

WiiJ

Neil Cawse

IDAT305

21/2/08

<http://www.neilcawse.wordpress.com>

neil.cawse@students.plymouth.ac.uk

ABSTRACT

This project allows me to use the Wii controller and nun-chuck to control certain aspects of sound control and manipulation offered by Ableton Live. This is achieved by a small piece of software called OSCulator, which connects to the Wii controller and nun-chuck, and converts their inputs of customizable midi outputs. Ableton Live then uses its midi mapping function to designate those inputs to particular effects or actions.

I also wanted to see how these could be used for my final year project.

Keywords

Interactive music, Wii, Ableton Live, OSCulator, midi mapping, sampling, novel sound control,

1. INTRODUCTION

Wikipedia

'WiiJ-ing, apart from being an innovative and entertaining new form of DJ, is being heralded for its wholly wireless usage, thus enabling the WiiJ to move freely around the room while still retaining complete control over the music, as well as infinite customization of the controls.'

The DJ has a well-established role in the music industry, they use a number of instruments to control and manipulate the sounds that they work with, the Wii controller (which is a relatively simple Bluetooth device designed for gaming) gives a more than novel method of controlling and triggering musical sounds during a live performance.

UM Invites was something of a try-out, to see if it would work, and how the audience would react to it", says Sage. "The gig was a success, and has proven the concept." However, it took a while for the audience to realize what exactly was going on. "We started off in the traditional position for a DJ, behind the booth", explains Timski. "Only when we stepped away from the booth did people understand the significance of what was happening - a remote control DJ experience."
(<http://www.utregmassive.nl/index.php>)

Personally for me I feel that one of the most significant developments here is that normally music causes a physical response, in the form of dancing or the tapping of a hand to a beat, but the gesture recognition associated with the Wii controller reverses this, now instead the physical actions of the WiiJ

2. Compositional Process

As I've produced Seven totally different sounding pieces, I've basically just experimented with different mapping and musical styles to see what I could achieve, and test the capabilities of the Wii and nun-chuck and a sound manipulating tool. The output sounds should be compared to a novice DJ attempting to learn the art.

3. Related works

There are many different people showing their work achieved in the field of WiiJ'ing, much of it can be seen on Youtube (see references links.)

There are also more mainstream experimental nights that include WiiJ'ing, and although it isn't established, WiiJ'ing is taking off with interest from around the world, and even a showing on the 'gadget show.'

3.1 Distribution

I found during my research into Wii, Ableton Live and OSCulator that many people used this combination to achieve scratching effects and good final produced sounds, and were happy to share this via youtube, but never to make their Ableton Live or OSCulator saves available for download. Neither were there any tutorials on how they achieved it. To half solve this problem I will be posting all my saves on my blog.

3.2 Compositions

In the Hand-in I have submitted 7 compositions exploring the abilities of the Wii with Ableton Live.

1 – Piano loop – simple jazz style piece controlled by the wii buttons to activate different channels.

2 – mix 2 – Uses buttons to change samples for the main piece, and samples played from button press as well

3 – mix 3 – Again uses different buttons to activate and change the 2 audio channels.

4 – orchestra – 2 instruments controlled by each hand, buttons to play different samples, and roll and pitch to control the musical pitch and volume of different channels

5 – horror – samples played by button presses and pitch and volume effected by Wii and nun-chuck roll.

6 – acceleration – investigation into the acceleration mapping of the Wii, not impressive at first glance, but more work could be done in limit values.

7 – random techno – buttons to activate samples.

3.3 Techie Stuff

On offer in the labs are both PC and MAC, unfortunately in order to achieve what is needed on the PC GlovePie and Bluesoil is required, MidiYoke is another method of outputting midi for the Wii. This was original attempted; however Benji did not have the appropriate administration rights to install the software.

Left with the Mac option I attempted to connect my Wii controllers to my laptop at home, both failed but the university lab machine where able to connect via OSCulator. However now the largest hurdle was getting Ableton Live installed.

I was able to first get a fully working interaction between Ableton Live and my Wii controller Two days before the presentation; this was purely due to technical issues beyond my control. The demo version also did not allow me to publish, or save any work.

A fully licensed Ableton Live was installed on Monday afternoon, Three days before the hand in deadline. It didn't have a library, just another few hours wasted on a technical task, again, out of my control.

3.4 Sound Design

Ultimately the most important thing for this part of the assignment is to show how your sound practice has evolved, how your approach has developed from part 2 or how your compositional process has evolved. Maybe your scoring process needs a diagram, software needs a screenshot or performance is best illustrated by an image. Either way includes as many as you need to balance the text and reference accordingly...

4. Conclusions

Well firstly I'd like to say that I'm not a DJ or a WiiJ, and that maybe my musical ability might not have let the Wii control reach its full potential, but Ableton Live is forgiving so my produced 'music' was too bad. As I generally explored different potential methods of control via the Wii controller, I found that its buttons for triggering sample loops was effective, if not simplistic. The pitch and till functions could be used to good effect, but were

tricky to control simultaneously, and most irritating sometimes when mapped to the volume or balance.

Secondly I wanted to investigate the general interaction capabilities of the Wii and Ableton Live for my Final Year Project, I found that the acceleration mapping was insufficient for my requirements, but that Ableton Live could be used to create the play along music with varying sections triggered by the Wii.

ACKNOWLEDGMENTS

Thanks to Dan Livingstone for his help with explaining Ableton Live and its midi mapping function, also for installing a demo version of Ableton Live for me, unfortunately it was wiped from the system the next day, so I was unable to use it fully.

Finally a huge thank you to Benji our engineer who sacrificed much of his time answering my emails, and trying to install software for me on many occasions.

5. REFERENCES

- [1] <http://www.djwii.com/news.php>
- [2] http://www.utregmassive.nl/index.php?option=com_content&task=view&id=53
- [3] <http://www.lacitybeat.com/cms/story/detail/?id=5897&IssueNum=217>
- [4] <http://en.wikipedia.org/wiki/WiiJ>
- [5] <http://www.youtube.com/watch?v=BZVVFLYLfHU>
- [6] <http://www.youtube.com/watch?v=46DOpVNhNn8>
- [7] http://www.youtube.com/watch?v=iJ4r3k_M7X8
- [8] <http://www.youtube.com/watch?v=1MXfe2YyBBY>
- [9] <http://createdigitalmusic.com/2007/05/25/wii-control-for-macs-oscillator-for-osc-midi-and-keystrokes/>
- [10] <http://createdigitalmusic.com/tag/wii/>
- [11] <http://createdigitalmotion.com/2007/11/27/control-visuals-with-wii-free-adobe-flash-osc-midi/>