Abstract

Tone is an uniformed sounds. Sequence of tones which are arranged harmonically into one is called a music. Tones are symbolized by note or notation. To transcript a tone into a notation needs a good hearing and knowledge of music. The human ear are able to difference any notation but the process to transcript a tone into a note is not easy. Therefore, it needs a medium which could read tones and transcript them into notes automatically.

Hidden Markov Model (HMM) is a method which already used in speech recognition. HMM is a statistical method from a system which assumed as a Markov Process with hidden parameters. This program was made to apply HMM method in recognizing tones. This program used chroma-based representation as the featured vector. Using chroma, a tone could be represented into a shorter feature.

This software expected to help user playing music without musical sheet. Thus, this software gives alphabetic notation as output of tone, so the user could read the notes easily.

Key words: *Chroma-based Representation, Hidden Markov Model, Tone, Notation.*