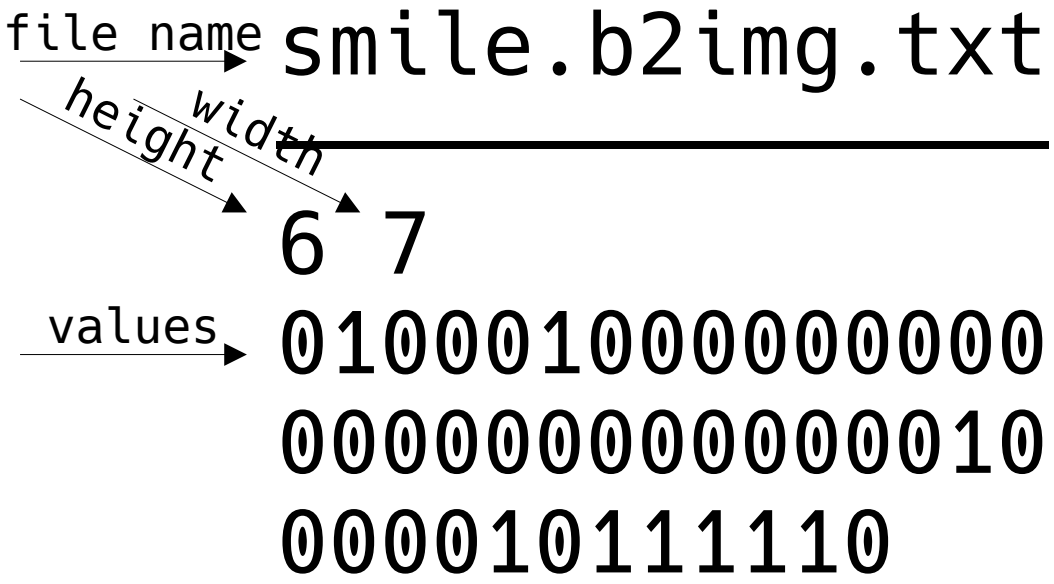
Base requirements

Create an application that is able to read a file with the extension .b2img.txt, load it into memory, display and modify its value with a graphical user interface, and write it from memory to a potentially different output file.

A .b2img.txt file consists of the first line with 2 numbers separated by a space representing the height and the width of an image (in that order), and the second line that contains 0s and 1s representing the pixel values.



Grading

The bonus points will be awarded in accordance to the following requirements:

- For one bonus point, you must make an application that works without much setup and that covers the basic features laid out in the 1st page.

- For two bonus points, you must make an application that can be run with almost no setup and that is well documented, bug free and intuitive to use. Additionally, you must implement at least one of the following additional requirements:

Additional requirements

- Create a more advanced format like .b16img.txt that also supports colour.
- Use the .b2img extension for a file type storing the same information as .b2img.txt but in a binary format.
- Import from / Export to an actual image format, like bitmap or png.
- Add tabs for having multiple files open at the same time.
- Add functionality for flipping the image horizontally or vertically.

Example application

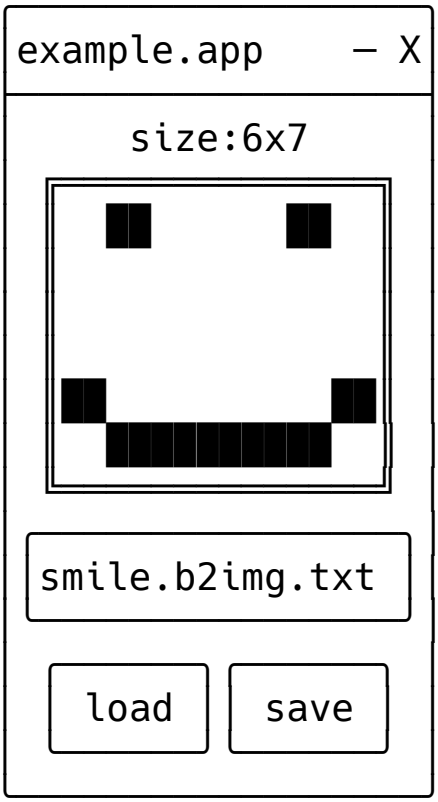
smile.b2img.txt

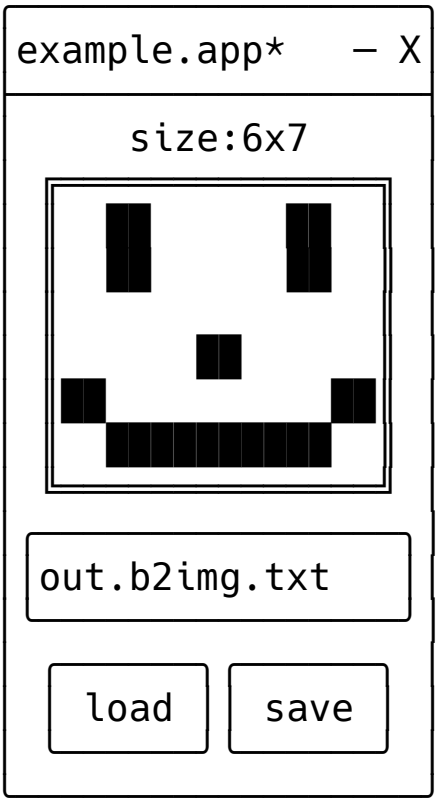
```
6 7
0100010000000000
0000000000000010
000010111110
```

load

```
var image = new int[6,7];

{{0,1,0,0,0,1,0},
 {0,0,0,0,0,0,0},
 {0,0,0,0,0,0,0},
 {0,0,0,0,0,0,0},
 {1,0,0,0,0,0,1},
 {0,1,1,1,1,1,0}};
```





var image = new int[6,7];

```
{{0,1,0,0,0,1,0},
 {0,1,0,0,0,1,0},
 {0,0,0,0,0,0,0},
 {0,0,0,1,0,0,0},
 {1,0,0,0,0,0,1},
 {0,1,1,1,1,1,0}};
```

save

out.b2img.txt

```
6 7
0100010010001
0000100000000
0010000010111
110
```