The lexical analysis as an important part of the compiler theory has been widely applied in the production of life. The Lexical Analyzer Generator, known as LEX, can directly convert the lexical rule action text to the corresponding lexical analyzer source code. By this way, The Lexical Analyzer Generator can simplify lexer development, facilitate the realization of lexical analysis, plays an important role in practice. In the traditional language platforms, including C / C + +, JAVA, etc., has a corresponding LEX program.

With the continuously progress and development of the Web2.0, and the promoting of the HTML5, the JavaScript language has been more and more widely used in practice. it is worth noting that there are two parallel development mode available when it comes to Windows 8, a mobile-internet-based operating system, i.e. ,applying HTML5 or applying C#. So it can be expected, the theory of lexical analysis and the Lexical Analyzer Generator will be widely used in the JavaScript language. However, there is no a lexical analyzer Generator which is developed in the JavaScript language and generates the JavaScript source code lexer.

Therefore, the development of a Lexical Analyzer Generator on the JavaScript language to simplify the lexical analysis tasks is more necessary. The purpose of this paper is to develop an LEX tool on the JavaScript language. The main work consists of three parts: First, a Lexical Analyzer Generator on JavaScript, which has functions as the traditional LEX tools; Second, for the particularity of the JavaScript language platform, optimize and expand this LEX tool so that it can performed on the browser front-end and NodeJS platform; Third, package this LEX tool, making it an open source project. The first two parts of the above work has been completed, and the third open-source work is further underway.