

ABSTRACT

APPLICATION OF ARITHMETIC CODING ALGORITHM IN AUDIO COMPRESSION

Human activities everyday can not be separated from technology and information. Along with the development of technology and ease of accessing the internet, anyone can collect various files easily. One of the most commonly used files is audio. Storage of audio files relates to storage media. The larger the audio file size, the larger the storage media capacity required, although nowadays there are many storage media that have large capacity. In addition, the time it takes to send the file becomes long because of its large size. One way to solve these problems with compression. Compression can reduce the size of the audio file so as to save the use of storage media and speed up file delivery time. In this study, the audio files used are WAV and MP3. The application can reduce the size of the audio file and can restore the file as it was before it was compressed. After testing each of 35 audio files, it was found that the compressed WAV audio file size is smaller than the MP3 audio file, so the average value of WAV audio file compression ratio is higher than MP3.

Keywords: Compression, audio, Arithmetic Coding Algorithm, WAV, MP3