

→ Technical Test Ruby developer

Produce a Ruby 2.3 program that simulates a basic interactive bitmap editor. Bitmaps are represented as an $M \times N$ matrix of pixels with each element representing a colour.

Program input

The input consists of a file containing a sequence of commands, where a command is represented by a single capital letter at the beginning of the line. Parameters of the command are separated by white spaces and they follow the command character.

Pixel coordinates are a pair of integers: a column number between 1 and 250, and a row number between 1 and 250. Bitmaps starts at coordinates 1,1. Colours are specified by capital letters.

Commands

There are 6 supported commands:

- I N M - Create a new $M \times N$ image with all pixels coloured white (O).
- C - Clears the table, setting all pixels to white (O).
- L X Y C - Colours the pixel (X,Y) with colour C.
- V X Y1 Y2 C - Draw a vertical segment of colour C in column X between rows Y1 and Y2 (inclusive).
- H X1 X2 Y C - Draw a horizontal segment of colour C in row Y between columns X1 and X2 (inclusive).
- S - Show the contents of the current image

Example

To run the application you must supply a command file like so `bin/bitmap_editor examples/show.txt`

Input File:

I 5 6
L 1 3 A
V 2 3 6 W
H 3 5 2 Z
S

Expected Output:

00000
00ZZZ
A0000
0W000
0W000
0W000
0W000

When implementing this program focus on quality and best practices. DO NOT RUSH!
It's not a speed test. Make sure the program handles odd input gracefully.

Submission

We've created a very basic skeleton application you can use as a basis to start from. Feel free to adapt and refactor it as you see fit but please note that we will be running more complicated commands files against your application with the command `bin/bitmap_editor examples/show.txt`

Please submit a fully completed answer within the time allowed. Please provide source code and full GIT repository. Please commit often and with good commit messages. That will allow us to see how you've approached the problem. Don't worry about changing things around often