Technical Design Document (TDD)

**Wallaball**

Team: Optimistic Night Wallabies

Version: 1

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Executive Summary

**Project**

***Wallaball*** will be a game where two teams battle to capture the flag of the other team and return the flag to their own base. The players will have paintball guns to paint the other players and get them out of the ring for a short period of time. Obstacles will be in the arena to hide behind. Shots taken anywhere on the body will count against the player and precision does not count.

**Technical**

Programs

The following programs will be required for the creation of Around the World:

|  |  |  |
| --- | --- | --- |
| Program | Purpose | Cost |
| Unity3d | Game Development Environment | $1500 |
| Audacity | Sound Creation | Free |
| Microsoft Visual Studio Pro | Debugging Environment | $300 |
| G.I.M.P | 2D Image Manipulation | Free |
| Blender | 3D Graphics and Animation | Free |

Time to Completion

The total estimated completion time ***Wallaball*** is two weeks. That includes time for coding and bug testing.

estimated Cost of Completion

|  |  |
| --- | --- |
| Unity3d  Microsoft Visual  Studio | $1500 x 2  $300 x 2 |
| Programmer Hours | $20 x 80 |
|  |  |
| **Total** | **$5200.00** |

Hardware and Software

**Programming Software**

|  |  |  |
| --- | --- | --- |
| Software Name | Description | Cost |
| Microsoft Visual Studio Pro | Used to debug and create code | $300 |
| MonoDevelop | Used to create prototype code | Free with Unity3D |
| Unity3D | Development Environment. Used to release to multiple platforms. | $1500 |

Development Plan

**Milestones**

|  |  |  |
| --- | --- | --- |
| Date | Milestone | ✔ |
| 11/11/2015 | Respawning, Health Bars Networked, TDD, Flag Pickups Started | ✔ |
| 11/13/2015 | Finish Flag Pickups, Reloading Finished, Team Selection Started, Levels Started, Game Controller Started | ✔ |
| 11/18/2015 | Networking Pickups Started, Flag Pickups Complete, | ✔ |
| 11/20/2015 | Team Selection Complete, Game Controller Finished, Networking Pickups Finished | ✔ |
| 11/23/2015 | Sound Completed, Shader Completed, Levels Finished | ✔ |

Mike:

* 2 Levels
* Flag Scripts
* Game controller
* Sound
* Shader
* TDD

Andrew:

* Networking Pick-ups
* Team selection
* Respawn
* Wait to join
* Reloading

**Project Goals**

Features

Moving around a networked game field the player is able to pick up the enemy team’s flag and bring it back to their own base. If the enemy team has your team’s flag then you will have to retrieve your flag from the enemy before you are able to deposit your flag.

The player will be able to paint the other player to get them out of the game for a short period of time.

File Formats

**Scripts**

|  |  |  |
| --- | --- | --- |
| Naming Convention | Description | Format |
| FilenameEditor | Editor script for an object script | .cs |
| Filename | A script for an object | .cs |

**Scenes**

|  |  |  |
| --- | --- | --- |
| Naming Convention | Description | Format |
| SceneName | A scene in Unity3D | .scene |

**Other**

|  |  |  |
| --- | --- | --- |
| Naming Convention | Description | Format |
| TDD\_Finished | The completed Technical Design Document | .docx |

Asset List

Project Time Log

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Name | Time | Activity |
| 11/09/15 | Andrew | 1.5 hrs | Loading project, project prep, project initialization |
| 11/10/15 | Mike | 1.5 hrs | TDD and flag prefab creation |
| 11/10/15 | Andrew | 2 hrs | Respawning networking configuration |
| 11/10/15 | Mike | 1.5 hrs | Flag script and Testing First run and object creation |
| 11/10/15 | Andrew | .5 hrs | Bug fixes |
| 11/11/15 | Andrew | 1.2 hrs | Networking |
| 11/12/15 | Mike | 2 hrs | Flag scripting, object scripting, scene building, pull merging |
| 11/12/15 | Mike | 2 hrs | Flag Scripting, object creation, scene building, game controller scripting |
| 11/14/15 | Mike | 4.5 hrs | Flag scripting, object creation, scene building, particle system, team integration |
| 11/16/15 | Mike | .5 hrs | Small update to scene and particle system |
| 11/19/15 | Mike | 1.5 hrs | Merge Conflict Resolution |
| 11/21/15 | Mike | 3.5 hrs | Level generation, merge conflict resolution, general cleanup |
| 11/21/15 | Andrew | 3 hrs | Flag networking |
| 11/21/15 | Andrew | 1 hr | Respawn timer networking |
| 11/22/15 | Mike | .2 hrs | Update Documentation |
| 11/22/15 | Andrew | 1 hr | Update Menu |