Sonification Sandbox: A Toolkit for Auditory Graphs

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Purpose

A simple cross-platform toolkit that allows users to immediately turn their existing data into complete, exportable auditory and visual graphs.

Key Features in v3

- Cross-platform Java/JavaSound
- Data import from Excel, CSV
- Spreadsheet for data entry/edit
- Context Cues can be added
- Mappings easily specified
- Interactive listening
- Export Auditory graph
- Visual graph of data
- Multiple axes, lines
- Progress cursor marks current location in the graph

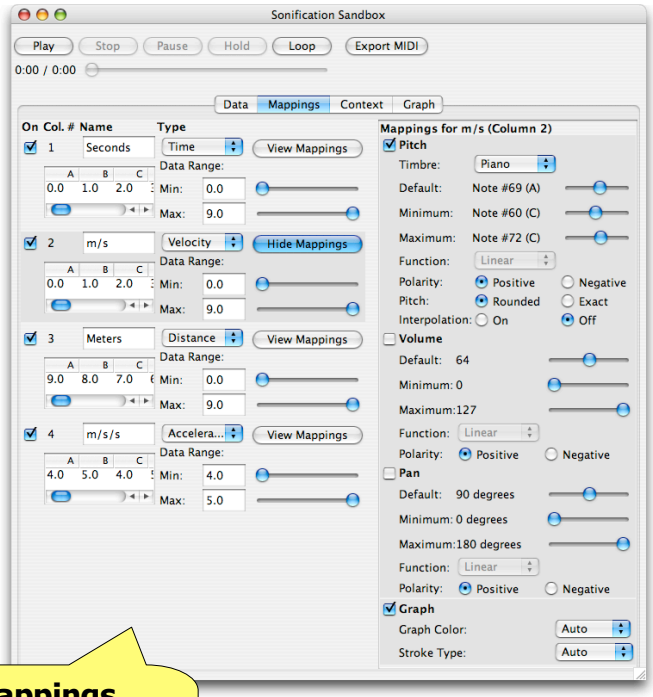
Credits
Bruce Walker
Mandy Lowey
Josh Cothran
Mansoor Babar
Barry Flemming

Inspirations
Listen, MUSE, MUSART (UCSC)
Sound Grid (Upson)
Sonification Toolkit (Kramer)

Download:

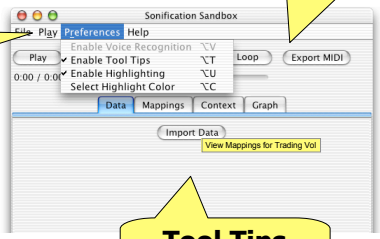
http://sonify.psych.gatech.edu/research/

Open Source Extensible



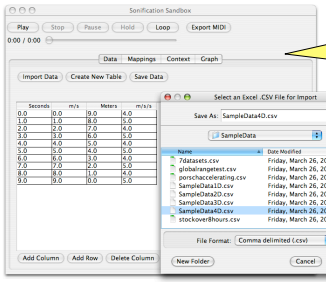
Mappings
Easily Specify Changes in Timbre, Pitch, Volume, Pan, and Line Attributes
Sliders provide default bounds

Voice Recognition
Interact hands-free
Using IBM ViaVoice



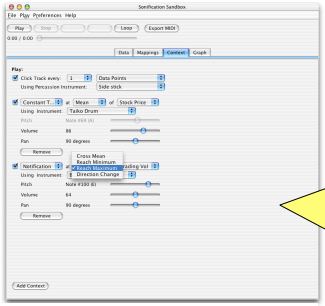
Export MIDI
Share an auditory graph

Tool Tips
Makes learning quicker

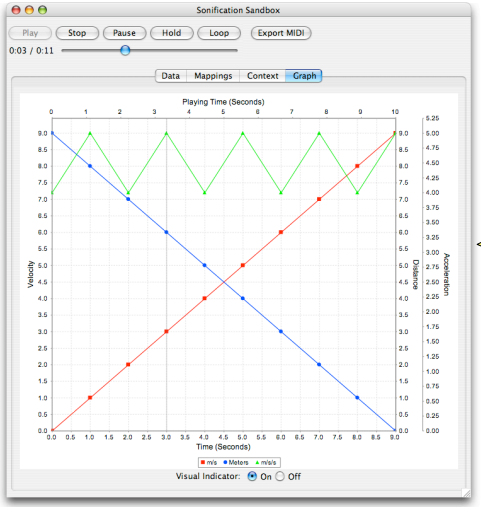


Cross PlatformJava/JavaSound
Tested on Windows, Mac OS X, Linux, Solaris

Data Spreadsheet
Enter/Edit Directly
Add/Delete Rows, Columns
Import from File (Excel, CSV)
Change Data Labels



Context Cues
Click Track marks time
Constant Tone or Notification at Minimum, Maximum, Mean or Change of Direction for any data field



Visual Graph
Select Line Color, Type, and Labels

Legend corresponds to data labels
Multiple axes, lines

Animated "cursor line" indicates which sounds are being played

Interactive Play
Pause, Loop, "Hold"
for better listening and data inspection