Abstract: The goals of this work were to create an extendable library for electrical circuit simulation and a simple editor for interactive electrical circuit forming.The library was written in C++ language. It uses following methods. Trapezoidal method for solving ordinary differential equations for simulation time-dependable electrical elements.Newton method for solving nonlinear equations for simulation of electrical elements with nonlinear Volt-Ampere characteristics. Modified nodal analysis is used for circuit equation formulation, and modified Gaussian elimination for solving linear equations ergo for solution of modified nodal analysis.Editor was written in C# language. The editor is graphic interface which allows to user forming electrical circuits in diagram representation. The editor also allows simulating electrical circuits via mentioned above library and generating time-vol tage graphs of circuit, from data gained by simulation. In the editor and in the library are implemented these electrical elements: independent voltage sources, independent current sources, ideal resistors, ideal capacitors and ideal inductors.