

# Running JUnit tests

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This document provides instructions for running the test cases for several classes within the FINS codebase.

## 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. We have developed test cases for some of the classes within the `cgl.narada.wsinfra.util`, `cgl.narada.wsinfra.wsa.impl` and `cgl.narada.wsinfra.wse.impl` packages. These test cases are located under `cgl.narada.wsinfra.util.test`, `cgl.narada.wsinfra.wsa.impl.test` and `cgl.narada.wsinfra.wse.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`
- `SoapHeaderProcessorTest.java`
- `SoapMessageAlterationTest.java`
- `SOAPMessageModifierTest.java`
- `UniqueIntGeneratorTest.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`

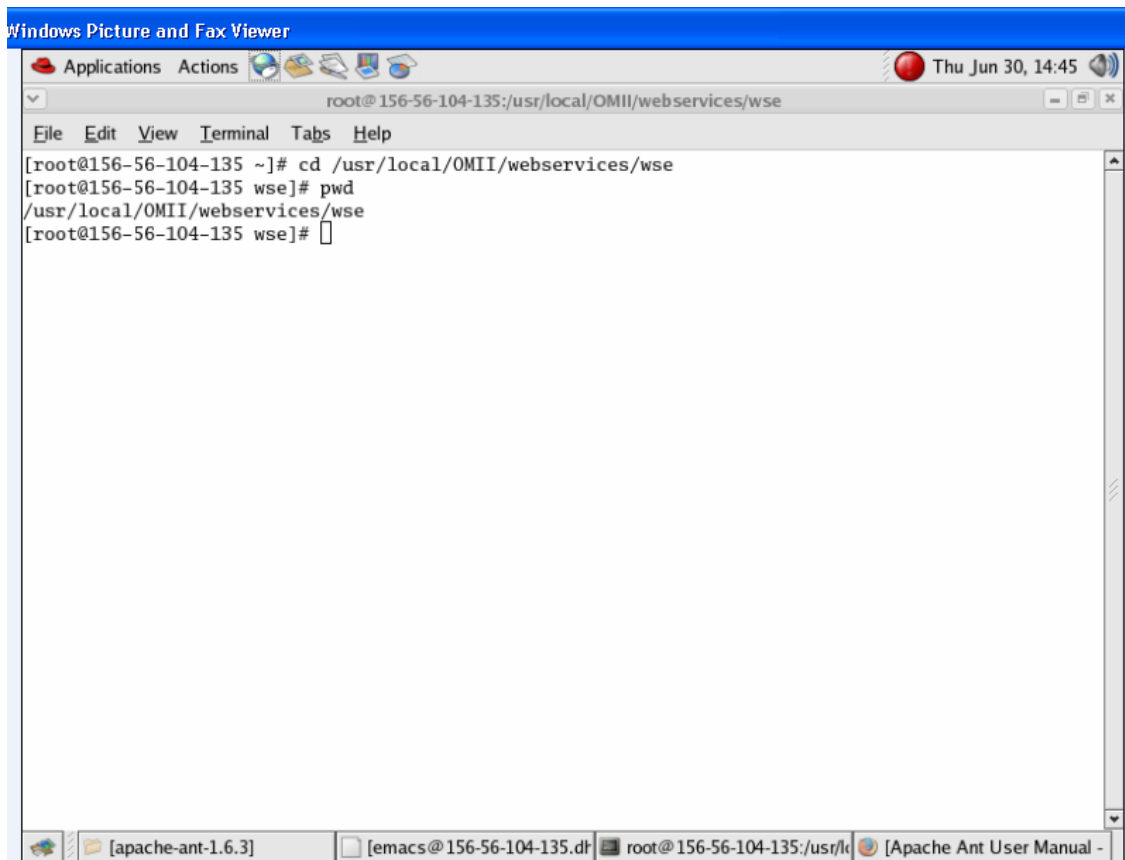
### 1.3 Testing the `cgl.narada.wsinfra.wse.impl` package

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

- WseElementCreationImplTest.java

## 2. Executing the Test

**Step 1:** First go to the WSE base (distribution) directory. In our case this is /usr/local/OMII/webservices/wse

A screenshot of a terminal window titled "root@156-56-104-135:/usr/local/OMII/webservices/wse". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal output shows the following commands and their results:

```
[root@156-56-104-135 ~]# cd /usr/local/OMII/webservices/wse
[root@156-56-104-135 wse]# pwd
/usr/local/OMII/webservices/wse
[root@156-56-104-135 wse]#
```

The terminal window is part of a desktop environment with a taskbar at the bottom showing several open applications: [apache-ant-1.6.3], [emacs@156-56-104-135.d], root@156-56-104-135:/usr/lt, and [Apache Ant User Manual -]. The system tray at the top right shows the date and time: Thu Jun 30, 14:45.

**Step 2:** Type the following command to run all the tests  
 /usr/local/OMII/webservices/wse> **ant test**

The screen shots below depict the output of this command. For each test it displays the following:  
 Number of tests run, Failures, Errors and Time elapsed

