ABSTRACT

The development of video games is one of the fastest technological developments. It is proven by the many innovations regarding Artificial Intelligence, one of which is the application of pathfinding. Implementation pathfinding is usually applied to Non-Player Character (NPC) in a game.

NPCs are characters in the game that cannot be played and controlled directly by the player. NPCs will usually be programmed to do certain things, such as providing information to even following the player everywhere. Even though it was programmed in such a way, NPCs often made mistakes.

Because NPCs often experience errors, the author proposes to implement a pathfinding algorithm of type Breadth First Search on NPCs in the game that the author made, entitled "DEJAVU". “DEJAVU” is a simple 2D racing game where players and NPCs that have implemented certain algorithms will compete one-on-one. Based on the results of tests carried out with 10 conditions and each condition carried out 5 times, there were 6 conditions that were successful.

Keywords: *Game, Pathfinding, NPC, Algoritma, Breath First Search, “DEJAVU”*