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Obius v1.0

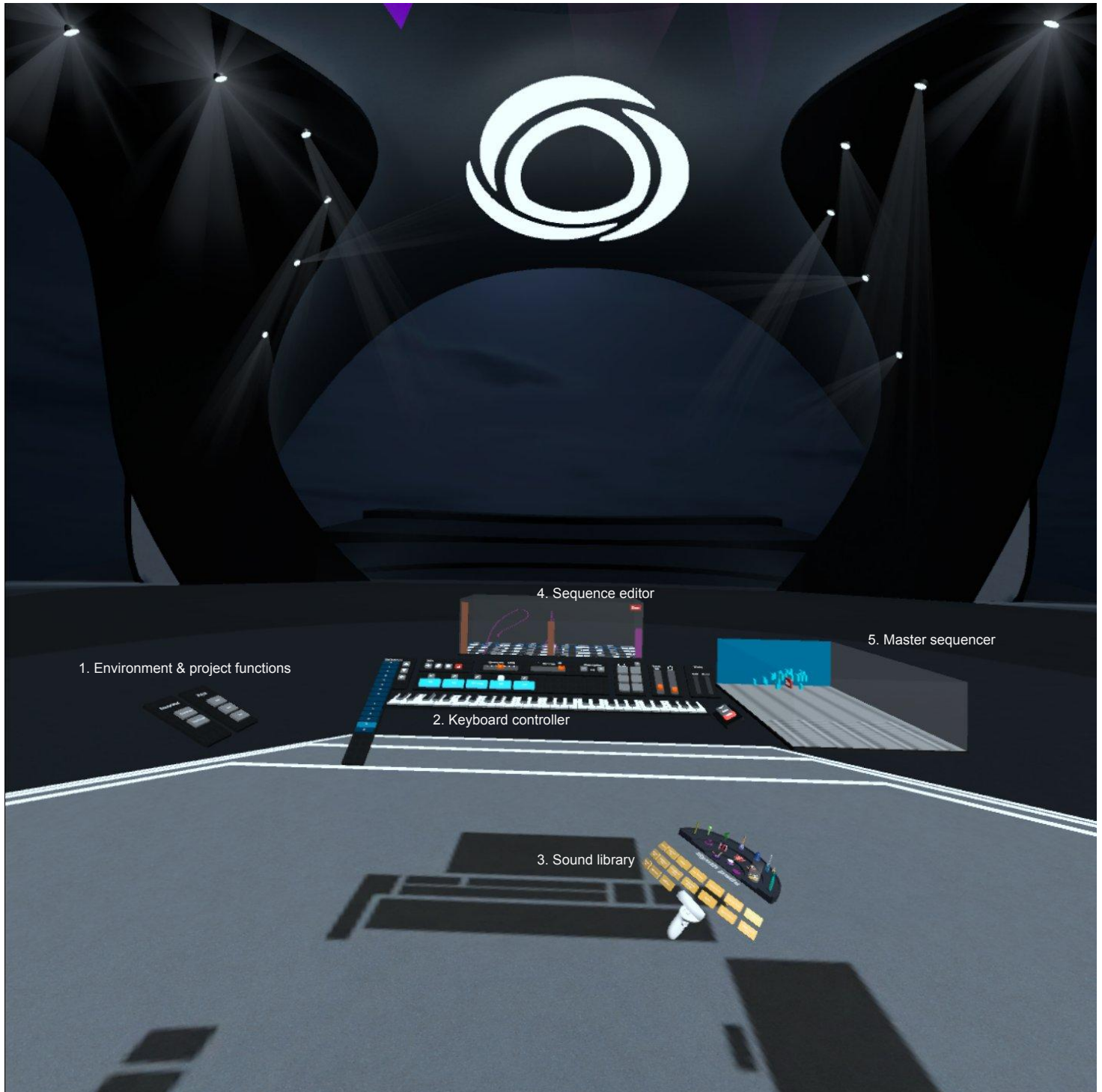
User manual for Oculus Quest 2

Introduction

Thank you for purchasing Obius by audiospace.io!!

Obius is a virtual reality music and audio instrument. Usually, keyboard instruments plays a dedicated sound or couple of sounds splitted on a keyboard. In Obius, sequences or patterns of different sounds are played with the keyboard. VR user interface makes the process highly creative and easy. Built in sound asset library provides the building blocks for the sequences. Highly complex and interesting soundscapes are easily achieved with Obius and end results can be recorded internally or thru the analog audio output into external recording devices like DAWs.

Overview



Obius has five user interfaces, where all aspects of the application are controlled.

1. Environment & project functions
2. Keyboard controller
3. Sound library
4. Sequence editor
5. Master sequencer

1. Environment & project functions



Environment and project functions panels appear on the left side of the keyboard.

From *Environment*-panel either full virtual reality concert hall or passthru mode can be selected.

Passthru uses the headsets built in camera to show the actual surroundings of your working space and the Obius user interfaces overlaid on that.

Passthru is very useful when working in small room or studio with lots of gear around the user.

Desired mode is selected by touching either button with the yellow pointer mallet that is visible in front of the hand controller.

Project panel has three buttons that are selected by touching with the pointer mallet.

Load-button opens a list of all saved projects. You can open any project by touching the name with pointer mallet.

Save-button opens a dialog for saving the current project or by renaming it making a new project.

Touching *New*-button with the pointer mallet creates a totally new project without any of the factory collection presets.

2. Keyboard controller



Keyboard controller contains lot of important features. Going from left to right, first we have the collection list.

2.1 Collections list

Presets are called *Collections* in Obius. Touching any of the collections from the list with the pointer mallet will make it the active *Collection* that user can play with the keyboard. There are 20 collections visible at the time, use up and down arrow buttons to move to next or previous 20 collections. Use the + -button to create new collection with one empty sequence with no sounds in it.

2.2 Sequences

Each collection can contain 1-8 sequences that are displayed with light blue buttons on top of the keyboard. Touching the sequence button will activate and de-activate the sequence. Activated sequences are displayed with brighter blue. On top of each sequence button is the *edit* button for each sequence. Touching the edit button will make that sequence appear in the sequence editor placed on top of all buttons.

2.3 Sequence master edit functions

Touching +-button will create a new empty sequence.

Second button from left is a *copy* button. The sequence that is selected for editing is copied when the copy button is touched with the pointer mallet.

Third button from the left is *paste*. You can paste the copied sequence into the currently active collection, or any other collection that has 1-7 sequences in it.

The red button on the right is *delete*. It deletes the sequence that is selected for editing.

2.4 Sequence master controls

Quantize-slider has double functionality. It controls the sequence editing resolution from totally free to full note. Obius v1.0 has 4/4 time signature and no triplet or dotted note resolution.

Quantize setting also controls the automatic input quantizing of notes played with the keyboard. Each sequence can have its own quantize setting for interesting rhythmic results.

Volume- slider controls the master volume of the sequence that is selected for editing.

With *transpose*- buttons the edited sequence can be transposed up- or downwards in semitones.

2.5 Looper

Looper has six buttons, that are used for looping sequences. First the sequence is selected for editing by touching the *edit*-button. The selected sequence can now be assigned to loop by touching one of the loop buttons. In total six sequences can be looped at the same time.

Looped sequences can be turned off by toggling the loop button.

All looping assignments can be cleared with the *erase*- button in the top right corner.

2.6 Metronome settings

Metronome plays a critical role of how Obius responds to playing of the keyboard.

If sequence is set for free resolution, then there is no input quantizing and the resolution and accuracy of playing is determined by the system latency in an given moment. It's typically ~20ms with Oculus Quest 2 headset.

When there is a resolution for the sequence, the software will automatically quantize keyboard events to nearest beat or sub-beat depending which resolution is selected.

With the *BPM*- slider tempo can be adjusted from 30 to 200bpm.

The metronome is on all the time, it can be turned audible with metronome *Volume*-slider.

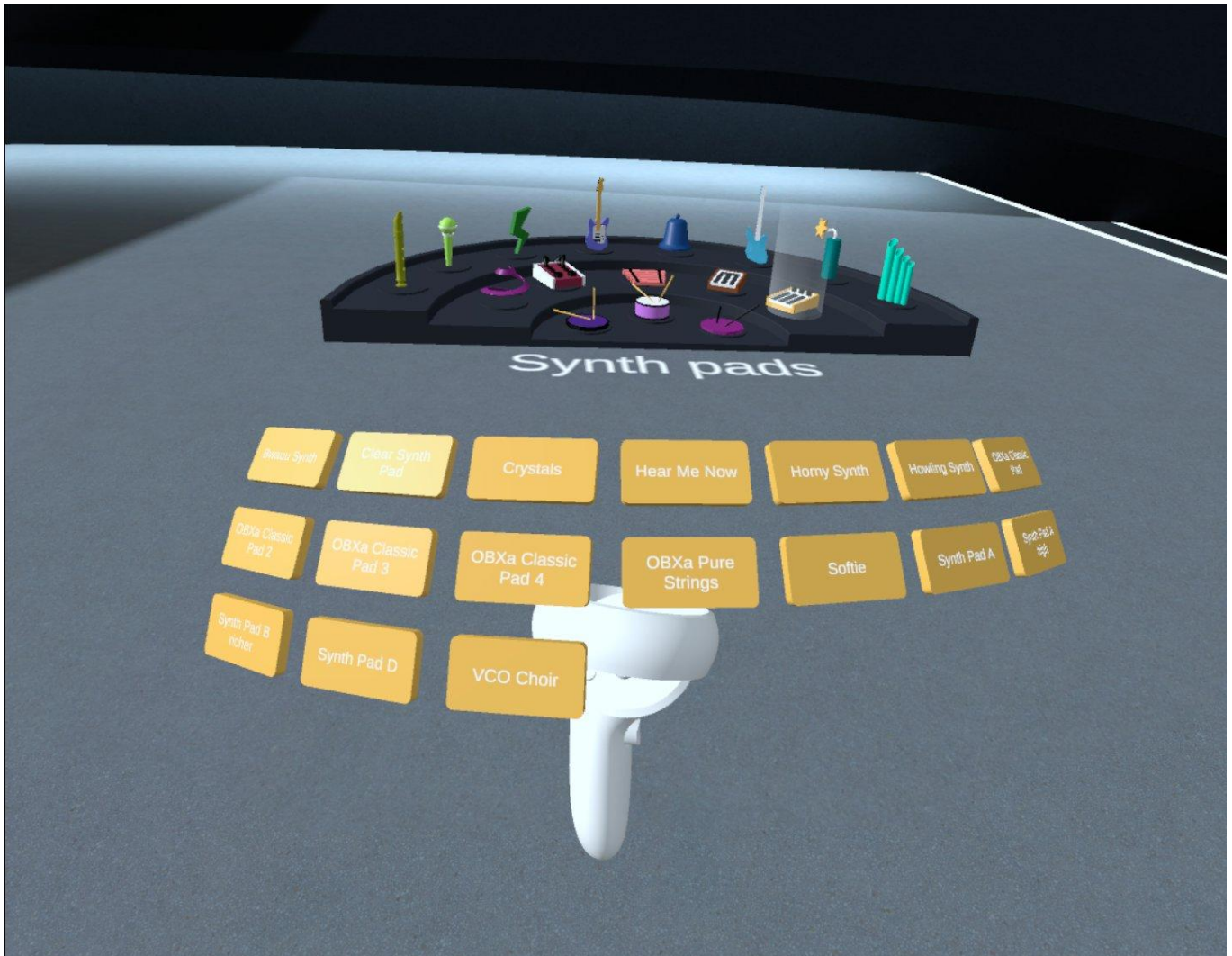
2.7 Stats display

First display from the left is the CPU usage meter, that shows how much there is available processing power.

Voice- display shows how many sounds are actually playing in any given moment.

Number of simultaneous sounds is limited to 256 to prevent any unexpected crashes or software behavior.

3.0 Sound library



Obius has a large built-in sound library especially made for getting the most interesting and creative soundscapes. All sounds are especially made for Obius with original genuine musical instruments, percussions, vocalists and miscellaneous object. All synth sounds are coming from Oberheim OBXa, Yamaha DX7, Moog Minimoog and Moog DFAM.

3.1 Sound library user interface

Sound library is displayed by pressing the Y-button (QUEST 2) on the left hand controller.

Library display can be toggled on and off with Y-button.

Library is attached to the controller so it moves with the user for easy acces when editing sequences.

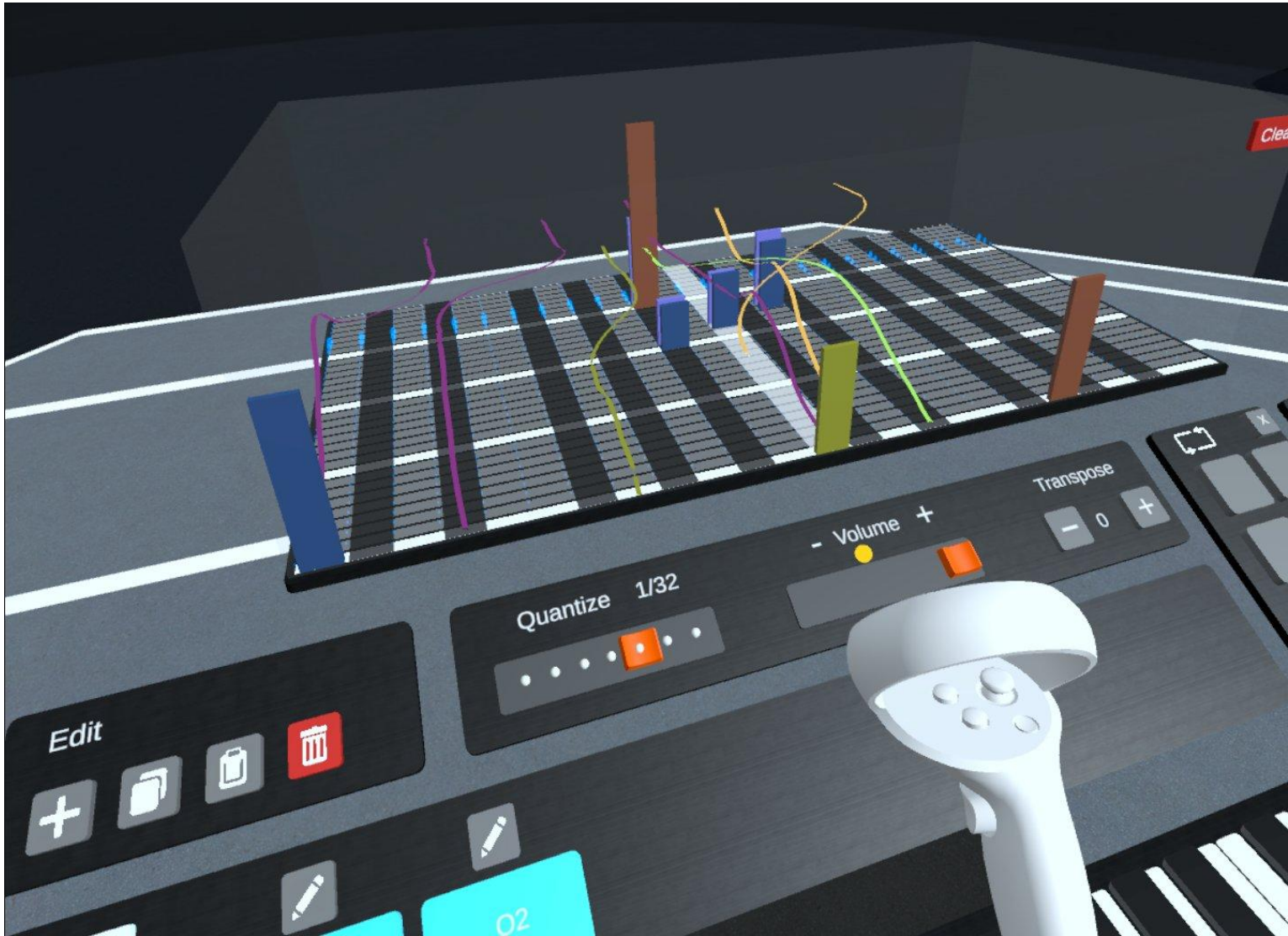
Different categories are displayed on top of the library display. There are 16 categories that are represented with small 3D icons. You can select any category by touching the icon with the pointer. Category name is displayed underneath the icons plate.

All sounds are displayed below the category name. Sounds can be previewed by touching the sound name with pointer. All sounds play from the original sample key, which is always a C-note.

The last sound that was previewed is selected for editing into sequence.

Many sounds have reverb and dry versions. Having reverb mixed into the sound file makes it possible to create interesting tails when a reverbed sound is played lower than the original pitch.

4.0 Sequence editor



In Obius, a sequence is the “sound” that is played on the keyboard. Sequence is always one bar long in 4/4 time signature. It has two octave range from -C to C to +C. Every time a key is pressed from the keyboard, the sequence starts playing and automatically transposing so for example if your sequence has a sound assigned to C and an A-key is pressed, that sound will now play from A.

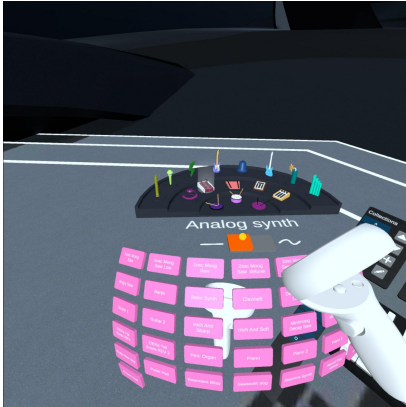
Sounds can be placed on a sequence in two ways. As one-shots or drawn line. The difference between these two is that one shots are played from the sample beginning to the end of the sequence in their original sample pitch. Drawn line on the other hand represents the pitch and volume of the sound. Horizontal direction controls the pitch and vertical the volume.

With drawn line, two other parameters can be controlled also. Rotating the hand controller on its length axis controls filter cutoff. The left-right movement of the hand controller joystick controls delay mix. Delay time is autosynced with the tempo.

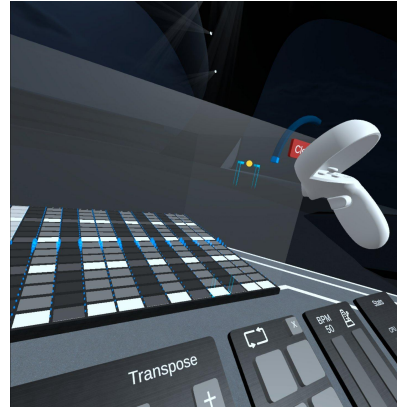
More detailed control of delay or other effect are non existent on purpose. In Obius, the magic happens with the sequence programming, not with built-in effects.

4.1 Placing one shot sounds

One shots are placed by pointing the yellow mallet in the desired beat or sub-beat and pressing the trigger button from the hand controller. Holding the trigger button down allows the volume being set by the height of the block.



Picture 1.



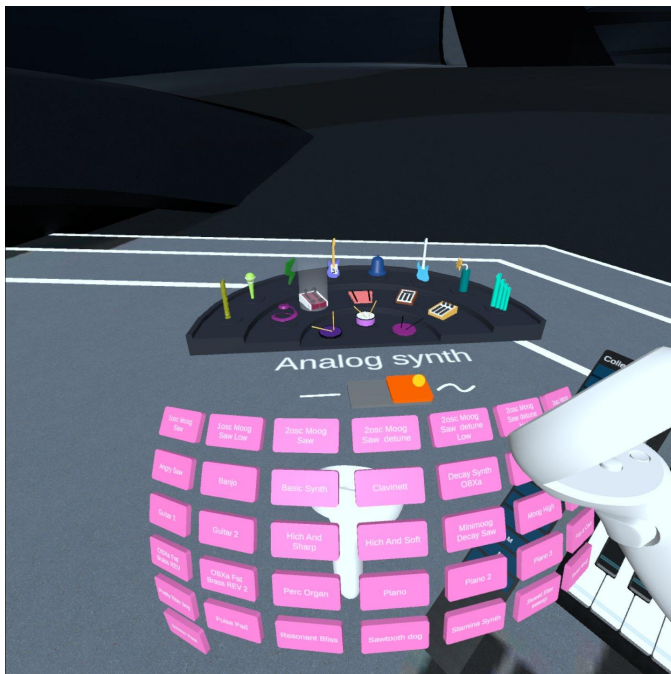
Picture 2.



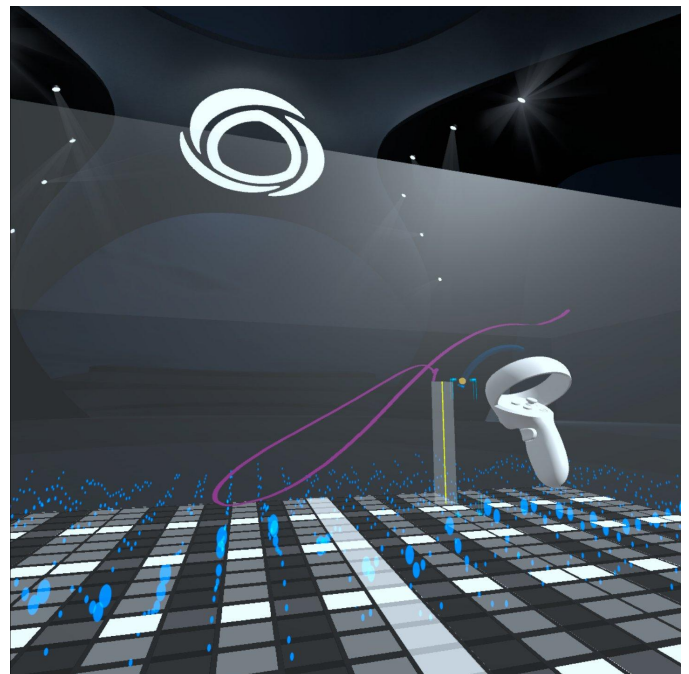
Picture 3.

4.2 Draw line sounds

The draw line tool is selected by selecting the sine wave icon between the sound list and the category display (picture 1.). Draw line sounds are placed by holding down the trigger button on the hand controller. Line will automatically move forward according to tempo setting. More precise drawing can be achieved by turning the tempo way down. After finishing the draw, turn tempo back to original desired tempo. Filter cutoff and delay mix movements has to be recorded at the same time as the drawing.



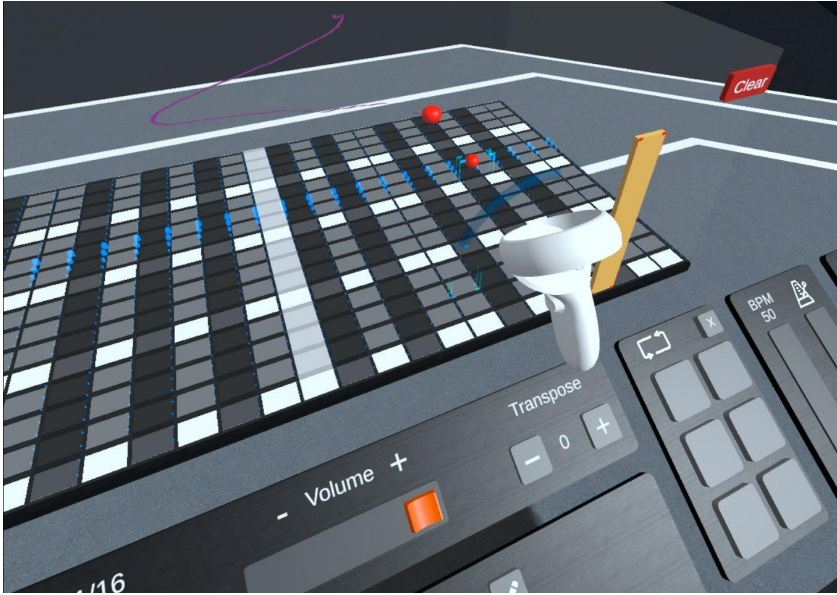
Picture 1.



Picture 2.

4.3 Erasing sounds on a sequence editor

One shots or drawn lines can be erased with eraser tool. Pressing and keeping down A-button on the right hand controller, or the X-button on the left hand controller shows all one shots and drawn lines with red edges or red ball in the beginning of line. Also, the normally yellow pointer mallet is now red. Touching any of red edged one shot blocks or red balls of drawn lines erases them.

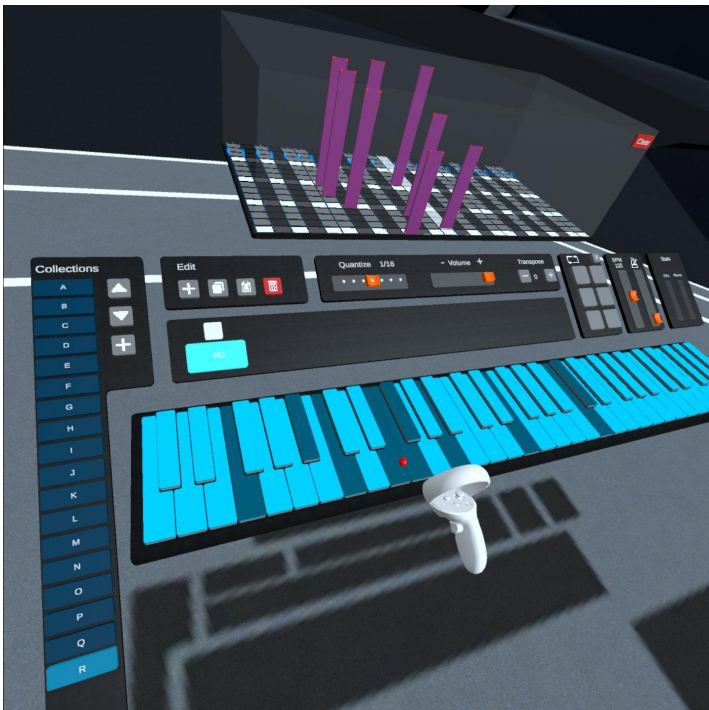


4.4 Moving sounds on a sequence editor

One shots and draw line sounds can be moved by holding the squeeze button and touching the sound event with pointer. The volume can also be adjusted like this.

4.5 Assigning keyboard range to a sequence

Assigning keyboard range in Obius is truly powerful and makes it possible to create interesting splits. Select the sequence first by touching the edit selector button on top of the sequence name button. Pressing and keeping down A-button on the right hand controller, or the X-button on the left hand controller makes the keyboard go dark blue to show which keys are playing the sequence. Simply by touching the keys with the red pointer mallet you can activate or de-activate notes for the sequence. You can randomly have single notes playing or not playing.



5.0 Master sequencer

The purpose of the master sequencer is to easily record your ideas inside Obius. If you are doing production with a DAW, you can then record your idea from the master sequence without having to perform live. It's not a full blown MIDI sequencer. Just a little helper tool.

You can erase any unwanted events with same eraser tool that is used for clearing sequence events.

Press the record button to arm the master sequencer. When you are ready to perform, press the play and the recording starts.

The blue plate is the playhead. It can be grabbed and moved by pressing the trigger button.

