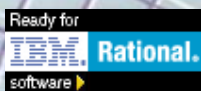




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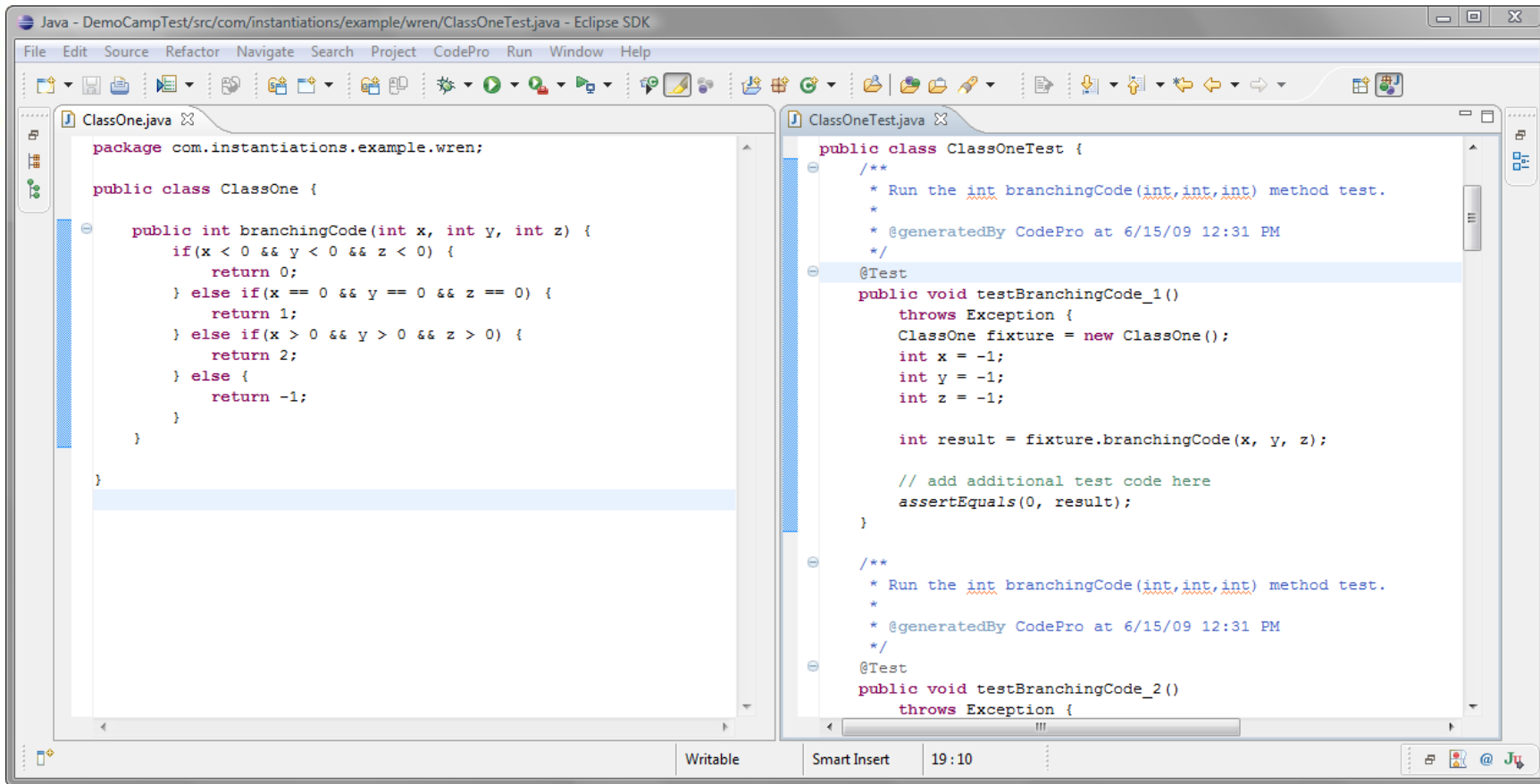
Test Code Generation UI by Jaime Wren

Eclipse Demo Camp June 17th, 2009



Context

- A new UI is needed for our CodePro AnalytiX™ JUnit Test generator.



The screenshot shows the Eclipse IDE interface with two Java files open. The left pane shows `ClassOne.java` and the right pane shows `ClassOneTest.java`.

```
package com.instantiations.example.wren;

public class ClassOne {

    public int branchingCode(int x, int y, int z) {
        if(x < 0 && y < 0 && z < 0) {
            return 0;
        } else if(x == 0 && y == 0 && z == 0) {
            return 1;
        } else if(x > 0 && y > 0 && z > 0) {
            return 2;
        } else {
            return -1;
        }
    }
}
```

```
public class ClassOneTest {
    /**
     * Run the int branchingCode(int,int,int) method test.
     *
     * @generatedBy CodePro at 6/15/09 12:31 PM
     */
    @Test
    public void testBranchingCode_1()
        throws Exception {
        ClassOne fixture = new ClassOne();
        int x = -1;
        int y = -1;
        int z = -1;

        int result = fixture.branchingCode(x, y, z);

        // add additional test code here
        assertEquals(0, result);
    }

    /**
     * Run the int branchingCode(int,int,int) method test.
     *
     * @generatedBy CodePro at 6/15/09 12:31 PM
     */
    @Test
    public void testBranchingCode_2()
        throws Exception {
```

Context (continued)

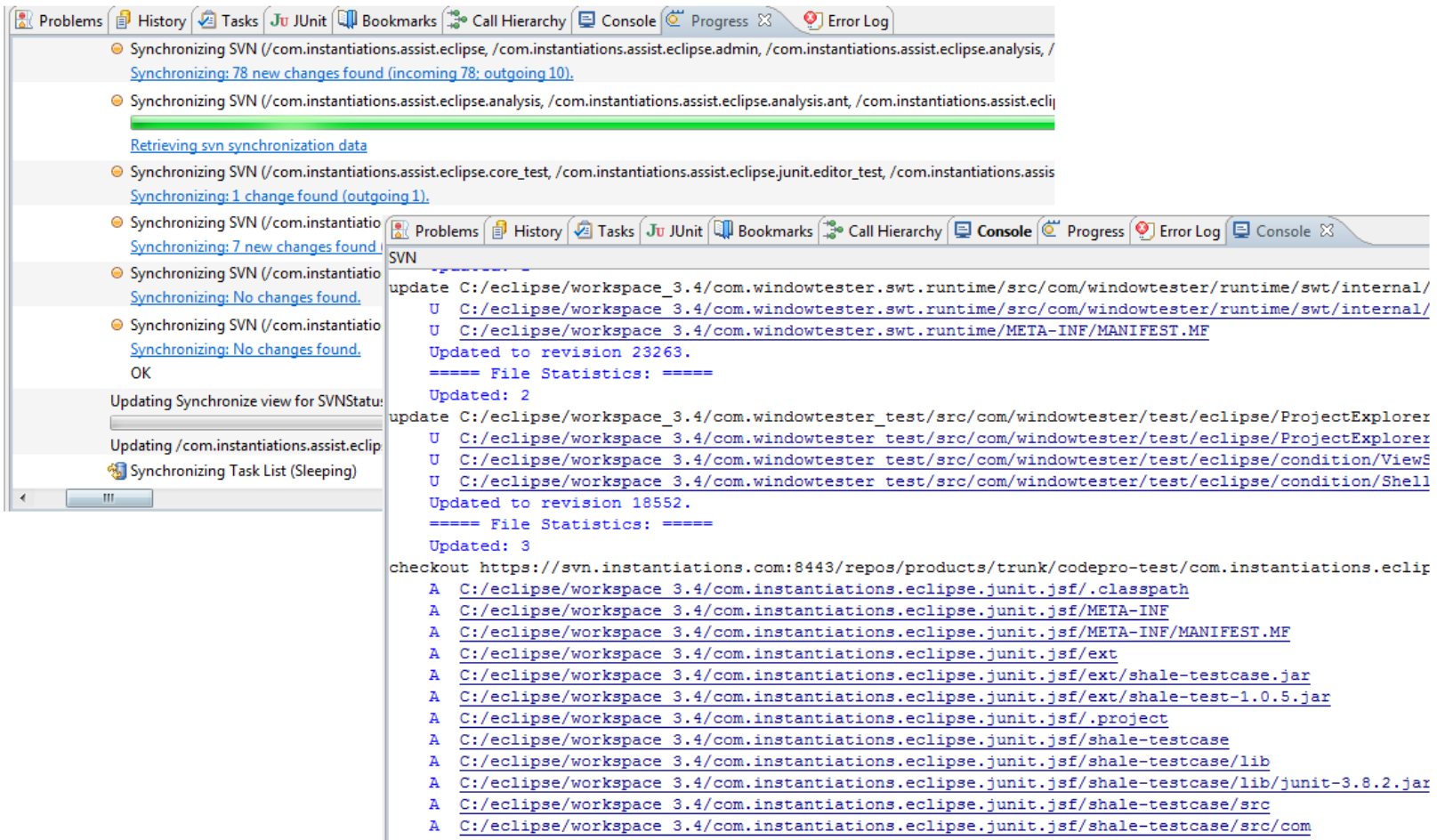
- Currently improving the test code generator and have the opportunity to revisit the GUI.
- The current feedback to the user is through the log.

Requirements

- **Eclipse look and feel**
 - Re-use Eclipse icons and/ or decorators
- **Need the UI to be a Problems, Progress and Navigator view.**
- **The UI must look and feel like a modern 3.5 GUI without requiring any SWT features from before Eclipse 2.1.**
- **The UI must have context sensitive actions to assist the user in editing algorithm preferences.**
- **Engineers of the algorithm will want additional information when developing and testing.**

Other Eclipse Solutions- 1

Jobs and Text Output



The screenshot displays the Eclipse IDE interface. The left pane shows a list of SVN synchronization jobs, including their paths and the number of changes found. The right pane shows the text output for these jobs, including file statistics and checkout commands.

Jobs List (Left Pane):

- Synchronizing SVN (/com.instantiations.assist.eclipse, /com.instantiations.assist.eclipse.admin, /com.instantiations.assist.eclipse.analysis, /Synchronizing: 78 new changes found (incoming 78; outgoing 10).
- Synchronizing SVN (/com.instantiations.assist.eclipse.analysis, /com.instantiations.assist.eclipse.analysis.ant, /com.instantiations.assist.ecli Retrieving svn synchronization data
- Synchronizing SVN (/com.instantiations.assist.eclipse.core_test, /com.instantiations.assist.eclipse.junit.editor_test, /com.instantiations.assis Synchronizing: 1 change found (outgoing 1).
- Synchronizing SVN (/com.instantiation Synchronizing: 7 new changes found.
- Synchronizing SVN (/com.instantiation Synchronizing: No changes found.
- Synchronizing SVN (/com.instantiation Synchronizing: No changes found.
- OK
- Updating Synchronize view for SVNStatu:
- Updating /com.instantiations.assist.eclip
- Synchronizing Task List (Sleeping)

Text Output (Right Pane):

```
SVN
update C:/eclipse/workspace_3.4/com.windowtester.swt.runtime/src/com/windowtester/runtime/swt/internal/
U C:/eclipse/workspace_3.4/com.windowtester.swt.runtime/src/com/windowtester/runtime/swt/internal/
U C:/eclipse/workspace_3.4/com.windowtester.swt.runtime/META-INF/MANIFEST.MF
Updated to revision 23263.
==== File Statistics: ====
Updated: 2
update C:/eclipse/workspace_3.4/com.windowtester_test/src/com/windowtester/test/eclipse/ProjectExplorer
U C:/eclipse/workspace_3.4/com.windowtester_test/src/com/windowtester/test/eclipse/ProjectExplorer
U C:/eclipse/workspace_3.4/com.windowtester_test/src/com/windowtester/test/eclipse/condition/Views
U C:/eclipse/workspace_3.4/com.windowtester_test/src/com/windowtester/test/eclipse/condition/Shell
Updated to revision 18552.
==== File Statistics: ====
Updated: 3
checkout https://svn.instantiations.com:8443/repos/products/trunk/codepro-test/com.instantiations.eclip
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/.classpath
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/META-INF
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/META-INF/MANIFEST.MF
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/ext
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/ext/shale-testcase.jar
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/ext/shale-test-1.0.5.jar
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/.project
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/shale-testcase
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/shale-testcase/lib
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/shale-testcase/lib/junit-3.8.2.jar
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/shale-testcase/src
A C:/eclipse/workspace_3.4/com.instantiations.eclipse.junit.jsf/shale-testcase/src/com
```

Other Eclipse Solutions- 2

JUnit View and GMF Dashboard

The screenshot displays the Eclipse IDE interface. The top toolbar includes icons for Package Explorer, Hierarchy, JUnit, and Navigator. The main editor area shows the source code for `com.ir Working Sets` with the file `ist.eclipse.analysis.util.JUnitUtilitiesTest - test_JUnitUtilities_isUnit4TestMethod_true`. The JUnit view at the bottom left shows a list of test results:

- test_JUnitUtilities_definesJUnit3SuiteMethod_false (0.069 s)
- test_JUnitUtilities_isAssertionMethod1_junit3 (0.113 s)
- test_JUnitUtilities_isAssertionMethod1_junit4 (0.080 s)
- test_JUnitUtilities_isAssertionMethod1_false (0.125 s)
- test_JUnitUtilities_isUnit3AssertionMethod1_true (0.109 s)
- test_JUnitUtilities_isUnit3AssertionMethod1_false (0.116 s)
- test_JUnitUtilities_isUnit4AssertionMethod1_true (0.089 s)
- test_JUnitUtilities_isUnit4AssertionMethod1_false (0.102 s)
- test_JUnitUtilities_isBeforeMethod_junit3 (0.082 s)
- test_JUnitUtilities_isBeforeMetl
- test_JUnitUtilities_isBeforeMetl
- test_JUnitUtilities_isUnit3Befo
- test_JUnitUtilities_isUnit3Befo
- test_JUnitUtilities_isUnit4Befo
- test_JUnitUtilities_isUnit4Befo
- test_JUnitUtilities_isUnit4Befo
- test_JUnitUtilities_isUnit3Suite
- test_JUnitUtilities_isUnit3Suite
- test_JUnitUtilities_isUnit3Suite
- test_JUnitUtilities_isUnit3Suite
- test_JUnitUtilities_isTestMetho
- test_JUnitUtilities_isTestMetho
- test_JUnitUtilities_isTestMetho
- test_JUnitUtilities_isUnit3Testl
- test_JUnitUtilities_isUnit4Testl

The GMF Dashboard window is open, showing a project named `org.eclipse.gmf.examples.mindmap.lite` with 100% progress. The dashboard contains several components:

- Graphical Def Model** (`mindmap.gmfgraph`): Select / Edit / Create
- Domain Model** (`mindmap.ecore`): Select / Edit / Create
- Mapping Model** (`mindmap.gmfmap`): Select / Edit / Create
- RCP Transform** (`mindmap.gmfgen`): Transform 'Lite' transform
- Domain Gen Model** (`mindmap.genmodel`): Select / Edit / Reload
- Tooling Def Model** (`mindmap.gmftool`): Select / Edit / Create
- Diagram Editor Gen Model** (`mindmap.gmfgen`): Select / Edit / Create, Generate 'lite' diagram editor, Generate diagram editor

The dashboard also features the GMF logo and the text "Project: org.eclipse.gmf.examples.mindmap.lite Progress: 100% done".

Demo

Pros and Cons

Pros

- Displays all information required
- The workflow-pattern for resolving & reviewing issues.

Cons

- As a navigator, the project context is lost
- The tree depth of 3 is too much, takes too much screen real-estate.

Q & A