

## **Developers Guide**

This is a brief guide describing how to set up a Java development environment to conduct development on the Settle open source Java application.

**For Settle V0.4**

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## Prerequisite Software

The following software is required to be set up and installed in your local environment. This setup has been tested on both Windows XP, and Suse Linux 9.1 and higher.

- Java 1.4.2
- Tomcat 5.0 (Other servlet containers should work with minor modifications, although not regularly tested).
- Mysql 4.0 (Due to use of Hibernate, other databases should work, if database creation script is ported, and Hibernate configuration is changed)
- Eclipse 3.1
- MyEclipse 4.0 or higher (optional, but recommended if making web modifications)

## Setup and Installation

Perform the following steps.

1. Download Eclipse, install (Make sure JAVA\_HOME is set first)  
<http://www.eclipse.org/downloads/index.php>
2. Once Eclipse is working, open the CVS perspective, and add an anonymous connection to the Settle CVS repository, using the connect parameters from here.  
[http://sourceforge.net/cvs/?group\\_id=126443](http://sourceforge.net/cvs/?group_id=126443)
3. Create three Classpath Variables in Eclipse. (Window – Preferences – Java – Build Path – Classpath Variables)
  - SERVLET\_JAR\_FILE Should point to the JAR file implementing the Servlet spec for your container. This is 'servlet-api.jar' for Tomcat.
  - JUNIT\_JAR\_FILE Should point to the JAR file for Junit 3.8 or higher. Easiest place to refer is directly within you Eclipse Junit plugin directory.
  - ECLIPSE\_ANT\_HOME Should point to the lib directory for Ant, as shipped with Eclipse as a plugin.

### Sample (From Eclipse Export)

```
JUNIT_HOME=D:\Software\Eclipse\Eclipse3.0/plugins/org.junit_3.8.1
SERVLET_JAR_FILE=D:\Program Files\WebSphere/AppServer/lib/j2ee.jar
ECLIPSE_ANT_HOME=D:\Software\Eclipse\Eclipse3.0/plugins/org.apache.ant_1.6.2/lib
```

4. Browse the CVS repository, right-click the 'Settle' project, and select 'Check Out' to create an Eclipse project based on the Settle project. The Checkout should bring down all of the software you need, in the 'Software' subfolder, plus all the code.
5. Create mysql user scott, password tiger, as follows.

```
GRANT ALL PRIVILEGES ON *.* TO scott@localhost IDENTIFIED BY 'tiger' WITH GRANT OPTION;  
GRANT ALL PRIVILEGES ON *.* TO scott@%' IDENTIFIED BY 'tiger' WITH GRANT OPTION;
```

6. Connect to mysql as 'scott', and run script database/recreateDBWithSampleData.sql.  
(Mysql command is 'source recreateDBWithSampleData.sql')
7. Create file 'build.properties' in the root of the project. Refer to file build.properties.sample.txt in project root for required entries.
8. You should now be able to run all of the Junit tests from Eclipse as well, by picking class 'com.swiftradius.settle.AllTests' under the src folder. Right-click, and pick 'Run' – 'JUnit Test'. Verify no errors (All Green!)
9. Select the build.xml file in the root of the project, right click, and pick 'Run,' then 'Ant Build...'. Run the following tasks in order.
  - i. ***generateDBAndSampleData*** – Should regenerate the DB with sample data.
  - ii. ***packageAndDeploy*** task. Should compile and package the code, run all tests, and deploy the application.
10. Finally, start Tomcat, and browse to URL <http://localhost:8080/settle/login.do>, and enter user 'admin', password 'admin'. You should be able to navigate to the Settle main page and all applications.