ABSTRACT

There are many kinds of path search algorithms including the A * and RIBS (Real-time Iterative deepening Best first Search) algorithms. Path search algorithms can be used to search for paths from one point to destination, by calculating the smallest cost of each vertex associated.

Maze Chase is a game that has a maze background. In this game there are players who have the task, which is to take all the points in the labyrinth. In the Maze Chase game there is also an NPC (Non Playable Character) that aims to chase players so that players cannot take all the points in the labyrinth. Players can be considered to have won the game is that all the points in the labyrinth have been taken by the player.

The average NPC travel time with the A * algorithm to the player for 7.87010107 seconds and RIBS is 7.8731234 seconds which means that A * is 0.00302233 seconds faster than the RIBS algorithm. The average percentage of the travel time ratio is 0.038%, it can be interpreted that the A * travel time is 0.038% faster than the RIBS.

Keywords: Maze Chase Game, A *, Real-time Iterative deepening Best first Search (RIBS), Shortest Path, Unity.