



Start the experiment by Task 1. When you finish it, go to Task 2.

Task 1 - Debugging the **XStream** project **without** Jaguar.

XStream is a library to serialize objects to XML and back again.

A bug causes errors in some test cases, which can be seen running the tests.

1. Click on the Eclipse icon.
2. To start the Eclipse task, right-click on the **xstream** project at the Project Explorer area, select **Jaguar > Eclipse Debugging**. For this task, the Jaguar tool is not available. You can use any other Eclipse resource to search for the bug.
3. To start the study, click on the bug button () at the top of the Project Explorer area. In the input box, type the ID created after you filling out the first questionnaire. You will need this ID again when filling out the final questionnaire.
4. To run the tests, right-click on the **xstream** project at the Project Explorer area, select **Run As > JUnit Test**. In case you have to select the preferred JUnit launcher, you must choose the Eclipse JUnit Launcher instead of Jaguar JUnit Delegate Launcher.
5. You have 30 minutes to complete this task. Although the tool logs the time, it does not provide a timer, so we kindly ask you to manage the time of each task yourself.
6. Please write down any changes you made in the code to fix the bug, clearly indicating class name, method name, line number for these changes. You will need this information when answering the final questionnaire.
7. When you finish the task, either because you found the bug or because you ran out of time, click on the stop button () at the top of the Project Explorer area. When you do so, you will be able to start the second task.


Task 2 - Debugging the **jsoup** project with Jaguar.

jsoup is an HTML parser library.

There are test cases that fail due to a bug, which can be seen running the tests.

1. To open Jaguar, right-click on the **jsoup** project at the Project Explorer area, select **Jaguar > Run Jaguar**.


2. The tool will appear on the right side of Eclipse. Please do not change the Eclipse perspective. Jaguar was configured for the Resource perspective only.

3. To start the Jaguar task, click on the bug button () at the top of the Jaguar tool. The suspiciousness list will be loaded on the tool's view.

4. You can use both the Jaguar tool and any other Eclipse resource for this task. To run the tests, right-click on the **jsoup** project at the Project Explorer area, select **Run As > JUnit Test**. In case you have to select the preferred JUnit launcher, you must choose the Eclipse JUnit Launcher instead of Jaguar JUnit Delegate Launcher.

5. You have 30 minutes to complete this task. Although the tool logs the time, it does not provide a timer, so we kindly ask you to manage the time yourself.

6. Please write down any changes you made in the code to fix the bug, clearly indicating class name, method name, line number for these changes. You will need this information when to answering the final questionnaire.

7. When you finish the task, either because you found the bug or because you ran out of time, click on the stop button () at the top of the Jaguar tool. When you do so, the tool will close and the study data will be sent to our server.

8. Please get the ID to fill out the final questionnaire:

https://docs.google.com/forms/d/1ql5HGwp4aRGVjxyhRuH1Vj3_6eRQ9t5zfetsos_HFH8/viewform