

Level Test Procedure

2.1 Inputs, outputs, and special requirements

Inputs: a file containing all test cases, a file named “output.txt”, a java harness program, an IUT, an oracle, manual selection of test mode, manual input of test file name, manual input of number of random test cases.

Outputs: pass/fail result for every test case in “output.txt”, log messages in “log.log”

Special requirement:

1. For streamlined domain test, please get test file ready and enter the name of it.
2. For random testing, please enter the number of test cases.
3. Please get “output.txt” ready for any test.

2.2 Ordered description of the steps to be taken to execute the test cases

Log:

Program will run log execution and anomalies in a file “log.log”. New log messages will be appended to older messages. You can empty log messages by deleting or clearing log file.

Setup:

1. Make sure you have included a file containing all test cases in the directory of java harness program.
2. Make sure you have included a file named “output.txt” in the directory of java harness program.
3. Open the terminal and compile the test program: “\$javac Harness.java”.

Start:

1. Run the test program in terminal: “\$java Harness”.

Proceed:

1. Once the program is running successfully, it will output two testing modes for you to choose from. Please enter the corresponding index of the mode you preferred.
- 2a. If you choose “Streamlined Domain Testing”, please enter the name of the test file mentioned in Setup;
- 2b. If you choose “Random Testing”, please enter the number of test cases you want the test program to generate.

Measurement:

The test program will feed both IUT and Oracle with test cases and compare results. If they produce same result, the corresponding test case will be marked as “pass”. Otherwise a “fail” will be marked. You can get results from log file and output file.

Shut down:

Once a round of testing is done, it will be shut down automatically.

Restart:

Open the terminal and run “\$java Harness”

Stop:

If you are running the test, you can press “Control C” to stop the program.

Wrap-up:

Open “output.txt” and “log.log” to check running results. You have no way to terminate logging unless modify harness program. You can clear log messages by deleting the file.

Contingencies:

If you observe any anomalies in executing the harness program, please recheck setup step. If you cannot solve problem, please contact the developer.