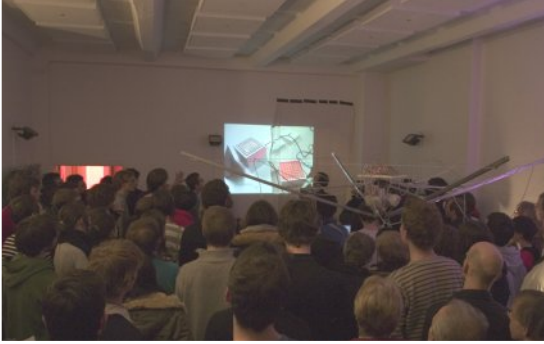


Presentation Musical Interfaces 02/08/2007



Supported by know-how from Native Instruments, students from FH Potsdam (technical college) developed musical interfaces to work with NI sound synthesis software. Professors Boris Müller and Reto Wettach hosted the class in their "Interface Design" study course, with guest lecturers from Native Instruments and inspiration from varsity REAKTOR artists such as Tim Exile. Altogether, ten projects were built by student groups and could be experienced on Native Instruments' premises at the presentation on February 8th, 2007.

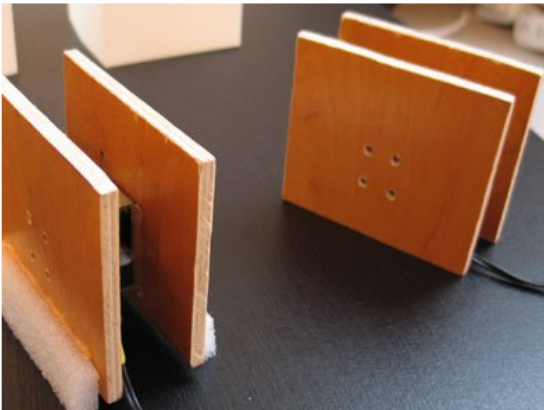
Link: http://incom.org/code/workspaces/workspace_anzeigen.php?5,477,17,0,0,499



Klangwiese

[Raiko Moeller, Jochen Fuchs]

With a distinctive naturalistic approach, this installation utilizes photoelectric sensors to play epic sounds from different Native Instruments synthesizers as visitors brush across the (fake) flowers. Different sounds can be selected via a joystick on the side of the installation.



MC Hammer 2.0

[Marcus Paeschke]

Reversing the approach of all the other interfaces presented here, this installation translates beats composed in REAKTOR into the hard, physical world by playing acoustic percussion instruments with small, computer-controlled hammers. The hammers are built into little excitors that can be placed on the surface of any resonating body.



Red Eyes

[Roman Jäkel, Omer Yosha, Adam Danielsson]

Aiming at creative accessibility for non-musicians, this project assigns a certain musical identity to different objects, according to their specific weight. As the objects are placed on the interface, they trigger sample loops or repetitive musical phrases in REAKTOR. Both the material and its musical parameters – i.e. tuning, timbre, etc. – are selected according to the predefined "identity" of the object.





Music Pencil

[Daniel Klöhn, André Knörrig, Desirée Sauter, Till Savelkoul, Sebastian Spiewok, Klaus Zimmermann]

A little reminiscent of Iannis Xenakis' UPIC-system from the late 1970s, Music Pencil takes the attributes of users' drawings – direction, speed, pressure, rotation of the pencil – to control epic, slowly evolving sounds generated in REAKTOR. The system requires some learning, if intentional control is the goal of playing this interface, but the user is rewarded with great sonic possibilities at very little effort.



Articulated Paint

[Daniel Klöhn, André Knörrig, Desirée Sauter, Till Savelkoul, Sebastian Spiewok, Klaus Zimmermann]

Using the same interface as Music Pencil, Articulated Paint makes musical expression accessible for non-musicians by allowing them to shape the parameters of a predefined composition via the visual interface.



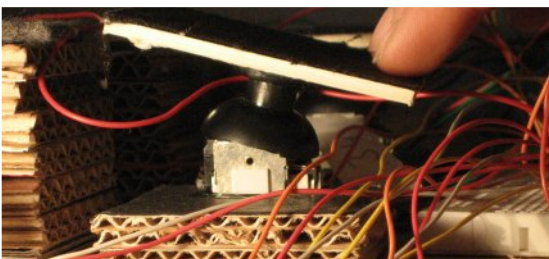
Tactiles

[Veronika Ebermann, Vanessa Schomakers]

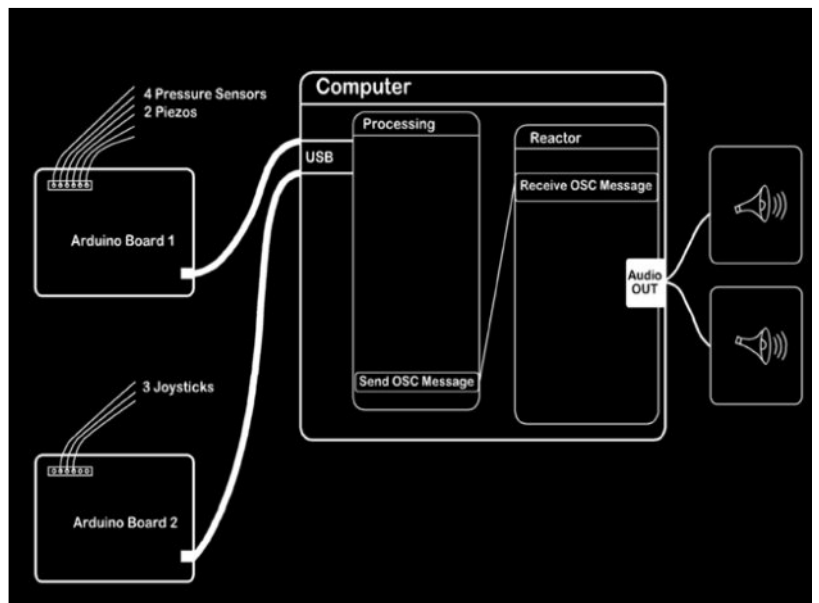
As a reference to the strong haptic impression most acoustic instruments make on their players, this installation offers different surface materials for underlying sound triggers that are connected to REAKTOR. The feel of different materials such as wood, sandpaper, and rubber induces a certain user behaviour triggering the sounds: Wood suggests knocking, sandpaper grinding, and rubber, well, rubbing. Thus, visitors can learn something about how material can shape sound even if it is not used for resonance.



REAKTOR ensemble



Mechanical sensors



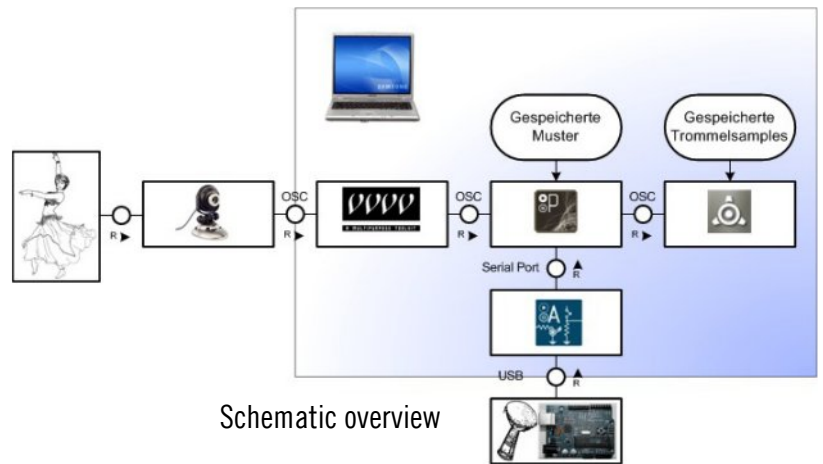
Schematic overview



Belly Dance Drummer

[Matthias Löwe, Susann Hamann, Tino Truppel]

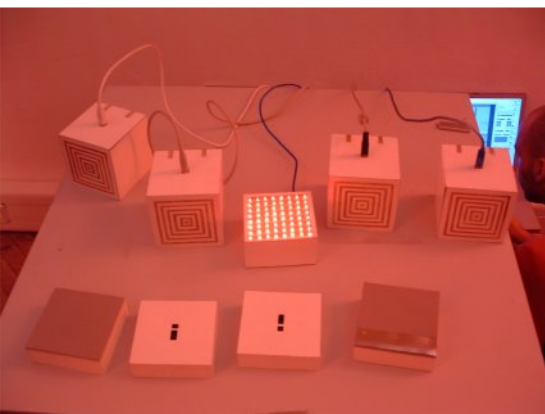
As a solo performance instrument, this project allows the dancer to accompany herself with oriental drumloops. A camera picks up the image of the dancer, and motion tracking software is connected to REAKTOR to enable realtime matching of moves and music.



Scratch Pad

[Fabian Brunsing]

Scratch Pad consists of a pressure sensitive touch pad with four sound buttons and a record function, merged into a portable handheld MIDI controller. Clapping the touch pad triggers a sound, effects can then be controlled via hand movement on the pad. Pressing the record button while performing records the actions and automatically loops them upon release of the button.



Fox in the box

This installation is essentially a live-composition tool for collaborative musical work, consisting of four cubes and four boards that can be placed on top of each other to play back samples in REAKTOR and control their sonic parameters. A matrix of red LEDs displays status information on what is going on in the system.



Mouth Pieces

Mouth interaction is strong with acoustic instruments, but does not play a big role in digital music. To gain back some of this lost embodiment of musical expression, the installation allows for oral control over seven different digital instruments designed in REAKTOR.