

The use of network communication in applications increases their complexity and can lead to new security vulnerabilities. Existing tools do not completely satisfy the needs of network application testing. The purpose of this thesis is to create a new tool that would make it easier to test network applications. The main focus is on the overall extensibility of the solution, primarily the ability to add new protocols. The created tool is capable to operate in client, server or proxy mode for supported network protocols and to control their communication manually or using a script. Support for other protocols can be added through plugins. The tool also includes a library for implementing application layer protocols over TCP and UDP, which was used to create plugins for HTTP and WebSocket.