Using Flash to develop interactive listening guides for online distribution

Scott D. Lipscomb, *Northwestern University*
Marc Jacoby, *VanderCook College of Music*

Navigating through music ... The Bubble Graph

- Commercial Products
  - CD TimeSketch
- QuickTime
- Director
- Flash
  - *Stream* sync mode
  - Sound object using ActionScript
- BubbleMachine™
  - Lipscomb & Jacoby

CD TimeSketch (Pro)

- Musical form
  - Rolling Stones – *Sympathy for the Devil*
  - Blood, Sweat, & Tears – *Symphony for the Devil*
- Lyrics/libretto
  - Yes – *Close to the Edge*
- Musical texture
  - Beach Boys – *Good Vibrations*

Internet Player

QuickTime Pro

- QuickTime: menu
  - Beach Boys – Good Vibrations
- Director: cuePoints
  - Beach Boys – Good Vibrations

Flash

- Stream sync mode using
  - basic ActionScript
    - ex: *Hands Down* by Dashboard Confessional
- BubbleMachine™
  - OOP ActionScript
    - Sound object
      mySound = new Sound();

BubbleMachine – Goals

- Flash-based (vs Director or Visual Basic)
  - cross-platform
  - cross-browser
- limit file size for online dissemination
  - streaming MP3 vs. embedding
- interactive tools to create bubble graphs
  - fine resolution (to ms)
- reusable player with varying content
- two modes
  - play only
  - create/edit

BubbleMachine™ - issues

- accessing sound file
  - inability to navigate file structure
- sound file playback functions
  - mySound.stop();
  - mySound.start();
  - mySound.start(34.235);
  - mySound.volume();

BubbleMachine™ - issues

- creating markers
- array (add, delete, edit)
- placing array data into listbox & sorting
- fine resolution (to ms)
  - CTL/Command, SHIFT, Alt/Option
- pre- and post-roll

BubbleMachine™ - issues

- slider to navigate within sound file
- updating `currentLocation` textbox
  - formatting numeric output
- realtime bubble graph generation using data in an array
- Saving data (security)

Contact Info

- Scott D. Lipscomb
  lipscomb@northwestern.edu
- Marc Jacoby
  mjacoby@vandercook.edu

  download from:
  http://faculty-web.at.northwestern.edu/music/lipscomb/bubblemachine/