

3.)

from/ to	C	CH	CI	D	DH	DI	DQ	E	EQ	F	G
C	.50	.50	.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CH	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CI	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
D	.50	.50	.50	.50	.50	.50	.50	1.00	1.00	1.00	1.00
DH	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
DI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
DQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
E	0.00	.13	.13	.38	.51	.51	.51	.76	.76	1.00	1.00
EQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.50	.50	.50	1.00
G	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.50	1.00

4.) EFGFFEDDDCDEEEQ.DIDFGFFEDCCCEFE CQ. CI

Turk Task

1.)

From/to	C	CH	D	DH	E	EH	FH	G
C	1				1			
CH		1	1			1		
D	1	1	5		1			
DH							1	
E				1	3			1
EH								1
FH								1
G	1		2					

2.)

From/ To	C	CH	D	DH	E	EH	FH	G
C	.5				.5			
CH		.33	.33			.33		
D	.13	.13	.63		.13			
DH							1	
E				.2	.6			.2
EH								1
FH								1
G	.33		.67					

3.)

From/ To	C	CH	D	DH	E	EH	FH	G
C	.50	.50	.50	.50	1.00	1.00	1.00	1.00
CH	0.00	.33	.66	.66	.66	1.00	1.00	1.00
D	.13	.26	.89	.89	1.00	1.00	1.00	1.00
DH	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
E	0.00	0.00	0.00	.20	.80	0.00	0.00	1.00
EH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
FH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
G	.33	.33	1.00	1.00	1.00	1.00	1.00	1.00

4.) C E C D G C H D D D D G F H E E E D D D D E E D D E H E H.

Essay

The two melodies that were the focus of this assignment were Ode to Joy, a timeless Beethoven piece, and a similar sounding March, by Turk. Both pieces are very interesting although Ode to Joy is much more recognizable to the average person than March is. The two most salient differences between the pieces that the average person can pick up are the scaling differences between the two. Although both pieces have ascending and descending notes, the structure of Ode to Joy is

more concise than March is. Another noticeable difference is the pitch. The pitches of these two pieces are both different and noticeable. When working on this assignment, I came to believe that the state transition probability matrix for ode to Joy does in fact capture the essence of ode to Joy. Although not exactly the same, they possess qualities that can mimic the original, with some notes being either a step up or down from their predecessors. I believe the same rings true for March, even a step further with some of the new notes being exactly the same as their predecessors. A Markov process can be defined as a sequence of possible events. In music, it can be used for generating new sets of notes or compositions based on others. I generated the melodies I created by utilizing my previous work and calculations in order to certain notes. JFugue is definitely a knowledge representation. This is because it uses java programming in order to allow you to compose music, having a simple mechanism in order to process strings of musical instructions. Because of what I mentioned before, I do believe that JFugue is an executable music knowledge representation. I did not render my notes into an P3 file because my computer will not allow me to process and open the software needed, to my dismay. Improvisation refers to simply creating something on a whim, with no structure or rules. I do not believe what I have created is improvisation because I did have rules to follow in order to create my composition