Course Project – Test Document

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GSP 340 – Kurt Diesch

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**Introduction**

This document serves as the tester’s document for the Course Project game level. The course project is a third-person game mode created in Unreal Engine 4. It features an initial menu level and two discrete levels combined into a single playable level via level streaming. The indoor level is the player’s spawn area. This is the first of the two streaming levels. It is mostly just a spawning area, but features a light source above the doorway. It is also the flag turn-in location. The outdoor level comprises most of the game level. It features a walkway onto which AI will spawn as well as a flag area. The object of the game is to capture the flag three times within the 75-second time allowance. The player has the ability to “force push” enemies in front of the player.

**Test Setup**

Installation of the course project consists of downloading a ZIP file and unzipping it to the tester’s local hard drive. At the root of the ZIP file is a “CourseProject.exe” file that will begin the game. The testing steps section will be broken up into discrete sections:

* Menu System
  + Tests the functioning of the menu system, which loads the game level and allows the user to exit the game.
* Indoor Level
  + Tests the functioning of the initial spawn area, including collision with the walls and floor, and the ability to see the torch on the wall above the doorway to the outdoor level.
* Outdoor Level
  + Tests the functioning of the walkway, the AI blockers, the flag area, the flag pickup, and flag turn-in to the indoor level.
* Miscellaneous Mechanics
  + Tests the win condition, the lose condition, the “force push” mechanic, and the in-level keyboard exit command.

Test steps need not be performed sequentially or in one “run”. It is expected due to the countdown mechanic that steps may need to be engineered outside of a normal gameplay scenario. A win or loss condition is not a test step failure.

Key and Mouse Commands in Game Level:

* W – Move Forward
* A – Strafe Left
* S – Move Backward
* D – Strafe Right
* Spacebar – Jump
* Mouse Movement – Move Camera
* Mouse Left Click – Force Push
* Escape – Return to Main Menu

**Test Steps**

Main Menu

|  |  |  |
| --- | --- | --- |
| **Name** | **Test** | **Succeeds?** |
| Loading | Double-click the “CourseProject.exe” file in the installation folder. Verify that the game starts with the main menu system. |  |
| Mouse Capture | Verify that once the game is started, by default the mouse cursor is captured to the game window. |  |
| Controls Display | Verify that the main menu system shows the game controls in the upper left-hand corner. |  |
| Objective Display | Verify that the main menu system shows the game objective in the center bottom. |  |
| Load Button | Verify that the main menu system contains a “Load Level” button. |  |
| Exit Button | Verify that the main menu system contains an “Exit Game” button. |  |
| Exit Button Click | Click the “Exit Game” button. Verify that the game closes. |  |
| Load Button Click | Re-open the game and click the “Load Level” button. Verify that the gameplay level opens. |  |

Indoor Level

|  |  |  |
| --- | --- | --- |
| **Name** | **Test** | **Succeeds?** |
| Loading | Verify that the indoor level loads. The indoor level is a small room with a red sheen to the walls. It features a doorway with a torch above it. |  |
| Controls | Verify that the movement controls operate as intended (see Test Setup). |  |
| Floor | Verify that the player does not pass through the floor. |  |
| Walls | Verify that the player does not pass through each of the four walls. |  |
| External Skybox | Verify that the skybox (a space view) is visible through the doorway. |  |
| Outdoor Level | Move through the doorway. Verify that the outdoor level is loaded and visible. This is a walkway on which two AI have spawned, as well as a further flag area. |  |

Outdoor Level

|  |  |  |
| --- | --- | --- |
| **Name** | **Test** | **Succeeds?** |
| Outdoor Level | Verify that the movement controls operate as intended (see Test Setup). |  |
| AI Movement | Move close to one or more AI characters. Verify that they move toward the player character within a short eyesight distance. |  |
| AI Follow | After moving close to an AI character, move away from the AI character. Verify that the AI character follows the player character. |  |
| Lose AI | Move around the AI. Verify that when behind the AI, the player can move without being followed. |  |
| Flag Area | Move into the larger flag area. Verify that the player does not fall through the floor geometry. |  |
| Flag | Jump onto the flag dais and “bump” the flag. Verify that the flag is moved to above the player character’s head and follows the player character’s movements. |  |
| Capture | Move back to the spawn room, avoiding the AI characters. Verify that upon moving into the indoor area’s doorway, the flag is removed from the player character’s head and the UI element showing flags captured is incremented by one. |  |
| Capture Respawn | Move such that the flag dais is visible. Verify that the flag has been respawned in roughly its original location. |  |
| AI Hearing | Manipulate the AI such that they are not following the player. Move within one half-walkway-length of an AI character and Jump. Verify that upon landing, the AI character(s) turn toward and move to the player character. |  |

Miscellaneous Mechanics

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| --- | --- | --- |
| Win Condition | Capture three flags within the time limit. Verify that the UI indicates success and returns the player to the main menu in about five seconds. |  |
| Loss Condition | Allow the countdown timer to reach zero without capturing three flags. Verify that the UI indicates failure and returns the player to the main menu in about five seconds. |  |
| Force Push | Move near an AI character and press the left mouse button. Verify that the AI character is pushed backward. |  |
| Force Push Kill | Move near an AI character and “push” them off the walkway. Verify that in three seconds, two AI characters are spawned on the walkway. |  |
| Escape Key | Press the Escape key while the gameplay level is loaded. Verify that the player moves to the main menu. |  |

**Problem Reports**

Note any discrepancies with the test steps or tested failures not related to a particular test step

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| **Problem Description** | **Area(s) Involved** (“Test Set :: Name” if applicable, otherwise game area) | **Severity** (1-5, 1 is lowest) |
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Tester Date