Sidescroller Survival 2D
for UTM CSCI 352 Fall 2019

Hunter Reeves, Billy Gibson

Abstract

Sidescroller Survival 2D (better name to come) will be a game similar to something like Terraria. Our target audience is someone who enjoys fun indie-sandbox games! So far, we have our repo set up with our individual branches. The game also has a static skybox!

1. Introduction

Sidescroller Survival 2D will be a sidescroller survival-adventure game with a basic inventory system, world interactions like mining and building, combat, and some sort of leveing and currency system. Our project aims to be a fun and exciting video game! Game development is an interesting area and we are looking forward to learning more about what all of that entails. Hopefully our audience enjoys the game and wants to play it often!

1.1. Background

There are many game types. Our game, as has been previously mentioned, is going to be a sidescroller. Sidescroller games are pretty much how they sound to be. A fixed camera on a character running side to side (left to right) about a horizontal axis.

Creating a world for others to explore is a very exciting task to take on. Being able to take part in this project is something we have both always wanted to do.

1.2. Challenges

There are a few implementations that will be challenging to add to the game. Interaction between the player and the world, such as mining and/or building, will be one of the most difficult tasks. The implementation maybe easier after learning further into software development, but at this time we are looking into using the Monogame framework, built with XNA. This looks to be compatible with WPF applications, though having access to a game engine like Unity or Unreal would be optimal.

A second implementation that will be difficult to add would be a combat system. For the same reasons as the first problem, the development of a game development environment to help would be our best bet in coding the interaction between the player and the environment around it.

2. Scope

The project will be done when the base ideas in the Readme have been coded, Implemented, and are working. Those ideas consist of: A hot-bar for main tools, inventory system, base player controls, Interaction with the world around the player, combat, leveling system, currency system, and the health/mana/stamina of the player.

1. Hot-Bar for Main Tools
This aspect will be finished when there is a working bar that can hold items that the player can switch between in order to hold different items, such as axe's, pickaxe's, etc.

2. Inventory System
This aspect will be finished when there is a working storage space for all of the player's items that can be accessed anywhere.

3. Base Player Controls
This aspect will be finished will when the user has the necessary controls to move and interact with the environment.

4. Interaction with the World Around the Player

This aspect will be the most challenging (See Challenges). This will be finished when the user has the ability to interact with the entire world provided to it, mine the blocks or build with set blocks.

5. Combat

This aspect will be the second most difficult to implement (See Challenges. Second paragraph) This will be finished when, if against an enemy or other NPC, the player can successfully attack and kill the NPC/enemy.

6. Leveling System

This aspect will be finished when there is a system that monitors the players level and, as the player interacts with the world around it, advance those levels.

7. Currency System

This aspect will be finished when there is a currency system that the player can earn money while playing. This maybe further implemented into a shop system at a later date.

8. Health/Mana/Stamina

This aspect will be finished when there is a system in place to monitor the player's health, mana, and stamina. The health will tell if the player takes enough to damage to die. The mana will be for certain combat aspects known as magic. The stamina will be how much they can run before getting tired.

Stretch Goals

9. World Generation

The first stretch goal is world generation. This aspect would require creating a sort of a world generator that would take different presets and different inputs. From those presets and inputs, the world would generate differently every time a new world is created.

10. Main Menu

The second stretch goal would be a main menu. This would be easier than the world generation but would still be a difficult task. From the main menu, the user would be able to change settings such as sound, video, and maybe controls. Then the user would also be able to create a new world to play in, or rejoin a world previously created.