Technical Design Document

Studio Project 3

Team E

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Proposal

Game Description

* You have been caught stealing some fine literature in a store and have been sentenced to three months of jail term. Your friend tells you that there is a performance by Mr. Toh Da Jun and he will be featuring your favourite “Men By The Beach” song. You want to join him and so you decide to break out of prison.

Game Influences

* The Shawshank Redemption
* Thief
* Assassin’s Creed
* Metal Gear

Features of Game (Technical aspect)

* Must-haves
  + Pathfinding algorithms (Line of sight, grid mapping, Mathematical method for physics)
  + 4 Levels (Cell Block, Warden’s Office, Canteen, Segmented Prison)
  + Minimap
  + Collision system (Bounding box)
  + Item pickup
  + GUI system
  + Sound
* Good-to-haves
  + Frame division of calculation
  + Rotation of item models
  + In-Game time system
  + Day and Night cycles
  + Non-lethal weaponry
  + Dragging bodies
  + Air Vents (as an alternative escape route)

List of Tasks to Achieve Features (based on the Must-haves)

* Pathfinding algorithms
  + Implement the “mathematical method” of Physics
  + Implement the Line of Sight concept
* 4 Levels (Cell Block, Warden’s Office, Canteen, Segmented Prison)
  + The levels include “Cell Block, Warden’s Office, Canteen, Segmented Prison”
  + Each level will be interlinked to one another
  + Every level will be different in size and depth
* Minimap
  + Should have the enemy tracking (red dots)
  + Should be able to rotate according to player’s current line of sight
* Collision system
  + A bounding box on every model
* Item pickup
  + Provide a line of sight and relative distance between player and item
* GUI system
  + Provide health, items picked up
* Sound
  + A theme song and a set of sounds for various actions