

ZlomekFS is a distributed filesystem for transparent sharing of directory trees. This thesis describes how regression testing for ZlomekFS was built. The thesis summarizes software testing methods in the context of ZlomekFS and proceeds to build an actual testing system for ZlomekFS, consisting of six parts: (1) a unit testing framework for C code with an automatic test discovery and a minimalistic interface, (2) a logging facility with C and Python interfaces, with filtering and remote control, (3) workload generator for random test sequences generated from an operation dependency graph with support for failure reproduction and trace reduction, (4) test controlling and reporting framework, (5) test result repository with web user interface, (6) continuous integration server for automatic builds and tests.