

APPENDIX D:
KEY TO SYSTEM VARIABLES USED IN *MUSIC FOR CLARINET AND ISPW*

The following is a list of system variables found in the event list for *Music for Clarinet and ISPW*. The variable name is given as it is used in Lippe's software, followed by its range of values and a brief description of its target. Note that for most variables, if two numbers are given the system will ramp to the first number over a period of time in milliseconds set by the second number (e.g., "pitch 60 1000" would send a continuous stream of values for "pitch" from its previous value to 60 over a period of 1 second). A value followed by a comma and two more numbers will cause the system to ramp from the first value to the second over the period defined by the third number. The term "bang" is a Max/MSP message that triggers an action.

Variable	Range	Description
bang4-line	1/0	Start/stop sampler control algorithm 7 (PLAY_RAND)
bang-pit	MIDI+	Pitch value for sampler control algorithm 7 (PLAY_RAND)
bang-ran		Ramp time/seed value for sampler control algorithm 7 (PLAY_RAND)
brevor-onset	0 – 10000 msec	Sample file start point (Trevor_back)
b-stop	bang	Stop (Trevor_back)
diramp	0 – 127	Dry signal amplitude (Harmonizer)
evtl1-sec2	0/1	Trigger processing algorithm
famp01	0 – 127	Frequency shifter output
flange-amp	0 – 127	Flange output
flange-del	0 – 127	Flange delay
flange-index	0 – 127	Flange input
flange-loop	0 – 127	Flange feedback
flange-master	0 – 127	Flange final output
flange-speed	0 – 127	Flange LFO speed
fmam-master	0 – 127	Output from FM-AM
fnois	0 – 127	Speed of modulation (Noise)
frog1-gliss	1.	Glissando curve value (Samp. 1)
frog1-off	Time (msec)	Decay envelope time (Samp. 1)
frog1-on	Time (msec)	Attack envelope time (Samp. 1)
frog1-onset	0 – 10000 msec	Sample file start point (samp. 1)
frog2-gliss	1.	Glissando curve value (samp. 2)
frog2-off	Time (msec)	Decay envelope time (samp. 2)
frog2-on	Time (msec)	Attack envelope time (Samp. 2)
frog2-onset	0 – 10000 msec	Sample file start point (samp. 2)

Variable	Range	Description
fsgate18	0/1	Trigger processing algorithm
fsh01	MIDI+	Frequency shifter pitch
fto2	0 - 127	Freq. shift chan. 1 input (Spat.)
fto4	0 - 127	Freq. shift chan. 2 input (Spat.)
fton	0 - 127	Input from freq. shift (Noise)
glis_evt5	On (1)/off (0)	Pitch in sampler control algorithm 2 (fig. C.11)
hamp	0 - 127	Effect output amplitude (Harm.)
hdel	0 - 127	Delay in milliseconds (Harm.)
hfreq	0 - 127	LFO Frequency for delay time modulation (Harm.)
h-spat	0	
hto2	0 - 127	Harmonizer level to Left sound output (Spat.)
hto4	0 - 127	Harmonizer level to Right sound output (Spat.)
htoh	0 - 127	Harmonizer feedback
Hton	0 - 127	Harmonizer level to Noise
hwind1	0 - 127	Delay time offset (Harm.)
ichgate3	0/1	Start/Stop "ichgate3 algorithm
nto2	0 - 127	Noise Modulation level to Left sound output (Spat.)
nto4	0 - 127	Noise Modulation level to Right sound output (Spat.)
ntoR	0 - 127	Noise Modulation level to Reverb (Revb.)
play_rand	On (1)/off (1)	Start/stop (PLAY_RAND)
play_rand_metro1	Time in msec	Frequency of grain production (PLAY_RAND)
play_rand_metro2	Time in msec	Frequency of grain production (PLAY_RAND)
play-rand	0/1	Start/stop (PLAY_RAND)
play-rand1	0/1	Start/stop (PLAY_RAND1)
play-rand2	0/1	Start/stop (PLAY_RAND2)
play-rand-dur1	Time in msec	Grain duration (PLAY_RAND)
play-rand-dur2	Time in msec	Grain duration (PLAY_RAND)
play-rand-ondur1	0 - 10000	Grain attack envelope (PLAY_RAND)
play-rand-ondur2	0 - 10000	Grain attack envelope (PLAY_RAND)
play-rand-onset	0 - 10000	Sample start point (PLAY_RAND)
play-rand-onset1	0 - 10000	Sample start point (PLAY_RAND1)
play-rand-onset2	0 - 10000	Sample start point (PLAY_RAND2)

Variable	Range	Description
play-rand-pchval1	MIDI+	Modifies pitch (PLAY_RAND1)
play-rand-pchval2	MIDI+	Modifies pitch (PLAY_RAND2)
play-rand-pit1	MIDI+	Sets grain pitch (PLAY_RAND)
play-rand-pit2	MIDI+	Sets grain pitch (PLAY_RAND)
play-samp-cpul	1 - 8	Sets sample table number
playtot2	MIDI+	Modifies pitch (Trevor)
ptof	0 - 127	Input from clarinet (Freq.)
ptoh	0 - 127	Input from clarinet (Harm.)
pton	0 - 127	Input from clarinet (Noise)
ptoR	0 - 127	Input from clarinet (Revb)
rand-bang4-gate	0/1	
rand-bang8-gate	0/1	
rand-gliss-gate	0/1	
Revfb	0 - 127	Reverb feedback level (Revb.)
Rgate	0 - 127	Reverb input (Revb.)
Rout	0 - 127	Reverb output (Revb.)
Rto2	0 - 127	Reverb to Left speaker (Spat.)
Rto4	0 - 127	Reverb to Right speaker (Spat.)
rtof	0 - 127	
Rton	0 - 127	
runsgate	0/1	
scale-samps	0 - 127	
spatinc		
spaton 0;	0/1	
spatx	0 - 127	
spatXY-19 0;	0/1	
spaty	0 - 127	
s-spat	0/1	
s-spatR	0/1	
start-23	0/1	
sto2	0 - 127, msec	Sampler 1 to L. speaker (Spat.)
sto4	0 - 127, msec	Sampler 1 to R. speaker (Spat.)
stof		Sampler 1 input (Freq.)
stoh	120 1500	Sampler 1 input (Harm.)
stoR		Sampler 1 input (Reverb)
t-precess	Any integer	Precess rate (Trevor)
trev-notel	List	Note data (Trevor)

Variable	Range	Description
trev-note2	List	Note data (Trevor)
trevor-onset	0 – 10000 msec	Sample start time (Trevor)
t-spat	0/1	
t-spatR	0/1	
t-start	Bang	Start (Trevor)
t-stop	Bang	Stop (Trevor)
tto2	0 – 127	Sampler 2 to L. speaker (Spat.)
tto4	0 – 127	Sampler 2 to R. speaker (Spat.)
ttoh	0 – 127	Sampler 2 input (Harm.)
Tton	0 – 127	
TtoR	0 – 127	
t-transcent	MIDI+	Microtonal variation (Trevor)
t-transpose	0 – 127	Transposition level (Trevor)
var1	Any value	
which1_table	1 – 8	Sample table (Sampler 1)
which2_table	1 – 8	Sample Table (Sampler 2)