

Release Plan

Bitwise Wide Boi by BluHaus Fx

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Ultimately and generally, the goal of this project is to build an audio effect plugin that is compatible with the VST and AU formats widely recognized by DAW's (Digital Audio Workstations) like Ableton Live, Logic Pro, Pro Tools and Reaper.

High Level Goals:

1. Create a working stereo widening plugin that implements the Haas effect and modulate phase difference between left and right stereo channels without unnecessary phase cancellation.
2. Be able to accept mono audio as input and output affected stereo audio.
3. Implement a distortion plugin that simulates a "bitcrusher" effect where distortion is gained through downsampling and bit depth manipulation.
4. Maintain the original sound fidelity of input audio (high quality audio output).
5. Design a pleasing aesthetic that improves the technical functionality of the plugin and user experience.
6. Reduce the audio latency and CPU load of using the plugin.
7. Make the interface of the plugin intuitive to use for musicians and producers.
8. Be able to be downloaded and integrated easily and effortlessly into a musician's DAW of choice (in other words, not requiring programming knowledge to use).

Sprints and User Stories:

Sprint 1

1. (3 SP) As a producer, I want an audio plugin that creates stereo depth so I can make my mixes sound wider and full.
2. (5 SP) As a musician, I want a tool that I can use to achieve complex mixing techniques without having to reinvent the wheel and do them myself.
3. (2 SP) As a producer, I want the plugin to be in a VST/AU format so that it is compatible with my DAW.

Sprint 2

1. (5 SP) As a producer and electronic musician, I want an audio plugin that can do downsampling and bit depth manipulation distortion so that I can achieve a lo-fi, "8-bit" quality in my instruments and contribute to a unique sound in my music.
2. (3 SP) As a listener, I want a good quality and smooth distortion so the music I listen to does not hurt my ears.
3. (5 SP) As a musician, I want my music to sound as professional and high quality as possible because people will be more likely to listen and enjoy it.

Sprint 3

1. (8 SP) As a user, I want the plugin to have a smooth graphical interface so I can enjoy producing music and allow myself to think about effects in a more visual fashion.
2. (2 SP) As a user, I want the plugin to be intuitive to use so I can enjoy a good audio plugin with a relatively gradual learning curve.
3. (3 SP) As a producer, I want an audio plugin that does not cause my computer to lag because slow computers make producing music difficult, and I don't want audio latency because that causes in time recordings to sound off from the rest of the mix.

Product Backlog:

1. Building a digital synthesizer with:
 - a. Wavetable drawing and analysis
 - b. Integration with the effects rack specified in this project
2. Adding a delay unit that models the Boss DD-7 Digital Delay effect pedal
3. Adding a reverb/eq unit specifically to simulate types of rooms and positions in room relative to where the listener imagines themselves (this especially is a lengthy endeavor).