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Tuning the Zhu-Takaoka String Matching Algorithm and Experimental Results.

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Abstract: In this paper we present experimental results for string matching algorithms which have a competitive theoretical worst case run time complexity. Of these algorithms a few are already famous for their speed in practice, such as the Boyer–Moore and its derivatives. We chose to evaluate the algorithms by counting the number of comparisons made and by timing how long they took to complete a given search. Using the experimental results we were able to introduce a new string matching algorithm and compared it with the existing algorithms by experimentation. These experimental results clearly show that the new algorithm is more efficient than the existing algorithms for our chosen data sets. Using the chosen data sets over 1,500,000 separate tests were conducted to determine the most efficient algorithm.

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