

In order to create a full, pragmatic live-looping program, this program should be able to:

- 1) Easily create new samples from input signals
- 2) Easily modify existing samples into arbitrary loops
- 3) Take advantage of human hand dexterity and visual interpretation
- 4) Interface with other audio signal manipulators (e.g. plugins)

1) Easily create new samples from input signals

Need prominent and fast record, delete, sample playback, and assign functionality

2) Easily modify existing samples into arbitrary loops

Need selection ability for existing samples

Need simple display to tell which signals are being played

Need simple ability to combine existing samples into new loop

Possibility to combine existing samples into new sample

3) Take advantage of human hand dexterity and visual interpretation

Hands can track multiple places simply

Hands can register multiple touches at a time

Hands can drag, and click easily

Eyes can easily identify drastically different visual patterns

Eyes can easily interpret different colors/color gradients/spatial locations into different meanings

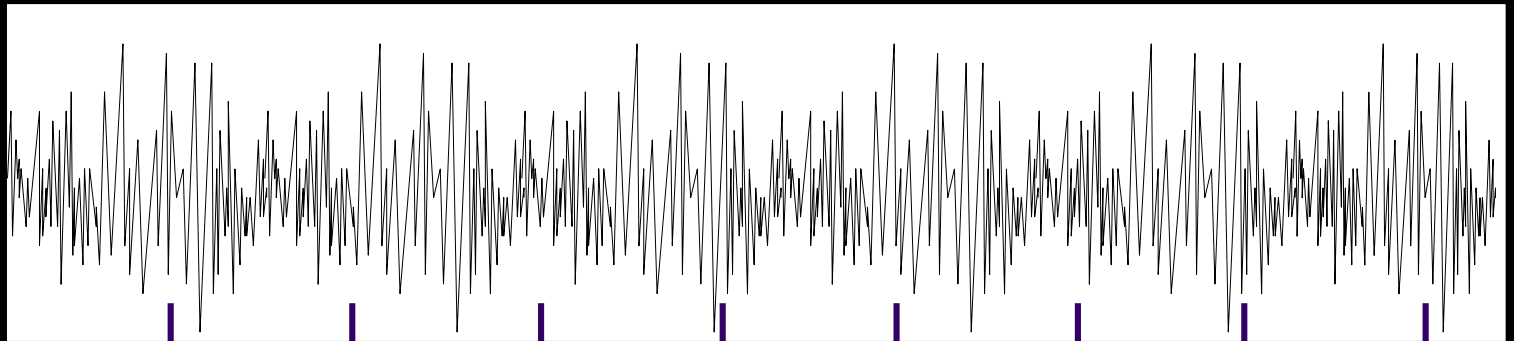
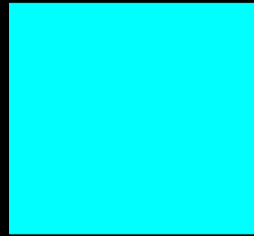
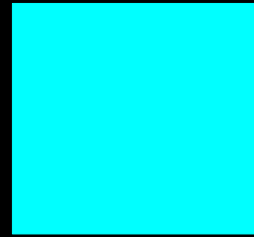
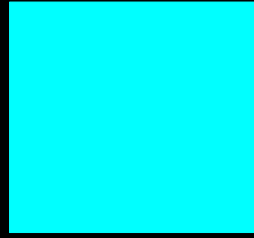
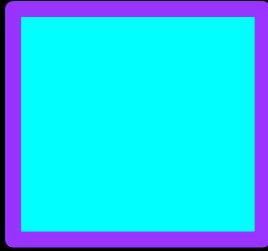
Eyes will associate new imagery with new context at a quick rate

Track page

Play

Track

All



1

2

Loop/Modify page

Playback

Record

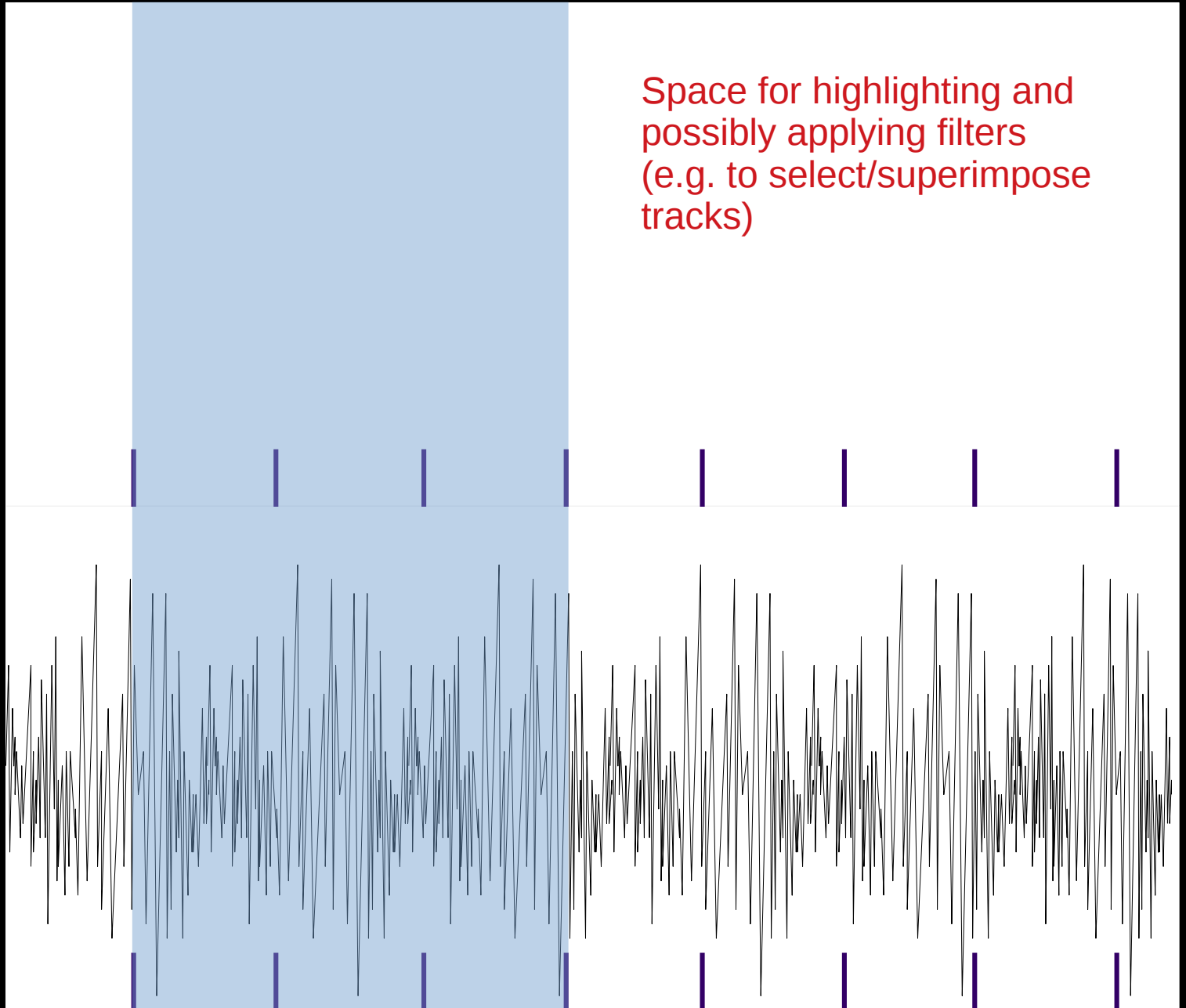
Delete

Assign

1

2

Space for highlighting and possibly applying filters (e.g. to select/superimpose tracks)



Questions:

- 1) How are audio samples stored?
- 2) How are operations on samples performed?
Create, add, modify, delete, etc.
- 3) How much memory does the GUI take up?
- 4) What is the backend protocol for event-based tasking

Benefits:

- 1) Easy to play multiple tracks at once
- 2) Buttons are all very large
- 3) Displays signal that is playing (display instead of implicit through listening)
- 4) Easier, more versatile signal manipulation for highlight/copy/rearrange operations
- 5) Tabbing allows for larger buttons and logical separation of functionality
Tabbing is simple, asynchronous, and within limits of human abilities

Drawbacks:

- 1) Easy to play multiple tracks at once
- 2) Buttons are all very large
- 3) Displays signal that is playing (display instead of implicit through listening)
- 4) Easier, more versatile signal manipulation for highlight/copy/rearrange operations
- 5) Tabbing allows for larger buttons and logical separation of functionality
Tabbing is simple, asynchronous, and within limits of human abilities

Extras not shown:

- 1) Superposition of tracks in modify interface shown with different colors
- 2) Tempo/quantization tools