Overview

- Synthesis by selection of sound units from a corpus and concatenation
- Based on descriptor analysis and temporal modeling of their evolution
- Local selection in lower-dimensional projection of descriptor space
  - unit closest to a target point
  - random selection of units within a radius
- Can be seen as content-based granular synthesis

Motivation

- Work with all the nuances of real sound
- Large sound databases exist, ready to use
- New method → new sound creation
- Data-driven vs. rule-based approach

Implementation

- Patch for Max/MSP with FTM/Gabor/MnM, see http://www.ircam.fr/ftm
- Model–View–Controller architecture, semi-dynamic, UML-documented
- Distributed under GNU GPL on http://concatenative.net

Applications

- Interactive descriptor-based exploration of sound databases (browsing)
- Gesture-controlled synthesis in optimised sound space
- Audio-controlled synthesis (mosaicing)
- Data-driven drumbox
- Expressive speech synthesis
- Texture synthesis (ambiences, soundtracks)