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?

- Visit Wubify.me
- Create new workspace
- Recieve share link
- Join another workspace
- Edit workspace
- Share blocks
- Play in realtime
- ...profit?
Say What?
Future Directions

Sequencer

SuperCollider integration

Workflow tools - algorithmically generate block synths

Relation to other mediums
Demo,
Thank you & Questions