

Duquesne University

'Lost in the Woods' User Manual

TMT: The Money Team

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COSC 445W - Software Engineering

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Table of Contents

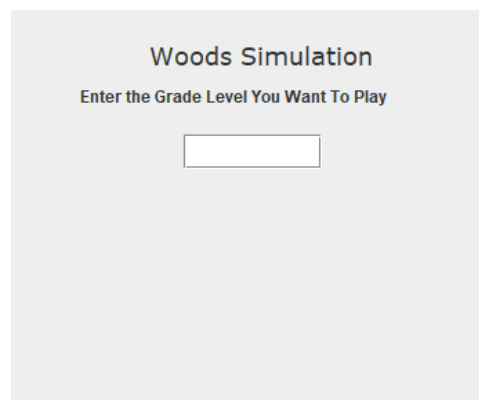
Introduction.....	3
Getting Started.....	3
Kindergarten through 2 nd Grade.....	4
3 rd Grade through 5 th Grade.....	5
6 th Grade through 8th Grade.....	7
Game Over.....	9
Conclusion.....	9

Introduction

Woods Simulation is an interactive game in which people are stranded in a forest and it simulates how many moves it takes for them to find each other. This game is designated for students and there are 3 versions of the game, which are intended for different grades, Kindergarten through 2nd grade, 3rd grade through 5th grade, and 6th grade through 8th grade. The simplest version of the game, which is intended for K-2, will run a simulation of just two people and the “forest” must be a square. The “forest” will be displayed as a grid of smaller squares and that is how the user will be able to track the movement of the humans as they try to find each other. Whereas the more advanced versions can play with up to 4 people and the user may make the grid a rectangle depending on the dimensions they enter, selecting the starting locations for the players, and picking the movement procedures of the players.

Getting Started

Once the student runs the program a Graphical User Interface (GUI) will appear on the screen, which will display the title “Woods Simulation” and beneath it will prompt the student to “Enter the Grade Level You Want to Play”. Below is a screenshot of the starting screen.

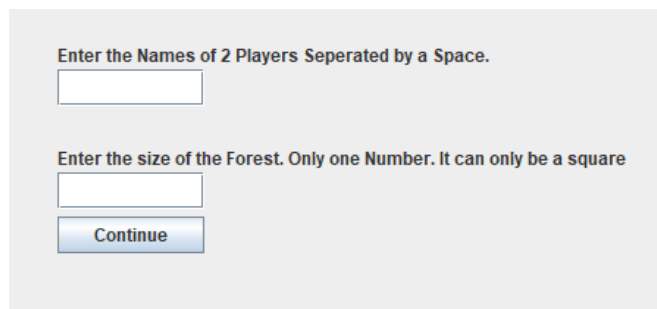


- Valid inputs include “K, 1, 2, 3, 4, 5, 6, 7, 8”
 - Ensure user types “K”, not ‘0’
- After typing the grade, hit the “Enter” key on the keyboard

This is the first part of setting up the Woods Simulation game. Depending on which grade the user enters determines what that game will offer, as previously mentioned.

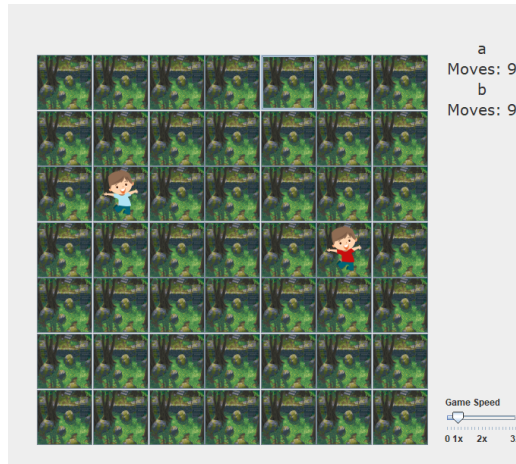
Kindergarten through 2nd Grade

If the user chose grades K-2, then they will be prompted with two more requests, “Enter the Names of 2 Players Separated by a Space” and “Enter the Size of the Forest”.

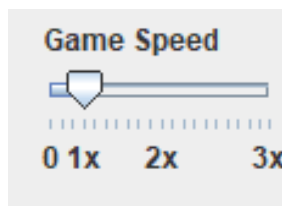


The screenshot shows a light gray rectangular area containing two text input fields and a button. The first input field is preceded by the text "Enter the Names of 2 Players Separated by a Space." The second input field is preceded by the text "Enter the size of the Forest. Only one Number. It can only be a square". Below the second input field is a blue button with the text "Continue" in white.

- Two names must be entered for the game to properly function
- The forest is a square, so you only need to enter one number
 - The number must be less than 50
 - If the student enters number ‘1’, then the players have already found each other, and the game is over
 - Ensure that there is no space after the number in the box, as this may cause the game to be unable to start
- After typing input into both boxes, click on “Continue” using the mouse



A new window that looks like this picture above will appear. Depending on size of the square the student entered will alter the size of each individual square. On the right-hand side, you will see the two names that were entered, along with the number of moves that they have each taken in search for one another.



A game speed slider will appear on the bottom right of every game. Here you can adjust the speed of the players moving through the forest. This is especially useful when the forest is huge.

3rd Grade through 5th Grade

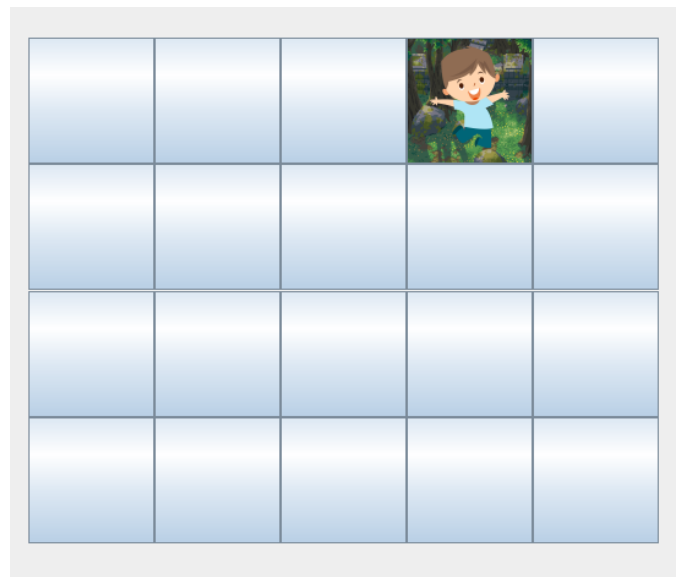
If the user chose grades 3-5 then they will be prompted with two slightly different tasks. “Enter the Names of the Players Separated by a Space. You can add up to 4 Players and pick the starting positions in the next window” and “Enter the size of the forest. 2 Numbers, X and Y in the order”. Once the user completes these prompts a new window will appear allowing the user to select the starting locations for all the players in the game.

Enter the Names of the Players Separated by a Space. You can add up to 4 Players and pick the starting positions in the next window

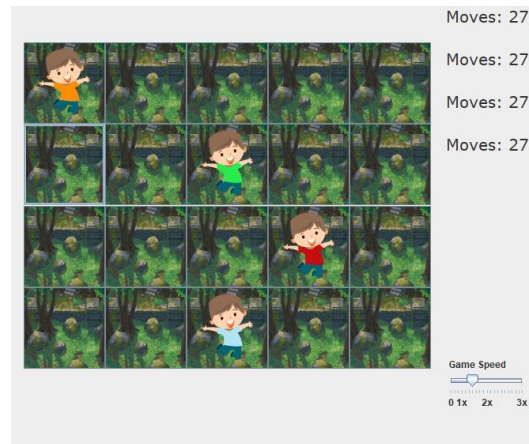
Enter the size of the forest. 2 Numbers, X and Y in that order.

Continue

- Ensure that there are a minimum of two names and maximum of four names are entered
- This more advanced game accepts a rectangle, in addition to a square
 - First number entered will be the width of the forest and the second will be the height
- After typing input into both boxes, click on “Continue” using the mouse



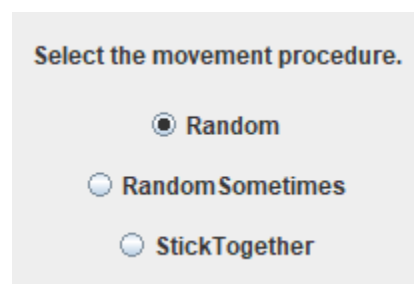
- A grid will open in a new window allowing you to place the number of players that the user created.
 - Left click on any square to place the humans in the forest
 - If the user entered 4 names, they must click 4 times for the game to start automatically



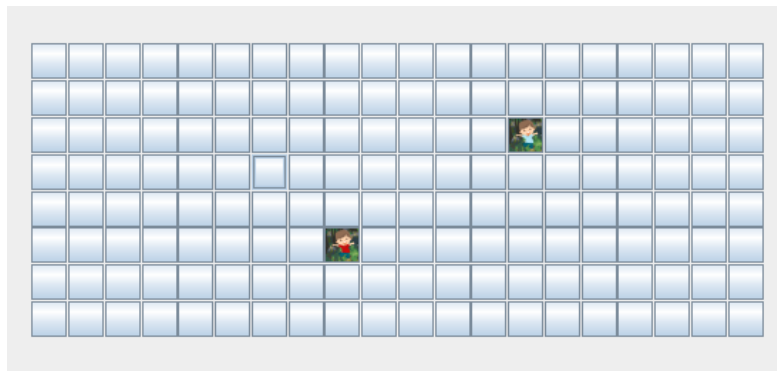
Very similar to the K-2 version of the game, but now you will notice possibly three or four people placed manually now at their starting position, then begin roaming around in the forest in search for each other. On the right-hand side, all the names entered will appear, along with the number of moves that they have each made.

6th Grade through 8th Grade

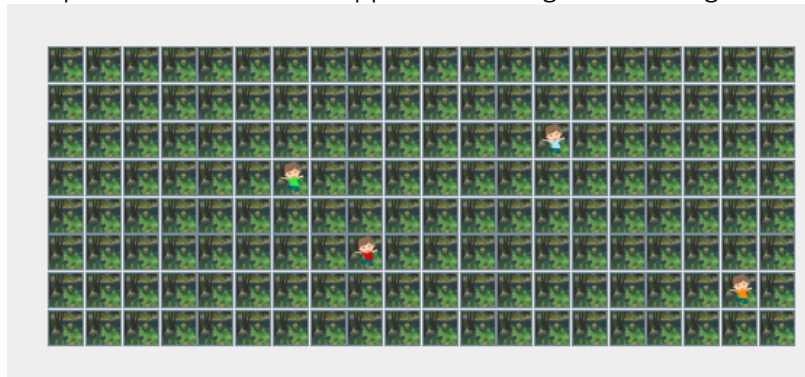
If the user chose grades 6-8 then they will be prompted with the same task as the game for grades 3-5. “Enter the Names of the Players Separated by a Space. You can add up to 4 Players and pick the starting positions in the next window”. Just as you could before, the user can enter a rectangle or square for this version of the game when prompted with “Enter the size of the forest. 2 Numbers, X and Y in the order”. Although since this is the most advanced version of the game, another feature has been implemented.



- Random: This is how the players have been moving in the less advanced versions of the game. Each player takes turn and can move 1 square in any direction.
- Random Sometimes: This is very similar to random, but in addition to being able to move in any direction, the player may forgo their move and stay in the same place.
- Stick Together: This is a realistic mode that you can play the game on. Once players meet in the same spot, they will stay together while moving in the forest in search for the other players.
- Below is what the user will see when placing their players
 - Left click on any square to place the humans in the forest
 - If the user entered 4 names, they must click 4 times for the game to start



Once all 4 players are placed the forest will appear and the game will begin automatically.



- The game will play like normal and wait until all 4 players land on the same square
 - It is recommended that the forest is not too large when using more players or else the runtime may be extreme

Game Over

Regardless of which version that the student plays, they all display the same ending screen once the humans find each other in the forest. A new window will pop open, in result closing the previous window.



- By left clicking on this window, the window will close and then send the user back to into the game with the same settings as the previous game

Conclusion

Woods Simulation will deliver to students of all grades a fun interactive game. Three versions of the game are all packed into one, using a recurring start up menu. There is some overlap between different functionalities amongst the three versions of the game, but higher the grade level, the more interactive and advanced the game will be. Per the programmer's recommendation, when entering the size of the forest, DO NOT enter 50 or higher, as this could lead long wait times and high computer resources. All computers are different, so if you want to experiment you are welcome to, but the game performance may suffer.