Visualizing Choreography
Anwar Hahn | Kseniya Charova | Michelle Gumport
CS448B Fall 2012

Problem

Choreography is difficult to encode because it requires the simultaneous visualization of both shape and motion.

Some past attempts consist of:
- messy scribbles
- painstaking small-multiple PPT slides
- confusing technical diagrams

Motivation

When designing formations, choreographers must keep track of

  position, orientation, direction of movement

for each dancer and each formation. Nested formations involve many moving parts, and it is hard to figure out where individual dancers will end up in a given formation without experimenting first.

Without knowing the placement of individual dancers it is nearly impossible to teach choreography.

Results

Approach

Javascript API that simulates groups of dancers moving along shapes over time with annotation and tracking

We currently support:
- movement along lines and arcs
- transitions between shapes
- transfers between groups of dancers
- individual dancer tracking
- play, pause, reset

Future Work

Extend functionality:
- Bezier curves
- Fine-tuned time control
- Translation, rotation, scale for all shapes
- Collision detection
- Sophisticated GUI for interaction controls