

Lost In The Woods User Manual

Overview

The simulation is designed for a pair of students working together in front of the same screen. The simulation should include audio directions and prompts, and assessments to see how the students are doing with the challenges.

Wandering in the Woods Game: People are “lost in the woods” where the woods are represented by a rectangular grid. The woods are dense, and the people can’t see or hear each other until they are in the same cell of the grid.

In grades K-2, the grids are always square, there are always two people, and they start out in diagonally opposite corners of the grid. They wander about randomly, and each move is counted, with a counter for each person. Music plays as cartoon characters wander in the woods. When the people bump into each other, there is a happy graphics display, and statistics from the wandering are displayed and announced audibly. Then the game is reset, and students can start it up again.

For grades 3-5, students can set up the size of a grid, which can be rectangular (instead of just square). There can be 2, 3, or 4 people, and students can place them wherever on their grid. Once the game is started, it can be played and replayed multiple times. Statistics (such as longest run without meeting, shortest run, and average run) are displayed.

In grades 6-8, students have all the control of the 3-5 game, but 6-8 students will be challenged to run experiments to determine how the average run varies with the size and shape of the grids. They will also be able to explore different protocols for wandering, and to decide which is the best way to wander if you want to shorten the time it takes to meet up.

Different Search Techniques used in Simulation

1. **Random:** Here our sprites wander around the woods randomly without any information of where the other sprite is and which grid cell they have already visited..
2. **Breadth First Search :** Here our sprites will visit all the adjacent cells and mark them visited, they will repeat the process for every cell until other sprite is reached or they have visited all cells.
3. **Depth First Search :**Here our sprites will visit one of the adjacent cells and mark them visited, then it will visit one adjacent cell of that cell. This process continues until other sprite is reached or they have visited all cells.

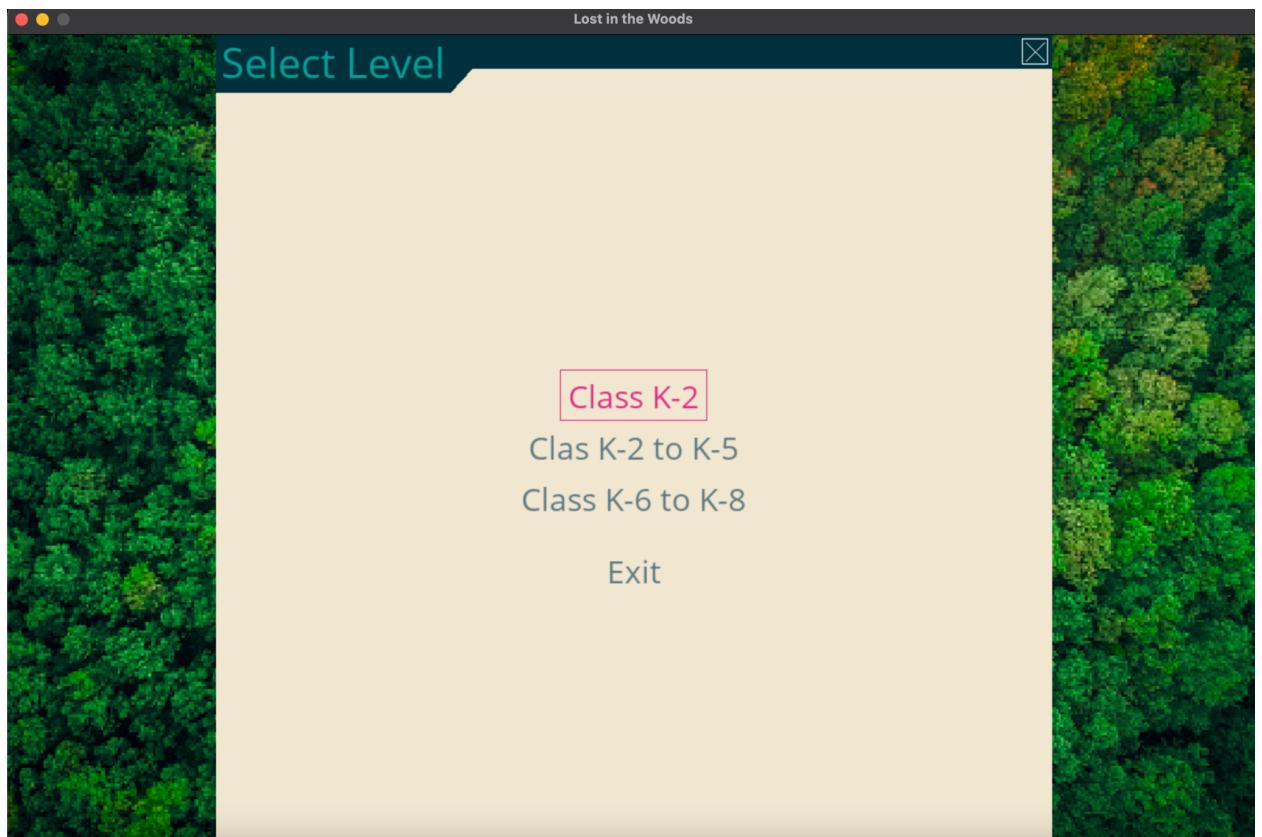
Project Specifications

This is GUI based simulation for kids of different classes to teach them about computation via this particular game.

It has three categories of players:

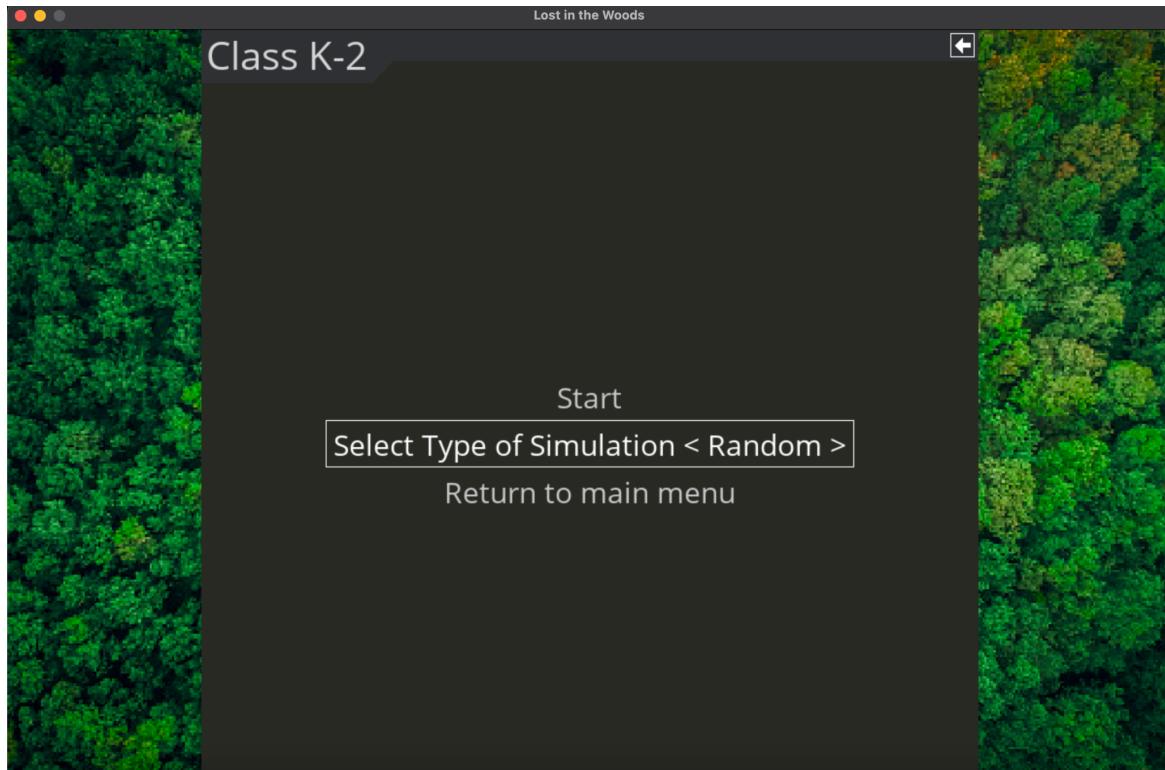
1. Class K-2
2. Class K-3 to K-5, and
3. Class K-6 to K-8

Main Menu



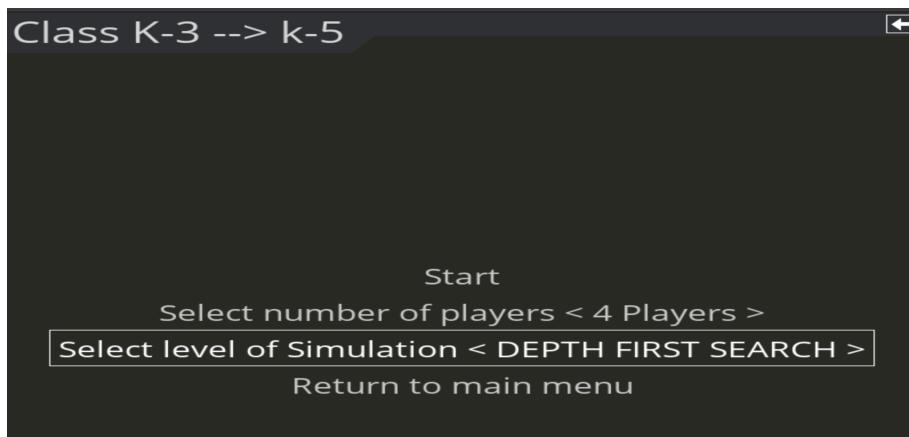
Here the user can select any one of the three categories and play in it.

Sub_menu looks like:

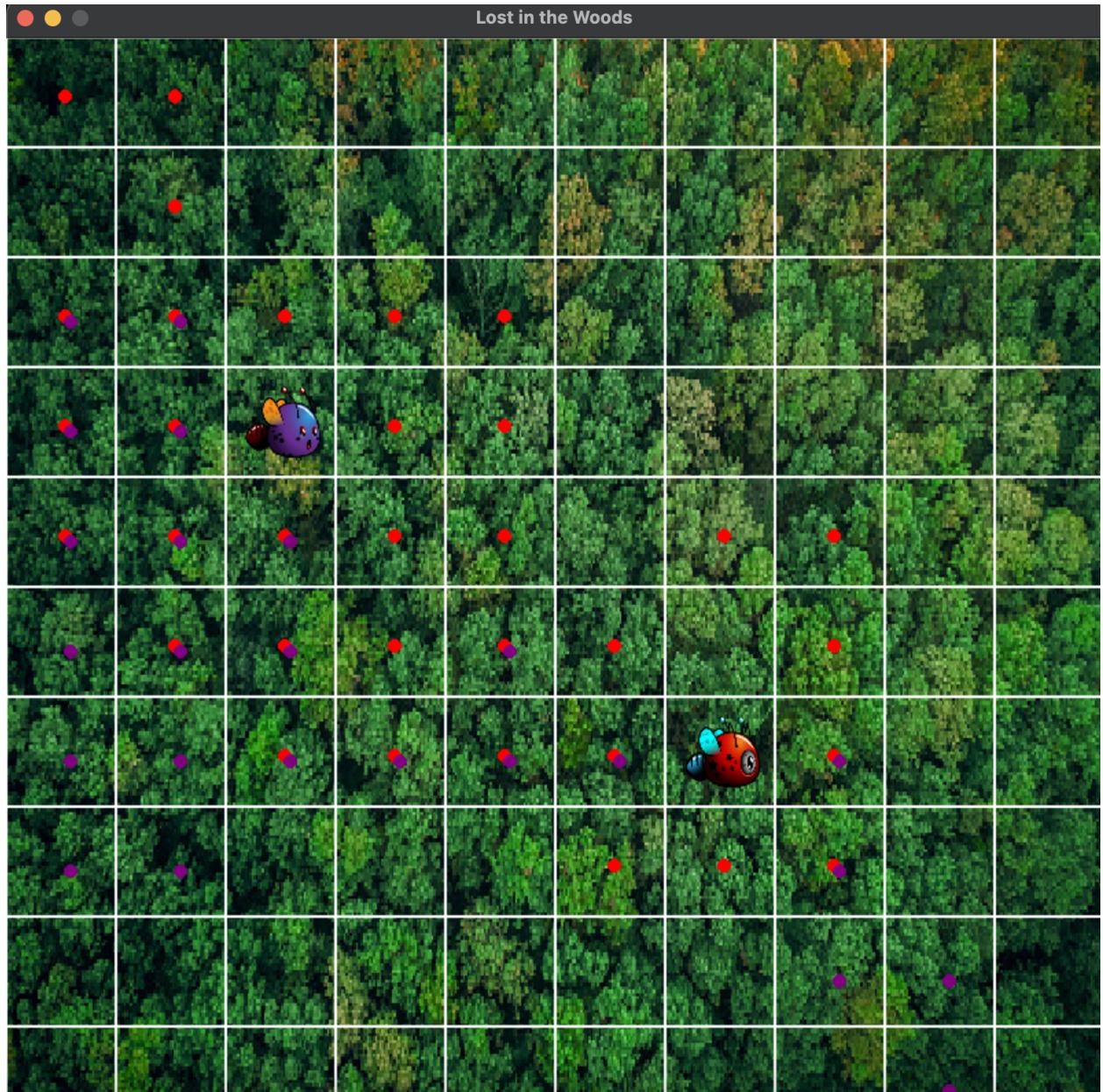


Here the user will select which type of Simulation is required,

For class k-3 to k-5 and k-6 to k-8 group we want to ensure that they select number of players as well for that this is the following menu.



This is the Sample Game Screen:



Thank you