when spoken to in dreams

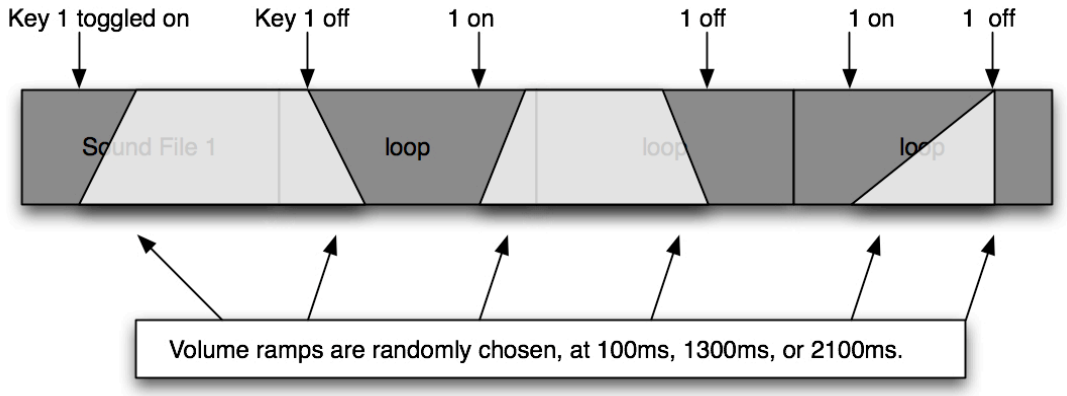
Nathan Bowen

for projected visuals, laptop, recorded cello and voice

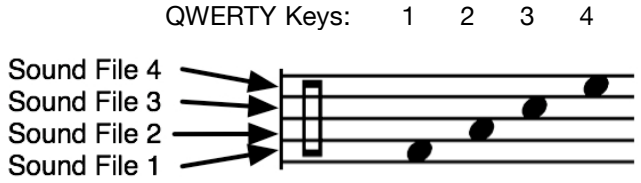
Performance Notes

This piece is composed with Max/MSP/Jitter and is meant for live performance with a laptop and projected visuals. The laptop has the following controls:

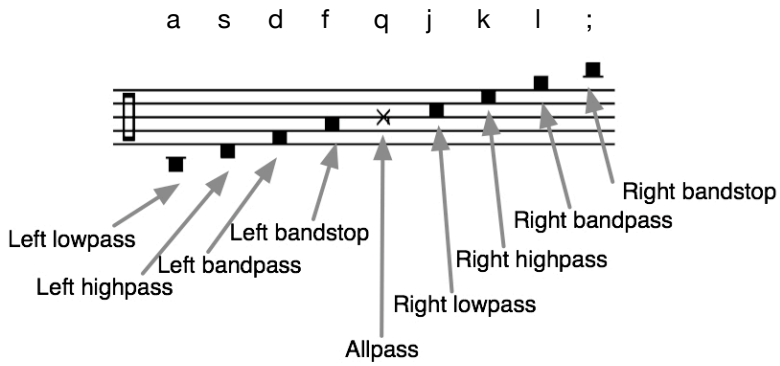
On a QWERTY keyboard, when keys 1, 2, 3, and 4 are first pressed, each key initiates a sound file and a corresponding video clip that will then be looped for the duration of the piece. Each key can toggle off and on, which turns the video clip on or off, as well as the sound file volume:



The performer may improvise, but a suggested set of cues is notated with the following assignments:



Also on the QWERTY keyboard, keys a, s, d, f, j, k, l, q, and ';' control filters that affect all sounds. These likewise are to be improvised but are to be used sparingly. This is the notational assignment:



All other sound files (cello, voice, and drones) are arranged in a fixed state.

Visuals

The visuals will proceed with two layers in chroma key fashion. One layer (rectangles) is an automated process that will generate rectangles whose proportions corresponds to a pixel length or height derived from the Fibonacci sequence (0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 59, etc.). The second layer (which is initiated by the performer with keys 1, 2, 3, and 4 as explained above) will appear as a mask within the framework of the rectangles. The RGB values of the rectangles (between RBG values 0 0 0 and 255 255 255, black to white) will affect the opacity of the masked layer beneath it.

General Notes

This piece has a fixed duration of approximately 11 minutes and 16 seconds. Durations and proportions are calculated to the millisecond and are derived from the Fibbonaci sequence. Three improvised sound files are derived from the drones and one from spoken male voice. They are not to be substituted with other sound files. The performer may choose to add different video clips. For all sound files and Max/MSP/Jitter patches, please contact:

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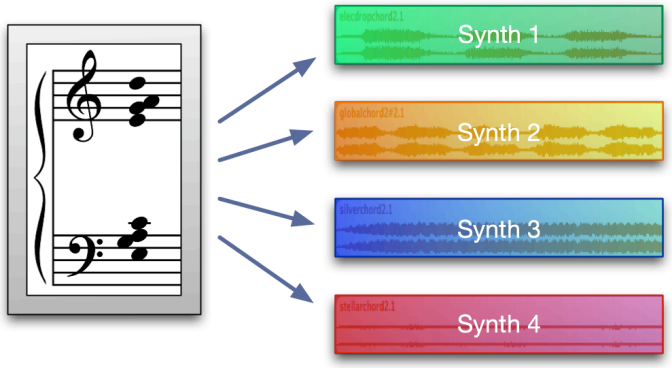
Sound Production Notes for *'when spoken to in dreams'*

Method 1: Creation of 'Drone Chords'

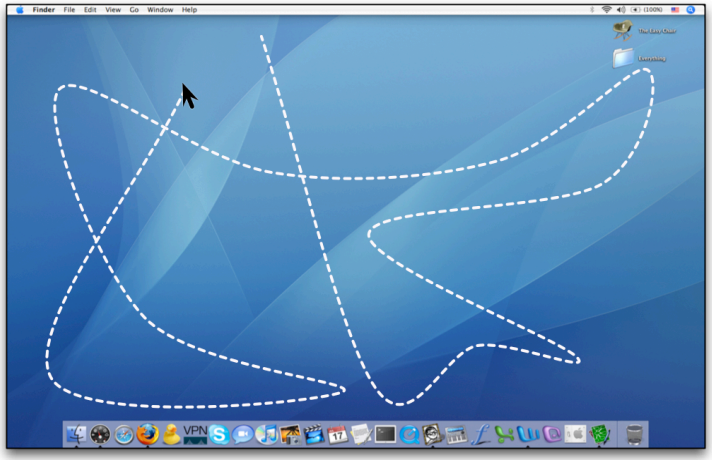
The first stage of preproduction was the creation of sound files to serve as drones for the basic chord progression of the piece. Using recordings of four synth patches each playing the same chords, a recording technique was developed using mousestate values to alter the volume levels of each sound file according to mouse movement.

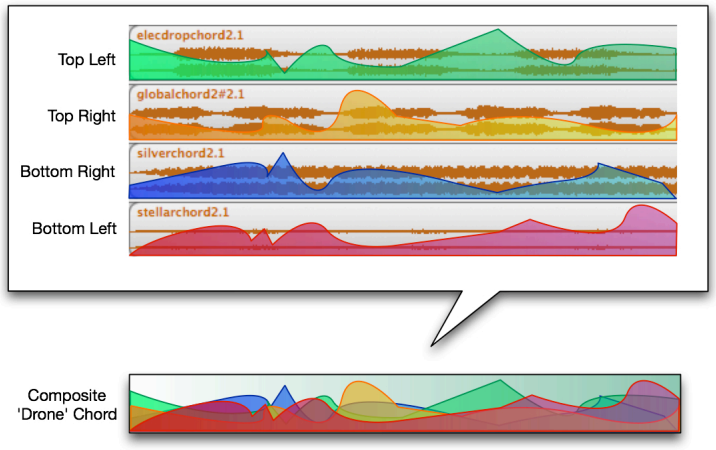
While playing the four sound files simultaneously, volume faders adjust according to the X & Y coordinates of the mouse. The maximum value of each sound file corresponds to one of the four corners on the screen (X & Y values 0,0; 1440, 0; 1440, 960; 0, 960). While moving the mouse, the volume adjustments to each file are recorded in real time, yielding a sound file composite of the original four files.

Step 1 – Recording a chord with four separate synth patches.



Step 2 – Playing sound files simultaneously, a Max/MSP patch adjusts volume levels according to improvised mouse movement and records it in real time.



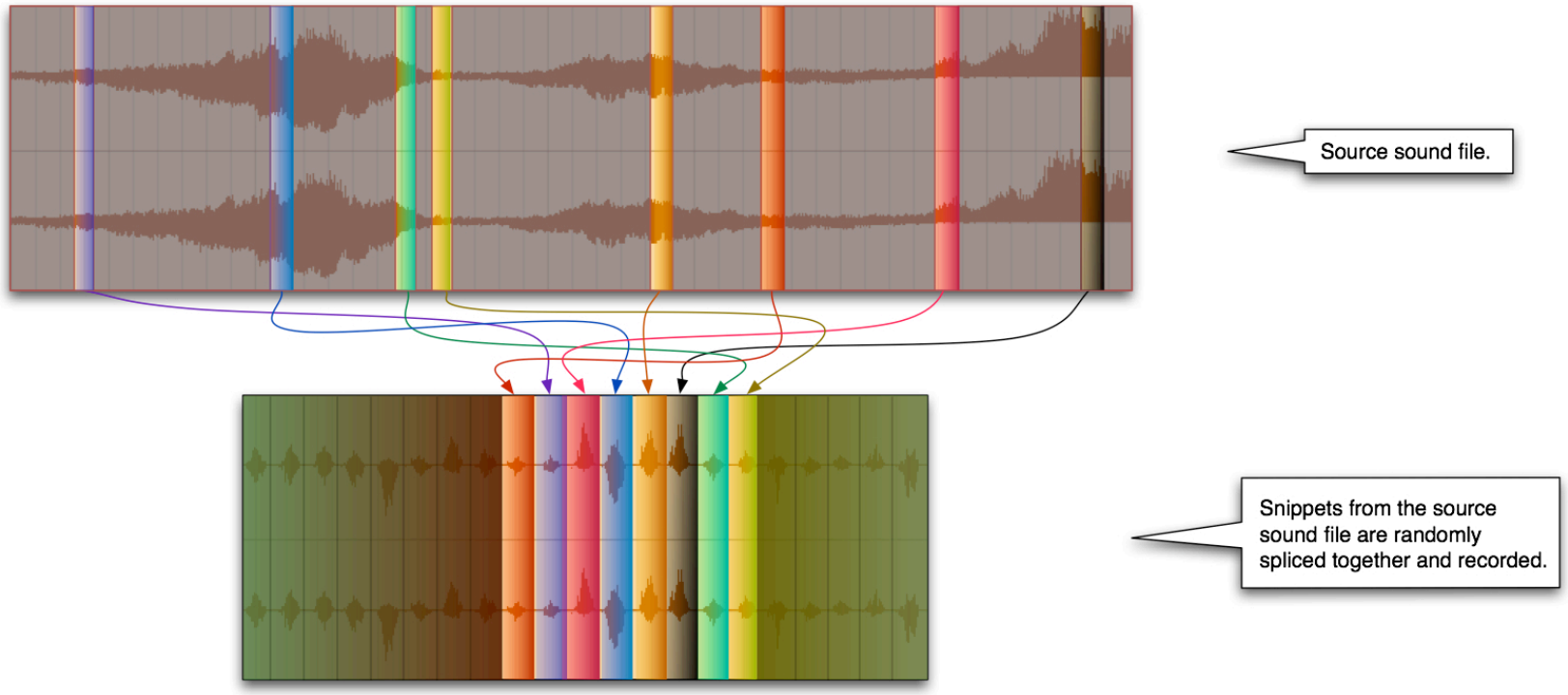


Method 2: Creation of ‘Chopped’ Sound Files

With the drone files produced, the second stage involved the generation of a secondary set of four sound files, patterned after the rapid volume oscillations scheduled for 6:58 in the piece (at the golden mean). These ‘chopped’ sound files are meant as a textural contrast to the smooth and gradual changes of the drone chords.

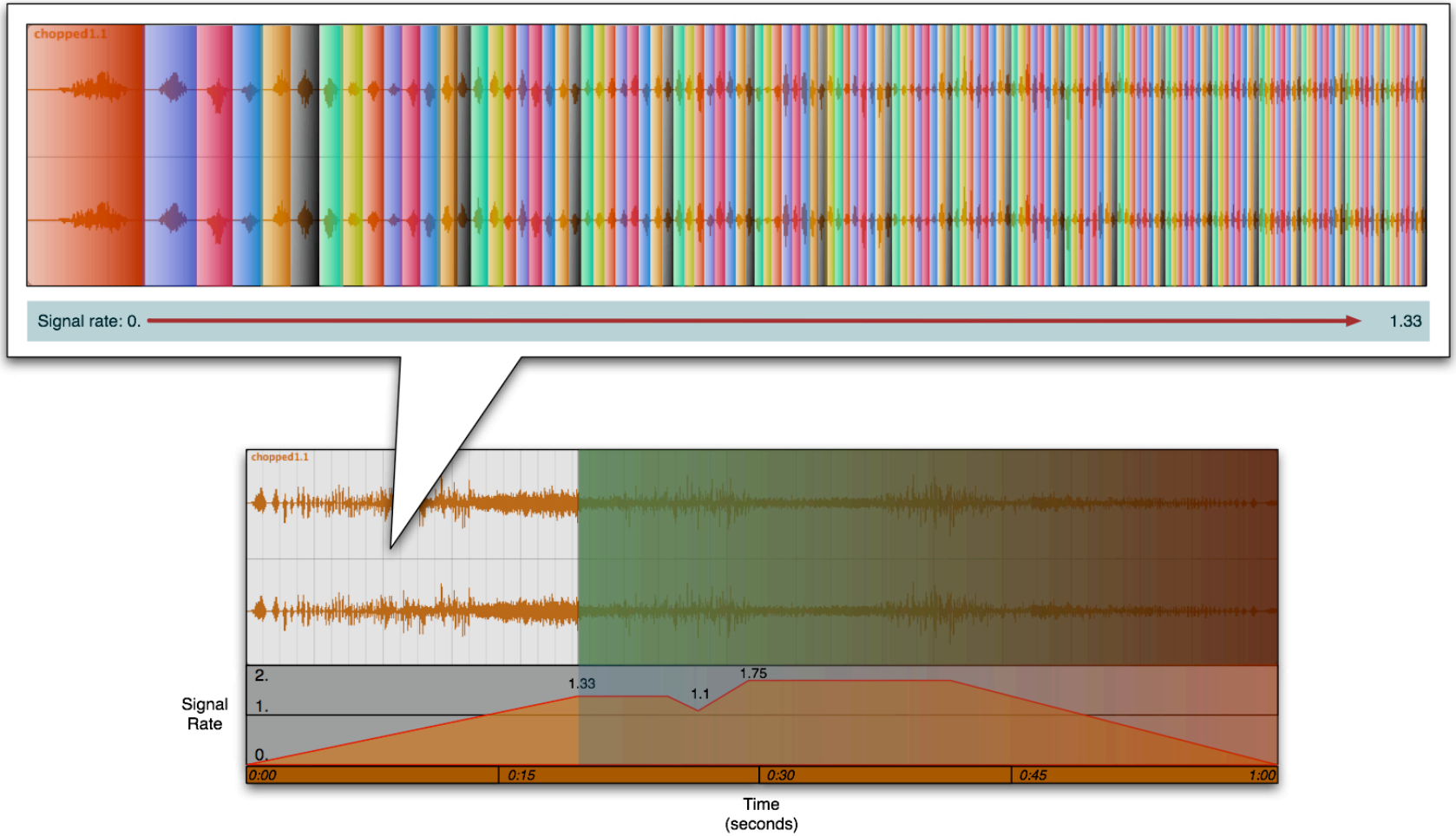
A Max/MSP patch takes a source sound file and randomly splices 100ms snippets together to create a 'chopped' effect. Both the duration of the snippets as well as the durational range from within the source sound file may be altered in real time while recording. A recording of this process yields a new sound file, which is then used in performance. Sound Files 2–4, which are turned on or off by the laptop performer, are derived from the preprogrammed drone chords. Sound File 1 is a chopped derivation of a 30 second sound clip of a male voice reading a text.

Graphic representation of random splicing technique.



Method 3: Signal Rate Alterations of 'Chopped' Sound Files

By altering the signal rate values of sound clips and recording that process, pitch bending and rate of acceleration and deceleration become prominent features of the newly generated content. A signal rate of 1 plays through a sound clip at normal speed. A signal rate of 2 plays it at twice its normal speed, thus changing the pitch to be an octave higher. Starting at a signal rate of zero and increasing to a rate of 1.33 creates a steady glissando in pitch and a sense of acceleration, which is a central durational feature of the piece.



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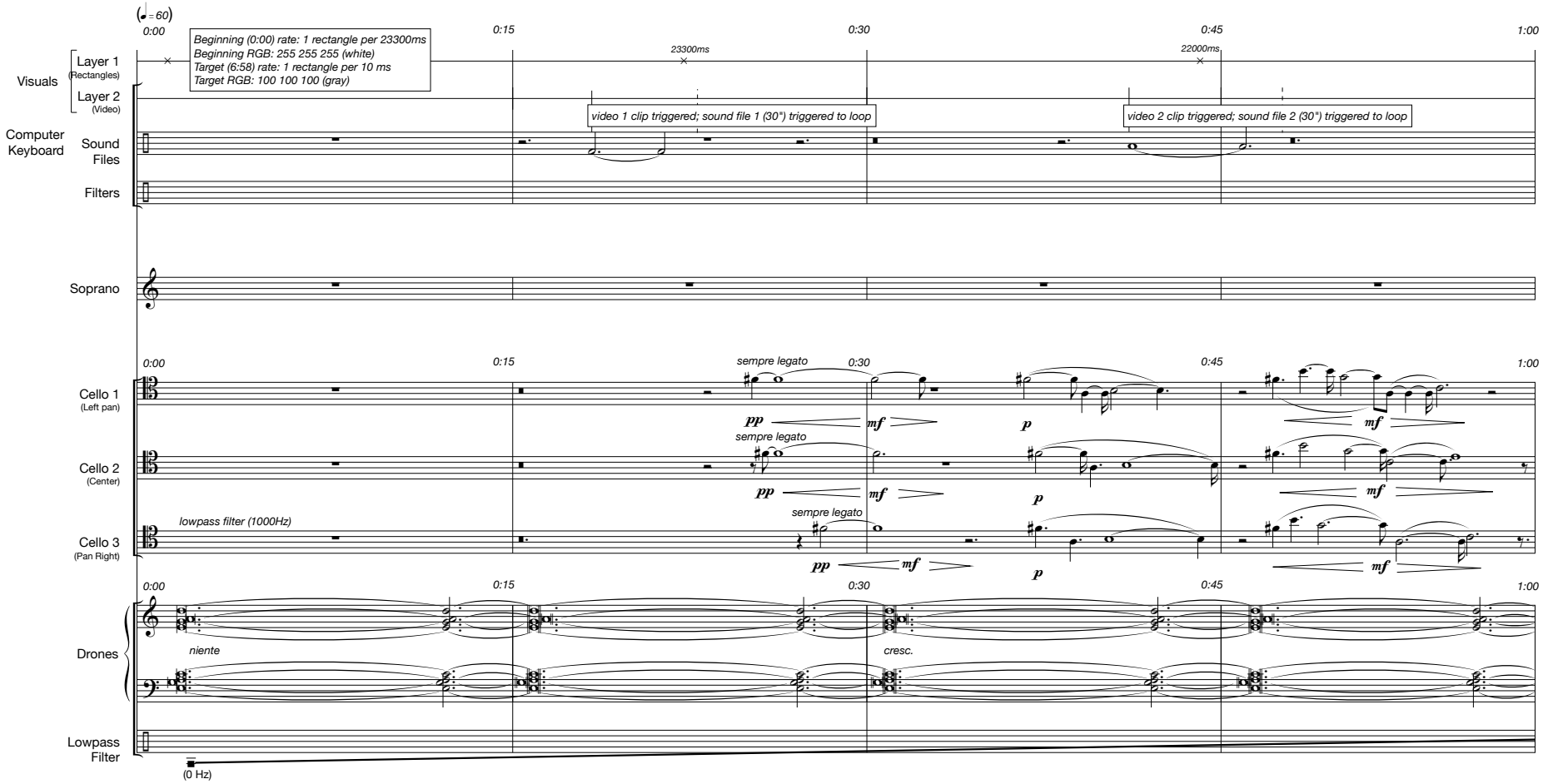
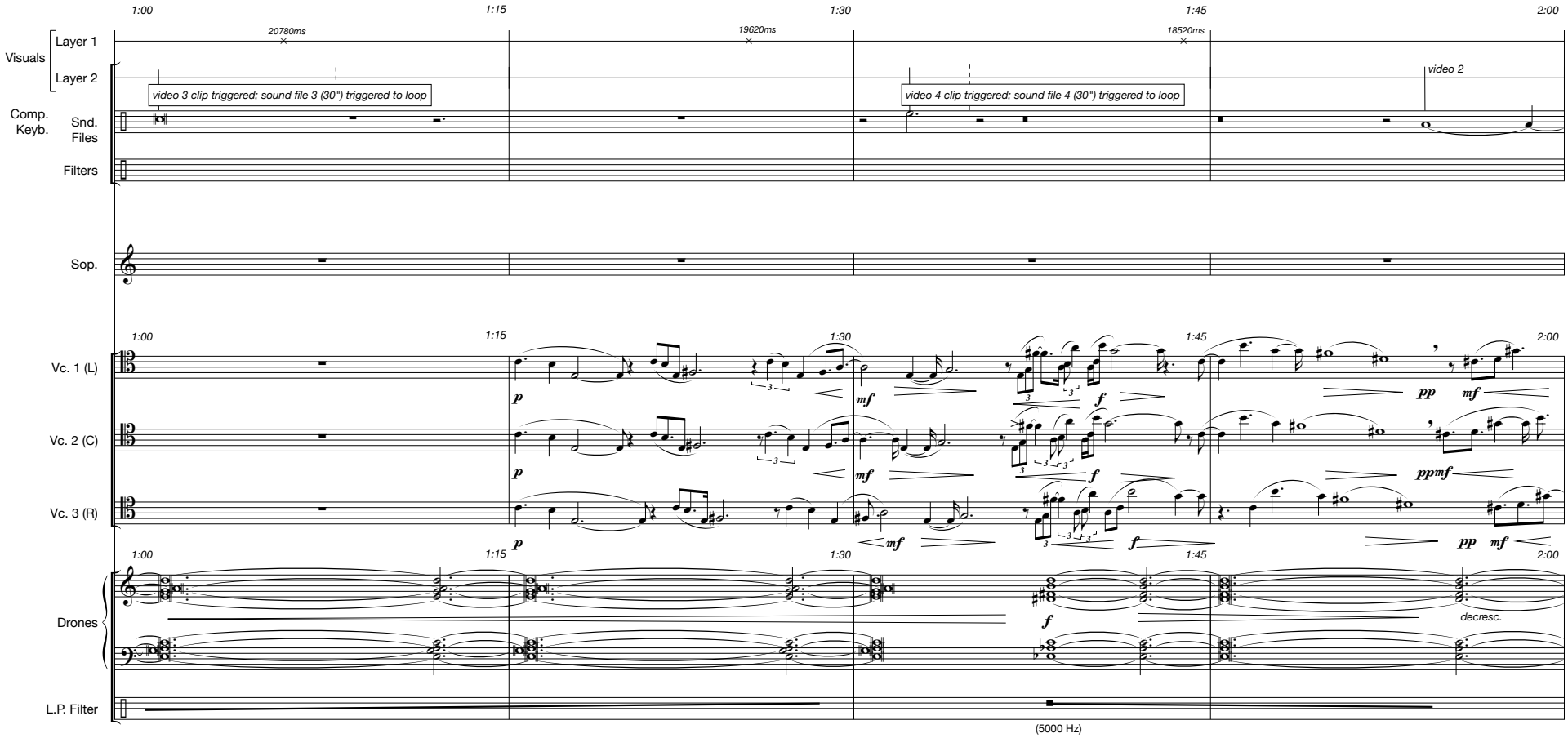
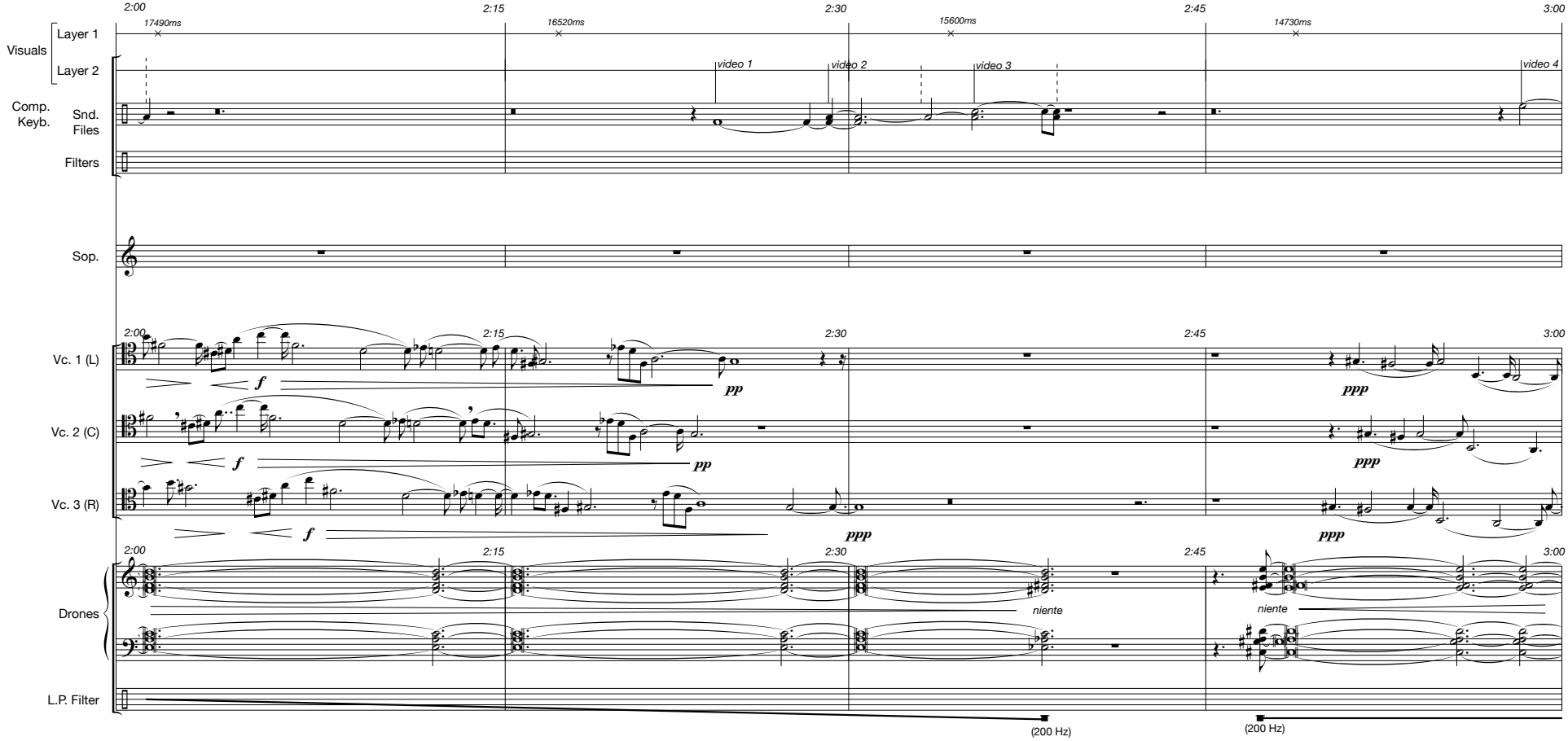
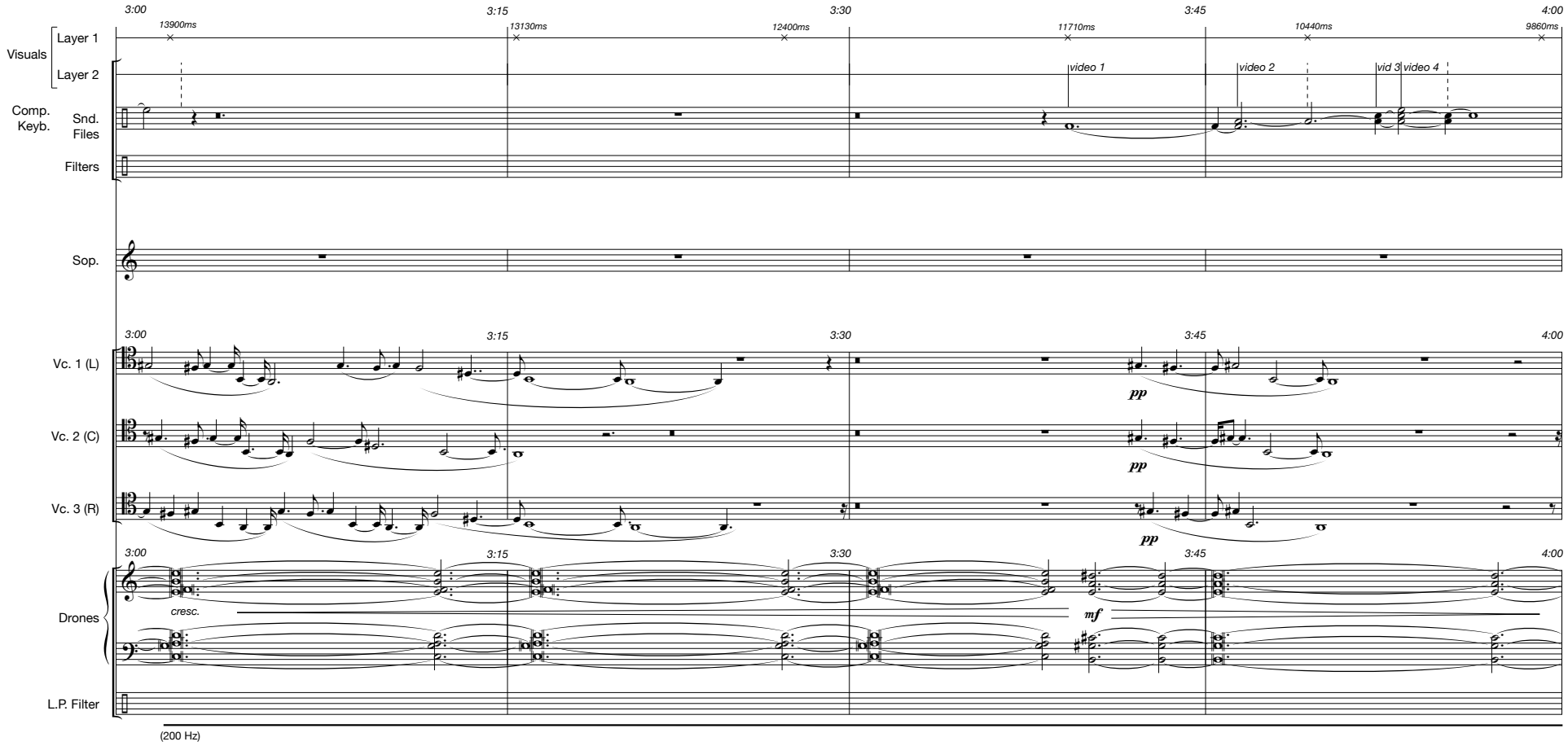
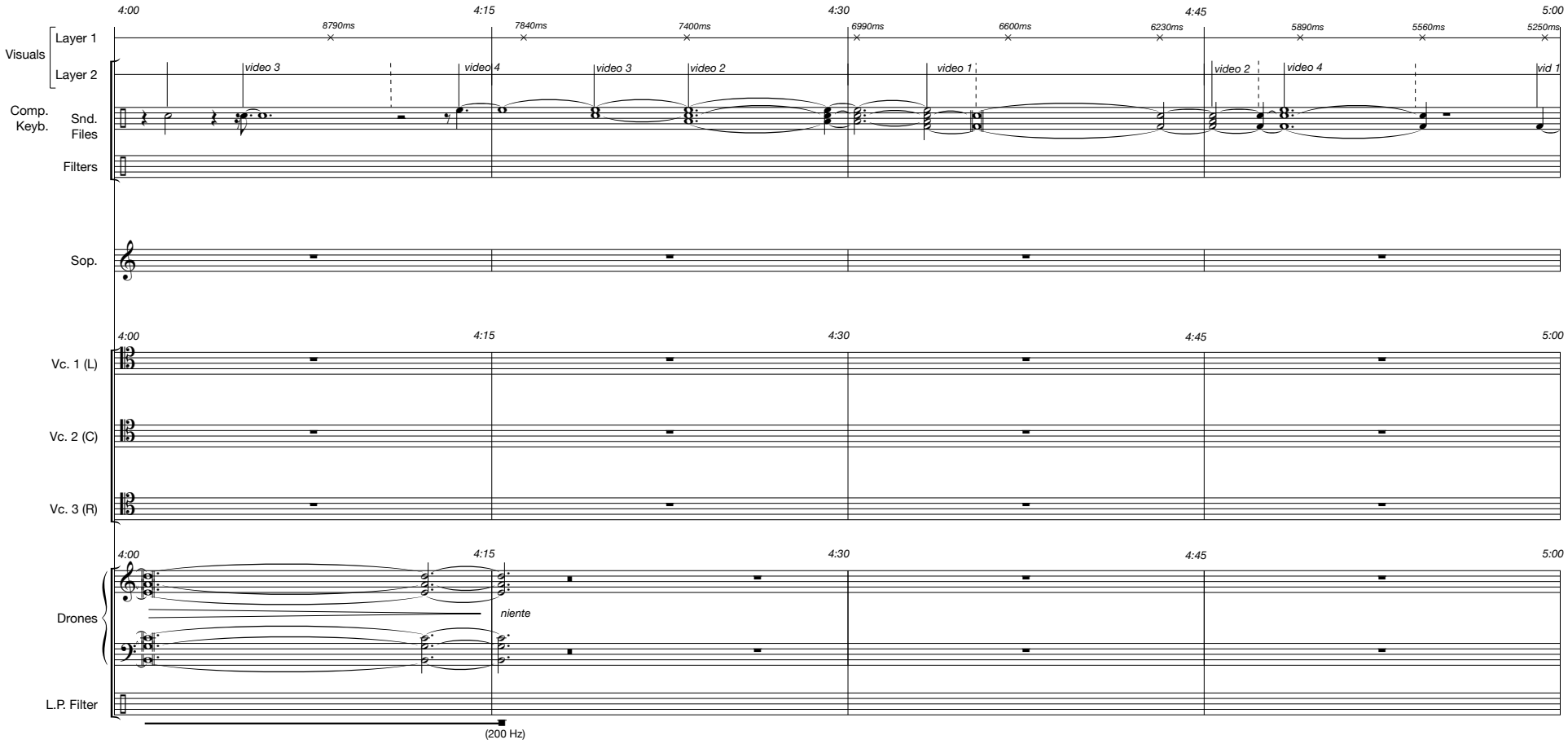
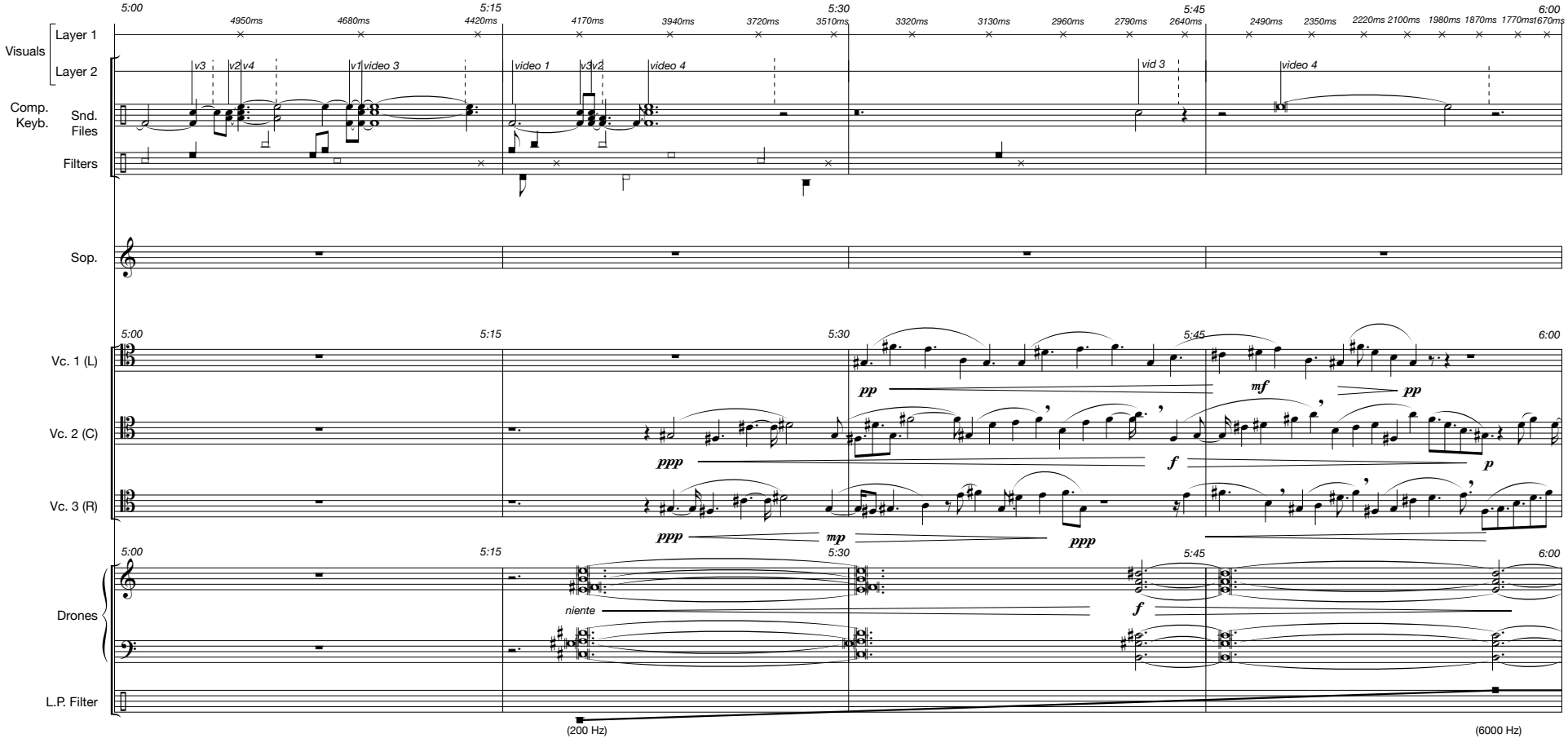


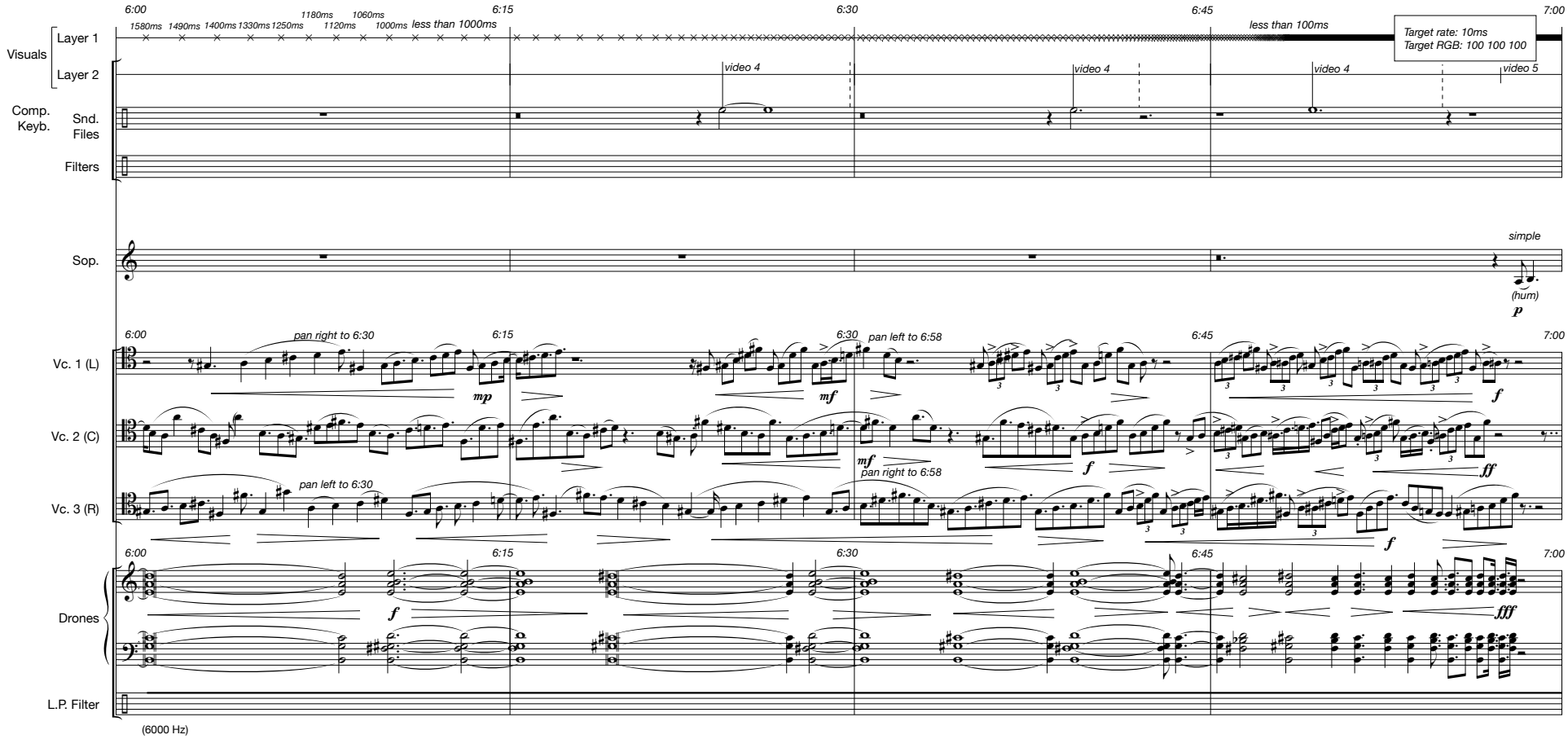

1:00
1:15
1:30
1:45
2:00
20780ms
19620ms
18520ms
Visuals
Layer 1
Layer 2
video 3 clip triggered; sound file 3 (30") triggered to loop
video 4 clip triggered; sound file 4 (30") triggered to loop
video 2
Comp. Keyb.
Snd. Files
Filters
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
p
mf
f
pp
mf
ppmf
Drones
decresc.
L.P. Filter
(5000 Hz)

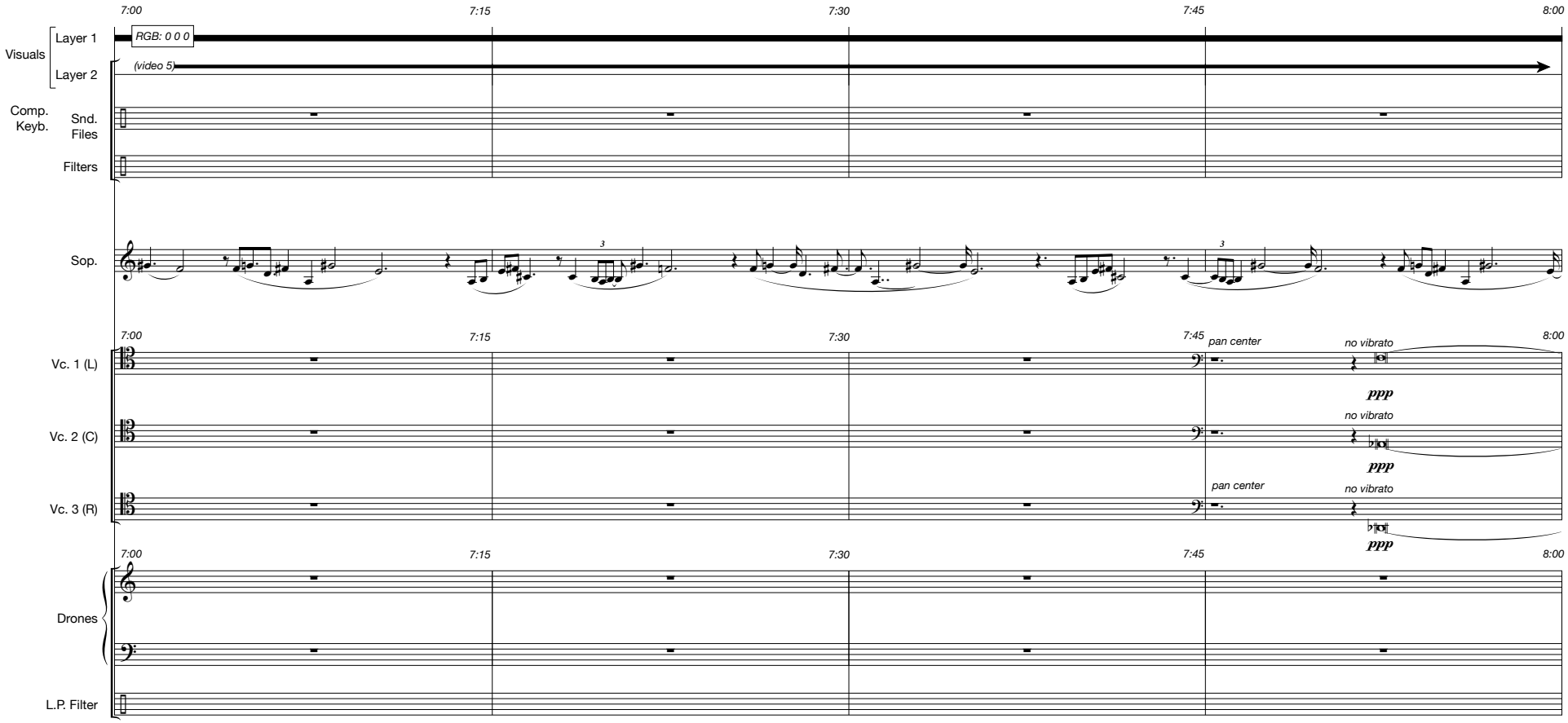

2:00
2:15
2:30
2:45
3:00
17490ms
16520ms
15600ms
14730ms
Visuals
Layer 1
Layer 2
video 1
video 2
video 3
video 4
Comp. Keyb.
Snd. Files
Filters
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
f
pp
ppp
Drones
niente
L.P. Filter
(200 Hz)

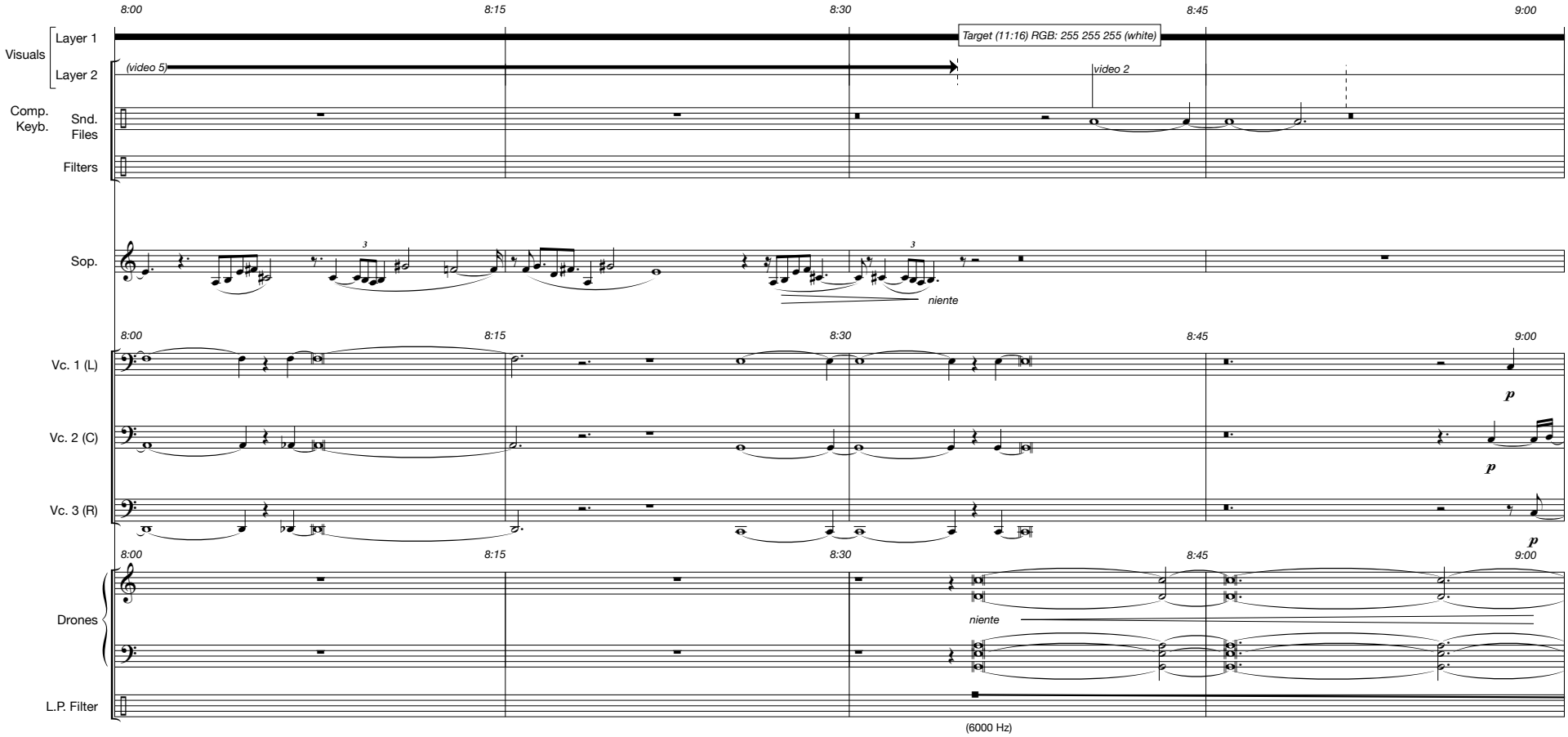

3:00
3:15
3:30
3:45
4:00
13900ms
13130ms
12400ms
11710ms
10440ms
9860ms
Visuals
Layer 1
Layer 2
video 1
video 2
vid 3
video 4
Comp. Keyb.
Snd. Files
Filters
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
pp
Drones
cresc.
mf
L.P. Filter
(200 Hz)

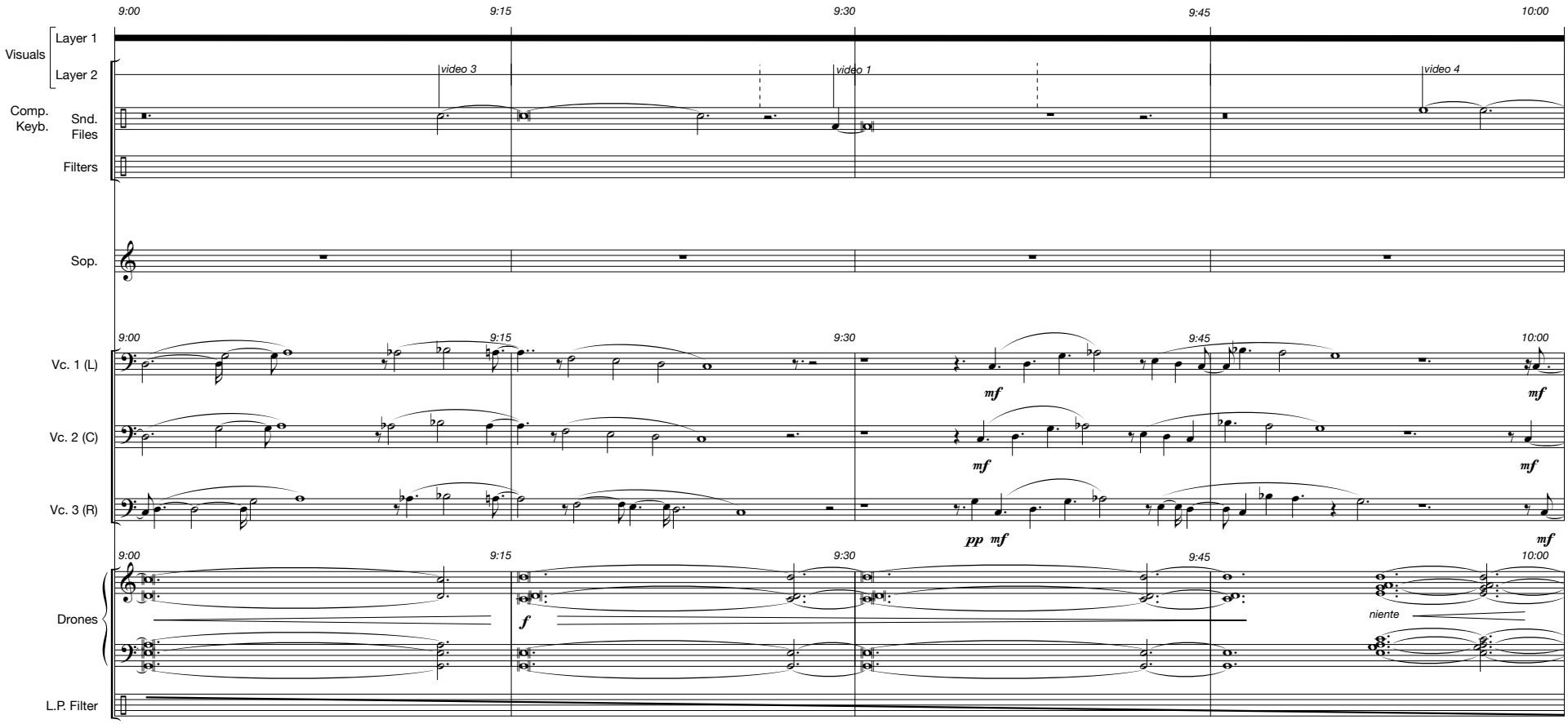

4:00
4:15
4:30
4:45
5:00
Visuals
Layer 1
Layer 2
8790ms
7840ms
7400ms
6990ms
6600ms
6230ms
5890ms
5560ms
5250ms
video 3
video 4
video 3
video 2
video 1
video 2
video 4
vid 1
Comp. Keyb.
Snd. Files
Filters
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
Drones
niente
L.P. Filter
(200 Hz)

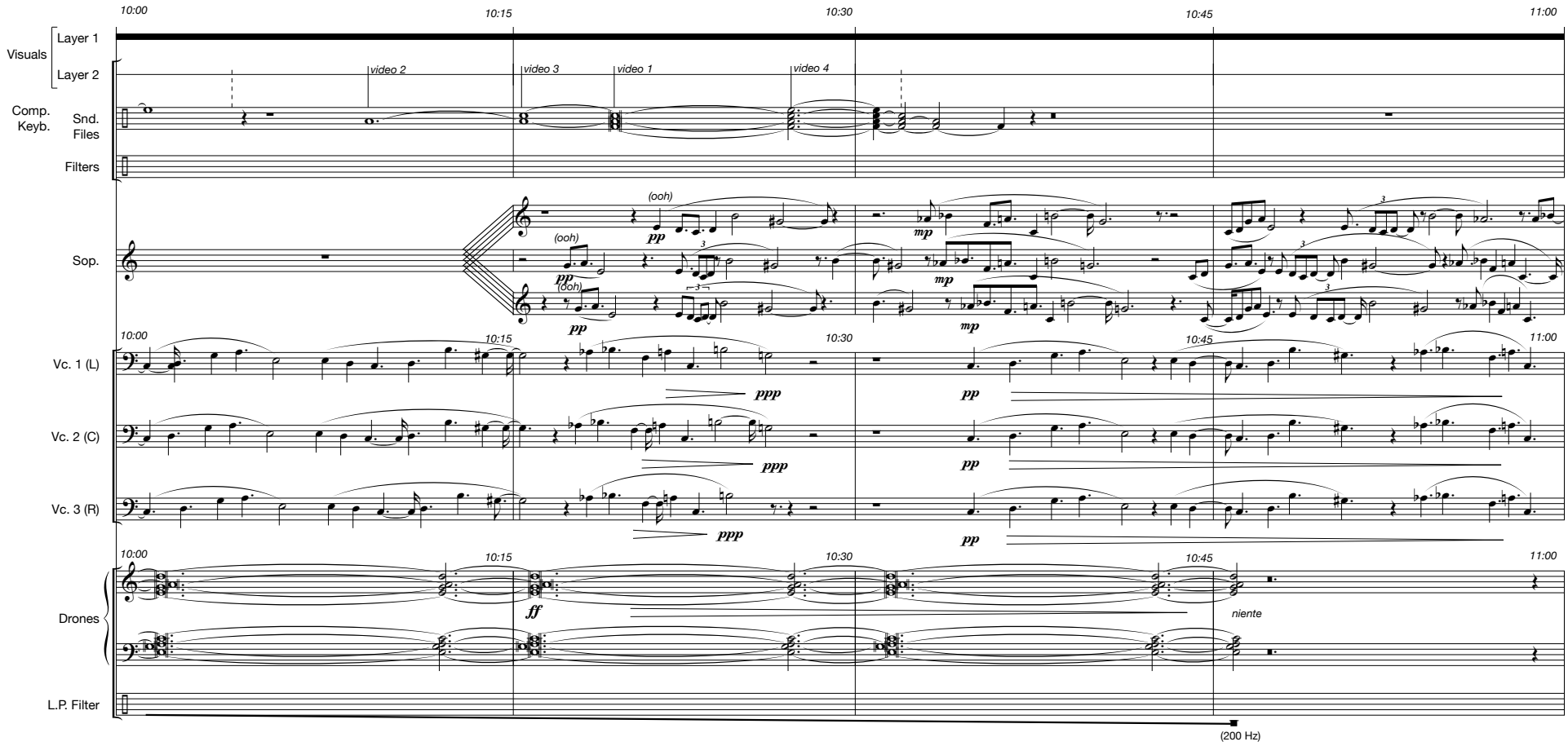

5:00
5:15
5:30
5:45
6:00
4950ms
4680ms
4420ms
4170ms
3940ms
3720ms
3510ms
3320ms
3130ms
2960ms
2790ms
2640ms
2490ms
2350ms
2220ms
2100ms
1980ms
1870ms
1770ms
1670ms
Visuals
Layer 1
Layer 2
Comp. Keyb.
Snd. Files
Filters
v3
v2
v4
v1
video 3
video 1
v3
v2
video 4
vid 3
video 4
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
pp
mf
pp
ppp
f
p
ppp
mp
ppp
Drones
niente
f
L.P. Filter
(200 Hz)
(6000 Hz)

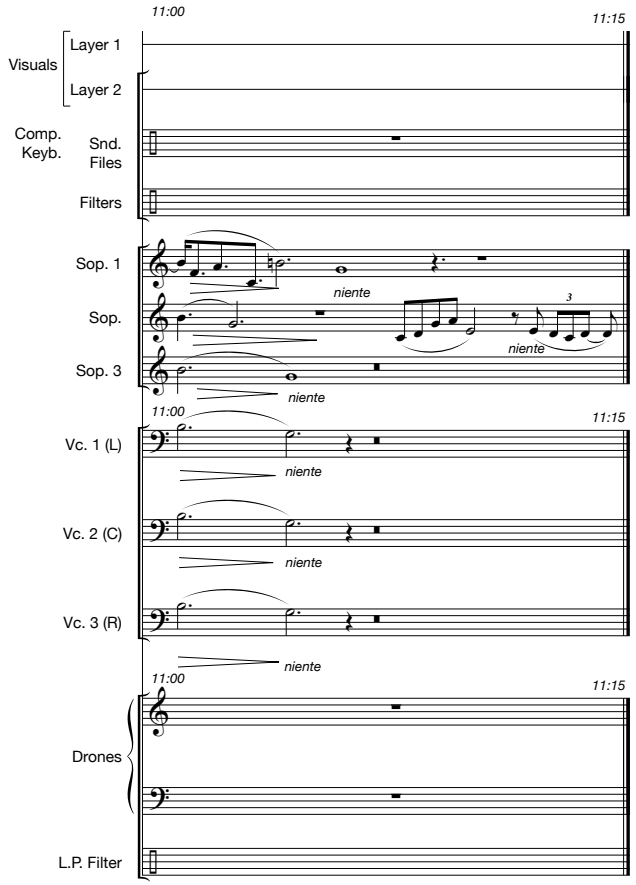

6:00
6:15
6:30
6:45
7:00
1580ms 1490ms 1400ms 1330ms 1250ms 1180ms 1120ms 1060ms 1000ms less than 1000ms
less than 100ms
Target rate: 10ms
Target RGB: 100 100 100
Visuals
Layer 1
Layer 2
video 4
video 4
video 4
video 5
Comp. Keyb.
Snd. Files
Filters
Sop.
simple
(hum)
p
pan right to 6:30
pan left to 6:58
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
pan left to 6:30
pan right to 6:58
mp
mf
mf
f
f
f
ff
Drones
f
fff
L.P. Filter
(6000 Hz)


7:00
7:15
7:30
7:45
8:00
Visuals
Layer 1
Layer 2
RGB: 0 0 0
(video 5)
Comp. Keyb.
Snd. Files
Filters
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
pan center
no vibrato
ppp
Drones
L.P. Filter


8:00
8:15
8:30
8:45
9:00
Visuals
Layer 1
Layer 2
Target (11:16) RGB: 255 255 255 (white)
(video 5)
video 2
Comp. Keyb.
Snd. Files
Filters
Sop.
niente
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
p
Drones
niente
L.P. Filter
(6000 Hz)


9:00
9:15
9:30
9:45
10:00
Visuals
Layer 1
Layer 2
video 3
video 1
video 4
Comp. Keyb.
Snd. Files
Filters
Sop.
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
mf
pp mf
Drones
f
niente
L.P. Filter


10:00
10:15
10:30
10:45
11:00
Visuals
Layer 1
Layer 2
video 2
video 3
video 1
video 4
Comp. Keyb.
Snd. Files
Filters
Sop.
(ooh)
pp
mp
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
ppp
pp
Drones
ff
niente
L.P. Filter
(200 Hz)


11:00
11:15
Visuals
Layer 1
Layer 2
Comp. Keyb.
Snd. Files
Filters
Sop. 1
Sop.
Sop. 3
niente
niente
niente
11:00
11:15
Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)
niente
niente
niente
11:00
11:15
Drones
L.P. Filter