Computer Animations Project Indications

Yannig Delorme

Exercice 1 :

To move the agent, press the directional arrow of the keyboard.
To Fix and Unfix the Orientation of the agent , press the key “F” of the keyboard.

Exercice 2 :

To Fix and Unfix the Orientation of all the agents , press the key “F” of the keyboard.

Exercice 3 :

There are 3 scenes
Scene Exercise 3 : Doesn’t work, it was my first version of it , and it should be an agent that crosses the map from the bottom left to the top right with the shortest path avoiding the obstacles.
It runs infinitely and debugging it I found out that it comes from the line 80 of GridGenerator when I computed the path with the GridA_Start script and I don’t understand why because in the next scene it uses it the same way but it works…

For the scenes : Exercise 3.2 , Exercise 3.3 and Exercise 4 :

In the Hierarchie, select GeneratorCrowd GameObject to try the features of my algorithm in the inspector :
You can tick “See the connection” to see if the connections between the cells of my grid are well created. You will see purple cylinders appear in the middle of each cell. And they are Instantiated for each connection of this cell.
You can tick “See the path” and green cylinders will appear on each cell of the shortest path computed.
You can also tick “A_Star_Path Finding” or “Bidirectional Path Finding” to select the algorithm to use, in order to see how more efficient the Bidirectional one is.
You can select the number of agents to Instantiate in the Scene.
You can also resize the Floor gameObject in the hierarchy to increase the size of the map.

Each agent will start from a random cell and reach an ending random cell and stop.

In the scene Exercise 3.3, you can also tick in the inspector “Loop” to generate new start and end cells for the agents every time they finish their path.

Exercice 4:

No interaction

The scene Follow the leader implements the Steering Behavior of Seeking (the leader Seek the target red cube and the Followers agent seek the Leader).
The scene Obstacle Avoidance implements the Seeking Behavior and also the Fleeing one (the agent seeks the target , it also flees the obstacles).