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| Test Plan Outline |
| PLEX: A Study in Online Multiplayer |
| Test Plan Outline |

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| **Patricia Sipes**  **3 October 2015**  **Game 2338: Game Testing** |

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# Section I: General Information

## Summary

Project is a C++/C with Allegra API programmed Online Multiplayer experiment with a story and build mode. Function tests include game modes, drivers, database connectivity and player communication (if implemented).

## Environment and Pretest

User community is Windows 98/XP/NT or Linux operating system users of broad background of computer competency with internet connection. Database is setup on an Intel Celeron 1300 MHz server with 256 KB cache.

## Test Objectives

Functioning single player mode and online mode with adequate connection speed.

## Acceptance Criteria

Minimum of 5 concurrent players before any lag or connectivity issue.

## References

* PLEX GDD
* https://jadendreamer.wordpress.com/2007/09/07/specification-requirements-document/

# Section II: Plan

## Software Description

Windows system running 98/XP/NT or Linux with active internet connection. .exe file required for play and downloadable

## Test Team

Project Manager: Phil Coulson

Test Manager: Steve Rogers

|  |  |  |
| --- | --- | --- |
| Team Members | Number (20 total) | Pay/hr |
| Lead Testers | 2 | 0$ |
| General Tester | 4 | 0$ |

## 

## Milestones

University of Mary Washington (Library meeting room or CS classroom/wing if possible)

* Open call for testers to seed both experienced and unexperienced players for playtests.
* Recruit students with strong visual or coding understanding, try AV, Anime, Art, Gaming, CS, Robotics, and at least 1 strong English candidate as central testers to give a variety of bases to do core testing from and weed out bugs from different angles.
* See “Testing” for test phases/dates.

## Budgets

* + 0$

## Testing

### Schedule

6 Month development (is a student, picked a “semester” type development scale)

* Month 1: 1 test
* Month 2,3: 2 tests
* Month 4: 4 tests, first user play test, feedback implemented
* Month 6: 8 tests, (Code freeze), general playtest in week 1, 2 weeks of fixing according to general playtest, 1 week of critical fixes ONLY.

### Requirements

* User community is Windows 98/XP/NT or Linux operating system users of broad background of computer competency with internet connection. Database is setup on an Intel Celeron 1300 MHz server with 256 KB cache.
  + Testing space without distractions, suggest library private room or CS classroom with dedicated computer equipment and internet connection.
* Equipment
  + Quality Center Test tool
  + Database w 256 cache
  + Computers (at least 5) using Windows 98/XP/NT or Linux
* Software
  + Plex .exe
  + JIRA
* Hardware
  + See equipment
* Testers
  + Testers should be a mix of new and veteran testers

### Testing Materials

JIRA will be used for documentation and reporting.

### Test Training

1 day training session to learn JIRA.

# Section III: Specifications and Evaluations

## Specifications

### Business Rules/Functions

All users must be students at University of Mary Washington. If students are seeking credit for their actions, must meet contract requirements decided before project begins.

### Software Functions

Windows (98/XP/NT) or Linux based machine with internet connection.

### Functional Requirements/Test Suites

|  |  |  |  |
| --- | --- | --- | --- |
| Suite | Function | Name | Description |
| GEngine |  |  |  |
|  | 1.0 | Overview | Game starts once the .exe file is opened. |
|  | 1.1 | Data query | Database is connected. |
|  | 1.2 | Buttons | Make sure buttons take player to story or build mode. |
|  | 1.3 | Password Manager | Database is storing correctly, password/user can be accessed in load game prompts. |
| NewG |  |  |  |
|  | 2.1 | StoryMode | Cannot be accessed anywhere but story mode. |
|  | 2.2 | Selection | User can pick character/appropritate puzzles spawned for character type. |
| SaveG |  |  |  |
|  | 3.1 | StoryMode | Can only be accessed in Story Mode |
|  | 3.2 | ValidateName | Validate file name for readback and writeover same name |
|  | 3.3 | PackageData | Make sure data is saved in a package and accessible as such |
| LoadG |  |  |  |
|  | 4.1 | StoryMode | Only works in storymode |
|  | 4.2 | Accessible | Only open/access files formatted for game (see saveG requirement) |
| Drivers |  |  |  |
| (PlayD) | 5.1.1 | storyMode | Only works in story mode |
|  | 5.1.2 | Pause | Game can be paused and resumed from pause |
| (MenuD) |  |  |  |
|  | 5.2.1 | Loader | Load appropriate menu when asked |
|  | 5.2.2 | Tracker | Track what has been clicked (make sure menus display correctly) |
| (LogicD) | 5.3.1 | Separate | Game logic is separate from Graphics (independent but calls to graphics) |
| (MusicD) | 5.4.1 | Loader | Music loads |
|  | 5.4.2 | Functionality | Can stop, mute, play, control volume |
| (MovieD) | 5.5.1 | Loader | Movies load at appropriate spots |
|  | 5.5.2 | Player | Movie can be played and paused |
|  | 5.5.3 | Stopper | Movie can be stopped and/or skipped. |
| Timer | 6.1 | Timer | Timer starts when game starts and can be restarted |
| DatabaseQ |  |  |  |
| (Connection) | 7.1.1 | buildMode | Accesses only in build mode |
|  | 7.1.2 | Connection | Connects to database |
|  | 7.1.3 | ReturnQuery | Returns query in appropriate data type |
| (Timeout) | 7.2.1 | buildMode | Only works in buildMode |
|  | 7.2.2 | timeOut | Timeout user after x seconds |
| External |  |  |  |
|  | 8.1 | Understanding | Manual is understandable and can open |
|  | 8.2 | Appeal | Graphic style appeals to teenage demographic |

### Test Progression

Tests are set up to test internal structures to outer ones. Test suites cause retesting of certain functions, allowing for a more assured test.

## Methods and Constraints

### Methodology

Agile development will be used as overall development cycle.

Internal testing methods: Black box testing, functional testing, localization and usability testing.

### Test Tools

JIRA

### Extent

This is a full test encompassing the entirety of the game and trying to make sure it all works.

### Data Recording

Data is recorded and stored in JIRA.

### Constraints

Multiplayer test MUST test a minimum of 5 players.

## Evaluation

### Criteria/Data Reduction

If duplicate result, please attach information to previous report so that an evolution of the problem/solution can be seen.