

## Abstract

Stemming is one part of information retrieval which aims to restore the words to form basic terms. Based on the assumption that words that have the same basic terms have the same meaning, stemming is used to improve the performance of an information retrieval system.

In text processing for Indonesian language, is currently widely used technique that uses dictionary as a tool in the process of stemming. Otherwise Vega stemming algorithm does not require the help of a dictionary. Vega algorithm uses only affix removal rules based on existing Indonesian rule. Though without the help of a dictionary, vega stemming algorithm is expected to improve the performance of information retrieval system.

To find out the results of a stemming algorithm vega, then created a simple information retrieval system that can calculate the system performance based on specific queries had been entered. The first step is to examine the results of tests carried out word after stemming. The second test conducted to determine the performance of a system that uses a stemming algorithm vega than the system without stemming. Then, analysis of the influence of compression rate stemming information retrieval system performance value.

From the test it was found that Vega stemming algorithm produces many terms that are inconsistent with the basic words in the Indonesian language. Still, Vega algorithm can be used to improve information retrieval system performance in certain situations.

**Keyword** : *Information retrieval system, Stemming, Vega.*