Wubify.me

Corey Walsh + Yanni Coroneos

Introduction and Inspiration

Music today is often made with synthesizers

Large learning curve and/or monetary obstacles

Goals:

Improve accessibility and usability of existing tools

Explore new possibilities

through digital representation

Background

Mixers and Synths

Relatively easy to control, harder to set up

Algorithmic music generation software - SuperCollider

Powerful

Core Concept: Generators, Filters, and Amplifiers

Keep only the good parts

Mixers and Synths:

Mostly intuitive physical interface Good visualization of interconnections

SuperCollider:

Extremely powerful Mathematically rigorous Flexible

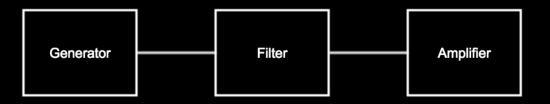
Skip the bad parts

Mixers and Synths:
Limited by physical space
Inflexible

SuperCollider:

Difficult to use requires coding
skills
Difficult to visualize

Concept



Digital blocks represent filters or generators

Signals "flow" across digital wires

Additionally:

The workspace is synchronized

A shared block library allows people to share building blocks

So what?

Sonic Functions as Objects

New paradigm of sound composition

Generators and filters replace individual notes

Topology becomes more important than sound

A Narrative With History

Old synth blocks can be added to

Stories can form around them

So what? Pt II

Real-time Collaboration

Public access introduces fluidity

Instant feedback

Integration with other sources

WAV upload

Arbitrary function blocks

But how?

Joint.js + Flocking!

Flocking: a declarative in-browser audio synthesis framework

Joint.js: an interactive graph construction UI library.

Development

It's all about representation

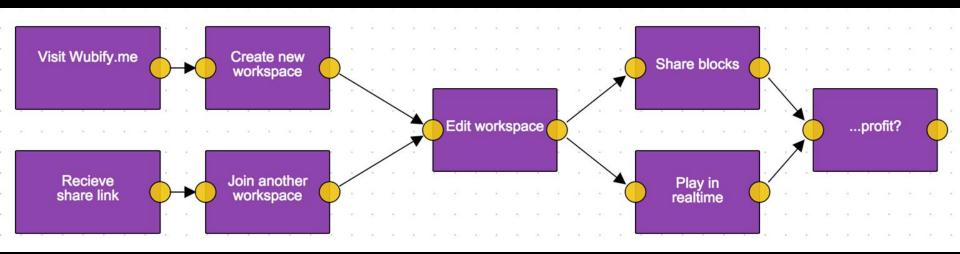
Visual blocks handled by Joint.js

Underlying code representation from Flocking.js

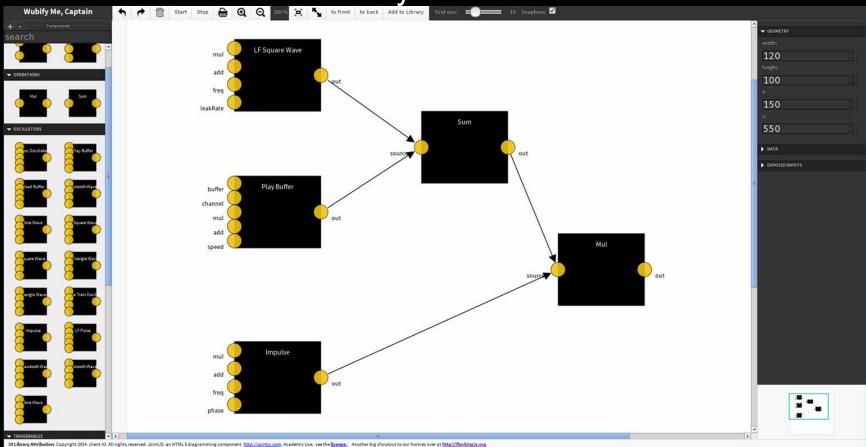
Visual representation ↔ code representation

Synchronization at UI level

How does it work?



Say What?



Future Directions

Sequencer

SuperCollider integration

Workflow tools - algorithmically generate block synths

Relation to other mediums

Demo, Thank you & Questions

MIT OpenCourseWare http://ocw.mit.edu

CMS.633 / CMS.833 Digital Humanities Spring 2015

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.