Abstract

Conversion Program of Musical Instruments Guitar Into The MusicalNotes is aprogram to changethe form ofdatainputwavrecordingguitarintotonesthatare describedinmusical notes. The conversionprogrammust bedesignedtodetect thefrequencyof thetonesthat are recorded so that it canbe translatedintothe tonesofmusical notes.

In this final project, the application alsomust be able todetect thetempo ofthewav inputbecause it willaffectthevalue ofnotesbeats. The conversion programis builtby using theFastFourierTransform(FFT) algorithm. FFTis ableto change thesignalfromtime domainintothe frequency domain. The datausedasinputdataformatisrecordingguitar in wav file.

The test resultsshowedthatthe qualityandaccuracy ofmusical notesis affectedby theaccuracyobtainedguitar playing(quality input), FFT point,wide frameandoverlap. 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 accuracyandprecision ofhowto playguitar, also affected the quality ofinput data.

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