ABSTRACT

Nowadays, music has become a necessity. Technology in the field of music itself has been growing rapidly. It can be attested by the improvement of the quality of audio from generation to generation. As well as images and video data, audio data also require compression for storage and for the purposes of accessing the issues in real time. In the audio compression itself is almost similar to image compression, there are two kinds of audio data compression technique, which are lossy and lossless. For daily usage, lossy compression techniques are more widely used because the compression ratio is much larger compared to its original data, and any decline in the quality of audio data cannot be captured by the limitations of the human ear. As for lossless audio data itself, although its quality qualified to hear every detail of the instruments in the audio data but it has a file size that is sufficiently large. As well as supported players in general are still a little support to some lossless audio files. One algorithm that can be used is Huffman, with the development of its algorithm is called Huffman Shift Coding. Huffman Shift Coding able to change any symbol held on audio data either lossy or losless. Huffman Shift Coding method that has been tested, average compression ratio - 50% above average. But the results of the compression of audio data cannot be played back, but the support of compression application itself. In this research, the author tries to make a compression application that can change the nature of lossless audio data into a lossy, where later the output of the compression process will be smaller in order to save storage issues, and also still can be played in various music players that is currently available.

Keyword : compression, Huffman Coding, audio, lossless audio, lossly audio