Improved skip algorithm for single pattern searching:

Abstract:

We are presenting a novel idea in this paper for a single pattern in strings. Skip search is the idea. Only half memory locations are available to inspect the pattern for presence in the given text in the Worst case. A modified version of the characters in the particular string and checking whether these Characters are the pattern starting and ending characters. This allow to get the overlap of the pattern size and time of search. The algorithm has a low space complexity. The time required for execution is compared to the Naïve algorithm and the Knuth-Morris-Pratt (KMP) algorithm, and the skip algorithm performed better for the majority of the test cases. When the pattern appears at the end of the text or not appear , the algorithm executes even faster. The algorithm is suitable for any pattern matching project

Introduction:

The pattern matching algorithm seeks one or more instances of a pattern in the given text. In this article, we suggested a skip algorithm , which is an exact pattern matching algorithm based on Naïve search algorithm with skip positions modified. The algorithm based returns the location of location of the pattern ‘s first occurrence in text.

A examination of the results on exact pattern matching algorithms begins with Knuth-Morris-Pratt algorithm. The majority of the research paper is concerned with reducing the amount of comparisons and processing time. We contrast the skip algorithm’s results to that of the Naïve algorithm and Knuth-Morris-Pratt algorithm. The complexity is compared to a large number of other algorithms listed in the literature survey.