Motivation

- Digital audio collections are growing constantly
- Thousands of songs on portals and mobile devices
- Getting an overview of collections is difficult
- We miss more adequate ways of accessing music than merely scrolling through directories or hierarchical structures

Audio Features

- Features computed directly from audio files, e.g. mp3, wav or CD
- Using psycho-acoustic models
- Statistical Spectrum Descriptor (SSD)
- Rhythm Histogram (RH)
- Rhythm Patterns (RP)
- Range of different visualisations

(Mobile) Map Based Access

- Music analysis using audio features
- Map based access for different platforms, similar music is clustered, forming islands
- Providing new interaction methods with the music collection using a touchscreen
- Enabling access to large music collections on devices with limited means of interaction and storage capacities

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Music Maps on Different Platforms

Interaction Methods

After startup, the music map is shown...

... where a path can be drawn using the touchscreen.

Selecting songs along the path, PocketSOM creates a playlist ...

... which can be edited manually and ...

... finally played locally or sent to a remote audio player.

Accessing Large Collections

Selected Features

Remote Control allows to send the created playlist with PocketSOM directly to a player located on a remote device.

Streaming is a simple way to bypass local storage limitations by streaming music from a remote server. The map data can be loaded from a remote server.

Zooming helps to get a more detailed view on the music map on small displays, and a more precise selection of music is possible.