

Modality Workshop

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ABSTRACT

The Modality Toolkit aims to improve and facilitate the use of digital technology within interactive sound art and music. Written in SuperCollider, it simplifies the creation of individual electronic instruments by combining custom sound engines with off-the-shelf controllers. To this end, a common code interface, `Mkt1`, is used to connect controllers from various sources and protocols. Currently, HID and MIDI are supported; GUI-based interfaces can be created on the fly from interface descriptions.

In the workshop, the toolkit is introduced and used by participants to lay out their control ideas and play music with each other.

1. INTRODUCTION

The proposed workshop accompanies the paper “Advances in Modality” and introduces the Modality toolkit.¹

The name *Modality* arose from the idea to investigate the creation and extensive use of modal interfaces. One particular strength of such modal interfaces is that they allow fast changes and therefore a broader variety for sonic discovery. This can be of benefit when, for example, improvising with musicians playing acoustic instruments. Out of this arose the question on how HCI interfaces can be both conceptualised and actually built, in which a small set of physical controls are used for numerous purposes. We contend that integration of such on-the-fly remapping features helps to create flexible instruments that are powerful yet interesting and therefore rewarding to play and listen to.

2. WORKSHOP CONTENT

The concept of the workshop is to be as hands-on as possible. Participants will learn how to use the Modality toolkit, create their own instruments, and play together with their creations. Under the guidance of the Modality Work Group, each participant will be able to work on his or her own instrument, and use and play it along with the other participants.

In detail, the outline of the workshop is as follows:

¹ <http://modality.bek.no>



Figure 1. A participant gets help by members of the ModalityTeam at a public workshop at STEIM in April 2014.

1. brief introduction to the Modality toolkit,
2. an installation party, in which the toolkit is installed (takes 5-10 minutes),
3. mapping out devices (i.e., writing description files for them), in case the devices brought are not yet specified in Modality (contributing to the library of known devices),
4. accessing devices and using data from devices,
5. creating a basic sound-controller setup,
6. first show-and-tell, performing with the system
7. working out event logic with the goal to create meaningful and interesting relationships between controller data and audio processes,
8. swap controllers and share sounds between participants,
9. adaption of the setup and manipulation of data streams,
10. performing with the system

3. INTENDED AUDIENCE AND HARDWARE TO BRING

Workshop participants should have basic knowledge in programming sounds in SuperCollider, e.g. with `SynthDef` or `Ndef`. This can be, however, low-profile; having worked through one of the SuperCollider tutorials on how to make sounds should be enough.

Additionally, each participant is required to bring

- at least one MIDI or HID controller such as a game pad, a joystick or a fader box,
- a laptop with a recent version of SuperCollider installed,
- a mini jack to mono jacks cable to connect the laptop to a mixing desk, and
- a pair of headphones.

The hosting institution should provide a stereo pair of speakers including amplification and a mixing desk.

4. WORKSHOP LEADERS

The ModalityTeam, an international and transdisciplinary group of people that see themselves as users and developers for SuperCollider, meets at regular intervals to work on the library, discuss issues around music performance and composition, and perform in self-organised concerts.

The Modality team is (in alphabetical order): Marije Baalman, Tim Blechmann, Till Bovermann, Alberto de Campo, Jeff Carey, Bjørnar Habbestad, Dominik Hildebrand Marques Lopes, Amelie Hinrichsen, Robert van Heumen, Hannes Hoelzl, Miguel Negrão, and Wouter Snoei.

The workshop will be lead by at least two members of the ModalityTeam.

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