Infinity Studios (Jon, Christian, Damien, Toby, and Hunter)

Cryodome Anomaly

Request for Proposal

Version 1.0

Document History

Version	When	Who	What
1.0	2/6/2020	Jon, Toby, Damien, Christian, and Hunter	Initial Drafting/ Organizing Thoughts

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1.0 Problem description / opportunity / expression of need

Virtual Reality advances with each passing day. As the technology improves, more people will adopt it. This growth in interest will generate a higher demand for games to entertain them on that platform. Our new system will provide entertainment in a market that largely lacks exhilarating titles. This deficit is accentuated when evaluating the current gaming market as a whole. With Virtual Reality (VR) becoming more common in the household, games and applications will need to bring increased functionality and elevated entertainment to consumers. To keep our proposed title relevant to the current state of the market, our game will be widely available to the public, accessible on both VR and PC platforms.

2.0 Project Objectives

Develop a VR application in Unity that provides excitement, companionship, and entertainment to the common household. The intuitive Gameplay/VR controls are important as any successful game needs controls that the common player can execute and follow. Entertainment is the core goal of any video game. A video game that lacks excitement is as good as a car that can only go backwards. We strive to create an entertaining title that provides an intriguing storyline, a bonding experience with the environment, and a sense of companionship with other players. This companionship leads to shared memories and fun for everybody.

The features should include:
- Intuitive Gameplay/VR controls
  - Be able to move and look in all directions
  - Interactive objects and game map
- Entertainment
  - Provide the user and surrounding group a fun experience
  - Good storyline
- Companionship
  - Give users an experience that allows them to bond and share memories with peers

3.0   Current system(s) – if any / similar systems

There are multiple popular games on the market with gameplay mechanics similar to our intended features. Popular survival horror games include Amnesia: the Dark Descent, Outlast, Soma, and Alan Wake. Each of these games provide at least one unique element that we aim to capture in our gameplay, and by targeting the virtual reality platform our game will have elevated levels of suspense and realism.

The key features our project will pull from are listed below:
Amnesia: the Dark Descent: *Ambient lighting, interaction with game-world objects such as doors, lanterns, and boxes. Additionally, confusing level design makes the player feel claustrophobic and lost.*
Outlast: *Monster intelligence and pathfinding, ambient noises.*
Soma: *The game takes place in a run-down facility, which is the same style of environment that we are aiming for.*
Alan Wake: *The primary weapon of the protagonist is a flashlight, and our protagonists' primary weapon will be the lights throughout the facility.*

Outside of these games, elements we would like to include are memorization and puzzles in order to complete the objectives. The monster will be the primary antagonist of the game, but the player will also have to focus on interacting with the facility itself.

4.0   Intended users and their basic interaction with the system

Users
- Gamers with an Oculus Rift, Vive, or other virtual reality system.
- Gamers without a virtual reality system can also play the same game with keyboard and mouse compatibility.

Uses
- Use and become familiar with a variety of virtual reality controls, such as pressing buttons, throwing objects, and moving around in a close-quarters environment.
- Compete with other players to clear the level in the least amount of time.
- Practice memorization skills to remember the level layout as well as keycode combinations in order to complete the game.

5.0 Known interactions with other systems within or outside of the client organization

- SteamVR Unity library
- External SQL database for scores

6.0 Known constraints to development

- Dynamic lighting will put extra strain on the computer system. This will require high computer specifications in order to run virtual reality.
- Different virtual reality setups will have more or less space to interact with in the real world, requiring careful consideration for object interaction.
- Bridging the gap between virtual reality and traditional controls will require multiple different scripts for each object. Moving and interacting with the world will be different depending on which system is used.

7.0 Project Schedule

Broad overview. Must agree with the course schedule. Can include some of the potential meeting dates with milestones included.

Date	Description
February 13th, 2020	Post RFP
February 20th, 2020	Diagrams due
February 27th, 2020	Alpha due
May 7th, 2020	Release Date/Presentations

8.0   How To Submit Proposals

Proposals are to be sent via email to AdminDept@infinitystudios.com. Your most recent submissions will be the ones considered for evaluation when the due date arrives. After the proposals are evaluated, all respondents will be notified of results via email.

9.0   Dates

Proposals will be evaluated and chosen within a week, following February 13th, 2020.

10.0 Glossary of terms

Virtual Reality - A computer generated reality in which a user can control a virtual character in a game or a movie.

Unity Game Engine - Professional software that is designed to empower game designers and programmers to create video games and applications.

SQL - Programming language designed for efficient database management, commonly used by many enterprise companies.

*Note: Remember that "system" means product, service, and/or system your group would like to see created, built, upgraded, and/or changed. It is a broad term.