Instruction

Run model

1. Unzip the Chai_Li_Yeh_code.zip, there is a “wealthDistribution.jar” in the “Assignment 2_Complex Systems_Wealth Distribution” folder. Double click the jar file will show the interface (Figure 1) of our model.

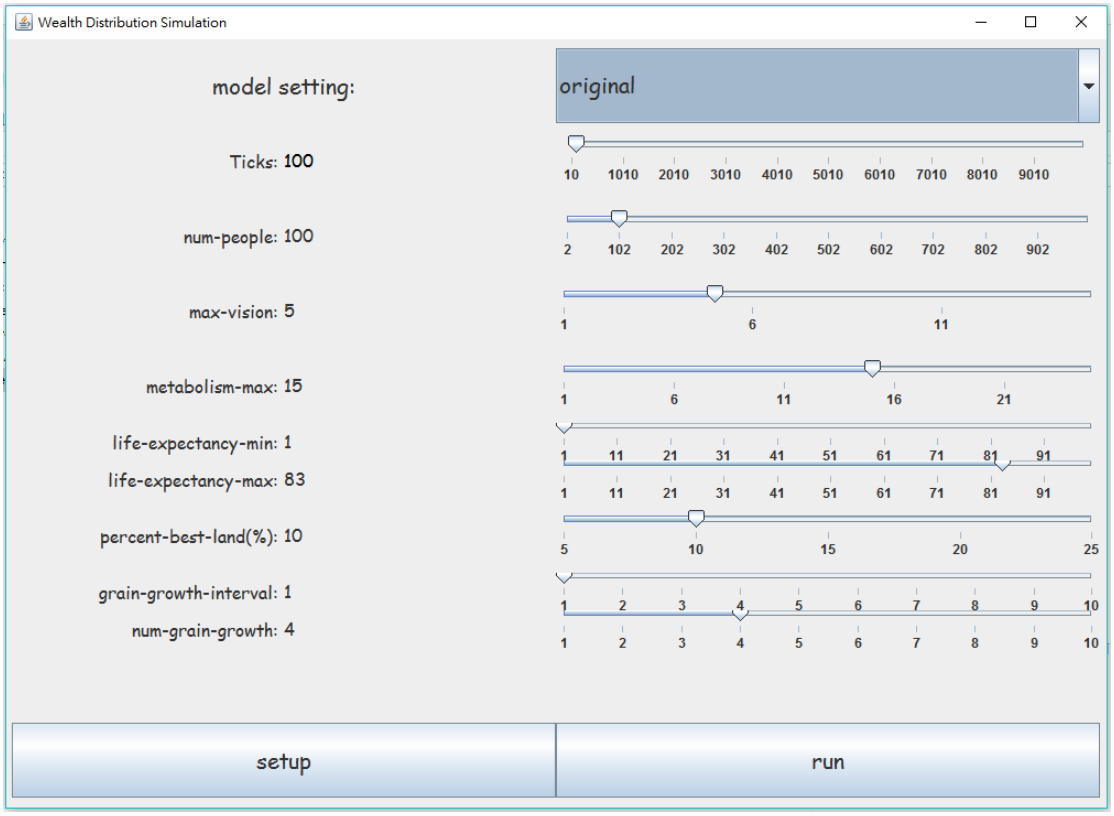

Figure 1_interface

2. Using the pull-down menu to choose the model setting.
3. Using the slider bar to adjust the parameters of the model.
4. Click setup button to load values into model.
5. Click run button to start the simulation.
6. After finishing the simulation, the system will generate three csv files in the folder which contains “wealthDistribution.jar”.

Model setting

Original setting:

I. Purpose: this is the original setting for wealth distribution model from NetLogo
II. Results: the system will generate three files named as “poor.csv”, “middle.csv” and “rich.csv”, which represent the class of people respectively.
III. Interpreting data: Figure 2 is the sample data from csv file. Each number in csv file is the total number of people belonged to the class in a tick. For example, the first number (58) in poor.csv file means there are 58 people belonged to poor class in first tick.

one tick				
58	55	60	59	52
numbers of people belong to this class				

Figure 2_data interpretation

Inheritable feature setting:

I. Purpose: this setting is focusing on offspring can inherit and enhanse the same feature from parent. Features which can be inherited are metabolism, wealth, and vision.
IV. Results: the system will generate three files named as “poor.csv”, “middle.csv” and “rich.csv”, which represent the class of people respectively.
II. Interpreting data: Figure 3 is the sample data from csv file. Each four numbers in csv file is a group data belonged to one tick. First one is the total number of people belonged to the class in a tick. The rest three represent the number of people who inherit one feature in simulation respectively. For example, the first group of numbers (15,2,10,3) in poor.csv file means there are 15 people belonged to poor class in first tick as well as two inherit metabolism, ten inherit wealth and three inherit vision in the first tick.

one tick							
15	2	10	3	12	1	9	2
numbers of people belong to this class	metabolism	wealth	vision				
	inheritable features						

Figure 3_data interpretation