The Bone Zone

TECHNICAL DESIGN DOCUMENT

Contents

Game Development Team

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Executive Summary

Game Overview

The Bone Zone is a first person adventure game that makes the player venture through a maze. The player is trapped inside this maze, and to escape, the player must find all 4 car parts and escape with the car. The player has a set amount of time to escape the maze. There is an enemy AI, which will follow you throughout the maze. If you get caught, it's game over.

Technical Summary

The Bone Zone was developed in approximately 2 months by 4 people using the Unity game engine . Adobe Photoshop was utilized for images and player profiles . The total production cost of the game was free, as our labor was voluntary.

The game will be deployed for PC, MAC, and LINUX simultaneously . The minimum requirements include:

PC, MAC AND LINUX STANDALONE

OS: Windows XP SP2+, Mac OS X 10 .8+, Ubuntu 12 .04+, SteamOS+ Graphics card: DX9 (shader model 2 .0) capabilities; generally everything made since 2004 should work

Equipment

Hardware

Members of the team will utilize a collection of 15” and 13’’ MacBook Pro computers, and an MSI Gaming Laptop as the primary hardware platform for game development and asset creation . Additional hardware choices include MacBook Pros, Windows PC computers, and miscellaneous hardware already owned by the team .

Product	Task	Cost	Quantity	Total
Macbook Pro 15”	Game Development/ Asset Creation	$2000.00	1	$2000.00
Macbook Pro 15”	Game Development/ Asset Creation	$2000.00	1	$2000.00
MSI Gaming Laptop	Game Development/ Asset Creation	$2000.00	1	$2000.00
				$6000.00

Software

All the software used for the development of *The Bone Zone* will be able to produce high end visuals, while still being able to deploy across different platforms . Not all team members will utilize all software tools . Software requirements and selections will vary based on team member roles and responsibilities .

Product	Task	Cost	Quantity	Total
Unity	Game Editor	$0.00	4	$0.00
Google Docs	Word Editor	$0.00	2	$0.00
				$0.00

Evaluation

Game Engine

The game engine utilized for the development of *The Bone Zone* is Unity because we can create a 3D game with ease, we can make it highly-optimized and beautiful, and we can deploy it with a click to multiple platforms . In addition, we can use Unity's integrated services to speed up our development process, optimize our game, connect with an audience, and achieve success .

Target Platform

The Bone Zone will be deployed to PC. On one hand, the PC platform is the perfect target for this game as it is designed to educate new game developers on how to create a Unity game. Deploying on PC will increase visibility and utilization because the product will be on a well known market. .

Scheduling

Development Plan

Product	February 2020	March 2020	April 2020
3D Assets	• Maze materials	• Added in enemy Asset • Added asset for main menu/credit scene	• Finished Lighting • Added animations for enemy
Scripts	• 3rd person movements • Inventory Scripts • Mouse script • Win Script	• Countdown script (Timer) • Finished UI for end scene and opening scene	• NavMesh Scripts • Added health scripts
Audio		• Added audio	

		for opening scene	

Milestones

Prototype test out	● Creating nav mesh for enemy
Creating 3D Maze	● Animating enemy movement
Random spawn points for objects	● Created random spawn points for objects to start at

Updates, Maintenance & DLCs

February 2020	● Create prototype of maze	● Created working layout of maze ● Designed the layout and decided where the enemy should spawn and where the final destination will be.
March 2020	● Add better lighting ● Created spawn points for Objects	● Made the maze be dark and have the lighting of a flashlight in front of you ● Created random spawn points for objects to start at
April 2020	● Add monster ● Fixed meta tag issue	● Created animations for the enemy and adjusted the center of axis to give the enemy a realistic look. ● Meta tag issues caused every pull of the game to lose the materials and scripts.

Work Environment

Remote Collaboration

We are developing the game utilizing Google Drive for documents and Unity Collaborate to maintain a single, synched project that allows us to iterate on the deliverables in an organized manner. We used Github Desktop to commit and push adjustments. This way the four of us could edit the same game and collaborate seamlessly. .

File Formats & Naming Convention

Asset Type	Sub Type	Naming Convention	File Format	Annotation
Animation		Demonstration	Model FBX	
Scripts	• Countdown • Inventory • Spawn Manager • Win Script • Interaction • Time Bonus	• countdown1 • Inventory • Spawn_Manger • WinSwitch • Interaction • timeBonus	• C# • C# • C# • C# • C# • C#	Movement: Mouse
Materials	• Characters • VFX	• True Horror • TileableBricks Wall	• .mat	

Levels

Level 1

There is one maze in the Bone Zone. There are little dead ends and a door that leads to an escape route. All car parts are generated randomly throughout the maze and you have to go and find them.

Asset List

Player	• Person

Enemies	• Monster
Props	• Subwoofer • NOS Tank • Spoiler • Rims
Environment	• Lighting • Floor • Wall