



Tiamat: The Quest

By Cody Ferguson. Sept. 8, 2013 – Report #2

This document is a report, used to convey a proposal for the CSC 493: Senior Projects class. Inside information is provided to give purpose as well as described the fundamental thought process behind the project as well as the process of developing the actual deliverable.

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Purpose #modified 9/8/13

The software to be written is a top-down, adventure role-playing game that will allow for multiple players to play together over a local area network connection. In context, what project Tiamat: The Quest aims to do is connect people through the familiar interface of gaming and place them into an environment that allows for the growth of their individual avatars in the game space and their real life friendships.

The primary goals of this project include the following: establishing a gauntlet-type game world that will require the cooperation of players to complete tasks, developing a method by which players are connected and share the same game space, that is to say allowing for players to be connected to the same “server”, and generating enough playable content and rewards that there is a drive for the players to commit to playing with their friends to achieve goals. The audience of this project can be narrowed down for small groups of friends that enjoy playing any kind of games together. In essence, the project is about developing friendships through goal driven gameplay and rewards for teamwork.

Functionality

Tiamat: The Quest is to be written as a top-down, adventure role-playing game. Therefore, this project will have the expected functionality of allowing the user to create an

avatar to exist in the game space and then allowing for this avatar to be further customized through an in-game advancement system and reward system. The game is to also be multiplayer, as such a method for connecting and sharing the game space will have to be implemented.

Milieu

This particular section is under ongoing research, however a well-known example of a similar product would be The Legend of Zelda: Four Swords, which is a video game for the Nintendo GameCube and the handheld device Gameboy Advance. In the game, there were four main characters whose goal was to stop a great evil through teamwork. This is very similar because in Tiamat: The Quest, the players will have to utilize their ability to work together to advance further and further into the game.

Novelty

This idea is unfortunately not new in the sense of actual gameplay or functionality. However, Tiamat: The Quest is original in that the whole game is played in instances or dungeons, as opposed to an open game world where players roam and then find dungeons, form groups and then attempt to conquer them. Therefore, this solution is to simply design the whole game as a series of dungeons or instances for the players to conquer.

Resources

As of right now, this particular list is limited to the language in which the game will be written. The goal is to program the game in C++, while searching for a possible game engine to develop the game on. At the moment, Unity3D is the only game engine that I have investigated to any extent, this game has a high probability of being to be two-dimensional however, and therefore this may have to change.

Challenges #modified 9/8/13

Challenges that can be foreseen are handling the scope of this project. From past experience in the game engines course at Berea College, deciding where to go with a project like a game and where not to go is a determining factor for the success of a project. In addition to the time constraints, difficulty learning a C++ UDP networking library implementation and utilizing its features will be challenging. As well, expanding and implementing game systems that are both rewarding and intricate will be challenging and time consuming.

Measures

The measure of success for this project is three pronged, if players can connect together in the game world, have the ability to play through, without game related errors, a **single** gauntlet or dungeon, and enjoy the experience then this project has succeed.

Additional dungeons or other features are improvements that can be made after the basic game play and mechanics are fully tested and working.

Future Extensions

Possible extensions include additional dungeons, improvements on the avatar's customization, and more rewards such as achievements for timely completion of objectives. Beyond those minor improvements, dungeons or instances that players have already completed can be made available in a more difficult form, allowing for more of a challenge as well as improved rewards for customization.

Inspiration

Motivation

My personal motivation for this project is my love of gaming. I have played video games for a long time and contribute my making it through high school to the playing of video games. Otherwise, I chose to make this project a game because, if there is one thing that I have learned about the gaming development industry is that if you have made a game and it works, then you are already ahead.

Profession

Project Tiamat: The Quest is going to help my professional growth because I have aspirations of being a game designer in the future. One of the main factors that a possible

employer looks for in someone that is applying for a game design job is that they have the ability to create something. Therefore, creating a game world that is actually functional is my overarching goal throughout this semester.

Vision and Scope

Tiamat: The Quest, when finished will present to the world an interesting take on teamwork in video games. By requiring that the players work together to progress in an almost unique way, the game will foster a community that will evolve as players complete more and more dungeons. Over the course of this semester, the game will be built from the ground up and potentially have five levels of play, all with unique puzzles, monsters, and a storyline for the players to write.

The scope of this project is large, but not unmanageable. To define the scope, the following are the major features that are to be implemented. The game will include, a combat system, unique puzzles that limit progress until completed, a chat system for communication between the players, the ability to connect four players to a single hosted server, and avatar customization in terms of skills and attributes. Functionality that is considered out of scope is custom-made art assets, more than five levels or dungeons for the players to explore, and extensive customization systems for the player avatars.

Preliminary Software Requirements Specifications

Combat System

Number: #2.

Statement:

Ability for player characters to engage in combat with enemies inside of the game world.

Evaluation Method:

If players can engage in combat, with accurate results such as appropriate health depletion, and defeat of enemies, then this requirement has been met.

Dependency:

This requirements depends on several things, a game world, working and balanced enemy objects and character objects, as well as collisions between player character and enemy characters in the game world.

Priority: **Low.**

Requirement Revision History: **None.**

Game World/Puzzles

Number: #1.

Statement:

The game world or the puzzles that the players will solve to progress through the game. This requirement is a matter of placing gathered assets and designing triggers.

Evaluation Method:

When the player character can move and interact with the game world or solve puzzles, then this requirement has been met.

Dependency:

This requirement has no dependencies, as this is the first objective to accomplish.

Priority: **High**

Requirement Revision History: **None**.

In-Game Chat System

Number: #4

Statement:

This requirement is to enable the players to send messages from inside of the client, to communicate a strategy for solving the task that is being performed.

Evaluation Method:

If messages can be sent and received within the game world, this requirement is fulfilled.

Dependency:

This requirement depends on the networking capability of the game, as well as the game world being finished.

Priority: **Medium**

Requirement Revision History: **None.**

Network Capability

Number: **#3**

Statement:

Networking capability is allowing the client to create a locally hosted server that friends can connect to and play the game with them. Games will require four players.

Evaluation Method:

If the client developed allows the user to both create a server, as well as join a server, this requirement is fulfilled.

Dependency:

This requirement depends on the availability of the game world, however for testing actual network connectivity there will be no dependencies.

Priority: **High**

Requirement Revision History: **None.**

Player Character Customization

Number: #5

Statement:

This requirement outlines the RPG elements of the game, which are the ability to customize the character that you are playing to fit into a role, which will allow your group to progress further in the game.

Evaluation Method:

Allocating attribute points, selecting and improving skills and other combat effectiveness improvements that allow for the player to reach higher levels of play.

Dependency:

This requirement depends on the completion of the game world, as well as the completion of the combat system to be fully functional, as it modifies the player's experience in both of these areas.

Priority: **Low.**

Requirement Revision History: **None.**



To: Mario Nakazawa, Project Director

From: Cody Ferguson

Subject: Tiamat: The Quest

Date: September 2, 2013

Accomplishments

This reporting period, I have accomplished the formulation of a concept for a video game, Tiamat: The Quest, and the completion of this report concerning a more detailed explanation of the concept.

Challenges

During the reporting period the major challenge was deciding on what the project was going to be, only recently had I come to a decision on the project's concept.

Time Spent

Approximately four hours of work was put into the creation and submission of this report, but that was essentially all of the time spent during this reporting period.

Goals

The goals for the following week are to close the researching period for finding a game engine to build the game from and finalize the decision for the language being used. Additionally, in terms of actual game design all maps, textures, and other assets will be either found or made and then compiled for future use to eliminate the possibility of being too art-centric. Finally, the code base will start being built and other planning documents will be stored there.



To: Mario Nakazawa, Project Director

CC: James Peruggia

From: Cody Ferguson

Subject: Tiamat: The Quest

Date: September 8, 2013

Accomplishments

During this reporting period I have come to some conclusions on what software to use for the further development of this project. For instance, I will be using Unity3D, which has a great amount of resources for making 2D games in the 3D space which will also leverage my familiarity with the software. In addition, I have collected and investigated links to websites that provide open source sprites and sprite sheets. No actual code has been written yet, however the language has been decided: C# with Unity3D using either MonoDevelop or Visual Studio 2012 Express. As well I have made updates to the challenges section outlining what I now see as challenges as well as updating my purpose to reflect the proper connectivity to be expected for the game.

Challenges

Challenges during this particular reporting period were finding and making decisions for the future of the project. In addition, I have researched further into networking and discovered that the libraries available for communication over a UDP network are going to be challenging to understand.

Time Spent

Week #2 Hours: 4.5

Total Hours: 8.5

Goals

My goals going into this next reporting period are to begin working on the overall design and implementation of the game world, resulting in five levels or dungeons completed and the addition of characters into the game world.