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| Z&J 2014 |
| **HORIZON** |
| Project Details |
|  |
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| **11/7/2014** |

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| This document details the specification for the Horizon project |

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# Brief

*Horizon* is a space based shooter where you control a ship from within the cockpit and defend your base from invading waves of enemies.

* Art style : Toon shading, Simple polygons,
* HUD/Menu style: Minimalistic, Clean cut,

# Specification

## Software Features

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Notes |
| 3.1.1 | Platform: Windows |  |
| 3.1.2 | Main menu | Start game, Exit |
|  | Pause menu | Resume game, restart, exit, |
|  | End game menu | New game, exit |

## Player Controlled Character

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Notes |
| 3.2.1 | Player will be able to pitch/yaw/roll the ship. |  |
| 3.2.2 | Player will be able to accelerate/decelerate the ship | Controls increase/decrease acceleration, acceleration does not automatically move back to zero. |
| 3.2.3 | Player will be able to fire ship cannons | The cannons are aimed at the projection of the mouse into world space |
| 3.2.4 | Player will have limited health. Dies when health is zero. |  |
| 3.2.5 | Player respawns near spaceship when dead. |  |
| 3.2.6 | Ships smoke up when under %25 hull |  |

## Control Scheme

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Notes |
| 3.3.1 | W - Accelerate |  |
| 3.3.2 | S - Decelerate |  |
| 3.3.3 | A - Roll left |  |
| 3.3.4 | D - Roll right |  |
| 3.3.5 | Mouse X - Yaw |  |
| 3.3.6 | Mouse Y - Pitch |  |
| 3.3.7 | Left click - Fire primary weapon |  |
| 3.3.8 | Esc - Pause menu |  |
| 3.3.9 | Tab - toggle camera |  |

## Game Objective

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Notes |
| 3.4.1 | Player must prevent space station from reaching zero health. |  |
| 3.4.2 | Display score when game is over, display end game menu | Score is current wave |

## Hostile NPC

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Notes |
| 3.5.1 | Same movement/health characteristics as player ship |  |
| 3.5.2 | NPCs shoot at the space station |  |
| 3.5.3 | Ships smoke up when under %25 health |  |

# Assets

## Models

### Actors

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.1.1.1 | The player's ship | Includes cockpit, flight wheel, |
| 4.1.1.2 | Enemy ship |  |

### Environment

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.1.2.1 | Space station |  |
| 4.1.2.2 | Planet |  |
| 4.1.2.3 | Asteroids | Varying sizes |
| 4.1.2.4 | Probes |  |

## Graphics

### HUD

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.2.1.1 | Player aiming cursor |  |
| 4.2.1.2 | Enemy blips |  |
| 4.2.1.3 | Space station blip |  |
| 4.2.1.4 | Remaining health |  |
| 4.2.1.5 | Space station health |  |
| 4.2.1.6 | Current wave |  |

## Sounds

### HUD/Menu

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.3.1.1 | Low station health warning | Dissonant Beep |
|  | Menu option select | Click sound |

### Actors

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.3.2.1 | Laser cannon fire |  |
| 4.3.2.2 | Ship engine hum | Low passed mechanical humming |
| 4.3.2.3 | Thruster sound |  |
| 4.3.2.4 | Death explosion | Low-passed |
| 4.3.2.5 | Space station explosion | Low-passed |
|  |  |  |

### Environment

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.3.3.1 | Exciting background music |  |
| 4.3.3.2 |  |  |

### Menu

|  |  |  |
| --- | --- | --- |
| ID | Asset | Notes |
| 4.3.4.1 | Menu pause on |  |
| 4.3.4.2 | Menu pause off |  |

# Additional Notes

N/A