shhh

magic eye is a Max for Live audio effect device for video-controlled granular synthesis. The brightness of the selected pixel in the 256x256 viewfinder controls where the next audio grain comes from: darker pixels create grains from earlier in the source audio file, and brighter pixels create grains from later.

As an audiovisual device, magic eye creates a tacit feedback loop between the user, the video, and the sound. The image reveals pathways for sonic improvisation which can be paused, reversed, and modulated in myriad ways.

shhh requires Ableton live 10+.

Controls

x pos: controls the x position of the selected pixel. You can also use the yellow circle superposed on the viewfinder to click directly on the area of the image and move to that x/y position.

y pos: controls the y position of the selected pixel. You can also use the yellow circle superposed on the viewfinder to click directly on the area of the image and move to that x/y position.

video rate: controls the rate and direction of playback for the video, from -16x to 16x speed.

loop start: selects the first frame of the video loop.

loop end: selects the last frame of the video loop.

video file drop: indicates where to drop video files or images.

play: starts and stops video playback.

source: controls whether the video, or a gradient image, or noise will be in the viewfinder and used for grain selection.

position: when playback is stopped, and a video is selected as **source**, allows for manual movement through all frames of the video file. When playback is engaged, and a video is selected as source, indicates the current position in the video loop.

brightness: controls brightness of the image in the viewfinder used for grain selection.

contrast: controls contrast of the image in the viewfinder used for grain selection.

feedback: controls amount of video feedback applied to the image in the viewfinder used for grain selection.

invert: inverts the colors in the viewfinder used for grain selection.

new grain speed: controls how frequently to generate new grains, if the **auto** toggle is engaged. Depending on whether the **quant** toggle is engaged or not, this speed will either be in milliseconds or time-value subdivisions of a whole note.

auto: controls whether to continually generate new grains. When not engaged, new grains will generate only upon movement of the x pos, y pos, or the position slider when play is not engaged.

quant: controls whether the new grain speed runs in milliseconds or time-value subdivisions of a whole note.

grain length: controls the length of each generated grain. The maximum length is 1 second, and the minimum length is 2 milliseconds.

grain prob: controls the probability of a grain being generated.

record \rightarrow or drop \downarrow : indicates where to record or drop audio files.

record: when enaged, records audio from anywhere in Live until disengaged. The maximum recording time is 10 minutes.

min pos: allows for control of the minimum position in the source audio file for generating grains. If a completely black pixel is selected, it will output a grain at this position.

max pos: allows for control of the maximum position in the source audio file for generating grains. If a completely white pixel is selected, it will output a grain at this position.

pos gain: increases or decreases the level of the control signal selecting the next grain, in conjunction with pos offset. If the pos gain and pos offset values would cause the selected grain to be past the min pos or max pos, it will wrap back to a value inside that range.

pos offset: allows for fine-tuning of the desired position in the source audio file from which to generate grains, in conjunction with **pos** gain. If the **pos** gain and **pos** offset values would cause the selected grain to be past the min **pos** or max **pos**, it will wrap back to a value inside that range.

pitch: increases or decreases the pitch of the device output within a range of -24 semitones to +24 semitones.

out: controls the output signal level.

Note for Windows users

Windows users that are running the bundled version of Max for Live will need to install viddll from the Max package manager. To do this, create a new Max for Live device in Live, click the button to edit it, open the Package Manager, search for "viddll", install it, and restart Live.

Support

Please contact Michael Cella AKA nnirror with any questions. You can email him at michael.j.cella@gmail.com or find him on social media via nnirror.xyz.

Acknowledgements

Thank you to Joel Dunn, Behrang Najafi, and Luke Fielding (Formwork) for their help and feedback testing this device.