AV PERFORMER

AV PERFORMER IS AN AUDIO AND VIDEO LIVE PERFORMANCE APPLICATION

InVision Demo Link

https://invis.io/78COI5F6R#/244295054_AV_PERFORMER

Jeremy Slater

AV PERFORMER

PROJECT STATEMENT

AV PERFORMER is software that allows users to play music
and video simultaneously in a performance.
The interface is easy to use, intuitive, and flexible.

The problem, I suspect, is that doing a performance with two separate applications
for audio and video is awkward and not intuitive. An application that does both
simultaneously doesn't really exist. The goal is to create a program that allows
performance with both audio and video in the same interface.

AV PERFORMER
FROM THE USER INTERVIEWS

INSIGHTS
Users want a single solution to perform with both audio and video effectively.
Users would like to have an interface that is fluid and easy to use.
Users would like more control, for example the ability to Save and Undo/Step Back.

"The hardest part was that I had a little snag every time I saved and closed down when I opened the session back up, it had lost where my video was routed from. So, I had to reload the videos every time…I think that there would be a simpler way to set it up. Max is great with its visual programming language that's intuitive. But, yes, I think that it could be simpler. Also, it would be helpful to have an external MIDI controller to interface with that to make it easier to perform with."
—Eric

"I like to combine both composed elements and add live layers in a sound performance. I like the idea of scoring/composing to a video, or adjusting a video to be played with composed sound, that said in live performance I'd rather be manipulating the sound live than the video. I'm fine with a video just playing back but the option of having pre-made video content to manipulate or that would be affected by the sound would be cool. The ability to fade the video in and out at certain points of the performance might be cool too.
—Jenn

"I do wish this had an Undo button, though"
"It's just hard to conceptualize an interface that could do both, or a programming team that's good at both…I think it's also a matter of what you'd want to do at once. Like, part of why I don't do audio is because doing video keeps my hands and eyes so busy, there's no way I could do both If I was doing simpler, more ambient video, then I could. But then there's less need for a single solution"
—Daniel

Primary Persona

Brian Johansen
Electronic Musician/Visualist

"I need a program that
allows me to play music
and mix video seamlessly."

Bio and Demographics

Male, Age 36
Lower East Side, New York

Behaviors

He is a serious electronic musician who performs
with music and video regularly at art galleries,
alernative spaces, and music venues around
the world.

Stories and Scenarios

He is looking for a way to perform with audio and
video during live peformances on his Macbook Pro.

Goals / Needs

He is looking for a program that allows him to perform
music and control live video projections seamlessly.
The way the he has done it previously is too
cumbersome and takes to much of his CPUs
processing power.

Secondary Persona

Cassie Smith
Laptop DJ

"I want to add live
visuals to my DJ sets
easily with one interface"

Bio and Demographics

Female, Age 30
Williamsburg, Brooklyn

Behaviors

She has a regular DJ gig on the weekends in the
East Viallage. She sometimes works with a VJ, but
would like to do the music and video herself. Doing
both would make her more money when she plays.

Stories and Scenarios

She wants to add live visuals to her DJ sets
easily with one interface on her Dell laptop.

Goals / Needs

She is looking for a way to DJ and do live visuals
simultaneously. She would like to have a single
interface to accomplish this. She's tried to use
DJ and VJ software at the same time, but finds this
to be too overwhelming. It's difficult to do both at
the same time adn have eveything in synch.

AV PERFORMER

Who is your target audience?
Musicians, DJs, Live Visualists (VJs), Video Artists, Audio Artists

What pain points are being addressed?
Ease of use, ability to Save their projects and the ability to Undo/Step Back.

What is your overall objective for the project?
To create software that allows users to play audio and video simultaneously with ease.
This is based on my original problem statement and as a result of user interviews.

What is your MVP (Minimum Viable Product)?
A/V software that can play audio and video simultaneously.

How will this differentiate you from your competitors?
The software I am proposing doesn't really exist. The competitors software is either way
to complicated focused mostly on video with little audio control or overly simple and not
really integrated with the audio controls and requires expensive audio software.

COMPETITIVE ANALYSIS

Market Positioning

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Business Model	Purchase Only, No Demo	Demo/Purchase	Demo/Purchase	Demo/Purchase
Target Audience	VJs, Musicians	VJs, Musicians	VJs	VJs

Feature Comparison

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Video and Audio	Video and Audio Interactive	Video and Audio Interactive	Audio Reactive Only	Audio Reactive Only
Integration with Ableton Live	Yes, within the Ableton interface	Yes, within the Ableton interface	Yes, but separate software	Yes, but separate software

Heuristic Evaluation - Quantitative

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Audio Control	10	10	5	5
Video Control	5	7	10	10
Complexity	5	6	10	8

Heuristic Evaluation - Qualitative

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Audio Control	Integrated in and Ableton Audio Software	Integrated in and Ableton Audio Software	Limited	Limited
Video Control	Basic	Slightly more robust	Very robust	Very robust
Complexity	Fairly simple interface	Fairly simple interface	Very complicated interface	Complicated interface

RESOLUME

VDMX

ROKVID

LIVE VIDEO TOOLS

FEATURE PRIORITIZATION LIST

Moscow Method (Must Have, **S**hould Have, **C**ould Have, **W**on't Have ➡️
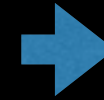
Must Have	Should Have	Could Have	Won't Have
Import Audio Clip (From Import Menu, Drag and Drop)	Create Media Bin	Ability to add more audio and video tracks.	Effects (Delay, Color, Etc.)
Import Video Clip (From Import Menu, Drag and Drop)	Fade An/Out All (Master)		Ability to Record
Choose Input (MIDI Interface, Mouse or Track Pad)	Change Audio/Video Levels All (Master)		
Export Video to Projector or External Monitor			
Play Audio Clip			
Play Video Clip			
Play Audio/Video Clip			
Fade In			
Loop Audio			
Loop Video			
Change Audio Level			
Change Video Level			
Switch Audio Clip			
Switch Video Clip			
Undo			
Change Audio and Video Level Simultaneously			
Mix Between Audio and Video Clips (A-B Slider)			
Fade Out			
Save Project			

Launch

Import Audio Clip (From Import Menu, Drag and Drop)

Import Video Clip (From Import Menu, Drag and Drop)

Choose Input (MIDI Interface, Mouse or Track Pad)

Export Video to Projector or External Monitor

Play Audio Clip

Play Video Clip

Play Audio/Video Clip

Fade In

Loop Audio

Loop Video

Change Audio Level

Change Video Level

Switch Audio Clip

Switch Video Clip

Undo

Change Audio and Video Level Simultaneously

Mix Between Audio and Video Clips (A-B Slider)

Fade Out

Save Project

Close App

USER FLOWS

USER FLOW (left)

LAUCH APP
→ CHOOSE INPUT
→ MAPPABLE MIDI INTERFACE | COMPUTER TACKPAD
→ CHOOSE VIDEO OUTPUT
→ PROJECTOR | EXTERNAL MONITOR
→ IMPORT VIDEO
→ IMPORT FROM MENU | DRAG AND DROP
→ IMPORT AUDIO
→ IMPORT FROM MENU | DRAG AND DROP
→ PLACE CLIPS IN TRACKS
→ A | B
→ CHOOSE EFFECTS FOR AUDIO
→ DELAY | REVERB | DISTORTION | CHORUS
→ CHOOSE EFFECTS FOR VIDEO
→ COLOR | BRIGHTNESS | CONTRAST | BLUR
→ START PERFORMANCE / FADE IN
→ LAUCH CLIPS
→ AUDIO | VIDEO | AUDIO/VIDEO
→ IN TRACK
→ A | B
→ CHANGE EFFECTS FOR AUDIO
→ DELAY | REVERB | DISTORTION | CHORUS
→ CHANGEE EFFECTS FOR VIDEO
→ COLOR | BRIGHTNESS | CONTRAST | BLUR
→ MIX WITH A/B SLIDER
→ END PEFORMANCE / FADE OUT
→ SAVE SET
→ CLOSE APP

USER FLOW (right)

LAUNCH APP
→ CHOOSE INPUT
→ MAPPABLE MIDI INTERFACE | COMPUTER TACKPAD
→ CHOOSE VIDEO OUTPUT
→ PROJECTOR | EXTERNAL MONITOR
→ IMPORT VIDEO
→ IMPORT FROM MENU | DRAG AND DROP
→ IMPORT AUDIO
→ IMPORT FROM MENU | DRAG AND DROP
→ PLACE CLIPS IN TRACKS
→ A | B
→ START PEFORMANCE / FADE IN
→ LAUNCH CLIPS
→ AUDIO | VIDEO | AUDIO/VIDEO
→ IN TRACK
→ A | B
→ MIX WITH A/B SLIDER
→ END PEFORMANCE / FADE OUT
→ SAVE SET
→ CLOSE APP

CARD SORT RESULTS

Participant 1

Details | Card Sort | Include

Effects (12)
- FADE IN ALL
- FADE OUT ALL
- SWITCH AUDIO 1
- SWITCH AUDIO 2
- LOOP VIDEO 1
- LOOP VIDEO 2
- FADE IN AUDIO 1
- FADE OUT AUDIO 1
- LOOP AUDIO 1
- FADE IN AUDIO 2
- FADE OUT AUDIO 2
- LOOP AUDIO 2

Level (4)
- CHANGE VIDEO LEVEL 1
- CHANGE VIDEO LEVEL 2
- CHANGE AUDIO LEVEL 1
- CHANGE AUDIO LEVEL 2

Media Bin (2)
- CREATE VIDEO BIN
- CREATE AUDIO BIN

Menu (5)
- SAVE PROJECT
- SEND VIDEO TO PROJECTOR/MONITOR
- UNDO/STEP BACK
- IMPORT VIDEO
- IMPORT AUDIO

Mixer (3)
- A/B SLIDER
- SWITCH VIDEO 1
- SWITCH VIDEO 2

Play list 1 (1)
- PLAY AUDIO 1
- PLAY VIDEO 1

Play list 2 (2)
- PLAY VIDEO 2
- PLAY AUDIO 2

Participant 3

Details | Questionnaire | Card Sort | Include

Audio Effect (1)
- Loop Audio
- Switch Audio Clip
- Change Audio Level

Menu (6)
- Save Project
- Undo/Step Back
- Import Video Clip
- Import Audio Clip
- Export Video to Projector

Play (2)
- Play Video Clip
- Play Audio Clip

Slider (1)
- A-B Slider

Video Effect (1)
- Fade In
- Fade Out
- Loop Video
- Change Video Level
- Switch Video Clip

Participant 5

Details | Card Sort | Include

AUDIO/VIDEO IMPORT (1)
- CREATE AUDIO BIN
- CREATE VIDEO BIN
- IMPORT AUDIO
- IMPORT VIDEO

CONTROL PANEL (1)
- SEND VIDEO TO PROJECTOR/MONITOR
- SAVE PROJECT
- UNDO/STEP BACK

A/B SLIDER (1)
- A/B SLIDER
- FADE IN ALL
- FADE OUT ALL

AUDIO 1 CONTROLS (1)
- PLAY AUDIO 1
- FADE IN AUDIO 1
- LOOP AUDIO 1
- SWITCH AUDIO 1
- CHANGE AUDIO LEVEL 1
- FADE OUT AUDIO 1

AUDIO 2 CONTROLS (1)
- PLAY AUDIO 2
- FADE IN AUDIO 2
- LOOP AUDIO 2
- SWITCH AUDIO 2
- CHANGE AUDIO LEVEL 2
- FADE OUT AUDIO 2

VIDEO 1 CONTROLS (1)
- PLAY VIDEO 1
- LOOP VIDEO 1
- CHANGE VIDEO LEVEL 1
- SWTICH VIDEO 1

VIDEO 2 CONTROLS (1)
- PLAY VIDEO 2
- LOOP VIDEO 2
- CHANGE VIDEO LEVEL 2
- SWITCH VIDEO 2

SITE MAP

INTERFACE

FILE   IMPORT   OUTPUT

VIDEO 1

VIDEO OUTPUT MAIN
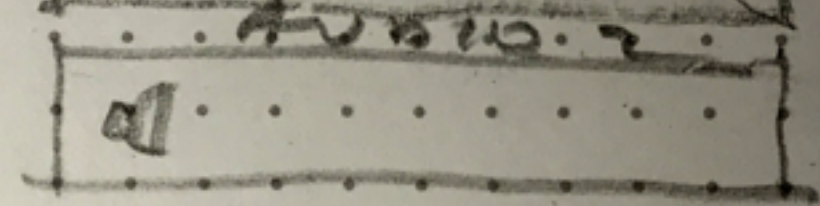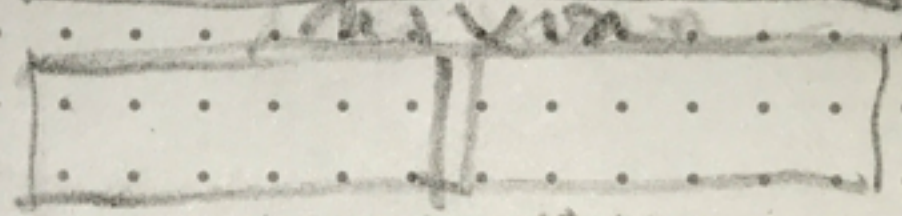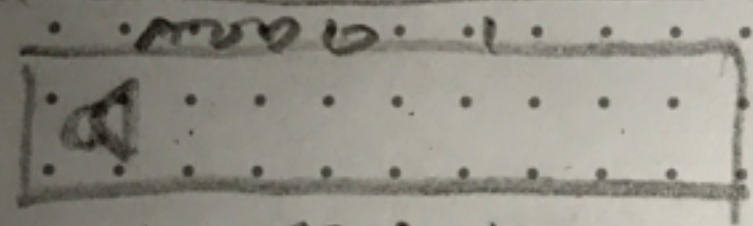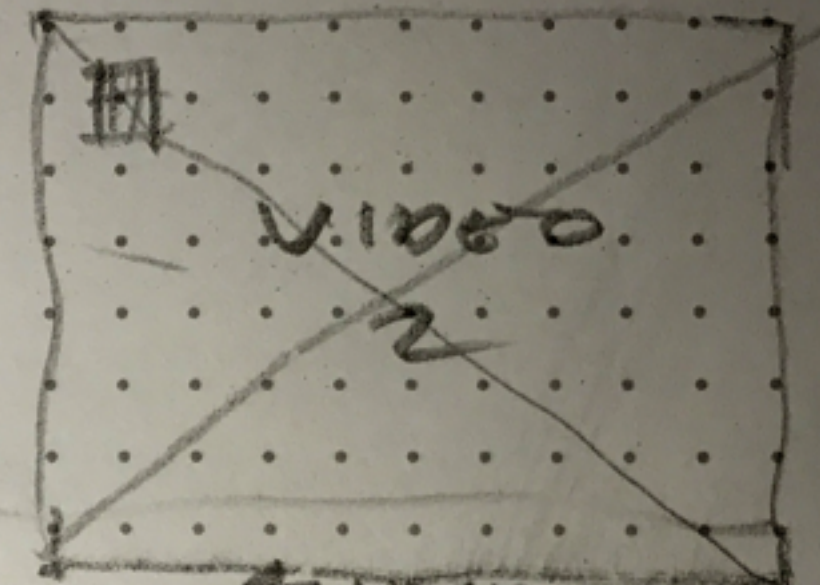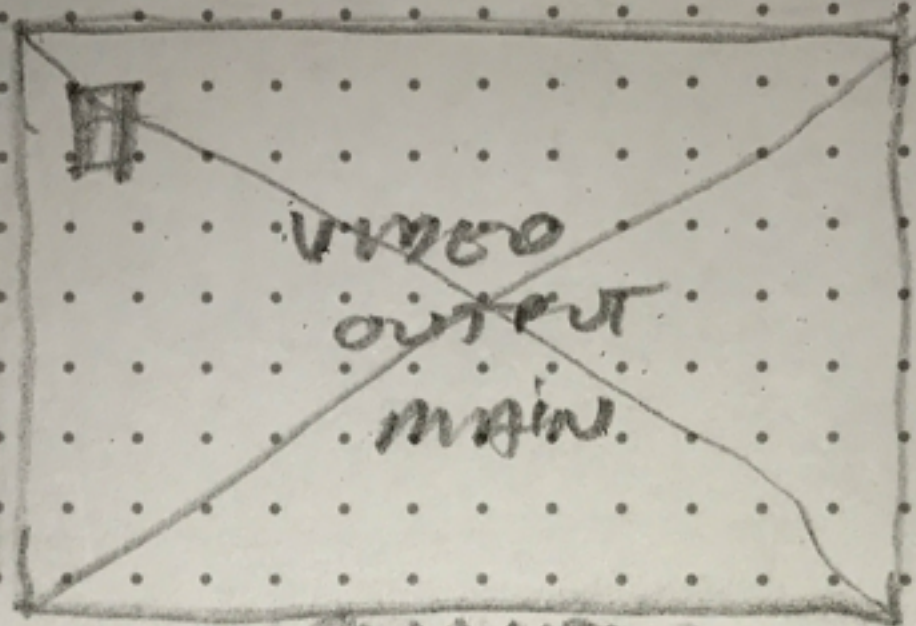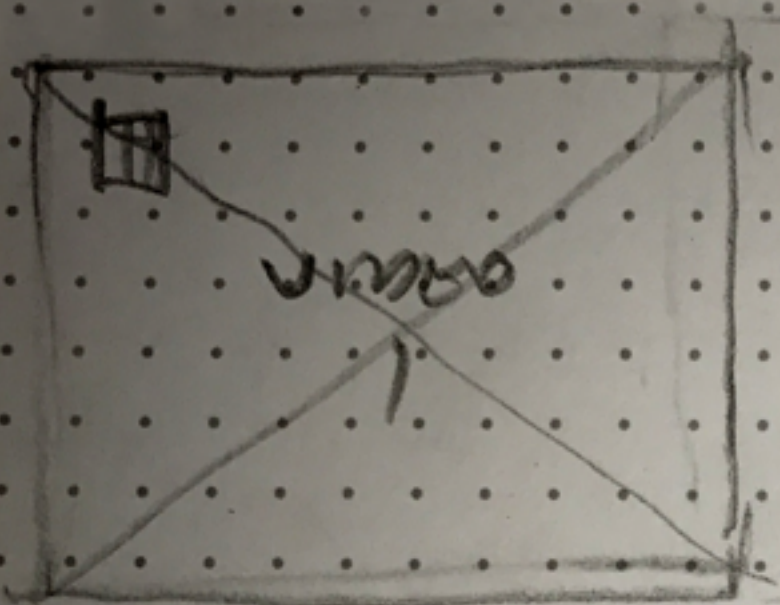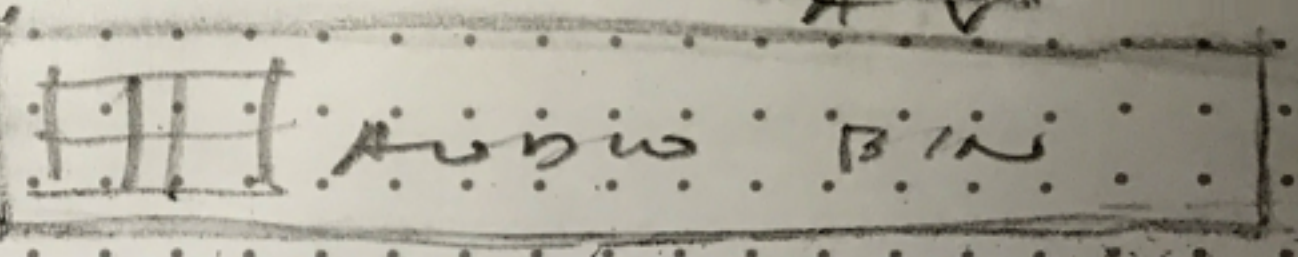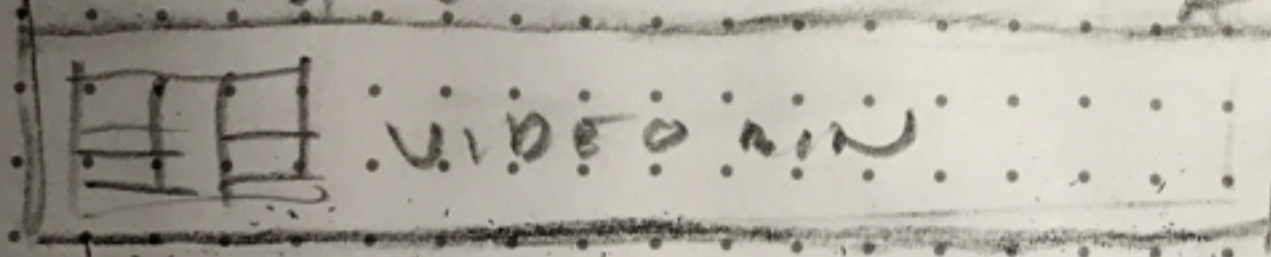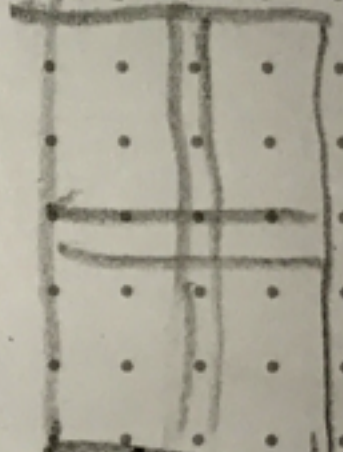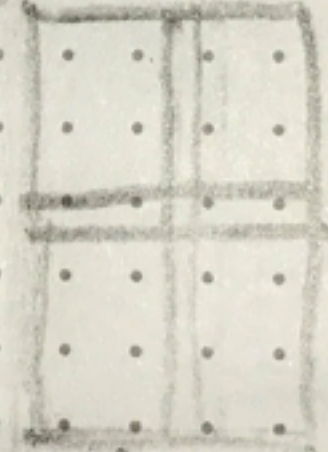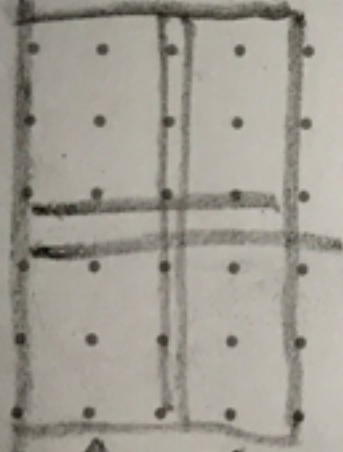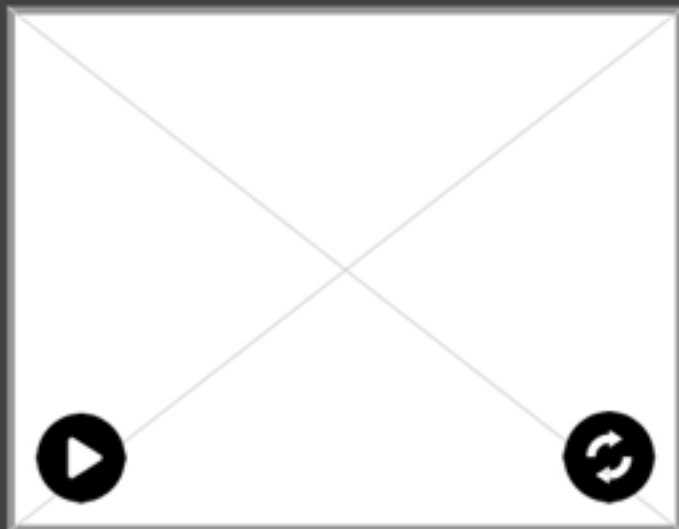
VIDEO 2

AUDIO 1

MIXER

AUDIO 2

LEVELS 1
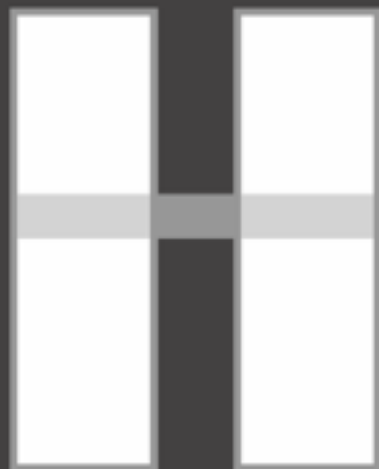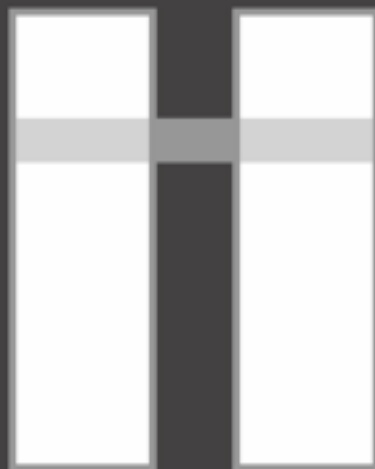
LEVELS - MIX

LEVELS 2

A V

A V

A V

VIDEO BIN

AUDIO BIN

File   Import   Output

VIDEO - 1

MAIN - OUTPUT

VIDEO - 2

AUDIO - 1

MIXER

AUDIO - 2

1   2

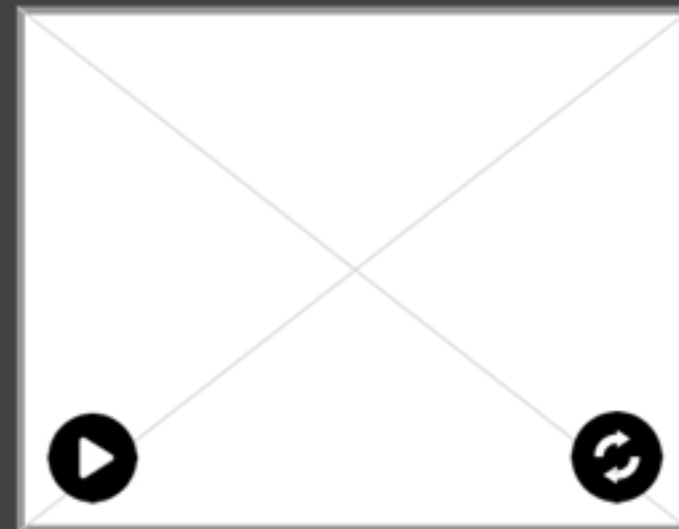LEVELS - 1

MAIN - LEVELS

LEVELS - 2

AUDIO   VIDEO

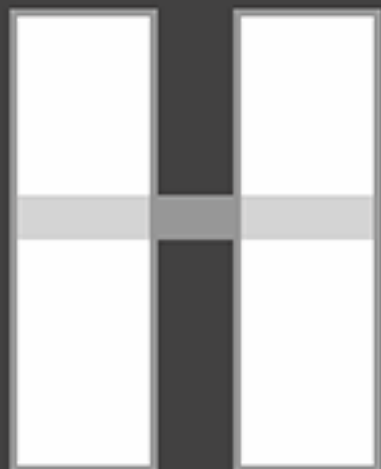AUDIO   VIDEO

AUDIO   VIDEO

File   Import   Output

VIDEO - 1

MAIN - OUTPUT

VIDEO - 2

AUDIO - 1

MIXER

1 ▶

2 ▶

AUDIO - 2

LEVELS - 1

MAIN - LEVELS

LEVELS - 2

AUDIO   VIDEO

AUDIO   VIDEO

AUDIO   VIDEO

VIDEO

AUDIO

File   Import   Output

VIDEO - 1

MAIN - OUTPUT

VIDEO - 2

AUDIO - 1

MIXER

AUDIO - 2

1   2

LEVELS - 1

MAIN - LEVELS

LEVELS - 2

AUDIO   VIDEO

AUDIO   VIDEO

AUDIO   VIDEO

VIDEO

AUDIO

File   Import   Output

VIDEO - 1

MAIN - OUTPUT

VIDEO - 2

AUDIO - 1

MIXER

AUDIO - 2

▶ 1

2 ▶
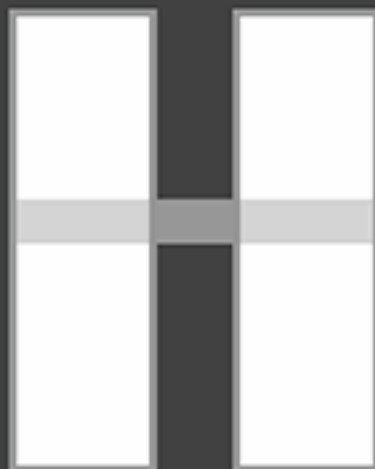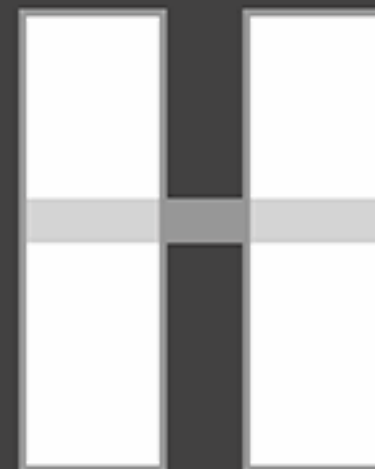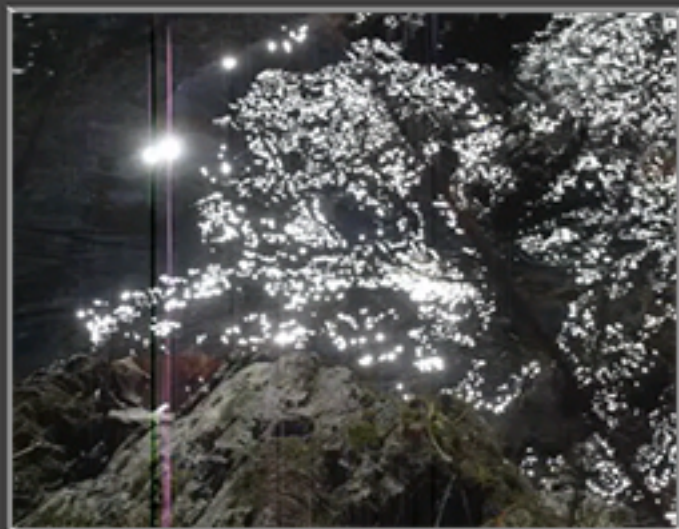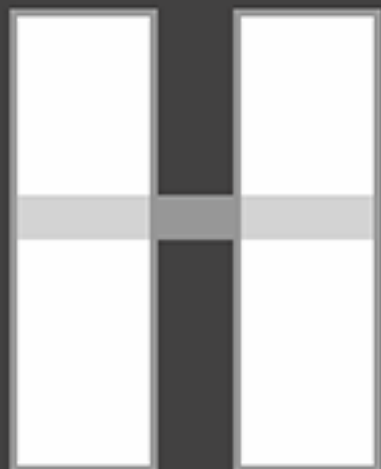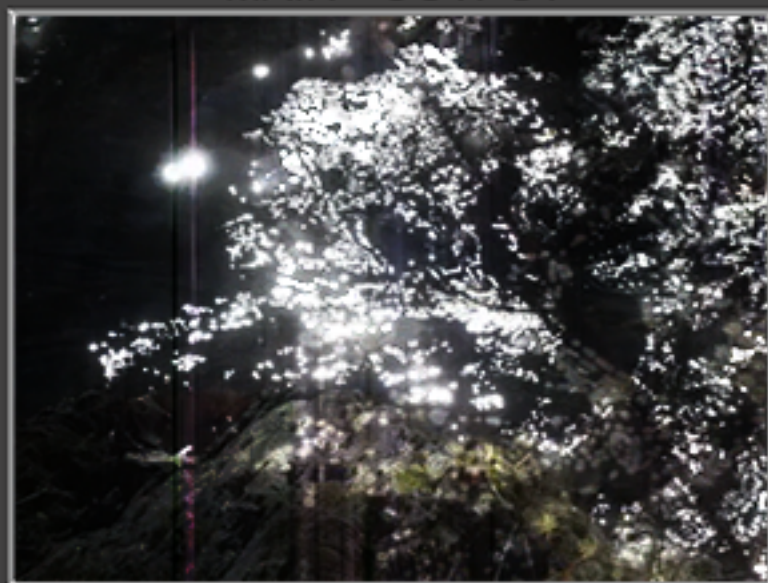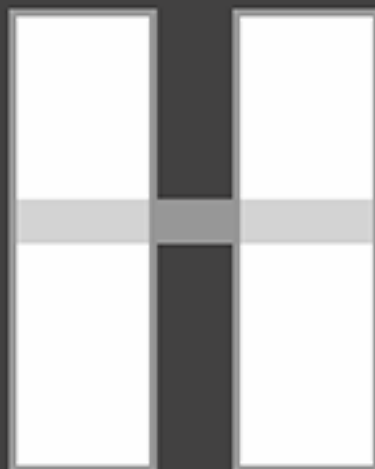
LEVELS - 1

MAIN - LEVELS

LEVELS - 2

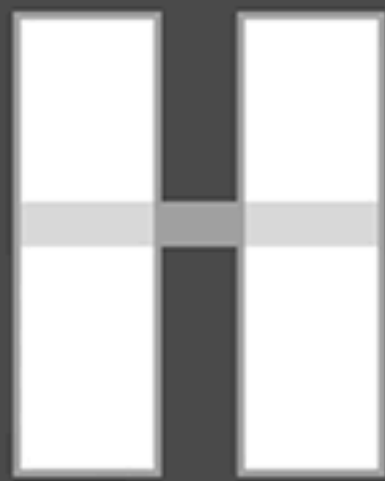AUDIO   VIDEO

AUDIO   VIDEO

AUDIO   VIDEO

VIDEO

AUDIO

NEXT STEPS

As a result of user testing, I added some features that users suggested. Users were also interested in more features like being able to scrub/scratch, sample, and to be able to add video and audio effects.

Continue to iterate and test to create a more robust program.

Hire a team of programmers to realize the software.

THANK YOU!

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