

One of the topics taught in computer science is the principles of logic gates. An application that allows students to experiment with logic gates and gate networks can be used as a tool to provide better understanding of the topic. However, in order for the application to be usable, it should be available independently of the software on the user's computer. As a part of this thesis, we were able to implement such application. It provides users with the functionality of constructing circuits from logic gates interconnected with wires. The application is able to simulate the network and display logic values on each of the wire. Additional functionality has been provided to make the application more enjoyable — unlimited canvas for circuit construction, a simple tutorial introducing new users to the basics of the application, import and export functionality and a library of logic circuits that can be imported onto the editing canvas in the form of gate networks or as single components. The application is easily expandable and the source code is available under an open-source license.