Editor Documentation

WARNING: This document contains spoilers for puzzle mechanics of the main game. This is meant only for people wanting to create levels of their own AFTER completing the main game.
The Editor is just an internal tool, and as such is not very user friendly. It makes sense in my brain, and therefore is good enough for it's job. It's simple, and relatively bug-free, so it works for me. It will likely not be reworked to be more user friendly, because it would take too much wasted effort that will not be reflected in the quality of the game at all.

Top Bar:

The Entity Spawn Select bar allows the user to select an entity type to spawn. For those that have played the game, they will be familiar. In any case, they will include a description of their function in the game. From left to right they are:

1. Push-able Block
    - Can be pushed by the player. Acts as the base mechanic in any Sokoban style game.
2. Static Block (Not push-able)
    - Same as the push-able block above, except the player cannot push these blocks at all. These act as single-block walls or stoppers to limit maneuverability.
3. Laser Emitter
    - The laser emitter will shoot a laser in a cardinal direction. Default is down.
    - Pressing **R** while hovering over the emitter will rotate it 90 degrees.
    - Holding a number between **1** and **7** and then pressing **T** will change the color of the emitter to one of the default colors (black, red, green, blue, yellow, magenta, cyan).
    - Pressing **T** without holding down one of the numbers will reset the emission color to White.
4. Laser Receiver (a door activator)
    - The receiver will "activate" when a color that it accepts hits it from any of the 4 cardinal directions.
    - You can change the color with a combination of a number between **1** and **7** and pressing **T**, similar to how you can with an emitter.
    - Pressing **R** while hovering over a receiver will cause it to change it's accepted color to the one it is currently receiving.
    - If a receiver is hit from multiple directions, the received color will be the sum (clamped to 0 and 255) of the lasers. For example if a red laser hits a receiver from the top, and a blue laser hits it from the bottom, the receiver will act as if it was hit with a magenta laser (red = {255, 0, 0}; blue = {0, 0, 255}; magenta = {255, 0, 255})
    - Pressing and Holding **E** will allow you to connect a receiver to a door. Press and hold the button while hovering the mouse over the receiver. Without letting go, drag your mouse to the door you would like to connect. When you mouse is over the door, let go of the **E** button. If you have done this correctly, a white wire will connect the receiver and the door. These wires will be either green or red while in the game (green for when the door is getting the signal, red when it isn't), but will always be white in the editor.
5. Door

    - The door is closed by default unless it receives a signal from an activator (a receiver block or a button)
    - Pressing **R** while hovering over a door will cause it to “switch polarity”. This new door will have an X pattern over it, and will be open by default, and close when it receives a signal from an activator. Pressing **R** again over this door will switch polarity to the original variant.
6. End Goal
    - When the player ends their movement over this object, the level ends and the game proceeds to the next level.
7. Button (a door activator)
    - The button can be pressed by standing on top of it, pushing a push-able object (like the push-able block, an emitter, a receiver, or a color-changer on it)
    - You can connect a button to a door the same way you would with a receiver block and a door.
8. Teleportation Pad
    - You can recolor the teleportation pads using the number keys and the **T** button, just like you can with emitters and receivers.
    - Usually, two teleportation pads that are connected should be of the same color.
    - Connecting two teleportation pads is done with the **E** button, the same way you connect a button or receiver to a door.
9. Laser Color Changer
    - Acts the same as a push-able block, except it lets lasers through. Lasers that pass through a Color Changer will change color. Unlike crossing lasers, color-changers will blend their own color with the color of the laser. That means that a black color-changer will cause a white laser to become gray.
    - Pressing a number key and the **T** button will cause the color changer to change it’s color similar to how you can change an emitter or receiver’s color.

Loading and Saving:

Loading and Saving levels can be done with the text box that is labeled “Level Name”. Entering the name of an existing level and pressing “Load Level” will load that level. Pressing “Save Level” will save the current level in the editor to the file with the name in that text box. **NOTE:** Do not include the file extension in the Level Name text field. If you want to edit the level file “7_w.lvl”, simply enter “7_w”.

Resizing and generating an empty level:

The top bar has an “Empty Level” button. Above it are the height and width of the level you will generate when pressing that button. These dimensions include the wall tiles, so if you want a 5x5 **play space**, you would need to set the dimensions to 7x7.

To change the height and width you can use the buttons **Z, X, C, V.** Below is the explanation of what each hotkey does:

- **Z:** reduce width by 1 (minimum of 3).
- **X:** increase width by 1.
- **C:** reduce height by 1 (minimum of 3).
- **V:** increase height by 1.

Editing the Tilemap:

Pressing **Q** while hovering over a tile will cause it to move forward on the tileset, changing the tilemap tile. This is so that you could create shapes with the walls that are not perfect rectangles.

Pressing **Q** while holding **Shift** will swap the tile to the previous tile type in the tileset.