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| Electronic World Entertainment |
| **Final Project** |
| Game Programming Assignment 3 |
| Version 1.0  All work Copyright © 2015 by Electronic World Entertainment.  All rights reserved. |
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| December 5th, 2015 |

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# Version History

\*Note: Version History is also available on GitHub:

https://github.com/wang-eric/FinalProject

**Ver. 0.1 – Initial build**

* FPSDemo-Sec3 – November 18th Version

**Ver. 0.2 – In-Level Spawn Points Added**

* Added multiple spawn point in a level which allows the player to spawn at the most recent spawn point after losing a life.

**Ver. 0.3 – Platform Bug Fixes**

* Fixed a bug where player may stick on the side of platforms

**Ver. 0.31 – Audio Assets Update**

* Added sound effect when player falls off the edge
* Added sound effect when zombie bites the player

**Ver. 0.4 – Timer System**

* A timer is added to the game, and the remaining time upon finishing the game will be added to the final score.

**Ver. 0.5 – Collider Trigger Switching (TO DO)**

* Make player to be the collider trigger
* Transfer audios and scripts attached to other game objects (coin, enemy, exist, triggers) to player.

**Ver. 0.6 – Moving Platform Bug Fix (TO DO)**

* Allow the player to move with a moving platform when the player is standing on it.
* http://answers.unity3d.com/questions/12083/how-to-get-a-character-to-move-with-a-moving-platf.html

**Ver. 1.0 – First Build (TO DO)**

* Redesign the level

**Ver. 1.1 – Add an Instruction Scene (TO DO)**

* Add a button on start scene which leads to an instruction scene

**Ver. 1.2 – Add a Monster Enemy (TO DO)**

* Add a new enemy for level 2
* Cut the sprite, and create animations
* Create a script for the enemy to follow behind the player

**Ver. 1.3 – Design Level 2 Map Layout (TO DO)**

* Find new sprites
* Design and create level2 layout

**Ver. 1.4– Design Level3 Map Layout (TO DO)**

* Find new sprites
* Design and create level2 layout

**Ver. 1.5– (TO DO)**

* Find new sprites
* Design and create level2 layout

# Game Description

The game goal is to bring SpongeBob to the end of the map without losing all lives, and get as much points as possible.

# Controls

This game support two sets of controls.

|  |  |  |
| --- | --- | --- |
| Action | Control Set 1 | Control Set 1 |
| Jump | Space Bar | ↑ Key |
| Move Left | A | ← Key |
| Move Right | D | → Key |

# Design Sketches

|  |  |
| --- | --- |
| Game Menu | **C:\Users\ericw\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Drawing5.png** |
| Game Interface | **C:\Users\ericw\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Drawing4.png** |
| Level 1 |  |
| Level 2 | C:\Users\ericw\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Drawing3.png |
| Level 3 | **C:\Users\ericw\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Drawing6.png** |

# Menu and Screen Descriptions

|  |  |
| --- | --- |
| Start Screen The interface displays the game title. The player could click on the start button to start the game. |  |
| Game Screen The interface displays the score and the remaining life. The player could move on the screen with keyboard controls |  |
| Secret Coin Chamber There is a secret chamber in the game when the chamber is filled with coins. |  |
| Map Exit The player wins the game by reaching the blue door at the end of the game. |  |
| Winning Screen The interface displays the score, and allows the player to restart the game by clicking the restart button. |  |
| Losing Screen The interface allows the player to restart the game by clicking the restart button. |  |

# Characters

|  |  |
| --- | --- |
| **Player – SpongeBob** | **Enemy - Zombie** |
| Description: C:\Users\Eric\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Spongebob-squarepants.png | Description: C:\Users\Eric\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Zombieidle.gif |

# Scoring

Collecting one coin = 10 Points

Killing one zombie = 50 Points

Remaining time upon completing the game will be added to the score

# Bonus Features

The section lists the game features beyond the assignment requirements.

1. Adding start screen, game win screen, and game lose screen to the game
2. Display final score on game over screen (Carry score value across scenes)
3. Adding restart option
4. Adding tiles for the environment
5. Adding secondary camera for background displaying
6. Adding a secret coin chamber in the game
7. Adding moving platforms
8. Adding animations to player and zombies
9. Adding sound effects to the game
10. Allowing the player to kill zombies by jumping on their heads

# Sound Index

|  |  |
| --- | --- |
| *zombieKill.wav* | Popping Pop (Sound effect)  <https://www.youtube.com/watch?v=g3zBkNEC6jI> |
| *Footsteps.wav* | One Piece sound effects - Chopper's gait  <https://www.youtube.com/watch?v=RqODyT1Zgwc> |
| *inGame.mp3* | Spongebob: Battle for Bikini Bottom music - Bikini Bottom/Sand Mountain  <https://www.youtube.com/watch?v=3BE1i4cs1Hw> |
| *Title.mp3* | The Spongebob Movie music (GameCube) - Title and Pause  <https://youtu.be/f1cDbdojXeM?list=PLC68D26C6929AE866> |
| *Lose.mp3* | The Spongebob Movie music (GameCube) - You Lose  <https://www.youtube.com/watch?v=3w720btYD64&index=8&list=PLC68D26C6929AE866> |
| *Win.mp3* | You win sound effect #4  <https://www.youtube.com/watch?v=aEGLSMIduto> |
| *zombieBite.mp3* | Zombie Sound Effects (free)  <https://www.youtube.com/watch?v=wg8u3AQj1Ac> |
| *Scream.mp3* | Spongebob Screams  <https://www.youtube.com/watch?v=BcSXr1uTsGg> |

# Art / Multimedia Index

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| --- | --- |
| Spongebob Sprite | Nicktoons: Attack of the Toybots  <http://www.spriters-resource.com/ds/nicktoonsattackofthetoybots/sheet/66455/> |
| Zombie Sprite | Plants VS Zombies  http://www.popcap.com/games/plants-vs-zombies/online |
| Environment Tiles Sprite | Mario Series Background  By: DeeY  <http://www.spriters-resource.com/custom_edited/mario/sheet/28546/> |
| Background Picture | Fanonia SpongeBobia  http://spongebobfanon.wikia.com/wiki/File:1000x1000.jpg |
| Coin Sprite | [Graphicriver] 8 Flying Monster Enemies Character Sprites  <http://graphicriver.net/item/8-flying-monster-enemies-2d-game-character-sprites-/11262549> |
| In-Game Text Font | Kirby No Kira Kizzu BRK  By Ænigma Fonts  <http://www.1001fonts.com/kirby-no-kira-kizzu-brk-font.html> |

# Reference Tutorials

* **COMP228 Game Programming Lesson 6**
  + <https://www.youtube.com/watch?v=CPKweJMEKWk>
* **Unity 2D Platformer Tutorial by gameplusjames**
  + <https://www.youtube.com/watch?v=86Bgt--Ww7w>
* **Creating A Basic Platformer Game by Unity**
  + <http://unity3d.com/learn/tutorials/modules/beginner/live-training-archive/creating-a-basic-platformer-game?playlist=17219>