

**Nicolas Collins**  
***Waggle Dance***  
**(2007 – revised 2008)**  
**For Laptop Marching Band**

**Program Notes**

*Waggle Dance* relies on two sets of sounds: feedback between each laptop's built-in mike and its speakers, triggered by an audio file of crackle from antique cylinder recordings. Only the edges of these sounds are heard, however, as each laptop runs a program that "ducks" the sounds as soon as they start. Lighting is provided from the laptop screens. *Waggle Dance* was written for the Princeton Laptop Orchestra (PLOrk).

**Technical Requirements**

- Three or more performers with Macintosh laptop computers running OSX (PC version also available).
- "Waggledance" program (runtime Max/MSP) and "crkl.mp3" audio file in the same folder, on each computer.
- A darkened performance space through which the performers can walk – typically this piece is performed as a "processional" in which players walk through the audience seating area to their stage positions for subsequent concert performances.
- No PA system needed.

**Preparation**

Run "Waggledance" program by double clicking its icon. DSP should turn on automatically; if not use button in top left of window. Click "status" to open DSP control panel:

- Set "Driver" to "Core Audio Built-in Output".
- Set "Input Device" to "Built-in Microphone".
- Set "Input Source" to "Internal microphone".
- Set "Output Destination" to "Internal Speakers".
- Set "I/O Vector" and "Signal Vector Size" as small as possible (16 or 32.)

**Do not connect the computers to any external amplification/speakers.** Make sure batteries are fully charged, then disconnect from the power supply.

Raise internal speaker level to maximum. Hit "return" a few times to randomize program values. You should hear a mix of feedback between the internal microphones and internal speakers and bursts of record surface noise. If there is no feedback you may need to increase the input scaling factor in the "GAIN" panel at the top of the screen. (In case of difficulty check the "input level" settings in System Preferences – Sound.)

When you are sure the program is working press the "g" key. This should call up a full-screen color panel (you can resize it from the lower right corner to fit your screen.) Hitting the "Return" key randomizes the sound parameters and the screen color. The "Space Bar" toggles a mute on and off when you wish to silence your computer. "Esc" removes the color screen.

## Performance

Hold the laptop in front of you (screen facing your face) as you wander around the darkened performance space, in and amongst the audience. Periodically hit Return to randomize sound parameters and change your facial lighting. Hit the Space Bar to silence whenever you want to insert a pause.

The performance can be of any duration. To end the piece hit the Space Bar to silence the audio, then close the laptop to kill the lighting effect.

WaggleDance2008.1

dsp on

status

rst

on

space bar mutes

Click "status" and enable "core audio built-in audio", input = "internal microphone", output= "internal speakers." Raise internal speaker level to max and increase "input gain" (under "Gain" heading) if necessary to start ducking feedback.

GAIN

input 4

output 1

random "X"

MUST HAVE "CRKL.MP3" AUDIO FILE IN SAME FOLDER AS PROGRAM!

random ("F") FILTER FEEDBACK

SOUND FILE

110

DUCKER

phase now

SELECT INPUT

random ("O") 100 % feedback

feedback<< >>sound file

feedback

WAGGLE DANCE  
NICOLAS COLLINS  
FOR PLORK  
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"G" = START, "ESC" = END, "RETURN" RANDOMIZES VALUES,  
"SPACEBAR" TOGGLES MUTE.