

Embodied Controls for Mixing and Composition

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Digital Audio Workstations

MusicRadar.com: “The 16 best DAW software apps in the world today”



#1 Image-Line FL Studio



#2 Ableton Live



#3 Apple Logic Pro



#4 Cockos Reaper



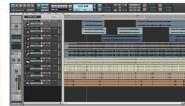
#5 PreSonus Studio One



#6 Steinberg Cubase



#7 Propellerhead Software



#8 Cakewalk Sonar



#10 Renoise



#11 MOTU Digital Performer



#12 Magix Samplitude



#9 Avid Pro Tools



#13 Apple GarageBand



#14 Acoustica Mixcraft Studio



#15 Sony Creative Software Acid



#16 MuTools MuLab

The Problem

*“I find all the clicking and computer-based activity... to **drain** my creative energy and make the process frustrating.”*

- Steve Cowan

The “Multi-track Recorder” Metaphor

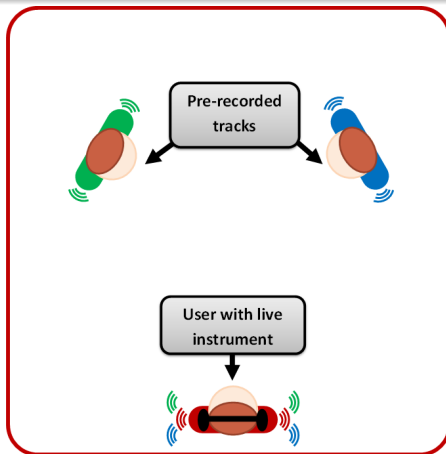


http://en.wikipedia.org/wiki/Mixing_console

The Motivation

What about a metaphor that allows a single musician to
compose by playing, mixing and recording
his instrument simultaneously?

The Band Performance Metaphor



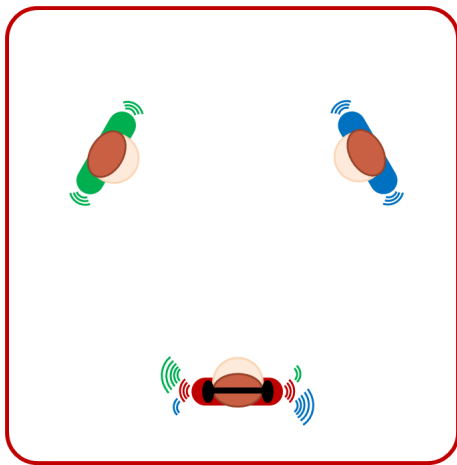
#1: Dynamic Volume

#2: Dynamic Reverb

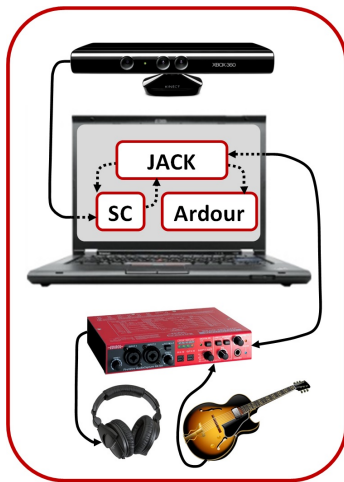
#3: Mix Control

#4: Track Panning

#5: Musician Spatialization

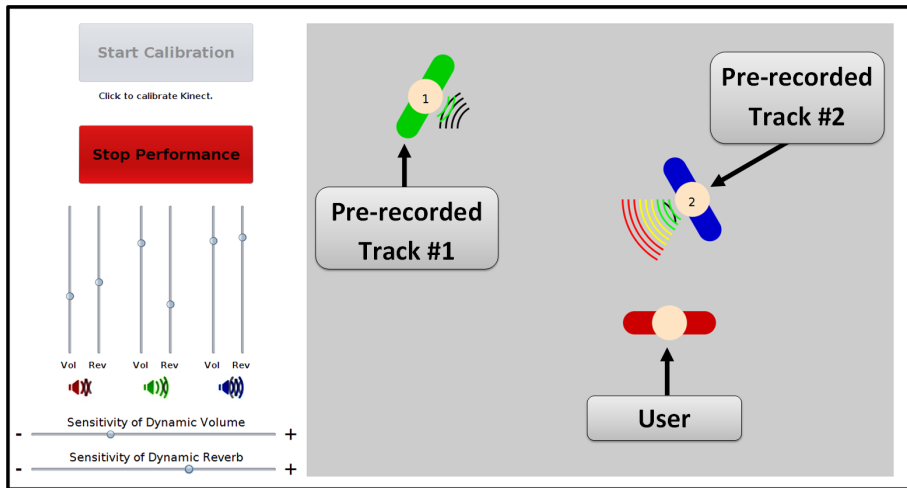


System Configuration

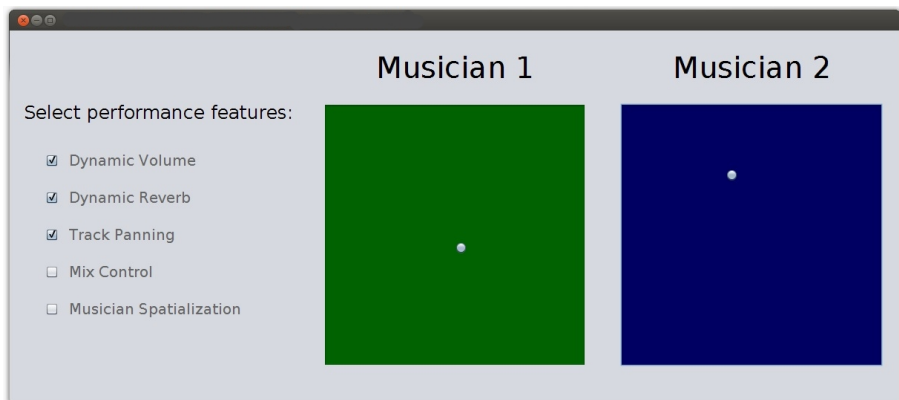


— Wired Connection
..... Software Connection

Graphical User Interface - Main



Graphical User Interface - Secondary



Participatory Design

- Collaboration with Steve Cowan (Musician/Composer/Teacher)
- Initial prototype included only 3 features
- “Cooperative Prototyping” technique
- Weekly sessions lasted 14 weeks
- Post-session written report

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"I was able to get some great solutions for these issues without having to do anything other than play my music in real time, and move my body a bit."

- Steve Cowan

"The features that this system offered were fun, useful, and helped me come up with new musical and production ideas."

- Steve Cowan

Criticisms

- Lack of precise, numerical representation
- System currently supports 3 tracks only
- Some features not suitable for seated musicians

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Future Work

- Investigate alternative gestures for seated musicians
- Broader formal user studies
- Support additional tracks
- Investigate additional features

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Try it out for yourself!

Download package and instructions at:

www.github.com/delshimy/REMC

Send questions or comments to:

delshimy@gmail.com

Thank you!

Questions?