

TP3 Update:

For TP3 I have added a lot more interactive elements to the stage, along with better user controls and a helpful UI. This ultimately led to a much more playable, and challenging, game.

I changed the main terrain block to stone, which I mixed in with a very small percentage of dirt before running it through the Game of Life steps. Stone takes priority when it comes to birthing in large groups (so the player can't dig through too many walls), but dirt is more likely to form in the open spaces cleared between the steps. *This leads to more dirt on the surface* of structures and less as you go deeper.

Dirt is removable by the player once he obtains an infinite-use shovel from a random item chest, but both dirt and stone can be blown up by bombs (which yeah, I also added). Item chests also contain single-use torches, flares, bombs, and swords (used to kill snakes). They spawn mostly in large rooms, as opposed to a guaranteed one-per-room like treasures.

I coded an entity for snake based off of the player class in entity.py, only more simpler and automated/AI. Snakes spawn on a random floor of the stage and patrol it back and forth (they stop and turn around at the edges of platforms, rather than falling), until a player comes near and it begins to chase / jump at you. Snakes kill you on impact unless you have a sword, so you have to run away and hope it falls into a pit (they can't jump very high), or hide from it, with duck. Like the player, snakes are killed by spikes and explosions.

I made ducking a very useful feature of the game, as it lets you stay invisible from snakes, which would be a big danger otherwise. When out of range from snakes, ducking also lets you look downward, scrolling the stage with the player so you can check for hazards below. You can also look further right or left if you hold the respective arrow keys while standing against a wall.

The other hazard I added and the final randomly generated piece is spikes. Spikes have chances to form in pits of 1, 2, or 3, with 2 and 3 having higher chances. A pit of x-size is defined as x-many floor blocks (terrain with a space above them) with terrain boundaries on the edges of the spaces.

Ex pit size 3: O O (each O is a block)
 OOO

I also added a very small chance for spikes to form on any floor block (not just a pit), so long as the number of spaces above it is greater than 5. This chance increases as the spaces get larger. This basically takes the place of fall damage and discourages the player from jumping from great heights without knowing what is at the bottom.

Finally, I added icons on the top left of the screen so the user knows how many items the player has, a much more detailed help screen, and constantly-updating messages on the upper right while in game to guide the player. For example, it tells the player to stand on the ground if they try to place a rope midair, or take cover/duck when a bomb or snake is nearby.