

***Musique Concrete Database-based Gesture Engine***

2007

**Status:** Personal (Compositional) Use; In Preparation For Public Release

**Description:** Using data about a bank of *concrete* sounds, a composer can specify vague or specific ideas for musical gestures; the engine then finds appropriate combinations of sounds to realize the gesture.

**Discussed in:** "Realizing Musical Gestures with the Computer: Paradigms and Problems" in *Current Musicology*, Volume 67 & 68, 2002.

**Future Plans:** The final product will consist of 4 modules: a graphic “score” user interface, the core gestural engine (the database), an export module to export mixes to ProTools, DP, or other mixer formats, and a module to accomplish the analysis and data entry for a bank of sounds automatically. Currently, the core module has been programmed (funded in part by a grant from Harvestworks in NYC), as well as an export procedure to generate files for the Ardour DAW.

**Compositions that involve(d) the use of this software:**

*Concrete SoundSpace, Harvest Kitchen, Sand*

***Sand interface***

2003-2005

**Status:** Publicly Available

**Description:** A MAX/MSP interface allows listeners to freely explore the composition *Sand*, as they would a work of sculpture or architecture.

**Discussed in:** "An interface for ‘flat music’" in *Organised Sound*, Volume 9, 2004.

**URL:** <http://music.columbia.edu/~chris/sand>

**Future Plans:** The interface is available on the web, in a “beta-test” development stage.

**Compositions that involve(d) the use of this software:**

*Sand*

***MicroMIDI Converter***

2004

**Status:** Publicly Available

**Description:** Converts a Csound-like Score into a MIDI file, which, using MIDI pitch bends, realizes music in any imaginable tuning system.

**URL:** <http://music.columbia.edu/~chris/micromidi>

**Compositions that involve(d) the use of this software:**

*Abstraction 6, Balladei, In Memoriam Lou Harrison, The Stuffed Ones (suite)*

**Canon-Maker**

2003

**Status:** Publicly Available**Description:** Given a melodic line, and minimum and maximum distances between voice entries, find any and all possibilities of the line in canon with itself or an inversion of itself that obey specified harmonic rules.**URL:** <http://music.columbia.edu/~chris/canons>**Compositions that involve(d) the use of this software:***Movement for String Orchestra***LISP/CMIX Virtual Instruments**

2001-Ongoing

**Status:** Personal (Compositional) Use**Description:** A score is written in a Csound-like format. Then, for each single score-specified “note”, a complex CMIX score is generated by LISP routines in order to create rich, lively, and interesting synthetic timbres.**Compositions that involve(d) the use of this software:***Abstraction 6, Arc of Infinity, Mergurs Ehd Fflewewh Bq Nsolst, Sand***LISP Serial Construction Tools**

2000-Ongoing

**Status:** Personal (Compositional) Use**Description:** Tools developed in LISP to manipulate pitch-class-based compositional designs.**Compositions that involve(d) the use of this software:***Abstraction 6, Arc of Infinity, Balladei, Motet, Quiet Play of the City's Busy Lights on my Grandmother's Bedroom Ceiling, Sacramento Mornings, Sand, SL III: Trio, The Stuffed Ones (suite), Timelash***L-Systems Improvisor**

1999

**Status:** Offline for Revisions**Description:** Given a scale, an elaborate tree of raga-inspired ornamentation rules is built around the scale. A random walk is then taken through the tree to create an “improvisation.”