

AI Pathfinding

The AI Pathfinding program is a prototype which works with a Grid-, an Ai- and a Playerclass. The Ai class is where the pathfinding happens.

The pathfinding works with a couple of methods, the CalculatePath() method is the method which I use at the start. The Ai should calculate the path when the game starts. The CalculatePath() method uses a List of coordinates (Vector2). When the method starts it adds the coordinates of the ai in the list. Then it goes into a loop which is now a for loop because, when I use an while loop it crashes the game. In the loop is where the path is calculated, but when there is a collision with a wall it shouldn't go through it. So, I used an if statement which return the loop so that the path isn't added to the list.

The second method that I used is the CheckStep() method, which I use in the if-statement from the CalculatePath() method. The CheckStep() is a Boolean method which returns true if the Ai position is equal to the position of the wall.

When the Path is calculated I use a Path() method to make sure the path is used. The counter in the path is used to reduce the speed in which the ai moves. I use a second if-statement which I call CalculatePath() again, this is so that the path is calculated multiple times and not once.

This isn't the complete code for the pathfinding, the ai should be able to move past the obstacles in which it doesn't.