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Team #7: Pez

Project: Empty Clip

Members: Alan Witkowski, Steve Huff, Thos Swallow, Travis Cooper

Document: VVR version 3

1. Introduction and overview

1.1 Purpose of this Document

This purpose of this document is to evaluate the verification and validation plan.

1.2 Definitions, Acronyms, and Abbreviations

None

1.3 Overview of Document

Section 2 summarizes the overall success.

Section 3 discusses results from reviews, walkthroughs, inspections, and audits.

Section 4 discusses the testing results.

Section 5 reflects on how the testing process went, and how it could be improved.

Section 6 describes the outcome of the acceptance test.

Section 7 is a summary of open issues.

Section 8 contains additional information.

2. Summary of Results

Since last release, the main issues have been putting a blinking cursor into the game, pathfinding, networking, and game saving issues. All other components are up to speed and working. We have fixed most of the issues just mentioned. However, we still need to work the networking component of the game.

3. Results from reviews, walkthroughs, inspections, and audits

Every Monday, we have spent an hour walking through the game as a group. This helped us identify several new bugs and features that we would want to add. This also has helped evaluate the difficulty of the game.

4. Results from testing

The testing consisted of each individual testing each component they implemented. This seemed to work out well, and we rarely missed any issues by the time the changes were submitted for others to see. We are now testing based on game play, which includes challenges in the game as well as strategy. We are also looking for bugs in the game play and level creation. We have beta testers who are testing the game, and have found some helpful bugs

4.1 Summary of component test

<i>Component</i>	<i>Setting</i>	<i>Who</i>	<i>How long</i>	<i>Comments</i>	<i>Problems</i>	<i>Work not completed</i>
Graphics	In game play	Alan	45 hours			
Menu	Runing application	Travis	24 hours	Working on getting the blinking cursor	Need to get text centered correctly.	The multiplayer menu and credits
Audio	Game Play	Thos	16 hours			Appropriate music and sound files.
Animation	Game Play	Steve	25 hours	Learning new tools took some initial time.	New tools.	Need to complete aliens.
Networking	Gameplay	Thos	12 hours	Creating TCP and UDP functions. Getting the computers to communicate and exchange game states.	Prediction problems.	Exchanging game type information, player attack requests.

4.2 Summary of integration test / testing product as a whole

<i>Project</i>	<i>Setting</i>	<i>Who</i>	<i>How long</i>	<i>Comments</i>	<i>Problems</i>	<i>Work not completed</i>
EmptyClip	Game Play	All members	80 hours	Our integration testing was set up well from the beginning. Since each component was working well before being submitted we never ran into major issues.	Networking integration	Networking, detailed audio, monster and tile sets, all weapon stats, main levels.

5. Evaluation of the process

5.1 Evaluation of test cases

- Gameplay

For this release, we have had seven official beta testers. 85% of the beta testers said that there wasn't enough ammo. 30% of the beta testers have complained about the imbalance of monsters and levels. 20% of the beta testers said that there is no indication of what door needs what key.

- **Balance**

The balance testing went better this time because we had some real levels to play with. 65% of the beta testers said that monsters give too little experience at higher levels. 40% agreed that some weapons were overpowered, while some weapons weren't very useful. 35% said that some checkpoints were spaced out too much.

The goal of this release was to create an enjoyable, single-player game, and to identify areas of improvement in that regard.

5.2 Results from defect tracker

We can determine the percentage of fixed and open defects, the number of hours spent fixing defects, and how many defects each person has fixed.

5.3 Lessons learned

One nice thing about testing games is that it is enjoyable. We didn't have any problems finding people to test the game.

We have gathered valuable data from beta testers. However, we will need more testers as we develop more game content. We will need even more testers to balance the game out and play all of the levels in sequence.

6. Outcome of acceptance test and delivery

- Currently no major bugs are known in the project. This is the result of each person using proper defect tracking and detection before submission.
- The addition of the entity colliding with each other maybe have slowed the game down, but not enough to bring it below 60 fps. There have been no known crashes added to the project, all the interactions are appropriate for what we are expecting it to do, and nothing has interfered with other components.
- The installation is working for people with and without .NET installed.
- We have also had multiple people play the game and give us feedback.

7. Summary of open issues

Our issues that are still left unresolved are the monster AI detail, networking, and the final story line to create, monster and tile sets, . The networking is almost in a working condition, but we still need to work out some of the game logic. The final story line we are currently working on, as we

create levels of varying difficulty, in a progressive order.

8. Additional information

N/A