



De La Salle University – Dasmariñas

City of Thieves: A Tower Defense Game

Using A* Algorithm

An Undergraduate Special Problem

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ABSTRACT

City of Thieves is a 2D tower defense game which is a PC or desktop platform based. It arouses the player to think critically and strategically and to give a valued entertainment. The proponents made the graphics visually appealing and not violent so that it will be geared to people of all ages.

In this game, the player is called thief buster which is a trained dog of the police force. The goal is to protect the different areas of mellow city from the mass of thieves and to stop them from getting to the end point of the map by building weapons that will hit as they pass by. The player has the option to position his weapon anywhere on the clear space of the map. Weapons and thieves have varied power and cost. The player should make the right move in positioning the weapons in order to win.

This game thesis used an A* search algorithm and artificial intelligence in developing the game. The application of A* algorithm was used in the way points of the thieves to get to the target base of the player. Artificial intelligence was applied to the weapons to hit the thief automatically within its radius when detected. Paint tool sai was used in creating the graphics and FL studio to create the background music and sound effects of the game.



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