The aim of this work is to design and implement an application needed to create hierarchic experiments. The exact definition and purpose of hierarchic experiments are analysed in this work. The principle of hierarchic experiments is then used to implement a framework for white box software testing. It should by utilized mainly for benchmarking tests. The tested code must be in the C or C++ languages since the framework is developed in C++. Output of the application is a C++ source code that tests the user's algorithm in the selected manner. The application also outputs the needed makefiles and uses visual editing to create the testing set. It is
also capable of simple processing of the collected performance data.