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*[Company Logo and Name have yet to be determined]*

*Game Design Document*

**Project Description**

*This game design document describes the specifics for a 2D side scrolling game that has players use puzzle mechanics, resource management, and intuition to navigate their way through various stages..The name of the game has yet to be defined.*

**Version History**

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| --- | --- | --- | --- | --- | --- |
| **Version#** | **Implemented****By** | **Revision****Date** | **Approved****By** | **Approval****Date** | **Reason** |
| 1.0 | N.Pilzner | 10/09/16 | N/A | N/A | Initial Draft |
| 1.1 | J.Tufts | 10/19/16 | N.Pilzner | 10/19/16 | Added content for sections 2, 3 |
| 1.2 | N.Pilzner | 10/19/16 |  |  | Added content for sections 4.1, 4.2, 4.3, 4.3.1, 4.3.2, 4.3.3, 4.4, 4.5, 4.6 |
| 1.3 | N.Pilzner | 10/19/16 |  |  | Added content for 8.1, 8.2, 8.3, and stretch goals in Other ideas. Added notes for Art, and Music. Updated table of contents. |
| 1.4 | N.Pilzner | 10/24/16 |  |  | Fixed verbiage in section 6,8.  |
| 1.5 | J.Tufts | 10/30/16 |  |  | Trimmed down original game outline to a manageable size for our time frame. |

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**1. Characters**

The main character, whose name has yet to be determined, is a human got stuck on a mysterious planet far away. Once on the planet, the human realized that he has magically gained the power to transform into various anthropomorphic hardware tools. These tools include:

-An Axe, which can be used to chop down trees and gather wood

-A Hammer, which can use nails and wood to create platforms throughout the level

By using the power of the tools, the human has to maneuver their way to the end of the stage to reach the flag. Once they acquire all of the flags, they are able to go back into human form and teleport home.

**2. Story**

The story has yet to be fully fleshed out, and how much of the story will actually be shown in the game has yet to be fully determined. However, the main character winds up on a mysterious planet far away. While on the planet they discovered that they magically gained the ability to transform into various hardware tools. Unknown to the main character why, they find a glowing flag and realize they teleport them to new dimensions. The main character must work with their ability to move through the various dimensions, or stages, in order to regain his human form and make it back home.

**3. Story Progression**

The player starts out with only the abilities of an axe, including chopping down trees, which is required to progress through the first stage. As the story progresses, the player will eventually gain the ability to transform into other tools, such as a hammer, a pickaxe, and a shovel. How the player will regain their human form has yet to be determined at the time of this writing. By combining different tools in the stages, the player is able to modify the landscape around them to help them progress to new stages. Each new stage offers the player unique challenges.

**4. Gameplay**

The Gameplay has been divided into subsections to allow for more in-depth detail to be provided.

**4.1. Goals**

Overall (long term): Regain the character’s human form

Gameplay (mid term): Reach the end of each level, acquire new abilities

Gameplay (short term): Acquire resources to build platforms in order to progress through the level

**4.2. User Skills**

These skills are the skills players will need to have in order to be able to successfully progress through the game.

1. Drag and drop (creating platforms)
2. Click on screen
3. Parkour (navigating a platforming level)
4. Strategy
5. Puzzle Solving
6. Building

**4.3. Game Mechanics**

**4.3.1 Core Game Mechanics**

The core game mechanics include mechanics the player will need to utilize over and over in order to progress/complete the game.

1. Transform into Axe
2. Transform into Hammer
3. Acquire nearby resource
4. Combine Resource

**4.3.2 Primary Game Mechanics**

The primary game mechanics include mechanics the player will utilize to solve a specific goal or need within the game. These interactions are applied specifically to accomplish a goal in order to further progress in the game.

1. Cut down tree
2. Hammer nails in plank
3. Move across log

**4.3.3 Secondary Game Mechanics**

We have not determined if we will include any secondary game mechanics at this point to allow the user ways to ease the game play.

**4.4. Items and power-ups**

Every time the player finishes a stage they unlock a new power-up related to the next world. Each power-up is necessary to completing the next stage, and the player has to determine how to use it. In the first stage, the user is presented with the ability to change into an Axe. This gives them the ability to chop down trees. They can use this power-up to either acquire logs, or to help traverse across open gaps in the stage. Once this stage is completed, the player will unlock the Hammer power-up. This allows the user to transform into a hammer on the second stage. They will be able to use this power-up to solidify structures which will allow them to walk across them. The third stage can require players to use multiple power-ups to complete the level.

**4.5. Progression and challenge**

The player will progress through each stage utilizing available power-ups at that stage to help navigate to the end. Each stage will combine more power-ups and will require the user to diligently use his abilities in order to complete the stage. Each stage will have a limited number of resources, and contain hidden traps. The player will have to acclimate to these traps in order to successfully complete the stages. When the player reaches the end of a stage, they will acquire the flag which will then teleport them to the next stage. Once the player has all three flags, they complete the game.

**4.6. Losing**

These are the losing conditions: Losing from running out of resources, losing by encountering a trap, losing when the player hits the reset button

When the player loses, the screen will fade out and a phrase (not yet defined) will be shown on the screen. The player will then reappear at the start of the current stage they lost in.

1. **Art style**

*This is a 2D game that will be built to utilize Unity’s game engine. It will contain various detailed scenarios that the player will work through and it will contained layered content. The game itself will have a manipulative environment that will allow it to change dynamically based off of what the player does. The game will use a number of Unity 2D package sprites, and will incorporate a few custom sprites needed for animations, objects, and the play forms.*

1. **Music and Sounds**

*-Music is not important to our game*

*-Sound FX will be made by actually recording the sound that comes from using different tools, such as recording the sound a bucket makes as it is filled with water. We could also simply download sounds from the Unity Asset Store*

1. **Technical description**

*The game will be initially designed for the following platform:*

* *Windows*

*We will be using the Unity 2D Game Engine*

*For code versioning we are using GitHub*

*For document repository and versioning we are using Google Drive.*

*TBD properly in Technical Design Document.*

1. **Marketing & Funding**

**8.1. Demographics**

*Age: 5 to 105*

*Sex: Everyone*

*The game is focused for casual players*

**8.2. Platforms & Monetization**

*This game will be released for Windows only. No monetization will be used.*

**8.3. Localization**

*The game will be created in English only. Later updates could provide optional language support.*

1. **Other ideas**

*Stretch goals for the project:*

* *Achievements*
* *Leaderboards*