

Strike-A-Tune:

Fuzzy Music Navigation Using a Drum Interface

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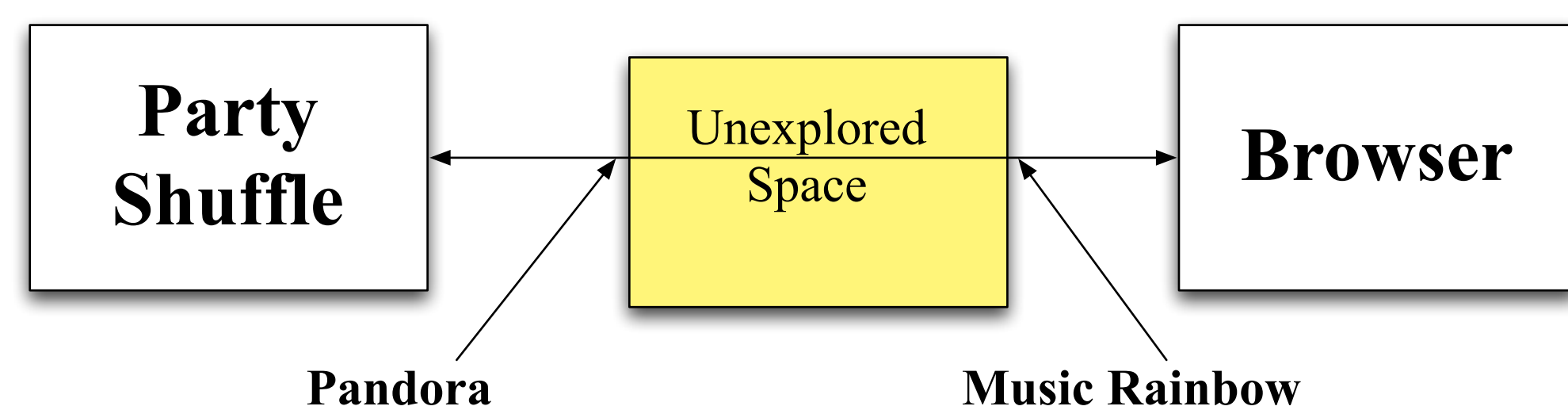
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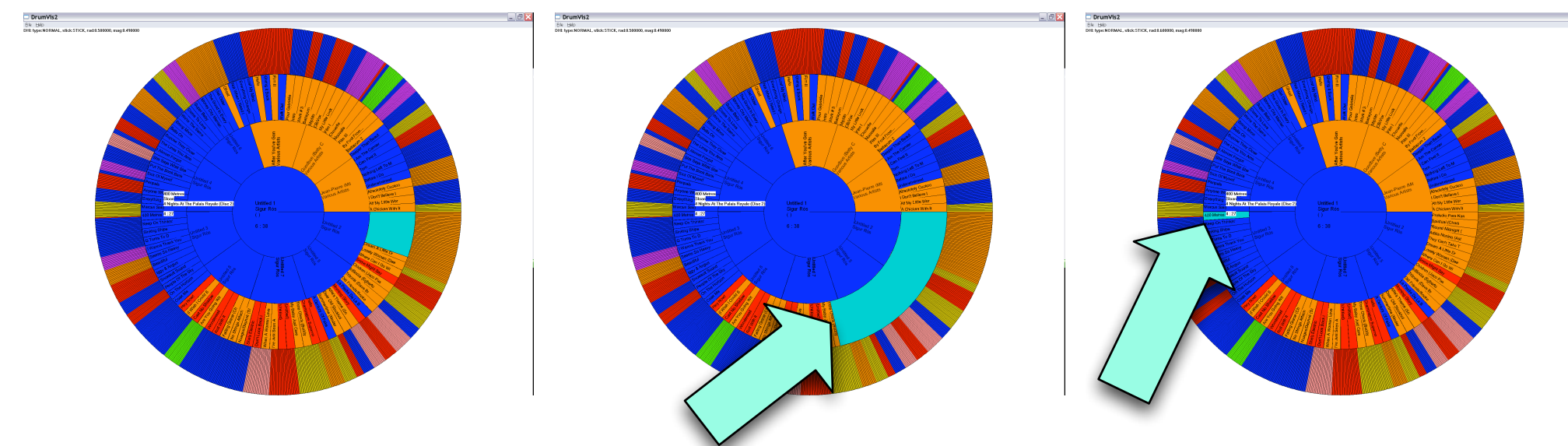
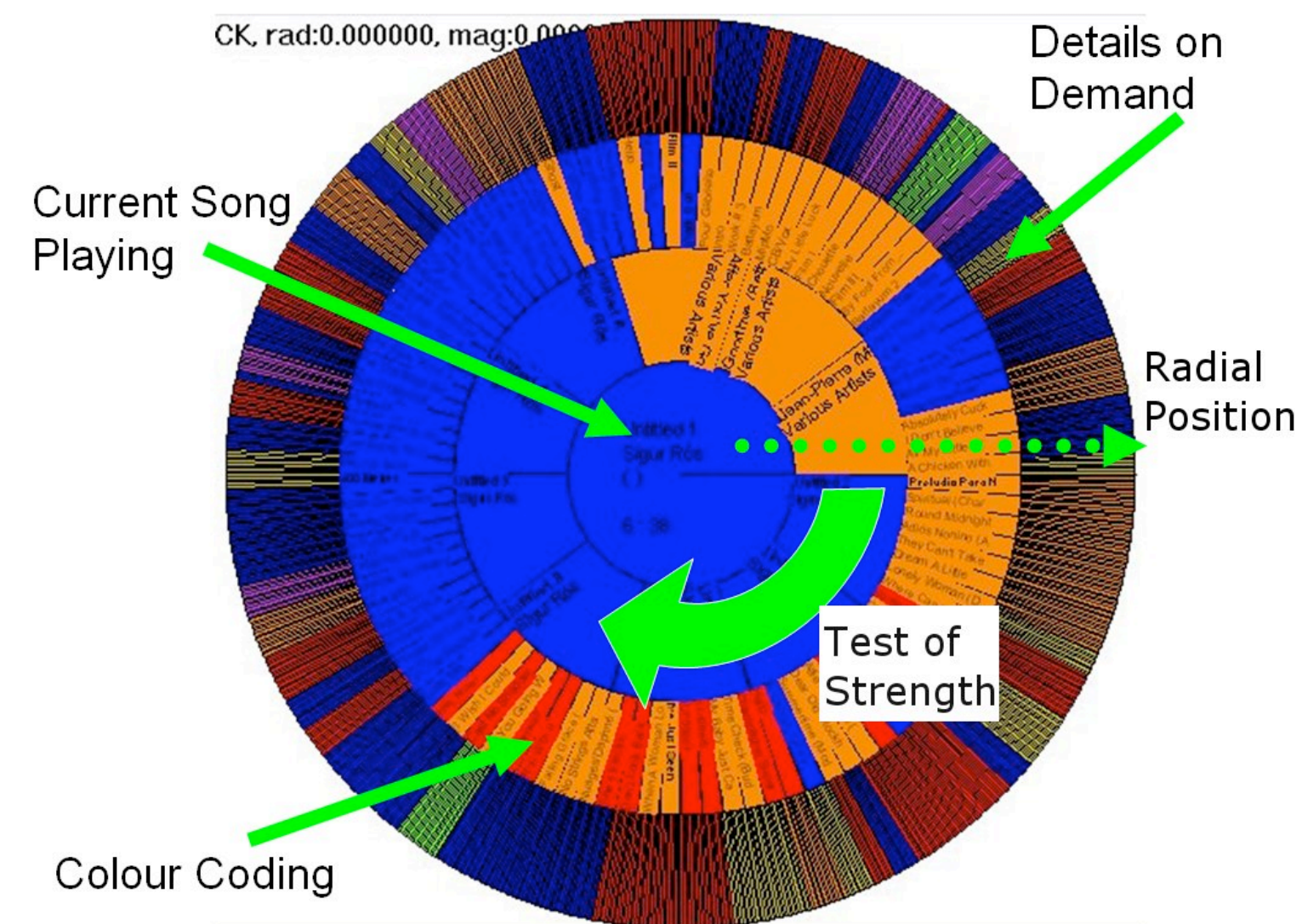
Fuzzy Navigation: An imprecise selection mechanism that leverages minor randomness to promote navigational variety.

Abstract

A traditional music library system controlled by a mouse and keyboard is precise, allowing users to select their desired song. Alternatively, randomized playlist or shuffles are used when users have no particular music in mind. We present a new interface and visualization system called Strike-A-Tune for fuzzy music navigation. Fuzzy navigation is an imprecise navigation approach allowing users to choose preference related items. We believe this will help users to play music they want to hear and re-discover infrequently played songs in their music library, thus combining the best aspects of precision navigation and shuffles. We have designed an interface using an electronic drum to communicate with a visualization and playback system.

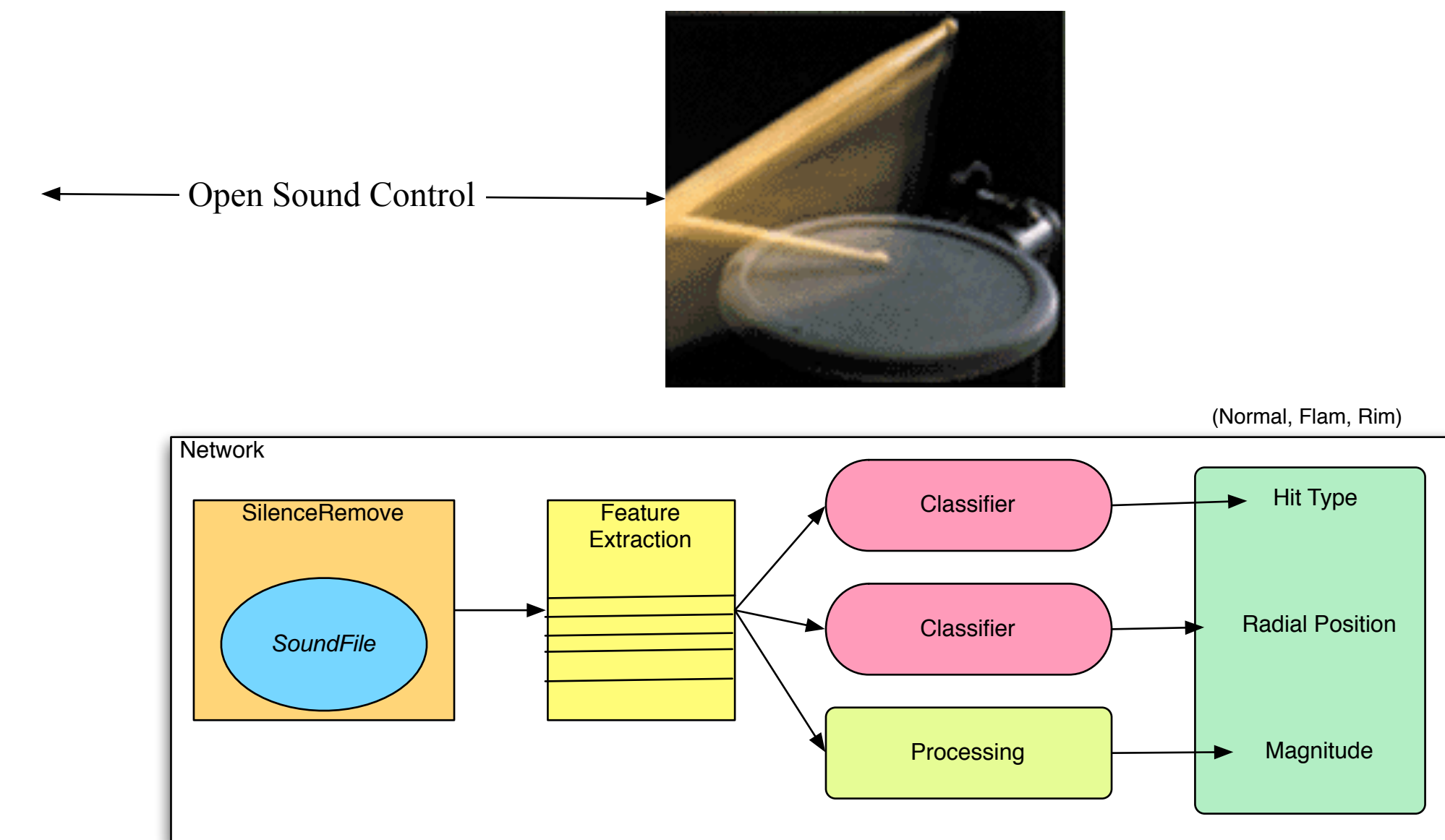


Disk Visualization



Three steps in the song highlighting processing. When a selection strike occurs, the selected song's detailed information is displayed and a blue bar animates around the selected ring until it arrives at the chosen song (ii). The chosen song is then highlighted (iii).

Drum Interface



The features include Root Mean Square, Temporal Centroid, Spectral Centroid, Spectral Kurtosis, Spectral Skewness, Spectral Rolloff, Spectral Flux, Subband analysis, Wavelet Coefficient Averaging and Linear Predictive Coding.

Future Work

- User Studies
- Speed Improvements
- Audio Similarity

Project Goals

- "Fuzzy" Navigation
- Physically and Visually Intuitive
- Large Libraries