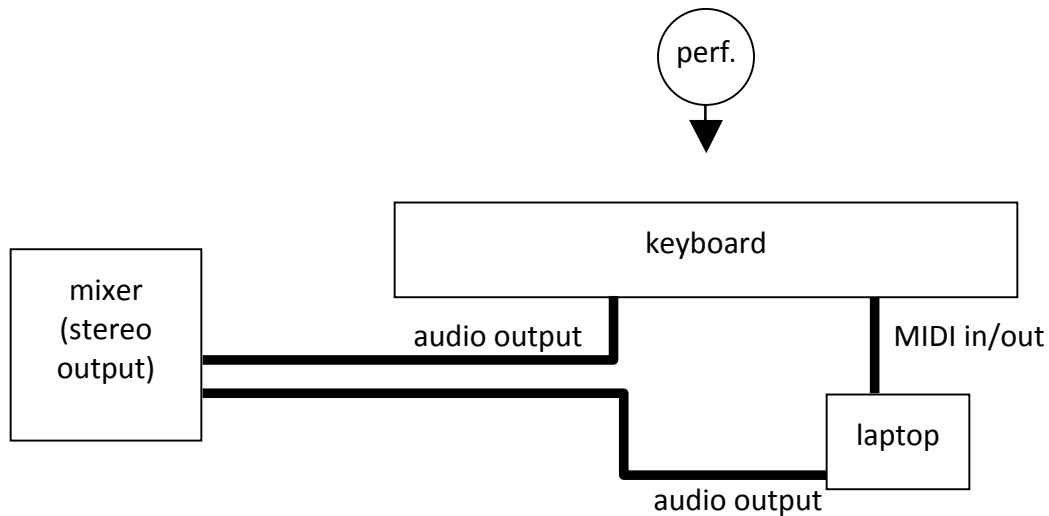


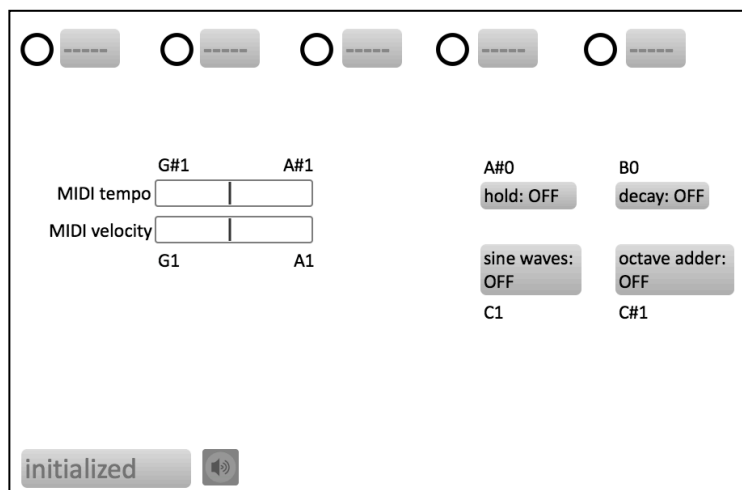
# **Whither, Thence, Repeat** **for MIDI Keyboard and laptop**

**Jonathan Wall**



*Whither, Thence, Repeat* is written for 88-Key MIDI keyboard and an associated Max/MSP patch (available from <http://jonathanwallmusic.com/wtr/>). The MIDI keyboard should have its MIDI IN and MIDI OUT ports connected to the laptop. The MIDI signal is sent from the keyboard to the laptop, processed, and then returned to the keyboard's synthesizer. Therefore, it is crucial that the MIDI Keyboard has the ability to turn **off** "Local Control." This setting determines whether the instrument's internal synthesizer will play when the keyboard is used. The laptop and MIDI keyboard should both be set up for stereo audio output.

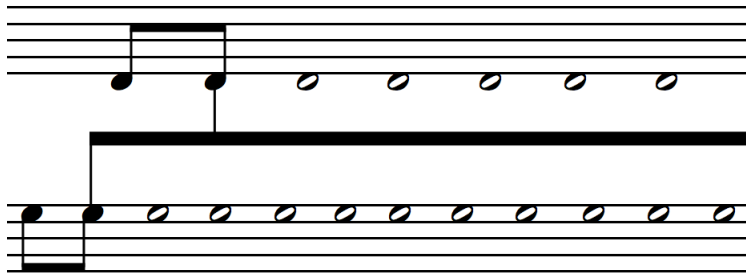
The choice of instrument used on the MIDI keyboard is left to the performer. It should have a rich character that remains interesting even with repeated attacks (synthesized piano is generally not sufficient). I have found that the General MIDI "Music Box" instrument (often found at program number 11) is a good match—its percussive attack complements the overlapping rhythms.



The Max/MSP patch is shown to the left (note that until it is initialized, the upper portion is hidden). The five units across the top of the patch show which voices are currently repeating. The buttons to the left of each note name flash when the note is triggered. The tempo and velocity sliders will move from left to right as they are modified, and the HOLD, DECAY, SINE, and OCTAVES displays will change to show their state. The speaker icon should be green (on) automatically; it should be clicked if it is red (off).

The Max/MSP patch refers to note names so that C4 represents Middle C (MIDI note 60). The bottom 15 notes of the keyboard (A0-B1) are used for controlling the patch and will not produce sound (an index of these functions is given on the following page). These “control” keys are written on the bottom staff; only notes on the top two staves (in the range C2-C8) will result in sounding notes.

The patch’s basic operation is to take a note played twice and continue repeating it at regular intervals as long as it the second note is held. Multiple voices can be used with independent rates of repetition.



The piece’s first two such notes are shown to the right. The empty noteheads (not shown in the actual score) signify the repeated attacks of the held pitches. The order of the attacks is important—were the notes alternating instead (G-D-G-D), the repetition would not occur.

Notes connected to the continuation beam between the two staves are to be sustained until their release is signified with an x-shaped notehead. If only one note is to be released, the notehead is positioned at the location of that note; if all notes are to be released, the notehead is placed at the end of the continuation beam between the staves.

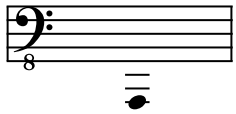
Rhythms and durations are approximately indicated by both spacing and traditional rhythmic signifiers. The fastest repeated notes (marked as sixteenths fairly close together) should not be faster than sixteenth notes at 100 bpm; the slowest notes (marked as widely spaced quarter notes) should not be slower than 85 bpm.

The text is taken from Samuel Johnson’s *A Grammar of the English Tongue* (1812; public domain) and read for the Librivox project by Bill Boerst (no rights reserved). Although the multiple entrances of the sample can make it difficult to follow, the performer should attempt to proceed at the pace indicated by the printed text in the score.

The length of the introduction and conclusion of the piece are variable, but the piece should last between seven and ten minutes.

Many thanks to John Pavik for his assistance in refining this manuscript.

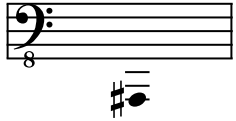
--Jonathan Wall, December 2011



A0: initialize the patch after opening;  
subsequently acts as a "kill switch"



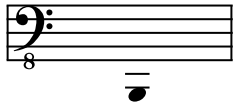
F1: set MIDI velocity to 0



A#0: toggles the HOLD function on and off (notes being  
sustained when HOLD is toggled on will be  
"remembered" and continue playing once released;  
while HOLD is toggled on, other keys will not repeat)



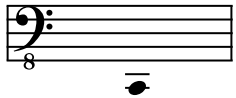
F#1: reset MIDI tempo to normal



B0: toggles the DECAY function on and off (when  
turned on, repeating notes will gradually  
decrease in velocity)



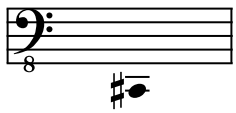
G1: reset MIDI velocity to normal



C1: toggles the SINE wave accompaniment on and off



G#1: decrease MIDI tempo



C#1: toggles the OCTAVE adder on and off  
(adding random octaves and occasional fifths  
above held notes)



A1: decrease MIDI velocity



D1: initializes the text;  
subsequently alternates between turning off playback  
and resetting the text to the beginning



A#1: increase MIDI tempo



(D#1 and E1 are unused)



B1: increase MIDI velocity

# Whither, Thence, Repeat

Jonathan Wall

**BEGIN WITH VOLUME SLIDER AT 0**

*hold all keys connected to the continuation bar*

*(silent)*

*(release all notes)*

Initialize    MIDI velocity to 0    MIDI velocity up    hold: ON    bring volume slider to 1/2

8

*(sempre  $g^{vb}$ )*

MIDI velocity up...    tempo up...    octaves: ON    velocity and tempo up and down...

*freely alternate between tremolos, varying speed*

Andante molto rubato

8<sup>va</sup>

octaves: OFF

reset velocity and tempo    decay: ON    hold: OFF, decay: OFF

wait for decay to end...

text: debtor subtle doubt lamb limb dumb thumb climb centrick century circular

prepare text

8

(release x-keys)

cistern city siccity calm concavity copper incorporate curiosity concupiscence church chin

tempo up...

8

crutch scheme choler clock cross death diligent draw dross dwell flask fry freckle go

tempo down... reset tempo

8

gun giant ring snug song frog generation geld get gigantick gibbet gibe giblets Giles gill

sine waves: ON

8



gilliflower gin ginger gingle Egypt ghostly though right sought cough trough sough tough

sine waves: OFF      octaves: ON

8

enough slough horse heir herb hostler honour humble honest humour jester jocund kept

octaves: OFF

8

king skirt skeptick knell knot cockle pickle kill will full half halves calves could would

8

should psalm talk salmon falcon table shuttle monumental manners condemn psalm tempt

octaves: ON

8

philanthropy Philip quadrant queen equestrian quilt inquiry quire quotidian liquor risque

octaves: OFF

8

chequer myrrhine catarrhous rheum rheumatick rhyme sepulchre sibilation sister loves grows

reset velocity and tempo

8

bushes    distresses    ours    yours    surplus    horse    dress    bliss    less    eyes    this    thus    rebus    bosom

desire    wisdom    prison    prisoner    present    present    damsel    scatter    sphinx    shake    slumber    smell

octaves: ON octaves: OFF

snipe space splendor spring squeeze step strength stramen stripe island demesne temptation

8

salvation mightier whether think then thence these thou thee thy thine their they this

sine waves: ON

8

those them though father whether thunder faith breath breathe cloth vanity what whence

sine waves: OFF

8

Detailed description: This system features a treble clef staff with a series of notes: a quarter note on G4, a pair of eighth notes on F4 and G4, a quarter note on G4 marked with an asterisk, a pair of eighth notes on F4 and G4, and a quarter note on G4 marked with an asterisk. A thick black arrow points to the right below the treble staff. The lyrics are aligned with the notes. Below the treble staff is a bass clef staff with a single note on G3 marked with an '8' below it.

whiting extraneous young froze

Initialize

8

Detailed description: This system features a treble clef staff with a quarter note on G4, a thick black bar covering the staff, and a quarter note on G4 marked with an 'x' below it. The lyrics are aligned with the notes. Below the treble staff is a bass clef staff with a single note on G3 marked with an '8' below it. The word 'Initialize' is written in the space between the two staves.

1 2 2 1

hold: ON

octaves: ON

octaves: OFF

8

Detailed description: This system contains two staves. The top staff is a piano staff with a treble clef, showing a sequence of notes: quarter notes G4, A4, B4, and C5, followed by eighth notes B4 and A4. Fingerings 1, 2, 2, and 1 are indicated above the notes. A thick black bar is drawn under the first four notes. A dashed vertical line is placed between the fourth and fifth notes. A bracket with an 'X' is positioned under the eighth notes. The bottom staff is a MIDI controller staff with a bass clef and an octave pedal indicator '8'. It shows a sequence of notes: a quarter note G3, followed by a sequence of eighth notes (A3, B3, C4, B3, A3, G3) enclosed in a box, and finally a quarter note G3. Labels 'hold: ON', 'octaves: ON', and 'octaves: OFF' are placed above the staff at different points. A large arrow points from the box in the MIDI staff towards the right.

MIDI velocity down

bring volume slider to 0

8

Detailed description: This system contains two staves. The top staff is a piano staff with a treble clef, showing a sequence of notes: quarter notes G4, A4, B4, and C5, followed by quarter notes G4, A4, B4, and C5, and finally quarter notes G4, A4, B4, and C5. The notes are grouped into three pairs by dashed vertical lines. The bottom staff is a MIDI controller staff with a bass clef and an octave pedal indicator '8'. It shows a sequence of notes: a sequence of eighth notes (A3, B3, C4, B3, A3, G3) enclosed in a box, followed by a sequence of eighth notes (A3, B3, C4, B3, A3, G3) and finally a sequence of eighth notes (A3, B3, C4, B3, A3, G3). Labels 'MIDI velocity down' and 'bring volume slider to 0' are placed above the staff. A large arrow points from the box in the MIDI staff towards the right, and a volume slider icon is shown at the end of the staff.