# polytrakt

the *weird* tracker

tracker?

- A tracker allows you to compose music through *hexadecimal* code

- Was mainly used in 90s-00s for video game music since you could save the sequence and generate music at run time rather then use compressed audio files

- Very versatile, easy to use. Allows for very small file sizes since you're saving text rather then midi note positions
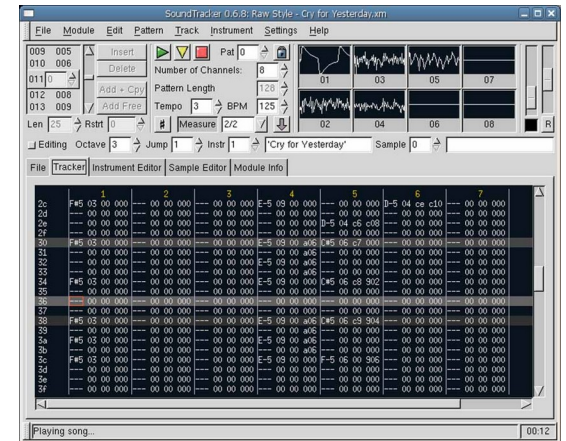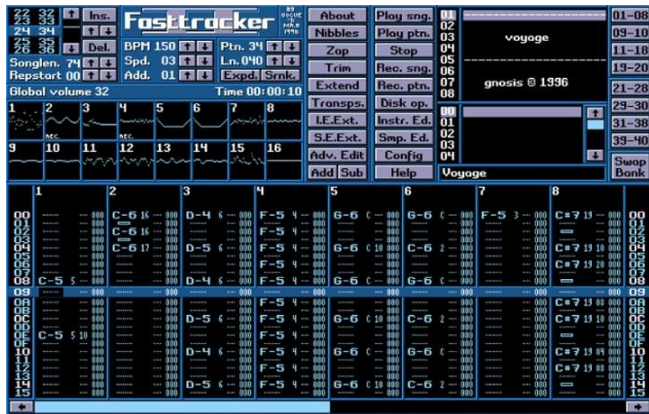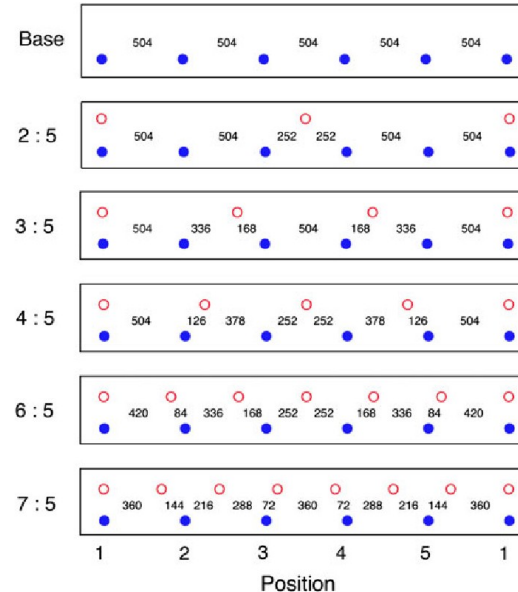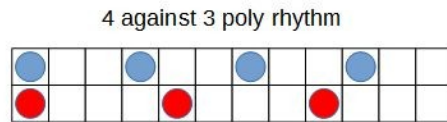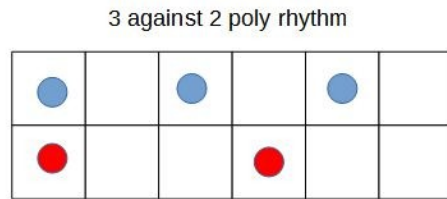
drum sequencer?

- Used as an easy alternative to having a drummer. Mainly coveted by guitarists back in the day.

- Provides both sampled and synthesized recreations of real instruments

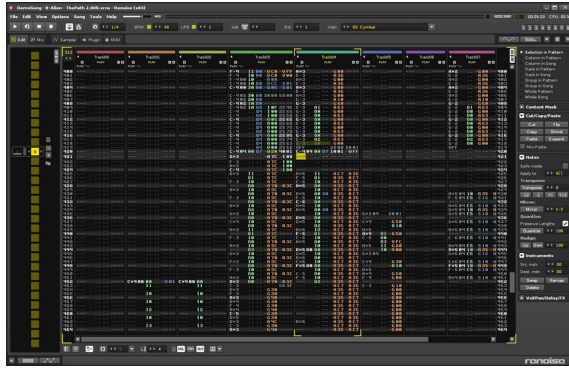- Power users were known to really push these tools to there limits (ex. Prince)

poly rhythm?

- A poly rhythm is the simultaneous use of different rhythms derived from the same meter

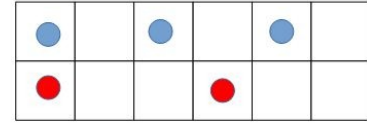- It can also been seen as different divisions of the same bar
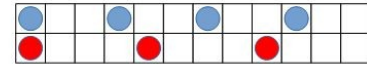
-For example:

combined?

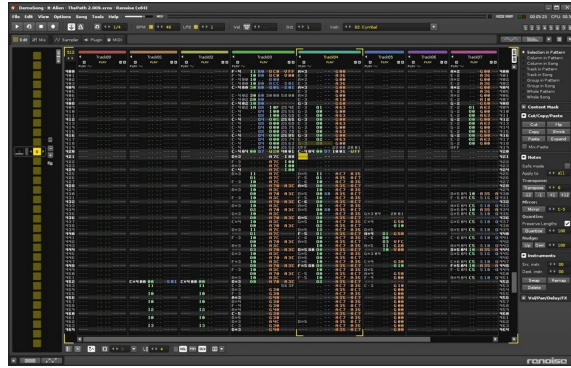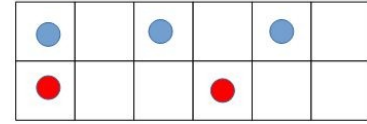3 against 2 poly rhythm
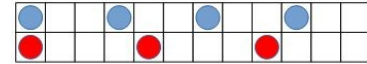

4 against 3 poly rhythm

????
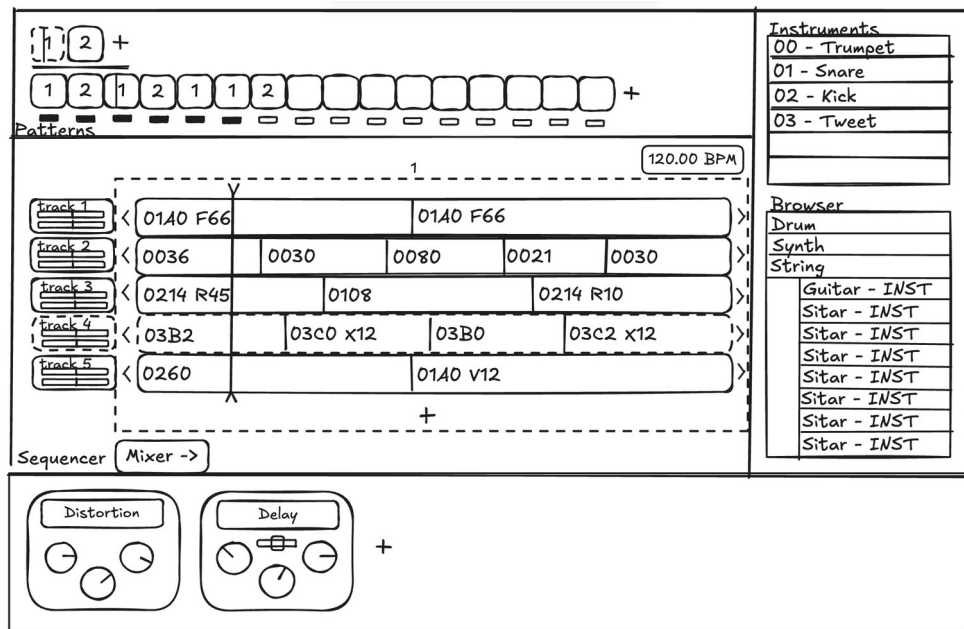
combined?

3 against 2 poly rhythm
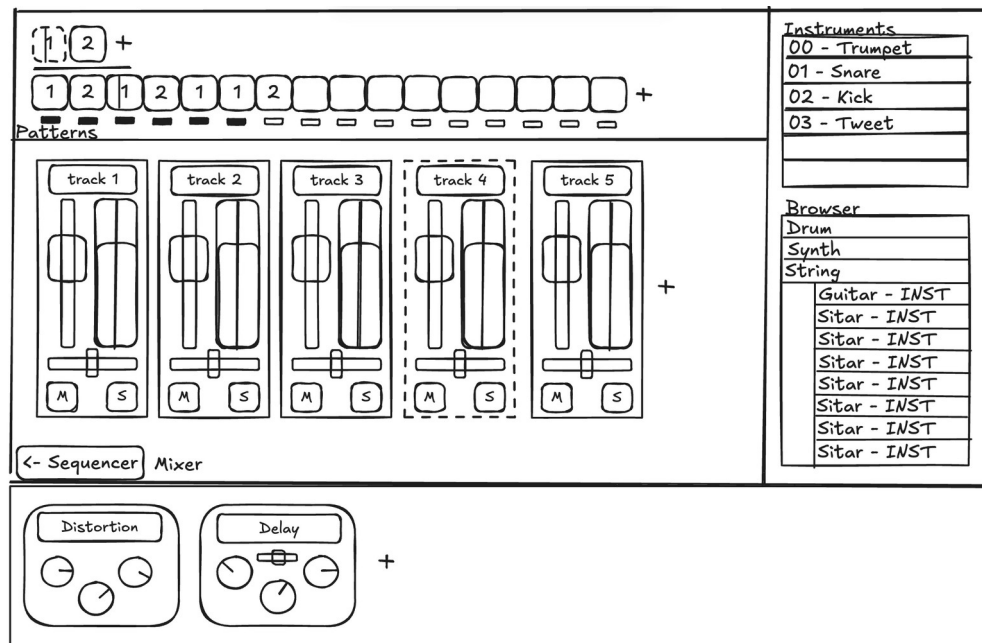
4 against 3 poly rhythm

polytrakt

what is polytrakt ?

ui mock-up

the sequencer screen

1 2 +

1 2 1 2 1 1 2 +

Patterns

120.00 BPM

Instruments
00 - Trumpet
01 - Snare
02 - Kick
03 - Tweet

1

track 1	01A0 F66	01A0 F66
track 2	0036	0030	0080	0021	0030
track 3	0214 R45	0108	0214 R10
track 4	03B2	03C0 x12	03B0	03C2 x12
track 5	0260	01A0 V12

+

Browser
Drum
Synth
String
 Guitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST

Sequencer [Mixer ->]

Distortion   Delay   +

the mixer screen

1 2 +

1 2 1 2 1 1 2 +

Patterns

Instruments
00 - Trumpet
01 - Snare
02 - Kick
03 - Tweet

track 1   track 2   track 3   track 4   track 5   +

M S   M S   M S   M S   M S

<- Sequencer Mixer

Browser
Drum
Synth
String
 Guitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST
 Sitar - INST

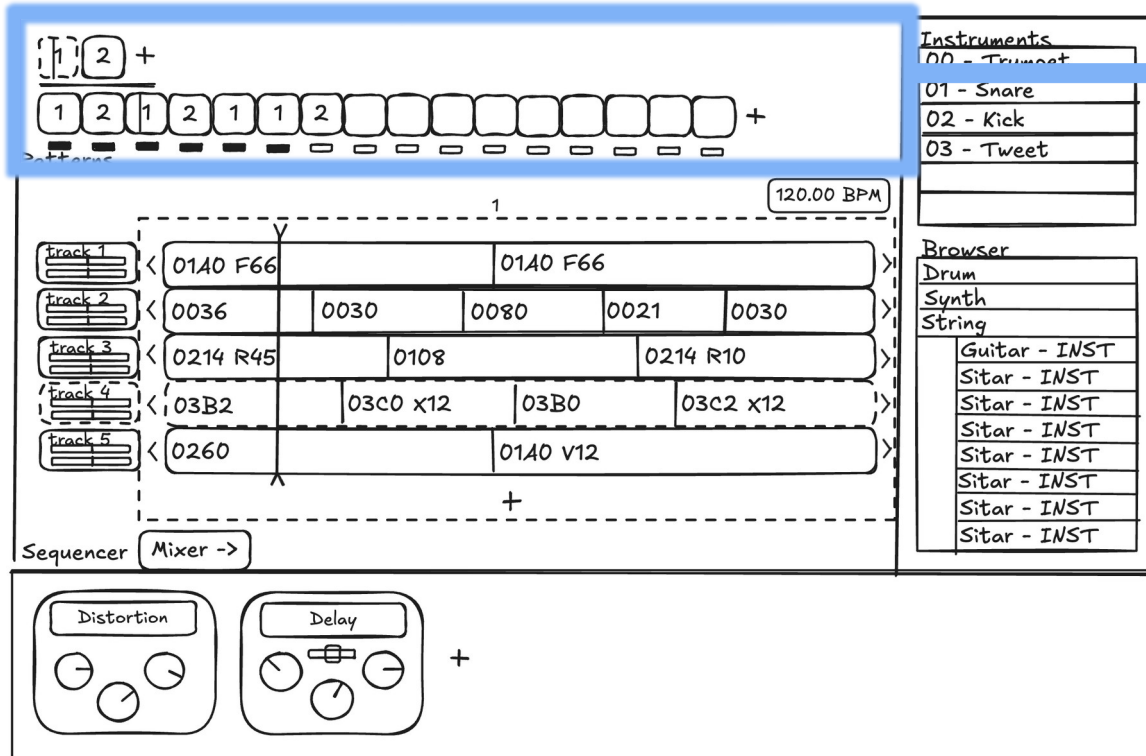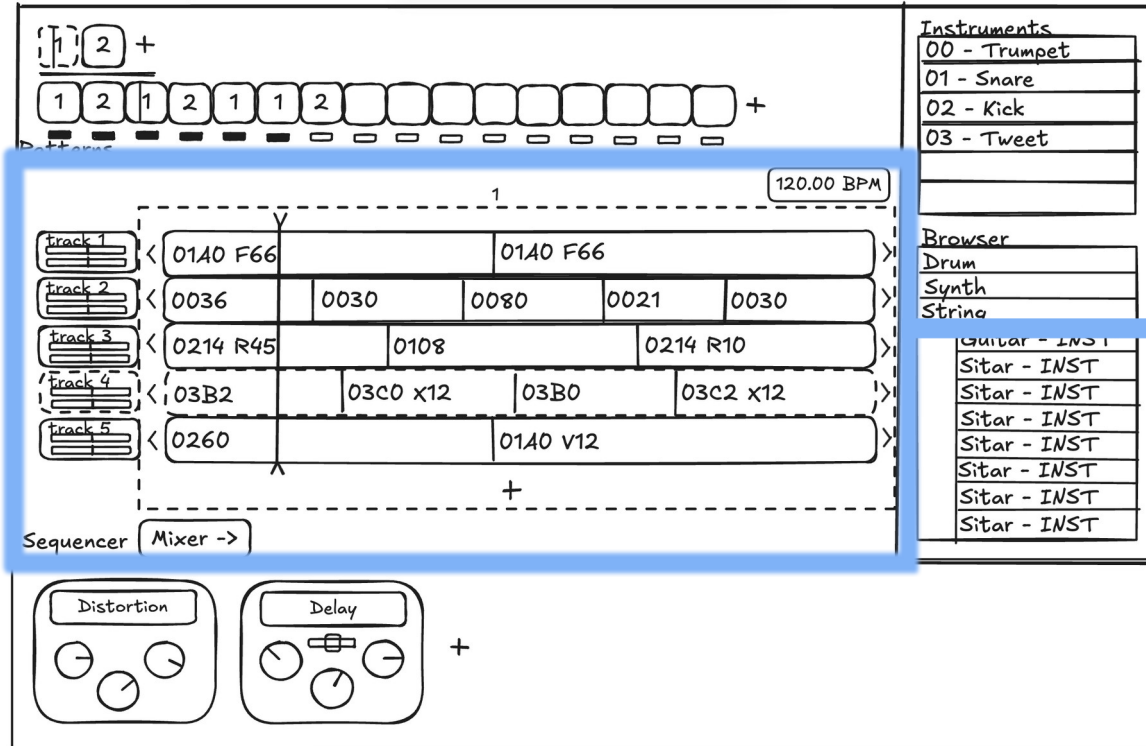Distortion   Delay   +

ui mock-up

patterns

- Create different patterns

- Drag and drop patterns into sequence bar

- Sequence patterns to form a song

- Loop specific sections of the sequence bar

ui mock-up

sequencer

- Lets you sequence notes in a specific pattern

- Every track is a division of the whole bar

- Every note is a hexadecimal code that relates to an instrument and a 12-tone note

- Tracks persist between patterns, but their division, notes, and even the bpm changes based on the currently selected pattern
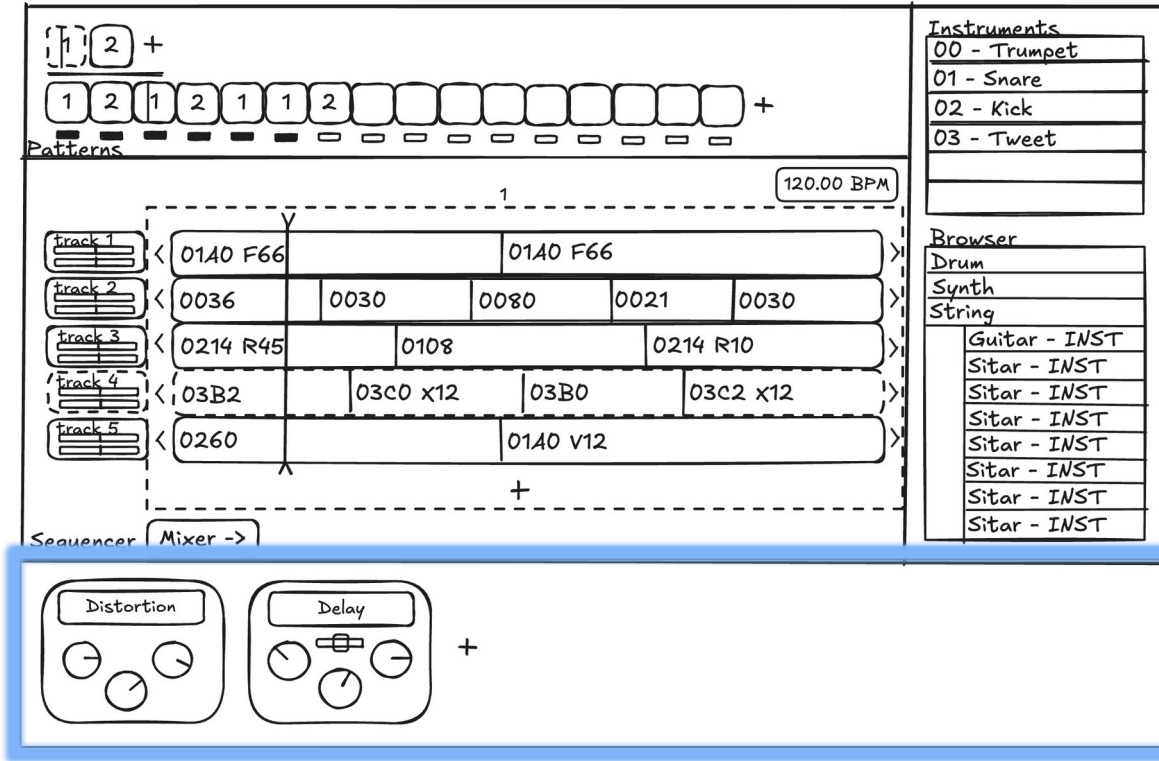
ui mock-up
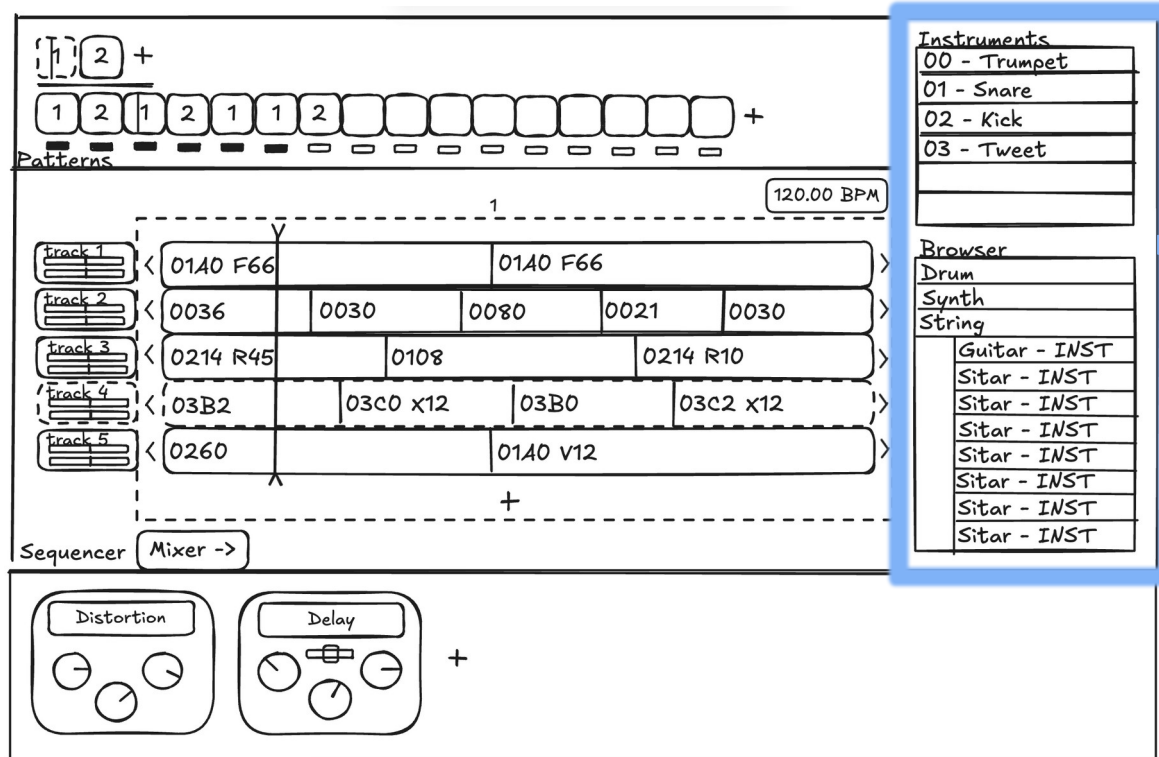
browser

- Can browse for new instruments

- Instruments can be assigned to a hexadecimal declarative

- Instruments are predefined synthetic or sampled emulations
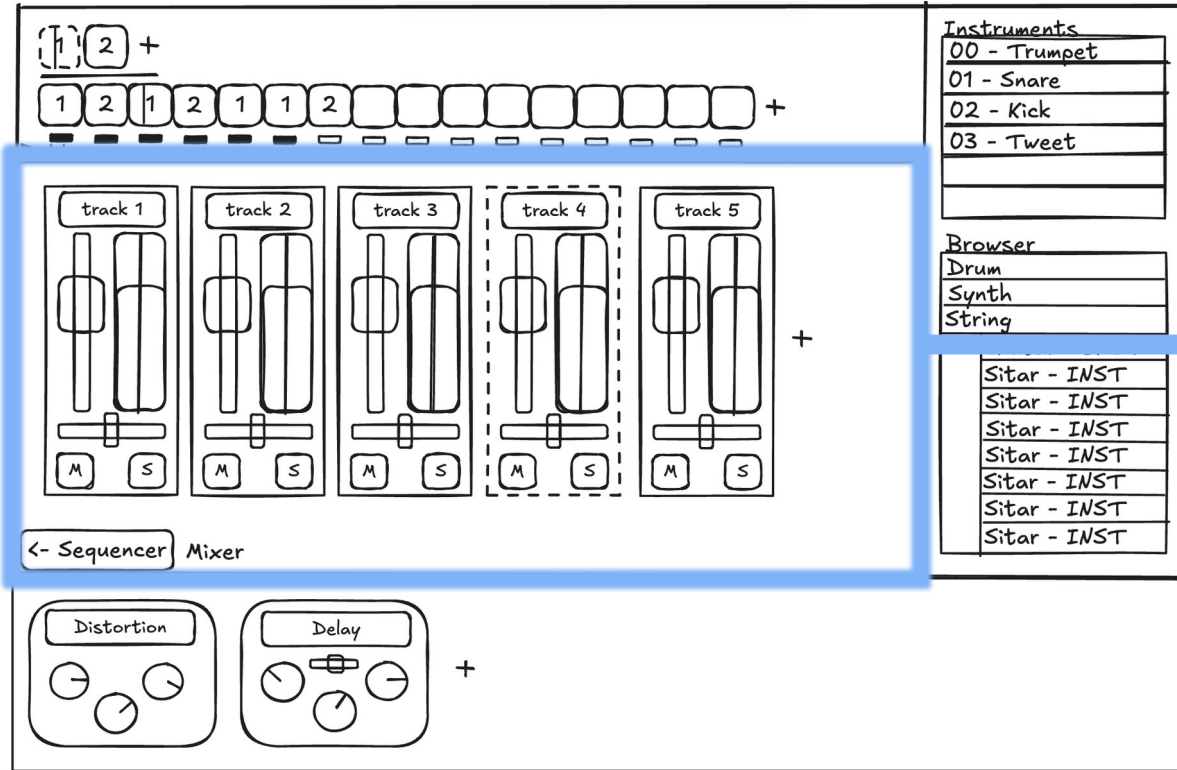
ui mock-up

effects

- Can add and manipulate effects based on selected track

- Effects are added from the browser

- Effects can be referenced in notes by hexadecimal
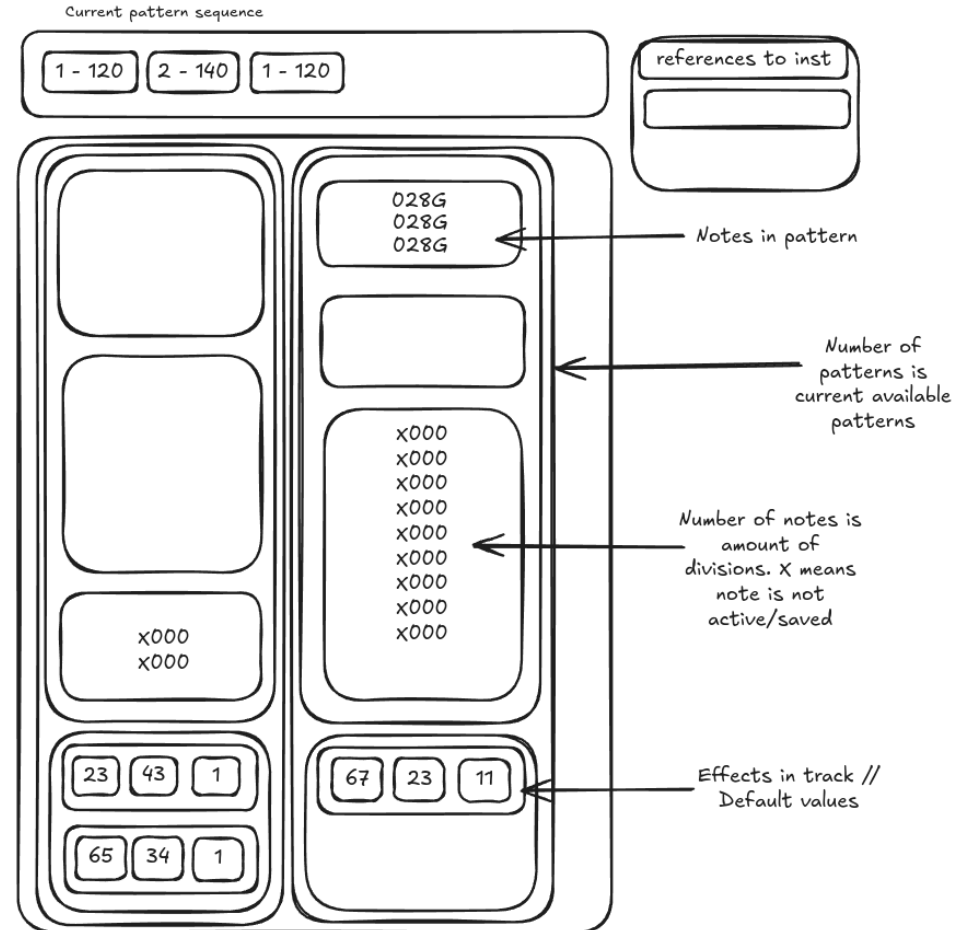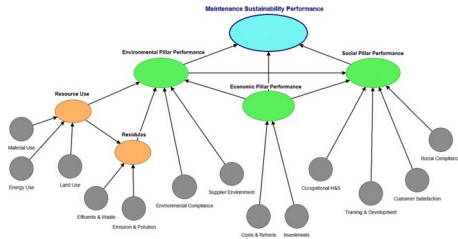
ui mock-up

mixer

- More direct mixing panel for tracks

- Shows if tracks are peaking

design structure

- It's all ARRAYS nested in arrays nested in arrays!

- Most of what is referenced will be constructed objects and classes

- Hierarchical composite structure

Current pattern sequence

| 1 - 120 | 2 - 140 | 1 - 120 |

references to inst

028G
028G
028G
← Notes in pattern

← Number of patterns is current available patterns

x000
x000
x000
x000
x000
x000
x000
x000
x000
← Number of notes is amount of divisions. X means note is not active/saved

x000
x000

| 23 | 43 | 1 |

| 67 | 23 | 11 | ← Effects in track // Default values

| 65 | 34 | 1 |

thank you!