The .city-file consists of multiple blocks as seen below:

#size of city
#building
#startpoint
#crosspoint
#car
#time
#interval

each block starts with one of these headers, each signifying a different block. Surplus whitespaces and line feeds do not impact the readability of the file. The city is built out of  $150 \times 150$  pixel squares.

# #size of city

x,y

- The block gets one line of information with two integers separated by a comma. The x is the amount of squares of the city on the x-axis and y the amount of squares of the city on the y-axis.
- This block must be the first one in the file (excluding time and interval blocks)
- There must be only one in the whole file

# #building

x,y

... x,y

- The block can get any number of lines of information in the same format as the size of city block. The line represents the squares coordinates which the building will fill, making the square impassable for vehicles
- There must be only one of these blocks
- This block must be the second block (excluding time and interval blocks)

## #startpoint

x,y

... x,y

- The block can get any number of lines of information in the same format as the size of city block. The line represents the squares coordinates which will become a origin and target point for the cars.
- There can be any number of these blocks
- If there are no startpoints there will be no cars
- The startpoints must not be on buildings
- The points mustn't be out of bounds

## #crosspoint

x,y

...

x,y

- The block can get any number of lines of information in the same format as the size of city block. The lines represent the squares coordinates where the car will need to turn
- There can be any number of these blocks
- If there are no crosspoints the cars behaviour will not be defined
- The crosspoints may not be on buildings or out of bounds

## #car

x,y; x,y; color

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x,y; x,y; color

- The block can get any number of lines of information
- format, x and y of its startpoint; x and y of its targetpoint; the cars colour
  - o the colours are red, blue, green, yellow and purple, the colour does not need to be correct, the default colour is purple
- This block must be after the blocks startpoint and size of city, it verifies that the startpoints and targetpoints are recorded in startpoints
- There must be at least one of these blocks
- If there are no lines no cars will be generated

### #time

 $\mathbf{X}$ 

- The block gets one line of information consisting of one integer
- Unlike the above blocks there can be no blank line between the header and the information
- Designates the interval between every simulation step

#### #interval

X

- The block gets one line of information consisting of one integer
- Similar to the time-block there can be no blank line between the header and the information
- Designates how many simulation steps pass between each car spawn