

MSP Power Users' Symposium
Electric Spring 2017
25th February @ 12.00PM
Creative Arts Building CAM G/01

**The Pain and Pleasure of Using Max and Live as an Environment for an
Audiovisual Composition**

Tadej Droljc

I would like to present various pros and cons of using Jitter, Max for Live and Live to create an audiovisual environment where the communication between sound and image is bidirectional and it happens in real time while it also supports an offline rendering. The Max-Live system was created especially for my compositional needs and in my work the line between technical and creative processes is completely blurred. Therefore the talk will focus on the creative-tech paradigm that exists as a feedback loop between “creating tools for the realisation of compositional ideas” and “playing with tools to discover compositional ideas”.

Tadej Droljc is an interdisciplinary artist who works in the field of electronic music, audiovisual composition, sound for picture and intermedia art. His work mainly consists of composing, sound design, sound visualisation, image sonification, programming musical and audiovisual instruments and effects or designing and programming systems for interactive installations. At the moment he is focusing on non-hierarchical audiovisual composition based on real-time audiovisual objects where the lines between mentioned segments of production are completely blurred. His audiovisual research is being funded by Slovenian Ministry of Culture and University of Huddersfield's Centre for Research in New Music (CeReNeM) where he was awarded Dennis Smalley scholarship for electronic music and where he's currently pursuing a doctorate.

Creating Experimental User Interfaces with the Max Physics Engine

Maria Gkotsampougiouki

The desire for predictable behaviour and the hardware instrument paradigm has led to user interfaces of commercial music software being primarily populated by virtual knobs and sliders. While it is understandable how these control elements in their simplicity have been so successful, there are certainly numerous directions one could take when designing interfaces for software instruments.

In this talk one of these possible directions will be explored; more experimental, less predictable, more playful user interfaces, created with the Max physics engine will be presented and their impact on the sound and on the way the user engages with the instrument will be discussed.

Maria is a composer and a programmer. She currently lives in Berlin and works as a software developer at Ableton.

Feeling Sound: Re-considering the physical in sound practice

Joanne Armitage

Sound is grounded in vibration. It is a corporeal form/practice in its conception, production and reception. Often directed by a kinaesthetic motion - a movement of an object in space, moving air around space. Sound is actuated and propagated through materials, through air, through and mediated by you. You hear it when it reaches your body. It enters you and is interpreted by you. Sound is physical - sculpted, formed and received.

My practice-based research is interested in developing music installations and performance systems for experiencing sound in a more physical way. In this talk, I will discuss the development of and reflect upon several works that explore the relationship between human perceptions of the sonic and somatic to create augmented experiences of music. I will propose approaches to incorporating additional physical dimensions of sound and consider how we can employ the body as a vessel to channel expression and intensity.

Joanne is a researcher and artist working with sound, embedded systems, haptic technologies, digital media and interaction design. She is a tutor on the New/Digital Media MA programme in the School of Media and Communications, University of Leeds. At this time she is completing a practice-based PhD in the School of Music. This work is a practice-based investigation of haptic technologies in computer music performance, which has involved developing systems for performing and listening with bespoke arrays of vibrating motors.

Active as a live coder and synthesist, Joanne is an emergent artist who performs internationally within the Algorave and experimental electronic/techno scenes. She has delivered numerous workshops and talks on live coding at universities and institutions in the UK and USA. Joanne works with groups including Orchestra for Females and Laptops (OFFAL) to promote gender diversity in music technology practice.

Introducing Framelib

Alex Harker

Real-time audio programming environments (such as Max and SuperCollider) are commonly based on a model of signal processing that deals with continuous streams of audio, dealt with in equally-sized blocks of samples (for reasons of efficiency). This assumption works well for many purposes but is ill-suited to spectral processing, or granular applications where the contents of each grain should be considered as a whole. Thus, working with spectral and some granular processing using native approaches in Max/SuperCollider etc. is often limited, inelegant and involves fitting routines designed primarily to deal with streams to a frame-based scenario.

Framelib is an extensible C++ library that can be bound to a real-time audio programming environment (such as Max) which is designed to deal with audio in frames (meaningful blocks), which can be processed as a single item. These frames can be arbitrarily and dynamically sized and timed, with minimal need for the programmer (writing either with the library or for it) to consider underlying low-level issues such as memory allocation or scheduling.

What does all this enable? The overall aim of Framelib is allow easy access to advanced and sophisticated spectral and granular processes (such as multi-resolution FFT processing, content-based granular processing or advanced spectral analysis). This talk will demo the software in its current form within Max.

Alex Harker is a composer, programmer and a senior lecture at the University of Huddersfield. As a composer he works across instrumental and electronic media. As a programmer his work includes low-level DSP and utilities for general usage, along with work focussed on realising his musical ideas.