**Title of the paper:** JWalk: a tool for lazy, systematic testing of Java classes by design introspection and user interaction

**Doi:** [10.1007/s10515-007-0015-3](http://dx.doi.org/10.1007/s10515-007-0015-3)

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JWalk is a tool suite for automated, lazy unit testing of Java code, developed by the Department of Computer Science, University of Sheffield.

The motivation behind JWalk is to simplify the testing process by automatically generating test cases based on the compiled code. It ensures that the generated test cases cover all possible states and transitions in the code, by providing test coverage. The approach of **JWalk** involves using **design introspection** and **user interaction** to automatically generate test cases for Java classes. JWalk analyzes the structure of the Java classes and creates test cases based on this analysis. The tool then asks the user to specify inputs and expected outputs for the test cases, automatically generating the actual test code.

The JWalk tool makes the job easier for testers by suggesting test cases that are difficult to consider. Whenever a test class is modified or extended through subclassing, JWalk generates the necessary new test cases for all existing in-class and inherited methods.

JWalk has been validated as a powerful alternative to **JUnit**. The JWalkTester tool performs exhaustive testing of compiled Java classes and tests for full conformance to a lazy specification inferred on-the-fly from the code, by **static** and **dynamic analysis**, and from hints supplied by the programmer. JWalk proposes significant test cases systematically. The JWalk tool suite includes two finished tools and a component kit for creating custom JWalk applications. The tools configure themselves to the host's operating system and it supports being executed in the background as a worker thread.

As summary, JWalk is a **suitable choice** for Java projects where the source code is expected to change **frequently**.