

Running JUnit Tests

Community Grids Lab, Indiana University

This document provides instructions for running the test cases for several classes within the FIRMS code base.

1. Development of Test Cases

We have leveraged JUnit (version 3.8.1) while writing test cases for these classes. We have also added a command within the build.xml file that is part of this distribution to facilitate the testing in a simplified manner. For this command to run please do not forget to put the junit.jar file in ANT_HOME/lib directory. We have developed test cases for some of the classes within the cgl.narada.wsinfra.util, cgl.narada.wsinfra.wsa.impl, cgl.narada.wsinfra.wsr.impl and cgl.narada.wsinfra.wsrml.impl packages. These test cases are located under cgl.narada.wsinfra.util.test, cgl.narada.wsinfra.wsa.impl.test, cgl.narada.wsinfra.wsr.impl.test and cgl.narada.wsinfra.wsrml.impl.test packages respectively.

1.1 Testing the cgl.narada.wsinfra.util package

The classes listed below correspond to test cases for classes residing in the cgl.narada.wsinfra.util package. As mentioned in the previous paragraph these test classes reside in the cgl.narada.wsinfra.util.test package

- ExceptionToFaultConversionTest.java
- QNameLocatorTest.java
- SoapMarshallerTest.java
- SoapMessageAlterationTest.java
- XmlContentTransferTest.java
- XmlDateTimeConversionTest.java

1.2 Testing the cgl.narada.wsinfra.wsa.impl package

The classes listed below correspond to test cases for classes residing in the cgl.narada.wsinfra.wsa.impl package. These test classes reside in the cgl.narada.wsinfra.wsa.impl.test package

- AddressingHeadersImplTest.java
- ParseWsaHeadersImplTest.java
- WsaFaultRulesImplTest.java

1.3 Testing the cgl.narada.wsinfra.wsr.impl package

The classes listed below correspond to test cases for classes residing in the cgl.narada.wsinfra.wsr.impl package. The classes listed below corresponds to the test cases for classes residing in the cgl.narada.wsinfra.wsr.impl.test package

- WsrElementCreationImplTest.java
- WsrElementAdditionImplTest.java
- WsrFaultsImplTest.java
- WsrUtilTest.java
- WsrNodeUtilsImplTest.java

1.4 Testing the cgl.narada.wsinfra.wsrn.impl package

The classes listed below correspond to test cases for classes residing in the cgl.narada.wsinfra.wsrn.impl package. The classes listed below corresponds to the test cases for classes residing in the cgl.narada.wsinfra.wsrn.impl.test package

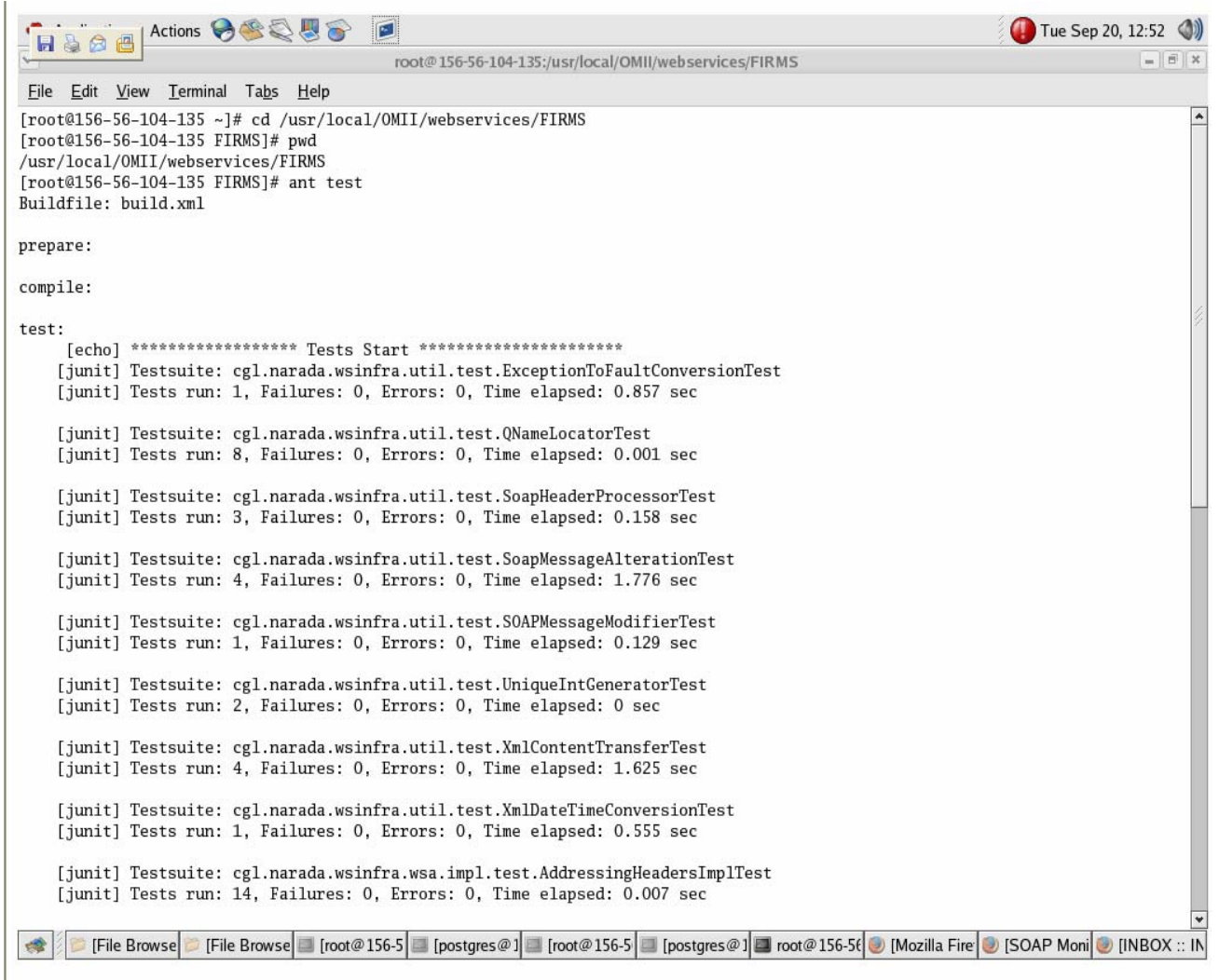
- WsrnElementCreationImplTest.java
- WsrnElementAdditionImplTest.java
- WsrnFaultsImplTest.java
- WsrnNodeUtilsImplTest.java

2. Executing the Test

Step 1: First go to the FIRMS base (distribution) directory. In our case this is /usr/local/OMII/webservices/FIRMS and execute the following command to run all the tests
/usr/local/OMII/webservices/FIRMS> **ant test**

Figure 1 below depicts the output of this command. For each test it displays the following: Number of tests run, Failures, Errors and Time elapsed

FIRMS-Running JUnit Tests



```
root@156-56-104-135:usr/local/OMII/webservices/FIRMS
File Edit View Terminal Tabs Help
[root@156-56-104-135 ~]# cd /usr/local/OMII/webservices/FIRMS
[root@156-56-104-135 FIRMS]# pwd
/usr/local/OMII/webservices/FIRMS
[root@156-56-104-135 FIRMS]# ant test
Buildfile: build.xml

prepare:

compile:

test:
[echo] ***** Tests Start *****
[junit] Testsuite: cgl.narada.wsinfra.util.test.ExceptionToFaultConversionTest
[junit] Tests run: 1, Failures: 0, Errors: 0, Time elapsed: 0.857 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.QNameLocatorTest
[junit] Tests run: 8, Failures: 0, Errors: 0, Time elapsed: 0.001 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.SoapHeaderProcessorTest
[junit] Tests run: 3, Failures: 0, Errors: 0, Time elapsed: 0.158 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.SoapMessageAlterationTest
[junit] Tests run: 4, Failures: 0, Errors: 0, Time elapsed: 1.776 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.SOAPMessageModifierTest
[junit] Tests run: 1, Failures: 0, Errors: 0, Time elapsed: 0.129 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.UniqueIntGeneratorTest
[junit] Tests run: 2, Failures: 0, Errors: 0, Time elapsed: 0 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.XmlContentTransferTest
[junit] Tests run: 4, Failures: 0, Errors: 0, Time elapsed: 1.625 sec

[junit] Testsuite: cgl.narada.wsinfra.util.test.XmlDateTimeConversionTest
[junit] Tests run: 1, Failures: 0, Errors: 0, Time elapsed: 0.555 sec

[junit] Testsuite: cgl.narada.wsinfra.wsa.impl.test.AddressingHeadersImplTest
[junit] Tests run: 14, Failures: 0, Errors: 0, Time elapsed: 0.007 sec
```

FIRMS-Running JUnit Tests

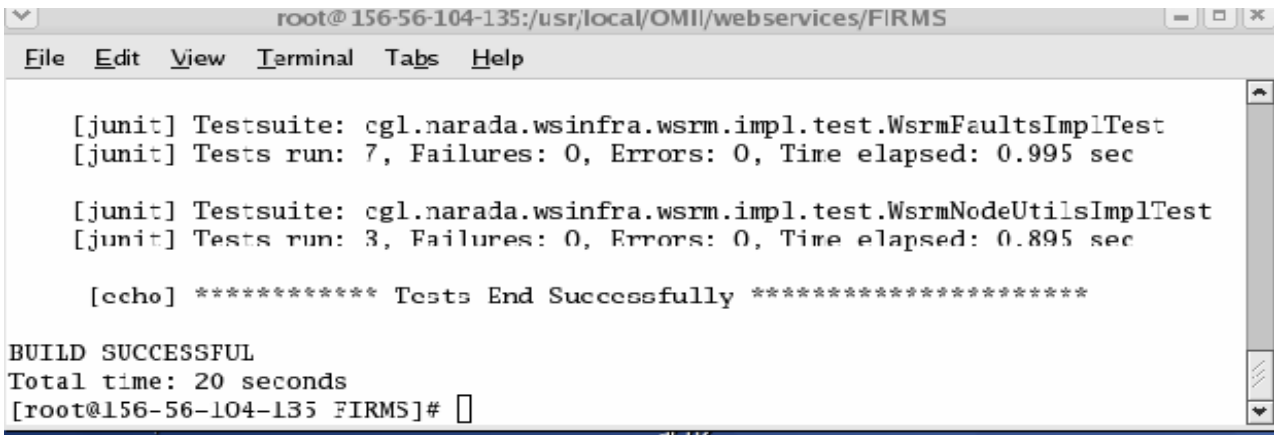
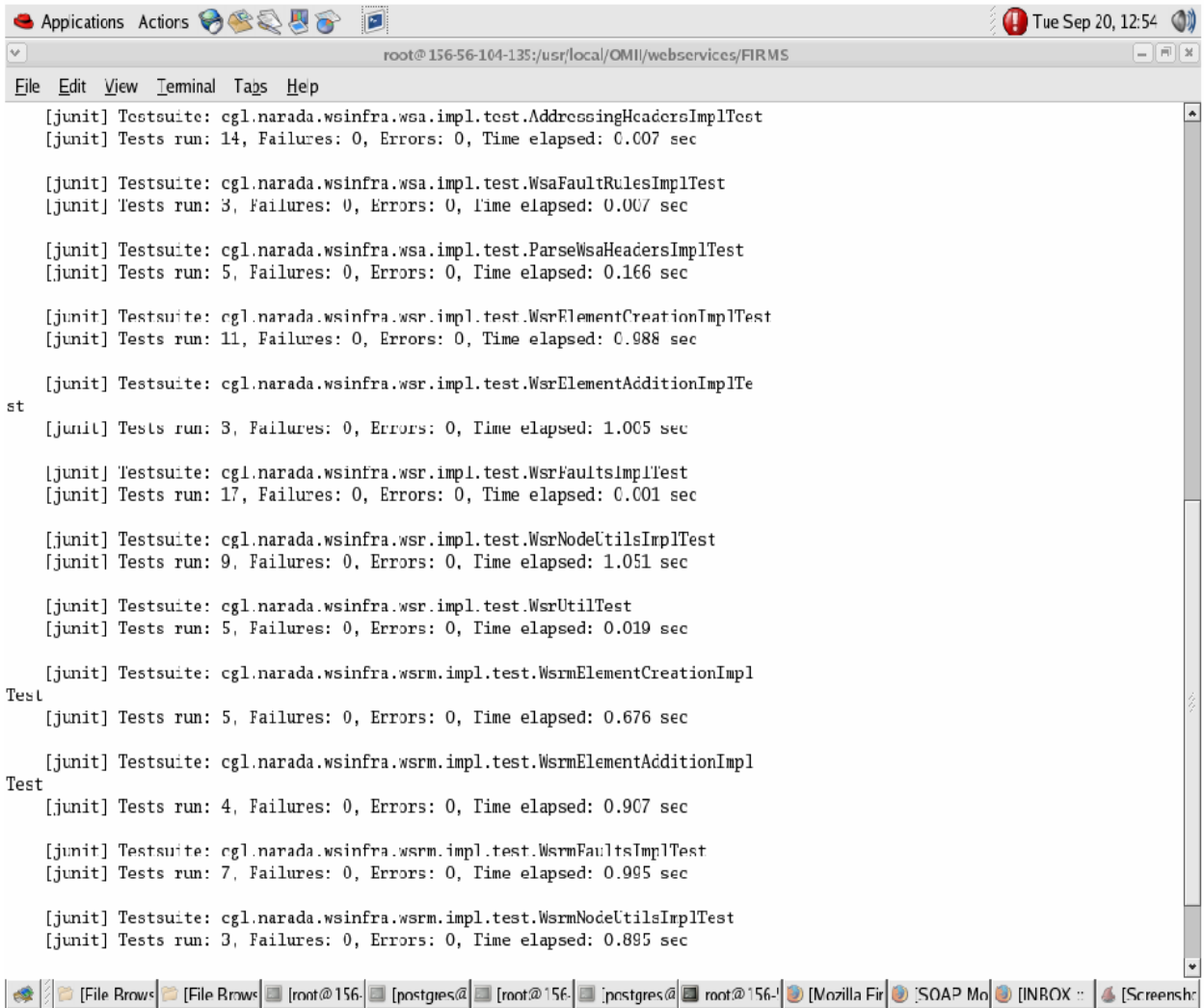


Figure 1 Execution of "test" ant target command