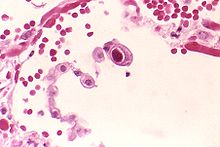
Technical Design Document (TDD)

**Project 3 - User Rails**

Team Cytomegalovirus (CMV)



Version: 1

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Executive Summary

**Project**

The purpose of this project is to produce tools suitable for use in a rail shooter building from a previous projects work. Since the last project created tools for setting waypoints for movement, for camera facing, for special effects, and a tool for reading user-generated content files, the current task is to take the last project’s work and focus on the UGC aspects. The entire toolkit needs to be moved into an external window from the inspector, fleshed out more, and able to be exported alone as a package.

The other goal is to create a level creator that will be able to export the work made in a level editor that will include user data.

**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 2015 Community | Debugging Environment | Free |
| G.I.M.P | 2D Image Manipulation | Free |
| Blender | 3D Graphics and Animation | Free |

Market Release

User Rails will be an in house tool with no release.

Time to Completion

The total estimated completion time for Shooter on rails is two weeks. That includes time for coding and bug testing. It will be turned in September 28, 2015

estimated Cost of Completion

|  |  |
| --- | --- |
| Unity3d for 3 | $4,500 |
| 60 Hours Salary | $1,620.00 |
| **Total** | **$6,120.00** |

Hardware and Software

**Programming Software**

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

Development Plan

**Milestones**

|  |  |
| --- | --- |
| Date | Milestone |
| 9/16/2015 | TDD Mockup Completed |
| 9/18/2015 | Prototyping Startup, TDD turned in |
| 9/21/2015 | Engine Completed |
| 9/24/2015 | Tool Features Created and Editor Work Started |
| 9/27/2015 | Software Created and Entirely Bug Free |
| 9/28/2015 | Complete and Submitted to Professor Fisher |

**Project Goals**

Features

All unfinished or omitted camera movements and facings should be completed for use.

Edit the Rail shooter to follow user-centered design concepts.

Change the editor from an inspector to a window and allow access to all three types of manipulation from the previous project: movement, camera facings and camera special effects.

Export the editor tools into a package for use to create rail shooter levels. This package should only include the necessary files and a short text file explaining how to start the tool.

The following should be designed to build a Level Creator.

A menu option needs to be created to export the level to a text file that will hold

* The user supplied level name
* The user supplied author name
* The date
* Movements
* Effects
* Facings

The user data would be placed inside the “Built” game data folder.

When the build is run, the game reads in the cursory information, presents it inside a menu, and allows the user to select which level to play.

There should be a default (embedded) level in case there is no UGC.

When a level is chosen, read the rest of the data for the level and display it for the user.

File Formats

**Scripts**

|  |  |  |
| --- | --- | --- |
| Naming Convention | Description | Format |
| FilenameEditor | Editor script for an object script | .cs |
| FilenameDrawer | Editor script for an individual element script drawer | .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\_Project3\_Final | The final version of the Technical Design Document | .pdf |
| Rail\_Shooter\_Asset\_Package | Tool package for rail shooter creation and exporting. | .unity |

Asset List

Scenes

Test scenes.

Unity Primitives

General capsule with a character controller

extra cubes to see movement, possibly use for transform locking.

Terrain for movement

Scripts – Available for updates

Victor – EditorWindow.cs

9-28-2015 – Was not able to properly display and edit dynamic list of rotations for Look Chain.

Accountability

Victor

* Migration to Editor Window Collaboration
* Property Drawers for remaining Elements – Facings, Effects
* Export Process Collaboration

Marshall

* Export Process
* Update Mod Work
* Update Import Process

Craig

* Remaining Camera Facings/Movements – Free Look Camera Facing
* Window Editor Collaboration

Update/work log

9/17/15-Victor with collaboration of Craig and Marshall

TDD responsibilities hashed out.

9/18/15-Group 1006 hrs

Updated Accountability Log