

ABSTRACT

Song is a unity of music which consists of sequences of sequential tones. Songs are also art that depicts human thoughts and feelings through the beauty of sound. Sometimes we sing a song, but don't know the verse and the verse. This research is about search referrals and verses with song input that requires reffers and verses from songs to be stored in the database. A database consisting of 25 rebate pieces and verses from song data is processed manually. This process takes a long time because the researcher must first determine the location of the referrals and verses manually. This will be a problem if the number of reff and verse databases is added with new data, so further research is needed to automatically separate the reff and verse by analyzing the signal from the music file in mp3.

In this research, we will design a method of separating the reff and verse locations using the calculation of the frame intercreation. Audio signals from mp3 files are converted into small frames in the framing process, then the frame is transformed using the Harmonic Fast Fourier Transform (FFT) method. The Harmonic FFT transformation results will then be calculated the correlation value between the frames collection to find the similarity patterns of several sets of frames. From the results of the correlation obtained the same correlation pattern in the collection of frames and then determine the location of the reff and verse. The last process is cutting reff and verse in accordance with the location specified in the previous process. This method simulation is applied to matlab programming software.

This research results in an accuracy of more than 50% of the exact location of the reff and verse in seconds totaling 25 songs

from the results of the method compared to the actual location of the results of the manual location separation by the researcher in each song. The best computing time generated in this final project is 86 seconds with a 1000ms frame for cutting 1 song mp3 file.

Keywords: *Harmonic Fast Fourier Transform (FFT), reff, verse, correlation, mp3.*