

Cave Algorithm Setup Instructions

This document contains all of the relevant information needed for the back end developers to incorporate the cave features correctly.

- There are four different cave images to be selected from.
 - These can be rotated by 90 degrees.
 - **IMPORTANT:** Only one of each certain cave should be selected otherwise my algorithm will bug out :P
 - They each have a specific entrance, look at the images below to find where this is located.

Below are the relevant dims for each - these can be copied and pasted from the README.

If it is too hard to do it using these dims and you have to make it rectangles, let me know!

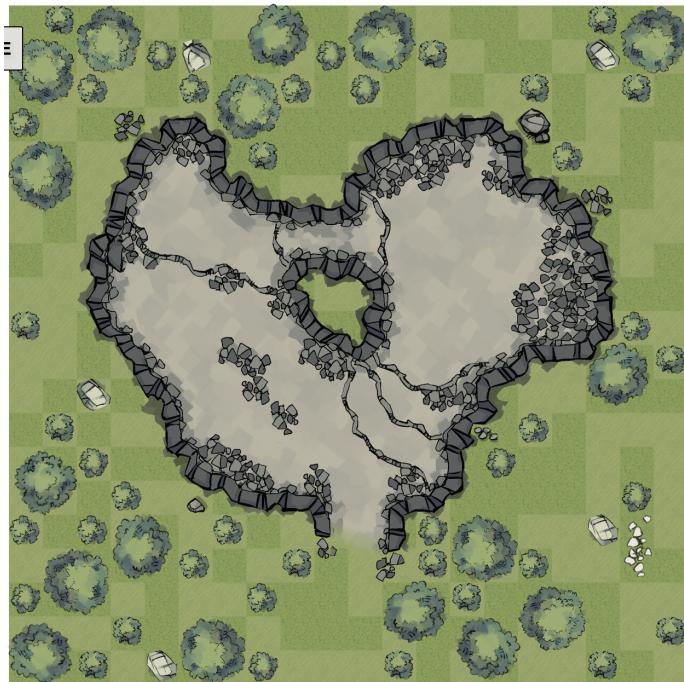
Relevant Codes and Dims:

Image and Matrix Examples

Massive Cave:

```
const grid3 = [
  [0, 1, 2, 2, 0, 0, 0, 2, 2, 0, 2, 2, 0, 0, 0, 0, 0, 1, 2, 2],
  [2, 2, 2, 2, 1, 3, 0, 2, 2, 1, 2, 2, 1, 0, 0, 0, 0, 3, 2, 2],
  [2, 2, 1, 0, 0, 1, 2, 2, 1, 0, 1, 0, 0, 0, 0, 1, 0, 0, 1, 0],
  [1, 0, 18, 18, 18, 18, 2, 2, 0, 0, 18, 18, 18, 18, 0, 0, 0, 0, 0],
  [2, 2, 18, 18, 18, 18, 0, 1, 0, 18, 18, 18, 18, 18, 0, 1, 0, 0, 0],
  [2, 2, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 0, 0],
  [0, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 0, 0],
  [0, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 0, 0],
  [0, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 0, 0],
  [1, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 1, 0],
  [0, 0, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 2, 2, 1],
  [0, 0, 3, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 0, 0, 2, 2, 0],
  [0, 1, 0, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 1, 0, 0, 0, 0, 0],
  [2, 2, 1, 0, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 1, 0, 0, 0, 0, 0],
  [2, 2, 0, 1, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 0, 0, 0, 0, 0, 1, 0],
  [1, 0, 1, 2, 2, 0, 1, 18, 18, 18, 18, 0, 1, 2, 2, 0, 0, 3, 4, 0],
  [0, 2, 2, 2, 2, 1, 0, 0, 1, 18, 18, 0, 1, 2, 2, 1, 0, 0, 4, 0],
  [1, 2, 2, 0, 0, 0, 0, 1, 0, 0, 0, 2, 2, 1, 0, 2, 2, 0, 0, 0],
  [2, 2, 0, 1, 0, 2, 2, 0, 0, 0, 0, 2, 2, 2, 2, 2, 2, 0, 0, 1],
  [2, 2, 1, 0, 3, 2, 2, 1, 0, 0, 0, 1, 0, 2, 2, 0, 0, 1, 0, 0]
];
```

What it should be displayed as:



Small & Large Cave:

```
const grid4 = [
  [0, 1, 2, 2, 0, 0, 0, 0, 0, 0, 2, 2, 0, 0, 0, 0, 0, 4, 4, 3],
  [2, 2, 2, 2, 0, 0, 0, 0, 0, 1, 2, 2, 1, 0, 1, 0, 2, 2, 0, 0],
  [2, 2, 1, 0, 1, 2, 2, 0, 0, 1, 0, 0, 0, 0, 2, 2, 2, 2, 1, 0],
  [1, 15, 15, 15, 0, 2, 2, 0, 0, 0, 0, 0, 0, 2, 2, 1, 1, 0, 1, 0],
  [0, 15, 15, 15, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 2, 1, 0, 0],
  [0, 15, 15, 15, 15, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 2, 0, 0],
  [0, 15, 15, 15, 15, 15, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0],
  [0, 0, 1, 15, 15, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
  [4, 4, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0],
  [0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3, 1, 0, 0, 0, 0],
  [0, 0, 2, 2, 0, 0, 0, 0, 0, 17, 17, 17, 17, 17, 17, 0, 3, 0, 0],
  [0, 0, 2, 2, 0, 0, 0, 0, 0, 17, 17, 17, 17, 17, 17, 17, 0, 0, 0],
  [0, 1, 0, 1, 3, 0, 0, 0, 0, 17, 17, 17, 17, 17, 17, 17, 17, 17, 0, 0],
  [2, 2, 1, 0, 2, 2, 1, 0, 0, 17, 17, 17, 17, 17, 17, 17, 17, 17, 0, 0],
  [2, 2, 0, 1, 2, 2, 0, 0, 0, 17, 17, 17, 17, 17, 17, 17, 17, 17, 0, 0],
  [0, 0, 0, 0, 0, 0, 0, 0, 0, 17, 17, 17, 17, 17, 17, 17, 17, 0, 0],
  [0, 0, 0, 0, 0, 0, 0, 0, 1, 17, 17, 17, 17, 17, 17, 17, 17, 0, 1],
  [1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 17, 17, 17, 17, 17, 17, 4, 0, 0, 1],
  [2, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 2],
  [2, 2, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 2]
];
```

What it should look like:

