

World Wrapping and Scrolling

by Mr. F

World Wrapping

- Allows a character to exit one side of the screen and appear on the other side



World Wrapping

- Basic idea - when player's x coordinate is too larger (or too small) change it to be on the other side of the screen.



World Wrapping



- If mario's x coordinate is less than the opposite of its width, it should teleport to the world width.
- Similar for right side

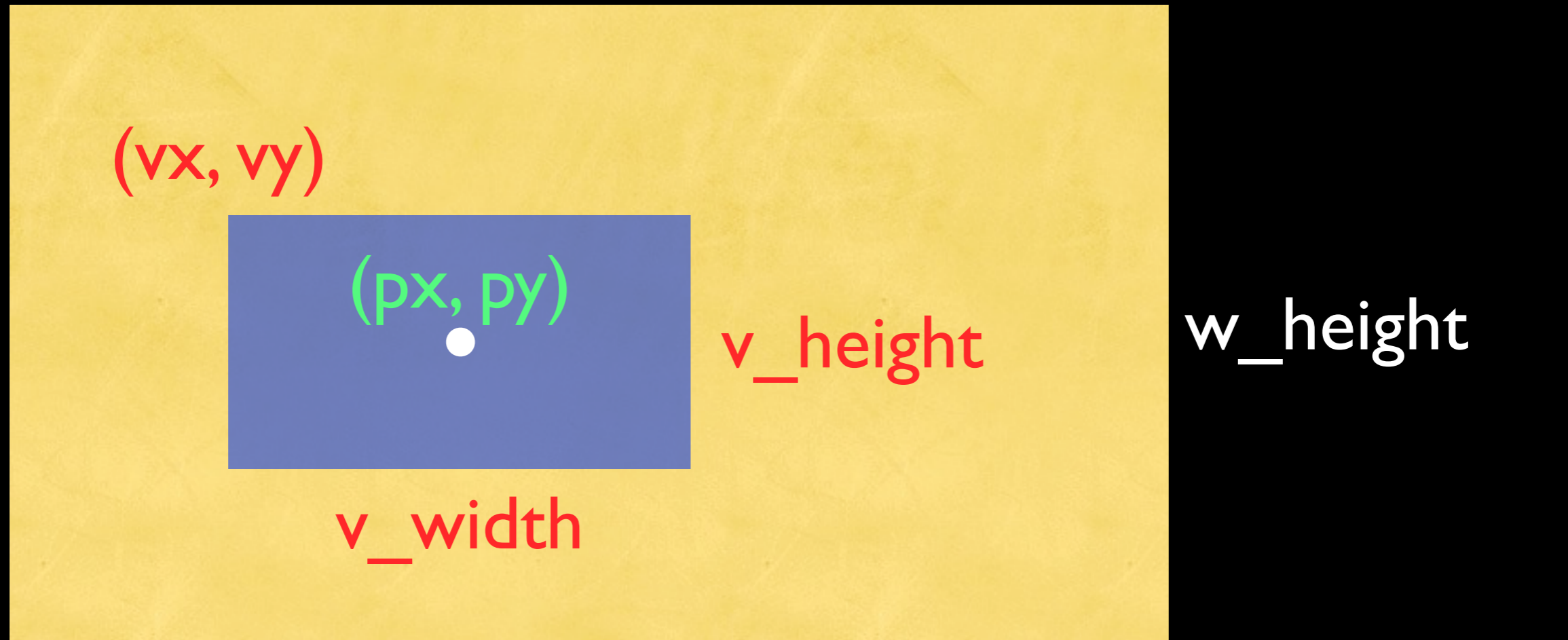
World Scrolling

- Allows a character to run around a large world, with the visible world area changing dynamically with the player's movement
- Precursor: Static Screen Transitions



World Scrolling

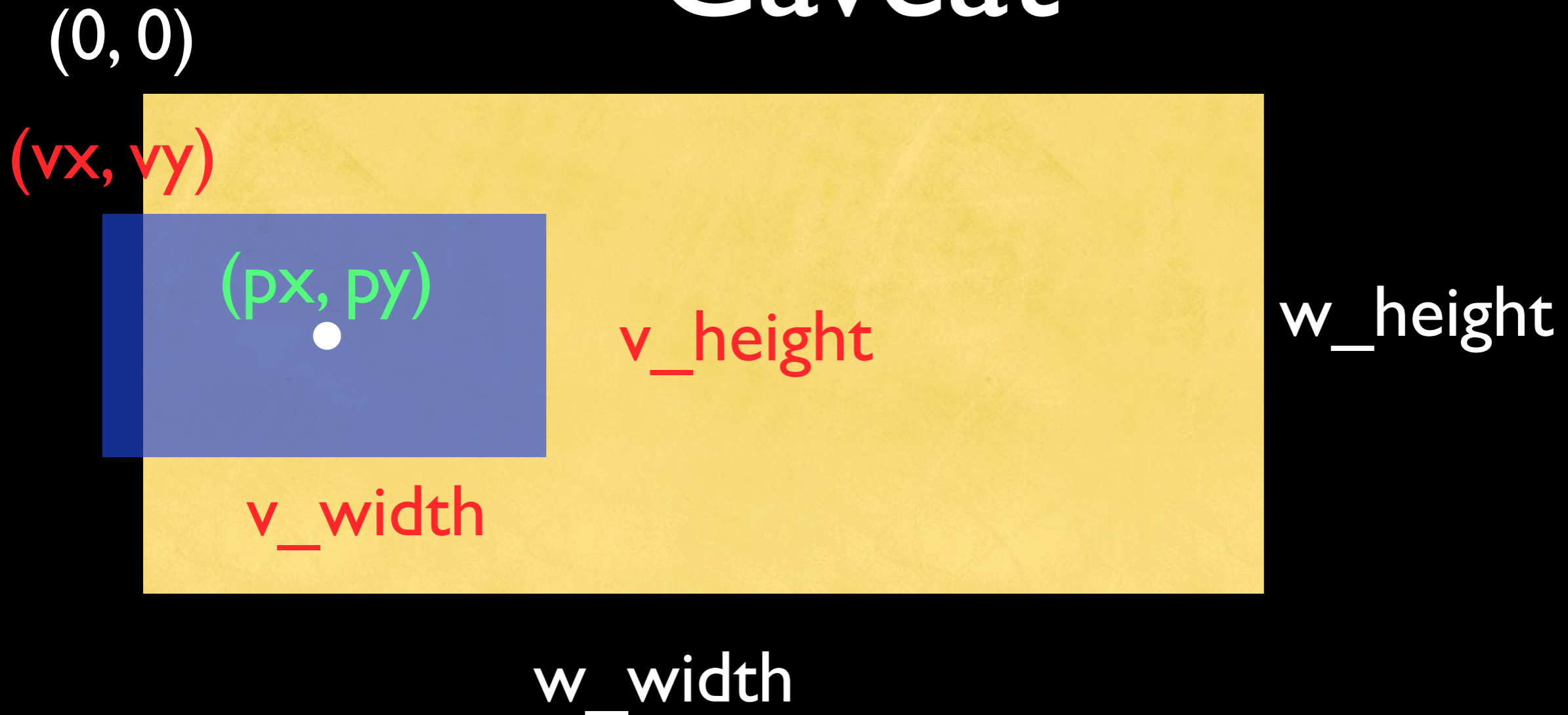
(0, 0)



w_width

$$vx = px - vw/2$$
$$vy = py - vh/2$$

Caveat



Viewing Screen x and y need to be set to stay within the world bounds (unless you do world wrap as well!)

Caveat

$(0, 0)$

(vx, vy)

(px, py)

v_height

w_height

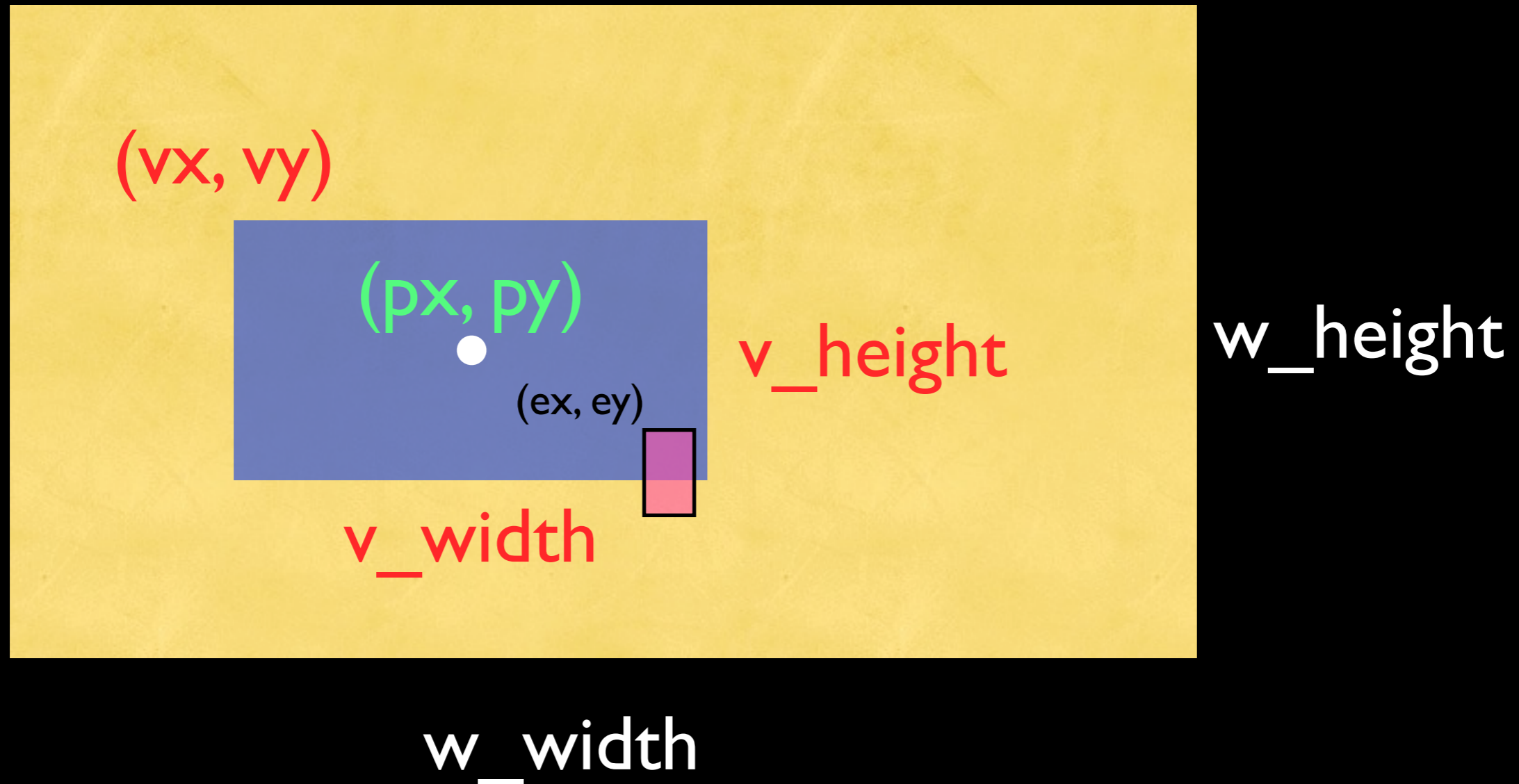
v_width

w_width

Viewing Screen x and y need to be set to stay within the world bounds (unless you do world wrap as well!)

Referenced Drawing

(0, 0)



```
g.drawImage(img, ex - vx, ey - vy, null);
```