**Shaper**

Shape 3D objects to save your town

Developed by:

Daniel Francisco

Revision: 0.0.1

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Summary** | **Author** |
| 0.0.1 | 26/09/2021 | Initial draft. | Daniel Francisco |
| 0.0.2 | 06/10/2021 | Removed mover tool.  Player moves object by grabbing. | Daniel Francisco |
|  |  |  |  |
|  |  |  |  |

[1. Game Overview 4](#_Toc83633859)

[1.1. Game Concept 4](#_Toc83633860)

[1.2. Target Audience 4](#_Toc83633861)

[1.3. Genre(s) 4](#_Toc83633862)

[1.4. Game Flow Summary 4](#_Toc83633863)

[1.5. Look and Feel 4](#_Toc83633864)

[2. Gameplay 4](#_Toc83633865)

[2.1. Objectives 5](#_Toc83633866)

[2.2. Game Progression 5](#_Toc83633867)

[2.3. Play Flow 5](#_Toc83633868)

[2.4. Mission/challenge Structure 5](#_Toc83633869)

[2.5. Puzzle Structure 5](#_Toc83633870)

[3. Mechanics 5](#_Toc83633871)

[3.1. Rules 5](#_Toc83633872)

[3.2. Model of the game universe 6](#_Toc83633873)

[3.3. Physics 6](#_Toc83633874)

[3.4. Character movement in the game 6](#_Toc83633875)

[3.5. Objects 6](#_Toc83633876)

[3.6. Actions 6](#_Toc83633877)

[3.7. Screen Flow 6](#_Toc83633878)

[3.8. Game Options 7](#_Toc83633879)

[3.9. Replaying and saving 7](#_Toc83633880)

[4. Story and Narrative 7](#_Toc83633881)

[4.1. Back story 7](#_Toc83633882)

[4.2. Game story progression 8](#_Toc83633883)

[4.3. Cut scenes 8](#_Toc83633884)

[5. Game World 8](#_Toc83633885)

[5.1. General look and feel of world 8](#_Toc83633886)

[5.2. Areas 8](#_Toc83633887)

[5.2.1. General description and physical characteristics 9](#_Toc83633888)

[5.2.2. How they relate to the rest of the world 9](#_Toc83633889)

[5.2.2.1. What levels use it 9](#_Toc83633890)

[6. Characters 10](#_Toc83633891)

[6.1. Alex 10](#_Toc83633892)

[6.1.1. Back story 10](#_Toc83633893)

[6.1.2. Personality 10](#_Toc83633894)

[6.1.3. Appearance 10](#_Toc83633895)

[6.1.4. Abilities 10](#_Toc83633896)

[6.1.5. Relevance to the story 10](#_Toc83633897)

[7. Levels 10](#_Toc83633898)

[7.1. Training Level 10](#_Toc83633899)

[8. Interface 11](#_Toc83633900)

[8.1. Visual System 11](#_Toc83633901)

[8.1.1. HUD 11](#_Toc83633902)

[8.1.2. Menus 11](#_Toc83633903)

[8.1.3. Camera model 11](#_Toc83633904)

[8.2. Control System 11](#_Toc83633905)

[8.3. Audio, music, sound effects 12](#_Toc83633906)

[8.4. Game Art 12](#_Toc83633907)

# 1. Game Overview

## 1.1. Game Concept

The aim of Shaper is to make a single player game where the player needs to solve puzzles changing the shapes of objects to reach his goal.

## 1.2. Target Audience

Large audience teen to old, casual to hardcore.

## 1.3. Genre(s)

* Puzzle;
* First person;
* Adventure;
* Single player.

## 1.4. Game Flow Summary

* Player starts game;
* Starts the gameplay by starting a new game, continuing the game or selecting a level;
* Spawns at start of a level;
* Solves the puzzle;
* Gets to the next level.

## 1.5. Look and Feel

* 3D game;
* Simple graphics;
* Dark feeling;
* Low levels of lighting in some levels.

# 2. Gameplay

## 2.1. Objectives

* Solve the puzzle;
* Reach the next elevator.

## 2.2. Game Progression

* Player enters the caves;
* Uses shaper tool to solve puzzles;
* Uses shaper tool and ability to move objects to solve puzzles;
* Reaches geothermal generator.

## 2.3. Play Flow

* Player gets out of the elevator;
* Edits objects using his shaper tool;
* Solves the puzzle;
* Reaches the next elevator.

## 2.4. Mission/challenge Structure

* One main mission;
* Complete many levels to complete the mission.

## 2.5. Puzzle Structure

In order to get to the next elevator the player has to solve a puzzle where he can change the shape of certain object and move them on the world.

# 3. Mechanics

## 3.1. Rules

* Player can take objects to elevator but they’re not useful;
* Player can’t exit shaper tool editing without applying the shape.

## 3.2. Model of the game universe

* Character lives on a town under a dome;
* Town is powered by a geothermal generator;
* There’s a big underground infrastructure to get to the generator.

## 3.3. Physics

Physics are similar to our world.

## 3.4. Character movement in the game

* Forward;
* Backwards;
* Left;
* Right;
* Jump.

## 3.5. Objects

Player can pick up movable objects and place them.

## 3.6. Actions

* Left click aiming at object to use shaper tool;
* While using shaper tool player holds down left click until the object is absorbed;
* Absorbed object now appears on tablet screen attached to the character arm and the player can shape it;
* Player hits the apply shape button to materialize the object back with the new shape;
* Click E to pick up object dragging it to a different position;

## 3.7. Screen Flow

* From the main menu the player can:
  + Continue game;
  + Start new game;
  + Go to select level;
  + Go to options.
* When selecting continue game the player will start from the last save;
* When selecting new game the player will be alerted that by doing this the previous saves will be erased;
* When going to the level selector a list of unlocked levels appear and the player can select and play one;
* On the options menu the player has controls, graphics and sound options;
* After starting gameplay the player can access the in game menu that contains the options menu, and an options to quit the game.

## 3.8. Game Options

* Video settings affect the quality of the game;
* Control settings change the way the user inputs affect the game;
* Audio settings change the volume of different audio elements of the game.

## 3.9. Replaying and saving

* The player can replay the game by selecting a level from the level selector or by starting a new game;
* The game is saved automatically at the end of each level.

# 4. Story and Narrative

## 4.1. Back story

Main character is a repair man and has a shaper tool used for repairs.

Main character is living in a town under a dome because outside the dome the world is unhabitable, the power on the city shuts down completely and someone needs to go to the geothermal generator to fix it. No one that’s alive has ever been to the generator, main character offers himself to go fix the generator since he is a repair man.

Main character reaches the generator and finds out the world being inhabitable is a big social experiment conducted by scientists centuries ago to see how long it would take for someone to disobey knowing everyone’s life could be at risk.

Main character goes back to the surface and steps out of the dome.

## 4.2. Game story progression

* Player uses shaper tool to help someone fix something;
* Lights go out;
* Player enters generator access elevator;
* Player finds object moving technology;
* Player fixes generator;
* Player steps out of the dome.

## 4.3. Cut scenes

* Town shutdown cut scene:
  + Scene goes completely dark;
  + People with lanterns gather to discuss what happened and what to do;
  + Main character enters the elevator.
* Step out of the dome cut scene:
  + Main character walking back through many of the levels he completed;
  + Reaches the outside;
  + Walks to the edge of the dome;
  + Opens the door and steps out.

# 5. Game World

## 5.1. General look and feel of world

* Sunny and warm at the start of the game;
* After the shutdown it feels dark;
* World feels darker as player progresses.

## 5.2. Areas

* Town;
* Facility;
* Deprecated facility;
* Lava pools;
* Geothermal generator.

### 5.2.1. General description and physical characteristics

* Town:
  + Houses;
  + Roads;
  + Farms.
* Facility:
  + White walls and ground.
* Deprecated facility:
  + White walls and ground from facility with holes and missing parts.
* Lava pools:
  + No facility walls or very few;
  + Pool of lava.
* Geothermal generator:
  + Dark room;
  + Huge generator.

### 5.2.2. How they relate to the rest of the world

* Town is built on the surface above the facility and the generator;
* The facility is below ground under the town and consists of many rooms required to go through to reach the generator;
* The deprecated facility is a part of the facility that is deep underground and that has been damaged by the heat and earthquakes;
* The lava pools is a part of the facility so deep underground that there are lava pools visible, it’s the last part before the generator room;
* The geothermal generator is the last room and is where the generator that powers the city is located.

#### 5.2.2.1. What levels use it

* Town – First level;
* Facility – 70 percent of levels;
* Deprecated facility – 25 percent of levels;
* Lava pools – 5 percent of levels;
* Geothermal generator – Last level.

# 6. Characters

## 6.1. Alex

### 6.1.1. Back story

Alex is a repair man.

### 6.1.2. Personality

* Introverted;
* Determined;
* Impulsive.

### 6.1.3. Appearance

* Brown hair;
* No facial hair;
* Wears a brown bib overall.

### 6.1.4. Abilities

* Has shaper tool;
* Has pick up and drop objects.

### 6.1.5. Relevance to the story

Main character.

# 7. Levels

## 7.1. Training Level

Player learns movement by going towards a person that needs help repairing something. Player learns how to use shaper tool by repairing something.

# 8. Interface

## 8.1. Visual System

### 8.1.1. HUD

No HUD.

### 8.1.2. Menus

* Main menu;
* Options menu;
* Video options;
* Controls options;
* Audio options;
* Level selection menu.

### 8.1.3. Camera model

First person camera.

## 8.2. Control System

* W to go forward;
* S to go backwards;
* A to go left;
* D to go right;
* Space to jump;
* Esc for in game menu;
* Hold left click to use shaper tool;
* Left click to intrude mesh;
* Right click to extrude mesh;
* Click E to pick up and drop object.

## 8.3. Audio, music, sound effects

* Walk sound;
* Shaper tool sound;
* Pick up and drop sound;
* Jump sound;
* Land sound;
* Elevator sound.

## 8.4. Game Art

* 3D;
* Simple graphics.