Live Coding 101

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General info

length: +/- 3 hours (longer or shorter possible)

participants: Max. 20 people (preferably < 15)

ages: 12+

skills: no programming or musical experience required!

computer: Bring your own laptop and (wired) headphones

language: English (spoken & written, optional in Dutch)

system requirements:

- Mac:
  - OS X 10.11.6 or later
  - Intel Core i5 processor (or faster recommended)
  - 4 GB RAM (8 GB or more recommended)
- Windows:
  - Windows 7, Windows 8 or Windows 10,
  - 64-bit Intel or AMD multi-core processor (Intel Core i5 processor or faster recommended)
  - 4 GB RAM (8 GB or more recommended)
- Installed software:
  - Google Chrome (or Chromium based Web Browser)

Workshop description

Join this crash-course into the exciting world of live coding music for absolute beginners. No previous knowledge of programming required, only a desire to express yourself creatively! During this workshop you will be introduced to the livecoding environment Mercury. Mercury is a minimal and human-readable language focussing on quick expression in composition, performing and communication of livecoded music. Mercury is a great environment to get introduced to the amazing worlds of live coding, creative coding, algorithmic composition, electronic music and of course the Algorave scene! In this workshop you will learn how to generate different rhythms with algorithms and probabilities, play sound samples from the computer, how to make synthesized sounds and much more. You can change the code while it's running and hear the changes in real time.

In-depth description of Mercury

In Mercury, all elements of the language are designed around making code more accessible and less obfuscating for the performer and the audience. This motivation stretches down to the coding style itself which uses clear descriptive names for functions and a clear syntax. Furthermore the editor is restricted to 30 lines of code, keeping all code always visible. Mercury provides the performer with an extensive library of algorithms to generate or transform numbersequences that can modulate parameters over time.

Topics

- What is livecoding?
- How is it used by artists?
- What is Mercury?

Goals

Starter Goals

- Learn to play a single sample
- Change the timing of the played sound
- Add another sound
- Make a beat
- Make lists to change arguments in time

Intermediate Goals

- Learn to play a single synth
- Make a melody for the sound
- Make a rhythm for the sound
- Use functions to generate melodies and rhythms
- Add a rhythm through different speeds or randomness

Advanced Goals

- Introduction to algorithmic composition
- Combine functions to generate more complex melodies and rhythms

- Add effects-processing for sounddesign
- Modulate parameters of effects

Schedule (by approximation)

15 minutes :

- Introduction to livecoding
- Short demonstration

30 minutes :

- Syntax Explanation
- Play a single sound
- Work on starter goals

30 minutes :

- Play and explore possibilities with rhythms

15 minutes :

- Break

30 minutes :

- Make a melody for a sound
- Work on intermediate goals
- Use ring transformation methods to extend and change melodies/rhythms

45 minutes :

- Play and explore!
- Individual help
- Optional move to advanced goals

15 minutes :

- Wrap up
- Participants may show there creations

Technical Requirements

Sound:

- Speakers and Mixer (PA) with stereo-DI or mini-jack

Visual:

- Projector or screen with HDMI connection
- Flipover board and black (or colored) markers

Participants:

- Tables
- Chairs
- Power outlets on table

Consumptions:

- Coffee / Tea / Water
- Snack or lunch (depending on length and time of workshop)

Thanks to

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