

Abstraction

Searching process for music file becomes interesting if based on the content of the query input. This searching, that based on the content, uses melody to search the music that we want. We use music files with midi format. Where, midi is a simple digital music representation. This midi file is changed to text type using midi2text.exe tools. After we get the text type, then we continue with extraction, standardization, and melody match process.

We do melody match process using Damerau-Levenshtein distance algorithm. This algorithm is an algorithm that represent distance measuring function that return the minimum distance where deletion, insertion, substitution, and transposition process are done in two string character that we compare. Damerau-Levenshtein distance is the development of Levenshtein distance algorithm. Levenshtein distance is also a distance measuring function that return the minimum distance where deletion, insertion, and substitution process are done in the string match process. There is no transposition process in Levenshtein distance algorithm.

Based on the experiment result, both of the algorithm above can find the music file that we search with equal percent distance. From time performance of query processing, Damerau-Levenshtein distance algorithm is ± 1.906 seconds longer than Levenshtein distance algorithm for all query type with the same relative amount of the average output from searching result.

Key words: music content, Damerau-Levenshtein distance, Levenshtein distance, deletion, insertion, substitution, transposition.