

Grappletation

Game Design Document

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Onverview

Concept:

Grappletation is a puzzle-based platforming game set in a futuristic sci-fi world. The concept for the game is based around one player controlling multiple characters that each have unique special abilities. The goal is for the player to move both of their characters to the end of the level.

Target Audience:

The target market of our game will be people aged between 13- to 25-year-olds. We are marketing towards people who have previous experience. This is because the game requires sufficient knowledge of platforming and needs to be able to multiple tasking while doing so with controlling unit and using their tools.

Inspiration:

Grappletation takes heavy inspiration from games like Portal, Hollow Knight, and the Trine series. We aim to create a unique and fun experience that combines elements from these games but also contains new and unique mechanics for players to engage with.

Early Concepts:

Main Menu early concept

Grappletation

Start 

Load

Options

Exit

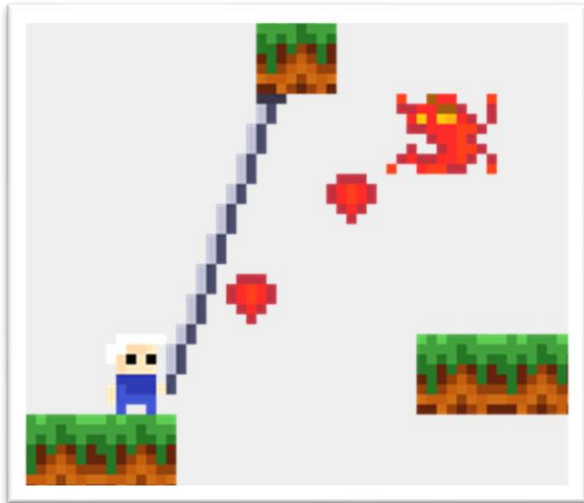


Version/build info

Company name TM

When the user hovers over the buttons with their mouse a rectangular shaped button will move to whatever button is selected. W and S keys can also be used to move the button selection up and down respectively

Pixel Art Game Demo



Early design of a grapple, enemy, and tiles concept.

World Design:

Story:

Two characters find themselves trapped in a peculiar, abandoned science laboratory. They must steal all the gems and get out!

Game World:

Each level will contain several interactive and hazardous elements. Such as:

- Turrets (enemy)
- Levers, Buttons, and Doors (interactable)
- A complete list of foreground and background tiles

Level Design:

The game world of Grappletation is made up of several rooms each with unique layouts and challenges. The player must collect all the gems which may require some problem-solving to get to. Once all the coins are collected and both characters are alive, the level is complete d

Level Mockups:



This is the main tile set used for Grappletation. Each level may contain different variations of the tile set

Game Objects:

Gems (blue, green, orange, red)

- Gems can be collected by the player to complete the level

Levers, buttons, and doors

Each lever/button will be linked to a corresponding door. Once activated by a grabble or character, the door will open.

Characters:

Portal Gunner

Description:

The Portal Gunner is a humanoid with the possession of a portal gun

Grappler

Description:

The Grappler is a humanoid with the possession of a grapple gun

Core Game Principles:

Gameplay:

Grappler:

The gameplay of the Grappler character is focused around being the “fighter” of the group. The grappler is required to clear the path for the portal gunner by defeating enemies, clearing traps and activating switches.

Portal Gunner:

The gameplay of the Portal Gunner character is focused on strategic decisions that involve transportation and movement. The portal gunner is required to use their portals correctly in order to make it to the end of the level.

Mechanics:

Grappler:

The Grappler is able to shoot the hook in 360 degrees. It will extend until it hits a wall or enemy. Hitting a button or lever will activate it

Portal Gunner:

The Portal Gunner is able shoot portals from his character position in a straight line and will stop and activate when it collides with valid terrain. The Portal Gunner can use his device to maintain up to two portals at the same time which contain a link between them. When a player enters a portal, they will be transported to the location of the second portal (If it exists). A grapple can be shot through portals

Buttons and Levers:

A level may contain buttons and levers which can be activated by players and will then create a reaction. Activating a button or level will open its corresponding door

Features:

- Fun and engaging puzzles with multiple ways to complete
- The player can choose how they want to play. For example, the player can attempt to clear the level as fast as possible, taking damage and getting a worse rating at the end of the level, or they could take it slow and steady and make smart decisions, resulting in a better rating.
- Easy text level editor to quickly set up levels

Player Experience:

Goals:

In GrappleTation the player must make their way to the end of the level by controlling multiple characters with interactable special abilities. Throughout the level the player will encounter a range of enemies, each with their own strengths and weaknesses. It is up to the player to vanquish these enemies and progress through the level.

Activities:

| Grappler: | Portal Gunner: |
|--|---|
| Movement: <ul style="list-style-type: none">• Able to walk left and right Combat: <ul style="list-style-type: none">• Able to attack enemies by throwing his hook Miscellaneous: <ul style="list-style-type: none">• Able to throw his hook through portals• Can activate buttons and levers | Movement: <ul style="list-style-type: none">• Able to walk left and right Combat: <ul style="list-style-type: none">• The Portal Gunner has no combat skills Miscellaneous: <ul style="list-style-type: none">• Is able to shoot two portals to connect them |

Controls:

| Keyboard | Controller | Action | Description |
|------------|------------------------|-------------------|--|
| A | Left Thumb Stick Left | Move Left | Moves the character currently being controlled to the Left |
| E | X | Use | Player can “use” items, like lever or door |
| D | Left Thumb Stick Right | Move Right | Moves the character currently being controlled to the right |
| Space | B | Change Character | Switches the character currently being controlled by the player |
| Mouse | Right Thumbstick | Weapon direction | Changes the direction that the weapon would be fired at |
| Left Click | A | Use Weapon/Attack | Attack with currently equipped weapon (Portal gun, Grappling hook) |
| Escape | Options | Pause | Opens pause menu |

Assets:

Sprites:

The sprites required can be split into 7 categories: players, enemies, objects, level tiles, backgrounds, HUD, Pause/Menu UI.

Players:

There are two player characters. One smaller character with a portal gun and a larger character with a grapple gun. Each player has an idle, shoot, and walk animation

Enemies:

The enemy is a stationary turret. It will open when a player is present. The turret has a closed, idle, and shoot animation.

Objects:

These objects are particularly used for player interactivity with the levels. Some contribute to the completion of the level and some purely exist for greater immersion. These objects include boxes, levers, buttons, and doors.

Level Tiles:

This game requires a vast variety of level tiles. This includes top left, top right, bottom left, bottom right convex/concave tiles. At least 4 middle tiles are required to show variety in the walls.

Backgrounds:

A different background is required for each level. Although, the level backgrounds may not need much change (such as changing writing from room 1 to room 2). These backgrounds will always show behind the tiles. Other important backgrounds include a loading scene and main menu.

Pause/Menu UI:

These assets include UI interactivity and supporting images. Menu: play button, options button, quit button, title and background. Level navigation: title, level thumbnails, arrow buttons and background. Pause/options menu: full screen button, sound effects button, music button, exit button, x button.

Sounds:

The sounds can be split into 4 categories: UI, player, enemies, other objects.

UI:

This category includes two sounds. One for pressing any button, and the other for continuing the game. These will be 8-bit style.

Player:

Both characters will have a walk, grunt, hurt and falling sounds. The grappler will have heavier and deeper sound effects than the Portal Gunner. Some additional sounds for the grappler are the extend sound (like a zipline) and grapple sound (like hitting metal). Additional sounds for the Portal Gunner include portal shoot (like bubbles), portal hit (like a splat).

Enemies:

The turret has a shooting sound.

Other objects:

These include boxes, levers, and buttons. A box will have thud and scrape sounds and the levers/buttons will have different click sounds.

Music:

There will be two music pieces. One for the main menu and the other for the gameplay