

From Udder Space

Game Design Document

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Introduction

This document describes a game called “From Udder Space”, which is a simple 2D side-scroller and platformer with some puzzle/combat elements. This game will employ sprite-based animation, tiled backgrounds, collision detection, physics, AI, side scrolling, gravity and more 2D game techniques.

Technology

From Udder Space will be developed for Windows using the Wolfie2D game engine, which is a game engine developed by Richard McKenna and Joe Weaver. DirectX will be used as the underlying rendering technology. XACT will be used for music and sound effects management. Artwork will be very simple, mostly pixel art.

Back Story

Our protagonist, Tim the Cow, has lived a peaceful and uneventful life on the farm, spending his days grazing and farting to his heart’s content. That is until extra-terrestrial cattle rustlers from udder space threaten his way of life and begin abducting his fellow bovines.

Objective

Tim must reach the alien mothership and defeat the aliens by pushing the large red self-destruct button that will destroy the alien fleet and save his cattle friends. Using his beefy legs, Tim will overcome obstacles and traverse the dangerous landscape all while avoiding being detected by the aliens. Steaks are high; will Tim prevail?

Gameplay

The game will work like a side-scrolling platformer where Tim is able to run left and right and can jump onto different platforms and surfaces such that we may also scroll up and down. Tim must carefully traverse the obstacles in his path by carefully jumping to various platforms and over various hazards/obstacles. Tim must also be careful to not be spotted by alien ufos lest he be abducted and taken to the alien’s home planet to be farmed and treated like cattle. These alien ufos will patrol in the sky and if Tim is caught directly under a ufo then he will be abducted. There will also be aliens on the ground searching for any bovine hoping to escape their grasps. These aliens will patrol an area and if Tim is at the same height as the aliens so they have line of sight, they will start moving faster and chase Tim to capture him. Thankfully, Tim has his handy cardboard box available to hide under. At any time, Tim can place his cardboard box over him to hide from any patrolling ufos or aliens on the ground. Additionally, if Tim has been spotted by any aliens on the ground, he can employ a farting attack to briefly knock out aliens and allow him to escape.

Controls

This game will be played using a keyboard. The controls are:

- A: Move Left
- D: Move Right
- Left-Arrow: Move Left(same as A)
- Right-Arrow: Move Right(same as D)
- SPACE: Jump
- Q: Hide under cardboard box
- E: Use Farting Attack
- ESC: This pauses the game and allows the player to either return to the homepage or continue playing

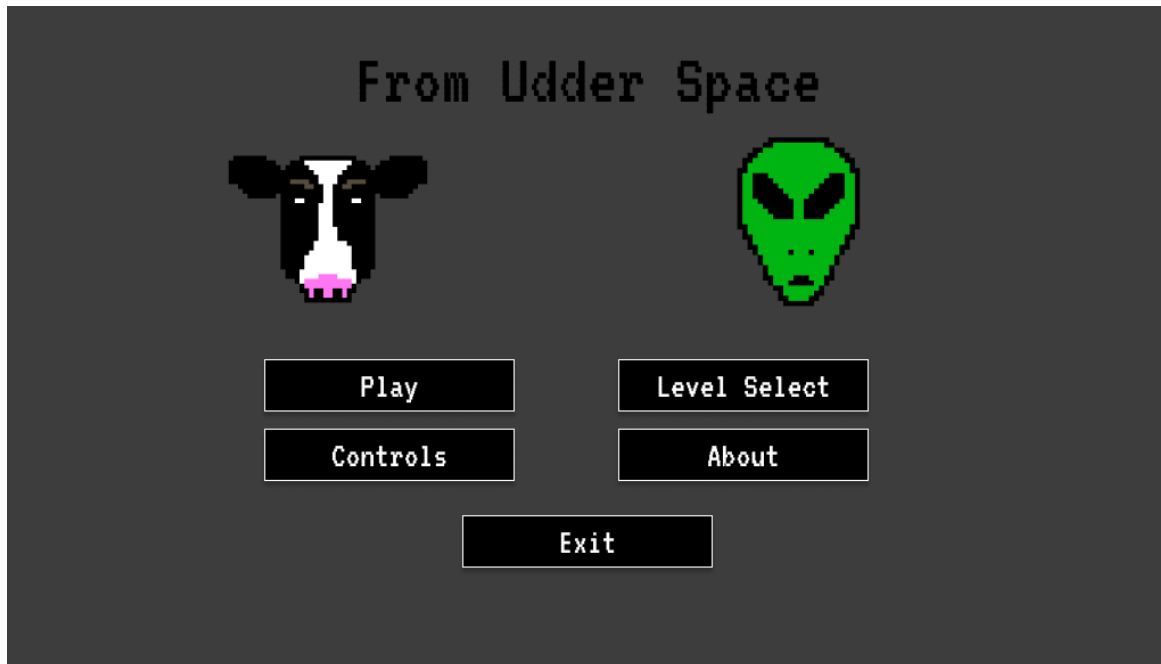
Graphical User Interface

Splash Screen: The Splash Screen GUI will be a simple screen with the game logo and name with a start button underneath. Once the start button has been pressed, the player will be brought to the main menu

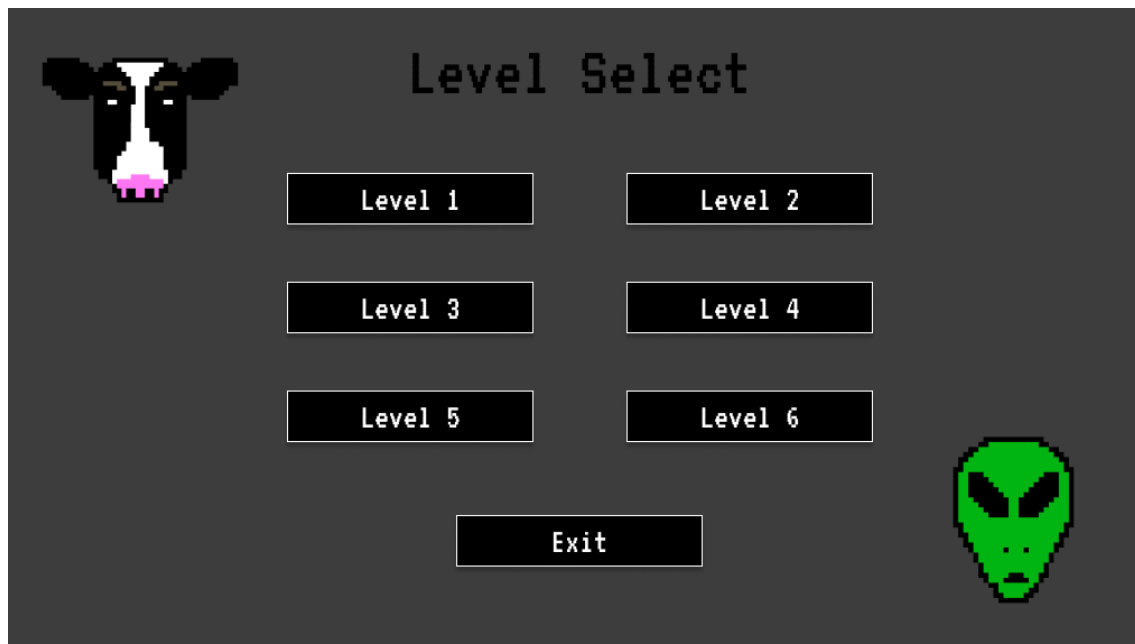


Main Menu: After the initial splash screen, there will be a main menu screen where the player can select from the following options:

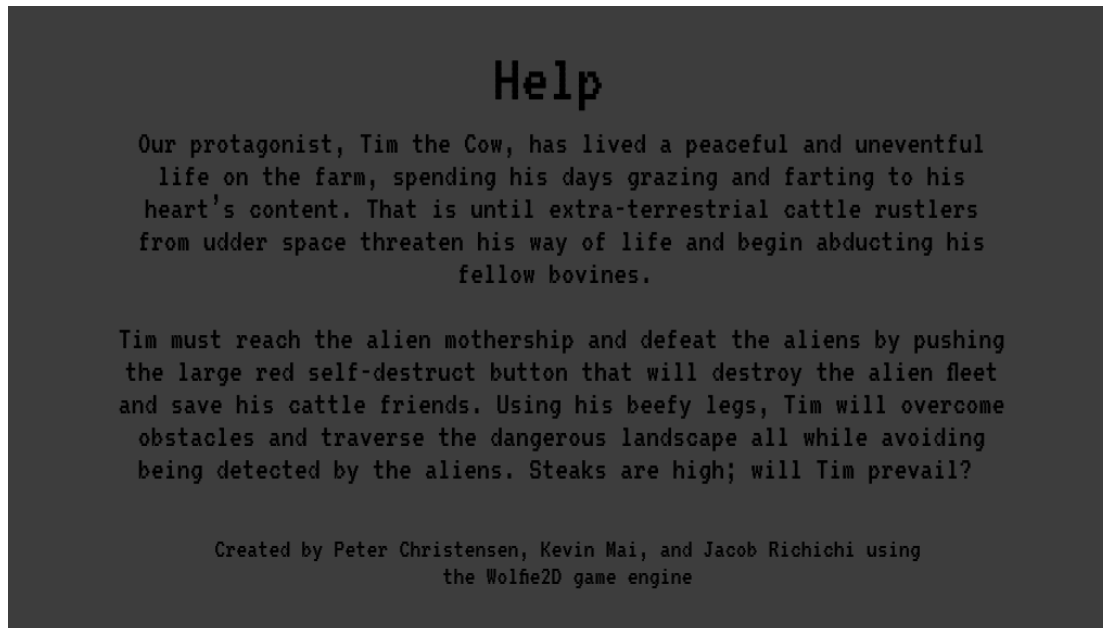
- Start: This will start a new game at the first level
- Level Select: This will bring the player to a level selection screen
- Controls: This will bring the player to another screen where controls are displayed
- Help: This will bring the player to a screen with extra information
- Exit: This will exit the game



Level Select: This screen will lay out the various levels. The game has a chronological progression, so levels will be unlocked one at a time, but players can go back to play levels once unlocked at any time.

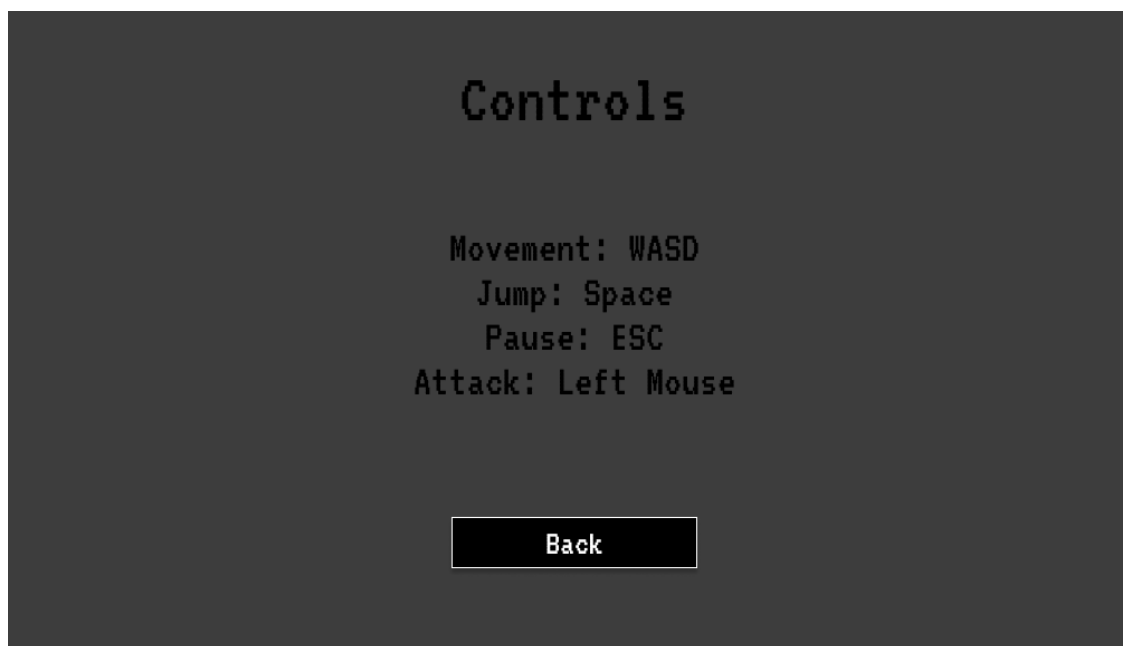


Help Screen: The help screen provides the player with information pertaining to the game and it's backstory, giving added context and depth.

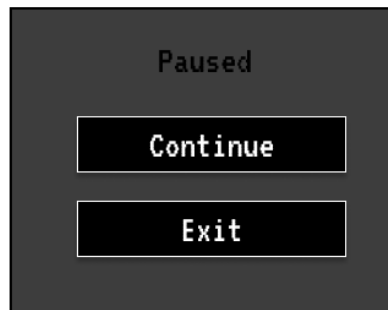


Controls Screen: The controls screen can be accessed from the main menu. This screen lays out the controls for the game, being:

- WASD to move
- Space to jump
- ESC to pause
- Left click to attack



In-Game Menu: Once a game has started, the player can press ESC to pause the game and be presented with the options returning to the main menu and exiting the game.



Artwork:

All artwork in the game will be original. The following needs to be created:

- **Tim:** A simple sprite with the following animations:
 - Walking Left
 - Walking Right
 - Jumping
 - Fart Attack
 - Hiding under Cardboard Box
 - Being Abducted
- **UFO:** Simple sprites with the following animations:
 - Flying Left
 - Flying Right
 - Abducting Tim
- **Aliens:** Simple sprites with the following animations:
 - Walking Left
 - Walking Right
 - Stunned From Fart
 - Abducting Tim
- **Ceiling, Floor and Wall Tiles:** Each level will have different surfaces and platforms for Tim to traverse. All walkable/collidable surfaces will have very simple designs.
- **Background Tiles:** The background tiles will vary from level to level but will all be very simple patterns or solid colors.

Sound Effects

All sound effects will be original. Sounds must be created to be played at the following events:

- Hiding Under Cardboard Box
- Farting
- Abduction
- Jumping

Music

Simple background game music will be present.