

# Testing document for BW4SA

All tests are located in folder `/tests/` and all test files start with prefix “check”. Tests for a specific part of the library can be run by running the corresponding script from the `/os/` - folder. There is also script “`runtests.sh`”, which runs all the test scripts and returns with exit code 1 if any of the tests result in error.

For testing we have used Check, which is a simple unit-testing framework for C. Please check <http://check.sourceforge.net/> for more info and [http://check.sourceforge.net/doc/check\\_html/check\\_3.html#Tutorial](http://check.sourceforge.net/doc/check_html/check_3.html#Tutorial) for tutorial to basic features of Check.

There are unit tests for all parts of the core and all features. Simplest unit tests test features with some short inputs and check that the results are correct. Most of the features are also tested with randomized tests. Randomized tests for MEMs, MUMs, iterate and maximal-repeats use naive algorithms located in file “`utils_for_tests.c`”. Tests generate substrings with both naive and non-naive algorithms and check that the results are same.