

MIMICRAFT

DEVELOPED BY MATTHEW LOW FOR CSSE2002 ASSIGNMENT 3

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INTRODUCTION

Welcome to **Mimicraft**¹ inspired by the hit video game Minecraft! This game was developed using JavaFX, especially utilising the library's 3D features to create an immersive 3D experience. The interface was developed in 3 weeks as part of the CSSE2002 Assignment 3 task. This document² will detail all of the various features of this game.

1. LOADING & SAVING

The first thing you'll see is a blank empty blueness and nothingness. There's a control panel on the left side and an inventory panel on the right side. An annotated screenshot can be seen in the section *Annotated Screen Sample*.



FIGURE 1. The first thing you see when you open the game.

The only button you can click is Load: this will open a file pane where you can select a valid map file.

¹named after something you will never know

²typeset in L^AT_EX using the amsart class

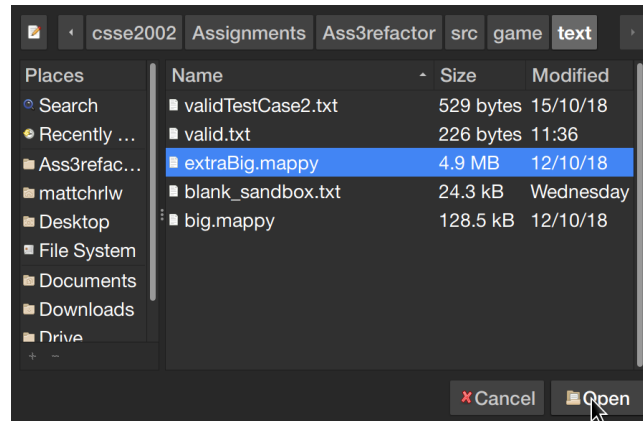


FIGURE 2. The open dialog (in Linux.)

Make sure you open a valid file, or one of the two errors will show up:

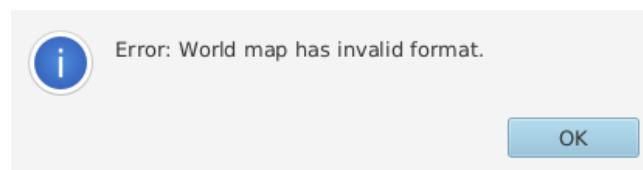


FIGURE 3. You tried to open a world map that isn't in the correct format. (Opening any images, executables or other illegal formats will result in this error)

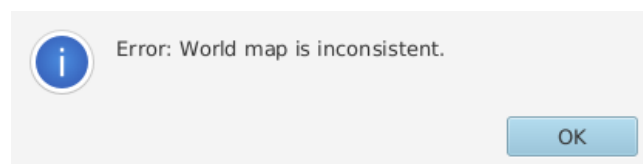


FIGURE 4. You tried to open a world that has inconsistent data (overlapping exits, invalid exits etc.). If this occurs, contact the world manufacturer for assistance.

2. THE MAP

Assuming you've opened a valid file, you will get a much more interesting screen! You will be able to see blocks, and all of the buttons will be clickable.

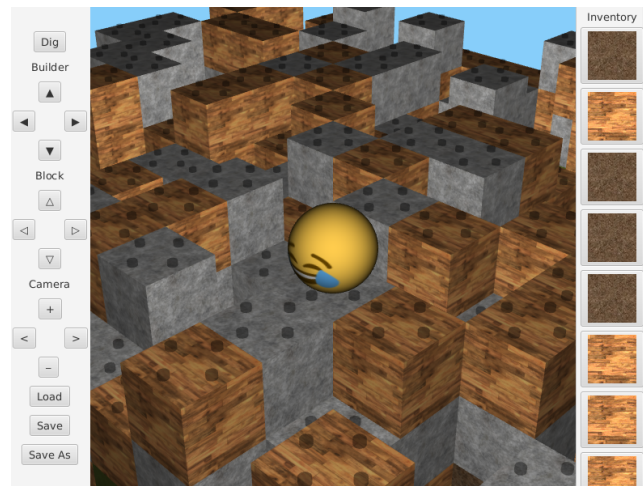


FIGURE 5. The screen once you have opened a valid map

Note that your camera isn't fixed. See the camera buttons on the right hand side? Those allow you to rotate the camera, as well as zoom in and out. Some example camera angles are below:

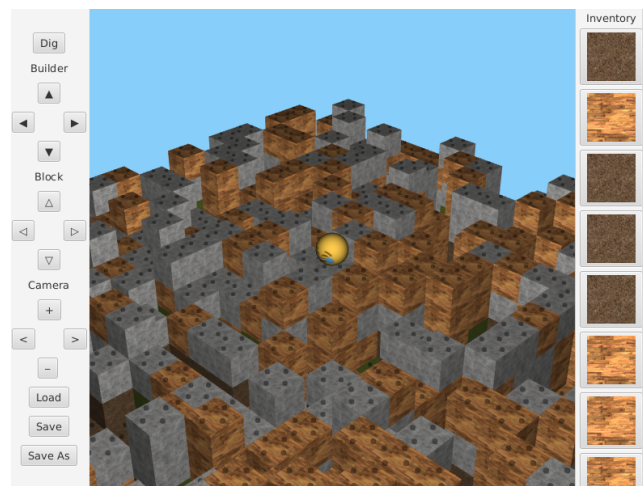


FIGURE 6. Super zoomed-out

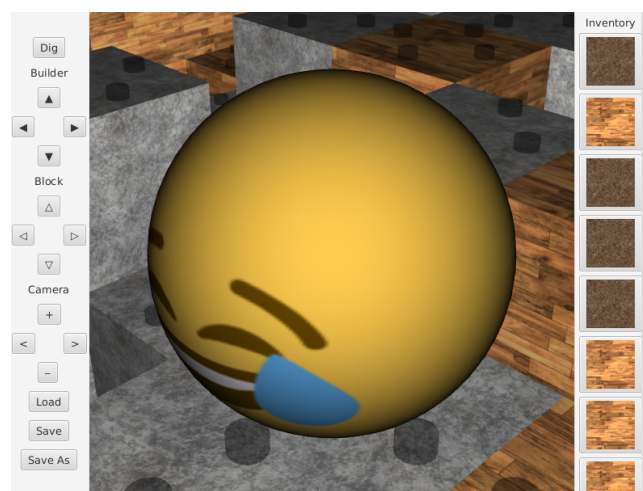


FIGURE 7. Super zoomed-in

3. MOVING AROUND

You may notice the giant laughing emoji in the middle. This is your player object, and you have no choice but to be a laughing emoji. Moving around is done with the set of Builder arrows. The builder will roll around as you press the Builder arrows³. If you do one of the following:

- Move your player into a wall
- Move your player into an exit you can't go to
- Move your player off the world and into oblivion

you will get the following error:

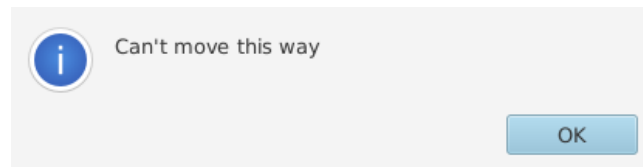


FIGURE 8. You tried to move your player somewhere you can't

You can also move the block below you to an adjacent tile with the Block arrows. If you are standing on top of a block that can't be moved (ie there is no block directly next to you in the direction that you press), then it'll throw the following error:

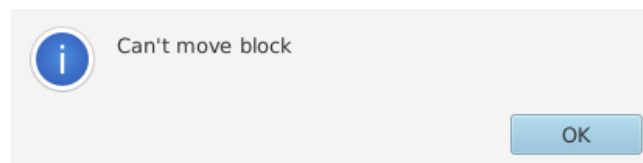


FIGURE 9. You tried to move a block somewhere you can't

4. DIGGING

But what sort of game only allows you to move around and move blocks, but not let you get any new blocks? A bad game. Mimicraft allows you to dig down, by using the Dig button while standing on top of a block. This means that you can remove a block below you, and it'll go in your inventory (more on that later). With this capability, you can create exciting worlds such as this:

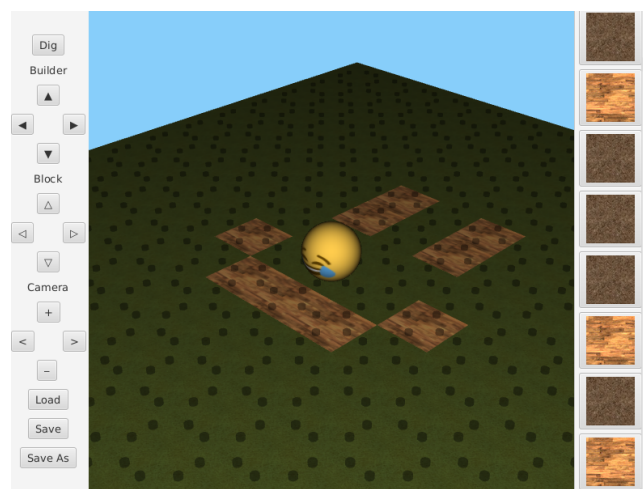


FIGURE 10. :)

³it's quite amusing

Don't try to dig a stone block though, or you'll get this error:

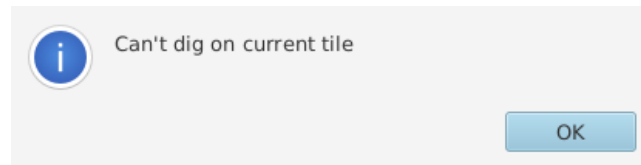


FIGURE 11. You tried to dig somewhere you can't

5. DROPPING BLOCKS & THE INVENTORY

You also have an inventory on the right side, if you haven't noticed. This list contains all the blocks in your possession, and updates as you move around and dig blocks. Be careful though; you can't place your blocks anywhere, especially if you're above 8 blocks high:

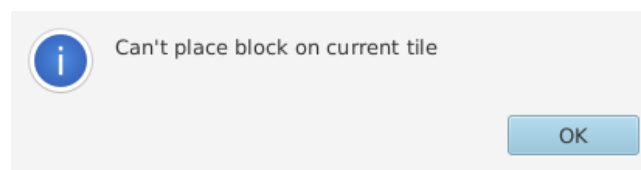


FIGURE 12. You tried to place a block somewhere you can't

ANNOTATED SCREEN SAMPLE

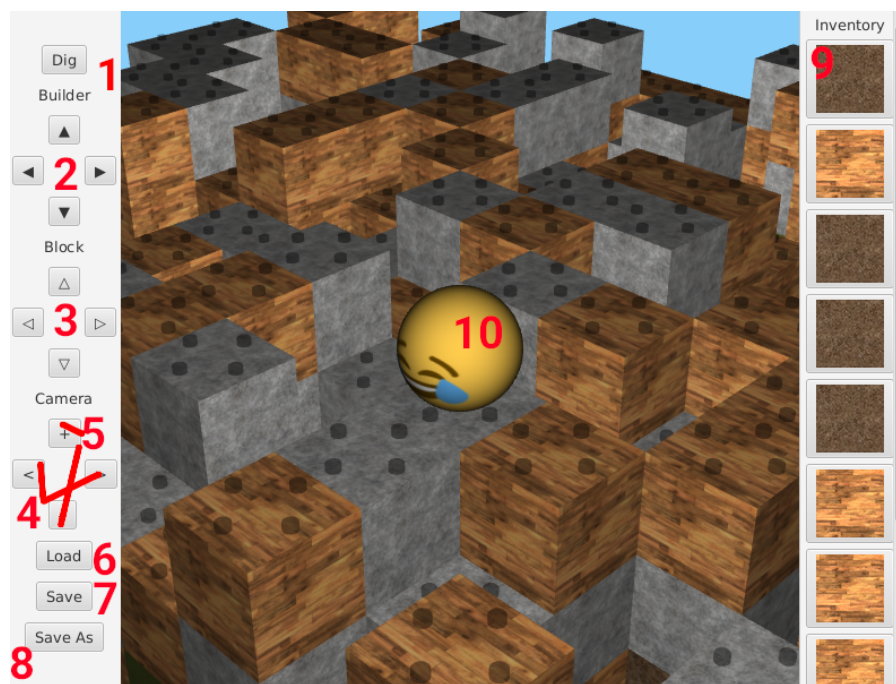


FIGURE 13. Annotated screenshot

- | | |
|-----------------------------|----------------|
| 1) Dig | 6) Load map |
| 2) Move builder | 7) Save map |
| 3) Move block | 8) Save map as |
| 4) Rotate camera left/right | 9) Inventory |
| 5) Zoom in/out | 10) Player |