

The goal of the thesis is to design and implement a garbage collector within the environment of the C++ programming language, defined by the International Standard ISO/IEC 14882:2003. Analysis of various aspects of automatic memory management in general and in the C++ programming language in particular is presented. A list of requirements on garbage collection implementation is given. The thesis focuses on solving problems of implementing an incremental tracing garbage collector within the limits imposed by the C++ language. The result of the effort is a working garbage collector.