Run Project:

1. Use javac *.java to compile all java files
2. Use java PathPlan mpp.txt terrain.png args[2] to execute program
   (args[2]: white/brown/red.txt, eastesker.txt, allpark.txt)
3. Wait seconds for the result of classic events and minutes for scoreO events
   (**(x, y)** represents all goal points in the text file, (x, y) represents the point in the path)

Evaluation Fuction:

From parent point to current point
L is the distance to current point
S is the speed in the terrain of parent point
S1 is the speed in the terrain of current point
S2 is the speed in the terrain of destination point
L2 is the distance from current point to destination point
Then,
G = L / s
H = L2 / ((s + s2) / 2)
F = G + H

ScoreO Algorithm:

Using A* algorithm to calculate time cost from start point to each point in the array list of control points such as the time cost F1 from start point to control point 1, time cost F2 from start point to control point 2…

1. Find the next point with the lowest cost F
2. Use the point as the start point
3. Repeat step1 and step2 until no control point in the list or no more time

Another Player:

Create another player who has different movement abilities, for instance, if player1's speeds in slow run forest is 60 m/min, in walk forest is 40, and player2's speeds in slow run forest is 40, in walk forest is 60, besides the distance from current point to the two points of such two types of terrain, then player1 prefers selecting slow fun forest and player2 prefers selecting walk forest when two neighbor points of such two types of terrain are available, thus the path that player1 and player2 will select is different.