Abstract

For the past time a number of algorithms were presented to produce a deterministic finite automaton (DFA) for the regular expression. These algorithms could be divided into what they used as an initial data from which to produce DFA. The method to produce DFA from non-deterministic finite automaton (NFA) by a subset construction could be generalized for extended regular expressions, including intersection, negation and subtraction of the regular languages. In this article the modified algorithm of subset construction is presented; this algorithm produces a unigram DFA for the regular expression with extensions (specifically AND-operator).

References

Algorithm to Generate DFA for AND-operator in Regular Expression

3 (2) (1959), pp. 114–125.

Index Terms

Computer Science  Algorithms

Keywords

Algorithm; Deterministic; Automaton; Extension; Intersection; Subset Construction.