karakoidas (bkarak@aueb.gr)
 *
 */
public abstract class CLMTFile {

    public String getUniqueId() {
        try {
            // TODO: fix me!
            MessageDigest md = MessageDigest.getInstance("md5");
            byte[] digest = md.digest(getAbsolutePath().getBytes());
            BigInteger bi = new BigInteger(1, digest);
            return bi.toString(16);
        } catch (NoSuchAlgorithmException nsae) {

            return "";
        }
    }

    public String toString() {
```

Problems | Javadoc | Declaration | Properties | Console | Search | Tasks

5 items

Description	Resource	Path	Location
TODO : f	JavaParser.java	clmt/src/org/clmt/languages/j	line 1367
TODO : fix me!	CLMTFile.java	clmt/src/org/clmt/io	line 19
TODO : now it is not support ~ operator	ModifierSet.java	clmt/src/org/clmt/languages/j	line 71
TODO : Remove the above, as it does not exports l	XMLUtil.java	clmt/src/org/clmt/util	line 63

doxygen

- http://www.stack.nl/~dimitri/doxygen/
- C++, C, Java, Objective-C, Python, IDL, Fortran, VHDL, PHP, C#
- Εναλλακτικός τρόπος τεκμηρίωσης

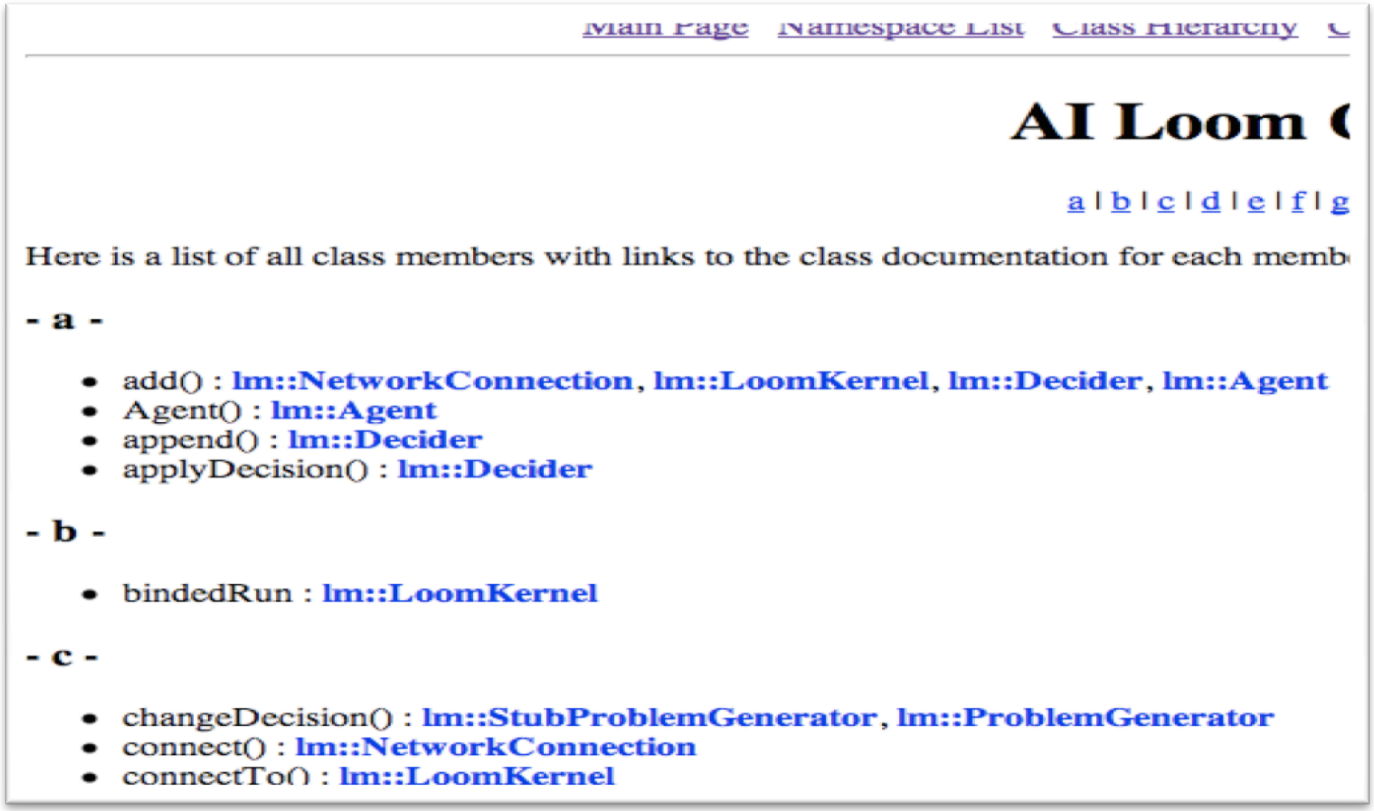
doxygen (2)

```
/// Initializes the structure with an old an a new rectangle.
/// use this method if the window is about to be moved or resized (e.g. in
/// WM_SIZING or WM_MOVING handler)
void Init(RECT const & oldRect, RECT const & newRect, DWORD snapwidth)
{
  // ...
}
```

\param name descripiton	Intended for documenting function parameters. see the full sample source and documentation for how it looks like.
\return description	desribe what a function returns
\b \c \e	set the next word to bold, italic, or courier, respectively. e.g. /// You can make things \b bold, \e italic, or set them in \c courier results in You can make things **bold**, *italic*, or set them in courier.
\code \endcode	starts and ends a section of code, respectively. (it will be formatted nicely)
\n	force a newline
\internal	starts a paragraph with "internal information" (such as implementaiton details). The paragraph will be included only if the INTERNAL_DOCS option is enabled.
\mainpage	Indictaes that the following section should appear on the main page. it's a good place to introduce your most important classes, etc. (entities will be crosslinked)
\par \par Title	Starts a new paragraph (optionally with a paragraph title), works also inside other paragraphs (such as \param)
Lists	Doxygen automatically creates a list if multiple lines start with a dash at the same position. Numbered lists can be created by starting the line with a dach and a hash (-#). See the doxygen documentation for more.

doxygen (3)

- http://ailoom.sourceforge.net/docs/doxy/annotated.html



Main Page Namespace List Class Hierarchy C

AI Loom (

a | b | c | d | e | f | g

Here is a list of all class members with links to the class documentation for each memb

- a -

- add() : **lm::NetworkConnection**, **lm::LoomKernel**, **lm::Decider**, **lm::Agent**
- Agent() : **lm::Agent**
- append() : **lm::Decider**
- applyDecision() : **lm::Decider**

- b -

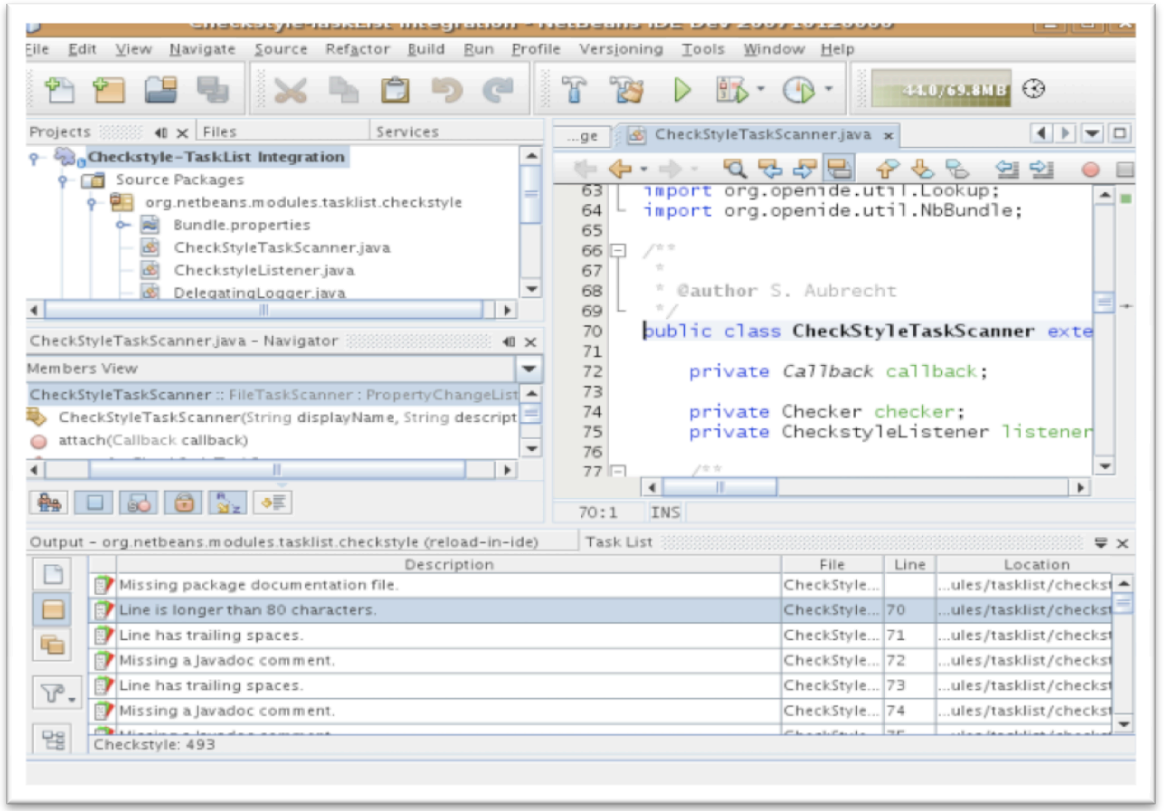
- bindedRun : **lm::LoomKernel**

- c -

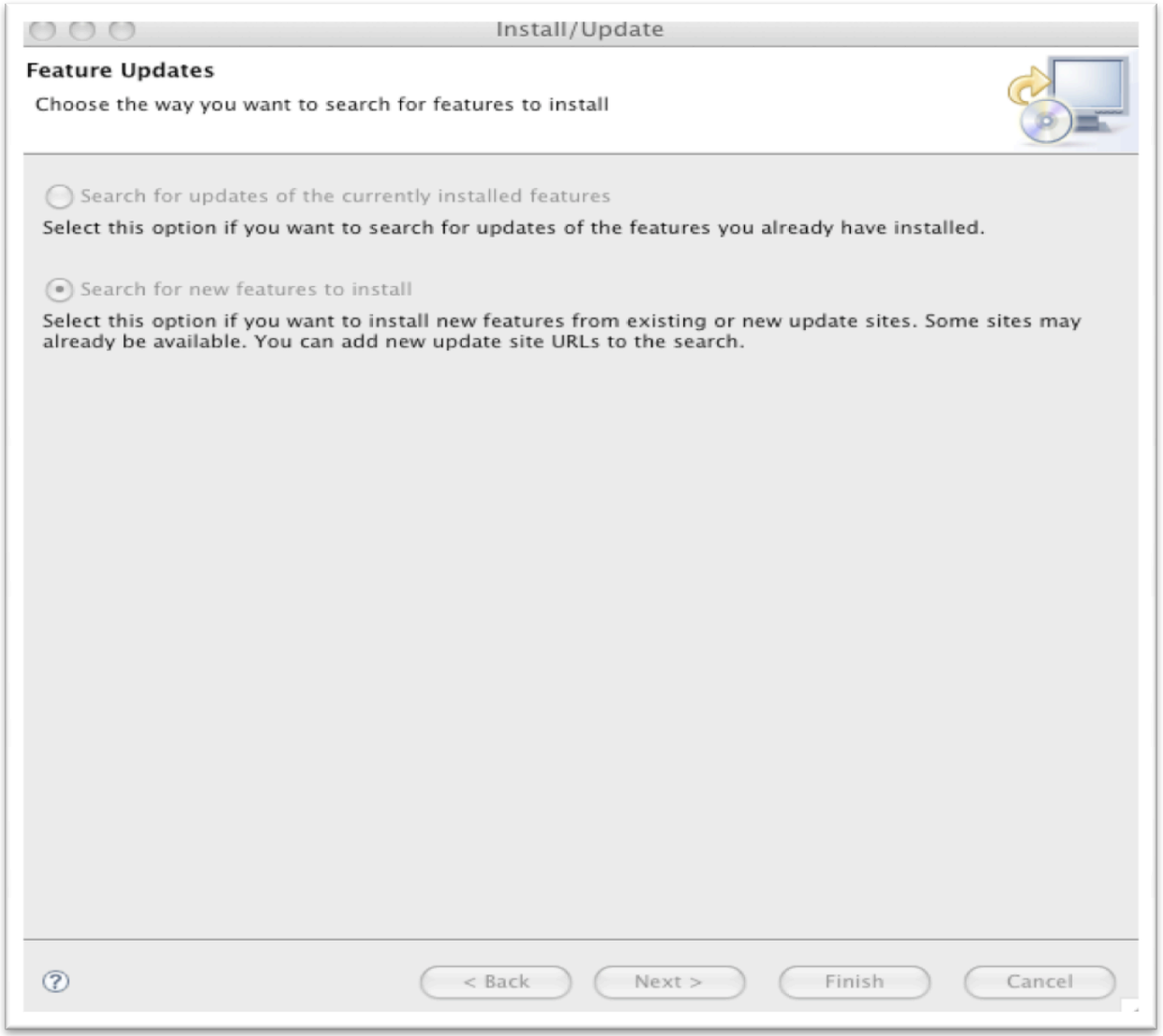
- changeDecision() : **lm::StubProblemGenerator**, **lm::ProblemGenerator**
- connect() : **lm::NetworkConnection**
- connectTo() : **lm::LoomKernel**

CheckStyle

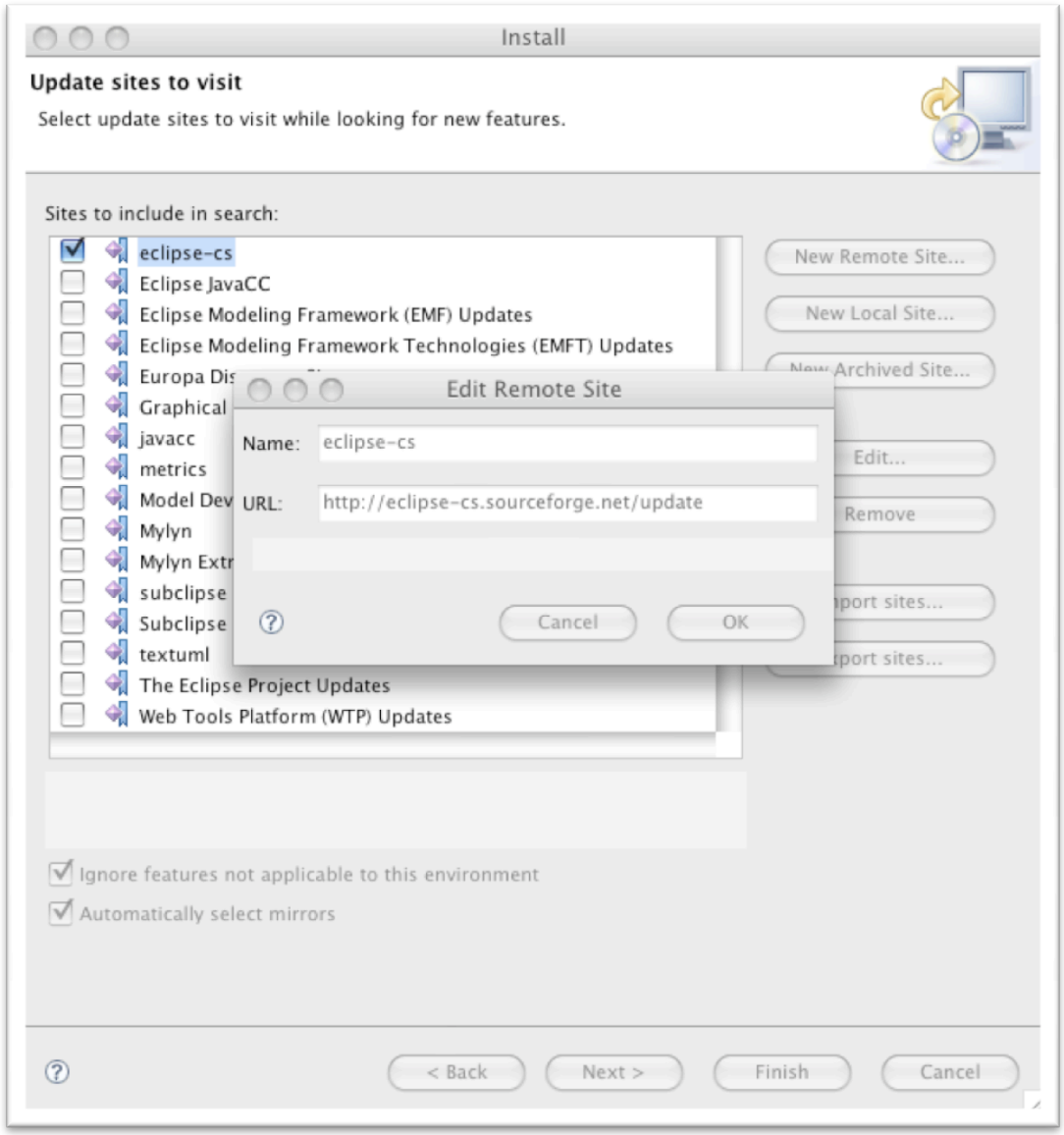
- Εγκατάσταση CheckStyle
  - http://checkstyle.sourceforge.net/



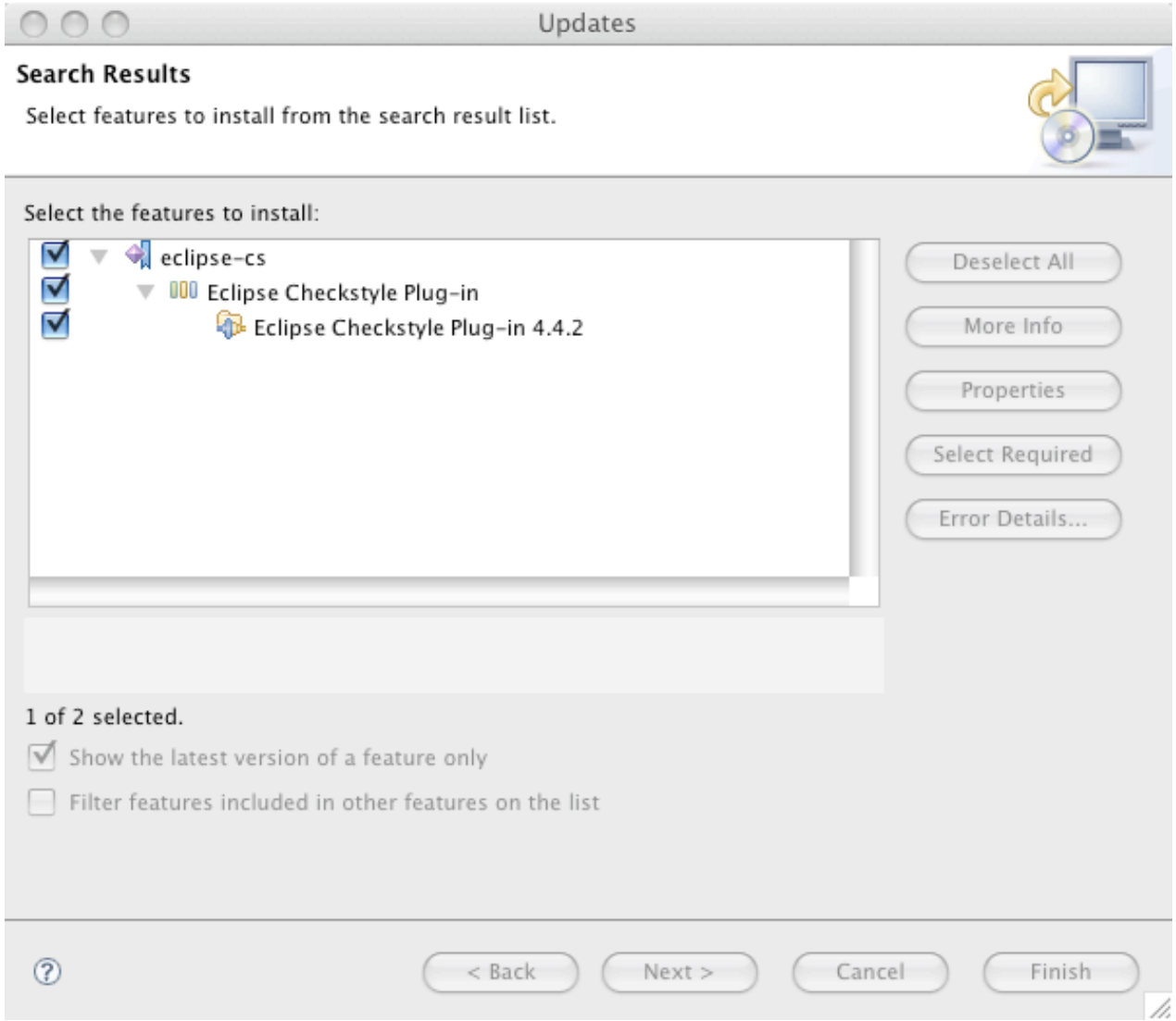
CheckStyle (2)



CheckStyle (3)



CheckStyle (4)



CheckStyle (5)

TestClass.java

```java
import java.util.HashMap;

/**
 *
 *
 * @author Vassilios Karakoidas (bkarak@aueb.gr)
 *
 */
public class TestClass {

    public int foo;
    int foo2, foo3;

    public TestClass() {
        foo = 1;
        foo2 = 2;
        foo3 = 3;
    }

    class FooFoo extends HashMap<String, String> {
        // inner class

        public int whatYouGiveIsWhatYouGet(int i) {
            return i;
        }
    }

    public static void main(String[] args) {
        boolean i = false;
        if (i == true) {
            System.out.println("boo");
        }
    }

    public boolean getFoo() {
        return (foo != 1) || (foo > 2) || (foo < -1);
    }
}
```