Abstract

The rapid development of information society led to difficulties in getting the information fast, solid and relevant to their needs. To solve this problem,it is required an Information Retrieval System (IRS) or the called-back-system-information retrieval that aims to help users find the information relevant to their needs in a short time. The problem is how far the IRS can improve efficiency without sacrificing the relevance of search results from the query input.

In the world Information Retrieval System, the general performance of search engines could be seen on the effectiveness and efficiency of the system used. Effectiveness can be seen from how far the system is capable of providing relevant results based on the information needs. Efficiency can be seen from how far the system is able to minimize the resource and the response time needs. This causes the effectiveness and efficiency have become important factors in measuring the performance of search engines.

In this thesis, we will analyze the performances of the search engines using the Static Index Pruning methods, and test to how much the level of pruning needed to improve search engine performance. From the test results, up to 30% level of pruning, this method can increase the performance of search engines. This conclusion is based from the low value of the index size and query time can be produced and still get document relevance results are still as good as its search results with methods that do not use Static index pruning methods.

Keywords: *Information Retrieval, search engine, Static Index Pruning, query, performance*