

Maze Generator and Maze Solving Algorithm

Davis Ranney, BS Computer Engineering

Mazes are an Everyday Challenge

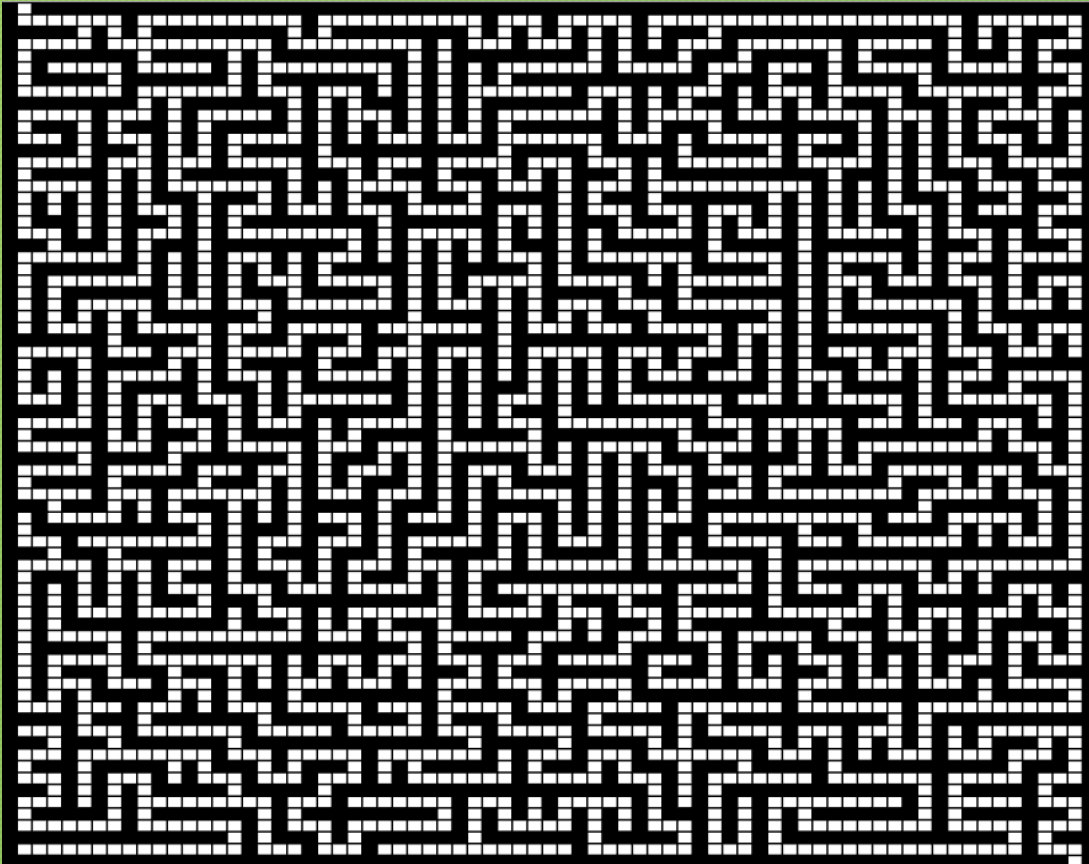
- Problem: Demonstrate an algorithm to solve a maze and find the fastest solution
- Approach
 - Use recursion to solve a maze as efficiently as a human would
 - Generate the mazes to test and demonstrate the algorithm



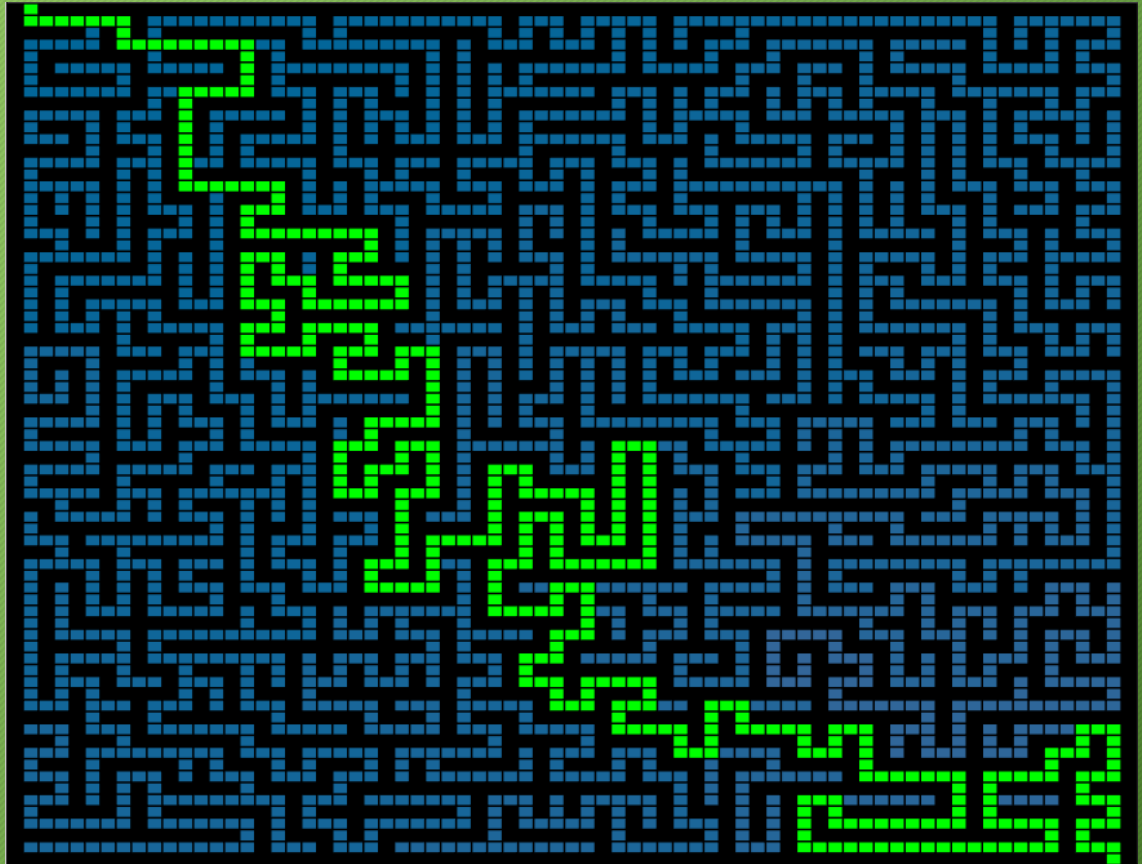
Source: inklestudios.com

Execution

Generated Maze

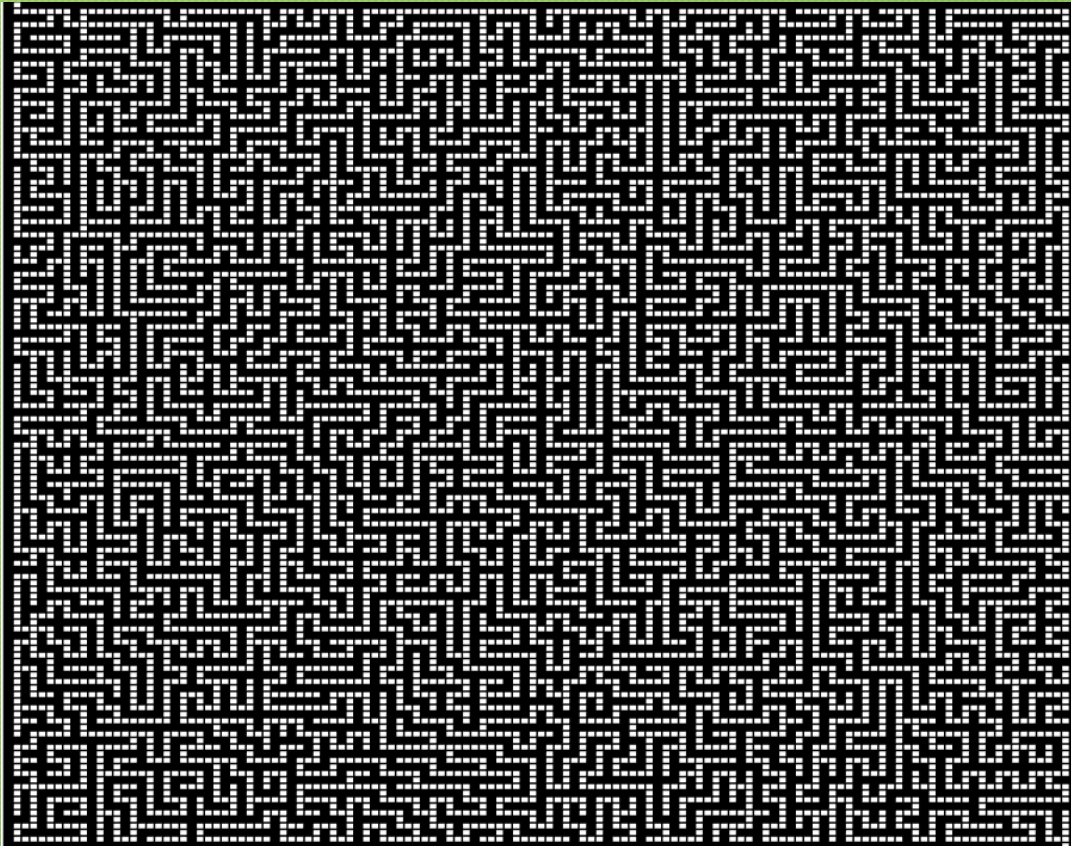


Solved Maze

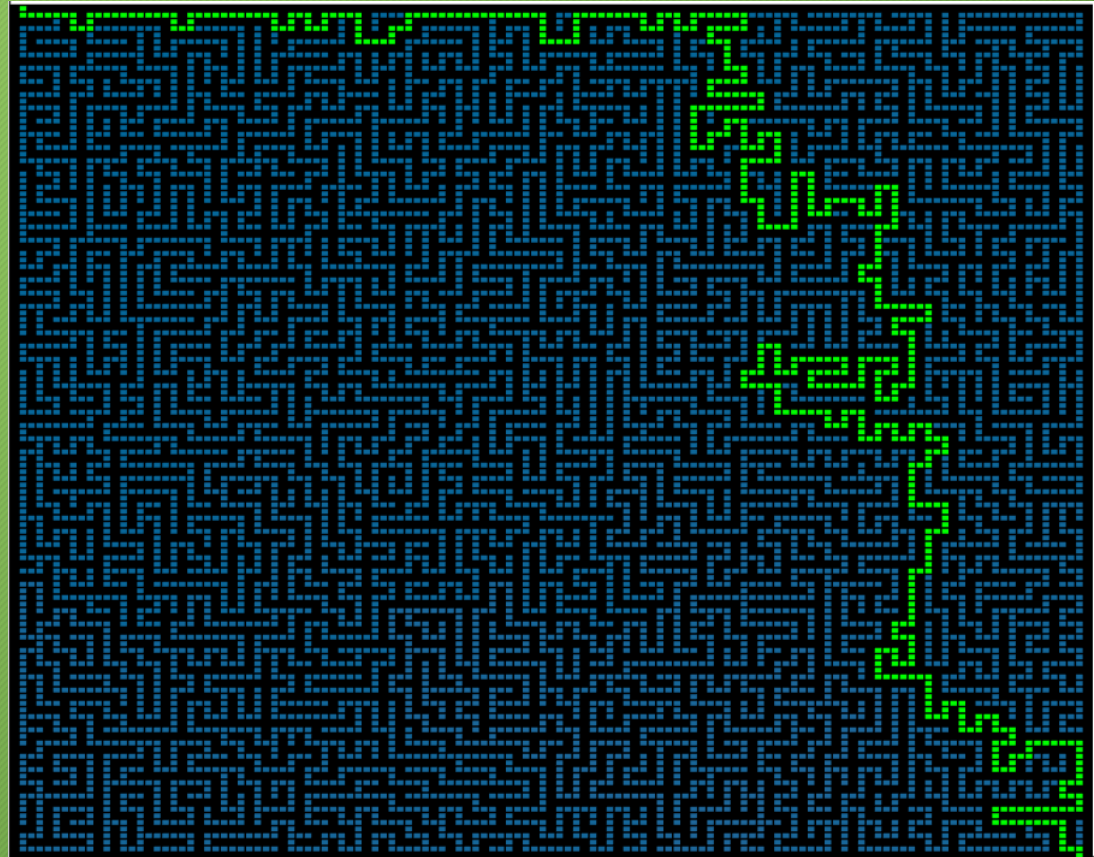


Larger Execution

Generated Maze



Solved Maze



Challenges

- MATLAB does not handle recursion variables well
- Bitwise math should not be approached lightly
- How to store the maze data