

Alex Danson

# THE WEIRD WIRED SAX

for Saxophone and Gloves

PERFORMANCE NOTES

Instrumental/Technical requirements

This piece can be played by any instrument in the saxophone family.

The interactive interface used here consists of:

- 1. The I-CubeX System manufactured and distributed by Infusion Systems (infusionsystems.com), consisting of a pair of gloves with sensors in the fingertips, sending MIDI data to its own proprietary MIDI interface.
- 2. A foot pedal connected to another MIDI interface, sending CC#64
- 3. A led light connected to the iCube, to signal the performer the action of pressing the pedal

Other technical devices used:

- 4. An quadraphonic computer audio interface (4 speaker system; the speakers will be placed in the four corners of the performance venue)
- 5. A couple of clip-on microphones connected to the audio interface. (The role of the second microphone is only amplification- it can be omitted)
- 5. A Macintosh laptop with the Max/MSP application installed. Drivers for the audio and MIDI interfaces need to be installed also.
- 6. The Max/MSP programmed patch
- 7. A computer operator to adjust the mix levels. Pedal messages can be doubled by the Space bar. The Left/Right arrow keys can also be used to correct performer's mistakes in pressing the pedal

Data flow:

The gloves and the foot pedal send MIDI information to the computer. The microphones, attached to the saxophone's bell, send audio signals. The computer will use the MIDI information to alter the audio information, and also to record and play back the live performance of the saxophonist.

Notes and Symbols

- 1. A little longer note value
- 2. A little shorter note value
- 3. Key slap
- 4. Tongue slap
- 5. Pedal events to be sent to the computer
- 6. Sax fingering symbols: closed; open; slap.
- 7. All subtones to be played non vibrato

PROGRAMME NOTES

This piece is an exploration in electronic interactive music.

The interface consists of a pair of gloves with a sensor in each fingertip, sending MIDI data to the computer. In addition to this, the performance is captured by the computer through a pair of microphones. The actual saxophone sound is recorded and then played back at later times, while different parameters are transformed in real time with help of the information received from the live performer through the gloves' sensors. A foot pedal is also used to drive the computer from section to section.

While the actual performance evolved from gestures of performance resulting in non-musical sounds to melodic lines, in a pathetic attempt to teach the computer what music is, the soloist will be trying to influence the outcome by means of data transmitted from the fingers pressure through the gloves. At the end, the computer finally "gets it", and bursts in its own music before collapsing of exhaustion...

The duration of the piece is approximately 8 minutes.

Max/MSP patch available.  
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Key pad  
● = closed  
○ = open  
x = slap

↑ = longer note value.  
↓ =

# The Weird Wired Sax

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Saxophone

Ch 1 - Live  
Ch 2 - Playback  
Ch 3 - Playback  
Ch 4 - Playback

Sax

Live  
Ch2  
Ch3  
Ch4

Sax

Live

Ch2

Ch3

Ch4

Handwritten musical notation for the first system, including notes, rests, and performance instructions such as "articulated air blow", "low air blow", and "tongue slap".

Handwritten musical notation for the first system, including notes, rests, and performance instructions such as "articulated air blow", "low air blow", and "tongue slap".

Sax

Live

Ch2

Ch3

Ch4

Handwritten musical notation for the second system, including notes, rests, and performance instructions such as "low air blow", "play 1", and "play 3".

Handwritten musical notation for the second system, including notes, rests, and performance instructions such as "low air blow", "play 1", and "play 3".

change pitch by changing I, II R.H. finger pressure save for III, IV

R.H. L.H. Try to match the pitch you play

Sax

subtone put R.H. on the bell.

pp

recs

repeat ad. lib.

repeat ad. lib.

15 16

17 18

19 20

air blow

1"

Live

Ch2

Ch3

Ch4

play 2

Fingers I, II on both hands change special position of (subtone) sound on Ch2

change pitch

1"

8

subtone

R.H. change pitch by changing pressure I, II, III, IV

8

5/2

5/2

21 rec 6

22

23

24

turn on G.M.C.

fade out and stop (10")

play 6

Live

Ch2

Ch3

Ch4

Sax

Live

Ch2

Ch3

Ch4

*R.H. counter track 3*

*2"*

*1"*

*stz*

*b x*

*p*

*25* *26*

*27 rec 7*

*28*

*play 3*

*RH - sax notes to mupper pitch*

Sax

Live

Ch2

Ch3

Ch4

*1"*

*pp sempre*

*stz*

*p*

*stz*

*mp*

*stz*

*29* *30*

*31* *32*

*33* *34*

*fade out 2"*

*rand trip shift*

*flange on*

*play 7*

*cont - mupper*

*finger special dith for all tails*

Sax

8 > 7 1280

Flutter-Tongue

$\approx 100$

3

2"

8-5 3"

ff

35 36

rev.

off

off

off

Ch2

Ch3

Ch4

Sax

$\approx 60$

Key slap random

5"

3"

(subtones)

3"

5"

5"

wait for sound to fade (p)

rec 8

flanger

38

39

rec 9

39

40

41

rec 10

42

play 8 (w. flanger)

play 9 (w. mtr)

play 10 (w. mtr + prep sl)

Live

Ch2

Ch3

Ch4



Fingers act as switches -  $\begin{matrix} \bullet & 8va \\ \bullet & \\ \bullet & Bb \end{matrix}$

10"

~20"

Sax

Random notes and values

listen for the computer to generate sounds

wait for sounds on ch 2, 3, 4 to fade out

light starts flashing

turn on sax notes

turn chords on

Live

Ch2

Ch3

Ch4

~30"

Sax

put sax on stand  
take off the gloves

wait for the computer to stop

light starts flashing

computer finale

auto notes; increase notes speed.

Live

Ch2

Ch3

Ch4

Peter Spies, 2008