Hyperscore

A Graphical Sketchpad for Novice Composers

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What is Hyperscore

- It is a graphical computer-assisted composition system for users with limited or no musical training that takes freehand drawing as input, letting users literally sketch their pieces.

Motivation of Hyperscore

- Design a graphical environment
- Develop a musical algorithms for automating the compositional process
- Design an appropriate interface for humans to interact with the machine

Authors

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Fundamental idea of Hyperscore

- Two key creative activities without musical training
  1. Compose short melodies
  2. Describe the large-scale shape of a piece

Compare with other research works

- CyberBand:
  1. Designed by IBM
  2. Has the most similarity between them
  3. CyberBand uses riffs, thematic fragments
  4. It does not use drawing as a method to combing musical materials and lack visual freedoms

System Structure

- Motive windows
System Structure

- Sketch window

Graphical harmony representation

- A single chord can be easily placed
- Harmonic progressions can be shaped by a central line
- Four harmony style:
  -- none
  -- diatonic
  -- major/minor
  -- fourths

System Structure

- Line editable features
  1. Reshape the line
  2. Cutting and pasting
  3. Changing instruments
  4. Increasing and decreasing volume
- Line integration on the sketch window

Graphical harmony representation

- depicts areas of harmonic tension and resolution
- indicates a change in key or modulation
Future work

- Make it more useful to professional composers as well as novices
- Add a computer pen to assist us
- Add feature that can reverse the procedure of Hyperscore

Question?