Installation Work submission for Audio Mostly 2023

Composer name and contact details

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Title of the work

Fractal Creatures

Statement of the relevance of the work to the conference theme and/or topics

This work just relates to the conference theme of "Embodies Sound in the Virtual".

Program notes

This work is a multimodal interactive sound installation with special interface : 10 channels rubbing/tactile sensors. Experience visitor generates strange sounds and graphics with this interface in realtime, immerse oneself in the output multimedia (virtual space). In addition to that, the rubbing/tactile sensors return to fingers with real physical reaction which sensory reminds about the real and virtual.

Each sensor detects the push-in from the fingertip as 4 channels of data. Total four-notes polyphonic sound generation system, one tone for the thumb and index finger of the left hand, one tone for the middle and ring fingers of the left hand, and two tones for the four fingers of the right hand as well, generates a creature-like sound with a kind of formant synthesis-like algorithm. Information from the little fingers of both hands modifies the tonal and graphic generation weighting. The graphics part is generated in real time by a fractal algorithm, and its parameters are varied by the sensor information for sound generation, so the multimedia generated is closely related.

A recorded video of an experimental demonstration can be found below. In the demonstration video, some of the parameters are changed manually, but the scene changes automatically as an installation work.

> http://www.youtube.com/watch?v=LF7KojKRP2Y
> http://www.youtube.com/watch?v=2SD84alrN1A
> http://www.youtube.com/watch?v=FM1Af3TyXNk

Technical requirements (audio and visual)

This system connects the original interface to the host Mac via USB, runs the originally developed Max8 (Cycling'74) patches, displays the Mac's graphics output on a large monitor or projection, and plays the Mac's stereo sound over a PA.

There are three forms in which this installation work can be displayed: minimum, intermediate, and maximum.

As a minimum system, the composer's own MacBookAir along with the interface can work alone, but the small (11-inch) MacBookAir screen and built-in speaker sound are not sufficient for an immersive experience.

In the recommended intermediate system, the composer brings his own MacBookAir for graphics and sound output, the AM2023 host provides a large monitor or projection for graphic display, and the host provides a PA for stereo sound. In this case, however, the installation exhibit time is limited to a very small portion of the time, since the experience cannot be exhibited during the period when the composer brings the MacBookAir to AM2023 to participate.

The most recommended system is to prepare the AM2023 host not only a large monitor or projector and a PA, but also a Mac running the Max8 patches. In this case, there is no need to purchase a Max8 license. If you download and install Max8 (version 8.3.3 or later is recommended) from the Cycling'74 website, you can run the original Max8 patch and keep the interface in the exhibit hall, this will allow you to exhibit for a sufficient period of time. Max8 has a Windows version as well as a Mac version, and the patches are compatible, but the composer has not confirmed this and cannot guarantee it.

Required room layout

One desk and chair, a large monitor or projection screen to experience the graphics, and a stereo PA. A slightly darker room is recommended for a better immersive experience.

Duration

Assuming that the time for the audience to enjoy each interaction is the "performance time of the improvisation performance," it can be assumed to be 3 to 5 minutes per person.