Abstract

The development of information technology is supported by the rapid advancement of technology in the form of file storage hardware that is more sophisticated today sometimes still not been able to keep the size of the data that the greater cause a lot of data and information that can not be stored in one place or scattered. To overcome these problems have long developed a data compression technique called data compression.

Data compression is a process to compress the data size by manipulating the contents of the data thus obtained from the data size becomes smaller than the original data without losing important information contained therein.

In this Final compression algorithm implemented three methods, namely the Burrows-Wheeler Transform which uses the concept of transformation of input data in a way to shift position for each block. Move-To-Front, which uses the concept of shifting stacks of symbols. And last Huffman code by using the concept of re-code tree to represent each byte of the symbol.

Tests carried out using the data in the form of information that contains ASCII text. Test results show the compression ratio and the time needed to perform compression by using the scenario merging algorithm by trying to change the size of the long block to the use of Burrows-Wheeler Transform algorithm. Method of Burrows-Wheeler Transform merger, Move-To-Front and Huffman Code compression ratio proved to have results that are better than just using the Huffman code length when the block size. In addition, test results show the processing time by using a combination of all three algorithms is a very long time rather than just using Huffman Code algorithm.

Keywords: *Data compression, compression ratio, Huffman Code algorithm, Burrows-Wheeler Transform algorithm, Move-To-Front.*