

Five Pieces for Laptop Quartet

Notes to performers

This document explains how to play the pieces in this portfolio. The pieces may be played separately or in any combination. In the file folder, you will see subfolders for each player, containing all the necessary files. The “Freq Out” folder contains the files for the separate server computer necessary for *Freq Out*. If there are any questions, please email me: adamscottneal@gmail.com.

Baffin Bay

Program Note:

BAFFIN BAY is a body of water between Greenland and Baffin Island, Canada. Near the Arctic Ocean, it is a cold, forbidding, but beautiful place. I have never visited, but I have long been fascinated by the arctic seascape and its indigenous wildlife. This relaxed and contemplative work was written for laptop quartet, and each player is assigned two instruments for a total of eight unique instruments. The form is based around four quartets featuring different combinations of these instruments, as well as duos and trios building up to and receding from these quartets. The players improvise within a structure that determines who will play at a given time, and what pitches will be present at that time.

Performance Notes:

Performance

Each player has a unique interface with two different instruments. On the left side of each patch is a clock and a list of tasks. When starting the piece, all players should press the “start” button next to the clock (it is not essential that this be precisely timed). The list of tasks tells players when to fade sounds in and out. Next to each item is an LED which lights up 10 seconds before the listed time as a reminder. The other aspects of the patches are different for each player.

Each patch displays the available pitches, but these are displayed for reference only. The pitch content of this piece is controlled and tied to the clock, and altering the displayed pitches will have no effect (except for player 2, see below).

Here is a reference score, detailing the structure of the work. Please note that despite the blocks shown, instruments should not begin and end suddenly. Each instrument should be faded in and out with care. The minimal score shows that this piece is merely a controlled framework for improvisation. The players are free to explore their instruments when realizing the piece.

Score:

Sonority:	FECAGD	(FECAGD)	interpolate ==>	G#C#D# F#A#B	interpolate ==>	DAGECB
Texture:	Solo	Duo	Trio	"Melodic" Quartet	Trio	Quartet
Player 1:	WIND			FLUTES		WIND
Player 2:		CHIMES				CHOIR
Player 3:			STRINGS		PAD	
Player 4:				HORNS		
0:00	0:45	1:30	2:15	2:45	3:30	4:00

interpolate ==>	FF#A# C#D#G#	interpolate ==>	FECAGD	interpolate ==>	G#C#D# F#A#B	(G#C#D# F#A#B)
Trio	Quartet	Trio	"Texture" Quartet	Trio	Duo	Solo
FLUTES	WIND		WIND	FLUTES		
	CHIMES		CHOIR			
	STRINGS	PAD		STRINGS		
DRONE		HORN	DRONE			
4:45	5:15	6:00	6:30	7:15	8:00	8:45

Interfaces:

BAFFIN BAY by Adam Scott Neal, 2008 Player 1

Tasks:

- 0:00 Fade in Wind
- 2:15 Fade out Wind, Fade in Flutes
- 3:30 Fade out Flutes, Fade in Wind
- 4:00 Fade out Wind, Fade in Flutes
- 4:45 Fade out Flutes, Fade in Wind
- 5:15 Fade out Wind
- 6:00 Fade in Wind
- 6:30 Fade out Wind, Fade in Flutes
- 7:15 Fade out Flutes

Wind

Pitch Pan x Filter BW Auto-varying BW Speed On/Off

155. D#3

246. B3

739. F#5

932. A#5

Flutes

Start/Stop Notes

C#6 F#6 G#6 A#6 B6 D#7

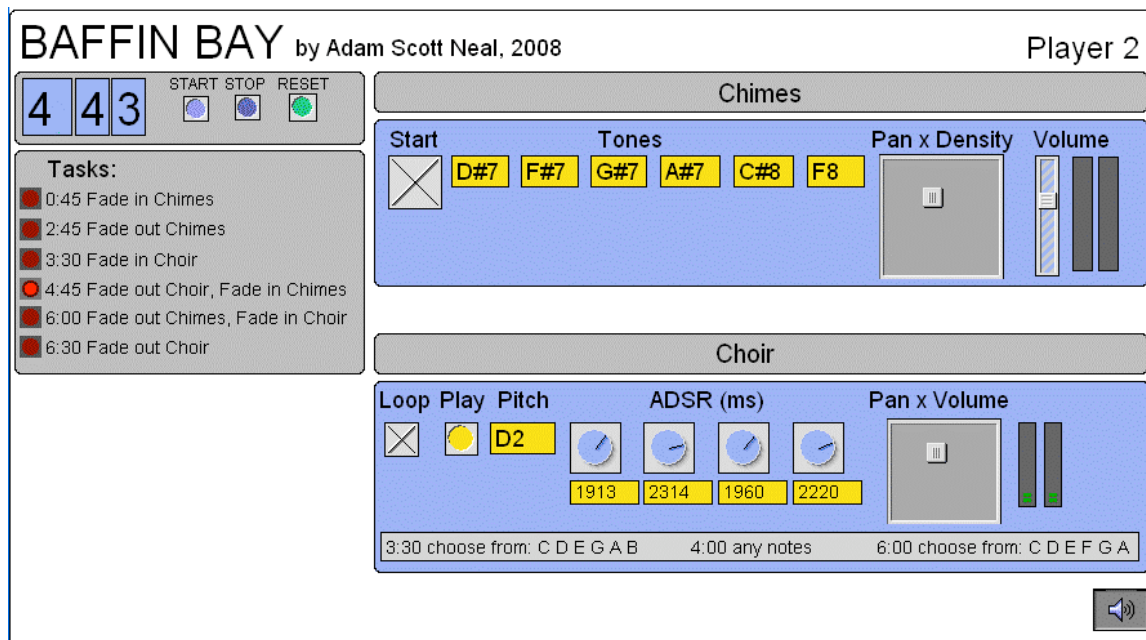
Density x Pitch Pan Width Pan Position

Tremolo

The Wind instrument plays four different pitches, which have identical and independent controls: a trackpad allows the player to change panning (x-axis) and filter bandwidth (y-axis). The bandwidth is widest at the bottom. The player can also use the slider labeled “Auto-varying BW,” to let the computer change the filter bandwidth automatically. This allows the player to focus on other controls while still having dynamic changes. The volume of each pitch is also controlled separately.

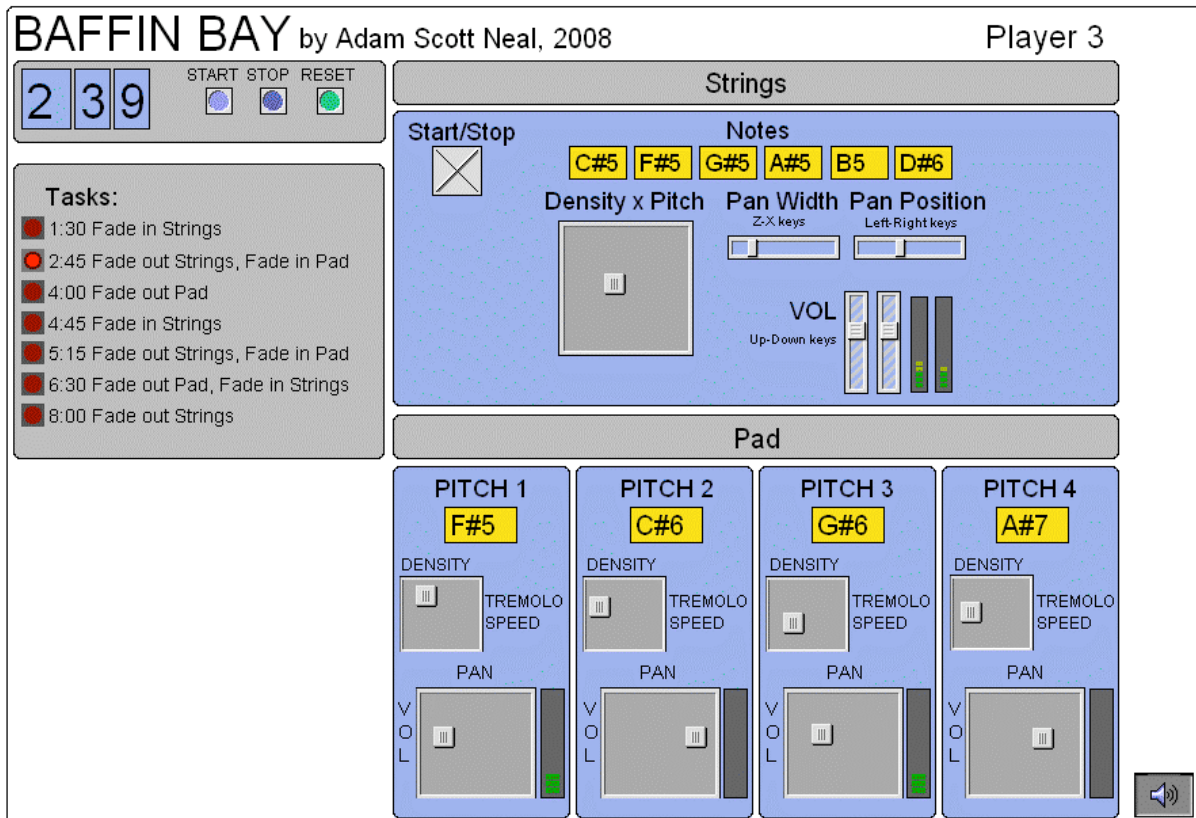
The Flute instrument also has a trackpad, but this trackpad controls density (x-axis) and pitch (y-axis). When the player presses “start” on the Flute instrument, flutes will play automatically; however, the density increases as the player moves to the right of the trackpad. Not all pitches are played at once; the player chooses a range by his position in the y-axis: the very bottom allows only pitches 1-3, while moving slightly higher allows only pitches 2-4, etc.

The instrument includes sliders to control pan position and pan width. A center position and width can be set, and pitches are placed randomly within this range. These sliders can be moved with the mouse or with the keyboard, as indicated. The tremolo knob can be used to introduce tremolo at speeds of 1 to 20 times per second. This can be also be controlled by the keyboard, as indicated. Finally, a stereo fader controls the Flute instrument’s volume.



When Player 2 presses “start” in the Chimes instrument, chimes will play automatically. With the trackpad, the player can control panning (x-axis) and density (y-axis). The density of chimes is highest at the top of the trackpad. Next to the trackpad is the volume control for the Chimes instrument.

The Choir instrument plays samples of men singing. The player may elect to play single notes, or may elect to loop the sounds in order to create a continuous texture. Unlike the other instruments, this patch does not play pitches automatically. The player is free to select pitches (in the number box), but the selections should be based on the lists indicated at the bottom of the instrument. The other controls in this instrument are knobs for creating envelopes, and a trackpad to control panning (x-axis) and volume (y-axis).



When the Player 3 presses “start” on the Strings instrument, strings will play automatically; however, the density increases as the player moves to the right. Not all pitches are played at once; the player chooses a range by his position in the y-axis: The very bottom allows pitches 1-3, while moving slightly higher allows pitches 2-4, etc. The instrument includes sliders to control pan position and pan width. A center position and width can be set, and pitches are placed randomly within this range. These sliders can be moved with the mouse or with the keyboard, as indicated.

The Pad instrument has four pitches, which can be controlled individually. Like the Strings instrument, the Pad will play pitches automatically. Each pitch in the instrument has two trackpads. The top trackpad controls density (x-axis) and tremolo speed (y-axis). The sounds are most dense at the left, and the tremolo speed is fastest at the top. The bottom trackpad controls panning (x-axis) and volume (y-axis).

BAFFIN BAY by Adam Scott Neal, 2008 Player 4

3 5 7


START STOP RESET

Tasks:

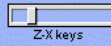
- 2:15 Fade in Horns
- 4:00 Fade out Horns, Fade in Drone
- 5:15 Fade out Drone, Fade in Horns
- 6:00 Fade out Horns, Fade in Drone
- 8:45 Fade out Drone

Horns

Start/Stop




Pan Width



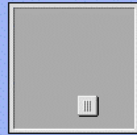
Z-X keys

Pan Position

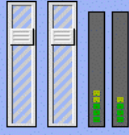


Left-Right keys

Density x Length



Vol.



Notes

E3
G3
A3
B3
C4
D4


Drone

Pitch


98

G2

Pan x BW

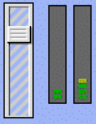



Tremolo



(also Up-Down keys)

Vol.





When Player 4 presses “start” on the Horns instrument, horn samples will play automatically; however, the player can use the trackpad to affect density (x-axis) and note lengths (y-axis). The texture is more dense on the right, and the notes are longer on the bottom.

The instrument includes sliders to control pan position and pan width. A center position and width can be set, and pitches are placed randomly within this range. These sliders can be moved with the mouse or with the keyboard, as indicated. Finally, a stereo fader controls the Horn instrument’s volume.

The Drone instrument plays a single continuous pitch. The trackpad controls panning (x-axis) and filter bandwidth (y-axis). The filter bandwidth is the widest at the bottom. Next to the trackpad is a knob controlling tremolo, a rate between 1 and 20 times per second. Next to the tremolo is a volume fader.

(Not) For Tape

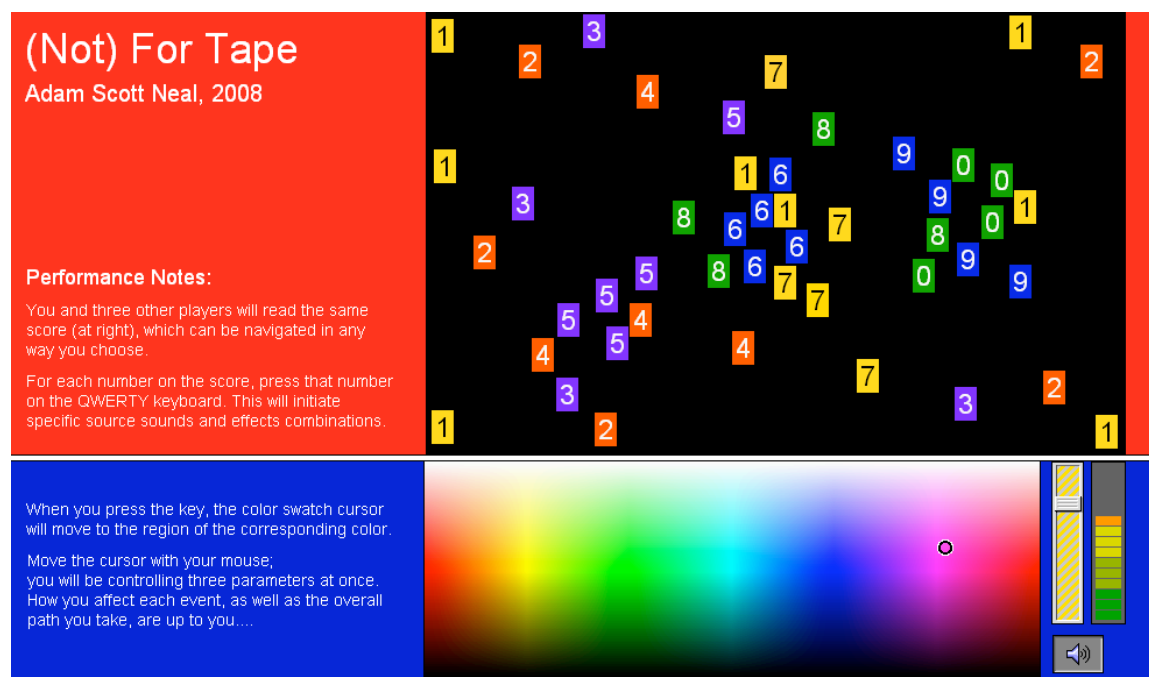
Program Note:

Since the first medium for composing electronic works was magnetic tape, many concert programs describe a piece as written “for tape,” much like a piece might be written “for piano.” This tradition persists today, despite the fact that most pieces are no longer presented from tape, but rather from digital media (e.g. hard disk). This piece is to be performed by four musicians, rather than simply presented from fixed media such as disk or tape. However, the source sounds of the piece are adhesive tape, so the piece is simultaneously “for tape” and “not for tape.” As an homage to early works for tape, I relied on sound manipulations used since the early days of *musique concrete*, namely speed manipulation, filtering, reverberation, and ring modulation. Again, there is no fixed form for this work. To further remove this piece from fixity, the players are presented with a graphic score that can be interpreted in multiple ways, rendering each performance substantially different.

Performance Notes:

Interface

Below is a screenshot of the player interface, which is the same for all four players. The instructions are written directly into the interface for reference.



The top area, with the numbers, is the score. The numbers have no function. Each player will follow this score independently, taking any path they choose. The duration for this piece is open, but players should decide an approximate duration beforehand so that they may proceed at a similar pace. Each number corresponds to one event.

Since there are 48 events in the score, one suggestion could be to play for 8 minutes, which would mean approximately 10 seconds per event. It is worth noting, however, that playing a new event every 10 seconds would sound very regimented and would not be ideal!

Performance

To create an event, the player will type the corresponding number on their keyboard. Doing so will start a soundfile and a predetermined type of sound process. Once the file begins playing, the player can move the cursor around the color swatch to affect the process. The numbers on the score have corresponding colors. When the number is pressed, the cursor on the color swatch will move to that color area. This was done as a memory aid for the players, and it allows the players to anticipate where the cursor will move.

Morty's Mood

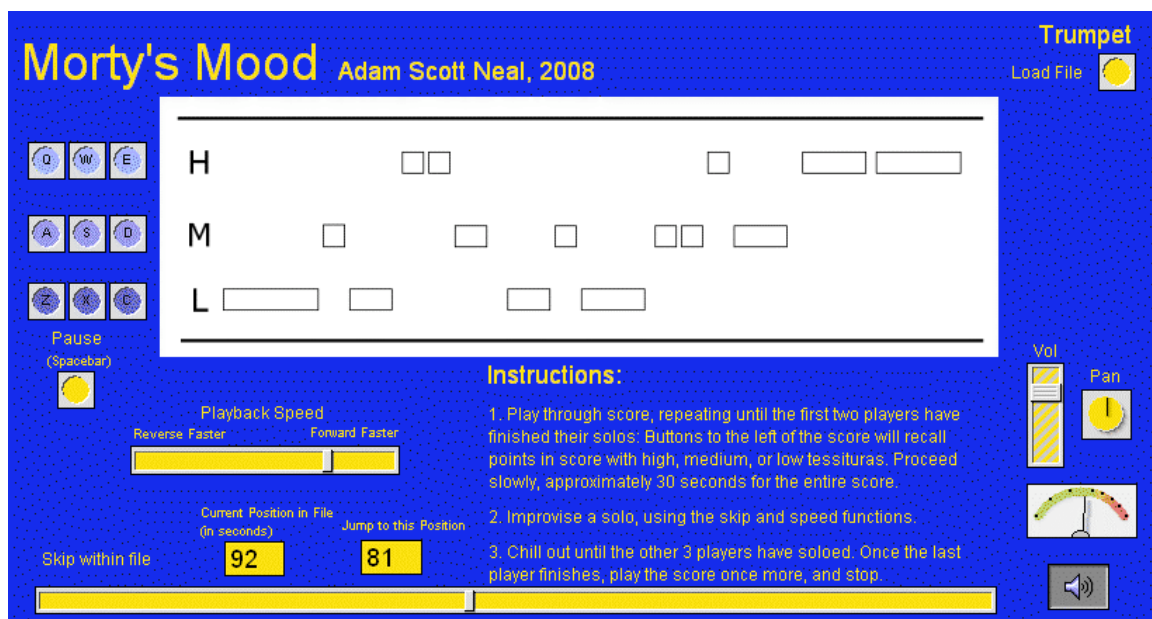
Program Note:

Morty's Mood combines the sounds of jazz and turntablism with the compositional ideas of Morton Feldman. In this piece, each player is given a graphic score with blocks directing them to play in a high, medium, or low tessitura. The players use interfaces which play soundfiles and allow the player to skip to phrases in which the recorded soloist played in a high, medium, or low tessitura. This piece is written for laptop quartet, and each player is assigned samples from famous players, creating a disembodied all-star band: Wynton Marsalis on trumpet, Bill Evans on piano, Charles Mingus on bass, and Buddy Rich on drums. After playing the initial score, each player takes a solo, just like a jazz quartet, but the solos involve manipulating the sound files, so they more closely resemble a turntablist's solo.

Performance Notes:

Interface

Each player has the same interface, which looks like this: The differences are the score and the sound file skip times, which correspond to the sample used.



The score should last approximately 20-30 seconds, but it is not intended for the players to begin and end at the same time. Since the samples used in this piece are taken from different players and different songs, it is unlikely that the music will have much cohesion anyway.

Scores

Trumpet

H		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		

Piano

H		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
L			<input type="checkbox"/>			<input type="checkbox"/>	

Bass

H		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		

Drums

H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M		<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>
L	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

When playing the score, the players will use the buttons to the left of the score. For a block on the “H” line, the player may choose any of the 3 buttons on the same line. They can play these buttons with the mouse, but the buttons are also mapped to the keyboard, on the keys written on the buttons (e.g. Q, W, E). These buttons will skip to predetermined points in the soundfile.

Performance

The players all begin together, playing through the score at their own pace. Once a player has completed the score, he shall repeat it until it is his turn to solo. The order of solos is: trumpet, piano, bass, drums. The length of each solo is up to the players, and the players should listen carefully for the end of the previous solo in order to begin their solo soon after. Once the “drummer” completes his solo, all of the players should proceed through the score once more, then stop. Players do not need to end together.

For the solos, the players are free to use the program however they choose. The interface includes a slider for skipping to different points in the sample (besides those determined by the buttons), and it includes a slider for altering the speed and direction of the file. It may be helpful for the players to think of this as a turntablist’s solo rather than a jazz instrumentalist’s solo.

Freq Out

Program Note:

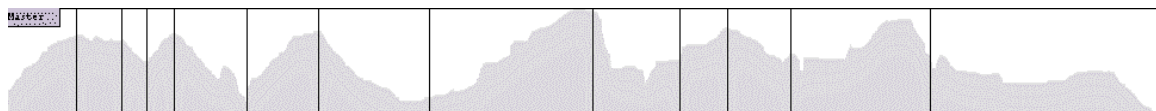
Freq Out for four networked laptop performers uses a program designed by Alain Renaud called The Frequencyliator. This program distributes a common timeline and a common pulse to the performers, and allows the master computer to filter each performer in order to carve out unique frequency bands for each. The “score” for *Freq Out* is based upon the contours of the Grand Teton mountains in Wyoming, USA, and these contours determine the amplitude of the ensemble. The peaks and valleys also determine the beginnings of new sections; in each section, the performers’ frequency bands are reassigned, and their notes are quantized to new note values (i.e. only half-notes are allowed in one section, but sixteenth-notes are allowed in another). Thus, the roles of lead and accompaniment players are always changing. The sound-world for this piece is quite “retro,” since I provided instruments to the players which resemble classic synthesizers and drum machines.

Performance Notes:

The Frequencyliator control program

On a separate computer, set up the Freq Out server patch. Load in the score and cues, check the outgoing IP addresses in the “sequence” subpatch and the incoming audio in the “input” subpatch. After this, the server should be ready.

Freq Out score, with cues superimposed

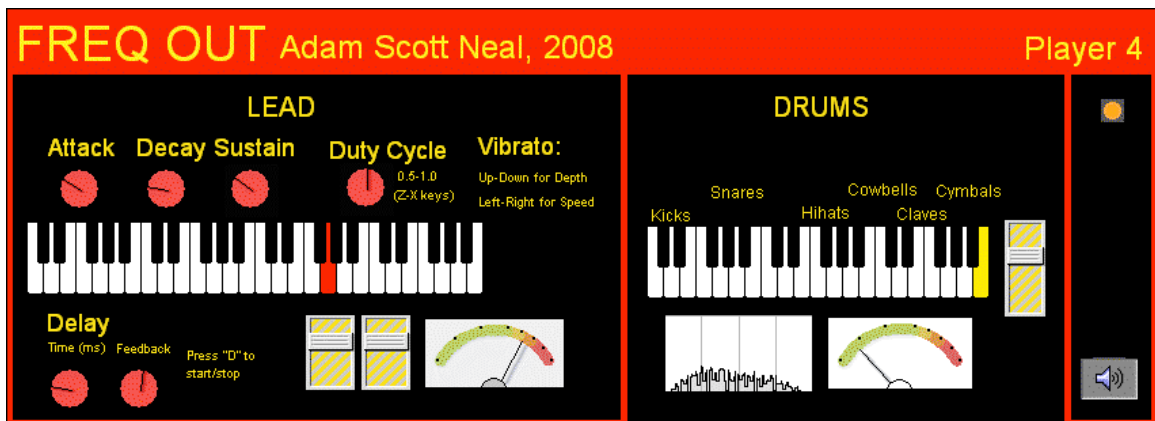
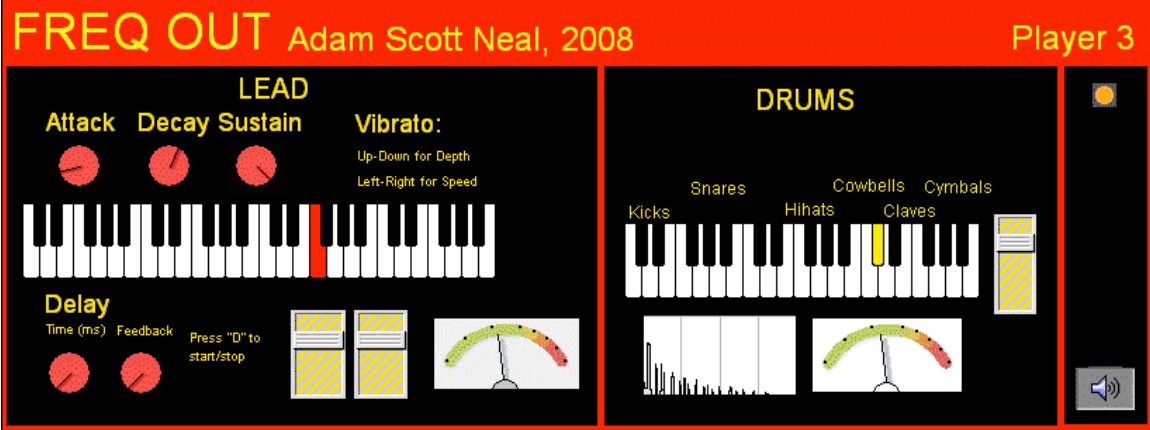


The person controlling the server computer should signal when to begin. The player patches will make no sound until the patch begins.

There are no directions other than to improvise sensibly. The server and internal workings of the players’ patches will alter the performance in terms of bandwidth and quantization speed.

Interfaces

Each player will be provided with one of the two patches shown below:



There are two versions of the *Freq Out* patch. One uses sawtooth waves, while the other uses square waves. The patch that uses square waves has an additional knob for changing the wave's duty cycle. Otherwise, both patches work the same way. Both patches have two components: a pitch-based "lead" component and a synth drum kit component. Each component has a fader, but players should note that it is controlled by the server and will therefore move automatically against their will!

The player has three knobs to control their lead instrument's envelope, and they play new pitches by using the keyboard slider. Since their notes are quantized to the Server's pulse, players should not be alarmed if the pitches do not play immediately. By using the arrow keys on their keyboard, the player can change vibrato speed (left-right) and vibrato depth (up-down). The player also has two knobs for controlling delay time and delay feedback. The delay can be toggled on and off by pressing "D" on the keyboard.

The drum component is also controlled by a keyboard slider. Sections of the slider are mapped to different sounds as shown.

Presets

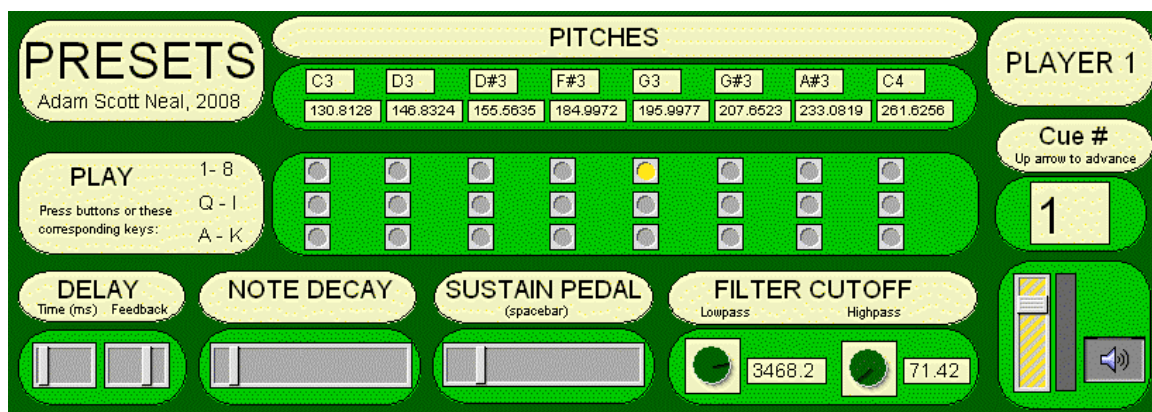
Program Note:

In *Presets* for four networked laptop performers, each player is provided the same synthesizer program. A master computer reads the settings from each player and periodically redistributes new settings to all of the players. For example, during one cue, the master computer will determine the lowest overall pitch (from all four of the players), and distribute that pitch (and only that pitch) to all of the players. During another cue, the master computer will find the shortest note length and send that to all of the players. The piece is completely improvised, but performers must be ready to confront sudden changes to their instrument.

Performance Notes:

Interface

Each player has the same interface, except for player 1, whose patch also contains controls for scrolling through cues. He can scroll by pressing the up-arrow key.



The interface has 8 pitches available at all times. Players are free to change the pitches, and may be forced to do so at different times during the piece. The players need to be careful to click away from the number boxes after they change the pitch; they will be articulating notes by typing numbers and letters, so they may inadvertently change the pitch, often to a subaudio frequency.

Beneath each pitches are three buttons, which articulate the pitches at different dynamic levels. Although the player can articulate the available pitches by pressing these buttons with the mouse, the player can also use the computer keyboard to articulate the pitches, using the buttons as visual feedback. The top row, 1-8, is the loudest, followed by the second row, Q-I, and the bottom row, A-K.

Beneath the manuals are controls for parameters. At the left corner, there are sliders for delay time and delay feedback. Moving to the right, there are sliders for note lengths. The “sustain pedal” only works with the resonating filter setting, and the player must hold down the spacebar to sustain the notes. To the right of the sustain

pedal slider are two dials for controlling lowpass and highpass cutoff frequencies. Please note that these filters are in series, so you may accidentally filter yourself out. To the bottom right is the volume control.

Performance

The piece is totally improvised. Each player is given a preset to start, and may play or make changes to that preset. While playing the piece, Player 1 needs to periodically move to the next cue by pressing the up-arrow. There are 24 cues in all, but Player 1 need not feel that he must proceed through all of the cues. The duration of the piece is variable; like any free improvisation, this piece will end when the performers feel that it should end. It is hoped that the piece will last longer than, say, one minute, but if that feels appropriate to the players, then that is permissible.

When a new cue occurs, players will be supplied a new value for one of their parameters. Many changes will be subtle, but some changes will not. For example, one cue finds the lowest overall pitch and sends that to all of the players. Suddenly, one may go from a high tessitura to a very low tessitura. The primary compositional goal of this piece is to elicit reactions toward these sudden changes. If your patch suddenly makes no sound, turn dials and change pitches until it works. If all else fails, hit the "initial preset" button and you will start with a new preset.