Playful Mobile Jam Session

Jari Kleimola, Sami Oksanen and Vesa Välimäki, Aalto University, Espoo, Finland

Aalto University
School of Science
and Technology

SAME project - Sound And Music For Everyone Everyday Everywhere Everyway
http://www.sameproject.eu

SAME

Motivation

Modern mobile phones are

- powerful computing devices
- rich multimodal interaction devices
- carried everywhere in the pocket

Goals

(A) Use mobile phones for music making

- Mobile musical instruments
- Play solo or with friends
- Active music listening

(B) Use mobile phones for fun

- Sounding toys
- Interactive sound generation

Research Ideas

(A) Mobile music making

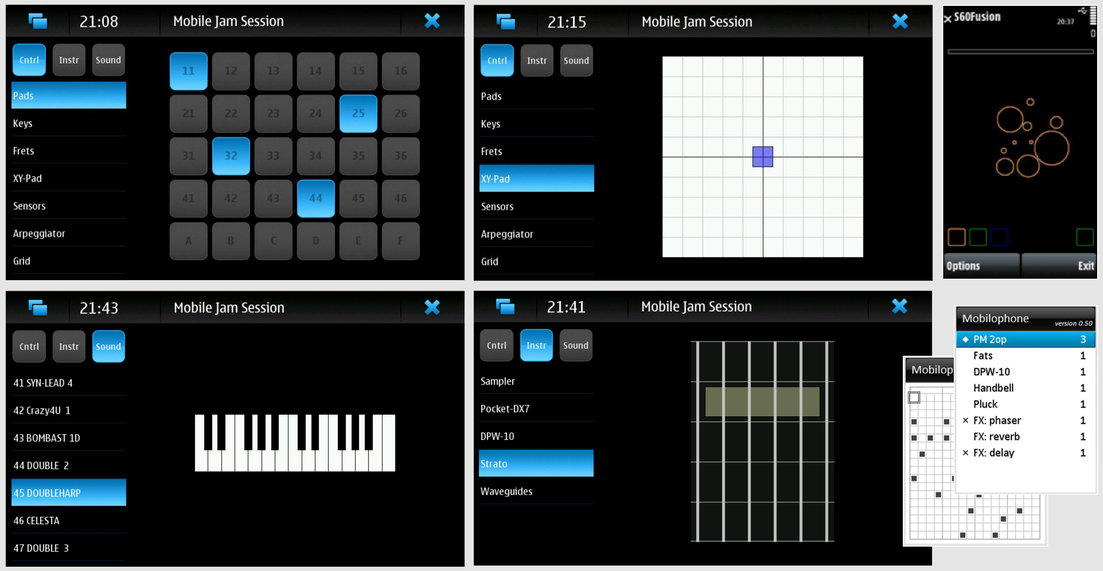
- Explore novel and established sound synthesis techniques in mobile environment
- Implement mobile musical applications by mapping multimodal input to synthesis parameters
- Investigate multiuser scenarios

(B) Mobile sounding toys

- Develop novel engine sound synthesis methods
- Explore multimodal gestures in synthesis control
- Investigate interactive applications on a mobile platform

(A) Mobile Jam Session

Try these applications yourself !



(B) Mobile Sonic Playground

Accelerometer data is collected for research purposes, you can participate by asking from staff

Results

Mobile sound synthesis/interaction framework

- reusable and extendible library for building musical applications
- efficient sound synthesis methods for musical synthesizers

Mobile musical applications

- instruments and sequencers
- sonic mediaplayer control

Mobile sounding toys

- Two different virtual toys: car and helicopter
- All sounds are generated in real-time in mobile terminal

Conclusion

- Modern mobiles have more synthesis power than classic 80's synthesizers
- Mobiles work best as novel controllers and in sequencing applications

References

- The results have been presented and published in scientific conferences (DAFx'09, SMC2010), journals (JMUI) and workshops (eNTERFACE'09)

Acknowledgement

- The SAME project is funded by the Seventh Framework Programme (FP7) of the European Commission DG INFSO Networked Media Systems Unit

Copyright (c) 2010 Jari Kleimola, Sami Oksanen and Vesa Välimäki
This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/3.0/ or send a letter to Creative Commons, 559 Nathan Abbott Way, Stanford, California 94305, USA.