

Abstract

Conversion Program of Musical Instruments Guitar Into The Musical Notes is a program to change the form of data input wav recording guitar into tones that are described in musical notes. The conversion program must be designed to detect the frequency of the tones that are recorded so that it can be translated into the tones of musical notes.

In this final project, the application also must be able to detect the tempo of the wav input because it will affect the value of notes beats. The conversion program is built by using the Fast Fourier Transform (FFT) algorithm. FFT is able to change the signal from time domain into the frequency domain. The data used as input data format is recording guitar in wav file.

The test results showed that the quality and accuracy of musical notes is affected by the accuracy obtained guitar playing (quality input), FFT point, wide frame and overlap. In this conversion program used wide frame 1024 and overlap 512 as one of the values that represent the onset detection. Beside that, this conversion also take 44100 as FFT point. In addition, the accuracy and precision of how to play guitar, also affected the quality of input data.

Keywords : *Conversion Program of Musical Instruments Guitar Into The Musical Notes, Fast Fourier Transform, FFT Algorithm*