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cdm3735

I did not have a partner for this project.

To run this agent place the unzipped folder in the OpenNERO directory, run OpenNERO, select Hw1 at the Start screen, and then select Start again in order to start running the agent.

The algorithm implements IDA* by combining code from Depth First Search agent and the Generic Search Agent found in Maze as well as using the manhattan heuristic in order to instruct the agent to take the most optimal next step at every point. The agent continues to search down the paths deepening its search until it finds a goal cell. It determines the goal cell using the heuristic and a cost value, if the value of the cost is greater than the value of the heuristic then the new cost will equal the value of the heuristic. The cost is then compared to a limit value which is initially 16. If the value of the heuristic is less than the limit then the goal cell is set to the cell being searched. The limit is set to the value of the newly computed cost. Once the goal cell is determined the algorithm searches towards it. Once the goal cell is reached the algorithm calculates a new goal cell in the same way until the search terminates.